

**From:** Steve Panter <steve@flemingleeshue.com>  
**Sent:** Thursday, February 08, 2018 11:01 AM  
**To:** Spellman, John (DEC)  
**Cc:** russos@gtlaw.com; Arnie Fleming; Adam Conti; wpryne@affco.com; Steve Panter  
**Subject:** RE: AFFCO Final Engineering Report  
**Attachments:** 2018 AFFCO FER Final\_combined.pdf

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John,

Attached please find the signed Final Engineering Report for the AFFCO site. I incorporated the change noted in your February 8, 2018 FER approval letter.

I hope to have the final SMP to you shortly. Please contact me with any questions or comments.

Thank you,

Steve

Steven E. Panter, CGWP, PG  
Senior Consultant  
Fleming-Lee Shue, Inc.  
158 W. 29th Street  
New York, NY 10001  
212.675.3225

---

**From:** Spellman, John (DEC) [mailto:john.spellman@dec.ny.gov]  
**Sent:** Thursday, February 08, 2018 8:33 AM  
**To:** Steve Panter <steve@flemingleeshue.com>  
**Cc:** russos@gtlaw.com; Arnie Fleming <arnie@flemingleeshue.com>; Adam Conti <adam@flemingleeshue.com>; wpryne@affco.com  
**Subject:** RE: AFFCO Final Engineering Report

Hi Steve,

Please direct your attention to the attached letter. The report was determined to be acceptable.

Thank you,

John

John Spellman, P.E.  
New York State Department of  
Environmental Conservation  
Division of Environmental Remediation  
625 Broadway

Albany, NY 12233-7014  
(518) 402-9686

---

**From:** Steve Panter [<mailto:steve@flemingleeshue.com>]  
**Sent:** Wednesday, October 25, 2017 9:00 AM  
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**Cc:** [russos@gtlaw.com](mailto:russos@gtlaw.com); Arnie Fleming <[arnie@flemingleeshue.com](mailto:arnie@flemingleeshue.com)>; Adam Conti <[adam@flemingleeshue.com](mailto:adam@flemingleeshue.com)>; Steve Panter <[steve@flemingleeshue.com](mailto:steve@flemingleeshue.com)>; [wpryne@affco.com](mailto:wpryne@affco.com)  
**Subject:** AFFCO Final Engineering Report

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John,

Attached please find the AFFCO FER that has been revised per the Department's comments. I have also included the Word version. Please let me know if you require any changes. If acceptable, we will send up the signed engineer's form.

The revised SMP will be forthcoming soon.

Regards,

Steve

Steven E. Panter, CGWP, PG  
Senior Consultant  
Fleming-Lee Shue, Inc.  
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# NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Environmental Remediation, Remedial Bureau C

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February 8, 2018

Steven E. Panter, CGWP, PG  
Senior Consultant  
Fleming-Lee Shue, Inc.  
158 W. 29th Street  
New York, NY 10001

RE: American Felt and Filter Co. Site, New Windsor, Orange Co.  
Site No. 336036  
Final Engineering Report

Dear Mr. Panter:

Thank you for your October 25, 2017 transmittal of the "American Felt & Filter Company, New Windsor, New York, Final Engineering Report, October 2017", for the referenced site. The Report was found to be satisfactory and will be approved upon receipt of the engineer's certification. When re-submitting the report please modify the second bullet in Section 5 to include "residential use", thus:

- The controlled property area may not be used for a higher level of use, such as unrestricted, residential or restricted residential use without additional remediation and amendment of the Environmental Easement, as approved by the NYSDEC;

If you have any questions, please contact me at (518) 402-9686.

Sincerely,



John Spellman, P.E.  
Project Manager  
Division of Environmental Remediation

ec: Wilson Pryne, American Felt & Filter Company



Department of  
Environmental  
Conservation

**AMERICAN FELT & FILTER COMPANY  
NEW WINDSOR, NEW YORK**

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**Final Engineering Report**

**Consent Order Index # W3-0784-04-06  
Site # 3-36-036**

Prepared for

**American Felt & Filter Company  
New Windsor, NY**

**Prepared by**

Arnold F. Fleming, P.E.  
158 W. 29th Street, 9th Floor  
New York, New York 10001

---

**FEBRUARY 2018**



# CERTIFICATIONS

I, Arnold F. Fleming, am currently a registered professional engineer licensed by the State of New York, I had primary direct responsibility for implementation of the remedial program activities, and I certify that the Remedial Action Work Plan was implemented and that all construction activities were completed in substantial conformance with the Department-approved Remedial Action Work Plan.

I certify that the data submitted to the Department with this Final Engineering Report demonstrates that the remediation requirements set forth in the Remedial Action Work Plan and in all applicable statutes and regulations have been or will be achieved in accordance with the time frames, if any, established in for the remedy.

I certify that all documents generated in support of this report have been submitted in accordance with the Department's electronic data deliverable and have been accepted by the Department.

I certify that all data generated in support of this report have been submitted in accordance with the Department's electronic submission protocols and have been accepted by the Department.

I certify that all use restrictions, Institutional Controls, Engineering Controls, and/or any operation and maintenance requirements applicable to the site are contained in an environmental easement created and recorded pursuant ECL 71-3605 and that all affected local governments, as defined in ECL 71-3603, have been notified that such easement has been recorded.

I certify that a Site Management Plan has been submitted for the continual and proper operation, maintenance, and monitoring of all Engineering Controls employed at the site, including the proper maintenance of all remaining monitoring wells, and that such plan has been approved by Department.

I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, Arnold F. Fleming, 158 West 29<sup>th</sup> Street, 9<sup>th</sup> Floor, New York, NY 10001, am certifying as Owner's Designated Site Representative for the site.

050411  
NYS Professional Engineer #

2/8/18  
Date



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# ACRONYMS

Acronym	Definition
AWQS	Ambient Water Quality Standard
BTEX	Benzene, Toluene, Ethylbenzene, Total Xylenes
CAMP	Community Air Monitoring Plan
CPP	Citizen Participation Plan
DUSR	Data Usability Summary Report
EC	Engineering Control
FER	Final Engineering Report
ft.-bg	Feet below Grade
GA	Source of Drinking Water
HASP	Health and Safety Plan
IC	Institutional Control
IFT	Interfacial Tension
m	milli or Meter
NYSDEC	New York State Department of Environmental Conservation
N	Newtons
PAH	Polynuclear Aromatic Hydrocarbons
PRR	Periodic Review Report
QAPP	Quality Assurance Project Plan
RAWP	Remedial Action Work Plan
RI	Remedial Investigation
S-ISCO™	Surfactant-Enhanced In-Situ Chemical Oxidation
SCO	Soil Cleanup Objective
S/MMP	Soil/Materials Management Plan
SSDS	Sub-Slab Depressurization System
SMP	Site Management Plan
SOP	Site Operation Plan
SVOCs	Semi-volatile Organic Compounds
SWPPP	Stormwater Pollution Prevention Plan
TCA	1,1,1-Trichloroethane
TCL	Target Compound List
TOGS	Technical and Operational Guidance Series
UST	Underground Storage Tank
VOCs	Volatile Organic Compounds

## FINAL ENGINEERING REPORT

### Introduction

On behalf of The American Felt and Filter Company (AFFCO), Arnold F. Fleming, P.E., and Fleming-Lee Shue, Inc. (collectively FLS) have prepared this Final Engineering Report (FER) to document the completion of remedial activities at 361 Walsh Avenue, New Windsor, New York (Site). The remediation was completed in accordance with the approved FLS 2012 Remedial Action Work Plan and was prepared in accordance with the NYSDEC's DER-10 Technical Guidance for Site Investigation and Remediation, May 2010. AFFCO is also under a Consent Order to remedy the property (Index No. W3-0784-04-06). The New York State Department of Environmental Conservation (NYSDEC) placed the Site on its Inactive Hazardous Waste Sites list in 1991 (Site Code 3-36-036) because of the potential threat to the adjacent Quassaick Creek.

The AFFCO property, located in New Windsor, Orange County, New York manufactures a variety of felt and filter products. The Site lies on the south side of Quassaick Creek, which flows into the Hudson River approximately 0.2 miles east of the Site. AFFCO is on industrial zoned land. Beyond the Site, the surrounding area is a mixture of land uses including industrial, commercial, and residential. The entire property occupies 23.185 acres but the Consent Order Environmental Easement Area is 0.5454 acres and includes the remediated soil area and the adjacent Piano Felt Building that houses a sub-slab depressurization system (SSDS). Most of the Site is level. Figure 1 shows the Site and an inset depicts the entire property outline. Appendix A shows the property and Environmental Easement area.

Site investigations completed in 1988 found soil and groundwater near the Feutron Building contained 1,1,1-Trichloroethane (TCA). The source of the contamination was believed to be from historic leakage within the enclosed process area and spillage in the adjacent drum storage area. Subsequent soil and groundwater sampling in September 1994, August 1998, and October 2001 indicated that residual TCA remained in the soil and groundwater in the former drum storage area near the Feutron Building. In response, FLS submitted a Remedial Design/Remedial Action Work Plan (RD/RAWP) in February 2005 to NYSDEC. The RD/RAWP work plan called for a Dual Phase Extraction System to remediate soil and groundwater near and beneath the Feutron Building. The RD/RAWP was approved in September 2005. After the RD/RAWP was approved, the northwestern portion of the Feutron Building was taken out of service and subsequently demolished. This changed conditions such that other more effective remediation alternatives became available, and the Dual Phase Extraction System was never implemented.

In 2008, FLS prepared a revised RAWP to remediate the TCA-impacted soil by excavation and disposal. This RAWP was subsequently approved by NYSDEC in October 2008 but not executed. Ultimately, FLS prepared a revise RAWP in March 2012 that was approved by NYSDEC on April 4, 2012. The 2012 RAWP called for excavation of the top 10 feet of impacted soil near the former Feutron Building and *in situ* chemical oxidation of the contaminant from the water table to the underlying till layer.

The treatment remedy was *in situ* chemical injection using alkaline-activated sodium persulfate, sodium hydroxide, and a plant-based surfactant. Sodium persulfate was the oxidant and was activated by the addition of sodium hydroxide to raise the pH. The plant-based surfactant, VeruSOL<sup>®</sup>, was added to aid in the dissolution of the non-aqueous phase liquid (NAPL) to make it available for chemical oxidation. In all, 13,200 gallons of oxidant mixture were injected over a 6-day treatment period during July 2012. Comparison of pre-treatment and post-treatment soil contaminant mass estimates indicated that approximately 73 percent of the total volatile organic compound (VOC) mass was destroyed and approximately 76 percent of the TCA mass was destroyed. On a stratum-by-stratum basis, an average of 76 percent of the total VOC mass was degraded and an average of 87 percent of the TCA mass was degraded. Most soils met the Part 375 Residential Use Soil Cleanup objectives (SCO) and all soils met the Site cleanup standard, the Commercial Use Soil Cleanup Objectives. Groundwater exhibited large reductions on VOC concentrations. A number of VOCs met the TOGS GA cleanup goal.

Excavation was conducted by removing soils in each of five grid cells to a depth of approximately 10 feet below grade. The soils were staged on plastic sheeting before being tested and returned to the excavation if found to meet the Commercial Use SCOs. All soil met the SCOs. The Site contains a Soil Management Area that includes the remediated area and groundwater monitoring wells. The Soil Management Area is one component of the Environmental Easement. The second component includes the Piano Felt Building where there is a SSDS.

## 1.0 BACKGROUND AND SITE DESCRIPTION

The AFFCO Site, located in New Windsor, Orange County, New York (Figure 1), manufactures a variety of felt and filter products. The Site lies on the south side of Quassaick Creek, which flows into the Hudson River approximately 0.2 miles east of the Site. AFFCO is on industrial zoned land. Beyond the Site, the surrounding area is a mixture of land uses including industrial, commercial and residential. The entire property occupies 23.185 acres but the Environmental Easement area is 0.5454 acres.

Prior to 1978, the Site was owned and operated by the GAF Corporation, which manufactured the same products as AFFCO. During both GAF's and AFFCO's ownership, the facility used TCA as a solvent and carrier for zinc resinate, used to impregnate felt sheets in the Feutron Building. The TCA was stored on Site in 55-gallon drums in an enclosed area just outside the Feutron Building. Approximately 35 to 40 drums of TCA were generally present on-Site during regular operations. The facility stopped using TCA in 1992 when the AFFCO shut down the production line.

Site investigations completed in 1988 found soil and groundwater near the Feutron Building contained TCA. The source of the contamination was believed to be from historic leakage within the enclosed process area and spillage in the drum storage area. NYSDEC placed the Site on its Inactive Hazardous Waste Sites list in 1991 (Site Code 3-36-036) because of the potential threat to the adjacent Quassaick Creek. AFFCO is also under a Consent Order to remedy the property (Index No. W3-0784-04-06).

Subsequent soil and groundwater sampling in September 1994, August 1998, and October 2001 indicated that residual TCA remained in the soil and groundwater in the former drum storage area near the Feutron Building. FLS prepared the final RAWP in 2012 to remediate the TCA-impacted soil by excavation and *in situ* chemical treatment. This RAWP was subsequently approved by NYSDEC on April 4, 2012. The 2012 RAWP called for excavation of the top 10 feet of impacted soil near the former Feutron Building and *in situ* chemical oxidation of the contaminant from the water table to the underlying confining layer (glacial till).

The portion covered by a Soil Management Area, SSDS, and the Site boundaries are shown in Appendix A. An electronic copy of this FER with all supporting documentation is included as Appendix B.



## **2.0 SUMMARY OF SITE REMEDY**

Based on the results of the Remedial Investigation, the following Remedial Action Objectives (RAO) were identified for this Site.

### **2.1 REMEDIAL ACTION OBJECTIVES**

#### **2.1.1 Groundwater**

RAOs for Public Health Protection

- Prevent ingestion of groundwater containing contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of, volatiles emanating from contaminated groundwater.
- The remedial action objectives for groundwater are the TOGS 1.1.1 GA ambient water quality standards (TOGS) or asymptotic levels of VOCs in groundwater following acceptable levels of treatment.

RAOs for Environmental Protection

- Restore ground water aquifer, to the extent practicable, to pre-disposal/pre-release conditions.
- Prevent the discharge of contaminants to surface water.
- Prevent further off-site migration of contaminated groundwater.
- Remove the source of groundwater contamination.

#### **2.1.2 Soil RAOs**

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation of, or exposure to, contaminants volatilizing from contaminated soil.
- The soil remedial action objectives are the Part 375 Commercial Use SCOs and a 90 percent reduction in contaminant mass as defined by the sum of the VOCs.

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater contamination.
- Prevent impacts to biota due to ingestion/direct contact with contaminated soil that would cause toxicity or bioaccumulation through the terrestrial food chain.

### **2.1.3 Surface Water RAOs**

There is no surface water on the Soil Management Area, so the remedial action did not address this medium.

### **2.1.4 Sediment RAOs**

There are no sediment areas on Soil Management Area, so the remedial action did not address this medium.

### **2.1.5 Soil Vapor, RAOs for Public Health Protection**

Mitigate impacts to public health resulting from existing, or the potential for, vapor intrusion into the buildings at a site.

## **2.2 DESCRIPTION OF THE SELECTED REMEDY**

The remedy consisted of two parts. Part 1 consisted *in situ* chemical oxidation of soils within the 50-ft. by 50-ft. treatment area from 10 ft.-bg to 15 ft.-bg. Treatment used the RemMetrik<sup>®</sup> (U.S. Patent No. 8,739,867) methodology that targets the contaminant mass and injects the treatment amendment using subsurface pressure waves. In this instance, the subsurface pressure waves and injection were provided by Wavefront Technology Solutions Inc. Primawave<sup>™</sup> methodology. Chemical oxidation was provided by VeruTEK's S-ISCO<sup>™</sup> technology using alkaline-activated sodium persulfate and a plant-based surfactant.

Sodium persulfate was the oxidant and was activated by the addition of sodium hydroxide to raise the pH. The plant-based surfactant, VeruSOL<sup>®</sup>, was added to aid in the dissolution of any NAPL to make it available for chemical oxidation.

Part 2 consisted of excavation of the upper 10 feet of soil within the 50-ft. by 50-ft. treatment area. Excavated soils were placed in a lined containment unit and were subsequently tested and returned to the excavation if the soils met the SCOs.

### 3.0 INTERIM REMEDIAL MEASURES, OPERABLE UNITS AND REMEDIAL CONTRACTS

A SSDS designed by FLS, was installed at the Piano Felt Building by AFFCO in October 2010. The SSDS was installed to mitigate residual TCA emissions potentially impacting indoor air quality for commercial/industrial land use at this Site and prevent potential migration of subsurface vapors to the nearby area. The system was designed in accordance with the New York State Department of Health (NYSDOH) *Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York* (2006).

A mitigation system was required based on concentrations of TCA in sub-slab vapor and indoor air samples collected in December 2009. The sub-slab vapor sample contained 539 micrograms per cubic meter ( $\text{ug}/\text{m}^3$ ) of TCA and the indoor air sample contained  $34 \text{ ug}/\text{m}^3$  of TCA.

The SSDS consists of centrally located depressurization pits with a pipe connected to a fan inserted into each pit. The soil vapor exhaust is located above the roof. The vacuum field is subsequently measured using pressure monitoring points located at each corner of the building. The performance goal for the system is a minimum of (-0.02) inches of water column (w.c.) in each of the vacuum monitoring points.

The piping from the pit is constructed of polyvinyl chloride (PVC) plastic and sealed into the replaced slab with silicone sealant. All pipe sizes are 4 inches in diameter. The fan is capable of operating at a minimum 375 cubic feet per minute (CFM) at 0 inches of water column (w.c.). See the SSDS Construction Completion Report, submitted May 2011, for more information regarding the system.

## **4.0 DESCRIPTION OF REMEDIAL ACTIONS PERFORMED**

### **4.1 GOVERNING DOCUMENTS**

#### **4.1.1 Remedial Action Work Plan**

All remedial work performed under this Remedial Action was in full compliance with the approved RAWP. The RAWP outlined the remedial methods and procedures and the remedial goals to be attained.

#### **4.1.2 Site Specific Health & Safety Plan (HASP)**

All remedial work performed under this Remedial Action was in full compliance with governmental requirements, including site and worker safety requirements mandated by Federal OSHA. All work was conducted in accordance with the OSHA-compliant HASP prepared for all remedial and invasive work performed at the Site.

#### **Community Air Monitoring Plan (CAMP)**

The purpose of the CAMP is to protect downwind receptors (e.g., residences, businesses, schools, nearby workers, and the public) from potential airborne contaminants released as a direct result of the Remedial Action being performed at the site. A modified CAMP was used because the remediated area is confined to an isolated portion of the Site that is a considerable distance from nearby residences, nearby workers, and the public.

Air monitoring for VOCs occurred during soil excavation. No VOCs were observed above the CAMP action limits. Monitoring for particulates was not done during soil excavation. It was not required under the approved modified CAMP. The area is primarily commercial/industrial and the nearest residence is approximately 500 feet from where soil was excavated and managed. Woodland separates the residence from the work area.

### **4.2 REMEDIAL PROGRAM ELEMENTS**

#### **4.2.1 Contractors and Consultants**

- The Remedial Engineer for this project was Arnold F. Fleming, P.E. He is a registered professional engineer licensed by the State of New York.

- VeruTEK, Bloomfield, CT – Remediation Contractor responsible for implementation of the surfactant-enhanced *in-situ* chemical oxidation S-ISCO® Treatment.
- Zebra, Lynbrook, NY – Drilling Contractor responsible for implementing Primawave™, the process used to enhance delivery of chemical amendments at the pore scale level.

#### 4.2.2 Community Air Monitoring Results

VOCs in air were monitored using a photoionization detector (PID) during excavation and soil stockpiling. VOC air monitoring results were all below NYSDEC's CAMP guideline of 5 ppm. AFFCO received no complaints about air nuisance during the remedial work. Appendix C contains the signed certification from the safety manager conducting the CAMP.

### 4.3 REMEDIAL ACTIONS

Remediation of the AFFCO Site was completed in two stages: 1) *in situ* chemical oxidation of soils and groundwater in the 50-ft. by 50-ft. treatment area, from the water table to 15 feet below grade, atop the till layer, and 2) excavation of soils within the 50-ft. by 50-ft. treatment area from grade to slightly below the water table. Previous investigations found a compact till layer at 15 feet below grade that acted as a barrier to contaminant migration. For this reason remediation was limited to 15 feet below grade in the area of concern (treatment area).

The excavation encompassed the area near the former Feutron Building as shown on Figure 2. Excavation proceeded on a grid-cell-by-grid cell basis. The soil was removed from the impacted area and placed in a lined containment unit for testing and was returned to the respective grid cell after testing indicated that the results met the Part 375 Commercial Use SCOs. Remediation took place between July and September 2012. Figure 3 presents the pre-treatment and post-excavation results. Figure 4 presents the results of pre- and post-treatment groundwater sampling. Table 1 presents the SCOs. Table 2 presents the VOC endpoint sampling results. Appendix D contains the laboratory reports and Appendix E contains the Data Usability Summary Reports (DUSR).

#### 4.3.1 Chemical Oxidation

Stage 1 occurred in July 2013. In preparation for chemical oxidation the treatment area was divided into six grid cells each approximately 17 feet by 25 feet (Figure 2). In May 2012, twenty-four, 6-inch-long pre-treatment soil cores within the treatment interval were collected from eight soil borings located within the six grid cells. Encore soil samples for VOC analysis were collected from the soil cores. A randomly selected X-coordinate and randomly selected Y-coordinate placed the boring within each grid cell. Then, three

randomly selected 6-inch-long depth intervals were sampled in each boring. Grid Cells 1 and 2 had two borings each. The objective was to augment the existing soil data from the 10-ft. to 15-ft. treatment interval so as to have a basis for comparing before and after *in situ* treatment results. In total, the combined soil characterization samples from earlier soil sampling and the randomly collected soil samples collected in May 2012 yielded 31 pre-treatment (baseline) soil samples.

Three injection wells (IW-1, IW-2, and IW-3) were installed in May 2012 for a total of 6 days of chemical treatment (Figure 2). The injection wells were built of 2-inch-diameter Schedule 80 PVC. The screened intervals were as follows:

<b>Injection Well</b>	<b>Top of Screen, ft.-bg</b>	<b>Bottom of Screen, ft.-bg</b>	<b>Screen Length, ft.</b>	<b>Grid Cell</b>
IW-1	9	12.3	3.3	2
IW-2	9	13.1	4.1	2
IW-3	9	12	3	4

In addition, five Geoprobe well points were used to inject chemical in the 13-ft to 14-ft- and 14-ft. to 15-ft.-intervals in Grid Cell 2. The Geoprobe points were required because of the dense till layer. The intent was to install the injection well screens to 15 feet but this was infeasible due to the dense till layer beginning at approximately 13 feet that prevented further penetration while installing the injection wells.

The remedy for AFFCO was *in situ* chemical injection using the RemMetrik® methodology, which used Wavefront's Primawave® technology in this instance, and VeruTEK's Surfactant Enhanced *in situ* Chemical Oxidation (S-ISCO®) process, which used sodium persulfate, sodium hydroxide, and a plant-based surfactant. Sodium persulfate was the oxidant and was activated by the addition of sodium hydroxide to raise the pH. The plant-based surfactant, VeruSOL®, was added to aid in the dissolution of the contaminant to make it available for chemical oxidation. In all, 13,200 gallons of oxidant were injected into the treatment interval on July 11 and 12 and again on July 23, 24, 25, and 26, 2012. The following concentrations formed the oxidant mixture: sodium persulfate, 15 – 50 g/L; sodium hydroxide, 12 – 50 g/L; VeruSOL®, 0 – 15 g/L.

Groundwater was regularly monitored in nearby monitoring and injection wells during injections for pH, sodium persulfate, conductivity, oxidation reduction potential (ORP), dissolved oxygen, and temperature to ensure a proper chemical environment for oxidation and that conditions for *in situ* treatment were optimal.

The remedial excavation, Stage 2, took place in August-September 2012, in the interval between the end of the chemical injections and post-treatment soil sampling. Five bottom endpoint soil samples were collected at the bottom of the excavation, which was from 10 feet to 11 feet below grade, to document soil conditions. These samples were biased toward staining and were collected within the stratum previously treated by *in situ* chemical oxidation.

On March 27, 2013, another set of 24 randomly collected post-treatment Encore

soil samples were gathered from the six grid cells using an entirely new set of random coordinates (Figure 3). In total, the 24 randomly collected post-treatment soil samples and two duplicate samples, plus the five bottom endpoint samples yielded 31 post-treatment soil samples for comparison to pre-treatment conditions.

## **Chemical Oxidation Results**

Post-treatment soil and groundwater sampling took place in March and April 2013. All of the oxidant had been expended prior to post-treatment sampling. Appendix F contains the remediation contractor, VeruTEK, report describing the treatment details.

## **Soils**

The soil treatment goals were the Part 375 Commercial Use Soil Cleanup Objectives and 90 percent reduction in overall contaminant mass, which is defined as the sum of the Target Compound List (TCL) VOCs. The primary contaminants were the chlorinated VOCs. The principal VOC was TCA.

Of the 31 post-treatment soil samples, all but three VOC results met the Residential Use w/CP-51 Soil Cleanup Objectives, which are more stringent than the Commercial Use SCOs. The VOC compounds in the remaining three samples were well below the Commercial Use SCOs. An appreciable number of post-treatment soil samples were below the Unrestricted Use SCOs.

Contaminant reductions were computed by comparing the pre- and post-treatment mean soil concentrations. Since the bulk density and soil volume remain constant, the differences in mean concentrations yield the percent reduction in mass. Contaminant mass reduction is examined on an overall basis, by stratum, and by selected compounds.

The results for total VOCs and TCA concentrations follow a log-normal distribution, which is common in environmental data. For this reason, the pre and post-treatment reductions for total VOCs and TCA were calculated using log-transformed values as this yields more representative estimates of the means and confidence limits about the means.

## **Total VOCs Reduction**

Comparing the 31 pre-treatment and 31 post-treatment samples yields a net total VOC mass reduction of 73 percent. Using arithmetic means the percent reduction is 63 percent.

### Total VOCs in Soils – 95% Confidence Limits

Results in µg/kg

Treatment	Sample Nos.	Lower Limit <sup>1</sup>	Geometric Mean	Upper Limit <sup>1</sup>	% Reduction
Pre-treatment	31	1,768	5,058	14,472	--
Post-treatment	31	417	1,372	4,520	73

<sup>1</sup> Limits about the geometric mean

### Total VOCs in Soils

Results in µg/kg

Sample Nos. pre/post	Pre-treat, Arithmetic Mean Conc. µg/kg	Post-treat, Arithmetic Mean Conc. µg/kg	Percent Reduction
31/31	66,365	24,751	63

### TCA Reduction

For TCA alone the net contaminant mass reduction measures 75 percent. Using arithmetic means the percent reduction is 67 percent.

### TCA in Soils – 95% Confidence Limits

Results in µg/kg

Treatment	Sample Nos.	Lower Limit <sup>1</sup>	Geometric Mean	Upper Limit <sup>1</sup>	% Reduction
Pre-treatment	31	460	1,063	5,588	--
Post-treatment	31	115	406	1,436	75

<sup>1</sup> Limits about the geometric mean

### TCA in Soils

Samples Nos. pre/post	Pre-treat, Arithmetic Mean Conc. µg/kg	Post-treat, Arithmetic Mean Conc. µg/kg	Percent Reduction
31/31	55,314	18,460	67

### Stratum-by-Stratum Reduction

On a stratum-by-stratum basis the contaminant mass reductions for total VOCs were based on arithmetic means as there is insufficient number of samples in most strata to use the geometric means. The results are as follows:



### Total VOCs in Soils Reduction by Stratum

Stratum	Sample Nos. pre/post	Pre-treat, Arithmetic Mean Conc. µg/kg	Post-treat, Arithmetic Mean Conc. µg/kg	Percent Reduction
1 (10 -11')	2/7	119,577	3,205	97
2 (11 - 12')	3/6	436,697	75,143	83
3 (12 - 13')	1/5	50	38,650	*
4 (13 - 14')	15/4	24,156	3,984	84
5 (14 -15')	10/9	14,568	8,803	40

Values rounded. \* Too few pre-treatment samples for comparison.

In the four strata where reductions could be measured, the average overall total VOC mass reduction is 76 percent.

On a stratum-by-stratum basis the contaminant mass reductions for TCA, based on arithmetic means, are as follows:

### TCA Reduction in Soils by Stratum

Stratum	Sample Nos. pre/post	Pre-treat, Arithmetic Mean Conc. µg/kg	Post-treat, Arithmetic Mean Conc. µg/kg	Percent Reduction
1 (10 -11')	2/7	115,385	2,621	98
2 (11 - 12')	3/6	388,693	66,639	83
3 (12 - 13')	1/5	0.49	26,602	*
4 (13 - 14')	15/4	15,761	2,493	84
5 (14 -15')	10/9	8,283	1,232	85

Values rounded. \* Too few pre-treatment samples for comparison.

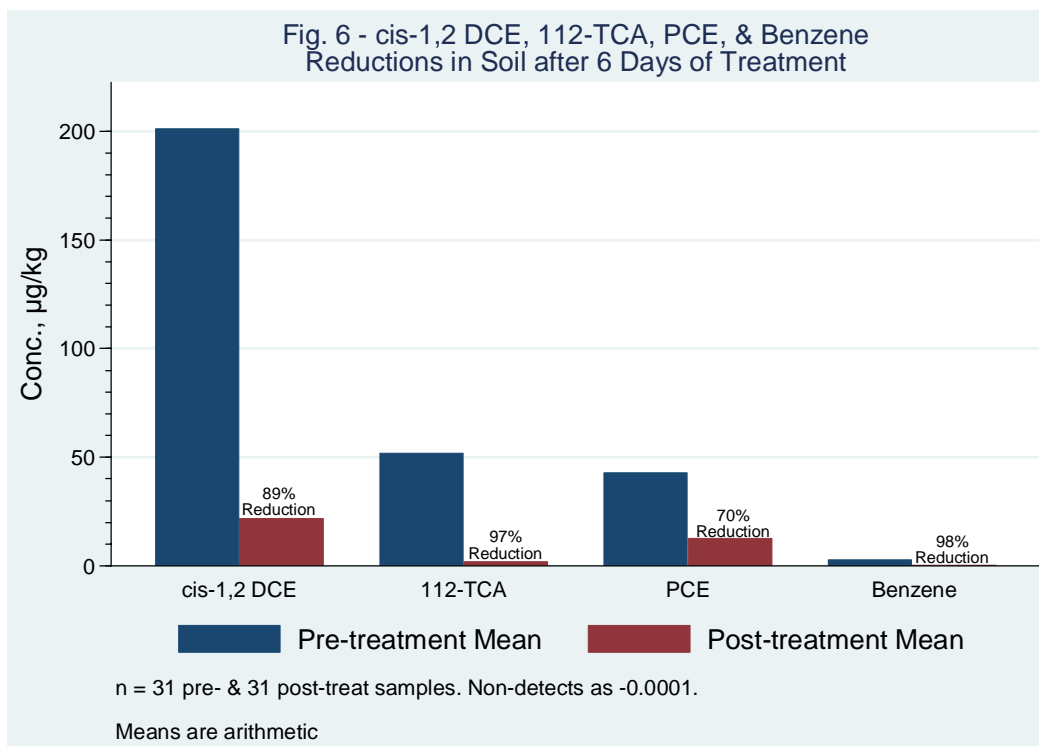
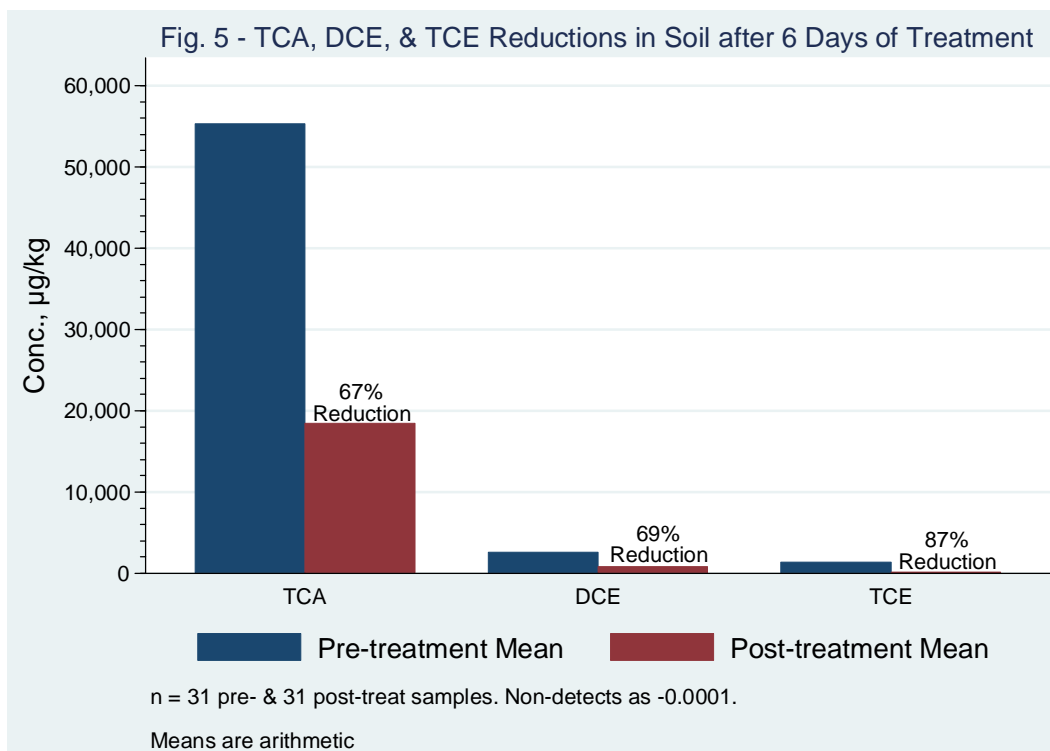
In the four strata where reductions could be measured, the average overall TCA mass reduction is 87 percent.

### Specific VOC Compound Reductions

Mass reductions for individual VOCs were calculated by comparing the pre-treatment and post-treatment mean concentrations. Numerous values were below detection limits; non-detects were arbitrarily given a value of -0.0001 for calculation purposes. Arithmetic means were used for calculation purposes.

Mass reductions of specific VOCs on an overall basis show reductions ranging from 67 to 98 percent. Two of the more toxic compounds exhibited very high reductions. Benzene and 1,1,2-Trichloroethane (1,1,2-TCA), while having comparatively minor concentrations in soils, showed reductions of 98 and 97 percent, respectively. Figures 5

and 6 show the contaminant mass reductions for a number of compounds (TCA is repeated for the sake of comparison). The specific VOCs were selected on the basis of having the highest concentrations in pre-treatment soils and/or toxicity.



## Groundwater

Baseline groundwater samples were collected in five wells: E1-X, EW-0, MW-1, E1-NEW, and S-8 in June-July 2012. Post-treatment groundwater samples were collected in April 2013. Monitoring wells EW-1X and EW-0 were inside or immediately adjacent to the treatment area (EW-1X). Wells S-8, E1-NEW, and MW-1 were outside the treatment area. MW-1 is approximately 12 feet downgradient from the treatment area and S-8 and E1-NEW (E1-(N)) are 55 or more feet downgradient from the treatment area (Figure 4). Tables 3 presents the pre- and post-treatment groundwater sampling results. Monitoring well construction details are as follows:

Monitoring Well	Top of Screen, ft.-bg	Bottom of Screen, ft.-bg	Location
EW-0	7	14.6	Treatment Area
EW-1X	6	11	Immediately Adjacent to Treatment Area
MW-1	6	13	12 ft. downgradient of Treatment Area
S-8	7	12	65 ft. downgradient of Treatment Area
E1-NEW	35	42	56 ft. downgradient of Treatment Area

## Treatment Area

Pre-treatment groundwater samples were collected from wells inside the treatment area in June-July 2012 and in earlier site characterization groundwater samples. The July 2012 samples were collected before treatment from injection wells IW-1, IW-2, IW-3, and original monitoring well EW-0. Post-treatment groundwater samples were collected on April 17, 2013, from the two wells installed immediately adjacent to and inside the treatment area, EW-1X and EW-0, following remedial excavation.

EW-1X was a new monitoring well installed immediately adjacent to Grid Cell 4 to add an additional monitoring point close to the treatment area. EW-0 was re-installed in Grid Cell 2 to replace the original EW-0 that was removed during remedial excavation. It was possible to penetrate the till layer with the drill rig at this location.

Groundwater concentrations typically fluctuate, often dramatically, with changing groundwater levels, the seasons, precipitation, and changes in groundwater flow direction throughout the year. This variation can dramatically affect contact between groundwater and contaminant, influence groundwater movement with more or less contaminated strata, affect contaminant migration and retardation through strata of different conductivities, and be influenced by geochemical factors that also occur within different strata. As a result, groundwater VOC concentrations can fluctuate dramatically from one sampling event to another. Under these conditions, the maximum concentrations likely approximate actual groundwater contaminant concentrations. For this reason it is more useful to compare the pre-treatment maximum groundwater concentrations with post-treatment groundwater. Table 3 contains the complete set of groundwater sample results. Table 4 summarizes the results of groundwater sampling.

Groundwater concentrations remain above TOGS for a number of compounds, but reductions in the principal VOCs range from 74 to 93 percent.

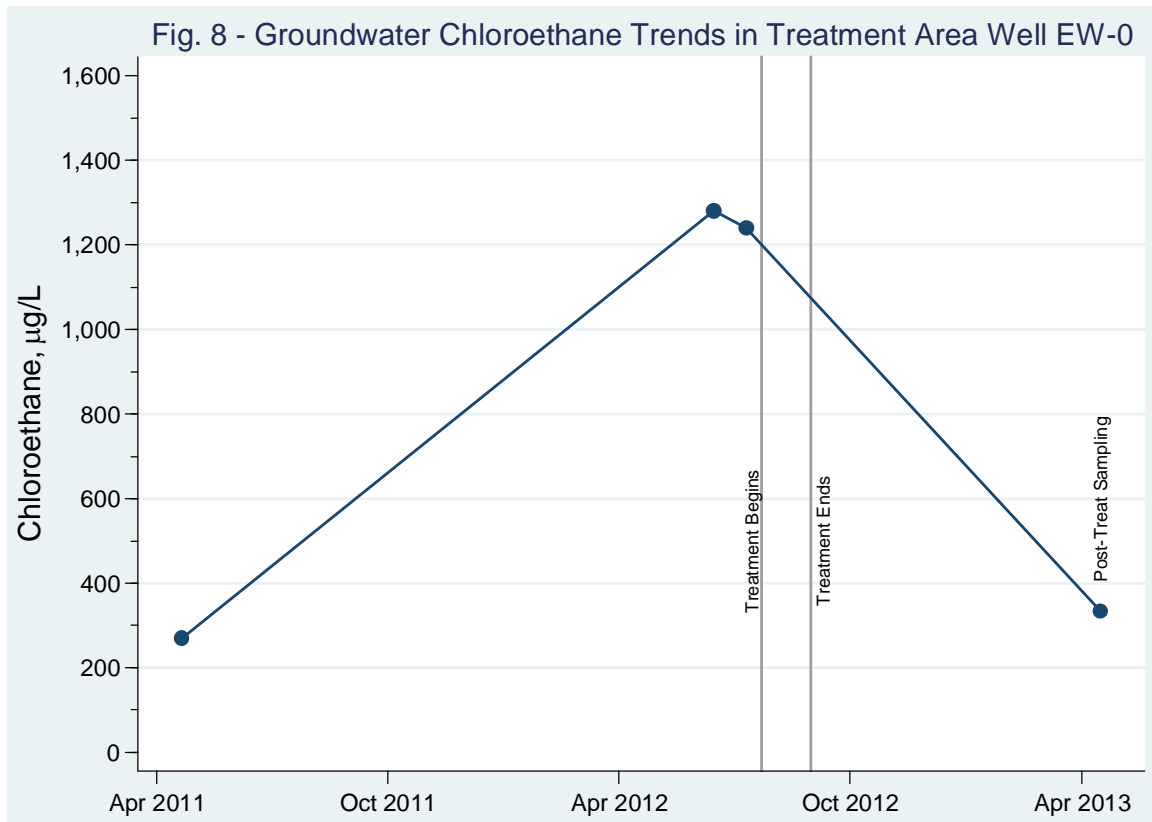
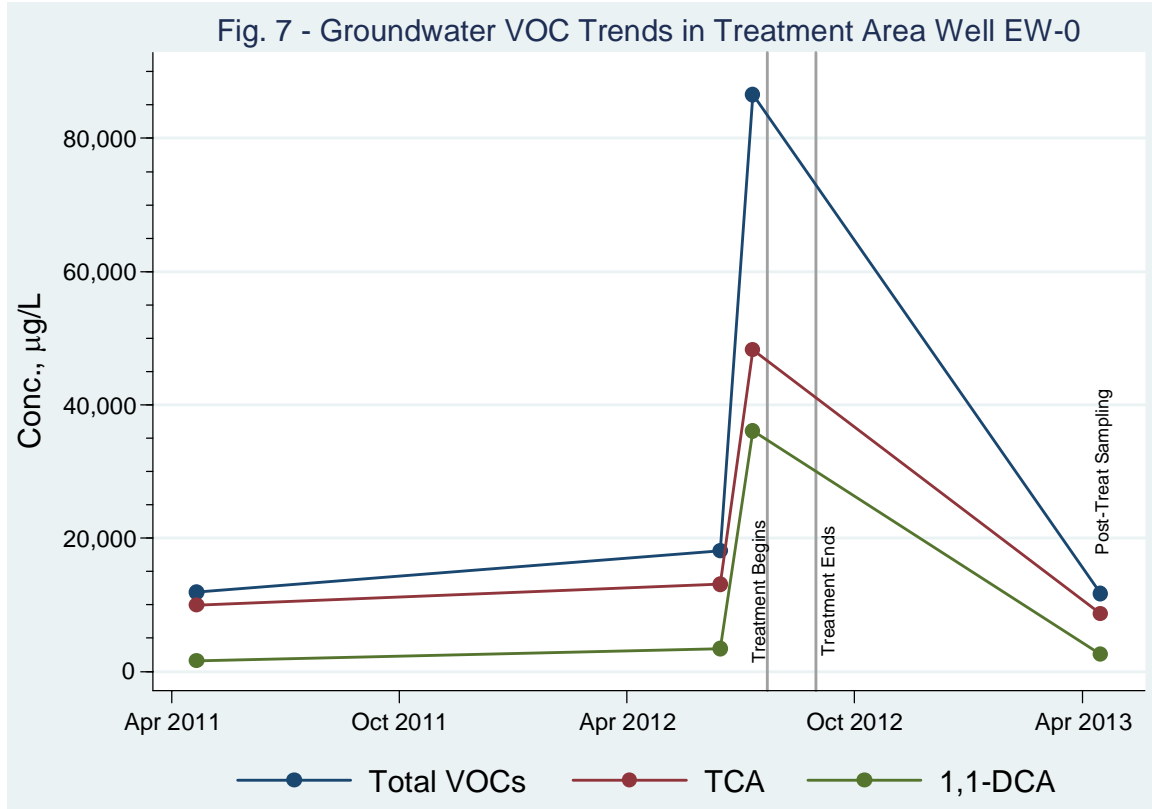
**Table 4 - Summary of Groundwater VOCs in Treatment Area**

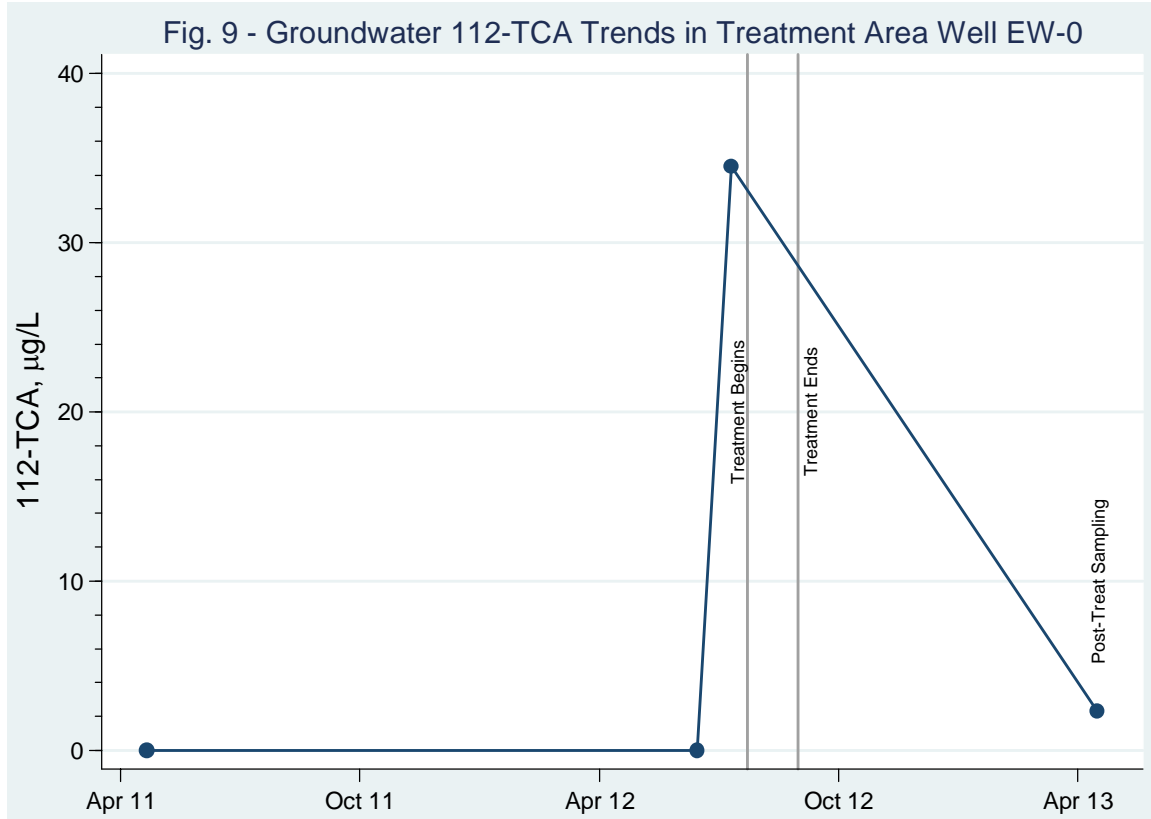
VOC	Sample Nos. pre/post	Pre-treat Max. Conc. µg/L	Post-treat Max. Conc. µg/L	Percent Reduction
Total VOCs	9/2	86,530	11,706	86
TCA	9/2	48,300	8,630	82
112-TCA	9/2	34.5	2.3	93
1,1-DCA	9/2	36,100	2,540	93
Chloroethane	9/2	1,280	334	74

Values rounded.

Of the two wells immediately adjacent to or inside the injection treatment area, EW-1X (EW-1X is within the injection treatment radius but outside the excavation area) and EW-0, the VOC results in EW-1X were all below detection limits except for 1,1-Dichloroethane (DCA), 22.9 µg/L. Accordingly, all but one VOC in this well met the TOGS GA standards in the post-treatment sampling round. In EW-0, 28 of the 36 VOC compounds are below TOGS criteria and/or guidelines and two VOCs are very close to the TOGS criteria.

Figures 7, 8, and 9 depict the trends for the principal VOCs in EW-0. All show large reductions compared to the pre-treatment maximum concentrations. The large VOC reductions in groundwater concentrations are consistent with an appreciable contaminant mass having been eliminated from the Site.



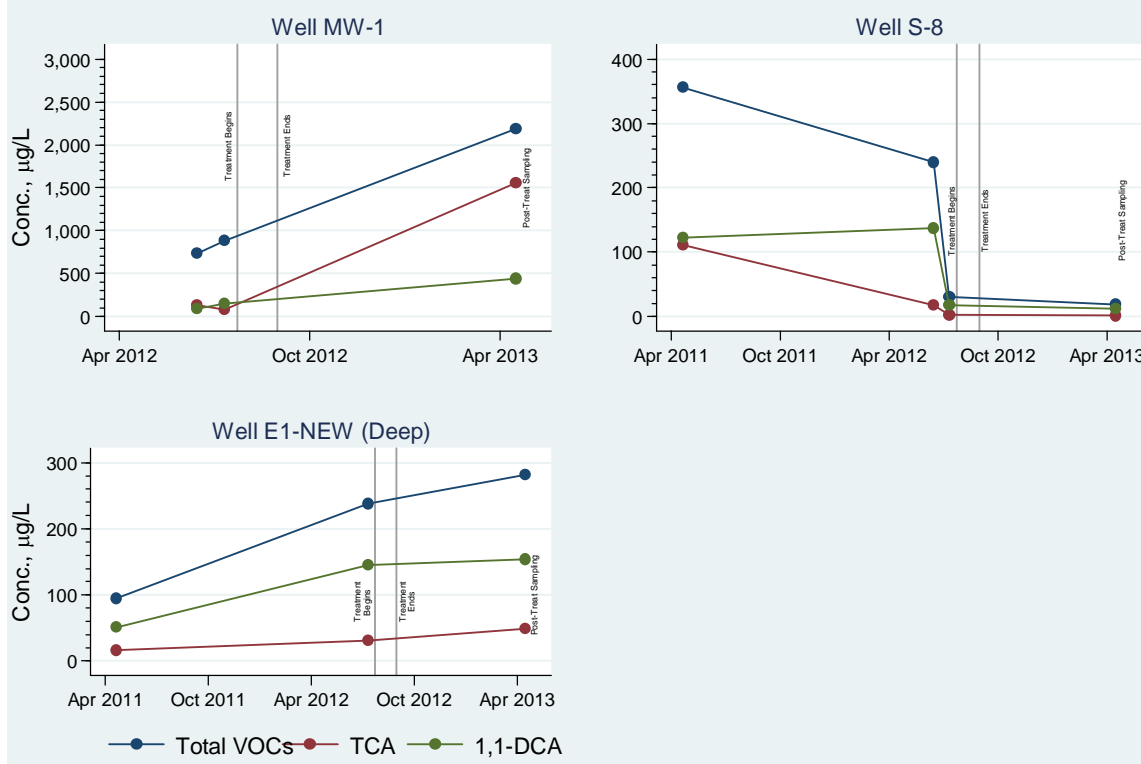


### Outside Treatment Area

The three wells outside the treatment area are in the downgradient position. Two of these wells, MW-1 and deep well E1-NEW, showed increases following remediation. It is expected to be a temporary condition.

In contrast, the principal VOCs show a dramatic decrease in S-8 in the post-treatment groundwater samples compared to pre-treatment levels.

Fig 10 - VOCs in Groundwater - Wells Outside Treatment Area



## Basic Groundwater Parameters

Table 5 presents the pre-treatment results for basic groundwater parameters. Table 6 presents the post-treatment results. A comparison shows that pH is approximately the same, indicating that groundwater has returned to pre-treatment conditions. Conductivity increased in post-treatment groundwater in response to the oxidant added for *in situ* treatment. Dissolved oxygen remains about the same, but mean ORP is more than two-fold lower than pre-treatment levels. This is most likely the result of residual plant-based surfactant that is being degraded.

**Table 5 – Pre-Treatment Groundwater Parameters**

Well	pH	Cond. $\mu\text{S}/\text{cm}$	NTU	DO, mg/L	Temp., C	ORP, mV
EW-0	9.88	134	24	0	15.9	-106
IW-1	9.53	90	278	3.03	21.5	-98
IW-2	7.79	813	51	8.25	17	-92
IW-3	9.58	647	0	2.19	21.8	-50
S-8	8.62	593	2.3	0.88	16.6	-202
Mean	9.1	455	71	2.9	18.5	-110

**Table 6 – Post-Treatment Groundwater Parameters**

Well	pH	Cond. $\mu\text{S}/\text{cm}$	NTU	DO, mg/L	Temp., C	ORP, mV
MW-1	7.56	1,100	0	1.53	13.2	-148
EW-0	8.95	610	0	.65	10.9	-377
EW-1X	8.49	495	459	.62	12.6	-679
E1-NEW	9.08	522	57	.59	15.4	-207
S-8	7.53	356	205	8.42	13.3	59
Mean	8.3	617	144	2.4	13	-270

Sulfate and chloride were monitored both before and after treatment. The mean pre-treatment sulfate concentration measured 21.4 mg/L and the mean post-treatment level 48.8 mg/L. The more than two-fold increase is due to the sodium persulfate added as the oxidant. Some sulfate remains, but will dissipate with time.

The mean pre-treatment chloride concentration measured 108.7 mg/L and the mean post-treatment level 60.9 mg/L. This is a reduction of more than 40 percent. It is most likely due to the decomposition of chlorinated VOCs, the VOCs having been degraded and the chloride having washed through the soil.

Although chloride would be expected to increase in the short-term following destruction of chlorinated VOCs, this reduction suggests that the chloride resulting from oxidation has migrated with groundwater through the treated soil leaving lower concentrations behind. The appreciable reduction in chlorinated contaminant mass is thus being reflected in the lower chloride levels. In the eight months between the end of *in situ* treatment and post-treatment groundwater sampling, groundwater could flush through the more permeable zones in treatment area approximately two-dozen times.

### Chemical Oxidation Treatment

The *in situ* treatment included injection of alkaline-activated sodium persulfate along with a surfactant, VeruSOL<sup>®</sup>, to dissolve NAPL so as to promote



dissolution and optimal oxidation. The oxidant mixture was injected via specially designed injection wells using the RemMetrik® process and Wavefront Technology Solution's Sidewinder tool. The process employs subsurface pressure waves to promote even dispersion of the oxidant mixture into the small pores where most of the NAPL occurs. The treatment goal was 90 percent contaminant mass removal.

It was necessary to complete the *in situ* component before excavation in order for the injection wells to function optimally. The undisturbed overburden provides resistance that allows the subsurface pressure waves to move horizontally without being attenuated by vertical movement, which can occur without sufficient overburden or inadequately compacted overburden.

Prior to *in situ* treatment FLS collected soil samples to estimate contaminant mass and to identify the target zones for optimal injection well placement. The 50-ft. by 50-ft. treatment area was divided into six grid cells. Eight randomly placed soil borings in six grid cells were sampled randomly in 6-inch intervals from the water table to the underlying till layer at approximately 15 feet and sampled for VOCs using Method 8260. In all, 24 randomly selected samples for VOCs were collected using an Encore sampler.

Based on the randomly collected soil samples for VOC analysis, the estimated total contaminant mass measured approximately 79 pounds in the 10 – 15-ft. treatment interval. Approximately 89 percent of the contaminant mass occurred from 10 to 13 feet below grade. Three injection wells were installed where the contamination mass was highest. IW-1 and IW-2 were installed in Grid Cell 2, and IW-3 was installed in Grid Cell 4. All injection wells were installed to approximately 13 ft.-bg. Approximately 90 percent of the contaminant mass occurred in the 10- to 13-ft. interval near IW-2, and during the injections IW-2 was used as the primary injection well to account for the greater level of contaminant mass. To ensure greatest treatment in the 10- to 13-ft. zone, a packer was installed prior to injection to seal off the injection well at 10 feet. The oxidant mixture was also administered through five Geoprobe points from 13 to 14 ft.-bg and 14 to 15 ft.-bg (Figure 2).

Multiple rounds of injections took place between July 10 and July 27, although the total amount of injection time was approximately six days. A total of 13,200 gallons of oxidant mixture was injected. Sodium persulfate was injected at a concentration of 15 to 50 g/L, sodium hydroxide was injected at a concentration of 12 to 50 g/L and VeruSOL® was injected at a concentration of 0 to 15 g/L. Groundwater was monitored daily in the injection wells and nearby monitoring wells to check on the chemical response and distribution of the oxidant. Water in the adjacent stream was also monitored with field instruments and visual inspections during the injection to check for off-Site migration of treatment chemicals. None was found. Favorable chemical conditions were observed in the treatment area (Appendix F, VeruTEK report). Table 7 presents the volume of oxidant solution injected by treatment point.

**Table 7 – Oxidant Volume by Injection Point**

Injection Point	Injected Volume (gallons)
IW-1	5,310
IW-2	5,320
IW-3	1,570
GP-1	200
GP-2	200
GP-3	200
GP-4	200
GP-5	200
<b>Total</b>	<b>13,200</b>

IW- Injection well. GP – Geoprobe injection point.

#### **4.3.2 Excavation**

Prior to the start of excavation, the 50-ft. by 50-ft. treatment area, located in the footprint of the northwest portion of the former Feutron Building, was divided into six grid cells. Soil removal in this historic drum storage and felt press area and under the relict floor slab was performed by removing impacted material in Grid Cells 1 through 5. Based on analytical results of pre-excavation soil sampling and the proximity of Grid Cell 6 to the building wall, Grid Cell 6 was not sampled. The layout of the six grid cells is illustrated in Figure 3. Excavation was conducted from August 27, 2012 to September 4, 2012. Appendix G is a photographic log of the excavation and overall remedial effort.

A high density polyethylene (HDPE) soil containment structure (unit) was constructed to contain the excavated soils. The structure had dimensions of approximately 100 feet long and 50 feet wide. The HDPE structure was installed over a bed of clean fine sand to provide protection against puncture by debris or stones beneath the structure.

Excavation was conducted by removing soils in each of the five grid cells to the depth of approximately 11 feet below grade, approximately one (1) foot below the water table. In all, approximately 710 tons of soil were removed from the remedial excavation. The excavated soils were then stockpiled on Site and subsequently passed through a soil screener to remove larger materials that could potentially damage the HDPE containment structure. Once soil passed through the screener, the material was transported via dump truck to the HDPE containment structure. The excavated soils were then sampled in the HDPE containment structure at an interval of no less than one sample per 100 cubic yards. Samples were analyzed for VOCs and compared to the Part 375 Commercial Use SCOs. Soils meeting the SCOs were subsequently backfilled into the separate grid cells. No soil was removed from the Site to a disposal facility and no soil was imported from outside the Site. An additional 1,000 gallons of oxidant mixture was spread across the bottom of the open excavation prior to backfilling.

Soils were scanned for VOCs using a PID with an 11.2 eV bulb. PID screening was conducted either at the excavator bucket, at the soil stockpile in the containment unit, and in the excavation. Any observations regarding soil contamination were logged along with the PID readings.

Post-excavation bottom and sidewall endpoint sampling was conducted upon completion of excavation in each grid cell. Post-excavation sampling was biased towards areas of staining, odors, elevated PID readings, and areas of known contamination. Post excavation samples PX-01 to PX-06 were collected on August 28, 2012. Samples PX-07 and PX-08 were collected on August 30, 2012. Samples PX-09 to PX-15 were collected on September 4, 2012. Figure 3 shows the results of pre-treatment and post-treatment sampling.

Within the excavation were what appeared to be several relict concrete walls and footings that supported the former Feutron Building. One concrete structure was a nominal 20-ft. by 10-ft. vault that once housed manufacturing equipment (Pit L). The concrete vault contained various amounts of rainwater and algae during remediation. No signs of contamination were evident in the vault. A smaller nominal 5-ft. by 5-ft. vault (Pit S) occupied a portion of a larger concrete block and exhibited no signs of contamination. All concrete appeared free of staining or other discernable signs of contamination. The concrete structures were left in place and are shown on Figure 3 for documentation purposes.

#### **4.3.3 Treatment Effectiveness**

Post-excavation analytical sample results revealed all VOC concentrations below the NYSDEC Unrestricted Use Criteria with the exception of 1,1-Dichloroethane in sample PX-07 and 1,1-Dichloroethane, 1,1-Dichloroethene and 1,1,1-Trichloroethane in sample PX-3. The post-excavation sample locations and results summary is illustrated in Figure 3.

#### **4.3.4 Remaining Contamination**

All post-excavation and post-treatment soil sample results were below the Site cleanup criteria, the Part 375 Commercial Use SCOs.

##### **4.3.4.1 Unrestricted Use**

The following post-excavation and post-treatment soil sample results remain above the Unrestricted Use Soil Cleanup Criteria (Table 8):

**Table 8 – Endpoint Soil Sample Results Above Unrestricted Use SCOs**

Sample ID	Parameter	Result, µg/kg	Unrestricted Use SCO, µg/kg	Commercial Use SCO, µg/kg
PX03-BT-10	1,1-Dichloroethane	1,940	270	240,000
	1,1-Dichloroethene	568	330	500,000
	1,1,1-Trichloroethane	4,980	680	500,000
C5SP02	1,1-Dichloroethene	2,750	330	500,000
	1,1,1-Trichloroethane	29,800	680	500,000
C5SP01	1,1,1-Trichloroethane	2,580	680	500,000
1.1 (12.5-13)	1,1-Dichloroethane	1,080	270	240,000
	1,2-Dichloroethane	232	20	30,000
	1,1-Dichloroethene	1,140	330	500,000
	1,1,1-Trichloroethane	18,700	680	500,000
	Trichloroethene	1,130	470	200,000
1.1 (13.-13.5)	1,1,1-Trichloroethane	2,860	680	500,000
1.2 (11-11.5)	1,1-Dichloroethane	6,220	270	240,000
	1,1,1-Trichloroethane	1,560	680	500,000
1.2 (14-14.5)	1,1-Dichloroethane	34,000	270	240,000
	1,2-Dichloroethane	786	20	30,000
	1,1-Dichloroethene	1,620	330	500,000
	1,1,1-Trichloroethane	4,690	680	500,000
1.2 (13-13.5)	1,1-Dichloroethane	3,950	270	240,000
	1,1,1-Trichloroethane	2,130	680	500,000
2.1 (12.5-13)	2-Butanone (MEK)	893	120	500,000
	1,1-Dichloroethane	34,900	270	240,000
	1,2-Dichloroethane	1,590	20	30,000
	1,1-Dichloroethene	2,150	330	500,000
	cis-1,2-Dichloroethane	374	250	500,000
	trans-1,2-Dichloroethane	294	190	500,000
	Toluene	2,280	700	500,000
	1,1,1-Trichloroethane	42,300	680	500,000
2.1 (11.5-12)	Trichloroethane	1,180	470	200,000
	Acetone	62.4	50	500,000
	1,1-Dichloroethane	11,100	270	240,000
2.1 (10-10.5)	1,2-Dichloroethane	27.7	20	30,000
	1,1,1-Trichloroethane	20.7	20	30,000
2.2 (12.5-13)	1,2-Dichloroethane	12,600	680	500,000
	1,1-Dichloroethane	3,660	270	240,000
	1,2-Dichloroethane	179	20	30,000
	1,1-Dichloroethene	2,310	330	500,000
2.2 (11-11.5)	1,1,1-Trichloroethane	70,700	680	500,000
	1,1-Dichloroethane	6,040	270	240,000
	1,1-Dichloroethene	14,000	330	500,000
	Toluene	1,600	700	500,000
2.2 (11-11.5)	1,1,1-Trichloroethane	398,000	680	500,000
	Trichloroethane	2,040	470	200,000
2.2 (14-14.5)	Acetone	82.2	50	500,000
2.2 (14-14.5)	2-Butanone	129	120	500,000

**Table 8 – Endpoint Soil Sample Results Above Unrestricted Use SCOs**

Sample ID	Parameter	Result, µg/kg	Unrestricted Use SCO, µg/kg	Commercial Use SCO, µg/kg
3 (13.5-14)	1,1-Dichloroethane	12,100	270	240,000
	1,2-Dichloroethane	34.0	20	30,000
	1,1-Dichloroethane	459	270	240,000
	1,1,1-Trichloroethane	1,500	680	500,000
3 (14.5-15)	1,1-Dichloroethane	5,820	270	240,000
	1,2-Dichloroethane	165	20	30,000
	1,1-Dichloroethene	423	330	500,000
	1,1,1-Trichloroethane	2,320	680	500,000
3 (12.5-13)	1,1-Dichloroethane	410	270	240,000
	1,2-Dichloroethane	134	20	30,000
	1,1-Dichloroethene	659	330	500,000
	1,1,1-Trichloroethane	1,270	680	500,000
4 (11-11.5)	1,1-Dichloroethane	2,000	270	240,000
	1,1-Dichloroethene	1,650	330	500,000
4 (14.5-15)	1,1-Dichloroethane	6,470	270	240,000
5 (13.5-14)	1,1,1-Trichloroethane	3,480	680	500,000
5 (14-14.5)	1,1,1-Trichloroethane	1,220	680	500,000
5 (14.5-15)	1,1,1-Trichloroethane	2,090	680	500,000

PX – Post Excavation sample. SP – Soil Pile/Cover sample. Remaining samples # ( . . ) from post-treatment soil borings.

#### 4.3.4.2 Residential Use

The following post-treatment soil sample results remain above the Residential Use soil cleanup criteria. All other samples were below the Residential Use SCOs:

Sample ID	Parameter	Result, µg/kg	Residential Use SCO, µg/kg
1.2 (14-14.5)	1,1-Dichloroethane	34,000	19,000
2.1 (12.5-13)	1,1-Dichloroethane	34,900	19,000
2.2 (11-11.5)	1,1,1-Trichloroethane	398,000	100,000

#### 4.3.4.3 Groundwater

Post-treatment groundwater sampling took place in April 2013. Five groundwater samples were collected for TCL VOC analysis by Method 8260 from wells within and downgradient from the treatment area.

Of the 35 VOCs in the 8260 list, 21 (60 percent) VOC results were below detection limits in all five groundwater samples. Of the 14 detected VOCs, five (14 percent of the total) were all below the TOGS or guidelines. Nine VOCs were above the TOGS AWQS or guidelines: chloroethane, 1,1-dichloroethane, 1,2-dichloroethane, 1,1-dichloroethene, toluene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, trichloroethane, and vinyl chloride. Among these, nine VOCs, four of the compounds were below the TOGS AWQS or guidelines in 75 percent of the samples.

The VOCs with the highest groundwater concentrations were chloroethane (334 µg/L), 1,1-dichloroethane (2,540 µg/L), and 1,1,1-trichloroethane (8,630 µg/L) in monitoring well EW-0. EW-0 and MW-1 (a.k.a. MW-1N) had the highest concentrations of VOCs compared to all other wells, as shown.

#### Post-treatment Groundwater Results in µg/L

Sample ID	Chloroethane	1,1-Dichloroethane	TCA
S-8	nd	11.8	1.4
E1-N	73.9	154	48.4
EW-1X	nd	22.9	nd
MW-1N	136	438	1,560
EW-0	334	2,540	8,630

nd – non-detect

Table 9 summarizes the post-treatment detected VOC results for all groundwater samples.

**Table 9 – Summary of Detected Post-treatment Groundwater Results, All Wells**  
Results in µg/L

VOC	Min	p25	p50	p75	p95	Max	TOGS*
2-Butanone	-	-	-	-	14.1	14.1	50
Chloroethane	-	-	<b>73.9</b>	<b>136</b>	<b>334</b>	<b>334</b>	5
Chloroform	-	-	-	1.2	3.1	3.1	7
1,1-Dichloroethane	<b>11.8</b>	<b>22.9</b>	<b>154</b>	<b>438</b>	<b>2,540</b>	<b>2,540</b>	5
1,2-Dichloroethane	-	-	<b>0.7</b>	<b>5.2</b>	<b>17.5</b>	<b>17.5</b>	0.6
1,1-Dichloroethene	-	3.5	5	<b>36.6</b>	<b>144</b>	<b>144</b>	5
cis-1,2-Dichloroethene	-	-	-	0.54	2.8	2.8	3
trans-1,2-Dichloroethene	-	-	-	-	2.2	2.2	5
Tetrachloroethene (PCE)	-	-	-	-	0.6	0.6	5
Toluene	-	-	-	1.6	8	8	5
1,1,1-Trichloroethane (TCA)	-	1.4	<b>48.4</b>	<b>1,560</b>	<b>8,630</b>	<b>8,630</b>	5
1,1,2-Trichloroethane	-	-	-	-	<b>2.3</b>	<b>2.3</b>	1
Trichloroethene (TCE)	-	-	1.1	4	<b>6.2</b>	<b>6.2</b>	5
Vinyl chloride	-	-	-	-	<b>4.8</b>	<b>4.8</b>	2

Min – minimum, p25 – 25<sup>th</sup> percentile, p50 – 50<sup>th</sup> percentile (median), p75 – 75<sup>th</sup> percentile, p95 – 95<sup>th</sup> percentile, Max – maximum. – non-detect. \*TOGS or guidance value. Bold & italic exceed TOGS values/guidelines.

#### 4.3.5 Soil Cover System

The excavation was backfilled to grade with soil meeting the Commercial Use SCOs. In nearly all cases, treated soil for backfilling met the Unrestricted Use or Residential Use SCOs. The soil used for the excavation cover was the excavated soil that met the Site SCOs (Section 4.3.2) and subsequently returned to the excavation after testing documented the soil met the cleanup goals. No soil was imported from off-Site. The data for the soil cover samples are the post-treatment soil pile samples. Table 10 lists the soil pile/soil cover samples. Table 2A presents the results.

**Table 10 - Soil Pile/Cover Results, µg/kg**

C1SP01	C4SP01	C3SP02
C2SP01	C5SP01	C5SP02
C3SP01	C2SP02	Bench01

#### 4.3.6 Sub-slab Depressurization System

There is an existing SSDS operating under the Piano Felt Building (Figure 11). Now that soils containing the source contamination have been treated, AFFCO proposes to convert the SSDS and allow the system to operate in passive mode. A separate work plan will be prepared to demonstrate that passive operation of the SSDS will address potential exposure via soil vapor intrusion.



#### **4.3.7 Deviations from Remedial Action Work Plan**

There were no material deviations from the approved work plan. One minor deviation was omission of stream sampling following treatment.

#### **4.3.8 Quality Assurance/Quality Control Summary**

All post-excavation and post-treatment soil data were found usable for project decisions. All groundwater results were found usable for project decisions (Appendix E).

## 5.0 ENVIRONMENTAL EASEMENT, SOIL MANAGEMENT AREA & SSDS

The Site has a series of Institutional Controls in the form of an Environmental Easement that encompasses a portion of the property (0.5454 acres) that includes a Soil Management Area (0.3845 acre) and a SSDS area (0.1619 acre) (Appendix A). Site restrictions that apply to the Environmental Easement Area of the Property are as follows:

- The controlled property area may be used for commercial use provided that the long-term Engineering and Institutional Controls included in the attached Site Management Plan are employed. The controlled property also allows Industrial use as allowed by zoning;
- The controlled property may not be used for a higher level of use, such as unrestricted, residential or restricted residential use without additional remediation and amendment of the Environmental Easement, as approved by the NYSDEC;
- The controlled property area may not be used for a higher level of use, such as unrestricted or restricted residential, use without additional remediation and amendment of the Environmental Easement, as approved by the NYSDEC;
- All future activities on the controlled property area that will disturb remaining contaminated material must be conducted in accordance with the SMP;
- The use of the groundwater underlying the property is prohibited without treatment rendering it safe for intended use;
- The potential for vapor intrusion must be evaluated for any new buildings on Site and any potential impacts that are identified must be monitored or mitigated;
- Vegetable gardens and farming on the property are prohibited;
- Inspection of the soil covering the Soil Management Area annually. The inspection results will be detailed in the Periodic Review Report (PRR) and certified by the engineer. Any damage to the soil cover will be repaired in kind;
- Inspection of the SSDS. The inspection results will be detailed in the PRR and certified by the engineer; and
- The Site owner or remedial party will submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access such Controlled Property at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow and will be made by an expert that the NYSDEC finds acceptable.

Institutional Controls identified in the Environmental Easement may not be discontinued without an amendment to or extinguishment of the Environmental Easement.

The Environmental Easement was accepted by NYSDEC on August 23, 2017 and filed with Orange County on September 15, 2017.submitted on.

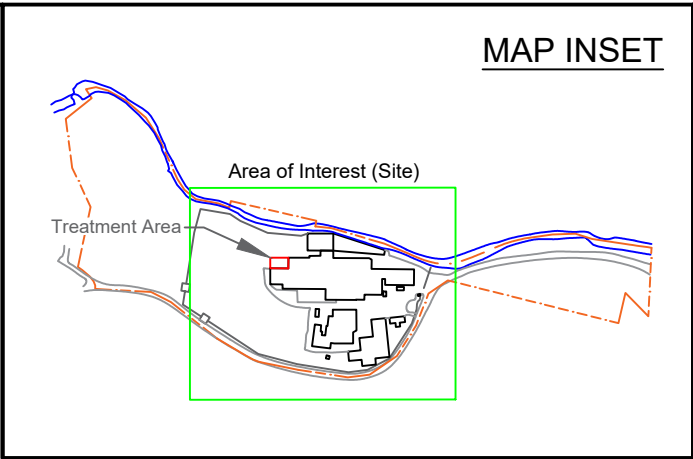
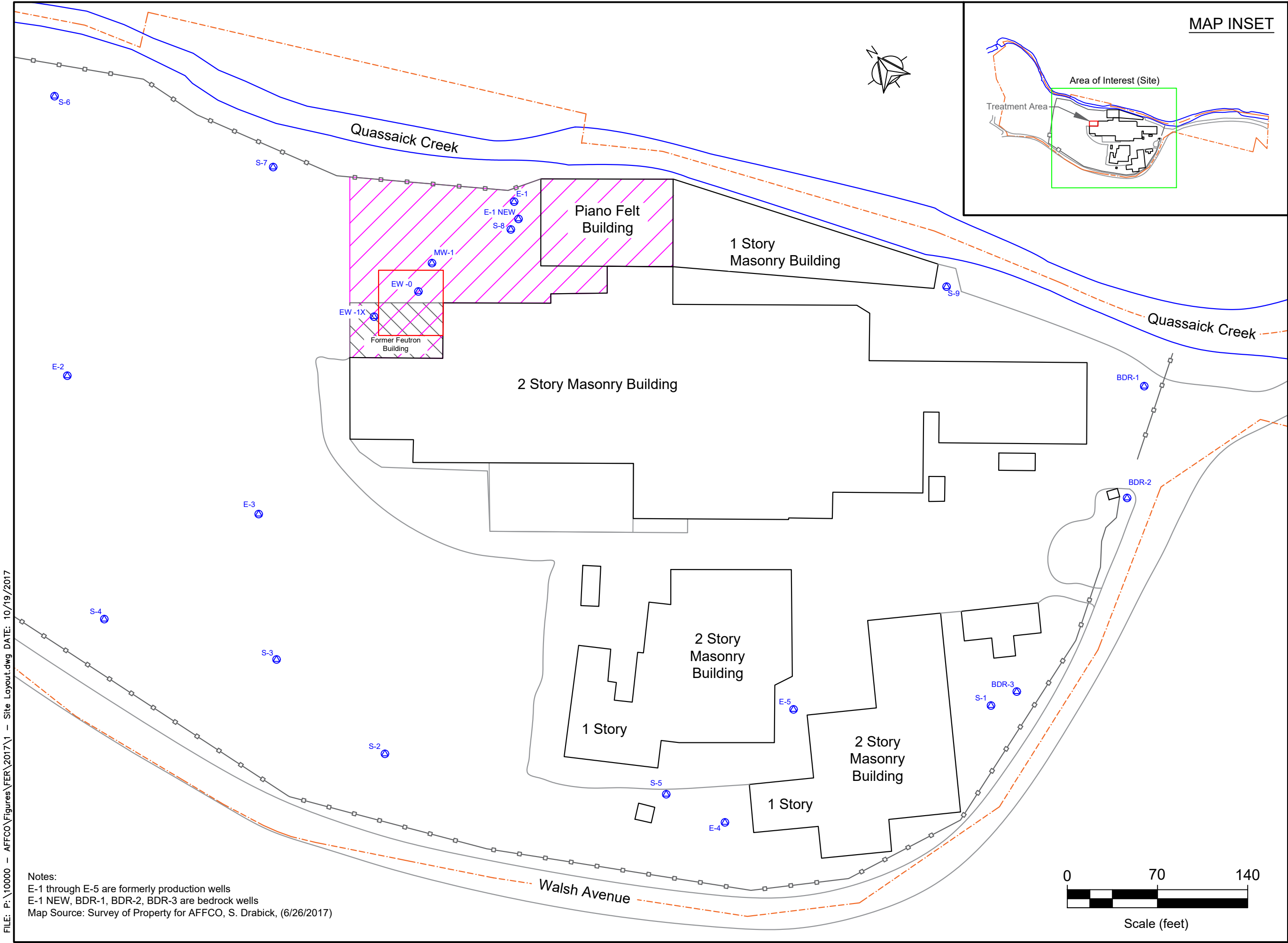
## **6.0 SITE MANAGEMENT PLAN**

A SMP that describes actions subsequent to the remedial action is included as a separate document. The SMP calls for groundwater monitoring, SSDS operation and inspection, and inspection of the Soil Management Area soil cover.

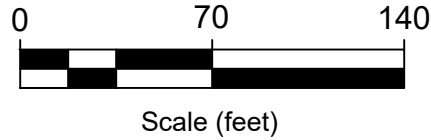
Since contaminated soil and groundwater remain beneath the Site after completion of the remedial action, institutional and engineering controls are required to protect human health and the environment. Long-term management of these controls and residual contamination will be conducted under the SMP approved by the NYSDEC

# FIGURES

FILE: P:\10000 - AFFCO\Figures\FER\2017\1 - Site Layout.dwg DATE: 10/19/2017



Notes:  
E-1 through E-5 are formerly production wells  
E-1 NEW, BDR-1, BDR-2, BDR-3 are bedrock wells  
Map Source: Survey of Property for AFFCO, S. Drabick, (6/26/2017)



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New Windsor, NY

**Figure 1**

**Site Layout**

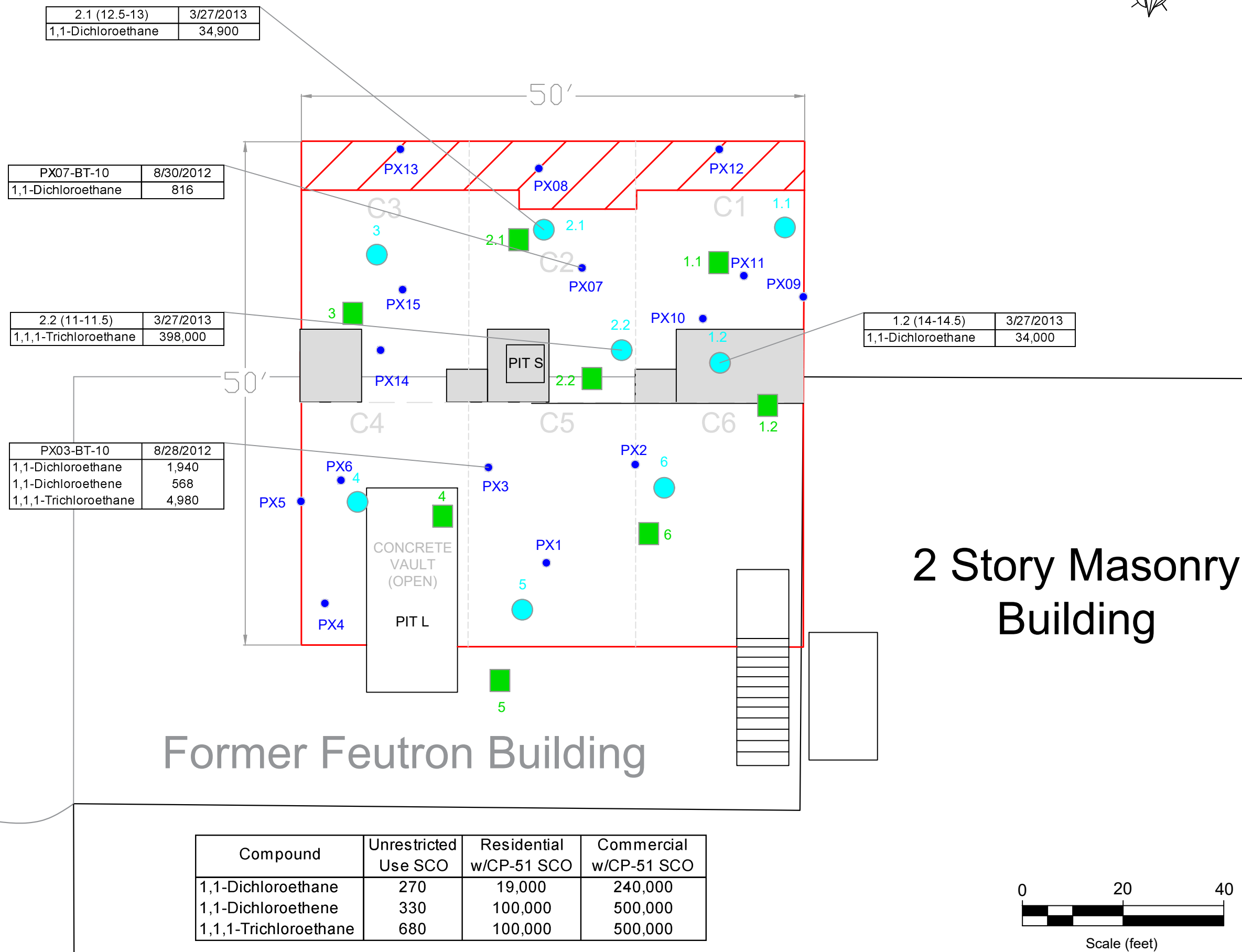
**October 2017**

**Project Number**  
**10000-015**

**LEGEND**

- Environmental Easement Area
- Extent of Building Demolition
- Area of Remedial Excavation
- Property Line
- Retaining Walls / Fence
- Groundwater Monitoring Well





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**Figure 3**

**Post-Excavation/  
Post-Treatment Soil  
Sampling Locations  
and Results  
Summary**

**October 2017**

**Project Number  
10000-015**

**LEGEND**

- Area of remedial excavation (grade to 10 or 11')
- Shallow remedial excavation (grade to 5')
- Pre-treatment soil sample (random)
- Post-in situ treatment soil sample (random)
- Post-excavation endpoint soil sample (random)
- Grid cell
- Concrete

Notes:  
Soil sample and geoprobe injection locations are approximate



E-1 NEW	7/10/2012	4/17/2013
Chloroethane	18	73.9
1,1-Dichloroethane	1.7	154
1,1,1-Trichloroethane	2	48.4

MW-1	7/10/2012	4/17/2013
Chloroethane	641	136
1,1-Dichloroethane	146	438
1,2-Dichloroethane	4.8	5.2
1,1-Dichloroethene	6	36.6
1,1,1-Trichloroethane	82.4	1560
Trichloroethene	1.6 J	6.2

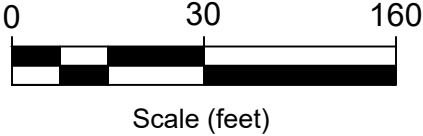
S-8	7/10/2012	4/17/2013
Chloroethane	57	ND
1,1-Dichloroethane	145	11.8
1,2-Dichloroethane	0.64 J	0.7
1,1,1-Trichloroethane	30.5	1.4

EW-0	7/10/2012	4/17/2013
Chloroethane	1240	334
1,1-Dichloroethane	36100	2540
1,2-Dichloroethane	233	17.5
1,1-Dichloroethene	562	144
Toluene	60.5 J	8
1,1,1-Trichloroethane	48300	8630
1,1,2-Trichloroethane	34.5 J	2.3
Vinyl Chloride	ND	4.8

EW-1X	4/17/2013
1,1-Dichloroethane	22.9

Compound	NYTOGS Class GA Standards
Chloroethane	5
1,1-Dichloroethane	5
1,2-Dichloroethane	0.6
1,1-Dichloroethene	5
Toluene	5
1,1,1-Trichloroethane	5
1,1,2-Trichloroethane	1
Vinyl Chloride	2

NOTES:  
Concentrations measured in ug/L, exceedances in bold  
Groundwater samples and elevation measurements collected on 9/30/2014  
Elevations in world geodetic system (WGS) 84  
E-1 NEW is a bedrock well, not used for contouring  
Pre-treatment samples collected on 7/10/2012  
Post-treatment samples collected on 4/17/2013



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Figure 4

PRE AND  
POST-TREATMENT  
GROUNDWATER  
VOC RESULTS AND  
CONTOUR MAP

October 2017

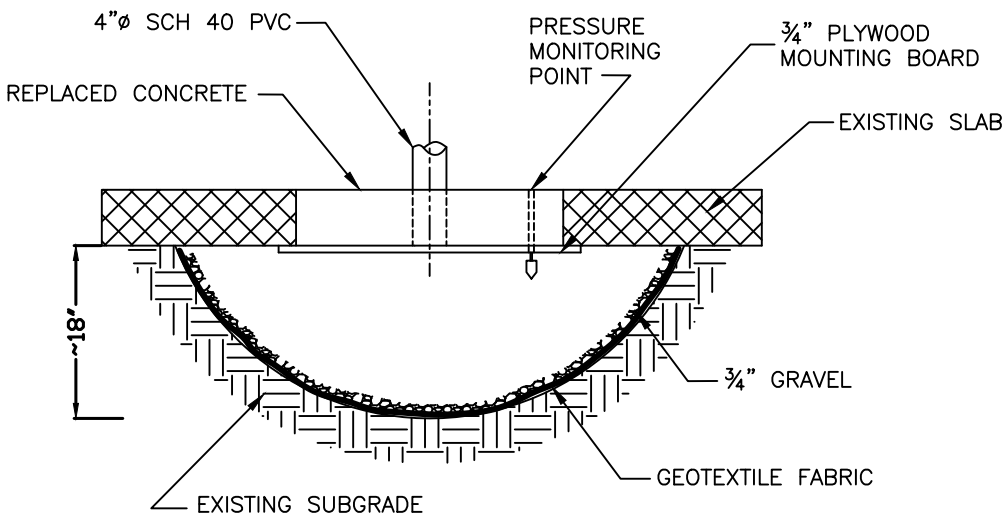
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10000-015

LEGEND

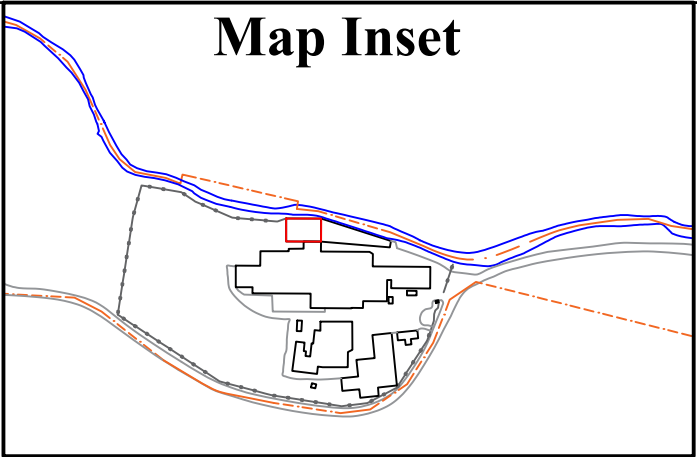
- Groundwater monitoring well and groundwater elevation (feet)
- Groundwater elevation contour (dashed where inferred)
- Injection well (removed)
- Geoprobe injection location (approximate)



Pit Detail



Map Inset



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Figure 11

Piano Felt  
Building SSDS  
As-Built

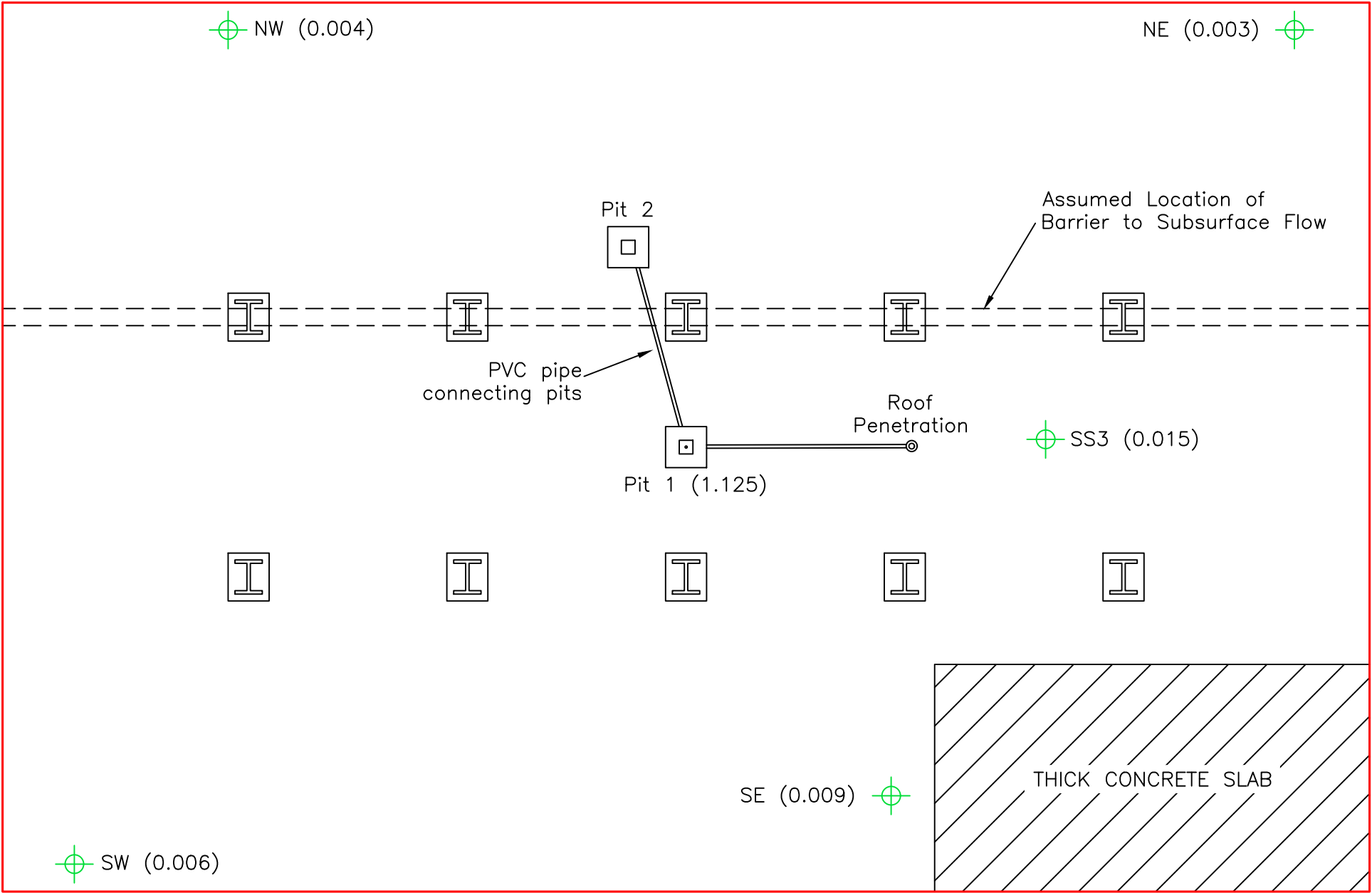
October 2017

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10000-015

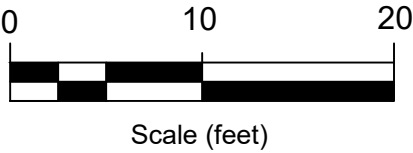
LEGEND

- Building Footprint
- Column
- Pressure Monitoring Point (Vacuum in inches of water)

SSDS Plan View



- NOTES:**
- 1. Fan was installed on the roof and does not exhaust within 25' of an air intake
  - 2. Labels noting SSDS are placed on pipe and at the exhaust
  - 3. Fan size and number of pits based on similar designs referenced by EPA documents
  - 4. Pit detail is not to scale



# TABLES

**Table 1**  
**Commercial Use Soil Cleanup Objectives**  
AFFCO, 361 Walsh Avenue, New Windsor, NY

Volatiles (SW846 8260C)			Semi-volatiles (SW846 8270D)			PCBs and Pesticides (SW846 8081B)		
Acetone	ug/kg	500000	2-Chlorophenol	ug/kg		Aldrin	ug/kg	680
Benzene	ug/kg	44000	4-Chloro-3-methyl phenol	ug/kg	-	alpha-BHC	ug/kg	3400
Bromochloromethane	ug/kg	-	2,4-Dichlorophenol	ug/kg		beta-BHC	ug/kg	3000
Bromodichloromethane	ug/kg	-	2,4-Dimethylphenol	ug/kg	-	delta-BHC	ug/kg	500000
Bromoform	ug/kg	-	2,4-Dinitrophenol	ug/kg		gamma-BHC (Lindane)	ug/kg	9200
Bromomethane	ug/kg	-	4,6-Dinitro-o-cresol	ug/kg	-	alpha-Chlordane	ug/kg	24000
2-Butanone (MEK)	ug/kg	500000	2-Methylphenol	ug/kg	500000	gamma-Chlordane	ug/kg	
Carbon disulfide	ug/kg		3&4-Methylphenol	ug/kg	-	Dieldrin	ug/kg	1400
Carbon tetrachloride	ug/kg	22000	2-Nitrophenol	ug/kg		4,4'-DDD	ug/kg	92000
Chlorobenzene	ug/kg	500000	4-Nitrophenol	ug/kg		4,4'-DDE	ug/kg	62000
Chloroethane	ug/kg		Pentachlorophenol	ug/kg	6700	4,4'-DDT	ug/kg	47000
Chloroform	ug/kg	350000	Phenol	ug/kg	500000	Endrin	ug/kg	89000
Chloromethane	ug/kg	-	2,3,4,6-Tetrachlorophenol	ug/kg	-	Endosulfan sulfate	ug/kg	200000
Cyclohexane	ug/kg	-	2,3,5-Trichlorophenol	ug/kg		Endrin aldehyde	ug/kg	-
1,2-Dibromo-3-chloropropane	ug/kg	-	2,4,6-Trichlorophenol	ug/kg		Endosulfan-I	ug/kg	200000
Dibromochloromethane	ug/kg		Acenaphthene	ug/kg	500000	Endosulfan-II	ug/kg	200000
1,2-Dibromoethane	ug/kg	-	Acenaphthylene	ug/kg	500000	Heptachlor	ug/kg	15000
1,2-Dichlorobenzene	ug/kg	500000	Acetophenone	ug/kg	-	Heptachlor epoxide	ug/kg	
1,3-Dichlorobenzene	ug/kg	280000	Anthracene	ug/kg	500000	Methoxychlor	ug/kg	
1,4-Dichlorobenzene	ug/kg	130000	Atrazine	ug/kg	-	Endrin ketone	ug/kg	-
Dichlorodifluoromethane	ug/kg	-	Benzo(a)anthracene	ug/kg	5600	Toxaphene	ug/kg	-
1,1-Dichloroethane	ug/kg	240000	Benzo(a)pyrene	ug/kg	1000			
1,2-Dichloroethane	ug/kg	30000	Benzo(b)fluoranthene	ug/kg	5600			
1,1-Dichloroethene	ug/kg	500000	Benzo(g,h,i)perylene	ug/kg	500000			
cis-1,2-Dichloroethene	ug/kg	500000	Benzo(k)fluoranthene	ug/kg	56000	Aluminum	mg/kg	
trans-1,2-Dichloroethene	ug/kg	500000	4-Bromophenyl phenyl ether	ug/kg	-	Antimony	mg/kg	
1,2-Dichloropropane	ug/kg		Butyl benzyl phthalate	ug/kg		Arsenic	mg/kg	16
cis-1,3-Dichloropropene	ug/kg	-	1,1'-Biphenyl	ug/kg		Barium	mg/kg	400
trans-1,3-Dichloropropene	ug/kg	-	Benzaldehyde	ug/kg	-	Beryllium	mg/kg	590
Ethylbenzene	ug/kg	390000	2-Chloronaphthalene	ug/kg	-	Cadmium	mg/kg	9.3
Freon 113	ug/kg		4-Chloroaniline	ug/kg		Calcium	mg/kg	
2-Hexanone	ug/kg	-	Carbazole	ug/kg	-	Chromium	mg/kg	-
Isopropylbenzene	ug/kg		Caprolactam	ug/kg	-	Cobalt	mg/kg	
Methyl Acetate	ug/kg	-	Chrysene	ug/kg	56000	Copper	mg/kg	270
Methylcyclohexane	ug/kg	-	bis(2-Chloroethoxy)methane	ug/kg	-	Iron	mg/kg	
Methyl Tert Butyl Ether	ug/kg	500000	bis(2-Chloroethyl)ether	ug/kg	-	Lead	mg/kg	1000
4-Methyl-2-pentanone(MIBK)	ug/kg		bis(2-Chloroisopropyl)ether	ug/kg	-	Magnesium	mg/kg	-
Methylene chloride	ug/kg	500000	4-Chlorophenyl phenyl ether	ug/kg	-	Manganese	mg/kg	10000
Styrene	ug/kg		2,4-Dinitrotoluene	ug/kg	-	Mercury	mg/kg	2.8
1,1,2,2-Tetrachloroethane	ug/kg		2,6-Dinitrotoluene	ug/kg		Nickel	mg/kg	310
Tetrachloroethene	ug/kg	150000	3,3'-Dichlorobenzidine	ug/kg	-	Potassium	mg/kg	-
Toluene	ug/kg	500000	1,4-Dioxane	ug/kg	130000	Selenium	mg/kg	1500
1,2,3-Trichlorobenzene	ug/kg		Dibenzo(a,h)anthracene	ug/kg	560	Silver	mg/kg	1500
1,2,4-Trichlorobenzene	ug/kg		Dibenzofuran	ug/kg	350000	Sodium	mg/kg	-
1,1,1-Trichloroethane	ug/kg	500000	Di-n-butyl phthalate	ug/kg		Thallium	mg/kg	
1,1,2-Trichloroethane	ug/kg	-	Di-n-octyl phthalate	ug/kg		Vanadium	mg/kg	
Trichloroethene	ug/kg	200000	Diethyl phthalate	ug/kg		Zinc	mg/kg	10000
Trichlorofluoromethane	ug/kg	-	Dimethyl phthalate	ug/kg				
Vinyl chloride	ug/kg	13000	bis(2-Ethylhexyl)phthalate	ug/kg				
m,p-Xylene	ug/kg	500000	Fluoranthene	ug/kg	500000			
o-Xylene	ug/kg	500000	Fluorene	ug/kg	500000			
Xylene (total)	ug/kg	500000	Hexachlorobenzene	ug/kg	6000			
			Hexachlorobutadiene	ug/kg	-			
			Hexachlorocyclopentadiene	ug/kg				
			Hexachloroethane	ug/kg	-			
			Indeno(1,2,3-cd)pyrene	ug/kg	5600			
			Isophorone	ug/kg				
			2-Methylnaphthalene	ug/kg				
			2-Nitroaniline	ug/kg				
			3-Nitroaniline	ug/kg				
			4-Nitroaniline	ug/kg	-			
			Naphthalene	ug/kg	500000			
			Nitrobenzene	ug/kg	69000			
			N-Nitroso-di-n-propylamine	ug/kg	-			
			N-Nitrosodiphenylamine	ug/kg				
			Phenanthrene	ug/kg	500000			
			Pyrene	ug/kg	500000			
			1,2,4,5-Tetrachlorobenzene	ug/kg	-			

#### Notes

The SCO's for unrestricted use were capped at a maximum value of 100 ppm. See Technical Support Document (TSD), section 9.3.

For constituents where the calculated SCO was lower than the contract required quantitation limit (CRQL), the CRQL is used as the Track 1 SCO value.

For constituents where the calculated SCO was lower than the rural soil background concentration, as determined by the Department and Department of Health rural soil survey, the rural soil background concentration is used as the Track 1 SCO value for this use of the site.

Protection of ecological resources SCO's were not developed for contaminants identified in Table 375-6.8(b) with "NS". Where such contaminants appear in Table 375-6.8(a), the applicant may be required by the Department to calculate a protection of ecological resources SCO according to the TSD.

Endosulfan SCO is the sum of endosulfan I, endosulfan II and endosulfan sulfate..

The SCO is the lower of the values for mercury (elemental) or mercury (inorganic salts). See TSD Table 5.6-1.

**Table 2A**  
End-point Post-excavation Soil sample Analytical Results  
Summary of Volatile Organic Compounds

Client ID Lab Sample ID Date Sampled	NY Unrestricted Use Soil Cleanup Objectives	NY Commercial Use Soil Cleanup Objectives	BENCH01 JB15155-3 8/30/2012 Result Q	C1SP01 JB15405-8 9/4/2012 Result Q	C2SP01 JB15405-11 9/4/2012 Result Q	C2SP02 JB15405-12 9/4/2012 Result Q	C3SP01 JB15405-9 9/4/2012 Result Q	C3SP02 JB15405-10 9/4/2012 Result Q	C4SP01 JB14890-9 8/28/2012 Result Q	C5SP01 JB14890-7 8/28/2012 Result Q	C5SP02 JB14890-8 8/28/2012 Result Q	PX01-SW-5 JB14890-1 8/28/2012 Result Q	PX02-SW-5 JB14890-2 8/28/2012 Result Q	PX03-BT-10 JB14890-3 8/28/2012 Result Q
<b>GC/MS Volatiles (µg/kg)</b>														
Acetone	500000	500000	<1.9	<2.0	<1.8	<1.8	<2.0	<1.8	<2.3	14.7	13.3	<2.3	5.9 J	20.6
Benzene	44000	44000	<0.14	<0.14	<0.13	<0.13	<0.14	<0.12	1.0 J	<0.17	<0.15	0.76 J	<0.15	<0.14
Bromodichloromethane	NS	NS	<0.12	<0.13	<0.11	<0.11	<0.13	<0.11	<0.14	<0.15	<0.13	<0.14	<0.13	<0.12
Bromoform	NS	NS	<0.17	<0.18	<0.16	<0.16	<0.18	<0.16	<0.20	<0.21	<0.19	<0.21	<0.19	<0.18
Bromomethane	NS	NS	<0.31	<0.33	<0.29	<0.30	<0.33	<0.29	<0.36	<0.38	<0.34	<0.37	<0.35	<0.32
2-Butanone (MEK)	500000	500000	<2.7	<2.9	<2.6	<2.6	<2.9	<2.5	<3.2	<3.4	<3.0	<3.3	<3.0	12.9
Carbon disulfide	NS	NS	<0.13	<0.14	<0.13	<0.13	<0.14	<0.12	<0.16	<0.16	1.2 J	<0.16	<0.15	1.5 J
Carbon tetrachloride	22000	22000	<0.15	<0.16	<0.14	<0.14	<0.16	<0.14	<0.18	<0.19	<0.17	<0.18	<0.17	<0.15
Chlorobenzene	500000	500000	<0.12	<0.13	<0.12	<0.12	<0.13	<0.11	<0.14	<0.15	<0.14	<0.15	<0.14	<0.13
Chloroethane	NS	NS	<0.26	<0.27	<0.24	<0.25	<0.27	<0.24	<0.30	<0.32	<0.28	<0.31	<0.29	1.9 J
Chloroform	350000	350000	<0.094	<0.099	<0.088	<0.089	<0.099	<0.087	<0.11	0.73 J	0.79 J	<0.11	<0.11	0.56 J
Chloromethane	NS	NS	<0.21	<0.22	<0.20	<0.20	<0.22	<0.20	<0.25	<0.26	<0.23	<0.25	<0.24	<0.22
Dibromochloromethane	NS	NS	<0.19	<0.20	<0.18	<0.18	<0.20	<0.17	<0.22	<0.23	<0.21	<0.22	<0.21	<0.19
1,1-Dichloroethane	240000	240000	1.2 J	7.2	1.0 J	1.9 J	13.0	3.0 J	<0.18	3.1 J	214	<0.19	<0.17	1940
1,2-Dichloroethane	30000	30000	<0.15	0.65 J	0.78 J	1.7	1.2	0.76 J	<0.18	<0.19	2.9	<0.18	<0.17	13.8
1,1-Dichloroethene	500000	500000	1.6 J	2.0 J	0.43 J	0.90 J	5.8 J	1.5 J	<0.34	2.5 J	2750	<0.35	<0.33	568
cis-1,2-Dichloroethene	500000	500000	0.92 J	0.61 J	0.37 J	1.1 J	0.54 J	0.41 J	<0.24	<0.26	1.2 J	<0.25	<0.23	1.5 J
trans-1,2-Dichloroethene	500000	500000	0.61 J	0.50 J	<0.25	0.70 J	0.41 J	0.38 J	<0.32	<0.33	2.2 J	<0.32	<0.30	<0.28
1,2-Dichloroethene (total)	NS	NS	1.5 J	1.1 J	0.37 J	1.8 J	0.95 J	0.79 J	<0.24	<0.26	3.4 J	<0.25	<0.23	1.5 J
1,2-Dichloropropane	NS	NS	<0.17	<0.18	<0.16	<0.17	<0.19	<0.16	<0.21	<0.22	<0.19	<0.21	<0.20	<0.18
cis-1,3-Dichloropropene	NS	NS	<0.16	<0.17	<0.15	<0.15	<0.17	<0.15	<0.19	<0.20	<0.17	<0.19	<0.18	<0.16
trans-1,3-Dichloropropene	NS	NS	<0.18	<0.19	<0.17	<0.17	<0.19	<0.16	<0.21	<0.22	<0.19	<0.21	<0.20	<0.18
Ethylbenzene	390000	390000	<0.30	<0.32	<0.28	<0.28	<0.32	<0.28	<0.35	<0.37	<0.33	<0.36	<0.34	<0.31
2-Hexanone	NS	NS	<0.71	<0.75	<0.66	<0.67	<0.75	<0.65	<0.83	<0.87	<0.78	<0.85	<0.79	<0.72
Methyl Tert Butyl Ether	500000	500000	<0.27	<0.28	<0.25	<0.25	<0.28	<0.25	<0.31	<0.33	<0.29	<0.32	<0.30	<0.27
4-Methyl-2-pentanone(MIBK)	NS	NS	<0.85	<0.90	<0.80	<0.81	<0.90	<0.79	<1.0	<1.1	<0.94	<1.0	<0.96	<0.87
Methylene chloride	500000	500000	<1.4	<1.5	<1.4	<1.4	<1.5	<1.3	<1.7	<1.8	<1.6	<1.7	<1.6	<1.5
Styrene	NS	NS	<0.10	<0.11	<0.098	<0.099	<0.11	<0.096	<0.12	<0.13	<0.11	<0.13	<0.12	<0.11
1,1,2,2-Tetrachloroethane	NS	NS	<0.15	<0.16	<0.14	<0.14	<0.16	<0.14	<0.18	<0.19	<0.17	<0.18	<0.17	<0.15
Tetrachloroethene	150000	150000	0.62 J	1.1 J	<0.18	0.33 J	1.6 J	<0.18	<0.23	<0.24	1.1 J	<0.23	<0.22	0.68 J
Toluene	500000	500000	1.1	1.3	<0.11	<0.11	2.8	0.27 J	0.43 J	<0.15	1.2 J	0.33 J	<0.13	17.1
1,1,1-Trichloroethane	680	500000	47.9	513	51.7	59.9	41900	166	1.6 J	2580	29800	<0.14	6.1 J	4980
1,1,2-Trichloroethane	NS	NS	1.6 J	3.5 J	1.4 J	2.5 J	5.2 J	0.97 J	<0.23	<0.24	<0.22	<0.24	<0.22	0.64 J
Trichloroethene	200000	200000	0.93 J	5.0 J	1.6 J	6.9	5.7 J	1.9 J	3.6 J	<0.24	1.7 J	<0.24	<0.22	2.2 J
Vinyl chloride	13000	13000	<0.16	<0.17	<0.15	<0.16	<0.17	<0.15	<0.19	<0.20	1.8 J	<0.20	<0.18	9.7
Xylene (total)	500000	500000	<0.16	<0.17	<0.15	<0.15	<0.17	<0.15	<0.19	<0.20	<0.17	<0.19	<0.18	<0.16
Total Confident Conc.			57.98	535.96	57.65	77.73	41937.2	175.98	6.63	2601.03	32794.79	1.09	12	7572.58

Notes:  
Exceedances in Unrestricted Use SCOs highlighted in blue  
NS - no standard  
J - estimated concentration



**Table 2A**  
End-point Post-excavation Soil sample Analytical Results  
Summary of Volatile Organic Compounds

Client ID Lab Sample ID Date Sampled	NY Unrestricted Use Soil Cleanup Objectives	NY Commercial Use Soil Cleanup Objectives	PX04-SW-5 JB14890-4 8/28/2012 Result Q	PX05-SW-6 JB14890-5 8/28/2012 Result Q	PX06-BT-10 JB14890-6 8/28/2012 Result Q	PX07BT-10 JB15155-1 8/30/2012 Result Q	PX08SW-7 JB15155-2 8/30/2012 Result Q	PX09SW-3 JB15405-1 9/4/2012 Result Q	PX10SW-5 JB15405-2 9/4/2012 Result Q	PX11BT-10 JB15405-3 9/4/2012 Result Q	PX12SW-7 JB15405-4 9/4/2012 Result Q	PX14SW-6 JB15405-6 9/4/2012 Result Q	PX15BT-10 JB15405-7 9/4/2012 Result Q
<b>GC/MS Volatiles (µg/kg)</b>													
Acetone	500000	500000	<2.3	<2.2	4.0 J	27.5	<2.0	<2.2	<2.2	<2.0	<2.1	<1.9	13.6
Benzene	44000	44000	0.77 J	1.3	0.86 J	<0.15	9.9	2.6	2.7	<0.14	2.6 J	<0.13	<0.15
Bromodichloromethane	NS	NS	<0.14	<0.13	<0.13	<0.13	<0.13	<0.14	<0.14	<0.12	<0.13	<0.12	<0.13
Bromoform	NS	NS	<0.20	<0.19	<0.19	<0.19	<0.18	<0.20	<0.20	<0.18	<0.19	<0.17	<0.19
Bromomethane	NS	NS	<0.36	<0.35	<0.34	<0.35	<0.33	<0.36	<0.36	<0.32	<0.34	<0.30	<0.35
2-Butanone (MEK)	500000	500000	<3.2	<3.1	<3.0	<3.0	<2.9	<3.1	<3.2	<2.8	<3.0	<2.7	<3.1
Carbon disulfide	NS	NS	<0.16	<0.15	<0.14	<0.15	<0.14	<0.15	<0.16	<0.14	<0.15	<0.13	<0.15
Carbon tetrachloride	22000	22000	<0.18	<0.17	<0.16	<0.17	<0.16	<0.17	<0.18	<0.15	<0.17	<0.15	<0.17
Chlorobenzene	500000	500000	<0.14	<0.14	<0.13	<0.14	<0.13	<0.14	<0.14	<0.13	<0.13	<0.12	<0.14
Chloroethane	NS	NS	<0.30	<0.29	<0.28	136	<0.27	<0.30	<0.30	<0.26	<0.28	<0.25	<0.29
Chloroform	350000	350000	<0.11	<0.11	<0.10	0.49 J	<0.10	<0.11	<0.11	<0.096	<0.10	<0.092	1.0 J
Chloromethane	NS	NS	<0.25	<0.24	<0.23	<0.24	<0.22	<0.24	<0.25	<0.22	<0.23	<0.21	<0.24
Dibromochloromethane	NS	NS	<0.22	<0.21	<0.20	<0.21	<0.20	<0.22	<0.22	<0.19	<0.20	<0.18	<0.21
1,1-Dichloroethane	240000	240000	<0.18	<0.18	<0.17	816	1.1 J	<0.18	1.8 J	<0.16	<0.17	0.87 J	8.3
1,2-Dichloroethane	30000	30000	<0.18	<0.17	<0.17	7.4	0.50 J	<0.18	<0.18	<0.16	<0.17	<0.15	0.60 J
1,1-Dichloroethene	500000	500000	1.0 J	<0.33	<0.32	34.5	<0.31	<0.34	<0.34	<0.30	<0.32	0.63 J	4.2 J
cis-1,2-Dichloroethene	500000	500000	<0.24	<0.24	<0.23	10.2	1.1 J	<0.24	<0.24	<0.21	<0.23	2.4 J	0.85 J
trans-1,2-Dichloroethene	500000	500000	<0.32	<0.31	<0.29	3.2 J	0.58 J	<0.31	<0.32	<0.28	<0.30	2.1 J	0.58 J
1,2-Dichloroethene (total)	NS	NS	<0.24	<0.24	<0.23	13.4	1.6 J	<0.24	<0.24	<0.21	<0.23	4.4 J	1.4 J
1,2-Dichloropropane	NS	NS	<0.21	<0.20	<0.19	<0.20	<0.19	<0.20	<0.20	<0.18	<0.19	<0.17	<0.20
cis-1,3-Dichloropropene	NS	NS	<0.19	<0.18	<0.17	<0.18	<0.17	<0.18	<0.18	<0.16	<0.17	<0.15	<0.18
trans-1,3-Dichloropropene	NS	NS	<0.21	<0.20	<0.19	<0.20	<0.19	<0.20	<0.21	<0.18	<0.19	<0.17	<0.20
Ethylbenzene	390000	390000	<0.35	<0.34	<0.33	<0.33	0.73 J	<0.35	<0.35	<0.31	<0.33	<0.29	<0.34
2-Hexanone	NS	NS	<0.83	<0.80	<0.77	<0.79	<0.75	<0.82	<0.83	<0.72	<0.78	<0.69	<0.80
Methyl Tert Butyl Ether	500000	500000	<0.31	<0.30	<0.29	<0.30	<0.28	<0.31	<0.31	<0.27	<0.29	<0.26	<0.30
4-Methyl-2-pentanone(MIBK)	NS	NS	<1.0	<0.96	<0.93	<0.96	<0.91	<0.99	<1.0	<0.87	<0.94	<0.83	<0.96
Methylene chloride	500000	500000	<1.7	<1.6	<1.6	<1.6	<1.5	<1.7	<1.7	<1.5	<1.6	<1.4	<1.6
Styrene	NS	NS	<0.12	<0.12	<0.11	<0.12	<0.11	<0.12	<0.12	<0.11	<0.11	<0.10	<0.12
1,1,2,2-Tetrachloroethane	NS	NS	<0.18	<0.17	<0.16	<0.17	<0.16	<0.17	<0.18	<0.15	<0.16	<0.15	<0.17
Tetrachloroethene	150000	150000	<0.23	<0.22	<0.21	1.6 J	0.44 J	<0.23	0.54 J	<0.20	<0.21	0.59 J	0.79 J
Toluene	500000	500000	0.35 J	0.53 J	<0.13	2.7	4.1	1.1 J	1.3	<0.12	1.1 J	<0.12	0.58 J
1,1,1-Trichloroethane	680	500000	0.49 J	3.2 J	0.52 J	519	38.4	68.5	67.1	10.9	5.1	29.3	149
1,1,2-Trichloroethane	NS	NS	<0.23	<0.22	<0.22	3.8 J	4.6 J	<0.23	<0.23	0.83 J	<0.22	5.9	1.5 J
Trichloroethene	200000	200000	<0.23	4.5 J	<0.22	20.5	2.4 J	2.0 J	1.5 J	2.2 J	2.5	4.0 J	4.7 J
Vinyl chloride	13000	13000	<0.19	<0.18	<0.18	2.0 J	<0.17	<0.19	<0.19	<0.17	<0.18	<0.16	<0.18
Xylene (total)	500000	500000	<0.19	<0.18	<0.17	<0.18	1.7	<0.18	<0.18	<0.16	<0.17	<0.15	<0.18
Total Confident Conc.			2.61	9.53	5.38	1598.29	67.15	74.2	74.94	13.93	11.3	50.19	187.1

Notes:  
Exceedances in Unrestricted Use SCOs highlighted in blue  
NS - no standard  
J - estimated concentration



**Table 2B**  
End-point Post-treatment Soil sample Analytical Results  
Summary of Volatile Organic Compounds

Client ID Lab Sample ID Date Sampled	NY Unrestricted Use Soil Cleanup Objectives	NY Commercial Use Soil Cleanup Objectives	1.1 (12.5-13) JB32749-4 3/27/2013 Result Q	1.1 (13-13.5) JB32749-5 3/27/2013 Result Q	1.1 (14.5-15) JB32749-6 3/27/2013 Result Q	1.2 (11-11.5) JB32749-8 3/27/2013 Result Q	1.2 (13-13.5) JB32749-7 3/27/2013 Result Q	1.2 (14-14.5) JB32749-9 3/27/2013 Result Q	2.1 (10-10.5) JB32749-12 3/27/2013 Result Q	2.1 (11.5-12) JB32749-11 3/27/2013 Result Q	2.1 (12.5-13) JB32749-10 3/27/2013 Result Q	2.2 (11-11.5) JB32749-14 3/27/2013 Result Q	2.2 (12.5-13) JB32749-13 3/27/2013 Result Q
<b>GC/MS Volatiles (µg/kg)</b>													
Acetone	500000	500000	<140	10.9 J	<2.2	30.1	27.2	<350	22.6	62.4	<130	<3800	<140
Benzene	44000	44000	<9.9	<0.14	<0.15	<0.17	<0.17	<25	<0.23	0.66 J	<9.1	<270	<10
Bromodichloromethane	NS	NS	<8.7	<0.12	<0.14	<0.15	<0.15	<22	<0.20	<0.17	<8.1	<230	<8.9
Bromoform	NS	NS	<13	<0.17	<0.20	<0.22	<0.21	<31	<0.29	<0.25	<12	<340	<13
Bromomethane	NS	NS	<23	<0.31	<0.36	<0.40	<0.38	<56	<0.52	<0.45	<21	<610	<23
2-Butanone (MEK)	500000	500000	<200	<2.8	<3.1	21.8	29.0	<490	<4.5	47.9	893	<5300	<200
Carbon disulfide	NS	NS	<9.7	1.8 J	2.2 J	1.5 J	1.1 J	<24	1.9 J	3.4 J	48.1 J	<260	<10
Carbon tetrachloride	22000	22000	<11	<0.15	<0.17	<0.19	<0.19	<27	<0.25	<0.22	<10	<300	<11
Chlorobenzene	500000	500000	<9.0	<0.12	<0.14	<0.16	<0.15	<22	<0.21	<0.18	<8.3	<240	<9.2
Chloroethane	NS	NS	<19	25.4	54.7	659 J	480 J	2960	14.5	5230	3530	<510	<19
Chloroform	350000	350000	<6.9	<0.095	<0.11	<0.12	<0.12	<17	5.6 J	<0.14	<6.3	<180	<7.0
Chloromethane	NS	NS	<15	<0.21	<0.24	<0.27	<0.26	<38	<0.35	<0.31	<14	<410	<16
Dibromochloromethane	NS	NS	<14	<0.19	<0.21	<0.24	<0.23	<34	<0.31	<0.27	<13	<370	<14
1,1-Dichloroethane	240000	240000	1080	183	79.4	6220	3950	34000	121	11100	34900	6040 J	3660
1,2-Dichloroethane	30000	30000	232	1.0 J	<0.18	11.9	14.2	786	20.7	27.7	1590	<300	179
1,1-Dichloroethene	500000	500000	1140	32.0	15.3	85.3	41.7	1620	42.7	70.5	2150	14000	2310
cis-1,2-Dichloroethene	500000	500000	83.2 J	<0.21	<0.24	0.63 J	0.77 J	<38	7.9 J	10.1	374 J	<410	31.6 J
trans-1,2-Dichloroethene	500000	500000	101 J	<0.27	1.3 J	<0.35	0.47 J	<49	6.5 J	6.1 J	294 J	<530	<20
1,2-Dichloroethene (total)	NS	NS	184 J	<0.21	1.3 J	0.63 J	1.2 J	<38	14.3	16.1	668	<410	31.6 J
1,2-Dichloropropane	NS	NS	<13	<0.18	<0.20	<0.22	<0.22	<32	<0.29	<0.25	<12	<340	<13
cis-1,3-Dichloropropene	NS	NS	<12	<0.16	<0.18	<0.20	<0.19	<29	<0.26	<0.23	<11	<310	<12
trans-1,3-Dichloropropene	NS	NS	<13	<0.18	<0.20	<0.23	<0.22	<32	<0.29	<0.26	<12	<350	<13
Ethylbenzene	390000	390000	<22	<0.30	<0.34	0.80 J	<0.37	<54	2.0	<0.44	<20	<590	<22
2-Hexanone	NS	NS	<52	<0.72	<0.81	<0.90	<0.87	<130	<1.2	<1.0	<48	<1400	<53
Methyl Tert Butyl Ether	500000	500000	<20	<0.27	<0.31	<0.34	<0.33	<48	<0.45	<0.39	<18	<520	<20
4-Methyl-2-pentanone(MIBK)	NS	NS	<62	<0.86	<0.98	<1.1	<1.1	<150	<1.4	<1.2	<58	<1700	<64
Methylene chloride	500000	500000	<110	4.4 J	2.1 J	5.2 J	2.8 J	<260	6.5 J	4.5 J	<97	<2800	<110
Styrene	NS	NS	<7.6	<0.11	<0.12	<0.13	<0.13	<19	<0.17	<0.15	<7.0	<200	<7.8
1,1,2,2-Tetrachloroethane	NS	NS	<11	<0.15	<0.17	<0.19	<0.18	<27	<0.25	<0.22	<10	<290	<11
Tetrachloroethene	150000	150000	37.9 J	<0.20	<0.22	<0.25	<0.24	<35	2.3 J	2.3 J	288 J	<380	58.5 J
Toluene	500000	500000	109	0.43 J	1.0 J	2.3	5.7	184 J	4.6	5.6	2280	1600 J	284
1,1,1-Trichloroethane	680	500000	18700	2860	144	1560	2130	4690	12600	179	42300	398000	70700
1,1,2-Trichloroethane	NS	NS	<14	<0.20	<0.23	0.57 J	0.84 J	<36	3.0 J	3.0 J	39.1 J	<390	<15
Trichloroethene	200000	200000	1130	0.81 J	0.90 J	1.6 J	0.89 J	<36	32.1	19.5	1180	2040 J	337 J
Vinyl chloride	13000	13000	<12	<0.17	0.77 J	7.9	10.9	<30	<0.27	12.9	<11	<320	<12
Xylene (total)	500000	500000	<12	<0.16	<0.18	0.65 J	<0.19	<29	8.4	<0.23	83.5	<310	<12
Total Confident Conc.			22797.1	3119.74	302.97	8609.88	6696.77	44240	12916.6	16801.66	90617.7	421680	77591.7

Notes:  
Exceedances in Unrestricted Use SCOs highlighted in blue  
NS - no standard  
J - estimated concentration



**Table 2B**  
End-point Post-treatment Soil sample Analytical Results  
Summary of Volatile Organic Compounds

Client ID Lab Sample ID Date Sampled	NY Unrestricted Use Soil Cleanup Objectives	NY Commercial Use Soil Cleanup Objectives	2.2 (14-14.5) JB32749-15 3/27/2013 Result Q	3 (12.5-13) JB32749-18 3/27/2013 Result Q	3 (13.5-14) JB32749-16 3/27/2013 Result Q	3 (14.5-15) JB32749-17 3/27/2013 Result Q	4 (10-10.5) JB32749-20 3/27/2013 Result Q	4 (11-11.5) JB32749-19 3/27/2013 Result Q	4 (14.5-15) JB32749-21 3/27/2013 Result Q	5 (13.5-14) JB32749-22 3/27/2013 Result Q	5 (14-14.5) JB32749-23 3/27/2013 Result Q	5 (14.5-15) JB32749-24 3/27/2013 Result Q	6 (11.5-12) JB32749-25 3/27/2013 Result Q	6 (12.5-13) JB32749-26 3/27/2013 Result Q
<b>GC/MS Volatiles (µg/kg)</b>														
Acetone	500000	500000	82.2	<200	<190	<130	13.0 J	10.9	14.6	4.6 J	19.2	37.1	<2.2	4.9 J
Benzene	44000	44000	<0.097	<14	<13	<8.8	<0.23	<0.10	<0.15	<0.14	<0.11	<0.12	<0.16	<0.12
Bromodichloromethane	NS	NS	<0.086	<13	<12	<7.8	<0.20	<0.088	<0.13	<0.12	<0.10	<0.11	<0.14	<0.11
Bromoform	NS	NS	<0.12	<18	<17	<11	<0.29	<0.13	<0.19	<0.18	<0.15	<0.16	<0.20	<0.15
Bromomethane	NS	NS	<0.22	<33	<30	<20	<0.52	<0.23	<0.35	<0.32	<0.26	<0.29	<0.36	<0.28
2-Butanone (MEK)	500000	500000	129	<290	<270	<180	<4.6	<2.0	40.1	<2.8	<2.3	<2.5	<3.1	<2.4
Carbon disulfide	NS	NS	1.9 J	<14	<13	<8.7	1.3 J	1.1 J	<0.15	<0.14	0.65 J	<0.12	<0.15	<0.12
Carbon tetrachloride	22000	22000	<0.11	<16	<15	<9.9	<0.25	<0.11	<0.17	<0.16	<0.13	<0.14	<0.17	<0.14
Chlorobenzene	500000	500000	<0.088	<13	<12	<8.0	<0.21	<0.090	<0.14	<0.13	<0.10	<0.11	<0.14	<0.11
Chloroethane	NS	NS	46.2	94.4 J	143 J	953	<0.43	3.4 J	1190	<0.27	0.91 J	1.3 J	<0.30	<0.23
Chloroform	350000	350000	<0.067	<10	<9.2	<6.1	0.50 J	<0.069	<0.10	<0.097	<0.079	<0.086	<0.11	<0.084
Chloromethane	NS	NS	<0.15	<23	<21	<14	<0.36	<0.16	<0.24	<0.22	<0.18	<0.19	<0.24	<0.19
Dibromochloromethane	NS	NS	<0.13	<20	<18	<12	<0.31	<0.14	<0.21	<0.19	<0.16	<0.17	<0.21	<0.17
1,1-Dichloroethane	240000	240000	12100	410 J	459 J	5820	9.6	2000	6470	15.0	42.9	54.3	<0.18	2.0 J
1,2-Dichloroethane	30000	30000	34.0	134	<15	165	2.3	4.4	<0.17	1.2	<0.13	<0.14	<0.18	2.8
1,1-Dichloroethene	500000	500000	72.4	659	293 J	423	31.4	1650	0.43 J	9.3	21.4	30.8	<0.34	6.1
cis-1,2-Dichloroethene	500000	500000	3.7 J	104 J	<20	44.6 J	1.0 J	2.6 J	<0.23	0.36 J	<0.18	0.33 J	<0.24	1.2 J
trans-1,2-Dichloroethene	500000	500000	0.86 J	108 J	<27	81.2 J	0.67 J	0.43 J	<0.30	<0.28	<0.23	<0.25	<0.31	1.2 J
1,2-Dichloroethene (total)	NS	NS	4.6	212 J	<20	126 J	1.7 J	3.0 J	<0.23	0.36 J	<0.18	0.33 J	<0.24	2.4 J
1,2-Dichloropropane	NS	NS	<0.13	<19	<17	<11	<0.29	<0.13	<0.20	<0.18	<0.15	<0.16	<0.20	<0.16
cis-1,3-Dichloropropene	NS	NS	<0.11	<17	<16	<10	<0.27	<0.12	<0.18	<0.16	<0.13	<0.15	<0.18	<0.14
trans-1,3-Dichloropropene	NS	NS	<0.13	<19	<17	<11	<0.30	<0.13	<0.20	<0.18	<0.15	<0.16	<0.20	<0.16
Ethylbenzene	390000	390000	<0.21	<32	<29	<20	<0.50	<0.22	<0.33	<0.31	<0.25	<0.28	<0.34	<0.27
2-Hexanone	NS	NS	<0.51	<75	<69	<46	<1.2	<0.52	<0.79	<0.73	<0.60	<0.65	<0.81	<0.64
Methyl Tert Butyl Ether	500000	500000	<0.19	<28	<26	<17	<0.45	<0.20	<0.30	<0.28	<0.23	<0.25	<0.31	<0.24
4-Methyl-2-pentanone(MIBK)	NS	NS	<0.61	<91	<84	<56	<1.4	<0.63	<0.95	<0.89	<0.72	<0.79	<0.98	<0.77
Methylene chloride	500000	500000	2.8 J	<150	<140	<94	15.1	4.0 J	12.4	2.7 J	<1.2	1.6 J	2.9 J	4.1 J
Styrene	NS	NS	<0.075	<11	<10	<6.8	<0.18	<0.077	<0.12	<0.11	<0.088	<0.096	<0.12	<0.094
1,1,2,2-Tetrachloroethane	NS	NS	<0.11	<16	<15	<9.8	<0.25	<0.11	<0.17	<0.16	<0.13	<0.14	<0.17	<0.13
Tetrachloroethene	150000	150000	<0.14	<21	<19	<13	0.99 J	<0.14	<0.22	<0.20	<0.17	<0.18	<0.23	<0.18
Toluene	500000	500000	1.4	<13	36.2 J	462	<0.20	<0.088	<0.13	<0.12	<0.10	<0.11	<0.14	<0.11
1,1,1-Trichloroethane	680	500000	617 J	1270	1500	2320	89.0	88.1	3.9 J	3480	1220	2090	2.9 J	41.5
1,1,2-Trichloroethane	NS	NS	1.6 J	<21	<19	<13	<0.33	<0.15	<0.22	0.44 J	<0.17	<0.18	<0.23	<0.18
Trichloroethene	200000	200000	0.39 J	279 J	175 J	55.3 J	3.5 J	0.45 J	<0.22	2.0 J	<0.17	<0.18	<0.23	5.0 J
Vinyl chloride	13000	13000	3.4 J	<17	<16	<11	<0.28	1.8 J	2.4 J	<0.17	1.3 J	1.2 J	<0.19	<0.15
Xylene (total)	500000	500000	<0.11	<17	<16	<10	<0.27	<0.12	<0.18	<0.16	<0.13	<0.15	<0.18	<0.14
Total Confident Conc.			13101.45	3270.4	2606.2	10450.1	170.06	3770.18	7733.83	3515.96	1306.36	2216.96	5.8	71.2

Notes:

Exceedances in Unrestricted Use SCOs highlighted in blue

NS - no standard

J - estimated concentration





**Table 2B**  
End-point Post-treatment Soil sample Analytical Results  
Summary of Volatile Organic Compounds

Client ID Lab Sample ID Date Sampled	NY Unrestricted Use Soil Cleanup Objectives	NY Commercial Use Soil Cleanup Objectives	6 (14.5-15) JB32749-27 3/27/2013 Result Q	FD-1 6(11.5-12) JB32749-28 3/27/2013 Result Q	FD-2 6(14.5-15) JB32749-29 3/27/2013 Result Q
<b>GC/MS Volatiles (µg/kg)</b>					
Acetone	500000	500000	<2.0	<1.8	<1.2
Benzene	44000	44000	<0.14	<0.13	<0.085
Bromodichloromethane	NS	NS	<0.12	<0.11	<0.075
Bromoform	NS	NS	<0.18	<0.16	<0.11
Bromomethane	NS	NS	<0.32	<0.29	<0.20
2-Butanone (MEK)	500000	500000	<2.8	<2.6	<1.7
Carbon disulfide	NS	NS	<0.14	<0.13	<0.084
Carbon tetrachloride	22000	22000	<0.16	<0.14	<0.095
Chlorobenzene	500000	500000	<0.13	<0.12	<0.078
Chloroethane	NS	NS	<0.27	<0.24	<0.16
Chloroform	350000	350000	<0.097	<0.089	<0.059
Chloromethane	NS	NS	<0.22	<0.20	<0.13
Dibromochloromethane	NS	NS	<0.19	<0.18	<0.12
1,1-Dichloroethane	240000	240000	3.5 J	<0.15	0.71 J
1,2-Dichloroethane	30000	30000	<0.16	<0.15	<0.097
1,1-Dichloroethene	500000	500000	<0.30	<0.28	<0.18
cis-1,2-Dichloroethene	500000	500000	<0.21	<0.20	<0.13
trans-1,2-Dichloroethene	500000	500000	<0.28	<0.26	<0.17
1,2-Dichloroethene (total)	NS	NS	<0.21	<0.20	<0.13
1,2-Dichloropropane	NS	NS	<0.18	<0.17	<0.11
cis-1,3-Dichloropropene	NS	NS	<0.16	<0.15	<0.10
trans-1,3-Dichloropropene	NS	NS	<0.18	<0.17	<0.11
Ethylbenzene	390000	390000	<0.31	<0.28	<0.19
2-Hexanone	NS	NS	<0.73	<0.67	<0.45
Methyl Tert Butyl Ether	500000	500000	<0.28	<0.25	<0.17
4-Methyl-2-pentanone(MIBK)	NS	NS	<0.88	<0.81	<0.54
Methylene chloride	500000	500000	<1.5	3.2 J	<0.91
Styrene	NS	NS	<0.11	<0.099	<0.066
1,1,2,2-Tetrachloroethane	NS	NS	<0.15	<0.14	<0.095
Tetrachloroethene	150000	150000	<0.20	<0.18	<0.12
Toluene	500000	500000	<0.12	<0.11	<0.075
1,1,1-Trichloroethane	680	500000	0.93 J	3.6 J	3.6
1,1,2-Trichloroethane	NS	NS	<0.20	<0.19	<0.12
Trichloroethene	200000	200000	<0.20	0.89 J	<0.12
Vinyl chloride	13000	13000	<0.17	<0.15	<0.10
Xylene (total)	500000	500000	<0.16	<0.15	<0.10
Total Confident Conc.			4.43	7.69	4.31

Notes:  
Exceedances in Unrestricted Use SCOs highlighted in blue  
NS - no standard  
J - estimated concentration





**Table 3**  
**Groundwater Analytical Results**  
 AFFCO, 361 Walsh Avenue, New Windsor, NY

Client Sample ID: Lab Sample ID: Date Sampled:		Units	NY TOGS Class GA GW Standards	Pre-Excavation								Post-Excavation					
				EW-0	MW-1	E-1 NEW	IW-3	IW-1	S-8	IW-2	EW-1X	S-8	EW-0	E1-NEW	MW-1	FB041713	TRIP BLANK
				JB10868-1	JB10868-2	JB10868-3	JB10868-4	JB10868-5	JB10868-6	JB10868-7	JB34670-1	JB34670-2	JB34670-3	JB34670-4	JB34670-5	JB34670-6	JB34670-7
Matrix:				7/10/2012	7/10/2012	7/10/2012	7/10/2012	7/10/2012	7/10/2012	7/10/2012	4/17/2013	4/17/2013	4/17/2013	4/17/2013	4/17/2013	4/17/2013	4/17/2013
				Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Field Blank	Trip Blank
<b>GC/MS Volatiles (SW846 8260B)</b>																	
Acetone	ug/l	-		ND (330)	ND (8.2)	ND (3.3)	7980	143	J ND (3.3)	1600	ND (33)	ND (3.3)	ND (3.3)	ND (3.3)	ND (16)	ND (3.3)	ND (3.3)
Benzene	ug/l	1		ND (24)	ND (0.59)	ND (0.24)	ND (12)	ND (4.7)	ND (0.24)	ND (5.9)	ND (2.4)	ND (0.24)	ND (0.24)	ND (0.24)	ND (1.2)	ND (0.24)	ND (0.24)
Bromodichloromethane	ug/l	-		ND (21)	ND (0.52)	ND (0.21)	ND (10)	ND (4.1)	ND (0.21)	ND (5.2)	ND (2.1)	ND (0.21)	ND (0.21)	ND (0.21)	ND (1.0)	ND (0.21)	ND (0.21)
Bromoform	ug/l	-		ND (21)	ND (0.54)	ND (0.21)	ND (11)	ND (4.3)	ND (0.21)	ND (5.4)	ND (2.1)	ND (0.21)	ND (0.21)	ND (0.21)	ND (1.1)	ND (0.21)	ND (0.21)
Bromomethane	ug/l	5		ND (22)	ND (0.55)	ND (0.22)	ND (11)	ND (4.4)	ND (0.22)	ND (5.5)	ND (2.2)	ND (0.22)	ND (0.22)	ND (0.22)	ND (1.1)	ND (0.22)	ND (0.22)
2-Butanone (MEK)	ug/l	-		ND (240)	ND (5.9)	ND (2.4)	18900	114	J ND (2.4)	4210	ND (24)	ND (2.4)	14.1	ND (2.4)	ND (12)	ND (2.4)	ND (2.4)
Carbon disulfide	ug/l	60		ND (19)	ND (0.47)	ND (0.19)	ND (9.5)	ND (3.8)	ND (0.19)	ND (4.7)	ND (1.9)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.95)	ND (0.19)	ND (0.19)
Carbon tetrachloride	ug/l	5		ND (22)	ND (0.54)	ND (0.22)	ND (11)	ND (4.3)	ND (0.22)	ND (5.4)	ND (2.2)	ND (0.22)	ND (0.22)	ND (0.22)	ND (1.1)	ND (0.22)	ND (0.22)
Chlorobenzene	ug/l	5		ND (23)	ND (0.57)	ND (0.23)	ND (11)	ND (4.6)	ND (0.23)	ND (5.7)	ND (2.3)	ND (0.23)	ND (0.23)	ND (0.23)	ND (1.1)	ND (0.23)	ND (0.23)
Chloroethane	ug/l	5		<b>1240</b>	<b>641</b>	ND (0.26)	<b>90.3</b>	<b>904</b>	<b>57</b>	<b>80.6</b>	ND (2.6)	ND (0.26)	<b>334</b>	<b>73.9</b>	<b>136</b>	ND (0.26)	ND (0.26)
Chloroform	ug/l	7		ND (20)	ND (0.51)	ND (0.20)	ND (10)	ND (4.1)	ND (0.20)	ND (5.1)	ND (2.0)	ND (0.20)	1.2	ND (0.20)	3.1	J ND (0.20)	ND (0.20)
Chloromethane	ug/l	5		ND (21)	ND (0.52)	ND (0.21)	ND (10)	ND (4.1)	ND (0.21)	ND (5.2)	ND (2.1)	ND (0.21)	ND (0.21)	ND (0.21)	ND (1.0)	ND (0.21)	ND (0.21)
Dibromochloromethane	ug/l	-		ND (14)	ND (0.34)	ND (0.14)	ND (6.8)	ND (2.7)	ND (0.14)	ND (3.4)	ND (1.4)	ND (0.14)	ND (0.14)	ND (0.14)	ND (0.68)	ND (0.14)	ND (0.14)
1,1-Dichloroethane	ug/l	5		<b>36100</b>	<b>146</b>	<b>18</b>	<b>119</b>	<b>2540</b>	<b>145</b>	<b>327</b>	<b>22.9</b>	<b>11.8</b>	<b>2540</b>	<b>154</b>	<b>438</b>	ND (0.11)	ND (0.11)
1,2-Dichloroethane	ug/l	0.6		<b>233</b>	<b>4.8</b>	<b>1.7</b>	ND (13)	<b>60.5</b>	<b>0.64</b>	J ND (6.5)	ND (2.6)	<b>0.7</b>	J <b>17.5</b>	ND (0.26)	<b>5.2</b>	ND (0.26)	ND (0.26)
1,1-Dichloroethene	ug/l	5		<b>562</b>	<b>6</b>	4.5	<b>22.4</b>	J <b>69.2</b>	4.1	<b>28.3</b>	ND (1.9)	3.5	<b>144</b>	5	<b>36.6</b>	ND (0.19)	ND (0.19)
cis-1,2-Dichloroethene	ug/l	5		ND (19)	0.73	J 0.78	J ND (9.4)	<b>7.3</b>	J 0.21	J ND (4.7)	ND (1.9)	0.54	J 2.8	ND (0.19)	ND (0.94)	ND (0.19)	ND (0.19)
trans-1,2-Dichloroethene	ug/l	5		ND (21)	ND (0.53)	0.33	J ND (11)	ND (4.2)	ND (0.21)	ND (5.3)	ND (2.1)	ND (0.21)	2.2	ND (0.21)	ND (1.1)	ND (0.21)	ND (0.21)
1,2-Dichloroethene (total)	ug/l	-		ND (19)	0.73	J 1.1	ND (9.4)	7.3	J 0.21	J ND (4.7)	ND (1.9)	0.54	J 5	ND (0.19)	ND (0.94)	ND (0.19)	ND (0.19)
1,2-Dichloropropane	ug/l	1		ND (48)	ND (1.2)	ND (0.48)	ND (24)	ND (9.7)	ND (0.48)	ND (12)	ND (4.8)	ND (0.48)	ND (0.48)	ND (0.48)	ND (2.4)	ND (0.48)	ND (0.48)
cis-1,3-Dichloropropene	ug/l	-		ND (21)	ND (0.52)	ND (0.21)	ND (10)	ND (4.1)	ND (0.21)	ND (5.2)	ND (2.1)	ND (0.21)	ND (0.21)	ND (0.21)	ND (1.0)	ND (0.21)	ND (0.21)
trans-1,3-Dichloropropene	ug/l	-		ND (19)	ND (0.47)	ND (0.19)	ND (9.5)	ND (3.8)	ND (0.19)	ND (4.7)	ND (1.9)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.95)	ND (0.19)	ND (0.19)
Ethylbenzene	ug/l	5		ND (23)	ND (0.57)	ND (0.23)	ND (11)	ND (4.6)	ND (0.23)	ND (5.7)	ND (2.3)	ND (0.23)	ND (0.23)	ND (0.23)	ND (1.1)	ND (0.23)	ND (0.23)
2-Hexanone	ug/l	-		ND (110)	ND (2.8)	ND (1.1)	ND (57)	ND (23)	ND (1.1)	ND (28)	ND (11)	ND (1.1)	ND (1.1)	ND (1.1)	ND (5.7)	ND (1.1)	ND (1.1)
Methyl Tert Butyl Ether	ug/l	10		ND (16)	ND (0.41)	ND (0.16)	ND (8.2)	ND (3.3)	ND (0.16)	ND (4.1)	ND (1.6)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.82)	ND (0.16)	ND (0.16)
4-Methyl-2-pentanone(MIBK)	ug/l	-		ND (83)	ND (2.1)	ND (0.83)	ND (41)	ND (17)	ND (0.83)	ND (21)	ND (8.3)	ND (0.83)	ND (0.83)	ND (0.83)	ND (4.1)	ND (0.83)	ND (0.83)
Methylene chloride	ug/l	5		ND (70)	ND (1.8)	ND (0.70)	ND (35)	ND (14)	ND (0.70)	ND (18)	ND (7.0)	ND (0.70)	ND (0.70)	ND (0.70)	ND (3.5)	ND (0.70)	ND (0.70)
Styrene	ug/l	5		ND (21)	ND (0.54)	ND (0.21)	ND (11)	ND (4.3)	ND (0.21)	ND (5.4)	ND (2.1)	ND (0.21)	ND (0.21)	ND (0.21)	ND (1.1)	ND (0.21)	ND (0.21)
1,1,2,2-Tetrachloroethane	ug/l	5		ND (21)	ND (0.54)	ND (0.21)	ND (11)	ND (4.3)	ND (0.21)	ND (5.4)	ND (2.1)	ND (0.21)	ND (0.21)	ND (0.21)	ND (1.1)	ND (0.21)	ND (0.21)
Tetrachloroethene	ug/l	5		ND (28)	ND (0.70)	ND (0.28)	ND (14)	ND (5.6)	ND (0.28)	ND (7.0)	ND (2.8)	ND (0.28)	0.6	J ND (0.28)	ND (1.4)	ND (0.28)	ND (0.28)
Toluene	ug/l	5		<b>60.5</b>	J ND (0.57)	ND (0.23)	ND (11)	ND (4.5)	ND (0.23)	ND (5.7)	ND (2.3)	ND (0.23)	<b>8</b>	ND (0.23)	1.6	J ND (0.23)	ND (0.23)
1,1,1-Trichloroethane	ug/l	5		<b>48300</b>	<b>82.4</b>	2	<b>312</b>	<b>1420</b>	<b>30.5</b>	<b>891</b>	ND (2.4)	1.4	<b>8630</b>	<b>48.4</b>	<b>1560</b>	ND (0.24)	ND (0.24)
1,1,2-Trichloroethane	ug/l	1		<b>34.5</b>	J ND (0.72)	ND (0.29)	ND (14)	ND (5.7)	ND (0.29)	ND (7.2)	ND (2.9)	ND (0.29)	<b>2.3</b>	ND (0.29)	ND (1.4)	ND (0.29)	ND (0.29)
Trichloroethene	ug/l	5		ND (22)	1.6	J 1.7	ND (11)	<b>8.7</b>	J ND (0.22)	ND (5.4)	ND (2.2)	1.1	4	ND (0.22)	<b>6.2</b>	ND (0.22)	ND (0.22)
Vinyl chloride	ug/l	2		ND (21)	2	J 0.65	J ND (10)	ND (4.1)	0.65 J	ND (5.2)	ND (2.1)	ND (0.21)	<b>4.8</b>	ND (0.21)	ND (1.0)	ND (0.21)	ND (0.21)
Xylene (total)	ug/l	5		ND (24)	ND (0.60)	ND (0.24)	ND (12)	ND (4.8)	ND (0.24)	ND (6.0)	ND (2.4)	ND (0.24)	ND (0.24)	ND (0.24)	ND (1.2)	ND (0.24)	ND (0.24)
<b>Metals Analysis</b>																	
Iron	ug/l	300		-	-	-	-	-	-	-	<b>934000</b>	<b>5790</b>	<b>546</b>	<b>804</b>	<b>805</b>	<b>18500</b>	-
<b>General Chemistry</b>																	
Alkalinity, Total as CaCO3	mg/l	-		-	-	-	-	-	-	-	89.2	111	124	260	274	<5.0	-
Chloride	mg/l	250		-	-	-	-	-	-	-	52.6	43.8	114	37.1	57.1	<2.0	-
Sulfate	mg/l	250		-	-	-	-	-	-	-	29.2	17.2	93.8	<10	104	<10	-
Sulfide	mg/l	-		-	-	-	-	-	-	-	-	<2.0	<2.0	<2.0	<2.0	<2.0	-

**Notes**

Exceedances **bolded** and highlighted in gray

ND - concentration is non-detectable

J - value is estimated

Sample JB10868-3 was originally mislabeled 'E-1 NAW'

Sample JB34670-4 was originally mislabeled 'E-1 N'

Sample JB34670-5 was originally mislabeled 'MW-1N'

# **APPENDIX A**

## **Environmental Easement, Metes & Bounds Description and Survey Map**



ORANGE COUNTY – STATE OF NEW YORK  
ANN G. RABBITT, COUNTY CLERK  
255 MAIN STREET  
GOSHEN, NEW YORK 10924

COUNTY CLERK'S RECORDING PAGE  
\*\*\*THIS PAGE IS PART OF THE DOCUMENT – DO NOT DETACH\*\*\*



BOOK/PAGE: 14291 / 601  
INSTRUMENT #: 20170066308

Receipt#: 2381301  
Clerk: JM  
Rec Date: 09/15/2017 12:16:02 PM  
Doc Grp: D  
Descrip: RT WY  
Num Pgs: 10  
Rec'd Frm: FIRST AMERICAN TITLE INS CO

Party1: AMERICAN FELT & FILTER CO INC  
Party2: NYS DEPT OF ENVIRONMENTAL  
CONSERVATION  
Town: NEW WINDSOR (TN)  
9-1-69.2

Recording:

Recording Fee	70.00
Cultural Ed	14.25
Records Management - Coun	1.00
Records Management - Stat	4.75
TP584	5.00

Sub Total: 95.00

Transfer Tax  
Transfer Tax - State 0.00

Sub Total: 0.00

Total: 95.00

\*\*\*\* NOTICE: THIS IS NOT A BILL \*\*\*\*

\*\*\*\*\* Transfer Tax \*\*\*\*\*  
Transfer Tax #: 1693  
Transfer Tax  
Consideration: 0.00

Total: 0.00

Payment Type: Check \_\_\_\_\_  
Cash \_\_\_\_\_  
Charge \_\_\_\_\_  
No Fee \_\_\_\_\_

Comment: \_\_\_\_\_

Ann G. Rabbitt  
Orange County Clerk

Record and Return To:

FIRST AMERICAN TITLE INS CO  
666 THIRD AVE  
5TH FLOOR  
NEW YORK, NY 10017

**ENVIRONMENTAL EASEMENT GRANTED PURSUANT TO ARTICLE 71, TITLE 36  
OF THE NEW YORK STATE ENVIRONMENTAL CONSERVATION LAW**

**THIS INDENTURE** made this 23<sup>rd</sup> day of August, 2017, between Owner(s) American Felt & Filter Company, Inc., having an office at 361 Walsh Avenue, New Windsor, New York 12553, County of Orange, State of New York (the "Grantor"), and The People of the State of New York (the "Grantee."), acting through their Commissioner of the Department of Environmental Conservation (the "Commissioner", or "NYSDEC" or "Department" as the context requires) with its headquarters located at 625 Broadway, Albany, New York 12233,

**WHEREAS**, the Legislature of the State of New York has declared that it is in the public interest to encourage the remediation of abandoned and likely contaminated properties ("sites") that threaten the health and vitality of the communities they burden while at the same time ensuring the protection of public health and the environment; and

**WHEREAS**, the Legislature of the State of New York has declared that it is in the public interest to establish within the Department a statutory environmental remediation program that includes the use of Environmental Easements as an enforceable means of ensuring the performance of operation, maintenance, and/or monitoring requirements and the restriction of future uses of the land, when an environmental remediation project leaves residual contamination at levels that have been determined to be safe for a specific use, but not all uses, or which includes engineered structures that must be maintained or protected against damage to perform properly and be effective, or which requires groundwater use or soil management restrictions; and

**WHEREAS**, the Legislature of the State of New York has declared that Environmental Easement shall mean an interest in real property, created under and subject to the provisions of Article 71, Title 36 of the New York State Environmental Conservation Law ("ECL") which contains a use restriction and/or a prohibition on the use of land in a manner inconsistent with engineering controls which are intended to ensure the long term effectiveness of a site remedial program or eliminate potential exposure pathways to hazardous waste or petroleum; and

**WHEREAS**, Grantor, is the owner of real property located at the address of 361 Walsh Avenue in the Town of New Windsor, County of Orange and State of New York, known and designated on the tax map of the County Clerk of Orange as tax map parcel numbers: Section 9 Block 1 Lot 69.2, being a portion of the property conveyed to Grantor by deed dated July 31, 1978 and recorded in the Orange County Clerk's Office in Liber and Page 2106/655. The property subject to this Environmental Easement (the "Controlled Property") comprises approximately 0.545 +/- acres, and is hereinafter more fully described in the Land Title Survey dated April 17, 1998 and last revised June 26, 2017 prepared by Steven P. Drabick, P.L.S., which will be attached to the Site Management Plan. The Controlled Property description is set forth in and attached hereto as Schedule A; and

**WHEREAS**, the Department accepts this Environmental Easement in order to ensure the protection of public health and the environment and to achieve the requirements for remediation established for the Controlled Property until such time as this Environmental Easement is

9-1-69.2

extinguished pursuant to ECL Article 71, Title 36; and

**NOW THEREFORE**, in consideration of the mutual covenants contained herein and the terms and conditions of Order on Consent Index Number: W3-0784-04-06, Grantor conveys to Grantee a permanent Environmental Easement pursuant to ECL Article 71, Title 36 in, on, over, under, and upon the Controlled Property as more fully described herein ("Environmental Easement").

1. Purposes. Grantor and Grantee acknowledge that the Purposes of this Environmental Easement are: to convey to Grantee real property rights and interests that will run with the land in perpetuity in order to provide an effective and enforceable means of encouraging the reuse and redevelopment of this Controlled Property at a level that has been determined to be safe for a specific use while ensuring the performance of operation, maintenance, and/or monitoring requirements; and to ensure the restriction of future uses of the land that are inconsistent with the above-stated purpose.

2. Institutional and Engineering Controls. The controls and requirements listed in the Department approved Site Management Plan ("SMP") including any and all Department approved amendments to the SMP are incorporated into and made part of this Environmental Easement. These controls and requirements apply to the use of the Controlled Property, run with the land, are binding on the Grantor and the Grantor's successors and assigns, and are enforceable in law or equity against any owner of the Controlled Property, any lessees and any person using the Controlled Property.

A. (1) The Controlled Property may be used for:

**Commercial as described in 6 NYCRR Part 375-1.8(g)(2)(iii) and Industrial as described in 6 NYCRR Part 375-1.8(g)(2)(iv)**

(2) All Engineering Controls must be operated and maintained as specified in the Site Management Plan (SMP);

(3) All Engineering Controls must be inspected at a frequency and in a manner defined in the SMP;

(4) The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the Orange County Department of Health to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department;

(5) Groundwater and other environmental or public health monitoring must be performed as defined in the SMP;

(6) Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in the SMP;

(7) All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP;

(8) Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in the SMP;

(9) Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy shall be performed as defined in the SMP;

(10) Access to the site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by this Environmental Easement.

B. The Controlled Property shall not be used for Residential or Restricted Residential purposes as defined in 6NYCRR 375-1.8(g)(2)(i) and (ii), and the above-stated engineering controls may not be discontinued without an amendment or extinguishment of this Environmental Easement.

C. The SMP describes obligations that the Grantor assumes on behalf of Grantor, its successors and assigns. The Grantor's assumption of the obligations contained in the SMP which may include sampling, monitoring, and/or operating a treatment system, and providing certified reports to the NYSDEC, is and remains a fundamental element of the Department's determination that the Controlled Property is safe for a specific use, but not all uses. The SMP may be modified in accordance with the Department's statutory and regulatory authority. The Grantor and all successors and assigns, assume the burden of complying with the SMP and obtaining an up-to-date version of the SMP from:

Site Control Section  
Division of Environmental Remediation  
NYSDEC  
625 Broadway  
Albany, New York 12233  
Phone: (518) 402-9553

D. Grantor must provide all persons who acquire any interest in the Controlled Property a true and complete copy of the SMP that the Department approves for the Controlled Property and all Department-approved amendments to that SMP.

E. Grantor covenants and agrees that until such time as the Environmental Easement is extinguished in accordance with the requirements of ECL Article 71, Title 36 of the ECL, the property deed and all subsequent instruments of conveyance relating to the Controlled Property shall state in at least fifteen-point bold-faced type:

**This property is subject to an Environmental Easement held by the New York State Department of Environmental Conservation pursuant to Title 36 of Article 71 of the Environmental Conservation**

## Law.

F. Grantor covenants and agrees that this Environmental Easement shall be incorporated in full or by reference in any leases, licenses, or other instruments granting a right to use the Controlled Property.

G. Grantor covenants and agrees that it shall, at such time as NYSDEC may require, submit to NYSDEC a written statement by an expert the NYSDEC may find acceptable certifying under penalty of perjury, in such form and manner as the Department may require, that:

(1) the inspection of the site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under the direction of the individual set forth at 6 NYCRR Part 375-1.8(h)(3).

(2) the institutional controls and/or engineering controls employed at such site:

(i) are in-place;

(ii) are unchanged from the previous certification, or that any identified changes to the controls employed were approved by the NYSDEC and that all controls are in the Department-approved format; and

(iii) that nothing has occurred that would impair the ability of such control to protect the public health and environment;

(3) the owner will continue to allow access to such real property to evaluate the continued maintenance of such controls;

(4) nothing has occurred that would constitute a violation or failure to comply with any site management plan for such controls;

(5) the report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

(6) to the best of his/her knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and

(7) the information presented is accurate and complete.

3. Right to Enter and Inspect. Grantee, its agents, employees, or other representatives of the State may enter and inspect the Controlled Property in a reasonable manner and at reasonable times to assure compliance with the above-stated restrictions.

4. Reserved Grantor's Rights. Grantor reserves for itself, its assigns, representatives, and successors in interest with respect to the Property, all rights as fee owner of the Property, including:

A. Use of the Controlled Property for all purposes not inconsistent with, or limited by the terms of this Environmental Easement;

B. The right to give, sell, assign, or otherwise transfer part or all of the underlying fee interest to the Controlled Property, subject and subordinate to this Environmental Easement;

## 5. Enforcement

A. This Environmental Easement is enforceable in law or equity in perpetuity by Grantor, Grantee, or any affected local government, as defined in ECL Section 71-3603, against

the owner of the Property, any lessees, and any person using the land. Enforcement shall not be defeated because of any subsequent adverse possession, laches, estoppel, or waiver. It is not a defense in any action to enforce this Environmental Easement that: it is not appurtenant to an interest in real property; it is not of a character that has been recognized traditionally at common law; it imposes a negative burden; it imposes affirmative obligations upon the owner of any interest in the burdened property; the benefit does not touch or concern real property; there is no privity of estate or of contract; or it imposes an unreasonable restraint on alienation.

B. If any person violates this Environmental Easement, the Grantee may revoke the Certificate of Completion with respect to the Controlled Property.

C. Grantee shall notify Grantor of a breach or suspected breach of any of the terms of this Environmental Easement. Such notice shall set forth how Grantor can cure such breach or suspected breach and give Grantor a reasonable amount of time from the date of receipt of notice in which to cure. At the expiration of such period of time to cure, or any extensions granted by Grantee, the Grantee shall notify Grantor of any failure to adequately cure the breach or suspected breach, and Grantee may take any other appropriate action reasonably necessary to remedy any breach of this Environmental Easement, including the commencement of any proceedings in accordance with applicable law.

D. The failure of Grantee to enforce any of the terms contained herein shall not be deemed a waiver of any such term nor bar any enforcement rights.

6. Notice. Whenever notice to the Grantee (other than the annual certification) or approval from the Grantee is required, the Party providing such notice or seeking such approval shall identify the Controlled Property by referencing the following information:

County, NYSDEC Site Number, NYSDEC Brownfield Cleanup Agreement, State Assistance Contract or Order Number, and the County tax map number or the Liber and Page or computerized system identification number.

Parties shall address correspondence to:      Site Number: 336036  
Office of General Counsel  
NYSDEC  
625 Broadway  
Albany New York 12233-5500

With a copy to:      Site Control Section  
Division of Environmental Remediation  
NYSDEC  
625 Broadway  
Albany, NY 12233

All notices and correspondence shall be delivered by hand, by registered mail or by Certified mail and return receipt requested. The Parties may provide for other means of receiving and communicating notices and responses to requests for approval.

7. Recordation. Grantor shall record this instrument, within thirty (30) days of execution of this instrument by the Commissioner or her/his authorized representative in the office of the



recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

8. Amendment. Any amendment to this Environmental Easement may only be executed by the Commissioner of the New York State Department of Environmental Conservation or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

9. Extinguishment. This Environmental Easement may be extinguished only by a release by the Commissioner of the New York State Department of Environmental Conservation, or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

10. Joint Obligation. If there are two or more parties identified as Grantor herein, the obligations imposed by this instrument upon them shall be joint and several.

**Remainder of Page Intentionally Left Blank**

IN WITNESS WHEREOF, Grantor has caused this instrument to be signed in its name.

American Felt & Filter Company, Inc.:

By: 

Print Name: Wilson H Pryne

Title: President

Date: 8/28/17

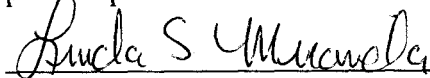
**Grantor's Acknowledgment**

STATE OF NEW YORK )

) ss:

COUNTY OF Orange )

On the 8<sup>th</sup> day of August, in the year 20 17, before me, the undersigned, personally appeared Wilson H. Pryne, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.



Notary Public - State of New York

LINDA S. MIRANDA

NOTARY PUBLIC-STATE OF NEW YORK

No. 01MI6064154

Qualified in Orange County

My Commission Expires September 17, 2017

**THIS ENVIRONMENTAL EASEMENT IS HEREBY ACCEPTED BY THE PEOPLE OF THE STATE OF NEW YORK, Acting By and Through the Department of Environmental Conservation as Designee of the Commissioner, /**

By:

Robert W. Schick, Director  
Division of Environmental Remediation

### Grantee's Acknowledgment

[illegible]

On the 23<sup>rd</sup> day of August, in the year 2017, before me, the undersigned, personally appeared Robert W. Schick, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/ executed the same in his/her/ capacity as Designee of the Commissioner of the State of New York Department of Environmental Conservation, and that by his/her/ signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

Notary Public / State of New York

**David J. Chiusano**  
**Notary Public, State of New York**  
**No. 01CH5032146**  
**Qualified in Schenectady County**  
**Commission Expires August 22, 2018**

R+R:  
First American Title  
666 Third Ave., 2nd floor  
New York, NY 10017

**SCHEDULE "A" PROPERTY DESCRIPTION**

**DESCRIPTION OF SOILS MANAGEMENT AREA & SUB-SLAB  
DEPRESSURIZATION SYSTEM, AN ENVIRONMENTAL EASEMENT TO THE NEW  
YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION**

GRANT OF EASEMENT over, across and through all that certain plot, piece or parcel of land with the building and improvements thereon erected, situate, lying and being in the Town of New Windsor, County of Orange and State of New York bounded and described as follows:

BEGINNING at a point at the northwesterly corner of the 1story masonry building of the most northerly complex of buildings located on lands of American Felt & Filter Company Inc., Liber 5730, Page 201, said point of beginning being located South 65 degrees 16 minutes 40 seconds West for a distance of 42.37 feet from a corner in the northerly bounds of lands of the same at the intersection with the municipal boundary between the City of Newburgh and Town of New Windsor and lands now or formerly of Hudson Shipyard Lp, Liber 12960, Page 1797;

THENCE South 72 degrees 57 minutes 34 seconds East for a distance of 103.33 feet along the face of said masonry building to a point;

THENCE South 17 degrees 21 minutes 13 seconds West for a distance of 68.08 feet through said masonry building to a point at the outside corner of said building;

THENCE North 72 degrees 00 minutes 00 seconds West for a distance of 51.17 feet through said masonry building to a point at the outside corner of said building;

THENCE North 72 degrees 57 minutes 52 seconds West for a distance of 51.79 feet to a point at the outside corner of said building;

THENCE South 17 degrees 02 minutes 08 seconds West for a distance of 29.25 feet to a point at the northerly face of a two-story masonry building;

THENCE North 72 degrees 32 minutes 52 seconds West for a distance of 75.55 feet along the northerly face of said building to a point at the corner of said building;

THENCE South 17 degrees 20 minutes 58 seconds West for a distance of 43.06 feet along the westerly face of the two-story masonry building to a point at the corner of said building;

THENCE North 72 degrees 34 minutes 38 seconds West for a distance of 72.17 feet along the northerly face of the two story masonry building to a point at the most northwesterly corner of said building;

THENCE North 17 degrees 02 minutes 17 seconds East for a distance of 140.76 feet through lands of American Felt & Filter Company, Inc. to a point marked by an iron rod set at or near a chain link fence;

THENCE South 67 degrees 51 minutes 22 seconds East for a distance of 123.39 feet through lands of the same and along a chain link fence to a point marked by an iron rod set;

THENCE North 87 degrees 49 minutes 18 seconds East for a distance of 26.52 feet through lands of American Felt & Filter Company, Inc. to the POINT OR PLACE OF BEGINNING.

Together with and subject to covenants, and restrictions of record.

Said area contains 0.5454 acres more or less.



ORANGE COUNTY – STATE OF NEW YORK  
ANN G. RABBITT, COUNTY CLERK  
255 MAIN STREET  
GOSHEN, NEW YORK 10924

COUNTY CLERK'S RECORDING PAGE  
\*\*\*THIS PAGE IS PART OF THE DOCUMENT – DO NOT DETACH\*\*\*



BOOK/PAGE: 14291 / 601  
INSTRUMENT #: 20170066308

Receipt#: 2381301  
Clerk: JM  
Rec Date: 09/15/2017 12:16:02 PM  
Doc Grp: D  
Descrip: RT WY  
Num Pgs: 10  
Rec'd Frm: FIRST AMERICAN TITLE INS CO

Party1: AMERICAN FELT & FILTER CO INC  
Party2: NYS DEPT OF ENVIRONMENTAL  
CONSERVATION  
Town: NEW WINDSOR (TN)  
9-1-69.2

Recording:

Recording Fee	70.00
Cultural Ed	14.25
Records Management - Coun	1.00
Records Management - Stat	4.75
TP584	5.00

Sub Total: 95.00

Transfer Tax  
Transfer Tax - State 0.00

Sub Total: 0.00

Total: 95.00

\*\*\*\* NOTICE: THIS IS NOT A BILL \*\*\*\*

\*\*\*\*\* Transfer Tax \*\*\*\*\*  
Transfer Tax #: 1693  
Transfer Tax  
Consideration: 0.00

Total: 0.00

Payment Type: Check \_\_\_\_\_  
Cash \_\_\_\_\_  
Charge \_\_\_\_\_  
No Fee \_\_\_\_\_

Comment: \_\_\_\_\_

Ann G. Rabbitt  
Orange County Clerk

Record and Return To:

FIRST AMERICAN TITLE INS CO  
666 THIRD AVE  
5TH FLOOR  
NEW YORK, NY 10017

**ENVIRONMENTAL EASEMENT GRANTED PURSUANT TO ARTICLE 71, TITLE 36  
OF THE NEW YORK STATE ENVIRONMENTAL CONSERVATION LAW**

**THIS INDENTURE** made this 23<sup>rd</sup> day of August, 2017, between Owner(s) American Felt & Filter Company, Inc., having an office at 361 Walsh Avenue, New Windsor, New York 12553, County of Orange, State of New York (the "Grantor"), and The People of the State of New York (the "Grantee."), acting through their Commissioner of the Department of Environmental Conservation (the "Commissioner", or "NYSDEC" or "Department" as the context requires) with its headquarters located at 625 Broadway, Albany, New York 12233,

**WHEREAS**, the Legislature of the State of New York has declared that it is in the public interest to encourage the remediation of abandoned and likely contaminated properties ("sites") that threaten the health and vitality of the communities they burden while at the same time ensuring the protection of public health and the environment; and

**WHEREAS**, the Legislature of the State of New York has declared that it is in the public interest to establish within the Department a statutory environmental remediation program that includes the use of Environmental Easements as an enforceable means of ensuring the performance of operation, maintenance, and/or monitoring requirements and the restriction of future uses of the land, when an environmental remediation project leaves residual contamination at levels that have been determined to be safe for a specific use, but not all uses, or which includes engineered structures that must be maintained or protected against damage to perform properly and be effective, or which requires groundwater use or soil management restrictions; and

**WHEREAS**, the Legislature of the State of New York has declared that Environmental Easement shall mean an interest in real property, created under and subject to the provisions of Article 71, Title 36 of the New York State Environmental Conservation Law ("ECL") which contains a use restriction and/or a prohibition on the use of land in a manner inconsistent with engineering controls which are intended to ensure the long term effectiveness of a site remedial program or eliminate potential exposure pathways to hazardous waste or petroleum; and

**WHEREAS**, Grantor, is the owner of real property located at the address of 361 Walsh Avenue in the Town of New Windsor, County of Orange and State of New York, known and designated on the tax map of the County Clerk of Orange as tax map parcel numbers: Section 9 Block 1 Lot 69.2, being a portion of the property conveyed to Grantor by deed dated July 31, 1978 and recorded in the Orange County Clerk's Office in Liber and Page 2106/655. The property subject to this Environmental Easement (the "Controlled Property") comprises approximately 0.545 +/- acres, and is hereinafter more fully described in the Land Title Survey dated April 17, 1998 and last revised June 26, 2017 prepared by Steven P. Drabick, P.L.S., which will be attached to the Site Management Plan. The Controlled Property description is set forth in and attached hereto as Schedule A; and

**WHEREAS**, the Department accepts this Environmental Easement in order to ensure the protection of public health and the environment and to achieve the requirements for remediation established for the Controlled Property until such time as this Environmental Easement is

9-1-69.2

extinguished pursuant to ECL Article 71, Title 36; and

**NOW THEREFORE**, in consideration of the mutual covenants contained herein and the terms and conditions of Order on Consent Index Number: W3-0784-04-06, Grantor conveys to Grantee a permanent Environmental Easement pursuant to ECL Article 71, Title 36 in, on, over, under, and upon the Controlled Property as more fully described herein ("Environmental Easement").

1. Purposes. Grantor and Grantee acknowledge that the Purposes of this Environmental Easement are: to convey to Grantee real property rights and interests that will run with the land in perpetuity in order to provide an effective and enforceable means of encouraging the reuse and redevelopment of this Controlled Property at a level that has been determined to be safe for a specific use while ensuring the performance of operation, maintenance, and/or monitoring requirements; and to ensure the restriction of future uses of the land that are inconsistent with the above-stated purpose.

2. Institutional and Engineering Controls. The controls and requirements listed in the Department approved Site Management Plan ("SMP") including any and all Department approved amendments to the SMP are incorporated into and made part of this Environmental Easement. These controls and requirements apply to the use of the Controlled Property, run with the land, are binding on the Grantor and the Grantor's successors and assigns, and are enforceable in law or equity against any owner of the Controlled Property, any lessees and any person using the Controlled Property.

A. (1) The Controlled Property may be used for:

**Commercial as described in 6 NYCRR Part 375-1.8(g)(2)(iii) and Industrial as described in 6 NYCRR Part 375-1.8(g)(2)(iv)**

(2) All Engineering Controls must be operated and maintained as specified in the Site Management Plan (SMP);

(3) All Engineering Controls must be inspected at a frequency and in a manner defined in the SMP;

(4) The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the Orange County Department of Health to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department;

(5) Groundwater and other environmental or public health monitoring must be performed as defined in the SMP;

(6) Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in the SMP;

(7) All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP;

(8) Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in the SMP;

(9) Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy shall be performed as defined in the SMP;

(10) Access to the site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by this Environmental Easement.

B. The Controlled Property shall not be used for Residential or Restricted Residential purposes as defined in 6NYCRR 375-1.8(g)(2)(i) and (ii), and the above-stated engineering controls may not be discontinued without an amendment or extinguishment of this Environmental Easement.

C. The SMP describes obligations that the Grantor assumes on behalf of Grantor, its successors and assigns. The Grantor's assumption of the obligations contained in the SMP which may include sampling, monitoring, and/or operating a treatment system, and providing certified reports to the NYSDEC, is and remains a fundamental element of the Department's determination that the Controlled Property is safe for a specific use, but not all uses. The SMP may be modified in accordance with the Department's statutory and regulatory authority. The Grantor and all successors and assigns, assume the burden of complying with the SMP and obtaining an up-to-date version of the SMP from:

Site Control Section  
Division of Environmental Remediation  
NYSDEC  
625 Broadway  
Albany, New York 12233  
Phone: (518) 402-9553

D. Grantor must provide all persons who acquire any interest in the Controlled Property a true and complete copy of the SMP that the Department approves for the Controlled Property and all Department-approved amendments to that SMP.

E. Grantor covenants and agrees that until such time as the Environmental Easement is extinguished in accordance with the requirements of ECL Article 71, Title 36 of the ECL, the property deed and all subsequent instruments of conveyance relating to the Controlled Property shall state in at least fifteen-point bold-faced type:

**This property is subject to an Environmental Easement held by the New York State Department of Environmental Conservation pursuant to Title 36 of Article 71 of the Environmental Conservation**



## Law.

F. Grantor covenants and agrees that this Environmental Easement shall be incorporated in full or by reference in any leases, licenses, or other instruments granting a right to use the Controlled Property.

G. Grantor covenants and agrees that it shall, at such time as NYSDEC may require, submit to NYSDEC a written statement by an expert the NYSDEC may find acceptable certifying under penalty of perjury, in such form and manner as the Department may require, that:

(1) the inspection of the site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under the direction of the individual set forth at 6 NYCRR Part 375-1.8(h)(3).

(2) the institutional controls and/or engineering controls employed at such site:

(i) are in-place;

(ii) are unchanged from the previous certification, or that any identified changes to the controls employed were approved by the NYSDEC and that all controls are in the Department-approved format; and

(iii) that nothing has occurred that would impair the ability of such control to protect the public health and environment;

(3) the owner will continue to allow access to such real property to evaluate the continued maintenance of such controls;

(4) nothing has occurred that would constitute a violation or failure to comply with any site management plan for such controls;

(5) the report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

(6) to the best of his/her knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and

(7) the information presented is accurate and complete.

3. Right to Enter and Inspect. Grantee, its agents, employees, or other representatives of the State may enter and inspect the Controlled Property in a reasonable manner and at reasonable times to assure compliance with the above-stated restrictions.

4. Reserved Grantor's Rights. Grantor reserves for itself, its assigns, representatives, and successors in interest with respect to the Property, all rights as fee owner of the Property, including:

A. Use of the Controlled Property for all purposes not inconsistent with, or limited by the terms of this Environmental Easement;

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## 5. Enforcement

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the owner of the Property, any lessees, and any person using the land. Enforcement shall not be defeated because of any subsequent adverse possession, laches, estoppel, or waiver. It is not a defense in any action to enforce this Environmental Easement that: it is not appurtenant to an interest in real property; it is not of a character that has been recognized traditionally at common law; it imposes a negative burden; it imposes affirmative obligations upon the owner of any interest in the burdened property; the benefit does not touch or concern real property; there is no privity of estate or of contract; or it imposes an unreasonable restraint on alienation.

B. If any person violates this Environmental Easement, the Grantee may revoke the Certificate of Completion with respect to the Controlled Property.

C. Grantee shall notify Grantor of a breach or suspected breach of any of the terms of this Environmental Easement. Such notice shall set forth how Grantor can cure such breach or suspected breach and give Grantor a reasonable amount of time from the date of receipt of notice in which to cure. At the expiration of such period of time to cure, or any extensions granted by Grantee, the Grantee shall notify Grantor of any failure to adequately cure the breach or suspected breach, and Grantee may take any other appropriate action reasonably necessary to remedy any breach of this Environmental Easement, including the commencement of any proceedings in accordance with applicable law.

D. The failure of Grantee to enforce any of the terms contained herein shall not be deemed a waiver of any such term nor bar any enforcement rights.

6. Notice. Whenever notice to the Grantee (other than the annual certification) or approval from the Grantee is required, the Party providing such notice or seeking such approval shall identify the Controlled Property by referencing the following information:

County, NYSDEC Site Number, NYSDEC Brownfield Cleanup Agreement, State Assistance Contract or Order Number, and the County tax map number or the Liber and Page or computerized system identification number.

Parties shall address correspondence to:      Site Number: 336036  
Office of General Counsel  
NYSDEC  
625 Broadway  
Albany New York 12233-5500

With a copy to:      Site Control Section  
Division of Environmental Remediation  
NYSDEC  
625 Broadway  
Albany, NY 12233

All notices and correspondence shall be delivered by hand, by registered mail or by Certified mail and return receipt requested. The Parties may provide for other means of receiving and communicating notices and responses to requests for approval.

7. Recordation. Grantor shall record this instrument, within thirty (30) days of execution of this instrument by the Commissioner or her/his authorized representative in the office of the

recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

8. Amendment. Any amendment to this Environmental Easement may only be executed by the Commissioner of the New York State Department of Environmental Conservation or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

9. Extinguishment. This Environmental Easement may be extinguished only by a release by the Commissioner of the New York State Department of Environmental Conservation, or the Commissioner's Designee, and filed with the office of the recording officer for the county or counties where the Property is situated in the manner prescribed by Article 9 of the Real Property Law.

10. Joint Obligation. If there are two or more parties identified as Grantor herein, the obligations imposed by this instrument upon them shall be joint and several.

**Remainder of Page Intentionally Left Blank**

IN WITNESS WHEREOF, Grantor has caused this instrument to be signed in its name.

American Felt & Filter Company, Inc.:

By: 

Print Name: Wilson H Pryne

Title: President

Date: 8/28/17

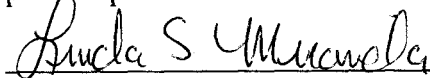
**Grantor's Acknowledgment**

STATE OF NEW YORK )

) ss:

COUNTY OF Orange )

On the 8<sup>th</sup> day of August, in the year 20 17, before me, the undersigned, personally appeared Wilson H. Pryne, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.



Notary Public - State of New York

LINDA S. MIRANDA

NOTARY PUBLIC-STATE OF NEW YORK

No. 01MI6064154

Qualified in Orange County

My Commission Expires September 17, 2017

**THIS ENVIRONMENTAL EASEMENT IS HEREBY ACCEPTED BY THE PEOPLE OF THE STATE OF NEW YORK, Acting By and Through the Department of Environmental Conservation as Designee of the Commissioner, /**

By:

Robert W. Schick, Director  
Division of Environmental Remediation

### Grantee's Acknowledgment

[illegible]

On the 23<sup>rd</sup> day of August, in the year 2017, before me, the undersigned, personally appeared Robert W. Schick, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/ executed the same in his/her/ capacity as Designee of the Commissioner of the State of New York Department of Environmental Conservation, and that by his/her/ signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

Notary Public / State of New York

**David J. Chiusano**  
**Notary Public, State of New York**  
**No. 01CH5032146**  
**Qualified in Schenectady County**  
**Commission Expires August 22, 2018**

R+R:  
First American Title  
666 Third Ave., 2nd floor  
New York, NY 10017

**SCHEDULE "A" PROPERTY DESCRIPTION**

**DESCRIPTION OF SOILS MANAGEMENT AREA & SUB-SLAB  
DEPRESSURIZATION SYSTEM, AN ENVIRONMENTAL EASEMENT TO THE NEW  
YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION**

GRANT OF EASEMENT over, across and through all that certain plot, piece or parcel of land with the building and improvements thereon erected, situate, lying and being in the Town of New Windsor, County of Orange and State of New York bounded and described as follows:

BEGINNING at a point at the northwesterly corner of the 1story masonry building of the most northerly complex of buildings located on lands of American Felt & Filter Company Inc., Liber 5730, Page 201, said point of beginning being located South 65 degrees 16 minutes 40 seconds West for a distance of 42.37 feet from a corner in the northerly bounds of lands of the same at the intersection with the municipal boundary between the City of Newburgh and Town of New Windsor and lands now or formerly of Hudson Shipyard Lp, Liber 12960, Page 1797;

THENCE South 72 degrees 57 minutes 34 seconds East for a distance of 103.33 feet along the face of said masonry building to a point;

THENCE South 17 degrees 21 minutes 13 seconds West for a distance of 68.08 feet through said masonry building to a point at the outside corner of said building;

THENCE North 72 degrees 00 minutes 00 seconds West for a distance of 51.17 feet through said masonry building to a point at the outside corner of said building;

THENCE North 72 degrees 57 minutes 52 seconds West for a distance of 51.79 feet to a point at the outside corner of said building;

THENCE South 17 degrees 02 minutes 08 seconds West for a distance of 29.25 feet to a point at the northerly face of a two-story masonry building;

THENCE North 72 degrees 32 minutes 52 seconds West for a distance of 75.55 feet along the northerly face of said building to a point at the corner of said building;

THENCE South 17 degrees 20 minutes 58 seconds West for a distance of 43.06 feet along the westerly face of the two-story masonry building to a point at the corner of said building;

THENCE North 72 degrees 34 minutes 38 seconds West for a distance of 72.17 feet along the northerly face of the two story masonry building to a point at the most northwesterly corner of said building;

THENCE North 17 degrees 02 minutes 17 seconds East for a distance of 140.76 feet through lands of American Felt & Filter Company, Inc. to a point marked by an iron rod set at or near a chain link fence;

THENCE South 67 degrees 51 minutes 22 seconds East for a distance of 123.39 feet through lands of the same and along a chain link fence to a point marked by an iron rod set;

THENCE North 87 degrees 49 minutes 18 seconds East for a distance of 26.52 feet through lands of American Felt & Filter Company, Inc. to the POINT OR PLACE OF BEGINNING.

Together with and subject to covenants, and restrictions of record.

Said area contains 0.5454 acres more or less.







DESCRIPTION OF SOILS MANAGEMENT AREA & SUB-SLAB DEPRESSURIZATION SYSTEM,  
AN ENVIRONMENTAL EASEMENT TO  
THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

GRANT OF EASEMENT over, across and through all that certain plot, piece or parcel of land with the building and improvements thereon erected, situate, lying and being in the Town of New Windsor, County of Orange and State of New York bounded and described as follows:

BEGINNING at a point at the northwesterly corner of the 1 story masonry building of the most northerly complex of buildings located on lands of American Felt & Filter Company Inc., Liber 5730, Page 201, said point of beginning being located South 65 degrees 16 minutes 40 seconds West for a distance of 42.37 feet from a corner in the northerly bounds of lands of the same at the intersection with the municipal boundary between the City of Newburgh and Town of New Windsor and lands now or formerly of Hudson Shipyard LP, Liber 12960, Page 1797;

THENCE South 72 degrees 57 minutes 34 seconds East for a distance of 103.33 feet along the face of said masonry building to a point;

THENCE South 17 degrees 21 minutes 13 seconds West for a distance of 68.08 feet through said masonry building to a point at the outside corner of said building;

THENCE North 72 degrees 00 minutes 00 seconds West for a distance of 51.17 feet through said masonry building to a point at the outside corner of said building;

THENCE North 72 degrees 57 minutes 52 seconds West for a distance of 51.79 feet to a point at the outside corner of said building;

THENCE South 17 degrees 02 minutes 08 seconds West for a distance of 29.25 feet to a point at the northerly face of a two-story masonry building;

THENCE North 72 degrees 32 minutes 52 seconds West for a distance of 75.55 feet along the northerly face of said building to a point at the corner of said building;

THENCE South 17 degrees 20 minutes 58 seconds West for a distance of 43.06 feet along the westerly face of the two-story masonry building to a point at the corner of said building;

THENCE North 72 degrees 34 minutes 38 seconds West for a distance of 72.17 feet along the northerly face of the two-story masonry building to a point at the most northwesterly corner of said building;

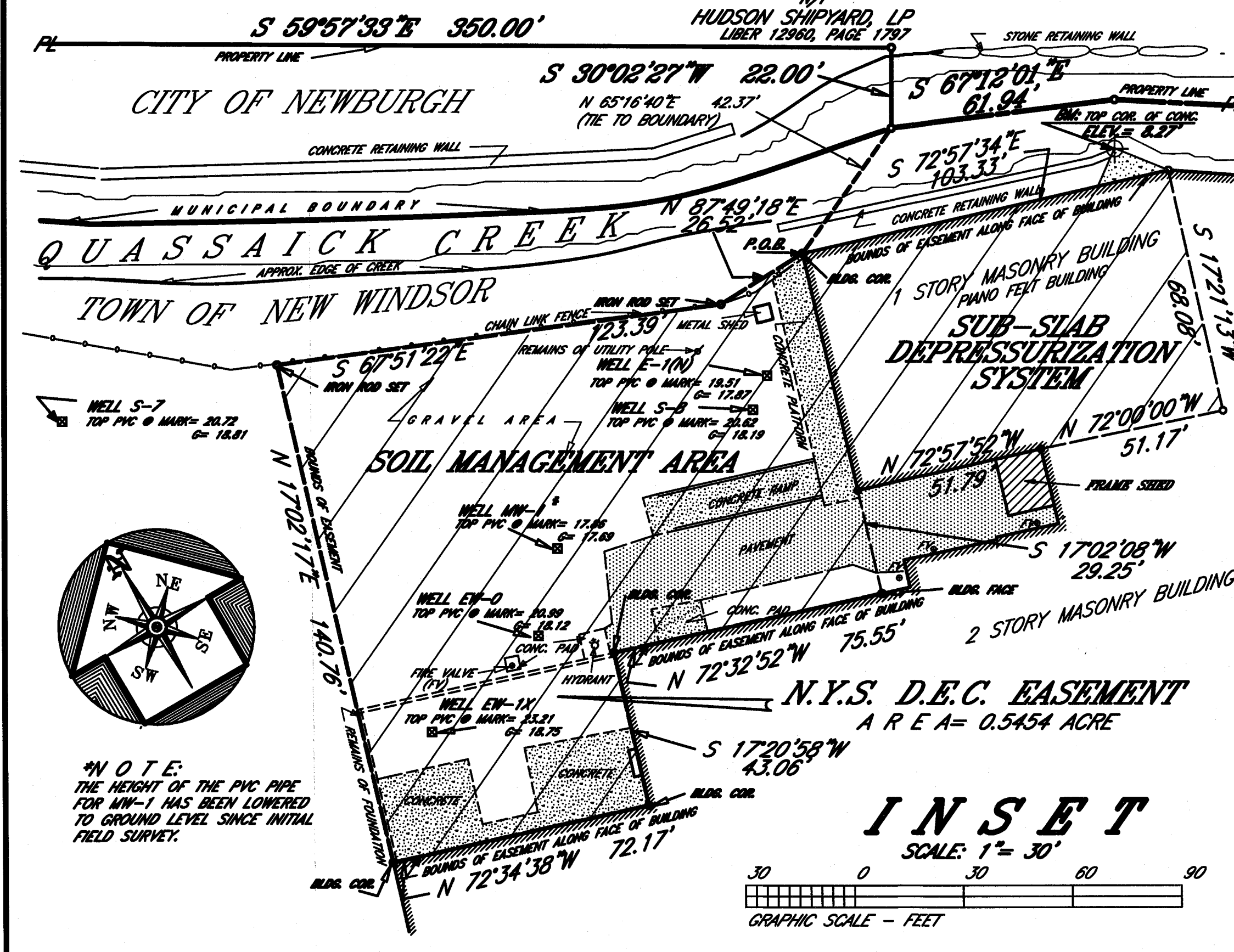
THENCE North 17 degrees 02 minutes 17 seconds East for a distance of 140.76 feet through lands of American Felt & Filter Company, Inc. to a point marked by an iron rod set at or near a chain link fence;

THENCE South 67 degrees 51 minutes 22 seconds East for a distance of 123.39 feet through lands of the same and along a chain link fence to a point marked by an iron rod set;

THENCE North 87 degrees 49 minutes 18 seconds East for a distance of 26.52 feet through lands of American Felt & Filter Company, Inc. to the POINT OR PLACE OF BEGINNING.

Together with and subject to covenants, and restrictions of record.

Said easement contains 0.5454 acres more or less.



BOUNDS OF ENVIRONMENTAL EASEMENT

COURSE	BEARING	DISTANCE
1	S 72°57'34"E	103.33'
2	S 17°21'13"W	68.08'
3	N 72°00'00"W	51.17'
4	N 72°57'52"W	51.79'
5	S 17°02'08"W	29.25'
6	N 72°32'52"W	75.55'
7	S 17°20'58"W	43.06'
8	N 72°34'38"W	72.17'
9	N 17°02'17"E	140.76'
10	S 67°51'22"E	123.39'
11	N 87°49'18"E	26.52'

A R E A = 0.5454 ACRE

THIS PROPERTY IS SUBJECT TO AN ENVIRONMENTAL EASEMENT HELD BY THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION PURSUANT TO TITLE 36 OF ARTICLE 71 OF THE NEW YORK ENVIRONMENTAL CONSERVATION LAW.

BEING:

THE PARCELS OF LAND INTENDED AS DESCRIBED IN DEED OF RECORD LIBER 5730, PAGE 201.

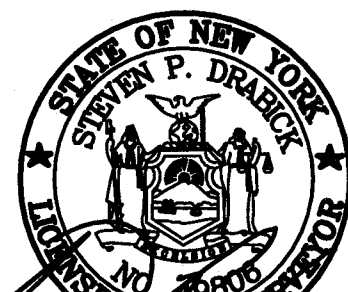
ALSO BEING LOT 63.2, BLOCK 1, SECTION 9 AS SHOWN ON THE TOWN OF NEW WINDSOR TAX MAP. THERE IS NO TAX MAP DESIGNATION FOR THE PORTION OF PROPERTY LYING IN THE CITY OF NEWBURGH.

A R E A = 23.1853 ACRES

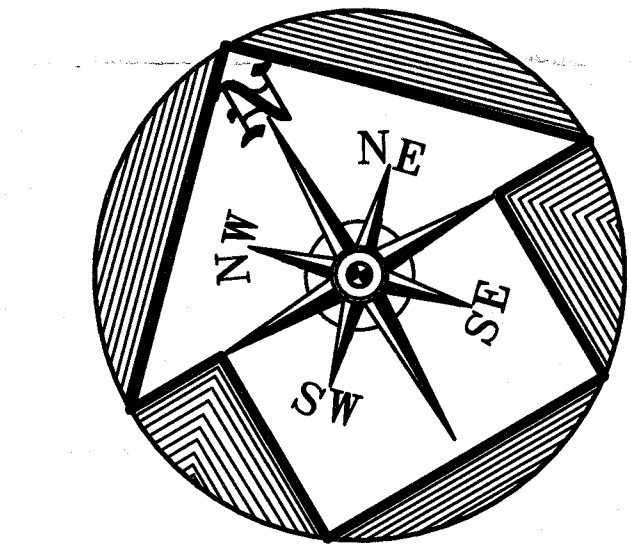
SURVEY MAP UPDATE COMPLETED ON 6/26/17. FIELD SURVEY FOR EASEMENT BOUNDARY COMPLETED ON 3/18/15. FIELD SURVEY UPDATE COMPLETED ON 7/24/13. I HEREBY CERTIFY ONLY TO THE PARTIES LISTED HEREON THAT THIS MAP IS BASED ON AN ACTUAL FIELD SURVEY AND HAS BEEN PREPARED IN ACCORDANCE WITH THE CODE OF PRACTICE ESTABLISHED BY THE N.Y.S. ASSOC. OF PROFESSIONAL LAND SURVEYORS, INC.

THIS CERTIFICATION DOES NOT RUN WITH TITLE TO THE LAND AND IS SUBJECT TO ANY STATE OF FACTS A TITLE SEARCH MAY REVEAL.

\* AMERICAN FELT & FILTER COMPANY, INC.,  
\* THE PEOPLE OF THE STATE OF NEW YORK, ACTING THROUGH ITS COMMISSIONER OF THE DEPARTMENT OF ENVIRONMENTAL CONSERVATION.



STEVEN P. DRABICK P.L.S. NY LIC. #49806



MAP ENTITLED  
"LOT LINE CHANGE PREPARED FOR AMERICAN FELT & FILTER COMPANY"  
FILED IN THE ORANGE COUNTY CLERK'S OFFICE  
ON JULY 12, 1993 AS MAP #122-93

PLYMPTON HOUSE LTD.  
LIBER 6157, PAGE 289

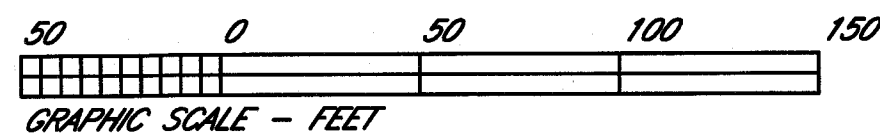
SURVEY OF PROPERTY

FOR

A F F C O

AMERICAN FELT & FILTER COMPANY, INC.

TOWN OF NEW WINDSOR, CITY OF NEWBURGH ORANGE COUNTY, NEW YORK  
SCALE: 1" = 50'



SHEET 2 OF 2

NOTED NO. 140-172

NOTE: THIS SURVEY MAP SHALL BE DEEMED INVALID UNLESS ACCOMPANIED BY SHEET 1 OF 2.

SEE SHEET 1 OF 2 FOR REFERENCES, NOTES AND ADDITIONAL INFORMATION.

PRICHAM MATERIALS CORP.  
LIBER 2736, PAGE 289

FRONTIER ASSOCIATES LLC  
LIBER 13354, PAGE 1447

SHEET 1



## LEGEND

	EDGE OF WATER COURSE		FIRE VALVE
	BOUNDARY LINE		MONITORING WELL
	EASEMENT LINE		MANHOLE
	UTILITY POLE		CATCH BASIN
	OVERHEAD UTILITY LINES		CULVERT
	CHAIN LINK FENCE		UTILITY BOX
	WROUGHT IRON FENCE		EDGE OF PAVED TRAVELWAY
	GUIDE RAIL		EDGE OF UNPAVED TRAVELWAY
	AREA OF CONCRETE		STONE RETAINING WALL
	ROOF OVER OPEN AREA		ENCLOSED STAIRWAY

## DESCRIPTION OF SOILS MANAGEMENT AREA & SUB-SLAB DEPRESSURIZATION SYSTEM, AN ENVIRONMENTAL EASEMENT TO

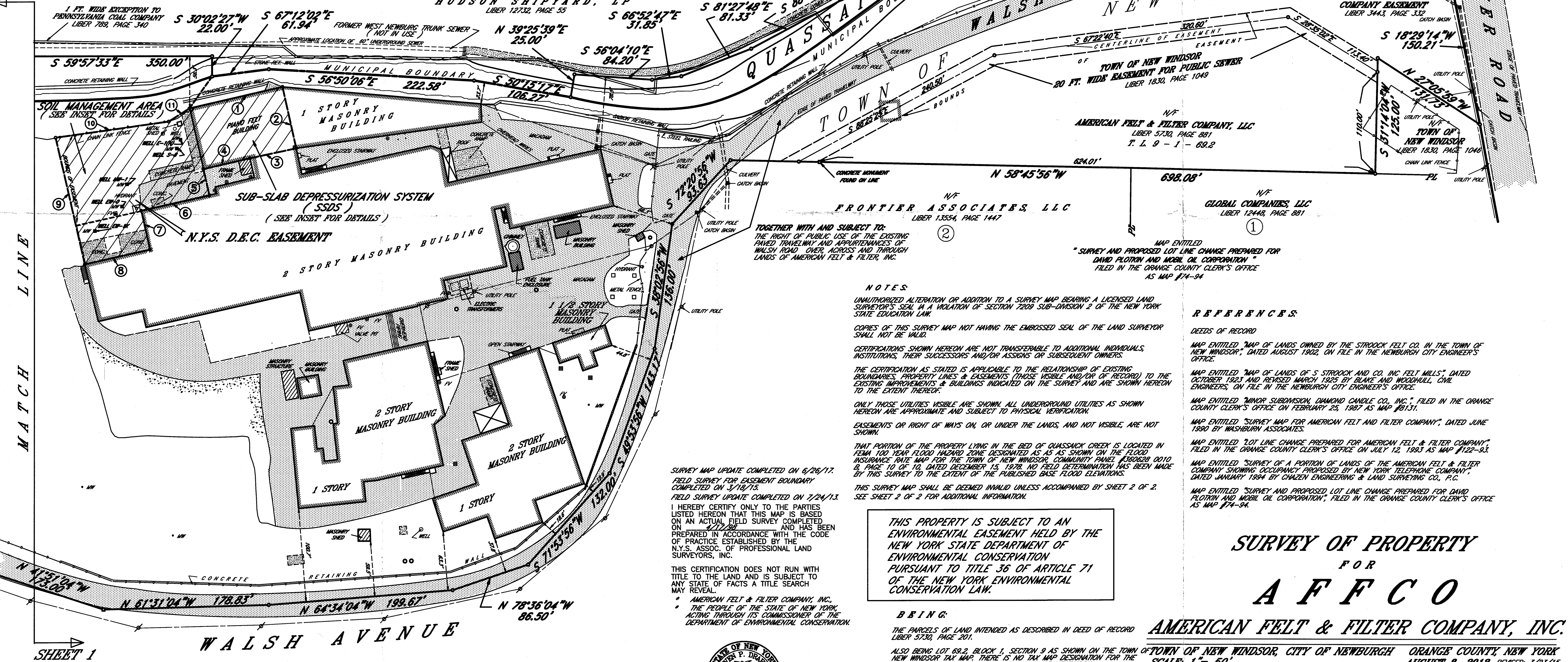
### THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

GRANT OF EASEMENT over, across and through all that certain plot, piece or parcel of land with the building and improvements thereon erected, situate, lying and being in the Town of New Windsor, County of Orange and State of New York bounded and described as follows:  
BEGINNING at a point at the northwesterly corner of the 1-story masonry building of the most northerly complex of buildings located on lands of American Felt & Filter Company, Inc., Liber 5730, Page 201, said point of beginning being located South 85 degrees 16 minutes 40 seconds West for a distance of 42.37 feet from a corner in the northerly bounds of lands of the same at the intersection with the municipal boundary between the City of Newburgh and Town of New Windsor and lands now or formerly of Hudson Shipyard LP, Liber 12960, Page 1797;  
THENCE South 72 degrees 57 minutes 34 seconds East for a distance of 103.33 feet along the face of said masonry building to a point;  
THENCE South 17 degrees 21 minutes 13 seconds West for a distance of 68.08 feet through said masonry building to a point at the outside corner of said building;  
THENCE North 72 degrees 00 minutes 00 seconds West for a distance of 51.17 feet through said masonry building to a point at the outside corner of said building;  
THENCE North 72 degrees 57 minutes 52 seconds West for a distance of 51.79 feet to a point at the outside corner of said building;  
THENCE South 17 degrees 02 minutes 08 seconds West for a distance of 29.25 feet to a point at the northerly face of a two-story masonry building;  
THENCE North 72 degrees 32 minutes 52 seconds West for a distance of 75.55 feet along the northerly face of said building to a point at the corner of said building;  
THENCE South 17 degrees 20 minutes 58 seconds West for a distance of 43.06 feet along the westerly face of the two-story masonry building to a point at the corner of said building;  
THENCE North 72 degrees 34 minutes 38 seconds West for a distance of 72.17 feet along the northerly face of the two-story masonry building to a point at the most northwesterly corner of said building;  
THENCE North 17 degrees 02 minutes 17 seconds East for a distance of 140.76 feet through lands of American Felt & Filter Company, Inc. to a point marked by an iron rod set at or near a chain link fence;  
THENCE South 67 degrees 51 minutes 22 seconds East for a distance of 123.39 feet through lands of the same and along a chain link fence to a point marked by an iron rod set;  
THENCE North 87 degrees 49 minutes 18 seconds East for a distance of 26.52 feet through lands of American Felt & Filter Company, Inc. to the POINT OR PLACE OF BEGINNING.

Together with and subject to covenants, and restrictions of record.

Said easement contains 0.5454 acre more or less.

SHEET 2



## NOTES

UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S SEAL IS A VIOLATION OF SECTION 7209 SUB-DIVISION 2 OF THE NEW YORK STATE EDUCATION LAW.

COPIES OF THIS SURVEY MAP NOT HAVING THE EMBOSSED SEAL OF THE LAND SURVEYOR SHALL NOT BE VALID.

CERTIFICATIONS SHOWN HEREON ARE NOT TRANSFERABLE TO ADDITIONAL INDIVIDUALS, INSTITUTIONS, THEIR SUCCESSORS AND/OR ASSIGNS OR SUBSEQUENT OWNERS.

THE CERTIFICATION AS STATED IS APPLICABLE TO THE RELATIONSHIP OF EXISTING BOUNDARIES, PROPERTY LINES & EASEMENTS (THOSE VISIBLE AND/OR OF RECORD) TO THE EXISTING IMPROVEMENTS & BUILDINGS INDICATED ON THE SURVEY AND ARE SHOWN HEREON TO THE EXTENT THEREOF.

ONLY THOSE UTILITIES VISIBLE ARE SHOWN. ALL UNDERGROUND UTILITIES AS SHOWN HEREON ARE APPROXIMATE AND SUBJECT TO PHYSICAL VERIFICATION.

EASEMENTS OR RIGHT OF WAYS ON, OR UNDER THE LANDS, AND NOT VISIBLE, ARE NOT SHOWN.

THAT PORTION OF THE PROPERTY LYING IN THE BED OF QUASSACK CREEK IS LOCATED IN FEMA 100 YEAR FLOOD HAZARD ZONE DESIGNATED AS 45 AS SHOWN ON THE FLOOD INSURANCE RATE MAP FOR THE TOWN OF NEW WINDSOR, COMMUNITY PANEL #360628 0010 B, PAGE 10 OF 10, DATED DECEMBER 15, 1978. NO FIELD DETERMINATION HAS BEEN MADE BY THIS SURVEY TO THE EXTENT OF THE PUBLISHED BASE FLOOD ELEVATIONS.

THIS SURVEY MAP SHALL BE DEEMED INVALID UNLESS ACCOMPANIED BY SHEET 2 OF 2. SEE SHEET 2 OF 2 FOR ADDITIONAL INFORMATION.

THIS PROPERTY IS SUBJECT TO AN ENVIRONMENTAL EASEMENT HELD BY THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION PURSUANT TO TITLE 36 OF ARTICLE 71 OF THE NEW YORK ENVIRONMENTAL CONSERVATION LAW.

BEING:  
THE PARCELS OF LAND INTENDED AS DESCRIBED IN DEED OF RECORD LIBER 5730, PAGE 201.

ALSO BEING LOT 69.2, BLOCK 1, SECTION 9 AS SHOWN ON THE TOWN OF NEW WINDSOR TAX MAP. THERE IS NO TAX MAP DESIGNATION FOR THE PORTION OF PROPERTY LYING IN THE CITY OF NEWBURGH.

## REFERENCES:

DEEDS OF RECORD

MAP ENTITLED "MAP OF LANDS OWNED BY THE STROOCK FELT CO. IN THE TOWN OF NEW WINDSOR", DATED AUGUST 1902, ON FILE IN THE NEWBURGH CITY ENGINEER'S OFFICE.

MAP ENTITLED "MAP OF LANDS OF S. STROOCK AND CO. INC. FELT MILLS", DATED OCTOBER 1923 AND REVISED MARCH 1925 BY BLAKE AND WOODHULL, CIVIL ENGINEERS, ON FILE IN THE NEWBURGH CITY ENGINEER'S OFFICE.

MAP ENTITLED "MINOR SUBDIVISION, DIAMOND CANDLE CO., INC.", FILED IN THE ORANGE COUNTY CLERK'S OFFICE ON FEBRUARY 25, 1987 AS MAP #8131.

MAP ENTITLED "SURVEY MAP FOR AMERICAN FELT AND FILTER COMPANY", DATED JUNE 1990 BY WASHBURN ASSOCIATES.

MAP ENTITLED "LOT LINE CHANGE PREPARED FOR AMERICAN FELT & FILTER COMPANY", FILED IN THE ORANGE COUNTY CLERK'S OFFICE ON JULY 12, 1993 AS MAP #122-93.

MAP ENTITLED "SURVEY OF A PORTION OF LANDS OF THE AMERICAN FELT & FILTER COMPANY SHOWING OCCUPANCY", PROPOSED BY NEW YORK TELEPHONE COMPANY, DATED JANUARY 1994 BY CHAZEN ENGINEERING & LAND SURVEYING CO., P.C.

MAP ENTITLED "SURVEY AND PROPOSED LOT LINE CHANGE PREPARED FOR DAVID PLOTIN AND MOBIL OIL CORPORATION", FILED IN THE ORANGE COUNTY CLERK'S OFFICE AS MAP #74-94.

## SURVEY OF PROPERTY

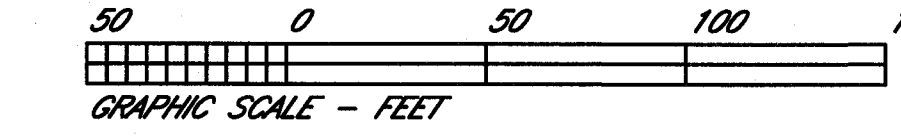
FOR

A F F C O

AMERICAN FELT & FILTER COMPANY, INC.

TOWN OF NEW WINDSOR, CITY OF NEWBURGH ORANGE COUNTY, NEW YORK  
AUGUST 8, 2013 REVISED: 3/23/15  
SCALE: 1" = 50'

A R E A = 23.1853 ACRES



SHEET 1 OF 2

JOB NO. 140-171





DESCRIPTION OF SOILS MANAGEMENT AREA & SUB-SLAB DEPRESSURIZATION SYSTEM,  
AN ENVIRONMENTAL EASEMENT TO  
THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

GRANT OF EASEMENT over, across and through all that certain plot, piece or parcel of land with the building and improvements thereon erected, situate, lying and being in the Town of New Windsor, County of Orange and State of New York bounded and described as follows:

BEGINNING at a point at the northwesterly corner of the 1 story masonry building of the most northerly complex of buildings located on lands of American Felt & Filter Company Inc., Liber 5730, Page 201, said point of beginning being located South 65 degrees 16 minutes 40 seconds West for a distance of 42.37 feet from a corner in the northerly bounds of lands of the same at the intersection with the municipal boundary between the City of Newburgh and Town of New Windsor and lands now or formerly of Hudson Shipyard LP, Liber 12960, Page 1797;

THENCE South 72 degrees 57 minutes 34 seconds East for a distance of 103.33 feet along the face of said masonry building to a point;

THENCE South 17 degrees 21 minutes 13 seconds West for a distance of 68.08 feet through said masonry building to a point at the outside corner of said building;

THENCE North 72 degrees 00 minutes 00 seconds West for a distance of 51.17 feet through said masonry building to a point at the outside corner of said building;

THENCE North 72 degrees 57 minutes 52 seconds West for a distance of 51.79 feet to a point at the outside corner of said building;

THENCE South 17 degrees 02 minutes 08 seconds West for a distance of 29.25 feet to a point at the northerly face of a two-story masonry building;

THENCE North 72 degrees 32 minutes 52 seconds West for a distance of 75.55 feet along the northerly face of said building to a point at the corner of said building;

THENCE South 17 degrees 20 minutes 58 seconds West for a distance of 43.06 feet along the westerly face of the two-story masonry building to a point at the corner of said building;

THENCE North 72 degrees 34 minutes 38 seconds West for a distance of 72.17 feet along the northerly face of the two story masonry building to a point at the most northwesterly corner of said building;

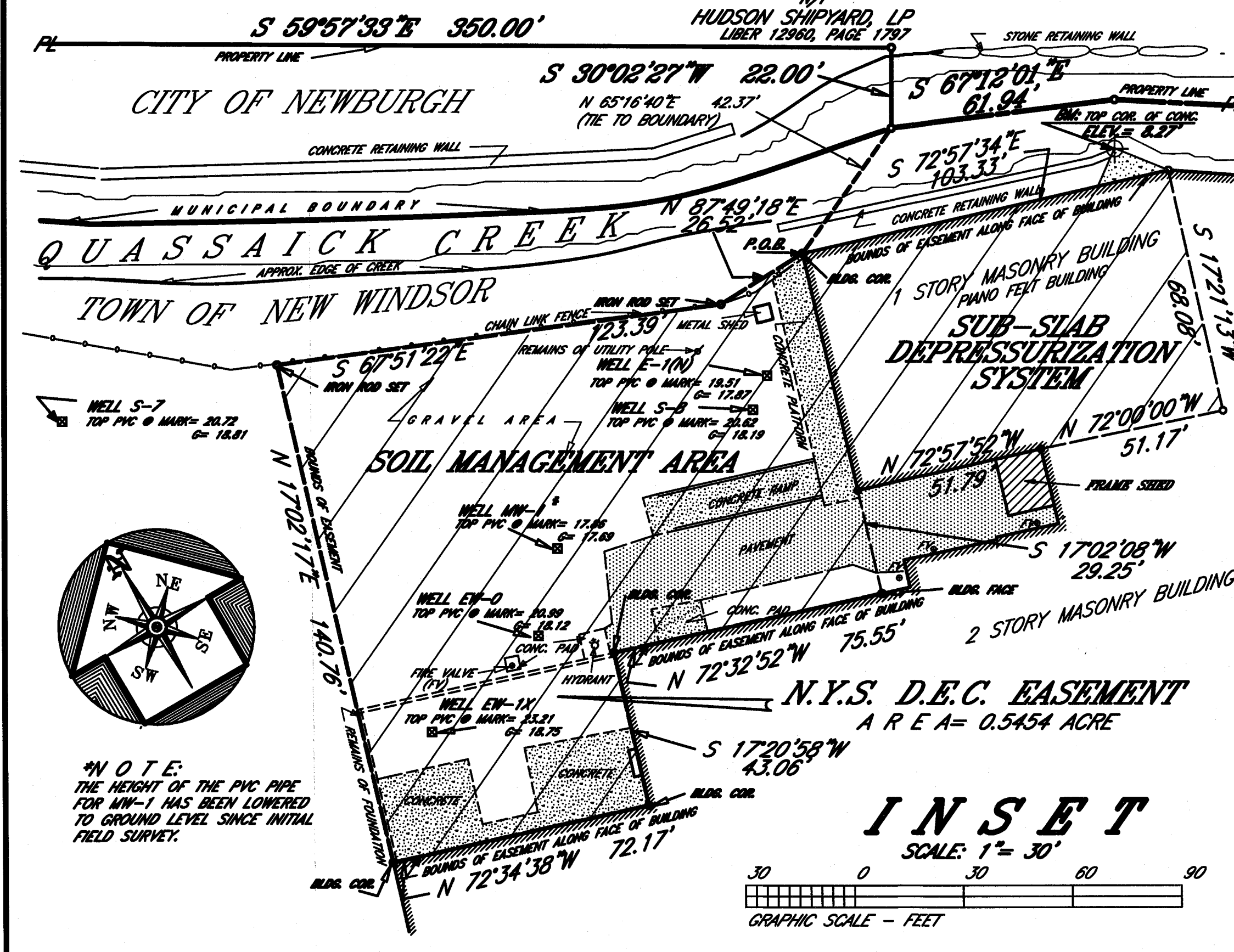
THENCE North 17 degrees 02 minutes 17 seconds East for a distance of 140.76 feet through lands of American Felt & Filter Company, Inc. to a point marked by an iron rod set at or near a chain link fence;

THENCE South 67 degrees 51 minutes 22 seconds East for a distance of 123.39 feet through lands of the same and along a chain link fence to a point marked by an iron rod set;

THENCE North 87 degrees 49 minutes 18 seconds East for a distance of 26.52 feet through lands of American Felt & Filter Company, Inc. to the POINT OR PLACE OF BEGINNING.

Together with and subject to covenants, and restrictions of record.

Said easement contains 0.5454 acres more or less.



BOUNDS OF ENVIRONMENTAL EASEMENT

COURSE	BEARING	DISTANCE
1	S 72°57'34"E	103.33'
2	S 17°21'13"W	68.08'
3	N 72°00'00"W	51.17'
4	N 72°57'52"W	51.79'
5	S 17°02'08"W	29.25'
6	N 72°32'52"W	75.55'
7	S 17°20'58"W	43.06'
8	N 72°34'38"W	72.17'
9	N 17°02'17"E	140.76'
10	S 67°51'22"E	123.39'
11	N 87°49'18"E	26.52'

A R E A = 0.5454 ACRE

THIS PROPERTY IS SUBJECT TO AN ENVIRONMENTAL EASEMENT HELD BY THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION PURSUANT TO TITLE 36 OF ARTICLE 71 OF THE NEW YORK ENVIRONMENTAL CONSERVATION LAW.

BEING:

THE PARCELS OF LAND INTENDED AS DESCRIBED IN DEED OF RECORD LIBER 5730, PAGE 201.

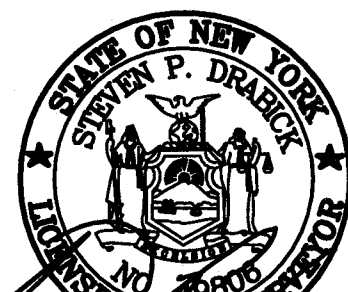
ALSO BEING LOT 63.2, BLOCK 1, SECTION 9 AS SHOWN ON THE TOWN OF NEW WINDSOR TAX MAP. THERE IS NO TAX MAP DESIGNATION FOR THE PORTION OF PROPERTY LYING IN THE CITY OF NEWBURGH.

A R E A = 23.1853 ACRES

SURVEY MAP UPDATE COMPLETED ON 6/26/17. FIELD SURVEY FOR EASEMENT BOUNDARY COMPLETED ON 3/18/15. FIELD SURVEY UPDATE COMPLETED ON 7/24/13. I HEREBY CERTIFY ONLY TO THE PARTIES LISTED HEREON THAT THIS MAP IS BASED ON AN ACTUAL FIELD SURVEY AND HAS BEEN PREPARED IN ACCORDANCE WITH THE CODE OF PRACTICE ESTABLISHED BY THE N.Y.S. ASSOC. OF PROFESSIONAL LAND SURVEYORS, INC.

THIS CERTIFICATION DOES NOT RUN WITH TITLE TO THE LAND AND IS SUBJECT TO ANY STATE OF FACTS A TITLE SEARCH MAY REVEAL.

\* AMERICAN FELT & FILTER COMPANY, INC.,  
\* THE PEOPLE OF THE STATE OF NEW YORK, ACTING THROUGH ITS COMMISSIONER OF THE DEPARTMENT OF ENVIRONMENTAL CONSERVATION.



STEVEN P. DRABICK P.L.S. NY LIC.#49806

SURVEY OF PROPERTY  
FOR  
A F F C O  
AMERICAN FELT & FILTER COMPANY, INC.

TOWN OF NEW WINDSOR, CITY OF NEWBURGH ORANGE COUNTY, NEW YORK  
SCALE: 1" = 50'  
AUGUST 8, 2013 REVISED: 3/23/15  
6/26/17



SHEET 2 OF 2

NOTED NO. 140-172

NOTE: THIS SURVEY MAP SHALL BE DEEMED INVALID UNLESS ACCOMPANIED BY SHEET 1 OF 2.

SEE SHEET 1 OF 2 FOR REFERENCES, NOTES AND ADDITIONAL INFORMATION.

N/F  
PRICHAM MATERIALS CORP.  
LIBER 2736, PAGE 289

N/F  
FRONTIER ASSOCIATES LLC  
LIBER 13354, PAGE 1447

SHEET 1



# ORANGE COUNTY CLERK

ANN G. RABBITT

## Receipt

---

Receipt Date: 09/15/2017 12:16:03 PM  
RECEIPT # 2381301

Recording Clerk: JM  
Cash Drawer: CASH42  
Rec'd Frm: FIRST AMERICAN TITLE INS CO

Instr#: 20170066308 Bk/Pg: 14291/601  
DOC: RIGHT OF WAY (R)  
DEED STAMP: 1693  
OR Party: AMERICAN FELT & FILTER CO INC  
EE Party: NYS DEPT OF ENVIRONMENTAL  
CONSERVATION

Recording Fees	\$95.00
----------------	---------

Transfer Tax	\$0.00
--------------	--------

DOCUMENT TOTAL: ---->	\$95.00
-----------------------	---------

Misc Fees	
Overpayment	\$0.50

Receipt Summary	
TOTAL RECEIPT: ---->	\$95.50
TOTAL RECEIVED: ---->	\$95.50

CASH BACK: ---->	\$0.00
------------------	--------

PAYMENTS	
Check # 2314148180 ->	\$95.50
FIRST AMERICAN TITLE INS CO	



**First American Title**

NATIONAL COMMERCIAL SERVICES

666 Third Ave, Floor 5

New York, NY 10017

TEL 212-551-9421 • FAX 714-824-4998

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**SUBMITTER SUMMARY SHEET**

DATE: 9/14

TITLE NUMBER: 3020-869296

SUBMITTED BY: Mary Lettieri

COUNTY: Orange

District: Section: 9 Block: 1 Lot: 69.2

Please  
WALK ON  
Rush

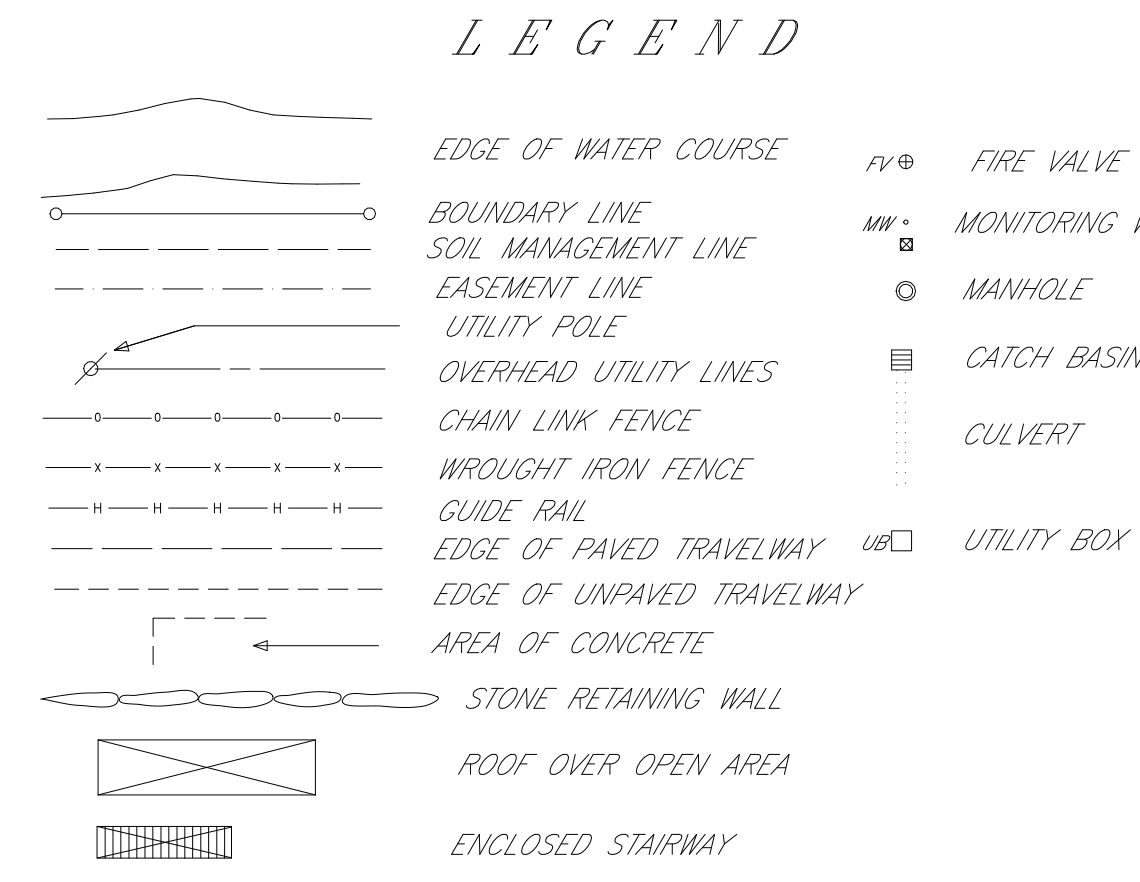
INSTRUMENT TYPE	PARTIES	DIRECT CHECK	TRANSFER TAX	MORTGAGE TAX	REC./ FEE
EASEMENT	American Felt & Filter Company, Inc.				95.50
	New York State Department of Environment Conservation				
TOTAL :					95.50

**CHECK INFORMATION:**

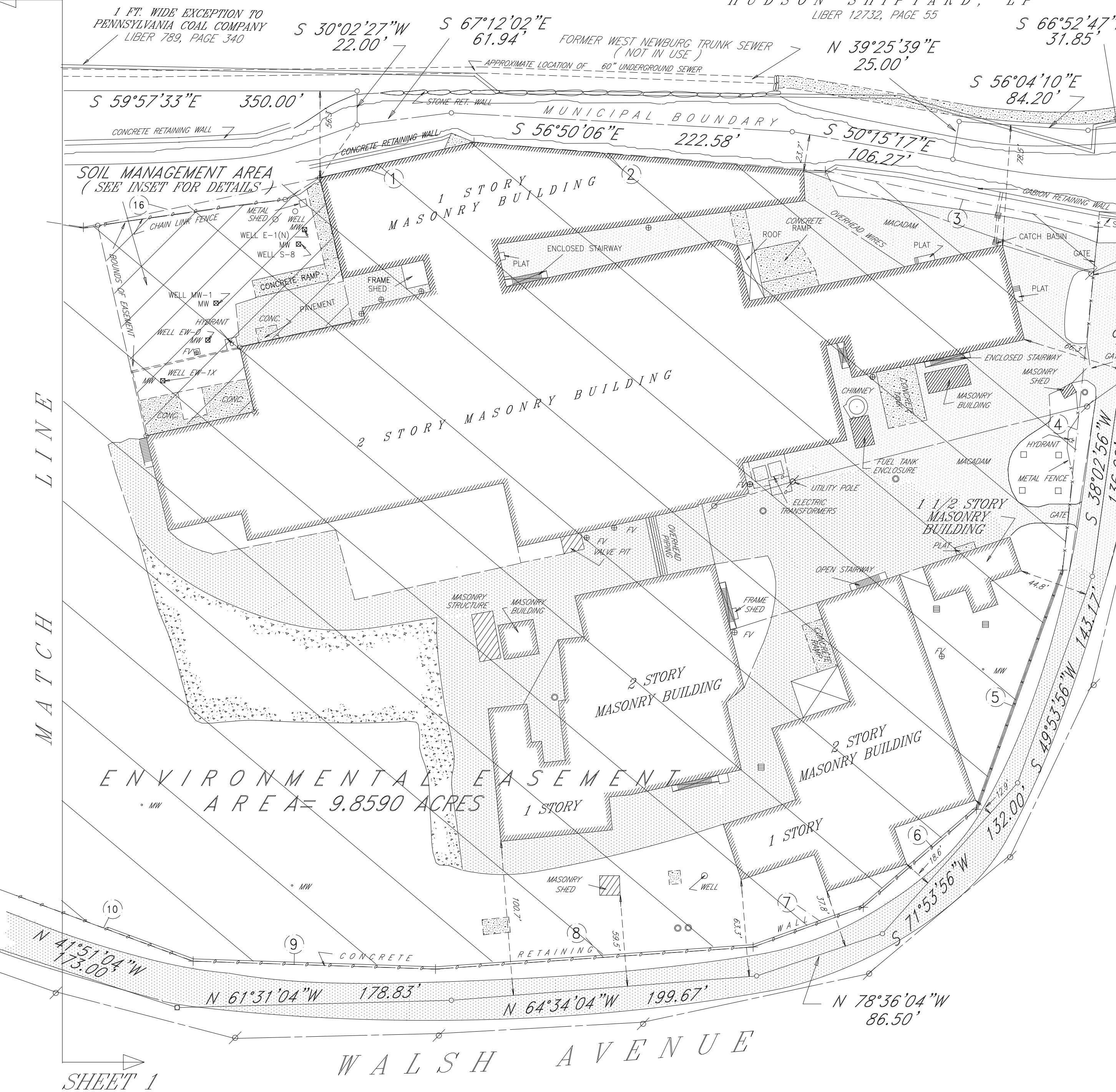
RECORDING FEE/ TAX CHECK No:

AMOUNT:





SHEET 2



SHEET 1

N/F  
FRONTIER ASSOCIATES, LLC  
LIBER 13554, PAGE 1447

DESCRIPTION OF GRANT OF ENVIRONMENTAL EASEMENT TO THE NEW YORK STATE  
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

AN ENVIRONMENTAL EASEMENT over, across and through all that certain plot, piece or parcel of land with the buildings and improvements thereon erected, situate, lying and being in the Town of New Windsor, County of Orange and State of New York bounded and described as follows:

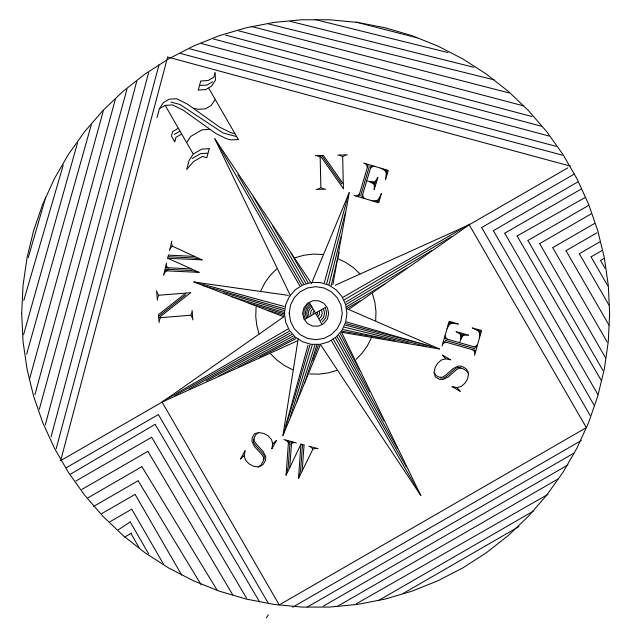
BEGINNING at a point at the northwesterly corner of a one story masonry building of the most northerly complex of buildings located on lands of American Felt & Filter Company, Inc., Liber 5730, Page 201, said point of beginning being the northeasterly corner of a describe Soils Management Area and being located South 65 degrees 16 minutes 40 seconds West for a distance of 42.37 feet from a corner in the northerly bounds of lands of the same at the intersection with the municipal boundary between the City of Newburgh and the Town of New Windsor and lands now or formerly of Hudson Shipyard LP, Liber 12960, Page 1797;

THENCE South 72 degrees 57 minutes 34 seconds East for a distance of 103.33 feet along the face of said building to a point;  
THENCE South 55 degrees 20 minutes 14 seconds East for a distance of 229.78 feet along the same to a point;  
THENCE South 48 degrees 19 minutes 11 seconds East for a distance of 181.72 feet through lands of American Felt & Filter Company, Inc. to a point in or near a chain link fence;  
THENCE South 35 degrees 57 minutes 07 seconds West for a distance of 224.60 feet along a chain link fence running along the northwesterly side of Walsh Road to a point at the end of a concrete retaining wall;  
THENCE South 49 degrees 48 minutes 02 seconds West for a distance of 165.72 feet along said retaining wall and chain link fence running along the northwesterly side of Walsh Road to a point;  
THENCE South 79 degrees 07 minutes 37 seconds West for a distance of 97.59 feet along the same to a point;

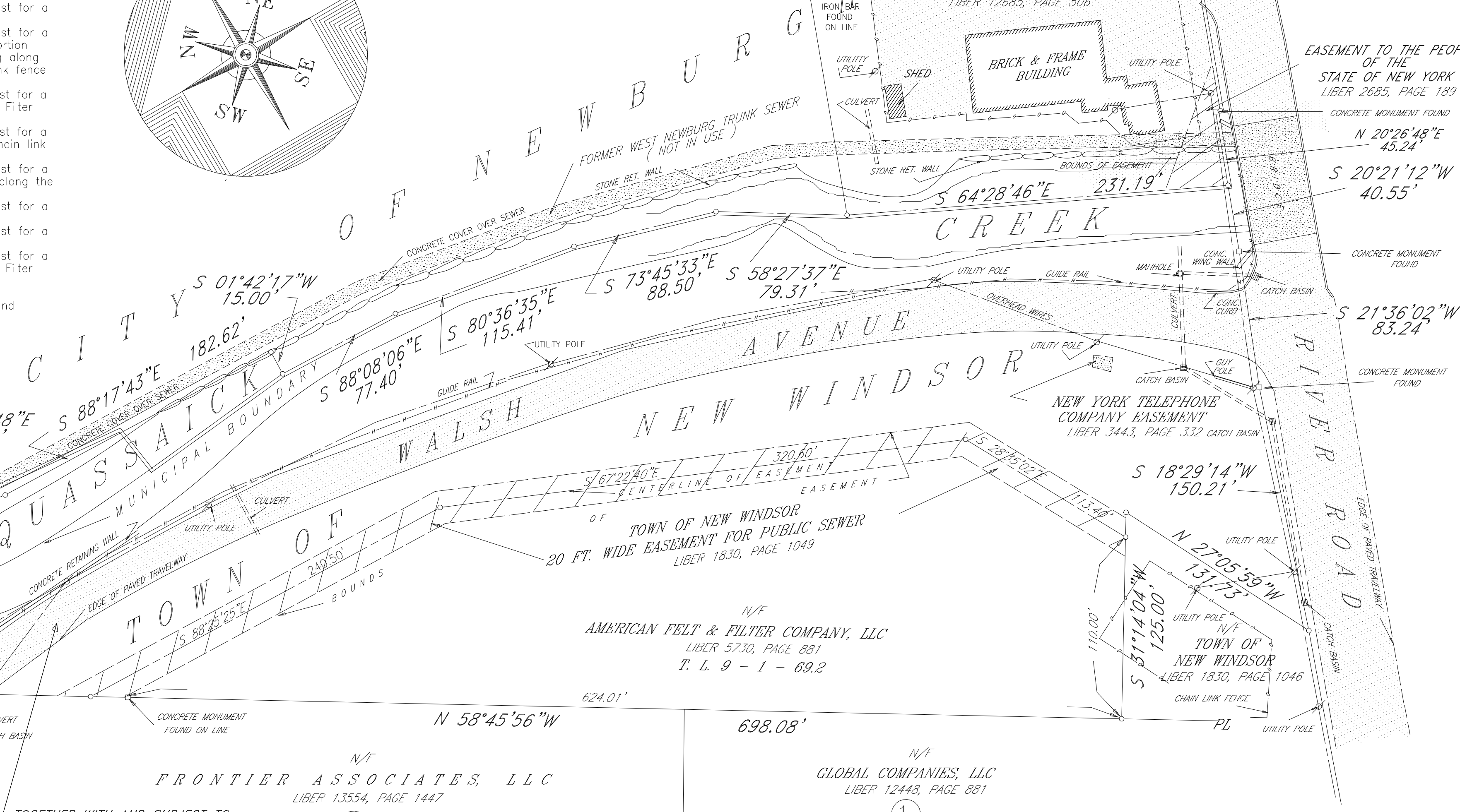
THENCE North 79 degrees 50 minutes 03 seconds West for a distance of 76.32 feet along the same to a point;  
THENCE North 63 degrees 58 minutes 31 seconds West for a distance of 207.60 feet along the same to a point;  
THENCE North 58 degrees 07 minutes 45 seconds West for a distance of 158.08 feet along the same to a point;  
THENCE North 39 degrees 46 minutes 15 seconds West for a distance of 359.39 feet along said retaining wall, for a portion thereof, and continuing along said chain link fence running along the northerly side of Walsh Road to a point at a chain link fence corner;  
THENCE North 25 degrees 57 minutes 04 seconds East for a distance of 290.58 feet through lands of American Felt & Filter Company, Inc. and along a chain link fence to a point;  
THENCE North 32 degrees 11 minutes 52 seconds East for a distance of 96.63 feet along the same to a point at a chain link fence corner;  
THENCE South 63 degrees 15 minutes 48 seconds East for a distance of 118.72 feet along a chain link fence running along the southwesterly side of Quassaick Creek to a point;  
THENCE South 39 degrees 17 minutes 44 seconds East for a distance of 49.88 feet along the same to a point;  
THENCE South 49 degrees 37 minutes 45 seconds East for a distance of 119.24 feet along the same to a point;  
THENCE South 71 degrees 50 minutes 00 seconds East for a distance of 157.33 feet through lands of American Felt & Filter Company, Inc. to the POINT OR PLACE OF BEGINNING.

Together with and subject to covenants, easements, and restrictions of record.

Said property contains 9.8590 acres more or less.



MAP ENTITLED  
"LOT LINE CHANGE PLAN BETWEEN THE LANDS OF  
DAVID PLOTNIK AND WAREX TERMINALS CORPORATION"  
DATED AUGUST 17, 2007 BY RICHARD PAUL HANBACK, L.S.  
FILED IN THE ORANGE COUNTY CLERK'S OFFICE  
AS MAP #408-08



TOGETHER WITH AND SUBJECT TO:  
THE RIGHT OF PUBLIC USE OF THE EXISTING  
PAVED TRAVELWAY AND APPURTENANCES OF  
WALSH ROAD OVER, ACROSS AND THROUGH  
LANDS OF AMERICAN FELT & FILTER, INC.

NOTES:

- UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S SEAL IS A VIOLATION OF SECTION 7209 SUB-DIVISION 2 OF THE NEW YORK STATE EDUCATION LAW.
- COPIES OF THIS SURVEY MAP NOT HAVING THE EMBOSSED SEAL OF THE LAND SURVEYOR SHALL NOT BE VALID.
- CERTIFICATIONS SHOWN HEREON ARE NOT TRANSFERABLE TO ADDITIONAL INDIVIDUALS, INSTITUTIONS, THEIR SUCCESSORS AND/OR ASSIGNS OR SUBSEQUENT OWNERS.
- THE CERTIFICATION AS STATED IS APPLICABLE TO THE RELATIONSHIP OF EXISTING BOUNDARIES, PROPERTY LINES & EASEMENTS (THOSE VISIBLE AND/OR OF RECORD) TO THE EXISTING IMPROVEMENTS & BUILDINGS INDICATED ON THE SURVEY AND ARE SHOWN HEREON TO THE EXTENT THEREOF.
- ONLY THOSE UTILITIES VISIBLE ARE SHOWN. ALL UNDERGROUND UTILITIES AS SHOWN HEREON ARE APPROXIMATE AND SUBJECT TO PHYSICAL VERIFICATION.
- EASEMENTS OR RIGHT OF WAYS ON, OR UNDER THE LANDS, AND NOT VISIBLE, ARE NOT SHOWN.
- THAT PORTION OF THE PROPERTY LYING IN THE BED OF QUASSAICK CREEK IS LOCATED IN FEMA 100 YEAR FLOOD HAZARD ZONE DESIGNATED AS A5 AS SHOWN ON THE FLOOD INSURANCE RATE MAP FOR THE TOWN OF NEW WINDSOR, COMMUNITY PANEL #360628 0010 B, PAGE 10 OF 10, DATED DECEMBER 15, 1978. NO FIELD DETERMINATION HAS BEEN MADE BY THIS SURVEY TO THE EXTENT OF THE PUBLISHED BASE FLOOD ELEVATIONS.
- THIS SURVEY MAP SHALL BE DEEMED INVALID UNLESS ACCOMPANIED BY SHEET 2 OF 2. SEE SHEET 2 OF 2 FOR ADDITIONAL INFORMATION.

THIS PROPERTY IS SUBJECT TO AN  
ENVIRONMENTAL EASEMENT HELD BY THE  
NEW YORK STATE DEPARTMENT OF  
ENVIRONMENTAL CONSERVATION  
PURSUANT TO TITLE 36 OF ARTICLE 71  
OF THE NEW YORK ENVIRONMENTAL  
CONSERVATION LAW.

BEING:

THE PARCELS OF LAND INTENDED AS DESCRIBED IN DEED OF RECORD  
LIBER 5730, PAGE 201.  
ALSO BEING LOT 69.2, BLOCK 1, SECTION 9 AS SHOWN ON THE TOWN OF  
NEW WINDSOR TAX MAP. THERE IS NO TAX MAP DESIGNATION FOR THE  
PORTION OF PROPERTY LYING IN THE CITY OF NEWBURGH.

I HEREBY CERTIFY ONLY TO THE PARTIES  
LISTED HEREON THAT THIS MAP IS BASED  
ON AN ACTUAL FIELD SURVEY COMPLETED  
ON 4/17/98 AND HAS BEEN  
PREPARED IN ACCORDANCE WITH THE CODE  
OF PRACTICE ESTABLISHED BY THE  
N.Y.S. ASSOC. OF PROFESSIONAL LAND  
SURVEYORS, INC.

THIS CERTIFICATION DOES NOT RUN WITH  
TITLE TO THE LAND AND IS SUBJECT TO  
ANY STATE OF FACTS A TITLE SEARCH  
MAY REVEAL.

\* AMERICAN FELT & FILTER COMPANY, INC.,  
\* THE PEOPLE OF THE STATE OF NEW YORK,  
ACTING THROUGH ITS COMMISSIONER OF THE  
DEPARTMENT OF ENVIRONMENTAL CONSERVATION.

REFERENCES:

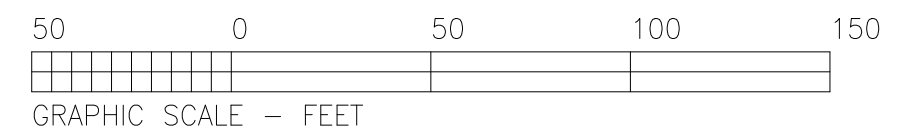
- DEEDS OF RECORD
- MAP ENTITLED "MAP OF LANDS OWNED BY THE STROOCK FELT CO. IN THE TOWN OF NEW WINDSOR", DATED AUGUST 1902, ON FILE IN THE NEWBURGH CITY ENGINEER'S OFFICE.
- MAP ENTITLED "MAP OF LANDS OF S STROOCK AND CO. INC FELT MILLS", DATED OCTOBER 1923 AND REVISED MARCH 1925 BY BLAKE AND WOODHULL, CIVIL ENGINEERS, ON FILE IN THE NEWBURGH CITY ENGINEER'S OFFICE.
- MAP ENTITLED "MINOR SUBDIVISION, DIAMOND CANDLE CO., INC.", FILED IN THE ORANGE COUNTY CLERK'S OFFICE ON FEBRUARY 25, 1987 AS MAP #8131.
- MAP ENTITLED "SURVEY MAP FOR AMERICAN FELT AND FILTER COMPANY", DATED JUNE 1990 BY WASHBURN ASSOCIATES.
- MAP ENTITLED "LOT LINE CHANGE PREPARED FOR AMERICAN FELT & FILTER COMPANY", FILED IN THE ORANGE COUNTY CLERK'S OFFICE ON JULY 12, 1993 AS MAP #122-93.
- MAP ENTITLED "SURVEY OF A PORTION OF LANDS OF THE AMERICAN FELT & FILTER COMPANY SHOWING OCCUPANCY PROPOSED BY NEW YORK TELEPHONE COMPANY", DATED JANUARY 1994 BY CHAZEN ENGINEERING & LAND SURVEYING CO., P.C.
- MAP ENTITLED "SURVEY AND PROPOSED LOT LINE CHANGE PREPARED FOR DAVID PLOTNIK AND MOBIL OIL CORPORATION", FILED IN THE ORANGE COUNTY CLERK'S OFFICE AS MAP #74-94.

SURVEY OF PROPERTY

FOR  
A F F C O

AMERICAN FELT & FILTER COMPANY, INC.

TOWN OF NEW WINDSOR, CITY OF NEWBURGH  
SCALE: 1" = 50'  
ORANGE COUNTY, NEW YORK  
AUGUST 8, 2013 REVISED: 3/23/15



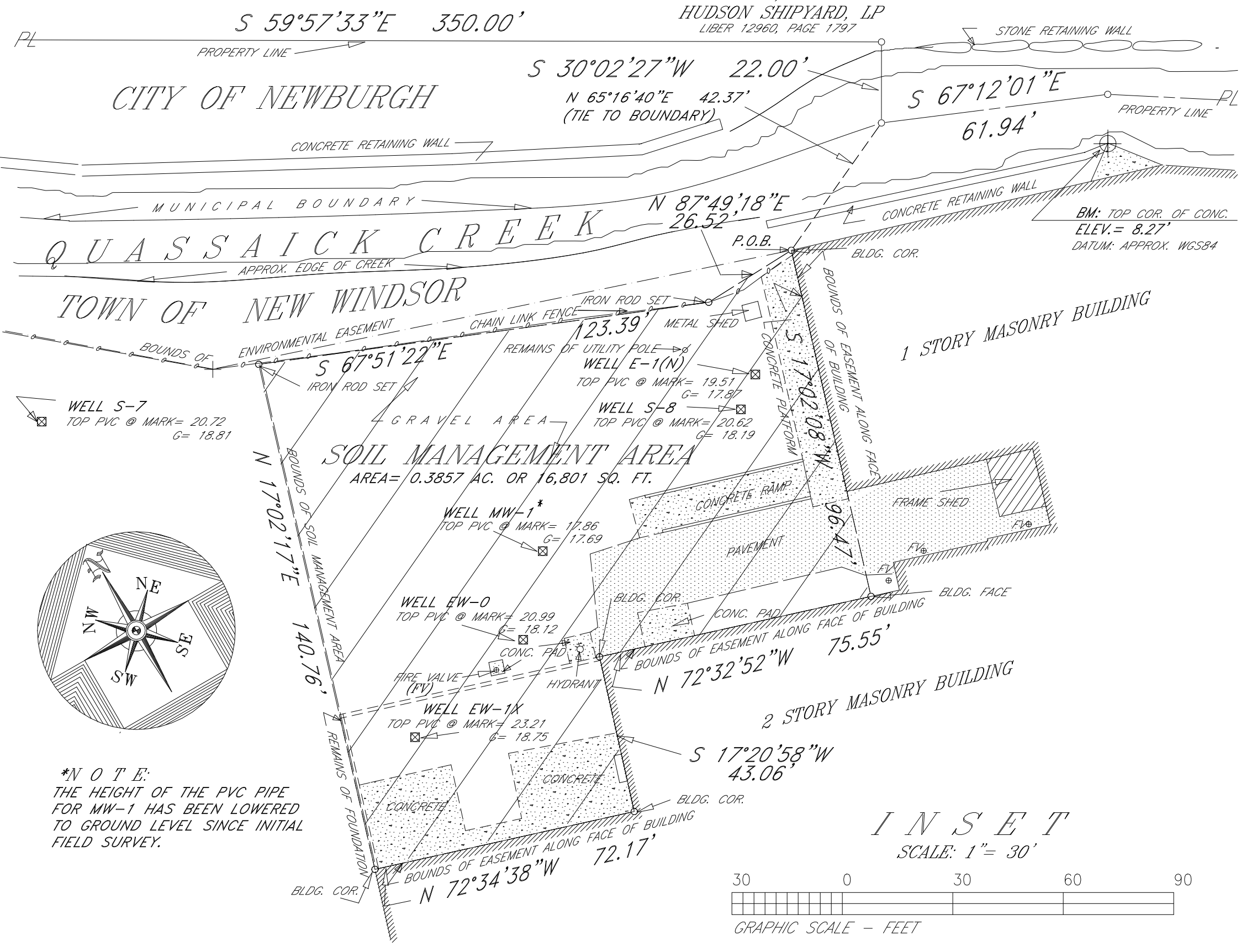
SHEET 1 OF 2



A SOIL MANAGEMENT AREA over, across and through all that certain plot, piece or parcel of land with the building and improvements thereon erected, situate, lying and being in the Town of New Windsor, County of Orange and State of New York bounded and described as follows:  
BEGINNING at a point at the northwesterly corner of the 1story masonry building of the most northerly complex of buildings located on lands of American Felt & Filter Company Inc., Liber 5730, Page 201, said point of beginning being located South 65 degrees 16 minutes 40 seconds West for a distance of 42.37 feet from a corner in the northerly bounds of lands of the same at the intersection with the municipal boundary between the City of Newburgh and Town of New Windsor and lands now or formerly of Hudson Shipyard Lp, Liber 12960, Page 1797;  
THENCE South 17 degrees 02 minutes 08 seconds West for a distance of 96.47 feet along the westerly face of said one story masonry building, for a portion thereof, and continuing to a point at the northerly face of a two-story masonry building;  
THENCE North 72 degrees 32 minutes 52 seconds West for a distance of 75.55 feet along the northerly face of said building to a point at the corner of said building;  
THENCE South 17 degrees 20 minutes 58 seconds West for a distance of 43.06 feet along the westerly face of the two-story masonry building to a point at the corner of said building;  
THENCE North 72 degrees 34 minutes 38 seconds West for a distance of 72.17 feet along the northerly face of the two story masonry building to a point at the most northwesterly corner of said building;  
THENCE North 17 degrees 02 minutes 17 seconds East for a distance of 140.76 feet through lands of American Felt & Filter Company, Inc. to a point marked by an iron rod set at or near a chain link fence;  
THENCE South 67 degrees 51 minutes 22 seconds East for a distance of 123.39 feet through lands of the same and along a chain link fence to a point marked by an iron rod set;  
THENCE North 87 degrees 49 minutes 18 seconds East for a distance of 26.52 feet through lands of American Felt & Filter Company, Inc. to the POINT OR PLACE OF BEGINNING.

Together with and subject to covenants, and restrictions of record.

Said area contains 0.3857 acres more or less.



BOUNDS OF ENVIRONMENTAL EASEMENT		
COURSE	BEARING	DISTANCE
1	S 72°57'34"E	103.33'
2	S 55°20'14"E	229.78'
3	S 48°19'11"E	181.72'
4	S 35°57'07"W	224.60'
5	S 49°48'02"W	165.72'
6	S 79°07'37"W	97.59'
7	N 79°50'03"W	76.32'
8	N 63°58'31"W	207.60'
9	N 58°07'45"W	158.08'
10	N 39°46'15"W	359.39'
11	N 25°57'04"E	290.58'
12	N 32°11'52"E	96.63'
13	S 63°15'48"E	118.72'
14	S 39°17'44"E	49.88'
15	S 49°37'45"E	119.24'
16	S 71°50'00"E	157.33'

A R E A = 9.8590 ACRES

THIS PROPERTY IS SUBJECT TO AN ENVIRONMENTAL EASEMENT HELD BY THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION PURSUANT TO TITLE 36 OF ARTICLE 71 OF THE NEW YORK ENVIRONMENTAL CONSERVATION LAW.

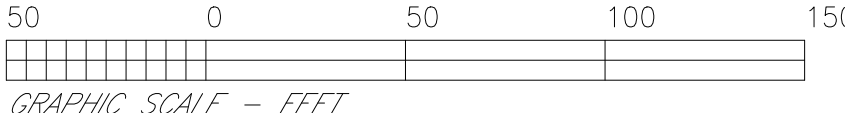
B E I N G:  
THE PARCELS OF LAND INTENDED AS DESCRIBED IN DEED OF RECORD LIBER 5730, PAGE 201.  
ALSO BEING LOT 69.2, BLOCK 1, SECTION 9 AS SHOWN ON THE TOWN OF NEW WINDSOR TAX MAP. THERE IS NO TAX MAP DESIGNATION FOR THE PORTION OF PROPERTY LYING IN THE CITY OF NEWBURGH.

A R E A = 23.1853 ACRES

FIELD SURVEY FOR EASEMENT BOUNDARY COMPLETED ON 3/18/15.  
FIELD SURVEY UPDATE COMPLETED ON 7/24/13.  
I HEREBY CERTIFY ONLY TO THE PARTIES LISTED HEREON THAT THIS MAP IS BASED ON AN ACTUAL FIELD SURVEY COMPLETED ON 9/17/2009 AND HAS BEEN PREPARED IN ACCORDANCE WITH THE CODE OF PRACTICE ESTABLISHED BY THE N.Y.S. ASSOC. OF PROFESSIONAL LAND SURVEYORS, INC.  
THIS CERTIFICATION DOES NOT RUN WITH TITLE TO THE LAND AND IS SUBJECT TO ANY STATE OF FACTS A TITLE SEARCH MAY REVEAL.  
\* AMERICAN FELT & FILTER COMPANY, INC.,  
\* THE PEOPLE OF THE STATE OF NEW YORK, ACTING THROUGH ITS COMMISSIONER OF THE DEPARTMENT OF ENVIRONMENTAL CONSERVATION.

SURVEY OF PROPERTY  
FOR  
A F F C O  
AMERICAN FELT & FILTER COMPANY, INC.

TOWN OF NEW WINDSOR, CITY OF NEWBURGH  
SCALE: 1" = 50'  
ORANGE COUNTY, NEW YORK  
AUGUST 8, 2013 REVISED: 3/23/15



N O T E: THIS SURVEY MAP SHALL BE DEEMED INVALID UNLESS ACCOMPANIED BY SHEET 1 OF 2.  
SEE SHEET 1 OF 2 FOR REFERENCES, NOTES AND ADDITIONAL INFORMATION.

N/F  
FRONTIER ASSOCIATES LLC  
LIBER 13554, PAGE 1447

N/F  
PECHKAM MATERIALS CORP.  
LIBER 2736, PAGE 299

# **APPENDIX B**

## **Digital Copy of FER**

**AMERICAN FELT & FILTER COMPANY  
NEW WINDSOR, NEW YORK**

---

**Final Engineering Report**

**Consent Order Index # W3-0784-04-06  
Site # 3-36-036**

Prepared for

**American Felt & Filter Company  
New Windsor, NY**

**Prepared by**

Arnold F. Fleming, P.E.  
158 W. 29th Street, 9th Floor  
New York, New York 10001

---

**FEBRUARY 2018**



# CERTIFICATIONS

I, Arnold F. Fleming, am currently a registered professional engineer licensed by the State of New York, I had primary direct responsibility for implementation of the remedial program activities, and I certify that the Remedial Action Work Plan was implemented and that all construction activities were completed in substantial conformance with the Department-approved Remedial Action Work Plan.

I certify that the data submitted to the Department with this Final Engineering Report demonstrates that the remediation requirements set forth in the Remedial Action Work Plan and in all applicable statutes and regulations have been or will be achieved in accordance with the time frames, if any, established in for the remedy.

I certify that all documents generated in support of this report have been submitted in accordance with the Department's electronic data deliverable and have been accepted by the Department.

I certify that all data generated in support of this report have been submitted in accordance with the Department's electronic submission protocols and have been accepted by the Department.

I certify that all use restrictions, Institutional Controls, Engineering Controls, and/or any operation and maintenance requirements applicable to the site are contained in an environmental easement created and recorded pursuant ECL 71-3605 and that all affected local governments, as defined in ECL 71-3603, have been notified that such easement has been recorded.

I certify that a Site Management Plan has been submitted for the continual and proper operation, maintenance, and monitoring of all Engineering Controls employed at the site, including the proper maintenance of all remaining monitoring wells, and that such plan has been approved by Department.

I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, Arnold F. Fleming, 158 West 29<sup>th</sup> Street, 9<sup>th</sup> Floor, New York, NY 10001, am certifying as Owner's Designated Site Representative for the site.

050411  
NYS Professional Engineer #

2/8/18  
Date



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Table 10      Soil Pile/Soil Cover Samples (in text)

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Appendix C	CAMP Certification
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Appendix F	VeruTEK Report
Appendix G	Project Photographic Log

# ACRONYMS

Acronym	Definition
AWQS	Ambient Water Quality Standard
BTEX	Benzene, Toluene, Ethylbenzene, Total Xylenes
CAMP	Community Air Monitoring Plan
CPP	Citizen Participation Plan
DUSR	Data Usability Summary Report
EC	Engineering Control
FER	Final Engineering Report
ft.-bg	Feet below Grade
GA	Source of Drinking Water
HASP	Health and Safety Plan
IC	Institutional Control
IFT	Interfacial Tension
m	milli or Meter
NYSDEC	New York State Department of Environmental Conservation
N	Newtons
PAH	Polynuclear Aromatic Hydrocarbons
PRR	Periodic Review Report
QAPP	Quality Assurance Project Plan
RAWP	Remedial Action Work Plan
RI	Remedial Investigation
S-ISCO™	Surfactant-Enhanced In-Situ Chemical Oxidation
SCO	Soil Cleanup Objective
S/MMP	Soil/Materials Management Plan
SSDS	Sub-Slab Depressurization System
SMP	Site Management Plan
SOP	Site Operation Plan
SVOCs	Semi-volatile Organic Compounds
SWPPP	Stormwater Pollution Prevention Plan
TCA	1,1,1-Trichloroethane
TCL	Target Compound List
TOGS	Technical and Operational Guidance Series
UST	Underground Storage Tank
VOCs	Volatile Organic Compounds

## FINAL ENGINEERING REPORT

### Introduction

On behalf of The American Felt and Filter Company (AFFCO), Arnold F. Fleming, P.E., and Fleming-Lee Shue, Inc. (collectively FLS) have prepared this Final Engineering Report (FER) to document the completion of remedial activities at 361 Walsh Avenue, New Windsor, New York (Site). The remediation was completed in accordance with the approved FLS 2012 Remedial Action Work Plan and was prepared in accordance with the NYSDEC's DER-10 Technical Guidance for Site Investigation and Remediation, May 2010. AFFCO is also under a Consent Order to remedy the property (Index No. W3-0784-04-06). The New York State Department of Environmental Conservation (NYSDEC) placed the Site on its Inactive Hazardous Waste Sites list in 1991 (Site Code 3-36-036) because of the potential threat to the adjacent Quassaick Creek.

The AFFCO property, located in New Windsor, Orange County, New York manufactures a variety of felt and filter products. The Site lies on the south side of Quassaick Creek, which flows into the Hudson River approximately 0.2 miles east of the Site. AFFCO is on industrial zoned land. Beyond the Site, the surrounding area is a mixture of land uses including industrial, commercial, and residential. The entire property occupies 23.185 acres but the Consent Order Environmental Easement Area is 0.5454 acres and includes the remediated soil area and the adjacent Piano Felt Building that houses a sub-slab depressurization system (SSDS). Most of the Site is level. Figure 1 shows the Site and an inset depicts the entire property outline. Appendix A shows the property and Environmental Easement area.

Site investigations completed in 1988 found soil and groundwater near the Feutron Building contained 1,1,1-Trichloroethane (TCA). The source of the contamination was believed to be from historic leakage within the enclosed process area and spillage in the adjacent drum storage area. Subsequent soil and groundwater sampling in September 1994, August 1998, and October 2001 indicated that residual TCA remained in the soil and groundwater in the former drum storage area near the Feutron Building. In response, FLS submitted a Remedial Design/Remedial Action Work Plan (RD/RAWP) in February 2005 to NYSDEC. The RD/RAWP work plan called for a Dual Phase Extraction System to remediate soil and groundwater near and beneath the Feutron Building. The RD/RAWP was approved in September 2005. After the RD/RAWP was approved, the northwestern portion of the Feutron Building was taken out of service and subsequently demolished. This changed conditions such that other more effective remediation alternatives became available, and the Dual Phase Extraction System was never implemented.

In 2008, FLS prepared a revised RAWP to remediate the TCA-impacted soil by excavation and disposal. This RAWP was subsequently approved by NYSDEC in October 2008 but not executed. Ultimately, FLS prepared a revise RAWP in March 2012 that was approved by NYSDEC on April 4, 2012. The 2012 RAWP called for excavation of the top 10 feet of impacted soil near the former Feutron Building and *in situ* chemical oxidation of the contaminant from the water table to the underlying till layer.

The treatment remedy was *in situ* chemical injection using alkaline-activated sodium persulfate, sodium hydroxide, and a plant-based surfactant. Sodium persulfate was the oxidant and was activated by the addition of sodium hydroxide to raise the pH. The plant-based surfactant, VeruSOL<sup>®</sup>, was added to aid in the dissolution of the non-aqueous phase liquid (NAPL) to make it available for chemical oxidation. In all, 13,200 gallons of oxidant mixture were injected over a 6-day treatment period during July 2012. Comparison of pre-treatment and post-treatment soil contaminant mass estimates indicated that approximately 73 percent of the total volatile organic compound (VOC) mass was destroyed and approximately 76 percent of the TCA mass was destroyed. On a stratum-by-stratum basis, an average of 76 percent of the total VOC mass was degraded and an average of 87 percent of the TCA mass was degraded. Most soils met the Part 375 Residential Use Soil Cleanup objectives (SCO) and all soils met the Site cleanup standard, the Commercial Use Soil Cleanup Objectives. Groundwater exhibited large reductions on VOC concentrations. A number of VOCs met the TOGS GA cleanup goal.

Excavation was conducted by removing soils in each of five grid cells to a depth of approximately 10 feet below grade. The soils were staged on plastic sheeting before being tested and returned to the excavation if found to meet the Commercial Use SCOs. All soil met the SCOs. The Site contains a Soil Management Area that includes the remediated area and groundwater monitoring wells. The Soil Management Area is one component of the Environmental Easement. The second component includes the Piano Felt Building where there is a SSDS.

## 1.0 BACKGROUND AND SITE DESCRIPTION

The AFFCO Site, located in New Windsor, Orange County, New York (Figure 1), manufactures a variety of felt and filter products. The Site lies on the south side of Quassaick Creek, which flows into the Hudson River approximately 0.2 miles east of the Site. AFFCO is on industrial zoned land. Beyond the Site, the surrounding area is a mixture of land uses including industrial, commercial and residential. The entire property occupies 23.185 acres but the Environmental Easement area is 0.5454 acres.

Prior to 1978, the Site was owned and operated by the GAF Corporation, which manufactured the same products as AFFCO. During both GAF's and AFFCO's ownership, the facility used TCA as a solvent and carrier for zinc resinate, used to impregnate felt sheets in the Feutron Building. The TCA was stored on Site in 55-gallon drums in an enclosed area just outside the Feutron Building. Approximately 35 to 40 drums of TCA were generally present on-Site during regular operations. The facility stopped using TCA in 1992 when the AFFCO shut down the production line.

Site investigations completed in 1988 found soil and groundwater near the Feutron Building contained TCA. The source of the contamination was believed to be from historic leakage within the enclosed process area and spillage in the drum storage area. NYSDEC placed the Site on its Inactive Hazardous Waste Sites list in 1991 (Site Code 3-36-036) because of the potential threat to the adjacent Quassaick Creek. AFFCO is also under a Consent Order to remedy the property (Index No. W3-0784-04-06).

Subsequent soil and groundwater sampling in September 1994, August 1998, and October 2001 indicated that residual TCA remained in the soil and groundwater in the former drum storage area near the Feutron Building. FLS prepared the final RAWP in 2012 to remediate the TCA-impacted soil by excavation and *in situ* chemical treatment. This RAWP was subsequently approved by NYSDEC on April 4, 2012. The 2012 RAWP called for excavation of the top 10 feet of impacted soil near the former Feutron Building and *in situ* chemical oxidation of the contaminant from the water table to the underlying confining layer (glacial till).

The portion covered by a Soil Management Area, SSDS, and the Site boundaries are shown in Appendix A. An electronic copy of this FER with all supporting documentation is included as Appendix B.



## **2.0 SUMMARY OF SITE REMEDY**

Based on the results of the Remedial Investigation, the following Remedial Action Objectives (RAO) were identified for this Site.

### **2.1 REMEDIAL ACTION OBJECTIVES**

#### **2.1.1 Groundwater**

RAOs for Public Health Protection

- Prevent ingestion of groundwater containing contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of, volatiles emanating from contaminated groundwater.
- The remedial action objectives for groundwater are the TOGS 1.1.1 GA ambient water quality standards (TOGS) or asymptotic levels of VOCs in groundwater following acceptable levels of treatment.

RAOs for Environmental Protection

- Restore ground water aquifer, to the extent practicable, to pre-disposal/pre-release conditions.
- Prevent the discharge of contaminants to surface water.
- Prevent further off-site migration of contaminated groundwater.
- Remove the source of groundwater contamination.

#### **2.1.2 Soil RAOs**

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation of, or exposure to, contaminants volatilizing from contaminated soil.
- The soil remedial action objectives are the Part 375 Commercial Use SCOs and a 90 percent reduction in contaminant mass as defined by the sum of the VOCs.

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater contamination.
- Prevent impacts to biota due to ingestion/direct contact with contaminated soil that would cause toxicity or bioaccumulation through the terrestrial food chain.

### **2.1.3 Surface Water RAOs**

There is no surface water on the Soil Management Area, so the remedial action did not address this medium.

### **2.1.4 Sediment RAOs**

There are no sediment areas on Soil Management Area, so the remedial action did not address this medium.

### **2.1.5 Soil Vapor, RAOs for Public Health Protection**

Mitigate impacts to public health resulting from existing, or the potential for, vapor intrusion into the buildings at a site.

## **2.2 DESCRIPTION OF THE SELECTED REMEDY**

The remedy consisted of two parts. Part 1 consisted *in situ* chemical oxidation of soils within the 50-ft. by 50-ft. treatment area from 10 ft.-bg to 15 ft.-bg. Treatment used the RemMetrik® (U.S. Patent No. 8,739,867) methodology that targets the contaminant mass and injects the treatment amendment using subsurface pressure waves. In this instance, the subsurface pressure waves and injection were provided by Wavefront Technology Solutions Inc. Primawave™ methodology. Chemical oxidation was provided by VeruTEK's S-ISCO™ technology using alkaline-activated sodium persulfate and a plant-based surfactant.

Sodium persulfate was the oxidant and was activated by the addition of sodium hydroxide to raise the pH. The plant-based surfactant, VeruSOL®, was added to aid in the dissolution of any NAPL to make it available for chemical oxidation.

Part 2 consisted of excavation of the upper 10 feet of soil within the 50-ft. by 50-ft. treatment area. Excavated soils were placed in a lined containment unit and were subsequently tested and returned to the excavation if the soils met the SCOs.

### 3.0 INTERIM REMEDIAL MEASURES, OPERABLE UNITS AND REMEDIAL CONTRACTS

A SSDS designed by FLS, was installed at the Piano Felt Building by AFFCO in October 2010. The SSDS was installed to mitigate residual TCA emissions potentially impacting indoor air quality for commercial/industrial land use at this Site and prevent potential migration of subsurface vapors to the nearby area. The system was designed in accordance with the New York State Department of Health (NYSDOH) *Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York* (2006).

A mitigation system was required based on concentrations of TCA in sub-slab vapor and indoor air samples collected in December 2009. The sub-slab vapor sample contained 539 micrograms per cubic meter ( $\text{ug}/\text{m}^3$ ) of TCA and the indoor air sample contained  $34 \text{ ug}/\text{m}^3$  of TCA.

The SSDS consists of centrally located depressurization pits with a pipe connected to a fan inserted into each pit. The soil vapor exhaust is located above the roof. The vacuum field is subsequently measured using pressure monitoring points located at each corner of the building. The performance goal for the system is a minimum of (-0.02) inches of water column (w.c.) in each of the vacuum monitoring points.

The piping from the pit is constructed of polyvinyl chloride (PVC) plastic and sealed into the replaced slab with silicone sealant. All pipe sizes are 4 inches in diameter. The fan is capable of operating at a minimum 375 cubic feet per minute (CFM) at 0 inches of water column (w.c.). See the SSDS Construction Completion Report, submitted May 2011, for more information regarding the system.

## **4.0 DESCRIPTION OF REMEDIAL ACTIONS PERFORMED**

### **4.1 GOVERNING DOCUMENTS**

#### **4.1.1 Remedial Action Work Plan**

All remedial work performed under this Remedial Action was in full compliance with the approved RAWP. The RAWP outlined the remedial methods and procedures and the remedial goals to be attained.

#### **4.1.2 Site Specific Health & Safety Plan (HASP)**

All remedial work performed under this Remedial Action was in full compliance with governmental requirements, including site and worker safety requirements mandated by Federal OSHA. All work was conducted in accordance with the OSHA-compliant HASP prepared for all remedial and invasive work performed at the Site.

#### **Community Air Monitoring Plan (CAMP)**

The purpose of the CAMP is to protect downwind receptors (e.g., residences, businesses, schools, nearby workers, and the public) from potential airborne contaminants released as a direct result of the Remedial Action being performed at the site. A modified CAMP was used because the remediated area is confined to an isolated portion of the Site that is a considerable distance from nearby residences, nearby workers, and the public.

Air monitoring for VOCs occurred during soil excavation. No VOCs were observed above the CAMP action limits. Monitoring for particulates was not done during soil excavation. It was not required under the approved modified CAMP. The area is primarily commercial/industrial and the nearest residence is approximately 500 feet from where soil was excavated and managed. Woodland separates the residence from the work area.

### **4.2 REMEDIAL PROGRAM ELEMENTS**

#### **4.2.1 Contractors and Consultants**

- The Remedial Engineer for this project was Arnold F. Fleming, P.E. He is a registered professional engineer licensed by the State of New York.

- VeruTEK, Bloomfield, CT – Remediation Contractor responsible for implementation of the surfactant-enhanced *in-situ* chemical oxidation S-ISCO® Treatment.
- Zebra, Lynbrook, NY – Drilling Contractor responsible for implementing Primawave™, the process used to enhance delivery of chemical amendments at the pore scale level.

#### **4.2.2 Community Air Monitoring Results**

VOCs in air were monitored using a photoionization detector (PID) during excavation and soil stockpiling. VOC air monitoring results were all below NYSDEC's CAMP guideline of 5 ppm. AFFCO received no complaints about air nuisance during the remedial work. Appendix C contains the signed certification from the safety manager conducting the CAMP.

### **4.3 REMEDIAL ACTIONS**

Remediation of the AFFCO Site was completed in two stages: 1) *in situ* chemical oxidation of soils and groundwater in the 50-ft. by 50-ft. treatment area, from the water table to 15 feet below grade, atop the till layer, and 2) excavation of soils within the 50-ft. by 50-ft. treatment area from grade to slightly below the water table. Previous investigations found a compact till layer at 15 feet below grade that acted as a barrier to contaminant migration. For this reason remediation was limited to 15 feet below grade in the area of concern (treatment area).

The excavation encompassed the area near the former Feutron Building as shown on Figure 2. Excavation proceeded on a grid-cell-by-grid cell basis. The soil was removed from the impacted area and placed in a lined containment unit for testing and was returned to the respective grid cell after testing indicated that the results met the Part 375 Commercial Use SCOs. Remediation took place between July and September 2012. Figure 3 presents the pre-treatment and post-excavation results. Figure 4 presents the results of pre- and post-treatment groundwater sampling. Table 1 presents the SCOs. Table 2 presents the VOC endpoint sampling results. Appendix D contains the laboratory reports and Appendix E contains the Data Usability Summary Reports (DUSR).

#### **4.3.1 Chemical Oxidation**

Stage 1 occurred in July 2013. In preparation for chemical oxidation the treatment area was divided into six grid cells each approximately 17 feet by 25 feet (Figure 2). In May 2012, twenty-four, 6-inch-long pre-treatment soil cores within the treatment interval were collected from eight soil borings located within the six grid cells. Encore soil samples for VOC analysis were collected from the soil cores. A randomly selected X-coordinate and randomly selected Y-coordinate placed the boring within each grid cell. Then, three

randomly selected 6-inch-long depth intervals were sampled in each boring. Grid Cells 1 and 2 had two borings each. The objective was to augment the existing soil data from the 10-ft. to 15-ft. treatment interval so as to have a basis for comparing before and after *in situ* treatment results. In total, the combined soil characterization samples from earlier soil sampling and the randomly collected soil samples collected in May 2012 yielded 31 pre-treatment (baseline) soil samples.

Three injection wells (IW-1, IW-2, and IW-3) were installed in May 2012 for a total of 6 days of chemical treatment (Figure 2). The injection wells were built of 2-inch-diameter Schedule 80 PVC. The screened intervals were as follows:

<b>Injection Well</b>	<b>Top of Screen, ft.-bg</b>	<b>Bottom of Screen, ft.-bg</b>	<b>Screen Length, ft.</b>	<b>Grid Cell</b>
IW-1	9	12.3	3.3	2
IW-2	9	13.1	4.1	2
IW-3	9	12	3	4

In addition, five Geoprobe well points were used to inject chemical in the 13-ft to 14-ft- and 14-ft. to 15-ft.-intervals in Grid Cell 2. The Geoprobe points were required because of the dense till layer. The intent was to install the injection well screens to 15 feet but this was infeasible due to the dense till layer beginning at approximately 13 feet that prevented further penetration while installing the injection wells.

The remedy for AFFCO was *in situ* chemical injection using the RemMetrik® methodology, which used Wavefront's Primawave® technology in this instance, and VeruTEK's Surfactant Enhanced *in situ* Chemical Oxidation (S-ISCO®) process, which used sodium persulfate, sodium hydroxide, and a plant-based surfactant. Sodium persulfate was the oxidant and was activated by the addition of sodium hydroxide to raise the pH. The plant-based surfactant, VeruSOL®, was added to aid in the dissolution of the contaminant to make it available for chemical oxidation. In all, 13,200 gallons of oxidant were injected into the treatment interval on July 11 and 12 and again on July 23, 24, 25, and 26, 2012. The following concentrations formed the oxidant mixture: sodium persulfate, 15 – 50 g/L; sodium hydroxide, 12 – 50 g/L; VeruSOL®, 0 – 15 g/L.

Groundwater was regularly monitored in nearby monitoring and injection wells during injections for pH, sodium persulfate, conductivity, oxidation reduction potential (ORP), dissolved oxygen, and temperature to ensure a proper chemical environment for oxidation and that conditions for *in situ* treatment were optimal.

The remedial excavation, Stage 2, took place in August-September 2012, in the interval between the end of the chemical injections and post-treatment soil sampling. Five bottom endpoint soil samples were collected at the bottom of the excavation, which was from 10 feet to 11 feet below grade, to document soil conditions. These samples were biased toward staining and were collected within the stratum previously treated by *in situ* chemical oxidation.

On March 27, 2013, another set of 24 randomly collected post-treatment Encore

soil samples were gathered from the six grid cells using an entirely new set of random coordinates (Figure 3). In total, the 24 randomly collected post-treatment soil samples and two duplicate samples, plus the five bottom endpoint samples yielded 31 post-treatment soil samples for comparison to pre-treatment conditions.

## **Chemical Oxidation Results**

Post-treatment soil and groundwater sampling took place in March and April 2013. All of the oxidant had been expended prior to post-treatment sampling. Appendix F contains the remediation contractor, VeruTEK, report describing the treatment details.

## **Soils**

The soil treatment goals were the Part 375 Commercial Use Soil Cleanup Objectives and 90 percent reduction in overall contaminant mass, which is defined as the sum of the Target Compound List (TCL) VOCs. The primary contaminants were the chlorinated VOCs. The principal VOC was TCA.

Of the 31 post-treatment soil samples, all but three VOC results met the Residential Use w/CP-51 Soil Cleanup Objectives, which are more stringent than the Commercial Use SCOs. The VOC compounds in the remaining three samples were well below the Commercial Use SCOs. An appreciable number of post-treatment soil samples were below the Unrestricted Use SCOs.

Contaminant reductions were computed by comparing the pre- and post-treatment mean soil concentrations. Since the bulk density and soil volume remain constant, the differences in mean concentrations yield the percent reduction in mass. Contaminant mass reduction is examined on an overall basis, by stratum, and by selected compounds.

The results for total VOCs and TCA concentrations follow a log-normal distribution, which is common in environmental data. For this reason, the pre and post-treatment reductions for total VOCs and TCA were calculated using log-transformed values as this yields more representative estimates of the means and confidence limits about the means.

## **Total VOCs Reduction**

Comparing the 31 pre-treatment and 31 post-treatment samples yields a net total VOC mass reduction of 73 percent. Using arithmetic means the percent reduction is 63 percent.

**Total VOCs in Soils – 95% Confidence Limits**  
Results in µg/kg

Treatment	Sample Nos.	Lower Limit <sup>1</sup>	Geometric Mean	Upper Limit <sup>1</sup>	% Reduction
Pre-treatment	31	1,768	5,058	14,472	--
Post-treatment	31	417	1,372	4,520	73

<sup>1</sup> Limits about the geometric mean

**Total VOCs in Soils**  
Results in µg/kg

Sample Nos. pre/post	Pre-treat, Arithmetic Mean Conc. µg/kg	Post-treat, Arithmetic Mean Conc. µg/kg	Percent Reduction
31/31	66,365	24,751	63

**TCA Reduction**

For TCA alone the net contaminant mass reduction measures 75 percent. Using arithmetic means the percent reduction is 67 percent.

**TCA in Soils – 95% Confidence Limits**  
Results in µg/kg

Treatment	Sample Nos.	Lower Limit <sup>1</sup>	Geometric Mean	Upper Limit <sup>1</sup>	% Reduction
Pre-treatment	31	460	1,063	5,588	--
Post-treatment	31	115	406	1,436	75

<sup>1</sup> Limits about the geometric mean

**TCA in Soils**

Samples Nos. pre/post	Pre-treat, Arithmetic Mean Conc. µg/kg	Post-treat, Arithmetic Mean Conc. µg/kg	Percent Reduction
31/31	55,314	18,460	67

**Stratum-by-Stratum Reduction**

On a stratum-by-stratum basis the contaminant mass reductions for total VOCs were based on arithmetic means as there is insufficient number of samples in most strata to use the geometric means. The results are as follows:



### Total VOCs in Soils Reduction by Stratum

Stratum	Sample Nos. pre/post	Pre-treat, Arithmetic Mean Conc. µg/kg	Post-treat, Arithmetic Mean Conc. µg/kg	Percent Reduction
1 (10 -11')	2/7	119,577	3,205	97
2 (11 - 12')	3/6	436,697	75,143	83
3 (12 - 13')	1/5	50	38,650	*
4 (13 - 14')	15/4	24,156	3,984	84
5 (14 -15')	10/9	14,568	8,803	40

Values rounded. \* Too few pre-treatment samples for comparison.

In the four strata where reductions could be measured, the average overall total VOC mass reduction is 76 percent.

On a stratum-by-stratum basis the contaminant mass reductions for TCA, based on arithmetic means, are as follows:

### TCA Reduction in Soils by Stratum

Stratum	Sample Nos. pre/post	Pre-treat, Arithmetic Mean Conc. µg/kg	Post-treat, Arithmetic Mean Conc. µg/kg	Percent Reduction
1 (10 -11')	2/7	115,385	2,621	98
2 (11 - 12')	3/6	388,693	66,639	83
3 (12 - 13')	1/5	0.49	26,602	*
4 (13 - 14')	15/4	15,761	2,493	84
5 (14 -15')	10/9	8,283	1,232	85

Values rounded. \* Too few pre-treatment samples for comparison.

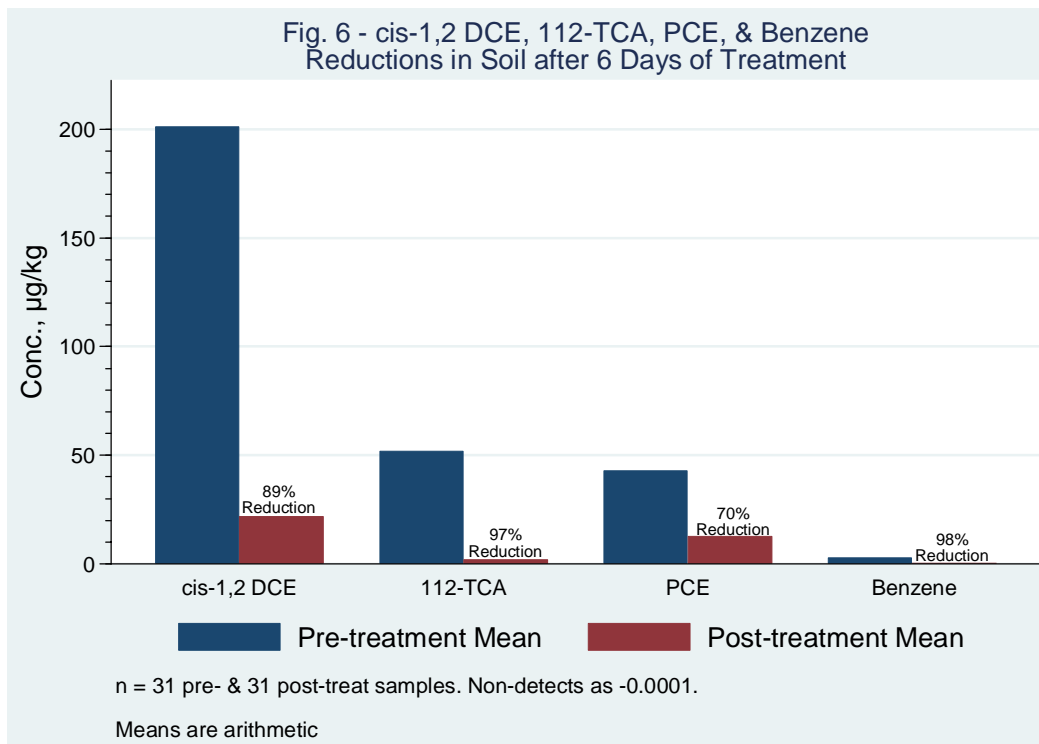
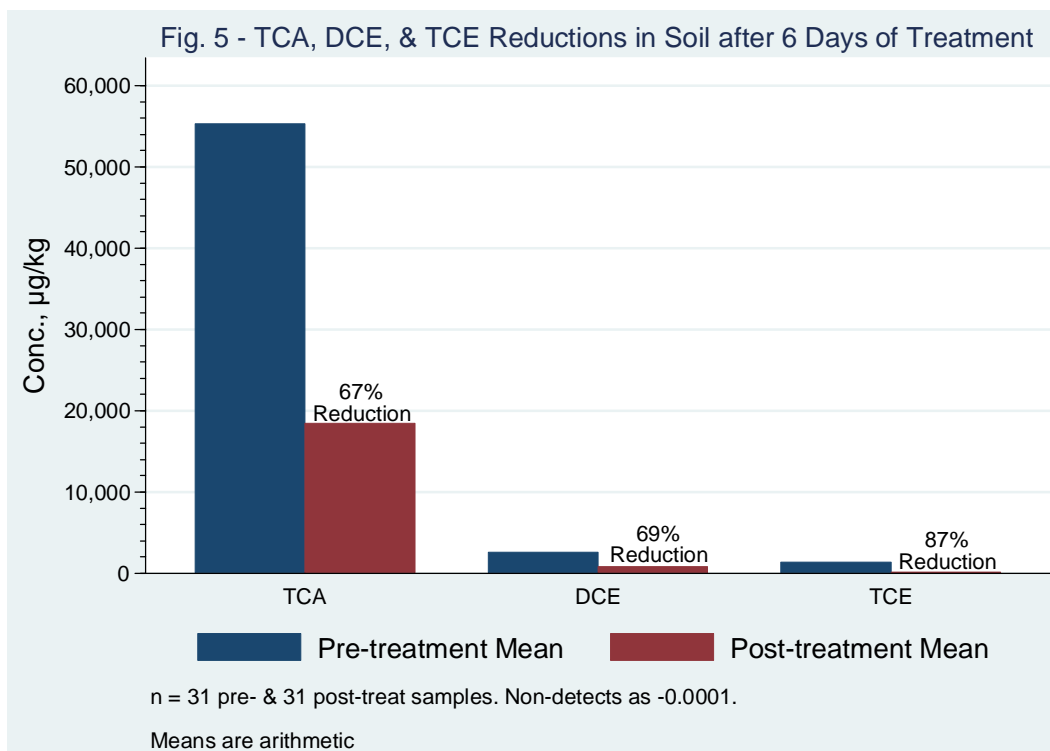
In the four strata where reductions could be measured, the average overall TCA mass reduction is 87 percent.

### Specific VOC Compound Reductions

Mass reductions for individual VOCs were calculated by comparing the pre-treatment and post-treatment mean concentrations. Numerous values were below detection limits; non-detects were arbitrarily given a value of -0.0001 for calculation purposes. Arithmetic means were used for calculation purposes.

Mass reductions of specific VOCs on an overall basis show reductions ranging from 67 to 98 percent. Two of the more toxic compounds exhibited very high reductions. Benzene and 1,1,2-Trichloroethane (1,1,2-TCA), while having comparatively minor concentrations in soils, showed reductions of 98 and 97 percent, respectively. Figures 5

and 6 show the contaminant mass reductions for a number of compounds (TCA is repeated for the sake of comparison). The specific VOCs were selected on the basis of having the highest concentrations in pre-treatment soils and/or toxicity.



## Groundwater

Baseline groundwater samples were collected in five wells: E1-X, EW-0, MW-1, E1-NEW, and S-8 in June-July 2012. Post-treatment groundwater samples were collected in April 2013. Monitoring wells EW-1X and EW-0 were inside or immediately adjacent to the treatment area (EW-1X). Wells S-8, E1-NEW, and MW-1 were outside the treatment area. MW-1 is approximately 12 feet downgradient from the treatment area and S-8 and E1-NEW (E1-(N)) are 55 or more feet downgradient from the treatment area (Figure 4). Tables 3 presents the pre- and post-treatment groundwater sampling results. Monitoring well construction details are as follows:

Monitoring Well	Top of Screen, ft.-bg	Bottom of Screen, ft.-bg	Location
EW-0	7	14.6	Treatment Area
EW-1X	6	11	Immediately Adjacent to Treatment Area
MW-1	6	13	12 ft. downgradient of Treatment Area
S-8	7	12	65 ft. downgradient of Treatment Area
E1-NEW	35	42	56 ft. downgradient of Treatment Area

## Treatment Area

Pre-treatment groundwater samples were collected from wells inside the treatment area in June-July 2012 and in earlier site characterization groundwater samples. The July 2012 samples were collected before treatment from injection wells IW-1, IW-2, IW-3, and original monitoring well EW-0. Post-treatment groundwater samples were collected on April 17, 2013, from the two wells installed immediately adjacent to and inside the treatment area, EW-1X and EW-0, following remedial excavation.

EW-1X was a new monitoring well installed immediately adjacent to Grid Cell 4 to add an additional monitoring point close to the treatment area. EW-0 was re-installed in Grid Cell 2 to replace the original EW-0 that was removed during remedial excavation. It was possible to penetrate the till layer with the drill rig at this location.

Groundwater concentrations typically fluctuate, often dramatically, with changing groundwater levels, the seasons, precipitation, and changes in groundwater flow direction throughout the year. This variation can dramatically affect contact between groundwater and contaminant, influence groundwater movement with more or less contaminated strata, affect contaminant migration and retardation through strata of different conductivities, and be influenced by geochemical factors that also occur within different strata. As a result, groundwater VOC concentrations can fluctuate dramatically from one sampling event to another. Under these conditions, the maximum concentrations likely approximate actual groundwater contaminant concentrations. For this reason it is more useful to compare the pre-treatment maximum groundwater concentrations with post-treatment groundwater. Table 3 contains the complete set of groundwater sample results. Table 4 summarizes the results of groundwater sampling.

Groundwater concentrations remain above TOGS for a number of compounds, but reductions in the principal VOCs range from 74 to 93 percent.

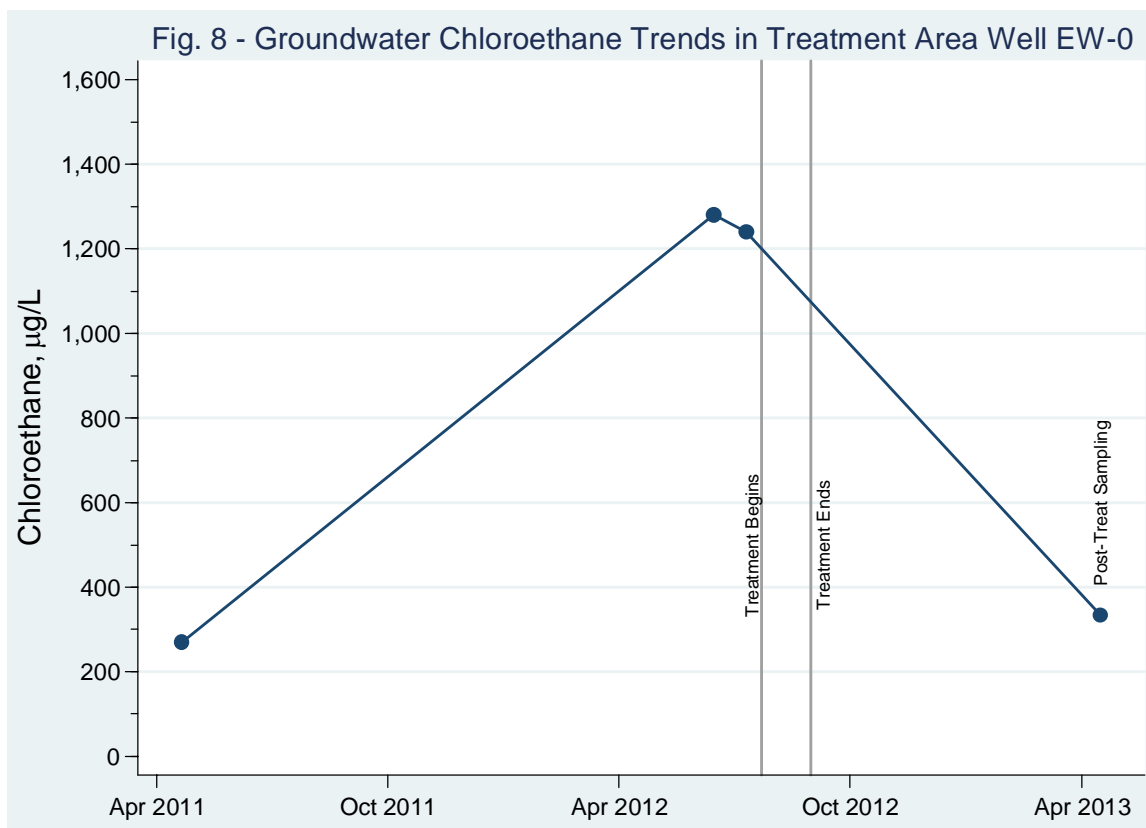
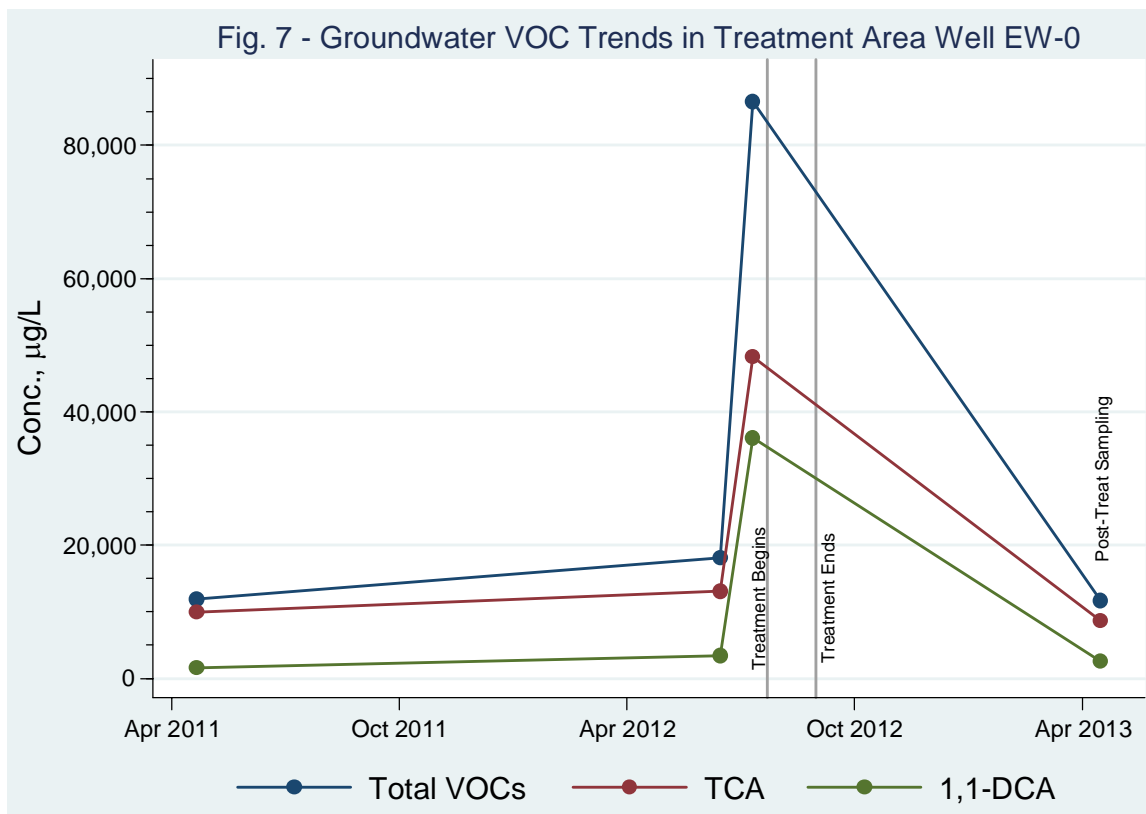
**Table 4 - Summary of Groundwater VOCs in Treatment Area**

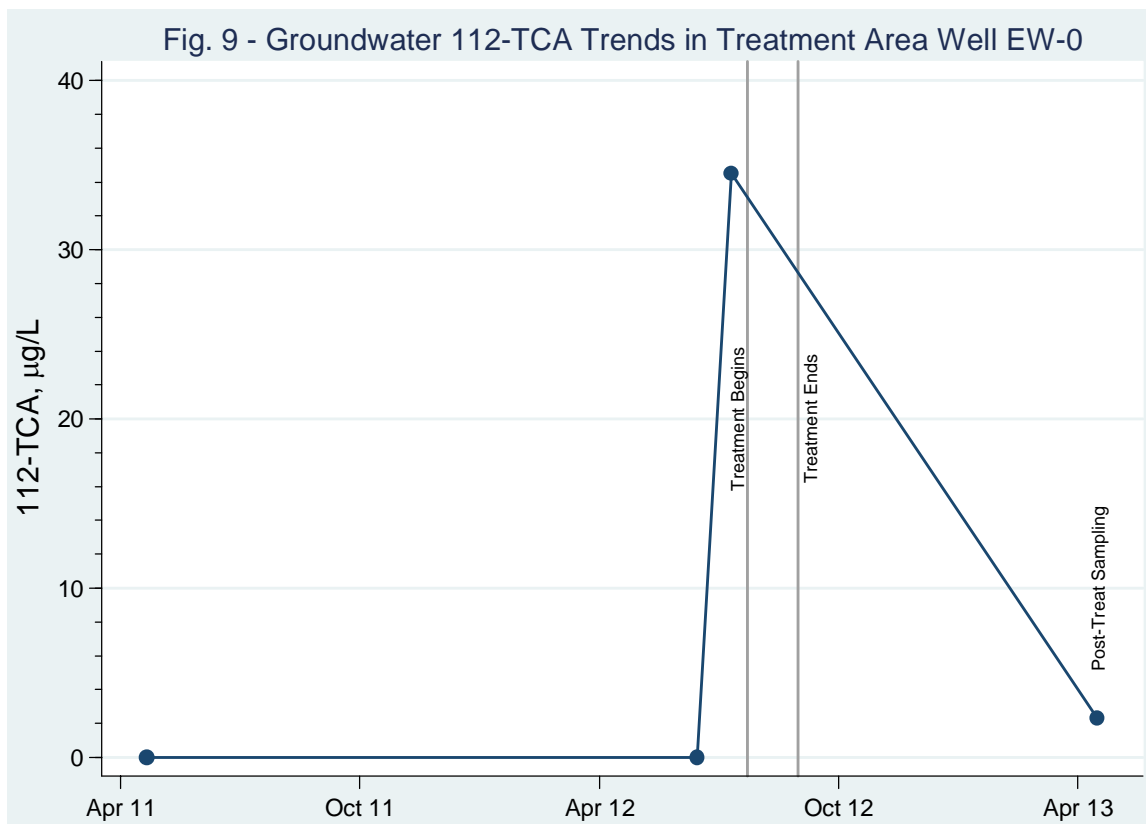
VOC	Sample Nos. pre/post	Pre-treat Max. Conc. µg/L	Post-treat Max. Conc. µg/L	Percent Reduction
Total VOCs	9/2	86,530	11,706	86
TCA	9/2	48,300	8,630	82
112-TCA	9/2	34.5	2.3	93
1,1-DCA	9/2	36,100	2,540	93
Chloroethane	9/2	1,280	334	74

Values rounded.

Of the two wells immediately adjacent to or inside the injection treatment area, EW-1X (EW-1X is within the injection treatment radius but outside the excavation area) and EW-0, the VOC results in EW-1X were all below detection limits except for 1,1-Dichloroethane (DCA), 22.9 µg/L. Accordingly, all but one VOC in this well met the TOGS GA standards in the post-treatment sampling round. In EW-0, 28 of the 36 VOC compounds are below TOGS criteria and/or guidelines and two VOCs are very close to the TOGS criteria.

Figures 7, 8, and 9 depict the trends for the principal VOCs in EW-0. All show large reductions compared to the pre-treatment maximum concentrations. The large VOC reductions in groundwater concentrations are consistent with an appreciable contaminant mass having been eliminated from the Site.



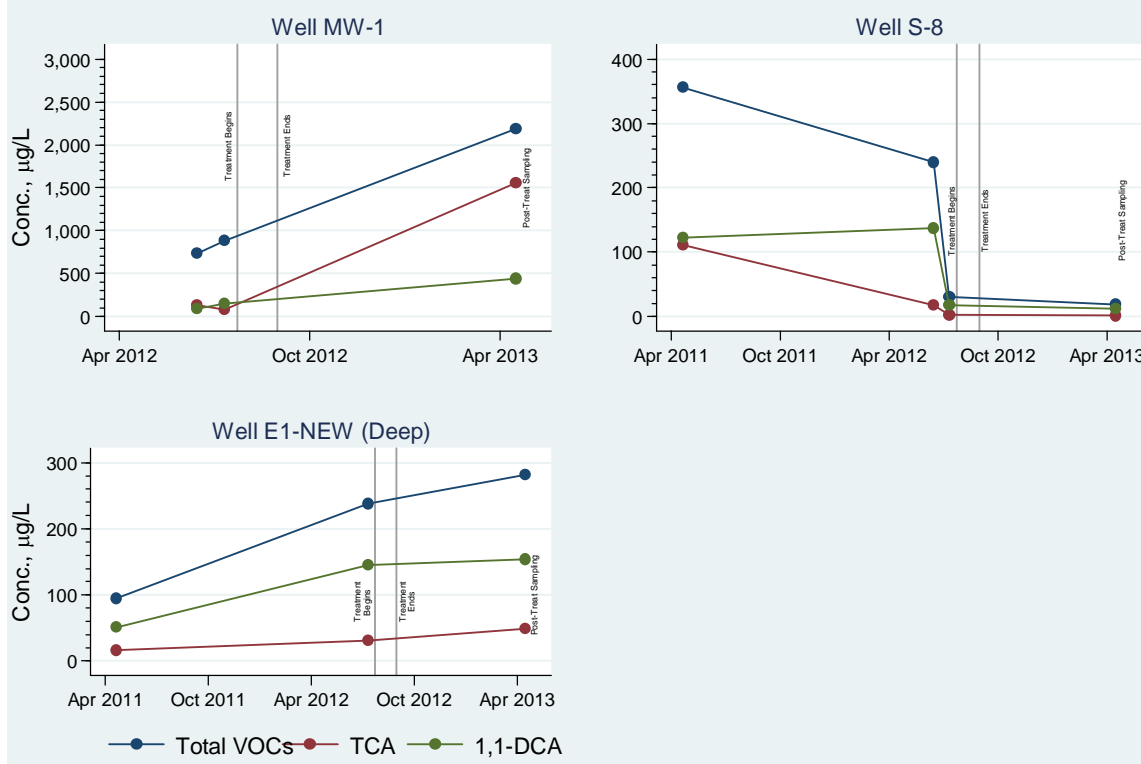


### Outside Treatment Area

The three wells outside the treatment area are in the downgradient position. Two of these wells, MW-1 and deep well E1-NEW, showed increases following remediation. It is expected to be a temporary condition.

In contrast, the principal VOCs show a dramatic decrease in S-8 in the post-treatment groundwater samples compared to pre-treatment levels.

Fig 10 - VOCs in Groundwater - Wells Outside Treatment Area



### Basic Groundwater Parameters

Table 5 presents the pre-treatment results for basic groundwater parameters. Table 6 presents the post-treatment results. A comparison shows that pH is approximately the same, indicating that groundwater has returned to pre-treatment conditions. Conductivity increased in post-treatment groundwater in response to the oxidant added for *in situ* treatment. Dissolved oxygen remains about the same, but mean ORP is more than two-fold lower than pre-treatment levels. This is most likely the result of residual plant-based surfactant that is being degraded.

**Table 5 – Pre-Treatment Groundwater Parameters**

Well	pH	Cond. $\mu\text{S}/\text{cm}$	NTU	DO, mg/L	Temp., C	ORP, mV
EW-0	9.88	134	24	0	15.9	-106
IW-1	9.53	90	278	3.03	21.5	-98
IW-2	7.79	813	51	8.25	17	-92
IW-3	9.58	647	0	2.19	21.8	-50
S-8	8.62	593	2.3	0.88	16.6	-202
Mean	9.1	455	71	2.9	18.5	-110

**Table 6 – Post-Treatment Groundwater Parameters**

Well	pH	Cond. $\mu\text{S}/\text{cm}$	NTU	DO, mg/L	Temp., C	ORP, mV
MW-1	7.56	1,100	0	1.53	13.2	-148
EW-0	8.95	610	0	.65	10.9	-377
EW-1X	8.49	495	459	.62	12.6	-679
E1-NEW	9.08	522	57	.59	15.4	-207
S-8	7.53	356	205	8.42	13.3	59
Mean	8.3	617	144	2.4	13	-270

Sulfate and chloride were monitored both before and after treatment. The mean pre-treatment sulfate concentration measured 21.4 mg/L and the mean post-treatment level 48.8 mg/L. The more than two-fold increase is due to the sodium persulfate added as the oxidant. Some sulfate remains, but will dissipate with time.

The mean pre-treatment chloride concentration measured 108.7 mg/L and the mean post-treatment level 60.9 mg/L. This is a reduction of more than 40 percent. It is most likely due to the decomposition of chlorinated VOCs, the VOCs having been degraded and the chloride having washed through the soil.

Although chloride would be expected to increase in the short-term following destruction of chlorinated VOCs, this reduction suggests that the chloride resulting from oxidation has migrated with groundwater through the treated soil leaving lower concentrations behind. The appreciable reduction in chlorinated contaminant mass is thus being reflected in the lower chloride levels. In the eight months between the end of *in situ* treatment and post-treatment groundwater sampling, groundwater could flush through the more permeable zones in treatment area approximately two-dozen times.

### Chemical Oxidation Treatment

The *in situ* treatment included injection of alkaline-activated sodium persulfate along with a surfactant, VeruSOL<sup>®</sup>, to dissolve NAPL so as to promote



dissolution and optimal oxidation. The oxidant mixture was injected via specially designed injection wells using the RemMetrik® process and Wavefront Technology Solution's Sidewinder tool. The process employs subsurface pressure waves to promote even dispersion of the oxidant mixture into the small pores where most of the NAPL occurs. The treatment goal was 90 percent contaminant mass removal.

It was necessary to complete the *in situ* component before excavation in order for the injection wells to function optimally. The undisturbed overburden provides resistance that allows the subsurface pressure waves to move horizontally without being attenuated by vertical movement, which can occur without sufficient overburden or inadequately compacted overburden.

Prior to *in situ* treatment FLS collected soil samples to estimate contaminant mass and to identify the target zones for optimal injection well placement. The 50-ft. by 50-ft. treatment area was divided into six grid cells. Eight randomly placed soil borings in six grid cells were sampled randomly in 6-inch intervals from the water table to the underlying till layer at approximately 15 feet and sampled for VOCs using Method 8260. In all, 24 randomly selected samples for VOCs were collected using an Encore sampler.

Based on the randomly collected soil samples for VOC analysis, the estimated total contaminant mass measured approximately 79 pounds in the 10 – 15-ft. treatment interval. Approximately 89 percent of the contaminant mass occurred from 10 to 13 feet below grade. Three injection wells were installed where the contamination mass was highest. IW-1 and IW-2 were installed in Grid Cell 2, and IW-3 was installed in Grid Cell 4. All injection wells were installed to approximately 13 ft.-bg. Approximately 90 percent of the contaminant mass occurred in the 10- to 13-ft. interval near IW-2, and during the injections IW-2 was used as the primary injection well to account for the greater level of contaminant mass. To ensure greatest treatment in the 10- to 13-ft. zone, a packer was installed prior to injection to seal off the injection well at 10 feet. The oxidant mixture was also administered through five Geoprobe points from 13 to 14 ft.-bg and 14 to 15 ft.-bg (Figure 2).

Multiple rounds of injections took place between July 10 and July 27, although the total amount of injection time was approximately six days. A total of 13,200 gallons of oxidant mixture was injected. Sodium persulfate was injected at a concentration of 15 to 50 g/L, sodium hydroxide was injected at a concentration of 12 to 50 g/L and VeruSOL® was injected at a concentration of 0 to 15 g/L. Groundwater was monitored daily in the injection wells and nearby monitoring wells to check on the chemical response and distribution of the oxidant. Water in the adjacent stream was also monitored with field instruments and visual inspections during the injection to check for off-Site migration of treatment chemicals. None was found. Favorable chemical conditions were observed in the treatment area (Appendix F, VeruTEK report). Table 7 presents the volume of oxidant solution injected by treatment point.

**Table 7 – Oxidant Volume by Injection Point**

Injection Point	Injected Volume (gallons)
IW-1	5,310
IW-2	5,320
IW-3	1,570
GP-1	200
GP-2	200
GP-3	200
GP-4	200
GP-5	200
<b>Total</b>	<b>13,200</b>

IW- Injection well. GP – Geoprobe injection point.

#### **4.3.2 Excavation**

Prior to the start of excavation, the 50-ft. by 50-ft. treatment area, located in the footprint of the northwest portion of the former Feutron Building, was divided into six grid cells. Soil removal in this historic drum storage and felt press area and under the relict floor slab was performed by removing impacted material in Grid Cells 1 through 5. Based on analytical results of pre-excavation soil sampling and the proximity of Grid Cell 6 to the building wall, Grid Cell 6 was not sampled. The layout of the six grid cells is illustrated in Figure 3. Excavation was conducted from August 27, 2012 to September 4, 2012. Appendix G is a photographic log of the excavation and overall remedial effort.

A high density polyethylene (HDPE) soil containment structure (unit) was constructed to contain the excavated soils. The structure had dimensions of approximately 100 feet long and 50 feet wide. The HDPE structure was installed over a bed of clean fine sand to provide protection against puncture by debris or stones beneath the structure.

Excavation was conducted by removing soils in each of the five grid cells to the depth of approximately 11 feet below grade, approximately one (1) foot below the water table. In all, approximately 710 tons of soil were removed from the remedial excavation. The excavated soils were then stockpiled on Site and subsequently passed through a soil screener to remove larger materials that could potentially damage the HDPE containment structure. Once soil passed through the screener, the material was transported via dump truck to the HDPE containment structure. The excavated soils were then sampled in the HDPE containment structure at an interval of no less than one sample per 100 cubic yards. Samples were analyzed for VOCs and compared to the Part 375 Commercial Use SCOs. Soils meeting the SCOs were subsequently backfilled into the separate grid cells. No soil was removed from the Site to a disposal facility and no soil was imported from outside the Site. An additional 1,000 gallons of oxidant mixture was spread across the bottom of the open excavation prior to backfilling.

Soils were scanned for VOCs using a PID with an 11.2 eV bulb. PID screening was conducted either at the excavator bucket, at the soil stockpile in the containment unit, and in the excavation. Any observations regarding soil contamination were logged along with the PID readings.

Post-excavation bottom and sidewall endpoint sampling was conducted upon completion of excavation in each grid cell. Post-excavation sampling was biased towards areas of staining, odors, elevated PID readings, and areas of known contamination. Post excavation samples PX-01 to PX-06 were collected on August 28, 2012. Samples PX-07 and PX-08 were collected on August 30, 2012. Samples PX-09 to PX-15 were collected on September 4, 2012. Figure 3 shows the results of pre-treatment and post-treatment sampling.

Within the excavation were what appeared to be several relict concrete walls and footings that supported the former Feutron Building. One concrete structure was a nominal 20-ft. by 10-ft. vault that once housed manufacturing equipment (Pit L). The concrete vault contained various amounts of rainwater and algae during remediation. No signs of contamination were evident in the vault. A smaller nominal 5-ft. by 5-ft. vault (Pit S) occupied a portion of a larger concrete block and exhibited no signs of contamination. All concrete appeared free of staining or other discernable signs of contamination. The concrete structures were left in place and are shown on Figure 3 for documentation purposes.

#### **4.3.3 Treatment Effectiveness**

Post-excavation analytical sample results revealed all VOC concentrations below the NYSDEC Unrestricted Use Criteria with the exception of 1,1-Dichloroethane in sample PX-07 and 1,1-Dichloroethane, 1,1-Dichloroethene and 1,1,1-Trichloroethane in sample PX-3. The post-excavation sample locations and results summary is illustrated in Figure 3.

#### **4.3.4 Remaining Contamination**

All post-excavation and post-treatment soil sample results were below the Site cleanup criteria, the Part 375 Commercial Use SCOs.

##### **4.3.4.1 Unrestricted Use**

The following post-excavation and post-treatment soil sample results remain above the Unrestricted Use Soil Cleanup Criteria (Table 8):

**Table 8 – Endpoint Soil Sample Results Above Unrestricted Use SCOs**

Sample ID	Parameter	Result, µg/kg	Unrestricted Use SCO, µg/kg	Commercial Use SCO, µg/kg
PX03-BT-10	1,1-Dichloroethane	1,940	270	240,000
	1,1-Dichloroethene	568	330	500,000
	1,1,1-Trichloroethane	4,980	680	500,000
C5SP02	1,1-Dichloroethene	2,750	330	500,000
	1,1,1-Trichloroethane	29,800	680	500,000
C5SP01	1,1,1-Trichloroethane	2,580	680	500,000
1.1 (12.5-13)	1,1-Dichloroethane	1,080	270	240,000
	1,2-Dichloroethane	232	20	30,000
	1,1-Dichloroethene	1,140	330	500,000
	1,1,1-Trichloroethane	18,700	680	500,000
	Trichloroethene	1,130	470	200,000
1.1 (13.-13.5)	1,1,1-Trichloroethane	2,860	680	500,000
1.2 (11-11.5)	1,1-Dichloroethane	6,220	270	240,000
	1,1,1-Trichloroethane	1,560	680	500,000
1.2 (14-14.5)	1,1-Dichloroethane	34,000	270	240,000
	1,2-Dichloroethane	786	20	30,000
	1,1-Dichloroethene	1,620	330	500,000
	1,1,1-Trichloroethane	4,690	680	500,000
1.2 (13-13.5)	1,1-Dichloroethane	3,950	270	240,000
	1,1,1-Trichloroethane	2,130	680	500,000
2.1 (12.5-13)	2-Butanone (MEK)	893	120	500,000
	1,1-Dichloroethane	34,900	270	240,000
	1,2-Dichloroethane	1,590	20	30,000
	1,1-Dichloroethene	2,150	330	500,000
	cis-1,2-Dichloroethane	374	250	500,000
	trans-1,2-Dichloroethane	294	190	500,000
	Toluene	2,280	700	500,000
	1,1,1-Trichloroethane	42,300	680	500,000
2.1 (11.5-12)	Trichloroethane	1,180	470	200,000
	Acetone	62.4	50	500,000
	1,1-Dichloroethane	11,100	270	240,000
2.1 (10-10.5)	1,2-Dichloroethane	27.7	20	30,000
	1,1,1-Trichloroethane	20.7	20	30,000
2.2 (12.5-13)	1,2-Dichloroethane	12,600	680	500,000
	1,1-Dichloroethane	3,660	270	240,000
	1,2-Dichloroethane	179	20	30,000
	1,1-Dichloroethene	2,310	330	500,000
2.2 (11-11.5)	1,1,1-Trichloroethane	70,700	680	500,000
	1,1-Dichloroethane	6,040	270	240,000
	1,1-Dichloroethene	14,000	330	500,000
	Toluene	1,600	700	500,000
2.2 (11-11.5)	1,1,1-Trichloroethane	398,000	680	500,000
	Trichloroethane	2,040	470	200,000
2.2 (14-14.5)	Acetone	82.2	50	500,000
2.2 (14-14.5)	2-Butanone	129	120	500,000

**Table 8 – Endpoint Soil Sample Results Above Unrestricted Use SCOs**

Sample ID	Parameter	Result, µg/kg	Unrestricted Use SCO, µg/kg	Commercial Use SCO, µg/kg
3 (13.5-14)	1,1-Dichloroethane	12,100	270	240,000
	1,2-Dichloroethane	34.0	20	30,000
	1,1-Dichloroethane	459	270	240,000
	1,1,1-Trichloroethane	1,500	680	500,000
3 (14.5-15)	1,1-Dichloroethane	5,820	270	240,000
	1,2-Dichloroethane	165	20	30,000
	1,1-Dichloroethene	423	330	500,000
	1,1,1-Trichloroethane	2,320	680	500,000
3 (12.5-13)	1,1-Dichloroethane	410	270	240,000
	1,2-Dichloroethane	134	20	30,000
	1,1-Dichloroethene	659	330	500,000
	1,1,1-Trichloroethane	1,270	680	500,000
4 (11-11.5)	1,1-Dichloroethane	2,000	270	240,000
	1,1-Dichloroethene	1,650	330	500,000
4 (14.5-15)	1,1-Dichloroethane	6,470	270	240,000
5 (13.5-14)	1,1,1-Trichloroethane	3,480	680	500,000
5 (14-14.5)	1,1,1-Trichloroethane	1,220	680	500,000
5 (14.5-15)	1,1,1-Trichloroethane	2,090	680	500,000

PX – Post Excavation sample. SP – Soil Pile/Cover sample. Remaining samples # ( . . ) from post-treatment soil borings.

#### 4.3.4.2 Residential Use

The following post-treatment soil sample results remain above the Residential Use soil cleanup criteria. All other samples were below the Residential Use SCOs:

Sample ID	Parameter	Result, µg/kg	Residential Use SCO, µg/kg
1.2 (14-14.5)	1,1-Dichloroethane	34,000	19,000
2.1 (12.5-13)	1,1-Dichloroethane	34,900	19,000
2.2 (11-11.5)	1,1,1-Trichloroethane	398,000	100,000

#### 4.3.4.3 Groundwater

Post-treatment groundwater sampling took place in April 2013. Five groundwater samples were collected for TCL VOC analysis by Method 8260 from wells within and downgradient from the treatment area.

Of the 35 VOCs in the 8260 list, 21 (60 percent) VOC results were below detection limits in all five groundwater samples. Of the 14 detected VOCs, five (14 percent of the total) were all below the TOGS or guidelines. Nine VOCs were above the TOGS AWQS or guidelines: chloroethane, 1,1-dichloroethane, 1,2-dichloroethane, 1,1-dichloroethene, toluene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, trichloroethane, and vinyl chloride. Among these, nine VOCs, four of the compounds were below the TOGS AWQS or guidelines in 75 percent of the samples.

The VOCs with the highest groundwater concentrations were chloroethane (334 µg/L), 1,1-dichloroethane (2,540 µg/L), and 1,1,1-trichloroethane (8,630 µg/L) in monitoring well EW-0. EW-0 and MW-1 (a.k.a. MW-1N) had the highest concentrations of VOCs compared to all other wells, as shown.

#### Post-treatment Groundwater Results in µg/L

Sample ID	Chloroethane	1,1-Dichloroethane	TCA
S-8	nd	11.8	1.4
E1-N	73.9	154	48.4
EW-1X	nd	22.9	nd
MW-1N	136	438	1,560
EW-0	334	2,540	8,630

nd – non-detect

Table 9 summarizes the post-treatment detected VOC results for all groundwater samples.

**Table 9 – Summary of Detected Post-treatment Groundwater Results, All Wells**  
Results in µg/L

VOC	Min	p25	p50	p75	p95	Max	TOGS*
2-Butanone	-	-	-	-	14.1	14.1	50
Chloroethane	-	-	<b>73.9</b>	<b>136</b>	<b>334</b>	<b>334</b>	5
Chloroform	-	-	-	1.2	3.1	3.1	7
1,1-Dichloroethane	<b>11.8</b>	<b>22.9</b>	<b>154</b>	<b>438</b>	<b>2,540</b>	<b>2,540</b>	5
1,2-Dichloroethane	-	-	<b>0.7</b>	<b>5.2</b>	<b>17.5</b>	<b>17.5</b>	0.6
1,1-Dichloroethene	-	3.5	5	<b>36.6</b>	<b>144</b>	<b>144</b>	5
cis-1,2-Dichloroethene	-	-	-	0.54	2.8	2.8	3
trans-1,2-Dichloroethene	-	-	-	-	2.2	2.2	5
Tetrachloroethene (PCE)	-	-	-	-	0.6	0.6	5
Toluene	-	-	-	1.6	8	8	5
1,1,1-Trichloroethane (TCA)	-	1.4	<b>48.4</b>	<b>1,560</b>	<b>8,630</b>	<b>8,630</b>	5
1,1,2-Trichloroethane	-	-	-	-	<b>2.3</b>	<b>2.3</b>	1
Trichloroethene (TCE)	-	-	1.1	4	<b>6.2</b>	<b>6.2</b>	5
Vinyl chloride	-	-	-	-	<b>4.8</b>	<b>4.8</b>	2

Min – minimum, p25 – 25<sup>th</sup> percentile, p50 – 50<sup>th</sup> percentile (median), p75 – 75<sup>th</sup> percentile, p95 – 95<sup>th</sup> percentile, Max – maximum. – non-detect. \*TOGS or guidance value. Bold & italic exceed TOGS values/guidelines.

#### 4.3.5 Soil Cover System

The excavation was backfilled to grade with soil meeting the Commercial Use SCOs. In nearly all cases, treated soil for backfilling met the Unrestricted Use or Residential Use SCOs. The soil used for the excavation cover was the excavated soil that met the Site SCOs (Section 4.3.2) and subsequently returned to the excavation after testing documented the soil met the cleanup goals. No soil was imported from off-Site. The data for the soil cover samples are the post-treatment soil pile samples. Table 10 lists the soil pile/soil cover samples. Table 2A presents the results.

**Table 10 - Soil Pile/Cover Results, µg/kg**

C1SP01	C4SP01	C3SP02
C2SP01	C5SP01	C5SP02
C3SP01	C2SP02	Bench01

#### 4.3.6 Sub-slab Depressurization System

There is an existing SSDS operating under the Piano Felt Building (Figure 11). Now that soils containing the source contamination have been treated, AFFCO proposes to convert the SSDS and allow the system to operate in passive mode. A separate work plan will be prepared to demonstrate that passive operation of the SSDS will address potential exposure via soil vapor intrusion.



#### **4.3.7 Deviations from Remedial Action Work Plan**

There were no material deviations from the approved work plan. One minor deviation was omission of stream sampling following treatment.

#### **4.3.8 Quality Assurance/Quality Control Summary**

All post-excavation and post-treatment soil data were found usable for project decisions. All groundwater results were found usable for project decisions (Appendix E).

## 5.0 ENVIRONMENTAL EASEMENT, SOIL MANAGEMENT AREA & SSDS

The Site has a series of Institutional Controls in the form of an Environmental Easement that encompasses a portion of the property (0.5454 acres) that includes a Soil Management Area (0.3845 acre) and a SSDS area (0.1619 acre) (Appendix A). Site restrictions that apply to the Environmental Easement Area of the Property are as follows:

- The controlled property area may be used for commercial use provided that the long-term Engineering and Institutional Controls included in the attached Site Management Plan are employed. The controlled property also allows Industrial use as allowed by zoning;
- The controlled property may not be used for a higher level of use, such as unrestricted, residential or restricted residential use without additional remediation and amendment of the Environmental Easement, as approved by the NYSDEC;
- The controlled property area may not be used for a higher level of use, such as unrestricted or restricted residential, use without additional remediation and amendment of the Environmental Easement, as approved by the NYSDEC;
- All future activities on the controlled property area that will disturb remaining contaminated material must be conducted in accordance with the SMP;
- The use of the groundwater underlying the property is prohibited without treatment rendering it safe for intended use;
- The potential for vapor intrusion must be evaluated for any new buildings on Site and any potential impacts that are identified must be monitored or mitigated;
- Vegetable gardens and farming on the property are prohibited;
- Inspection of the soil covering the Soil Management Area annually. The inspection results will be detailed in the Periodic Review Report (PRR) and certified by the engineer. Any damage to the soil cover will be repaired in kind;
- Inspection of the SSDS. The inspection results will be detailed in the PRR and certified by the engineer; and
- The Site owner or remedial party will submit to NYSDEC a written statement that certifies, under penalty of perjury, that: (1) controls employed at the Controlled Property are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access such Controlled Property at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow and will be made by an expert that the NYSDEC finds acceptable.

Institutional Controls identified in the Environmental Easement may not be discontinued without an amendment to or extinguishment of the Environmental Easement.

The Environmental Easement was accepted by NYSDEC on August 23, 2017 and filed with Orange County on September 15, 2017.submitted on.

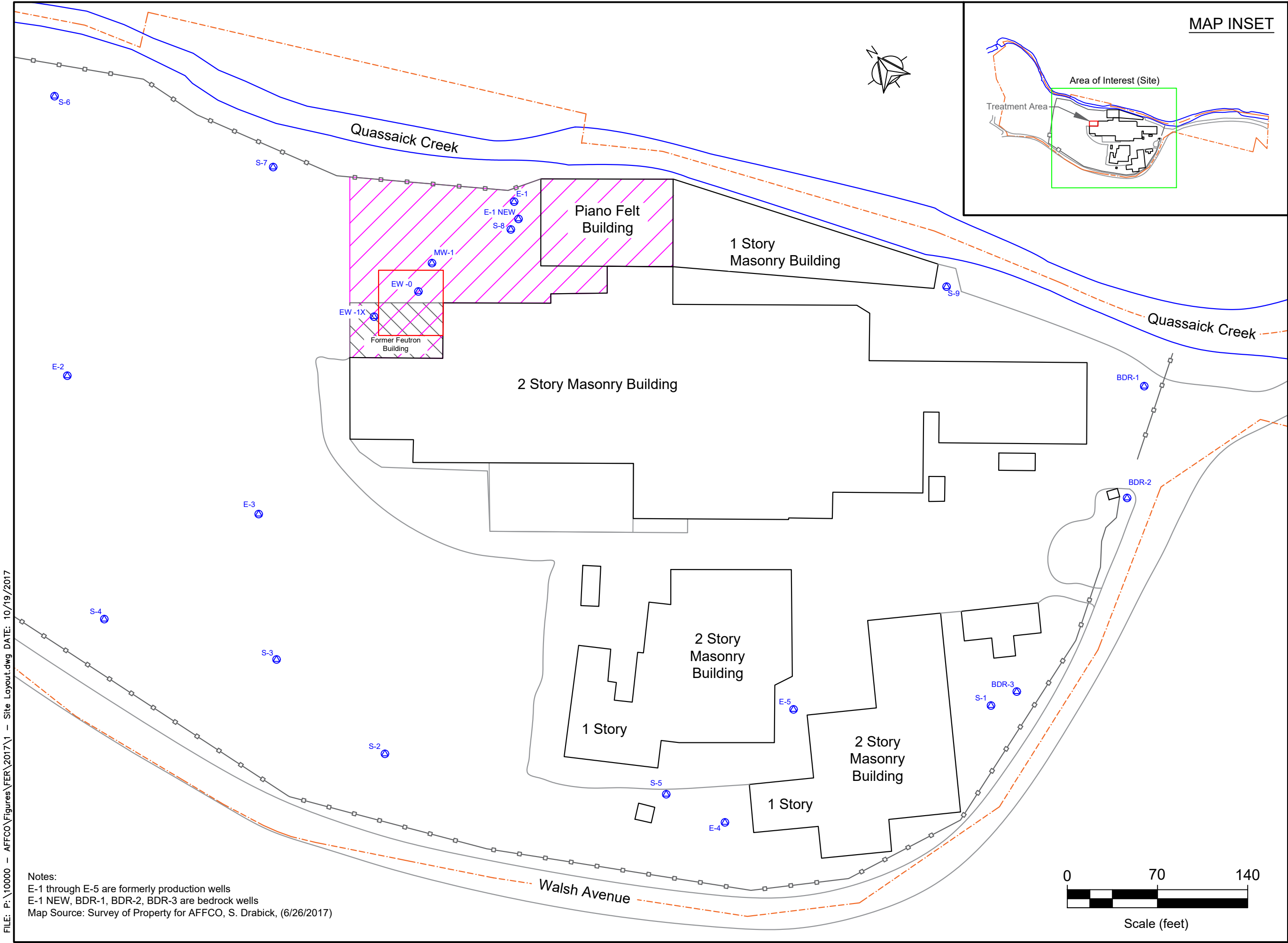
## **6.0 SITE MANAGEMENT PLAN**

A SMP that describes actions subsequent to the remedial action is included as a separate document. The SMP calls for groundwater monitoring, SSDS operation and inspection, and inspection of the Soil Management Area soil cover.

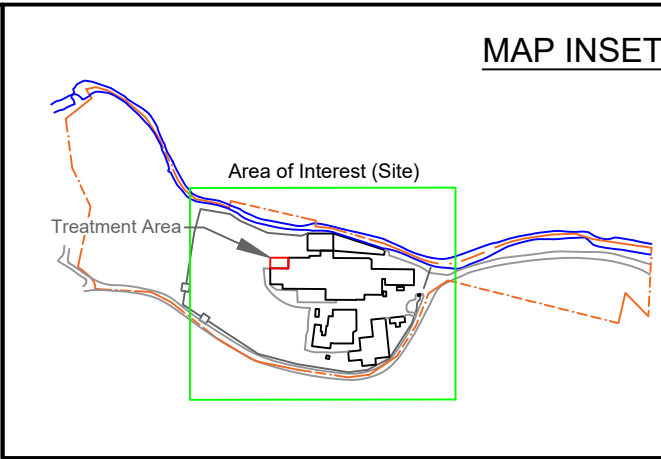
Since contaminated soil and groundwater remain beneath the Site after completion of the remedial action, institutional and engineering controls are required to protect human health and the environment. Long-term management of these controls and residual contamination will be conducted under the SMP approved by the NYSDEC

# FIGURES

FILE: P:\10000 - AFFCO\Figures\FER\2017\1 - Site Layout.dwg DATE: 10/19/2017



MAP INSET



Environmental Management & Consulting

158 West 29th Street  
New York, NY 10001

American Felt & Filter Co.  
361 Walsh Avenue  
New Windsor, NY

Figure 1

# Site Layout

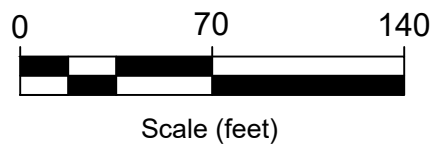
October 2017

Project Number  
10000-015

## LEGEND

- Environmental Easement Area
- Extent of Building Demolition
- Area of Remedial Excavation
- Property Line
- Retaining Walls / Fence
- Groundwater Monitoring Well

Notes:  
E-1 through E-5 are formerly production wells  
E-1 NEW, BDR-1, BDR-2, BDR-3 are bedrock wells  
Map Source: Survey of Property for AFFCO, S. Drabick, (6/26/2017)



FILE: P:\10000 - AFFCO\Figures\FER\2017\2 - Site Plan.dwg DATE: 10/18/2017

Quassaick Creek



MAP INSET

Area of Interest  
(Area of Remediation)



Environmental Management & Consulting

158 West 29th Street  
New York, NY 10001

American Felt & Filter Co.  
361 Walsh Avenue  
New Windsor, NY

Figure 2

Site Plan, Remedial  
Excavation, and  
Injection Locations

October 2017

Project Number  
10000-015

LEGEND

- Area of remedial excavation (grade to 10 or 11')
- Shallow remedial excavation depth (grade to 5')
- Injection well (removed)
- Geoprobe injection location
- Groundwater monitoring well
- Pre-treatment soil sample (random)
- Grille cell
- Concrete

Notes:  
Soil sample and geoprobe injection  
locations are approximate

Piano Felt  
Building

2 Story  
Masonry  
Building

Former Feutron  
Building

E-1

E-1 NEW

S-8

MW-1

EW -0

EW -1X

C4  
CONCRETE  
VAULT  
(OPEN)  
PIT  
L

PIT S

C2

C1

C5

C6

C3

IW-1

IW-2

IW-3

GP-1

GP-2

GP-3

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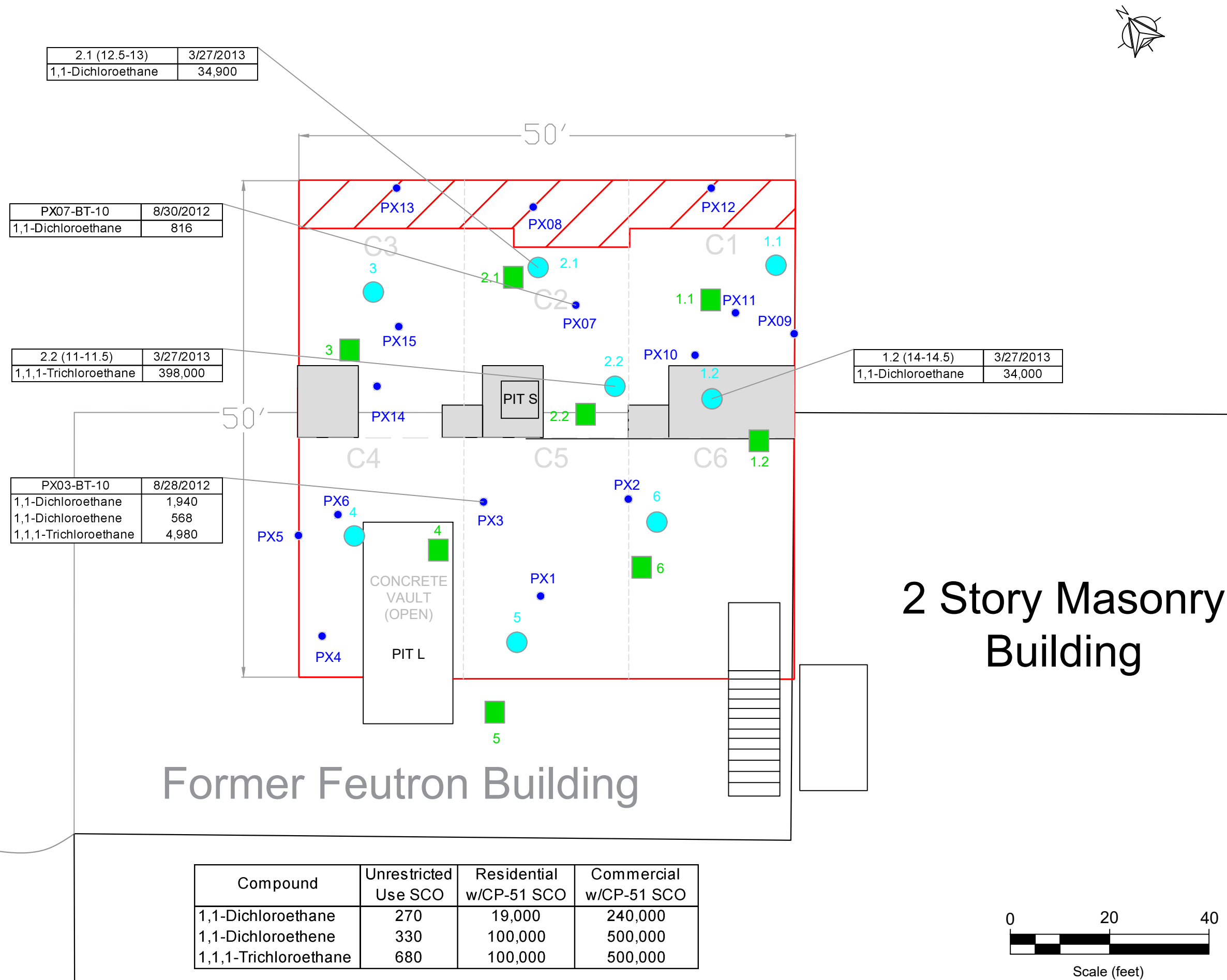
GP-286

GP-287

GP-288

GP-289

FILE: P:\10000 - AFFCO\Figures\FER\2017\3 - Post Treatment Soil Sampling Locations.dwg DATE: 10/18/2017



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**American Felt & Filter Co.**  
361 Walsh Avenue  
New Windsor, NY

**Figure 3**

**Post-Excavation/  
Post-Treatment Soil  
Sampling Locations  
and Results  
Summary**

**October 2017**

**Project Number  
10000-015**

**LEGEND**

- Area of remedial excavation (grade to 10 or 11')
- Shallow remedial excavation (grade to 5')
- Pre-treatment soil sample (random)
- Post-in situ treatment soil sample (random)
- Post-excavation endpoint soil sample (random)
- Grid cell
- Concrete

Notes:  
Soil sample and geoprobe injection locations are approximate



E-1 NEW	7/10/2012	4/17/2013
Chloroethane	18	73.9
1,1-Dichloroethane	1.7	154
1,1,1-Trichloroethane	2	48.4

MW-1	7/10/2012	4/17/2013
Chloroethane	641	136
1,1-Dichloroethane	146	438
1,2-Dichloroethane	4.8	5.2
1,1-Dichloroethene	6	36.6
1,1,1-Trichloroethane	82.4	1560
Trichloroethene	1.6 J	6.2

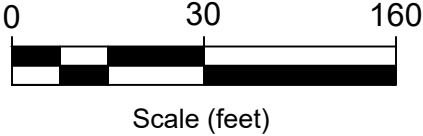
S-8	7/10/2012	4/17/2013
Chloroethane	57	ND
1,1-Dichloroethane	145	11.8
1,2-Dichloroethane	0.64 J	0.7
1,1,1-Trichloroethane	30.5	1.4

EW-0	7/10/2012	4/17/2013
Chloroethane	1240	334
1,1-Dichloroethane	36100	2540
1,2-Dichloroethane	233	17.5
1,1-Dichloroethene	562	144
Toluene	60.5 J	8
1,1,1-Trichloroethane	48300	8630
1,1,2-Trichloroethane	34.5 J	2.3
Vinyl Chloride	ND	4.8

EW-1X	4/17/2013
1,1-Dichloroethane	22.9

Compound	NYTOGS Class GA Standards
Chloroethane	5
1,1-Dichloroethane	5
1,2-Dichloroethane	0.6
1,1-Dichloroethene	5
Toluene	5
1,1,1-Trichloroethane	5
1,1,2-Trichloroethane	1
Vinyl Chloride	2

NOTES:  
Concentrations measured in ug/L, exceedances in bold  
Groundwater samples and elevation measurements collected on 9/30/2014  
Elevations in world geodetic system (WGS) 84  
E-1 NEW is a bedrock well, not used for contouring  
Pre-treatment samples collected on 7/10/2012  
Post-treatment samples collected on 4/17/2013



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Figure 4

PRE AND  
POST-TREATMENT  
GROUNDWATER  
VOC RESULTS AND  
CONTOUR MAP

October 2017

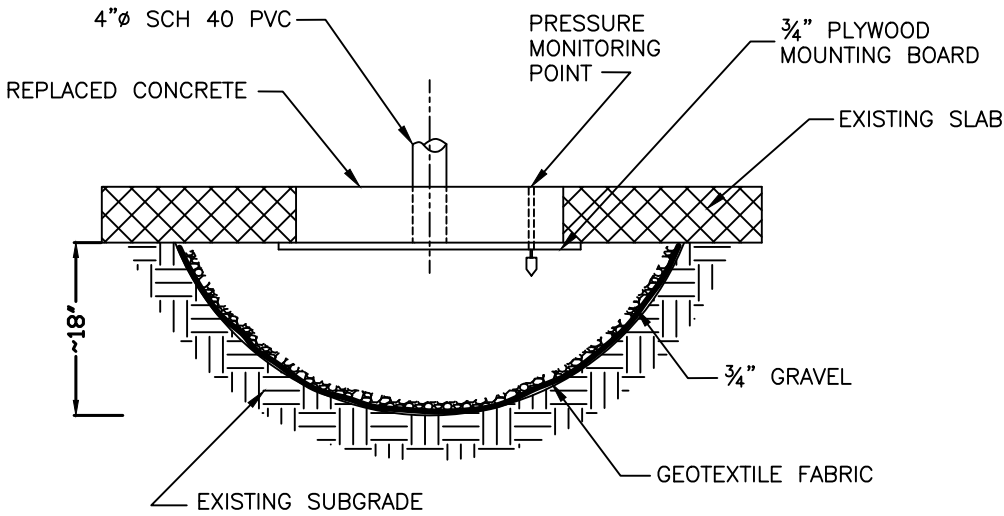
Project Number  
10000-015

LEGEND

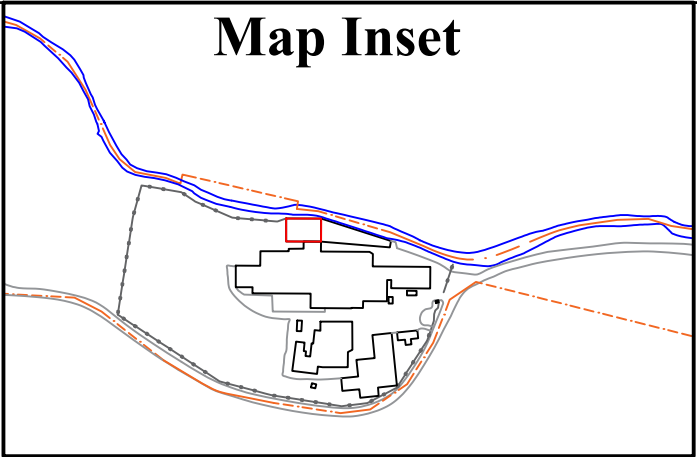
- Groundwater monitoring well and groundwater elevation (feet)
- Groundwater elevation contour (dashed where inferred)
- Injection well (removed)
- Geoprobe injection location (approximate)



Pit Detail



Map Inset



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Figure 11

Piano Felt  
Building SSDS  
As-Built

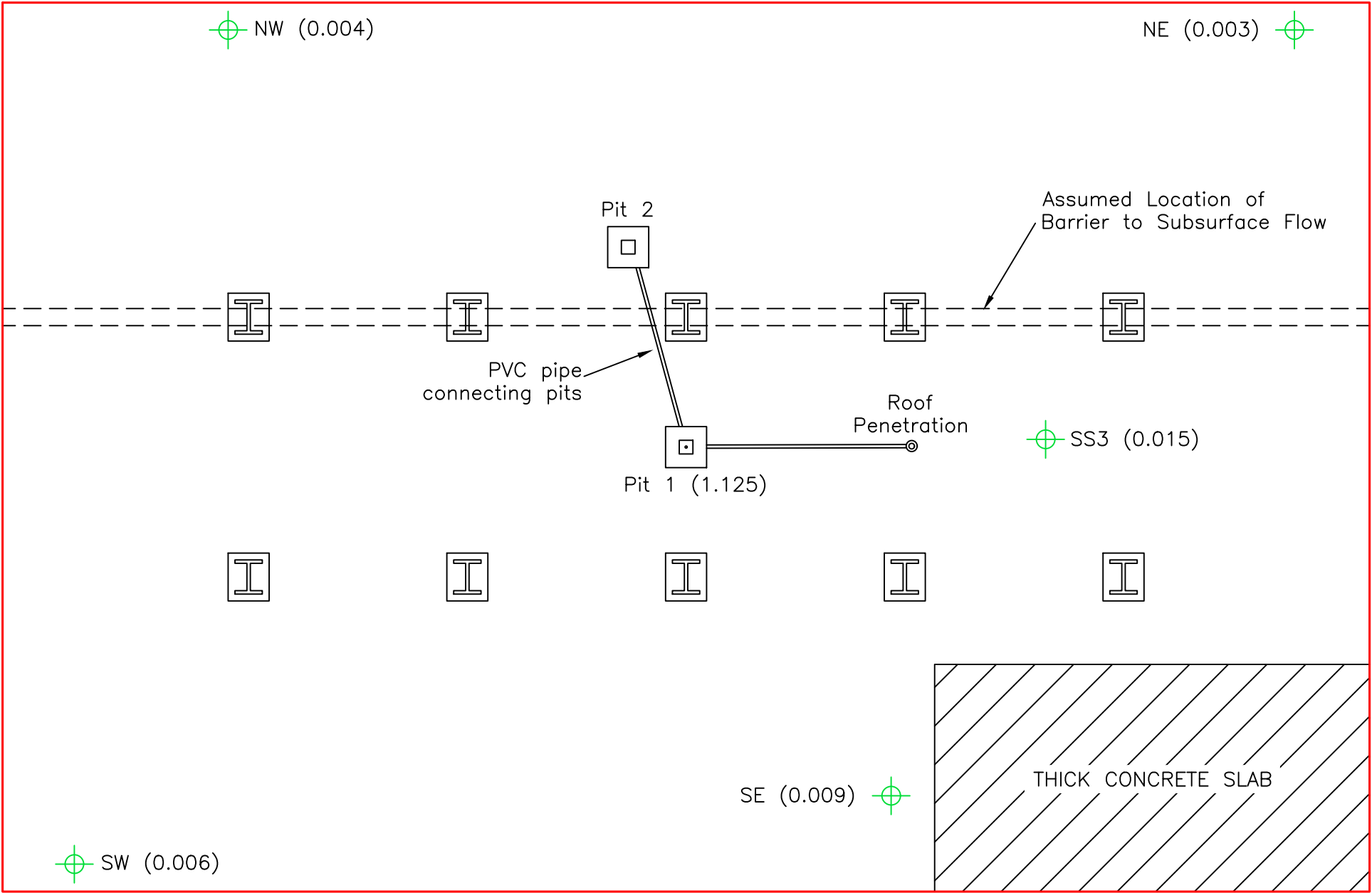
October 2017

Project Number  
10000-015

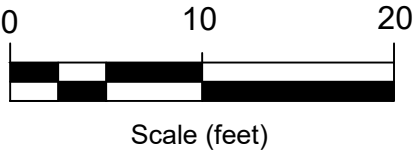
LEGEND

- Building Footprint
- Column
- Pressure Monitoring Point  
(Vacuum in inches of water)

SSDS Plan View



- NOTES:**
1. Fan was installed on the roof and does not exhaust within 25' of an air intake
  2. Labels noting SSDS are placed on pipe and at the exhaust
  3. Fan size and number of pits based on similar designs referenced by EPA documents
  4. Pit detail is not to scale



# TABLES

**Table 1**  
**Commercial Use Soil Cleanup Objectives**  
AFFCO, 361 Walsh Avenue, New Windsor, NY

Volatiles (SW846 8260C)			Semi-volatiles (SW846 8270D)			PCBs and Pesticides (SW846 8081B)		
Acetone	ug/kg	500000	2-Chlorophenol	ug/kg		Aldrin	ug/kg	680
Benzene	ug/kg	44000	4-Chloro-3-methyl phenol	ug/kg	-	alpha-BHC	ug/kg	3400
Bromochloromethane	ug/kg	-	2,4-Dichlorophenol	ug/kg		beta-BHC	ug/kg	3000
Bromodichloromethane	ug/kg	-	2,4-Dimethylphenol	ug/kg	-	delta-BHC	ug/kg	500000
Bromoform	ug/kg	-	2,4-Dinitrophenol	ug/kg		gamma-BHC (Lindane)	ug/kg	9200
Bromomethane	ug/kg	-	4,6-Dinitro-o-cresol	ug/kg	-	alpha-Chlordane	ug/kg	24000
2-Butanone (MEK)	ug/kg	500000	2-Methylphenol	ug/kg	500000	gamma-Chlordane	ug/kg	
Carbon disulfide	ug/kg		3&4-Methylphenol	ug/kg	-	Dieldrin	ug/kg	1400
Carbon tetrachloride	ug/kg	22000	2-Nitrophenol	ug/kg		4,4'-DDD	ug/kg	92000
Chlorobenzene	ug/kg	500000	4-Nitrophenol	ug/kg		4,4'-DDE	ug/kg	62000
Chloroethane	ug/kg		Pentachlorophenol	ug/kg	6700	4,4'-DDT	ug/kg	47000
Chloroform	ug/kg	350000	Phenol	ug/kg	500000	Endrin	ug/kg	89000
Chloromethane	ug/kg	-	2,3,4,6-Tetrachlorophenol	ug/kg	-	Endosulfan sulfate	ug/kg	200000
Cyclohexane	ug/kg	-	2,3,5-Trichlorophenol	ug/kg		Endrin aldehyde	ug/kg	-
1,2-Dibromo-3-chloropropane	ug/kg	-	2,4,6-Trichlorophenol	ug/kg		Endosulfan-I	ug/kg	200000
Dibromochloromethane	ug/kg		Acenaphthene	ug/kg	500000	Endosulfan-II	ug/kg	200000
1,2-Dibromoethane	ug/kg	-	Acenaphthylene	ug/kg	500000	Heptachlor	ug/kg	15000
1,2-Dichlorobenzene	ug/kg	500000	Acetophenone	ug/kg	-	Heptachlor epoxide	ug/kg	
1,3-Dichlorobenzene	ug/kg	280000	Anthracene	ug/kg	500000	Methoxychlor	ug/kg	
1,4-Dichlorobenzene	ug/kg	130000	Atrazine	ug/kg	-	Endrin ketone	ug/kg	-
Dichlorodifluoromethane	ug/kg	-	Benzo(a)anthracene	ug/kg	5600	Toxaphene	ug/kg	-
1,1-Dichloroethane	ug/kg	240000	Benzo(a)pyrene	ug/kg	1000			
1,2-Dichloroethane	ug/kg	30000	Benzo(b)fluoranthene	ug/kg	5600			
1,1-Dichloroethene	ug/kg	500000	Benzo(g,h,i)perylene	ug/kg	500000			
cis-1,2-Dichloroethene	ug/kg	500000	Benzo(k)fluoranthene	ug/kg	56000	Aluminum	mg/kg	
trans-1,2-Dichloroethene	ug/kg	500000	4-Bromophenyl phenyl ether	ug/kg	-	Antimony	mg/kg	
1,2-Dichloropropane	ug/kg		Butyl benzyl phthalate	ug/kg		Arsenic	mg/kg	16
cis-1,3-Dichloropropene	ug/kg	-	1,1'-Biphenyl	ug/kg		Barium	mg/kg	400
trans-1,3-Dichloropropene	ug/kg	-	Benzaldehyde	ug/kg	-	Beryllium	mg/kg	590
Ethylbenzene	ug/kg	390000	2-Chloronaphthalene	ug/kg	-	Cadmium	mg/kg	9.3
Freon 113	ug/kg		4-Chloroaniline	ug/kg		Calcium	mg/kg	
2-Hexanone	ug/kg	-	Carbazole	ug/kg	-	Chromium	mg/kg	-
Isopropylbenzene	ug/kg		Caprolactam	ug/kg	-	Cobalt	mg/kg	
Methyl Acetate	ug/kg	-	Chrysene	ug/kg	56000	Copper	mg/kg	270
Methylcyclohexane	ug/kg	-	bis(2-Chloroethoxy)methane	ug/kg	-	Iron	mg/kg	
Methyl Tert Butyl Ether	ug/kg	500000	bis(2-Chloroethyl)ether	ug/kg	-	Lead	mg/kg	1000
4-Methyl-2-pentanone(MIBK)	ug/kg		bis(2-Chloroisopropyl)ether	ug/kg	-	Magnesium	mg/kg	-
Methylene chloride	ug/kg	500000	4-Chlorophenyl phenyl ether	ug/kg	-	Manganese	mg/kg	10000
Styrene	ug/kg		2,4-Dinitrotoluene	ug/kg	-	Mercury	mg/kg	2.8
1,1,2,2-Tetrachloroethane	ug/kg		2,6-Dinitrotoluene	ug/kg		Nickel	mg/kg	310
Tetrachloroethene	ug/kg	150000	3,3'-Dichlorobenzidine	ug/kg	-	Potassium	mg/kg	-
Toluene	ug/kg	500000	1,4-Dioxane	ug/kg	130000	Selenium	mg/kg	1500
1,2,3-Trichlorobenzene	ug/kg		Dibenzo(a,h)anthracene	ug/kg	560	Silver	mg/kg	1500
1,2,4-Trichlorobenzene	ug/kg		Dibenzofuran	ug/kg	350000	Sodium	mg/kg	-
1,1,1-Trichloroethane	ug/kg	500000	Di-n-butyl phthalate	ug/kg		Thallium	mg/kg	
1,1,2-Trichloroethane	ug/kg	-	Di-n-octyl phthalate	ug/kg		Vanadium	mg/kg	
Trichloroethene	ug/kg	200000	Diethyl phthalate	ug/kg		Zinc	mg/kg	10000
Trichlorofluoromethane	ug/kg	-	Dimethyl phthalate	ug/kg				
Vinyl chloride	ug/kg	13000	bis(2-Ethylhexyl)phthalate	ug/kg				
m,p-Xylene	ug/kg	500000	Fluoranthene	ug/kg	500000			
o-Xylene	ug/kg	500000	Fluorene	ug/kg	500000			
Xylene (total)	ug/kg	500000	Hexachlorobenzene	ug/kg	6000			
			Hexachlorobutadiene	ug/kg	-			
			Hexachlorocyclopentadiene	ug/kg				
			Hexachloroethane	ug/kg	-			
			Indeno(1,2,3-cd)pyrene	ug/kg	5600			
			Isophorone	ug/kg				
			2-Methylnaphthalene	ug/kg				
			2-Nitroaniline	ug/kg				
			3-Nitroaniline	ug/kg				
			4-Nitroaniline	ug/kg	-			
			Naphthalene	ug/kg	500000			
			Nitrobenzene	ug/kg	69000			
			N-Nitroso-di-n-propylamine	ug/kg	-			
			N-Nitrosodiphenylamine	ug/kg				
			Phenanthrene	ug/kg	500000			
			Pyrene	ug/kg	500000			
			1,2,4,5-Tetrachlorobenzene	ug/kg	-			

#### Notes

The SCO's for unrestricted use were capped at a maximum value of 100 ppm. See Technical Support Document (TSD), section 9.3.

For constituents where the calculated SCO was lower than the contract required quantitation limit (CRQL), the CRQL is used as the Track 1 SCO value.

For constituents where the calculated SCO was lower than the rural soil background concentration, as determined by the Department and Department of Health rural soil survey, the rural soil background concentration is used as the Track 1 SCO value for this use of the site.

Protection of ecological resources SCO's were not developed for contaminants identified in Table 375-6.8(b) with "NS". Where such contaminants appear in Table 375-6.8(a), the applicant may be required by the Department to calculate a protection of ecological resources SCO according to the TSD.

Endosulfan SCO is the sum of endosulfan I, endosulfan II and endosulfan sulfate..

The SCO is the lower of the values for mercury (elemental) or mercury (inorganic salts). See TSD Table 5.6-1.

**Table 2A**  
End-point Post-excavation Soil sample Analytical Results  
Summary of Volatile Organic Compounds

Client ID Lab Sample ID Date Sampled	NY Unrestricted Use Soil Cleanup Objectives	NY Commercial Use Soil Cleanup Objectives	BENCH01 JB15155-3 8/30/2012 Result Q	C1SP01 JB15405-8 9/4/2012 Result Q	C2SP01 JB15405-11 9/4/2012 Result Q	C2SP02 JB15405-12 9/4/2012 Result Q	C3SP01 JB15405-9 9/4/2012 Result Q	C3SP02 JB15405-10 9/4/2012 Result Q	C4SP01 JB14890-9 8/28/2012 Result Q	C5SP01 JB14890-7 8/28/2012 Result Q	C5SP02 JB14890-8 8/28/2012 Result Q	PX01-SW-5 JB14890-1 8/28/2012 Result Q	PX02-SW-5 JB14890-2 8/28/2012 Result Q	PX03-BT-10 JB14890-3 8/28/2012 Result Q
<b>GC/MS Volatiles (µg/kg)</b>														
Acetone	500000	500000	<1.9	<2.0	<1.8	<1.8	<2.0	<1.8	<2.3	14.7	13.3	<2.3	5.9 J	20.6
Benzene	44000	44000	<0.14	<0.14	<0.13	<0.13	<0.14	<0.12	1.0 J	<0.17	<0.15	0.76 J	<0.15	<0.14
Bromodichloromethane	NS	NS	<0.12	<0.13	<0.11	<0.11	<0.13	<0.11	<0.14	<0.15	<0.13	<0.14	<0.13	<0.12
Bromoform	NS	NS	<0.17	<0.18	<0.16	<0.16	<0.18	<0.16	<0.20	<0.21	<0.19	<0.21	<0.19	<0.18
Bromomethane	NS	NS	<0.31	<0.33	<0.29	<0.30	<0.33	<0.29	<0.36	<0.38	<0.34	<0.37	<0.35	<0.32
2-Butanone (MEK)	500000	500000	<2.7	<2.9	<2.6	<2.6	<2.9	<2.5	<3.2	<3.4	<3.0	<3.3	<3.0	12.9
Carbon disulfide	NS	NS	<0.13	<0.14	<0.13	<0.13	<0.14	<0.12	<0.16	<0.16	1.2 J	<0.16	<0.15	1.5 J
Carbon tetrachloride	22000	22000	<0.15	<0.16	<0.14	<0.14	<0.16	<0.14	<0.18	<0.19	<0.17	<0.18	<0.17	<0.15
Chlorobenzene	500000	500000	<0.12	<0.13	<0.12	<0.12	<0.13	<0.11	<0.14	<0.15	<0.14	<0.15	<0.14	<0.13
Chloroethane	NS	NS	<0.26	<0.27	<0.24	<0.25	<0.27	<0.24	<0.30	<0.32	<0.28	<0.31	<0.29	1.9 J
Chloroform	350000	350000	<0.094	<0.099	<0.088	<0.089	<0.099	<0.087	<0.11	0.73 J	0.79 J	<0.11	<0.11	0.56 J
Chloromethane	NS	NS	<0.21	<0.22	<0.20	<0.20	<0.22	<0.20	<0.25	<0.26	<0.23	<0.25	<0.24	<0.22
Dibromochloromethane	NS	NS	<0.19	<0.20	<0.18	<0.18	<0.20	<0.17	<0.22	<0.23	<0.21	<0.22	<0.21	<0.19
1,1-Dichloroethane	240000	240000	1.2 J	7.2	1.0 J	1.9 J	13.0	3.0 J	<0.18	3.1 J	214	<0.19	<0.17	1940
1,2-Dichloroethane	30000	30000	<0.15	0.65 J	0.78 J	1.7	1.2	0.76 J	<0.18	<0.19	2.9	<0.18	<0.17	13.8
1,1-Dichloroethene	500000	500000	1.6 J	2.0 J	0.43 J	0.90 J	5.8 J	1.5 J	<0.34	2.5 J	2750	<0.35	<0.33	568
cis-1,2-Dichloroethene	500000	500000	0.92 J	0.61 J	0.37 J	1.1 J	0.54 J	0.41 J	<0.24	<0.26	1.2 J	<0.25	<0.23	1.5 J
trans-1,2-Dichloroethene	500000	500000	0.61 J	0.50 J	<0.25	0.70 J	0.41 J	0.38 J	<0.32	<0.33	2.2 J	<0.32	<0.30	<0.28
1,2-Dichloroethene (total)	NS	NS	1.5 J	1.1 J	0.37 J	1.8 J	0.95 J	0.79 J	<0.24	<0.26	3.4 J	<0.25	<0.23	1.5 J
1,2-Dichloropropane	NS	NS	<0.17	<0.18	<0.16	<0.17	<0.19	<0.16	<0.21	<0.22	<0.19	<0.21	<0.20	<0.18
cis-1,3-Dichloropropene	NS	NS	<0.16	<0.17	<0.15	<0.15	<0.17	<0.15	<0.19	<0.20	<0.17	<0.19	<0.18	<0.16
trans-1,3-Dichloropropene	NS	NS	<0.18	<0.19	<0.17	<0.17	<0.19	<0.16	<0.21	<0.22	<0.19	<0.21	<0.20	<0.18
Ethylbenzene	390000	390000	<0.30	<0.32	<0.28	<0.28	<0.32	<0.28	<0.35	<0.37	<0.33	<0.36	<0.34	<0.31
2-Hexanone	NS	NS	<0.71	<0.75	<0.66	<0.67	<0.75	<0.65	<0.83	<0.87	<0.78	<0.85	<0.79	<0.72
Methyl Tert Butyl Ether	500000	500000	<0.27	<0.28	<0.25	<0.25	<0.28	<0.25	<0.31	<0.33	<0.29	<0.32	<0.30	<0.27
4-Methyl-2-pentanone(MIBK)	NS	NS	<0.85	<0.90	<0.80	<0.81	<0.90	<0.79	<1.0	<1.1	<0.94	<1.0	<0.96	<0.87
Methylene chloride	500000	500000	<1.4	<1.5	<1.4	<1.4	<1.5	<1.3	<1.7	<1.8	<1.6	<1.7	<1.6	<1.5
Styrene	NS	NS	<0.10	<0.11	<0.098	<0.099	<0.11	<0.096	<0.12	<0.13	<0.11	<0.13	<0.12	<0.11
1,1,2,2-Tetrachloroethane	NS	NS	<0.15	<0.16	<0.14	<0.14	<0.16	<0.14	<0.18	<0.19	<0.17	<0.18	<0.17	<0.15
Tetrachloroethene	150000	150000	0.62 J	1.1 J	<0.18	0.33 J	1.6 J	<0.18	<0.23	<0.24	1.1 J	<0.23	<0.22	0.68 J
Toluene	500000	500000	1.1	1.3	<0.11	<0.11	2.8	0.27 J	0.43 J	<0.15	1.2 J	0.33 J	<0.13	17.1
1,1,1-Trichloroethane	680	500000	47.9	513	51.7	59.9	41900	166	1.6 J	2580	29800	<0.14	6.1 J	4980
1,1,2-Trichloroethane	NS	NS	1.6 J	3.5 J	1.4 J	2.5 J	5.2 J	0.97 J	<0.23	<0.24	<0.22	<0.24	<0.22	0.64 J
Trichloroethene	200000	200000	0.93 J	5.0 J	1.6 J	6.9	5.7 J	1.9 J	3.6 J	<0.24	1.7 J	<0.24	<0.22	2.2 J
Vinyl chloride	13000	13000	<0.16	<0.17	<0.15	<0.16	<0.17	<0.15	<0.19	<0.20	1.8 J	<0.20	<0.18	9.7
Xylene (total)	500000	500000	<0.16	<0.17	<0.15	<0.15	<0.17	<0.15	<0.19	<0.20	<0.17	<0.19	<0.18	<0.16
Total Confident Conc.			57.98	535.96	57.65	77.73	41937.2	175.98	6.63	2601.03	32794.79	1.09	12	7572.58

Notes:  
Exceedances in Unrestricted Use SCOs highlighted in blue  
NS - no standard  
J - estimated concentration



**Table 2A**  
End-point Post-excavation Soil sample Analytical Results  
Summary of Volatile Organic Compounds

Client ID Lab Sample ID Date Sampled	NY Unrestricted Use Soil Cleanup Objectives	NY Commercial Use Soil Cleanup Objectives	PX04-SW-5 JB14890-4 8/28/2012 Result Q	PX05-SW-6 JB14890-5 8/28/2012 Result Q	PX06-BT-10 JB14890-6 8/28/2012 Result Q	PX07BT-10 JB15155-1 8/30/2012 Result Q	PX08SW-7 JB15155-2 8/30/2012 Result Q	PX09SW-3 JB15405-1 9/4/2012 Result Q	PX10SW-5 JB15405-2 9/4/2012 Result Q	PX11BT-10 JB15405-3 9/4/2012 Result Q	PX12SW-7 JB15405-4 9/4/2012 Result Q	PX14SW-6 JB15405-6 9/4/2012 Result Q	PX15BT-10 JB15405-7 9/4/2012 Result Q
<b>GC/MS Volatiles (µg/kg)</b>													
Acetone	500000	500000	<2.3	<2.2	4.0 J	27.5	<2.0	<2.2	<2.2	<2.0	<2.1	<1.9	13.6
Benzene	44000	44000	0.77 J	1.3	0.86 J	<0.15	9.9	2.6	2.7	<0.14	2.6 J	<0.13	<0.15
Bromodichloromethane	NS	NS	<0.14	<0.13	<0.13	<0.13	<0.13	<0.14	<0.14	<0.12	<0.13	<0.12	<0.13
Bromoform	NS	NS	<0.20	<0.19	<0.19	<0.19	<0.18	<0.20	<0.20	<0.18	<0.19	<0.17	<0.19
Bromomethane	NS	NS	<0.36	<0.35	<0.34	<0.35	<0.33	<0.36	<0.36	<0.32	<0.34	<0.30	<0.35
2-Butanone (MEK)	500000	500000	<3.2	<3.1	<3.0	<3.0	<2.9	<3.1	<3.2	<2.8	<3.0	<2.7	<3.1
Carbon disulfide	NS	NS	<0.16	<0.15	<0.14	<0.15	<0.14	<0.15	<0.16	<0.14	<0.15	<0.13	<0.15
Carbon tetrachloride	22000	22000	<0.18	<0.17	<0.16	<0.17	<0.16	<0.17	<0.18	<0.15	<0.17	<0.15	<0.17
Chlorobenzene	500000	500000	<0.14	<0.14	<0.13	<0.14	<0.13	<0.14	<0.14	<0.13	<0.13	<0.12	<0.14
Chloroethane	NS	NS	<0.30	<0.29	<0.28	136	<0.27	<0.30	<0.30	<0.26	<0.28	<0.25	<0.29
Chloroform	350000	350000	<0.11	<0.11	<0.10	0.49 J	<0.10	<0.11	<0.11	<0.096	<0.10	<0.092	1.0 J
Chloromethane	NS	NS	<0.25	<0.24	<0.23	<0.24	<0.22	<0.24	<0.25	<0.22	<0.23	<0.21	<0.24
Dibromochloromethane	NS	NS	<0.22	<0.21	<0.20	<0.21	<0.20	<0.22	<0.22	<0.19	<0.20	<0.18	<0.21
1,1-Dichloroethane	240000	240000	<0.18	<0.18	<0.17	816	1.1 J	<0.18	1.8 J	<0.16	<0.17	0.87 J	8.3
1,2-Dichloroethane	30000	30000	<0.18	<0.17	<0.17	7.4	0.50 J	<0.18	<0.18	<0.16	<0.17	<0.15	0.60 J
1,1-Dichloroethene	500000	500000	1.0 J	<0.33	<0.32	34.5	<0.31	<0.34	<0.34	<0.30	<0.32	0.63 J	4.2 J
cis-1,2-Dichloroethene	500000	500000	<0.24	<0.24	<0.23	10.2	1.1 J	<0.24	<0.24	<0.21	<0.23	2.4 J	0.85 J
trans-1,2-Dichloroethene	500000	500000	<0.32	<0.31	<0.29	3.2 J	0.58 J	<0.31	<0.32	<0.28	<0.30	2.1 J	0.58 J
1,2-Dichloroethene (total)	NS	NS	<0.24	<0.24	<0.23	13.4	1.6 J	<0.24	<0.24	<0.21	<0.23	4.4 J	1.4 J
1,2-Dichloropropane	NS	NS	<0.21	<0.20	<0.19	<0.20	<0.19	<0.20	<0.20	<0.18	<0.19	<0.17	<0.20
cis-1,3-Dichloropropene	NS	NS	<0.19	<0.18	<0.17	<0.18	<0.17	<0.18	<0.18	<0.16	<0.17	<0.15	<0.18
trans-1,3-Dichloropropene	NS	NS	<0.21	<0.20	<0.19	<0.20	<0.19	<0.20	<0.21	<0.18	<0.19	<0.17	<0.20
Ethylbenzene	390000	390000	<0.35	<0.34	<0.33	<0.33	0.73 J	<0.35	<0.35	<0.31	<0.33	<0.29	<0.34
2-Hexanone	NS	NS	<0.83	<0.80	<0.77	<0.79	<0.75	<0.82	<0.83	<0.72	<0.78	<0.69	<0.80
Methyl Tert Butyl Ether	500000	500000	<0.31	<0.30	<0.29	<0.30	<0.28	<0.31	<0.31	<0.27	<0.29	<0.26	<0.30
4-Methyl-2-pentanone(MIBK)	NS	NS	<1.0	<0.96	<0.93	<0.96	<0.91	<0.99	<1.0	<0.87	<0.94	<0.83	<0.96
Methylene chloride	500000	500000	<1.7	<1.6	<1.6	<1.6	<1.5	<1.7	<1.7	<1.5	<1.6	<1.4	<1.6
Styrene	NS	NS	<0.12	<0.12	<0.11	<0.12	<0.11	<0.12	<0.12	<0.11	<0.11	<0.10	<0.12
1,1,2,2-Tetrachloroethane	NS	NS	<0.18	<0.17	<0.16	<0.17	<0.16	<0.17	<0.18	<0.15	<0.16	<0.15	<0.17
Tetrachloroethene	150000	150000	<0.23	<0.22	<0.21	1.6 J	0.44 J	<0.23	0.54 J	<0.20	<0.21	0.59 J	0.79 J
Toluene	500000	500000	0.35 J	0.53 J	<0.13	2.7	4.1	1.1 J	1.3	<0.12	1.1 J	<0.12	0.58 J
1,1,1-Trichloroethane	680	500000	0.49 J	3.2 J	0.52 J	519	38.4	68.5	67.1	10.9	5.1	29.3	149
1,1,2-Trichloroethane	NS	NS	<0.23	<0.22	<0.22	3.8 J	4.6 J	<0.23	<0.23	0.83 J	<0.22	5.9	1.5 J
Trichloroethene	200000	200000	<0.23	4.5 J	<0.22	20.5	2.4 J	2.0 J	1.5 J	2.2 J	2.5	4.0 J	4.7 J
Vinyl chloride	13000	13000	<0.19	<0.18	<0.18	2.0 J	<0.17	<0.19	<0.19	<0.17	<0.18	<0.16	<0.18
Xylene (total)	500000	500000	<0.19	<0.18	<0.17	<0.18	1.7	<0.18	<0.18	<0.16	<0.17	<0.15	<0.18
Total Confident Conc.			2.61	9.53	5.38	1598.29	67.15	74.2	74.94	13.93	11.3	50.19	187.1

Notes:  
Exceedances in Unrestricted Use SCOs highlighted in blue  
NS - no standard  
J - estimated concentration



**Table 2B**  
End-point Post-treatment Soil sample Analytical Results  
Summary of Volatile Organic Compounds

Client ID Lab Sample ID Date Sampled	NY Unrestricted Use Soil Cleanup Objectives	NY Commercial Use Soil Cleanup Objectives	1.1 (12.5-13) JB32749-4 3/27/2013 Result Q	1.1 (13-13.5) JB32749-5 3/27/2013 Result Q	1.1 (14.5-15) JB32749-6 3/27/2013 Result Q	1.2 (11-11.5) JB32749-8 3/27/2013 Result Q	1.2 (13-13.5) JB32749-7 3/27/2013 Result Q	1.2 (14-14.5) JB32749-9 3/27/2013 Result Q	2.1 (10-10.5) JB32749-12 3/27/2013 Result Q	2.1 (11.5-12) JB32749-11 3/27/2013 Result Q	2.1 (12.5-13) JB32749-10 3/27/2013 Result Q	2.2 (11-11.5) JB32749-14 3/27/2013 Result Q	2.2 (12.5-13) JB32749-13 3/27/2013 Result Q
<b>GC/MS Volatiles (µg/kg)</b>													
Acetone	500000	500000	<140	10.9 J	<2.2	30.1	27.2	<350	22.6	62.4	<130	<3800	<140
Benzene	44000	44000	<9.9	<0.14	<0.15	<0.17	<0.17	<25	<0.23	0.66 J	<9.1	<270	<10
Bromodichloromethane	NS	NS	<8.7	<0.12	<0.14	<0.15	<0.15	<22	<0.20	<0.17	<8.1	<230	<8.9
Bromoform	NS	NS	<13	<0.17	<0.20	<0.22	<0.21	<31	<0.29	<0.25	<12	<340	<13
Bromomethane	NS	NS	<23	<0.31	<0.36	<0.40	<0.38	<56	<0.52	<0.45	<21	<610	<23
2-Butanone (MEK)	500000	500000	<200	<2.8	<3.1	21.8	29.0	<490	<4.5	47.9	893	<5300	<200
Carbon disulfide	NS	NS	<9.7	1.8 J	2.2 J	1.5 J	1.1 J	<24	1.9 J	3.4 J	48.1 J	<260	<10
Carbon tetrachloride	22000	22000	<11	<0.15	<0.17	<0.19	<0.19	<27	<0.25	<0.22	<10	<300	<11
Chlorobenzene	500000	500000	<9.0	<0.12	<0.14	<0.16	<0.15	<22	<0.21	<0.18	<8.3	<240	<9.2
Chloroethane	NS	NS	<19	25.4	54.7	659 J	480 J	2960	14.5	5230	3530	<510	<19
Chloroform	350000	350000	<6.9	<0.095	<0.11	<0.12	<0.12	<17	5.6 J	<0.14	<6.3	<180	<7.0
Chloromethane	NS	NS	<15	<0.21	<0.24	<0.27	<0.26	<38	<0.35	<0.31	<14	<410	<16
Dibromochloromethane	NS	NS	<14	<0.19	<0.21	<0.24	<0.23	<34	<0.31	<0.27	<13	<370	<14
1,1-Dichloroethane	240000	240000	1080	183	79.4	6220	3950	34000	121	11100	34900	6040 J	3660
1,2-Dichloroethane	30000	30000	232	1.0 J	<0.18	11.9	14.2	786	20.7	27.7	1590	<300	179
1,1-Dichloroethene	500000	500000	1140	32.0	15.3	85.3	41.7	1620	42.7	70.5	2150	14000	2310
cis-1,2-Dichloroethene	500000	500000	83.2 J	<0.21	<0.24	0.63 J	0.77 J	<38	7.9 J	10.1	374 J	<410	31.6 J
trans-1,2-Dichloroethene	500000	500000	101 J	<0.27	1.3 J	<0.35	0.47 J	<49	6.5 J	6.1 J	294 J	<530	<20
1,2-Dichloroethene (total)	NS	NS	184 J	<0.21	1.3 J	0.63 J	1.2 J	<38	14.3	16.1	668	<410	31.6 J
1,2-Dichloropropane	NS	NS	<13	<0.18	<0.20	<0.22	<0.22	<32	<0.29	<0.25	<12	<340	<13
cis-1,3-Dichloropropene	NS	NS	<12	<0.16	<0.18	<0.20	<0.19	<29	<0.26	<0.23	<11	<310	<12
trans-1,3-Dichloropropene	NS	NS	<13	<0.18	<0.20	<0.23	<0.22	<32	<0.29	<0.26	<12	<350	<13
Ethylbenzene	390000	390000	<22	<0.30	<0.34	0.80 J	<0.37	<54	2.0	<0.44	<20	<590	<22
2-Hexanone	NS	NS	<52	<0.72	<0.81	<0.90	<0.87	<130	<1.2	<1.0	<48	<1400	<53
Methyl Tert Butyl Ether	500000	500000	<20	<0.27	<0.31	<0.34	<0.33	<48	<0.45	<0.39	<18	<520	<20
4-Methyl-2-pentanone(MIBK)	NS	NS	<62	<0.86	<0.98	<1.1	<1.1	<150	<1.4	<1.2	<58	<1700	<64
Methylene chloride	500000	500000	<110	4.4 J	2.1 J	5.2 J	2.8 J	<260	6.5 J	4.5 J	<97	<2800	<110
Styrene	NS	NS	<7.6	<0.11	<0.12	<0.13	<0.13	<19	<0.17	<0.15	<7.0	<200	<7.8
1,1,2,2-Tetrachloroethane	NS	NS	<11	<0.15	<0.17	<0.19	<0.18	<27	<0.25	<0.22	<10	<290	<11
Tetrachloroethene	150000	150000	37.9 J	<0.20	<0.22	<0.25	<0.24	<35	2.3 J	2.3 J	288 J	<380	58.5 J
Toluene	500000	500000	109	0.43 J	1.0 J	2.3	5.7	184 J	4.6	5.6	2280	1600 J	284
1,1,1-Trichloroethane	680	500000	18700	2860	144	1560	2130	4690	12600	179	42300	398000	70700
1,1,2-Trichloroethane	NS	NS	<14	<0.20	<0.23	0.57 J	0.84 J	<36	3.0 J	3.0 J	39.1 J	<390	<15
Trichloroethene	200000	200000	1130	0.81 J	0.90 J	1.6 J	0.89 J	<36	32.1	19.5	1180	2040 J	337 J
Vinyl chloride	13000	13000	<12	<0.17	0.77 J	7.9	10.9	<30	<0.27	12.9	<11	<320	<12
Xylene (total)	500000	500000	<12	<0.16	<0.18	0.65 J	<0.19	<29	8.4	<0.23	83.5	<310	<12
Total Confident Conc.			22797.1	3119.74	302.97	8609.88	6696.77	44240	12916.6	16801.66	90617.7	421680	77591.7

Notes:  
Exceedances in Unrestricted Use SCOs highlighted in blue  
NS - no standard  
J - estimated concentration



**Table 2B**  
End-point Post-treatment Soil sample Analytical Results  
Summary of Volatile Organic Compounds

Client ID Lab Sample ID Date Sampled	NY Unrestricted Use Soil Cleanup Objectives	NY Commercial Use Soil Cleanup Objectives	2.2 (14-14.5) JB32749-15 3/27/2013 Result Q	3 (12.5-13) JB32749-18 3/27/2013 Result Q	3 (13.5-14) JB32749-16 3/27/2013 Result Q	3 (14.5-15) JB32749-17 3/27/2013 Result Q	4 (10-10.5) JB32749-20 3/27/2013 Result Q	4 (11-11.5) JB32749-19 3/27/2013 Result Q	4 (14.5-15) JB32749-21 3/27/2013 Result Q	5 (13.5-14) JB32749-22 3/27/2013 Result Q	5 (14-14.5) JB32749-23 3/27/2013 Result Q	5 (14.5-15) JB32749-24 3/27/2013 Result Q	6 (11.5-12) JB32749-25 3/27/2013 Result Q	6 (12.5-13) JB32749-26 3/27/2013 Result Q
<b>GC/MS Volatiles (µg/kg)</b>														
Acetone	500000	500000	82.2	<200	<190	<130	13.0 J	10.9	14.6	4.6 J	19.2	37.1	<2.2	4.9 J
Benzene	44000	44000	<0.097	<14	<13	<8.8	<0.23	<0.10	<0.15	<0.14	<0.11	<0.12	<0.16	<0.12
Bromodichloromethane	NS	NS	<0.086	<13	<12	<7.8	<0.20	<0.088	<0.13	<0.12	<0.10	<0.11	<0.14	<0.11
Bromoform	NS	NS	<0.12	<18	<17	<11	<0.29	<0.13	<0.19	<0.18	<0.15	<0.16	<0.20	<0.15
Bromomethane	NS	NS	<0.22	<33	<30	<20	<0.52	<0.23	<0.35	<0.32	<0.26	<0.29	<0.36	<0.28
2-Butanone (MEK)	500000	500000	129	<290	<270	<180	<4.6	<2.0	40.1	<2.8	<2.3	<2.5	<3.1	<2.4
Carbon disulfide	NS	NS	1.9 J	<14	<13	<8.7	1.3 J	1.1 J	<0.15	<0.14	0.65 J	<0.12	<0.15	<0.12
Carbon tetrachloride	22000	22000	<0.11	<16	<15	<9.9	<0.25	<0.11	<0.17	<0.16	<0.13	<0.14	<0.17	<0.14
Chlorobenzene	500000	500000	<0.088	<13	<12	<8.0	<0.21	<0.090	<0.14	<0.13	<0.10	<0.11	<0.14	<0.11
Chloroethane	NS	NS	46.2	94.4 J	143 J	953	<0.43	3.4 J	1190	<0.27	0.91 J	1.3 J	<0.30	<0.23
Chloroform	350000	350000	<0.067	<10	<9.2	<6.1	0.50 J	<0.069	<0.10	<0.097	<0.079	<0.086	<0.11	<0.084
Chloromethane	NS	NS	<0.15	<23	<21	<14	<0.36	<0.16	<0.24	<0.22	<0.18	<0.19	<0.24	<0.19
Dibromochloromethane	NS	NS	<0.13	<20	<18	<12	<0.31	<0.14	<0.21	<0.19	<0.16	<0.17	<0.21	<0.17
1,1-Dichloroethane	240000	240000	12100	410 J	459 J	5820	9.6	2000	6470	15.0	42.9	54.3	<0.18	2.0 J
1,2-Dichloroethane	30000	30000	34.0	134	<15	165	2.3	4.4	<0.17	1.2	<0.13	<0.14	<0.18	2.8
1,1-Dichloroethene	500000	500000	72.4	659	293 J	423	31.4	1650	0.43 J	9.3	21.4	30.8	<0.34	6.1
cis-1,2-Dichloroethene	500000	500000	3.7 J	104 J	<20	44.6 J	1.0 J	2.6 J	<0.23	0.36 J	<0.18	0.33 J	<0.24	1.2 J
trans-1,2-Dichloroethene	500000	500000	0.86 J	108 J	<27	81.2 J	0.67 J	0.43 J	<0.30	<0.28	<0.23	<0.25	<0.31	1.2 J
1,2-Dichloroethene (total)	NS	NS	4.6	212 J	<20	126 J	1.7 J	3.0 J	<0.23	0.36 J	<0.18	0.33 J	<0.24	2.4 J
1,2-Dichloropropane	NS	NS	<0.13	<19	<17	<11	<0.29	<0.13	<0.20	<0.18	<0.15	<0.16	<0.20	<0.16
cis-1,3-Dichloropropene	NS	NS	<0.11	<17	<16	<10	<0.27	<0.12	<0.18	<0.16	<0.13	<0.15	<0.18	<0.14
trans-1,3-Dichloropropene	NS	NS	<0.13	<19	<17	<11	<0.30	<0.13	<0.20	<0.18	<0.15	<0.16	<0.20	<0.16
Ethylbenzene	390000	390000	<0.21	<32	<29	<20	<0.50	<0.22	<0.33	<0.31	<0.25	<0.28	<0.34	<0.27
2-Hexanone	NS	NS	<0.51	<75	<69	<46	<1.2	<0.52	<0.79	<0.73	<0.60	<0.65	<0.81	<0.64
Methyl Tert Butyl Ether	500000	500000	<0.19	<28	<26	<17	<0.45	<0.20	<0.30	<0.28	<0.23	<0.25	<0.31	<0.24
4-Methyl-2-pentanone(MIBK)	NS	NS	<0.61	<91	<84	<56	<1.4	<0.63	<0.95	<0.89	<0.72	<0.79	<0.98	<0.77
Methylene chloride	500000	500000	2.8 J	<150	<140	<94	15.1	4.0 J	12.4	2.7 J	<1.2	1.6 J	2.9 J	4.1 J
Styrene	NS	NS	<0.075	<11	<10	<6.8	<0.18	<0.077	<0.12	<0.11	<0.088	<0.096	<0.12	<0.094
1,1,2,2-Tetrachloroethane	NS	NS	<0.11	<16	<15	<9.8	<0.25	<0.11	<0.17	<0.16	<0.13	<0.14	<0.17	<0.13
Tetrachloroethene	150000	150000	<0.14	<21	<19	<13	0.99 J	<0.14	<0.22	<0.20	<0.17	<0.18	<0.23	<0.18
Toluene	500000	500000	1.4	<13	36.2 J	462	<0.20	<0.088	<0.13	<0.12	<0.10	<0.11	<0.14	<0.11
1,1,1-Trichloroethane	680	500000	617 J	1270	1500	2320	89.0	88.1	3.9 J	3480	1220	2090	2.9 J	41.5
1,1,2-Trichloroethane	NS	NS	1.6 J	<21	<19	<13	<0.33	<0.15	<0.22	0.44 J	<0.17	<0.18	<0.23	<0.18
Trichloroethene	200000	200000	0.39 J	279 J	175 J	55.3 J	3.5 J	0.45 J	<0.22	2.0 J	<0.17	<0.18	<0.23	5.0 J
Vinyl chloride	13000	13000	3.4 J	<17	<16	<11	<0.28	1.8 J	2.4 J	<0.17	1.3 J	1.2 J	<0.19	<0.15
Xylene (total)	500000	500000	<0.11	<17	<16	<10	<0.27	<0.12	<0.18	<0.16	<0.13	<0.15	<0.18	<0.14
Total Confident Conc.			13101.45	3270.4	2606.2	10450.1	170.06	3770.18	7733.83	3515.96	1306.36	2216.96	5.8	71.2

Notes:

Exceedances in Unrestricted Use SCOs highlighted in blue

NS - no standard

J - estimated concentration





**Table 2B**  
End-point Post-treatment Soil sample Analytical Results  
Summary of Volatile Organic Compounds

Client ID Lab Sample ID Date Sampled	NY Unrestricted Use Soil Cleanup Objectives	NY Commercial Use Soil Cleanup Objectives	6 (14.5-15) JB32749-27 3/27/2013 Result Q	FD-1 6(11.5-12) JB32749-28 3/27/2013 Result Q	FD-2 6(14.5-15) JB32749-29 3/27/2013 Result Q
<b>GC/MS Volatiles (µg/kg)</b>					
Acetone	500000	500000	<2.0	<1.8	<1.2
Benzene	44000	44000	<0.14	<0.13	<0.085
Bromodichloromethane	NS	NS	<0.12	<0.11	<0.075
Bromoform	NS	NS	<0.18	<0.16	<0.11
Bromomethane	NS	NS	<0.32	<0.29	<0.20
2-Butanone (MEK)	500000	500000	<2.8	<2.6	<1.7
Carbon disulfide	NS	NS	<0.14	<0.13	<0.084
Carbon tetrachloride	22000	22000	<0.16	<0.14	<0.095
Chlorobenzene	500000	500000	<0.13	<0.12	<0.078
Chloroethane	NS	NS	<0.27	<0.24	<0.16
Chloroform	350000	350000	<0.097	<0.089	<0.059
Chloromethane	NS	NS	<0.22	<0.20	<0.13
Dibromochloromethane	NS	NS	<0.19	<0.18	<0.12
1,1-Dichloroethane	240000	240000	3.5 J	<0.15	0.71 J
1,2-Dichloroethane	30000	30000	<0.16	<0.15	<0.097
1,1-Dichloroethene	500000	500000	<0.30	<0.28	<0.18
cis-1,2-Dichloroethene	500000	500000	<0.21	<0.20	<0.13
trans-1,2-Dichloroethene	500000	500000	<0.28	<0.26	<0.17
1,2-Dichloroethene (total)	NS	NS	<0.21	<0.20	<0.13
1,2-Dichloropropane	NS	NS	<0.18	<0.17	<0.11
cis-1,3-Dichloropropene	NS	NS	<0.16	<0.15	<0.10
trans-1,3-Dichloropropene	NS	NS	<0.18	<0.17	<0.11
Ethylbenzene	390000	390000	<0.31	<0.28	<0.19
2-Hexanone	NS	NS	<0.73	<0.67	<0.45
Methyl Tert Butyl Ether	500000	500000	<0.28	<0.25	<0.17
4-Methyl-2-pentanone(MIBK)	NS	NS	<0.88	<0.81	<0.54
Methylene chloride	500000	500000	<1.5	3.2 J	<0.91
Styrene	NS	NS	<0.11	<0.099	<0.066
1,1,2,2-Tetrachloroethane	NS	NS	<0.15	<0.14	<0.095
Tetrachloroethene	150000	150000	<0.20	<0.18	<0.12
Toluene	500000	500000	<0.12	<0.11	<0.075
1,1,1-Trichloroethane	680	500000	0.93 J	3.6 J	3.6
1,1,2-Trichloroethane	NS	NS	<0.20	<0.19	<0.12
Trichloroethene	200000	200000	<0.20	0.89 J	<0.12
Vinyl chloride	13000	13000	<0.17	<0.15	<0.10
Xylene (total)	500000	500000	<0.16	<0.15	<0.10
Total Confident Conc.			4.43	7.69	4.31

Notes:  
Exceedances in Unrestricted Use SCOs highlighted in blue  
NS - no standard  
J - estimated concentration





**Table 3**  
**Groundwater Analytical Results**  
 AFFCO, 361 Walsh Avenue, New Windsor, NY

Client Sample ID: Lab Sample ID: Date Sampled:		Units	NY TOGS Class GA GW Standards	Pre-Excavation								Post-Excavation					
				EW-0	MW-1	E-1 NEW	IW-3	IW-1	S-8	IW-2	EW-1X	S-8	EW-0	E1-NEW	MW-1	FB041713	TRIP BLANK
				JB10868-1	JB10868-2	JB10868-3	JB10868-4	JB10868-5	JB10868-6	JB10868-7	JB34670-1	JB34670-2	JB34670-3	JB34670-4	JB34670-5	JB34670-6	JB34670-7
Matrix:				7/10/2012	7/10/2012	7/10/2012	7/10/2012	7/10/2012	7/10/2012	7/10/2012	4/17/2013	4/17/2013	4/17/2013	4/17/2013	4/17/2013	4/17/2013	4/17/2013
				Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Ground Water	Field Blank	Trip Blank
<b>GC/MS Volatiles (SW846 8260B)</b>																	
Acetone	ug/l	-		ND (330)	ND (8.2)	ND (3.3)	7980	143	J ND (3.3)	1600	ND (33)	ND (3.3)	ND (3.3)	ND (3.3)	ND (16)	ND (3.3)	ND (3.3)
Benzene	ug/l	1		ND (24)	ND (0.59)	ND (0.24)	ND (12)	ND (4.7)	ND (0.24)	ND (5.9)	ND (2.4)	ND (0.24)	ND (0.24)	ND (0.24)	ND (1.2)	ND (0.24)	ND (0.24)
Bromodichloromethane	ug/l	-		ND (21)	ND (0.52)	ND (0.21)	ND (10)	ND (4.1)	ND (0.21)	ND (5.2)	ND (2.1)	ND (0.21)	ND (0.21)	ND (0.21)	ND (1.0)	ND (0.21)	ND (0.21)
Bromoform	ug/l	-		ND (21)	ND (0.54)	ND (0.21)	ND (11)	ND (4.3)	ND (0.21)	ND (5.4)	ND (2.1)	ND (0.21)	ND (0.21)	ND (0.21)	ND (1.1)	ND (0.21)	ND (0.21)
Bromomethane	ug/l	5		ND (22)	ND (0.55)	ND (0.22)	ND (11)	ND (4.4)	ND (0.22)	ND (5.5)	ND (2.2)	ND (0.22)	ND (0.22)	ND (0.22)	ND (1.1)	ND (0.22)	ND (0.22)
2-Butanone (MEK)	ug/l	-		ND (240)	ND (5.9)	ND (2.4)	18900	114	J ND (2.4)	4210	ND (24)	ND (2.4)	14.1	ND (2.4)	ND (12)	ND (2.4)	ND (2.4)
Carbon disulfide	ug/l	60		ND (19)	ND (0.47)	ND (0.19)	ND (9.5)	ND (3.8)	ND (0.19)	ND (4.7)	ND (1.9)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.95)	ND (0.19)	ND (0.19)
Carbon tetrachloride	ug/l	5		ND (22)	ND (0.54)	ND (0.22)	ND (11)	ND (4.3)	ND (0.22)	ND (5.4)	ND (2.2)	ND (0.22)	ND (0.22)	ND (0.22)	ND (1.1)	ND (0.22)	ND (0.22)
Chlorobenzene	ug/l	5		ND (23)	ND (0.57)	ND (0.23)	ND (11)	ND (4.6)	ND (0.23)	ND (5.7)	ND (2.3)	ND (0.23)	ND (0.23)	ND (0.23)	ND (1.1)	ND (0.23)	ND (0.23)
Chloroethane	ug/l	5		<b>1240</b>	<b>641</b>	ND (0.26)	<b>90.3</b>	<b>904</b>	<b>57</b>	<b>80.6</b>	ND (2.6)	ND (0.26)	<b>334</b>	<b>73.9</b>	<b>136</b>	ND (0.26)	ND (0.26)
Chloroform	ug/l	7		ND (20)	ND (0.51)	ND (0.20)	ND (10)	ND (4.1)	ND (0.20)	ND (5.1)	ND (2.0)	ND (0.20)	1.2	ND (0.20)	3.1	J ND (0.20)	ND (0.20)
Chloromethane	ug/l	5		ND (21)	ND (0.52)	ND (0.21)	ND (10)	ND (4.1)	ND (0.21)	ND (5.2)	ND (2.1)	ND (0.21)	ND (0.21)	ND (0.21)	ND (1.0)	ND (0.21)	ND (0.21)
Dibromochloromethane	ug/l	-		ND (14)	ND (0.34)	ND (0.14)	ND (6.8)	ND (2.7)	ND (0.14)	ND (3.4)	ND (1.4)	ND (0.14)	ND (0.14)	ND (0.14)	ND (0.68)	ND (0.14)	ND (0.14)
1,1-Dichloroethane	ug/l	5		<b>36100</b>	<b>146</b>	<b>18</b>	<b>119</b>	<b>2540</b>	<b>145</b>	<b>327</b>	<b>22.9</b>	<b>11.8</b>	<b>2540</b>	<b>154</b>	<b>438</b>	ND (0.11)	ND (0.11)
1,2-Dichloroethane	ug/l	0.6		<b>233</b>	<b>4.8</b>	<b>1.7</b>	ND (13)	<b>60.5</b>	<b>0.64</b>	J ND (6.5)	ND (2.6)	<b>0.7</b>	J <b>17.5</b>	ND (0.26)	<b>5.2</b>	ND (0.26)	ND (0.26)
1,1-Dichloroethene	ug/l	5		<b>562</b>	<b>6</b>	4.5	<b>22.4</b>	J <b>69.2</b>	4.1	<b>28.3</b>	ND (1.9)	3.5	<b>144</b>	5	<b>36.6</b>	ND (0.19)	ND (0.19)
cis-1,2-Dichloroethene	ug/l	5		ND (19)	0.73	J 0.78	J ND (9.4)	<b>7.3</b>	J 0.21	J ND (4.7)	ND (1.9)	0.54	J 2.8	ND (0.19)	ND (0.94)	ND (0.19)	ND (0.19)
trans-1,2-Dichloroethene	ug/l	5		ND (21)	ND (0.53)	0.33	J ND (11)	ND (4.2)	ND (0.21)	ND (5.3)	ND (2.1)	ND (0.21)	2.2	ND (0.21)	ND (1.1)	ND (0.21)	ND (0.21)
1,2-Dichloroethene (total)	ug/l	-		ND (19)	0.73	J 1.1	ND (9.4)	7.3	J 0.21	J ND (4.7)	ND (1.9)	0.54	J 5	ND (0.19)	ND (0.94)	ND (0.19)	ND (0.19)
1,2-Dichloropropane	ug/l	1		ND (48)	ND (1.2)	ND (0.48)	ND (24)	ND (9.7)	ND (0.48)	ND (12)	ND (4.8)	ND (0.48)	ND (0.48)	ND (0.48)	ND (2.4)	ND (0.48)	ND (0.48)
cis-1,3-Dichloropropene	ug/l	-		ND (21)	ND (0.52)	ND (0.21)	ND (10)	ND (4.1)	ND (0.21)	ND (5.2)	ND (2.1)	ND (0.21)	ND (0.21)	ND (0.21)	ND (1.0)	ND (0.21)	ND (0.21)
trans-1,3-Dichloropropene	ug/l	-		ND (19)	ND (0.47)	ND (0.19)	ND (9.5)	ND (3.8)	ND (0.19)	ND (4.7)	ND (1.9)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.95)	ND (0.19)	ND (0.19)
Ethylbenzene	ug/l	5		ND (23)	ND (0.57)	ND (0.23)	ND (11)	ND (4.6)	ND (0.23)	ND (5.7)	ND (2.3)	ND (0.23)	ND (0.23)	ND (0.23)	ND (1.1)	ND (0.23)	ND (0.23)
2-Hexanone	ug/l	-		ND (110)	ND (2.8)	ND (1.1)	ND (57)	ND (23)	ND (1.1)	ND (28)	ND (11)	ND (1.1)	ND (1.1)	ND (1.1)	ND (5.7)	ND (1.1)	ND (1.1)
Methyl Tert Butyl Ether	ug/l	10		ND (16)	ND (0.41)	ND (0.16)	ND (8.2)	ND (3.3)	ND (0.16)	ND (4.1)	ND (1.6)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.82)	ND (0.16)	ND (0.16)
4-Methyl-2-pentanone(MIBK)	ug/l	-		ND (83)	ND (2.1)	ND (0.83)	ND (41)	ND (17)	ND (0.83)	ND (21)	ND (8.3)	ND (0.83)	ND (0.83)	ND (0.83)	ND (4.1)	ND (0.83)	ND (0.83)
Methylene chloride	ug/l	5		ND (70)	ND (1.8)	ND (0.70)	ND (35)	ND (14)	ND (0.70)	ND (18)	ND (7.0)	ND (0.70)	ND (0.70)	ND (0.70)	ND (3.5)	ND (0.70)	ND (0.70)
Styrene	ug/l	5		ND (21)	ND (0.54)	ND (0.21)	ND (11)	ND (4.3)	ND (0.21)	ND (5.4)	ND (2.1)	ND (0.21)	ND (0.21)	ND (0.21)	ND (1.1)	ND (0.21)	ND (0.21)
1,1,2,2-Tetrachloroethane	ug/l	5		ND (21)	ND (0.54)	ND (0.21)	ND (11)	ND (4.3)	ND (0.21)	ND (5.4)	ND (2.1)	ND (0.21)	ND (0.21)	ND (0.21)	ND (1.1)	ND (0.21)	ND (0.21)
Tetrachloroethene	ug/l	5		ND (28)	ND (0.70)	ND (0.28)	ND (14)	ND (5.6)	ND (0.28)	ND (7.0)	ND (2.8)	ND (0.28)	0.6	J ND (0.28)	ND (1.4)	ND (0.28)	ND (0.28)
Toluene	ug/l	5		<b>60.5</b>	J ND (0.57)	ND (0.23)	ND (11)	ND (4.5)	ND (0.23)	ND (5.7)	ND (2.3)	ND (0.23)	<b>8</b>	ND (0.23)	1.6	J ND (0.23)	ND (0.23)
1,1,1-Trichloroethane	ug/l	5		<b>48300</b>	<b>82.4</b>	2	<b>312</b>	<b>1420</b>	<b>30.5</b>	<b>891</b>	ND (2.4)	1.4	<b>8630</b>	<b>48.4</b>	<b>1560</b>	ND (0.24)	ND (0.24)
1,1,2-Trichloroethane	ug/l	1		<b>34.5</b>	J ND (0.72)	ND (0.29)	ND (14)	ND (5.7)	ND (0.29)	ND (7.2)	ND (2.9)	ND (0.29)	<b>2.3</b>	ND (0.29)	ND (1.4)	ND (0.29)	ND (0.29)
Trichloroethene	ug/l	5		ND (22)	1.6	J 1.7	ND (11)	<b>8.7</b>	J ND (0.22)	ND (5.4)	ND (2.2)	1.1	4	ND (0.22)	<b>6.2</b>	ND (0.22)	ND (0.22)
Vinyl chloride	ug/l	2		ND (21)	2	J 0.65	J ND (10)	ND (4.1)	0.65 J	ND (5.2)	ND (2.1)	ND (0.21)	<b>4.8</b>	ND (0.21)	ND (1.0)	ND (0.21)	ND (0.21)
Xylene (total)	ug/l	5		ND (24)	ND (0.60)	ND (0.24)	ND (12)	ND (4.8)	ND (0.24)	ND (6.0)	ND (2.4)	ND (0.24)	ND (0.24)	ND (0.24)	ND (1.2)	ND (0.24)	ND (0.24)
<b>Metals Analysis</b>																	
Iron	ug/l	300		-	-	-	-	-	-	-	<b>934000</b>	<b>5790</b>	<b>546</b>	<b>804</b>	<b>805</b>	<b>18500</b>	-
<b>General Chemistry</b>																	
Alkalinity, Total as CaCO3	mg/l	-		-	-	-	-	-	-	-	89.2	111	124	260	274	<5.0	-
Chloride	mg/l	250		-	-	-	-	-	-	-	52.6	43.8	114	37.1	57.1	<2.0	-
Sulfate	mg/l	250		-	-	-	-	-	-	-	29.2	17.2	93.8	<10	104	<10	-
Sulfide	mg/l	-		-	-	-	-	-	-	-	-	<2.0	<2.0	<2.0	<2.0	<2.0	-

**Notes**

Exceedances **bolded** and highlighted in gray

ND - concentration is non-detectable

J - value is estimated

Sample JB10868-3 was originally mislabeled 'E-1 NAW'

Sample JB34670-4 was originally mislabeled 'E-1 N'

Sample JB34670-5 was originally mislabeled 'MW-1N'

# **APPENDIX C**

## **Community Air Monitoring Certification**



**TOPIC: AIR MONITORING CERTIFICATE OF COMPLIANCE**

I, Corey Smith certify that air monitoring was executed in accordance with the Site-specific Health and Safety Plan and Community Air Monitoring Plan during the excavation remedial action at American Felt and Filter Company between August and September of 2012. During that time which no sustained volatile organic compound concentrations above action levels were found and no response actions were required during operations.

A handwritten signature in black ink, appearing to read 'Corey Smith', with a long horizontal flourish extending to the right.

Corey Smith  
Industrial Engineer/ Safety Manager  
American Felt and Filter Company  
361 Walsh Ave, New Windsor, NY 12553  
(845) 561-3560



# **APPENDIX D**

## **Raw Analytical Laboratory Data**



05/21/13

## Technical Report for

**Fleming-Lee Shue, Inc.**

**AFFCO, 361 Walsh Avenue, New Windsor, NY**

**10000-003 / PO#FP0099**

**Accutest Job Number: JB15405**

**Sampling Dates: 08/28/12 - 09/04/12**

### Report to:

**Fleming-Lee Shue, Inc.**

**raphael@flemingleeshue.com**

**ATTN: Raphael Rosenbaum**

**Total number of pages in report: 70**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

A handwritten signature in black ink that reads 'Nancy F. Cole'.

**Nancy Cole**  
**Laboratory Director**

**Client Service contact: Tammy McCloskey 732-329-0200**

Certifications: NJ(12129), NY(10983), CA, CT, DE, FL, IL, IN, KS, KY, LA, MA, MD, MI, MT, NC, OH VAP (CL0056), PA, RI, SC, TN, VA, WV

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Test results relate only to samples analyzed.

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## Sample Summary

Fleming-Lee Shue, Inc.

Job No: JB15405

AFFCO, 361 Walsh Avenue, New Windsor, NY  
Project No: 10000-003 / PO#FP0099

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
JB14890-1	08/28/12	10:05 GH	08/29/12	SO	Soil	PX01-SW-5
JB14890-2	08/28/12	10:15 GH	08/29/12	SO	Soil	PX02-SW-5
JB14890-3	08/28/12	10:25 GH	08/29/12	SO	Soil	PX03-BT-10
JB14890-4	08/28/12	15:30 GH	08/29/12	SO	Soil	PX04-SW-5
JB14890-5	08/28/12	15:40 GH	08/29/12	SO	Soil	PX05-SW-6
JB14890-6	08/28/12	15:50 GH	08/29/12	SO	Soil	PX06-BT-10
JB14890-7	08/28/12	11:00 GH	08/29/12	SO	Soil	C5SP01
JB14890-8	08/28/12	11:10 GH	08/29/12	SO	Soil	C5SP02
JB14890-9	08/28/12	11:10 GH	08/29/12	SO	Soil	C4SP01
JB15155-1	08/30/12	09:30 GH	08/31/12	SO	Soil	PX07BT-10
JB15155-2	08/30/12	09:40 GH	08/31/12	SO	Soil	PX08SW-7
JB15155-3	08/30/12	10:25 GH	08/31/12	SO	Soil	BENCH01
JB15405-1	09/04/12	16:05 GH	09/05/12	SO	Soil	PX09SW-3

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

**Sample Summary**

(continued)

Fleming-Lee Shue, Inc.

**Job No:** JB15405

AFFCO, 361 Walsh Avenue, New Windsor, NY

Project No: 10000-003 / PO#FP0099

Sample Number	Collected			Received	Matrix		Client Sample ID
	Date	Time	By		Code	Type	
JB15405-2	09/04/12	16:10	GH	09/05/12	SO	Soil	PX10SW-5
JB15405-3	09/04/12	16:15	GH	09/05/12	SO	Soil	PX11BT-10
JB15405-4	09/04/12	16:20	GH	09/05/12	SO	Soil	PX12SW-7
JB15405-5	09/04/12	16:25	GH	09/05/12	SO	Soil	PX13SW-7
JB15405-6	09/04/12	16:30	GH	09/05/12	SO	Soil	PX14SW-6
JB15405-7	09/04/12	16:45	GH	09/05/12	SO	Soil	PX15BT-10
JB15405-8	09/04/12	16:50	GH	09/05/12	SO	Soil	C1SP01
JB15405-9	09/04/12	16:55	GH	09/05/12	SO	Soil	C3SP01
JB15405-10	09/04/12	16:50	GH	09/05/12	SO	Soil	C3SP02
JB15405-11	09/04/12	17:05	GH	09/05/12	SO	Soil	C2SP01
JB15405-12	09/04/12	17:10	GH	09/05/12	SO	Soil	C2SP02

---

 Soil samples reported on a dry weight basis unless otherwise indicated on result page.



## CASE NARRATIVE / CONFORMANCE SUMMARY

**Client:** Fleming-Lee Shue, Inc.

**Job No** JB15405

**Site:** AFFCO, 361 Walsh Avenue, New Windsor, NY

**Report Date** 12/10/2012 9:13:06 A

Between 08/29/2012 and 09/05/2012, 24 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at Accutest Laboratories at a temperature of 4 C. Samples were intact and chemically preserved, unless noted below. An Accutest Job Number of JB15405 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

### Volatiles by GCMS By Method SW846 8260B

**Matrix:** SO

**Batch ID:** V3C4027

- All samples were analyzed within the recommended method holding time.
- Sample(s) JB15405-1MS, JB15405-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike Recovery(s) for 1,1,1-Trichloroethane are outside control limits. Outside control limits due to matrix interference.
- Matrix Spike Duplicate Recovery(s) for 1,1,1-Trichloroethane are outside control limits. Probable cause due to matrix interference.

**Matrix:** SO

**Batch ID:** VA6987

- All samples were analyzed within the recommended method holding time.
- Sample(s) JB14720-5MS, JB14720-5MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

**Matrix:** SO

**Batch ID:** VA6989

- All samples were analyzed within the recommended method holding time.
- Sample(s) JB14890-1MS, JB14890-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

**Matrix:** SO

**Batch ID:** VD8147

- All samples were analyzed within the recommended method holding time.
- Sample(s) JB14606-1MS, JB14606-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

**Matrix:** SO

**Batch ID:** VD8148

- All samples were analyzed within the recommended method holding time.
- Sample(s) JB14890-3MS, JB14890-3MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

**Matrix:** SO

**Batch ID:** VE8556

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB14605-2MS, JB14605-2MSD were used as the QC samples indicated.

**Matrix:** SO

**Batch ID:** VE8565

- All samples were analyzed within the recommended method holding time.

## Volatiles by GCMS By Method SW846 8260B

**Matrix:** SO

**Batch ID:** VE8565

- All method blanks for this batch meet method specific criteria.
- Sample(s) JB15405-9MS, JB15405-9MSD were used as the QC samples indicated.
- Matrix Spike Recovery(s) for 1,1,1-Trichloroethane are outside control limits. Outside control limits due to high level in sample relative to spike amount.

**Matrix:** SO

**Batch ID:** VV5563

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB14795-1MS, JB14795-1MSD were used as the QC samples indicated.

**Matrix:** SO

**Batch ID:** VV5565

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB14784-7MS, JB14785-1ADUP, JB14784-7MS were used as the QC samples indicated.
- Matrix Spike Recovery(s) for Ethylbenzene, Toluene are outside control limits. Outside control limits due to matrix interference.
- RPD(s) for Duplicate for 1,2-Dichloroethene (total), Benzene, Carbon disulfide, Chlorobenzene, cis-1,2-Dichloroethene, Ethylbenzene, Methyl Tert Butyl Ether, Toluene, Xylene (total) are outside control limits for sample JB14785-1ADUP. High RPD due to possible sample analyzed from different vials.

**Matrix:** SO

**Batch ID:** VX5603

- All samples were analyzed within the recommended method holding time.
- Sample(s) JB15405-11MS, JB15405-11MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- RPD(s) for MSD for 1,2-Dichloroethene (total), Bromoform, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Ethylbenzene, Styrene, Toluene, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, Trichloroethene, Xylene (total) are outside control limits for sample JB15405-11MSD. Outside control limits due to matrix interference.

**Matrix:** SO

**Batch ID:** VX5604

- All samples were analyzed within the recommended method holding time.
- Sample(s) JB15405-7MS, JB15405-7MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

**Matrix:** SO

**Batch ID:** VY5399

- All samples were analyzed within the recommended method holding time.
- Sample(s) JB15155-1MS, JB15155-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike Recovery(s) for 1,1-Dichloroethene are outside control limits. Outside control limits due to matrix interference.
- Matrix Spike Duplicate Recovery(s) for 1,1-Dichloroethene, Chloroethane are outside control limits. Probable cause due to matrix interference.
- Matrix Spike Recovery(s) for 1,1,1-Trichloroethane, 1,1-Dichloroethane, Chloroethane are outside control limits. Outside control limits due to high level in sample relative to spike amount.

**Matrix:** SO

**Batch ID:** VY5401

- All samples were analyzed within the recommended method holding time.
- Sample(s) JB15155-2MS, JB15155-2MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

**Matrix:** SO

**Batch ID:** VY5403

- All samples were analyzed within the recommended method holding time.
- Sample(s) JB15405-6MS, JB15405-6MSD were used as the QC samples indicated.

## Volatiles by GCMS By Method SW846 8260B

<b>Matrix:</b> SO	<b>Batch ID:</b> VY5403
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- All method blanks for this batch meet method specific criteria.

<b>Matrix:</b> SO	<b>Batch ID:</b> VY5405
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- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB15064-26DUP, JB15064-27MS were used as the QC samples indicated.

## Wet Chemistry By Method ASTM 4643-00

<b>Matrix:</b> SO	<b>Batch ID:</b> GN71436
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- The data for ASTM 4643-00 meets quality control requirements.

## Wet Chemistry By Method SM18 2540G

<b>Matrix:</b> SO	<b>Batch ID:</b> GN71254
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- The data for SM18 2540G meets quality control requirements.

<b>Matrix:</b> SO	<b>Batch ID:</b> GN71476
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- The data for SM18 2540G meets quality control requirements.

<b>Matrix:</b> SO	<b>Batch ID:</b> GN71587
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- The data for SM18 2540G meets quality control requirements.

<b>Matrix:</b> SO	<b>Batch ID:</b> GN71589
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- The data for SM18 2540G meets quality control requirements.

<b>Matrix:</b> SO	<b>Batch ID:</b> GN71601
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- The data for SM18 2540G meets quality control requirements.

Accutest certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting Accutest's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

Accutest Laboratories is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by Accutest Laboratories indicated via signature on the report cover

## Summary of Hits

**Job Number:** JB15405  
**Account:** Fleming-Lee Shue, Inc.  
**Project:** AFFCO, 361 Walsh Avenue, New Windsor, NY  
**Collected:** 08/28/12 thru 09/04/12

Lab Sample ID	Client Sample ID	Result/ Analyte	RL	MDL	Units	Method
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### JB14890-1 PX01-SW-5

Benzene	0.76 J	1.4	0.16	ug/kg	SW846 8260B
Toluene	0.33 J	1.4	0.14	ug/kg	SW846 8260B

### JB14890-2 PX02-SW-5

Acetone	5.9 J	13	2.2	ug/kg	SW846 8260B
1,1,1-Trichloroethane	6.1 J	6.4	0.14	ug/kg	SW846 8260B

### JB14890-3 PX03-BT-10

Acetone	20.6	12	2.0	ug/kg	SW846 8260B
2-Butanone (MEK)	12.9	12	2.8	ug/kg	SW846 8260B
Carbon disulfide	1.5 J	5.8	0.14	ug/kg	SW846 8260B
Chloroethane	1.9 J	5.8	0.26	ug/kg	SW846 8260B
Chloroform	0.56 J	5.8	0.096	ug/kg	SW846 8260B
1,1-Dichloroethane	1940	300	8.1	ug/kg	SW846 8260B
1,2-Dichloroethane	13.8	1.2	0.16	ug/kg	SW846 8260B
1,1-Dichloroethene	568	300	15	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	1.5 J	5.8	0.21	ug/kg	SW846 8260B
1,2-Dichloroethene (total)	1.5 J	5.8	0.21	ug/kg	SW846 8260B
Tetrachloroethene	0.68 J	5.8	0.20	ug/kg	SW846 8260B
Toluene	17.1	1.2	0.12	ug/kg	SW846 8260B
1,1,1-Trichloroethane	4980	300	6.3	ug/kg	SW846 8260B
1,1,2-Trichloroethane	0.64 J	5.8	0.20	ug/kg	SW846 8260B
Trichloroethene	2.2 J	5.8	0.20	ug/kg	SW846 8260B
Vinyl chloride	9.7	5.8	0.17	ug/kg	SW846 8260B

### JB14890-4 PX04-SW-5

Benzene	0.77 J	1.3	0.16	ug/kg	SW846 8260B
1,1-Dichloroethene	1.0 J	6.7	0.34	ug/kg	SW846 8260B
Toluene	0.35 J	1.3	0.14	ug/kg	SW846 8260B
1,1,1-Trichloroethane	0.49 J	6.7	0.14	ug/kg	SW846 8260B

### JB14890-5 PX05-SW-6

Benzene	1.3	1.3	0.15	ug/kg	SW846 8260B
Toluene	0.53 J	1.3	0.13	ug/kg	SW846 8260B
1,1,1-Trichloroethane	3.2 J	6.4	0.14	ug/kg	SW846 8260B
Trichloroethene	4.5 J	6.4	0.22	ug/kg	SW846 8260B

## Summary of Hits

**Job Number:** JB15405  
**Account:** Fleming-Lee Shue, Inc.  
**Project:** AFFCO, 361 Walsh Avenue, New Windsor, NY  
**Collected:** 08/28/12 thru 09/04/12

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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### JB14890-6 PX06-BT-10

Acetone	4.0 J	12	2.1	ug/kg	SW846 8260B
Benzene	0.86 J	1.2	0.15	ug/kg	SW846 8260B
1,1,1-Trichloroethane	0.52 J	6.2	0.13	ug/kg	SW846 8260B

### JB14890-7 C5SP01

Acetone	14.7	14	2.4	ug/kg	SW846 8260B
Chloroform	0.73 J	7.0	0.12	ug/kg	SW846 8260B
1,1-Dichloroethane	3.1 J	7.0	0.19	ug/kg	SW846 8260B
1,1-Dichloroethene	2.5 J	7.0	0.36	ug/kg	SW846 8260B
1,1,1-Trichloroethane	2580	370	7.8	ug/kg	SW846 8260B

### JB14890-8 C5SP02

Acetone	13.3	13	2.1	ug/kg	SW846 8260B
Carbon disulfide	1.2 J	6.3	0.15	ug/kg	SW846 8260B
Chloroform	0.79 J	6.3	0.10	ug/kg	SW846 8260B
1,1-Dichloroethane	214	6.3	0.17	ug/kg	SW846 8260B
1,2-Dichloroethane	2.9	1.3	0.17	ug/kg	SW846 8260B
1,1-Dichloroethene	2750	310	16	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	1.2 J	6.3	0.23	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	2.2 J	6.3	0.30	ug/kg	SW846 8260B
1,2-Dichloroethene (total)	3.4 J	6.3	0.23	ug/kg	SW846 8260B
Tetrachloroethene	1.1 J	6.3	0.22	ug/kg	SW846 8260B
Toluene	1.2 J	1.3	0.13	ug/kg	SW846 8260B
1,1,1-Trichloroethane	29800	3100	65	ug/kg	SW846 8260B
Trichloroethene	1.7 J	6.3	0.22	ug/kg	SW846 8260B
Vinyl chloride	1.8 J	6.3	0.18	ug/kg	SW846 8260B

### JB14890-9 C4SP01

Benzene	1.0 J	1.3	0.16	ug/kg	SW846 8260B
Toluene	0.43 J	1.3	0.14	ug/kg	SW846 8260B
1,1,1-Trichloroethane	1.6 J	6.7	0.14	ug/kg	SW846 8260B
Trichloroethene	3.6 J	6.7	0.23	ug/kg	SW846 8260B

### JB15155-1 PX07BT-10

Acetone	27.5	13	2.2	ug/kg	SW846 8260B
Chloroethane	136	27	1.2	ug/kg	SW846 8260B
Chloroform	0.49 J	6.4	0.11	ug/kg	SW846 8260B
1,1-Dichloroethane	816	27	0.74	ug/kg	SW846 8260B
1,2-Dichloroethane	7.4	1.3	0.17	ug/kg	SW846 8260B

## Summary of Hits

**Job Number:** JB15405  
**Account:** Fleming-Lee Shue, Inc.  
**Project:** AFFCO, 361 Walsh Avenue, New Windsor, NY  
**Collected:** 08/28/12 thru 09/04/12

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
1,1-Dichloroethene		34.5	6.4	0.33	ug/kg	SW846 8260B
cis-1,2-Dichloroethene		10.2	6.4	0.23	ug/kg	SW846 8260B
trans-1,2-Dichloroethene		3.2 J	6.4	0.30	ug/kg	SW846 8260B
1,2-Dichloroethene (total)		13.4	6.4	0.23	ug/kg	SW846 8260B
Tetrachloroethene		1.6 J	6.4	0.22	ug/kg	SW846 8260B
Toluene		2.7	1.3	0.13	ug/kg	SW846 8260B
1,1,1-Trichloroethane		519	27	0.57	ug/kg	SW846 8260B
1,1,2-Trichloroethane		3.8 J	6.4	0.22	ug/kg	SW846 8260B
Trichloroethene		20.5	6.4	0.22	ug/kg	SW846 8260B
Vinyl chloride		2.0 J	6.4	0.18	ug/kg	SW846 8260B

### JB15155-2 PX08SW-7

Benzene	9.9	1.2	0.14	ug/kg	SW846 8260B
1,1-Dichloroethane	1.1 J	6.0	0.17	ug/kg	SW846 8260B
1,2-Dichloroethane	0.50 J	1.2	0.16	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	1.1 J	6.0	0.22	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	0.58 J	6.0	0.29	ug/kg	SW846 8260B
1,2-Dichloroethene (total)	1.6 J	6.0	0.22	ug/kg	SW846 8260B
Ethylbenzene	0.73 J	1.2	0.32	ug/kg	SW846 8260B
Tetrachloroethene	0.44 J	6.0	0.21	ug/kg	SW846 8260B
Toluene	4.1	1.2	0.13	ug/kg	SW846 8260B
1,1,1-Trichloroethane	38.4	6.0	0.13	ug/kg	SW846 8260B
1,1,2-Trichloroethane	4.6 J	6.0	0.21	ug/kg	SW846 8260B
Trichloroethene	2.4 J	6.0	0.21	ug/kg	SW846 8260B
Xylene (total)	1.7	1.2	0.17	ug/kg	SW846 8260B

### JB15155-3 BENCH01

1,1-Dichloroethane	1.2 J	5.7	0.16	ug/kg	SW846 8260B
1,1-Dichloroethene	1.6 J	5.7	0.29	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	0.92 J	5.7	0.21	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	0.61 J	5.7	0.27	ug/kg	SW846 8260B
1,2-Dichloroethene (total)	1.5 J	5.7	0.21	ug/kg	SW846 8260B
Tetrachloroethene	0.62 J	5.7	0.20	ug/kg	SW846 8260B
Toluene	1.1	1.1	0.12	ug/kg	SW846 8260B
1,1,1-Trichloroethane	47.9	5.7	0.12	ug/kg	SW846 8260B
1,1,2-Trichloroethane	1.6 J	5.7	0.20	ug/kg	SW846 8260B
Trichloroethene	0.93 J	5.7	0.20	ug/kg	SW846 8260B

### JB15405-1 PX09SW-3

Benzene	2.6	1.3	0.16	ug/kg	SW846 8260B
Toluene	1.1 J	1.3	0.14	ug/kg	SW846 8260B
1,1,1-Trichloroethane	68.5	6.6	0.14	ug/kg	SW846 8260B

## Summary of Hits

**Job Number:** JB15405  
**Account:** Fleming-Lee Shue, Inc.  
**Project:** AFFCO, 361 Walsh Avenue, New Windsor, NY  
**Collected:** 08/28/12 thru 09/04/12

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Trichloroethene		2.0 J	6.6	0.23	ug/kg	SW846 8260B
<b>JB15405-2</b>	<b>PX10SW-5</b>					
Benzene		2.7	1.3	0.16	ug/kg	SW846 8260B
1,1-Dichloroethane		1.8 J	6.6	0.18	ug/kg	SW846 8260B
Tetrachloroethene		0.54 J	6.6	0.23	ug/kg	SW846 8260B
Toluene		1.3	1.3	0.14	ug/kg	SW846 8260B
1,1,1-Trichloroethane		67.1	6.6	0.14	ug/kg	SW846 8260B
Trichloroethene		1.5 J	6.6	0.23	ug/kg	SW846 8260B
<b>JB15405-3</b>	<b>PX11BT-10</b>					
1,1,1-Trichloroethane		10.9	5.8	0.12	ug/kg	SW846 8260B
1,1,2-Trichloroethane		0.83 J	5.8	0.20	ug/kg	SW846 8260B
Trichloroethene		2.2 J	5.8	0.20	ug/kg	SW846 8260B
<b>JB15405-4</b>	<b>PX12SW-7</b>					
Benzene		2.6	1.2	0.15	ug/kg	SW846 8260B
Toluene		1.1 J	1.2	0.13	ug/kg	SW846 8260B
1,1,1-Trichloroethane		5.1 J	6.2	0.13	ug/kg	SW846 8260B
Trichloroethene		2.5 J	6.2	0.22	ug/kg	SW846 8260B
<b>JB15405-5</b>	<b>PX13SW-7</b>					
Benzene		0.82 J	1.3	0.16	ug/kg	SW846 8260B
Toluene		0.54 J	1.3	0.14	ug/kg	SW846 8260B
1,1,1-Trichloroethane		7.0	6.5	0.14	ug/kg	SW846 8260B
<b>JB15405-6</b>	<b>PX14SW-6</b>					
1,1-Dichloroethane		0.87 J	5.5	0.15	ug/kg	SW846 8260B
1,1-Dichloroethene		0.63 J	5.5	0.29	ug/kg	SW846 8260B
cis-1,2-Dichloroethene		2.4 J	5.5	0.20	ug/kg	SW846 8260B
trans-1,2-Dichloroethene		2.1 J	5.5	0.26	ug/kg	SW846 8260B
1,2-Dichloroethene (total)		4.4 J	5.5	0.20	ug/kg	SW846 8260B
Tetrachloroethene		0.59 J	5.5	0.19	ug/kg	SW846 8260B
1,1,1-Trichloroethane		29.3	5.5	0.12	ug/kg	SW846 8260B
1,1,2-Trichloroethane		5.9	5.5	0.19	ug/kg	SW846 8260B
Trichloroethene		4.0 J	5.5	0.19	ug/kg	SW846 8260B
<b>JB15405-7</b>	<b>PX15BT-10</b>					
Acetone		13.6	13	2.2	ug/kg	SW846 8260B

## Summary of Hits

**Job Number:** JB15405  
**Account:** Fleming-Lee Shue, Inc.  
**Project:** AFFCO, 361 Walsh Avenue, New Windsor, NY  
**Collected:** 08/28/12 thru 09/04/12

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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Chloroform	1.0 J	6.4	0.11	ug/kg	SW846 8260B
1,1-Dichloroethane	8.3	6.4	0.18	ug/kg	SW846 8260B
1,2-Dichloroethane	0.60 J	1.3	0.17	ug/kg	SW846 8260B
1,1-Dichloroethene	4.2 J	6.4	0.33	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	0.85 J	6.4	0.23	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	0.58 J	6.4	0.31	ug/kg	SW846 8260B
1,2-Dichloroethene (total)	1.4 J	6.4	0.23	ug/kg	SW846 8260B
Tetrachloroethene	0.79 J	6.4	0.22	ug/kg	SW846 8260B
Toluene	0.58 J	1.3	0.13	ug/kg	SW846 8260B
1,1,1-Trichloroethane	149	6.4	0.14	ug/kg	SW846 8260B
1,1,2-Trichloroethane	1.5 J	6.4	0.22	ug/kg	SW846 8260B
Trichloroethene	4.7 J	6.4	0.22	ug/kg	SW846 8260B

### JB15405-8 C1SP01

1,1-Dichloroethane	7.2	6.0	0.16	ug/kg	SW846 8260B
1,2-Dichloroethane	0.65 J	1.2	0.16	ug/kg	SW846 8260B
1,1-Dichloroethene	2.0 J	6.0	0.31	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	0.61 J	6.0	0.22	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	0.50 J	6.0	0.29	ug/kg	SW846 8260B
1,2-Dichloroethene (total)	1.1 J	6.0	0.22	ug/kg	SW846 8260B
Tetrachloroethene	1.1 J	6.0	0.21	ug/kg	SW846 8260B
Toluene	1.3	1.2	0.13	ug/kg	SW846 8260B
1,1,1-Trichloroethane	513	25	0.52	ug/kg	SW846 8260B
1,1,2-Trichloroethane	3.5 J	6.0	0.21	ug/kg	SW846 8260B
Trichloroethene	5.0 J	6.0	0.21	ug/kg	SW846 8260B

### JB15405-9 C3SP01

1,1-Dichloroethane	13.0	6.0	0.16	ug/kg	SW846 8260B
1,2-Dichloroethane	1.2	1.2	0.16	ug/kg	SW846 8260B
1,1-Dichloroethene	5.8 J	6.0	0.31	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	0.54 J	6.0	0.22	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	0.41 J	6.0	0.29	ug/kg	SW846 8260B
1,2-Dichloroethene (total)	0.95 J	6.0	0.22	ug/kg	SW846 8260B
Tetrachloroethene	1.6 J	6.0	0.21	ug/kg	SW846 8260B
Toluene	2.8	1.2	0.13	ug/kg	SW846 8260B
1,1,1-Trichloroethane	41900	3200	67	ug/kg	SW846 8260B
1,1,2-Trichloroethane	5.2 J	6.0	0.21	ug/kg	SW846 8260B
Trichloroethene	5.7 J	6.0	0.21	ug/kg	SW846 8260B

### JB15405-10 C3SP02

1,1-Dichloroethane	3.0 J	5.2	0.14	ug/kg	SW846 8260B
1,2-Dichloroethane	0.76 J	1.0	0.14	ug/kg	SW846 8260B



## Summary of Hits

**Job Number:** JB15405  
**Account:** Fleming-Lee Shue, Inc.  
**Project:** AFFCO, 361 Walsh Avenue, New Windsor, NY  
**Collected:** 08/28/12 thru 09/04/12

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
1,1-Dichloroethene		1.5 J	5.2	0.27	ug/kg	SW846 8260B
cis-1,2-Dichloroethene		0.41 J	5.2	0.19	ug/kg	SW846 8260B
trans-1,2-Dichloroethene		0.38 J	5.2	0.25	ug/kg	SW846 8260B
1,2-Dichloroethene (total)		0.79 J	5.2	0.19	ug/kg	SW846 8260B
Toluene		0.27 J	1.0	0.11	ug/kg	SW846 8260B
1,1,1-Trichloroethane		166	5.2	0.11	ug/kg	SW846 8260B
1,1,2-Trichloroethane		0.97 J	5.2	0.18	ug/kg	SW846 8260B
Trichloroethene		1.9 J	5.2	0.18	ug/kg	SW846 8260B

### JB15405-11 C2SP01

1,1-Dichloroethane	1.0 J	5.3	0.15	ug/kg	SW846 8260B
1,2-Dichloroethane	0.78 J	1.1	0.14	ug/kg	SW846 8260B
1,1-Dichloroethene	0.43 J	5.3	0.27	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	0.37 J	5.3	0.20	ug/kg	SW846 8260B
1,2-Dichloroethene (total)	0.37 J	5.3	0.20	ug/kg	SW846 8260B
1,1,1-Trichloroethane	51.7	5.3	0.11	ug/kg	SW846 8260B
1,1,2-Trichloroethane	1.4 J	5.3	0.19	ug/kg	SW846 8260B
Trichloroethene	1.6 J	5.3	0.19	ug/kg	SW846 8260B

### JB15405-12 C2SP02

1,1-Dichloroethane	1.9 J	5.4	0.15	ug/kg	SW846 8260B
1,2-Dichloroethane	1.7	1.1	0.15	ug/kg	SW846 8260B
1,1-Dichloroethene	0.90 J	5.4	0.28	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	1.1 J	5.4	0.20	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	0.70 J	5.4	0.26	ug/kg	SW846 8260B
1,2-Dichloroethene (total)	1.8 J	5.4	0.20	ug/kg	SW846 8260B
Tetrachloroethene	0.33 J	5.4	0.19	ug/kg	SW846 8260B
1,1,1-Trichloroethane	59.9	5.4	0.11	ug/kg	SW846 8260B
1,1,2-Trichloroethane	2.5 J	5.4	0.19	ug/kg	SW846 8260B
Trichloroethene	6.9	5.4	0.19	ug/kg	SW846 8260B

## Sample Results

## Report of Analysis

## Report of Analysis

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<b>Client Sample ID:</b>	PX01-SW-5	<b>Date Sampled:</b>	08/28/12
<b>Lab Sample ID:</b>	JB14890-1	<b>Date Received:</b>	08/29/12
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	81.4
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A186356.D	1	08/30/12	CL	n/a	n/a	VA6989
Run #2							

	Initial Weight
Run #1	4.5 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	14	2.3	ug/kg	J
71-43-2	Benzene	0.76	1.4	0.16	ug/kg	
75-27-4	Bromodichloromethane	ND	6.8	0.14	ug/kg	J
75-25-2	Bromoform	ND	6.8	0.21	ug/kg	
74-83-9	Bromomethane	ND	6.8	0.37	ug/kg	J
78-93-3	2-Butanone (MEK)	ND	14	3.3	ug/kg	
75-15-0	Carbon disulfide	ND	6.8	0.16	ug/kg	J
56-23-5	Carbon tetrachloride	ND	6.8	0.18	ug/kg	
108-90-7	Chlorobenzene	ND	6.8	0.15	ug/kg	J
75-00-3	Chloroethane	ND	6.8	0.31	ug/kg	
67-66-3	Chloroform	ND	6.8	0.11	ug/kg	J
74-87-3	Chloromethane	ND	6.8	0.25	ug/kg	
124-48-1	Dibromochloromethane	ND	6.8	0.22	ug/kg	J
75-34-3	1,1-Dichloroethane	ND	6.8	0.19	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.4	0.18	ug/kg	J
75-35-4	1,1-Dichloroethene	ND	6.8	0.35	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	6.8	0.25	ug/kg	J
156-60-5	trans-1,2-Dichloroethene	ND	6.8	0.32	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	6.8	0.25	ug/kg	J
78-87-5	1,2-Dichloropropane	ND	6.8	0.21	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	6.8	0.19	ug/kg	J
10061-02-6	trans-1,3-Dichloropropene	ND	6.8	0.21	ug/kg	
100-41-4	Ethylbenzene	ND	1.4	0.36	ug/kg	J
591-78-6	2-Hexanone	ND	6.8	0.85	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.4	0.32	ug/kg	J
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	6.8	1.0	ug/kg	
75-09-2	Methylene chloride	ND	6.8	1.7	ug/kg	J
100-42-5	Styrene	ND	6.8	0.13	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	6.8	0.18	ug/kg	J
127-18-4	Tetrachloroethene	ND	6.8	0.23	ug/kg	
108-88-3	Toluene	0.33	1.4	0.14	ug/kg	J
71-55-6	1,1,1-Trichloroethane	ND	6.8	0.14	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> PX01-SW-5	<b>Date Sampled:</b> 08/28/12
<b>Lab Sample ID:</b> JB14890-1	<b>Date Received:</b> 08/29/12
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 81.4
<b>Method:</b> SW846 8260B	
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	6.8	0.24	ug/kg	
79-01-6	Trichloroethene	ND	6.8	0.24	ug/kg	
75-01-4	Vinyl chloride	ND	6.8	0.20	ug/kg	
1330-20-7	Xylene (total)	ND	1.4	0.19	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		70-130%
17060-07-0	1,2-Dichloroethane-D4	82%		70-122%
2037-26-5	Toluene-D8	113%		81-127%
460-00-4	4-Bromofluorobenzene	99%		66-132%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	PX02-SW-5	<b>Date Sampled:</b>	08/28/12
<b>Lab Sample ID:</b>	JB14890-2	<b>Date Received:</b>	08/29/12
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	83.5
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A186329.D	1	08/29/12	CL	n/a	n/a	VA6987
Run #2							

	Initial Weight
Run #1	4.7 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	5.9	13	2.2	ug/kg	J
71-43-2	Benzene	ND	1.3	0.15	ug/kg	
75-27-4	Bromodichloromethane	ND	6.4	0.13	ug/kg	
75-25-2	Bromoform	ND	6.4	0.19	ug/kg	
74-83-9	Bromomethane	ND	6.4	0.35	ug/kg	
78-93-3	2-Butanone (MEK)	ND	13	3.0	ug/kg	
75-15-0	Carbon disulfide	ND	6.4	0.15	ug/kg	
56-23-5	Carbon tetrachloride	ND	6.4	0.17	ug/kg	
108-90-7	Chlorobenzene	ND	6.4	0.14	ug/kg	
75-00-3	Chloroethane	ND	6.4	0.29	ug/kg	
67-66-3	Chloroform	ND	6.4	0.11	ug/kg	
74-87-3	Chloromethane	ND	6.4	0.24	ug/kg	
124-48-1	Dibromochloromethane	ND	6.4	0.21	ug/kg	
75-34-3	1,1-Dichloroethane	ND	6.4	0.17	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.3	0.17	ug/kg	
75-35-4	1,1-Dichloroethene	ND	6.4	0.33	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	6.4	0.23	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	6.4	0.30	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	6.4	0.23	ug/kg	
78-87-5	1,2-Dichloropropane	ND	6.4	0.20	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	6.4	0.18	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	6.4	0.20	ug/kg	
100-41-4	Ethylbenzene	ND	1.3	0.34	ug/kg	
591-78-6	2-Hexanone	ND	6.4	0.79	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.3	0.30	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	6.4	0.96	ug/kg	
75-09-2	Methylene chloride	ND	6.4	1.6	ug/kg	
100-42-5	Styrene	ND	6.4	0.12	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	6.4	0.17	ug/kg	
127-18-4	Tetrachloroethene	ND	6.4	0.22	ug/kg	
108-88-3	Toluene	ND	1.3	0.13	ug/kg	
71-55-6	1,1,1-Trichloroethane	6.1	6.4	0.14	ug/kg	J

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> PX02-SW-5	<b>Date Sampled:</b> 08/28/12
<b>Lab Sample ID:</b> JB14890-2	<b>Date Received:</b> 08/29/12
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 83.5
<b>Method:</b> SW846 8260B	
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	6.4	0.22	ug/kg	
79-01-6	Trichloroethene	ND	6.4	0.22	ug/kg	
75-01-4	Vinyl chloride	ND	6.4	0.18	ug/kg	
1330-20-7	Xylene (total)	ND	1.3	0.18	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		70-130%
17060-07-0	1,2-Dichloroethane-D4	82%		70-122%
2037-26-5	Toluene-D8	109%		81-127%
460-00-4	4-Bromofluorobenzene	94%		66-132%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	PX03-BT-10	<b>Date Sampled:</b>	08/28/12
<b>Lab Sample ID:</b>	JB14890-3	<b>Date Received:</b>	08/29/12
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	91.4
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	A186330.D	1	08/29/12	CL	n/a	n/a	VA6987
Run #2	D199768.D	1	08/31/12	ET	n/a	n/a	VD8148

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	4.7 g		
Run #2	10.0 g	10.0 ml	100 ul

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	20.6	12	2.0	ug/kg	
71-43-2	Benzene	ND	1.2	0.14	ug/kg	
75-27-4	Bromodichloromethane	ND	5.8	0.12	ug/kg	
75-25-2	Bromoform	ND	5.8	0.18	ug/kg	
74-83-9	Bromomethane	ND	5.8	0.32	ug/kg	
78-93-3	2-Butanone (MEK)	12.9	12	2.8	ug/kg	
75-15-0	Carbon disulfide	1.5	5.8	0.14	ug/kg	J
56-23-5	Carbon tetrachloride	ND	5.8	0.15	ug/kg	
108-90-7	Chlorobenzene	ND	5.8	0.13	ug/kg	
75-00-3	Chloroethane	1.9	5.8	0.26	ug/kg	J
67-66-3	Chloroform	0.56	5.8	0.096	ug/kg	J
74-87-3	Chloromethane	ND	5.8	0.22	ug/kg	
124-48-1	Dibromochloromethane	ND	5.8	0.19	ug/kg	
75-34-3	1,1-Dichloroethane	1940 <sup>a</sup>	300	8.1	ug/kg	
107-06-2	1,2-Dichloroethane	13.8	1.2	0.16	ug/kg	
75-35-4	1,1-Dichloroethene	568 <sup>a</sup>	300	15	ug/kg	
156-59-2	cis-1,2-Dichloroethene	1.5	5.8	0.21	ug/kg	J
156-60-5	trans-1,2-Dichloroethene	ND	5.8	0.28	ug/kg	
540-59-0	1,2-Dichloroethene (total)	1.5	5.8	0.21	ug/kg	J
78-87-5	1,2-Dichloropropane	ND	5.8	0.18	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.8	0.16	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.8	0.18	ug/kg	
100-41-4	Ethylbenzene	ND	1.2	0.31	ug/kg	
591-78-6	2-Hexanone	ND	5.8	0.72	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.2	0.27	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.8	0.87	ug/kg	
75-09-2	Methylene chloride	ND	5.8	1.5	ug/kg	
100-42-5	Styrene	ND	5.8	0.11	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.8	0.15	ug/kg	
127-18-4	Tetrachloroethene	0.68	5.8	0.20	ug/kg	J
108-88-3	Toluene	17.1	1.2	0.12	ug/kg	
71-55-6	1,1,1-Trichloroethane	4980 <sup>a</sup>	300	6.3	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> PX03-BT-10	<b>Date Sampled:</b> 08/28/12
<b>Lab Sample ID:</b> JB14890-3	<b>Date Received:</b> 08/29/12
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.4
<b>Method:</b> SW846 8260B	
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	0.64	5.8	0.20	ug/kg	J
79-01-6	Trichloroethene	2.2	5.8	0.20	ug/kg	J
75-01-4	Vinyl chloride	9.7	5.8	0.17	ug/kg	
1330-20-7	Xylene (total)	ND	1.2	0.16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%	97%	70-130%
17060-07-0	1,2-Dichloroethane-D4	87%	98%	70-122%
2037-26-5	Toluene-D8	108%	101%	81-127%
460-00-4	4-Bromofluorobenzene	100%	91%	66-132%

(a) Result is from Run# 2

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

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<b>Client Sample ID:</b>	PX04-SW-5	<b>Date Sampled:</b>	08/28/12
<b>Lab Sample ID:</b>	JB14890-4	<b>Date Received:</b>	08/29/12
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	81.3
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V128816.D	1	08/30/12	OTR	n/a	n/a	VV5565
Run #2							

Run #	Initial Weight
Run #1	4.6 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	13	2.3	ug/kg	
71-43-2	Benzene	0.77	1.3	0.16	ug/kg	J
75-27-4	Bromodichloromethane	ND	6.7	0.14	ug/kg	
75-25-2	Bromoform	ND	6.7	0.20	ug/kg	
74-83-9	Bromomethane	ND	6.7	0.36	ug/kg	
78-93-3	2-Butanone (MEK)	ND	13	3.2	ug/kg	
75-15-0	Carbon disulfide	ND	6.7	0.16	ug/kg	
56-23-5	Carbon tetrachloride	ND	6.7	0.18	ug/kg	
108-90-7	Chlorobenzene	ND	6.7	0.14	ug/kg	
75-00-3	Chloroethane	ND	6.7	0.30	ug/kg	
67-66-3	Chloroform	ND	6.7	0.11	ug/kg	
74-87-3	Chloromethane	ND	6.7	0.25	ug/kg	
124-48-1	Dibromochloromethane	ND	6.7	0.22	ug/kg	
75-34-3	1,1-Dichloroethane	ND	6.7	0.18	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.3	0.18	ug/kg	
75-35-4	1,1-Dichloroethene	1.0	6.7	0.34	ug/kg	J
156-59-2	cis-1,2-Dichloroethene	ND	6.7	0.24	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	6.7	0.32	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	6.7	0.24	ug/kg	
78-87-5	1,2-Dichloropropane	ND	6.7	0.21	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	6.7	0.19	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	6.7	0.21	ug/kg	
100-41-4	Ethylbenzene	ND	1.3	0.35	ug/kg	
591-78-6	2-Hexanone	ND	6.7	0.83	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.3	0.31	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	6.7	1.0	ug/kg	
75-09-2	Methylene chloride	ND	6.7	1.7	ug/kg	
100-42-5	Styrene	ND	6.7	0.12	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	6.7	0.18	ug/kg	
127-18-4	Tetrachloroethene	ND	6.7	0.23	ug/kg	
108-88-3	Toluene	0.35	1.3	0.14	ug/kg	J
71-55-6	1,1,1-Trichloroethane	0.49	6.7	0.14	ug/kg	J

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> PX04-SW-5	<b>Date Sampled:</b> 08/28/12
<b>Lab Sample ID:</b> JB14890-4	<b>Date Received:</b> 08/29/12
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 81.3
<b>Method:</b> SW846 8260B	
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	6.7	0.23	ug/kg	
79-01-6	Trichloroethene	ND	6.7	0.23	ug/kg	
75-01-4	Vinyl chloride	ND	6.7	0.19	ug/kg	
1330-20-7	Xylene (total)	ND	1.3	0.19	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%		70-130%
17060-07-0	1,2-Dichloroethane-D4	91%		70-122%
2037-26-5	Toluene-D8	118%		81-127%
460-00-4	4-Bromofluorobenzene	111%		66-132%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	PX05-SW-6	<b>Date Sampled:</b>	08/28/12
<b>Lab Sample ID:</b>	JB14890-5	<b>Date Received:</b>	08/29/12
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	86.5
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V128817.D	1	08/31/12	OTR	n/a	n/a	VV5565
Run #2							

	Initial Weight
Run #1	4.5 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	13	2.2	ug/kg	
71-43-2	Benzene	1.3	1.3	0.15	ug/kg	
75-27-4	Bromodichloromethane	ND	6.4	0.13	ug/kg	
75-25-2	Bromoform	ND	6.4	0.19	ug/kg	
74-83-9	Bromomethane	ND	6.4	0.35	ug/kg	
78-93-3	2-Butanone (MEK)	ND	13	3.1	ug/kg	
75-15-0	Carbon disulfide	ND	6.4	0.15	ug/kg	
56-23-5	Carbon tetrachloride	ND	6.4	0.17	ug/kg	
108-90-7	Chlorobenzene	ND	6.4	0.14	ug/kg	
75-00-3	Chloroethane	ND	6.4	0.29	ug/kg	
67-66-3	Chloroform	ND	6.4	0.11	ug/kg	
74-87-3	Chloromethane	ND	6.4	0.24	ug/kg	
124-48-1	Dibromochloromethane	ND	6.4	0.21	ug/kg	
75-34-3	1,1-Dichloroethane	ND	6.4	0.18	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.3	0.17	ug/kg	
75-35-4	1,1-Dichloroethene	ND	6.4	0.33	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	6.4	0.24	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	6.4	0.31	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	6.4	0.24	ug/kg	
78-87-5	1,2-Dichloropropane	ND	6.4	0.20	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	6.4	0.18	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	6.4	0.20	ug/kg	
100-41-4	Ethylbenzene	ND	1.3	0.34	ug/kg	
591-78-6	2-Hexanone	ND	6.4	0.80	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.3	0.30	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	6.4	0.96	ug/kg	
75-09-2	Methylene chloride	ND	6.4	1.6	ug/kg	
100-42-5	Styrene	ND	6.4	0.12	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	6.4	0.17	ug/kg	
127-18-4	Tetrachloroethene	ND	6.4	0.22	ug/kg	
108-88-3	Toluene	0.53	1.3	0.13	ug/kg	J
71-55-6	1,1,1-Trichloroethane	3.2	6.4	0.14	ug/kg	J

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> PX05-SW-6	<b>Date Sampled:</b> 08/28/12
<b>Lab Sample ID:</b> JB14890-5	<b>Date Received:</b> 08/29/12
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.5
<b>Method:</b> SW846 8260B	
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	6.4	0.22	ug/kg	J
79-01-6	Trichloroethene	4.5	6.4	0.22	ug/kg	
75-01-4	Vinyl chloride	ND	6.4	0.18	ug/kg	
1330-20-7	Xylene (total)	ND	1.3	0.18	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	110%		70-130%
17060-07-0	1,2-Dichloroethane-D4	89%		70-122%
2037-26-5	Toluene-D8	118%		81-127%
460-00-4	4-Bromofluorobenzene	110%		66-132%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	PX06-BT-10	<b>Date Sampled:</b>	08/28/12
<b>Lab Sample ID:</b>	JB14890-6	<b>Date Received:</b>	08/29/12
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	91.7
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V128818.D	1	08/31/12	OTR	n/a	n/a	VV5565
Run #2							

	Initial Weight
Run #1	4.4 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	4.0	12	2.1	ug/kg	J
71-43-2	Benzene	0.86	1.2	0.15	ug/kg	J
75-27-4	Bromodichloromethane	ND	6.2	0.13	ug/kg	
75-25-2	Bromoform	ND	6.2	0.19	ug/kg	
74-83-9	Bromomethane	ND	6.2	0.34	ug/kg	
78-93-3	2-Butanone (MEK)	ND	12	3.0	ug/kg	
75-15-0	Carbon disulfide	ND	6.2	0.14	ug/kg	
56-23-5	Carbon tetrachloride	ND	6.2	0.16	ug/kg	
108-90-7	Chlorobenzene	ND	6.2	0.13	ug/kg	
75-00-3	Chloroethane	ND	6.2	0.28	ug/kg	
67-66-3	Chloroform	ND	6.2	0.10	ug/kg	
74-87-3	Chloromethane	ND	6.2	0.23	ug/kg	
124-48-1	Dibromochloromethane	ND	6.2	0.20	ug/kg	
75-34-3	1,1-Dichloroethane	ND	6.2	0.17	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.2	0.17	ug/kg	
75-35-4	1,1-Dichloroethene	ND	6.2	0.32	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	6.2	0.23	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	6.2	0.29	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	6.2	0.23	ug/kg	
78-87-5	1,2-Dichloropropane	ND	6.2	0.19	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	6.2	0.17	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	6.2	0.19	ug/kg	
100-41-4	Ethylbenzene	ND	1.2	0.33	ug/kg	
591-78-6	2-Hexanone	ND	6.2	0.77	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.2	0.29	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	6.2	0.93	ug/kg	
75-09-2	Methylene chloride	ND	6.2	1.6	ug/kg	
100-42-5	Styrene	ND	6.2	0.11	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	6.2	0.16	ug/kg	
127-18-4	Tetrachloroethene	ND	6.2	0.21	ug/kg	
108-88-3	Toluene	ND	1.2	0.13	ug/kg	
71-55-6	1,1,1-Trichloroethane	0.52	6.2	0.13	ug/kg	J

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> PX06-BT-10	<b>Date Sampled:</b> 08/28/12
<b>Lab Sample ID:</b> JB14890-6	<b>Date Received:</b> 08/29/12
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 91.7
<b>Method:</b> SW846 8260B	
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	6.2	0.22	ug/kg	
79-01-6	Trichloroethene	ND	6.2	0.22	ug/kg	
75-01-4	Vinyl chloride	ND	6.2	0.18	ug/kg	
1330-20-7	Xylene (total)	ND	1.2	0.17	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	113%		70-130%
17060-07-0	1,2-Dichloroethane-D4	96%		70-122%
2037-26-5	Toluene-D8	119%		81-127%
460-00-4	4-Bromofluorobenzene	110%		66-132%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	C5SP01	<b>Date Sampled:</b>	08/28/12
<b>Lab Sample ID:</b>	JB14890-7	<b>Date Received:</b>	08/29/12
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	80.9
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V128757.D	1	08/29/12	OTR	n/a	n/a	VV5563
Run #2	D199754.D	1	08/30/12	ET	n/a	n/a	VD8147

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	4.4 g		
Run #2	10.0 g	10.0 ml	100 ul

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	14.7	14	2.4	ug/kg	
71-43-2	Benzene	ND	1.4	0.17	ug/kg	
75-27-4	Bromodichloromethane	ND	7.0	0.15	ug/kg	
75-25-2	Bromoform	ND	7.0	0.21	ug/kg	
74-83-9	Bromomethane	ND	7.0	0.38	ug/kg	
78-93-3	2-Butanone (MEK)	ND	14	3.4	ug/kg	
75-15-0	Carbon disulfide	ND	7.0	0.16	ug/kg	
56-23-5	Carbon tetrachloride	ND	7.0	0.19	ug/kg	
108-90-7	Chlorobenzene	ND	7.0	0.15	ug/kg	
75-00-3	Chloroethane	ND	7.0	0.32	ug/kg	
67-66-3	Chloroform	0.73	7.0	0.12	ug/kg	J
74-87-3	Chloromethane	ND	7.0	0.26	ug/kg	
124-48-1	Dibromochloromethane	ND	7.0	0.23	ug/kg	
75-34-3	1,1-Dichloroethane	3.1	7.0	0.19	ug/kg	J
107-06-2	1,2-Dichloroethane	ND	1.4	0.19	ug/kg	
75-35-4	1,1-Dichloroethene	2.5	7.0	0.36	ug/kg	J
156-59-2	cis-1,2-Dichloroethene	ND	7.0	0.26	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	7.0	0.33	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	7.0	0.26	ug/kg	
78-87-5	1,2-Dichloropropane	ND	7.0	0.22	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	7.0	0.20	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	7.0	0.22	ug/kg	
100-41-4	Ethylbenzene	ND	1.4	0.37	ug/kg	
591-78-6	2-Hexanone	ND	7.0	0.87	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.4	0.33	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	7.0	1.1	ug/kg	
75-09-2	Methylene chloride	ND	7.0	1.8	ug/kg	
100-42-5	Styrene	ND	7.0	0.13	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	7.0	0.19	ug/kg	
127-18-4	Tetrachloroethene	ND	7.0	0.24	ug/kg	
108-88-3	Toluene	ND	1.4	0.15	ug/kg	
71-55-6	1,1,1-Trichloroethane	2580 <sup>a</sup>	370	7.8	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> C5SP01	<b>Date Sampled:</b> 08/28/12
<b>Lab Sample ID:</b> JB14890-7	<b>Date Received:</b> 08/29/12
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 80.9
<b>Method:</b> SW846 8260B	
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	7.0	0.24	ug/kg	
79-01-6	Trichloroethene	ND	7.0	0.24	ug/kg	
75-01-4	Vinyl chloride	ND	7.0	0.20	ug/kg	
1330-20-7	Xylene (total)	ND	1.4	0.20	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%	94%	70-130%
17060-07-0	1,2-Dichloroethane-D4	85%	94%	70-122%
2037-26-5	Toluene-D8	117%	99%	81-127%
460-00-4	4-Bromofluorobenzene	108%	94%	66-132%

(a) Result is from Run# 2

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

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<b>Client Sample ID:</b>	C5SP02	<b>Date Sampled:</b>	08/28/12
<b>Lab Sample ID:</b>	JB14890-8	<b>Date Received:</b>	08/29/12
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.8
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V128758.D	1	08/29/12	OTR	n/a	n/a	VV5563
Run #2	E194541.D	1	08/30/12	OTR	n/a	n/a	VE8556
Run #3	E194542.D	1	08/30/12	OTR	n/a	n/a	VE8556

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	4.4 g		
Run #2	9.8 g	10.0 ml	100 ul
Run #3	9.8 g	10.0 ml	10.0 ul

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	13.3	13	2.1	ug/kg	
71-43-2	Benzene	ND	1.3	0.15	ug/kg	
75-27-4	Bromodichloromethane	ND	6.3	0.13	ug/kg	
75-25-2	Bromoform	ND	6.3	0.19	ug/kg	
74-83-9	Bromomethane	ND	6.3	0.34	ug/kg	
78-93-3	2-Butanone (MEK)	ND	13	3.0	ug/kg	
75-15-0	Carbon disulfide	1.2	6.3	0.15	ug/kg	J
56-23-5	Carbon tetrachloride	ND	6.3	0.17	ug/kg	
108-90-7	Chlorobenzene	ND	6.3	0.14	ug/kg	
75-00-3	Chloroethane	ND	6.3	0.28	ug/kg	
67-66-3	Chloroform	0.79	6.3	0.10	ug/kg	J
74-87-3	Chloromethane	ND	6.3	0.23	ug/kg	
124-48-1	Dibromochloromethane	ND	6.3	0.21	ug/kg	
75-34-3	1,1-Dichloroethane	214	6.3	0.17	ug/kg	
107-06-2	1,2-Dichloroethane	2.9	1.3	0.17	ug/kg	
75-35-4	1,1-Dichloroethene	2750 <sup>a</sup>	310	16	ug/kg	
156-59-2	cis-1,2-Dichloroethene	1.2	6.3	0.23	ug/kg	J
156-60-5	trans-1,2-Dichloroethene	2.2	6.3	0.30	ug/kg	J
540-59-0	1,2-Dichloroethene (total)	3.4	6.3	0.23	ug/kg	J
78-87-5	1,2-Dichloropropane	ND	6.3	0.19	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	6.3	0.17	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	6.3	0.19	ug/kg	
100-41-4	Ethylbenzene	ND	1.3	0.33	ug/kg	
591-78-6	2-Hexanone	ND	6.3	0.78	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.3	0.29	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	6.3	0.94	ug/kg	
75-09-2	Methylene chloride	ND	6.3	1.6	ug/kg	
100-42-5	Styrene	ND	6.3	0.11	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	6.3	0.17	ug/kg	
127-18-4	Tetrachloroethene	1.1	6.3	0.22	ug/kg	J

ND = Not detected MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	C5SP02	<b>Date Sampled:</b>	08/28/12
<b>Lab Sample ID:</b>	JB14890-8	<b>Date Received:</b>	08/29/12
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.8
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
108-88-3	Toluene	1.2	1.3	0.13	ug/kg	J
71-55-6	1,1,1-Trichloroethane	29800 <sup>b</sup>	3100	65	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	6.3	0.22	ug/kg	
79-01-6	Trichloroethene	1.7	6.3	0.22	ug/kg	J
75-01-4	Vinyl chloride	1.8	6.3	0.18	ug/kg	J
1330-20-7	Xylene (total)	ND	1.3	0.17	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Run# 3	Limits
1868-53-7	Dibromofluoromethane	86%	89%	89%	70-130%
17060-07-0	1,2-Dichloroethane-D4	89%	93%	93%	70-122%
2037-26-5	Toluene-D8	118%	89%	88%	81-127%
460-00-4	4-Bromofluorobenzene	108%	84%	86%	66-132%

(a) Result is from Run# 2

(b) Result is from Run# 3

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	C4SP01		
<b>Lab Sample ID:</b>	JB14890-9	<b>Date Sampled:</b>	08/28/12
<b>Matrix:</b>	SO - Soil	<b>Date Received:</b>	08/29/12
<b>Method:</b>	SW846 8260B	<b>Percent Solids:</b>	89.1
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V128796.D	1	08/30/12	OTR	n/a	n/a	VV5565
Run #2							

	Initial Weight
Run #1	4.2 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	13	2.3	ug/kg	
71-43-2	Benzene	1.0	1.3	0.16	ug/kg	J
75-27-4	Bromodichloromethane	ND	6.7	0.14	ug/kg	
75-25-2	Bromoform	ND	6.7	0.20	ug/kg	
74-83-9	Bromomethane	ND	6.7	0.36	ug/kg	
78-93-3	2-Butanone (MEK)	ND	13	3.2	ug/kg	
75-15-0	Carbon disulfide	ND	6.7	0.16	ug/kg	
56-23-5	Carbon tetrachloride	ND	6.7	0.18	ug/kg	
108-90-7	Chlorobenzene	ND	6.7	0.14	ug/kg	
75-00-3	Chloroethane	ND	6.7	0.30	ug/kg	
67-66-3	Chloroform	ND	6.7	0.11	ug/kg	
74-87-3	Chloromethane	ND	6.7	0.25	ug/kg	
124-48-1	Dibromochloromethane	ND	6.7	0.22	ug/kg	
75-34-3	1,1-Dichloroethane	ND	6.7	0.18	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.3	0.18	ug/kg	
75-35-4	1,1-Dichloroethene	ND	6.7	0.34	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	6.7	0.24	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	6.7	0.32	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	6.7	0.24	ug/kg	
78-87-5	1,2-Dichloropropane	ND	6.7	0.21	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	6.7	0.19	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	6.7	0.21	ug/kg	
100-41-4	Ethylbenzene	ND	1.3	0.35	ug/kg	
591-78-6	2-Hexanone	ND	6.7	0.83	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.3	0.31	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	6.7	1.0	ug/kg	
75-09-2	Methylene chloride	ND	6.7	1.7	ug/kg	
100-42-5	Styrene	ND	6.7	0.12	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	6.7	0.18	ug/kg	
127-18-4	Tetrachloroethene	ND	6.7	0.23	ug/kg	
108-88-3	Toluene	0.43	1.3	0.14	ug/kg	J
71-55-6	1,1,1-Trichloroethane	1.6	6.7	0.14	ug/kg	J

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> C4SP01	
<b>Lab Sample ID:</b> JB14890-9	<b>Date Sampled:</b> 08/28/12
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 08/29/12
<b>Method:</b> SW846 8260B	<b>Percent Solids:</b> 89.1
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	6.7	0.23	ug/kg	J
79-01-6	Trichloroethene	3.6	6.7	0.23	ug/kg	
75-01-4	Vinyl chloride	ND	6.7	0.19	ug/kg	
1330-20-7	Xylene (total)	ND	1.3	0.19	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	111%		70-130%
17060-07-0	1,2-Dichloroethane-D4	91%		70-122%
2037-26-5	Toluene-D8	118%		81-127%
460-00-4	4-Bromofluorobenzene	109%		66-132%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	PX07BT-10	<b>Date Sampled:</b>	08/30/12
<b>Lab Sample ID:</b>	JB15155-1	<b>Date Received:</b>	08/31/12
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	77.0
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y125714.D	1	09/01/12	RS	n/a	n/a	VY5399
Run #2	Y125759.D	1	09/04/12	RS	n/a	n/a	VY5401

	Initial Weight
Run #1	5.1 g
Run #2	1.2 g

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	27.5	13	2.2	ug/kg	
71-43-2	Benzene	ND	1.3	0.15	ug/kg	
75-27-4	Bromodichloromethane	ND	6.4	0.13	ug/kg	
75-25-2	Bromoform	ND	6.4	0.19	ug/kg	
74-83-9	Bromomethane	ND	6.4	0.35	ug/kg	
78-93-3	2-Butanone (MEK)	ND	13	3.0	ug/kg	
75-15-0	Carbon disulfide	ND	6.4	0.15	ug/kg	
56-23-5	Carbon tetrachloride	ND	6.4	0.17	ug/kg	
108-90-7	Chlorobenzene	ND	6.4	0.14	ug/kg	
75-00-3	Chloroethane	136 <sup>a</sup>	27	1.2	ug/kg	
67-66-3	Chloroform	0.49	6.4	0.11	ug/kg	J
74-87-3	Chloromethane	ND	6.4	0.24	ug/kg	
124-48-1	Dibromochloromethane	ND	6.4	0.21	ug/kg	
75-34-3	1,1-Dichloroethane	816 <sup>a</sup>	27	0.74	ug/kg	
107-06-2	1,2-Dichloroethane	7.4	1.3	0.17	ug/kg	
75-35-4	1,1-Dichloroethene	34.5	6.4	0.33	ug/kg	
156-59-2	cis-1,2-Dichloroethene	10.2	6.4	0.23	ug/kg	
156-60-5	trans-1,2-Dichloroethene	3.2	6.4	0.30	ug/kg	J
540-59-0	1,2-Dichloroethene (total)	13.4	6.4	0.23	ug/kg	
78-87-5	1,2-Dichloropropane	ND	6.4	0.20	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	6.4	0.18	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	6.4	0.20	ug/kg	
100-41-4	Ethylbenzene	ND	1.3	0.33	ug/kg	
591-78-6	2-Hexanone	ND	6.4	0.79	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.3	0.30	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	6.4	0.96	ug/kg	
75-09-2	Methylene chloride	ND	6.4	1.6	ug/kg	
100-42-5	Styrene	ND	6.4	0.12	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	6.4	0.17	ug/kg	
127-18-4	Tetrachloroethene	1.6	6.4	0.22	ug/kg	J
108-88-3	Toluene	2.7	1.3	0.13	ug/kg	
71-55-6	1,1,1-Trichloroethane	519 <sup>a</sup>	27	0.57	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> PX07BT-10	<b>Date Sampled:</b> 08/30/12
<b>Lab Sample ID:</b> JB15155-1	<b>Date Received:</b> 08/31/12
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 77.0
<b>Method:</b> SW846 8260B	
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	3.8	6.4	0.22	ug/kg	J
79-01-6	Trichloroethene	20.5	6.4	0.22	ug/kg	
75-01-4	Vinyl chloride	2.0	6.4	0.18	ug/kg	J
1330-20-7	Xylene (total)	ND	1.3	0.18	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%	102%	70-130%
17060-07-0	1,2-Dichloroethane-D4	85%	93%	70-122%
2037-26-5	Toluene-D8	106%	108%	81-127%
460-00-4	4-Bromofluorobenzene	94%	97%	66-132%

(a) Result is from Run# 2

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	PX08SW-7	<b>Date Sampled:</b>	08/30/12
<b>Lab Sample ID:</b>	JB15155-2	<b>Date Received:</b>	08/31/12
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	86.3
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y125758.D	1	09/04/12	RS	n/a	n/a	VY5401
Run #2							

	Initial Weight
Run #1	4.8 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	12	2.0	ug/kg	
71-43-2	Benzene	9.9	1.2	0.14	ug/kg	
75-27-4	Bromodichloromethane	ND	6.0	0.13	ug/kg	
75-25-2	Bromoform	ND	6.0	0.18	ug/kg	
74-83-9	Bromomethane	ND	6.0	0.33	ug/kg	
78-93-3	2-Butanone (MEK)	ND	12	2.9	ug/kg	
75-15-0	Carbon disulfide	ND	6.0	0.14	ug/kg	
56-23-5	Carbon tetrachloride	ND	6.0	0.16	ug/kg	
108-90-7	Chlorobenzene	ND	6.0	0.13	ug/kg	
75-00-3	Chloroethane	ND	6.0	0.27	ug/kg	
67-66-3	Chloroform	ND	6.0	0.10	ug/kg	
74-87-3	Chloromethane	ND	6.0	0.22	ug/kg	
124-48-1	Dibromochloromethane	ND	6.0	0.20	ug/kg	
75-34-3	1,1-Dichloroethane	1.1	6.0	0.17	ug/kg	J
107-06-2	1,2-Dichloroethane	0.50	1.2	0.16	ug/kg	J
75-35-4	1,1-Dichloroethene	ND	6.0	0.31	ug/kg	
156-59-2	cis-1,2-Dichloroethene	1.1	6.0	0.22	ug/kg	J
156-60-5	trans-1,2-Dichloroethene	0.58	6.0	0.29	ug/kg	J
540-59-0	1,2-Dichloroethene (total)	1.6	6.0	0.22	ug/kg	J
78-87-5	1,2-Dichloropropane	ND	6.0	0.19	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	6.0	0.17	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	6.0	0.19	ug/kg	
100-41-4	Ethylbenzene	0.73	1.2	0.32	ug/kg	J
591-78-6	2-Hexanone	ND	6.0	0.75	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.2	0.28	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	6.0	0.91	ug/kg	
75-09-2	Methylene chloride	ND	6.0	1.5	ug/kg	
100-42-5	Styrene	ND	6.0	0.11	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	6.0	0.16	ug/kg	
127-18-4	Tetrachloroethene	0.44	6.0	0.21	ug/kg	J
108-88-3	Toluene	4.1	1.2	0.13	ug/kg	
71-55-6	1,1,1-Trichloroethane	38.4	6.0	0.13	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> PX08SW-7	<b>Date Sampled:</b> 08/30/12
<b>Lab Sample ID:</b> JB15155-2	<b>Date Received:</b> 08/31/12
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.3
<b>Method:</b> SW846 8260B	
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	4.6	6.0	0.21	ug/kg	J
79-01-6	Trichloroethene	2.4	6.0	0.21	ug/kg	J
75-01-4	Vinyl chloride	ND	6.0	0.17	ug/kg	
1330-20-7	Xylene (total)	1.7	1.2	0.17	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		70-130%
17060-07-0	1,2-Dichloroethane-D4	97%		70-122%
2037-26-5	Toluene-D8	108%		81-127%
460-00-4	4-Bromofluorobenzene	101%		66-132%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

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<b>Client Sample ID:</b>	BENCH01	<b>Date Sampled:</b>	08/30/12
<b>Lab Sample ID:</b>	JB15155-3	<b>Date Received:</b>	08/31/12
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	88.1
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y125715.D	1	09/01/12	RS	n/a	n/a	VY5399
Run #2							

	Initial Weight
Run #1	5.0 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	11	1.9	ug/kg	
71-43-2	Benzene	ND	1.1	0.14	ug/kg	
75-27-4	Bromodichloromethane	ND	5.7	0.12	ug/kg	
75-25-2	Bromoform	ND	5.7	0.17	ug/kg	
74-83-9	Bromomethane	ND	5.7	0.31	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	2.7	ug/kg	
75-15-0	Carbon disulfide	ND	5.7	0.13	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.7	0.15	ug/kg	
108-90-7	Chlorobenzene	ND	5.7	0.12	ug/kg	
75-00-3	Chloroethane	ND	5.7	0.26	ug/kg	
67-66-3	Chloroform	ND	5.7	0.094	ug/kg	
74-87-3	Chloromethane	ND	5.7	0.21	ug/kg	
124-48-1	Dibromochloromethane	ND	5.7	0.19	ug/kg	
75-34-3	1,1-Dichloroethane	1.2	5.7	0.16	ug/kg	J
107-06-2	1,2-Dichloroethane	ND	1.1	0.15	ug/kg	
75-35-4	1,1-Dichloroethene	1.6	5.7	0.29	ug/kg	J
156-59-2	cis-1,2-Dichloroethene	0.92	5.7	0.21	ug/kg	J
156-60-5	trans-1,2-Dichloroethene	0.61	5.7	0.27	ug/kg	J
540-59-0	1,2-Dichloroethene (total)	1.5	5.7	0.21	ug/kg	J
78-87-5	1,2-Dichloropropane	ND	5.7	0.17	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.7	0.16	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.7	0.18	ug/kg	
100-41-4	Ethylbenzene	ND	1.1	0.30	ug/kg	
591-78-6	2-Hexanone	ND	5.7	0.71	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.1	0.27	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.7	0.85	ug/kg	
75-09-2	Methylene chloride	ND	5.7	1.4	ug/kg	
100-42-5	Styrene	ND	5.7	0.10	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.7	0.15	ug/kg	
127-18-4	Tetrachloroethene	0.62	5.7	0.20	ug/kg	J
108-88-3	Toluene	1.1	1.1	0.12	ug/kg	
71-55-6	1,1,1-Trichloroethane	47.9	5.7	0.12	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> BENCH01	
<b>Lab Sample ID:</b> JB15155-3	<b>Date Sampled:</b> 08/30/12
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 08/31/12
<b>Method:</b> SW846 8260B	<b>Percent Solids:</b> 88.1
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	1.6	5.7	0.20	ug/kg	J
79-01-6	Trichloroethene	0.93	5.7	0.20	ug/kg	J
75-01-4	Vinyl chloride	ND	5.7	0.16	ug/kg	
1330-20-7	Xylene (total)	ND	1.1	0.16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		70-130%
17060-07-0	1,2-Dichloroethane-D4	86%		70-122%
2037-26-5	Toluene-D8	105%		81-127%
460-00-4	4-Bromofluorobenzene	92%		66-132%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	PX09SW-3	<b>Date Sampled:</b>	09/04/12
<b>Lab Sample ID:</b>	JB15405-1	<b>Date Received:</b>	09/05/12
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	84.5
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3C90562.D	1	09/06/12	JTP	n/a	n/a	V3C4027
Run #2							

	Initial Weight
Run #1	4.5 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	13	2.2	ug/kg	
71-43-2	Benzene	2.6	1.3	0.16	ug/kg	
75-27-4	Bromodichloromethane	ND	6.6	0.14	ug/kg	
75-25-2	Bromoform	ND	6.6	0.20	ug/kg	
74-83-9	Bromomethane	ND	6.6	0.36	ug/kg	
78-93-3	2-Butanone (MEK)	ND	13	3.1	ug/kg	
75-15-0	Carbon disulfide	ND	6.6	0.15	ug/kg	
56-23-5	Carbon tetrachloride	ND	6.6	0.17	ug/kg	
108-90-7	Chlorobenzene	ND	6.6	0.14	ug/kg	
75-00-3	Chloroethane	ND	6.6	0.30	ug/kg	
67-66-3	Chloroform	ND	6.6	0.11	ug/kg	
74-87-3	Chloromethane	ND	6.6	0.24	ug/kg	
124-48-1	Dibromochloromethane	ND	6.6	0.22	ug/kg	
75-34-3	1,1-Dichloroethane	ND	6.6	0.18	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.3	0.18	ug/kg	
75-35-4	1,1-Dichloroethene	ND	6.6	0.34	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	6.6	0.24	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	6.6	0.31	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	6.6	0.24	ug/kg	
78-87-5	1,2-Dichloropropane	ND	6.6	0.20	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	6.6	0.18	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	6.6	0.20	ug/kg	
100-41-4	Ethylbenzene	ND	1.3	0.35	ug/kg	
591-78-6	2-Hexanone	ND	6.6	0.82	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.3	0.31	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	6.6	0.99	ug/kg	
75-09-2	Methylene chloride	ND	6.6	1.7	ug/kg	
100-42-5	Styrene	ND	6.6	0.12	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	6.6	0.17	ug/kg	
127-18-4	Tetrachloroethene	ND	6.6	0.23	ug/kg	
108-88-3	Toluene	1.1	1.3	0.14	ug/kg	J
71-55-6	1,1,1-Trichloroethane	68.5	6.6	0.14	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> PX09SW-3	<b>Date Sampled:</b> 09/04/12
<b>Lab Sample ID:</b> JB15405-1	<b>Date Received:</b> 09/05/12
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 84.5
<b>Method:</b> SW846 8260B	
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	6.6	0.23	ug/kg	J
79-01-6	Trichloroethene	2.0	6.6	0.23	ug/kg	
75-01-4	Vinyl chloride	ND	6.6	0.19	ug/kg	
1330-20-7	Xylene (total)	ND	1.3	0.18	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		70-130%
17060-07-0	1,2-Dichloroethane-D4	104%		70-122%
2037-26-5	Toluene-D8	100%		81-127%
460-00-4	4-Bromofluorobenzene	102%		66-132%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	PX10SW-5	<b>Date Sampled:</b>	09/04/12
<b>Lab Sample ID:</b>	JB15405-2	<b>Date Received:</b>	09/05/12
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	83.6
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3C90563.D	1	09/06/12	JTP	n/a	n/a	V3C4027
Run #2							

	Initial Weight
Run #1	4.5 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	13	2.2	ug/kg	
71-43-2	Benzene	2.7	1.3	0.16	ug/kg	
75-27-4	Bromodichloromethane	ND	6.6	0.14	ug/kg	
75-25-2	Bromoform	ND	6.6	0.20	ug/kg	
74-83-9	Bromomethane	ND	6.6	0.36	ug/kg	
78-93-3	2-Butanone (MEK)	ND	13	3.2	ug/kg	
75-15-0	Carbon disulfide	ND	6.6	0.16	ug/kg	
56-23-5	Carbon tetrachloride	ND	6.6	0.18	ug/kg	
108-90-7	Chlorobenzene	ND	6.6	0.14	ug/kg	
75-00-3	Chloroethane	ND	6.6	0.30	ug/kg	
67-66-3	Chloroform	ND	6.6	0.11	ug/kg	
74-87-3	Chloromethane	ND	6.6	0.25	ug/kg	
124-48-1	Dibromochloromethane	ND	6.6	0.22	ug/kg	
75-34-3	1,1-Dichloroethane	1.8	6.6	0.18	ug/kg	J
107-06-2	1,2-Dichloroethane	ND	1.3	0.18	ug/kg	
75-35-4	1,1-Dichloroethene	ND	6.6	0.34	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	6.6	0.24	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	6.6	0.32	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	6.6	0.24	ug/kg	
78-87-5	1,2-Dichloropropane	ND	6.6	0.20	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	6.6	0.18	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	6.6	0.21	ug/kg	
100-41-4	Ethylbenzene	ND	1.3	0.35	ug/kg	
591-78-6	2-Hexanone	ND	6.6	0.83	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.3	0.31	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	6.6	1.0	ug/kg	
75-09-2	Methylene chloride	ND	6.6	1.7	ug/kg	
100-42-5	Styrene	ND	6.6	0.12	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	6.6	0.18	ug/kg	
127-18-4	Tetrachloroethene	0.54	6.6	0.23	ug/kg	J
108-88-3	Toluene	1.3	1.3	0.14	ug/kg	
71-55-6	1,1,1-Trichloroethane	67.1	6.6	0.14	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> PX10SW-5	<b>Date Sampled:</b> 09/04/12
<b>Lab Sample ID:</b> JB15405-2	<b>Date Received:</b> 09/05/12
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 83.6
<b>Method:</b> SW846 8260B	
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	6.6	0.23	ug/kg	J
79-01-6	Trichloroethene	1.5	6.6	0.23	ug/kg	
75-01-4	Vinyl chloride	ND	6.6	0.19	ug/kg	
1330-20-7	Xylene (total)	ND	1.3	0.18	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		70-130%
17060-07-0	1,2-Dichloroethane-D4	103%		70-122%
2037-26-5	Toluene-D8	99%		81-127%
460-00-4	4-Bromofluorobenzene	105%		66-132%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	PX11BT-10	<b>Date Sampled:</b>	09/04/12
<b>Lab Sample ID:</b>	JB15405-3	<b>Date Received:</b>	09/05/12
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	86.2
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X129159.D	1	09/05/12	MS	n/a	n/a	VX5603
Run #2							

	Initial Weight
Run #1	5.0 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	12	2.0	ug/kg	
71-43-2	Benzene	ND	1.2	0.14	ug/kg	
75-27-4	Bromodichloromethane	ND	5.8	0.12	ug/kg	
75-25-2	Bromoform	ND	5.8	0.18	ug/kg	
74-83-9	Bromomethane	ND	5.8	0.32	ug/kg	
78-93-3	2-Butanone (MEK)	ND	12	2.8	ug/kg	
75-15-0	Carbon disulfide	ND	5.8	0.14	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.8	0.15	ug/kg	
108-90-7	Chlorobenzene	ND	5.8	0.13	ug/kg	
75-00-3	Chloroethane	ND	5.8	0.26	ug/kg	
67-66-3	Chloroform	ND	5.8	0.096	ug/kg	
74-87-3	Chloromethane	ND	5.8	0.22	ug/kg	
124-48-1	Dibromochloromethane	ND	5.8	0.19	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.8	0.16	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.2	0.16	ug/kg	
75-35-4	1,1-Dichloroethene	ND	5.8	0.30	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	5.8	0.21	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	5.8	0.28	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	5.8	0.21	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.8	0.18	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.8	0.16	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.8	0.18	ug/kg	
100-41-4	Ethylbenzene	ND	1.2	0.31	ug/kg	
591-78-6	2-Hexanone	ND	5.8	0.72	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.2	0.27	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.8	0.87	ug/kg	
75-09-2	Methylene chloride	ND	5.8	1.5	ug/kg	
100-42-5	Styrene	ND	5.8	0.11	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.8	0.15	ug/kg	
127-18-4	Tetrachloroethene	ND	5.8	0.20	ug/kg	
108-88-3	Toluene	ND	1.2	0.12	ug/kg	
71-55-6	1,1,1-Trichloroethane	10.9	5.8	0.12	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> PX11BT-10	<b>Date Sampled:</b> 09/04/12
<b>Lab Sample ID:</b> JB15405-3	<b>Date Received:</b> 09/05/12
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.2
<b>Method:</b> SW846 8260B	
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	0.83	5.8	0.20	ug/kg	J
79-01-6	Trichloroethene	2.2	5.8	0.20	ug/kg	J
75-01-4	Vinyl chloride	ND	5.8	0.17	ug/kg	
1330-20-7	Xylene (total)	ND	1.2	0.16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		70-130%
17060-07-0	1,2-Dichloroethane-D4	90%		70-122%
2037-26-5	Toluene-D8	108%		81-127%
460-00-4	4-Bromofluorobenzene	98%		66-132%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

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<b>Client Sample ID:</b>	PX12SW-7	<b>Date Sampled:</b>	09/04/12
<b>Lab Sample ID:</b>	JB15405-4	<b>Date Received:</b>	09/05/12
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	89.0
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3C90564.D	1	09/06/12	JTP	n/a	n/a	V3C4027
Run #2							

	Initial Weight
Run #1	4.5 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	12	2.1	ug/kg	
71-43-2	Benzene	2.6	1.2	0.15	ug/kg	
75-27-4	Bromodichloromethane	ND	6.2	0.13	ug/kg	
75-25-2	Bromoform	ND	6.2	0.19	ug/kg	
74-83-9	Bromomethane	ND	6.2	0.34	ug/kg	
78-93-3	2-Butanone (MEK)	ND	12	3.0	ug/kg	
75-15-0	Carbon disulfide	ND	6.2	0.15	ug/kg	
56-23-5	Carbon tetrachloride	ND	6.2	0.17	ug/kg	
108-90-7	Chlorobenzene	ND	6.2	0.13	ug/kg	
75-00-3	Chloroethane	ND	6.2	0.28	ug/kg	
67-66-3	Chloroform	ND	6.2	0.10	ug/kg	
74-87-3	Chloromethane	ND	6.2	0.23	ug/kg	
124-48-1	Dibromochloromethane	ND	6.2	0.20	ug/kg	
75-34-3	1,1-Dichloroethane	ND	6.2	0.17	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.2	0.17	ug/kg	
75-35-4	1,1-Dichloroethene	ND	6.2	0.32	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	6.2	0.23	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	6.2	0.30	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	6.2	0.23	ug/kg	
78-87-5	1,2-Dichloropropane	ND	6.2	0.19	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	6.2	0.17	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	6.2	0.19	ug/kg	
100-41-4	Ethylbenzene	ND	1.2	0.33	ug/kg	
591-78-6	2-Hexanone	ND	6.2	0.78	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.2	0.29	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	6.2	0.94	ug/kg	
75-09-2	Methylene chloride	ND	6.2	1.6	ug/kg	
100-42-5	Styrene	ND	6.2	0.11	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	6.2	0.16	ug/kg	
127-18-4	Tetrachloroethene	ND	6.2	0.21	ug/kg	
108-88-3	Toluene	1.1	1.2	0.13	ug/kg	J
71-55-6	1,1,1-Trichloroethane	5.1	6.2	0.13	ug/kg	J

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> PX12SW-7	<b>Date Sampled:</b> 09/04/12
<b>Lab Sample ID:</b> JB15405-4	<b>Date Received:</b> 09/05/12
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 89.0
<b>Method:</b> SW846 8260B	
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	6.2	0.22	ug/kg	J
79-01-6	Trichloroethene	2.5	6.2	0.22	ug/kg	
75-01-4	Vinyl chloride	ND	6.2	0.18	ug/kg	
1330-20-7	Xylene (total)	ND	1.2	0.17	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		70-130%
17060-07-0	1,2-Dichloroethane-D4	108%		70-122%
2037-26-5	Toluene-D8	99%		81-127%
460-00-4	4-Bromofluorobenzene	101%		66-132%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	PX13SW-7	<b>Date Sampled:</b>	09/04/12
<b>Lab Sample ID:</b>	JB15405-5	<b>Date Received:</b>	09/05/12
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	84.9
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	3C90565.D	1	09/06/12	JTP	n/a	n/a	V3C4027
Run #2							

	Initial Weight
Run #1	4.5 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	13	2.2	ug/kg	J
71-43-2	Benzene	0.82	1.3	0.16	ug/kg	
75-27-4	Bromodichloromethane	ND	6.5	0.14	ug/kg	J
75-25-2	Bromoform	ND	6.5	0.20	ug/kg	
74-83-9	Bromomethane	ND	6.5	0.36	ug/kg	J
78-93-3	2-Butanone (MEK)	ND	13	3.1	ug/kg	
75-15-0	Carbon disulfide	ND	6.5	0.15	ug/kg	J
56-23-5	Carbon tetrachloride	ND	6.5	0.17	ug/kg	
108-90-7	Chlorobenzene	ND	6.5	0.14	ug/kg	J
75-00-3	Chloroethane	ND	6.5	0.30	ug/kg	
67-66-3	Chloroform	ND	6.5	0.11	ug/kg	J
74-87-3	Chloromethane	ND	6.5	0.24	ug/kg	
124-48-1	Dibromochloromethane	ND	6.5	0.21	ug/kg	J
75-34-3	1,1-Dichloroethane	ND	6.5	0.18	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.3	0.18	ug/kg	J
75-35-4	1,1-Dichloroethene	ND	6.5	0.34	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	6.5	0.24	ug/kg	J
156-60-5	trans-1,2-Dichloroethene	ND	6.5	0.31	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	6.5	0.24	ug/kg	J
78-87-5	1,2-Dichloropropane	ND	6.5	0.20	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	6.5	0.18	ug/kg	J
10061-02-6	trans-1,3-Dichloropropene	ND	6.5	0.20	ug/kg	
100-41-4	Ethylbenzene	ND	1.3	0.34	ug/kg	J
591-78-6	2-Hexanone	ND	6.5	0.81	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.3	0.31	ug/kg	J
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	6.5	0.98	ug/kg	
75-09-2	Methylene chloride	ND	6.5	1.7	ug/kg	J
100-42-5	Styrene	ND	6.5	0.12	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	6.5	0.17	ug/kg	J
127-18-4	Tetrachloroethene	ND	6.5	0.23	ug/kg	
108-88-3	Toluene	0.54	1.3	0.14	ug/kg	J
71-55-6	1,1,1-Trichloroethane	7.0	6.5	0.14	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> PX13SW-7	<b>Date Sampled:</b> 09/04/12
<b>Lab Sample ID:</b> JB15405-5	<b>Date Received:</b> 09/05/12
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 84.9
<b>Method:</b> SW846 8260B	
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	6.5	0.23	ug/kg	
79-01-6	Trichloroethene	ND	6.5	0.23	ug/kg	
75-01-4	Vinyl chloride	ND	6.5	0.19	ug/kg	
1330-20-7	Xylene (total)	ND	1.3	0.18	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		70-130%
17060-07-0	1,2-Dichloroethane-D4	100%		70-122%
2037-26-5	Toluene-D8	100%		81-127%
460-00-4	4-Bromofluorobenzene	101%		66-132%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	PX14SW-6	<b>Date Sampled:</b>	09/04/12
<b>Lab Sample ID:</b>	JB15405-6	<b>Date Received:</b>	09/05/12
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	85.0
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y125807.D	1	09/05/12	RS	n/a	n/a	VY5403
Run #2							

	Initial Weight
Run #1	5.3 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	11	1.9	ug/kg	
71-43-2	Benzene	ND	1.1	0.13	ug/kg	
75-27-4	Bromodichloromethane	ND	5.5	0.12	ug/kg	
75-25-2	Bromoform	ND	5.5	0.17	ug/kg	
74-83-9	Bromomethane	ND	5.5	0.30	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	2.7	ug/kg	
75-15-0	Carbon disulfide	ND	5.5	0.13	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.5	0.15	ug/kg	
108-90-7	Chlorobenzene	ND	5.5	0.12	ug/kg	
75-00-3	Chloroethane	ND	5.5	0.25	ug/kg	
67-66-3	Chloroform	ND	5.5	0.092	ug/kg	
74-87-3	Chloromethane	ND	5.5	0.21	ug/kg	
124-48-1	Dibromochloromethane	ND	5.5	0.18	ug/kg	
75-34-3	1,1-Dichloroethane	0.87	5.5	0.15	ug/kg	J
107-06-2	1,2-Dichloroethane	ND	1.1	0.15	ug/kg	
75-35-4	1,1-Dichloroethene	0.63	5.5	0.29	ug/kg	J
156-59-2	cis-1,2-Dichloroethene	2.4	5.5	0.20	ug/kg	J
156-60-5	trans-1,2-Dichloroethene	2.1	5.5	0.26	ug/kg	J
540-59-0	1,2-Dichloroethene (total)	4.4	5.5	0.20	ug/kg	J
78-87-5	1,2-Dichloropropane	ND	5.5	0.17	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.5	0.15	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.5	0.17	ug/kg	
100-41-4	Ethylbenzene	ND	1.1	0.29	ug/kg	
591-78-6	2-Hexanone	ND	5.5	0.69	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.1	0.26	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.5	0.83	ug/kg	
75-09-2	Methylene chloride	ND	5.5	1.4	ug/kg	
100-42-5	Styrene	ND	5.5	0.10	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.5	0.15	ug/kg	
127-18-4	Tetrachloroethene	0.59	5.5	0.19	ug/kg	J
108-88-3	Toluene	ND	1.1	0.12	ug/kg	
71-55-6	1,1,1-Trichloroethane	29.3	5.5	0.12	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> PX14SW-6	<b>Date Sampled:</b> 09/04/12
<b>Lab Sample ID:</b> JB15405-6	<b>Date Received:</b> 09/05/12
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 85.0
<b>Method:</b> SW846 8260B	
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	5.9	5.5	0.19	ug/kg	J
79-01-6	Trichloroethene	4.0	5.5	0.19	ug/kg	
75-01-4	Vinyl chloride	ND	5.5	0.16	ug/kg	
1330-20-7	Xylene (total)	ND	1.1	0.15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		70-130%
17060-07-0	1,2-Dichloroethane-D4	87%		70-122%
2037-26-5	Toluene-D8	106%		81-127%
460-00-4	4-Bromofluorobenzene	96%		66-132%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	PX15BT-10	<b>Date Sampled:</b>	09/04/12
<b>Lab Sample ID:</b>	JB15405-7	<b>Date Received:</b>	09/05/12
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	83.0
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X129174.D	1	09/06/12	MS	n/a	n/a	VX5604
Run #2							

	Initial Weight
Run #1	4.7 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	13.6	13	2.2	ug/kg	
71-43-2	Benzene	ND	1.3	0.15	ug/kg	
75-27-4	Bromodichloromethane	ND	6.4	0.13	ug/kg	
75-25-2	Bromoform	ND	6.4	0.19	ug/kg	
74-83-9	Bromomethane	ND	6.4	0.35	ug/kg	
78-93-3	2-Butanone (MEK)	ND	13	3.1	ug/kg	
75-15-0	Carbon disulfide	ND	6.4	0.15	ug/kg	
56-23-5	Carbon tetrachloride	ND	6.4	0.17	ug/kg	
108-90-7	Chlorobenzene	ND	6.4	0.14	ug/kg	
75-00-3	Chloroethane	ND	6.4	0.29	ug/kg	
67-66-3	Chloroform	1.0	6.4	0.11	ug/kg	J
74-87-3	Chloromethane	ND	6.4	0.24	ug/kg	
124-48-1	Dibromochloromethane	ND	6.4	0.21	ug/kg	
75-34-3	1,1-Dichloroethane	8.3	6.4	0.18	ug/kg	
107-06-2	1,2-Dichloroethane	0.60	1.3	0.17	ug/kg	J
75-35-4	1,1-Dichloroethene	4.2	6.4	0.33	ug/kg	J
156-59-2	cis-1,2-Dichloroethene	0.85	6.4	0.23	ug/kg	J
156-60-5	trans-1,2-Dichloroethene	0.58	6.4	0.31	ug/kg	J
540-59-0	1,2-Dichloroethene (total)	1.4	6.4	0.23	ug/kg	J
78-87-5	1,2-Dichloropropane	ND	6.4	0.20	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	6.4	0.18	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	6.4	0.20	ug/kg	
100-41-4	Ethylbenzene	ND	1.3	0.34	ug/kg	
591-78-6	2-Hexanone	ND	6.4	0.80	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.3	0.30	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	6.4	0.96	ug/kg	
75-09-2	Methylene chloride	ND	6.4	1.6	ug/kg	
100-42-5	Styrene	ND	6.4	0.12	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	6.4	0.17	ug/kg	
127-18-4	Tetrachloroethene	0.79	6.4	0.22	ug/kg	J
108-88-3	Toluene	0.58	1.3	0.13	ug/kg	J
71-55-6	1,1,1-Trichloroethane	149	6.4	0.14	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> PX15BT-10	<b>Date Sampled:</b> 09/04/12
<b>Lab Sample ID:</b> JB15405-7	<b>Date Received:</b> 09/05/12
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 83.0
<b>Method:</b> SW846 8260B	
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	1.5	6.4	0.22	ug/kg	J
79-01-6	Trichloroethene	4.7	6.4	0.22	ug/kg	J
75-01-4	Vinyl chloride	ND	6.4	0.18	ug/kg	
1330-20-7	Xylene (total)	ND	1.3	0.18	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		70-130%
17060-07-0	1,2-Dichloroethane-D4	84%		70-122%
2037-26-5	Toluene-D8	108%		81-127%
460-00-4	4-Bromofluorobenzene	104%		66-132%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

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<b>Client Sample ID:</b>	C1SP01	<b>Date Sampled:</b>	09/04/12
<b>Lab Sample ID:</b>	JB15405-8	<b>Date Received:</b>	09/05/12
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	85.0
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y125814.D	1	09/05/12	RS	n/a	n/a	VY5403
Run #2	Y125848.D	1	09/06/12	RS	n/a	n/a	VY5405

	Initial Weight
Run #1	4.9 g
Run #2	1.2 g

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	12	2.0	ug/kg	
71-43-2	Benzene	ND	1.2	0.14	ug/kg	
75-27-4	Bromodichloromethane	ND	6.0	0.13	ug/kg	
75-25-2	Bromoform	ND	6.0	0.18	ug/kg	
74-83-9	Bromomethane	ND	6.0	0.33	ug/kg	
78-93-3	2-Butanone (MEK)	ND	12	2.9	ug/kg	
75-15-0	Carbon disulfide	ND	6.0	0.14	ug/kg	
56-23-5	Carbon tetrachloride	ND	6.0	0.16	ug/kg	
108-90-7	Chlorobenzene	ND	6.0	0.13	ug/kg	
75-00-3	Chloroethane	ND	6.0	0.27	ug/kg	
67-66-3	Chloroform	ND	6.0	0.099	ug/kg	
74-87-3	Chloromethane	ND	6.0	0.22	ug/kg	
124-48-1	Dibromochloromethane	ND	6.0	0.20	ug/kg	
75-34-3	1,1-Dichloroethane	7.2	6.0	0.16	ug/kg	
107-06-2	1,2-Dichloroethane	0.65	1.2	0.16	ug/kg	J
75-35-4	1,1-Dichloroethene	2.0	6.0	0.31	ug/kg	J
156-59-2	cis-1,2-Dichloroethene	0.61	6.0	0.22	ug/kg	J
156-60-5	trans-1,2-Dichloroethene	0.50	6.0	0.29	ug/kg	J
540-59-0	1,2-Dichloroethene (total)	1.1	6.0	0.22	ug/kg	J
78-87-5	1,2-Dichloropropane	ND	6.0	0.18	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	6.0	0.17	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	6.0	0.19	ug/kg	
100-41-4	Ethylbenzene	ND	1.2	0.32	ug/kg	
591-78-6	2-Hexanone	ND	6.0	0.75	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.2	0.28	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	6.0	0.90	ug/kg	
75-09-2	Methylene chloride	ND	6.0	1.5	ug/kg	
100-42-5	Styrene	ND	6.0	0.11	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	6.0	0.16	ug/kg	
127-18-4	Tetrachloroethene	1.1	6.0	0.21	ug/kg	J
108-88-3	Toluene	1.3	1.2	0.13	ug/kg	
71-55-6	1,1,1-Trichloroethane	513 <sup>a</sup>	25	0.52	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> C1SP01	<b>Date Sampled:</b> 09/04/12
<b>Lab Sample ID:</b> JB15405-8	<b>Date Received:</b> 09/05/12
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 85.0
<b>Method:</b> SW846 8260B	
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	3.5	6.0	0.21	ug/kg	J
79-01-6	Trichloroethene	5.0	6.0	0.21	ug/kg	J
75-01-4	Vinyl chloride	ND	6.0	0.17	ug/kg	
1330-20-7	Xylene (total)	ND	1.2	0.17	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%	101%	70-130%
17060-07-0	1,2-Dichloroethane-D4	85%	87%	70-122%
2037-26-5	Toluene-D8	108%	107%	81-127%
460-00-4	4-Bromofluorobenzene	90%	92%	66-132%

(a) Result is from Run# 2

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	C3SP01	<b>Date Sampled:</b>	09/04/12
<b>Lab Sample ID:</b>	JB15405-9	<b>Date Received:</b>	09/05/12
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	86.6
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y125815.D	1	09/05/12	RS	n/a	n/a	VY5403
Run #2	E194755.D	1	09/06/12	OTR	n/a	n/a	VE8565
Run #3	E194753.D	1	09/06/12	OTR	n/a	n/a	VE8565

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	4.8 g		
Run #2	10.4 g	10.0 ml	10.0 ul
Run #3	10.4 g	10.0 ml	100 ul

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	12	2.0	ug/kg	
71-43-2	Benzene	ND	1.2	0.14	ug/kg	
75-27-4	Bromodichloromethane	ND	6.0	0.13	ug/kg	
75-25-2	Bromoform	ND	6.0	0.18	ug/kg	
74-83-9	Bromomethane	ND	6.0	0.33	ug/kg	
78-93-3	2-Butanone (MEK)	ND	12	2.9	ug/kg	
75-15-0	Carbon disulfide	ND	6.0	0.14	ug/kg	
56-23-5	Carbon tetrachloride	ND	6.0	0.16	ug/kg	
108-90-7	Chlorobenzene	ND	6.0	0.13	ug/kg	
75-00-3	Chloroethane	ND	6.0	0.27	ug/kg	
67-66-3	Chloroform	ND	6.0	0.099	ug/kg	
74-87-3	Chloromethane	ND	6.0	0.22	ug/kg	
124-48-1	Dibromochloromethane	ND	6.0	0.20	ug/kg	
75-34-3	1,1-Dichloroethane	13.0	6.0	0.16	ug/kg	
107-06-2	1,2-Dichloroethane	1.2	1.2	0.16	ug/kg	
75-35-4	1,1-Dichloroethene	5.8	6.0	0.31	ug/kg	J
156-59-2	cis-1,2-Dichloroethene	0.54	6.0	0.22	ug/kg	J
156-60-5	trans-1,2-Dichloroethene	0.41	6.0	0.29	ug/kg	J
540-59-0	1,2-Dichloroethene (total)	0.95	6.0	0.22	ug/kg	J
78-87-5	1,2-Dichloropropane	ND	6.0	0.19	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	6.0	0.17	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	6.0	0.19	ug/kg	
100-41-4	Ethylbenzene	ND	1.2	0.32	ug/kg	
591-78-6	2-Hexanone	ND	6.0	0.75	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.2	0.28	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	6.0	0.90	ug/kg	
75-09-2	Methylene chloride	ND	6.0	1.5	ug/kg	
100-42-5	Styrene	ND	6.0	0.11	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	6.0	0.16	ug/kg	
127-18-4	Tetrachloroethene	1.6	6.0	0.21	ug/kg	J

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> C3SP01	<b>Date Sampled:</b> 09/04/12
<b>Lab Sample ID:</b> JB15405-9	<b>Date Received:</b> 09/05/12
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 86.6
<b>Method:</b> SW846 8260B	
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
108-88-3	Toluene	2.8	1.2	0.13	ug/kg	
71-55-6	1,1,1-Trichloroethane	41900 <sup>a</sup>	3200	67	ug/kg	
79-00-5	1,1,2-Trichloroethane	5.2	6.0	0.21	ug/kg	J
79-01-6	Trichloroethene	5.7	6.0	0.21	ug/kg	J
75-01-4	Vinyl chloride	ND	6.0	0.17	ug/kg	
1330-20-7	Xylene (total)	ND	1.2	0.17	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Run# 3	Limits
1868-53-7	Dibromofluoromethane	97%	90%	89%	70-130%
17060-07-0	1,2-Dichloroethane-D4	84%	97%	97%	70-122%
2037-26-5	Toluene-D8	107%	87%	87%	81-127%
460-00-4	4-Bromofluorobenzene	89%	85%	83%	66-132%

(a) Result is from Run# 2

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	C3SP02	<b>Date Sampled:</b>	09/04/12
<b>Lab Sample ID:</b>	JB15405-10	<b>Date Received:</b>	09/05/12
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	89.9
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Y125816.D	1	09/05/12	RS	n/a	n/a	VY5403
Run #2							

	Initial Weight
Run #1	5.3 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	1.8	ug/kg	
71-43-2	Benzene	ND	1.0	0.12	ug/kg	
75-27-4	Bromodichloromethane	ND	5.2	0.11	ug/kg	
75-25-2	Bromoform	ND	5.2	0.16	ug/kg	
74-83-9	Bromomethane	ND	5.2	0.29	ug/kg	
78-93-3	2-Butanone (MEK)	ND	10	2.5	ug/kg	
75-15-0	Carbon disulfide	ND	5.2	0.12	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.2	0.14	ug/kg	
108-90-7	Chlorobenzene	ND	5.2	0.11	ug/kg	
75-00-3	Chloroethane	ND	5.2	0.24	ug/kg	
67-66-3	Chloroform	ND	5.2	0.087	ug/kg	
74-87-3	Chloromethane	ND	5.2	0.20	ug/kg	
124-48-1	Dibromochloromethane	ND	5.2	0.17	ug/kg	
75-34-3	1,1-Dichloroethane	3.0	5.2	0.14	ug/kg	J
107-06-2	1,2-Dichloroethane	0.76	1.0	0.14	ug/kg	J
75-35-4	1,1-Dichloroethene	1.5	5.2	0.27	ug/kg	J
156-59-2	cis-1,2-Dichloroethene	0.41	5.2	0.19	ug/kg	J
156-60-5	trans-1,2-Dichloroethene	0.38	5.2	0.25	ug/kg	J
540-59-0	1,2-Dichloroethene (total)	0.79	5.2	0.19	ug/kg	J
78-87-5	1,2-Dichloropropane	ND	5.2	0.16	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.2	0.15	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.2	0.16	ug/kg	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/kg	
591-78-6	2-Hexanone	ND	5.2	0.65	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.2	0.79	ug/kg	
75-09-2	Methylene chloride	ND	5.2	1.3	ug/kg	
100-42-5	Styrene	ND	5.2	0.096	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.2	0.14	ug/kg	
127-18-4	Tetrachloroethene	ND	5.2	0.18	ug/kg	
108-88-3	Toluene	0.27	1.0	0.11	ug/kg	J
71-55-6	1,1,1-Trichloroethane	166	5.2	0.11	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> C3SP02	
<b>Lab Sample ID:</b> JB15405-10	<b>Date Sampled:</b> 09/04/12
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 09/05/12
<b>Method:</b> SW846 8260B	<b>Percent Solids:</b> 89.9
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	0.97	5.2	0.18	ug/kg	J
79-01-6	Trichloroethene	1.9	5.2	0.18	ug/kg	J
75-01-4	Vinyl chloride	ND	5.2	0.15	ug/kg	
1330-20-7	Xylene (total)	ND	1.0	0.15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		70-130%
17060-07-0	1,2-Dichloroethane-D4	86%		70-122%
2037-26-5	Toluene-D8	107%		81-127%
460-00-4	4-Bromofluorobenzene	96%		66-132%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	C2SP01	<b>Date Sampled:</b>	09/04/12
<b>Lab Sample ID:</b>	JB15405-11	<b>Date Received:</b>	09/05/12
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	90.0
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X129157.D	1	09/05/12	MS	n/a	n/a	VX5603
Run #2							

	Initial Weight
Run #1	5.2 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	11	1.8	ug/kg	
71-43-2	Benzene	ND	1.1	0.13	ug/kg	
75-27-4	Bromodichloromethane	ND	5.3	0.11	ug/kg	
75-25-2	Bromoform	ND	5.3	0.16	ug/kg	
74-83-9	Bromomethane	ND	5.3	0.29	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	2.6	ug/kg	
75-15-0	Carbon disulfide	ND	5.3	0.13	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.3	0.14	ug/kg	
108-90-7	Chlorobenzene	ND	5.3	0.12	ug/kg	
75-00-3	Chloroethane	ND	5.3	0.24	ug/kg	
67-66-3	Chloroform	ND	5.3	0.088	ug/kg	
74-87-3	Chloromethane	ND	5.3	0.20	ug/kg	
124-48-1	Dibromochloromethane	ND	5.3	0.18	ug/kg	
75-34-3	1,1-Dichloroethane	1.0	5.3	0.15	ug/kg	J
107-06-2	1,2-Dichloroethane	0.78	1.1	0.14	ug/kg	J
75-35-4	1,1-Dichloroethene	0.43	5.3	0.27	ug/kg	J
156-59-2	cis-1,2-Dichloroethene	0.37	5.3	0.20	ug/kg	J
156-60-5	trans-1,2-Dichloroethene	ND	5.3	0.25	ug/kg	
540-59-0	1,2-Dichloroethene (total)	0.37	5.3	0.20	ug/kg	J
78-87-5	1,2-Dichloropropane	ND	5.3	0.16	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.3	0.15	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.3	0.17	ug/kg	
100-41-4	Ethylbenzene	ND	1.1	0.28	ug/kg	
591-78-6	2-Hexanone	ND	5.3	0.66	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.1	0.25	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.3	0.80	ug/kg	
75-09-2	Methylene chloride	ND	5.3	1.4	ug/kg	
100-42-5	Styrene	ND	5.3	0.098	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.3	0.14	ug/kg	
127-18-4	Tetrachloroethene	ND	5.3	0.18	ug/kg	
108-88-3	Toluene	ND	1.1	0.11	ug/kg	
71-55-6	1,1,1-Trichloroethane	51.7	5.3	0.11	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 2 of 2

<b>Client Sample ID:</b> C2SP01	<b>Date Sampled:</b> 09/04/12
<b>Lab Sample ID:</b> JB15405-11	<b>Date Received:</b> 09/05/12
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 90.0
<b>Method:</b> SW846 8260B	
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	1.4	5.3	0.19	ug/kg	J
79-01-6	Trichloroethene	1.6	5.3	0.19	ug/kg	J
75-01-4	Vinyl chloride	ND	5.3	0.15	ug/kg	
1330-20-7	Xylene (total)	ND	1.1	0.15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		70-130%
17060-07-0	1,2-Dichloroethane-D4	89%		70-122%
2037-26-5	Toluene-D8	106%		81-127%
460-00-4	4-Bromofluorobenzene	101%		66-132%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

Page 1 of 2

<b>Client Sample ID:</b>	C2SP02	<b>Date Sampled:</b>	09/04/12
<b>Lab Sample ID:</b>	JB15405-12	<b>Date Received:</b>	09/05/12
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	88.9
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X129158.D	1	09/05/12	MS	n/a	n/a	VX5603
Run #2							

	Initial Weight
Run #1	5.2 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	11	1.8	ug/kg	
71-43-2	Benzene	ND	1.1	0.13	ug/kg	
75-27-4	Bromodichloromethane	ND	5.4	0.11	ug/kg	
75-25-2	Bromoform	ND	5.4	0.16	ug/kg	
74-83-9	Bromomethane	ND	5.4	0.30	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	2.6	ug/kg	
75-15-0	Carbon disulfide	ND	5.4	0.13	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.4	0.14	ug/kg	
108-90-7	Chlorobenzene	ND	5.4	0.12	ug/kg	
75-00-3	Chloroethane	ND	5.4	0.25	ug/kg	
67-66-3	Chloroform	ND	5.4	0.089	ug/kg	
74-87-3	Chloromethane	ND	5.4	0.20	ug/kg	
124-48-1	Dibromochloromethane	ND	5.4	0.18	ug/kg	
75-34-3	1,1-Dichloroethane	1.9	5.4	0.15	ug/kg	J
107-06-2	1,2-Dichloroethane	1.7	1.1	0.15	ug/kg	
75-35-4	1,1-Dichloroethene	0.90	5.4	0.28	ug/kg	J
156-59-2	cis-1,2-Dichloroethene	1.1	5.4	0.20	ug/kg	J
156-60-5	trans-1,2-Dichloroethene	0.70	5.4	0.26	ug/kg	J
540-59-0	1,2-Dichloroethene (total)	1.8	5.4	0.20	ug/kg	J
78-87-5	1,2-Dichloropropane	ND	5.4	0.17	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.4	0.15	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.4	0.17	ug/kg	
100-41-4	Ethylbenzene	ND	1.1	0.28	ug/kg	
591-78-6	2-Hexanone	ND	5.4	0.67	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.1	0.25	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.4	0.81	ug/kg	
75-09-2	Methylene chloride	ND	5.4	1.4	ug/kg	
100-42-5	Styrene	ND	5.4	0.099	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.4	0.14	ug/kg	
127-18-4	Tetrachloroethene	0.33	5.4	0.19	ug/kg	J
108-88-3	Toluene	ND	1.1	0.11	ug/kg	
71-55-6	1,1,1-Trichloroethane	59.9	5.4	0.11	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 2 of 2

<b>Client Sample ID:</b> C2SP02	<b>Date Sampled:</b> 09/04/12
<b>Lab Sample ID:</b> JB15405-12	<b>Date Received:</b> 09/05/12
<b>Matrix:</b> SO - Soil	<b>Percent Solids:</b> 88.9
<b>Method:</b> SW846 8260B	
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	2.5	5.4	0.19	ug/kg	J
79-01-6	Trichloroethene	6.9	5.4	0.19	ug/kg	
75-01-4	Vinyl chloride	ND	5.4	0.16	ug/kg	
1330-20-7	Xylene (total)	ND	1.1	0.15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		70-130%
17060-07-0	1,2-Dichloroethane-D4	86%		70-122%
2037-26-5	Toluene-D8	105%		81-127%
460-00-4	4-Bromofluorobenzene	104%		66-132%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Misc. Forms

5

### Custody Documents and Other Forms

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Includes the following where applicable:

- Chain of Custody

50

<b>Client / Reporting Information</b> Company Name: <u>Fleming-Lee Shue</u> Street Address: <u>158 W. 29th St</u> City: <u>New York</u> State: <u>NY</u> Zip: <u>10001</u> Project Contact: <u>K. McGinness</u> E-mail: <u>FlemingLeeShue@aol.com</u> Phone #: <u>212-675-3225</u> Fax #: <u>3224</u> Sampler(s) Name(s): <u>Gabriel Horn</u> Phone #: <u>551-427-7666</u>		<b>Project Information</b> Project Name: <u>AFFCO</u> Street: <u>361 Watsch Ave</u> City: <u>New Windsor</u> State: <u>NY</u> Billing Information (if different from Report to): Company Name: _____ Street Address: _____ City: _____ State: _____ Zip: _____ Project #: <u>10000-013</u> Client Purchase Order #: _____ Project Manager: <u>K. McGinness</u> Attention: _____		<b>Requested Analysis (see TEST CODE sheet)</b> Bottle Order Control #: _____ Accutest Job #: <u>JB15405</u> Matrix Codes: DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment LIQ - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RP - Rinse Blank TB - Trip Blank	
<b>Field ID / Point of Collection</b> MECH/DI Vial # _____ Date _____ Time _____ Sampled by _____ Matrix _____ # of bottles _____ Number of preserved bottles: HCl, NaOH, HNO3, H2SO4, NONE, DI Water, MECH, ENCORE		<b>LAB USE ONLY</b> 1901 0/6 97			
Turnaround Time (Business days): <input type="checkbox"/> Std. 15 Business Days <input type="checkbox"/> Std. 10 Business Days (by Contract only) <input type="checkbox"/> 10 Day RUSH <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input checked="" type="checkbox"/> 1 Day EMERGENCY Emergency & Rush TIA data available VIA Lablink		Approved By (Accutest PM): / Date: _____ <input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> NJ Reduced <input type="checkbox"/> Commercial "C" <input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other _____ Commercial "A" = Results Only Commercial "B" = Results + QC Summary NJ Reduced = Results + QC Summary + Partial Raw data		Comments / Special Instructions: <u>* - run sample #3, #7 on 3 day TAT. All other samples need to be run on 24 hr TAT</u>	
Sample Custody must be documented below each time samples change possession, including courier delivery.					
Relinquished by Sampler: _____ Date Time: _____ Relinquished by Sampler: _____ Date Time: _____ Relinquished by: _____ Date Time: _____		Received By: <u>Ked</u> Received By: _____ Received By: _____ Custody Seal # <u>N/A</u>		Relinquished By: _____ Date Time: _____ Relinquished By: _____ Date Time: _____ Relinquished By: _____ Date Time: _____ Preserved where applicable: <input type="checkbox"/> Intact <input type="checkbox"/> Not Intact On Ice: <input checked="" type="checkbox"/> Cooler Temp: <u>40°F</u>	

JB15405: Chain of Custody

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## Accutest Laboratories Sample Receipt Summary

**Accutest Job Number:** JB15405      **Client:** \_\_\_\_\_      **Project:** \_\_\_\_\_  
**Date / Time Received:** 9/5/2012      **Delivery Method:** \_\_\_\_\_      **Airbill #s:** \_\_\_\_\_  
**Cooler Temps (Initial/Adjusted):** #1: (4/4); 0

**Cooler Security**

	<u>Y</u>	<u>or</u>	<u>N</u>		<u>Y</u>	<u>or</u>	<u>N</u>
1. Custody Seals Present:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	3. COC Present:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Custody Seals Intact:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	4. Smpl Dates/Time OK	<input checked="" type="checkbox"/>		<input type="checkbox"/>

**Cooler Temperature**

	<u>Y</u>	<u>or</u>	<u>N</u>
1. Temp criteria achieved:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Cooler temp verification:	Bar Therm _____		
3. Cooler media:	Ice (Bag) _____		
4. No. Coolers:	1 _____		

**Quality Control Preservation**

	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Trip Blank present / cooler:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Trip Blank listed on COC:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Samples preserved properly:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. VOCs headspace free:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Sample Integrity - Documentation**

	<u>Y</u>	<u>or</u>	<u>N</u>
1. Sample labels present on bottles:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Container labeling complete:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
3. Sample container label / COC agree:	<input checked="" type="checkbox"/>		<input type="checkbox"/>

**Sample Integrity - Condition**

	<u>Y</u>	<u>or</u>	<u>N</u>
1. Sample recvd within HT:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. All containers accounted for:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
3. Condition of sample:	Intact _____		

**Sample Integrity - Instructions**

	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Analysis requested is clear:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
2. Bottles received for unspecified tests	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
3. Sufficient volume recvd for analysis:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. Compositing instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Filtering instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments





2235 Route 130, Dayton, NJ 08810  
Tel: 732-329-0200 FAX: 732-329-3499/3480  
[www.accutest.com](http://www.accutest.com)

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Client / Reporting Information				Project Information				Requested Analysis ( see TEST CODE sheet)												Matrix Codes								
<b>Company Name</b> Fleming - Lee Shue				<b>Project Name:</b> AFFCO																	DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED-Sediment CI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WIP - Wipe FB-Field Blank EB-Equipment Blank RB-Rinse Blank TB-Trip Blank							
<b>Street Address</b> 158 West 29 <sup>th</sup> St				<b>Street:</b> 361 Walsh Ave																								
<b>City State Zip</b> New York NY 10001				<b>Billing Information ( if different from Report to )</b>																								
<b>Project Contact</b> K. McGuinness - kmcguinness@affco.com				<b>Project #</b> 10000-013																								
<b>Phone #</b> 212-675-3225 / 3224				<b>Client Purchase Order #</b>																								
<b>Samples(s) Name(s)</b> G. Horn				<b>Project Manager</b> K. McGuinness																								
<b>Collection</b>				<b>Number of preserved Bottles</b>																								
Accutest Sample #	Field ID / Point of Collection	MEOHDI Vial #	Date	Time	Sampled by	Matrix	# of bottles	HCl	AsPH	HAO3	P2O4	NO3E	D Water	MEOH	ENDURE	LAB USE ONLY												
1	PX07BT-10	-	8-30-12	0830	JA	S	2									✓												
2	PX08SW-7	-	8-30-12	1040	JA	S	2									✓												
1	PX07BT-10	-1	8-30-12	0930	JA	S	2									✓												
2	PX08SW-7 *	-2	8-30-12	0940	JA	S	2									✓												
3	Bench 01	-3	8-30-12	1025	JA	S	2									✓												
<b>Turnaround Time ( Business days )</b>				<b>Data Deliverable Information</b>				<b>Comments / Special Instructions</b>																				
<input type="checkbox"/> Std. 15 Business Days <input type="checkbox"/> Std. 10 Business Days ( by Contract only ) <input type="checkbox"/> 10 Day RUSH <input type="checkbox"/> 5 Day RUSH <input checked="" type="checkbox"/> 3 Day EMERGENCY see notes <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY <small>Emergency &amp; Rush T/A data available VIA Lablink</small>				<b>Approved By (Accutest PM): / Date:</b>     				<input type="checkbox"/> Commercial "A" ( Level 1 ) <input type="checkbox"/> Commercial "B" ( Level 2 ) <input type="checkbox"/> FULLT1 ( Level 3+4 ) <input type="checkbox"/> NJ Reduced <input type="checkbox"/> Commercial "C"  <small>Commercial "A" = Results Only            Commercial "B" = Results + QC Summary            NJ Reduced = Results + QC Summary + Partial Raw data</small>				<input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other _____				Sample #2 (PX08SW-7) run on 24 hr TAT												
Sample Custody must be documented below each time samples change possession, including courier delivery.																												
<b>Relinquished by Sampler:</b>  <b>Date Time:</b> 8/30/12 1600		<b>Received By:</b> 1 [Signature] <b>Date Time:</b>		<b>Relinquished By:</b> 2 [Signature] <b>Date Time:</b>		<b>Received By:</b> 2 [Signature] <b>Date Time:</b>																						
<b>Relinquished by Sampler:</b> 3 <b>Date Time:</b>		<b>Received By:</b> 3 <b>Date Time:</b>		<b>Relinquished By:</b> 4 <b>Date Time:</b>		<b>Received By:</b> 4 <b>Date Time:</b>																						
<b>Relinquished by:</b> 5 <b>Date Time:</b>		<b>Received By:</b> 5 <b>Date Time:</b>		<b>Custody Seal #</b> <input type="checkbox"/> Intact <input type="checkbox"/> Not Intact		<b>Preserved where applicable</b> <input type="checkbox"/> On Ice <input type="checkbox"/> Cool Temp.																						

RB



## 5.1

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JB15405  
JB15155\_12/6/2012

**Job Change Order:**

<b>Requested Date:</b>	12/6/2012	<b>Received Date:</b>	8/31/2012
<b>Account Name:</b>	Fleming-Lee Shue, Inc.	<b>Due Date:</b>	9/6/2012
<b>Project</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY	<b>Deliverable:</b>	COMMB
<b>CSR:</b>	TM	<b>TAT (Days):</b>	14
<b>Sample #:</b>	JB15155-all	<b>Change:</b>	please move samples from JB15155 to JB15405

**Above Changes Per:** Steve Panter **Date:** 12/6/2012

To Client: This Change Order is confirmation of the revisions, previously discussed with the Accutest Client Service

Page 1 of 1

**JB15405: Chain of Custody**  
**Page 5 of 7**



JB15405  
Job Change Order: JB14890\_12/6/2012

Requested Date:	12/6/2012	Received Date:	8/29/2012
Account Name:	Fleming-Lee Shue, Inc.	Due Date:	9/4/2012
Project	AFFCO, 361 Walsh Avenue, New Windsor, NY	Deliverable:	COMMB
CSR:	TM	TAT (Days):	14
Sample #:	JB14890-all	Change:	please move samples from JB14890 to JB15405

JB15405: Chain of Custody  
Page 6 of 7

Above Changes Per: Steve Panter Date: 12/6/2012  
To Client: This Change Order is confirmation of the revisions, previously discussed with the Accutest Client Service  
Page 1 of 1

**Job Change Order:** JB15405\_12/13/2012

<b>Requested Date:</b>	12/13/2012	<b>Received Date:</b>	8/29/2012
<b>Account Name:</b>	Fleming-Lee Shue, Inc.	<b>Due Date:</b>	9/4/2012
<b>Project</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY	<b>Deliverable:</b>	COMMB
<b>CSR:</b>	TM	<b>TAT (Days):</b>	14
<b>Sample #:</b>	JB15405-all	<b>Change:</b>	upgrade to NYASPB

**Above Changes Per:** Steve Panter **Date:** 12/13/2012

To Client: This Change Order is confirmation of the revisions, previously discussed with the Accutest Client Service

Page 1 of 1

**JB15405: Chain of Custody**  
**Page 7 of 7**



Reissue #1  
05/21/13

## Technical Report for

Fleming-Lee Shue, Inc.

AFFCO, 361 Walsh Avenue, New Windsor, NY

10000-003 / PO#FP0099

Accutest Job Number: JB34670

Sampling Date: 04/17/13

Report to:

Fleming-Lee Shue, Inc.

raphael@flemingleeshue.com

ATTN: Raphael Rosenbaum

Total number of pages in report: **39**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

A handwritten signature in black ink that reads 'Nancy F. Cole'.

Nancy Cole  
Laboratory Director

Client Service contact: Tammy McCloskey 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, DE, FL, IL, IN, KS, KY, LA, MA, MD, MI, MT, NC, OH VAP (CL0056), PA, RI, SC, TN, VA, WV

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

May 6, 2013

Mr. Steve Panter  
Fleming, Lee, Shue, Inc.  
158 West 29<sup>th</sup> Street  
9<sup>th</sup> Floor  
New York, NY 10001

Re: Accutest Job# JB34670

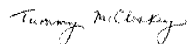
Dear Mr. Panter,

The final report for Accutest job number JB34670 has been edited to reflect corrections to the final report.

Specifically, the Case narrative summary's comment on QC batch V1A5479 has been revised to "All samples except JB34670-1 were analyzed within the recommended method holding time. JB34670-1 was analyzed outside 7 days holding time but results are confirmed on batch V1A5469 which was run within holding time, raw data from the confirmation run is included in this report." The revised report incorporates these revisions.

Please contact me if I can be of further assistance in the matter.

Sincerely,



Accutest Laboratories

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## Sample Summary

Fleming-Lee Shue, Inc.

Job No: JB34670

AFFCO, 361 Walsh Avenue, New Windsor, NY  
Project No: 10000-003 / PO#FP0099

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
JB34670-1	04/17/13	09:51 RB	04/18/13	AQ	Ground Water	EW-1X
JB34670-2	04/17/13	12:25 RB	04/18/13	AQ	Ground Water	S-8
JB34670-3	04/17/13	11:10 RB	04/18/13	AQ	Ground Water	EW-0
JB34670-4	04/17/13	13:19 RB	04/18/13	AQ	Ground Water	E1-N
JB34670-5	04/17/13	11:51 RB	04/18/13	AQ	Ground Water	MW-1N
JB34670-6	04/17/13	08:45 RB	04/18/13	AQ	Field Blank Water	FB041713
JB34670-7	04/17/13	13:19 RB	04/18/13	AQ	Trip Blank Water	TRIP BLANK

## CASE NARRATIVE / CONFORMANCE SUMMARY

**Client:** Fleming-Lee Shue, Inc.

**Job No** JB34670

**Site:** AFFCO, 361 Walsh Avenue, New Windsor, NY

**Report Date** 5/6/2013 9:49:55 AM

On 04/18/2013, 5 Sample(s), 1 Trip Blank(s) and 1 Field Blank(s) were received at Accutest Laboratories at a temperature of 4 C. Samples were intact and chemically preserved, unless noted below. An Accutest Job Number of JB34670 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

### Volatiles by GCMS By Method SW846 8260B

**Matrix:** AQ

**Batch ID:** V1A5469

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB33932-1MS, JB33932-1MSD were used as the QC samples indicated.
- JB34670-5: (pH=6)Sample is not acid preservation per method/client criteria. Sample analyzed within 7 days holding time.
- JB34670-5: (pH=6)Sample is not acid preservation per method/client criteria. Sample analyzed within 7 days holding time.
- JB34670-4: (pH=6)Sample is not acid preservation per method/client criteria. Sample analyzed within 7 days holding time.
- JB34670-3: (pH=6)Sample is not acid preservation per method/client criteria. Sample analyzed within 7 days holding time.
- JB34670-6: (pH=6)Sample pH did not satisfy field preservation criteria.

**Matrix:** AQ

**Batch ID:** V1A5471

- The data for SW846 8260B meets quality control requirements.
- JB34670-1: Confirmation run. (pH=6)Sample is not acid preservation per method/client criteria. Sample analyzed within 7 days holding time.

**Matrix:** AQ

**Batch ID:** V1A5479

- All samples except JB34670-1 were analyzed within the recommended method holding time. JB34670-1 was analyzed outside 7 days holding time but results are confirmed on batch V1A5469 which was run within holding time, raw data from the confirmation run is included in this report.
- Sample(s) JB34453-4MS, JB34453-4MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- JB34670-1: (pH=6)Sample pH did not satisfy field preservation criteria. Dilution required due to limited volume per client's request.

**Matrix:** AQ

**Batch ID:** V2A5720

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB34696-1MS, JB34696-1MSD were used as the QC samples indicated.
- Matrix Spike Recovery(s) for Bromomethane, Chloroethane, Chloromethane, Tetrachloroethene are outside control limits. Outside control limits due to matrix interference.
- Matrix Spike Duplicate Recovery(s) for Bromomethane, Chloroethane, Chloromethane, Tetrachloroethene are outside control limits. Probable cause due to matrix interference.
- JB34670-2: (pH=6)Sample is not acid preservation per method/client criteria. Sample analyzed within 7 days holding time.
- JB34670-3: (pH=6)Sample is not acid preservation per method/client criteria. Sample analyzed within 7 days holding time.

## Metals By Method EPA 200.7

**Matrix:** AQ

**Batch ID:** MP71452

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB34670-4MS, JB34670-4MSD, JB34670-4SDL were used as the QC samples for metals.

## Wet Chemistry By Method EPA 300/SW846 9056A

**Matrix:** AQ

**Batch ID:** GP71787

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB34722-2DUP, JB34722-2MS were used as the QC samples for Chloride, Sulfate, Chloride.

## Wet Chemistry By Method SM20 4500S2 F

**Matrix:** AQ

**Batch ID:** GN83727

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB34670-2MS, JB34670-3DUP were used as the QC samples for Sulfide.
- RPD(s) for Duplicate for Sulfide are outside control limits for sample GN83727-D1. RPD acceptable due to low duplicate and sample concentrations.

## Wet Chemistry By Method SM2320 B-11

**Matrix:** AQ

**Batch ID:** GN84023

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB34670-4DUP were used as the QC samples for Alkalinity, Total as CaCO<sub>3</sub>.

Accutest certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting Accutest's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

Accutest Laboratories is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by Accutest Laboratories indicated via signature on the report cover



## Summary of Hits

**Job Number:** JB34670  
**Account:** Fleming-Lee Shue, Inc.  
**Project:** AFFCO, 361 Walsh Avenue, New Windsor, NY  
**Collected:** 04/17/13

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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### JB34670-1 EW-1X

1,1-Dichloroethane <sup>a</sup>	22.9	10	1.1	ug/l	SW846 8260B
Iron	934000	1000		ug/l	EPA 200.7
Alkalinity, Total as CaCO3	89.2	5.0		mg/l	SM2320 B-11
Chloride	52.6	2.0		mg/l	EPA 300/SW846 9056A
Sulfate	29.2	10		mg/l	EPA 300/SW846 9056A

### JB34670-2 S-8

1,1-Dichloroethane <sup>b</sup>	11.8	1.0	0.11	ug/l	SW846 8260B
1,2-Dichloroethane <sup>b</sup>	0.70 J	1.0	0.26	ug/l	SW846 8260B
1,1-Dichloroethene <sup>b</sup>	3.5	1.0	0.19	ug/l	SW846 8260B
cis-1,2-Dichloroethene <sup>b</sup>	0.54 J	1.0	0.19	ug/l	SW846 8260B
1,2-Dichloroethene (total) <sup>b</sup>	0.54 J	1.0	0.19	ug/l	SW846 8260B
1,1,1-Trichloroethane <sup>b</sup>	1.4	1.0	0.24	ug/l	SW846 8260B
Trichloroethene <sup>b</sup>	1.1	1.0	0.22	ug/l	SW846 8260B
Iron	5790	100		ug/l	EPA 200.7
Alkalinity, Total as CaCO3	111	5.0		mg/l	SM2320 B-11
Chloride	43.8	2.0		mg/l	EPA 300/SW846 9056A
Sulfate	17.2	10		mg/l	EPA 300/SW846 9056A

### JB34670-3 EW-0

2-Butanone (MEK) <sup>b</sup>	14.1	10	2.4	ug/l	SW846 8260B
Chloroethane <sup>b</sup>	334	50	13	ug/l	SW846 8260B
Chloroform <sup>b</sup>	1.2	1.0	0.20	ug/l	SW846 8260B
1,1-Dichloroethane <sup>b</sup>	2540	50	5.3	ug/l	SW846 8260B
1,2-Dichloroethane <sup>b</sup>	17.5	1.0	0.26	ug/l	SW846 8260B
1,1-Dichloroethene <sup>b</sup>	144	1.0	0.19	ug/l	SW846 8260B
cis-1,2-Dichloroethene <sup>b</sup>	2.8	1.0	0.19	ug/l	SW846 8260B
trans-1,2-Dichloroethene <sup>b</sup>	2.2	1.0	0.21	ug/l	SW846 8260B
1,2-Dichloroethene (total) <sup>b</sup>	5.0	1.0	0.19	ug/l	SW846 8260B
Tetrachloroethene <sup>b</sup>	0.60 J	1.0	0.28	ug/l	SW846 8260B
Toluene <sup>b</sup>	8.0	1.0	0.23	ug/l	SW846 8260B
1,1,1-Trichloroethane <sup>b</sup>	8630	50	12	ug/l	SW846 8260B
1,1,2-Trichloroethane <sup>b</sup>	2.3	1.0	0.29	ug/l	SW846 8260B
Trichloroethene <sup>b</sup>	4.0	1.0	0.22	ug/l	SW846 8260B
Vinyl chloride <sup>b</sup>	4.8	1.0	0.21	ug/l	SW846 8260B
Iron	546	100		ug/l	EPA 200.7
Alkalinity, Total as CaCO3	124	5.0		mg/l	SM2320 B-11
Chloride	114	2.0		mg/l	EPA 300/SW846 9056A
Sulfate	93.8	10		mg/l	EPA 300/SW846 9056A

## Summary of Hits

**Job Number:** JB34670  
**Account:** Fleming-Lee Shue, Inc.  
**Project:** AFFCO, 361 Walsh Avenue, New Windsor, NY  
**Collected:** 04/17/13

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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### JB34670-4 E1-N

Chloroethane <sup>b</sup>	73.9	1.0	0.26	ug/l	SW846 8260B
1,1-Dichloroethane <sup>b</sup>	154	1.0	0.11	ug/l	SW846 8260B
1,1-Dichloroethene <sup>b</sup>	5.0	1.0	0.19	ug/l	SW846 8260B
1,1,1-Trichloroethane <sup>b</sup>	48.4	1.0	0.24	ug/l	SW846 8260B
Iron	804	100		ug/l	EPA 200.7
Alkalinity, Total as CaCO <sub>3</sub>	260	5.0		mg/l	SM2320 B-11
Chloride	37.1	2.0		mg/l	EPA 300/SW846 9056A

### JB34670-5 MW-1N

Chloroethane <sup>b</sup>	136	5.0	1.3	ug/l	SW846 8260B
Chloroform <sup>b</sup>	3.1 J	5.0	1.0	ug/l	SW846 8260B
1,1-Dichloroethane <sup>b</sup>	438	5.0	0.53	ug/l	SW846 8260B
1,2-Dichloroethane <sup>b</sup>	5.2	5.0	1.3	ug/l	SW846 8260B
1,1-Dichloroethene <sup>b</sup>	36.6	5.0	0.96	ug/l	SW846 8260B
Toluene <sup>b</sup>	1.6 J	5.0	1.1	ug/l	SW846 8260B
1,1,1-Trichloroethane <sup>b</sup>	1560	50	12	ug/l	SW846 8260B
Trichloroethene <sup>b</sup>	6.2	5.0	1.1	ug/l	SW846 8260B
Iron	805	100		ug/l	EPA 200.7
Alkalinity, Total as CaCO <sub>3</sub>	274	5.0		mg/l	SM2320 B-11
Chloride	57.1	2.0		mg/l	EPA 300/SW846 9056A
Sulfate	104	10		mg/l	EPA 300/SW846 9056A

### JB34670-6 FB041713

Iron	18500	100		ug/l	EPA 200.7
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### JB34670-7 TRIP BLANK

No hits reported in this sample.

- (a) (pH= 6)Sample pH did not satisfy field preservation criteria. Dilution required due to limited volume per client's request.
- (b) (pH= 6)Sample is not acid preservation per method/client criteria. Sample analyzed within 7 days holding time.

Sample Results

Report of Analysis

## Report of Analysis

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<b>Client Sample ID:</b>	EW-1X	<b>Date Sampled:</b>	04/17/13
<b>Lab Sample ID:</b>	JB34670-1	<b>Date Received:</b>	04/18/13
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	1A127322.D	10	04/29/13	CC	n/a	n/a	V1A5479
Run #2 <sup>b</sup>	1A127141.D	10	04/24/13	CC	n/a	n/a	V1A5471

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	100	33	ug/l	
71-43-2	Benzene	ND	10	2.4	ug/l	
75-27-4	Bromodichloromethane	ND	10	2.1	ug/l	
75-25-2	Bromoform	ND	40	2.1	ug/l	
74-83-9	Bromomethane	ND	20	2.2	ug/l	
78-93-3	2-Butanone (MEK)	ND	100	24	ug/l	
75-15-0	Carbon disulfide	ND	20	1.9	ug/l	
56-23-5	Carbon tetrachloride	ND	10	2.2	ug/l	
108-90-7	Chlorobenzene	ND	10	2.3	ug/l	
75-00-3	Chloroethane	ND	10	2.6	ug/l	
67-66-3	Chloroform	ND	10	2.0	ug/l	
74-87-3	Chloromethane	ND	10	2.1	ug/l	
124-48-1	Dibromochloromethane	ND	10	1.4	ug/l	
75-34-3	1,1-Dichloroethane	22.9	10	1.1	ug/l	
107-06-2	1,2-Dichloroethane	ND	10	2.6	ug/l	
75-35-4	1,1-Dichloroethene	ND	10	1.9	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	10	1.9	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	10	2.1	ug/l	
540-59-0	1,2-Dichloroethene (total)	ND	10	1.9	ug/l	
78-87-5	1,2-Dichloropropane	ND	10	4.8	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	10	2.1	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	10	1.9	ug/l	
100-41-4	Ethylbenzene	ND	10	2.3	ug/l	
591-78-6	2-Hexanone	ND	50	11	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	10	1.6	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	50	8.3	ug/l	
75-09-2	Methylene chloride	ND	20	7.0	ug/l	
100-42-5	Styrene	ND	50	2.1	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	10	2.1	ug/l	
127-18-4	Tetrachloroethene	ND	10	2.8	ug/l	
108-88-3	Toluene	ND	10	2.3	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	10	2.4	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> EW-1X	<b>Date Sampled:</b> 04/17/13
<b>Lab Sample ID:</b> JB34670-1	<b>Date Received:</b> 04/18/13
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B	
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	10	2.9	ug/l	
79-01-6	Trichloroethene	ND	10	2.2	ug/l	
75-01-4	Vinyl chloride	ND	10	2.1	ug/l	
1330-20-7	Xylene (total)	ND	10	2.4	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	85%	86%	81-121%
17060-07-0	1,2-Dichloroethane-D4	82%	83%	74-127%
2037-26-5	Toluene-D8	90%	90%	80-122%
460-00-4	4-Bromofluorobenzene	89%	88%	78-116%

- (a) (pH= 6)Sample pH did not satisfy field preservation criteria. Dilution required due to limited volume per client's request.
- (b) The associated QC data can not be retrieved back for processing, so the original analysis reported as confirmation run only. (pH= 6)Sample is not acid preservation per method/client criteria. Sample analyzed within 7 days holding time.

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

Report of Analysis

<b>Client Sample ID:</b>	EW-1X	<b>Date Sampled:</b>	04/17/13
<b>Lab Sample ID:</b>	JB34670-1	<b>Date Received:</b>	04/18/13
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Iron	934000	1000	ug/l	1	04/22/13	04/26/13 BL	EPA 200.7 <sup>1</sup>	EPA 200.7 <sup>2</sup>

(1) Instrument QC Batch: MA31059  
(2) Prep QC Batch: MP71452

RL = Reporting Limit

**Report of Analysis**

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<b>Client Sample ID:</b>	EW-1X	<b>Date Sampled:</b>	04/17/13
<b>Lab Sample ID:</b>	JB34670-1	<b>Date Received:</b>	04/18/13
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

**General Chemistry**

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO <sub>3</sub>	89.2	5.0	mg/l	1	04/25/13 17:03	JA	SM2320 B-11
Chloride	52.6	2.0	mg/l	1	04/30/13 11:56	NP	EPA 300/SW846 9056A
Sulfate	29.2	10	mg/l	1	04/30/13 11:56	NP	EPA 300/SW846 9056A

RL = Reporting Limit

## Report of Analysis

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<b>Client Sample ID:</b>	S-8	<b>Date Sampled:</b>	04/17/13
<b>Lab Sample ID:</b>	JB34670-2	<b>Date Received:</b>	04/18/13
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	2A133950.D	1	04/23/13	CC	n/a	n/a	V2A5720
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.21	ug/l	
75-25-2	Bromoform	ND	4.0	0.21	ug/l	
74-83-9	Bromomethane	ND	2.0	0.22	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.4	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.23	ug/l	
75-00-3	Chloroethane	ND	1.0	0.26	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.14	ug/l	
75-34-3	1,1-Dichloroethane	11.8	1.0	0.11	ug/l	
107-06-2	1,2-Dichloroethane	0.70	1.0	0.26	ug/l	J
75-35-4	1,1-Dichloroethene	3.5	1.0	0.19	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.54	1.0	0.19	ug/l	J
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.21	ug/l	
540-59-0	1,2-Dichloroethene (total)	0.54	1.0	0.19	ug/l	J
78-87-5	1,2-Dichloropropane	ND	1.0	0.48	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.23	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.1	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.16	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	0.83	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.70	ug/l	
100-42-5	Styrene	ND	5.0	0.21	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.28	ug/l	
108-88-3	Toluene	ND	1.0	0.23	ug/l	
71-55-6	1,1,1-Trichloroethane	1.4	1.0	0.24	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

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<b>Client Sample ID:</b> S-8	<b>Date Sampled:</b> 04/17/13
<b>Lab Sample ID:</b> JB34670-2	<b>Date Received:</b> 04/18/13
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B	
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.29	ug/l	
79-01-6	Trichloroethene	1.1	1.0	0.22	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.21	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.24	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		81-121%
17060-07-0	1,2-Dichloroethane-D4	92%		74-127%
2037-26-5	Toluene-D8	91%		80-122%
460-00-4	4-Bromofluorobenzene	93%		78-116%

(a) (pH= 6)Sample is not acid preservation per method/client criteria. Sample analyzed within 7 days holding time.

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

Report of Analysis

<b>Client Sample ID:</b>	S-8	<b>Date Sampled:</b>	04/17/13
<b>Lab Sample ID:</b>	JB34670-2	<b>Date Received:</b>	04/18/13
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Iron	5790	100	ug/l	1	04/22/13	04/25/13 BL	EPA 200.7 <sup>1</sup>	EPA 200.7 <sup>2</sup>

(1) Instrument QC Batch: MA31053  
(2) Prep QC Batch: MP71452

RL = Reporting Limit

## Report of Analysis

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<b>Client Sample ID:</b>	S-8	<b>Date Sampled:</b>	04/17/13
<b>Lab Sample ID:</b>	JB34670-2	<b>Date Received:</b>	04/18/13
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

## General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO <sub>3</sub>	111	5.0	mg/l	1	04/25/13 17:03	JA	SM2320 B-11
Chloride	43.8	2.0	mg/l	1	04/30/13 12:20	NP	EPA 300/SW846 9056A
Sulfate	17.2	10	mg/l	1	04/30/13 12:20	NP	EPA 300/SW846 9056A
Sulfide	< 2.0	2.0	mg/l	1	04/20/13	CB	SM20 4500S2 F

RL = Reporting Limit

## Report of Analysis

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<b>Client Sample ID:</b>	EW-0	<b>Date Sampled:</b>	04/17/13
<b>Lab Sample ID:</b>	JB34670-3	<b>Date Received:</b>	04/18/13
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	2A133951.D	1	04/23/13	CC	n/a	n/a	V2A5720
Run #2 <sup>a</sup>	1A127096.D	50	04/23/13	CC	n/a	n/a	V1A5469

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.21	ug/l	
75-25-2	Bromoform	ND	4.0	0.21	ug/l	
74-83-9	Bromomethane	ND	2.0	0.22	ug/l	
78-93-3	2-Butanone (MEK)	14.1	10	2.4	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.23	ug/l	
75-00-3	Chloroethane	334 <sup>b</sup>	50	13	ug/l	
67-66-3	Chloroform	1.2	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.14	ug/l	
75-34-3	1,1-Dichloroethane	2540 <sup>b</sup>	50	5.3	ug/l	
107-06-2	1,2-Dichloroethane	17.5	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethene	144	1.0	0.19	ug/l	
156-59-2	cis-1,2-Dichloroethene	2.8	1.0	0.19	ug/l	
156-60-5	trans-1,2-Dichloroethene	2.2	1.0	0.21	ug/l	
540-59-0	1,2-Dichloroethene (total)	5.0	1.0	0.19	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.48	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.23	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.1	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.16	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	0.83	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.70	ug/l	
100-42-5	Styrene	ND	5.0	0.21	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	0.60	1.0	0.28	ug/l	J
108-88-3	Toluene	8.0	1.0	0.23	ug/l	
71-55-6	1,1,1-Trichloroethane	8630 <sup>b</sup>	50	12	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 2 of 2

<b>Client Sample ID:</b> EW-0	<b>Date Sampled:</b> 04/17/13
<b>Lab Sample ID:</b> JB34670-3	<b>Date Received:</b> 04/18/13
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B	
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	2.3	1.0	0.29	ug/l	
79-01-6	Trichloroethene	4.0	1.0	0.22	ug/l	
75-01-4	Vinyl chloride	4.8	1.0	0.21	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.24	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	86%	83%	81-121%
17060-07-0	1,2-Dichloroethane-D4	86%	78%	74-127%
2037-26-5	Toluene-D8	95%	93%	80-122%
460-00-4	4-Bromofluorobenzene	93%	90%	78-116%

(a) (pH= 6)Sample is not acid preservation per method/client criteria. Sample analyzed within 7 days holding time.

(b) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

<b>Client Sample ID:</b>	EW-0	<b>Date Sampled:</b>	04/17/13
<b>Lab Sample ID:</b>	JB34670-3	<b>Date Received:</b>	04/18/13
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Iron	546	100	ug/l	1	04/22/13	04/25/13 BL	EPA 200.7 <sup>1</sup>	EPA 200.7 <sup>2</sup>

(1) Instrument QC Batch: MA31053  
(2) Prep QC Batch: MP71452

RL = Reporting Limit

**Report of Analysis**

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<b>Client Sample ID:</b>	EW-0	<b>Date Sampled:</b>	04/17/13
<b>Lab Sample ID:</b>	JB34670-3	<b>Date Received:</b>	04/18/13
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

**General Chemistry**

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO <sub>3</sub>	124	5.0	mg/l	1	04/25/13 17:03	JA	SM2320 B-11
Chloride	114	2.0	mg/l	1	04/30/13 12:44	NP	EPA 300/SW846 9056A
Sulfate	93.8	10	mg/l	1	04/30/13 12:44	NP	EPA 300/SW846 9056A
Sulfide	< 2.0	2.0	mg/l	1	04/20/13	CB	SM20 4500S2 F

RL = Reporting Limit

## Report of Analysis

Page 1 of 2

<b>Client Sample ID:</b>	E1-N	<b>Date Sampled:</b>	04/17/13
<b>Lab Sample ID:</b>	JB34670-4	<b>Date Received:</b>	04/18/13
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	1A127095.D	1	04/23/13	CC	n/a	n/a	V1A5469
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.21	ug/l	
75-25-2	Bromoform	ND	4.0	0.21	ug/l	
74-83-9	Bromomethane	ND	2.0	0.22	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.4	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.23	ug/l	
75-00-3	Chloroethane	73.9	1.0	0.26	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.14	ug/l	
75-34-3	1,1-Dichloroethane	154	1.0	0.11	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethene	5.0	1.0	0.19	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.19	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.21	ug/l	
540-59-0	1,2-Dichloroethene (total)	ND	1.0	0.19	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.48	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.23	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.1	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.16	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	0.83	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.70	ug/l	
100-42-5	Styrene	ND	5.0	0.21	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.28	ug/l	
108-88-3	Toluene	ND	1.0	0.23	ug/l	
71-55-6	1,1,1-Trichloroethane	48.4	1.0	0.24	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

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<b>Client Sample ID:</b> E1-N	<b>Date Sampled:</b> 04/17/13
<b>Lab Sample ID:</b> JB34670-4	<b>Date Received:</b> 04/18/13
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B	
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.29	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.21	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.24	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	85%		81-121%
17060-07-0	1,2-Dichloroethane-D4	81%		74-127%
2037-26-5	Toluene-D8	93%		80-122%
460-00-4	4-Bromofluorobenzene	88%		78-116%

(a) (pH= 6)Sample is not acid preservation per method/client criteria. Sample analyzed within 7 days holding time.

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

Report of Analysis

<b>Client Sample ID:</b>	E1-N	<b>Date Sampled:</b>	04/17/13
<b>Lab Sample ID:</b>	JB34670-4	<b>Date Received:</b>	04/18/13
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Iron	804	100	ug/l	1	04/22/13	04/23/13 ND	EPA 200.7 <sup>1</sup>	EPA 200.7 <sup>2</sup>

(1) Instrument QC Batch: MA31028  
(2) Prep QC Batch: MP71452

RL = Reporting Limit

## Report of Analysis

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<b>Client Sample ID:</b>	E1-N	<b>Date Sampled:</b>	04/17/13
<b>Lab Sample ID:</b>	JB34670-4	<b>Date Received:</b>	04/18/13
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

## General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO <sub>3</sub>	260	5.0	mg/l	1	04/25/13 17:03	JA	SM2320 B-11
Chloride	37.1	2.0	mg/l	1	04/30/13 13:08	NP	EPA 300/SW846 9056A
Sulfate	< 10	10	mg/l	1	04/30/13 13:08	NP	EPA 300/SW846 9056A
Sulfide	< 2.0	2.0	mg/l	1	04/20/13	CB	SM20 4500S2 F

RL = Reporting Limit

## Report of Analysis

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<b>Client Sample ID:</b>	MW-1N	<b>Date Sampled:</b>	04/17/13
<b>Lab Sample ID:</b>	JB34670-5	<b>Date Received:</b>	04/18/13
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	1A127097.D	5	04/23/13	CC	n/a	n/a	V1A5469
Run #2 <sup>a</sup>	1A127098.D	50	04/23/13	CC	n/a	n/a	V1A5469

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	50	16	ug/l	
71-43-2	Benzene	ND	5.0	1.2	ug/l	
75-27-4	Bromodichloromethane	ND	5.0	1.0	ug/l	
75-25-2	Bromoform	ND	20	1.1	ug/l	
74-83-9	Bromomethane	ND	10	1.1	ug/l	
78-93-3	2-Butanone (MEK)	ND	50	12	ug/l	
75-15-0	Carbon disulfide	ND	10	0.95	ug/l	
56-23-5	Carbon tetrachloride	ND	5.0	1.1	ug/l	
108-90-7	Chlorobenzene	ND	5.0	1.1	ug/l	
75-00-3	Chloroethane	136	5.0	1.3	ug/l	
67-66-3	Chloroform	3.1	5.0	1.0	ug/l	J
74-87-3	Chloromethane	ND	5.0	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	5.0	0.68	ug/l	
75-34-3	1,1-Dichloroethane	438	5.0	0.53	ug/l	
107-06-2	1,2-Dichloroethane	5.2	5.0	1.3	ug/l	
75-35-4	1,1-Dichloroethene	36.6	5.0	0.96	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	5.0	0.94	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	5.0	1.1	ug/l	
540-59-0	1,2-Dichloroethene (total)	ND	5.0	0.94	ug/l	
78-87-5	1,2-Dichloropropane	ND	5.0	2.4	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	0.95	ug/l	
100-41-4	Ethylbenzene	ND	5.0	1.1	ug/l	
591-78-6	2-Hexanone	ND	25	5.7	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	5.0	0.82	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	25	4.1	ug/l	
75-09-2	Methylene chloride	ND	10	3.5	ug/l	
100-42-5	Styrene	ND	25	1.1	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	1.1	ug/l	
127-18-4	Tetrachloroethene	ND	5.0	1.4	ug/l	
108-88-3	Toluene	1.6	5.0	1.1	ug/l	J
71-55-6	1,1,1-Trichloroethane	1560 <sup>b</sup>	50	12	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 2 of 2

<b>Client Sample ID:</b> MW-1N	<b>Date Sampled:</b> 04/17/13
<b>Lab Sample ID:</b> JB34670-5	<b>Date Received:</b> 04/18/13
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B	
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	5.0	1.4	ug/l	
79-01-6	Trichloroethene	6.2	5.0	1.1	ug/l	
75-01-4	Vinyl chloride	ND	5.0	1.0	ug/l	
1330-20-7	Xylene (total)	ND	5.0	1.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	84%	84%	81-121%
17060-07-0	1,2-Dichloroethane-D4	78%	80%	74-127%
2037-26-5	Toluene-D8	93%	90%	80-122%
460-00-4	4-Bromofluorobenzene	88%	88%	78-116%

(a) (pH= 6)Sample is not acid preservation per method/client criteria. Sample analyzed within 7 days holding time.

(b) Result is from Run# 2

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

<b>Client Sample ID:</b>	MW-1N	<b>Date Sampled:</b>	04/17/13
<b>Lab Sample ID:</b>	JB34670-5	<b>Date Received:</b>	04/18/13
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Iron	805	100	ug/l	1	04/22/13	04/25/13 BL	EPA 200.7 <sup>1</sup>	EPA 200.7 <sup>2</sup>

(1) Instrument QC Batch: MA31053  
(2) Prep QC Batch: MP71452

RL = Reporting Limit

Report of Analysis

<b>Client Sample ID:</b>	MW-1N	<b>Date Sampled:</b>	04/17/13
<b>Lab Sample ID:</b>	JB34670-5	<b>Date Received:</b>	04/18/13
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	274	5.0	mg/l	1	04/25/13 17:03	JA	SM2320 B-11
Chloride	57.1	2.0	mg/l	1	04/30/13 13:32	NP	EPA 300/SW846 9056A
Sulfate	104	10	mg/l	1	04/30/13 13:32	NP	EPA 300/SW846 9056A
Sulfide	< 2.0	2.0	mg/l	1	04/20/13	CB	SM20 4500S2 F

RL = Reporting Limit

## Report of Analysis

Page 1 of 2

<b>Client Sample ID:</b>	FB041713	<b>Date Sampled:</b>	04/17/13
<b>Lab Sample ID:</b>	JB34670-6	<b>Date Received:</b>	04/18/13
<b>Matrix:</b>	AQ - Field Blank Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	1A127094.D	1	04/23/13	CC	n/a	n/a	V1A5469
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.21	ug/l	
75-25-2	Bromoform	ND	4.0	0.21	ug/l	
74-83-9	Bromomethane	ND	2.0	0.22	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.4	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.23	ug/l	
75-00-3	Chloroethane	ND	1.0	0.26	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.14	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.11	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.19	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.19	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.21	ug/l	
540-59-0	1,2-Dichloroethene (total)	ND	1.0	0.19	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.48	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.23	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.1	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.16	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	0.83	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.70	ug/l	
100-42-5	Styrene	ND	5.0	0.21	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.28	ug/l	
108-88-3	Toluene	ND	1.0	0.23	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.24	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

Page 2 of 2

<b>Client Sample ID:</b> FB041713	<b>Date Sampled:</b> 04/17/13
<b>Lab Sample ID:</b> JB34670-6	<b>Date Received:</b> 04/18/13
<b>Matrix:</b> AQ - Field Blank Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B	
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.29	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.21	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.24	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	83%		81-121%
17060-07-0	1,2-Dichloroethane-D4	79%		74-127%
2037-26-5	Toluene-D8	91%		80-122%
460-00-4	4-Bromofluorobenzene	90%		78-116%

(a) (pH= 6)Sample pH did not satisfy field preservation criteria.

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

Report of Analysis

<b>Client Sample ID:</b>	FB041713	<b>Date Sampled:</b>	04/17/13
<b>Lab Sample ID:</b>	JB34670-6	<b>Date Received:</b>	04/18/13
<b>Matrix:</b>	AQ - Field Blank Water	<b>Percent Solids:</b>	n/a
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Iron	18500	100	ug/l	1	04/22/13	04/25/13 BL	EPA 200.7 <sup>1</sup>	EPA 200.7 <sup>2</sup>

(1) Instrument QC Batch: MA31053  
(2) Prep QC Batch: MP71452

RL = Reporting Limit

## Report of Analysis

Page 1 of 1

**Client Sample ID:** FB041713**Lab Sample ID:** JB34670-6**Matrix:** AQ - Field Blank Water**Project:** AFFCO, 361 Walsh Avenue, New Windsor, NY**Date Sampled:** 04/17/13**Date Received:** 04/18/13**Percent Solids:** n/a

## General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO <sub>3</sub>	< 5.0	5.0	mg/l	1	04/25/13 17:03	JA	SM2320 B-11
Chloride	< 2.0	2.0	mg/l	1	04/30/13 13:55	NP	EPA 300/SW846 9056A
Sulfate	< 10	10	mg/l	1	04/30/13 13:55	NP	EPA 300/SW846 9056A
Sulfide	< 2.0	2.0	mg/l	1	04/20/13	CB	SM20 4500S2 F

RL = Reporting Limit

## Report of Analysis

Page 1 of 2

<b>Client Sample ID:</b>	TRIP BLANK	<b>Date Sampled:</b>	04/17/13
<b>Lab Sample ID:</b>	JB34670-7	<b>Date Received:</b>	04/18/13
<b>Matrix:</b>	AQ - Trip Blank Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A127093.D	1	04/23/13	CC	n/a	n/a	V1A5469
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.21	ug/l	
75-25-2	Bromoform	ND	4.0	0.21	ug/l	
74-83-9	Bromomethane	ND	2.0	0.22	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.4	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.23	ug/l	
75-00-3	Chloroethane	ND	1.0	0.26	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.14	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.11	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.19	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.19	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.21	ug/l	
540-59-0	1,2-Dichloroethene (total)	ND	1.0	0.19	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.48	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.23	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.1	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.16	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	0.83	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.70	ug/l	
100-42-5	Styrene	ND	5.0	0.21	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.28	ug/l	
108-88-3	Toluene	ND	1.0	0.23	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.24	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 2 of 2

<b>Client Sample ID:</b> TRIP BLANK	<b>Date Sampled:</b> 04/17/13
<b>Lab Sample ID:</b> JB34670-7	<b>Date Received:</b> 04/18/13
<b>Matrix:</b> AQ - Trip Blank Water	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B	
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.29	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.21	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.24	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	83%		81-121%
17060-07-0	1,2-Dichloroethane-D4	78%		74-127%
2037-26-5	Toluene-D8	90%		80-122%
460-00-4	4-Bromofluorobenzene	88%		78-116%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Misc. Forms

5

### Custody Documents and Other Forms

---

Includes the following where applicable:

- Chain of Custody

2235 Route 130, Dayton, NJ 08810  
TEL: 732-329-0200 FAX: 732-329-3499/3480  
www.accutest.com

FED-EX Tracking #		Bottle Order Control #	
Accutest Quote #		Accutest Job # <b>JB34670</b>	
Client / Reporting Information		Project Information	
Company Name <b>FLEMING-LEE SHVE</b>		Project Name <b>HEFIO</b>	
Street Address <b>158 WEST 27th STREET</b>		Street <b>360 WASH AVE</b>	
City <b>NY</b> State <b>NY</b> Zip <b>10001</b>		City <b>NEW YORK</b> State <b>NY</b> Zip <b>10001</b>	
Project Contact <b>S. PANTER</b>		Project # <b>10000</b>	
Phone # <b>212-675-3225</b>		Client Purchase Order #	
Fax #		City State Zip	
Sampler(s) Name(s) <b>S. PANTER / Robert Blaz / Robert Blaz</b>		Project Manager <b>S. PANTER</b>	
Phone # <b>(646) 841-3109</b>		Attention:	
Field ID / Point of Collection		Collection	
Accutest Sample #	Field ID / Point of Collection	MEQHD1 Val #	Date Time
1	EW-1X		4/17/13 9:51 RB
2	E1-N		4/17/13 12:25 RB
3	EW-D		4/17/13 11:10 RB
4	S-8		4/17/13 13:19 RB
5	MW-1N		4/17/13 11:51 RB
6	FB041713		4/17/13 8:45 RB
7	TRIP BLANK		4/15/13 600 TB
Turnaround Time (Business days)		Data Deliverable Information	
<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY <input type="checkbox"/> other		<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> NJ Reduced <input type="checkbox"/> Commercial "C" <input type="checkbox"/> NYASP Category A <input checked="" type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other	
Approved By (Accutest PM): / Date:		Comments / Special Instructions <b>VOCS are <u>un</u> preserved</b>	
Emergency & Rush TIA data available VOA Lablink		Commercial "A" = Results Only Commercial "B" = Results + QC Summary NJ Reduced = Results + QC Summary + Partial Raw data	
Sample Custody must be documented below each time samples change possession, including courier delivery.			
Relinquished by Sampler:	Date Time:	Received By:	Date Time:
Relinquished by Sampler:	Date Time:	Received By:	Date Time:
Relinquished by:	Date Time:	Received By:	Date Time:
Custody Seal #	Intact	Preserved when applicable	On Ice
750	<input checked="" type="checkbox"/> Intact	<input checked="" type="checkbox"/> Preserved	<input checked="" type="checkbox"/> On Ice
			Cooler Temp. 4.0B

JB34670: Chain of Custody

Page 1 of 3

## Accutest Laboratories Sample Receipt Summary

**Accutest Job Number:** JB34670      **Client:** \_\_\_\_\_      **Project:** \_\_\_\_\_  
**Date / Time Received:** 4/18/2013      **Delivery Method:** \_\_\_\_\_      **Airbill #s:** \_\_\_\_\_  
**Cooler Temps (Initial/Adjusted):** #1: (4/4); 0

**Cooler Security**

<u>Y or N</u>	<u>Y or N</u>
1. Custody Seals Present: <input checked="" type="checkbox"/> <input type="checkbox"/>	3. COC Present: <input checked="" type="checkbox"/> <input type="checkbox"/>
2. Custody Seals Intact: <input checked="" type="checkbox"/> <input type="checkbox"/>	4. Smpl Dates/Time OK <input checked="" type="checkbox"/> <input type="checkbox"/>

**Cooler Temperature**

<u>Y or N</u>	<u>Y or N</u>
1. Temp criteria achieved: <input checked="" type="checkbox"/> <input type="checkbox"/>	
2. Cooler temp verification: _____	Bar Therm
3. Cooler media: _____	Ice (Bag)
4. No. Coolers: _____	1

**Quality Control Preservation**

<u>Y or N</u>	<u>N/A</u>
1. Trip Blank present / cooler: <input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>
2. Trip Blank listed on COC: <input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>
3. Samples preserved properly: <input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>
4. VOCs headspace free: <input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>

**Sample Integrity - Documentation**

<u>Y or N</u>	<u>Y or N</u>
1. Sample labels present on bottles: <input checked="" type="checkbox"/> <input type="checkbox"/>	
2. Container labeling complete: <input checked="" type="checkbox"/> <input type="checkbox"/>	
3. Sample container label / COC agree: <input checked="" type="checkbox"/> <input type="checkbox"/>	

**Sample Integrity - Condition**

<u>Y or N</u>	<u>Y or N</u>
1. Sample recvd within HT: <input checked="" type="checkbox"/> <input type="checkbox"/>	
2. All containers accounted for: <input checked="" type="checkbox"/> <input type="checkbox"/>	
3. Condition of sample: _____	Intact

**Sample Integrity - Instructions**

<u>Y or N</u>	<u>N/A</u>
1. Analysis requested is clear: <input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>
2. Bottles received for unspecified tests: <input type="checkbox"/> <input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Sufficient volume recvd for analysis: <input checked="" type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>
4. Compositing instructions clear: <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Filtering instructions clear: <input type="checkbox"/> <input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments



Requested Date: 4/30/2013 Received Date: 4/18/2013  
Account Name: Fleming-Lee Shue, Inc. Due Date: 5/2/2013  
Project AFCCO, 361 Walsh Avenue, New Windsor, NY Deliverable: NYASPB  
CSR: tammym TAT (Days): 1

Sample #: JB34670-2 Change: revise sample ID to S-8  
Dept:

E1-N

Sample #: JB34670-4 Change: revise sample ID to E1-N  
Dept:

S-8

Above Changes Per: Rahul Bhatia

Date: 4/30/2013

To Client: This Change Order is confirmation of the revisions, previously discussed with the Accutest Client Service



05/21/13

## Technical Report for

Fleming-Lee Shue, Inc.

AFFCO, 361 Walsh Avenue, New Windsor, NY

10000-003 / PO#FP0099

Accutest Job Number: JB32749

Sampling Date: 03/27/13

Report to:

Fleming-Lee Shue, Inc.

raphael@flemingleeshue.com

ATTN: Raphael Rosenbaum

Total number of pages in report: **80**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

A handwritten signature in black ink that reads 'Nancy Cole'.

Nancy Cole  
Laboratory Director

Client Service contact: Tammy McCloskey 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, DE, FL, IL, IN, KS, KY, LA, MA, MD, MI, MT, NC, OH VAP (CL0056), PA, RI, SC, TN, VA, WV

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Test results relate only to samples analyzed.

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## Sample Summary

Fleming-Lee Shue, Inc.

Job No: JB32749

AFFCO, 361 Walsh Avenue, New Windsor, NY  
Project No: 10000-003 / PO#FP0099

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
JB32749-1	03/27/13	17:30 RB	03/29/13	AQ	Trip Blank Soil	TRIP BLANK
JB32749-2	03/27/13	07:30 RB	03/29/13	AQ	Field Blank Soil	FIELD BLANK 1
JB32749-3	03/27/13	08:00 RB	03/29/13	AQ	Field Blank Soil	FIELD BLANK 2
JB32749-4	03/27/13	13:40 RB	03/29/13	SO	Soil	1.1 (12.5-13)
JB32749-5	03/27/13	13:45 RB	03/29/13	SO	Soil	1.1 (13-13.5)
JB32749-6	03/27/13	13:50 RB	03/29/13	SO	Soil	1.1 (14.5-15)
JB32749-7	03/27/13	10:55 RB	03/29/13	SO	Soil	1.2 (13-13.5)
JB32749-8	03/27/13	10:50 RB	03/29/13	SO	Soil	1.2 (11-11.5)
JB32749-9	03/27/13	11:00 RB	03/29/13	SO	Soil	1.2 (14-14.5)
JB32749-10	03/27/13	12:40 RB	03/29/13	SO	Soil	2.1 (12.5-13)
JB32749-11	03/27/13	12:35 RB	03/29/13	SO	Soil	2.1 (11.5-12)
JB32749-12	03/27/13	12:30 RB	03/29/13	SO	Soil	2.1 (10-10.5)
JB32749-13	03/27/13	11:45 RB	03/29/13	SO	Soil	2.2 (12.5-13)

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

**Sample Summary**

(continued)

Fleming-Lee Shue, Inc.

**Job No:** JB32749

AFFCO, 361 Walsh Avenue, New Windsor, NY

Project No: 10000-003 / PO#FP0099

Sample Number	Collected			Received	Matrix		Client Sample ID
	Date	Time	By		Code	Type	
JB32749-14	03/27/13	11:40	RB	03/29/13	SO	Soil	2.2 (11-11.5)
JB32749-15	03/27/13	11:50	RB	03/29/13	SO	Soil	2.2 (14-14.5)
JB32749-16	03/27/13	14:45	RB	03/29/13	SO	Soil	3 (13.5-14)
JB32749-17	03/27/13	14:50	RB	03/29/13	SO	Soil	3 (14.5-15)
JB32749-18	03/27/13	14:35	RB	03/29/13	SO	Soil	3 (12.5-13)
JB32749-19	03/27/13	15:20	RB	03/29/13	SO	Soil	4 (11-11.5)
JB32749-20	03/27/13	15:10	RB	03/29/13	SO	Soil	4 (10-10.5)
JB32749-21	03/27/13	15:30	RB	03/29/13	SO	Soil	4 (14.5-15)
JB32749-22	03/27/13	17:20	RB	03/29/13	SO	Soil	5 (13.5-14)
JB32749-23	03/27/13	17:25	RB	03/29/13	SO	Soil	5 (14-14.5)
JB32749-24	03/27/13	17:30	RB	03/29/13	SO	Soil	5 (14.5-15)
JB32749-25	03/27/13	16:30	RB	03/29/13	SO	Soil	6 (11.5-12)
JB32749-26	03/27/13	16:45	RB	03/29/13	SO	Soil	6 (12.5-13)

Soil samples reported on a dry weight basis unless otherwise indicated on result page.



## Sample Summary

(continued)

Fleming-Lee Shue, Inc.

**Job No:** JB32749

AFFCO, 361 Walsh Avenue, New Windsor, NY

Project No: 10000-003 / PO#FP0099

Sample Number	Collected		Time By	Received	Matrix		Client Sample ID
	Date				Code	Type	
JB32749-27	03/27/13	17:00	RB	03/29/13	SO	Soil	6 (14.5-15)
JB32749-28	03/27/13	16:30	RB	03/29/13	SO	Soil	FD-1 6(11.5-12)
JB32749-29	03/27/13	17:00	RB	03/29/13	SO	Soil	FD-2 6(14.5-15)

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Soil samples reported on a dry weight basis unless otherwise indicated on result page.

## CASE NARRATIVE / CONFORMANCE SUMMARY

**Client:** Fleming-Lee Shue, Inc.

**Job No** JB32749

**Site:** AFFCO, 361 Walsh Avenue, New Windsor, NY

**Report Date** 4/18/2013 10:43:04 A

On 03/29/2013, 26 Sample(s), 1 Trip Blank(s) and 2 Field Blank(s) were received at Accutest Laboratories at a temperature of 12.1 C. Samples were intact and chemically preserved, unless noted below. An Accutest Job Number of JB32749 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section. \*\*\* Sample was received at 12.1 degrees C. and OK to analysis per Steve Panter .

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

### Volatiles by GCMS By Method SW846 8260B

**Matrix:** LEACHATE

**Batch ID:** V2C4870

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- RPD(s) for Duplicate for Chloroform are outside control limits for sample JB32594-2DUP. High RPD due to low concentration of hit
- JB32594-2DUP for Tetrachloroethene: High RPD due to possible sample analyzed from different vials.
- Sample(s) JB32594-1MS, JB32594-2DUP were used as the QC samples indicated.

**Matrix:** SO

**Batch ID:** VC6486

- All samples were analyzed within the recommended method holding time.
- Sample(s) JB32836-1MS, JB32836-2DUP were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

**Matrix:** SO

**Batch ID:** VC6488

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB32749-27MS, JB32749-19DUP were used as the QC samples indicated.
- Matrix Spike Recovery(s) for 1,1,2,2-Tetrachloroethane are outside control limits. Outside control limits due to matrix interference.
- RPD(s) for Duplicate for 1,1,1-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,2-Dichloroethane, 1,2-Dichloroethene (total), Acetone, Chloroethane, cis-1,2-Dichloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl chloride are outside control limits for sample JB32749-19DUP. High RPD due to possible sample analyzed from different vials.
- JB32749-27MS for 4-Bromofluorobenzene: Outside control limits due to matrix interference.

**Matrix:** SO

**Batch ID:** VC6492

- All samples were analyzed within the recommended method holding time.
- Sample(s) JB32653-1MS, JB32653-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- VC6492-BS for 1,1,2,2-Tetrachloroethane: High percent recoveries and no associated positive found in the QC batch.

**Matrix:** SO

**Batch ID:** VE8870

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB33072-7MS, JB33072-7MSD were used as the QC samples indicated.

## Volatiles by GCMS By Method SW846 8260B

**Matrix:** SO

**Batch ID:** VE8871

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB32576-4MS, JB32576-4MSD were used as the QC samples indicated.
- JB32749-18: Diluted due to high concentration of non-target compound.
- JB32749-16: Diluted due to high concentration of non-target compound.

**Matrix:** SO

**Batch ID:** VE8875

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB32576-16MS, JB32576-16MSD were used as the QC samples indicated.

**Matrix:** SO

**Batch ID:** VE8876

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB32749-21MS, JB32749-21MSD were used as the QC samples indicated.

**Matrix:** SO

**Batch ID:** VE8878

- All samples were analyzed within the recommended method holding time.
- Sample(s) JB33550-8MS, JB33550-8MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike Duplicate Recovery(s) for Toluene are outside control limits. Outside control limits due to matrix interference.
- JB32749-17: Diluted due to high concentration of non-target compound.

## Wet Chemistry By Method ASTM 4643-00

**Matrix:** SO

**Batch ID:** GN82679

- The data for ASTM 4643-00 meets quality control requirements.

## Wet Chemistry By Method SM2540 G-97

**Matrix:** SO

**Batch ID:** GN82673

- The data for SM2540 G-97 meets quality control requirements.

Accutest certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting Accutest's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

Accutest Laboratories is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by Accutest Laboratories indicated via signature on the report cover



## Summary of Hits

**Job Number:** JB32749  
**Account:** Fleming-Lee Shue, Inc.  
**Project:** AFFCO, 361 Walsh Avenue, New Windsor, NY  
**Collected:** 03/27/13



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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### JB32749-1 TRIP BLANK

Bromoform	0.71 J	4.0	0.21	ug/l	SW846 8260B
Dibromochloromethane	0.35 J	1.0	0.14	ug/l	SW846 8260B

### JB32749-2 FIELD BLANK 1

No hits reported in this sample.

### JB32749-3 FIELD BLANK 2

No hits reported in this sample.

### JB32749-4 1.1 (12.5-13)

1,1-Dichloroethane	1080	420	11	ug/kg	SW846 8260B
1,2-Dichloroethane	232	83	11	ug/kg	SW846 8260B
1,1-Dichloroethene	1140	420	21	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	83.2 J	420	15	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	101 J	420	20	ug/kg	SW846 8260B
1,2-Dichloroethene (total)	184 J	420	15	ug/kg	SW846 8260B
Tetrachloroethene	37.9 J	420	14	ug/kg	SW846 8260B
Toluene	109	83	8.7	ug/kg	SW846 8260B
1,1,1-Trichloroethane	18700	4200	88	ug/kg	SW846 8260B
Trichloroethene	1130	420	14	ug/kg	SW846 8260B

### JB32749-5 1.1 (13-13.5)

Acetone	10.9 J	12	1.9	ug/kg	SW846 8260B
Carbon disulfide	1.8 J	5.8	0.13	ug/kg	SW846 8260B
Chloroethane	25.4	5.8	0.26	ug/kg	SW846 8260B
1,1-Dichloroethane	183	5.8	0.16	ug/kg	SW846 8260B
1,2-Dichloroethane	1.0 J	1.2	0.16	ug/kg	SW846 8260B
1,1-Dichloroethene	32.0	5.8	0.30	ug/kg	SW846 8260B
Methylene chloride	4.4 J	5.8	1.5	ug/kg	SW846 8260B
Toluene	0.43 J	1.2	0.12	ug/kg	SW846 8260B
1,1,1-Trichloroethane	2860	500	11	ug/kg	SW846 8260B
Trichloroethene	0.81 J	5.8	0.20	ug/kg	SW846 8260B

### JB32749-6 1.1 (14.5-15)

Carbon disulfide	2.2 J	6.5	0.15	ug/kg	SW846 8260B
Chloroethane	54.7	6.5	0.30	ug/kg	SW846 8260B
1,1-Dichloroethane	79.4	6.5	0.18	ug/kg	SW846 8260B
1,1-Dichloroethene	15.3	6.5	0.33	ug/kg	SW846 8260B

## Summary of Hits

**Job Number:** JB32749**Account:** Fleming-Lee Shue, Inc.**Project:** AFFCO, 361 Walsh Avenue, New Windsor, NY**Collected:** 03/27/13

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
trans-1,2-Dichloroethene		1.3 J	6.5	0.31	ug/kg	SW846 8260B
1,2-Dichloroethene (total)		1.3 J	6.5	0.24	ug/kg	SW846 8260B
Methylene chloride		2.1 J	6.5	1.7	ug/kg	SW846 8260B
Toluene		1.0 J	1.3	0.14	ug/kg	SW846 8260B
1,1,1-Trichloroethane		144	6.5	0.14	ug/kg	SW846 8260B
Trichloroethene		0.90 J	6.5	0.23	ug/kg	SW846 8260B
Vinyl chloride		0.77 J	6.5	0.19	ug/kg	SW846 8260B

### JB32749-7 1.2 (13-13.5)

Acetone	27.2	14	2.4	ug/kg	SW846 8260B
2-Butanone (MEK)	29.0	14	3.3	ug/kg	SW846 8260B
Carbon disulfide	1.1 J	7.0	0.16	ug/kg	SW846 8260B
Chloroethane	480 J	550	25	ug/kg	SW846 8260B
1,1-Dichloroethane	3950	550	15	ug/kg	SW846 8260B
1,2-Dichloroethane	14.2	1.4	0.19	ug/kg	SW846 8260B
1,1-Dichloroethene	41.7	7.0	0.36	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	0.77 J	7.0	0.26	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	0.47 J	7.0	0.33	ug/kg	SW846 8260B
1,2-Dichloroethene (total)	1.2 J	7.0	0.26	ug/kg	SW846 8260B
Methylene chloride	2.8 J	7.0	1.8	ug/kg	SW846 8260B
Toluene	5.7	1.4	0.15	ug/kg	SW846 8260B
1,1,1-Trichloroethane	2130	550	12	ug/kg	SW846 8260B
1,1,2-Trichloroethane	0.84 J	7.0	0.24	ug/kg	SW846 8260B
Trichloroethene	0.89 J	7.0	0.24	ug/kg	SW846 8260B
Vinyl chloride	10.9	7.0	0.20	ug/kg	SW846 8260B

### JB32749-8 1.2 (11-11.5)

Acetone	30.1	15	2.5	ug/kg	SW846 8260B
2-Butanone (MEK)	21.8	15	3.5	ug/kg	SW846 8260B
Carbon disulfide	1.5 J	7.3	0.17	ug/kg	SW846 8260B
Chloroethane	659 J	770	35	ug/kg	SW846 8260B
1,1-Dichloroethane	6220	770	21	ug/kg	SW846 8260B
1,2-Dichloroethane	11.9	1.5	0.20	ug/kg	SW846 8260B
1,1-Dichloroethene	85.3	7.3	0.37	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	0.63 J	7.3	0.27	ug/kg	SW846 8260B
1,2-Dichloroethene (total)	0.63 J	7.3	0.27	ug/kg	SW846 8260B
Ethylbenzene	0.80 J	1.5	0.38	ug/kg	SW846 8260B
Methylene chloride	5.2 J	7.3	1.8	ug/kg	SW846 8260B
Toluene	2.3	1.5	0.15	ug/kg	SW846 8260B
1,1,1-Trichloroethane	1560	770	16	ug/kg	SW846 8260B
1,1,2-Trichloroethane	0.57 J	7.3	0.25	ug/kg	SW846 8260B
Trichloroethene	1.6 J	7.3	0.25	ug/kg	SW846 8260B
Vinyl chloride	7.9	7.3	0.21	ug/kg	SW846 8260B

## Summary of Hits

**Job Number:** JB32749  
**Account:** Fleming-Lee Shue, Inc.  
**Project:** AFFCO, 361 Walsh Avenue, New Windsor, NY  
**Collected:** 03/27/13

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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Xylene (total)		0.65 J	1.5	0.20	ug/kg	SW846 8260B
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### JB32749-9 1.2 (14-14.5)

Chloroethane		2960	1000	47	ug/kg	SW846 8260B
1,1-Dichloroethane		34000	1000	28	ug/kg	SW846 8260B
1,2-Dichloroethane		786	210	28	ug/kg	SW846 8260B
1,1-Dichloroethene		1620	1000	53	ug/kg	SW846 8260B
Toluene		184 J	210	22	ug/kg	SW846 8260B
1,1,1-Trichloroethane		4690	1000	22	ug/kg	SW846 8260B

### JB32749-10 2.1 (12.5-13)

2-Butanone (MEK)		893	770	180	ug/kg	SW846 8260B
Carbon disulfide		48.1 J	380	9.0	ug/kg	SW846 8260B
Chloroethane		3530	380	17	ug/kg	SW846 8260B
1,1-Dichloroethane		34900	3800	110	ug/kg	SW846 8260B
1,2-Dichloroethane		1590	77	10	ug/kg	SW846 8260B
1,1-Dichloroethene		2150	380	20	ug/kg	SW846 8260B
cis-1,2-Dichloroethene		374 J	380	14	ug/kg	SW846 8260B
trans-1,2-Dichloroethene		294 J	380	18	ug/kg	SW846 8260B
1,2-Dichloroethene (total)		668	380	14	ug/kg	SW846 8260B
Tetrachloroethene		288 J	380	13	ug/kg	SW846 8260B
Toluene		2280	77	8.1	ug/kg	SW846 8260B
1,1,1-Trichloroethane		42300	3800	81	ug/kg	SW846 8260B
1,1,2-Trichloroethane		39.1 J	380	13	ug/kg	SW846 8260B
Trichloroethene		1180	380	13	ug/kg	SW846 8260B
Xylene (total)		83.5	77	11	ug/kg	SW846 8260B

### JB32749-11 2.1 (11.5-12)

Acetone		62.4	17	2.8	ug/kg	SW846 8260B
Benzene		0.66 J	1.7	0.20	ug/kg	SW846 8260B
2-Butanone (MEK)		47.9	17	4.0	ug/kg	SW846 8260B
Carbon disulfide		3.4 J	8.3	0.19	ug/kg	SW846 8260B
Chloroethane		5230	690	31	ug/kg	SW846 8260B
1,1-Dichloroethane		11100	690	19	ug/kg	SW846 8260B
1,2-Dichloroethane		27.7	1.7	0.22	ug/kg	SW846 8260B
1,1-Dichloroethene		70.5	8.3	0.43	ug/kg	SW846 8260B
cis-1,2-Dichloroethene		10.1	8.3	0.30	ug/kg	SW846 8260B
trans-1,2-Dichloroethene		6.1 J	8.3	0.39	ug/kg	SW846 8260B
1,2-Dichloroethene (total)		16.1	8.3	0.30	ug/kg	SW846 8260B
Methylene chloride		4.5 J	8.3	2.1	ug/kg	SW846 8260B
Tetrachloroethene		2.3 J	8.3	0.28	ug/kg	SW846 8260B
Toluene		5.6	1.7	0.17	ug/kg	SW846 8260B

## Summary of Hits

**Job Number:** JB32749  
**Account:** Fleming-Lee Shue, Inc.  
**Project:** AFFCO, 361 Walsh Avenue, New Windsor, NY  
**Collected:** 03/27/13

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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1,1,1-Trichloroethane		179	8.3	0.18	ug/kg	SW846 8260B
1,1,2-Trichloroethane		3.0 J	8.3	0.29	ug/kg	SW846 8260B
Trichloroethene		19.5	8.3	0.29	ug/kg	SW846 8260B
Vinyl chloride		12.9	8.3	0.24	ug/kg	SW846 8260B

### JB32749-12 2.1 (10-10.5)

Acetone		22.6	19	3.2	ug/kg	SW846 8260B
Carbon disulfide		1.9 J	9.5	0.22	ug/kg	SW846 8260B
Chloroethane		14.5	9.5	0.43	ug/kg	SW846 8260B
Chloroform		5.6 J	9.5	0.16	ug/kg	SW846 8260B
1,1-Dichloroethane		121	9.5	0.26	ug/kg	SW846 8260B
1,2-Dichloroethane		20.7	1.9	0.26	ug/kg	SW846 8260B
1,1-Dichloroethene		42.7	9.5	0.49	ug/kg	SW846 8260B
cis-1,2-Dichloroethene		7.9 J	9.5	0.35	ug/kg	SW846 8260B
trans-1,2-Dichloroethene		6.5 J	9.5	0.45	ug/kg	SW846 8260B
1,2-Dichloroethene (total)		14.3	9.5	0.35	ug/kg	SW846 8260B
Ethylbenzene		2.0	1.9	0.50	ug/kg	SW846 8260B
Methylene chloride		6.5 J	9.5	2.4	ug/kg	SW846 8260B
Tetrachloroethene		2.3 J	9.5	0.33	ug/kg	SW846 8260B
Toluene		4.6	1.9	0.20	ug/kg	SW846 8260B
1,1,1-Trichloroethane		12600	430	9.2	ug/kg	SW846 8260B
1,1,2-Trichloroethane		3.0 J	9.5	0.33	ug/kg	SW846 8260B
Trichloroethene		32.1	9.5	0.33	ug/kg	SW846 8260B
Xylene (total)		8.4	1.9	0.26	ug/kg	SW846 8260B

### JB32749-13 2.2 (12.5-13)

1,1-Dichloroethane		3660	430	12	ug/kg	SW846 8260B
1,2-Dichloroethane		179	85	11	ug/kg	SW846 8260B
1,1-Dichloroethene		2310	430	22	ug/kg	SW846 8260B
cis-1,2-Dichloroethene		31.6 J	430	16	ug/kg	SW846 8260B
1,2-Dichloroethene (total)		31.6 J	430	16	ug/kg	SW846 8260B
Tetrachloroethene		58.5 J	430	15	ug/kg	SW846 8260B
Toluene		284	85	8.9	ug/kg	SW846 8260B
1,1,1-Trichloroethane		70700	4300	90	ug/kg	SW846 8260B
Trichloroethene		337 J	430	15	ug/kg	SW846 8260B

### JB32749-14 2.2 (11-11.5)

1,1-Dichloroethane		6040 J	11000	310	ug/kg	SW846 8260B
1,1-Dichloroethene		14000	11000	570	ug/kg	SW846 8260B
Toluene		1600 J	2200	230	ug/kg	SW846 8260B
1,1,1-Trichloroethane		398000	11000	240	ug/kg	SW846 8260B
Trichloroethene		2040 J	11000	390	ug/kg	SW846 8260B

## Summary of Hits

**Job Number:** JB32749  
**Account:** Fleming-Lee Shue, Inc.  
**Project:** AFFCO, 361 Walsh Avenue, New Windsor, NY  
**Collected:** 03/27/13



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Analyte						

### JB32749-15 2.2 (14-14.5)

Acetone	82.2	8.1	1.4	ug/kg	SW846 8260B
2-Butanone (MEK)	129	8.1	1.9	ug/kg	SW846 8260B
Carbon disulfide	1.9 J	4.1	0.095	ug/kg	SW846 8260B
Chloroethane	46.2	4.1	0.18	ug/kg	SW846 8260B
1,1-Dichloroethane	12100	1300	34	ug/kg	SW846 8260B
1,2-Dichloroethane	34.0	0.81	0.11	ug/kg	SW846 8260B
1,1-Dichloroethene	72.4	4.1	0.21	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	3.7 J	4.1	0.15	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	0.86 J	4.1	0.19	ug/kg	SW846 8260B
1,2-Dichloroethene (total)	4.6	4.1	0.15	ug/kg	SW846 8260B
Methylene chloride	2.8 J	4.1	1.0	ug/kg	SW846 8260B
Toluene	1.4	0.81	0.086	ug/kg	SW846 8260B
1,1,1-Trichloroethane	617 J	1300	27	ug/kg	SW846 8260B
1,1,2-Trichloroethane	1.6 J	4.1	0.14	ug/kg	SW846 8260B
Trichloroethene	0.39 J	4.1	0.14	ug/kg	SW846 8260B
Vinyl chloride	3.4 J	4.1	0.12	ug/kg	SW846 8260B

### JB32749-16 3 (13.5-14)

Chloroethane <sup>a</sup>	143 J	560	25	ug/kg	SW846 8260B
1,1-Dichloroethane <sup>a</sup>	459 J	560	15	ug/kg	SW846 8260B
1,1-Dichloroethene <sup>a</sup>	293 J	560	29	ug/kg	SW846 8260B
Toluene <sup>a</sup>	36.2 J	110	12	ug/kg	SW846 8260B
1,1,1-Trichloroethane <sup>a</sup>	1500	560	12	ug/kg	SW846 8260B
Trichloroethene <sup>a</sup>	175 J	560	19	ug/kg	SW846 8260B

### JB32749-17 3 (14.5-15)

Chloroethane <sup>a</sup>	953	370	17	ug/kg	SW846 8260B
1,1-Dichloroethane <sup>a</sup>	5820	370	10	ug/kg	SW846 8260B
1,2-Dichloroethane <sup>a</sup>	165	74	10	ug/kg	SW846 8260B
1,1-Dichloroethene <sup>a</sup>	423	370	19	ug/kg	SW846 8260B
cis-1,2-Dichloroethene <sup>a</sup>	44.6 J	370	14	ug/kg	SW846 8260B
trans-1,2-Dichloroethene <sup>a</sup>	81.2 J	370	18	ug/kg	SW846 8260B
1,2-Dichloroethene (total) <sup>a</sup>	126 J	370	14	ug/kg	SW846 8260B
Toluene <sup>a</sup>	462	74	7.8	ug/kg	SW846 8260B
1,1,1-Trichloroethane <sup>a</sup>	2320	370	7.9	ug/kg	SW846 8260B
Trichloroethene <sup>a</sup>	55.3 J	370	13	ug/kg	SW846 8260B

### JB32749-18 3 (12.5-13)

Chloroethane <sup>a</sup>	94.4 J	610	27	ug/kg	SW846 8260B
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## Summary of Hits

**Job Number:** JB32749  
**Account:** Fleming-Lee Shue, Inc.  
**Project:** AFFCO, 361 Walsh Avenue, New Windsor, NY  
**Collected:** 03/27/13

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
1,1-Dichloroethane <sup>a</sup>		410 J	610	17	ug/kg	SW846 8260B
1,2-Dichloroethane <sup>a</sup>		134	120	16	ug/kg	SW846 8260B
1,1-Dichloroethene <sup>a</sup>		659	610	31	ug/kg	SW846 8260B
cis-1,2-Dichloroethene <sup>a</sup>		104 J	610	22	ug/kg	SW846 8260B
trans-1,2-Dichloroethene <sup>a</sup>		108 J	610	29	ug/kg	SW846 8260B
1,2-Dichloroethene (total) <sup>a</sup>		212 J	610	22	ug/kg	SW846 8260B
1,1,1-Trichloroethane <sup>a</sup>		1270	610	13	ug/kg	SW846 8260B
Trichloroethene <sup>a</sup>		279 J	610	21	ug/kg	SW846 8260B

### JB32749-19 4 (11-11.5)

Acetone	10.9	8.4	1.4	ug/kg	SW846 8260B
Carbon disulfide	1.1 J	4.2	0.098	ug/kg	SW846 8260B
Chloroethane	3.4 J	4.2	0.19	ug/kg	SW846 8260B
1,1-Dichloroethane	2000	280	7.5	ug/kg	SW846 8260B
1,2-Dichloroethane	4.4	0.84	0.11	ug/kg	SW846 8260B
1,1-Dichloroethene	1650	280	14	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	2.6 J	4.2	0.15	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	0.43 J	4.2	0.20	ug/kg	SW846 8260B
1,2-Dichloroethene (total)	3.0 J	4.2	0.15	ug/kg	SW846 8260B
Methylene chloride	4.0 J	4.2	1.1	ug/kg	SW846 8260B
1,1,1-Trichloroethane	88.1	4.2	0.089	ug/kg	SW846 8260B
Trichloroethene	0.45 J	4.2	0.15	ug/kg	SW846 8260B
Vinyl chloride	1.8 J	4.2	0.12	ug/kg	SW846 8260B

### JB32749-20 4 (10-10.5)

Acetone	13.0 J	19	3.2	ug/kg	SW846 8260B
Carbon disulfide	1.3 J	9.6	0.22	ug/kg	SW846 8260B
Chloroform	0.50 J	9.6	0.16	ug/kg	SW846 8260B
1,1-Dichloroethane	9.6	9.6	0.26	ug/kg	SW846 8260B
1,2-Dichloroethane	2.3	1.9	0.26	ug/kg	SW846 8260B
1,1-Dichloroethene	31.4	9.6	0.49	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	1.0 J	9.6	0.35	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	0.67 J	9.6	0.46	ug/kg	SW846 8260B
1,2-Dichloroethene (total)	1.7 J	9.6	0.35	ug/kg	SW846 8260B
Methylene chloride	15.1	9.6	2.4	ug/kg	SW846 8260B
Tetrachloroethene	0.99 J	9.6	0.33	ug/kg	SW846 8260B
1,1,1-Trichloroethane	89.0	9.6	0.20	ug/kg	SW846 8260B
Trichloroethene	3.5 J	9.6	0.33	ug/kg	SW846 8260B

### JB32749-21 4 (14.5-15)

Acetone	14.6	13	2.1	ug/kg	SW846 8260B
2-Butanone (MEK)	40.1	13	3.0	ug/kg	SW846 8260B

## Summary of Hits

**Job Number:** JB32749  
**Account:** Fleming-Lee Shue, Inc.  
**Project:** AFFCO, 361 Walsh Avenue, New Windsor, NY  
**Collected:** 03/27/13

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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Chloroethane		1190	290	13	ug/kg	SW846 8260B
1,1-Dichloroethane		6470	290	8.0	ug/kg	SW846 8260B
1,1-Dichloroethene		0.43 J	6.4	0.33	ug/kg	SW846 8260B
Methylene chloride		12.4	6.4	1.6	ug/kg	SW846 8260B
1,1,1-Trichloroethane		3.9 J	6.4	0.13	ug/kg	SW846 8260B
Vinyl chloride		2.4 J	6.4	0.18	ug/kg	SW846 8260B

### JB32749-22 5 (13.5-14)

Acetone		4.6 J	12	2.0	ug/kg	SW846 8260B
1,1-Dichloroethane		15.0	5.9	0.16	ug/kg	SW846 8260B
1,2-Dichloroethane		1.2	1.2	0.16	ug/kg	SW846 8260B
1,1-Dichloroethene		9.3	5.9	0.30	ug/kg	SW846 8260B
cis-1,2-Dichloroethene		0.36 J	5.9	0.22	ug/kg	SW846 8260B
1,2-Dichloroethene (total)		0.36 J	5.9	0.22	ug/kg	SW846 8260B
Methylene chloride		2.7 J	5.9	1.5	ug/kg	SW846 8260B
1,1,1-Trichloroethane		3480	480	10	ug/kg	SW846 8260B
1,1,2-Trichloroethane		0.44 J	5.9	0.21	ug/kg	SW846 8260B
Trichloroethene		2.0 J	5.9	0.21	ug/kg	SW846 8260B

### JB32749-23 5 (14-14.5)

Acetone		19.2	9.6	1.6	ug/kg	SW846 8260B
Carbon disulfide		0.65 J	4.8	0.11	ug/kg	SW846 8260B
Chloroethane		0.91 J	4.8	0.22	ug/kg	SW846 8260B
1,1-Dichloroethane		42.9	4.8	0.13	ug/kg	SW846 8260B
1,1-Dichloroethene		21.4	4.8	0.25	ug/kg	SW846 8260B
1,1,1-Trichloroethane		1220	390	8.3	ug/kg	SW846 8260B
Vinyl chloride		1.3 J	4.8	0.14	ug/kg	SW846 8260B

### JB32749-24 5 (14.5-15)

Acetone		37.1	10	1.8	ug/kg	SW846 8260B
Chloroethane		1.3 J	5.2	0.24	ug/kg	SW846 8260B
1,1-Dichloroethane		54.3	5.2	0.14	ug/kg	SW846 8260B
1,1-Dichloroethene		30.8	5.2	0.27	ug/kg	SW846 8260B
cis-1,2-Dichloroethene		0.33 J	5.2	0.19	ug/kg	SW846 8260B
1,2-Dichloroethene (total)		0.33 J	5.2	0.19	ug/kg	SW846 8260B
Methylene chloride		1.6 J	5.2	1.3	ug/kg	SW846 8260B
1,1,1-Trichloroethane		2090	320	6.8	ug/kg	SW846 8260B
Vinyl chloride		1.2 J	5.2	0.15	ug/kg	SW846 8260B

### JB32749-25 6 (11.5-12)

Methylene chloride		2.9 J	6.5	1.7	ug/kg	SW846 8260B
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## Summary of Hits

**Job Number:** JB32749  
**Account:** Fleming-Lee Shue, Inc.  
**Project:** AFFCO, 361 Walsh Avenue, New Windsor, NY  
**Collected:** 03/27/13

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
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1,1,1-Trichloroethane		2.9 J	6.5	0.14	ug/kg	SW846 8260B
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### JB32749-26 6 (12.5-13)

Acetone	4.9 J	10	1.7	ug/kg	SW846 8260B
1,1-Dichloroethane	2.0 J	5.1	0.14	ug/kg	SW846 8260B
1,2-Dichloroethane	2.8	1.0	0.14	ug/kg	SW846 8260B
1,1-Dichloroethene	6.1	5.1	0.26	ug/kg	SW846 8260B
cis-1,2-Dichloroethene	1.2 J	5.1	0.19	ug/kg	SW846 8260B
trans-1,2-Dichloroethene	1.2 J	5.1	0.24	ug/kg	SW846 8260B
1,2-Dichloroethene (total)	2.4 J	5.1	0.19	ug/kg	SW846 8260B
Methylene chloride	4.1 J	5.1	1.3	ug/kg	SW846 8260B
1,1,1-Trichloroethane	41.5	5.1	0.11	ug/kg	SW846 8260B
Trichloroethene	5.0 J	5.1	0.18	ug/kg	SW846 8260B

### JB32749-27 6 (14.5-15)

1,1-Dichloroethane	3.5 J	5.9	0.16	ug/kg	SW846 8260B
1,1,1-Trichloroethane	0.93 J	5.9	0.12	ug/kg	SW846 8260B

### JB32749-28 FD-1 6(11.5-12)

Methylene chloride	3.2 J	5.4	1.4	ug/kg	SW846 8260B
1,1,1-Trichloroethane	3.6 J	5.4	0.11	ug/kg	SW846 8260B
Trichloroethene	0.89 J	5.4	0.19	ug/kg	SW846 8260B

### JB32749-29 FD-2 6(14.5-15)

1,1-Dichloroethane	0.71 J	3.6	0.098	ug/kg	SW846 8260B
1,1,1-Trichloroethane	3.6	3.6	0.076	ug/kg	SW846 8260B

(a) Diluted due to high concentration of non-target compound.



Sample Results

Report of Analysis

## Report of Analysis

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<b>Client Sample ID:</b>	TRIP BLANK	<b>Date Sampled:</b>	03/27/13
<b>Lab Sample ID:</b>	JB32749-1	<b>Date Received:</b>	03/29/13
<b>Matrix:</b>	AQ - Trip Blank Soil	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C106296.D	1	04/10/13	DR	n/a	n/a	V2C4870
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.21	ug/l	
75-25-2	Bromoform	0.71	4.0	0.21	ug/l	J
74-83-9	Bromomethane	ND	2.0	0.22	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.4	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.23	ug/l	
75-00-3	Chloroethane	ND	1.0	0.26	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	0.35	1.0	0.14	ug/l	J
75-34-3	1,1-Dichloroethane	ND	1.0	0.11	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.19	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.19	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.21	ug/l	
540-59-0	1,2-Dichloroethene (total)	ND	1.0	0.19	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.48	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.23	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.1	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.16	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	0.83	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.70	ug/l	
100-42-5	Styrene	ND	5.0	0.21	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.28	ug/l	
108-88-3	Toluene	ND	1.0	0.23	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.24	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 2 of 2

<b>Client Sample ID:</b> TRIP BLANK	
<b>Lab Sample ID:</b> JB32749-1	<b>Date Sampled:</b> 03/27/13
<b>Matrix:</b> AQ - Trip Blank Soil	<b>Date Received:</b> 03/29/13
<b>Method:</b> SW846 8260B	<b>Percent Solids:</b> n/a
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.29	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.21	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.24	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	87%		81-121%
17060-07-0	1,2-Dichloroethane-D4	91%		74-127%
2037-26-5	Toluene-D8	99%		80-122%
460-00-4	4-Bromofluorobenzene	87%		78-116%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 2

<b>Client Sample ID:</b>	FIELD BLANK 1	<b>Date Sampled:</b>	03/27/13
<b>Lab Sample ID:</b>	JB32749-2	<b>Date Received:</b>	03/29/13
<b>Matrix:</b>	AQ - Field Blank Soil	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C106297.D	1	04/10/13	DR	n/a	n/a	V2C4870
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.21	ug/l	
75-25-2	Bromoform	ND	4.0	0.21	ug/l	
74-83-9	Bromomethane	ND	2.0	0.22	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.4	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.23	ug/l	
75-00-3	Chloroethane	ND	1.0	0.26	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.14	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.11	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.19	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.19	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.21	ug/l	
540-59-0	1,2-Dichloroethene (total)	ND	1.0	0.19	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.48	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.23	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.1	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.16	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	0.83	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.70	ug/l	
100-42-5	Styrene	ND	5.0	0.21	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.28	ug/l	
108-88-3	Toluene	ND	1.0	0.23	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.24	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 2 of 2

<b>Client Sample ID:</b> FIELD BLANK 1	
<b>Lab Sample ID:</b> JB32749-2	<b>Date Sampled:</b> 03/27/13
<b>Matrix:</b> AQ - Field Blank Soil	<b>Date Received:</b> 03/29/13
<b>Method:</b> SW846 8260B	<b>Percent Solids:</b> n/a
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.29	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.21	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.24	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	87%		81-121%
17060-07-0	1,2-Dichloroethane-D4	93%		74-127%
2037-26-5	Toluene-D8	98%		80-122%
460-00-4	4-Bromofluorobenzene	87%		78-116%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 2

<b>Client Sample ID:</b>	FIELD BLANK 2	<b>Date Sampled:</b>	03/27/13
<b>Lab Sample ID:</b>	JB32749-3	<b>Date Received:</b>	03/29/13
<b>Matrix:</b>	AQ - Field Blank Soil	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8260B		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C106298.D	1	04/10/13	DR	n/a	n/a	V2C4870
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	3.3	ug/l	
71-43-2	Benzene	ND	1.0	0.24	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.21	ug/l	
75-25-2	Bromoform	ND	4.0	0.21	ug/l	
74-83-9	Bromomethane	ND	2.0	0.22	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	2.4	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.19	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.22	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.23	ug/l	
75-00-3	Chloroethane	ND	1.0	0.26	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
74-87-3	Chloromethane	ND	1.0	0.21	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.14	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.11	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.26	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.19	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.19	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.21	ug/l	
540-59-0	1,2-Dichloroethene (total)	ND	1.0	0.19	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.48	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.21	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.19	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.23	ug/l	
591-78-6	2-Hexanone	ND	5.0	1.1	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.16	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	0.83	ug/l	
75-09-2	Methylene chloride	ND	2.0	0.70	ug/l	
100-42-5	Styrene	ND	5.0	0.21	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.21	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.28	ug/l	
108-88-3	Toluene	ND	1.0	0.23	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.24	ug/l	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> FIELD BLANK 2	<b>Date Sampled:</b> 03/27/13
<b>Lab Sample ID:</b> JB32749-3	<b>Date Received:</b> 03/29/13
<b>Matrix:</b> AQ - Field Blank Soil	<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8260B	
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.29	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.22	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.21	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.24	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	88%		81-121%
17060-07-0	1,2-Dichloroethane-D4	94%		74-127%
2037-26-5	Toluene-D8	99%		80-122%
460-00-4	4-Bromofluorobenzene	87%		78-116%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	1.1 (12.5-13)	<b>Date Sampled:</b>	03/27/13
<b>Lab Sample ID:</b>	JB32749-4	<b>Date Received:</b>	03/29/13
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	81.2
<b>Method:</b>	SW846 8260B SW846 5035		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	E201771.D	1	04/06/13	OTR	03/29/13 12:00	n/a	VE8871
Run #2	E201870.D	1	04/09/13	OTR	03/29/13 12:00	n/a	VE8875

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	4.3 g	5.0 ml	100 ul
Run #2	4.3 g	5.0 ml	10.0 ul

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	830	140	ug/kg	
71-43-2	Benzene	ND	83	9.9	ug/kg	
75-27-4	Bromodichloromethane	ND	420	8.7	ug/kg	
75-25-2	Bromoform	ND	420	13	ug/kg	
74-83-9	Bromomethane	ND	420	23	ug/kg	
78-93-3	2-Butanone (MEK)	ND	830	200	ug/kg	
75-15-0	Carbon disulfide	ND	420	9.7	ug/kg	
56-23-5	Carbon tetrachloride	ND	420	11	ug/kg	
108-90-7	Chlorobenzene	ND	420	9.0	ug/kg	
75-00-3	Chloroethane	ND	420	19	ug/kg	
67-66-3	Chloroform	ND	420	6.9	ug/kg	
74-87-3	Chloromethane	ND	420	15	ug/kg	
124-48-1	Dibromochloromethane	ND	420	14	ug/kg	
75-34-3	1,1-Dichloroethane	1080	420	11	ug/kg	
107-06-2	1,2-Dichloroethane	232	83	11	ug/kg	
75-35-4	1,1-Dichloroethene	1140	420	21	ug/kg	
156-59-2	cis-1,2-Dichloroethene	83.2	420	15	ug/kg	J
156-60-5	trans-1,2-Dichloroethene	101	420	20	ug/kg	J
540-59-0	1,2-Dichloroethene (total)	184	420	15	ug/kg	J
78-87-5	1,2-Dichloropropane	ND	420	13	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	420	12	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	420	13	ug/kg	
100-41-4	Ethylbenzene	ND	83	22	ug/kg	
591-78-6	2-Hexanone	ND	420	52	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	83	20	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	420	62	ug/kg	
75-09-2	Methylene chloride	ND	420	110	ug/kg	
100-42-5	Styrene	ND	420	7.6	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	420	11	ug/kg	
127-18-4	Tetrachloroethene	37.9	420	14	ug/kg	J
108-88-3	Toluene	109	83	8.7	ug/kg	
71-55-6	1,1,1-Trichloroethane	18700 <sup>a</sup>	4200	88	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

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<b>Client Sample ID:</b>	1.1 (12.5-13)	<b>Date Sampled:</b>	03/27/13
<b>Lab Sample ID:</b>	JB32749-4	<b>Date Received:</b>	03/29/13
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	81.2
<b>Method:</b>	SW846 8260B SW846 5035		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	420	14	ug/kg	
79-01-6	Trichloroethene	1130	420	14	ug/kg	
75-01-4	Vinyl chloride	ND	420	12	ug/kg	
1330-20-7	Xylene (total)	ND	83	12	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	81%	86%	70-130%
17060-07-0	1,2-Dichloroethane-D4	83%	91%	70-122%
2037-26-5	Toluene-D8	91%	91%	81-127%
460-00-4	4-Bromofluorobenzene	95%	102%	66-132%

(a) Result is from Run# 2

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	1.1 (13-13.5)		
<b>Lab Sample ID:</b>	JB32749-5	<b>Date Sampled:</b>	03/27/13
<b>Matrix:</b>	SO - Soil	<b>Date Received:</b>	03/29/13
<b>Method:</b>	SW846 8260B SW846 5035	<b>Percent Solids:</b>	83.5
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C180730.D	1	04/05/13	TYG	03/29/13 12:00	n/a	VC6486
Run #2	E201894.D	1	04/09/13	OTR	03/29/13 12:00	n/a	VE8876

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.2 g		
Run #2	3.3 g	5.0 ml	100 ul

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	10.9	12	1.9	ug/kg	J
71-43-2	Benzene	ND	1.2	0.14	ug/kg	
75-27-4	Bromodichloromethane	ND	5.8	0.12	ug/kg	
75-25-2	Bromoform	ND	5.8	0.17	ug/kg	
74-83-9	Bromomethane	ND	5.8	0.31	ug/kg	
78-93-3	2-Butanone (MEK)	ND	12	2.8	ug/kg	
75-15-0	Carbon disulfide	1.8	5.8	0.13	ug/kg	J
56-23-5	Carbon tetrachloride	ND	5.8	0.15	ug/kg	
108-90-7	Chlorobenzene	ND	5.8	0.12	ug/kg	
75-00-3	Chloroethane	25.4	5.8	0.26	ug/kg	
67-66-3	Chloroform	ND	5.8	0.095	ug/kg	
74-87-3	Chloromethane	ND	5.8	0.21	ug/kg	
124-48-1	Dibromochloromethane	ND	5.8	0.19	ug/kg	
75-34-3	1,1-Dichloroethane	183	5.8	0.16	ug/kg	
107-06-2	1,2-Dichloroethane	1.0	1.2	0.16	ug/kg	J
75-35-4	1,1-Dichloroethene	32.0	5.8	0.30	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	5.8	0.21	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	5.8	0.27	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	5.8	0.21	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.8	0.18	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.8	0.16	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.8	0.18	ug/kg	
100-41-4	Ethylbenzene	ND	1.2	0.30	ug/kg	
591-78-6	2-Hexanone	ND	5.8	0.72	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.2	0.27	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.8	0.86	ug/kg	
75-09-2	Methylene chloride	4.4	5.8	1.5	ug/kg	J
100-42-5	Styrene	ND	5.8	0.11	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.8	0.15	ug/kg	
127-18-4	Tetrachloroethene	ND	5.8	0.20	ug/kg	
108-88-3	Toluene	0.43	1.2	0.12	ug/kg	J
71-55-6	1,1,1-Trichloroethane	2860 <sup>a</sup>	500	11	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> 1.1 (13-13.5)	
<b>Lab Sample ID:</b> JB32749-5	<b>Date Sampled:</b> 03/27/13
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/29/13
<b>Method:</b> SW846 8260B SW846 5035	<b>Percent Solids:</b> 83.5
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	5.8	0.20	ug/kg	J
79-01-6	Trichloroethene	0.81	5.8	0.20	ug/kg	
75-01-4	Vinyl chloride	ND	5.8	0.17	ug/kg	
1330-20-7	Xylene (total)	ND	1.2	0.16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%	85%	70-130%
17060-07-0	1,2-Dichloroethane-D4	89%	92%	70-122%
2037-26-5	Toluene-D8	108%	91%	81-127%
460-00-4	4-Bromofluorobenzene	103%	99%	66-132%

(a) Result is from Run# 2

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	1.1 (14.5-15)		
<b>Lab Sample ID:</b>	JB32749-6	<b>Date Sampled:</b>	03/27/13
<b>Matrix:</b>	SO - Soil	<b>Date Received:</b>	03/29/13
<b>Method:</b>	SW846 8260B SW846 5035	<b>Percent Solids:</b>	91.5
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C180731.D	1	04/05/13	TYG	03/29/13 12:00	n/a	VC6486
Run #2							

	Initial Weight
Run #1	4.2 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	13	2.2	ug/kg	
71-43-2	Benzene	ND	1.3	0.15	ug/kg	
75-27-4	Bromodichloromethane	ND	6.5	0.14	ug/kg	
75-25-2	Bromoform	ND	6.5	0.20	ug/kg	
74-83-9	Bromomethane	ND	6.5	0.36	ug/kg	
78-93-3	2-Butanone (MEK)	ND	13	3.1	ug/kg	
75-15-0	Carbon disulfide	2.2	6.5	0.15	ug/kg	J
56-23-5	Carbon tetrachloride	ND	6.5	0.17	ug/kg	
108-90-7	Chlorobenzene	ND	6.5	0.14	ug/kg	
75-00-3	Chloroethane	54.7	6.5	0.30	ug/kg	
67-66-3	Chloroform	ND	6.5	0.11	ug/kg	
74-87-3	Chloromethane	ND	6.5	0.24	ug/kg	
124-48-1	Dibromochloromethane	ND	6.5	0.21	ug/kg	
75-34-3	1,1-Dichloroethane	79.4	6.5	0.18	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.3	0.18	ug/kg	
75-35-4	1,1-Dichloroethene	15.3	6.5	0.33	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	6.5	0.24	ug/kg	
156-60-5	trans-1,2-Dichloroethene	1.3	6.5	0.31	ug/kg	J
540-59-0	1,2-Dichloroethene (total)	1.3	6.5	0.24	ug/kg	J
78-87-5	1,2-Dichloropropane	ND	6.5	0.20	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	6.5	0.18	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	6.5	0.20	ug/kg	
100-41-4	Ethylbenzene	ND	1.3	0.34	ug/kg	
591-78-6	2-Hexanone	ND	6.5	0.81	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.3	0.31	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	6.5	0.98	ug/kg	
75-09-2	Methylene chloride	2.1	6.5	1.7	ug/kg	J
100-42-5	Styrene	ND	6.5	0.12	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	6.5	0.17	ug/kg	
127-18-4	Tetrachloroethene	ND	6.5	0.22	ug/kg	
108-88-3	Toluene	1.0	1.3	0.14	ug/kg	J
71-55-6	1,1,1-Trichloroethane	144	6.5	0.14	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> 1.1 (14.5-15)	
<b>Lab Sample ID:</b> JB32749-6	<b>Date Sampled:</b> 03/27/13
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/29/13
<b>Method:</b> SW846 8260B SW846 5035	<b>Percent Solids:</b> 91.5
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	6.5	0.23	ug/kg	
79-01-6	Trichloroethene	0.90	6.5	0.23	ug/kg	J
75-01-4	Vinyl chloride	0.77	6.5	0.19	ug/kg	J
1330-20-7	Xylene (total)	ND	1.3	0.18	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		70-130%
17060-07-0	1,2-Dichloroethane-D4	89%		70-122%
2037-26-5	Toluene-D8	108%		81-127%
460-00-4	4-Bromofluorobenzene	102%		66-132%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	1.2 (13-13.5)	<b>Date Sampled:</b>	03/27/13
<b>Lab Sample ID:</b>	JB32749-7	<b>Date Received:</b>	03/29/13
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	87.2
<b>Method:</b>	SW846 8260B SW846 5035		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C180745.D	1	04/05/13	TYG	03/29/13 12:00	n/a	VC6486
Run #2	E201895.D	1	04/09/13	OTR	03/29/13 12:00	n/a	VE8876

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	4.1 g		
Run #2	2.8 g	5.0 ml	100 ul

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	27.2	14	2.4	ug/kg	
71-43-2	Benzene	ND	1.4	0.17	ug/kg	
75-27-4	Bromodichloromethane	ND	7.0	0.15	ug/kg	
75-25-2	Bromoform	ND	7.0	0.21	ug/kg	
74-83-9	Bromomethane	ND	7.0	0.38	ug/kg	
78-93-3	2-Butanone (MEK)	29.0	14	3.3	ug/kg	
75-15-0	Carbon disulfide	1.1	7.0	0.16	ug/kg	J
56-23-5	Carbon tetrachloride	ND	7.0	0.19	ug/kg	
108-90-7	Chlorobenzene	ND	7.0	0.15	ug/kg	
75-00-3	Chloroethane	480 <sup>a</sup>	550	25	ug/kg	J
67-66-3	Chloroform	ND	7.0	0.12	ug/kg	
74-87-3	Chloromethane	ND	7.0	0.26	ug/kg	
124-48-1	Dibromochloromethane	ND	7.0	0.23	ug/kg	
75-34-3	1,1-Dichloroethane	3950 <sup>a</sup>	550	15	ug/kg	
107-06-2	1,2-Dichloroethane	14.2	1.4	0.19	ug/kg	
75-35-4	1,1-Dichloroethene	41.7	7.0	0.36	ug/kg	
156-59-2	cis-1,2-Dichloroethene	0.77	7.0	0.26	ug/kg	J
156-60-5	trans-1,2-Dichloroethene	0.47	7.0	0.33	ug/kg	J
540-59-0	1,2-Dichloroethene (total)	1.2	7.0	0.26	ug/kg	J
78-87-5	1,2-Dichloropropane	ND	7.0	0.22	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	7.0	0.19	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	7.0	0.22	ug/kg	
100-41-4	Ethylbenzene	ND	1.4	0.37	ug/kg	
591-78-6	2-Hexanone	ND	7.0	0.87	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.4	0.33	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	7.0	1.1	ug/kg	
75-09-2	Methylene chloride	2.8	7.0	1.8	ug/kg	J
100-42-5	Styrene	ND	7.0	0.13	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	7.0	0.18	ug/kg	
127-18-4	Tetrachloroethene	ND	7.0	0.24	ug/kg	
108-88-3	Toluene	5.7	1.4	0.15	ug/kg	
71-55-6	1,1,1-Trichloroethane	2130 <sup>a</sup>	550	12	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	1.2 (13-13.5)	<b>Date Sampled:</b>	03/27/13
<b>Lab Sample ID:</b>	JB32749-7	<b>Date Received:</b>	03/29/13
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	87.2
<b>Method:</b>	SW846 8260B SW846 5035		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	0.84	7.0	0.24	ug/kg	J
79-01-6	Trichloroethene	0.89	7.0	0.24	ug/kg	J
75-01-4	Vinyl chloride	10.9	7.0	0.20	ug/kg	
1330-20-7	Xylene (total)	ND	1.4	0.19	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%	83%	70-130%
17060-07-0	1,2-Dichloroethane-D4	88%	91%	70-122%
2037-26-5	Toluene-D8	109%	91%	81-127%
460-00-4	4-Bromofluorobenzene	102%	99%	66-132%

(a) Result is from Run# 2

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	1.2 (11-11.5)		
<b>Lab Sample ID:</b>	JB32749-8	<b>Date Sampled:</b>	03/27/13
<b>Matrix:</b>	SO - Soil	<b>Date Received:</b>	03/29/13
<b>Method:</b>	SW846 8260B SW846 5035	<b>Percent Solids:</b>	80.1
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C180746.D	1	04/05/13	TYG	03/29/13 12:00	n/a	VC6486
Run #2	E201896.D	1	04/09/13	OTR	03/29/13 12:00	n/a	VE8876

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	4.3 g		
Run #2	2.2 g	5.0 ml	100 ul

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	30.1	15	2.5	ug/kg	
71-43-2	Benzene	ND	1.5	0.17	ug/kg	
75-27-4	Bromodichloromethane	ND	7.3	0.15	ug/kg	
75-25-2	Bromoform	ND	7.3	0.22	ug/kg	
74-83-9	Bromomethane	ND	7.3	0.40	ug/kg	
78-93-3	2-Butanone (MEK)	21.8	15	3.5	ug/kg	
75-15-0	Carbon disulfide	1.5	7.3	0.17	ug/kg	J
56-23-5	Carbon tetrachloride	ND	7.3	0.19	ug/kg	
108-90-7	Chlorobenzene	ND	7.3	0.16	ug/kg	
75-00-3	Chloroethane	659 <sup>a</sup>	770	35	ug/kg	J
67-66-3	Chloroform	ND	7.3	0.12	ug/kg	
74-87-3	Chloromethane	ND	7.3	0.27	ug/kg	
124-48-1	Dibromochloromethane	ND	7.3	0.24	ug/kg	
75-34-3	1,1-Dichloroethane	6220 <sup>a</sup>	770	21	ug/kg	
107-06-2	1,2-Dichloroethane	11.9	1.5	0.20	ug/kg	
75-35-4	1,1-Dichloroethene	85.3	7.3	0.37	ug/kg	
156-59-2	cis-1,2-Dichloroethene	0.63	7.3	0.27	ug/kg	J
156-60-5	trans-1,2-Dichloroethene	ND	7.3	0.35	ug/kg	
540-59-0	1,2-Dichloroethene (total)	0.63	7.3	0.27	ug/kg	J
78-87-5	1,2-Dichloropropane	ND	7.3	0.22	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	7.3	0.20	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	7.3	0.23	ug/kg	
100-41-4	Ethylbenzene	0.80	1.5	0.38	ug/kg	J
591-78-6	2-Hexanone	ND	7.3	0.90	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.5	0.34	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	7.3	1.1	ug/kg	
75-09-2	Methylene chloride	5.2	7.3	1.8	ug/kg	J
100-42-5	Styrene	ND	7.3	0.13	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	7.3	0.19	ug/kg	
127-18-4	Tetrachloroethene	ND	7.3	0.25	ug/kg	
108-88-3	Toluene	2.3	1.5	0.15	ug/kg	
71-55-6	1,1,1-Trichloroethane	1560 <sup>a</sup>	770	16	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

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<b>Client Sample ID:</b> 1.2 (11-11.5)	
<b>Lab Sample ID:</b> JB32749-8	<b>Date Sampled:</b> 03/27/13
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/29/13
<b>Method:</b> SW846 8260B SW846 5035	<b>Percent Solids:</b> 80.1
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	0.57	7.3	0.25	ug/kg	J
79-01-6	Trichloroethene	1.6	7.3	0.25	ug/kg	J
75-01-4	Vinyl chloride	7.9	7.3	0.21	ug/kg	J
1330-20-7	Xylene (total)	0.65	1.5	0.20	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%	82%	70-130%
17060-07-0	1,2-Dichloroethane-D4	88%	93%	70-122%
2037-26-5	Toluene-D8	109%	92%	81-127%
460-00-4	4-Bromofluorobenzene	102%	98%	66-132%

(a) Result is from Run# 2

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	1.2 (14-14.5)	<b>Date Sampled:</b>	03/27/13
<b>Lab Sample ID:</b>	JB32749-9	<b>Date Received:</b>	03/29/13
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	94.9
<b>Method:</b>	SW846 8260B SW846 5035		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	E201872.D	1	04/09/13	OTR	03/29/13 12:00	n/a	VE8875
Run #2							

Run #	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.4 g	5.0 ml	25.0 ul
Run #2			

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	2100	350	ug/kg	
71-43-2	Benzene	ND	210	25	ug/kg	
75-27-4	Bromodichloromethane	ND	1000	22	ug/kg	
75-25-2	Bromoform	ND	1000	31	ug/kg	
74-83-9	Bromomethane	ND	1000	56	ug/kg	
78-93-3	2-Butanone (MEK)	ND	2100	490	ug/kg	
75-15-0	Carbon disulfide	ND	1000	24	ug/kg	
56-23-5	Carbon tetrachloride	ND	1000	27	ug/kg	
108-90-7	Chlorobenzene	ND	1000	22	ug/kg	
75-00-3	Chloroethane	2960	1000	47	ug/kg	
67-66-3	Chloroform	ND	1000	17	ug/kg	
74-87-3	Chloromethane	ND	1000	38	ug/kg	
124-48-1	Dibromochloromethane	ND	1000	34	ug/kg	
75-34-3	1,1-Dichloroethane	34000	1000	28	ug/kg	
107-06-2	1,2-Dichloroethane	786	210	28	ug/kg	
75-35-4	1,1-Dichloroethene	1620	1000	53	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1000	38	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1000	49	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	1000	38	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1000	32	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1000	29	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1000	32	ug/kg	
100-41-4	Ethylbenzene	ND	210	54	ug/kg	
591-78-6	2-Hexanone	ND	1000	130	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	210	48	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	1000	150	ug/kg	
75-09-2	Methylene chloride	ND	1000	260	ug/kg	
100-42-5	Styrene	ND	1000	19	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1000	27	ug/kg	
127-18-4	Tetrachloroethene	ND	1000	35	ug/kg	
108-88-3	Toluene	184	210	22	ug/kg	J
71-55-6	1,1,1-Trichloroethane	4690	1000	22	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> 1.2 (14-14.5)	
<b>Lab Sample ID:</b> JB32749-9	<b>Date Sampled:</b> 03/27/13
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/29/13
<b>Method:</b> SW846 8260B SW846 5035	<b>Percent Solids:</b> 94.9
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	1000	36	ug/kg	
79-01-6	Trichloroethene	ND	1000	36	ug/kg	
75-01-4	Vinyl chloride	ND	1000	30	ug/kg	
1330-20-7	Xylene (total)	ND	210	29	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	86%		70-130%
17060-07-0	1,2-Dichloroethane-D4	94%		70-122%
2037-26-5	Toluene-D8	91%		81-127%
460-00-4	4-Bromofluorobenzene	98%		66-132%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	2.1 (12.5-13)	<b>Date Sampled:</b>	03/27/13
<b>Lab Sample ID:</b>	JB32749-10	<b>Date Received:</b>	03/29/13
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	86.4
<b>Method:</b>	SW846 8260B SW846 5035		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	E201758.D	1	04/05/13	OTR	03/29/13 12:00	n/a	VE8870
Run #2	E201873.D	1	04/09/13	OTR	03/29/13 12:00	n/a	VE8875

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	4.2 g	5.0 ml	100 ul
Run #2	4.2 g	5.0 ml	10.0 ul

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	770	130	ug/kg	
71-43-2	Benzene	ND	77	9.1	ug/kg	
75-27-4	Bromodichloromethane	ND	380	8.1	ug/kg	
75-25-2	Bromoform	ND	380	12	ug/kg	
74-83-9	Bromomethane	ND	380	21	ug/kg	
78-93-3	2-Butanone (MEK)	893	770	180	ug/kg	
75-15-0	Carbon disulfide	48.1	380	9.0	ug/kg	J
56-23-5	Carbon tetrachloride	ND	380	10	ug/kg	
108-90-7	Chlorobenzene	ND	380	8.3	ug/kg	
75-00-3	Chloroethane	3530	380	17	ug/kg	
67-66-3	Chloroform	ND	380	6.3	ug/kg	
74-87-3	Chloromethane	ND	380	14	ug/kg	
124-48-1	Dibromochloromethane	ND	380	13	ug/kg	
75-34-3	1,1-Dichloroethane	34900 <sup>a</sup>	3800	110	ug/kg	
107-06-2	1,2-Dichloroethane	1590	77	10	ug/kg	
75-35-4	1,1-Dichloroethene	2150	380	20	ug/kg	
156-59-2	cis-1,2-Dichloroethene	374	380	14	ug/kg	J
156-60-5	trans-1,2-Dichloroethene	294	380	18	ug/kg	J
540-59-0	1,2-Dichloroethene (total)	668	380	14	ug/kg	
78-87-5	1,2-Dichloropropane	ND	380	12	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	380	11	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	380	12	ug/kg	
100-41-4	Ethylbenzene	ND	77	20	ug/kg	
591-78-6	2-Hexanone	ND	380	48	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	77	18	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	380	58	ug/kg	
75-09-2	Methylene chloride	ND	380	97	ug/kg	
100-42-5	Styrene	ND	380	7.0	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	380	10	ug/kg	
127-18-4	Tetrachloroethene	288	380	13	ug/kg	J
108-88-3	Toluene	2280	77	8.1	ug/kg	
71-55-6	1,1,1-Trichloroethane	42300 <sup>a</sup>	3800	81	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> 2.1 (12.5-13)	
<b>Lab Sample ID:</b> JB32749-10	<b>Date Sampled:</b> 03/27/13
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/29/13
<b>Method:</b> SW846 8260B SW846 5035	<b>Percent Solids:</b> 86.4
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	39.1	380	13	ug/kg	J
79-01-6	Trichloroethene	1180	380	13	ug/kg	
75-01-4	Vinyl chloride	ND	380	11	ug/kg	
1330-20-7	Xylene (total)	83.5	77	11	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	81%	86%	70-130%
17060-07-0	1,2-Dichloroethane-D4	87%	93%	70-122%
2037-26-5	Toluene-D8	89%	91%	81-127%
460-00-4	4-Bromofluorobenzene	90%	101%	66-132%

(a) Result is from Run# 2

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	2.1 (11.5-12)	<b>Date Sampled:</b>	03/27/13
<b>Lab Sample ID:</b>	JB32749-11	<b>Date Received:</b>	03/29/13
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	81.7
<b>Method:</b>	SW846 8260B SW846 5035		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C180747.D	1	04/05/13	TYG	03/29/13 12:00	n/a	VC6486
Run #2	E201897.D	1	04/09/13	OTR	03/29/13 12:00	n/a	VE8876

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	3.7 g		
Run #2	2.4 g	5.0 ml	100 ul

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	62.4	17	2.8	ug/kg	
71-43-2	Benzene	0.66	1.7	0.20	ug/kg	J
75-27-4	Bromodichloromethane	ND	8.3	0.17	ug/kg	
75-25-2	Bromoform	ND	8.3	0.25	ug/kg	
74-83-9	Bromomethane	ND	8.3	0.45	ug/kg	
78-93-3	2-Butanone (MEK)	47.9	17	4.0	ug/kg	
75-15-0	Carbon disulfide	3.4	8.3	0.19	ug/kg	J
56-23-5	Carbon tetrachloride	ND	8.3	0.22	ug/kg	
108-90-7	Chlorobenzene	ND	8.3	0.18	ug/kg	
75-00-3	Chloroethane	5230 <sup>a</sup>	690	31	ug/kg	
67-66-3	Chloroform	ND	8.3	0.14	ug/kg	
74-87-3	Chloromethane	ND	8.3	0.31	ug/kg	
124-48-1	Dibromochloromethane	ND	8.3	0.27	ug/kg	
75-34-3	1,1-Dichloroethane	11100 <sup>a</sup>	690	19	ug/kg	
107-06-2	1,2-Dichloroethane	27.7	1.7	0.22	ug/kg	
75-35-4	1,1-Dichloroethene	70.5	8.3	0.43	ug/kg	
156-59-2	cis-1,2-Dichloroethene	10.1	8.3	0.30	ug/kg	
156-60-5	trans-1,2-Dichloroethene	6.1	8.3	0.39	ug/kg	J
540-59-0	1,2-Dichloroethene (total)	16.1	8.3	0.30	ug/kg	
78-87-5	1,2-Dichloropropane	ND	8.3	0.25	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	8.3	0.23	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	8.3	0.26	ug/kg	
100-41-4	Ethylbenzene	ND	1.7	0.44	ug/kg	
591-78-6	2-Hexanone	ND	8.3	1.0	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.7	0.39	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	8.3	1.2	ug/kg	
75-09-2	Methylene chloride	4.5	8.3	2.1	ug/kg	J
100-42-5	Styrene	ND	8.3	0.15	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	8.3	0.22	ug/kg	
127-18-4	Tetrachloroethene	2.3	8.3	0.28	ug/kg	J
108-88-3	Toluene	5.6	1.7	0.17	ug/kg	
71-55-6	1,1,1-Trichloroethane	179	8.3	0.18	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> 2.1 (11.5-12)	
<b>Lab Sample ID:</b> JB32749-11	<b>Date Sampled:</b> 03/27/13
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/29/13
<b>Method:</b> SW846 8260B SW846 5035	<b>Percent Solids:</b> 81.7
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	3.0	8.3	0.29	ug/kg	J
79-01-6	Trichloroethene	19.5	8.3	0.29	ug/kg	
75-01-4	Vinyl chloride	12.9	8.3	0.24	ug/kg	
1330-20-7	Xylene (total)	ND	1.7	0.23	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%	86%	70-130%
17060-07-0	1,2-Dichloroethane-D4	85%	94%	70-122%
2037-26-5	Toluene-D8	108%	91%	81-127%
460-00-4	4-Bromofluorobenzene	104%	97%	66-132%

(a) Result is from Run# 2

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	2.1 (10-10.5)	<b>Date Sampled:</b>	03/27/13
<b>Lab Sample ID:</b>	JB32749-12	<b>Date Received:</b>	03/29/13
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	84.9
<b>Method:</b>	SW846 8260B SW846 5035		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C180793.D	1	04/07/13	TYG	03/29/13 12:00	n/a	VC6488
Run #2	E201898.D	1	04/09/13	OTR	03/29/13 12:00	n/a	VE8876

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	3.1 g		
Run #2	3.8 g	5.0 ml	100 ul

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	22.6	19	3.2	ug/kg	
71-43-2	Benzene	ND	1.9	0.23	ug/kg	
75-27-4	Bromodichloromethane	ND	9.5	0.20	ug/kg	
75-25-2	Bromoform	ND	9.5	0.29	ug/kg	
74-83-9	Bromomethane	ND	9.5	0.52	ug/kg	
78-93-3	2-Butanone (MEK)	ND	19	4.5	ug/kg	
75-15-0	Carbon disulfide	1.9	9.5	0.22	ug/kg	J
56-23-5	Carbon tetrachloride	ND	9.5	0.25	ug/kg	
108-90-7	Chlorobenzene	ND	9.5	0.21	ug/kg	
75-00-3	Chloroethane	14.5	9.5	0.43	ug/kg	
67-66-3	Chloroform	5.6	9.5	0.16	ug/kg	J
74-87-3	Chloromethane	ND	9.5	0.35	ug/kg	
124-48-1	Dibromochloromethane	ND	9.5	0.31	ug/kg	
75-34-3	1,1-Dichloroethane	121	9.5	0.26	ug/kg	
107-06-2	1,2-Dichloroethane	20.7	1.9	0.26	ug/kg	
75-35-4	1,1-Dichloroethene	42.7	9.5	0.49	ug/kg	
156-59-2	cis-1,2-Dichloroethene	7.9	9.5	0.35	ug/kg	J
156-60-5	trans-1,2-Dichloroethene	6.5	9.5	0.45	ug/kg	J
540-59-0	1,2-Dichloroethene (total)	14.3	9.5	0.35	ug/kg	
78-87-5	1,2-Dichloropropane	ND	9.5	0.29	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	9.5	0.26	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	9.5	0.29	ug/kg	
100-41-4	Ethylbenzene	2.0	1.9	0.50	ug/kg	
591-78-6	2-Hexanone	ND	9.5	1.2	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.9	0.45	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	9.5	1.4	ug/kg	
75-09-2	Methylene chloride	6.5	9.5	2.4	ug/kg	J
100-42-5	Styrene	ND	9.5	0.17	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	9.5	0.25	ug/kg	
127-18-4	Tetrachloroethene	2.3	9.5	0.33	ug/kg	J
108-88-3	Toluene	4.6	1.9	0.20	ug/kg	
71-55-6	1,1,1-Trichloroethane	12600 <sup>a</sup>	430	9.2	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

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<b>Client Sample ID:</b> 2.1 (10-10.5)	
<b>Lab Sample ID:</b> JB32749-12	<b>Date Sampled:</b> 03/27/13
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/29/13
<b>Method:</b> SW846 8260B SW846 5035	<b>Percent Solids:</b> 84.9
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	3.0	9.5	0.33	ug/kg	J
79-01-6	Trichloroethene	32.1	9.5	0.33	ug/kg	
75-01-4	Vinyl chloride	ND	9.5	0.27	ug/kg	
1330-20-7	Xylene (total)	8.4	1.9	0.26	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%	84%	70-130%
17060-07-0	1,2-Dichloroethane-D4	89%	94%	70-122%
2037-26-5	Toluene-D8	110%	92%	81-127%
460-00-4	4-Bromofluorobenzene	105%	98%	66-132%

(a) Result is from Run# 2

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	2.2 (12.5-13)	<b>Date Sampled:</b>	03/27/13
<b>Lab Sample ID:</b>	JB32749-13	<b>Date Received:</b>	03/29/13
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	81.1
<b>Method:</b>	SW846 8260B SW846 5035		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	E201759.D	1	04/05/13	OTR	03/29/13 12:00	n/a	VE8870
Run #2	E201874.D	1	04/09/13	OTR	03/29/13 12:00	n/a	VE8875

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	4.2 g	5.0 ml	100 ul
Run #2	4.2 g	5.0 ml	10.0 ul

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	850	140	ug/kg	
71-43-2	Benzene	ND	85	10	ug/kg	
75-27-4	Bromodichloromethane	ND	430	8.9	ug/kg	
75-25-2	Bromoform	ND	430	13	ug/kg	
74-83-9	Bromomethane	ND	430	23	ug/kg	
78-93-3	2-Butanone (MEK)	ND	850	200	ug/kg	
75-15-0	Carbon disulfide	ND	430	10	ug/kg	
56-23-5	Carbon tetrachloride	ND	430	11	ug/kg	
108-90-7	Chlorobenzene	ND	430	9.2	ug/kg	
75-00-3	Chloroethane	ND	430	19	ug/kg	
67-66-3	Chloroform	ND	430	7.0	ug/kg	
74-87-3	Chloromethane	ND	430	16	ug/kg	
124-48-1	Dibromochloromethane	ND	430	14	ug/kg	
75-34-3	1,1-Dichloroethane	3660	430	12	ug/kg	
107-06-2	1,2-Dichloroethane	179	85	11	ug/kg	
75-35-4	1,1-Dichloroethene	2310	430	22	ug/kg	
156-59-2	cis-1,2-Dichloroethene	31.6	430	16	ug/kg	J
156-60-5	trans-1,2-Dichloroethene	ND	430	20	ug/kg	
540-59-0	1,2-Dichloroethene (total)	31.6	430	16	ug/kg	J
78-87-5	1,2-Dichloropropane	ND	430	13	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	430	12	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	430	13	ug/kg	
100-41-4	Ethylbenzene	ND	85	22	ug/kg	
591-78-6	2-Hexanone	ND	430	53	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	85	20	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	430	64	ug/kg	
75-09-2	Methylene chloride	ND	430	110	ug/kg	
100-42-5	Styrene	ND	430	7.8	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	430	11	ug/kg	
127-18-4	Tetrachloroethene	58.5	430	15	ug/kg	J
108-88-3	Toluene	284	85	8.9	ug/kg	
71-55-6	1,1,1-Trichloroethane	70700 <sup>a</sup>	4300	90	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	2.2 (12.5-13)	<b>Date Sampled:</b>	03/27/13
<b>Lab Sample ID:</b>	JB32749-13	<b>Date Received:</b>	03/29/13
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	81.1
<b>Method:</b>	SW846 8260B SW846 5035		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	430	15	ug/kg	
79-01-6	Trichloroethene	337	430	15	ug/kg	J
75-01-4	Vinyl chloride	ND	430	12	ug/kg	
1330-20-7	Xylene (total)	ND	85	12	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	83%	85%	70-130%
17060-07-0	1,2-Dichloroethane-D4	83%	93%	70-122%
2037-26-5	Toluene-D8	91%	93%	81-127%
460-00-4	4-Bromofluorobenzene	92%	98%	66-132%

(a) Result is from Run# 2

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	2.2 (11-11.5)	<b>Date Sampled:</b>	03/27/13
<b>Lab Sample ID:</b>	JB32749-14	<b>Date Received:</b>	03/29/13
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	82.6
<b>Method:</b>	SW846 8260B SW846 5035		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	E201871.D	1	04/09/13	OTR	03/29/13 12:00	n/a	VE8875
Run #2							

Run #	Initial Weight	Final Volume	Methanol Aliquot
Run #1	3.0 g	5.0 ml	5.0 ul
Run #2			

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	22000	3800	ug/kg	
71-43-2	Benzene	ND	2200	270	ug/kg	
75-27-4	Bromodichloromethane	ND	11000	230	ug/kg	
75-25-2	Bromoform	ND	11000	340	ug/kg	
74-83-9	Bromomethane	ND	11000	610	ug/kg	
78-93-3	2-Butanone (MEK)	ND	22000	5300	ug/kg	
75-15-0	Carbon disulfide	ND	11000	260	ug/kg	
56-23-5	Carbon tetrachloride	ND	11000	300	ug/kg	
108-90-7	Chlorobenzene	ND	11000	240	ug/kg	
75-00-3	Chloroethane	ND	11000	510	ug/kg	
67-66-3	Chloroform	ND	11000	180	ug/kg	
74-87-3	Chloromethane	ND	11000	410	ug/kg	
124-48-1	Dibromochloromethane	ND	11000	370	ug/kg	
75-34-3	1,1-Dichloroethane	6040	11000	310	ug/kg	J
107-06-2	1,2-Dichloroethane	ND	2200	300	ug/kg	
75-35-4	1,1-Dichloroethene	14000	11000	570	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	11000	410	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	11000	530	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	11000	410	ug/kg	
78-87-5	1,2-Dichloropropane	ND	11000	340	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	11000	310	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	11000	350	ug/kg	
100-41-4	Ethylbenzene	ND	2200	590	ug/kg	
591-78-6	2-Hexanone	ND	11000	1400	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2200	520	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	11000	1700	ug/kg	
75-09-2	Methylene chloride	ND	11000	2800	ug/kg	
100-42-5	Styrene	ND	11000	200	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	11000	290	ug/kg	
127-18-4	Tetrachloroethene	ND	11000	380	ug/kg	
108-88-3	Toluene	1600	2200	230	ug/kg	J
71-55-6	1,1,1-Trichloroethane	398000	11000	240	ug/kg	

ND = Not detected MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> 2.2 (11-11.5)	
<b>Lab Sample ID:</b> JB32749-14	<b>Date Sampled:</b> 03/27/13
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/29/13
<b>Method:</b> SW846 8260B SW846 5035	<b>Percent Solids:</b> 82.6
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	11000	390	ug/kg	J
79-01-6	Trichloroethene	2040	11000	390	ug/kg	
75-01-4	Vinyl chloride	ND	11000	320	ug/kg	
1330-20-7	Xylene (total)	ND	2200	310	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	85%		70-130%
17060-07-0	1,2-Dichloroethane-D4	93%		70-122%
2037-26-5	Toluene-D8	91%		81-127%
460-00-4	4-Bromofluorobenzene	99%		66-132%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	2.2 (14-14.5)		
<b>Lab Sample ID:</b>	JB32749-15	<b>Date Sampled:</b>	03/27/13
<b>Matrix:</b>	SO - Soil	<b>Date Received:</b>	03/29/13
<b>Method:</b>	SW846 8260B SW846 5035	<b>Percent Solids:</b>	93.0
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C180794.D	1	04/07/13	TYG	03/29/13 12:00	n/a	VC6488
Run #2	E201899.D	1	04/09/13	OTR	03/29/13 12:00	n/a	VE8876

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	6.6 g		
Run #2	5.8 g	5.0 ml	20.0 ul

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	82.2	8.1	1.4	ug/kg	
71-43-2	Benzene	ND	0.81	0.097	ug/kg	
75-27-4	Bromodichloromethane	ND	4.1	0.086	ug/kg	
75-25-2	Bromoform	ND	4.1	0.12	ug/kg	
74-83-9	Bromomethane	ND	4.1	0.22	ug/kg	
78-93-3	2-Butanone (MEK)	129	8.1	1.9	ug/kg	
75-15-0	Carbon disulfide	1.9	4.1	0.095	ug/kg	J
56-23-5	Carbon tetrachloride	ND	4.1	0.11	ug/kg	
108-90-7	Chlorobenzene	ND	4.1	0.088	ug/kg	
75-00-3	Chloroethane	46.2	4.1	0.18	ug/kg	
67-66-3	Chloroform	ND	4.1	0.067	ug/kg	
74-87-3	Chloromethane	ND	4.1	0.15	ug/kg	
124-48-1	Dibromochloromethane	ND	4.1	0.13	ug/kg	
75-34-3	1,1-Dichloroethane	12100 <sup>a</sup>	1300	34	ug/kg	
107-06-2	1,2-Dichloroethane	34.0	0.81	0.11	ug/kg	
75-35-4	1,1-Dichloroethene	72.4	4.1	0.21	ug/kg	
156-59-2	cis-1,2-Dichloroethene	3.7	4.1	0.15	ug/kg	J
156-60-5	trans-1,2-Dichloroethene	0.86	4.1	0.19	ug/kg	J
540-59-0	1,2-Dichloroethene (total)	4.6	4.1	0.15	ug/kg	
78-87-5	1,2-Dichloropropane	ND	4.1	0.13	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	4.1	0.11	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	4.1	0.13	ug/kg	
100-41-4	Ethylbenzene	ND	0.81	0.21	ug/kg	
591-78-6	2-Hexanone	ND	4.1	0.51	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.81	0.19	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	4.1	0.61	ug/kg	
75-09-2	Methylene chloride	2.8	4.1	1.0	ug/kg	J
100-42-5	Styrene	ND	4.1	0.075	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	4.1	0.11	ug/kg	
127-18-4	Tetrachloroethene	ND	4.1	0.14	ug/kg	
108-88-3	Toluene	1.4	0.81	0.086	ug/kg	
71-55-6	1,1,1-Trichloroethane	617 <sup>a</sup>	1300	27	ug/kg	J

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> 2.2 (14-14.5)	
<b>Lab Sample ID:</b> JB32749-15	<b>Date Sampled:</b> 03/27/13
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/29/13
<b>Method:</b> SW846 8260B SW846 5035	<b>Percent Solids:</b> 93.0
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	1.6	4.1	0.14	ug/kg	J
79-01-6	Trichloroethene	0.39	4.1	0.14	ug/kg	J
75-01-4	Vinyl chloride	3.4	4.1	0.12	ug/kg	J
1330-20-7	Xylene (total)	ND	0.81	0.11	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%	83%	70-130%
17060-07-0	1,2-Dichloroethane-D4	91%	89%	70-122%
2037-26-5	Toluene-D8	109%	92%	81-127%
460-00-4	4-Bromofluorobenzene	102%	96%	66-132%

(a) Result is from Run# 2

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	3 (13.5-14)	
<b>Lab Sample ID:</b>	JB32749-16	<b>Date Sampled:</b> 03/27/13
<b>Matrix:</b>	SO - Soil	<b>Date Received:</b> 03/29/13
<b>Method:</b>	SW846 8260B SW846 5035	<b>Percent Solids:</b> 79.3
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	E201773.D	1	04/06/13	OTR	03/29/13 12:00	n/a	VE8871
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	3.2 g	5.0 ml	100 ul
Run #2			

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	1100	190	ug/kg	
71-43-2	Benzene	ND	110	13	ug/kg	
75-27-4	Bromodichloromethane	ND	560	12	ug/kg	
75-25-2	Bromoform	ND	560	17	ug/kg	
74-83-9	Bromomethane	ND	560	30	ug/kg	
78-93-3	2-Butanone (MEK)	ND	1100	270	ug/kg	
75-15-0	Carbon disulfide	ND	560	13	ug/kg	
56-23-5	Carbon tetrachloride	ND	560	15	ug/kg	
108-90-7	Chlorobenzene	ND	560	12	ug/kg	
75-00-3	Chloroethane	143	560	25	ug/kg	J
67-66-3	Chloroform	ND	560	9.2	ug/kg	
74-87-3	Chloromethane	ND	560	21	ug/kg	
124-48-1	Dibromochloromethane	ND	560	18	ug/kg	
75-34-3	1,1-Dichloroethane	459	560	15	ug/kg	J
107-06-2	1,2-Dichloroethane	ND	110	15	ug/kg	
75-35-4	1,1-Dichloroethene	293	560	29	ug/kg	J
156-59-2	cis-1,2-Dichloroethene	ND	560	20	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	560	27	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	560	20	ug/kg	
78-87-5	1,2-Dichloropropane	ND	560	17	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	560	16	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	560	17	ug/kg	
100-41-4	Ethylbenzene	ND	110	29	ug/kg	
591-78-6	2-Hexanone	ND	560	69	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	110	26	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	560	84	ug/kg	
75-09-2	Methylene chloride	ND	560	140	ug/kg	
100-42-5	Styrene	ND	560	10	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	560	15	ug/kg	
127-18-4	Tetrachloroethene	ND	560	19	ug/kg	
108-88-3	Toluene	36.2	110	12	ug/kg	J
71-55-6	1,1,1-Trichloroethane	1500	560	12	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

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<b>Client Sample ID:</b> 3 (13.5-14)	
<b>Lab Sample ID:</b> JB32749-16	<b>Date Sampled:</b> 03/27/13
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/29/13
<b>Method:</b> SW846 8260B SW846 5035	<b>Percent Solids:</b> 79.3
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	560	19	ug/kg	J
79-01-6	Trichloroethene	175	560	19	ug/kg	
75-01-4	Vinyl chloride	ND	560	16	ug/kg	
1330-20-7	Xylene (total)	ND	110	16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	82%		70-130%
17060-07-0	1,2-Dichloroethane-D4	85%		70-122%
2037-26-5	Toluene-D8	92%		81-127%
460-00-4	4-Bromofluorobenzene	95%		66-132%

(a) Diluted due to high concentration of non-target compound.

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	3 (14.5-15)	
<b>Lab Sample ID:</b>	JB32749-17	<b>Date Sampled:</b> 03/27/13
<b>Matrix:</b>	SO - Soil	<b>Date Received:</b> 03/29/13
<b>Method:</b>	SW846 8260B SW846 5035	<b>Percent Solids:</b> 94.7
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	E201929.D	1	04/10/13	OTR	03/29/13 12:00	n/a	VE8878
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	3.7 g	5.0 ml	100 ul
Run #2			

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	740	130	ug/kg	
71-43-2	Benzene	ND	74	8.8	ug/kg	
75-27-4	Bromodichloromethane	ND	370	7.8	ug/kg	
75-25-2	Bromoform	ND	370	11	ug/kg	
74-83-9	Bromomethane	ND	370	20	ug/kg	
78-93-3	2-Butanone (MEK)	ND	740	180	ug/kg	
75-15-0	Carbon disulfide	ND	370	8.7	ug/kg	
56-23-5	Carbon tetrachloride	ND	370	9.9	ug/kg	
108-90-7	Chlorobenzene	ND	370	8.0	ug/kg	
75-00-3	Chloroethane	953	370	17	ug/kg	
67-66-3	Chloroform	ND	370	6.1	ug/kg	
74-87-3	Chloromethane	ND	370	14	ug/kg	
124-48-1	Dibromochloromethane	ND	370	12	ug/kg	
75-34-3	1,1-Dichloroethane	5820	370	10	ug/kg	
107-06-2	1,2-Dichloroethane	165	74	10	ug/kg	
75-35-4	1,1-Dichloroethene	423	370	19	ug/kg	
156-59-2	cis-1,2-Dichloroethene	44.6	370	14	ug/kg	J
156-60-5	trans-1,2-Dichloroethene	81.2	370	18	ug/kg	J
540-59-0	1,2-Dichloroethene (total)	126	370	14	ug/kg	J
78-87-5	1,2-Dichloropropane	ND	370	11	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	370	10	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	370	11	ug/kg	
100-41-4	Ethylbenzene	ND	74	20	ug/kg	
591-78-6	2-Hexanone	ND	370	46	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	74	17	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	370	56	ug/kg	
75-09-2	Methylene chloride	ND	370	94	ug/kg	
100-42-5	Styrene	ND	370	6.8	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	370	9.8	ug/kg	
127-18-4	Tetrachloroethene	ND	370	13	ug/kg	
108-88-3	Toluene	462	74	7.8	ug/kg	
71-55-6	1,1,1-Trichloroethane	2320	370	7.9	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> 3 (14.5-15)	
<b>Lab Sample ID:</b> JB32749-17	<b>Date Sampled:</b> 03/27/13
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/29/13
<b>Method:</b> SW846 8260B SW846 5035	<b>Percent Solids:</b> 94.7
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	370	13	ug/kg	J
79-01-6	Trichloroethene	55.3	370	13	ug/kg	
75-01-4	Vinyl chloride	ND	370	11	ug/kg	
1330-20-7	Xylene (total)	ND	74	10	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	84%		70-130%
17060-07-0	1,2-Dichloroethane-D4	91%		70-122%
2037-26-5	Toluene-D8	92%		81-127%
460-00-4	4-Bromofluorobenzene	96%		66-132%

(a) Diluted due to high concentration of non-target compound.

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	3 (12.5-13)	
<b>Lab Sample ID:</b>	JB32749-18	<b>Date Sampled:</b> 03/27/13
<b>Matrix:</b>	SO - Soil	<b>Date Received:</b> 03/29/13
<b>Method:</b>	SW846 8260B SW846 5035	<b>Percent Solids:</b> 85.4
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 <sup>a</sup>	E201774.D	1	04/06/13	OTR	03/29/13 12:00	n/a	VE8871
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	2.6 g	5.0 ml	100 ul
Run #2			

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	1200	200	ug/kg	
71-43-2	Benzene	ND	120	14	ug/kg	
75-27-4	Bromodichloromethane	ND	610	13	ug/kg	
75-25-2	Bromoform	ND	610	18	ug/kg	
74-83-9	Bromomethane	ND	610	33	ug/kg	
78-93-3	2-Butanone (MEK)	ND	1200	290	ug/kg	
75-15-0	Carbon disulfide	ND	610	14	ug/kg	
56-23-5	Carbon tetrachloride	ND	610	16	ug/kg	
108-90-7	Chlorobenzene	ND	610	13	ug/kg	
75-00-3	Chloroethane	94.4	610	27	ug/kg	J
67-66-3	Chloroform	ND	610	10	ug/kg	
74-87-3	Chloromethane	ND	610	23	ug/kg	
124-48-1	Dibromochloromethane	ND	610	20	ug/kg	
75-34-3	1,1-Dichloroethane	410	610	17	ug/kg	J
107-06-2	1,2-Dichloroethane	134	120	16	ug/kg	
75-35-4	1,1-Dichloroethene	659	610	31	ug/kg	
156-59-2	cis-1,2-Dichloroethene	104	610	22	ug/kg	J
156-60-5	trans-1,2-Dichloroethene	108	610	29	ug/kg	J
540-59-0	1,2-Dichloroethene (total)	212	610	22	ug/kg	J
78-87-5	1,2-Dichloropropane	ND	610	19	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	610	17	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	610	19	ug/kg	
100-41-4	Ethylbenzene	ND	120	32	ug/kg	
591-78-6	2-Hexanone	ND	610	75	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	120	28	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	610	91	ug/kg	
75-09-2	Methylene chloride	ND	610	150	ug/kg	
100-42-5	Styrene	ND	610	11	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	610	16	ug/kg	
127-18-4	Tetrachloroethene	ND	610	21	ug/kg	
108-88-3	Toluene	ND	120	13	ug/kg	
71-55-6	1,1,1-Trichloroethane	1270	610	13	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> 3 (12.5-13)	
<b>Lab Sample ID:</b> JB32749-18	<b>Date Sampled:</b> 03/27/13
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/29/13
<b>Method:</b> SW846 8260B SW846 5035	<b>Percent Solids:</b> 85.4
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	610	21	ug/kg	J
79-01-6	Trichloroethene	279	610	21	ug/kg	
75-01-4	Vinyl chloride	ND	610	17	ug/kg	
1330-20-7	Xylene (total)	ND	120	17	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	82%		70-130%
17060-07-0	1,2-Dichloroethane-D4	85%		70-122%
2037-26-5	Toluene-D8	91%		81-127%
460-00-4	4-Bromofluorobenzene	94%		66-132%

(a) Diluted due to high concentration of non-target compound.

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	4 (11-11.5)	<b>Date Sampled:</b>	03/27/13
<b>Lab Sample ID:</b>	JB32749-19	<b>Date Received:</b>	03/29/13
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	86.6
<b>Method:</b>	SW846 8260B SW846 5035		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C180795.D	1	04/07/13	TYG	03/29/13 12:00	n/a	VC6488
Run #2	E201930.D	1	04/10/13	OTR	03/29/13 12:00	n/a	VE8878

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	6.9 g		
Run #2	6.1 g	5.0 ml	100 ul

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	10.9	8.4	1.4	ug/kg	
71-43-2	Benzene	ND	0.84	0.10	ug/kg	
75-27-4	Bromodichloromethane	ND	4.2	0.088	ug/kg	
75-25-2	Bromoform	ND	4.2	0.13	ug/kg	
74-83-9	Bromomethane	ND	4.2	0.23	ug/kg	
78-93-3	2-Butanone (MEK)	ND	8.4	2.0	ug/kg	
75-15-0	Carbon disulfide	1.1	4.2	0.098	ug/kg	J
56-23-5	Carbon tetrachloride	ND	4.2	0.11	ug/kg	
108-90-7	Chlorobenzene	ND	4.2	0.090	ug/kg	
75-00-3	Chloroethane	3.4	4.2	0.19	ug/kg	J
67-66-3	Chloroform	ND	4.2	0.069	ug/kg	
74-87-3	Chloromethane	ND	4.2	0.16	ug/kg	
124-48-1	Dibromochloromethane	ND	4.2	0.14	ug/kg	
75-34-3	1,1-Dichloroethane	2000 <sup>a</sup>	280	7.5	ug/kg	
107-06-2	1,2-Dichloroethane	4.4	0.84	0.11	ug/kg	
75-35-4	1,1-Dichloroethene	1650 <sup>a</sup>	280	14	ug/kg	
156-59-2	cis-1,2-Dichloroethene	2.6	4.2	0.15	ug/kg	J
156-60-5	trans-1,2-Dichloroethene	0.43	4.2	0.20	ug/kg	J
540-59-0	1,2-Dichloroethene (total)	3.0	4.2	0.15	ug/kg	J
78-87-5	1,2-Dichloropropane	ND	4.2	0.13	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	4.2	0.12	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	4.2	0.13	ug/kg	
100-41-4	Ethylbenzene	ND	0.84	0.22	ug/kg	
591-78-6	2-Hexanone	ND	4.2	0.52	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.84	0.20	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	4.2	0.63	ug/kg	
75-09-2	Methylene chloride	4.0	4.2	1.1	ug/kg	J
100-42-5	Styrene	ND	4.2	0.077	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	4.2	0.11	ug/kg	
127-18-4	Tetrachloroethene	ND	4.2	0.14	ug/kg	
108-88-3	Toluene	ND	0.84	0.088	ug/kg	
71-55-6	1,1,1-Trichloroethane	88.1	4.2	0.089	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> 4 (11-11.5)	
<b>Lab Sample ID:</b> JB32749-19	<b>Date Sampled:</b> 03/27/13
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/29/13
<b>Method:</b> SW846 8260B SW846 5035	<b>Percent Solids:</b> 86.6
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	4.2	0.15	ug/kg	
79-01-6	Trichloroethene	0.45	4.2	0.15	ug/kg	J
75-01-4	Vinyl chloride	1.8	4.2	0.12	ug/kg	J
1330-20-7	Xylene (total)	ND	0.84	0.12	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%	85%	70-130%
17060-07-0	1,2-Dichloroethane-D4	92%	91%	70-122%
2037-26-5	Toluene-D8	110%	91%	81-127%
460-00-4	4-Bromofluorobenzene	102%	98%	66-132%

(a) Result is from Run# 2

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	4 (10-10.5)		
<b>Lab Sample ID:</b>	JB32749-20	<b>Date Sampled:</b>	03/27/13
<b>Matrix:</b>	SO - Soil	<b>Date Received:</b>	03/29/13
<b>Method:</b>	SW846 8260B SW846 5035	<b>Percent Solids:</b>	84.3
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C180796.D	1	04/07/13	TYG	03/29/13 12:00	n/a	VC6488
Run #2							

	Initial Weight
Run #1	3.1 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	13.0	19	3.2	ug/kg	J
71-43-2	Benzene	ND	1.9	0.23	ug/kg	
75-27-4	Bromodichloromethane	ND	9.6	0.20	ug/kg	
75-25-2	Bromoform	ND	9.6	0.29	ug/kg	
74-83-9	Bromomethane	ND	9.6	0.52	ug/kg	
78-93-3	2-Butanone (MEK)	ND	19	4.6	ug/kg	
75-15-0	Carbon disulfide	1.3	9.6	0.22	ug/kg	J
56-23-5	Carbon tetrachloride	ND	9.6	0.25	ug/kg	
108-90-7	Chlorobenzene	ND	9.6	0.21	ug/kg	
75-00-3	Chloroethane	ND	9.6	0.43	ug/kg	
67-66-3	Chloroform	0.50	9.6	0.16	ug/kg	J
74-87-3	Chloromethane	ND	9.6	0.36	ug/kg	
124-48-1	Dibromochloromethane	ND	9.6	0.31	ug/kg	
75-34-3	1,1-Dichloroethane	9.6	9.6	0.26	ug/kg	
107-06-2	1,2-Dichloroethane	2.3	1.9	0.26	ug/kg	
75-35-4	1,1-Dichloroethene	31.4	9.6	0.49	ug/kg	
156-59-2	cis-1,2-Dichloroethene	1.0	9.6	0.35	ug/kg	J
156-60-5	trans-1,2-Dichloroethene	0.67	9.6	0.46	ug/kg	J
540-59-0	1,2-Dichloroethene (total)	1.7	9.6	0.35	ug/kg	J
78-87-5	1,2-Dichloropropane	ND	9.6	0.29	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	9.6	0.27	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	9.6	0.30	ug/kg	
100-41-4	Ethylbenzene	ND	1.9	0.50	ug/kg	
591-78-6	2-Hexanone	ND	9.6	1.2	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.9	0.45	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	9.6	1.4	ug/kg	
75-09-2	Methylene chloride	15.1	9.6	2.4	ug/kg	
100-42-5	Styrene	ND	9.6	0.18	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	9.6	0.25	ug/kg	
127-18-4	Tetrachloroethene	0.99	9.6	0.33	ug/kg	J
108-88-3	Toluene	ND	1.9	0.20	ug/kg	
71-55-6	1,1,1-Trichloroethane	89.0	9.6	0.20	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

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<b>Client Sample ID:</b> 4 (10-10.5)	
<b>Lab Sample ID:</b> JB32749-20	<b>Date Sampled:</b> 03/27/13
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/29/13
<b>Method:</b> SW846 8260B SW846 5035	<b>Percent Solids:</b> 84.3
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	9.6	0.33	ug/kg	J
79-01-6	Trichloroethene	3.5	9.6	0.33	ug/kg	
75-01-4	Vinyl chloride	ND	9.6	0.28	ug/kg	
1330-20-7	Xylene (total)	ND	1.9	0.27	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		70-130%
17060-07-0	1,2-Dichloroethane-D4	92%		70-122%
2037-26-5	Toluene-D8	110%		81-127%
460-00-4	4-Bromofluorobenzene	104%		66-132%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	4 (14.5-15)	<b>Date Sampled:</b>	03/27/13
<b>Lab Sample ID:</b>	JB32749-21	<b>Date Received:</b>	03/29/13
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	96.0
<b>Method:</b>	SW846 8260B SW846 5035		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C180797.D	1	04/07/13	TYG	03/29/13 12:00	n/a	VC6488
Run #2	E201887.D	1	04/09/13	OTR	03/29/13 12:00	n/a	VE8876

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	4.1 g		
Run #2	4.6 g	5.0 ml	100 ul

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	14.6	13	2.1	ug/kg	
71-43-2	Benzene	ND	1.3	0.15	ug/kg	
75-27-4	Bromodichloromethane	ND	6.4	0.13	ug/kg	
75-25-2	Bromoform	ND	6.4	0.19	ug/kg	
74-83-9	Bromomethane	ND	6.4	0.35	ug/kg	
78-93-3	2-Butanone (MEK)	40.1	13	3.0	ug/kg	
75-15-0	Carbon disulfide	ND	6.4	0.15	ug/kg	
56-23-5	Carbon tetrachloride	ND	6.4	0.17	ug/kg	
108-90-7	Chlorobenzene	ND	6.4	0.14	ug/kg	
75-00-3	Chloroethane	1190 <sup>a</sup>	290	13	ug/kg	
67-66-3	Chloroform	ND	6.4	0.10	ug/kg	
74-87-3	Chloromethane	ND	6.4	0.24	ug/kg	
124-48-1	Dibromochloromethane	ND	6.4	0.21	ug/kg	
75-34-3	1,1-Dichloroethane	6470 <sup>a</sup>	290	8.0	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.3	0.17	ug/kg	
75-35-4	1,1-Dichloroethene	0.43	6.4	0.33	ug/kg	J
156-59-2	cis-1,2-Dichloroethene	ND	6.4	0.23	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	6.4	0.30	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	6.4	0.23	ug/kg	
78-87-5	1,2-Dichloropropane	ND	6.4	0.20	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	6.4	0.18	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	6.4	0.20	ug/kg	
100-41-4	Ethylbenzene	ND	1.3	0.33	ug/kg	
591-78-6	2-Hexanone	ND	6.4	0.79	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.3	0.30	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	6.4	0.95	ug/kg	
75-09-2	Methylene chloride	12.4	6.4	1.6	ug/kg	
100-42-5	Styrene	ND	6.4	0.12	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	6.4	0.17	ug/kg	
127-18-4	Tetrachloroethene	ND	6.4	0.22	ug/kg	
108-88-3	Toluene	ND	1.3	0.13	ug/kg	
71-55-6	1,1,1-Trichloroethane	3.9	6.4	0.13	ug/kg	J

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> 4 (14.5-15)	
<b>Lab Sample ID:</b> JB32749-21	<b>Date Sampled:</b> 03/27/13
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/29/13
<b>Method:</b> SW846 8260B SW846 5035	<b>Percent Solids:</b> 96.0
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	6.4	0.22	ug/kg	
79-01-6	Trichloroethene	ND	6.4	0.22	ug/kg	
75-01-4	Vinyl chloride	2.4	6.4	0.18	ug/kg	J
1330-20-7	Xylene (total)	ND	1.3	0.18	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%	86%	70-130%
17060-07-0	1,2-Dichloroethane-D4	92%	95%	70-122%
2037-26-5	Toluene-D8	110%	90%	81-127%
460-00-4	4-Bromofluorobenzene	103%	94%	66-132%

(a) Result is from Run# 2

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	5 (13.5-14)		
<b>Lab Sample ID:</b>	JB32749-22	<b>Date Sampled:</b>	03/27/13
<b>Matrix:</b>	SO - Soil	<b>Date Received:</b>	03/29/13
<b>Method:</b>	SW846 8260B SW846 5035	<b>Percent Solids:</b>	84.8
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C180798.D	1	04/07/13	TYG	03/29/13 12:00	n/a	VC6488
Run #2	E201891.D	1	04/09/13	OTR	03/29/13 12:00	n/a	VE8876

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.0 g		
Run #2	3.4 g	5.0 ml	100 ul

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	4.6	12	2.0	ug/kg	J
71-43-2	Benzene	ND	1.2	0.14	ug/kg	
75-27-4	Bromodichloromethane	ND	5.9	0.12	ug/kg	
75-25-2	Bromoform	ND	5.9	0.18	ug/kg	
74-83-9	Bromomethane	ND	5.9	0.32	ug/kg	
78-93-3	2-Butanone (MEK)	ND	12	2.8	ug/kg	
75-15-0	Carbon disulfide	ND	5.9	0.14	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.9	0.16	ug/kg	
108-90-7	Chlorobenzene	ND	5.9	0.13	ug/kg	
75-00-3	Chloroethane	ND	5.9	0.27	ug/kg	
67-66-3	Chloroform	ND	5.9	0.097	ug/kg	
74-87-3	Chloromethane	ND	5.9	0.22	ug/kg	
124-48-1	Dibromochloromethane	ND	5.9	0.19	ug/kg	
75-34-3	1,1-Dichloroethane	15.0	5.9	0.16	ug/kg	
107-06-2	1,2-Dichloroethane	1.2	1.2	0.16	ug/kg	
75-35-4	1,1-Dichloroethene	9.3	5.9	0.30	ug/kg	
156-59-2	cis-1,2-Dichloroethene	0.36	5.9	0.22	ug/kg	J
156-60-5	trans-1,2-Dichloroethene	ND	5.9	0.28	ug/kg	
540-59-0	1,2-Dichloroethene (total)	0.36	5.9	0.22	ug/kg	J
78-87-5	1,2-Dichloropropane	ND	5.9	0.18	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.9	0.16	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.9	0.18	ug/kg	
100-41-4	Ethylbenzene	ND	1.2	0.31	ug/kg	
591-78-6	2-Hexanone	ND	5.9	0.73	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.2	0.28	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.9	0.89	ug/kg	
75-09-2	Methylene chloride	2.7	5.9	1.5	ug/kg	J
100-42-5	Styrene	ND	5.9	0.11	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.9	0.16	ug/kg	
127-18-4	Tetrachloroethene	ND	5.9	0.20	ug/kg	
108-88-3	Toluene	ND	1.2	0.12	ug/kg	
71-55-6	1,1,1-Trichloroethane	3480 <sup>a</sup>	480	10	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> 5 (13.5-14)	
<b>Lab Sample ID:</b> JB32749-22	<b>Date Sampled:</b> 03/27/13
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/29/13
<b>Method:</b> SW846 8260B SW846 5035	<b>Percent Solids:</b> 84.8
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	0.44	5.9	0.21	ug/kg	J
79-01-6	Trichloroethene	2.0	5.9	0.21	ug/kg	J
75-01-4	Vinyl chloride	ND	5.9	0.17	ug/kg	
1330-20-7	Xylene (total)	ND	1.2	0.16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%	85%	70-130%
17060-07-0	1,2-Dichloroethane-D4	90%	92%	70-122%
2037-26-5	Toluene-D8	108%	90%	81-127%
460-00-4	4-Bromofluorobenzene	102%	95%	66-132%

(a) Result is from Run# 2

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	5 (14-14.5)		
<b>Lab Sample ID:</b>	JB32749-23	<b>Date Sampled:</b>	03/27/13
<b>Matrix:</b>	SO - Soil	<b>Date Received:</b>	03/29/13
<b>Method:</b>	SW846 8260B SW846 5035	<b>Percent Solids:</b>	85.3
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C180799.D	1	04/07/13	TYG	03/29/13 12:00	n/a	VC6488
Run #2	E201892.D	1	04/09/13	OTR	03/29/13 12:00	n/a	VE8876

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	6.1 g		
Run #2	4.2 g	5.0 ml	100 ul

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	19.2	9.6	1.6	ug/kg	
71-43-2	Benzene	ND	0.96	0.11	ug/kg	
75-27-4	Bromodichloromethane	ND	4.8	0.10	ug/kg	
75-25-2	Bromoform	ND	4.8	0.15	ug/kg	
74-83-9	Bromomethane	ND	4.8	0.26	ug/kg	
78-93-3	2-Butanone (MEK)	ND	9.6	2.3	ug/kg	
75-15-0	Carbon disulfide	0.65	4.8	0.11	ug/kg	J
56-23-5	Carbon tetrachloride	ND	4.8	0.13	ug/kg	
108-90-7	Chlorobenzene	ND	4.8	0.10	ug/kg	
75-00-3	Chloroethane	0.91	4.8	0.22	ug/kg	J
67-66-3	Chloroform	ND	4.8	0.079	ug/kg	
74-87-3	Chloromethane	ND	4.8	0.18	ug/kg	
124-48-1	Dibromochloromethane	ND	4.8	0.16	ug/kg	
75-34-3	1,1-Dichloroethane	42.9	4.8	0.13	ug/kg	
107-06-2	1,2-Dichloroethane	ND	0.96	0.13	ug/kg	
75-35-4	1,1-Dichloroethene	21.4	4.8	0.25	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	4.8	0.18	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	4.8	0.23	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	4.8	0.18	ug/kg	
78-87-5	1,2-Dichloropropane	ND	4.8	0.15	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	4.8	0.13	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	4.8	0.15	ug/kg	
100-41-4	Ethylbenzene	ND	0.96	0.25	ug/kg	
591-78-6	2-Hexanone	ND	4.8	0.60	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.96	0.23	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	4.8	0.72	ug/kg	
75-09-2	Methylene chloride	ND	4.8	1.2	ug/kg	
100-42-5	Styrene	ND	4.8	0.088	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	4.8	0.13	ug/kg	
127-18-4	Tetrachloroethene	ND	4.8	0.17	ug/kg	
108-88-3	Toluene	ND	0.96	0.10	ug/kg	
71-55-6	1,1,1-Trichloroethane	1220 <sup>a</sup>	390	8.3	ug/kg	

ND = Not detected MDL - Method Detection Limit

J = Indicates an estimated value

RL = Reporting Limit

B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> 5 (14-14.5)	
<b>Lab Sample ID:</b> JB32749-23	<b>Date Sampled:</b> 03/27/13
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/29/13
<b>Method:</b> SW846 8260B SW846 5035	<b>Percent Solids:</b> 85.3
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	4.8	0.17	ug/kg	
79-01-6	Trichloroethene	ND	4.8	0.17	ug/kg	
75-01-4	Vinyl chloride	1.3	4.8	0.14	ug/kg	J
1330-20-7	Xylene (total)	ND	0.96	0.13	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%	82%	70-130%
17060-07-0	1,2-Dichloroethane-D4	94%	90%	70-122%
2037-26-5	Toluene-D8	109%	90%	81-127%
460-00-4	4-Bromofluorobenzene	103%	96%	66-132%

(a) Result is from Run# 2

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	5 (14.5-15)		
<b>Lab Sample ID:</b>	JB32749-24	<b>Date Sampled:</b>	03/27/13
<b>Matrix:</b>	SO - Soil	<b>Date Received:</b>	03/29/13
<b>Method:</b>	SW846 8260B SW846 5035	<b>Percent Solids:</b>	93.7
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C180800.D	1	04/07/13	TYG	03/29/13 12:00	n/a	VC6488
Run #2	E201893.D	1	04/09/13	OTR	03/29/13 12:00	n/a	VE8876

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.1 g		
Run #2	4.4 g	5.0 ml	100 ul

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	37.1	10	1.8	ug/kg	
71-43-2	Benzene	ND	1.0	0.12	ug/kg	
75-27-4	Bromodichloromethane	ND	5.2	0.11	ug/kg	
75-25-2	Bromoform	ND	5.2	0.16	ug/kg	
74-83-9	Bromomethane	ND	5.2	0.29	ug/kg	
78-93-3	2-Butanone (MEK)	ND	10	2.5	ug/kg	
75-15-0	Carbon disulfide	ND	5.2	0.12	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.2	0.14	ug/kg	
108-90-7	Chlorobenzene	ND	5.2	0.11	ug/kg	
75-00-3	Chloroethane	1.3	5.2	0.24	ug/kg	J
67-66-3	Chloroform	ND	5.2	0.086	ug/kg	
74-87-3	Chloromethane	ND	5.2	0.19	ug/kg	
124-48-1	Dibromochloromethane	ND	5.2	0.17	ug/kg	
75-34-3	1,1-Dichloroethane	54.3	5.2	0.14	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.0	0.14	ug/kg	
75-35-4	1,1-Dichloroethene	30.8	5.2	0.27	ug/kg	
156-59-2	cis-1,2-Dichloroethene	0.33	5.2	0.19	ug/kg	J
156-60-5	trans-1,2-Dichloroethene	ND	5.2	0.25	ug/kg	
540-59-0	1,2-Dichloroethene (total)	0.33	5.2	0.19	ug/kg	J
78-87-5	1,2-Dichloropropane	ND	5.2	0.16	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.2	0.15	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.2	0.16	ug/kg	
100-41-4	Ethylbenzene	ND	1.0	0.28	ug/kg	
591-78-6	2-Hexanone	ND	5.2	0.65	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.2	0.79	ug/kg	
75-09-2	Methylene chloride	1.6	5.2	1.3	ug/kg	J
100-42-5	Styrene	ND	5.2	0.096	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.2	0.14	ug/kg	
127-18-4	Tetrachloroethene	ND	5.2	0.18	ug/kg	
108-88-3	Toluene	ND	1.0	0.11	ug/kg	
71-55-6	1,1,1-Trichloroethane	2090 <sup>a</sup>	320	6.8	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

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<b>Client Sample ID:</b> 5 (14.5-15)	
<b>Lab Sample ID:</b> JB32749-24	<b>Date Sampled:</b> 03/27/13
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/29/13
<b>Method:</b> SW846 8260B SW846 5035	<b>Percent Solids:</b> 93.7
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	5.2	0.18	ug/kg	
79-01-6	Trichloroethene	ND	5.2	0.18	ug/kg	
75-01-4	Vinyl chloride	1.2	5.2	0.15	ug/kg	J
1330-20-7	Xylene (total)	ND	1.0	0.15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%	84%	70-130%
17060-07-0	1,2-Dichloroethane-D4	93%	90%	70-122%
2037-26-5	Toluene-D8	109%	91%	81-127%
460-00-4	4-Bromofluorobenzene	103%	95%	66-132%

(a) Result is from Run# 2

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	6 (11.5-12)	<b>Date Sampled:</b>	03/27/13
<b>Lab Sample ID:</b>	JB32749-25	<b>Date Received:</b>	03/29/13
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	79.6
<b>Method:</b>	SW846 8260B SW846 5035		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C180867.D	1	04/09/13	TYG	03/29/13 12:00	n/a	VC6492
Run #2							

	Initial Weight
Run #1	4.8 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	13	2.2	ug/kg	
71-43-2	Benzene	ND	1.3	0.16	ug/kg	
75-27-4	Bromodichloromethane	ND	6.5	0.14	ug/kg	
75-25-2	Bromoform	ND	6.5	0.20	ug/kg	
74-83-9	Bromomethane	ND	6.5	0.36	ug/kg	
78-93-3	2-Butanone (MEK)	ND	13	3.1	ug/kg	
75-15-0	Carbon disulfide	ND	6.5	0.15	ug/kg	
56-23-5	Carbon tetrachloride	ND	6.5	0.17	ug/kg	
108-90-7	Chlorobenzene	ND	6.5	0.14	ug/kg	
75-00-3	Chloroethane	ND	6.5	0.30	ug/kg	
67-66-3	Chloroform	ND	6.5	0.11	ug/kg	
74-87-3	Chloromethane	ND	6.5	0.24	ug/kg	
124-48-1	Dibromochloromethane	ND	6.5	0.21	ug/kg	
75-34-3	1,1-Dichloroethane	ND	6.5	0.18	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.3	0.18	ug/kg	
75-35-4	1,1-Dichloroethene	ND	6.5	0.34	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	6.5	0.24	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	6.5	0.31	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	6.5	0.24	ug/kg	
78-87-5	1,2-Dichloropropane	ND	6.5	0.20	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	6.5	0.18	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	6.5	0.20	ug/kg	
100-41-4	Ethylbenzene	ND	1.3	0.34	ug/kg	
591-78-6	2-Hexanone	ND	6.5	0.81	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.3	0.31	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	6.5	0.98	ug/kg	
75-09-2	Methylene chloride	2.9	6.5	1.7	ug/kg	J
100-42-5	Styrene	ND	6.5	0.12	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	6.5	0.17	ug/kg	
127-18-4	Tetrachloroethene	ND	6.5	0.23	ug/kg	
108-88-3	Toluene	ND	1.3	0.14	ug/kg	
71-55-6	1,1,1-Trichloroethane	2.9	6.5	0.14	ug/kg	J

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b> 6 (11.5-12)	
<b>Lab Sample ID:</b> JB32749-25	<b>Date Sampled:</b> 03/27/13
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/29/13
<b>Method:</b> SW846 8260B SW846 5035	<b>Percent Solids:</b> 79.6
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	6.5	0.23	ug/kg	
79-01-6	Trichloroethene	ND	6.5	0.23	ug/kg	
75-01-4	Vinyl chloride	ND	6.5	0.19	ug/kg	
1330-20-7	Xylene (total)	ND	1.3	0.18	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		70-130%
17060-07-0	1,2-Dichloroethane-D4	92%		70-122%
2037-26-5	Toluene-D8	108%		81-127%
460-00-4	4-Bromofluorobenzene	102%		66-132%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 2

<b>Client Sample ID:</b>	6 (12.5-13)	
<b>Lab Sample ID:</b>	JB32749-26	<b>Date Sampled:</b> 03/27/13
<b>Matrix:</b>	SO - Soil	<b>Date Received:</b> 03/29/13
<b>Method:</b>	SW846 8260B SW846 5035	<b>Percent Solids:</b> 85.9
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C180802.D	1	04/07/13	TYG	03/29/13 12:00	n/a	VC6488
Run #2							

	Initial Weight
Run #1	5.7 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	4.9	10	1.7	ug/kg	J
71-43-2	Benzene	ND	1.0	0.12	ug/kg	
75-27-4	Bromodichloromethane	ND	5.1	0.11	ug/kg	
75-25-2	Bromoform	ND	5.1	0.15	ug/kg	
74-83-9	Bromomethane	ND	5.1	0.28	ug/kg	
78-93-3	2-Butanone (MEK)	ND	10	2.4	ug/kg	
75-15-0	Carbon disulfide	ND	5.1	0.12	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.1	0.14	ug/kg	
108-90-7	Chlorobenzene	ND	5.1	0.11	ug/kg	
75-00-3	Chloroethane	ND	5.1	0.23	ug/kg	
67-66-3	Chloroform	ND	5.1	0.084	ug/kg	
74-87-3	Chloromethane	ND	5.1	0.19	ug/kg	
124-48-1	Dibromochloromethane	ND	5.1	0.17	ug/kg	
75-34-3	1,1-Dichloroethane	2.0	5.1	0.14	ug/kg	J
107-06-2	1,2-Dichloroethane	2.8	1.0	0.14	ug/kg	
75-35-4	1,1-Dichloroethene	6.1	5.1	0.26	ug/kg	
156-59-2	cis-1,2-Dichloroethene	1.2	5.1	0.19	ug/kg	J
156-60-5	trans-1,2-Dichloroethene	1.2	5.1	0.24	ug/kg	J
540-59-0	1,2-Dichloroethene (total)	2.4	5.1	0.19	ug/kg	J
78-87-5	1,2-Dichloropropane	ND	5.1	0.16	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.1	0.14	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.1	0.16	ug/kg	
100-41-4	Ethylbenzene	ND	1.0	0.27	ug/kg	
591-78-6	2-Hexanone	ND	5.1	0.64	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.24	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.1	0.77	ug/kg	
75-09-2	Methylene chloride	4.1	5.1	1.3	ug/kg	J
100-42-5	Styrene	ND	5.1	0.094	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.1	0.13	ug/kg	
127-18-4	Tetrachloroethene	ND	5.1	0.18	ug/kg	
108-88-3	Toluene	ND	1.0	0.11	ug/kg	
71-55-6	1,1,1-Trichloroethane	41.5	5.1	0.11	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 2 of 2

<b>Client Sample ID:</b>	6 (12.5-13)	<b>Date Sampled:</b>	03/27/13
<b>Lab Sample ID:</b>	JB32749-26	<b>Date Received:</b>	03/29/13
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	85.9
<b>Method:</b>	SW846 8260B SW846 5035		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	5.1	0.18	ug/kg	J
79-01-6	Trichloroethene	5.0	5.1	0.18	ug/kg	
75-01-4	Vinyl chloride	ND	5.1	0.15	ug/kg	
1330-20-7	Xylene (total)	ND	1.0	0.14	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		70-130%
17060-07-0	1,2-Dichloroethane-D4	89%		70-122%
2037-26-5	Toluene-D8	109%		81-127%
460-00-4	4-Bromofluorobenzene	102%		66-132%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 2

<b>Client Sample ID:</b>	6 (14.5-15)	<b>Date Sampled:</b>	03/27/13
<b>Lab Sample ID:</b>	JB32749-27	<b>Date Received:</b>	03/29/13
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	92.6
<b>Method:</b>	SW846 8260B SW846 5035		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C180803.D	1	04/07/13	TYG	03/29/13 12:00	n/a	VC6488
Run #2							

Run #	Initial Weight
Run #1	4.6 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	12	2.0	ug/kg	
71-43-2	Benzene	ND	1.2	0.14	ug/kg	
75-27-4	Bromodichloromethane	ND	5.9	0.12	ug/kg	
75-25-2	Bromoform	ND	5.9	0.18	ug/kg	
74-83-9	Bromomethane	ND	5.9	0.32	ug/kg	
78-93-3	2-Butanone (MEK)	ND	12	2.8	ug/kg	
75-15-0	Carbon disulfide	ND	5.9	0.14	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.9	0.16	ug/kg	
108-90-7	Chlorobenzene	ND	5.9	0.13	ug/kg	
75-00-3	Chloroethane	ND	5.9	0.27	ug/kg	
67-66-3	Chloroform	ND	5.9	0.097	ug/kg	
74-87-3	Chloromethane	ND	5.9	0.22	ug/kg	
124-48-1	Dibromochloromethane	ND	5.9	0.19	ug/kg	
75-34-3	1,1-Dichloroethane	3.5	5.9	0.16	ug/kg	J
107-06-2	1,2-Dichloroethane	ND	1.2	0.16	ug/kg	
75-35-4	1,1-Dichloroethene	ND	5.9	0.30	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	5.9	0.21	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	5.9	0.28	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	5.9	0.21	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.9	0.18	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.9	0.16	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.9	0.18	ug/kg	
100-41-4	Ethylbenzene	ND	1.2	0.31	ug/kg	
591-78-6	2-Hexanone	ND	5.9	0.73	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.2	0.28	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.9	0.88	ug/kg	
75-09-2	Methylene chloride	ND	5.9	1.5	ug/kg	
100-42-5	Styrene	ND	5.9	0.11	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.9	0.15	ug/kg	
127-18-4	Tetrachloroethene	ND	5.9	0.20	ug/kg	
108-88-3	Toluene	ND	1.2	0.12	ug/kg	
71-55-6	1,1,1-Trichloroethane	0.93	5.9	0.12	ug/kg	J

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 2 of 2

<b>Client Sample ID:</b> 6 (14.5-15)	
<b>Lab Sample ID:</b> JB32749-27	<b>Date Sampled:</b> 03/27/13
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/29/13
<b>Method:</b> SW846 8260B SW846 5035	<b>Percent Solids:</b> 92.6
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	5.9	0.20	ug/kg	
79-01-6	Trichloroethene	ND	5.9	0.20	ug/kg	
75-01-4	Vinyl chloride	ND	5.9	0.17	ug/kg	
1330-20-7	Xylene (total)	ND	1.2	0.16	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		70-130%
17060-07-0	1,2-Dichloroethane-D4	92%		70-122%
2037-26-5	Toluene-D8	110%		81-127%
460-00-4	4-Bromofluorobenzene	102%		66-132%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

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<b>Client Sample ID:</b>	FD-1 6(11.5-12)	<b>Date Sampled:</b>	03/27/13
<b>Lab Sample ID:</b>	JB32749-28	<b>Date Received:</b>	03/29/13
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	86.1
<b>Method:</b>	SW846 8260B SW846 5035		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C180804.D	1	04/07/13	TYG	03/29/13 12:00	n/a	VC6488
Run #2							

	Initial Weight
Run #1	5.4 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	11	1.8	ug/kg	
71-43-2	Benzene	ND	1.1	0.13	ug/kg	
75-27-4	Bromodichloromethane	ND	5.4	0.11	ug/kg	
75-25-2	Bromoform	ND	5.4	0.16	ug/kg	
74-83-9	Bromomethane	ND	5.4	0.29	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	2.6	ug/kg	
75-15-0	Carbon disulfide	ND	5.4	0.13	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.4	0.14	ug/kg	
108-90-7	Chlorobenzene	ND	5.4	0.12	ug/kg	
75-00-3	Chloroethane	ND	5.4	0.24	ug/kg	
67-66-3	Chloroform	ND	5.4	0.089	ug/kg	
74-87-3	Chloromethane	ND	5.4	0.20	ug/kg	
124-48-1	Dibromochloromethane	ND	5.4	0.18	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.4	0.15	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.1	0.15	ug/kg	
75-35-4	1,1-Dichloroethene	ND	5.4	0.28	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	5.4	0.20	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	5.4	0.26	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	5.4	0.20	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.4	0.17	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.4	0.15	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.4	0.17	ug/kg	
100-41-4	Ethylbenzene	ND	1.1	0.28	ug/kg	
591-78-6	2-Hexanone	ND	5.4	0.67	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.1	0.25	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.4	0.81	ug/kg	
75-09-2	Methylene chloride	3.2	5.4	1.4	ug/kg	J
100-42-5	Styrene	ND	5.4	0.099	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.4	0.14	ug/kg	
127-18-4	Tetrachloroethene	ND	5.4	0.18	ug/kg	
108-88-3	Toluene	ND	1.1	0.11	ug/kg	
71-55-6	1,1,1-Trichloroethane	3.6	5.4	0.11	ug/kg	J

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

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<b>Client Sample ID:</b> FD-1 6(11.5-12)	
<b>Lab Sample ID:</b> JB32749-28	<b>Date Sampled:</b> 03/27/13
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/29/13
<b>Method:</b> SW846 8260B SW846 5035	<b>Percent Solids:</b> 86.1
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	5.4	0.19	ug/kg	J
79-01-6	Trichloroethene	0.89	5.4	0.19	ug/kg	
75-01-4	Vinyl chloride	ND	5.4	0.15	ug/kg	
1330-20-7	Xylene (total)	ND	1.1	0.15	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		70-130%
17060-07-0	1,2-Dichloroethane-D4	91%		70-122%
2037-26-5	Toluene-D8	109%		81-127%
460-00-4	4-Bromofluorobenzene	101%		66-132%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 2

<b>Client Sample ID:</b>	FD-2 6(14.5-15)	<b>Date Sampled:</b>	03/27/13
<b>Lab Sample ID:</b>	JB32749-29	<b>Date Received:</b>	03/29/13
<b>Matrix:</b>	SO - Soil	<b>Percent Solids:</b>	95.4
<b>Method:</b>	SW846 8260B SW846 5035		
<b>Project:</b>	AFFCO, 361 Walsh Avenue, New Windsor, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	C180868.D	1	04/09/13	TYG	03/29/13 12:00	n/a	VC6492
Run #2							

	Initial Weight
Run #1	7.3 g
Run #2	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	7.2	1.2	ug/kg	
71-43-2	Benzene	ND	0.72	0.085	ug/kg	
75-27-4	Bromodichloromethane	ND	3.6	0.075	ug/kg	
75-25-2	Bromoform	ND	3.6	0.11	ug/kg	
74-83-9	Bromomethane	ND	3.6	0.20	ug/kg	
78-93-3	2-Butanone (MEK)	ND	7.2	1.7	ug/kg	
75-15-0	Carbon disulfide	ND	3.6	0.084	ug/kg	
56-23-5	Carbon tetrachloride	ND	3.6	0.095	ug/kg	
108-90-7	Chlorobenzene	ND	3.6	0.078	ug/kg	
75-00-3	Chloroethane	ND	3.6	0.16	ug/kg	
67-66-3	Chloroform	ND	3.6	0.059	ug/kg	
74-87-3	Chloromethane	ND	3.6	0.13	ug/kg	
124-48-1	Dibromochloromethane	ND	3.6	0.12	ug/kg	
75-34-3	1,1-Dichloroethane	0.71	3.6	0.098	ug/kg	J
107-06-2	1,2-Dichloroethane	ND	0.72	0.097	ug/kg	
75-35-4	1,1-Dichloroethene	ND	3.6	0.18	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	3.6	0.13	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	3.6	0.17	ug/kg	
540-59-0	1,2-Dichloroethene (total)	ND	3.6	0.13	ug/kg	
78-87-5	1,2-Dichloropropane	ND	3.6	0.11	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	3.6	0.10	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	3.6	0.11	ug/kg	
100-41-4	Ethylbenzene	ND	0.72	0.19	ug/kg	
591-78-6	2-Hexanone	ND	3.6	0.45	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	0.72	0.17	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	3.6	0.54	ug/kg	
75-09-2	Methylene chloride	ND	3.6	0.91	ug/kg	
100-42-5	Styrene	ND	3.6	0.066	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	3.6	0.095	ug/kg	
127-18-4	Tetrachloroethene	ND	3.6	0.12	ug/kg	
108-88-3	Toluene	ND	0.72	0.075	ug/kg	
71-55-6	1,1,1-Trichloroethane	3.6	3.6	0.076	ug/kg	

ND = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 2 of 2

<b>Client Sample ID:</b> FD-2 6(14.5-15)	
<b>Lab Sample ID:</b> JB32749-29	<b>Date Sampled:</b> 03/27/13
<b>Matrix:</b> SO - Soil	<b>Date Received:</b> 03/29/13
<b>Method:</b> SW846 8260B SW846 5035	<b>Percent Solids:</b> 95.4
<b>Project:</b> AFFCO, 361 Walsh Avenue, New Windsor, NY	

## VOA TCL List

CAS No.	Compound	Result	RL	MDL	Units	Q
79-00-5	1,1,2-Trichloroethane	ND	3.6	0.12	ug/kg	
79-01-6	Trichloroethene	ND	3.6	0.12	ug/kg	
75-01-4	Vinyl chloride	ND	3.6	0.10	ug/kg	
1330-20-7	Xylene (total)	ND	0.72	0.10	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		70-130%
17060-07-0	1,2-Dichloroethane-D4	96%		70-122%
2037-26-5	Toluene-D8	108%		81-127%
460-00-4	4-Bromofluorobenzene	115%		66-132%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Misc. Forms

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### Custody Documents and Other Forms

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Includes the following where applicable:

- Chain of Custody

Client / Reporting Information				Project Information				Requested Analysis ( see TEST CODE sheet)												Matrix Codes	
Company Name <b>FLEMING LEE - SHUE</b>				Project Name <b>AFFCO</b>																DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WIP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank	
Street Address <b>158 WEST 29th ST</b>				Street <b>360 WASH AVE</b>																	
City State Zip <b>NY NY 10001</b>				City State <b>NEW WINDSOR, NY</b>																	
Project Contact <b>STEVE PANTER</b>				Project # <b>SPRO FLEMING LEE SHUE (04)</b>																	
Phone # <b>212-675-3225</b>				Client Purchase Order #																	
Sampler(s) Name(s) <b>KARUL BHATIA</b>				Project Manager <b>KEVIN MCGUINNESS</b>																	
Turnaround Time ( Business days)				Data Deliverable Information				Comments / Special Instructions													
<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY <input type="checkbox"/> other				Approved By (Accutest PM): / Date: _____				<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> NJ Reduced <input type="checkbox"/> Commercial "C" <input type="checkbox"/> NYASP Category A <input checked="" type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other												<b>ALL VO SAMPLES ALSO INCLUDE A 60 ml VIAL FOR SOLIDS.</b>	
Emergency & Rush TIA data available VIA Lablink				Commercial "A" = Results Only Commercial "B" = Results + QC Summary NJ Reduced = Results + QC Summary + Partial Raw data																	
Sample Custody must be documented below each time samples change possession, including courier delivery.																					
Relinquished By: 1				Received By: 1				Relinquished By: 2												Received By: 2	
Date Time: 3/28/13				Date Time: 3/28/13				Date Time: 3/29/13 9:30												Date Time: 3/29/13	
Relinquished by Sampler:				Relinquished By: 3				Relinquished By: 4												Relinquished By: 4	
Date Time:				Date Time:				Date Time:												Date Time:	
Relinquished by:				Relinquished By: 5				Custody Seal # 104												Cooler Temp. 12.1°C	
Date Time:				Date Time:				Preserved where applicable												On Ice	

JB32749: Chain of Custody

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<b>LABORATORIES</b> 2235 Route 130, Dayton, NJ 08810 TEL: 732-329-0200 FAX: 732-329-3499/3480 www.accutest.com		FED-EX Tracking # Bottle Order Control #	
Client / Reporting Information Company Name: <b>FLUOR L&amp;S-HVE</b> Street Address: <b>158 W 29th ST</b> City: <b>NY</b> State: <b>NY</b> Zip: <b>10001</b> Project Contact: <b>STEVE PATER</b> E-mail: Phone # <b>212-675-3225</b> Fax # Sampler(s) Name(s) Phone #		Project Information Project Name: <b>AFFCO</b> Street: <b>360 WALSH AVE</b> City: <b>NEW WINDSOR, NY</b> State: Project # Client Purchase Order # Project Manager Attention:	
Requested Analysis (see TEST CODE sheet)		Matrix Codes DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank	
Accutest Sample # Field ID / Point of Collection MECH/DI Visi #		Collection Date Time Sampled by Matrix # of bottles HCG NHOH NH <sub>3</sub> H <sub>2</sub> SO <sub>4</sub> HNO <sub>3</sub> DI Water MEQH ENCODE	
25 6 (11.5-12) 26 6 (12.5-13) 27 6 (14.5-15) 28 FD-1 [6 (11.5-12)] FD-2 FD-3 29 FD-2 6 (14.5-15) FD-1 FD-2		3/27/13 4:30 RB SO 3 4:45 5:00 4:30 5:00 5:00	
Turnaround Time (Business days)		Data Deliverable Information Comments / Special Instructions	
<input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day EMERGENCY <input type="checkbox"/> 2 Day EMERGENCY <input type="checkbox"/> 1 Day EMERGENCY <input type="checkbox"/> other		Approved By (Accutest PM): / Date: <input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input type="checkbox"/> FULLT1 (Level 3+4) <input type="checkbox"/> NJ Reduced <input type="checkbox"/> Commercial "C" <input type="checkbox"/> NYASP Category A <input checked="" type="checkbox"/> NYASP Category B <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> Other Commercial "A" = Results Only Commercial "B" = Results + QC Summary NJ Reduced = Results + QC Summary + Partial Raw data	
Emergency & Rush TIA data available VIA Latlink		Sample Custody must be documented below each time samples change possession, including courier delivery.	
Relinquished by Sampler: 1 Relinquished by Sampler: 3 Relinquished by: 5		Date Time: 3/28/13 Received By: FED KY Date Time: 3/28/13 930 Received By: [Signature] Date Time: 4 Received By: 4 Custody Seal # 104 <input type="checkbox"/> Intact <input type="checkbox"/> Not Intact Preserved where applicable <input type="checkbox"/> On Ice <input type="checkbox"/> Cooler Temp.	

2B

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## JB32749: Chain of Custody

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## Accutest Laboratories Sample Receipt Summary

Accutest Job Number: JB32749

Client: FLEMING LEE SHUE

Project: AFFCO

Date / Time Received: 3/29/2013 0930

Delivery Method: FedEx

Airbill #s: 8026 4354 3158

Cooler Temps (Initial/Adjusted): #1: (12.1/12.1): 0

### Cooler Security

Y or N

Y or N

- |                           |                                     |                          |                       |                                     |                          |
|---------------------------|-------------------------------------|--------------------------|-----------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. COC Present:       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact:  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Smpl Dates/Time OK | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

### Cooler Temperature

Y or N

- |                              |                          |                                     |
|------------------------------|--------------------------|-------------------------------------|
| 1. Temp criteria achieved:   | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 2. Cooler temp verification: | IR Gun                   |                                     |
| 3. Cooler media:             | No Ice                   |                                     |
| 4. No, Coolers               |                          |                                     |

### Quality Control Preservation

Y

N

N/A

- |                                 |                                     |                          |                          |
|---------------------------------|-------------------------------------|--------------------------|--------------------------|
| 1. Trip Blank present / cooler: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Trip Blank listed on COC:    | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Samples preserved properly:  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |                          |
| 4. VOCs headspace free:         | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

### Sample Integrity - Documentation

Y or N

- |  |                                     |                          |
|--|-------------------------------------|--------------------------|
| 1. Sample labels present on bottles:   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Container labeling complete:        | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Sample container label / COC agree: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

### Sample Integrity - Condition

Y or N

- |                                  |                                     |                                     |
|----------------------------------|-------------------------------------|-------------------------------------|
| 1. Sample recvd within HT:       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 2. All containers accounted for: | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 3. Condition of sample:          | Intact                              |                                     |

### Sample Integrity - Instructions

Y

N

N/A

- |   |                                     |                                     |                                     |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear:           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 2. Bottles received for unspecified tests | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                                     |
| 3. Sufficient volume recvd for analysis:  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 4. Compositing instructions clear:        | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear:          | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

### Comments

1. Samples were received with minimal holding time remaining. Encores will need to preserved ASAP. -7,8,9,13,14,15 were not preserved within 48hrs.
2. Samples were received at 12.1 degrees C. There was no ice present but there was a small amount water from what we assume is melted ice.
3. -15 sample time was taken from bottle label.



Accutest Job Number: JB32749

CSR: Tammy McCloskey

Response Date: 3/29/2013

Response: 1. Proceed with analysis per Steve Panter  
2. Proceed with analysis per Steve Panter  
3. Proceed as noted

5.1

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# **APPENDIX E**

## **DUSRs for Endpoint and Post-treatment Samples**



environmental chemistry consultants

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## **Data Usability Summary Report (DUSR)**

### **NYSDEC ASP Category B**

**Client/Company:** Fleming-Lee Shue, Inc., New York, New York (FLS)

**Site/Project Name:** AFFCO, 361 Walsh Avenue, New Windsor, NY

**Laboratory:** Accutest Laboratories, Dayton, New Jersey

**SDGs/Lab Project #:** JB34670

**Date(s) of Collection:** April 17, 2013

**Number and type  
Samples & analyses:** 5 Groundwater samples, 1 Field Blank, and 1 Trip Blank for project-specific Target Compound List (TCL) of Volatile Organic Compounds (VOCs)

**Senior Data Reviewers:** Dr. Nancy C. Rothman, New Environmental Horizons, Inc.  
Susan D. Chapnick, New Environmental Horizons, Inc.

**Date Completed:** June 4, 2013

This Data Usability Summary Report (DUSR) is based on guidance developed by the New York State Department of Conservation (NYSDEC), June 1999, for technical review of analytical data in lieu of a full third party data validation and technical guidance presented in *DER-10 / Technical Guidance for Site Investigation and Remediation*, NYSDEC, May 3, 2010. The objective of the DUSR is to determine whether or not the data as presented meet the site/project specific criteria for data quality and data use based on the NYSDEC ASP 2005 or EPA method QC acceptance criteria.

## **I. Required DUSR Questions**

- 1. Is the data package complete as defined under the requirements for the most current NYSDEC ASP Category B or USEPA CLP deliverables?***

Yes.

- 2. Have all holding times been met?***

Yes.

- 3. Do all the QC data: blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, laboratory controls and sample data fall within the protocol required limits and specifications?***

Yes, analyses generally met QC criteria. Exceedances of QC criteria, where data were qualified but considered usable for project decisions, are noted in Section III of this DUSR.

- 4. Have all of the data been generated using established and agreed upon analytical protocols?***

Yes. Analytical data were generated using established EPA Methods, Standard Methods, and ASTM Methods (see analytical references in Section II below). Deviations from EPA or other method protocols and NYSDEC ASP 2005 QC protocols are discussed in Section III of this DUSR.

- 5. Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms?***

Yes. The raw data were checked to verify that detected results met retention time and mass spectral criteria, where applicable, for qualitative identification. A spot check was performed to verify quantitative accuracy for reporting of all results (presented in the Data Review Checklists attached to this DUSR).

- 6. Have the correct data qualifiers been used and are they consistent with the most current NYSDEC ASP?***

Yes. The laboratory used the correct data qualifiers in reporting of results. Data qualifiers were changed for several results during this review, as shown in Table 2 and explained in Section III of this DUSR.

- 7. Have any quality control (QC) exceedances been specifically noted in the DUSR and have the corresponding QC summary sheets from the data package been attached to the DUSR?***

Yes. QC exceedances are specified in Section III of this DUSR. QC summary sheets from the data package have not been attached; however, all QC exceedances that required data qualification are summarized in Table 2 of the DUSR and flagged in the validated electronic data deliverable (EDD).

## II. Sample Descriptions and Analytical Parameters

The sample IDs, date of sampling, identification of MS/MSD/MD, FD, EB, TB, if applicable and the analytical parameters reviewed in this DUSR are listed in Table 1. Any deviations noted for sample collection or receipt (*e.g.*, temperature or preservation issues) are included in Section III, below.

Table 1. Sample Descriptions and Analytical Parameters

Sample ID	Collection Date	Matrix	Analytical Parameters <sup>1</sup>	Sample Type
EW-1X	4/17/13	GW	VOCs	Field Sample
S-8	4/17/13	GW	VOCs	Field Sample
EW-0	4/17/13	GW	VOCs	Field Sample
E1-N	4/17/13	GW	VOCs	Field sample
MW-1N	4/17/13	GW	VOCs	Field sample
FB041713	4/17/13	Water	VOCs	Field Blank
TRIP BLANK	4/17/13	Water	VOCs	Trip Blank

Analytical method references:

TCL VOC: EPA SW846 Method 8260B

<sup>1</sup> These samples, excluding the Trip Blank, were also analyzed for Sulfide, Sulfate, Chloride, Alkalinity, Iron, and Hardness; however, review of these parameters as part of this NYS DUSR was not required.

### III. Data Deficiencies, Analytical Protocol Deviations, and Quality Control Exceedances

The following QC elements, as applicable to the analytical methods, were reviewed during this DUSR:

- Data package completeness and reporting protocols
- Sample receipt, holding times and preservation criteria
- Calibration criteria (instrument tuning, initial and continuing calibration verifications)
- Method, field, and instrument blank results
- Laboratory Control Sample (LCS), Blank Spike (BS), or Matrix Spike Blank (MSB) recoveries
- Surrogate or System Monitoring Compound (SMC) Recoveries
- Matrix Spike (MS) / Matrix Spike Duplicate (MSD) Recoveries
- MS/MSD, sample/Matrix Duplicate (MD), or sample/Field Duplicate (FD) Relative Percent Differences (RPDs)
- Sample result reporting (including reporting limits and units)
- Other method-specific QC if applicable and reported (e.g., internal standard areas)
- Deficiencies or protocol deviations as noted in the Laboratory Narrative

During this review of VOCs, all results were estimated (J) due to QC issues. Table 2 summarizes the actions taken during this review. NEH generated a validated data spreadsheet based on the electronic project database file received from Accutest for these SDGs. All results were considered acceptable compared to NYSDEC ASP 2005 and method criteria, with the understanding of the potential uncertainty (bias) in the qualified results.

Table 2. Summary of Data Validation Actions

Field Sample ID	Analyte	Qualifier	Bias	Validation Comments
S-8	1,2-Dichloroethane cis-1,2-Dichloroethene 1,2-Dichloroethene (total)	J	I	Result reported below the calibration range
EW-0	Tetrachloroethene	J	I	Result reported below the calibration range
MW-1N	Toluene Chloroform	J	I	Result reported below the calibration range

*Qualifiers: U = Analyte is non-detect at the “DV Result” value; UJ = Non-detect is estimated; J = Result is estimated; R = Result is rejected and is unusable for project decisions.*

*Bias: L = Low; H = High; I = Indeterminate*

As required by the DUSR, the following sections document the QC reviewed and the issues that required action or affected the data certainty in terms of the project data quality objectives (DQO)

of accuracy, precision, representativeness, comparability, and sensitivity. The DQO of completeness can be evaluated by the project manager after all data are generated.

#### **Data Package Completeness and Reporting Protocols**

- The initial and continuing calibrations for VOCs contained many compounds in addition to the targets requested. During this review, only the target compounds were assessed.
- For organic analyses, the laboratory used in-house QC limits to judge acceptability of surrogates, MS/MSD, LCS, and calibrations. In addition, the laboratory spiked all VOC targets for the LCS and MS/MSD analyses rather than just a representative subset of analytes as suggested by NYSDEC ASP 2005. During this review, the NYSDEC ASP 2005 QC limits for the compounds specified in Exhibit E were used to evaluate the acceptability of the laboratory quality control, unless otherwise discussed below, while the in-house limits were used to judge the other spiked compounds.
- The laboratory reported too many significant figures for some data. For organic results, NYSDEC ASP 2005 indicates that one significant figure should be reported for values < 10 and two significant figures for values > 10; however, the laboratory reported two significant figures for values < 10 and three for values > 10.

#### **Sample Receipt, Holding Times, and Preservation**

- Samples for VOC analysis were not preserved in the field. All VOC samples were received with pH > 2. All samples were analyzed within 7 days of sample collection; however, sample EW-1X was reported from an analysis performed on April 29, 2013, 5 days outside of 7 day holding time, due to an apparent QA/QC issue with the original analysis. The results from the initial analysis within holding time for EW-1X confirmed the results reported from the second analysis; therefore, based on professional judgment, the results reported for EW-1X from April 29, 2013 were accepted without qualification.

#### **Calibration**

- For VOC analysis, the laboratory used two additional Internal Standard (IS) compounds, t-butyl alcohol-d<sub>9</sub> and pentafluorobenzene, in addition to the NYSDEC ASP 2005 required IS' of 1,4-difluorobenzene, chlorobenzene-d<sub>5</sub>, and 1,4-dichlorobenzene-d<sub>4</sub>. Since SW846 Method 8260B allows the use of alternative IS', no action was required.

#### **Method, Field, and Instrument Blank Results**

- No contamination that would require blank actions was observed in the method blanks, field blank, or trip blank.

#### **Laboratory Control Sample (LCS), Blank Spike (BS), or Matrix Spike Blank (MSB) recoveries**

- The LCS recoveries were acceptable for all VOCs indicating acceptable accuracy for the methods as performed by the laboratory.

#### **Surrogate or System Monitoring Compound (SMC) Recoveries**

- The laboratory used a fourth surrogate, dibromofluoromethane, in addition to those specified in NYSDEC ASP2005. Since EPA SW-846 allows the use of alternative surrogates, no action was required.

#### **Matrix Quality Control (Matrix Spike/Matrix Duplicate/Matrix Spike Duplicate and Field Duplicate Samples)**

- There were no MS/MSD analyses performed on samples from this site (only batch QC analysis reported). Therefore, accuracy and precision for analysis of VOCs for the site matrix could not be evaluated.
- There were no Field Duplicate samples associated with the samples in this SDG; therefore, precision from sample collection through analysis could not be evaluated.

#### **Sample Result Reporting (including reporting limits and units)**

- All results are reported with sample-specific reporting limits (adjusted for sample-specific preparation and dilution factors) in units of  $\mu\text{g/L}$  for VOCs.
- The list of compounds reported for VOCs is a project-specific list consisting of 35 VOCs as compared to the TCL VOC list in NYSDEC ASP 2005, which contains 51 compounds. The VOC list of compounds reported in this project is, according to the laboratory, an older NYSDEC TCL list with methyl tert-butyl ether added.
- Two of the five groundwater samples were initially analyzed at dilutions ranging from dilution factor (DF) = 5 to 10. Two samples were analyzed at secondary dilutions to report all detected results within the instrument calibration range. An evaluation of the dilutions indicated that the laboratory reported the data correctly.
- Sensitivity for all results was considered acceptable since all non-detects were reported at levels less than or equal to the NYS TOGS AWQS – Water Class GA with the exceptions of: 1,2-dichloroethane, cis-1,3-dichloropropene, and trans-1,3-dichloropropene due to method limitations; and benzene, bromomethane, 1,2-dichloropropane, methylene chloride, styrene, 1,1,2-trichloroethane, and vinyl chloride in samples MW-1N and EW-1X and acetone, 2-butanone, carbon tetrachloride, chlorobenzene, chloroethane, chloroform, chloromethane, cis-1,2-dichloroethene, trans-1,2-dichloroethene, 1,1-dichloroethene, ethylbenzene, 1,1,2,2-tetrachloroethane, tetrachloroethene, toluene, 1,1,1-trichloroethane, trichloroethene, and xylene (total) in sample EW-1X due to dilutions used for analysis of these samples. The data user will need to evaluate these non-detects at elevated levels for project uses.
- Six detected VOC results were reported at concentrations below the sample-specific reporting limits (RL). During this assessment, these results were qualified as estimated (J) with indeterminate bias due to uncertainty in quantitation at a level below the instrument calibration range. Table 2 identifies the analytes and samples that were estimated due to reporting at levels below the RL.



Lab: Accutest

Date Sampled: 8/28/12, 8/30/12, & 9/4/12

Method of Analysis: 8260B

No. Samples

24

Matrix:

Soil

Data Element	Preservation	SMCs	LCS /	MS/MSD	FD	Tunes	IS'	QL	Other Issues
Acceptable	& HT		Blank Spike			ICALs		& Quant.	
Yes	✓	✓	✓		NA	CCALs	✓	Correct	
No				Estimate (J or UJ) 14 results in 3 samples		Estimate (UJ) 1 compound in 20 samples		Accept 127 "J" results	See data acceptance for multiple analyses - lab reported data correctly

Comments:

*The data package consisted of a NYDEC Category B deliverable.*

Coolers of samples were received the day after sample collection as follows: 8/29/12 (9 samples with Lab ID beginning JB14890); 8/31/12 (3 samples with Lab IDs beginning with JB15155); and 9/5/12 (12 samples with Lab IDs beginning JB15405). All samples were received intact at Temperatures within  $4 \pm 2$  °C criteria except shipment received on 8/29/12 was at 1.8°C. Since the samples were intact, no action for slightly low receipt temperature for this one cooler. After samples were analyzed, the client requested the results for all 24 samples be reported as a single report under SDG JB15405. There were no COC issues noted.

Soils were unpreserved (i.e., Method 5035A preservation of soils for VOCs not followed nor required for this site based on Work Plan, according to FLS). All soil samples were analyzed as low-level soils and six soils were re-analyzed as medium-level methanol preserved soils to report analytes within the instrument calibration range. All analyses were performed within 14 days of sample collection (by 9/6/12) - HT met. No Action required.

*Surrogates:* The lab used surrogate dibromofluoromethane in addition to 1,2-dichloroethane-d4, toluene-d8 and 4-bromofluorobenzene, which are in ASP2005. Since SW-846 method used for analysis allows use of alternate surrogates, no action required. All surrogates are within NYSDEC ASP2005 criteria - acceptable recoveries. No action required.

*LCS (also known as Blank Spike):* The lab spiked all VOCs into LCS as compared to NYSDEC ASP 2005 requirement of a subset of compounds. LCS VA6987-BS (low-level associated with the analysis JB14890-2 & -3), VV5563-BS (low-level assoc. with analysis of JB14890-7 & -8), VE8556-BS (medium-level for 2 VOCs only assoc. with analysis of JB14890-8), VV5565-BS (low-level assoc. with JB-14890-9), VA6989-BS (low-level assoc. with analysis of JB14890-1), VD8147-BS (medium-level for 1 VOC assoc. with the analysis of JB-14890-7), VV5565-BS2 (low-level assoc. with JB14890-4, -5, & -6), VD8148-BS (medium-level assoc. with 3 VOCs for JB14890-3), VY5399-BS (low-level assoc. with analysis of JB15155-1 & -3), VY5401-BS (low-level assoc. with JB15155-1 & -2), VY5403-BS (low-level assoc. with JB15405-6, -8, -9, & -10), VX5603-BS (low-level assoc. with JB15405-3, -11, & -12), VX5604-BS (low-level assoc. with the analysis of JB15405-7), VE8565-BS (medium-level for 1 VOC assoc. with JB15405-9), V3C4027-BS (low-level assoc. with analysis of JB15405-1, -2, -4, & -5), and VY5405-BS (low-level assoc. with 1 VOC for re-analysis of B15405-8). All %Rec were within lab criteria in LCS; therefore, lab demonstrated acceptable accuracy for analysis in the absence of the site matrix. No Action required.

Date: 02/01/13

Data Reviewer: Nancy C. Rothman, Ph.D.

Lab: Accutest

Blank Action:                      Blanks Reviewed:                      Method Blanks: VA6987-MB, VV5563-MB, VE8556-MB, VV5565-MB, VA6989-MB, VD8147-MB, VV5565-MB2, VD8148-MB1, VY5399-MB, VY5401-MB, VY5403-MB, VX5603-MB, VX5604-MB, VE8565-MB, V3C4027-MB, & VY5405-MB

No Trip Blank or Equipment Blank

Blank ID	Contaminant / Level	Related?	/ Action	Sample and Reported Result	Result
VA6987-MB	None	Y	-	No Blank Action required	
VV5563-MB	None	Y	-	No Blank Action required	
VE8556-MB	None	Y	-	No Blank Action required	
VV5565-MB	None	Y	-	No Blank Action required	
VD8147-MB	None	Y	-	No Blank Action required	
VA6989-MB	None	Y	-	No Blank Action required	
VV5565-MB2	None	Y	-	No Blank Action required	
VD8148-MB1	None	Y	-	No Blank Action required	
VY5399-MB	None	Y	-	No Blank Action required	
VY5401-MB	None	Y	-	No Blank Action required	
VY5403-MB	None	Y	-	No Blank Action required	
VX5603-MB	None	Y	-	No Blank Action required	
VX5604-MB	None	Y	-	No Blank Action required	
VE8565-MB	None	Y	-	No Blank Action required	
V3C4027-MB	None	Y	-	No Blank Action required	
VY5405-MB	None	Y	-	No Blank Action required	

**Additional Notes:**

MS/MSD: Several non-site related MS/MSDs performed (batch QC) which do not affect the samples reported herein; therefore, review of these MS/MSD not performed. Site-specific MS/MSD performed on PX01-SW-5 [JB14890-1], PX03-BT-10 [JB14890-3], PX07BT-10 [JB15115-1], PX08SW-7 [JB15155-2], C2SP01 [JB15405-11], PX14SW-6 [JB15405-6], PX15BT-10 [JB15405-7], PX09SW-3 [JB15405-1], and C3P01 [JB15405-9]. Lab spiked all target VOCs into MS/MSD (for medium-level MS/MusDs, only the compound reported for the unspiked sample summarized. For review, ASP2005 criteria used for 5 compounds in Table 12 and lab criteria used for remaining compounds.

MS/MSD performed on PX01-SW-5 [JB14890-1]: low-level analysis with MS and MSD % Rec and MS/MSD RPDs within criteria; therefore, no action required.

MS/MSD performed on PX03-BT-10 [JB14890-3]: medium-level analysis for 1,1-dichloroethane, 1,1-dichloroethene, and 1,1,1-trichloroethane only. MS and MSD % Rec and MS/MSD RPDs were all within criteria; therefore, no action required.

Date: 02/01/13

Data Reviewer: Nancy C. Rothman, Ph.D.

Lab: Accutest

Additional Notes:

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MS/MSD performed on PX07BT-10 [JB15115-1]: low-level analysis with MS and MSD % Rec and MS/MSD RPDs within criteria except for: chloroethane, 1,1-dichloroethane, 1,1-dichloroethene, and 1,1,1-trichloroethene % Rec were all low. For 1,1-dichloroethene, the level of the MS/MSD spike was acceptable for the matrix whereas for the other 3 compounds out in the MS, these compounds were reported as over the calibration range (flagged "E") by the lab and the spike level was > 4 times lower than the level of these compounds in the unspiked sample (i.e., spike was swamped out). Therefore, only action required is for low, but > 10%, recovery of 1,1-dichloroethene.

---

*\*ACTION: 1,1-Dichloroethene estimated (J) in sample PX07BT-10 with possible low bias due to low MS/MSD recoveries.*

---

MS/MSD performed on PX08SW-7 [JB15155-2]: low-level analysis with MS and MSD % Rec and MS/MSD RPDs within criteria; therefore, no action required.

---

MS/MSD performed on C2SP01 [JB15405-11]: low-level analysis with MS and MSD % Rec and MS/MSD RPDs within criteria however, MSD recoveries low, but in criteria, for several compounds causing high RPDs. The following MS/MSD RPDs were not acceptable: bromoform, carbon disulfide, carbon tetrachloride, chlorobenzene, trans-1,2-dichloroethene, 1,2-dichloroethene (total), trans-1,3-dichloropropene, ethylbenzene, styrene, toluene, trichloroethene, and xylene (total).

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*\*ACTION: Bromoform, carbon disulfide, carbon tetrachloride, chlorobenzene, trans-1,2-dichloroethene, 1,2-dichloroethene (total), trans-1,3-dichloropropene, ethylbenzene, styrene, toluene, trichloroethene, and xylene (total) estimated (J or UJ) in sample C2SP01 with indeterminate bias due to MS/MSD imprecision.*

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MS/MSD performed on PX14SW-6 [JB15405-6]: low-level analysis with MS and MSD % Rec and MS/MSD RPDs within criteria; therefore, no action required.

---

MS/MSD performed on PX15BT-10 [JB15405-7]: low-level analysis with MS and MSD % Rec and MS/MSD RPDs within criteria; therefore, no action required.

---

MS/MSD performed on PX09SW-3 [JB15405-1]: low-level analysis with MS and MSD % Rec and MS/MSD RPDs within criteria except: 1,1,1-trichloroethane recoveries very low (negative). Since spike level for MS/MSD was appropriate for this sample, low MS/MSD results suggest possible sample heterogeneity issues.

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*\*ACTION: 1,1,1-Trichloroethane estimated (J) in sample PX09SW-3 with possible low bias due to low MS/MSD recoveries.*

---

MS/MSD performed on PX03-BT-10 [JB15405-9]: medium-level analysis for 1,1,1-trichloroethane only. MS and MSD % Rec and MS/MSD RPDs were unacceptable since the spike level was too low for the matrix making the MS/MSD results meaningless - No Action required.

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*FD pairs* : there were no FD pair associated with the samples in this SDG. Therefore, precision from sample collection through analysis could not be evaluated.

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*Tunes*: Instrument GCMS3C 8/30/12 (ICAL) & 9/6/12; GCMSA 8/20/12 (ICAL), 8/29/12, & 8/30/12; GCMSD 7/30/12 (ICAL), 8/30/12, & 2nd tune on 8/30/12; GCMSE 7/16/12 (ICAL), 8/30/12, & 9/6/12; GCMSV 6/7/12 (ICAL), 8/29/12, 8/30/12, & 2nd tune on 8/30/12; GCMSX 9/4/12 (ICAL) 9/5/12, & 2nd tune on 9/5/12; and GCMSY 4/26/12 (ICAL), 8/31/12, 9/4/12, 9/5/12, & 9/6/12. All Abundances were acceptable and all samples were analyzed within 12 hours of tune. Average of scans across peak with background correction used to generate tunes - acceptable. No action required.

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Date: 02/01/13

Data Reviewer: Nancy C. Rothman, Ph.D.

Lab: Accutest

Additional Notes:

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ICALs: 7 different CGC/MS systems used for analysis. GCMSD and GCMSE used for medium-level analyses while GCMS3, GCMSA, GCMSV, GCMSX, and GCMSY were used for low-level VOC analysis. 6- to 10-level ICALs from 0.5, 1, 2, 5, or 10 to 200 µg/L for many compounds in addition to those reported. Min. RRF and Maximum %RSD given in Table 10 of NYDEC ASP2005 achieved for all compounds except trichloroethene min RRF of 0.300 not achieved on instruments GCMSA, GCMSV, GCMSX, and GCMSY. Also, lab used regression analysis for compounds with %RSD > 15% - these all had  $r^2 > 0.99$  - since SW-846 allows regression analysis so this was an acceptable calibration method. All Trichloroethene data were reported from low-level analyses of the samples so all low-level data impacted by low sensitivity during ICAL except for 4 samples analyzed on GCMS3.

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*\*ACTION: Trichloroethene estimated (J or UJ) with possible low bias, unless other QC issues affect the data, in all soil samples except PX09SW-3, PX10SW-5, PX12SW-7, and PX13SW-7 (4 low-level soils analyzed on GCMS3) due to low sensitivity in the initial calibration.*

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CCAL: GCMS3 9/6/12. CCAL Min. RRF and maximum %D achieved for all compounds. Lab flagged several compounds as being outside criteria but this wasn't based on Table 10 ASP 2005 criteria. No Action required

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CCALs: GCMSD 8/30/12 (2 CCALs). CCAL Min. RRF and maximum %D achieved for all compounds except %D = -25.4% and -31.2% for bromomethane in both CCALs. Bromomethane verification was outside criteria in both CCALs due to enhanced detection of this compound during CCALs as compared to sensitivity during ICAL. Since bromomethane was non-detect in all samples associated with these CCALs, no action required. Lab flagged several compounds as being outside criteria but this wasn't based on Table 10 ASP 2005 criteria. No Action required

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CCALs: GCMSE 8/30/12 & 9/6/12. CCAL Min. RRF and maximum %D achieved for all compounds in both CCALs. Lab flagged several compounds as being outside criteria but this wasn't based on Table 10 ASP 2005 criteria. No Action required

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CCALs: GCMSA 8/29/12 & 8/30/12. CCAL Min. RRF and maximum %D achieved for all compounds except Trichloroethene min. RRF of 0.300 not met in either CCAL. Lab flagged several compounds as being outside criteria but this wasn't based on Table 10 ASP 2005 criteria.

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CCALs: GCMSV 8/29/12 & 8/30/12 (2 CCALs on this day). CCAL Min. RRF and maximum %D achieved for all compounds except Trichloroethene min. RRF of 0.300 not met in any of the 3 CCALs. Lab flagged several compounds as being outside criteria but this wasn't based on Table 10 ASP 2005 criteria.

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CCALs: GCMSX 9/5/12 (2 CCALs on this day). CCAL Min. RRF and maximum %D achieved for all compounds except Trichloroethene min. RRF of 0.300 not met in both CCALs. Lab flagged several compounds as being outside criteria but this wasn't based on Table 10 ASP 2005 criteria.

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CCALs: GCMSY 8/31/12, 9/4/12, 9/5/12, & 9/6/12. CCAL Min. RRF and maximum %D achieved for all compounds except Trichloroethene min. RRF of 0.300 not met in any of the 4 CCALs. Lab flagged several compounds as being outside criteria but this wasn't based on Table 10 ASP 2005 criteria.

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*\*ACTION: Trichloroethene estimated (J or UJ) with possible low bias, unless other QC issues affect the data, in all soil samples except PX09SW-3, PX10SW-5, PX12SW-7, and PX13SW-7 (4 low-level soils analyzed on GCMS3) due to low calibration verification.*

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Date: 02/01/13

Data Reviewer: Nancy C. Rothman, Ph.D.

Lab: Accutest

Additional Notes:

IS: lab used a two more IS compounds, tert-Butyl Alcohol-d9 and Pentafluorobenzene, in addition to three IS' required by NYSDEC ASP2005 (1,4-Difluorobenzene, Chlorobenzene-d5, and 1,4-Dichlorobenzene-d4) - this is acceptable based upon lab using SW-846 method for analysis. All 5 IS Areas and Retention Times were in criteria in all samples and QC - No Action required.

The list of compounds reported for VOCs is a project-specific list consisting of thirty-five VOCs as compared to the TCL VOC list in NYSDEC ASP2005, which contains fifty-one compounds. The VOC list of compounds reported in this project is, according to the laboratory, an older NYSDEC TCL list with methyl tert-butyl ether added. There are 36 results per sample reported since cis-1,2-dichloroethene, trans-1,2-dichloroethene, and 1,2-dichloroethene (total) are reported.

Six samples were analyzed as low-level soils and one or more compounds were reported above the instrument calibration range (lab flagged data "E"). For two of these, the lab analyzed a smaller weight of sample and reanalyzed the samples as low-level soils. For the other 4 samples, the laboratory analyzed the samples as medium-level methanol extracts. Data for all analyses for these six samples were reviewed and data accepted as follows: Sample C1SP01 [JB15405-8] all initial low-level results accepted for reporting except 1,1,1-trichloroethane, which was accepted from the second low-level analysis; sample PX07BT-10 [JB15155-1] all initial low-level results accepted for reporting except 1,1,1-trichloroethane, chloroethane, and 1,1-dichloroethane, which were accepted from the second low-level analysis; sample PX03-BT-10 [JB14890-3] all low-level results accepted for reporting except 1,1,1-trichloroethane, 1,1-dichloroethane, and 1,1-dichloroethene, which were accepted for reporting from the medium-level analysis; sample C5SP01 [JB14890-7] all low-level results accepted for reporting except 1,1,1-trichloroethane, which was accepted for reporting from the medium-level analysis; sample C5SP02 [JB14890-8] all low-level results accepted for reporting except 1,1,1-trichloroethane and 1,1-dichloroethene, which were accepted for reporting from the medium-level analysis; and sample C3SP01 [JB15405-9] all low-level results accepted for reporting except 1,1,1-trichloroethane, which was accepted for reporting from the medium-level analysis. The laboratory reported the data properly based on this review.

The lab reported 127 results at a level < RL and qualified the data as "J". The 127 "J" results were accepted with indeterminate bias due to uncertainty in quantitation below the instrument calibration range.

All non-detects for VOCs were reported at levels less the Unrestricted Use Soil Cleanup Objective and/or Supplemental Soil Cleanup Objectives; therefore, sensitivity was acceptable for these data.

Calculation check: C5SP01 [JB14890-7] medium-level analysis

10g of 80.9% solid sample dissolved in 10 mL Methanol and 100 µL of extract was purged in 5 mL water

Sample moisture contribution to extract = 10g (1-0.809) = 1.91 "mL" of added moisture. Total extract volume = 10 + 1.91 = 11.91 mL or 11,910 µL

Sample Response = 104163; IS Response = 193724 @ 50; RRF ICAL = 0.767 (GCMSD)

$$1,1,1\text{-Trichloroethane Conc.} = \frac{104163 \times 11910 \times 5 \times 50}{193724 \times 10 \times 0.809 \times 100 \times 0.767} = 2580 \mu\text{g/Kg} \quad \checkmark$$

Date: 02/01/13

Data Reviewer: Nancy C. Rothman, Ph.D.

Lab: Accutest

Additional Notes:

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All %Solids were > 75% - No action required

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The sample chromatograms, mass spectra of detects and quantitation reports were scanned and data appeared to have been reported correctly. The laboratory did not report Tentatively Identified Compounds (TICs) as these were not requested.

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The narrative did not mention any issues that were not already addressed in this review.

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Lab reported results with too many significant figures. Values < 10 should be reported to 1 sig. fig, and values > 10 to 2 sig.fig. but lab reported values < 10 to 2 sig.fig and > 10 with 3 sig.fig. Since EDD and hardcopy match in how data were reported, no action except to note issue.

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Date: 02/01/13

Data Reviewer: Nancy C. Rothman, Ph.D.

Lab: Accutest

Method of Analysis: 8260B

**SW-846 Method 8260B and NYSDEC ASP2005**

Preservation: Temperature upon receipt  $4^{\circ}\pm^{\circ}\text{C}$ ; use judgment if outside criteria

HT: waters- pH >2 or no HCl: 7d<HT; J det/R NDs

pH < 2, 14d <HT; J det/R NDs

low- or medium-level solid - 14d <HT< 28 d, J det/J NDs; HT > 28 days, J det/R NDs

unfrozen solid - 48 hrs < HT < 96 hrs, J det/J NDs; HT > 96hrs, J det/R NDs

SMCs: Criteria per Table 11A of NYSDEC ASP2005 Exhibit E or lab limits as long as results within  $\pm 10\%$  of ASP limits

%Rec<10%, J det/ R NDs; 10% <%Rec<LCL, J det/ J NDs; %Rec >UCL, J det/Accept NDs.

LCS: Lab limits accepted since LCS not required for NYSDEC ASP2005

%Rec<10%, J det/ R NDs; 10% <%Rec<LCL, J det/ J NDs; %Rec >UCL, J det/Accept NDs

Tunes: Samples analyzed within 12-hrs and criteria met per Table 7, NYSDEC ASP2005. If out, use professional judgment.

ICAL: 5-Level ; min. RRF and %RSD per Table 10 (NYSDEC ASP2005).

CCAL: min. RRF and %D per Table 10 (NYSDEC ASP2005)

Blanks: Surrogates outside criteria - Use Judgment if isolated or analysis related

Non-Matrix related Blank contamination, TB or EB contaminant in all samples associated with Blank

If contamination in blank(s) exist, if Result < RL, U result at RL; Result<Blank Action, U result at level reported

MS/MSD: Table 12 of Exhibit E, NYSDEC ASP2005 or lab limits as long as results within  $\pm 10\%$  of ASP limits

%Rec<10%, J det/ R NDs; 10% <%Rec<LCL, J det/ J NDs; %Rec >UCL, J det/Accept NDs- Unspiked Sample only. RPD > Control limit, J det / J ND; %RSD of non-spiked > 50%, J det

FD: Both Conc. > 2xQL, RPD >30% (water) 50% (soil), J det; One result ND, other >2 x QL, J det/J NDs; Both Conc. < 2xQL; RPD >criteria, LCS OK, Accept data

IS:  $25\% \leq \text{Area} < 50\%$  of IS in CCAL, J det/ J NDs; Area < 25% of CCAL, J det / R NDs; Area > 150% IS in CCAL, J det / Accept NDs

QLs: If result > upper calibration range, J result, if result < lowest calibration standard, J result. Verify all J data reported properly, if applicable. Verify

QLs are sample specific and that all compounds requested were reported.

Sensitivity: Identify any non-detects which exceed TOGS 1.1.1 (TOGS GA AWQS) criteria for waters or Unrestricted Use Soil Cleanup Objectives from 6 NYCRR Part 375, Table 375-6.8(a) (December 14, 2006) and/or Supplemental Soil Cleanup Objectives (SSCO) from CP-51 Soil Cleanup Guidance, Table 1 (October 21, 2010) for soil samples

Date: 02/01/13

Data Reviewer: Nancy C. Rothman, Ph.D.

Volatile Data Review Checklist  
FLS: AFFCO, 361 Walsh Avenue, New Windsor, NY

Project # JB32749

Lab: Accutest  
Date Sampled: 3/27/13  
Method of Analysis: 8260B

No. Samples 24 + 2FD + 2FB + 1TB  
Matrix: Soil

Data Element	Preservation	SMCs	LCS /	MS/MSD	FD/MD	Tunes	IS'	QL	Other Issues
Acceptable	& HT		Blank Spike			ICALs		& Quant.	
Yes		✓	✓	✓		CCALs	✓	Correct	
No	All samples estimated (J or UJ) due to high receipt Temperature				Estimate (J) 4 results in sample 4 (11-11.5)	Estimate (J / UJ) 1 compound in 21 samples; 1 compound in 1 sample		Accept 133 "J" results	See data acceptance for multiple analyses - lab reported data correctly

Comments:

*The data package consisted of a NYDEC Category B deliverable.*

Cooler of samples was received two days after sample collection on 3/29/13 and the receipt temperature was 12.1°C, above 4±2°C criteria. In addition, several samples could not be preserved within 48 hours from collection since the samples were received so late from the field. The laboratory preserved the samples as soon as possible. There were no COC issues noted.

**\*ACTION:** All soil data estimated (J or UJ) with possible low bias, unless other QC issues affect the data, due to high temperature upon receipt (sample preservation issue).

Soils were collected in Encore sample devices and extruded into vials and preserved ~ 1:1 with methanol or water (e.g., approximately 5 g of soil was preserved with either 5 mL methanol to create the medium-level VOC or ~ 5mL water to create the low-level VOC). Soils were analyzed as follows: samples 1.1 (12.5-13), 1.2 (14-14.5), 2.1 (12.5-13), 2.2 (12.5-13), 2.2 (11-11.5), 3 (13.5-14), 3 (14.5-15), and 3 (12.5-13) were analyzed using only the medium-level soil aliquot; samples 1.1 (13-13.5), 1.2 (13-13.5), 1.2 (11-11.5), 2.1 (11.5-12), 2.1 (10-10.5), 2.2 (14-14.5), 4 (11-11.5), 4 (14.5-15), 5 (13.5-14), 5 (14-14.5), and 5 (14.5-15) were analyzed as low-level soils and re-analysis for over-range compounds using medium-level soil aliquot; and samples 1.1 (14.5-15), 4 (10-10.5), 6 (11.5-12), 6 (12.5-13), 6 (14.5-15), FD-1 6 (11.5-12), and FD-2 6 (14.5-15) were analyzed using only the low-level soil aliquot. All analyses were performed within 14 days of sample collection (by 4/10/13) - HT met. No Action required.

**Surrogates :** The lab used surrogate dibromofluoromethane in addition to 1,2-dichloroethane-d4, toluene-d8 and 4-bromofluorobenzene, which are in ASP2005. Since SW-846 method used for analysis allows use of alternate surrogates, no action required. All surrogates are within NYSDEC ASP2005 criteria except 4-BFB recovery high in JB32749-27MS. Since the other 3 surrogates were within criteria in the MS, the high recovery should not affect the sample data - no action required.

Date: 05/15/13  
Data Reviewer: Nancy C. Rothman, Ph.D.



Lab: Accutest

Blank Action:                      Blanks Reviewed:      Method Blanks: VE8870-MB, VC6486-MB, VE8871-MB, VC6488-MB, VE8875-MB, VE8876-MB, VC6492-MB, V2C4870-MB, VE8878-MB, & VC6488-MB2

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TB: TRIP BLANK; FBs: FIELD BLANK 1 & FIELD BLANK 2

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Blank ID	Contaminant / Level	Matrix Related?	Action Level / Action	Sample and Reported Result	Corrected Result
VE8870-MB	None	Y	-	No Blank Action required	
VC6486-MB	None	Y	-	No Blank Action required	
VE8871-MB	None	Y	-	No Blank Action required	
VC6488-MB	None	Y	-	No Blank Action required	
VE8875-MB	None	Y	-	No Blank Action required	
VE8876-MB	None	Y	-	No Blank Action required	
VC6492-MB	None	Y	-	No Blank Action required	
V2C4870-MB	None	Y	-	No Blank Action required	
VE8878-MB	None	Y	-	No Blank Action required	
VC6488-MB2	None	Y	-	No Blank Action required	
TRIP BLANK	Bromoform 0.71 J µg/L	N	-	All samples ND - no Action required	
	Dibromochloromethane 0.35 J µg/L	N		All samples ND - no Action required	
FIELD BLANK 1	None	N	-	No Blank Action required	
FIELD BLANK 2	None	N	-	No Blank Action required	

Additional Notes:

**LCS (also known as Blank Spike)** : The lab spiked all VOCs into LCS as compared to NYSDEC ASP 2005 requirement of a subset of compounds. LCS VE8870-B (medium-level associated with the analysis JB32749-10 & -13), VC6486-B (low-level assoc. with analysis of JB32749-5, -6, -7, -8, & -11), VE8871-B (medium-level assoc. with analysis of JB32749-4, -16, & -18), VC6488-B (low-level assoc. with JB32749-12, -15, -19 through -24, -26, -27, & -28), VE8875-B (medium-level assoc. with analysis of JB32749-4, -9, -10, -13, & -14), VE8876-B (medium-level for 3 VOCs assoc. with the analysis of JB32749-5, -7, -8, -11, -12, -15, -21, -22, -23, & -24), VC6492-B (low-level assoc. with JB32749-25 & -29), V2C4870-B (low-level assoc. with JB32749-1, -2, & -3); and VE8878-B (medium-level associated with JB32749-17 & -19). All %Rec were within lab criteria in LCS except 1,1,2,2-tetrachloroethane recovery high in VC6492-B; however, since neither JB32749-25 or -29 reported this compound detected, no action required. Lab demonstrated acceptable accuracy for analysis in the absence of the sample matrix.

Date: 05/15/13

Data Reviewer: Nancy C. Rothman, Ph.D.

Lab: Accutest

Additional Notes:

**MS/MSD and MD** : Several non-site related MS/MSDs performed (batch QC) which do not affect the samples reported herein; therefore, review of these MS/MSD not performed. Site-specific MS/MSD performed on sample 4 (14.5-15) [JB32749-21] and sample 6 (14.5-15) [JB32749-27]. In addition, Sample/MD analysis performed on sample 4 (11-11.5) [JB32749-19]. For review, ASP2005 criteria used for 5 compounds in Table 12 and lab criteria used for remaining compounds.

MS performed on sample 6 (14.5-15) [JB32749-27] - no MSD: low-level analysis with MS %Rec all OK except 1,1,2,2-tetrachloroethane recovery high. Since the unspiked sample was non-detect for this compound, no action required. MSD not possible since insufficient aliquots of sample collected to allow low-level analysis of sample, MS and MSD.

MS/MSD performed on 6 (14.5-15) [JB32749-27]: medium-level analysis for chloroethane, 1,1-dichloroethane, and 1,1,1-trichloroethane only. MS and MSD % Rec and MS/MSD RPDs were all within criteria; therefore, no action required.

MD analysis performed on 4 (11-11.5) [JB32749-19]: low-level analysis comparison. RPDs all < lab limits except for 1,1-dichloroethane, 1,2-dichloroethane, 1,1-dichloroethene, and 1,1,1-trichloroethane. Several other compounds reported RPDs > lab criteria; however, for these compounds, levels reported in samples were < 2 x RL (e.g., "J" qualified data).

**\*ACTION:** *1,1-dichloroethane, 1,2-dichloroethane, 1,1-dichloroethene, and 1,1,1-trichloroethane estimated (J) in sample 4 (11-11.5) with indeterminate bias due to MD imprecision.*

**FD pairs** : 6 (11.5-12) & FD-1 6 (11.5-12) and 6 (14.5-15) & FD-2 6 (14.5-15). A comparison of detected results shown below.

Field Duplicate Evaluation\_ Sample IDs:

		Sample = 6 (11.5-12)				FD = FD-1 6 (11.5-12)					
		DF=1	Sample	Sample Result		FD	FD Result		RPD	Action	
Analyte Name		RL (µg/Kg)	µg/Kg	Q	Level	µg/Kg	Q	Level			
1,1,1-Trichloroethane		5.4	3.6	J	< RL	2.9	J	< RL	21.5		None
Methylene chloride		5.4	3.2	J	< RL	2.9	J	< RL	9.8		None
Trichloroethene		5.4	0.89	J	< RL	6.5	U	RL	NA		None

FD precision acceptable for all detected VOCs in 6 (11.5-12) & FD-1 6 (11.5-12) - No Action required.

Date: 05/15/13

Data Reviewer: Nancy C. Rothman, Ph.D.

Lab: Accutest

Additional Notes:

Field Duplicate Evaluation\_ Sample IDs:

Sample = 6 (14.5-15)

FD = FD-2 6 (14.5-15)

Analyte Name	DF=1		Sample		Sample Result		FD		FD Result		RPD	Action
	RL (µg/Kg)		µg/Kg	Q	Level		µg/Kg	Q	Level			
1,1,1-Trichloroethane	5.9		0.93	J	< RL		3.6		< 2 x RL		117.9	None *
1,1-Dichloroethane	5.9		3.5	J	< RL		0.71	J	< RL		132.5	None *

\* No Action taken even though RPD > 50% since neither result was > 2 x RL

FD precision acceptable for all detected VOCs in 6 (14.5-15) & FD-1 6 (14.5-15) - No Action required.

**Tunes:** Instrument GCMS2C 3/18/13 (ICAL) & 4/9/13; Instrument GCMSC 3/26/13 (ICAL), 4/5/13, 4/7/13, 4/8/13 & 4/9/13; Instrument GCMSE 2/22/13 (ICAL), 4/5/13, 4/5/13 (2nd tune), 4/8/13, 4/9/13, & 4/10/13. All Abundances were acceptable and all samples were analyzed within 12 hours of tune. Average of scans across peak with/without background correction used to generate tunes - acceptable. No action required.

**ICAL:** GCMS2C 3/18/13, GCMSC 3/26/13, and GCMSE 2/22/13. Lab analyzed 5- to 9-level ICALs from 0.5, 1, 2, or 5 to 200 µg/L for many compounds in addition to those reported. Min. RRF and Maximum %RSD given in Table 10 of NYDEC ASP2005 achieved for all compounds in all 3 ICALs except Trichloroethene RRF low (0.286 and 0.265 as compared to criteria of ≥ 0.300) on Instrument GCMS2C and GCMSC (RRF OK on GCMSE). Also, lab used regression analysis for compounds with %RSD > 15% - these all had r2 > 0.99 - since SW-846 allows regression analysis so this was an acceptable calibration method. Valid ICALs generally, only action for low sensitivity for trichloroethene in 2 ICALs.

**\*ACTION:** *Trichloroethene estimated (J or UJ) in samples TRIP BLANK, FIELD BLANK 1, FIELD BLANK 2, 1.1 (13-13.5, 1.1 (14.5-15), 1.2 (11-11.5), 1.2 (13-13.5), 2.1 (10-10.5), 2.1 (11.5-12), 2.2 (14-14.5), 4 (10-10.5), 4 (11-11.5), 4 (14.5-15), 5 (13.5-14), 5 (14-14.5), 5 (14.5-15), 6 (11.5-12), 6 (12.5-13), 6 (14.5-15), FD-1 6 (11.5-12), and FD-2 6 (14.5-15) with possible low bias, unless other issues affect the data, due to low sensitivity during initial calibration.*

**CCALs:** GCMS2C 4/9/13. CCAL Min. RRF and maximum %D achieved for all compounds except min. RRF not met for trichloroethene (0.255 compared to 0.0300 criteria). Lab flagged several compounds as being outside criteria but this wasn't based on Table 10 ASP 2005 criteria.

**CCALs:** GCMSC 4/5/13, 4/7/13, 4/8/13 & 4/9/13. CCAL Min. RRF and maximum %D achieved for all compounds in all Coals except min. RRF not met for trichloroethene. Lab flagged several compounds as being outside criteria but this wasn't based on Table 10 ASP 2005 criteria.

**\*ACTION:** *Trichloroethene estimated (J or UJ) in samples TRIP BLANK, FIELD BLANK 1, FIELD BLANK 2, 1.1 (13-13.5, 1.1 (14.5-15), 1.2 (11-11.5), 1.2 (13-13.5), 2.1 (10-10.5), 2.1 (11.5-12), 2.2 (14-14.5), 4 (10-10.5), 4 (11-11.5), 4 (14.5-15), 5 (13.5-14), 5 (14-14.5), 5 (14.5-15), 6 (11.5-12), 6 (12.5-13), 6 (14.5-15), FD-1 6 (11.5-12), and FD-2 6 (14.5-15) with possible low bias, unless other issues affect the data, due to low calibration verification (same samples as for ICAL Action).*

**CCALs:** GCMSE 4/5/13, 4/5/13 (2nd CCAL), 4/8/13, 4/9/13, & 4/10/13. min. RRF and maximum %D achieved for all compounds except Acetone %D = 49.6% in 4/10/13 CCAL due loss of sensitivity on 4/10/13 as compared to ICAL sensitivity for acetone detection. Only sample 3 (14.5-15) had acetone reported following this CCAL. Lab flagged several compounds as being outside criteria but this wasn't based on Table 10 ASP 2005 criteria.

**\*ACTION:** *Acetone estimated (UJ) with possible low bias in sample 3 (14.5-15) due to low calibration verification.*

Date: 05/15/13

Data Reviewer: Nancy C. Rothman, Ph.D.

Lab: Accutest

Additional Notes:

IS: lab used a two more IS compounds, tert-Butyl Alcohol-d9 and Pentafluorobenzene, in addition to three IS' required by NYSDEC ASP2005 (1,4-Difluorobenzene, Chlorobenzene-d5, and 1,4-Dichlorobenzene-d4) - this is acceptable based upon lab using SW-846 method for analysis. All 5 IS Areas and Retention Times were in criteria in all samples and QC - No Action required.

The list of compounds reported for VOCs is a project-specific list consisting of thirty-five VOCs as compared to the TCL VOC list in NYSDEC ASP2005, which contains fifty-one compounds. The VOC list of compounds reported in this project is, according to the laboratory, an older NYSDEC TCL list with methyl tert-butyl ether added. There are 36 results per sample reported since cis-1,2-dichloroethene, trans-1,2-dichloroethene, and 1,2-dichloroethene (total) are reported.

Eleven samples (1.1 (13-13.5), 1.2 (13-13.5), 1.2 (11-11.5), 2.1 (11.5-12), 2.1 (10-10.5), 2.2 (14-14.5), 4 (11-11.5), 4 (14.5-15), 5 (13.5-14), 5 (14-14.5), and 5 (14.5-15)) were analyzed as low-level soils and one or more compounds were reported above the instrument calibration range (lab flagged data "E"). For these samples, the laboratory analyzed the samples using the medium-level methanol extracts. Samples 1.1 (12.5-13), 2.1 (12.5-13), and 2.2 (12.5-13) were analyzed as medium-level aliquots and required reanalysis with a secondary aliquot of methanol for dilution purposes. Data for all analyses for these fourteen samples were reviewed and the data as reported were acceptable. The laboratory reported the data properly based on this review.

The lab reported 133 results at a level < RL and qualified the data as "J". The 133 "J" results were accepted with indeterminate bias due to uncertainty in quantitation below the instrument calibration range.

All non-detects for VOCs were reported at levels less the Unrestricted Use Soil Cleanup Objective and/or Supplemental Soil Cleanup Objectives except for acetone, benzene, 2-butanone, carbon disulfide, carbon tetrachloride, chloroethane, chloroform, cis-1,2-dichloroethene, trans-1,2-dichloroethene, ethylbenzene, MTBE, methylene chloride, 1,1,2,2-tetrachloroethane, tetrachloroethene, vinyl chloride and xylenes in 2.2 (11-11.5); acetone, benzene, cis-1,2-dichloroethene, cis-1,3-dichloropropene, methylene chloride, trans-1,3-dichloropropene, and vinyl chloride in samples 1.1 (12.5-13), 1.2 (14-14.5), 2.1 (12.5-13), 2.2 (12.5-13), 3 (12.5-13), 3 (13.5-14), and 3 (14.5-15); 1,2-dichloroethane in sample 3 (13.5-14); 2-butanone in sample 1.1 (12.5-13), 1.2 (14-14.5), 2.2 (12.5-13), 3 (12.5-13), and 3 (13.5-14); carbon tetrachloride in sample 1.2 (14-14.5); chloroform in samples 1.1 (12.5-13), 1.2 (14-14.5), 2.1 (12.5-13), 2.2 (12.5-13), 3 (12.5-13), and 3 (13.5-14); and 1,1,2-trichloroethane in samples 1.2 (14-14.5), 3 (12.5-13), and 3 (13.5-14) due to reporting of these compounds from the medium-level preserved sample aliquot. The data user will need to evaluate these non-detects at elevated levels for project uses.

Calculation check: 2.2 (11-11.5) [JB32749-14] medium-level analysis

3g of 82.6% solid sample dissolved in 5 mL Methanol and 5 µL of extract was purged in 5 mL water

Sample moisture contribution to extract = 3g (1-0.826) = 0.522 "mL" of added moisture. Total extract volume = 5 + 0.522 = 5.522 mL or 5,522 µL

Sample Response = 505908; IS Response = 189298@ 50; RRF ICAL = 0.749 (GCMSE)

$$1,1,1\text{-Trichloroethane Conc.} = \frac{505908 \times 5522 \times 5 \times 50}{189298 \times 3 \times 0.826 \times 5 \times 0.749} = 397566 = 398,000 \mu\text{g/Kg} \quad \checkmark$$

Date: 05/15/13

Data Reviewer: Nancy C. Rothman, Ph.D.

Lab: Accutest

Additional Notes:

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All %Solids were > 75% - No action required

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The sample chromatograms, mass spectra of detects and quantitation reports were scanned and data appeared to have been reported correctly. The laboratory did not report Tentatively Identified Compounds (TICs) as these were not requested.

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The narrative did not mention any issues that were not already addressed in this review.

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Lab reported results with too many significant figures. Values < 10 should be reported to 1 sig. fig, and values > 10 to 2 sig.fig. but lab reported values < 10 to 2 sig.fig and > 10 with 3 sig.fig. Since EDD and hardcopy match in how data were reported, no action except to note issue.

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Date: 05/15/13

Data Reviewer: Nancy C. Rothman, Ph.D.

Lab: Accutest

Method of Analysis: 8260B

**SW-846 Method 8260B and NYSDEC ASP2005**

Preservation: Temperature upon receipt  $4^{\circ}\pm^{\circ}2C$ ; use judgment if outside criteria

HT: waters- pH >2 or no HCl: 7d<HT; J det/R NDs

pH < 2, 14d <HT; J det/R NDs

low- or medium-level solid - 14d <HT < 28 d, J det/J NDs; HT > 28 days, J det/R NDs

unfrozen solid - 48 hrs < HT < 96 hrs, J det/J NDs; HT > 96hrs, J det/R NDs

SMCs: Criteria per Table 11A of NYSDEC ASP2005 Exhibit E or lab limits as long as results within  $\pm 10\%$  of ASP limits

%Rec<10%, J det/ R NDs; 10% <%Rec<LCL, J det/ J NDs; %Rec >UCL, J det/Accept NDs.

LCS: Lab limits accepted since LCS not required for NYSDEC ASP2005

%Rec<10%, J det/ R NDs; 10% <%Rec<LCL, J det/ J NDs; %Rec >UCL, J det/Accept NDs

Tunes: Samples analyzed within 12-hrs and criteria met per Table 7, NYSDEC ASP2005. If out, use professional judgment.

ICAL: 5-Level ; min. RRF and %RSD per Table 10 (NYSDEC ASP2005).

CCAL: min. RRF and %D per Table 10 (NYSDEC ASP2005)

Blanks: Surrogates outside criteria - Use Judgment if isolated or analysis related

Non-Matrix related Blank contamination, TB or EB contaminant in all samples associated with Blank

If contamination in blank(s) exist, if Result < RL, U result at RL; Result<Blank Action, U result at level reported

MS/MSD: Table 12 of Exhibit E, NYSDEC ASP2005 or lab limits as long as results within  $\pm 10\%$  of ASP limits

%Rec<10%, J det/ R NDs; 10% <%Rec<LCL, J det/ J NDs; %Rec >UCL, J det/Accept NDs- Unspiked Sample only. RPD > Control limit, J det / J ND; %RSD of non-spiked > 50%, J det

FD: Both Conc. > 2xQL, RPD >30% (water) 50% (soil), J det; One result ND, other >2 x QL, J det/J NDs; Both Conc. < 2xQL; RPD >criteria, LCS OK, Accept data

IS:  $25\% \leq \text{Area} < 50\%$  of IS in CCAL, J det/ J NDs; Area < 25% of CCAL, J det / R NDs; Area > 150% IS in CCAL, J det / Accept NDs

QLs: If result > upper calibration range, J result, if result < lowest calibration standard, J result. Verify all J data reported properly, if applicable.

Verify QLs are sample specific and that all compounds requested were reported.

Sensitivity: Identify any non-detects which exceed TOGS 1.1.1 (TOGS GA AWQS) criteria for waters or Unrestricted Use Soil Cleanup Objectives from 6 NYCRR Part 375, Table 375-6.8(a) (December 14, 2006) and/or Supplemental Soil Cleanup Objectives (SSCO) from CP-51 Soil Cleanup Guidance, Table 1 (October 21, 2010) for soil samples

Date: 05/15/13

Data Reviewer: Nancy C. Rothman, Ph.D.

Volatile Data Review Checklist  
FLS: AFFCO, 361 Walsh Avenue, New Windsor, NY

Project # JB34670

Lab: Accutest  
Date Sampled: 4/17/13  
Method of Analysis: 8260B

No. Samples: 5 + 1FB + 1TB  
Matrix: Groundwater

Data Element	Preservation	SMCs	LCS /	MS/MSD	FD	Tunes	IS'	QL	Other Issues
Acceptable	& HT		Blank Spike			ICALs		& Quant.	
Yes	✓	✓	✓	NA	NA	CCALs	✓	Correct	
No								Accept 6 "J" results	None

Comments:

*The data package consisted of a NYDEC Category B deliverable.*

Cooler of samples was received on 4/18/13 . All samples were received intact within  $4 \pm 2$  °C criteria. Samples were not preserved with acid, as indicated on the COC and samples had pH =6 . There were no COC issues noted.

All samples had pH > 2 and were analyzed within 7 days of sample collection (by 4/24/13) except sample EW-1X, which was reported from an analysis performed on 4/29/13 (outside HT by 5 days). This sample was originally analyzed within HT; however, there was an apparent QC issue with this analysis so it was not reported. The results from the analysis within HT confirm the results presented from the 4/29/13 analysis of this sample; therefore, a decision was made based on professional judgment to accept the results for EW-1X from 4/29/13 without taking any action for HT exceedance.

*Surrogates:* The lab used surrogate dibromofluoromethane in addition to 1,2-dichloroethane-d4, toluene-d8 and 4-bromofluorobenzene, which are in ASP2005. Since SW-846 method used for analysis allows use of alternate surrogates, no action required. All surrogates are within lab criteria and within  $\pm 10\%$  of NYSDEC ASP2005 criteria - acceptable recoveries. No action required.

*LCS (also known as Blank Spike):* The lab spiked all VOCs into LCS as compared to NYSDEC ASP 2005 requirement of a subset of compounds. LCS V2A5720-BS associated with analysis of JB34670-2 & -3; V1A5469-BS assoc. with the analysis of samples JB34670-3 through-7; and V1A5479-BS associated with the analysis of JB34670-1. All %Rec were within criteria in LCS; therefore, lab demonstrated acceptable accuracy for analysis in the absence of the site matrix. No Action required.

*MS/MSD:* Batch QC on a sample not related to the site performed for all three of the MS/MSDs; therefore, since the results of these MS/MSDs will not affect the site samples reported in this SDG, no further review of these QC performed. Field did not provide extra quantity of sample for performing MS/MSD analysis on site-specific samples. No action required.

Date: 6/4/13  
Data Reviewer: Nancy C. Rothman, Ph.D.

Lab: Accutest

Blank Action:                      Blanks Reviewed: Method Blanks: V2A5720-MB, V1A5469-MB, V1A5479-MB

TB: Trip Blank ; FB = FB041713

Blank ID	Contaminant / Level	Related?	/ Action	Sample and Reported Result	Result
V2A5720-MB	None	Y	-	No Blank Action required	
V1A5469-MB	None	Y	-	No Blank Action required	
V1A5479-MB	None	Y	-	No Blank Action required	
Trip Blank	None	Y	-	No Blank Action required	
FB041713	None	Y	-	No Blank Action required	

Additional Notes:

*FD pair*: There were no field duplicate samples associated with the samples reported in this SDG. Therefore, precision from collection through analysis could not be assessed for these samples.

*Tunes*: Instrument GCMS1A 4/17/13 (ICAL), 4/23/13, & 4/29/13 and Instrument GCMS2A 4/9/13 (ICAL) & 4/22/13. All Abundances were acceptable and all samples were analyzed within 12 hours of tune. Average of scans across peak with background correction used to generate tunes - acceptable. No action required.

*ICAL*: GCMS1A & GCMS2A analyzed 5- to 9-level ICALs from 0.5, 1, 2, or 5 to 200 µg/L for many compounds in addition to those reported. Min. RRF and Maximum %RSD given in Table 10 of NYDEC ASP2005 achieved for all compounds. Lab used regression analysis for compounds with %RSD > 15% - these all had r2 > 0.99 - since SW-846 allows regression analysis so this was an acceptable calibration method. No Action required.

*CCALs*: Inst. GCMS1A 4/23/13 & 4/29/13 & Inst. GCMS2A 4/22/13. CCAL Min. RRF and maximum %D achieved for all compounds in all CCALs for compounds reported in samples except bromomethane %D=-30.8% in 4/29/13 CCAL due to increase in sensitivity of instrument to this compound on day of CCAL as compared to sensitivity during ICAL. Since the associated sample was non-detect for bromomethane, no action required. Lab also flagged several compounds as being outside criteria but this wasn't based on Table 10 ASP 2005 criteria and the flagged compounds were not targets for these samples. No Action required.

*IS*: lab used a two more IS compounds, tert-Butyl Alcohol-d9 and Pentafluorobenzene, in addition to three IS' required by NYSDEC ASP2005 (1,4-Difluorobenzene, Chlorobenzene-d5, and 1,4-Dichlorobenzene-d4) - this is acceptable based upon lab using SW-846 method for analysis. All 5 IS Areas and Retention Times were in criteria in all samples and QC - No Action required.

Lab reported results for 35 VOCs (thirty-six results reported since 1,2-dichloroethene (total) was reported in addition to the cis- and trans- isomers of 1,2-dichloroethene). The list of compounds reported for VOCs is a project-specific list consisting of thirty-five VOCs as compared to the TCL VOC list in NYSDEC ASP 2005, which contains fifty-one compounds. The VOC list of compounds reported in this project is, according to the laboratory, an older NYSDEC TCL list with methyl tert-butyl ether added.

Date: 6/4/13

Data Reviewer: Nancy C. Rothman, Ph.D.



Lab: Accutest

Additional Notes:

The lab reported 6 results at a level < RL and qualified the data as "J". The 6 "J" results were accepted with indeterminate bias due to uncertainty in quantitation below the instrument calibration range.

All samples were initially analyzed at DF=1 except EW-1X, which was analyzed at DF=10 and MW-1N, which was analyzed at DF=5. Samples EW-0 and MN-1N were also analyzed at a secondary dilution since some analytes in the original analysis were reported over the instrument calibration range. A review of the sample quantitation reports and chromatograms indicate the choices of dilution made for analysis were appropriate. The sample chromatograms, mass spectra of detects and quantitation reports were scanned and data appeared to have been reported correctly. The laboratory did not report Tentatively Identified Compounds (TICs) as these were not requested; however, there appear to be TICs in some of the samples.

All non-detects for VOCs were reported at levels less than or equal to the NYS Ambient Water Quality Standards and Guidance Values – Water Class “GA” (TOGS AWQS – Water Class GA) included in the Division of Water Technical and Operational Guidance Series (TOGS 1.1.1), Ambient Water Quality Standards And Guidance Values and Groundwater Effluent Limitations (June 1998 with 2000 and 2004 Addenda) with the exceptions of: 1,2-dichloroethane, cis-1,3-dichloropropene, and trans-1,3-dichloropropene due to method limitations; benzene, bromomethane, 1,2-dichloropropane, methylene chloride, styrene, 1,1,2-trichloroethane, and vinyl chloride in samples MW-1N and EW-1X; and acetone, 2-butanone, carbon tetrachloride, chlorobenzene, chloroethane, chloroform, chloromethane, cis-1,2-dichloroethene, trans-1,2-dichloroethene, 1,1-dichloroethene, ethylbenzene, 1,1,2,2-tetrachloroethane, tetrachloroethene, toluene, 1,1,1-trichloroethane, trichloroethene, and xylene (total) in sample EW-1X due to dilutions used for sample analyses. The data user will need to evaluate non-detects at elevated levels for project decisions.

Calculation check: EW-0 [JB4670-3]

5 mL purged; DF = 50

Sample Response = 409935; IS Response = 161959 @ 50; RRF ICAL = 0.734 (GCMS1A)

$$\text{1,1,1-Trichloroethane Conc.} = \frac{409935 \times 50 \times 50}{161959 \times 0.734} = 8,620 \text{ } \mu\text{g/L}$$

Lab reported 8,630  $\mu\text{g/L}$  for this compound which might be due to difference in using rounded values for RRFs, etc. Since difference between calculated and reported value was < 0.2%, no action required. To 2 significant figures, as these data should have been reported, 8620 and 8630 are both 8600 - they are the same.

The narrative did not mention any issues that were not already addressed in this review.

Lab reported results with too many significant figures. Values < 10 should be reported to 1 sig. fig, and values > 10 to 2 sig.fig. but lab reported values < 10 to 2 sig.fig and > 10 with 3 sig.fig. Since EDD and hardcopy match in how data were reported, no action except to note issue.

Date: 6/4/13

Data Reviewer: Nancy C. Rothman, Ph.D.

Lab: Accutest

Method of Analysis: 8260B

**SW-846 Method 8260B and NYSDEC ASP2005**

Preservation: Temperature upon receipt  $4^{\circ}\pm^{\circ}2C$ ; use judgment if outside criteria

HT: waters- pH >2 or no HCl: 7d<HT; J det/R NDs

pH < 2, 14d <HT; J det/R NDs

low- or medium-level solid - 14d <HT < 28 d, J det/J NDs; HT > 28 days, J det/R NDs

unfrozen solid - 48 hrs < HT < 96 hrs, J det/J NDs; HT > 96hrs, J det/R NDs

SMCs: Criteria per Table 11A of NYSDEC ASP2005 Exhibit E or lab limits as long as results within  $\pm 10\%$  of ASP limits

%Rec<10%, J det/ R NDs; 10% <%Rec<LCL, J det/ J NDs; %Rec >UCL, J det/Accept NDs.

LCS: Lab limits accepted since LCS not required for NYSDEC ASP2005

%Rec<10%, J det/ R NDs; 10% <%Rec<LCL, J det/ J NDs; %Rec >UCL, J det/Accept NDs

Tunes: Samples analyzed within 12-hrs and criteria met per Table 7, NYSDEC ASP2005. If out, use professional judgment.

ICAL: 5-Level ; min. RRF and %RSD per Table 10 (NYSDEC ASP2005).

CCAL: min. RRF and %D per Table 10 (NYSDEC ASP2005)

Blanks: Surrogates outside criteria - Use Judgment if isolated or analysis related

Non-Matrix related Blank contamination, TB or EB contaminant in all samples associated with Blank

If contamination in blank(s) exist, if Result < RL, U result at RL; Result<Blank Action, U result at level reported

MS/MSD: Table 12 of Exhibit E, NYSDEC ASP2005 or lab limits as long as results within  $\pm 10\%$  of ASP limits

%Rec<10%, J det/ R NDs; 10% <%Rec<LCL, J det/ J NDs; %Rec >UCL, J det/Accept NDs- Unspiked Sample only. RPD > Control limit, J det / J ND; %RSD of non-spiked > 50%, J det

FD: Both Conc. > 2xQL, RPD >30% (water) 50% (soil), J det; One result ND, other >2 x QL, J det/J NDs; Both Conc. < 2xQL; RPD >criteria, LCS OK, Accept data

IS:  $25\% \leq \text{Area} < 50\%$  of IS in CCAL, J det/ J NDs; Area < 25% of CCAL, J det / R NDs; Area > 150% IS in CCAL, J det / Accept NDs

QLs: If result > upper calibration range, J result, if result < lowest calibration standard, J result. Verify all J data reported properly, if applicable.

Verify QLs are sample specific and that all compounds requested were reported.

Sensitivity: Identify any non-detects which exceed TOGS 1.1.1 (TOGS GA AWQS) criteria for waters or Soil Cleanup Objectives from 6 NYCRR Part 375 for soils

Date: 6/4/13

Data Reviewer: Nancy C. Rothman, Ph.D.



environmental chemistry consultants

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## **Data Usability Summary Report (DUSR)**

### **NYSDEC ASP Category B**

**Client/Company:** Fleming-Lee Shue, Inc., New York, New York (FLS)

**Site/Project Name:** AFFCO, 361 Walsh Avenue, New Windsor, NY

**Laboratory:** Accutest Laboratories, Dayton, New Jersey

**SDGs/Lab Project #:** JB15405

**Date(s) of Collection:** August 26, 2012, August 30, 2012 & September 4, 2012

**Number and type  
Samples & analyses:** 24 soil samples for project-specific Target Compound List (TCL) of  
Volatile Organic Compounds (VOCs)

**Senior Data Reviewers:** Dr. Nancy C. Rothman, New Environmental Horizons, Inc.  
Susan D. Chapnick, New Environmental Horizons, Inc.

**Date Completed:** February 4, 2013

This Data Usability Summary Report (DUSR) is based on guidance developed by the New York State Department of Conservation (NYSDEC), June 1999, for technical review of analytical data in lieu of a full third party data validation and technical guidance presented in *DER-10 / Technical Guidance for Site Investigation and Remediation*, NYSDEC, May 3, 2010. The objective of the DUSR is to determine whether or not the data as presented meet the site/project specific criteria for data quality and data use based on the NYSDEC ASP 2005 or EPA method QC acceptance criteria.

## **I. Required DUSR Questions**

***1. Is the data package complete as defined under the requirements for the most current NYSDEC ASP Category B or USEPA CLP deliverables?***

Yes.

***2. Have all holding times been met?***

Yes.

***3. Do all the QC data: blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, laboratory controls and sample data fall within the protocol required limits and specifications?***

Yes, analyses generally met QC criteria. Exceedances of QC criteria, where data were qualified but considered usable for project decisions, are noted in Section III of this DUSR.

***4. Have all of the data been generated using established and agreed upon analytical protocols?***

Yes. Analytical data were generated using established EPA Methods, Standard Methods, and ASTM Methods (see analytical references in Section II below). Deviations from EPA or other method protocols and NYSDEC ASP 2005 QC protocols are discussed in Section III of this DUSR.

***5. Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms?***

Yes. The raw data were checked to verify that detected results met retention time and mass spectral criteria, where applicable, for qualitative identification. A spot check was performed to verify quantitative accuracy for reporting of all results (presented in the Data Review Checklists attached to this DUSR).

***6. Have the correct data qualifiers been used and are they consistent with the most current NYSDEC ASP?***

Yes. The laboratory used the correct data qualifiers in reporting of results. Data qualifiers were changed for several results during this review, as shown in Table 2 and explained in Section III of this DUSR.

***7. Have any quality control (QC) exceedances been specifically noted in the DUSR and have the corresponding QC summary sheets from the data package been attached to the DUSR?***

Yes. QC exceedances are specified in Section III of this DUSR. QC summary sheets from the data package have not been attached; however, all QC exceedances that required data qualification are summarized in Table 2 of the DUSR and flagged in the validated electronic data deliverable (EDD).

## II. Sample Descriptions and Analytical Parameters

The sample IDs, date of sampling, identification of MS/MSD/MD, FD, EB, TB, if applicable and the analytical parameters reviewed in this DUSR are listed in Table 1. Any deviations noted for sample collection or receipt (*e.g.*, temperature or preservation issues) are included in Section III, below.

Table 1. Sample Descriptions and Analytical Parameters

Sample ID	Lab ID	Collection Date	Matrix	Analytical Parameters	Sample Type
PX01-SW-5	JB14890-1	8/28/12	Soil	VOCs	Field sample [used for MS/MSD]
PX02-SW-5	JB14890-2	8/28/12	Soil	VOCs	Field sample
PX03-BT-10	JB14890-3	8/28/12	Soil	VOCs	Field sample [used for MS/MSD]
PX04-SW-5	JB14890-4	8/28/12	Soil	VOCs	Field sample
PX05-SW-6	JB14890-5	8/28/12	Soil	VOCs	Field sample
PX06-BT-10	JB14890-6	8/28/12	Soil	VOCs	Field sample
C5SP01	JB14890-7	8/28/12	Soil	VOCs	Field sample
C5SP02	JB14890-8	8/28/12	Soil	VOCs	Field sample
C4SP01	JB14890-9	8/28/12	Soil	VOCs	Field sample
PX07BT-10	JB15155-1	8/30/12	Soil	VOCs	Field sample [used for MS/MSD]
PX08SW-7	JB15155-2	8/30/12	Soil	VOCs	Field sample [used for MS/MSD]
BENCH01	JB15155-3	8/30/12	Soil	VOCs	Field sample
PX09SW-3	JB15405-1	9/4/12	Soil	VOCs	Field sample [used for MS/MSD]
PX10SW-5	JB15405-2	9/4/12	Soil	VOCs	Field sample

Table 1. Sample Descriptions and Analytical Parameters - *continued*

Sample ID	Lab ID	Collection Date	Matrix	Analytical Parameters	Sample Type
PX11BT-10	JB15405-3	9/4/12	Soil	VOCs	Field sample
PX12SW-7	JB15405-4	9/4/12	Soil	VOCs	Field sample
PX13SW-7	JB15405-5	9/4/12	Soil	VOCs	Field sample
PX14SW-6	JB15405-6	9/4/12	Soil	VOCs	Field sample [used for MS/MSD]
PX15BT-10	JB15405-7	9/4/12	Soil	VOCs	Field sample [used for MS/MSD]
C1SP01	JB15405-8	9/4/12	Soil	VOCs	Field sample
C3SP01	JB15405-9	9/4/12	Soil	VOCs	Field sample [used for MS/MSD]
C3SP02	JB15405-10	9/4/12	Soil	VOCs	Field sample
C2SP01	JB15405-11	9/4/12	Soil	VOCs	Field sample [used for MS/MSD]
C2SP02	JB15405-12	9/4/12	Soil	VOCs	Field sample

Analytical method references:

TCL VOC: EPA SW846 Method 8260B

Percent Moisture / Percent Solids: ASTM 4643-00 were performed and reported for all samples to convert results to dry-weight units.

### III. Data Deficiencies, Analytical Protocol Deviations, and Quality Control Exceedances

The following QC elements, as applicable to the analytical methods, were reviewed during this DUSR:

- Data package completeness and reporting protocols
- Sample receipt, holding times and preservation criteria
- Calibration criteria (instrument tuning, initial and continuing calibration verifications)
- Method, field, and instrument blank results
- Laboratory Control Sample (LCS), Blank Spike (BS), or Matrix Spike Blank (MSB) recoveries

- Surrogate or System Monitoring Compound (SMC) Recoveries
- Matrix Spike (MS) / Matrix Spike Duplicate (MSD) Recoveries
- MS/MSD, sample/Matrix Duplicate (MD), or sample/Field Duplicate (FD) Relative Percent Differences (RPDs)
- Sample result reporting (including reporting limits and units)
- Other method-specific QC if applicable and reported (e.g., internal standard areas)
- Deficiencies or protocol deviations as noted in the Laboratory Narrative

During this review of VOCs, several results were estimated (J and UJ) due to QC issues. Table 2 summarizes the actions taken during this review. NEH generated a validated data spreadsheet based on the electronic project database file received from Accutest for these SDGs. All results were considered acceptable compared to NYSDEC ASP 2005 and method criteria, with the understanding of the potential uncertainty (bias) in the qualified results.

Table 2. Summary of Data Validation Actions

Field Sample ID	Analyte	Qualifier	Bias	Validation Comments
PX07BT-10	1,1-Dichloroethene	J	L	Low MS/MSD recoveries
PX09SW-3	1,1,1-Trichloroethane	J	L	Low MS/MSD recoveries
C2SP01	Bromoform Carbon disulfide Carbon tetrachloride Chlorobenzene Ethylbenzene Styrene Toluene trans-1,2-Dichloroethene trans-1,3-Dichloropropene Xylene (total)	UJ	I	MS/MSD imprecision
C2SP01	1,2-Dichloroethene (total)	J	I	MS/MSD imprecision + Result uncertain below the calibration range
C2SP01	Trichloroethene	J	I	MS/MSD imprecision + Initial Calibration outside criteria + Low Calibration verification + Result uncertain below the calibration range
PX01-SW-5 PX02-SW-5 PX04-SW-5 PX06-BT-10 C5SP01	Trichloroethene	UJ	L	Initial Calibration outside criteria + Low Calibration verification

Table 2. Summary of Data Validation Actions - continued

Field Sample ID	Analyte	Qualifier	Bias	Validation Comments
PX07BT-10 C2SP02	Trichloroethene	J	L	Initial Calibration outside criteria + Low Calibration verification
PX03-BT-10 PX05-SW-6 C5SP02 C4SP01 PX08SW-7 BENCH01 C3SP02 PX11BT-10 PX14SW-6 PX15BT-10 C1SP01 C3SP01	Trichloroethene	J	I	Initial Calibration outside criteria + Low Calibration verification + Result uncertain below the calibration range
PX02-SW-5 PX04-SW-5 PX05-SW-6 PX06-BT-10 C4SP01 PX12SW-7	1,1,1-Trichloroethane	J	I	Result uncertain below the calibration range
PX03-BT-10 PX07BT-10 PX08SW-7 BENCH01 C3SP02 C2SP01 C2SP02 PX11BT-10 PX15BT-10 C1SP01 C3SP01	1,1,2-Trichloroethane	J	I	Result uncertain below the calibration range
C5SP01 PX08SW-7 BENCH01 C3SP02 C2SP01 C2SP02 PX10SW-5 PX14SW-6	1,1-Dichloroethane	J	I	Result uncertain below the calibration range
PX08SW-7 C3SP02 C2SP01 PX15BT-10 C1SP01	1,2-Dichloroethane	J	I	Result uncertain below the calibration range



Table 2. Summary of Data Validation Actions - continued

Field Sample ID	Analyte	Qualifier	Bias	Validation Comments
PX04-SW-5 C5SP01 BENCH01 C3SP02 C2SP01 C2SP02 PX14SW-6 PX15BT-10 C1SP01 C3SP01	1,1-Dichloroethene	J	I	Result uncertain below the calibration range
PX03-BT-10 C5SP02 PX08SW-7 BENCH01 C3SP02 C2SP02 PX14SW-6 PX15BT-10 C1SP01 C3SP01	1,2-Dichloroethene (total)	J	I	Result uncertain below the calibration range
PX02-SW-5 PX06-BT-10	Acetone	J	I	Result uncertain below the calibration range
PX01-SW-5 PX04-SW-5 PX06-BT-10 C4SP01 PX13SW-7	Benzene	J	I	Result uncertain below the calibration range
PX03-BT-10 C5SP02	Carbon disulfide	J	I	Result uncertain below the calibration range
PX03-BT-10	Chloroethane	J	I	Result uncertain below the calibration range
PX03-BT-10 C5SP01 C5SP02 PX07BT-10 PX15BT-10	Chloroform	J	I	Result uncertain below the calibration range
PX03-BT-10 C5SP02 PX08SW-7 BENCH01 C3SP02 C2SP01 C2SP02 PX14SW-6 PX15BT-10 C1SP01 C3SP01	cis-1,2-Dichloroethene	J	I	Result uncertain below the calibration range

Table 2. Summary of Data Validation Actions - continued

Field Sample ID	Analyte	Qualifier	Bias	Validation Comments
PX08SW-7	Ethylbenzene	J	I	Result uncertain below the calibration range
PX03-BT-10 C5SP02 PX07BT-10 PX08SW-7 BENCH01 C2SP02 PX10SW-5 PX14SW-6 PX15BT-10 C1SP01 C3SP01	Tetrachloroethene	J	I	Result uncertain below the calibration range
PX01-SW-5 PX04-SW-5 PX05-SW-6 C5SP02 C4SP01 PX09SW-3 C3SP02 PX12SW-7 PX13SW-7 PX15BT-10	Toluene	J	I	Result uncertain below the calibration range
C5SP02 PX07BT-10 PX08SW-7 BENCH01 C3SP02 C2SP02 PX14SW-6 PX15BT-10 C1SP01 C3SP01	trans-1,2-Dichloroethene	J	I	Result uncertain below the calibration range
PX09SW-3 PX10SW-5 PX12SW-7	Trichloroethene	J	I	Result uncertain below the calibration range
C5SP02 PX07BT-10	Vinyl chloride	J	I	Result uncertain below the calibration range

*Qualifiers: U = Analyte is non-detect at the “DV Result” value; UJ = Non-detect is estimated; J = Result is estimated; R = Result is rejected and is unusable for project decisions.*

*Bias: L = Low; H = High; I = Indeterminate*

*Abbreviations used in Table 2:*

*MS = Matrix Spike*

*MSD = Matrix Spike Duplicate*

As required by the DUSR, the following sections document the QC reviewed and the issues that required action or affected the data certainty in terms of the project data quality objectives (DQO)

of accuracy, precision, representativeness, comparability, and sensitivity. The DQO of completeness can be evaluated by the project manager after all data are generated.

### **Data Package Completeness and Reporting Protocols**

- The samples reported in this SDG were initially analyzed in three separate SDGs (JB14890, JB15405, and JB15155). After completion of the sample analyses, FLS requested that all data in these three SDGs be reported in this one SDG JB15405. The laboratory maintained the original laboratory IDs for the samples throughout the Category B deliverable, as shown in Table 1.
- The initial and continuing calibrations for VOCs contained many compounds in addition to the targets requested. During this review, only the target compounds were assessed.
- For organic analyses, the laboratory used in-house QC limits to judge acceptability of surrogates, MS/MSD, LCS, and calibrations. In addition, the laboratory spiked all VOC targets for the LCS and MS/MSD analyses rather than just a representative subset of analytes as suggested by NYSDEC ASP 2005. During this review, the NYSDEC ASP 2005 QC limits for the compounds specified in Exhibit E were used to evaluate the acceptability of the laboratory quality control, unless otherwise discussed below, while the in-house limits were used to judge the other spiked compounds.
- The laboratory reported too many significant figures for some data. For organic results, NYSDEC ASP 2005 indicates that one significant figure should be reported for values < 10 and two significant figures for values > 10; however, the laboratory reported two significant figures for values < 10 and three for values > 10.

### **Sample Receipt, Holding Times, and Preservation**

- Samples were not preserved in the field for VOC analysis (i.e., Method 5035A preservation of soils for VOC analysis was not used). FLS indicated that this was not a requirement of the project Work Plan. Data users are cautioned that VOC concentrations in field-unpreserved soils can be biased low due to loss of volatile compounds prior to analysis. Soils were preserved and analyzed using the low-level or medium-level (methanol) aliquots prepared at the laboratory.

### **Calibration**

- For VOC analysis, the laboratory used two additional Internal Standard (IS) compounds, t-butyl alcohol-d<sub>9</sub> and pentafluorobenzene, in addition to the NYSDEC ASP 2005 required IS' of 1,4-difluorobenzene, chlorobenzene-d<sub>5</sub>, and 1,4-dichlorobenzene-d<sub>4</sub>. Since SW846 Method 8260B allows the use of alternative IS', no action was required.
- The response for trichloroethene was low compared to NYSDEC ASP 2005 criteria in several VOC initial and continuing calibrations. Twenty trichloroethene results were estimated (J or UJ) with possible low bias, as shown in Table 2.
- Various other VOC calibrations reported compounds outside of criteria; however, action to qualify sample data was not required as explained in the Data Review Checklist.

### **Method, Field, and Instrument Blank Results**

- No contamination that would require blank actions was observed in the method blanks.

- There were no trip or field equipment blanks associated with the samples in this SDG.

**Laboratory Control Sample (LCS), Blank Spike (BS), or Matrix Spike Blank (MSB) recoveries**

- The LCS recoveries were acceptable for all VOCs, indicating acceptable accuracy for the methods as performed by the laboratory.

**Surrogate or System Monitoring Compound (SMC) Recoveries**

- The laboratory used a fourth surrogate, dibromofluoromethane, in addition to those specified in NYSDEC ASP2005. Since EPA SW-846 allows the use of alternative surrogates, no action was required.
- All surrogates recovered within criteria in all samples and QC.

**Matrix Quality Control (Matrix Spike/Matrix Duplicate/Matrix Spike Duplicate and Field Duplicate Samples)**

- MS/MSD analysis for VOCs was performed on nine site samples: PX01-SW-5, PX03-BT-10, PX07BT-10, PX08SW-7, PX09SW-3, PX14SW-6, PX15BT-10, C3P01, and C2SP01. Accuracy and precision for the MS/MSD were considered acceptable for all VOCs in the analyses of six samples: PX01-SW-5, PX03-BT-10, PX08SW-7, PX14SW-6, PX15BT-10, and PX03-BT-10. The spike levels for several of these MS/MSD analyses were too low compared to the relatively high VOC concentrations in the unspiked sample, which resulted in recoveries that were not applicable to the matrix. In these instances, no action was taken based on professional judgment as explained in the Data Validation Checklist. The MS/MSD results in three site samples showed exceedances as explained below and listed in Table 2:
  - PX07BT-10: 1,1-Dichloroethene was estimated (J) with possible low bias due to low MS/MSD recoveries.
  - PX09SW-3: 1,1,1-Trichloroethane was estimated (J) with possible low bias due to low MS/MSD recoveries.
  - C2SP01: Bromoform, carbon disulfide, carbon tetrachloride, chlorobenzene, trans-1,2-dichloroethene, 1,2-dichloroethene (total), trans-1,3-dichloropropene, ethylbenzene, styrene, toluene, trichloroethene, and xylene (total) were estimated (J or UJ) with indeterminate bias due to MS/MSD imprecision.
- There were no field duplicates associated with the samples in this SDG; therefore, precision from sample collection through analysis and representativeness could not be evaluated.

**Sample Result Reporting (including reporting limits and units)**

- All results are reported with sample-specific reporting limits (adjusted for sample-specific preparation and dilution factors) on a dry-weight basis (based on sample percent solids) in units of µg/Kg.
- The list of compounds reported for VOCs is a project-specific list consisting of thirty-five VOCs as compared to the TCL VOC list in NYSDEC ASP 2005, which contains fifty-one compounds. The VOC list of compounds reported in this project is, according to the laboratory, an older NYSDEC TCL list with methyl tert-butyl ether added.
- Sensitivity for all results was considered acceptable since all non-detects were reported at levels less than the Soil Cleanup Objectives (SCOs) listed in 6 NYCRR Part 375

Environmental Remediation Programs Subpart 375-6, NYSDEC, Table 375-6.8(a): Unrestricted Use Soil Cleanup Objectives (SCOs effective December 14, 2006) and the lowest Supplemental Soil Cleanup Objectives (SSCOs) listed in Table 1 of CP-51 / Soil Cleanup Guidance, NYSDEC (October 21, 2010).

- Six samples reported one or more results above the calibration range (flagged “E” by the laboratory) in the initial low-level analyses of the samples. The laboratory re-analyzed these samples either as low-level soils with reduced initial weights or as medium-level methanol extracts. Data for all analyses for these six samples were reviewed and data accepted for reporting of valid results as follows:
  - C1SP01: all initial low-level results accepted except 1,1,1-trichloroethane, which was accepted from the second low-level analysis;
  - PX07BT-10: all initial low-level results accepted except 1,1,1-trichloroethane, chloroethane, and 1,1-dichloroethane, which were accepted from the second low-level analysis;
  - PX03-BT-10: all low-level results accepted except 1,1,1-trichloroethane, 1,1-dichloroethane, and 1,1-dichloroethene, which were accepted from the medium-level analysis;
  - C5SP01: all low-level results accepted except 1,1,1-trichloroethane, which was accepted from the medium-level analysis;
  - C5SP02: all low-level results accepted except 1,1,1-trichloroethane and 1,1-dichloroethene, which were accepted from the medium-level analysis; and
  - C3SP01: all low-level results accepted except 1,1,1-trichloroethane, which was accepted from the medium-level analysis.

Only accepted data were reported in the validated EDD. The laboratory reported the data properly for these samples based on this review.

- Several detected VOC results were reported at concentrations below the sample-specific reporting limits (RL). During this assessment, these results were qualified as estimated (J) with indeterminate bias due to uncertainty in quantitation at a level below the instrument calibration range. Table 2 identifies the analytes and samples that were estimated due to reporting at levels below the RL.



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## **Data Usability Summary Report (DUSR)**

### **NYSDEC ASP Category B**

**Client/Company:** Fleming-Lee Shue, Inc., New York, New York (FLS)

**Site/Project Name:** AFFCO, 361 Walsh Avenue, New Windsor, NY

**Laboratory:** Accutest Laboratories, Dayton, New Jersey

**SDGs/Lab Project #:** JB32749

**Date(s) of Collection:** March 27, 2013

**Number and type  
Samples & analyses:** 26 soil samples, 2 Field Blanks, and 1 Trip Blank for project-specific Target Compound List (TCL) of Volatile Organic Compounds (VOCs)

**Senior Data Reviewers:** Dr. Nancy C. Rothman, New Environmental Horizons, Inc.  
Susan D. Chapnick, New Environmental Horizons, Inc.

**Date Completed:** May 16, 2013

This Data Usability Summary Report (DUSR) is based on guidance developed by the New York State Department of Conservation (NYSDEC), June 1999, for technical review of analytical data in lieu of a full third party data validation and technical guidance presented in *DER-10 / Technical Guidance for Site Investigation and Remediation*, NYSDEC, May 3, 2010. The objective of the DUSR is to determine whether or not the data as presented meet the site/project specific criteria for data quality and data use based on the NYSDEC ASP 2005 or EPA method QC acceptance criteria.

## **I. Required DUSR Questions**

- 1. Is the data package complete as defined under the requirements for the most current NYSDEC ASP Category B or USEPA CLP deliverables?***

Yes.

- 2. Have all holding times been met?***

Yes.

- 3. Do all the QC data: blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, laboratory controls and sample data fall within the protocol required limits and specifications?***

Yes, analyses generally met QC criteria. Exceedances of QC criteria, where data were qualified but considered usable for project decisions, are noted in Section III of this DUSR.

- 4. Have all of the data been generated using established and agreed upon analytical protocols?***

Yes. Analytical data were generated using established EPA Methods, Standard Methods, and ASTM Methods (see analytical references in Section II below). Deviations from EPA or other method protocols and NYSDEC ASP 2005 QC protocols are discussed in Section III of this DUSR.

- 5. Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms?***

Yes. The raw data were checked to verify that detected results met retention time and mass spectral criteria, where applicable, for qualitative identification. A spot check was performed to verify quantitative accuracy for reporting of all results (presented in the Data Review Checklists attached to this DUSR).

- 6. Have the correct data qualifiers been used and are they consistent with the most current NYSDEC ASP?***

Yes. The laboratory used the correct data qualifiers in reporting of results. Data qualifiers were changed for several results during this review, as shown in Table 2 and explained in Section III of this DUSR.

- 7. Have any quality control (QC) exceedances been specifically noted in the DUSR and have the corresponding QC summary sheets from the data package been attached to the DUSR?***

Yes. QC exceedances are specified in Section III of this DUSR. QC summary sheets from the data package have not been attached; however, all QC exceedances that required data qualification are summarized in Table 2 of the DUSR and flagged in the validated electronic data deliverable (EDD).

## II. Sample Descriptions and Analytical Parameters

The sample IDs, date of sampling, identification of MS/MSD/MD, FD, EB, TB, if applicable and the analytical parameters reviewed in this DUSR are listed in Table 1. Any deviations noted for sample collection or receipt (*e.g.*, temperature or preservation issues) are included in Section III, below.

Table 1. Sample Descriptions and Analytical Parameters

Sample ID	Lab ID	Collection Date	Matrix	Analytical Parameters	Sample Type
TRIP BLANK	JB32749-1	3/27/13	Water	VOCs	Trip Blank
FIELD BLANK 1	JB32749-2	3/27/13	Water	VOCs	Field Blank
FIELD BLANK 2	JB32749-3	3/27/13	Water	VOCs	Field Blank
1.1 (12.5-13)	JB32749-4	3/27/13	Soil	VOCs	Field sample
1.1 (13-13.5)	JB32749-5	3/27/13	Soil	VOCs	Field sample
1.1 (14.5-15)	JB32749-6	3/27/13	Soil	VOCs	Field sample
1.2 (13-13.5)	JB32749-7	3/27/13	Soil	VOCs	Field sample
1.2 (11-11.5)	JB32749-8	3/27/13	Soil	VOCs	Field sample
1.2 (14-14.5)	JB32749-9	3/27/13	Soil	VOCs	Field sample
2.1 (12.5-13)	JB32749-10	3/27/13	Soil	VOCs	Field sample
2.1 (11.5-12)	JB32749-11	3/27/13	Soil	VOCs	Field sample
2.1 (10-10.5)	JB32749-12	3/27/13	Soil	VOCs	Field sample
2.2 (12.5-13)	JB32749-13	3/27/13	Soil	VOCs	Field sample
2.2 (11-11.5)	JB32749-14	3/27/13	Soil	VOCs	Field sample



Table 1. Sample Descriptions and Analytical Parameters - *continued*

Sample ID	Lab ID	Collection Date	Matrix	Analytical Parameters	Sample Type
2.2 (14-14.5)	JB32749-15	3/27/13	Soil	VOCs	Field sample
3 (13.5-14)	JB32749-16	3/27/13	Soil	VOCs	Field sample
3 (14.5-15)	JB32749-17	3/27/13	Soil	VOCs	Field sample
3 (12.5-13)	JB32749-18	3/27/13	Soil	VOCs	Field sample
4 (11-11.5)	JB32749-19	3/27/13	Soil	VOCs	Field sample [used for MD analysis]
4 (10-10.5)	JB32749-20	3/27/13	Soil	VOCs	Field sample
4 (14.5-15)	JB32749-21	3/27/13	Soil	VOCs	Field sample [used for MS/MSD]
5 (13.5-14)	JB32749-22	3/27/13	Soil	VOCs	Field sample
5 (14-14.5)	JB32749-23	3/27/13	Soil	VOCs	Field sample
5 (14.5-15)	JB32749-24	3/27/13	Soil	VOCs	Field sample
6 (11.5-12)	JB32749-25	3/27/13	Soil	VOCs	Field sample
6 (12.5-13)	JB32749-26	3/27/13	Soil	VOCs	Field sample
6 (14.5-15)	JB32749-27	3/27/13	Soil	VOCs	Field sample [used for MS]
FD-1 6(11.5-12)	JB32749-28	3/27/13	Soil	VOCs	Field Duplicate of 6 (11.5-12)
FD-2 6(14.5-15)	JB32749-29	3/27/13	Soil	VOCs	Field Duplicate of 6 (14.5-15)

Analytical method references:

TCL VOC: EPA SW846 Method 8260B

Percent Moisture / Percent Solids: ASTM D4643-00 or Standard Method 2540G were performed and reported for all samples to convert results to dry-weight units.

### III. Data Deficiencies, Analytical Protocol Deviations, and Quality Control Exceedances

The following QC elements, as applicable to the analytical methods, were reviewed during this DUSR:

- Data package completeness and reporting protocols
- Sample receipt, holding times and preservation criteria
- Calibration criteria (instrument tuning, initial and continuing calibration verifications)
- Method, field, and instrument blank results
- Laboratory Control Sample (LCS), Blank Spike (BS), or Matrix Spike Blank (MSB) recoveries
- Surrogate or System Monitoring Compound (SMC) Recoveries
- Matrix Spike (MS) / Matrix Spike Duplicate (MSD) Recoveries
- MS/MSD, sample/Matrix Duplicate (MD), or sample/Field Duplicate (FD) Relative Percent Differences (RPDs)
- Sample result reporting (including reporting limits and units)
- Other method-specific QC if applicable and reported (e.g., internal standard areas)
- Deficiencies or protocol deviations as noted in the Laboratory Narrative

During this review of VOCs, all results were estimated (J and UJ) due to QC issues. Table 2 summarizes the actions taken during this review. NEH generated a validated data spreadsheet based on the electronic project database file received from Accutest for these SDGs. All results were considered acceptable compared to NYSDEC ASP 2005 and method criteria, with the understanding of the potential uncertainty (bias) in the qualified results.

Table 2. Summary of Data Validation Actions

Field Sample ID	Analyte	Qualifier	Bias	Validation Comments
TRIP BLANK	Bromoform Dibromochloromethane	J	I	Sample Preservation issue + Result reported below the calibration range
TRIP BLANK FIELD BLANK 1 FIELD BLANK 2 2.1 (11.5-12) 2.1 (10-10.5) 4 (14.5-15) 5 (14-14.5) 5 (14.5-15) 6 (11.5-12) 6 (14.5-15) FD-2 6(14.5-15)	Trichloroethene	UJ	L	Sample Preservation issue + Initial Calibration outside criteria + Low Calibration verification
TRIP BLANK	All VOCs except: Bromoform Dibromochloromethane Trichloroethene	UJ	L	Sample Preservation issue

Table 2. Summary of Data Validation Actions - *continued*

Field Sample ID	Analyte	Qualifier	Bias	Validation Comments
FIELD BLANK 1 FIELD BLANK 2	All VOCs except: Trichloroethene	UJ	L	Sample Preservation issue
1.1 (12.5-13)	1,2-Dichloroethene (total) cis-1,2-Dichloroethene Tetrachloroethene trans-1,2-Dichloroethene	J	I	Sample Preservation issue + Result reported below the calibration range
1.1 (12.5-13)	All VOCs except: 1,2-Dichloroethene (total) cis-1,2-Dichloroethene Tetrachloroethene trans-1,2-Dichloroethene	J or UJ	L	Sample Preservation issue
1.1 (13-13.5) 1.1 (14.5-15) 1.2 (13-13.5) 1.2 (11-11.5) 2.2 (14-14.5) 4 (11-11.5) 4 (10-10.5) 5 (13.5-14) 6 (12.5-13) FD-1 6(11.5-12)	Trichloroethene	J	I	Sample Preservation issue + Initial Calibration outside criteria + Low Calibration verification + Result reported below the calibration range
1.1 (13-13.5)	1,2-Dichloroethane Acetone Carbon disulfide Methylene chloride Toluene	J	I	Sample Preservation issue + Result reported below the calibration range
1.1 (13-13.5)	All VOCs except: Trichloroethene 1,2-Dichloroethane Acetone Carbon disulfide Methylene chloride Toluene	J or UJ	L	Sample Preservation issue
1.1 (14.5-15)	1,2-Dichloroethene (total) Carbon disulfide Methylene chloride Toluene trans-1,2-Dichloroethene Vinyl chloride	J	I	Sample Preservation issue + Result reported below the calibration range
1.1 (14.5-15)	All VOCs except: Trichloroethene 1,2-Dichloroethene (total) Carbon disulfide Methylene chloride Toluene trans-1,2-Dichloroethene Vinyl chloride	J or UJ	L	Sample Preservation issue

Table 2. Summary of Data Validation Actions - *continued*

Field Sample ID	Analyte	Qualifier	Bias	Validation Comments
1.2 (13-13.5)	1,1,2-Trichloroethane 1,2-Dichloroethene (total) Carbon disulfide Chloroethane cis-1,2-Dichloroethene Methylene chloride trans-1,2-Dichloroethene	J	I	Sample Preservation issue + Result reported below the calibration range
1.2 (13-13.5)	All VOCs except: Trichloroethene 1,1,2-Trichloroethane 1,2-Dichloroethene (total) Carbon disulfide Chloroethane cis-1,2-Dichloroethene Methylene chloride trans-1,2-Dichloroethene	J or UJ	L	Sample Preservation issue
1.2 (11-11.5)	1,1,2-Trichloroethane 1,2-Dichloroethene (total) Carbon disulfide Chloroethane cis-1,2-Dichloroethene Ethylbenzene Methylene chloride Xylene (total)	J	I	Sample Preservation issue + Result reported below the calibration range
1.2 (11-11.5)	All VOCs except: Trichloroethene 1,1,2-Trichloroethane 1,2-Dichloroethene (total) Carbon disulfide Chloroethane cis-1,2-Dichloroethene Ethylbenzene Methylene chloride Xylene (total)	J or UJ	L	Sample Preservation issue
1.2 (14-14.5)	Toluene	J	I	Sample Preservation issue + Result reported below the calibration range
1.2 (14-14.5)	All VOCs except: Toluene	J or UJ	L	Sample Preservation issue
2.1 (12.5-13)	1,1,2-Trichloroethane Carbon disulfide cis-1,2-Dichloroethene Tetrachloroethene trans-1,2-Dichloroethene	J	I	Sample Preservation issue + Result reported below the calibration range

Table 2. Summary of Data Validation Actions - *continued*

Field Sample ID	Analyte	Qualifier	Bias	Validation Comments
2.1 (12.5-13)	All VOCs except: 1,1,2-Trichloroethane Carbon disulfide cis-1,2-Dichloroethene Tetrachloroethene trans-1,2-Dichloroethene	J or UJ	L	Sample Preservation issue
2.1 (11.5-12)	1,1,2-Trichloroethane Benzene Carbon disulfide Methylene chloride Tetrachloroethene trans-1,2-Dichloroethene	J	I	Sample Preservation issue + Result reported below the calibration range
2.1 (11.5-12)	All VOCs except: Trichloroethene 1,1,2-Trichloroethane Benzene Carbon disulfide Methylene chloride Tetrachloroethene trans-1,2-Dichloroethene	J or UJ	L	Sample Preservation issue
2.1 (10-10.5)	1,1,2-Trichloroethane Carbon disulfide Chloroform cis-1,2-Dichloroethene Methylene chloride Tetrachloroethene trans-1,2-Dichloroethene	J	I	Sample Preservation issue + Result reported below the calibration range
2.1 (10-10.5)	All VOCs except: Trichloroethene 1,1,2-Trichloroethane Carbon disulfide Chloroform cis-1,2-Dichloroethene Methylene chloride Tetrachloroethene trans-1,2-Dichloroethene	J or UJ	L	Sample Preservation issue
2.2 (12.5-13)	1,2-Dichloroethene (total) cis-1,2-Dichloroethene Tetrachloroethene Trichloroethene	J	I	Sample Preservation issue + Result reported below the calibration range
2.2 (12.5-13)	All VOCs except: 1,2-Dichloroethene (total) cis-1,2-Dichloroethene Tetrachloroethene Trichloroethene	J or UJ	L	Sample Preservation issue
2.2 (11-11.5)	1,1-Dichloroethane Toluene Trichloroethene	J	I	Sample Preservation issue + Result reported below the calibration range

Table 2. Summary of Data Validation Actions - *continued*

Field Sample ID	Analyte	Qualifier	Bias	Validation Comments
2.2 (11-11.5)	All VOCs except: 1,1-Dichloroethane Toluene Trichloroethene	J or UJ	L	Sample Preservation issue
2.2 (14-14.5)	1,1,1-Trichloroethane 1,1,2-Trichloroethane Carbon disulfide cis-1,2-Dichloroethene Methylene chloride trans-1,2-Dichloroethene Vinyl chloride	J	I	Sample Preservation issue + Result reported below the calibration range
2.2 (14-14.5)	All VOCs except: Trichloroethene 1,1,1-Trichloroethane 1,1,2-Trichloroethane Carbon disulfide cis-1,2-Dichloroethene Methylene chloride trans-1,2-Dichloroethene Vinyl chloride	J or UJ	L	Sample Preservation issue
3 (13.5-14)	1,1-Dichloroethane 1,1-Dichloroethene Chloroethane Toluene Trichloroethene	J	I	Sample Preservation issue + Result reported below the calibration range
3 (13.5-14)	All VOCs except: 1,1-Dichloroethane 1,1-Dichloroethene Chloroethane Toluene Trichloroethene	J or UJ	L	Sample Preservation issue
3 (14.5-15)	Acetone	UJ	L	Sample Preservation issue + Low Calibration verification
3 (14.5-15)	1,2-Dichloroethene (total) cis-1,2-Dichloroethene trans-1,2-Dichloroethene Trichloroethene	J	I	Sample Preservation issue + Result reported below the calibration range
3 (14.5-15)	All VOCs except: Acetone 1,2-Dichloroethene (total) cis-1,2-Dichloroethene trans-1,2-Dichloroethene Trichloroethene	J or UJ	L	Sample Preservation issue
3 (12.5-13)	1,1-Dichloroethane 1,2-Dichloroethene (total) Chloroethane cis-1,2-Dichloroethene trans-1,2-Dichloroethene Trichloroethene	J	I	Sample Preservation issue + Result reported below the calibration range

Table 2. Summary of Data Validation Actions - *continued*

Field Sample ID	Analyte	Qualifier	Bias	Validation Comments
3 (12.5-13)	All VOCs except: 1,1-Dichloroethane 1,2-Dichloroethene (total) Chloroethane cis-1,2-Dichloroethene trans-1,2-Dichloroethene Trichloroethene	J or UJ	L	Sample Preservation issue
4 (11-11.5)	1,1,1-Trichloroethane 1,1-Dichloroethane 1,1-Dichloroethene 1,2-Dichloroethane	J	I	Sample Preservation issue + MD imprecision
4 (11-11.5)	1,2-Dichloroethene (total) Carbon disulfide Chloroethane cis-1,2-Dichloroethene Methylene chloride trans-1,2-Dichloroethene Vinyl chloride	J	I	Sample Preservation issue + Result reported below the calibration range
4 (11-11.5)	All VOCs except: Trichloroethene 1,1,1-Trichloroethane 1,1-Dichloroethane 1,1-Dichloroethene 1,2-Dichloroethane 1,2-Dichloroethene (total) Carbon disulfide Chloroethane cis-1,2-Dichloroethene Methylene chloride trans-1,2-Dichloroethene Vinyl chloride	J or UJ	L	Sample Preservation issue
4 (10-10.5)	1,2-Dichloroethene (total) Acetone Carbon disulfide Chloroform cis-1,2-Dichloroethene Tetrachloroethene trans-1,2-Dichloroethene	J	I	Sample Preservation issue + Result reported below the calibration range
4 (10-10.5)	All VOCs except: Trichloroethene 1,2-Dichloroethene (total) Acetone Carbon disulfide Chloroform cis-1,2-Dichloroethene Tetrachloroethene trans-1,2-Dichloroethene	J or UJ	L	Sample Preservation issue

Table 2. Summary of Data Validation Actions - *continued*

Field Sample ID	Analyte	Qualifier	Bias	Validation Comments
4 (14.5-15)	1,1,1-Trichloroethane 1,1-Dichloroethene Vinyl chloride	J	I	Sample Preservation issue + Result reported below the calibration range
4 (14.5-15)	All VOCs except: Trichloroethene 1,1,1-Trichloroethane 1,1-Dichloroethene Vinyl chloride	J or UJ	L	Sample Preservation issue
5 (13.5-14)	1,1,2-Trichloroethane 1,2-Dichloroethene (total) Acetone cis-1,2-Dichloroethene Methylene chloride	J	I	Sample Preservation issue + Result reported below the calibration range
5 (13.5-14)	All VOCs except: Trichloroethene 1,1,2-Trichloroethane 1,2-Dichloroethene (total) Acetone cis-1,2-Dichloroethene Methylene chloride	J or UJ	L	Sample Preservation issue
5 (14-14.5)	Carbon disulfide Chloroethane Vinyl chloride	J	I	Sample Preservation issue + Result reported below the calibration range
5 (14-14.5)	All VOCs except: Trichloroethene Carbon disulfide Chloroethane Vinyl chloride	J or UJ	L	Sample Preservation issue
5 (14.5-15)	1,2-Dichloroethene (total) Chloroethane cis-1,2-Dichloroethene Methylene chloride Vinyl chloride	J	I	Sample Preservation issue + Result reported below the calibration range
5 (14.5-15)	All VOCs except: Trichloroethene 1,2-Dichloroethene (total) Chloroethane cis-1,2-Dichloroethene Methylene chloride Vinyl chloride	J or UJ	L	Sample Preservation issue
6 (11.5-12) FD-1 6(11.5-12)	1,1,1-Trichloroethane Methylene chloride	J	I	Sample Preservation issue + Result reported below the calibration range
6 (11.5-12) FD-1 6(11.5-12)	All VOCs except: Trichloroethene 1,1,1-Trichloroethane Methylene chloride	UJ	L	Sample Preservation issue



Table 2. Summary of Data Validation Actions - *continued*

Field Sample ID	Analyte	Qualifier	Bias	Validation Comments
6 (12.5-13)	1,1-Dichloroethane 1,2-Dichloroethene (total) Acetone cis-1,2-Dichloroethene Methylene chloride trans-1,2-Dichloroethene	J	I	Sample Preservation issue + Result reported below the calibration range
6 (12.5-13)	All VOCs except: Trichloroethene 1,1-Dichloroethane 1,2-Dichloroethene (total) Acetone cis-1,2-Dichloroethene Methylene chloride trans-1,2-Dichloroethene	J or UJ	L	Sample Preservation issue
6 (14.5-15)	1,1,1-Trichloroethane 1,1-Dichloroethane	J	I	Sample Preservation issue + Result reported below the calibration range
6 (14.5-15)	All VOCs except: Trichloroethene 1,1,1-Trichloroethane 1,1-Dichloroethane	UJ	L	Sample Preservation issue
FD-2 6(14.5-15)	1,1-Dichloroethane	J	I	Sample Preservation issue + Result reported below the calibration range
FD-2 6(14.5-15)	All VOCs except: Trichloroethene 1,1-Dichloroethane	J or UJ	L	Sample Preservation issue

*Qualifiers: U = Analyte is non-detect at the “DV Result” value; UJ = Non-detect is estimated; J = Result is estimated; R = Result is rejected and is unusable for project decisions.*

*Bias: L = Low; H = High; I = Indeterminate*

*Abbreviations used in Table 2:*

*MD = Matrix Duplicate*

As required by the DUSR, the following sections document the QC reviewed and the issues that required action or affected the data certainty in terms of the project data quality objectives (DQO) of accuracy, precision, representativeness, comparability, and sensitivity. The DQO of completeness can be evaluated by the project manager after all data are generated.

#### **Data Package Completeness and Reporting Protocols**

- The initial and continuing calibrations for VOCs contained many compounds in addition to the targets requested. During this review, only the target compounds were assessed.

- For organic analyses, the laboratory used in-house QC limits to judge acceptability of surrogates, MS/MSD, LCS, and calibrations. In addition, the laboratory spiked all VOC targets for the LCS and MS/MSD analyses rather than just a representative subset of analytes as suggested by NYSDEC ASP 2005. During this review, the NYSDEC ASP 2005 QC limits for the compounds specified in Exhibit E were used to evaluate the acceptability of the laboratory quality control, unless otherwise discussed below, while the in-house limits were used to judge the other spiked compounds.
- The laboratory reported too many significant figures for some data. For organic results, NYSDEC ASP 2005 indicates that one significant figure should be reported for values < 10 and two significant figures for values > 10; however, the laboratory reported two significant figures for values < 10 and three for values > 10.

#### **Sample Receipt, Holding Times, and Preservation**

- Samples, in Encore sample collection devices, were received at the laboratory at 12.1°C, above acceptable temperature criteria of  $4 \pm 2^\circ\text{C}$  and two days after sample collection. All samples were estimated (J or UJ) with possible low bias, unless other QC issues affected the data, due to improper sample preservation.
- Three Encore devices per soil sample were collected: two for preparation of low-level water-preserved VOC aliquots and one for preparation of a medium-level methanol-preserved VOC aliquot. Since the samples were received two days after sample collection, it was not possible for the laboratory to prepare all of the preserved soil aliquots within 48 hours of sample collection. Since all samples were already qualified due to improper sample preservation for receipt temperature exceedance, no additional action was taken.
- Soil samples were analyzed as follows: samples 1.1 (12.5-13), 1.2 (14-14.5), 2.1 (12.5-13), 2.2 (12.5-13), 2.2 (11-11.5), 3 (13.5-14), 3 (14.5-15), and 3 (12.5-13) were analyzed using only the medium-level soil aliquot; samples 1.1 (13-13.5), 1.2 (13-13.5), 1.2 (11-11.5), 2.1 (11.5-12), 2.1 (10-10.5), 2.2 (14-14.5), 4 (11-11.5), 4 (14.5-15), 5 (13.5-14), 5 (14-14.5), and 5 (14.5-15) were analyzed as low-level soils and re-analyzed using the medium-level soil aliquots to report certain results, which exceeded the calibration range in the low-level analysis; and samples 1.1 (14.5-15), 4 (10-10.5), 6 (11.5-12), 6 (12.5-13), 6 (14.5-15), FD-1 6 (11.5-12), and FD-2 6 (14.5-15) were analyzed using only the low-level soil aliquot.

#### **Calibration**

- For VOC analysis, the laboratory used two additional Internal Standard (IS) compounds, t-butyl alcohol-d<sub>9</sub> and pentafluorobenzene, in addition to the NYSDEC ASP 2005 required IS' of 1,4-difluorobenzene, chlorobenzene-d<sub>5</sub>, and 1,4-dichlorobenzene-d<sub>4</sub>. Since SW846 Method 8260B allows the use of alternative IS', no action was required.
- The response for trichloroethene was low compared to NYSDEC ASP 2005 criteria in several VOC initial and continuing calibrations. Twenty-one trichloroethene results were estimated (J or UJ) with possible low bias, unless other QC issues affected the data, as shown in Table 2.

#### **Method, Field, and Instrument Blank Results**

- No contamination that would require blank actions was observed in the method blanks or field blanks.
- The trip blank reported detected results for bromoform and dibromochloromethane; however, since all samples were non-detect for these two compounds, no action was required.

#### **Laboratory Control Sample (LCS), Blank Spike (BS), or Matrix Spike Blank (MSB) recoveries**

- The LCS recoveries were acceptable for all VOCs except for high recovery of 1,1,2,2-tetrachloroethane in one of the nine LCS samples. Since the samples associated with this LCS were non-detect for this compound, no action was required. The LCS results indicate acceptable accuracy for the methods as performed by the laboratory.

#### **Surrogate or System Monitoring Compound (SMC) Recoveries**

- The laboratory used a fourth surrogate, dibromofluoromethane, in addition to those specified in NYSDEC ASP2005. Since EPA SW-846 allows the use of alternative surrogates, no action was required.
- All surrogates recovered within criteria in all field samples and QC except one high recovery in one of the matrix spike (MS) samples. No action was required since the other surrogates demonstrated acceptable recoveries and since this surrogate recovery exceedance in the MS did not directly affect any field sample results.

#### **Matrix Quality Control (Matrix Spike/Matrix Duplicate/Matrix Spike Duplicate and Field Duplicate Samples)**

- MS analysis for low-level VOCs was performed on sample 6 (14.5-15) and recovery was acceptable for all VOCs except 1,1,2,2-tetrachloroethane, which recovered high. Since sample 6 (14.5-15) was non-detect for this compound, no action was required. No MSD was performed for low-level analysis due to insufficient sample volume.
- MS/MSD analysis using the medium-level soil aliquot was performed on sample 4 (14.5-15). Only three compounds were reported from this medium-level MS/MSD analysis: chloroethane, 1,1-dichloroethane, and 1,1,1-trichloroethane. MS/MSD accuracy and precision were acceptable for these three compounds. The medium-level analysis was not performed for other VOCs in sample 4 (14.5-15).
- MD analysis was performed on sample 4 (11-11.5). Precision between the sample and MD was acceptable for all VOCs (i.e., RPDs all < lab criteria) except for 1,1-dichloroethane, 1,2-dichloroethane, 1,1-dichloroethene, and 1,1,1-trichloroethane. These four results in sample 4 (11-11.5) were estimated (J) with indeterminate bias due to MD imprecision as shown in Table 2. Several other compounds reported RPDs > lab criteria; however, levels reported in the field samples were below the Reporting Limit (e.g., "J" qualified data). RPD is not an appropriate measure of precision for low-level results detected below the RL and therefore, no further action was taken.
- The FD pairs were 6 (11.5-12) / FD-1 6 (11.5-12) and 6 (14.5-15) / FD-2 6 (14.5-15). FD precision was acceptable for all VOCs in both FD pairs, which is an indication of acceptable precision from sample collection through analysis for the site locations for VOCs.

**Sample Result Reporting (including reporting limits and units)**

- All results are reported with sample-specific reporting limits (adjusted for sample-specific preparation and dilution factors) on a dry-weight basis (based on sample percent solids) in units of µg/Kg.
- The list of compounds reported for VOCs is a project-specific list consisting of thirty-five VOCs as compared to the TCL VOC list in NYSDEC ASP 2005, which contains fifty-one compounds. The VOC list of compounds reported in this project is, according to the laboratory, an older NYSDEC TCL list with methyl tert-butyl ether added.
- Sensitivity for all results was considered acceptable since all non-detects were reported at levels less than the Soil Cleanup Objectives (SCOs) listed in 6 NYCRR Part 375 Environmental Remediation Programs Subpart 375-6, NYSDEC, Table 375-6.8(a): Unrestricted Use Soil Cleanup Objectives (SCOs effective December 14, 2006) and the lowest Supplemental Soil Cleanup Objectives (SSCOs) listed in Table 1 of CP-51 / Soil Cleanup Guidance, NYSDEC (October 21, 2010) except for: acetone, benzene, 2-butanone, carbon disulfide, carbon tetrachloride, chloroethane, chloroform, cis-1,2-dichloroethene, trans-1,2-dichloroethene, ethylbenzene, MTBE, methylene chloride, 1,1,2,2-tetrachloroethane, tetrachloroethene, vinyl chloride and xylenes in sample 2.2 (11-11.5); acetone, benzene, cis-1,2-dichloroethene, cis-1,3-dichloropropene, methylene chloride, trans-1,3-dichloropropene, and vinyl chloride in samples 1.1 (12.5-13), 1.2 (14-14.5), 2.1 (12.5-13), 2.2 (12.5-13), 3 (12.5-13), 3 (13.5-14), and 3 (14.5-15); 1,2-dichloroethane in sample 3 (13.5-14); 2-butanone in samples 1.1 (12.5-13), 1.2 (14-14.5), 2.2 (12.5-13), 3 (12.5-13), and 3 (13.5-14); carbon tetrachloride in sample 1.2 (14-14.5); chloroform in samples 1.1 (12.5-13), 1.2 (14-14.5), 2.1 (12.5-13), 2.2 (12.5-13), 3 (12.5-13), and 3 (13.5-14); and 1,1,2-trichloroethane in samples 1.2 (14-14.5), 3 (12.5-13), and 3 (13.5-14) due to reporting of these compounds from the medium-level soil aliquot. The data user will need to evaluate these non-detects at elevated levels for project uses.
- Eleven samples, 1.1 (13-13.5), 1.2 (13-13.5), 1.2 (11-11.5), 2.1 (11.5-12), 2.1 (10-10.5), 2.2 (14-14.5), 4 (11-11.5), 4 (14.5-15), 5 (13.5-14), 5 (14-14.5), and 5 (14.5-15), were analyzed as low-level soils and one or more compounds were reported above the instrument calibration range (lab flagged data "E"). For these samples, the laboratory re-analyzed the samples using the medium-level methanol extracts. Samples 1.1 (12.5-13), 2.1 (12.5-13), and 2.2 (12.5-13) were analyzed as medium-level and required reanalysis with a secondary aliquot of methanol for dilution purposes. Data for all analyses for these fourteen samples were reviewed and the data as reported were considered acceptable (i.e., data reported over the instrument calibration range in the initial analysis was properly reported from the secondary dilution analysis). Only accepted data were maintained in the validated EDD.
- Several detected VOC results were reported at concentrations below the sample-specific reporting limits (RL). During this assessment, these results were qualified as estimated (J) with indeterminate bias due to uncertainty in quantitation at a level below the instrument calibration range. Table 2 identifies the analytes and samples that were estimated due to reporting at levels below the RL.



## CASE NARRATIVE / CONFORMANCE SUMMARY

**Client:** Fleming-Lee Shue, Inc.

**Job No** JB32749

**Site:** AFFCO, 361 Walsh Avenue, New Windsor, NY

**Report Date** 4/18/2013 10:43:04 A

On 03/29/2013, 26 Sample(s), 1 Trip Blank(s) and 2 Field Blank(s) were received at Accutest Laboratories at a temperature of 12.1 C. Samples were intact and chemically preserved, unless noted below. An Accutest Job Number of JB32749 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section. \*\*\* Sample was received at 12.1 degrees C. and OK to analysis per Steve Panter .

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

### Volatiles by GCMS By Method SW846 8260B

**Matrix:** LEACHATE

**Batch ID:** V2C4870

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- RPD(s) for Duplicate for Chloroform are outside control limits for sample JB32594-2DUP. High RPD due to low concentration of hit
- JB32594-2DUP for Tetrachloroethene: High RPD due to possible sample analyzed from different vials.
- Sample(s) JB32594-1MS, JB32594-2DUP were used as the QC samples indicated.

**Matrix:** SO

**Batch ID:** VC6486

- All samples were analyzed within the recommended method holding time.
- Sample(s) JB32836-1MS, JB32836-2DUP were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

**Matrix:** SO

**Batch ID:** VC6488

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB32749-27MS, JB32749-19DUP were used as the QC samples indicated.
- Matrix Spike Recovery(s) for 1,1,2,2-Tetrachloroethane are outside control limits. Outside control limits due to matrix interference.
- RPD(s) for Duplicate for 1,1,1-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,2-Dichloroethane, 1,2-Dichloroethene (total), Acetone, Chloroethane, cis-1,2-Dichloroethene, trans-1,2-Dichloroethene, Trichloroethene, Vinyl chloride are outside control limits for sample JB32749-19DUP. High RPD due to possible sample analyzed from different vials.
- JB32749-27MS for 4-Bromofluorobenzene: Outside control limits due to matrix interference.

**Matrix:** SO

**Batch ID:** VC6492

- All samples were analyzed within the recommended method holding time.
- Sample(s) JB32653-1MS, JB32653-1MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- VC6492-BS for 1,1,2,2-Tetrachloroethane: High percent recoveries and no associated positive found in the QC batch.

**Matrix:** SO

**Batch ID:** VE8870

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB33072-7MS, JB33072-7MSD were used as the QC samples indicated.

## Volatiles by GCMS By Method SW846 8260B

**Matrix:** SO

**Batch ID:** VE8871

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB32576-4MS, JB32576-4MSD were used as the QC samples indicated.
- JB32749-18: Diluted due to high concentration of non-target compound.
- JB32749-16: Diluted due to high concentration of non-target compound.

**Matrix:** SO

**Batch ID:** VE8875

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB32576-16MS, JB32576-16MSD were used as the QC samples indicated.

**Matrix:** SO

**Batch ID:** VE8876

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JB32749-21MS, JB32749-21MSD were used as the QC samples indicated.

**Matrix:** SO

**Batch ID:** VE8878

- All samples were analyzed within the recommended method holding time.
- Sample(s) JB33550-8MS, JB33550-8MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike Duplicate Recovery(s) for Toluene are outside control limits. Outside control limits due to matrix interference.
- JB32749-17: Diluted due to high concentration of non-target compound.

## Wet Chemistry By Method ASTM 4643-00

**Matrix:** SO

**Batch ID:** GN82679

- The data for ASTM 4643-00 meets quality control requirements.

## Wet Chemistry By Method SM2540 G-97

**Matrix:** SO

**Batch ID:** GN82673

- The data for SM2540 G-97 meets quality control requirements.

Accutest certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting Accutest's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

Accutest Laboratories is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by Accutest Laboratories indicated via signature on the report cover

# **APPENDIX F**

## **VeruTEK Report**



**Injection Summary Report**  
**Surfactant-enhanced In Situ Chemical Oxidation**  
**(S-ISCO®) Treatment of TCA located at the**  
**American Felt and Filter Company**

**Submitted to:**

Fleming Lee-Shue, Inc.  
158 West 29th Street, 9th Floor  
New York, NY 10001

**Submitted by:**

VeruTEK Technologies, Inc.  
65 West Dudley Town Road, Suite 100  
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(860) 242-9800  
(860) 242-9899 (Fax)

**September, 2012**



## 1.0 Background

On behalf of Fleming Lee-Shue, Inc. (FLS), VeruTEK® Technologies Inc.(VeruTEK) implemented its patented Surfactant-enhanced In Situ Chemical Oxidation (S-ISCO®) to remediate contamination related to TCA DNAPL present in the subsurface soil and groundwater at the former Fuetron building at the American Felt and Filter Company (AFFCO) located in Newburgh, New York (the site). S-ISCO is one of VeruTEK's patented Green Chemistry technologies that use VeruSOL®, a proprietary, biodegradable plant-based surfactant and co-solvent mixture, to desorb and solubilize non-aqueous phase liquids (NAPL) into a fixed emulsion for in-place destruction by a simultaneously injected free-radical oxidant.

Contamination of Concern at the Site included TCA DNAPL and other volatile organic compounds (VOCs). The DNAPL release possibly occurred from a series of small spills mostly near the machine that was housed outside the former Fuetron building and from the drum storage area reportedly abutting the machine area. Most DNAPL was retained in the silty sand layers above the water table, but some DNAPL migrated downward below the water table. According to historic groundwater and recent soil data collected prior to mobilization elevated total VOC concentrations were observed at 15 ft., the lowest depth sampled. The highest VOC concentrations would found located adjacent to the release area, with elevated concentrations extending down gradient of the machine area.

In July and August 2012, VeruTEK conducted injections of its patented S-ISCO chemistry at the Site. The S-ISCO treatment consisted of injections of VeruSOL, along with alkaline activated sodium persulfate using sodium hydroxide. The following report summarizes VeruTEK's work on site, including mobilization and site set-up, the injection process and the monitoring program conducted; presents the data collected; and evaluates the results of the implementation.

## 2.0 Summary of S-ISCO Activities

VeruTEK conducted multiple rounds of S-ISCO injections between July 10 and July 27. The S-ISCO treatment was designed to target an estimated 79 pounds contaminant mass located at the depth interval between 10 to 15 feet bgs. Of the contaminant mass located in the 10 to 15 ft depth interval 89% of the contaminant mass was located in the 10 – 13 ft zone. A grid cell layout was used to delineate the treatment areas. Based on historic site data analyzed by FLS, three injection wells were installed in the area of the site where contamination was highest. IW-1 and IW-2 were installed in Grid Cell 2, and IW-3 was installed in Grid Cell 4. All injection wells were installed to approximately 13 ft bgs. Prior to conducting injections, analysis conducted by FLS revealed that approximately 90% of the contaminant mass in the 10 to 13 ft zone was located nearest IW-2. During the S-ISCO injection process IW-2 was used as the primary injection well to account for the levels of contaminant mass. To ensure greatest treatment in the 10 to 13 ft zone, a packer was installed prior to injection to seal off the injection well at 10 feet. Wavefront's sidewinder pressure pulse injection system was used to deliver the S-ISCO chemistry into the subsurface throughout the injection process. The sidewinder log is presented in **Appendix A**. The S-ISCO injections were followed by a round of I-SCO injections. Upon completion of

injections into the injection wells, Geoprobe injections were performed at five select locations. At the end of the project, VeruTEK performed an ISCO soil surface wash on the excavation footprint. **Table 1** summarizes the volume of chemistry injected during the remedial operation.

<b>Table 1: Remedial Chemistry Summary</b>		
VeruSOL	Sodium Persulfate	Sodium Hydroxide
0-15g/L	15-50g/L	12-50g/L
Total Volume Injected		<b>14,200 gal</b>

Groundwater was periodically sampled during various phases of treatment using multiple parameter groundwater monitoring devices and samples were collected for analysis at VeruTEK's lab. A complete summary of the troll data by well, and the laboratory data for all S-ISCO performance parameters measured at each monitoring well is provided in **Appendix B**.

Implementation of the injection process consisted of the following activities:

- Mobilization and set-up;
- Pre-injection monitoring;
- S-ISCO injections
- Performance monitoring.

## **2.1 Mobilization and Set up**

On Monday July 9<sup>th</sup> 2012 mobilization took place in the course of one day, including deliveries and equipment set-up. Dry sodium persulfate in bags, drums of sodium hydroxide (25%), and drums of VeruSOL were all delivered to the Site. Two separate berms were constructed; one for sodium hydroxide storage, and one for injection system/chemical batching. VeruTEK's injection system included a 1000 gallon mixing tank for sodium hydroxide/VeruSOL batching, a 350 gallon open top mixing tank for sodium persulfate batching with recirculation pump, a metered injection system and secondary centrifugal water pump. An eyewash/safety shower system was set up adjacent to the batching station and water was sourced using a garden hose from inside the AFFCO facility. Pretreatment groundwater samples were collected on Monday, July 9, 2012 to establish baseline conditions. Troll® 9500 low flow sampling device was used to collect samples from the following wells- MW-1, EW-0, EW-1, EW-1N, S-8, IW-1, IW-2, IW-3, and the two site "Pits".

## **2.3 S-ISCO injections**

### *S-ISCO Phase I*

Phase I of S-ISCO injection comprised of two consecutive days of injections on Tuesday, July 10 and Wednesday July 11. On the first day of injection, the injection system was hooked up to IW-2. The

packer was installed by Zebra Environmental Corp to isolate injections at a depth of 11-13 ft. Injections took place through the Sidewinder pressure pulse tool. The pressure pulse was set to 750 RPM. Injections began at 4 GPM and were gradually increased up to 10 GPM. For the first phase of injections, injections remained constant to IW-2 with flow rate maintained at 10 GPM. A total of 2,700 gallons of S-ISCO chemistry was injected into IW-2. Concentrations of injected fluid during this phase were held constant at 15 g/L VeruSOL, 15 g/L sodium persulfate and 12.5 g/L sodium hydroxide. **Table 2** summarizes the Phase I of S-ISCO injections.

<b>Table 2: S-ISCO Phase I Injection Summary</b>		
VeruSOL	Sodium Persulfate	Sodium Hydroxide
15 g/L	15 g/L	12.5 g/L
Total Volume Injected		<b>2700 gal</b>

Interim groundwater sampling was conducted during Phase I of S-ISCO injections to track the progress of the treatment process and to monitor the transport of the injected chemicals. Analysis of groundwater parameters showed an increase in pH at EW-0, on the second day of injection. Also, sodium persulfate was detected at the same location at concentrations up to 5.89 g/L. Increase in conductivity, and decrease in IFT was also observed at EW-0. The pH, IFT, sodium persulfate, and conductivity data indicates that the persulfate was activated and is suggestive of effective transport of injected chemistry.

#### *S-ISCO Phase II*

The second phase of S-ISCO injections was conducted over a three day period from Monday July 23 through Wednesday July 25. During this phase, remedial chemistry was injected through IW-1, IW-2, and IW-3 at flow rates ranging up to 10 gpm. Day 1 of Phase II injections focused on completing injections to both IW-1 and IW-3. A total of 1000 gallons of S-ISCO chemistry was injected to both of these injection wells. The concentration of injected fluid included 10 g/L VeruSOL, 15 g/L sodium persulfate, and 12.5 g/L sodium hydroxide. On the second day of the phase II, injections focused on injections to IW-2. Four thousand gallons of S-ISCO were injected to IW-2 on this day with concentration of 10 g/L VeruSOL, 15 g/L sodium persulfate, and 12.5 g/L sodium hydroxide. On the final day of Phase II, injections continued to focus on IW-2. The first batches of persulfate contained the same S-ISCO concentrations as the day previous. On the third batch of the day a five hundred gallon batch of higher persulfate concentration S-ISCO was prepared. The concentration of persulfate was increased up to 50g/L, sodium hydroxide was increased to 25 g/L and VeruSOL concentrations were reduced to 8g/L. Phase II was completed with a final round of ISCO injection with 25g/L persulfate with 20 g/L sodium hydroxide. Table 3 summarizes the Phase II injections.

<b>Table 3: Phase II Injection Summary</b>		
VeruSOL	Sodium Persulfate	Sodium Hydroxide (g/L)
8-10 g/L	25-50 g/L	12.5-25 g/L
Total S-ISCO Volume Injected		<b>8,500 gal</b>
<b>I-SCO Injections</b>		
VeruSOL	Sodium Persulfate	Sodium Hydroxide (g/L)
0 g/L	25 g/L	12.5 g/L
Total I-SCO Volume Injected		<b>1,000 gal</b>

Groundwater sampling was conducted during Phase II injections to monitor the transport of the injected chemicals and contaminant oxidation. Throughout this phase, EW-0 maintained sodium persulfate detections, increase in conductivity, and decrease in IFT. Low concentrations of persulfate was also detected at EW-1N and the pit areas during this Phase.

#### *S-ISCO Phase –III Geoprobe Injections*

On Thursday July 26, Zebra mobilized a Geoprobe rig to the Site. The Geoprobe rig was to be used to target any contamination that may have remained in the 13 to 15 ft depth interval. Five locations were selected in Grid Cell 2 and Grid Cell 5. Two probes were conducted in Grid Cell 5, and three probes in Grid Cell 2. During this phase, a foot-long injection probe was used to conduct top-down injections. Depending on the locations, flow rates ranged from 4 to 7 GPM. Each Geoprobe point received 100 gallons of S-ISCO chemicals to the 13-14 ft depth zone, and 14-15 ft depth. S-ISCO injections included VeruSOL, sodium persulfate and sodium hydroxide, injected at 5 g/L, 25g/L and 25 g/L respectively. Table 4 summarizes the Geoprobe injections.

<b>Table 4: S-ISCO Phase I Injection Summary</b>		
VeruSOL	Sodium Persulfate	Sodium Hydroxide
5 g/L	25 g/L	25 g/L
Total Volume Injected		<b>1,000 gal</b>

Groundwater sampling during Geoprobe injections showed increase in pH at wells EW0, MW-1, S-8 and the pit area. EW-0 maintained elevated pH, conductivity, and persulfate detections.

#### *Phase –IV Soil Surface Washing*

During the week of August 27<sup>th</sup> to August 31<sup>st</sup> Fleming Lee-Shue was on-site for the excavated of the upper most portions of the contaminated soil mass located at 10 ft and above. VeruTEK on was onsite Thursday August 30<sup>th</sup> 2012 to perform ISCO soil surface washing of the excavated pit. 1,000 gallons of ISCO chemicals were sprayed at approximately 6 GPM and focused on injecting to Grid Cell 2 and Grid Cell 5. Table 5 summarizes the soil wash chemistry.

Table 5: Phase IV Summary		
VeruSOL	Sodium Persulfate	Sodium Hydroxide
0 g/L	25 g/L	12.5 g/L
Total Volume		1,000 gal

## 2.4 Performance Monitoring

Groundwater was monitored in MW-1, EW-0, EW-1, EW-1N, S-8, IW-1, IW-2, IW-3, PIT S, and PIT L during and after S-ISCO injections to track the performance of the remedial chemistry in the subsurface. Performance monitoring included using multiple parameter groundwater monitoring devices to measure water quality parameters in Site groundwater including: turbidity, temperature, pH, dissolved oxygen (DO), oxidation-reduction potential (ORP), conductivity. Groundwater samples collected throughout the injection phase and were brought to the VeruTEK's laboratory for interfacial tension (IFT), pH, ORP, turbidity, specific conductivity analysis.

## 2.5 Post Injection Monitoring

During the on-site excavation all monitoring/injection wells located in the vicinity of S-ISCO treatment were destroyed. No additional performance monitoring was conducted following the excavation event.

## 3. Discussion of Performance Monitoring Results

### *EW-0*

EW-0 was a historic monitoring well located in the immediate area of highest VOC concentrations. Analysis of groundwater from EW-0 indicates that the remedial chemistry was present and reacting at this well location. Increase in pH, conductivity, sodium persulfate concentrations and decrease in IFT in response injections were observed as early as the second day of S-ISCO Phase I injections. pH levels remained alkaline during all phases of treatment. The highest pH, sodium persulfate and conductivity were measured at this well. The most prominent responses to the injection chemistry at EW-0 were observed during S-ISCO Phase II injections. IFT levels were reduced to as low as 48.5 Nm/m on July 23, but increased gradually during ISCO treatments. Persulfate was measured at 7.24 6g/L, while the pH remained alkaline, showing effective transport of the sodium hydroxide. Conductivity was highest at this well, also indicating that the persulfate was present.

### *MW-1, EW-1N, S-8*

Groundwater monitoring data from MW-1, EW-1, S-8 indicates a minimal response to injections at these locations. Slight increases in pH were measured during S-ISCO Phase II at these locations. EW-1N showed persulfate measurement of 0.269 mg/L on July 24, 2012. No notable increase in conductivity and IFT decreases were measured during the treatment period. Persulfate was never detected above detection limits at MW-1 or S-8.

#### *Pits-L & S*

Minor increases in groundwater pH were observed in Pits L and S following S-ISCO Phase II injections. Sodium persulfate concentration at Pit-S was measured at 0.133g/L on July 24 2012, however never detected at Pit L. All other parameters remained relatively consistent at these locations.

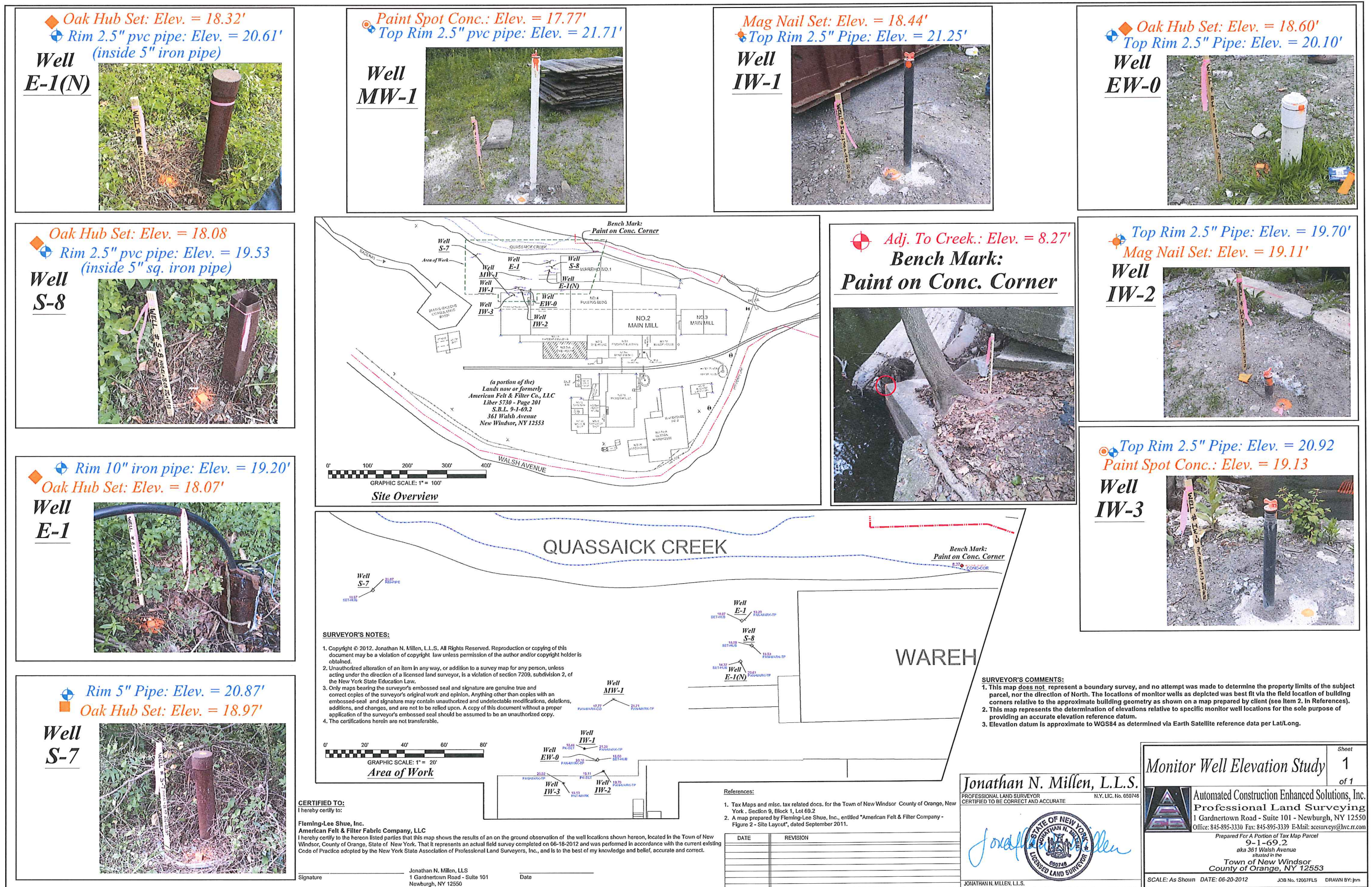
### **4. Conclusions & Recommendations**

Application of the S-ISCO injections at the Site operated according to plan. The achievable flow rates were higher than initially expected and no technical problems occurred. The primary focus of the injections was to target TCA and VOC concentrations located in Grid Cell 2. Process monitoring from wells located in Grid Cell 2 showed effective parameter control. Elevated pH, conductivity, decreased IFT, and sodium persulfate concentrations all showed that the sodium persulfate was activated and indicates effective transport of injected chemistry in the treatment zone.

Due to the post-injection excavation there are no more existing monitoring wells in the treatment area. Therefore no more groundwater monitoring was conducted following the excavation. Fleming Lee-Shue will be responsible for collecting post-injection confirmation soil samples. It has been VeruTEK's experience that post-injection samples should be collected between two to six months following S-ISCO treatment. Upon completion of the soil sampling, additional analysis will be conducted to determine the effectiveness of the S-ISCO treatments.



Figure 1.





## Appendix A



[illegible]

John Diamond - zebra environmental

AFFCO Pulsing Log

Inj_well	date	time	input_press (psi)	output- press (psi)	Pulse_per_min	gpm	Comment
TW 3	7/23/12	1130	2-4	0	750	6-8	
TW 3	7/23/12	1200	2-4	0	750	8	
TW 3	7/23/12	100	<del>2-4</del> 7-9	0	750	10	<del>Done</del>
TW 3	7/23/12	225	7-9	0	75	10	Done
TW 1	7/23/12	315	2-4	0	750	8	
TW 1	7/23/12	415	3-5	0	750	10	
TW 1	7/23/12	505	3-5	0	750	10	
TW 1	7/23/12	520	3-5	0	750	10	Done
TW 2	7/24/12	845	0-2	0	750	4-5	
"	"	855	0-2	0	750	6	
"	7/24/12	915	2-4	0	750	9	
"	"	940	3-5	0	750	10	
"	7/24/12	1045	3-5	0	750	10	Done
"	7/24/12	1200	4-6	0	750	10	
"	7/24/12	100	4-6	0	750	10	
"	"	200	3-5	0	750	10	Done
"	7/24/12	330	3-5	0	750	10	
"	"	430	3-5	0	750	10	
TW 2	7/24/12	530	3-5	0	750	10	Done
TW 2	7/25/12	815	0-2	0	750	6	
TW 2	7/25/12	845	4-6	0	750	10	
TW 2	7/25/12	945	4-6	0	750	10	
TW 2	7/25/12	1045	3-5	0	750	10	Done
TW 2	7/25/12	1155	4-6	0	750	10	
TW 2	7/25/12	1230	4-6	0	750	10	
"	"	130	4-6	0	750	10	Done
TW 2	7/25/12	200	0	0	0	10	NO sidewinder
"	"	230	0	0	0	10	Done
TW 2	7/25/12	325	4-6	0	750	10	
TW 2	7/25/12	400	4-6	0	750	10	
TW 2	7/25/12	430	4-6	0	750	10	Done
TW 2	7/25/12	445	2-4	0	750	10	
"	"	505	2-4	0	750	10	Done
TW 3	7/25/12	520	2-4	0	750	10	
"	"	545	2-4	0	75	10	Done



## 15

[illegible]

## Appendix B

[illegible]

[illegible]

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[illegible]

[illegible]

[illegible]

[illegible]

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# **APPENDIX G**

## **Project Photographic Log**

**Appendix G**  
**Photo Log**  
AFFCO Final Engineering Report  
New Windsor, NY

**Treatment Area**

**5/11/12**



Photo 1 – Approximate treatment area



Photo 2 – Collecting pre-treatment baseline soil samples



Photo 3 – Baseline soil samples and cores

**Photo Log**  
AFFCO Final Engineering Report  
New Windsor, NY

**Soil & Groundwater  
Treatment by  
Chemical Oxidation  
7/11/12**



Photo 1 – Chemical mixing area



Photo 2 – Mixing sodium persulfate for injections



Photo 3 – Injection equipment control panel



**Photo Log**  
AFFCO Final Engineering Report  
New Windsor, NY



Photo 4 – Inserting injection tool into well

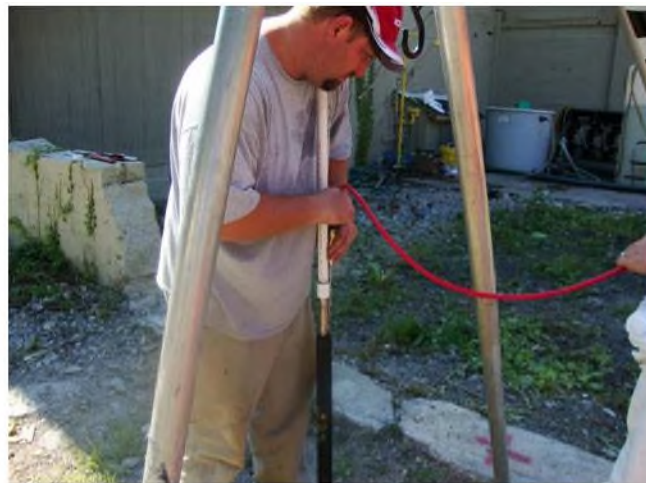


Photo 5 – Preparing for injections



Photo 6 – Injecting persulfate



Photo 7 – Injecting persulfate

**Photo Log**  
AFFCO Final Engineering Report  
New Windsor, NY

**Soil Excavation**  
**8/22/12 - 8/29/12**



Photo 1 – Preparing lined staging area



Photo 2 – Stockpiled soil



Photo 3 – Stockpiled soil covered to protect from rain



**Photo Log**  
AFFCO Final Engineering Report  
New Windsor, NY



Photo 4 – Soil in windrows for exposure to air



Photo 5 – Excavating soil



Photo 6 – Excavation



Photo 7 – Excavation

**Photo Log**  
AFFCO Final Engineering Report  
New Windsor, NY



Photo 8 – Soil going through screener to remove large debris



Photo 9 – Loading soil into screener



Photo 10 – Loading soil into screener



Photo 11 - Loading soil into screener