AECOM
40 British American Boulevard
Latham, New York 12110

518.951.2200 tel
518.951.2300 fax

Letter of Transmittal

	Ms. Tara M. Blum, P.E. New York State Department of Environmental Conservation Region 7 615 Erie Boulevard West Syracuse, NY 13204-2400		
Attention:	(315) 426-7452	Date:	May 16, 2014
Project reference:	Southeast Debris/Soil Pile Thompson Road, Syracuse, NY	Project number:	60314591

We are sending you the following:

Number of originals:	Number of copies:	Description:
1		Hard Copy and CD - Self-Implementing Cleanup and Disposal Plan, Southeast Debris/Soil Pile, UTC/Carrier Site, Thompson Road, Syracuse, New York

Enclosed please find one hard copy and one CD of the Self-Implementing Cleanup and Disposal Plan for the Southeast Debris/Soil Pile, which is located on Thompson Road in Syracuse, New York. If you have any questions about the document, please contact me at (518) 951-2378. Thank you.

Daniel Servetas, AECOM Project Manager

cc: V. Chin (USEPA)
J. Wolski (UTC)
K. McFadden (UTC)
J. Alberg (AECOM)
T. Schwendeman (AECOM)

Rpt transmittal

AECOM Environment

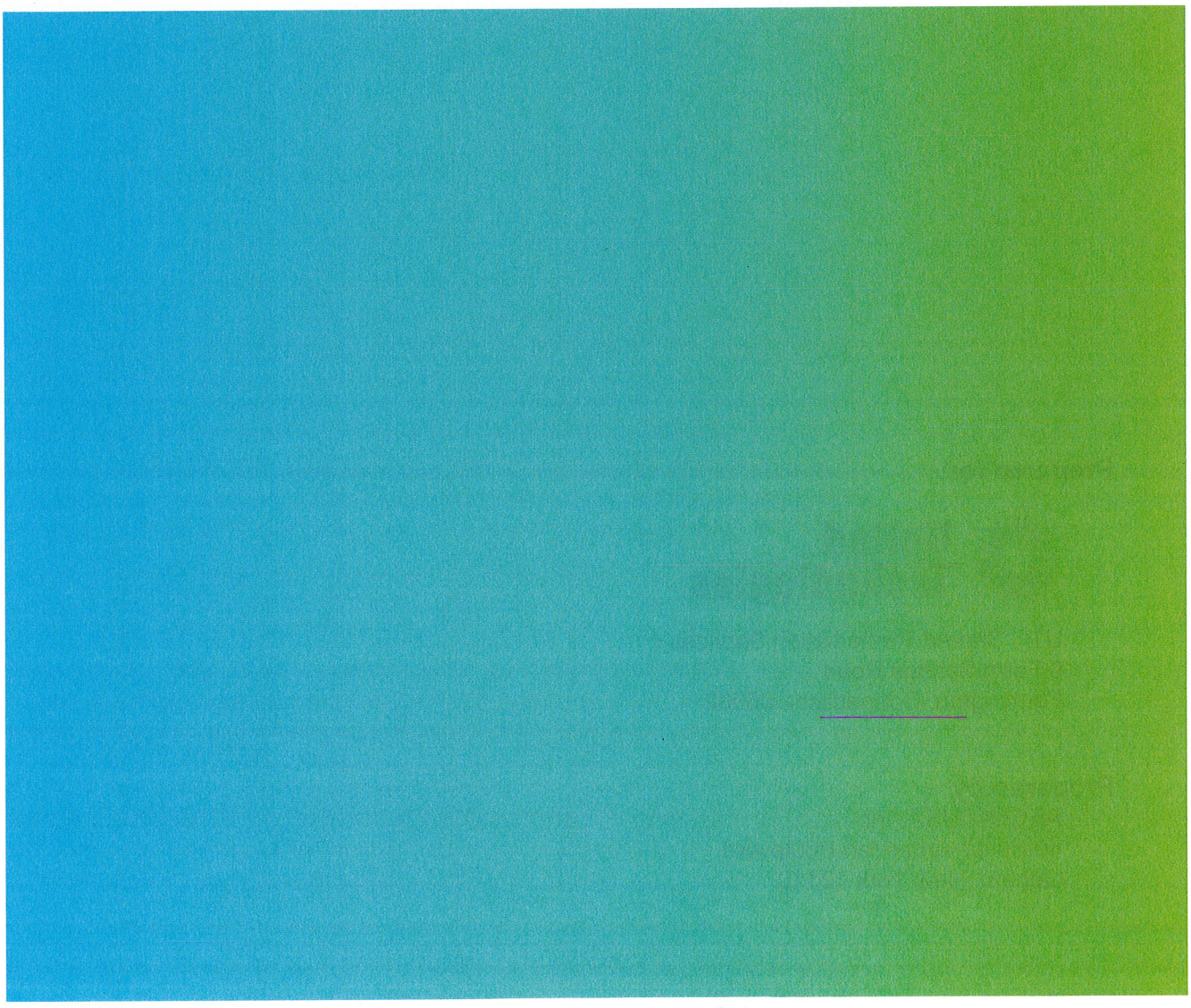
Prepared For:
United Technologies Corp.
Shared Remediation Services
Farmington, CT

Prepared by:
AECOM
Latham, NY
May 2014
60314591

SOUTHEAST DEBRIS/SOIL PILE
UTC/CARRIER SITE
THOMPSON ROAD, SYRACUSE, NY
Self-Implementing Cleanup and Disposal Plan

Corrective Action Order - Index CO 7-20051118-4

NYSDEC Site Registry #734043



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Prepared for:

United Technologies

UTC Shared Remediation Services
9 Farm Springs Road
Farmington, Connecticut 06032

Prepared by:

AECOM USA, Inc.
40 British American Boulevard
Latham, New York 12110

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1.0 Introduction

1.1 Self-Implementing Cleanup and Disposal Plan

On behalf of United Technologies Incorporated, AECOM Technical Services, Inc. (AECOM) has prepared this Self-Implementing Cleanup and Disposal Plan (SIP), which has been written to address stockpiled material placed on a 3.8-acre parcel of land identified as the Southeast Debris/Soil Pile (Debris Pile) located at the United Technologies Corporation (UTC)/Carrier facility on Thompson Road, Syracuse, New York (**Figure 1**). This SIP provides notice to United States Environmental Protection Agency (USEPA) of UTC's intention to perform self-implementing on-site cleanup and disposal of polychlorinated biphenyl (PCB) waste in accordance with the requirements of 40 CFR 761.61(a).

1.2 Site Background

The Carrier Thompson Road Facility is located in the northeast portion of Syracuse, New York, approximately one mile south of the New York State Thruway (**Figure 1**). The facility property is bordered by Sanders Creek to the north, Thompson Road to the west, Kinne Street to the east, and a residential area to the south. The property slopes slightly north toward Sanders Creek. The facility property covers approximately 175 acres and most is either paved or covered by former manufacturing and office buildings.

1.2.1 Facility History

The facility was purchased in the 1950s by Carrier. The Carrier Syracuse facility formerly produced a variety of products associated with the HVAC (heating, ventilation, air conditioning units) industry for home and commercial applications. Operations have included the manufacture and assembly of various components associated with these HVAC units. Carlyle compressors were also manufactured at the facility.

The RCRA Facility Assessment Report for the Carrier facility prepared by A.T. Kearney, Inc. (January 6, 1997) describes pre-1950 use of the property as follows: "Prior to the purchase of the facility by Carrier, the existing facility was owned and operated by the General Electric Corporation, which was built in 1942 for defense purposes; Defense Corporation, a government-owned World War II manufacturing facility; and Syracuse University. Prior to World War II, the property was utilized as farmland."

1.2.2 Historic PCB Usage

At this facility, PCB usage was incidental to the manufacturing of HVAC products. PCBs were not manufactured or incorporated into final products. PCBs were known to be present in transformers, ancillary equipment, cutting oils and hydraulic oils. PCB containing oils have been found at the Carrier facility both above and below 50 mg/kg. Some limited remediation has been performed associated with localized spills and small impacted areas to address PCB releases. Waste materials were disposed off-site in accordance with §761.61(b) regardless of PCB concentrations.

1.2.3 Debris Pile Background

According to facility personnel, the Debris Pile was used to stockpile soils and construction and demolition (C&D) debris generated from various onsite activities including facility expansion, remodeling and repair. The Debris Pile was first investigated according to the requirement of a Corrective Action Order (CAO, Index CO 7-20051118-4) late in 2013 and reported as an Area of Concern (AOC) to the New York State Department of Environmental Conservation (NYSDEC) on January 30, 2014. Results from the initial investigation were provided to NYSDEC in an AOC Assessment Report Southeast Debris Pile (Assessment Report, EnSafe, 2013) [Note: the Assessment Report was submitted to USEPA Region 2 on February 25, 2014.]. A confirmation sampling event was completed in April of 2014. The results of these sampling events form the basis of this SIP and are detailed below in accordance with the requirements of 40 CFR 761.61(a).

1.2.4 Local Geology

The local bedrock near the Carrier facility consists primarily of Silurian-age carbonates and shales. The Vernon Shale Member of the Salina Group underlies the area. The Vernon Shale is a red shale 600 to 800 feet thick. The top of the bedrock onsite is approximately 40 to 60 feet below ground surface (bgs).

Overlying the Vernon Shale are sandy silts, clayey silts, fine-grained sands, and clays. Descriptions of soils from installation of groundwater monitoring wells and piezometers at the facility indicate a relatively uniform lithologic section across the site.

Silts and clayey silts are the predominant soils throughout the site. These silts are generally stiff to very stiff; dense, and brittle. The silts are brown to brownish gray and commonly contain iron staining and yellow-red mottling throughout. Fine-grained sands and dense clays were frequently intermixed with the silts observed during drilling. These deposits are interpreted to represent lacustrine deposits.

During previous investigations, the upper 1 to 4 feet of most borings consisted of fill material including roots, rock fragments up to 1 inch in diameter, and loose, unconsolidated sands and gravels. In borings installed through asphalt, a gravel and sand base 1 to 2 feet thick was found below the asphalt. These borings were near buildings or in areas that had been filled during construction at the facility.

Beneath the fill, saturated silts and sands with minor amounts of clay become prevalent. In the northern area of the facility a peaty, organic-rich layer occurs. Till is encountered below the silts and sands over the entire facility. The till is encountered at depths ranging from approximately 29 to approximately 40 bgs.

1.2.5 Local Hydrogeology

Groundwater occurs at approximately 6 feet bgs in the southern portion of the facility to approximately 9 feet bgs near the northern property boundary. Groundwater is present in the "native" silty clays and silty sands, beneath the fill material and throughout the lacustrine and glacial till material encountered with depth. The saturated interval continues to the top of bedrock, which ranges from approximately 40 to 60 feet bgs across the facility.

1.3 Outline

This SIP has been prepared to provide notice to USEPA, in accordance with the requirements of 40 CFR 761, for the removal and disposal of PCB impacted waste. The sections below address the requirements for notification as described in 40 CFR 761.61(a)(3)(A through E).

- Section 2 – Nature of Contamination (761.61(a)(3)(A))
- Section 3 – Summary of Sampling Procedures (761.61(a)(3)(B))
- Section 4 – Location and Extent of Contaminated Area (761.61(a)(3)(C))
- Section 5 – Cleanup Plan (761.61(a)(3)(D))
- Section 6 – Written Certification (761.61(a)(3)(E))

1.4 Remediation Goals

The remedial goals for the Debris Pile are as follows:

- Remove the debris stockpile in its entirety;
- Dispose of all excavated PCB waste materials at permitted off-site disposal facilities;
- Achieve a cleanup goal of 25 mg/kg PCBs, and
- Comply with all applicable regulations, including but not limited to 40 CFR 761.61(a).

Note: the 25 mg/kg PCB cleanup goal is the appropriate USEPA cleanup value for a low occupancy area and the NYSDEC Restricted Use Soil Cleanup Objective for Protection of Public Health at an industrial use site. The site is located entirely within the gated and security controlled fence around the Carrier facility and away from current Carrier operations.

1.5 Certification

A written certification signed by UTC in accordance with §761.61(a)(3)(i)(E) is provided in **Appendix A**. This certification is signed by representatives of UTC, who are responsible for the oversight of the work described in this SIP.

2.0 Nature of Contamination

The Debris Pile is located in the southeast corner of the facility property and is measured to be approximately 250 feet (north to south) by 580 feet (east to west), and is 3.8 acres in size. The height of the Debris Pile ranges from 2 to 10 feet above the surrounding ground surface elevation. According to site personnel, the Debris Pile was established to stockpile soils and C&D debris generated from onsite activities including facility expansion, remodeling and repair. The material was presumed to be non-hazardous and was intended to be eventually disposed offsite. The criteria used to determine if materials should be placed in the Debris Pile was that it exhibited no visible evidence of contamination or odors. Materials were stockpiled at the Debris Pile starting in the late 1980s until the early 2000s. The Debris Pile is estimated to contain approximately 39,000 cubic yards or 50,000 tons of material. The Debris Pile was placed on existing grade and does not extend into the subsurface.

The initial site investigation was conducted in October 2013 by EnSafe Incorporated (Inc.), (the previous consultant). Based on this investigation, the Debris Pile was divided into two areas: Area 1 and Area 2. The largest portion of the pile was contained in Area 1 and consists of approximately 143,000 square feet of material overgrown with grass, shrubs and scrub trees. Observations from test pits dug during sampling activity indicated that the materials in Area 1 consist mainly of soil with incidental C&D debris. Area 2 was observed to be overlain with C&D debris including some materials that was identified as potential asbestos containing material (ACM). The existence of the potential ACM prohibited advancement of test pits or borings in Area 2. Some examples of materials observed in Area 2 include cinder block, asphalt, concrete slabs, wood-block flooring, and paint covered concrete.

AECOM conducted confirmation sampling of the Debris Stockpile in April 2014. During the confirmation sampling event, Area 2 was further assessed and a determination was made that the western third of Area 2 did not contain ACM, but rather consists of soil and debris similar to Area 1. **Figure 2** shows the Debris Pile as divided into Areas 1 and 2. The remaining portion of Area 2 containing potential ACM is indicated on the figure.

To date, no additional remedial investigation data is available for this portion of the Carrier facility. Once the Debris Pile has been removed, UTC will continue the assessment of this AOC to determine if the migration of hazardous waste including hazardous constituents has occurred. The Debris Pile contains diffuse, low level PCB impacts throughout. UTC does not expect offsite migration of PCBs from the Debris Pile because it is vegetated and there are erosion controls in place. Also, UTC does not expect leaching to occur from the Debris Pile because PCBs are hydrophobic, oily wastes have not been observed within the Debris Pile and there are no volatile organic chemicals in the Debris Pile that would mobilize PCBs by co-solvency.

3.0 Summary of Sampling Procedures

3.1 Initial Investigation

As indicated above, the initial investigation was conducted by EnSafe Inc. in order to characterize the materials in the Debris Pile according to the requirements of the CAO. In Area 1, *Visual Sample Plan (VSP), Version 6.5, 2013,* software was used to generate a systematic, statistically-based grid sampling approach to locate sampling points in the horizontal dimension. The input parameters were designed to achieve a 95% confidence level that a 38.5-foot diameter area impacted by hazardous materials and/or PCBs would be located. Utilization of the VSP software resulted in 100 grid sampling locations, which are depicted on **Figure 2**.

Prior to test pit excavation activities, each of the 100 grid points were located by a New York-licensed surveyor. Additionally, a topographic survey of the debris pile was conducted so that the depth of the pile at each grid location was known. To address the pile depth variability, and as described in *Guidance on Choosing a Sampling Design for Environmental Data Collection for Use in Developing a Quality Assurance Project Plan - EPA/240/R-02/005 Dec 2002,* a random number generator was used generate a number between 1 and 4, with each number corresponding to a specific sample depth at each sample location. Test pits were excavated and a single sample was collected, except at two locations where field observations warranted that a second sample be collected.

In Area 2, judgment sampling was used due to on the nature of the pile (i.e., the configuration of C&D materials was not conducive to drilling or excavating with equipment on-hand). The sampling locations were chosen based on material types observed. Some examples of materials observed included cinder block, asphalt, concrete slabs, wood-block flooring, and paint-covered concrete. Sixteen samples were collected from C&D rubble in this area (**Figure 2**).

Samples from both areas were analyzed to determine if the Debris Pile contained concentrations of contaminants that exceeded characteristically toxic criteria for hazardous waste or exceeded the Toxic Substance Control Act (TSCA) threshold of 50 milligrams per kilogram (mg/kg) for PCBs. Samples were analyzed for VOCs using United States Environmental Protection Agency (U.S. EPA) Method 8260C; for semi-volatile organic compounds (SVOCs) by U.S. EPA Method 8270D; for PCBs by U.S. EPA Method 3546/8082, for pesticides by U.S. EPA Method 8081B; for herbicides by U.S. EPA Method 8151; and for RCRA metals (total) by U.S. EPA Method 6010B.

If a sample exhibited contaminant concentrations that could theoretically exceed the "toxicity characteristic" limits when assessed by the "Rule of 20" whereby the total concentration results are divided by 20 and conservatively compared to the hazardous waste characteristics base on toxicity, then the waste was preliminarily considered hazardous waste by toxicity, unless analysis by the Toxicity Characteristic Leaching Procedure (TCLP) showed otherwise. Following receipt of total metals data, chromium and/or lead and/or mercury in 11 samples were reanalyzed using the TCLP (U.S. EPA Method 1311). No samples reanalyzed using TCLP methods exceeded the hazardous waste toxicity criteria. Furthermore, no samples exceeded 50 mg/kg PCBs requiring disposal in accordance with TSCA. A summary of analytical results for samples collected during the initial investigation and presented in the Assessment Report is included as **Appendix B** of this SIP. Details including the specific statistical tools utilized for developing the sampling plan as well as figures, a photo log, and analytical reports associated with initial investigation can be found in the Assessment Report.

3.2 Confirmation Sampling Event

A confirmation sampling event was conducted by AECOM in April 2014 based on the results of the initial investigation. As discussed above, no samples collected during the initial investigation exhibited contaminant concentrations that exceeded hazardous waste toxicity or TSCA criteria. Therefore, the purpose of the confirmation sampling event was to collect additional samples for waste characterization and to further evaluate areas exhibiting detectable concentrations of PCBs. The remainder of this section will focus on the sampling procedures utilized to confirm PCB concentrations within the Debris Pile.

Sample locations for the confirmation sampling event were chosen based on previous sampled locations exhibiting PCB concentrations greater than 1 mg/kg. The sample methodology selected for these locations was direct push using a Geoprobe rig to allow for continuous sampling from the top of the Debris Pile surface to the terminus of the boring as determined by the occurrence of the interface between the Debris Pile material and native soils. The rational for selecting these locations and for sampling the entire depth of the pile was to ensure that detection exhibited during the initial investigation did not represent areas of elevated PCB concentrations. A total of 65 samples were collected utilizing a Geoprobe rig from a total of 20 sample locations. From each boring, sample cores were collected continuously in 2-foot intervals. One sample was collected from each 2-foot core and submitted for analysis utilizing USEPA method 3550B/8082 as required by 40 CFR 761.272.

Additional soil samples were also collected within the northwest corner of the Debris Pile following the determination that this area did not contain potential ACM. Consistent with other locations sampled during the confirmation sampling event, samples were collected continuously from 2-foot intervals throughout the entire depth of the pile.

Table 1 provides a summary of analytical results for samples collected during the confirmation sampling event. Analytical data reports and soil boring logs are included as **Appendices C and D** of this SIP.

4.0 Location and Extent of Contaminated Area

The location of the contaminated area is limited to the 39,000 cubic yard Debris Pile described above. UTC intends to remove the Debris Pile in its entirety from the Carrier site and will confirm removal of the contaminated material as described in Section 5.0.

During the course of the initial assessment and follow-up confirmation sampling, a total of 187 samples were collected and analyzed for PCBs. Based upon the characterization of the Debris Pile, it was divided into the two areas shown on **Figure 2**: Area 1, the bulk of the Debris Pile comprised of soil; and Area 2, the portion of the Debris Pile mixed with debris and potential ACM. Both portions of the Debris Pile contain PCBs in low concentration (less than 50 mg/kg), with the exception of a small section within Area 1 containing PCBs greater than 50 mg/kg (maximum value detected is 69.4 mg/kg). **Figure 2** includes the sample identification numbers for all sampling locations. A complete summary of analytical results is provided in **Table 1** and **Appendix B**.

Investigation of the Debris Pile resulted in the collection of 187 samples collected from different depths from approximately 39,000 cubic yards of soil and debris. Twenty-two soil samples contained PCB concentrations above 1 mg/kg, and three soil samples were above 10 mg/kg. Of the 187 samples, one sample exceeded the TSCA threshold of 50 mg/kg. Based on the results of the soil investigations, the Debris Pile has been separated into three designated areas. The delineation of the designated areas is summarized below:

- Area A: This area is comprised of the portion of the Debris Pile containing potential ACM and PCB concentrations less than 50 mg/kg. The volume of this area is estimated to be 4,900 cubic yards.
- Area B: This area is the largest designated area of the Debris Pile. It is comprised mostly of soil with PCB concentrations less than 50 mg/kg (all are <20 mg/kg). The volume of this area is estimated to be 33,675 cubic yards.
- Area C: This is the area of the Debris Pile with PCB concentrations greater than 50 mg/kg. Area C was conservatively estimated by extending its aerial boundary to the surrounding sampling locations with PCB concentrations less than 50 mg/kg. The data from in and around Area C indicates that the upper 4 feet is comprised of soil with PCB concentrations less that 20 mg/kg; therefore, the volume of this area consists of the bottom 4 feet and is estimated to be 425 cubic yards.

Figure 3 illustrates the three designated areas of the Debris Pile.

Statistical analyses were performed to substantiate that soils located within Area C represent only a discrete location that would not be representative of soil in other areas of the Debris Pile. **Figure 4** illustrates that the majority of the soil samples across the Debris Pile were found to contain PCBs at less than 1 mg/kg. Average PCB concentrations across the entire Debris Pile and with Area C removed are 0.93 mg/kg and 0.55 mg/kg, respectively. Rosner's Outlier Test was performed using ProUCL 5.0 to further characterize the concentrations of PCBs across the Debris Pile. The test resulted in one outlier (1% significance level), the 69.4 mg/kg that defines Area C. The likelihood of encountering PCB concentrations above 50 mg/kg outside of Area C is minimal. ProUCL 5.0 was also used to estimate upper confidence limits (UCLs) for PCBs outside of Area C. The suggested UCL to use was 1.18 mg/kg, based on the 95% Chebyshev UCL, which is well below the TSCA hazardous concentration of 50 mg/kg for PCBs in soils. The highest UCL for Areas A and B (1.98

mg/kg) was based on the 99% Chebyshev UCL and was still well below the TSCA threshold concentration of 50 mg/kg.

5.0 Site Cleanup Plan

Stockpiled material located within the Debris Pile will be removed in its entirety and transported offsite for disposal. The cleanup goal for the area under the Debris Pile is 25 mg/kg PCBs. Associated project activities include:

- Site preparation and controls;
- Solid Waste handling and disposal;
- Wastewater handling and disposal (if necessary);
- Community air monitoring;
- Confirmation sampling;
- Project documentation; and
- Scheduling

5.1 Site Preparation and Controls

A general staging area will be utilized during all work conducted under this SIP. The area will be used for material, equipment, and fuel storage. The area will be fenced and office trailers and other support facilities will be installed for use by AECOM, UTC, and agency officials. Erosion and Sediment (E&S) controls are currently in place surrounding the Debris/Soil and will be inspected and maintained throughout the project. Catch basins located down gradient of the Debris Pile have been covered with a geotextile layer and surrounded by hay-bales.

Odor causing constituents are not anticipated to be present within the Debris/Soil. Dust suppression activities will be used during all debris/soil removal activities and will include the use of a water truck and/or nearby fire hydrant. Any exposed soils (e.g., open excavations) will be wetted or covered with poly-sheeting or equivalent to prevent dust from leaving the Debris Pile.

5.2 Waste Handling and Disposal

All waste identified within the Debris Pile will be placed into appropriately lined and covered trucks for transportation to an appropriate disposal facility. Appropriate earth moving and dust suppression equipment will be utilized onsite. Soils will be separated onsite (≤50 mg/kg and >50 mg/kg PCBs) for appropriate transportation and disposal. Should onsite storage be necessary, all wastes generated during remedial excavations will be placed directly into a lined storage container. Storage containers will be appropriately labeled and include the date of storage and ML mark indicating the presence of PCB-impacted wastes. All waste storage containers will be removed from the site within 30 days of loading.

A waste storage area will be created for the storage of waste containers prior to transport offsite. The waste storage area will be surrounded by temporary fencing and the fence will have an ML mark indicating the presence of PCB-impacted Wastes. All lined storage containers not actively in use will be staged within the waste storage area and covered with a tarp to prevent storm water from entering the container. A separate waste storage area will be created that meets the specifications of the first waste storage area and will be used for temporary storage of potentially hazardous soils.

Soil and debris containing ≤50 mg/kg PCBs will be transported to an appropriate landfill, per 40 CFR 761.61(a)(5)(v)(A). (The receiving facility has yet to be determined.) Soil and debris containing >50 mg/kg PCBs will be transported to either a hazardous waste landfill permitted by EPA under section

3004 of RCRA, or by a State authorized under section 3006 of RCRA, or a PCB disposal facility approved under TSCA. Any personal protective equipment (PPE) or other waste generated during the removal of >50 mg/kg PCBs material will be disposed of with that soil and/or debris.

In the event any potential PCB laden debris (e.g., oil or transformer) is encountered, the material and surrounding soils will be segregated from the work area and containerized. Additional waste characterization sampling will be completed to determine PCB concentrations within the material, as well as other parameters as indicated. The material will be handled and disposed based on the waste characterization data and in compliance with 40 CFR 761.

5.3 Equipment Decontamination

Sampling equipment will be decontaminated following §761.79 or Subpart S (double wash-double rinse procedure). All movable excavation equipment will be decontaminated in accordance with the procedures specified in §761.79(c)(2)(ii). Specifically, the nonporous surfaces of equipment that has contacted PCB wastes (e.g., excavator buckets) will be swabbed with a d-limonene (terpene hydrocarbon) containing solution. Decontamination liquids will be containerized and stored onsite, pending characterization sampling, as described in the following section.

5.4 Wastewater Handling and Disposal (if necessary)

Potentially impacted wastewater will include decontamination water, construction water, and storm water collected as a result of construction activities on-site. The volume of collected wastewater is not anticipated to be large and, therefore, potentially impacted wastewater will be collected in 55-gallon steel drums or equivalent containers.

When a drum is full, it will be sampled and analyzed for PCBs to determine appropriate disposal methods. If a drum is analyzed and the aqueous waste within contains PCBs at a concentration >0.5 micrograms per liter (µg/L), it will be labeled with an ML mark and removed from the Debris Pile for appropriate management within 30 days of completion of remedial activities.

Aqueous wastes determined not to contain PCBs, or PCBs at concentrations <0.5 µg/L, will be labeled as non-hazardous waste and disposed of appropriately.

5.5 Community Air Monitoring

Particulate concentrations will be monitored at the upwind and downwind perimeter of the site on a continuous basis or as otherwise specified. Upwind concentrations will be measured to establish site-specific background concentrations. In the event of minimal wind or frequent changes in wind direction, multiple locations will be monitored (i.e., three monitoring locations surrounding the work area).

Particulate monitoring will be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. Each particulate monitor will be calibrated daily with a filtered air sample. Each air monitoring instrument will be continuously downloaded and saved electronically to a dedicated computer located on-site.

The NYSDOH Generic CAMP recommended action level of 0.10 mg/m3 above background for particulate matter less than 10 micrometers in size (PM-10) will be used to determine whether modifications to given processes are required. If the downwind particulate measurement of

particulates less than 10 micrometers in size (PM-10) is greater than 0.10 mg/m3 above the upwind background level, or if dust is observed leaving the project area, dust suppression techniques (i.e., misting surfaces with water, or covering open piles) will be implemented to reduce the generation of fugitive dust. If the action level of 0.15 mg/m3 (above background) is exceeded, work activities will be ceased and site work activities will be re-evaluated.

The table below describes the action levels for perimeter particulate air monitoring and the associated responses to each level.

Action Levels for Perimeter Particulate Air Monitoring

Action Level	Response
Downwind particulate concentrations 0.10 mg/m^3 greater than upwind particulate monitor sustained over 15 minute average	Dust suppression techniques are employed
Downwind particulate concentrations 0.15 mg/m^3 greater than upwind particulate monitor sustained over 15 minute average	Work halted and dust suppression techniques evaluated. Work continues once dust suppression techniques are proven successful

5.6 Verification Sampling

Following removal of the Debris/Soil Pile, verification samples will be collected to verify the extent of PCB-impacted materials. One surface sample will be collected within each 25 foot x 25 foot section at the base of the former pile. This spacing is consistent with Subpart O requirements, modified for the larger size of the Debris Stockpile (3.8 acres). A surface sample will be collected from the 0- to 2-inch bgs interval at each of these locations. The soil samples will be analyzed using USEPA Method 3550B/8082, per 40 CFR 761.272. **Figure 5** provides the proposed confirmation sample locations.

All samples will be extracted within 14 days from sample collection, and extracts will be analyzed within 40 days of extraction. The nominal reporting detection limit for each Aroclor will be less than 0.33 mg/kg for all solid matrices unless dilutions are required due to PCB detection. The required laboratory turn-around-time for reporting will be 5 business days from receipt of samples. All sample concentrations will be reported on a dry weight basis in accordance with §761.274. The laboratory deliverables will include a Level 2 PDF report consisting of sample results and batch QC result information, and an EQuIS 4-file format EDD compliant with the AECOM specifications.

5.7 Project Documentation

Project files associated with the Debris Pile, collected previously and during construction activities, will be filed and made available to USEPA upon request. Potential files include:

- Daily Reports;
- Waste Manifests and Bills of Lading;
- Photographs;
- Sample collection procedures, logs, analyses, and results; and
- Site survey data.

5.8 Transport and Treatment/Disposal Certifications

Manifests and/or Bills of Lading for the transportation, treatment and disposal of waste materials and certifications of the disposal of the wastes, if necessary, will be obtained from the transporter and from the treatment/disposal facility. Copies of these forms will be included in the summary report and records will be maintained in accordance with the requirements as specified in 40 CFR 761 Subpart K (PCB Waste Disposal Records and Reports).

5.9 Remedial Summary Report

The Remedial Summary Report will be prepared upon completion of all remedial activities. This report will include, at a minimum, the following:

- Site description;
- A description of field procedures;
- Verification sample locations and analytical results (as required by the disposal facility);
- A photographic record of the field activities;
- Dust monitoring data;
- Waste transport and disposal information including tonnage sent to the disposal facility; and
- Copies of waste manifests, bills of lading, and certificates of disposal.

Any additional information required under the EPA Approval will also be incorporated into the summary report. The report will be submitted to the EPA within 60 days of completion of remedial activities.

5.10 Schedule

Site activities will begin immediately upon approval of this SIP from USEPA. The removal of the Debris/Soil Pile is anticipated to occur over a five- to six-month period, with completion of confirmation sampling expected by December 2014.

Tables

Table 1
Confirmatory Sampling Data Summary
UTC/Carrier
Southeast Debris/Soil Pile
Thompson Road, Syracuse, NY

Client Sample ID:			A1-SB-01-0-2		A1-SB-01-2-4		A1-SB-01-4-6		A1-SB-01-6-7		A1-SB-02-0-2		A1-SB-02-2-4		A1-SB-02-4-6		A1-SB-02-6-8		A1-SB-02-8-10		A1-SB-02-10-12	
Lab Sample ID:			MC30011-1		MC30011-2		MC30011-3		MC30011-4		MC30011-5		MC30011-6		MC30011-7		MC30011-8		MC30011-9		MC30011-10	
Date Sampled:			4/23/2014		4/23/2014		4/23/2014		4/23/2014		4/23/2014		4/23/2014		4/23/2014		4/23/2014		4/23/2014		4/23/2014	
Date Analyzed:			4/25/2014		4/25/2014		4/25/2014		4/26/2014		4/25/2014		4/25/2014		4/25/2014		4/25/2014		4/25/2014		4/25/2014	
Matrix:	CAS#	Units	Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil	
Aroclors (SW846 8082A)																						
Aroclor 1016	12674-11-2	µg/kg	ND (7.8)		ND (7.7)		ND (7.8)		ND (7.5)		ND (7.6)		ND (7.5)		ND (7.3)		ND (7.6)		ND (7.6)		ND (7.8)	
Aroclor 1221	11104-28-2	µg/kg	ND (15)		ND (15)		ND (15)		ND (15)		ND (15)		ND (15)		ND (14)		ND (15)		ND (15)		ND (15)	
Aroclor 1232	11141-16-5	µg/kg	ND (15)		ND (14)		ND (15)		ND (14)		ND (14)		ND (14)		ND (14)		ND (14)		ND (14)		ND (15)	
Aroclor 1242	53469-21-9	µg/kg	ND (16)		ND (16)		ND (16)		ND (15)		ND (16)		ND (15)		ND (15)		ND (15)		ND (15)		ND (16)	
Aroclor 1248	12672-29-6	µg/kg	ND (14)		ND (13)		ND (14)		ND (13)		ND (13)		ND (13)		ND (13)		ND (13)		ND (13)		ND (14)	
Aroclor 1254	11097-69-1	µg/kg	27.1 [a]	J	20.3 [a]	J	97.3 [a]		ND (16)		ND (16)		43.5 [a]		49.9 [a]		151 [a]		380		155	
Aroclor 1260	11096-82-5	µg/kg	57.2		56.9		280		1700		624		126		109		310		99.5 [a]		70.9 [a]	
Total PCBs [b]	-	mg/kg	0.084		0.077		0.377		1.7		0.624		0.170		0.159		0.461		0.480		0.226	
General Chemistry																						
Corrosivity as pH			-		-		7.8		-		-		-		-		7.5		-		-	
Cyanide Reactivity		mg/kg	-		-		1.7	U	-		-		-		-		1.7	U	-		-	
Ignitability (Flashpoint)		Deg. F	-		-		>230		-		-		-		-		>230		-		-	
Solids, Percent		%	88.4		86.9		87.5		91.8		91.8		92.6		91.5		90.4		87.8		88.8	
Sulfide Reactivity		mg/kg	-		-		57	U	-		-		-		-		55	U	-		-	

Table 1
Confirmatory Sampling Data Summary
UTC/Carrier
Southeast Debris/Soil Pile
Thompson Road, Syracuse, NY

Client Sample ID:			A1-SB-03-0-2		A1-SB-03-2-4		A1-SB-03-4-6		A1-SB-03-6-8		A1-SB-03-8-10		A1-SB-03-10-12		A1-SB-04-0-2		A1-SB-05-0-2		A1-SB-06-0-2		A1-SB-06-2-4	
Lab Sample ID:			MC30011-11		MC30011-12		MC30011-13		MC30011-14		MC30011-15		MC30011-16		MC30011-17		MC30011-18		MC30011-19		MC30011-20	
Date Sampled:			4/23/2014		4/23/2014		4/23/2014		4/23/2014		4/23/2014		4/23/2014		4/23/2014		4/23/2014		4/23/2014		4/23/2014	
Date Analyzed:			4/25/2014		4/25/2014		4/25/2014		4/26/2014		4/26/2014		4/26/2014		4/26/2014		4/26/2014		4/26/2014		4/26/2014	
Matrix:	CAS#	Units	Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil	
Aroclors (SW846 8082A)																						
Aroclor 1016	12674-11-2	µg/kg	ND (7.2)		ND (7.3)		ND (7.3)		ND (7.4)		ND (7.9)		ND (7.3)		ND (7.2)		ND (7.8)		ND (7.8)		ND (7.4)	
Aroclor 1221	11104-28-2	µg/kg	ND (14)		ND (14)		ND (14)		ND (14)		ND (15)		ND (14)		ND (14)		ND (15)		ND (15)		ND (14)	
Aroclor 1232	11141-16-5	µg/kg	ND (14)		ND (14)		ND (14)		ND (14)		ND (15)		ND (14)		ND (14)		ND (15)		ND (15)		ND (14)	
Aroclor 1242	53469-21-9	µg/kg	ND (15)		ND (15)		ND (15)		ND (15)		ND (16)		ND (15)		ND (15)		ND (16)		ND (16)		ND (15)	
Aroclor 1248	12672-29-6	µg/kg	ND (13)		ND (13)		ND (13)		ND (13)		ND (14)		ND (13)		ND (13)		ND (14)		ND (14)		ND (13)	
Aroclor 1254	11097-69-1	µg/kg	45.8 [a]		ND (15)		36.3 [a]		ND (16)		57.3 [a]		ND (15)		43.7 [a]		ND (16)		35.3 [a]	J	54.7 [a]	
Aroclor 1260	11096-82-5	µg/kg	64.3		37.4		74.2		1980		139		1270		148		1580		764		122	
Total PCBs [b]	-	mg/kg	0.110		0.037		0.111		1.98		0.196		1.27		0.192		1.58		0.799		0.177	
General Chemistry																						
Corrosivity as pH			-		-		8.0		-		-		-		7.8		7.5		-		-	
Cyanide Reactivity		mg/kg	-		-		1.5	U	-		-		-		1.6	U	1.7	U	-		-	
Ignitability (Flashpoint)		Deg. F	-		-		>230		-		-		-		>230		>230		-		-	
Solids, Percent		%	93.3		95.3		93.2		91.1		86.5		93.4		93.4		86.4		86.6		91.3	
Sulfide Reactivity		mg/kg	-		-		54	U	-		-		-		54	U	58	U	-		-	

Table 1
Confirmatory Sampling Data Summary
UTC/Carrier
Southeast Debris/Soil Pile
Thompson Road, Syracuse, NY

Client Sample ID:			A1-SB-06-4-6		A1-SB-06-6-8		A1-SB-07-0-2		A1-SB-07-2-4		A1-SB-107-2-4		A1-SB-07-4-6		A1-SB-07-6-8		A1-SB-07-8-10		A1-SB-08-0-2		A1-SB-08-2-4	
Lab Sample ID:			MC30011-21		MC30011-22		MC30011-23		MC30011-24		MC30011-25		MC30011-26		MC30011-27		MC30011-28		MC30011-29		MC30011-30	
Date Sampled:			4/23/2014		4/23/2014		4/23/2014		4/23/2014		4/23/2014		4/23/2014		4/23/2014		4/23/2014		4/23/2014		4/23/2014	
Date Analyzed:			4/26/2014		4/28/2014		4/28/2014		4/28/2014		4/28/2014		4/28/2014		4/28/2014		4/28/2014		4/28/2014		4/26/2014	
Matrix:	CAS#	Units	Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil	
Aroclors (SW846 8082A)																						
Aroclor 1016	12674-11-2	µg/kg	ND (7.5)		ND (7.9)		ND (7.6)		ND (7.5)		ND (7.7)		ND (7.7)		ND (8.1)		ND (7.6)		ND (7.9)		ND (7.6)	
Aroclor 1221	11104-28-2	µg/kg	ND (15)		ND (15)		ND (15)		ND (15)		ND (15)		ND (15)		ND (16)		ND (15)		ND (15)		ND (15)	
Aroclor 1232	11141-16-5	µg/kg	ND (14)		ND (15)		ND (14)		ND (14)		ND (14)		ND (15)		ND (15)		ND (14)		ND (15)		ND (14)	
Aroclor 1242	53469-21-9	µg/kg	ND (15)		ND (16)		ND (15)		ND (15)		ND (16)		ND (16)		ND (16)		ND (16)		ND (16)		ND (16)	
Aroclor 1248	12672-29-6	µg/kg	ND (13)		ND (14)		ND (13)		ND (13)		ND (13)		ND (13)		ND (14)		ND (13)		ND (14)		ND (13)	
Aroclor 1254	11097-69-1	µg/kg	ND (16)		ND (17)		16.5 [a]	J	ND (16)		16.4 [a]	J	ND (16)		ND (17)		ND (16)		18.4 [a]	J	36.0 [a]	
Aroclor 1260	11096-82-5	µg/kg	1770		15500		94.4		70.9		96.9		ND (14)		29.2	J	254		39.2		79.5	
Total PCBs [b]	-	mg/kg	1.77		15.5		0.111		0.071		0.113		ND		0.029		0.254		0.058		0.116	
General Chemistry																						
Solids, Percent		%	90.5		84.6		91.3		91.7		91.5		87.7		83.1		90.3		88.3		90.2	

Table 1
Confirmatory Sampling Data Summary
UTC/Carrier
Southeast Debris/Soil Pile
Thompson Road, Syracuse, NY

Client Sample ID:			A1-SB-08-4-6		A1-SB-08-6-8		A1-SB-09-0-2		A1-SB-09-2-4		A1-SB-09-4-6		A1-SB-09-6-8		A1-SB-10-0-2		A1-SB-10-2-4		A1-SB-110-2-4		A1-SB-10-4-6	
Lab Sample ID:			MC30011-31		MC30011-32		MC30011-33		MC30011-34		MC30011-35		MC30011-36		MC30076-1		MC30076-2		MC30076-3		MC30076-4	
Date Sampled:			4/23/2014		4/23/2014		4/23/2014		4/23/2014		4/23/2014		4/23/2014		4/24/2014		4/24/2014		4/24/2014		4/24/2014	
Date Analyzed:			4/28/2014		4/28/2014		4/28/2014		4/28/2014		4/28/2014		4/28/2014		4/28/2014		4/28/2014		4/28/2014		4/28/2014	
Matrix:	CAS#	Units	Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil	
Aroclors (SW846 8082A)																						
Aroclor 1016	12674-11-2	µg/kg	ND (8.0)		ND (7.5)		ND (7.7)		ND (8.1)		ND (8.1)		ND (7.5)		ND (7.7)		ND (7.7)		ND (7.8)		ND (7.8)	
Aroclor 1221	11104-28-2	µg/kg	ND (16)		ND (14)		ND (15)		ND (16)		ND (16)		ND (15)		ND (15)		ND (15)		ND (15)		ND (15)	
Aroclor 1232	11141-16-5	µg/kg	ND (15)		ND (14)		ND (14)		ND (15)		ND (15)		ND (14)		ND (14)		ND (15)		ND (15)		ND (15)	
Aroclor 1242	53469-21-9	µg/kg	ND (16)		ND (15)		ND (16)		ND (17)		ND (16)		ND (15)		ND (16)		ND (16)		ND (16)		ND (16)	
Aroclor 1248	12672-29-6	µg/kg	ND (14)		ND (13)		ND (13)		ND (14)		ND (14)		ND (13)		ND (13)		ND (14)		ND (14)		ND (14)	
Aroclor 1254	11097-69-1	µg/kg	ND (17)		ND (16)		287 [a]		28.5 [a]	J	ND (17)		127 [a]		206		18.8	J	38.0		332	
Aroclor 1260	11096-82-5	µg/kg	22.6	J	69400		555		65.7		15.5	J	592		96.2 [a]		18.1 [a]	J	28.9 [a]	J	233 [a]	
Total PCBs [b]	-	mg/kg	0.023		69.4		0.842		0.094		0.016		0.719		0.302		0.037		0.067		0.565	
General Chemistry																						
Solids, Percent		%	85		89		88.2		85.2		83.5		91.9		87.4		89.1		86.1		86.4	

Table 1
Confirmatory Sampling Data Summary
UTC/Carrier
Southeast Debris/Soil Pile
Thompson Road, Syracuse, NY

Client Sample ID:			A1-SB-10-6-7		A1-SB-11-0-2		A1-SB-11-2-4		A1-SB-111-2-4		A1-SB-11-4-6		A1-SB-11-6-7		A1-SB-12-0-2		A1-SB-12-2-4		A1-SB-12-4-6		A1-SB-13-0-2	
Lab Sample ID:			MC30076-5		MC30076-6		MC30076-7		MC30076-8		MC30076-9		MC30076-10		MC30076-11		MC30076-12		MC30076-13		MC30076-14	
Date Sampled:			4/24/2014		4/24/2014		4/24/2014		4/24/2014		4/24/2014		4/24/2014		4/24/2014		4/24/2014		4/24/2014		4/24/2014	
Date Analyzed:			4/28/2014		4/28/2014		4/28/2014		4/28/2014		4/28/2014		4/29/2014		4/28/2014		4/28/2014		4/28/2014		4/28/2014	
Matrix:	CAS#	Units	Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil	
Aroclors (SW846 8082A)																						
Aroclor 1016	12674-11-2	µg/kg	ND (7.5)		ND (7.9)		ND (7.8)		ND (7.6)		ND (7.8)		ND (7.9)		ND (8.1)		ND (7.5)		ND (8.0)		ND (8.3)	
Aroclor 1221	11104-28-2	µg/kg	ND (15)		ND (15)		ND (15)		ND (15)		ND (15)		ND (15)		ND (16)		ND (15)		ND (16)		ND (16)	
Aroclor 1232	11141-16-5	µg/kg	ND (14)		ND (15)		ND (15)		ND (14)		ND (15)		ND (15)		ND (15)		ND (14)		ND (15)		ND (16)	
Aroclor 1242	53469-21-9	µg/kg	ND (15)		ND (16)		ND (16)		ND (16)		ND (16)		ND (16)		ND (16)		ND (15)		ND (16)		ND (17)	
Aroclor 1248	12672-29-6	µg/kg	ND (13)		ND (14)		ND (14)		ND (13)		ND (14)		ND (14)		ND (14)		ND (13)		ND (14)		ND (14)	
Aroclor 1254	11097-69-1	µg/kg	ND (16)		133 [a]		109 [a]		97.8 [a]		307		1220		383		406		41.3		48.0	
Aroclor 1260	11096-82-5	µg/kg	ND (13)		152		165		167		108 [a]		70.0 [a]		93.7 [a]		186 [a]		36.1 [a]	J	36.0 [a]	J
Total PCBs [b]	-	mg/kg	ND		0.285		0.274		0.265		0.415		1.29		0.477		0.592		0.077		0.084	
General Chemistry																						
Solids, Percent		%	89.9		88.5		88.6		89.8		88.2		87		83.1		89.4		85.1		83.4	

Table 1
Confirmatory Sampling Data Summary
UTC/Carrier
Southeast Debris/Soil Pile
Thompson Road, Syracuse, NY

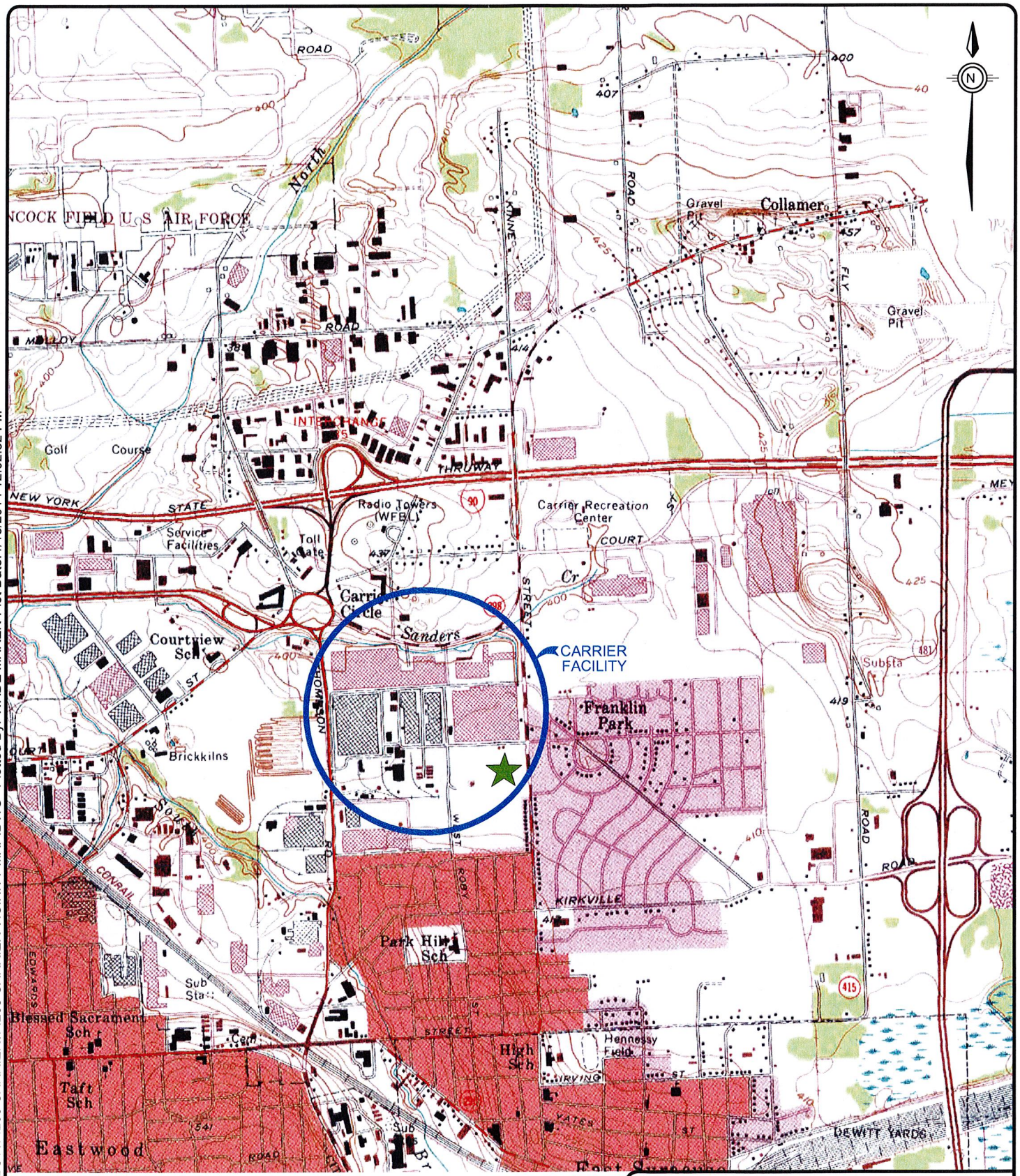
Client Sample ID:			A1-SB-13-2-4		A1-SB-13-4-6		A2-SB-02-0-2		A2-SB-02-2-4		A2-SB-02-4-6		A2-SB-02-6-8		A2-SB-03-0-2		A2-SB-03-2-4		A2-SB-03-4-6		A2-SB-04-0-2	
Lab Sample ID:			MC30076-15		MC30076-16		MC30120-1		MC30120-2		MC30120-3		MC30120-4		MC30120-5		MC30120-6		MC30120-7		MC30120-8	
Date Sampled:			4/24/2014		4/24/2014		4/25/2014		4/25/2014		4/25/2014		4/25/2014		4/25/2014		4/25/2014		4/25/2014		4/25/2014	
Date Analyzed:			4/28/2014		4/28/2014		4/30/2014		4/30/2014		4/30/2014		4/30/2014		4/30/2014		4/30/2014		4/30/2014		4/30/2014	
Matrix:	CAS#	Units	Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil	
Aroclors (SW846 8082A)																						
Aroclor 1016	12674-11-2	µg/kg	ND (7.4)		ND (8.1)		ND (7.7)		ND (7.8)		ND (7.5)		ND (8.1)		ND (8.2)		ND (7.4)		ND (8.2)		ND (8.7)	
Aroclor 1221	11104-28-2	µg/kg	ND (14)		ND (16)		ND (15)		ND (15)		ND (15)		ND (16)		ND (16)		ND (14)		ND (16)		ND (17)	
Aroclor 1232	11141-16-5	µg/kg	ND (14)		ND (15)		ND (15)		ND (15)		ND (14)		ND (15)		ND (15)		ND (14)		ND (15)		ND (16)	
Aroclor 1242	53469-21-9	µg/kg	ND (15)		ND (16)		ND (16)		ND (16)		ND (15)		ND (17)		ND (17)		ND (15)		ND (17)		ND (18)	
Aroclor 1248	12672-29-6	µg/kg	ND (13)		ND (14)		38.8 [a]		ND (14)		ND (13)		ND (14)		ND (14)		ND (13)		ND (14)		ND (15)	
Aroclor 1254	11097-69-1	µg/kg	402		212		46.1		22.4 [a]	J	19.2 [a]	J	ND (17)		38.6 [a]	J	ND (16)		ND (17)		316 [a]	
Aroclor 1260	11096-82-5	µg/kg	99.5 [a]		171 [a]		18.1 [a]	J	41.4		58.1		ND (14)		377		41.4		ND (14)		1050	
Total PCBs [b]	-	mg/kg	0.502		0.383		0.103		0.064		0.077		ND		0.416		0.041		ND		1.366	
General Chemistry																						
Solids, Percent		%	91.6		84.5		85.3		86.7		89.2		85.6		84		91.3		82.9		77.1	

Table 1
Confirmatory Sampling Data Summary
UTC/Carrier
Southeast Debris/Soil Pile
Thompson Road, Syracuse, NY

Client Sample ID:			A2-SB-04-2-4		A2-SB-104-2-4		A2-SB-04-4-6		A2-SB-05-0-2		A2-SB-05-2-4		A2-SB-05-4-6		A2-SB-06-0-2		A2-SB-07-0-2		A2-SB-08-0-2	
Lab Sample ID:			MC30120-9		MC30120-10		MC30120-11		MC30120-12		MC30120-13		MC30120-14		MC30120-17		MC30120-16		MC30120-15	
Date Sampled:			4/25/2014		4/25/2014		4/25/2014		4/25/2014		4/25/2014		4/25/2014		4/25/2014		4/25/2014		4/25/2014	
Date Analyzed:			4/30/2014		4/30/2014		4/30/2014		4/30/2014		4/30/2014		4/30/2014		4/29/2014		4/30/2014		4/30/2014	
Matrix:	CAS#	Units	Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil	
Aroclors (SW846 8082A)																				
Aroclor 1016	12674-11-2	µg/kg	ND (7.7)		ND (7.5)		ND (7.9)		ND (7.3)		ND (7.5)		ND (8.1)		ND (7.9)		ND (8.5)		ND (8.3)	
Aroclor 1221	11104-28-2	µg/kg	ND (15)		ND (15)		ND (15)		ND (14)		ND (15)		ND (16)		ND (15)		ND (16)		ND (16)	
Aroclor 1232	11141-16-5	µg/kg	ND (14)		ND (14)		ND (15)		ND (14)		ND (14)		ND (15)		ND (15)		ND (16)		ND (16)	
Aroclor 1242	53469-21-9	µg/kg	ND (16)		ND (15)		ND (16)		ND (15)		ND (15)		ND (17)		ND (16)		ND (17)		ND (17)	
Aroclor 1248	12672-29-6	µg/kg	ND (13)		ND (13)		ND (14)		ND (13)		ND (13)		ND (14)		ND (14)		ND (15)		ND (14)	
Aroclor 1254	11097-69-1	µg/kg	16.9 [a]	J	ND (16)		101 [a]		23.5 [a]	J	ND (16)		20.9 [a]	J	312 [a]		168 [a]		57.9 [a]	
Aroclor 1260	11096-82-5	µg/kg	38.5		20.4	J	144		117		20.5	J	33.2	J	433		271		89.8	
Total PCBs [b]	-	mg/kg	0.055		0.020		0.245		0.141		0.021		0.054		0.745		0.439		0.148	
General Chemistry																				
Solids, Percent		%	91		91.5		84.5		93.1		91.4		83.5		84.4		82.1		82.6	

Notes:
[a] Estimated value due to the presence of other Aroclor pattern.
[b] Total PCBs value equals the total of detected Aroclors.
CAS# = Chemical Abstracts Service number
µg/kg = micrograms per kilogram
mg/kg = milligrams per kilogram
Aroclors were analyzed via method SW846 8082A

Figures



LEGEND

★ SITE LOCATION

MAP SOURCE:
U.S.G.S. 7.5 MINUTE QUADRANGLE
SYRACUSE EAST, NY 1967
PHOTO REVISED 1978

0 2000 4000
SCALE IN FEET

FIGURE 1
SITE LOCATION MAP
SE STOCKPILE
CARRIER FACILITY
SYRACUSE, NEW YORK

REQUESTED BY:	RT
DRAWN BY:	WM
DWG DATE:	01-15-13
DWG NO:	14295 Vicinity

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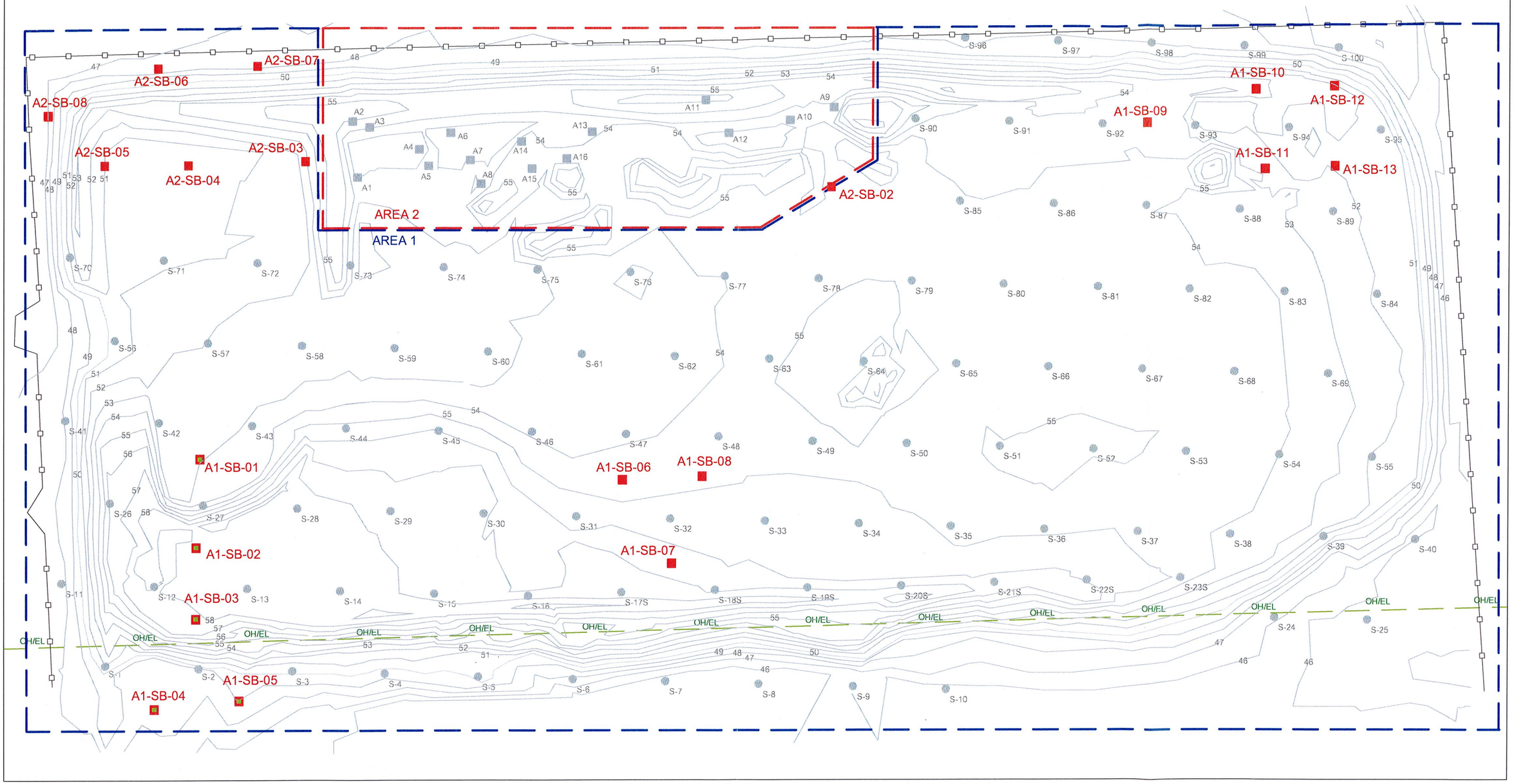
File Name: I:\2014 PROJECTS BST\14295 CARRIER\14295 CARRIER VICINITY MAP.DWG Plotted By: WADE MAREK Plot Date: 1/15/2014 12:02:52 PM



LEGEND

CONTOUR INTERVAL	UTILITY LINE
A1-SB-06 CONFIRMATION SAMPLE LOCATION	EXISTING FENCE
A1-SB-01 CONFIRMATION SAMPLE LOCATION WITH RCI ANALYSIS	AREA 1 BOUNDARY
S-23S INITIAL INVESTIGATION TEST PIT LOCATION	AREA 2 BOUNDARY
A15 INITIAL INVESTIGATION-JUDGMENT SAMPLING	

Approximate Scale (ft)

0 20 40

N

PROJ. NO:	60314591
DATE:	5-9-2014
DRAWN:	CTN
APPROVED:	-

AECOM

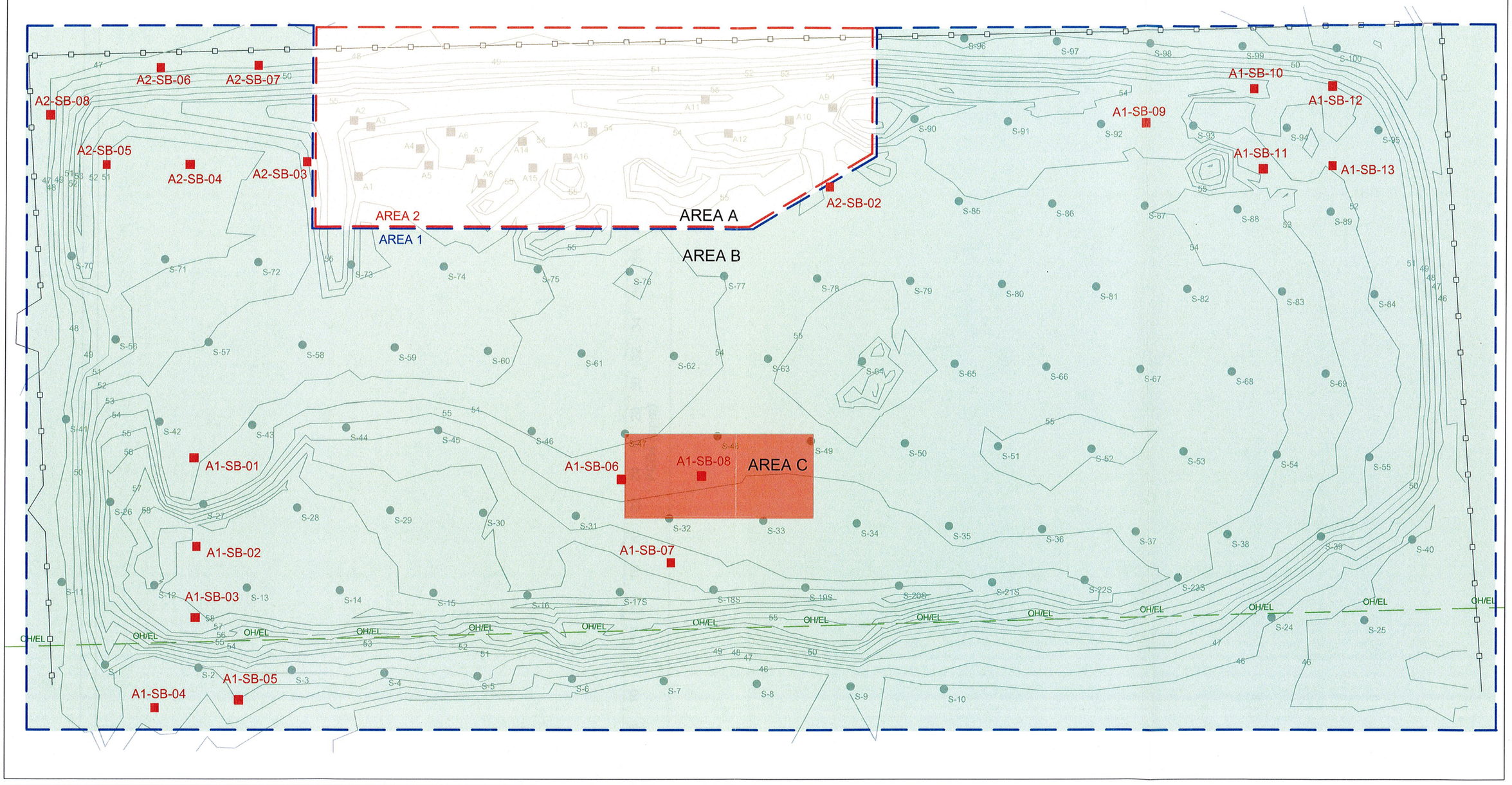
NOTES:
1) DATUM BASE ON CARRIER CAMPUS DATUM
2) ZERO BASE PLANE ELEVATION=EL. 42.0

SHEET TITLE: DEBRIS PILE LAYOUT

PROJECT:
SOUTHEAST DEBRIS/SOIL PILE
UTC/CARRIER SITE
THOMPSON ROAD, SYRACUSE, NY

DRAWING REFERENCE:
1) Drawing based on FIGURE 2, "SE DEBRIS PILE TOPOGRAHIC SURVEY", by ENSAFE., dated JANUARY 2014, including all reference therein.

FIGURE 2



LEGEND

	CONTOUR INTERVAL	OH/EL	UTILITY LINE
A1-SB-06	CONFIRMATION SAMPLE LOCATION		EXISTING FENCE
S-23S	INITIAL INVESTIGATION TEST PIT LOCATION	A-5	INITIAL INVESTIGATION-JUDGMENT SAMPLING
	AREA C (PCBs DETECTED > 50 mg/kg)		AREA A (POTENTIAL ACM and PCBs DETECTED < 50 mg/kg)
	AREA 1 BOUNDARY		AREA B (PCBs DETECTED < 50 mg/kg)
	AREA 2 BOUNDARY		

Approximate Scale (ft)

0 20 40

PROJ. NO:	60314591
DATE:	5-9-2014
DRAWN:	CTN
APPROVED:	-

AECOM

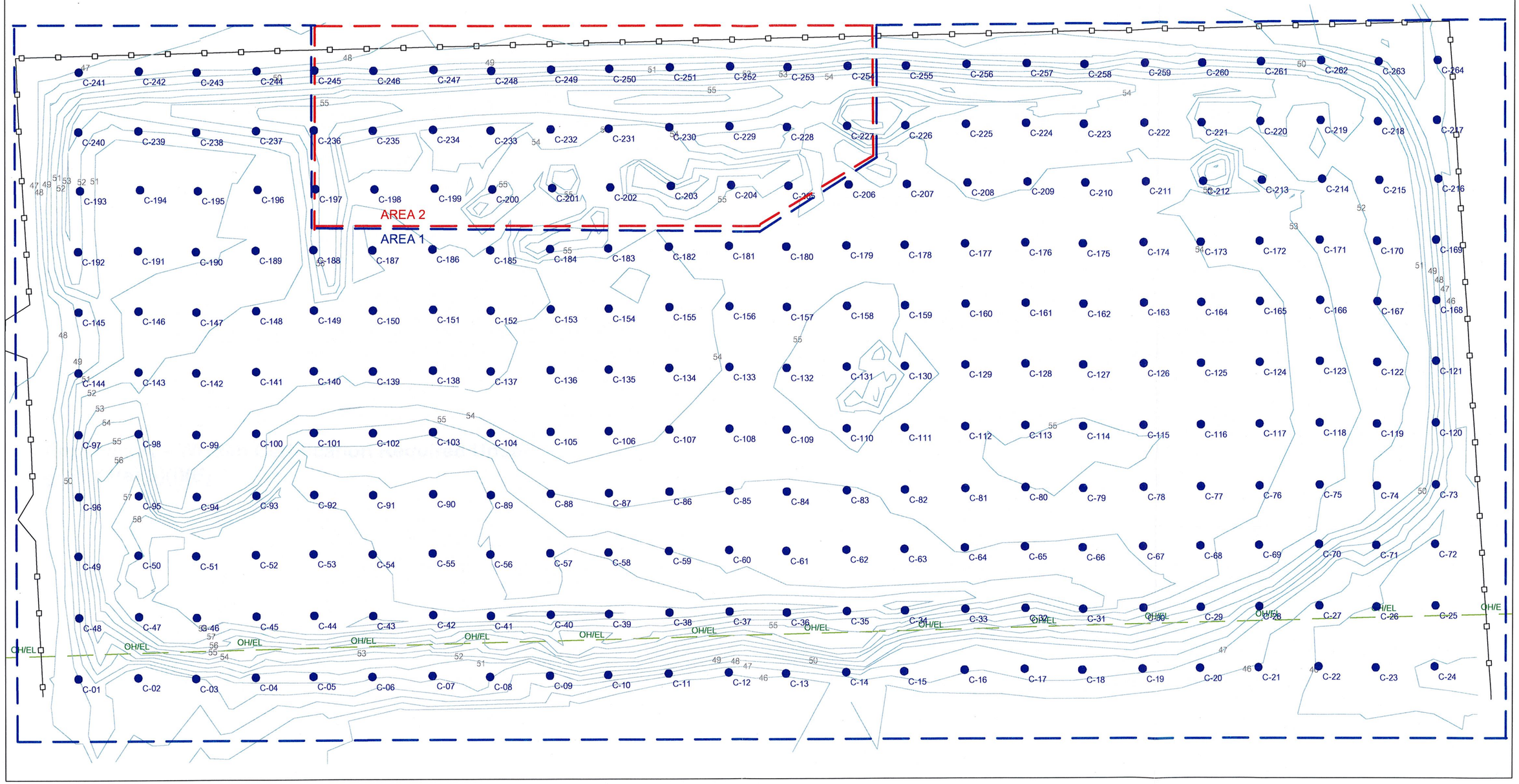
NOTES:
1) DATUM BASE ON CARRIER CAMPUS DATUM
2) ZERO BASE PLANE ELEVATION=EL. 42.0

SHEET TITLE: DESIGNATED AREAS

PROJECT:
SOUTHEAST DEBRIS/SOIL PILE
UTC/CARRIER SITE
THOMPSON ROAD, SYRACUSE, NY

DRAWING REFERENCE:
1) Drawing based on FIGURE 2, "SE DEBRIS PILE TOPOGRAHIC SURVEY", by ENSAFE., dated JANUARY 2014, including all reference therein.

FIGURE
3



LEGEND

- CONTOUR INTERVAL
- C-150 PROPOSED CONFIRMATION SAMPLE LOCATION
- EXISTING FENCE
- OH/EL UTILITY LINE
- AREA 2 BOUNDARY
- AREA 1 BOUNDARY

Approximate Scale (ft)

0 20 40

N

PROJ. NO:	60314591
DATE:	5-9-2014
DRAWN:	CTN
APPROVED:	-

AECOM

NOTES:
1) DATUM BASE ON CARRIER CAMPUS DATUM
2) ZERO BASE PLANE ELEVATION=EL. 42.0

SHEET TITLE: CONFIRMATION SAMPLING PLAN

PROJECT:
SOUTHEAST DEBRIS/SOIL PILE
UTC/CARRIER SITE
THOMPSON ROAD, SYRACUSE, NY

DRAWING REFERENCE:
1) Drawing based on FIGURE 2, "SE DEBRIS PILE TOPOGRAHIC SURVEY", by ENSAFE., dated JANUARY 2014, including all reference therein.

FIGURE 5

United Technologies Corporation
9 Farm Springs Road
(847) 221-5503
Farmington, CT 06032

May 16, 2014

Vivian Chin
USEPA Region 2
2890 Woodbridge Avenue
Mail Code MS-105
Edison, NJ 08837-3679

Subject: Written Certification as per §761.61(a)(3)(E)
Self-Implementing Cleanup and Disposal Plan
Southeast Debris/Soil Pile, UTC/Carrier Site
Thompson Road, Syracuse, New York

Dear Ms. Chin,

I certify that all sampling plans, sample collection procedures, sample preparation procedures, extraction procedures, and instrumental/chemical analysis procedures used to assess or characterize the PCB contamination at the Southeast Debris/Soil Pile located on the UTC/Carrier Site on Thompson Road in Syracuse, New York are on file at the AECOM offices located at 40 British American Boulevard, Latham, New York 12110, and are available for USEPA inspection.

If you have any questions, comments, or concerns you may contact Dan Servetas via phone at 518-951-2378 or via email at daniel.servetas@aecom.com.

Yours sincerely,

John G. Wolski
Remediation Project Manager
United Technologies Corporation
john.wolski@utc.com

cc: Tara Blum (NYSDEC)
Kathleen McFadden (UTC)

Appendix B – Initial Investigation Data Summary Tables

Due to the size of the Initial Investigation Data Summary Tables, they have been provided on the enclosed CD.

Appendix C – Analytical Data Reports

Due to the size of the Analytical Data Reports, they have been provided on the enclosed CD.

Appendix D – Soil Boring Logs

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BOREHOLE LOG

BORING ID #: **A1-SB-01**

START DATE: 4/23/2014 END DATE: 4/23/2014

PROJECT NAME: **UTC**
PROJECT NO.: **60314591**
PROJECT MANAGER: **Dan Servetas**
SITE LOCATION: **Thompson Road, Syracuse, NY**
BORING LOCATION: **SE Debris/Soil Pile**
DRILLING CO.: **Zebra**
DRILLER: **Zebra**
DRILLING METHOD: **Direct Push Technologies**
BOREHOLE DIAMETER: **2"**
DEPTH TO BEDROCK: **NA**
TOTAL DEPTH DRILLED: **7 feet**
TOTAL DEPTH REACHED: **7 feet**
INSPECTOR: **GF & PS**
WEATHER CONDITIONS: **Light rain, around 45°F**
LATITUDE:
LONGITUDE:
ELEVATION AND DATUM:

FIELD SAMPLE INFORMATION								HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1:	DEPTH 1:	TIME 1:
							WEIGHT(S)				DATE 2:	DEPTH 2:	TIME 2:
							FALL			CASING	TUBE	CORE	RIG TYPE:
							TYPE						Truck
							ID/OD						

DEPTH (feet bgs)	SAMPLE ID	RECOVERY	PID (ppm)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUCT	GEOLOGIC DESCRIPTION	LITHOLOGY/ SOIL TYPE	WATER LEVEL / REMARKS
0-5		5.0					0-2.5- BRN: FC Sand. Some fill gravel, little ash at 2'-2.5' bgs. Loose, dry.		Samples Taken: 0-2 2-4 4-6: PCB and disposal sample 6-7
							2.5-5 BRN: Fine sand, some silt; little FC gravel, compact; dry		
5-7		2.0					5-7-BRN: fine sand; some silt; little fine-course gravel; compact; dry		

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BOREHOLE LOG

BORING ID #: **A1-SB-02**

START DATE: 4/23/2014 END DATE: 4/23/2014

PROJECT NAME: **UTC**
PROJECT NO.: **60314591**
PROJECT MANAGER: **Dan Servetas**
SITE LOCATION: **Thompson Road, Syracuse, NY**
BORING LOCATION: **SE Debris/Soil Pile**
DRILLING CO.: **Zebra**
DRILLER: **Zebra**
DRILLING METHOD: **Direct Push Technologies**
BOREHOLE DIAMETER: **2"**
DEPTH TO BEDROCK: **NA**
TOTAL DEPTH DRILLED: **12 feet**
TOTAL DEPTH REACHED: **12 feet**
INSPECTOR: **GF & PS**
WEATHER CONDITIONS: **Light rain, around 45°F**
LATITUDE:
LONGITUDE:
ELEVATION AND DATUM:

FIELD SAMPLE INFORMATION								HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1:	DEPTH 1:	TIME 1:
							WEIGHT(S)				DATE 2:	DEPTH 2:	TIME 2:
							FALL			CASING	TUBE	CORE	RIG TYPE:
							TYPE						Truck
							ID/OD						
DEPTH (feet bgs)	SAMPLE ID	RECOVERY	PID (ppm)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUCT	GEOLOGIC DESCRIPTION					LITHOLOGY/ SOIL TYPE	WATER LEVEL
													REMARKS
0-5		5.0					0-5 BRN: FM sand; some FC gravel; occasional ash lenses throughout; trace brick fra						Samples Taken: 0-2 2-4 4-6
5-10		5.0					5-9: SAA; loose; dry 9-10 BRN; fine sand; some silt; little fin gravel; compact; dry						6-8 PCB and disposal sample 8-10 10-12
10-12		2.0					10-12-SAA; dry						

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BOREHOLE LOG

BORING ID #: **A1-SB-03**

START DATE: 4/23/2014 END DATE: 4/23/2014

PROJECT NAME: **UTC** PROJECT NO.: **60314591** PROJECT MANAGER: **Dan Servetas**
SITE LOCATION: **Thompson Road, Syracuse, NY** BORING LOCATION: **SE Debris/Soil Pile**
DRILLING CO.: **Zebra** DRILLER: **Zebra** DRILLING METHOD: **Direct Push Technologies**
BOREHOLE DIAMETER: **2"** DEPTH TO BEDROCK: **NA** TOTAL DEPTH DRILLED: **12 feet**
TOTAL DEPTH REACHED: **12 feet** INSPECTOR: **GF & PS** WEATHER CONDITIONS: **Light rain, around 45°F**
LATITUDE: LONGITUDE: ELEVATION AND DATUM:

FIELD SAMPLE INFORMATION								HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1:	DEPTH 1:	TIME 1:
							WEIGHT(S)				DATE 2:	DEPTH 2:	TIME 2:
							FALL			CASING	TUBE	CORE	RIG TYPE:
							TYPE						Truck
							ID/OD						
DEPTH (feet bgs)	SAMPLE ID	RECOVERY	PID (ppm)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUCT	GEOLOGIC DESCRIPTION					LITHOLOGY/ SOIL TYPE	WATER LEVEL / REMARKS
0-5		5.0					BRN-FM sand; some FC gravel; little black ash; loose; dry						Samples Taken: 0-2, 2-4, 4-6 PCB and disposal sample
5-10		4.0					5-8 BRN; FC sand; same FC gravel; some ash; loose dry 8-10-BRN; F sand; some silt, little FM gravel; compact; moist						6-8, 8-10, 10-12
10-12		2.0					10-12-SAA; compact; moist						

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BOREHOLE LOG

BORING ID #: **A1-SB-04**

START DATE: 4/23/2014 END DATE: 4/23/2014

PROJECT NAME: **UTC**
PROJECT NO.: **60314591**
PROJECT MANAGER: **Dan Servetas**
SITE LOCATION: **Thompson Road, Syracuse, NY**
BORING LOCATION: **SE Debris/Soil Pile**
DRILLING CO.: **Zebra**
DRILLER: **Zebra**
DRILLING METHOD: **Direct Push Technologies**
BOREHOLE DIAMETER: **2"**
DEPTH TO BEDROCK: **NA**
TOTAL DEPTH DRILLED: **2 feet**
TOTAL DEPTH REACHED: **2 feet**
INSPECTOR: **GF & PS**
WEATHER CONDITIONS: **Light rain, around 45°F**
LATITUDE:
LONGITUDE:
ELEVATION AND DATUM:

	HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1:	DEPTH 1:	TIME 1:
WEIGHT(S)				DATE 2:	DEPTH 2:	TIME 2:
FALL			CASING	TUBE	CORE	RIG TYPE:
TYPE						Truck
ID/OD						

DEPTH (feet bgs)	SAMPLE ID	RECOVERY	PID (ppm)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUCT	GEOLOGIC DESCRIPTION	LITHOLOGY/ SOIL TYPE	WATER LEVEL / REMARKS
0-2		2.0					BRN; FM sand; little FM gravel; little silt; trace organic debris Sampled for PCBs + disposal		Samples Taken: 0-2

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BOREHOLE LOG

BORING ID #: **A1-SB-05**

START DATE: 4/23/2014 END DATE: 4/23/2014

PROJECT NAME: **UTC** PROJECT NO.: **60314591** PROJECT MANAGER: **Dan Servetas**
SITE LOCATION: **Thompson Road, Syracuse, NY** BORING LOCATION: **SE Debris/Soil Pile**
DRILLING CO.: **Zebra** DRILLER: **Zebra** DRILLING METHOD: **Direct Push Technologies**
BOREHOLE DIAMETER: **2"** DEPTH TO BEDROCK: **NA** TOTAL DEPTH DRILLED: **2 feet**
TOTAL DEPTH REACHED: **2 feet** INSPECTOR: **GF & PS** WEATHER CONDITIONS: **Light rain, around 45°F**
LATITUDE: LONGITUDE: ELEVATION AND DATUM:

FIELD SAMPLE INFORMATION								HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1:	DEPTH 1:	TIME 1:
							WEIGHT(S)				DATE 2:	DEPTH 2:	TIME 2:
							FALL			CASING	TUBE	CORE	RIG TYPE:
							TYPE						Truck
							ID/OD						
DEPTH (feet bgs)	SAMPLE ID	RECOVERY	PID (ppm)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUCT	GEOLOGIC DESCRIPTION					LITHOLOGY/ SOIL TYPE	WATER LEVEL
													REMARKS
0-2		2.0					BRN; FM sand; little FM gravel; little silt; little organics; loose; dry Sampled for PCBs + disposal						Samples Taken: 0-2

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BOREHOLE LOG

BORING ID #: **A1-SB-06**

START DATE: 4/23/2014 END DATE: 4/23/2014

PROJECT NAME: **UTC** PROJECT NO.: **60314591** PROJECT MANAGER: **Dan Servetas**
SITE LOCATION: **Thompson Road, Syracuse, NY** BORING LOCATION: **SE Debris/Soil Pile**
DRILLING CO.: **Zebra** DRILLER: **Zebra** DRILLING METHOD: **Direct Push Technologies**
BOREHOLE DIAMETER: **2"** DEPTH TO BEDROCK: **NA** TOTAL DEPTH DRILLED: **8 feet**
TOTAL DEPTH REACHED: **8 feet** INSPECTOR: **GF & PS** WEATHER CONDITIONS: **Light rain, around 45°F**
LATITUDE: LONGITUDE: ELEVATION AND DATUM:

FIELD SAMPLE INFORMATION								HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1:	DEPTH 1:	TIME 1:
							WEIGHT(S)				DATE 2:	DEPTH 2:	TIME 2:
							FALL			CASING	TUBE	CORE	RIG TYPE:
							TYPE						Truck
							ID/OD						
DEPTH (feet bgs)	SAMPLE ID	RECOVERY	PID (ppm)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUCT	GEOLOGIC DESCRIPTION					LITHOLOGY/ SOIL TYPE	WATER LEVEL / REMARKS
0-5		5.0					BRN; FC sand; same F coarse gravel; little ash; trace silt @ 4.5-5'; loose; dry						Samples Taken: 0-2, 2-4, 4-6
5-8		3.0					5-6-SAA; dry 6-8-dark brown; FM sand; same FM gravel; trace silt; loose; wet.						6-8

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BOREHOLE LOG

BORING ID #: **A1-SB-07**

START DATE: 4/23/2014 END DATE: 4/23/2014

PROJECT NAME: **UTC** PROJECT NO.: **60314591** PROJECT MANAGER: **Dan Servetas**
SITE LOCATION: **Thompson Road, Syracuse, NY** BORING LOCATION: **SE Debris/Soil Pile**
DRILLING CO.: **Zebra** DRILLER: **Zebra** DRILLING METHOD: **Direct Push Technologies**
BOREHOLE DIAMETER: **2"** DEPTH TO BEDROCK: **NA** TOTAL DEPTH DRILLED: **10 feet**
TOTAL DEPTH REACHED: **10 feet** INSPECTOR: **GF & PS** WEATHER CONDITIONS: **Light rain, around 45°F**
LATITUDE: LONGITUDE: ELEVATION AND DATUM:

FIELD SAMPLE INFORMATION								HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1:	DEPTH 1:	TIME 1:
							WEIGHT(S)				DATE 2:	DEPTH 2:	TIME 2:
							FALL			CASING	TUBE	CORE	RIG TYPE:
							TYPE						Truck
							ID/OD						
DEPTH (feet bgs)	SAMPLE ID	RECOVERY	PID (ppm)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUCT	GEOLOGIC DESCRIPTION					LITHOLOGY/ SOIL TYPE	WATER LEVEL
													REMARKS
0-5		3.5					BRN; FC sand; same FC gravel; some ash throughout; little silt @ 4.5-5.0'; loose; dry.						Samples Taken: 0-2 Duplicate @ 2-4- A1-SB-107-2-4 4-6
5-10		5.0					BRN; fine sand; some silt; little FM gravel; compact; becomes moist @ 7' BGS -Dark BRN stain @ 7.1-7.3' BGS						6-8 8-10

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BOREHOLE LOG

BORING ID #: **A1-SB-08**

START DATE: 4/23/2014 END DATE: 4/23/2014

PROJECT NAME: **UTC** PROJECT NO.: **60314591** PROJECT MANAGER: **Dan Servetas**

SITE LOCATION: **Thompson Road, Syracuse, NY** BORING LOCATION: **SE Debris/Soil Pile**

DRILLING CO.: **Zebra** DRILLER: **Zebra** DRILLING METHOD: **Direct Push Technologies**

BOREHOLE DIAMETER: **2"** DEPTH TO BEDROCK: **NA** TOTAL DEPTH DRILLED: **10 feet**

TOTAL DEPTH REACHED: **10 feet** INSPECTOR: **GF & PS** WEATHER CONDITIONS: **Light rain, around 45°F**

LATITUDE: LONGITUDE: ELEVATION AND DATUM:

FIELD SAMPLE INFORMATION								HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1:	DEPTH 1:	TIME 1:
							WEIGHT(S)				DATE 2:	DEPTH 2:	TIME 2:
							FALL			CASING	TUBE	CORE	RIG TYPE:
							TYPE						Truck
							ID/OD						
DEPTH (feet bgs)	SAMPLE ID	RECOVERY	PID (ppm)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUCT	GEOLOGIC DESCRIPTION					LITHOLOGY/ SOIL TYPE	WATER LEVEL / REMARKS
0-5		5.0					0-4.5 BRN; FC sand; some FC gravel; little ash; loose; dry 4.5-5 BRN; F sand; some silt; little FM gravel; compact; dry						Samples Taken: 0-2 2-4 MS/MSD 4-6 6-8 Sample to 8' bgs MS/MSD @ 2-4' sample
5-10		5.0					5-10: BW; SAA; compact; dry -coarse gravel lens @ 5.5-6' bgs -dark brown stain @ 7-7.2' bgs						

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BOREHOLE LOG

BORING ID #: **A1-SB-09**

START DATE: 4/23/2014 END DATE: 4/23/2014

PROJECT NAME: **UTC** PROJECT NO.: **60314591** PROJECT MANAGER: **Dan Servetas**
SITE LOCATION: **Thompson Road, Syracuse, NY** BORING LOCATION: **SE Debris/Soil Pile**
DRILLING CO.: **Zebra** DRILLER: **Zebra** DRILLING METHOD: **Direct Push Technologies**
BOREHOLE DIAMETER: **2"** DEPTH TO BEDROCK: **NA** TOTAL DEPTH DRILLED: **8 feet**
TOTAL DEPTH REACHED: **8 feet** INSPECTOR: **GF & PS** WEATHER CONDITIONS: **Light rain, around 45°F**
LATITUDE: LONGITUDE: ELEVATION AND DATUM:

FIELD SAMPLE INFORMATION								HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1:	DEPTH 1:	TIME 1:
							WEIGHT(S)				DATE 2:	DEPTH 2:	TIME 2:
							FALL			CASING	TUBE	CORE	RIG TYPE:
							TYPE						Truck
							ID/OD						
DEPTH (feet bgs)	SAMPLE ID	RECOVERY	PID (ppm)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUCT	GEOLOGIC DESCRIPTION					LITHOLOGY/ SOIL TYPE	WATER LEVEL / REMARKS
0-5		4.0					BRN; FM sand; some silt; same FM gravel; loose; dry						Samples Taken: 0-2, 2-4, 4-6
5-8		3.0					BRN; SAA; occasional rock fragments @ 7-7.3' bgs						6-8

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BOREHOLE LOG

BORING ID #: **A1-SB-10**

START DATE: 4/23/14 END DATE: 4/24/14

PROJECT NAME: **UTC** PROJECT NO.: **60314591** PROJECT MANAGER: **Dan Servetas**

SITE LOCATION: **Thompson Road, Syracuse, NY** BORING LOCATION: **SE Debris/Soil Pile**

DRILLING CO.: **Zebra** DRILLER: **Zebra** DRILLING METHOD: **Direct Push Technologies**

BOREHOLE DIAMETER: **2"** DEPTH TO BEDROCK: **NA** TOTAL DEPTH DRILLED: **7 feet**

TOTAL DEPTH REACHED: **7 feet** INSPECTOR: **GF & PS** WEATHER CONDITIONS: **Light rain, around 45°F**

LATITUDE: LONGITUDE: ELEVATION AND DATUM:

FIELD SAMPLE INFORMATION								HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1:	DEPTH 1:	TIME 1:
							WEIGHT(S)				DATE 2:	DEPTH 2:	TIME 2:
							FALL			CASING	TUBE	CORE	RIG TYPE:
							TYPE						Truck
							ID/OD						

DEPTH (feet bgs)	SAMPLE ID	RECOVERY	PID (ppm)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUCT	GEOLOGIC DESCRIPTION	LITHOLOGY/ SOIL TYPE	WATER LEVEL / REMARKS
0-5		5.0					0'-4' brown FC sand; FC gravel; moist 4'-5' dark brown course sand; gravel wet		Samples Taken: 0-2 2-4 4-6
5-7		2.0					5'-6' dark brown course sand+gravel wet 6'-7' brown fine sand; some gravel; dry; some silt		6-7

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BOREHOLE LOG

BORING ID #: **A1-SB-11**

START DATE: 4/24/14 END DATE: 4/24/14

PROJECT NAME: UTC
PROJECT NO.: **60314591**
PROJECT MANAGER: **Dan Servetas**
SITE LOCATION: **Thompson Road, Syracuse, NY**
BORING LOCATION: **SE Debris/Soil Pile**
DRILLING CO.: **Zebra**
DRILLER: **Zebra**
DRILLING METHOD: **Direct Push Technologies**
BOREHOLE DIAMETER: **2"**
DEPTH TO BEDROCK: **NA**
TOTAL DEPTH DRILLED: **7 feet**
TOTAL DEPTH REACHED: **7 feet**
INSPECTOR: **GF & PS**
WEATHER CONDITIONS: **Dry, around 45°F**
LATITUDE:
LONGITUDE:
ELEVATION AND DATUM:

	HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1:	DEPTH 1:	TIME 1:
WEIGHT(S)				DATE 2:	DEPTH 2:	TIME 2:
FALL			CASING	TUBE	CORE	RIG TYPE:
TYPE						**Truck**
ID/OD						

DEPTH (feet bgs)	SAMPLE ID	RECOVERY	PID (ppm)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUCT	GEOLOGIC DESCRIPTION	LITHOLOGY/ SOIL TYPE	WATER LEVEL / REMARKS
0-5		5.0					0'-4' BR FC sand; FC gravel; some ash loose		Samples Taken: 0-2, 2-4, 4-6
5-7		2.0					5'-6' dark brown/black ash, FC sand 6'-7' coarse gravel FC sand, some silt		6-7

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BOREHOLE LOG

BORING ID #: **A1-SB-12**

START DATE: 4/24/14 END DATE: 4/24/14

PROJECT NAME: **UTC**
PROJECT NO.: **60314591**
PROJECT MANAGER: **Dan Servetas**
SITE LOCATION: **Thompson Road, Syracuse, NY**
BORING LOCATION: **SE Debris/Soil Pile**
DRILLING CO.: **Zebra**
DRILLER: **Zebra**
DRILLING METHOD: **Direct Push Technologies**
BOREHOLE DIAMETER: **2"**
DEPTH TO BEDROCK: **NA**
TOTAL DEPTH DRILLED: **6 feet**
TOTAL DEPTH REACHED: **6 feet**
INSPECTOR: **GF & PS**
WEATHER CONDITIONS: **Dry, around 45°F**
LATITUDE:
LONGITUDE:
ELEVATION AND DATUM:

	HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1:	DEPTH 1:	TIME 1:
WEIGHT(S)				DATE 2:	DEPTH 2:	TIME 2:
FALL			CASING	TUBE	CORE	RIG TYPE:
TYPE						Truck
ID/OD						

DEPTH (feet bgs)	SAMPLE ID	RECOVERY	PID (ppm)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUCT	GEOLOGIC DESCRIPTION	LITHOLOGY/ SOIL TYPE	WATER LEVEL / REMARKS
0-5		5.0					0'-2' course gravel, fine sand, some brown silt 2'-5' FC sand, brown silt, some gravel dry		Samples Taken: 0-2 2-4 4-6
5-6		1.0					5'-6' gray/brown sand, coarse gravel, loose, dry		

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BOREHOLE LOG

BORING ID #: **A1-SB-13**

START DATE: 4/24/14 END DATE: 4/24/14

PROJECT NAME: **UTC**
PROJECT NO.: **60314591**
PROJECT MANAGER: **Dan Servetas**
SITE LOCATION: **Thompson Road, Syracuse, NY**
BORING LOCATION: **SE Debris/Soil Pile**
DRILLING CO.: **Zebra**
DRILLER: **Zebra**
DRILLING METHOD: **Direct Push Technologies**
BOREHOLE DIAMETER: **2"**
DEPTH TO BEDROCK: **NA**
TOTAL DEPTH DRILLED: **6 feet**
TOTAL DEPTH REACHED: **6 feet**
INSPECTOR: **GF & PS**
WEATHER CONDITIONS: **Dry, around 45°F**
LATITUDE:
LONGITUDE:
ELEVATION AND DATUM:

FIELD SAMPLE INFORMATION

	HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1:	DEPTH 1:	TIME 1:
WEIGHT(S)				DATE 2:	DEPTH 2:	TIME 2:
FALL			CASING	TUBE	CORE	RIG TYPE:
TYPE						Truck
ID/OD						

DEPTH (feet bgs)	SAMPLE ID	RECOVERY	PID (ppm)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUCT	GEOLOGIC DESCRIPTION	LITHOLOGY/ SOIL TYPE	WATER LEVEL / REMARKS
0-5		5.0					0'-5' brown FC sand, some FC gravel, a little ash, dry		Samples Taken: 0-2, 2-4, 4-6
5-6		1.0					5'-6' wet loose course gravel, FC sand silt.		

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BOREHOLE LOG

BORING ID #: **A2-SB-02/Fill-14**

START DATE: 4/25/14 END DATE: 4/25/14

PROJECT NAME: **UTC**
PROJECT NO.: **60314591**
PROJECT MANAGER: **Dan Servetas**
SITE LOCATION: **Thompson Road, Syracuse, NY**
BORING LOCATION: **SE Debris/Soil Pile**
DRILLING CO.: **Zebra**
DRILLER: **Zebra**
DRILLING METHOD: **Direct Push Technologies**
BOREHOLE DIAMETER: **2"**
DEPTH TO BEDROCK: **NA**
TOTAL DEPTH DRILLED: **8 feet**
TOTAL DEPTH REACHED: **8 feet**
INSPECTOR: **GF & PS**
WEATHER CONDITIONS: **Rainy, around 50°F**
LATITUDE:
LONGITUDE:
ELEVATION AND DATUM:

FIELD SAMPLE INFORMATION								HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1:	DEPTH 1:	TIME 1:
							WEIGHT(S)				DATE 2:	DEPTH 2:	TIME 2:
							FALL			CASING	TUBE	CORE	RIG TYPE:
							TYPE						Truck
							ID/OD						
DEPTH (feet bgs)	SAMPLE ID	RECOVERY	PID (ppm)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUCT	GEOLOGIC DESCRIPTION					LITHOLOGY/ SOIL TYPE	WATER LEVEL / REMARKS
0-5		5.0					BRN; F sand; some silt; some FC gravel; little rock frags up to 2" dia; compact; dry						Samples Taken: 0-2, 2-4, 4-6, 6-8
5-8		3.0					5'-6' SAA; compact; moist @ 7.5'						

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BOREHOLE LOG

BORING ID #: **A2-SB-03/Fill-01**

START DATE: 4/25/14 END DATE: 4/25/14

PROJECT NAME: **UTC**
PROJECT NO.: **60314591**
PROJECT MANAGER: **Dan Servetas**
SITE LOCATION: **Thompson Road, Syracuse, NY**
BORING LOCATION: **SE Debris/Soil Pile**
DRILLING CO.: **Zebra**
DRILLER: **Zebra**
DRILLING METHOD: **Direct Push Technologies**
BOREHOLE DIAMETER: **2"**
DEPTH TO BEDROCK: **NA**
TOTAL DEPTH DRILLED: **6 feet**
TOTAL DEPTH REACHED: **6 feet**
INSPECTOR: **GF & PS**
WEATHER CONDITIONS: **Rainy, around 50°F**
LATITUDE:
LONGITUDE:
ELEVATION AND DATUM:

	HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1:	DEPTH 1:	TIME 1:
WEIGHT(S)				DATE 2:	DEPTH 2:	TIME 2:
FALL			CASING	TUBE	CORE	RIG TYPE:
TYPE						Truck
ID/OD						

DEPTH (feet bgs)	SAMPLE ID	RECOVERY	PID (ppm)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUCT	GEOLOGIC DESCRIPTION	LITHOLOGY/ SOIL TYPE	WATER LEVEL / REMARKS
0-5		4.5					0-2.5'-BRN; FM sand; some FC gravel; trace silt; loose; dry 2.5'-5' BRN; F sand; some FC gravel; some silt; compact; moist		Samples Taken: 0-2 2-4 4-6
5-6		1.0					5-6'- SAA; moist		

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BOREHOLE LOG

BORING ID #: **A2-SB-04**

START DATE: 4/25/14 END DATE: 4/25/14

PROJECT NAME: **UTC**
PROJECT NO.: **60314591**
PROJECT MANAGER: **Dan Servetas**
SITE LOCATION: **Thompson Road, Syracuse, NY**
BORING LOCATION: **SE Debris/Soil Pile**
DRILLING CO.: **Zebra**
DRILLER: **Zebra**
DRILLING METHOD: **Direct Push Technologies**
BOREHOLE DIAMETER: **2"**
DEPTH TO BEDROCK: **NA**
TOTAL DEPTH DRILLED: **6 feet**
TOTAL DEPTH REACHED: **6 feet**
INSPECTOR: **GF & PS**
WEATHER CONDITIONS: **Rainy, around 50°F**
LATITUDE:
LONGITUDE:
ELEVATION AND DATUM:

	HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1:	DEPTH 1:	TIME 1:
WEIGHT(S)				DATE 2:	DEPTH 2:	TIME 2:
FALL			CASING	TUBE	CORE	RIG TYPE:
TYPE						Truck
ID/OD						

FIELD SAMPLE INFORMATION							GEOLOGIC DESCRIPTION	LITHOLOGY/ SOIL TYPE	WATER LEVEL / REMARKS
DEPTH (feet bgs)	SAMPLE ID	RECOVERY	PID (ppm)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUCT			
0-5		4.5					0-2.5' BRN; FC sand; same FC gravel; trace silt; loose; dry 2.5-5' BRN; F sand; some silt; little FM gravel; compact; moist		Samples Taken: 0-2 2-4: duplicate sample A2-SB-104 4-6
5-6		1.0					5-6'- SAA; moist		

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BOREHOLE LOG

BORING ID #: **A2-SB-05**

START DATE: 4/25/14 END DATE: 4/25/14

PROJECT NAME: **UTC**
PROJECT NO.: **60314591**
PROJECT MANAGER: **Dan Servetas**
SITE LOCATION: **Thompson Road, Syracuse, NY**
BORING LOCATION: **SE Debris/Soil Pile**
DRILLING CO.: **Zebra**
DRILLER: **Zebra**
DRILLING METHOD: **Direct Push Technologies**
BOREHOLE DIAMETER: **2"**
DEPTH TO BEDROCK: **NA**
TOTAL DEPTH DRILLED: **6 feet**
TOTAL DEPTH REACHED: **6 feet**
INSPECTOR: **GF & PS**
WEATHER CONDITIONS: **Rainy, around 50°F**
LATITUDE:
LONGITUDE:
ELEVATION AND DATUM:

	HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1:	DEPTH 1:	TIME 1:
WEIGHT(S)				DATE 2:	DEPTH 2:	TIME 2:
FALL			CASING	TUBE	CORE	RIG TYPE:
TYPE						**Truck**
ID/OD						

DEPTH (feet bgs)	SAMPLE ID	RECOVERY	PID (ppm)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUCT	GEOLOGIC DESCRIPTION	LITHOLOGY/ SOIL TYPE	WATER LEVEL / REMARKS
0-5		5.0					BRN; FC sand; some FC gravel; little ash; loose; dry lens of asphalt @ 4.0-4.3' BGS		Samples Taken: 0-2 2-4 ms/msd @ 4-6' bgs
5-6							-BRN; sand SAA; loose; dry		

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BOREHOLE LOG

BORING ID #: **A2-SB-06**

START DATE: 4/25/14 END DATE: 4/25/14

PROJECT NAME: **UTC**
PROJECT NO.: **60314591**
PROJECT MANAGER: **Dan Servetas**
SITE LOCATION: **Thompson Road, Syracuse, NY**
BORING LOCATION: **SE Debris/Soil Pile**
DRILLING CO.: **Zebra**
DRILLER: **Zebra**
DRILLING METHOD: **Direct Push Technologies**
BOREHOLE DIAMETER: **2"**
DEPTH TO BEDROCK: **NA**
TOTAL DEPTH DRILLED: **2 feet**
TOTAL DEPTH REACHED: **2 feet**
INSPECTOR: **GF & PS**
WEATHER CONDITIONS: **Rainy, around 50°F**
LATITUDE:
LONGITUDE:
ELEVATION AND DATUM:

FIELD SAMPLE INFORMATION								HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1:	DEPTH 1:	TIME 1:
							WEIGHT(S)				DATE 2:	DEPTH 2:	TIME 2:
							FALL			CASING	TUBE	CORE	RIG TYPE:
							TYPE						**Hand auger**
							ID/OD						
DEPTH (feet bgs)	SAMPLE ID	RECOVERY	PID (ppm)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUCT	GEOLOGIC DESCRIPTION					LITHOLOGY/ SOIL TYPE	WATER LEVEL / REMARKS
0-2							Hand auger used BRN; FM sand; some FM gravel; little silt; little organic debris; loose; moist.						Samples Taken: 0-2

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BOREHOLE LOG

BORING ID #: **A2-SB-07**

START DATE: 4/25/14 END DATE: 4/25/14

PROJECT NAME: **UTC**
PROJECT NO.: **60314591**
PROJECT MANAGER: **Dan Servetas**
SITE LOCATION: **Thompson Road, Syracuse, NY**
BORING LOCATION: **SE Debris/Soil Pile**
DRILLING CO.: **Zebra**
DRILLER: **Zebra**
DRILLING METHOD: **Direct Push Technologies**
BOREHOLE DIAMETER: **2"**
DEPTH TO BEDROCK: **NA**
TOTAL DEPTH DRILLED: **2 feet**
TOTAL DEPTH REACHED: **2 feet**
INSPECTOR: **GF & PS**
WEATHER CONDITIONS: **Rainy, around 50°F**
LATITUDE:
LONGITUDE:
ELEVATION AND DATUM:

	HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1:	DEPTH 1:	TIME 1:
WEIGHT(S)				DATE 2:	DEPTH 2:	TIME 2:
FALL			CASING	TUBE	CORE	RIG TYPE:
TYPE						**Hand auger**
ID/OD						

DEPTH (feet bgs)	SAMPLE ID	RECOVERY	PID (ppm)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUCT	GEOLOGIC DESCRIPTION	LITHOLOGY/ SOIL TYPE	WATER LEVEL / REMARKS
0-2							Hand auger used BRN; FM sand; some FC gravel; loose; dry		Samples Taken: 0-2

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BOREHOLE LOG

BORING ID #: **A2-SB-08**

START DATE: 4/23/14 END DATE: 4/23/14

PROJECT NAME: UTC
PROJECT NO.: **60314591**
PROJECT MANAGER: **Dan Servetas**
SITE LOCATION: **Thompson Road, Syracuse, NY**
BORING LOCATION: **SE Debris/Soil Pile**
DRILLING CO.: **Zebra**
DRILLER: **Zebra**
DRILLING METHOD: **Direct Push Technologies**
BOREHOLE DIAMETER: **2"**
DEPTH TO BEDROCK: **NA**
TOTAL DEPTH DRILLED: **2 feet**
TOTAL DEPTH REACHED: **2 feet**
INSPECTOR: **GF & PS**
WEATHER CONDITIONS: **Light rain, around 45°F**
LATITUDE:
LONGITUDE:
ELEVATION AND DATUM:

	HAMMER	SAMPLER	ST. WATER LEVELS	DATE 1:	DEPTH 1:	TIME 1:
WEIGHT(S)				DATE 2:	DEPTH 2:	TIME 2:
FALL			CASING	TUBE	CORE	RIG TYPE:
TYPE						**Hand auger**
ID/OD						

DEPTH (feet bgs)	SAMPLE ID	RECOVERY	PID (ppm)	ODOR OBSERVED	LAB ANALYSIS	VISIBLE PRODUCT	GEOLOGIC DESCRIPTION	LITHOLOGY/ SOIL TYPE	WATER LEVEL / REMARKS
0-2							hand auger used BRN-FM sand; some FM gravel; little silt; loose; dry		Samples Taken: 0-2