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January 19, 2024

Mr. Michael Belveg
Assistant Engineer (Environmental)
NYSDEC Region 7
Division of Environmental Remediation
5786 Widewaters Parkway
Syracuse, New York 13214

Subject: Carrier Corporation, Thompson Road Facility, Syracuse, New York
Corrective Action Order — Index CO 7-20051118-4
Site Registry No.: 734043
Former Southeast Debris/Soil Pile Restoration – Site Management Plan

Dear Mr. Belveg:

On behalf of Carrier Corporation (Carrier), AECOM Technical Services, Inc. is hereby submitting the attached Site Management Plan for the Former Southeast Debris/Soil Pile Restoration. Please note that Carrier is currently working with the Town of Dewitt (Town) to transfer the property to the Town. As part of the transfer, the Town will finalize the environmental easement. The final environmental easement will be submitted to New York State Department of Environmental Conservation.

Please call if you have any questions (919.461.1194).

Sincerely,

Peter Hollatz
Senior Principal

Peter.Hollatz@aecom.com

cc: Gary Priscott, NYSDEC
Julia M. Kenney, NYSDOH
Scarlett McLaughlin, NYSDOH
Don Sorbello, Carrier

Former Southeast Debris/Soil Pile Restoration

Carrier Corporation Site

ONONDAGO COUNTY

EAST SYRACUSE, NEW YORK

SITE MANAGEMENT PLAN

NYSDEC Site Number: 734043

Prepared for:

Carrier Corporation
13995 Pasteur Boulevard
Palm Beach Gardens, Florida 33418

Prepared by:

AECOM Technical Services Incorporated
5438 Wade Park Boulevard, Suite 200
Raleigh, North Carolina 27607
919 461-1194

Revisions to Final Approved Site Management Plan:

Revision No.	Date Submitted	Summary of Revision	NYSDEC Approval Date

JANUARY 2024

CERTIFICATION STATEMENT

I, Michael J Gardner certify that I am currently a NYS registered professional engineer and that this Site Management Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

Michael Gardner P.E.

01/11/2024 DATE

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Carrier Corporation Site
ONONDAGO COUNTY
EAST SYRACUSE, NEW YORK

SITE MANAGEMENT PLAN

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LIST OF ACRONYMS

ACM	Asbestos Containing Material
AECOM	AECOM Technical Services, Inc.
AOC	Area of Concern
Bgs	below ground surface
CAMP	Community Air Monitoring Plan
Carrier	Carrier Corporation
C&D	Construction and Demolition
CAO	Corrective Action Order
CCR	Construction Completion Report
COC	Certificate of Completion
DER	Division of Environmental Remediation
EC	Engineering Control
ECL	Environmental Conservation Law
EnSafe	EnSafe Inc.
EPA	United States Environmental Protection Agency
EWP	Excavation Work Plan
FSDSP	Former Southeast Debris/Soil Pile
HASP	Health and Safety Plan
IC	Institutional Control
ICM	Interim Corrective Measures
Mg/kg	milligram per kilogram
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
NYSDOT	New York State Department of Transportation
NYCRR	New York Codes, Rules and Regulations
PCBs	Polychlorinated Biphenyl
PAHs	Polycyclic Aromatic Hydrocarbons
P.E. or PE	Professional Engineer
PFAS	Per- and Polyfluoroalkyl Substances
PID	Photoionization Detector
PPE	Personal Protective Equipment
Ppm	parts per million
PRP	Potentially Responsible Party
PRR	Periodic Review Report
RAO	Remedial Action Objective
RAWP	Remedial Action Work Plan
RCRA	Resource Conservation and Recovery Act
RP	Remedial Party
SAR	Sampling Analysis Report

LIST OF ACRONYMS (continued)

SCG	Standards, Criteria and Guidelines
SCO	Soil Cleanup Objective
SIP	Self-Implementing Cleanup and Disposal Plan
SMP	Site Management Plan
SPDES	State Pollutant Discharge Elimination System
SVOCs	Semi-Volatile Organic Compounds
SWPPP	Storm Water Pollution Prevention Plan
TAL	Target Analyte List
TCL	Target Compound List
TCLP	Toxicity Characteristic Leachate Procedure
VOCs	Volatile Organic Compounds

ES EXECUTIVE SUMMARY

This Site Management Plan (SMP) is for the Former Southeast Debris/Soil Pile Restoration (hereinafter referred to as the "FSEDSP") that was remediated under the remedial program (Site Registry No. 734043) for the Carrier Corporation (Carrier) Thompson Road Facility (hereinafter referred to as the "Facility" – see **Figure 1**) located in Syracuse, New York.

The following provides a summary of the controls implemented for the: FSEDSP area (3.8 acres – see **Figure 2**), as well as the inspections and reporting activities required by this SMP. Included in this SMP is 3.61 acres that adjoins the FSEDSP area to the north, south, and southwest (total acreage of 7.41 acres – See **Figure 3**).

Site Identification:	Site Registry No. 734043; former Southeast Debris Pile site, Syracuse, New York
Institutional Controls (ICs):	1. The property may be used for commercial/industrial use only.
	2. The Engineering Control (EC) must be maintained as specified in this SMP.
	3. The EC must be inspected at a frequency and in a manner defined in this SMP.
	4. The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the New York State Department of Health (NYSDOH) or the Onondaga 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 this SMP.
	6. All future activities that will disturb remaining contaminated material must be conducted in accordance with this SMP.

Site Identification:	Site Registry No. 734043; former Southeast Debris Pile site, Syracuse, New York	
	7. Access to the property 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 the Environmental Easement.	
	8. The potential for vapor intrusion must be evaluated for any buildings developed in the area within the IC boundaries and any potential impacts that are identified must be monitored or mitigated.	
Engineering Control:	1. Demarcation Layer and Soil Cover over the Former Southeast Debris/Soil Pile Restoration area (3.8 acres – See **Figure 2**).	
Inspections:		Frequency
1. Soil Cover inspection		Annually
Monitoring:		
1. Not Applicable		Not Applicable
Maintenance:		
1. Soil Cover maintenance		As needed
Reporting:		
1. Annual Review Report		Annually

Further descriptions of the above requirements are provided in detail in the latter sections of this SMP.

1.0 INTRODUCTION

1.1 General

This Site Management Plan (SMP) is for the Former Southeast Debris/Soil Pile Restoration (hereinafter referred to as the "FSEDSP") that was remediated under the remedial program (Site Registry No. 734043) for the Carrier Corporation (Carrier) Thompson Road Facility (hereinafter referred to as the "Facility" – see **Figure 1**) located in Syracuse, New York.

The following provides a summary of the controls implemented for the FSEDSP area (3.8 acres – see **Figure 2**), as well as the inspections and reporting activities required by this SMP. Included in this SMP is 3.61 acres that adjoins the FSEDSP area to the north, south, and southwest (total acreage of 7.41 acres – See **Figure 3**).

The work is being performed in accordance with the Corrective Action Order (CAO) on Consent dated January 4, 2006. The Facility has been assigned Site No. 734043 which is administered by New York State Department of Environmental Conservation (NYSDEC).

The boundaries of the area covered by this SMP are more fully described in the metes and bounds description that is part of the Environmental Easement provided in **Appendix A**.

In 2013, an initial assessment of the Southeast Debris/Soil Pile identified the presence of polychlorinated biphenyls (PCBs). Based on these findings a new Area of Concern (AOC) was created on Site No. 734043, as required by the CAO.

Supplemental delineation sampling was completed in 2014 and a *Self-Implementing Cleanup and Disposal Plan* (SIP, AECOM 2014) was prepared and approved by the United States Environmental Protection Agency (EPA) in June 2014 (EPA 2014). The SIP described the excavation and disposal of approximately 842 tons of potential asbestos containing material, 68,000 tons of non-hazardous soil (less than 50 milligrams per kilograms [mg/kg] PCBs), and 1,343 tons of hazardous soil (greater than 50 mg/kg PCBs). The remedial excavation and post-excavation sampling described in the SIP occurred between July 2014 and December 2014. The post-excavation sampling results for total PCBs were less than 1 part per million (ppm). Having achieved the high occupancy cleanup level of 1 ppm, EPA confirmed in a letter dated January 2, 2015 (EPA 2015) that a deed restriction for remaining PCBs was not required.

Additional sampling was completed in April 2016 to characterize contaminant concentrations other than PCBs within the footprint of the FSEDSP. The June 2016 *Sampling and Analysis Report* (SAR, AECOM 2016) summarized the results of the sampling program. The SAR identified two areas that required further excavation to address elevated concentration of polycyclic aromatic hydrocarbons (PAHs). The SAR also presented a final restoration plan consisting of a vegetated soil cover at a minimum thickness of 1 foot. This approach was approved in an email from NYSDEC dated August 25, 2016 (NYSDEC 2016).

Based on the SAR, AECOM Technical Services, Inc. (AECOM) prepared a *Southeast Debris/Soil Pile Restoration Plan* (Restoration Plan, AECOM 2018), dated August 2018 (Revised September 7, 2018) that was submitted to NYSDEC. The plan was approved by NYSDEC on September 25, 2018. The plan was implemented as an Interim Corrective Measure (ICM) with work beginning on September 17, 2018 and continued through December 10, 2018 at which time a seasonal shutdown occurred until site work resumed on June 3, 2019. Intrusive site work was completed on July 12, 2019. The required percentage of vegetative cover per the Storm Water Pollution Prevention Permit (SWPPP) was achieved in the Fall of 2021. The SWPPP Notice of Termination was approved via email by NYSDEC on January 7, 2022.

An *Interim Corrective Measure (ICM) Construction Completion Report* (CCR, AECOM 2019) documenting that the remaining elevated concentration of PAHs had been removed via excavation and site restoration (soil cover) had been completed was submitted to NYSDEC consistent with the NYSDEC's Division of Environmental Remediation (DER) *Technical Guidance for Site Investigation and Remediation* (DER-10, NYSDEC 2010). The CCR was approved by NYSDEC on December 13, 2019.

The confirmation samples reported in the CCR, documented that the targeted concentration of PAHs in the two areas were removed via the excavations.

The purpose of this SMP is outline the long-term site management requirements to mitigate presence of residual PAH concentrations (i.e., those remaining after successful removal of the target concentrations):

1) NYSDEC Policy CP-51 / Soil Cleanup Guidance (Paragraph 5.H) allows for subsurface soil cleanup level of 500 ppm for total PAHs with the following conditions:
    a) One foot cover of clean soil (or a pavement, structure or similar cover). The cover is to be maintained.

b) Placement of institutional controls (e.g., an environmental easement).

c) Site management plan (i.e., this SMP).

2) DER-10 Chapter 4.1(f)(2)(ii) requires semi-volatile organic compounds (SVOCs) greater than the industrial use soil cleanup objectives (SCOs) require a 1-foot soil cover which is to be maintained.

As noted, after completion of the remedial work, some contamination was left at the FSEDSP, which is hereafter referred to as "remaining contamination". Institutional and Engineering Controls (ICs and ECs) have been incorporated into the FSEDSP remedy to control exposure to remaining contamination to ensure protection of public health and the environment. An Environmental Easement to be granted to the NYSDEC, and recorded with the Onondaga County Clerk, requires compliance with this SMP and all ECs and ICs placed on the FSEDSP.

This SMP was prepared to manage remaining contamination at the FSEDSP until the Environmental Easement is extinguished in accordance with Environmental Conservation Law (ECL) Article 71, Title 36. Compliance with this plan is required by the grantor of the Environmental Easement and the grantor's successors and assigns. This SMP may only be revised with the approval of the NYSDEC.

It is important to note that:

1) This SMP details the FSEDSP-specific implementation procedures that are required by the Environmental Easement. Failure to properly implement the SMP is a violation of the Environmental Easement, which is grounds for revocation of the Certificate of Completion (COC); and

2) Failure to comply with this SMP is also a violation of (ECL), 6 NYCRR Part 375 and the CAO (Index #7-20051118-4; Site #734043) for the Facility, and thereby subject to applicable penalties.

All reports associated with the FSEDSP can be viewed by contacting the NYSDEC or its successor agency managing environmental issues in New York State. A list of contacts for persons involved with the FSEDSP is provided in **Appendix B** of this SMP.

Regarding the adjoining area included in this SMP, there is no known or suspected impacted material above applicable SCOs. The inclusion of adjoining area in this SMP is intended to restrict future land use and groundwater use within this area.

This SMP was prepared by AECOM, on behalf of Carrier, in accordance with the requirements with the NYSDEC's DER-10 ("Technical Guidance for Site Investigation

and Remediation"), dated May 2010, and the guidelines provided by the NYSDEC. This SMP addresses the means for implementing the ICs and/or ECs that are required by the Environmental Easement.

1.2 Revisions and Alterations

Revisions and alterations to this plan will be proposed in writing to the NYSDEC's project manager. The NYSDEC can also make changes to the SMP or request revisions from the remedial party. Revisions will be necessary upon, but not limited to, the following occurring: a change in media monitoring requirements, post-remedial removal of contaminated sediment or soil, or other significant change to the area conditions. All approved alterations must conform with Article 145 Section 7209 of the Education Law regarding the application of professional seals and alterations. For example, any changes to as-built drawings must be stamped by a New York State Professional Engineer. In accordance with the Environmental Easement for the site, the NYSDEC project manager will provide a notice of any approved changes to the SMP, and append these notices to the SMP that is retained in its files.

1.3 Notifications

Notifications will be submitted by the property owner to the NYSDEC, as needed, in accordance with NYSDEC's DER – 10 for the following reasons:

1) 60-day advance notice of any proposed changes in subject area use that are required under the terms of the CAO, 6 NYCRR Part 375 and/or ECL.

2) 7-day advance notice of any field activity associated with the remedial program.

3) 15-day advance notice of any proposed ground-intrusive activity pursuant to the Excavation Work Plan (EWP) found in **Appendix C**. If the ground-intrusive activity qualifies as a change of use as defined in 6 NYCRR Part 375, the above mentioned 60-day advance notice is also required.

4) Notice within 48 hours of any damage or defect to the foundation, structures or EC that reduces or has the potential to reduce the effectiveness of an EC, and likewise, any action to be taken to mitigate the damage or defect.

5) Notice within 48 hours of any non-routine maintenance activities.

6) Verbal notice by noon of the following day of any emergency, such as a fire; flood; or earthquake that reduces or has the potential to reduce the effectiveness of ECs in place at the FSEDSP, with written confirmation within 7 days that

includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public.

7) Follow-up status reports on actions taken to respond to any emergency event requiring ongoing responsive action submitted to the NYSDEC within 45 days describing and documenting actions taken to restore the effectiveness of the ECs.

Any change in the ownership of the subject area or the responsibility for implementing this SMP will include the following notifications:

1) At least 60 days prior to the change, the NYSDEC will be notified in writing of the proposed change. This will include a certification that the prospective purchaser/Remedial Party has been provided with a copy of the CAO, and all approved work plans and reports that are applicable to the FSEDSP, including this SMP.

2) Within 15 days after the transfer of all or part of the subject area, the new owner's name, contact representative, and contact information will be confirmed in writing to the NYSDEC.

Table 1 on the following page includes contact information for the above notifications. The information on this table will be updated as necessary to provide accurate contact information. A full listing of subject area-related contact information is provided in **Appendix B**.

Table 1: Notifications*

Name	Contact Information	Required Notification**
NYSDEC Project Manager – Michael Belveg	315-426-7446 michael.belveg@dec.ny.gov	All Notifications
NYSDEC Project Manager's Supervisor – Gary Priscott	315-426-7524 gary.priscott@dec.ny.gov	All Notifications
NYSDEC Site Control	DERsiteControl@dec.ny.gov	Notifications 1 and 8
NYSDOH Project Manager – Julia Kenney	518-402-7873julia.kenney@health.ny.gov	Notifications 4, 6, and 7

* Note: Notifications are subject to change and will be updated as necessary.

** Note: Numbers in this column reference the numbered bullets in the notification list in this section.

2.0 SUMMARY OF PREVIOUS INVESTIGATIONS AND REMEDIAL ACTIONS

2.1 Site Location and Description

The site is located in East Syracuse, Town of Dewitt, Onondaga County, New York and is identified as Section 32 Block 2 and Lot 1.1 on the Onondaga County Tax Map (see **Figure 1**). The area is an approximately 7.41-acre area and is bounded by Third Street to the north, Roby Avenue to the south, Kinne Street to the east, and Facility parking lot / private drive to the west (see **Figure 3**). The boundaries of the area are more fully described in **Appendix A** –Environmental Easement. The owner of the parcel at the time of issuance of this SMP is Carrier.

Prior to its removal, the FSEDSP was located in the southeast corner of the Facility property and had been measured to be approximately 250 feet (north to south) by 580 feet (east to west). The height of the FSEDSP ranged from 2 to 10 feet above the surrounding ground surface elevation. According to Carrier personnel, the FSEDSP was established to stockpile soils and construction and demolition (C&D) debris generated from onsite activities including facility expansion, remodeling and repairs. 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 FSEDSP was that it exhibited no visible evidence of contamination or odors. Materials were stockpiled starting in the late 1980s until the early 2000s. The FSEDSP was placed on existing grade.

The surface of the FSEDSP was overgrown with grass, shrubs and scrub trees. Subsurface materials consisted of soil with incidental C&D debris, including cinder block, asphalt, concrete slabs, wood-block flooring, and paint covered concrete.

The area adjoining the FSEDSP and included in this SMP, consists of an unused asphalt/gravel parking lot, concrete/gravel lot, green area and small unoccupied storage shed.

2.2 Physical Setting

2.2.1 Land Use

The FSEDSP consists of the following: a vegetated soil cover. The FSEDSP is zoned industrial and is currently vacant.

The property immediately south of the FSEDSP is a recreational center (city

baseball/softball fields); the property immediately north of the FSEDSP is the Carrier Facility; the properties immediately east of the FSEDSP and across Kinne Street include residential properties; and the properties to the west of the FSEDSP is the Carrier Facility.

2.2.2 Geology

The local bedrock near the 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.

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 feet bgs.

In general, the shallow soils within the FSEDSP consist of clayey silt with gravel and trace brick, concrete, and asphalt fragments. Deeper, natural deposits consist of fine sand, at times alternating with silt and clay units.

2.2.3 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. Horizontal groundwater flow is to the north-northwest in the upper water bearing zone.

A groundwater contour map is shown in **Figure 4**. Groundwater elevation data and the monitoring well (DP-MW-04) construction log for the monitoring well in this area are provided in **Appendix D**.

2.3 Investigation and Remedial History

The following narrative provides a remedial history timeline and a brief summary of the available project records to document key investigative and remedial milestones. Full titles for each of the reports referenced below are provided in Section 8.0 - References.

The initial site investigation was conducted in October 2013 by EnSafe Incorporated (EnSafe) and reported in the *AOC Assessment Report, Southeast Debris Pile* (EnSafe 2014). Based on this investigation, the FSEDSP was divided into two areas: Area 1 and Area 2. The largest portion of the pile was contained in Area 1 and consisted 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.

The EnSafe assessment included, 102 soil samples and 16 C&D rubble samples that were analyzed for volatile organic compounds (VOCs), SVOCs, PCBs, pesticides, herbicides, and Resource Conservation and Recovery Act (RCRA) metals.

The results of the soil sample analyses are listed below:

1) No metals exceeded the Toxicity Characteristic Leaching Procedure (TCLP) regulatory limits.

2) PCBs were detected in the majority of the samples. However, most concentrations were less than 1 mg/kg. The maximum concentration of PCBs detected in any sample was 18.6 mg/kg.

AECOM conducted confirmation sampling of the FSEDSP in April 2014 and reported the findings in the SIP. 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. The confirmation sampling results indicated that nine of the 65 soil samples collected contained PCB concentrations above 1 mg/kg. The total PCB concentration in seven of those nine samples ranged from 1.27 to 1.98 mg/kg. Of the remaining two samples, one had a PCB concentration of 15.5 mg/kg and the other sample had a concentration of 69.4 mg/kg.

Based on the results of the soil investigations, the Southeast Debris/Soil Pile was separated into three designated areas. The delineation of the designated areas is summarized below:

Area A: This area was comprised of the portion of the Southeast Debris/Soil Pile containing potential ACM and PCB concentrations less than 50 mg/kg. The volume of material in this area was estimated to be 4,900 cubic yards.

Area B: This area was the largest designated area of the Southeast Debris/Soil Pile. It was comprised mostly of soil with PCB concentrations less than 50 mg/kg (all were <20 mg/kg). The volume of this area was estimated to be 33,675 cubic yards.

Area C: This was the area of the Southeast Debris/Soil 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 indicated that the upper 4 feet was comprised of soil with PCB concentrations less than 20 mg/kg; therefore, the volume of material potentially exceeding 50 mg/kg consisted of the bottom 4 feet and was estimated to be 425 cubic yards.

Clean-up actions per the SIP were conducted in 2014 (August 2014 to December 2014) as detailed in the *Remedial Summary Report* (AECOM 2015). The removal of materials from the Southeast Debris/Soil Pile is summarized as follows.

Area A: Potential ACM was segregated by Environmental Contracting & Construction Services, LLC, an ACM-certified subcontractor, and loaded onto trucks for disposal at the Ontario County Landfill located in Stanley, New York. Potential ACM from Area A was hauled from September 4, 2014 to September 11, 2014. A total of

842.21 tons of potential ACM was removed from Area A. Non-hazardous soil and debris found in Area A were disposed with the Area B material.

Area B: Non-hazardous soils containing PCBs less than or equal to 50 mg/kg were loaded onto trucks and transported to the Ontario County Landfill. Material from Area B was hauled from August 7, 2014 to December 18, 2014. A total of 68,189.69 tons of non-hazardous soil and debris was removed from Area B. The total of non-hazardous material removed includes the imported access road material.

Area C: Soils removed from Area C were disposed as Toxic Substance Control Act (TSCA) waste at the Waste Management Model City Landfill in Model City, New York. In addition, any personal protective equipment (PPE) worn during the removal of material from Area C was disposed (with the soil and debris) as TSCA material. Material from Area C was hauled from September 10, 2014 to September 17, 2014. A total of 1,343.18 tons of TSCA soil and debris was removed from Area C.

Following the material removal, verification surface samples were collected from the surface within 25-foot by 25-foot grid sections. A total of 264 samples were collected with sample results ranging from below method detection limits to 0.92 mg/kg for total PCBs.

As required by the CAO, a sampling and analysis program was implemented to determine whether there was migration of wastes and/or constituents from the FSEDSP to the environment. The sampling and analysis program included additional shallow soil sampling and groundwater sampling in April 2016 per the approved *"Sampling and Analysis Plan"* (AECOM 2015) with the findings detailed in the SAR. A summary of the findings is described below:

1) The April 2016 sampling effort included collection of 57 shallow soil samples from the top 2 feet of soil at 18 boring locations, installation and groundwater sampling of five monitoring wells and collection of five soil samples from nearby stormwater drainage. An extensive analytical program was performed, which included VOCs, SVOCs, RCRA Metals, pesticides, herbicides, and PCBs (outside the FSEDSP only).
2) Laboratory analysis of soil identified a limited presence of several SVOCs above industrial-use SCOs.
    a. For non-residential use, the NYSDEC Policy CP-51 / Soil Cleanup Guidance (Paragraph 5.H) allows for a subsurface soil cleanup level of 500 ppm for total PAHs. This cleanup level requires a 1-foot cover of

clean soil (or a pavement, structure or similar cover); as well as ICs (e.g., an environmental easement); and a soils management plan. Two soil boring locations, DP-SB-09 and DP-SB-15, exceeded the 500 ppm for total PAHs level.

Based on the two exceedances, it was proposed that the soils would be excavated around DP-SB-09 and DP-SB-15, and the final restoration would be a 1-foot cover of clean soil.

3) No groundwater impacts were identified and contaminants detected within storm drainage were limited to a location that receives runoff and drainage from upstream contributors and adjacent paved areas. A limited evaluation of the residual risk presented by these compounds suggests that exposure potential is limited in nature and characteristic of the urban project setting.

4) The objective of the sampling effort was to assess potential migration contaminants beyond the footprint of the FSEDSP. The data indicated the absence of contaminant migration.

Based on the approved Restoration Plan, the soils exceeding 500 ppm for total PAHs were excavated for offsite disposal in the fall of 2018 followed by installation of the 1-foot soil cover. Work began on September 17, 2018 and continued through December 10, 2018 at which time a shutdown occurred until site work resumed on June 3, 2019. Intrusive site work was completed on July 12, 2019. The final removal volume was approximately 169 cubic yards (273.81 tons) and was disposed of at the Casella Waste Systems Ontario County Landfill in Stanley New York. Confirmation sampling confirmed no compounds detected exceeded the industrial use SCOs.

Prior to importing fill soil for the soil cover, analytical testing was completed on the samples from the source material. The source of imported fill was Syracuse Sand and Gravel's Silk Road Pit mine, ID#70721. Representative soil samples were collected on August 29, 2018 and analyzed in accordance with the frequency specified in DER-10 Table 5.4(E)10.

Soil along the FSEDSP perimeter was removed as needed to allow for 1 foot of imported fill to be placed flush to existing grade. The primary areas that required the perimeter soil to be removed was along the west and south to match existing pavement grades. The soils that were removed were spread in the center of the FSESDP.

The final soil cover topography is shown on **Figure 2**. This shows drainage to all four sides, consistent with the original drainage pattern. A demarcation layer was installed prior to fill placement. This consisted of a woven orange geotextile (Carthage Mills FX-33) across the Site except for a 35 feet by 20 feet area in the northeast corner where a black geotextile fabric was used. Imported fill was placed in 12-inches lifts and compacted.

As shown on **Figure 2** the final grade has a minimum slope of approximately 1.4 to 1.6 percent on the north and south sides, respectively. This compares to a targeted design minimum slope of 1.5 percent.

The soil cover was seeded using a tall fescue/bluegrass mix applied at a rate of approximately 5 pounds per 1,000 square feet. This is consistent New York State Standards and Specifications for Erosions and Sediment Control guidelines. The site was stabilized using geo straw/net matting that was anchored in-place.

The required percentage of vegetative cover per the SWPPP was achieved in the Fall of 2021. The SWPPP Notice of Termination was approved via email by NYSDEC on January 7, 2022.

2.4 Remedial Action Objectives

The applicable Remedial Action Objectives (RAOs) that apply to the subject area as listed in the CAO are as follows:

1) Groundwater monitoring must demonstrate compliance with all applicable state and federal water quality standards.
    a) Monitoring to date has demonstrated compliance.
2) The goal for soil vapor contamination is to not find it at or emanating from the Facility
    a) There are no occupied or planned occupied buildings.
    b) If future activities involve ground intrusion activities, including excavation of soils underneath the soil cover, the work will be completed per the Community Air Monitoring Plan (CAMP) requirements.

Additional RAOs specific to the FSEDSP include the following:

1) Removal of the debris stockpile in its entirety and PCBs cleanup goal.
    a) The debris stockpile has been removed in its entirety and verification soil sampling has demonstrated that PCBs have been removed to less than 1 mg/kg.
2) Removal of other constituents to below industrial use SCOs within the footprint of the FSEDSP.
    a) Confirmation soil sampling has demonstrated only limited presence of several SVOCs remain above industrial use SCOs.
    b) A 1-foot soil cover with demarcation layer is in place across the FSEDSP.

2.5 Remaining Contamination

Residual soil impacted with SVOCs above industrial use SCOs remain underneath the soil cover. A summary of the remaining soil impacts is provided below, refer the SAR

and CCR for additional details.

2.5.1 Soil

The sampling for evaluating the presence of remaining contamination was focused on the 0 - to 2-feet bgs interval in and around the FSEDSP. The soil samples were collected using hand augers and scanned for VOCs with a calibrated photoionization detector (PID) equipped with a 10.6 eV lamp.

Samples for VOCs were collected using TerraCore samplers. For the other analytical parameters, soil was homogenized and then transferred into the appropriate sample containers.

The following bullets describe the sampling locations, which are depicted on a figure and tabulated on a table in **Appendix E** (refer to the SAR for the full report).

1) DP-SB-01 to DP-SB-05: These samples were collected from the five borings that were completed as monitoring wells. Four locations surround the FSEDSP footprint and the fifth location was within the FSEDSP in the area where previous sampling identified TSCA impacts. The samples were collected from 0 to 2 inches bgs (0 to 6 inches bgs for VOCs), 2 to 12 inches bgs (6 to 12 inches bgs for VOCs), and 12 to 24 inches bgs at each location.
2) DP-SB-06 to DP-SB-10: These samples were collected from within the footprint of the FSEDSP. The samples were collected from 0 to 2 inches bgs (0 to 6 inches bgs for VOCs), 2 to 12 inches bgs (6 to 12 inches bgs for VOCs), and 12 to 24 inches bgs at each location.
3) DP-SB-11 to DP-SB-19: These samples were collected from locations surrounding the footprint of the FSESP. The samples were collected from 0 to 2 inches bgs (0 to 6 inches bgs for VOCs), 2 to 12 inches bgs (6 to 12 inches bgs for VOCs), and 12 to 24 inches bgs at each locations.
4) DP-SE-01 to DP-SE-05: The samples were collected from five locations in the stormwater drainage system in the FSEDSP area: one from each of four catch basins located along northern side of the FSEDSP and one sample from the Kinne Street ditch at the outlet of storm sewer piping on the north side of the entrance to Carrier's facility from Kinne Street, immediately west of Winchester Road. This ditch also conveys stormwater from areas upgradient of the site.

In general, the shallow soils within the FSEDSP footprint consisted of clayey silt with gravel and trace brick, concrete, and asphalt fragments. Deeper, natural deposits consisted of fine sand, at times alternating with silt and clay units. No odors, staining, or elevated PID readings were observed in sampled soils.

No VOCs, pesticides, herbicides, PCBs, or metals were detected in the soil samples at concentrations exceeding the industrial use SCOs.

SVOCs were reported above industrial use SCOs in multiple locations in and around the FSEDSP. SVOCs may be attributable to partial combustion of carbon-based fuels and as a result, are common contaminants. SVOCs are also commonly found in urban fill. Specifically, the compounds detected above criteria are PAHs which are commonly associated with asphaltic products and runoff from roadways and parking lots. Such compounds are widespread in urban areas. For the two locations (DP-SB-09 and DP-SB-15) that exceeded the PAH criteria, those soils were removed via excavation as part of the restoration which is detailed in the CCR. The remaining volume of impacted subsurface soil less than the cleanup level of 500 ppm for total PAHs was covered with a demarcation layer and at least 1-foot of clean soil cover.

The final soil cover topography is shown on **Figure 2**. This shows drainage to all four sides, consistent with the original drainage pattern. A demarcation layer was installed prior to fill placement. This consisted of a woven orange geotextile (Carthage Mills FX-33) across the Site except for a 35 feet by 20 feet area in the northeast corner where a black geotextile fabric was used. As shown on **Figure 2** the final grade has a minimum slope of approximately 1.4 to 1.6 percent on the north and south sides, respectively. This compares to a targeted design minimum slope of 1.5 percent.

No contaminants were detected in the catch basin samples at concentrations above industrial use SCOs. However, the sample from the Kinne Street drainage ditch contained two SVOCs, benzo(a)pyrene and dibenz(a,h)anthracene, at concentrations above industrial use SCOs. This ditch also receives stormwater runoff from adjacent roadways and locations upgradient of the site. Based on the absence of SVOCs in the other four storm drainage system samples, the SVOCs present in the Kinne Street ditch appear to be common urban contamination and not associated with the FSEDSP.

3.0 INSTITUTIONAL AND ENGINEERING CONTROL PLAN

3.1 General

Since remaining contamination exists at the FSEDSP, IC/ECs are required to protect human health and the environment. This IC/EC Plan describes the procedures for the implementation and management of all IC/ECs at the FSEDSP. There is no known or suspected impacted material above applicable SCOs within the adjoining area. The inclusion of adjoining area in this SMP is intended to restrict future land use and groundwater use within this area.

The IC/EC Plan is one component of the SMP and is subject to revision by the NYSDEC project manager.

This plan provides:

1) A description of all IC/ECs;
2) The basic implementation and intended role of each IC/EC;
3) A description of the key components of the ICs set forth in the Environmental Easement;
4) A description of the controls to be evaluated during each required inspection and periodic review;
5) A description of plans and procedures to be followed for implementation of IC/ECs, such as the implementation of the EWP (as provided in **Appendix C**) for the proper handling of remaining contamination that may be disturbed during maintenance or redevelopment work on the FSEDSP; and
6) Any other provisions necessary to identify or establish methods for implementing the IC/ECs required by the FSEDSP remedy, as determined by the NYSDEC project manager.

3.2 Institutional Controls

The ICs are intended to prevent future exposure to remaining contamination. Adherence to these ICs on the FSEDSP is required by the Environmental Easement and will be implemented under this SMP. ICs identified in the Environmental Easement may not be discontinued without an amendment to or extinguishment of the Environmental Easement. The IC boundaries are shown on **Figure 3**. These ICs are:

1) The properties may be used for commercial or industrial use only;
2) The EC must be maintained as specified in this SMP;
3) The EC 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 Onondaga 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 this SMP;

6) All future activities that will disturb remaining contaminated material must be conducted in accordance with this SMP;

7) Access to the FSEDSP 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 the Environmental Easement; and

8) The potential for vapor intrusion must be evaluated for any buildings developed in the area within the IC boundaries noted on **Figure 3**, and any potential impacts that are identified must be monitored or mitigated.

9) Vegetable gardens and farming on the site are prohibited; and

10) An evaluation shall be performed to determine the need for further investigation and remediation should large scale redevelopment occur, if any of the existing structures are demolished, or if the subsurface is otherwise made accessible.

3.3 Engineering Controls

3.3.1 Soil Cover

Exposure to remaining contamination at the FSEDSP is prevented by a soil cover placed over the FSEDSP. This soil cover is comprised of a demarcation layer with a minimum of 1 foot of clean soil. **Figure 2** presents the location of the soil cover and applicable demarcation layers. The EWP provided in **Appendix C** outlines the procedures required to be implemented in the event the cover system is breached, penetrated or temporarily removed. Procedures for the inspection of this cover are provided in the Monitoring and Sampling Plan included in Section 4.0 of this SMP. Any work conducted pursuant to the EWP must also be conducted in accordance with the procedures defined in a Health and Safety Plan (HASP) and associated CAMP prepared for the FSEDSP and provided in **Appendix C**. Any disturbance of the FSEDSP soil cover must be overseen by a qualified environmental professional as defined in 6 NYCRR Part 375, a Professional Engineer (PE) who is licensed and registered in New York State, or a qualified person who directly reports to a PE who is licensed and registered in New York State.

4.0 MONITORING AND SAMPLING PLAN

Ongoing groundwater or soil monitoring and sampling is not required for the FSEDSP. It is noted that there were five monitoring wells within the FSEDSP. Only one monitoring well (DP-MW-04) is currently part of the Facility-wide groundwater monitoring program. The other four monitoring wells were decommissioned in September 2023. The monitoring well serves as an upgradient perimeter monitoring well. The observed concentrations in the monitoring well are less than the applicable groundwater standards.

4.1 FSEDSP Inspection

FSEDSP inspections will be performed at a minimum of once per year. These periodic inspections must be conducted when the ground surface is visible (i.e., no snow cover). FSEDSP inspections will be performed by a qualified environmental professional as defined in 6 NYCRR Part 375, a PE who is licensed and registered in New York State, or a qualified person who directly reports to a PE who is licensed and registered in New York State. Modification to the frequency or duration of the inspections will require approval from the NYSDEC project manager. During these inspections, an inspection form will be completed as provided in **Appendix F** – Site Management Form. The form will compile sufficient information to assess the following:

1) Compliance with all ICs, including site usage;
2) An evaluation of the condition and continued effectiveness of the EC;
3) Compliance with requirements of this SMP and the Environmental Easement;
4) General site conditions at the time of the inspection;
5) Whether stormwater management systems, such as basins and outfalls, are working as designed; and
6) Confirm that FSEDSP records are up to date.

Inspections will also be performed in the event of an emergency. If an emergency, such as a natural disaster or an unforeseen failure of the EC occurs that reduces or has the potential to reduce the effectiveness of the EC in place at the FSEDSP, verbal notice to the NYSDEC project manager must be given by noon of the following day. In addition, an inspection of the site will be conducted within 5 days of the event to verify the effectiveness of the IC/ECs implemented at the site by a qualified environmental professional, as defined in 6 NYCCR Part 375. Written confirmation must be provided to the NYSDEC project manager within 7 days of the event that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public. The remedial party will submit

follow-up status reports to the NYSDEC within 45 days of the event on actions taken to respond to any emergency event requiring ongoing responsive action, describing and documenting actions taken to restore the effectiveness of the ECs.

5.0 OPERATION AND MAINTENANCE PLAN

5.1 General

The FSEDSP remedy does not rely on any mechanical systems, such as groundwater treatment systems, sub-slab depressurization systems or air sparge/soil vapor extraction systems to protect public health and the environment. Therefore, the operation and maintenance of such components is not included in this SMP.

6.0 PERIODIC ASSESSMENTS/EVALUATIONS

6.1 Climate Change Vulnerability Assessment

A climate change vulnerability assessment is not necessary as there are no active or planned remedial systems, no structures within the footprint of the FSEDSP, and the soil cover top elevation is not dramatically different from the surrounding area thus erosion concerns due to flooding is not likely.

6.2 Green Remediation Evaluation

NYSDEC's DER-31 Green Remediation requires that green remediation concepts and techniques be considered during all stages of the remedial program including site management, with the goal of improving the sustainability of the cleanup and summarizing the net environmental benefit of any implemented green technology. There are no remediation systems associated with this SMP. An attempt will be made to combine other Facility related tasks as part of the annual inspections to reduce travel to and from the site.

7.0 REPORTING REQUIREMENTS

7.1 Site Management Reports

All site management inspection events will be recorded on the appropriate site management forms provided in **Appendix F**. These forms are subject to NYSDEC revision. All site management inspection events will be conducted by a qualified environmental professional as defined in 6 NYCRR Part 375, a PE who is licensed and registered in New York State, or a qualified person who directly reports to a PE who is licensed and registered in New York State.

All applicable inspection forms and other records generated for the site during the reporting period will be provided in electronic format to the NYSDEC in accordance with the requirements of **Table 2**.

Table 2: Schedule of Interim Inspection Reports

Task/Report	Reporting Frequency*
Inspection Report	Annually

* The frequency of events will be conducted as specified until otherwise approved by the NYSDEC project manager.

All interim inspections reports will include, at a minimum:

1) Date of event or reporting period;
2) Name, company, and position of person(s) conducting inspection activities;
3) Description of the activities performed;
4) Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents noted (included either on the checklist/form or on an attached sheet); and

7.2 Certification of Institutional and Engineering Controls

As part of the annual inspection, a qualified environmental professional as defined in 6 NYCRR Part 375 or Professional Engineer licensed to practice and registered in New York State will prepare, and include the following certification as per the requirements of NYSDEC DER-10:

"*For each institutional or engineering control identified for the site, I certify that all of the following statements are true:*

1) *The inspection of the site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under my direction;*

2) *The institutional control and/or engineering control employed at this site is unchanged from the date the control was put in place, or last approved by the Department;*

3) *Nothing has occurred that would impair the ability of the control to protect the public health and environment;*

4) *Nothing has occurred that would constitute a violation or failure to comply with any interim site management plan for this control;*

5) *Access to the site will continue to be provided to the Department to evaluate the remedy, including access to evaluate the continued maintenance of this control;*

6) *If a financial assurance mechanism is required under the oversight document for the site, the mechanism remains valid and sufficient for the intended purpose under the document;*

7) *Use of the site is compliant with the environmental easement;*

8) *The engineering control systems are performing as designed and are effective;*

9) *To the best of my 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*

10) *The information presented in this report is accurate and complete.*

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, [name], of [business address], am certifying as [Owner/Remedial Party or Owner's/Remedial Party's Designated Site Representative].

The signed certification will be included in the annual inspection report.

The annual inspection report will be submitted, in electronic format, to the NYSDEC project manager and the NYSDOH project manager. The annual inspection report may also need to be submitted in hard-copy format if requested by the NYSDEC project manager.

7.3 Corrective Measures Work Plan

If any component of the remedy is found to have failed, or if the periodic certification cannot be provided due to the failure of an institutional or engineering control or failure to conduct site management activities, a Corrective Measures Work Plan will be submitted to the NYSDEC project manager for approval. This plan will explain the failure and provide the details and schedule for performing work necessary to correct the failure. Unless an emergency condition exists, no work will be performed pursuant to the Corrective Measures Work Plan until it has been approved by the NYSDEC project manager.

8.0 REFERENCES

AECOM 2014, *Self-Implementing Cleanup and Disposal Plan.* AECOM. May 2014.

AECOM 2015, *Remedial Summary Report.* AECOM. April 2015.

AECOM 2015, *Sampling and Analysis Plan.* AECOM. July 2015.

AECOM 2016, *Sampling and Analysis Report.* AECOM. June 2016.

AECOM 2018, *Southeast Debris/Soil Pile Restoration Plan.* AECOM. September 2018.

AECOM 2019, *Interim Corrective Measure (ICM) Construction Completion Report.* AECOM. November 2019.

EnSafe 2014, *AOC Assessment Report, Southeast Debris Pile.* EnSafe. January 2014.

EPA 2014, Letter Correspondence. EPA. June 18, 2014.

EPA 2015, Letter Correspondence. EPA. January 2, 2015.

NYSDEC 2010, *Technical Guidance for Site Investigation and Remediation.* NYSDEC. May 2010.

NYSDEC 2016, Email Correspondence. NYSDEC. August 25, 2016.

6 NYCRR Part 375, Environmental Remediation Programs. December 14, 2006.

APPENDIX A
ENVIRONMENTAL EASEMENT

ENVIRONMENTAL EASEMENT GRANTED PURSUANT TO ARTICLE 71, TITLE 36

OF THE NEW YORK STATE ENVIRONMENTAL CONSERVATION LAW

THIS INDENTURE made this _____ day of _____ , 20__, between Owner(s) Town of DeWitt, having an office at 5400 Butternut Drive East Syracuse, NY 13057, County of Dutchess, 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 1035 Kinne St, East Syracuse, NY 13057 in the Town of Dewitt, County of Onondaga and State of New York, known and designated on the tax map of the County Clerk of Onondaga as tax map parcel numbers: Section 32. Block 2 Lot 2.1, being the same as that property conveyed to Grantor by deed dated Enter Deed Date and recorded in the Onondaga County Clerk's Office in Liber and Page Instrument #2021-18806 and Deed Book 5138 and Page 344. The property subject to this Environmental Easement (the "Controlled Property") comprises approximately 7.41+/- acres, and is hereinafter more fully described in the Land Title Survey dated June 6, 2008 and revised on May 5, 2022 prepared by Paul James Olszewski, P.L.S., PLLC, 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 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 Corrective Action Order TypeNumber: CO 7-20051118-4, 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:

Industrial and commercial.

(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 Onondaga 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 Unrestricted, Restricted-Residential, or Residential uses. 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: 734043
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.

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

Town of DeWitt:

By: _____

Print Name:_____

Title: Date:

Grantor's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF)

On the _____ day of _____ , in the year 20 __, before me, the undersigned, personally appeared_____, 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

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

STATE OF NEW YORK)
) ss:
COUNTY OF ALBANY)

On the _____ day of _____ , in the year 20__, 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

SCHEDULE “A” PROPERTY DESCRIPTION

Enter Property Description

Schedule A- Legal Description

ALL THAT TRACT OR PARCEL OF LAND situate in the Town of Dewitt, County of Onondaga and State of New York, being part of Military Lot 30, and bounded and described as follows:

Beginning at a point at the westerly road line of Kinne Street, said point being the northeasterly corner of lands belonging to the Town of Dewitt filed in the Onondaga County Clerk's Office as Deed Book 5138 and Page 344, said point also being 178.3 feet northerly from an iron pipe found at the northeasterly corner of lands belonging to ENA Holdings LLC filed in the Onondaga County Clerk's Office as Instrument #2021-18806;

thence, from said point of beginning, S86°15'13"W a distance of 1188.00 feet to a point;
thence, N03°44'47"W a distance of 130.23 feet to a point;
thence, N86°15'13"E a distance of 533.97 feet to a point;
thence, N00°08'11"E a distance of 220.94 feet to a point;
thence, N09°33'23"E a distance of 40.73 feet to a point;
thence, N86°14'13"E a distance of 621.32 feet to a point;
thence, S03°39'41"E a distance of 10.38 feet to a point;
thence, N86°20'19"E a distance of 10.00 feet to a point at the westerly road line of said Kinne Street;
thence, S03°39'41"E a distance of 380.16 feet, along the westerly road line of said Kinne Street,
to a point and place of beginning.

For Reference: the above parcel contains 7.41 plus or minus acres of land and is part of current Tax Map Parcel: 32.-02-01.1

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. The engineering and institutional controls for this Easement are set forth in the Site Management Plan (SMP). A copy of the SMP must be obtained by any party with an interest in the property. The SMP can be obtained from NYS Department of Environmental Conservation, Division of Environmental Remediation, Site Control Section, 625 Broadway, Albany, NY 12233 or at derweb@dec.ny.gov.

Subject to all covenants, easements and restrictions of record.

This Premises herein described is intended to be added to parcel of property owned by the Town of DeWitt being tax map parcel: 32.-02-02.1, and is further in accordance with Lot Line Adjustment Map made by Paul James Olszweski, P.L.S., PLLC dated 6/19/2023 and entitled "LOT LINE ADJUSTMENT FOR CARRIER PARK DONATION PARCEL 6304 CARRIER PARKWAY EAST SYRACUSE TAX MAP SECTION 32, BLOCK 2, LOT 1.1" . A reduced copy of said Lot Line Adjustment Map is attached hereto for reference; the Lot Line Adjustment Map having been approved as a subdivision lot line adjustment by the Town of DeWitt Planning Board on June 22, 2023; said Map intended to be filed in the Onondaga County Clerk's Office.

APPENDIX B
LIST OF SITE CONTACTS

APPENDIX B – LIST OF SITE CONTACTS

Name	Phone/Email Address
Site Owner/Remedial Party – Carrier Corporation – Don Sorbello	315-525-4405 donald.sorbello@carrier.com
Qualified Environmental Professional/Remedial Engineer – Peter Hollatz	919-461-1194 peter.hollatz@aecom.com
NYSDEC DER Project Manager – Michael Belveg	315-426-7446 michael.belveg@dec.ny.gov
NYSDEC DER Project Manager's Supervisor – Gary Priscott	315-426-7524 gary.priscott@dec.ny.gov
NYSDOH Project Manager – Julia Kenney	518-402-7873 julia.kenney@health.ny.gov

APPENDIX C
EXCAVATION WORK PLAN (EWP)

C-1 NOTIFICATION

At least 15 days prior to the start of any activity that is anticipated to encounter remaining contamination or breach or alter the soil cover, the site owner or their representative will notify the New York State Department of Environmental Conservation (NYSDEC) contacts listed in the table below. **Table 1** includes contact information for the above notification. The information on this table will be updated as necessary to provide accurate contact information. A full listing of site-related contact information is provided in **Appendix B**.

Table 1: Notifications*

NYSDEC Project Manager – Michael Belveg	315-426-7446 michael.belveg@dec.ny.gov
NYSDEC Project Manager's Supervisor – Gary Priscott	315-426-7524 gary.priscott@dec.ny.gov
NYSDEC Site Control	DERsiteControl@dec.ny.gov

* Note: Notifications are subject to change and will be updated as necessary.

This notification will include:

1) As applicable, a detailed description of the work to be performed, including the location and areal extent of excavation, plans/drawings for site re-grading, intrusive elements or utilities to be installed below the soil cover, estimated volumes of contaminated soil to be excavated, any modifications of truck routes, and any work that may impact an engineering control. There are occasions (e.g., minor repairs or maintenance) when excavations are conducted without formal development of detailed plans. For those projects, the notification will be limited to a description of planned work to be performed, including the location and areal extent of excavation;
2) As applicable, a summary of environmental conditions anticipated to be encountered in the work areas, including the nature and concentration levels of contaminants of concern, potential presence of grossly contaminated media, and plans for any pre-construction sampling;
3) A schedule for the work, detailing the start and completion of all intrusive work and submittals (e.g., reports) to the NYSDEC documenting the completed intrusive work;
4) A summary of the applicable components of this EWP;
5) A statement that the work will be performed in compliance with this EWP, Occupational Safety and Health Standards (29 CFR 1910.120) and Safety and Health Regulations for Construction (29 CFR 1926 Subpart P);

6) A copy of the contractor's health and safety plan (HASP), in electronic format, if it differs from the HASP provided in **Appendix G** of this SMP;
7) Identification of disposal facilities for potential waste streams; and
8) Identification of sources of any anticipated backfill, along with the required request to import form and all supporting documentation including, but not limited to, chemical testing results.

The NYSDEC project manager will review the notification and may impose additional requirements for the excavation that are not listed in this EWP. The alteration, restoration and modification of engineering controls must conform with Article 145 Section 7209 of the Education Law regarding the application professional seals and alterations.

C-2 STORMWATER POLLUTION PREVENTION

Stormwater pollution prevention measures are to be installed prior to beginning excavation work in accordance with the *New York State Stormwater Management Design Manual* (January 2015).

These controls may include:

1) Lines of silt fence, hay/straw bales and/or straw wattle across low points along site boundaries.
2) Silt bags installed in catch basins.
3) Silt fence or soil berms and/or straw bales or wattles around soil stockpiles (live-loading of soils is preferred to the extent feasible). If dewatering of soils is anticipated, then a lined low-point water collection sump shall be included.

Barriers and hay bale checks will be installed and inspected once a week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the site and available for inspection by the NYSDEC. All necessary repairs shall be made immediately.

Accumulated sediments will be removed as required to keep the barrier and hay bale check functional.

All undercutting or erosion of the silt fence toe anchor shall be repaired immediately with appropriate backfill materials.

Manufacturer's recommendations will be followed for replacing silt fencing damaged due to weathering.

Erosion and sediment control measures identified in the SMP shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters.

Silt fencing or hay bales will be installed around the entire perimeter of the construction area.

C-3 COMMUNITY AIR MONITORING PLAN

Community air monitoring will be performed in accordance with the New York State Department of Health (NYSDOH) Generic community air monitoring plan (CAMP). Volatile organic compounds (VOCs) and particulate concentrations will be continuously monitored at the upwind and downwind perimeter of the active work area.

The location(s) of air sampling station(s) at the excavation site will be based on generally prevailing wind conditions. These locations will be adjusted on a daily or more frequent basis based on actual wind directions to provide an upwind and at least two downwind monitoring stations. Approximate locations will be recorded on a map of the excavation site on a daily basis and filed with the field notes.

Action levels and response actions identified in the CAMP are summarized below:

1) *VOCs.* If the ambient air concentration of total organic vapors at the downwind perimeter of the work area exceeds 5 parts per million (ppm) greater than the background concentration (above background) for a 15-minute average, work activities will be temporarily suspended and monitoring will continue. If the total organic vapor levels readily decrease (per instantaneous readings) to less than 5 ppm above background, work activities will resume with continued monitoring. If the organic vapor levels are greater than 5 ppm above background, but less than 25 ppm over background at the perimeter of the work area, activities can resume provided that the total organic vapor level 200 feet downwind of the work area, or half the distance to the nearest residential or commercial structure (whichever is less), is less than 5 ppm above background. If the total organic vapor level is greater than 10 ppm at the perimeter of the work area, activities will be shut down and appropriate actions will be taken to mitigate the organic vapor source.

2) *Particulates.* 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 measurements over a period of 15 minutes (or less) for comparison to the airborne particulate action level. Each particulate monitor will be calibrated daily using a filtered air sample. Data from each air monitoring instrument will be continuously downloaded and saved electronically to a dedicated computer located on-site. The NYSDOH Generic CAMP-specified action level of 0.10 milligrams per cubic meter (mg/m^3) above background for PM-10 will be used to determine whether modifications to given processes are required. If the downwind measurement of PM-10 is greater than 0.10 mg/m^3 above the upwind background level, or if dust is observed leaving the project area, dust suppression techniques (i.e., misting surfaces with water) will be implemented to reduce the generation of fugitive dust. Furthermore, if the action level of 0.15 mg/m^3 (above background) is exceeded, work activities will be halted and dust suppression techniques will be reevaluated.

Exceedances of action levels listed in the CAMP will be reported to NYSDEC and NYSDOH Project Managers.

C-4 SOIL SCREENING METHODS

Visual, and instrument-based (e.g. photoionization detector) soil screening will be performed during all excavations into known or potentially contaminated material (remaining contamination) or a breach of the soil cover. A qualified environmental professional as defined in 6 NYCRR Part 375, a PE who is licensed and registered in New York State, or a qualified person who directly reports to a PE who is licensed and registered in New York State will perform the screening.

Soils will be segregated based on previous in-situ data and field screening results. If field screening identifies soils that require to be stockpiled separately then those soils will have the following analytical testing to profile the soil for off-site disposal: total polychlorinated biphenyls, toxicity characteristic leaching procedure (TCLP) VOCs, TCLP Semi-VOCs, and TCLP Resource Conservation and Recovery Act (RCRA) 8 metals, TCLP herbicides and pesticides, corrosivity, ignitability, reactivity, and pH.

Soils excavated from depths below the apparent water table shall be inspected for water content. Soils that appear saturated shall be segregated for dewatering and/or sampled for paint filter testing if needed for off-site disposal.

Further discussion of off-site disposal of materials and on-site reuse is provided in Sections C-7 and C-8 of this Appendix.

C-5 SOIL STAGING METHODS

To the extent possible, excavated soils or other media will be live-loaded into lined and covered trucks based on the pre-excavation data and during excavation screening.

The excavated soils or other materials that are not live-loaded will be managed on site in lined and covered storage containers or stockpiles as follows:

1) Contaminated soils shall be stockpiled in locations where they are easily accessible for loading for off-site transport (e.g., near access pathways).
2) Stockpiles should not be placed in locations subject to stormwater run-off or pooling.

Each soil stockpile will be placed on a base sheet of at least 6-mil polyethylene. If a greater width is needed, additional polyethylene sheets may be placed adjacent to existing sheets with an overlap of at least 2 feet. If dewatering of soils is anticipated, then bermed sidewalls (i.e., lined haybales) with a low point water collection sump shall be included.

Unless being actively worked, stockpiles will be kept covered at all times with appropriately anchored tarps or 6-mil polyethylene sheeting. Stockpiles will be routinely inspected and damaged tarp covers will be promptly replaced.

Stockpiles will be inspected at a minimum once each week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the site and available for inspection by the NYSDEC.

C-6 MATERIALS EXCAVATION AND LOAD-OUT

A qualified environmental professional as defined in 6 NYCRR Part 375, a PE who is licensed and registered in New York State, or a qualified person who directly reports to a PE who is licensed and registered in New York State will oversee all invasive work and the excavation and load-out of all excavated material.

The owner of the property and remedial party (if applicable) and its contractors are responsible for safe execution of all invasive and other work performed under this plan.

The presence of utilities and easements on the site will be investigated by the qualified environmental professional. It will be determined whether a risk or impediment to the planned work under this SMP is posed by utilities or easements on the site. A site utility stakeout will be completed for all utilities prior to any ground intrusive activities at the site.

Loaded vehicles leaving the site will be appropriately lined, tarped, securely covered, manifested, and placarded in accordance with appropriate Federal, State, local, and NYSDOT requirements (and all other applicable transportation requirements). Trucks transporting contaminated soil must have either tight-fitting opaque covers that are secured on the sides and/or back, or opaque covers that are locked on all sides.

A truck wash will be operated on-site, as appropriate. The qualified environmental professional will be responsible for ensuring that all outbound trucks will be washed at the truck wash before leaving the site until the activities performed under this section are complete. Truck wash waters will be collected and disposed of off-site in an appropriate manner.

Locations where vehicles enter or exit the site shall be inspected daily for evidence of off-site soil tracking.

The qualified environmental professional will be responsible for ensuring that all egress points for truck and equipment transport from the site are clean of dirt and other materials derived from the site during intrusive excavation activities. Cleaning of the adjacent streets will be performed as needed to maintain a clean condition with respect to site-derived materials. Material accumulated from the street cleaning and egress cleaning activities will be disposed off-site at a permitted landfill facility in accordance with all applicable local, State, and Federal regulations.

C-6 HAUL TRUCK ROUTES

Haul trucks entering or exiting the site shall be inspected daily for evidence of off-site soil tracking. Any item that contacts contaminated or potentially-contaminated soil, including vehicles, earth-moving equipment, and sampling tools, shall be decontaminated after such contact and before either leaving the site, or being used to handle clean soils or materials. Cleaning of the adjacent streets will be performed as needed to maintain a clean condition with respect to site-derived materials.

If needed, a temporary decontamination pad will be installed at the work area. The pad will be sufficiently sized to allow for decontamination of the largest equipment (e.g., triaxles, dump trailers, etc). Construction of the pad will include the specifications below.

1) Dimensions of the pad will be up to 40 feet long by 15 feet wide, field fit.
2) A single layer of minimum 6-mil low density polyethylene liner, overlapping containment berms.
4) 8-ounce fabric on top of liner.
5) 12 inches of crushed stone.
6) Sump.

The loaded vehicles leaving the site will be appropriately lined, tarped, securely covered, manifested, and placarded in accordance with appropriate Federal, State, local, and New York State Department of Transportation (NYSDOT) requirements (and all other applicable transportation requirements).

C-7 MATERIALS TRANSPORT OFF-SITE

All transport of materials will be performed by licensed haulers in accordance with appropriate local, State, and Federal regulations, including 6 NYCRR Part 364. Haulers will be appropriately licensed and trucks properly placarded.

If loads contain wet material capable of producing free liquid, truck liners will be used.

Egress points for truck and equipment transport from the site will be kept clean of dirt and other materials during site remediation and development.

C-7 MATERIALS DISPOSAL OFF-SITE

All material excavated and removed from the site will be treated as contaminated and regulated material and will be transported and disposed off-site in a permitted facility in accordance with all local, State and Federal regulations. If disposal of material from this site is proposed for unregulated off-site disposal (i.e. clean soil removed for development purposes), a formal request with an associated plan will be made to the NYSDEC project manager. Unregulated off-site management of materials from this site will not occur without formal NYSDEC project manager approval.

Off-site disposal locations for excavated soils will be identified in the pre-excavation notification. This will include estimated quantities and a breakdown by class of disposal facility if appropriate, (e.g. hazardous waste disposal facility, solid waste landfill, petroleum treatment facility, construction and debris [C&D] debris recovery facility). Actual disposal quantities and associated documentation will be reported to the NYSDEC. This documentation will include, but will not be limited to: waste profiles, test results, facility acceptance letters, manifests, bills of lading and facility receipts.

Non-hazardous historic fill and contaminated soils taken off-site will be handled consistent with 6 NYCRR Parts 360, 361, 362, 363, 364 and 365. Material that does not meet unrestricted soil cleanup objectives (SCOs) is prohibited from being taken to a New York State C&D debris recovery facility (6 NYCRR Subpart 360-15 registered or permitted facility).

C-8 MATERIALS REUSE ON-SITE

Material reuse on-site will comply with the requirements of NYSDEC DER-10

Section 5.4(e)4. Acceptability for re-use may be determined from the pre-characterization sampling, provided the quantity of samples collected from the excavated area meets the sampling frequency recommendations in NYSDEC DER-10 Section 5.4(e)10. If more samples are needed, samples will be collected in accordance with NYSDEC DER-10 Section 5.4(e)10:

1) VOCs collected from a grab sample of soil, preferably at least one foot below the stockpile surface or ground surface.
2) Semi-VOCs, inorganics, PCBs/pesticides, 1,4-dioxane and per- and polyfluoroalkyl substances (PFAS) collected from a composite from three to five random stockpile locations or below ground surface. To comply with NYSDEC PFAS sampling guidance, stainless steel (or other approved materials) digging and compositing tools that have been pre-cleaned with a detergent solution and PFAS-free water should be used.

The qualified environmental professional as defined in 6 NYCRR part 375 will ensure that procedures defined for materials reuse in this SMP are followed and that unacceptable material (i.e. contaminated) does not remain on-site. Contaminated on-site material, including historic fill and contaminated soil, that is acceptable for reuse on-site will be placed below the demarcation layer or impervious surface, and will not be reused within a cover soil layer, within landscaping berms, or as backfill for subsurface utility lines. Contaminated on-site material may only be used beneath the site cover as backfill for subsurface utility lines with prior approval from the DEC project manager.

Proposed materials for reuse on-site must be sampled for full-suite analytical parameters including (PFAS and 1,4-dioxane. The sampling frequency will be in accordance with DER-10 Table 5.4(e)10 unless prior approval is obtained from the NYSDEC project manager for modification of the sampling frequency. The analytical results of soil/fill material testing must meet the site use criteria presented in NYSDEC DER-10 Appendix 5 – Allowable Constituent Levels for Imported Fill or Soil for all constituents listed, and the NYSDEC Sampling, Analysis, and Assessment of PFAS June 2021 guidance values. Approvals for modifications to the analytical parameters must be obtained from the NYSDEC project manager prior to the sampling event.

Soil/fill material for reuse on-site will be segregated and staged as described in this EWP. The anticipated size and location of stockpiles will be provided in the 15-day notification to the NYSDEC project manager. Stockpile locations will be based on the location of site excavation activities and proximity to nearby site features. Material reuse on-site will comply with the requirements of NYSDEC DER-10 Section 5.4(e)4. Any

modifications to the requirements of DER-10 Section 5.4(e)4 must be approved by the NYSDEC project manager.

Any demolition material proposed for reuse on-site will be sampled for asbestos and the results will be reported to the NYSDEC for acceptance. Concrete crushing or processing on-site will not be performed without prior NYSDEC approval. Organic matter (wood, roots, stumps, etc.) or other solid waste derived from clearing and grubbing of the site will not be reused on-site.

C-9 FLUIDS MANAGEMENT

All liquids to be removed from the site, including but not limited to, excavation dewatering, decontamination waters and groundwater monitoring well purge and development waters, will be handled, transported and disposed off-site at a permitted facility in accordance with applicable local, State, and Federal regulations. Dewatering, purge and development fluids will not be recharged back to the land surface or subsurface of the site, and will be managed off-site, unless prior approval is obtained from NYSDEC.

Discharge of water generated during large-scale construction activities to surface waters (i.e. a local pond, stream or river) will be performed under a SPDES permit.

C-10 BACKFILL FROM OFF-SITE SOURCES

All materials proposed for import onto the site will be approved by the qualified environmental professional, as defined in 6 NYCRR Part 375, and will be in compliance with provisions in this SMP prior to receipt at the site. A Request to Import/Reuse Fill or Soil form, which can be found at http://www.dec.ny.gov/regulations/67386.html, will be prepared and submitted to the NYSDEC project manager allowing a minimum of 5 business days for review. A copy of the form is presented at the end of this section.

Material from industrial sites, spill sites, other environmental remediation sites, or potentially contaminated sites will not be imported to the site.

Backfill material will comply with the requirements of NYSDEC guidance document Division of Environmental Remediation (DER-10) Section 5.4(e) and sampling frequency recommendations in NYSDEC DER-10 Section 5.4(e)10 for soils. No chemical testing is required for imported materials for virgin sources that contain less than 10 percent

by weight material which would pass through a size 80 sieve. Imported soil sources will be those approved by Carrier. Material from industrial sites, spill sites, other environmental remediation sites, or potentially contaminated sites will not be imported to the site.

All imported soils will meet the backfill and cover soil quality standards established in 6 NYCRR 375-6.7(d) and DER-10 Appendix 5 for industrial use. Soils that meet 'general' fill requirements under 6 NYCRR Part 360.13, but do not meet backfill or cover soil objectives for this site, will not be imported onto the site without prior approval by NYSDEC project manager. Soil material will be sampled for the full suite of analytical parameters, including PFAS and 1, 4-dioxane. Solid waste will not be imported onto the site.

Trucks entering the site with imported soils will be covered. Imported soils will be stockpiled separately from excavated materials and covered to prevent dust releases.

NEW YORK STATE
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Request to Import/Reuse Fill or Soil

This form is based on the information required by DER-10, Section 5.4(e) and 6NYCRR Part 360.13. Use of this form is not a substitute for reading the applicable regulations and Technical Guidance document.

SECTION 1 – SITE BACKGROUND

The allowable site use is: Choose an item

Have Ecological Resources been identified? Choose an item

Is this soil originating from the site? Choose an item

How many cubic yards of soil will be imported/reused? Choose an item

If greater than 1000 cubic yards will be imported, enter volume to be imported:

SECTION 2 – MATERIAL OTHER THAN SOIL

Is the material to be imported gravel, rock or stone? Choose an item

Does it contain less than 10%, by weight, material that passes a size 100 sieve? Choose an item

Is this virgin material from a permitted mine or quarry? Choose an item

Is this material recycled concrete or brick from a DEC registered processing facility? Choose an item

SECTION 3 - SAMPLING

Provide a brief description of the number and type of samples collected in the space below:

Example Text: 5 discrete samples were collected and analyzed for VOCs. 2 composite samples were collected and analyzed for SVOCs, Inorganics & PCBs/Pesticides.

If the material meets requirements of DER-10 section 5.4(e)5 (other material), no chemical testing needed.

Revised April 2023

SECTION 3 CONT'D - SAMPLING

Provide a brief written summary of the sampling results or attach evaluation tables (compare to DER-10, Appendix 5):

Example Text: Arsenic was detected up to 17 ppm in 1 (of 5) samples; the allowable level is 16 ppm.

If Ecological Resources have been identified use the "If Ecological Resources are Present" column in Appendix 5.

SECTION 4 – SOURCE OF FILL

Name of person providing fill and relationship to the source:

Location where fill was obtained:

Identification of any state or local approvals as a fill source:

If no approvals are available, provide a brief history of the use of the property that is the fill source:

Provide a list of supporting documentation included with this request:

Revised April 2023

The information provided on this form is accurate and complete.

Signature _____ Date _____

Print Name _____

Firm _____

C-11 COVER SYSTEM RESTORATION

After the completion of soil removal and any other invasive activities the cover system will be restored in a manner that complies with the restoration plan. The existing cover system is comprised of a minimum of 12 inches of clean soil. The demarcation layer consisting of plastic sheeting will be replaced in-kind to provide a visual reference to the top of the remaining contamination zone, the zone that requires adherence to special conditions for disturbance of remaining contaminated soils defined in this SMP. If the type of cover system changes from that which exists prior to the excavation (i.e., a soil cover is

replaced by asphalt), this will constitute a modification of the cover element of the remedy and the upper surface of the remaining contamination. A figure showing the modified surface will be included in the subsequent report and in an updated SMP. The alteration, restoration and modification of engineering controls must conform with Article 145 Section 7209 of the Education Law regarding the application professional seals and alterations.

C-12 ODOR CONTROL

This odor control plan is capable of controlling emissions of nuisance odors off-site. Specific odor control methods to be used on a routine basis will include covering stockpiles, loaded trucks and containers and, if necessary, open excavations when they are not being worked. If nuisance odors are identified at the site boundary, or if odor complaints are received, work will be halted and the source of odors will be identified and corrected. Work will not resume until all nuisance odors have been abated. NYSDEC and NYSDOH will be notified of all odor events and of any other complaints about the project. Implementation of all odor controls, including the halt of work, is the responsibility of the remedial party's Remediation Engineer, and any measures that are implemented will be reported.

All necessary means will be employed to prevent on- and off-site nuisances. At a minimum, these measures will include: (a) limiting the area of open excavations and size of soil stockpiles; (b) shrouding open excavations with tarps and other covers; and (c) using foams to cover exposed odorous soils. If odors develop and cannot be otherwise controlled, additional means to eliminate odor nuisances will include: (d) direct load-out of soils to trucks for off-site disposal; (e) use of chemical odorants in spray or misting systems; and, (f) use of staff to monitor odors in surrounding neighborhoods.

If nuisance odors develop during intrusive work that cannot be corrected, or where the control of nuisance odors cannot otherwise be achieved due to on-site conditions or close proximity to sensitive receptors, odor control will be achieved by sheltering the excavation and handling areas in a temporary containment structure equipped with appropriate air venting/filtering systems.

C-13 DUST CONTROL

Particulate monitoring must be conducted according to the CAMP. If particulate levels at the site exceed the thresholds listed in the CAMP or if airborne dust is observed on the site or leaving the site, the dust suppression techniques listed below will be employed. The remedial party will also take measures listed below to prevent dust production on the site.

A dust suppression plan that addresses dust management during invasive on-site work will include, at a minimum, the items listed below:

1) Dust suppression will be achieved using a dedicated on-site water truck for road wetting. The truck will be equipped with a water cannon capable of spraying water directly onto off-road areas including excavations and stockpiles.

2) Gravel will be used on roadways to provide a clean and dust-free road surface.

3) On-site roads will be limited in total area to minimize the area required for water truck sprinkling.

C-14 EXCAVATION CONTINGENCY PLAN

If underground tanks or other previously unidentified contaminant sources are found during post-remedial subsurface excavations or development-related construction, excavation activities will be suspended until sufficient equipment is mobilized to address the condition and/or more information is obtained about the unexpected contaminants. The NYSDEC project manager will be promptly notified of the discovery.

Sampling will be performed on product found in soils or in buried containers, sediment and surrounding soils, etc. as necessary to determine the nature of the material and proper disposal method. Chemical analysis will be performed for a full list of analytes (target analyte list [TAL] metals, target compound list [TCL] volatiles and semi-volatiles [including 1,4-dioxane], TCL pesticides and PCBs, and PFAS), unless the site history and previous sampling results provide sufficient justification to limit the list of analytes. In this case, a reduced list of analytes will be proposed to the NYSDEC project manager for approval prior to sampling. Any tanks will be closed as per NYSDEC regulations and guidance.

Identification of unknown or unexpected contaminated media identified by screening during invasive site work will be promptly communicated by phone within twenty-four hours to NYSDEC’s Project Manager. Indications of contaminated media

include visual, such as staining, oily appearance, or atypical non-soil components such as metals, glass, rubbery or tarry material or cinders; olfactory such as solvent-like or oily odors; and/or textural such as unusually hard or cemented, greasy or flaky materials in the soil. Reportable quantities of petroleum product will also be reported to the NYSDEC spills hotline.

C-15 OTHER NUISANCES

A plan (if needed) for rodent control will be developed and utilized by the contractor prior to and during site clearing and site grubbing, and during all remedial work.

A plan (if needed) will be developed and utilized by the contractor for all remedial work to ensure compliance with local noise control ordinances.

APPENDIX D
GROUNDWATER ELEVATIONS AND MONITORING WELL CONSTRUCTION LOGS

TABLE 2
SITE-WIDE GROUNDWATER MONITORING PROGRAM
WATER LEVELS AND WELL INSPECTION SUMMARY
CARRIER CORPORATION THOMPSON ROAD FACILITY
September 19 and 20, 2022

Monitoring Well/ Piezometer	Water-bearing Zone (Upper/ Lower)	Well Diameter (inches ID)	Northing	Easting	Measuring Point Elevation feet	Depth to Free Phase Product feet	Depth to Water (BTOR) feet	Free Phase Product Thickness feet	Groundwater Elevation feet	Well Inspection Summary				
										Lock	Surface Seal	Protective Casing OR Flushmount Roadbox (Lid/collar) Condition	Riser	Comments
Perimeter Area														
DP-MW-04	Upper	2	1122974.74	954593.56	408.38	-	5.98	-	402.40	No lock	OK	OK	OK	
MW-05R	Upper	2	1125014.53	952292.73	396.81	-	2.73	-	394.08	Lock OK (#2537 key)	OK	OK	OK	
MW-09	Upper	2	1123038.00	952979.38	406.20	-	7.08	-	399.12	Lock OK (#2537 key)	OK	OK	OK	
MW-10	Upper	2	1124386.24	952118.57	402.79	-	8.44	-	394.35	No lock	OK	OK	OK	
MW-11	Upper	2	1124861.02	953926.15	402.23	NM	NM	NM	NM	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	Under gravel
MW-14	Upper	2	1124855.30	953333.70	402.75	-	10.72	-	392.03	Lock OK (#2537 key)	OK	OK	OK	
MW-14D	Lower	2	1124855.10	953337.00	402.44	-	2.11	-	400.33	Lock OK (#2537 key)	OK	OK	OK	
MW-16D	Lower	2	1122764.69	953409.36	406.13	-	6.10	-	400.03	No lock	OK	OK	OK	
MW-17	Upper	2	1124999.53	952462.72	397.02	-	7.86	-	389.16	No lock	OK	OK	OK	
MW-19	Upper	2	1124108.76	952143.57	404.72	-	9.10	-	395.62	No lock	OK	OK	OK	
MW-21	Upper	2	1124973.70	952730.22	402.52	-	11.78	-	390.74	No lock	OK	OK	OK	
MW-42	Upper	2	1124967.30	953212.96	396.57	-	6.34	-	390.23	Lock Corroded (#2537 key)	OK	OK	OK	
MW-59	Upper	2	1124872.74	953831.00	394.58	NM	NM	NM	NM	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	Under gravel
MW-65	Upper	2	1124983.12	952943.49	401.77	NM	NM	NM	NM	No lock	OK	OK	OK	
MW-71	Upper	2	1123463.97	952230.85	404.95	-	9.18	-	395.77	No lock	OK	OK	OK	
MW-73	Upper	2	1124257.22	951987.57	403.40	-	3.83	-	399.57	No lock	OK	OK	OK	
MW-76	Upper	2	1123627.57	955141.81	406.07	-	7.65	-	398.42	No lock	OK	OK	OK	
MW-77	Upper	2	1124047.75	955105.46	404.81	-	8.31	-	396.50	No lock	OK	OK	OK	
MW-79	Upper	2	1124917.99	953785.24	395.69	-	2.58	-	393.11	No lock	OK	OK	OK	
MW-80	Upper	2	1124983.12	952943.49	392.31	NM	NM	NM	NM	No lock	OK	OK	OK	
MW-85	Upper	2	1123463.32	952195.00	403.08	-	7.37	-	395.71	No lock	OK	OK	OK	
TR3-MW-01	Upper	2	1124885.97	953692.42	392.86	NM	NM	NM	NM	No lock	OK	OK	OK	
TR3-MW-02	Upper	2	1124906.18	953546.57	395.46	-	0.83	-	394.63	No lock	OK	OK	OK	
A&R Area														
AR-MW-01	Upper	2	1124770.59	954418.68	403.76	-	9.47	-	394.29	No lock	OK	OK	OK	
AR-MW-02	Upper	2	1124764.40	954292.16	403.40	-	9.10	-	394.30	No lock	OK	OK	OK	
AR-MW-03	Upper	2	1124754.76	954149.74	403.41	-	8.97	-	394.44	No lock	OK	OK	OK	
AR-MW-04	Upper	2	1124515.46	954180.87	404.50	-	9.47	-	395.03	No lock	OK	OK	OK	
AR-MW-05	Upper	2	1124466.37	954310.19	404.87	-	9.44	-	395.43	No lock	OK	OK	OK	
AR-MW-06	Upper	2	1124531.93	954445.06	404.63	-	10.10	-	394.53	No lock	OK	OK	OK	
AR-SB-02	Upper	1	1124990.10	954142.60	393.10	-	-0.19	-	393.29	No lock	OK	NA	OK	
AR-SB-04	Upper	1	1125037.71	954296.60	395.86	NM	NM	NM	NM	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	Could not locate
TR-1 Area														
DCDPZ01	Upper	1	1123895.47	952479.75	407.28	11.24	11.25	0.01	396.04	No lock	OK	OK	OK	
DCDPZ02	Upper	1	1123938.80	952468.92	407.00	-	10.55	-	396.45	No lock	OK	Outer Casing Broken	OK	
DCDPZ03	Upper	1	1123882.13	952353.09	407.23	-	10.71	-	396.52	No lock	OK	OK	OK	
DCDPZ04	Upper	1	1123917.13	952351.42	407.36	NM	NM	NM	NM	No lock	OK	OK	OK	Tubing obstruction at 2.38 feet
FDPZ01	Upper	1	1124189.61	952343.92	407.23	NM	NM	NM	NM	No lock	OK	OK	OK	
FDPZ02	Upper	1	1124233.78	952328.09	408.45	NM	NM	NM	NM	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	Could not locate
FDPZ03	Upper	1	1124197.11	952463.92	406.78	NM	NW	NM	NM	No lock	OK	OK	OK	
FDPZ04	Upper	1	1124228.78	952446.42	407.40	NM	NM	NM	NM	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	Could not locate
MW-06	Upper	2	1124275.42	952570.22	406.21	-	11.37	-	394.84	Lock OK (#2537 key)	OK	OK	OK	
MW-23	Upper	2	1124068.77	952177.73	403.54	-	8.66	-	394.88	No lock	OK	OK	OK	
MW-24	Upper	2	1124038.77	952184.40	404.58	-	6.25	-	398.33	No lock	OK	OK	OK	
MW-25	Upper	4	1123764.64	952464.75	406.25	7.96	10.50	2.54	397.61	No lock	OK	OK	OK	
MW-26	Upper	2	1123802.12	952438.56	406.65	-	4.20	-	402.45	No lock	OK	OK	OK	
MW-27	Upper	2	1123753.79	952424.39	406.19	-	7.44	-	398.75	No lock	OK	OK	OK	
MW-28	Upper	2	1123769.62	952481.06	406.15	-	8.71	-	397.44	No lock	OK	OK	OK	
MW-29	Upper	4	1123774.62	952380.23	406.19	-	3.99	-	402.20	No lock	OK	OK	OK	
MW-30	Upper	4	1123895.44	952378.56	407.08	-	10.52	-	396.56	No lock	OK	OK	OK	
MW-31	Upper	2	1123932.11	952388.93	406.46	11.35	11.36	0.01	395.11	No lock	OK	OK	OK	
MW-32	Upper	2	1123867.11	952410.22	406.67	-	10.00	-	396.67	No lock	OK	OK	OK	
MW-33	Upper	2	1123903.80	952446.42	406.71	-	10.78	-	395.93	No lock	OK	OK	OK	
MW-34	Upper	2	1123899.61	952363.56	406.73	-	10.72	-	396.01	No lock	OK	OK	OK	
MW-35D	Lower	2	1123932.11	952377.73	407.33	-	11.45	-	395.88	No lock	OK	OK	OK	
MW-36	Upper	4	1124197.92	952411.89	407.66	-	12.54	-	395.12	No lock	OK	OK	OK	
MW-37	Upper	2	1124204.59	952396.06	406.74	-	11.65	-	395.09	No lock	OK	OK	OK	
MW-38	Upper	2	1124268.75	952406.06	404.45	-	9.60	-	394.85	No lock	OK	OK	OK	
MW-39	Upper	2	1124196.26	952447.72	406.87	-	NM	-	NM	No lock	OK	OK	OK	
MW-40D	Lower	2	1124267.92	952397.72	404.36	-	8.58	-	395.78	No lock	OK	OK	OK	
SSIPZ01	Upper	1	1123762.14	952385.59	406.32	-	8.85	-	397.47	No lock	OK	OK	OK	
SSIPZ02	Upper	1	1123752.14	952490.59	406.41	-	8.27	-	398.14	No lock	OK	OK	OK	
SSIPZ03	Upper	1	1123778.81	952359.76	406.83	-	8.81	-	398.02	No lock	OK	OK	OK	
SSIPZ04	Upper	1	1123807.97	952478.09	406.48	8.76	8.90	0.14	397.69	No lock	OK	OK	OK	
SSIPZ05	Upper	1	1123733.81	952464.75	405.98	NM	NM	NM	NM	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	Could not locate

Specific Gravity of Free Phase Product = 0.73 based on historical reports
Groundwater Elevation = Measuring Point Elevation - Depth to Water (BTOR) + (0.73 x Free Phase Product Thickness)
NA - Not Available
NM - Not Measured

TABLE 2
SITE-WIDE GROUNDWATER MONITORING PROGRAM
WATER LEVELS AND WELL INSPECTION SUMMARY
CARRIER CORPORATION THOMPSON ROAD FACILITY
September 19 and 20, 2022

Monitoring Well/ Piezometer	Water-bearing Zone (Upper/ Lower)	Well Diameter (inches ID)	Northing	Easting	Measuring Point Elevation feet	Depth to Free Phase Product feet	Depth to Water (BTOR) feet	Free Phase Product Thickness feet	Groundwater Elevation feet	Well Inspection Summary				
										Lock	Surface Seal	Protective Casing OR Flushmount Roadbox (Lid/collar) Condition	Riser	Comments
TR-3 and Parking Lot R Area														
B001-01	Upper	1	1124697.08	953785.55	NA	NM	NM	NM	NM	No lock	OK	OK	UNKNOWN	
B001-02	Upper	1	1124697.08	953817.22	NA	NM	NM	NM	NM	No lock	OK	OK	UNKNOWN	
B001-03	Upper	1	1124616.48	953830.95	405.33	-	8.06	-	397.27	No lock	OK	OK	OK	
B001-04	Upper	1	1124560.22	953706.30	404.14	-	7.81	-	396.33	No lock	OK	OK	OK	
B001-05	Upper	1	1124454.18	953638.67	404.31	-	7.90	-	396.41	No lock	OK	OK	OK	
B001-06	Upper	1	1124486.48	953826.98	405.36	-	4.78	-	400.58	No lock	OK	OK	OK	
B001-07	Upper	1	1124723.54	953981.12	400.53	-	5.41	-	395.12	No lock	OK	OK	OK	
B001-08	Upper	1	1124626.25	953982.21	NA	NM	NM	NM	NM	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	Paved over
B001-09	Upper	1	1124650.12	953947.21	401.26	-	5.78	-	395.48	No lock	OK	OK	OK	
B001-10	Upper	1	1124537.03	953956.04	402.38	-	6.11	-	396.27	No lock	OK	OK	OK	
MW-18	Upper	2	1124855.40	953803.88	397.71	-	4.85	-	392.86	No lock	OK	OK	OK	
MW-20	Upper	2	1124515.42	953828.88	404.10	NM	NM	NM	NM	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	Paved over
MW-41D	Lower	2	1124491.66	953825.70	405.39	-	4.22	-	401.17	No lock	OK	OK	OK	Concrete pad deteriorating
MW-43	Upper	2	1124808.28	953664.88	405.11	-	8.88	-	396.23	No lock	OK	OK	OK	
MW-44	Upper	2	1124546.23	953378.53	404.45	-	6.05	-	398.40	No lock	OK	OK	OK	
MW-45	Upper	2	1124551.23	953593.53	404.13	-	6.33	-	397.80	No lock	OK	OK	OK	
MW-46	Upper	2	1124678.75	953574.72	404.05	5.86	5.87	0.01	398.18	No lock	OK	OK	OK	
MW-47	Upper	2	1124759.44	953732.29	405.01	-	9.36	-	395.65	No lock	OK	OK	OK	
MW-48	Upper	2	1124741.00	953821.67	405.33	-	11.40	-	393.93	No lock	OK	OK	OK	
MW-50	Upper	2	1124808.71	953536.03	405.27	-	9.21	-	396.06	No lock	OK	OK	OK	
MW-51	Upper	4	1124773.74	953768.05	403.60	NM	NM	NM	NM	No lock	OK	OK	OK	
MW-52	Upper	4	1124791.04	953758.91	400.01	NM	NM	NM	NM	No lock	OK	OK	OK	
MW-53	Upper	2	1124845.40	953738.05	398.07	NM	NM	NM	NM	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	Could not locate
MW-54	Upper	4	1124775.41	953742.22	404.92	NM	NM	NM	NM	No lock	OK	OK	OK	
MW-54D	Lower	2	1124845.16	953721.92	398.46	NM	NM	NM	NM	No lock	OK	OK	OK	
MW-55	Upper	2	1124844.49	953701.90	397.83	NM	NM	NM	NM	No lock	OK	OK	OK	
MW-56	Upper	2	1124841.61	953676.89	398.41	NM	NM	NM	NM	No lock	OK	OK	OK	
MW-57	Upper	2	1124839.71	953625.90	398.06	-	3.62	-	394.44	No lock	OK	OK	OK	
MW-58	Upper	2	1124853.70	953533.98	396.53	-	4.2	-	392.33	No lock	OK	OK	OK	
MW-60	Upper	2	1124836.40	953785.63	398.24	NM	NM	NM	NM	No lock	OK	OK	OK	
MW-61	Upper	2	1124820.56	953720.04	404.81	NM	NM	NM	NM	No lock	OK	OK	OK	
MW-62	Upper	2	1124762.97	953669.35	405.28	-	9.12	-	396.16	No lock	OK	OK	OK	
MW-66	Upper	2	1124854.94	953560.48	396.37	-	5.15	-	391.22	No lock	OK	OK	OK	
MW-67	Upper	2	1124829.20	953471.96	398.58	NM	NM	NM	NM	No lock	OK	OK	OK	
MW-68	Upper	2	1124855.04	953476.28	397.40	-	8.45	-	388.95	No lock	OK	OK	OK	
PLR001	Upper	1	1124467.93	953858.05	405.10	5.7	5.71	0.01	399.40	No lock	OK	OK	OK	
PLR002	Upper	1	1124512.07	953914.35	NA	NM	NM	NM	NM	No lock	OK	OK	OK	
PLR056	Upper	1	1124751.00	953801.06	405.39	NM	NM	NM	NM	No lock	OK	OK	OK	
PLR057	Upper	1	1124748.99	953772.23	405.36	NM	NM	NM	NM	No lock	OK	OK	OK	
PLR058	Upper	1	1124757.26	953743.80	405.12	NM	NM	NM	NM	No lock	OK	OK	OK	
PLR060	Upper	1	1124803.00	953740.94	405.26	NM	NM	NM	NM	No lock	OK	OK	OK	
PLR061	Upper	1	1124831.52	953738.60	404.77	NM	NM	NM	NM	No lock	OK	OK	OK	
TR3-GB-03	Lower	2	1124467.93	953858.05	398.49	NM	NM	NM	NM	No lock	OK	OK	OK	
TR3-PW-01	Upper	4	1124815.67	953687.16	405.03	-	9.83	-	395.20	No lock	OK	OK	OK	
TR3-PW-02	Upper	4	1124805.52	953444.97	405.59	-	9.58	-	396.01	No lock	OK	OK	OK	
SWMU 1-4 Area														
MW-03D	Lower	2	1123862.95	953068.54	405.64	-	8.63	-	397.01	Lock OK (#2537 key)	OK	OK	OK	
MW-03S	Upper	2	1123862.95	953053.54	404.54	-	7.12	-	397.42	Lock OK (#2537 key)	OK	OK	OK	
MW-13D2	Lower	2	1123847.11	953071.04	402.71	-	6.8	-	395.91	No lock	OK	OK	OK	
MW-22D	Lower	2	1123728.61	952956.41	404.34	-	7.41	-	396.93	No lock	OK	OK	OK	
Remaining Wells														
B001-11	Upper	1	1123957.96	953583.89	NA	NM	NM	NM	NM	No lock	OK	OK	OK	
B001-12	Upper	1	1123892.97	953589.72	NA	NM	NM	NM	NM	No lock	OK	OK	OK	
B001-13	Upper	1	1124026.77	953577.27	403.16	NM	NM	NM	NM	No lock	OK	OK	OK	
B001-14	Upper	1	1124113.78	953574.72	NA	NM	NM	NM	NM	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN	Could not locate-paved or sodded over
B001-15	Upper	1	1124161.28	953574.72	NA	NM	NM	NM	NM	No lock	OK	OK	OK	
B001-16	Upper	1	1124235.44	953562.22	NA	NM	NM	NM	NM	No lock	OK	OK	OK	
DP-MW-01	Upper	2	1123220.64	954880.49	405.82	NM	NM	NM	NM	No lock	OK	OK	OK	
DP-MW-02	Upper	2	1123133.30	955153.64	407.22	NM	NM	NM	NM	No lock	OK	OK	OK	
DP-MW-03	Upper	2	1122921.52	954901.99	409.76	NM	NM	NM	NM	No lock	OK	OK	OK	
DP-MW-05	Upper	2	1122995.89	954882.97	409.93	NM	NM	NM	NM	No lock	OK	OK	OK	
MW-08	Upper	2	1123604.65	953918.88	404.00	-	5.63	-	398.37	No lock	OK	OK	OK	
MW-49	Upper	2	1124635.39	953204.37	407.66	-	11.32	-	396.34	No lock	OK	OK	OK	
MW-69	Upper	2	1123575.09	953238.60	403.70	-	6.05	-	397.65	No lock	OK	OK	OK	
MW-70	Upper	2	1124609.37	952918.96	406.24	-	11.23	-	395.01	No lock	OK	OK	OK	
MW-72	Upper	2	1123133.97	952768.81	404.10	-	5.45	-	398.65	No lock	OK	OK	OK	
MW-74	Upper	2	1123318.97	953446.58	405.64	-	7.49	-	398.15	No lock	OK	OK	OK	
MW-75	Upper	2	1123849.47	954074.99	405.29	-	6.84	-	398.45	No lock	OK	OK	OK	
MW-78	Upper	2	1124424.80	954858.90	402.58	-	7.61	-	394.97	No lock	OK	OK	OK	
MW-81	Upper	2	1124341.64	954033.81	406.10	-	8.20	-	397.90	No lock	OK	OK	OK	
MW-82	Upper	2	1124398.72	954533.30	404.19	-	9.83	-	394.36	No lock	OK	OK	OK	
MW-83	Upper	2	1124336.76	954304.18	404.92	-	7.00	-	397.92	No lock	OK	OK	OK	
MW-84	Upper	2	1123704.67	953673.48	403.57	-	7.04	-	396.53	No lock	OK	OK	OK	

Specific Gravity of Free Phase Product = 0.73 based on historical reports
Groundwater Elevation = Measuring Point Elevation - Depth to Water (BTOR) + (0.73 x Free Phase Product Thickness)
NA - Not Available
NM - Not Measured

AECOM

TEST BORING LOG

BORING NO. : DPMW-01

PROJECT/PROJECT LOCATION: UTC Debris Pile	**SHEET:** 1 **OF** 1
CLIENT: UTC	**JOB NO. :** 60480273
BORING CONTRACTOR: Parratt-Wolff	**NORTHING:** 1123220.64 **EASTING:** 954880.49
GROUNDWATER:	**GROUND ELEVATION:** 406.14

DATE	TIME	LEVEL	TYPE		CAS.	SAMPLER	CORE	TUBE
				TYPE	HSA	Macrocore		
				DIA.	4 1/4"	2"		
				WT.				
				FALL				
				* POCKET PENETROMETER READING				

DATE STARTED:

DATE FINISHED:

DRILLER: Jolaan Price

GEOLOGIST: Rob Murphy

REVIEWED BY: Kevin Connare

DEPTH FEET	STRATA	SAMPLE DEPTH	SAMPLE BLOW COUNTS	RECOVERY (%)	PID DIRECT/ HEAD-SPACE	MATERIAL DESCRIPTION	WELL CONSTRUCTION	REMARKS
0		0-4		NA	ND	Dark brown Topsoil, organic silt.	Hole Plug (0.5-1.5')	Moist
						Gray brown Clayey SILT, some fine to very fine sand, dilatant (ML)	2" PVC Riser (0'-2')	
-5		4-8		100	ND	Brown Clayey SILT, trace to some very fine sand (ML)		Wet @ 3.5'.
						Brown fine SAND, trace silt, dilatant (SP)	NJ #0 US Silica (1.5'-12')	
-10		8-12		75	ND	Gray fine SAND, trace silt (SP)	10-slot 2" PVC screen (2'-12')	
						End of boring @ 12.0'		
-15								
-20								
-25								

COMMENTS: Boring hand cleared to 5' bgs then advanced with track mounted Geoprobe 6712 DT rig.

AECOM

TEST BORING LOG

BORING NO. : DPMW-02

PROJECT/PROJECT LOCATION: UTC Debris Pile

SHEET: 1 **OF** 1

CLIENT: UTC

JOB NO. : 60480273

BORING CONTRACTOR: Parratt-Wolff

NORTHING: 1123133.30 **EASTING:** 955153.64

GROUNDWATER:

GROUND ELEVATION: 407.54

DATE	TIME	LEVEL	TYPE	TYPE	CAS.	SAMPLER	CORE	TUBE
				DIA.	4 1/4"	2"		
				WT.				
				FALL				
				* POCKET PENETROMETER READING				

DATE STARTED:

DATE FINISHED:

DRILLER: Jolaan Price

GEOLOGIST: R. Murphy

REVIEWED BY: Kevin Connare

DEPTH FEET	STRATA	SAMPLE DEPTH	SAMPLE BLOW COUNTS	RECOVERY (%)	PID DIRECT/ HEAD-SPACE	MATERIAL DESCRIPTION	WELL CONSTRUCTION	REMARKS
0		0-4		NA	ND	FILL: Gray Silty CLAY with brick and gravel.	Hole Plug (0.5-1.5')	Moist
						Brown Clayey SILT (ML)	2" PVC Riser (0'-2')	
		4-8		100	ND	Brown Silty CLAY (CL)		
-5						Brown Silty fine SAND (SM)		Wet @ 5'.
						Brown Clayey SILT, trace fine sand (ML)	NJ #0 US Silica (1.5'-12')	
		8-12		65	ND	Brown Silty fine SAND (SM)	10-slot 2" PVC screen (2'-12')	
-10						Gray Silty fine SAND (SM)		
						End of boring @ 12.0'		
-15								
-20								
-25								

COMMENTS: Boring hand cleared to 4' bgs then advanced with track mounted Geoprobe 6712 DT rig.

BORING NO. : DPMW-02

TEST BORING LOG

AECOM

BORING NO. :	DPMW-03
PROJECT/PROJECT LOCATION:	UTC Debris Pile
SHEET:	1 OF 1
CLIENT:	UTC
JOB NO. :	60480273
BORING CONTRACTOR:	Parratt-Wolff
NORTHING:	1122921.52 **EASTING:** 954902.00
GROUNDWATER:	
GROUND ELEVATION:	407.16

DATE	TIME	LEVEL	TYPE	TYPE	CAS.	SAMPLER	CORE	TUBE
				DIA.	4 1/4"	2"		
				WT.				
				FALL				
				* POCKET PENETROMETER READING				

DATE STARTED:	
DATE FINISHED:	
DRILLER:	Jolaan Price
GEOLOGIST:	Rob Murphy
REVIEWED BY:	Kevin Connare

DEPTH FEET	STRATA	SAMPLE DEPTH	SAMPLE BLOW COUNTS	RECOVERY (%)	PID DIRECT/ HEAD-SPACE	MATERIAL DESCRIPTION	WELL CONSTRUCTION	REMARKS
0		0-4		NA	ND	Gray brown Clayey SILT to Silty CLAY (CL/ML)	2" PVC Riser (-2.5'-2')	Moist
						Gray brown Clayey SILT (ML)	Hole Plug (0.5-1.5')	Wet @ 3'.
-5		4-8		88	ND	Gray Silty fine SAND (SM)		
						Brown Clayey SILT, trace to some fine sand (ML)		
						Brown Silty CLAY, some fine sand interbeds (CL)	NJ #0 US Silica (1.5'-12')	
						Brown Clayey SILT, some fine sand (ML)		
-10		8-12		100	ND	Brown Silty Fine SAND (SM)	10-slot 2" PVC screen (2'-12')	
						Brown Clayey SILT, some fine sand (ML)		
						Gray Clayey SILT, trace to some fine sand (ML)		
-15						End of boring @ 12.0'		
-20								

COMMENTS: Boring hand cleared to 4' bgs then advanced with track mounted Geoprobe 6712 DT rig.

Stickup casing required due to standing surface water.

BORING NO. : DPMW-03

AECOM

TEST BORING LOG

BORING NO. : DPMW-04

PROJECT/PROJECT LOCATION: UTC Debris Pile	**SHEET:** 1 **OF** 1
CLIENT: UTC	**JOB NO. :** 60480273
BORING CONTRACTOR: Parratt-Wolff	**NORTHING:** 1122974.74 **EASTING:** 954593.56
GROUNDWATER:	**GROUND ELEVATION:** 408.75

DATE	TIME	LEVEL	TYPE	TYPE	CAS.	SAMPLER	CORE	TUBE
				DIA.	4 1/4"	2"		
				WT.				
				FALL				
				* POCKET PENETROMETER READING				

DATE STARTED:
DATE FINISHED:
DRILLER: Jolaan Price
GEOLOGIST: Rob Murphy
REVIEWED BY: Kevin Connare

DEPTH FEET	STRATA	SAMPLE DEPTH	SAMPLE BLOW COUNTS	RECOVERY (%)	PID DIRECT/ HEAD-SPACE	MATERIAL DESCRIPTION	WELL CONSTRUCTION	REMARKS
0		0-4		NA	ND	Brown gray Silty CLAY, some gravel (CL)	Hole Plug (0.5-1.5'); 2" PVC Riser (0'-2')	Moist
-5		4-8		100	ND	Light brown Clayey SILT, some fine sand (ML)	NJ #0 US Silica (1.5'-12')	Wet @ 4.0'. Standing water in Hand-clear hole to 2.5'.
-10		8-12		95	ND	Gray Clayey SILT, some fine sand (ML)	10-slot 2" PVC screen (2'-12')	
						End of boring @ 12.0'		
-15								
-20								
-25								

COMMENTS: Boring hand cleared to 4' bgs then advanced with track mounted Geoprobe 6712 DT rig.

AECOM

TEST BORING LOG

BORING NO. : DPMW-05

PROJECT/PROJECT LOCATION: UTC Debris Pile

SHEET: 1 **OF** 1

CLIENT: UTC

JOB NO. : 60480273

BORING CONTRACTOR: Parratt-Wolff

NORTHING: 1122995.89 **EASTING:** 954882.97

GROUNDWATER:

DATE	TIME	LEVEL	TYPE

	CAS.	SAMPLER	CORE	TUBE
TYPE	HSA	Macrocore		
DIA.	4 1/4"	2"		
WT.				
FALL				

* POCKET PENETROMETER READING

GROUND ELEVATION: 407.35

DATE STARTED:

DATE FINISHED:

DRILLER: Jolaan Price

GEOLOGIST: Rob Murphy

REVIEWED BY: Kevin Connare

DEPTH FEET	STRATA	SAMPLE DEPTH	SAMPLE BLOW COUNTS	RECOVERY (%)	PID DIRECT/ HEAD-SPACE	MATERIAL DESCRIPTION	WELL CONSTRUCTION	REMARKS
0		0-4		NA	ND	Brown Clayey SILT to Silty CLAY with Asphalt, gravel, and wood (Fill) Brown Clayey SILT, some very fine sand from 2.5-4.0', brownish gray from 3-4' (ML)	2" PVC Riser (-2.5'-2') Hole Plug (0.5-1.5')	Moist
-5		4-8		95	ND	Gray brown Clayey SILT, trace to some very fine sand, occassional silty fine sand seam (ML) Gray brown Silty Fine SAND (SM)	NJ #0 US Silica (1.5'-12')	Wet @ 4'.
-10		8-12		78	ND	Brown to gray brown Clayey SILT with thin fine sand interbeds (ML) Gray Silty Fine SAND (SM)	10-slot 2" PVC screen (2'-12')	
-15						End of boring @ 12.0'		
-20								

COMMENTS: Boring hand cleared to 4' bgs then advanced with track mounted Geoprobe 6712 DT rig.

Stickup casing required due to standing surface water.

APPENDIX E
RESIDUAL IMPACTS

N

WINCHESTER RD

KINNE ST

DP-SE-05 (0' - 0') | CRIT | 4/16

SVOCs:		
Benzo(a)pyrene	1100	6700
Dibenz(a,h)anthracene	1100	1450

DP-SB-17 (0.17' - 1')| CRIT | 4/16

SVOCs:		
Benzo(a)pyrene	1100	1480

DP-SB-17 (1' - 2')| CRIT | 4/16

SVOCs:		
Benzo(a)pyrene	1100	2140

These soils were excavated and disposed off-site in 2018. Confirmation sampling confirmed no compounds detected exceeded the industrial use criteria.

DP-SB-06 (0.17' - 1')| CRIT | 4/16

SVOCs:		
Benzo(a)pyrene	1100	1220

DP-SB-16 (0' - 0.17')| CRIT | 4/16

SVOCs:		
Benzo(a)pyrene	1100	4020

DP-SB-16 (1' - 2')| CRIT | 4/16

SVOCs:		
Benzo(a)pyrene	1100	2660

DP-SB-09 (0' - 0.17') | CRIT | 4/16

SVOCs:		
Benzo(a)anthracene	11000	11900
Benzo(a)pyrene	1100	9720
Dibenz(a,h)anthracene	1100	2000

DP-SB-09 (0.17' - 1') | CRIT | 4/16

SVOCs:		
Benzo(a)anthracene	11000	126000
Benzo(a)pyrene	1100	101000
Benzo(b)fluoranthene	11000	117000
Chrysene	110000	133000
Dibenz(a,h)anthracene	1100	22000
Indeno(1,2,3-cd)pyrene	11000	66700

DP-SB-09 (1' - 2')| CRIT | 4/16

SVOCs:		
Benzo(a)pyrene	1100	3150

DP-SB-15 (0.17' - 1') | CRIT | 4/16

SVOCs:		
Benzo(a)anthracene	11000	79600
Benzo(a)pyrene	1100	65100
Benzo(b)fluoranthene	11000	66100
Dibenz(a,h)anthracene	1100	13300
Indeno(1,2,3-cd)pyrene	11000	27300

These soils were excavated and disposed off-site in 2018. Confirmation sampling confirmed no compounds detected exceeded the industrial use criteria.

DP-SB-14 (0' - 0.17')| CRIT | 4/16

SVOCs:		
Benzo(a)pyrene	1100	1820

DP-SE-01 DP-SB-11 DP-SE-02 DP-MW-01 DP-SB-01 DP-SE-03 DP-SB-12 DP-SE-04

DP-SB-07 DP-SB-08 DP-MW-02 DP-SB-02

DP-SB-18 DP-SB-13 DP-SB-19

DP-SB-10 DP-MW-05 DP-SB-05

DP-MW-04 DP-SB-04

DP-MW-03 DP-SB-03

Legend

- Monitoring Well
- Catch Basin Soil Sample
- Soil Boring

CRITERIA: 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.
NOTES: Units shown in µg/kg.
SOURCE: NYS Digital Ortho-imagery Program (NYSDOP), Onondaga County, 2015

80 0 80 Feet

SOUTHEAST DEBRIS/SOIL PILE
UTC/CARRIER SITE
SOIL EXCEEDANCES
(APRIL 2016)

AECOM

FIGURE 5

J:\Projects\60310231_UTCAOCGR\MISC\GIS\Maps\DEBRIS PILE\SOIL ANALYTICAL RESULTS (APRIL 2016).mxd 6/8/2016

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-01	DP-SB-01	DP-SB-01	DP-SB-01	DP-SB-01
Sample ID			DP-SB-01(0-2)	DP-SB-01(0-6)	DP-SB-01(2-12)	DP-SB-01(6-12)	DP-SB-01(12-24)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	0.0-0.5	0.2-1.0	0.5-1.0	1.0-2.0
Date Sampled			04/05/16	04/05/16	04/05/16	04/05/16	04/05/16
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/KG	1.00E+06	NA	2.2 U	NA	2.8 U	2.3 U
1,1-Dichloroethane	UG/KG	4.80E+05	NA	2.2 U	NA	2.8 U	2.3 U
1,2-Dichloroethene (cis)	UG/KG	1.00E+06	NA	2.2 U	NA	2.8 U	2.3 U
1,2-Dichloroethene (trans)	UG/KG	1.00E+06	NA	2.2 U	NA	2.8 U	2.3 U
Acetone	UG/KG	1.00E+06	NA	111 J	NA	153 J	73.1 J
Benzene	UG/KG	89000	NA	0.41 J	NA	1.2	0.56 U
Carbon disulfide	UG/KG	-	NA	1.7 J	NA	1.8 J	5.6 U
Ethylbenzene	UG/KG	7.80E+05	NA	2.2 U	NA	2.8 U	2.3 U
Methyl ethyl ketone (2-Butanone)	UG/KG	1.00E+06	NA	22 U	NA	28 U	23 U
Methylene chloride	UG/KG	1.00E+06	NA	2.2 U	NA	2.8 U	2.3 U
Tetrachloroethene	UG/KG	3.00E+05	NA	2.2 U	NA	2.8 U	2.3 U
Toluene	UG/KG	1.00E+06	NA	5.5 U	NA	1.0 J	5.6 U
Trichloroethene	UG/KG	4.00E+05	NA	2.2 U	NA	1.2 J	2.3 U
Xylene (total)	UG/KG	1.00E+06	NA	2.2 U	NA	2.8 U	2.3 U
Semivolatile Organic Compounds							
1,2,4-Trichlorobenzene	UG/KG	-	1,400 U	NA	1,300 U	NA	290 U
2-Methylnaphthalene	UG/KG	-	570 U	NA	530 U	NA	120 U
Acenaphthene	UG/KG	1.00E+06	570 U	NA	530 U	NA	120 U
Acenaphthylene	UG/KG	1.00E+06	570 U	NA	530 U	NA	120 U
Anthracene	UG/KG	1.00E+06	570 U	NA	530 U	NA	120 U
Benzo(a)anthracene	UG/KG	11000	327 J	NA	300 J	NA	120 U
Benzo(a)pyrene	UG/KG	1100	432 J	NA	406 J	NA	120 U

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Only Detected Results Reported.

Detection Limits shown are PQL

Advanced Selection: Debris Pile Soils
#Error
Printed: 6/14/2016 8:39:50 AM
[SITE KEY] = 2 AND [MATRIX] = 'SO' AND [LOCID] <> 'DRUM COMPOSITE'

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-01	DP-SB-01	DP-SB-01	DP-SB-01	DP-SB-01
Sample ID			DP-SB-01(0-2)	DP-SB-01(0-6)	DP-SB-01(2-12)	DP-SB-01(6-12)	DP-SB-01(12-24)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	0.0-0.5	0.2-1.0	0.5-1.0	1.0-2.0
Date Sampled			04/05/16	04/05/16	04/05/16	04/05/16	04/05/16
Parameter	**Units**	**Criteria***					
Semivolatile Organic Compounds							
Benzo(b)fluoranthene	UG/KG	11000	466 J	NA	433 J	NA	120 U
Benzo(g,h,i)perylene	UG/KG	1.00E+06	570 U	NA	530 U	NA	120 U
Benzo(k)fluoranthene	UG/KG	1.10E+05	364 J	NA	366 J	NA	120 U
bis(2-Ethylhexyl)phthalate	UG/KG	-	1,400 U	NA	1,300 U	NA	290 U
Butylbenzylphthalate	UG/KG	-	1,400 U	NA	1,300 U	NA	290 U
Carbazole	UG/KG	-	570 U	NA	530 U	NA	120 U
Chrysene	UG/KG	1.10E+05	384 J	NA	340 J	NA	120 U
Dibenz(a,h)anthracene	UG/KG	1100	570 U	NA	530 U	NA	120 U
Dibenzofuran	UG/KG	1.00E+06	570 U	NA	530 U	NA	120 U
Diethylphthalate	UG/KG	-	1,400 U	NA	1,300 U	NA	290 U
Dimethylphthalate	UG/KG	-	1,400 U	NA	1,300 U	NA	290 U
Di-n-butylphthalate	UG/KG	-	1,400 U	NA	1,300 U	NA	290 U
Di-n-octylphthalate	UG/KG	-	1,400 U	NA	1,300 U	NA	290 U
Fluoranthene	UG/KG	1.00E+06	611	NA	538	NA	120 U
Fluorene	UG/KG	1.00E+06	570 U	NA	530 U	NA	120 U
Indeno(1,2,3-cd)pyrene	UG/KG	11000	570 U	NA	530 U	NA	120 U
Naphthalene	UG/KG	1.00E+06	570 U	NA	530 U	NA	120 U
Phenanthrene	UG/KG	1.00E+06	216 J	NA	191 J	NA	120 U
Pyrene	UG/KG	1.00E+06	475 J	NA	416 J	NA	120 U
Pesticide Organic Compounds							
4,4'-DDD	UG/KG	1.80E+05	5.6 U	NA	5.4 U	NA	5.8 U
4,4'-DDE	UG/KG	1.20E+05	1.8 NJ	NA	2.3 NJ	NA	5.8 UJ

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Only Detected Results Reported.

Detection Limits shown are PQL

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-01	DP-SB-01	DP-SB-01	DP-SB-01	DP-SB-01
Sample ID			DP-SB-01(0-2)	DP-SB-01(0-6)	DP-SB-01(2-12)	DP-SB-01(6-12)	DP-SB-01(12-24)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	0.0-0.5	0.2-1.0	0.5-1.0	1.0-2.0
Date Sampled			04/05/16	04/05/16	04/05/16	04/05/16	04/05/16
Parameter	**Units**	**Criteria***					
Pesticide Organic Compounds							
4,4'-DDT	UG/KG	94000	R	NA	R	NA	5.8 UJ
alpha-Chlordane	UG/KG	47000	5.6 UJ	NA	5.4 UJ	NA	5.8 UJ
Dieldrin	UG/KG	2800	5.6 UJ	NA	5.4 UJ	NA	5.8 UJ
gamma-Chlordane	UG/KG	-	5.6 U	NA	5.4 U	NA	5.8 U
Heptachlor epoxide	UG/KG	-	5.6 U	NA	5.4 U	NA	5.8 U
Herbicides							
2,4-D	UG/KG	-	8.8 J	NA	9.0 J	NA	23 U
Polychlorinated Biphenyls							
Aroclor 1254	UG/KG	-	38 U	NA	27 U	NA	29 U
Aroclor 1260	UG/KG	-	28.6 J	NA	44.3 J	NA	29 U
Total Polychlorinated Biphenyls	UG/KG	25000	28.6 J	NA	44.3 J	NA	29 U
Metals							
Arsenic	MG/KG	16	2.2	NA	2.1	NA	7.0
Barium	MG/KG	10000	33.2	NA	142	NA	117
Cadmium	MG/KG	60	0.35 U	NA	0.33 U	NA	0.65
Chromium	MG/KG	6800	17.9	NA	8.9	NA	16.1
Lead	MG/KG	3900	20.1	NA	19.7	NA	12.9
Mercury	MG/KG	5.7	0.032 U	NA	0.028 U	NA	0.039
Selenium	MG/KG	6800	0.87 U	NA	0.82 U	NA	0.87 U
Silver	MG/KG	6800	0.44 U	NA	0.41 U	NA	0.44 U

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Only Detected Results Reported.

Detection Limits shown are PQL

Advanced Selection: Debris Pile Soils
#Error
Printed: 6/14/2016 8:39:50 AM
[SITE KEY] = 2 AND [MATRIX] = 'SO' AND [LOCID] <> 'DRUM COMPOSITE'

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-02	DP-SB-02	DP-SB-02	DP-SB-02	DP-SB-02
Sample ID			DP-SB-02(0-2)	DP-SB-02(0-6)	DP-SB-02(2-12)	DP-SB-02(6-12)	DP-SB-02(12-24)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	0.0-0.2	0.2-1.0	0.5-1.0	1.0-2.0
Date Sampled			04/05/16	04/05/16	04/05/16	04/05/16	04/05/16
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/KG	1.00E+06	NA	1.7 U	NA	2.3 U	2.8 U
1,1-Dichloroethane	UG/KG	4.80E+05	NA	1.7 U	NA	2.3 U	2.8 U
1,2-Dichloroethene (cis)	UG/KG	1.00E+06	NA	1.7 U	NA	2.3 U	2.8 U
1,2-Dichloroethene (trans)	UG/KG	1.00E+06	NA	1.7 U	NA	2.3 U	2.8 U
Acetone	UG/KG	1.00E+06	NA	187 J	NA	388 J	185 J
Benzene	UG/KG	89000	NA	0.57	NA	1.3	0.69 U
Carbon disulfide	UG/KG	-	NA	1.5 J	NA	1.9 J	6.9 U
Ethylbenzene	UG/KG	7.80E+05	NA	1.7 UJ	NA	2.3 U	2.8 U
Methyl ethyl ketone (2-Butanone)	UG/KG	1.00E+06	NA	8.6 U	NA	23 U	28 U
Methylene chloride	UG/KG	1.00E+06	NA	1.7 U	NA	2.3 U	2.8 U
Tetrachloroethene	UG/KG	3.00E+05	NA	1.7 UJ	NA	2.3 U	2.8 U
Toluene	UG/KG	1.00E+06	NA	4.3 U	NA	1.3 J	6.9 U
Trichloroethene	UG/KG	4.00E+05	NA	0.28 J	NA	2.8	2.8 U
Xylene (total)	UG/KG	1.00E+06	NA	1.7 UJ	NA	0.64 J	2.8 U
Semivolatile Organic Compounds							
1,2,4-Trichlorobenzene	UG/KG	-	290 U	NA	290 U	NA	310 U
2-Methylnaphthalene	UG/KG	-	35.1 J	NA	40.7 J	NA	120 U
Acenaphthene	UG/KG	1.00E+06	84.2 J	NA	53.7 J	NA	120 U
Acenaphthylene	UG/KG	1.00E+06	25.8 J	NA	26.9 J	NA	18.0 J
Anthracene	UG/KG	1.00E+06	186	NA	122	NA	15.2 J
Benzo(a)anthracene	UG/KG	11000	558	NA	382	NA	64.5 J
Benzo(a)pyrene	UG/KG	1100	526	NA	348	NA	70.8 J

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Only Detected Results Reported.

Detection Limits shown are PQL

Advanced Selection: Debris Pile Soils
#Error
Printed: 6/14/2016 8:39:50 AM
[SITE KEY] = 2 AND [MATRIX] = 'SO' AND [LOCID] <> 'DRUM COMPOSITE'

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-02	DP-SB-02	DP-SB-02	DP-SB-02	DP-SB-02
Sample ID			DP-SB-02(0-2)	DP-SB-02(0-6)	DP-SB-02(2-12)	DP-SB-02(6-12)	DP-SB-02(12-24)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	0.0-0.2	0.2-1.0	0.5-1.0	1.0-2.0
Date Sampled			04/05/16	04/05/16	04/05/16	04/05/16	04/05/16
Parameter	**Units**	**Criteria***					
Semivolatile Organic Compounds							
Benzo(b)fluoranthene	UG/KG	11000	450	NA	338	NA	60.7 J
Benzo(g,h,i)perylene	UG/KG	1.00E+06	311 U	NA	187 U	NA	120 U
Benzo(k)fluoranthene	UG/KG	1.10E+05	482	NA	312	NA	60.7 J
bis(2-Ethylhexyl)phthalate	UG/KG	-	16.2 J	NA	28.9 J	NA	26.1 J
Butylbenzylphthalate	UG/KG	-	290 U	NA	290 U	NA	310 U
Carbazole	UG/KG	-	77.5 J	NA	68.8 J	NA	120 U
Chrysene	UG/KG	1.10E+05	536	NA	376	NA	78.7 J
Dibenz(a,h)anthracene	UG/KG	1100	120 U	NA	120 U	NA	120 U
Dibenzofuran	UG/KG	1.00E+06	33.8 J	NA	32.2 J	NA	120 U
Diethylphthalate	UG/KG	-	290 U	NA	290 U	NA	310 U
Dimethylphthalate	UG/KG	-	290 U	NA	290 U	NA	310 U
Di-n-butylphthalate	UG/KG	-	290 U	NA	290 U	NA	310 U
Di-n-octylphthalate	UG/KG	-	290 U	NA	290 U	NA	310 U
Fluoranthene	UG/KG	1.00E+06	1,090	NA	835	NA	140
Fluorene	UG/KG	1.00E+06	70.7 J	NA	49.3 J	NA	120 U
Indeno(1,2,3-cd)pyrene	UG/KG	11000	278 U	NA	171 U	NA	120 U
Naphthalene	UG/KG	1.00E+06	35.7 J	NA	41.3 J	NA	120 U
Phenanthrene	UG/KG	1.00E+06	692	NA	533	NA	73.3 J
Pyrene	UG/KG	1.00E+06	982	NA	648	NA	129
Pesticide Organic Compounds							
4,4'-DDD	UG/KG	1.80E+05	5.7 U	NA	5.9 U	NA	6 U
4,4'-DDE	UG/KG	1.20E+05	5.7 UJ	NA	5.9 UJ	NA	6 UJ

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Only Detected Results Reported.

Detection Limits shown are PQL

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-02	DP-SB-02	DP-SB-02	DP-SB-02	DP-SB-02
Sample ID			DP-SB-02(0-2)	DP-SB-02(0-6)	DP-SB-02(2-12)	DP-SB-02(6-12)	DP-SB-02(12-24)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	0.0-0.2	0.2-1.0	0.5-1.0	1.0-2.0
Date Sampled			04/05/16	04/05/16	04/05/16	04/05/16	04/05/16
Parameter	**Units**	**Criteria***					
Pesticide Organic Compounds							
4,4'-DDT	UG/KG	94000	5.7 UJ	NA	5.9 UJ	NA	6 UJ
alpha-Chlordane	UG/KG	47000	5.7 UJ	NA	5.9 UJ	NA	6 UJ
Dieldrin	UG/KG	2800	5.7 UJ	NA	5.9 UJ	NA	6 UJ
gamma-Chlordane	UG/KG	-	5.7 U	NA	5.9 U	NA	6 U
Heptachlor epoxide	UG/KG	-	5.7 U	NA	5.9 U	NA	6 U
Herbicides							
2,4-D	UG/KG	-	23 U	NA	6.5 J	NA	8.3 J
Polychlorinated Biphenyls							
Aroclor 1254	UG/KG	-	1,240	NA	1,620	NA	32.7
Aroclor 1260	UG/KG	-	693 J	NA	681 J	NA	29.2 J
Total Polychlorinated Biphenyls	UG/KG	25000	1,933 J	NA	2,301 J	NA	61.9 J
Metals							
Arsenic	MG/KG	16	4.7	NA	4.7	NA	4.5
Barium	MG/KG	10000	52.3	NA	61.6	NA	67.3
Cadmium	MG/KG	60	0.34 U	NA	0.36 U	NA	0.37 U
Chromium	MG/KG	6800	12.2	NA	16.0	NA	14.9
Lead	MG/KG	3900	26.8	NA	30.7	NA	15.0
Mercury	MG/KG	5.7	0.069	NA	0.085	NA	0.081
Selenium	MG/KG	6800	0.86 U	NA	0.9 U	NA	0.92 U
Silver	MG/KG	6800	0.43 U	NA	0.45 U	NA	0.46 U

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Only Detected Results Reported.

Detection Limits shown are PQL

Advanced Selection: Debris Pile Soils
#Error
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[SITE KEY] = 2 AND [MATRIX] = 'SO' AND [LOCID] <> 'DRUM COMPOSITE'

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-03	DP-SB-03	DP-SB-03	DP-SB-03	DP-SB-03
Sample ID			DP-SB-03(0-2)	DP-SB-03(0-6)	DP-SB-03(2-12)	DP-SB-03(6-12)	DP-SB-03(12-24)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	0.0-0.5	0.2-1.0	0.5-1.0	1.0-2.0
Date Sampled			04/05/16	04/05/16	04/05/16	04/05/16	04/05/16
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/KG	1.00E+06	NA	4.9 U	NA	2.2 U	1.7 U
1,1-Dichloroethane	UG/KG	4.80E+05	NA	4.9 U	NA	2.2 U	1.7 U
1,2-Dichloroethene (cis)	UG/KG	1.00E+06	NA	4.9 U	NA	2.2 U	1.7 U
1,2-Dichloroethene (trans)	UG/KG	1.00E+06	NA	4.9 U	NA	2.2 U	1.7 U
Acetone	UG/KG	1.00E+06	NA	359 J	NA	73.2 J	29.0 J
Benzene	UG/KG	89000	NA	1.2	NA	0.56 U	0.42 U
Carbon disulfide	UG/KG	-	NA	3.9 J	NA	5.6 U	4.2 U
Ethylbenzene	UG/KG	7.80E+05	NA	4.9 U	NA	2.2 U	1.7 U
Methyl ethyl ketone (2-Butanone)	UG/KG	1.00E+06	NA	49 U	NA	22 U	17 U
Methylene chloride	UG/KG	1.00E+06	NA	4.9 U	NA	2.2 U	1.7 U
Tetrachloroethene	UG/KG	3.00E+05	NA	4.9 U	NA	2.2 U	1.7 U
Toluene	UG/KG	1.00E+06	NA	1.3 J	NA	5.6 U	4.2 U
Trichloroethene	UG/KG	4.00E+05	NA	4.9 U	NA	2.2 U	1.7 U
Xylene (total)	UG/KG	1.00E+06	NA	4.9 U	NA	2.2 U	1.7 U
Semivolatile Organic Compounds							
1,2,4-Trichlorobenzene	UG/KG	-	390 U	NA	380 U	NA	300 U
2-Methylnaphthalene	UG/KG	-	150 U	NA	150 U	NA	120 U
Acenaphthene	UG/KG	1.00E+06	150 U	NA	150 U	NA	120 U
Acenaphthylene	UG/KG	1.00E+06	150 U	NA	150 U	NA	120 U
Anthracene	UG/KG	1.00E+06	32.7 J	NA	16.7 J	NA	120 U
Benzo(a)anthracene	UG/KG	11000	184	NA	82.4 J	NA	120 U
Benzo(a)pyrene	UG/KG	1100	198	NA	84.1 J	NA	120 U

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Only Detected Results Reported.

Detection Limits shown are PQL

Advanced Selection: Debris Pile Soils
#Error
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[SITE KEY] = 2 AND [MATRIX] = 'SO' AND [LOCID] <> 'DRUM COMPOSITE'

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-03	DP-SB-03	DP-SB-03	DP-SB-03	DP-SB-03
Sample ID			DP-SB-03(0-2)	DP-SB-03(0-6)	DP-SB-03(2-12)	DP-SB-03(6-12)	DP-SB-03(12-24)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	0.0-0.5	0.2-1.0	0.5-1.0	1.0-2.0
Date Sampled			04/05/16	04/05/16	04/05/16	04/05/16	04/05/16
Parameter	**Units**	**Criteria***					
Semivolatile Organic Compounds							
Benzo(b)fluoranthene	UG/KG	11000	206	NA	76.1 J	NA	120 U
Benzo(g,h,i)perylene	UG/KG	1.00E+06	150 U	NA	150 U	NA	120 U
Benzo(k)fluoranthene	UG/KG	1.10E+05	154	NA	71.2 J	NA	120 U
bis(2-Ethylhexyl)phthalate	UG/KG	-	133 J	NA	50.9 J	NA	300 U
Butylbenzylphthalate	UG/KG	-	174 J	NA	21.0 J	NA	300 U
Carbazole	UG/KG	-	30.4 J	NA	150 U	NA	120 U
Chrysene	UG/KG	1.10E+05	208	NA	91.3 J	NA	120 U
Dibenz(a,h)anthracene	UG/KG	1100	150 U	NA	150 U	NA	120 U
Dibenzofuran	UG/KG	1.00E+06	150 U	NA	150 U	NA	120 U
Diethylphthalate	UG/KG	-	390 U	NA	380 U	NA	300 U
Dimethylphthalate	UG/KG	-	390 U	NA	380 U	NA	300 U
Di-n-butylphthalate	UG/KG	-	390 U	NA	380 U	NA	300 U
Di-n-octylphthalate	UG/KG	-	390 U	NA	380 U	NA	300 U
Fluoranthene	UG/KG	1.00E+06	404	NA	183	NA	120 U
Fluorene	UG/KG	1.00E+06	150 U	NA	150 U	NA	120 U
Indeno(1,2,3-cd)pyrene	UG/KG	11000	150 U	NA	150 U	NA	120 U
Naphthalene	UG/KG	1.00E+06	150 U	NA	150 U	NA	120 U
Phenanthrene	UG/KG	1.00E+06	187	NA	89.7 J	NA	120 U
Pyrene	UG/KG	1.00E+06	374	NA	149 J	NA	120 U
Pesticide Organic Compounds							
4,4'-DDD	UG/KG	1.80E+05	7.9 U	NA	7.5 U	NA	6.2 U
4,4'-DDE	UG/KG	1.20E+05	7.9 U	NA	7.5 U	NA	6.2 U

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Only Detected Results Reported.

Detection Limits shown are PQL

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-03	DP-SB-03	DP-SB-03	DP-SB-03	DP-SB-03
Sample ID			DP-SB-03(0-2)	DP-SB-03(0-6)	DP-SB-03(2-12)	DP-SB-03(6-12)	DP-SB-03(12-24)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	0.0-0.5	0.2-1.0	0.5-1.0	1.0-2.0
Date Sampled			04/05/16	04/05/16	04/05/16	04/05/16	04/05/16
Parameter	**Units**	**Criteria***					
Pesticide Organic Compounds							
4,4'-DDT	UG/KG	94000	7.9 U	NA	7.5 U	NA	6.2 U
alpha-Chlordane	UG/KG	47000	7.9 U	NA	7.5 U	NA	6.2 U
Dieldrin	UG/KG	2800	7.9 U	NA	7.5 U	NA	6.2 U
gamma-Chlordane	UG/KG	-	7.9 U	NA	7.5 U	NA	6.2 U
Heptachlor epoxide	UG/KG	-	7.9 U	NA	7.5 U	NA	6.2 U
Herbicides							
2,4-D	UG/KG	-	16.2 J	NA	16.3 J	NA	24 U
Polychlorinated Biphenyls							
Aroclor 1254	UG/KG	-	22.1 J	NA	22.0 J	NA	31 U
Aroclor 1260	UG/KG	-	76.7	NA	85.0	NA	31 U
Total Polychlorinated Biphenyls	UG/KG	25000	98.8 J	NA	107 J	NA	31 U
Metals							
Arsenic	MG/KG	16	4.4	NA	5.0	NA	4.2
Barium	MG/KG	10000	67.5	NA	66.5	NA	64.5
Cadmium	MG/KG	60	2.2	NA	1.7	NA	0.37 U
Chromium	MG/KG	6800	14.9	NA	14.7	NA	16.1
Lead	MG/KG	3900	49.8	NA	48.4	NA	9.5
Mercury	MG/KG	5.7	0.074	NA	0.049	NA	0.036
Selenium	MG/KG	6800	1 U	NA	1.1 U	NA	0.91 U
Silver	MG/KG	6800	0.51 U	NA	0.56 U	NA	0.46 U

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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Advanced Selection: Debris Pile Soils
#Error
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[SITE KEY] = 2 AND [MATRIX] = 'SO' AND [LOCID] <> 'DRUM COMPOSITE'

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-04	DP-SB-04	DP-SB-04	DP-SB-04	DP-SB-04
Sample ID			DP-SB-04(0-2)	DP-SB-04(0-6)	DP-SB-04(2-12)	DP-SB-04(6-12)	DP-SB-04(12-24)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	0.0-0.5	0.2-1.0	0.5-1.0	1.0-2.0
Date Sampled			04/05/16	04/05/16	04/05/16	04/05/16	04/05/16
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/KG	1.00E+06	NA	2.2 U	NA	2.3 U	3.4 U
1,1-Dichloroethane	UG/KG	4.80E+05	NA	2.2 U	NA	2.3 U	3.4 U
1,2-Dichloroethene (cis)	UG/KG	1.00E+06	NA	2.2 U	NA	2.3 U	3.4 U
1,2-Dichloroethene (trans)	UG/KG	1.00E+06	NA	2.2 U	NA	2.3 U	3.4 U
Acetone	UG/KG	1.00E+06	NA	149 J	NA	136 J	115 J
Benzene	UG/KG	89000	NA	0.55 U	NA	0.73	0.85 U
Carbon disulfide	UG/KG	-	NA	5.5 U	NA	1.3 J	8.5 U
Ethylbenzene	UG/KG	7.80E+05	NA	2.2 U	NA	2.3 U	3.4 U
Methyl ethyl ketone (2-Butanone)	UG/KG	1.00E+06	NA	11 U	NA	12 U	17 U
Methylene chloride	UG/KG	1.00E+06	NA	2.2 U	NA	2.3 U	3.4 U
Tetrachloroethene	UG/KG	3.00E+05	NA	2.2 U	NA	2.3 U	3.4 U
Toluene	UG/KG	1.00E+06	NA	5.5 U	NA	5.8 U	8.5 U
Trichloroethene	UG/KG	4.00E+05	NA	2.2 U	NA	2.3 U	3.4 U
Xylene (total)	UG/KG	1.00E+06	NA	2.2 U	NA	2.3 U	3.4 U
Semivolatile Organic Compounds							
1,2,4-Trichlorobenzene	UG/KG	-	6,800 U	NA	13,000 U	NA	290 U
2-Methylnaphthalene	UG/KG	-	2,700 U	NA	5,300 U	NA	17.7 J
Acenaphthene	UG/KG	1.00E+06	2,700 U	NA	5,300 U	NA	54.7 J
Acenaphthylene	UG/KG	1.00E+06	2,700 U	NA	5,300 U	NA	120 U
Anthracene	UG/KG	1.00E+06	2,700 U	NA	5,300 U	NA	123
Benzo(a)anthracene	UG/KG	11000	743 J	NA	5,300 U	NA	207
Benzo(a)pyrene	UG/KG	1100	894 J	NA	5,300 U	NA	172

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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[SITE KEY] = 2 AND [MATRIX] = 'SO' AND [LOCID] <> 'DRUM COMPOSITE'

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-04	DP-SB-04	DP-SB-04	DP-SB-04	DP-SB-04
Sample ID			DP-SB-04(0-2)	DP-SB-04(0-6)	DP-SB-04(2-12)	DP-SB-04(6-12)	DP-SB-04(12-24)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	0.0-0.5	0.2-1.0	0.5-1.0	1.0-2.0
Date Sampled			04/05/16	04/05/16	04/05/16	04/05/16	04/05/16
Parameter	**Units**	**Criteria***					
Semivolatile Organic Compounds							
Benzo(b)fluoranthene	UG/KG	11000	954 J	NA	5,300 U	NA	143
Benzo(g,h,i)perylene	UG/KG	1.00E+06	2,700 U	NA	5,300 U	NA	126 U
Benzo(k)fluoranthene	UG/KG	1.10E+05	761 J	NA	5,300 U	NA	161
bis(2-Ethylhexyl)phthalate	UG/KG	-	6,800 U	NA	13,000 U	NA	290 U
Butylbenzylphthalate	UG/KG	-	6,800 U	NA	13,000 U	NA	290 U
Carbazole	UG/KG	-	2,700 U	NA	5,300 U	NA	49.9 J
Chrysene	UG/KG	1.10E+05	847 J	NA	5,300 U	NA	180
Dibenz(a,h)anthracene	UG/KG	1100	2,700 U	NA	5,300 U	NA	120 U
Dibenzofuran	UG/KG	1.00E+06	2,700 U	NA	5,300 U	NA	33.2 J
Diethylphthalate	UG/KG	-	6,800 U	NA	13,000 U	NA	290 U
Dimethylphthalate	UG/KG	-	6,800 U	NA	13,000 U	NA	290 U
Di-n-butylphthalate	UG/KG	-	6,800 U	NA	13,000 U	NA	290 U
Di-n-octylphthalate	UG/KG	-	6,800 U	NA	13,000 U	NA	290 U
Fluoranthene	UG/KG	1.00E+06	1,620 J	NA	5,300 U	NA	441
Fluorene	UG/KG	1.00E+06	2,700 U	NA	5,300 U	NA	63.2 J
Indeno(1,2,3-cd)pyrene	UG/KG	11000	2,700 U	NA	5,300 U	NA	120 U
Naphthalene	UG/KG	1.00E+06	2,700 U	NA	5,300 U	NA	30.9 J
Phenanthrene	UG/KG	1.00E+06	617 J	NA	5,300 U	NA	391
Pyrene	UG/KG	1.00E+06	1,210 J	NA	5,300 U	NA	351
Pesticide Organic Compounds							
4,4'-DDD	UG/KG	1.80E+05	6.9 U	NA	5.4 U	NA	6.1 U
4,4'-DDE	UG/KG	1.20E+05	6.9 U	NA	1.4 J	NA	6.1 U

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Only Detected Results Reported.

Detection Limits shown are PQL

Advanced Selection: Debris Pile Soils
#Error
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[SITE KEY] = 2 AND [MATRIX] = 'SO' AND [LOCID] <> 'DRUM COMPOSITE'

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-04	DP-SB-04	DP-SB-04	DP-SB-04	DP-SB-04
Sample ID			DP-SB-04(0-2)	DP-SB-04(0-6)	DP-SB-04(2-12)	DP-SB-04(6-12)	DP-SB-04(12-24)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	0.0-0.5	0.2-1.0	0.5-1.0	1.0-2.0
Date Sampled			04/05/16	04/05/16	04/05/16	04/05/16	04/05/16
Parameter	**Units**	**Criteria***					
Pesticide Organic Compounds							
4,4'-DDT	UG/KG	94000	6.9 U	NA	5.4 U	NA	6.1 U
alpha-Chlordane	UG/KG	47000	6.9 U	NA	5.4 U	NA	6.1 U
Dieldrin	UG/KG	2800	6.9 U	NA	2.2 J	NA	6.1 U
gamma-Chlordane	UG/KG	-	6.9 U	NA	5.4 U	NA	6.1 U
Heptachlor epoxide	UG/KG	-	6.9 U	NA	5.4 U	NA	6.1 U
Herbicides							
2,4-D	UG/KG	-	11.1 J	NA	10.1 J	NA	9.2 J
Polychlorinated Biphenyls							
Aroclor 1254	UG/KG	-	350 U	NA	270 U	NA	87.3
Aroclor 1260	UG/KG	-	350 U	NA	270 U	NA	37.6 J
Total Polychlorinated Biphenyls	UG/KG	25000	350 U	NA	270 U	NA	124.9 J
Metals							
Arsenic	MG/KG	16	2.4	NA	2.4	NA	4.5
Barium	MG/KG	10000	40.8	NA	41.6	NA	84.7
Cadmium	MG/KG	60	0.63	NA	0.32 U	NA	2.2
Chromium	MG/KG	6800	27.8	NA	10.1	NA	19.8
Lead	MG/KG	3900	45.0	NA	19.7	NA	225
Mercury	MG/KG	5.7	0.036 U	NA	0.030	NA	0.070
Selenium	MG/KG	6800	1 U	NA	0.79 U	NA	0.96 U
Silver	MG/KG	6800	0.52 U	NA	0.39 U	NA	1.2

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Only Detected Results Reported.

Detection Limits shown are PQL

Advanced Selection: Debris Pile Soils
#Error
Printed: 6/14/2016 8:39:51 AM
[SITE KEY] = 2 AND [MATRIX] = 'SO' AND [LOCID] <> 'DRUM COMPOSITE'

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-05	DP-SB-05	DP-SB-05	DP-SB-05	DP-SB-05
Sample ID			DP-SB-05(0-2)	DP-SB-05(0-6)	DP-SB-05(2-12)	DP-SB-05(6-12)	DP-SB-05(12-24)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	0.0-0.5	0.2-1.0	0.5-1.0	1.0-2.0
Date Sampled			04/05/16	04/05/16	04/05/16	04/05/16	04/05/16
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/KG	1.00E+06	NA	2.5 U	NA	2.7 UJ	2.2 U
1,1-Dichloroethane	UG/KG	4.80E+05	NA	2.5 U	NA	2.7 UJ	2.2 U
1,2-Dichloroethene (cis)	UG/KG	1.00E+06	NA	1.6 J	NA	2.7 UJ	9.4 J
1,2-Dichloroethene (trans)	UG/KG	1.00E+06	NA	2.5 U	NA	2.7 UJ	2.2 U
Acetone	UG/KG	1.00E+06	NA	282 J	NA	160 J	106 J
Benzene	UG/KG	89000	NA	0.81	NA	0.81 J	0.47 J
Carbon disulfide	UG/KG	-	NA	1.8 J	NA	6.6 UJ	5.5 U
Ethylbenzene	UG/KG	7.80E+05	NA	2.5 U	NA	2.7 UJ	2.2 U
Methyl ethyl ketone (2-Butanone)	UG/KG	1.00E+06	NA	25 U	NA	27 UJ	22 U
Methylene chloride	UG/KG	1.00E+06	NA	2.5 U	NA	2.7 UJ	2.2 U
Tetrachloroethene	UG/KG	3.00E+05	NA	2.5 U	NA	2.7 UJ	14.7 J
Toluene	UG/KG	1.00E+06	NA	6.2 U	NA	0.97 J	0.44 J
Trichloroethene	UG/KG	4.00E+05	NA	3.7	NA	0.79 J	106 J
Xylene (total)	UG/KG	1.00E+06	NA	2.5 U	NA	2.7 UJ	2.2 U
Semivolatile Organic Compounds							
1,2,4-Trichlorobenzene	UG/KG	-	1,500 U	NA	340 U	NA	300 U
2-Methylnaphthalene	UG/KG	-	610 U	NA	140 U	NA	43.1 J
Acenaphthene	UG/KG	1.00E+06	220 J	NA	38.3 J	NA	61.4 J
Acenaphthylene	UG/KG	1.00E+06	610 U	NA	140 U	NA	17.0 J
Anthracene	UG/KG	1.00E+06	399 J	NA	82.9 J	NA	150
Benzo(a)anthracene	UG/KG	11000	988	NA	171	NA	391
Benzo(a)pyrene	UG/KG	1100	865	NA	142	NA	351

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Only Detected Results Reported.

Detection Limits shown are PQL

Advanced Selection: Debris Pile Soils
#Error
Printed: 6/14/2016 8:39:51 AM
[SITE KEY] = 2 AND [MATRIX] = 'SO' AND [LOCID] <> 'DRUM COMPOSITE'

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-05	DP-SB-05	DP-SB-05	DP-SB-05	DP-SB-05
Sample ID			DP-SB-05(0-2)	DP-SB-05(0-6)	DP-SB-05(2-12)	DP-SB-05(6-12)	DP-SB-05(12-24)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	0.0-0.5	0.2-1.0	0.5-1.0	1.0-2.0
Date Sampled			04/05/16	04/05/16	04/05/16	04/05/16	04/05/16
Parameter	**Units**	**Criteria***					
Semivolatile Organic Compounds							
Benzo(b)fluoranthene	UG/KG	11000	725	NA	116 J	NA	325
Benzo(g,h,i)perylene	UG/KG	1.00E+06	610 U	NA	140 U	NA	236 U
Benzo(k)fluoranthene	UG/KG	1.10E+05	750	NA	130 J	NA	342
bis(2-Ethylhexyl)phthalate	UG/KG	-	765 J	NA	21.2 J	NA	53.0 J
Butylbenzylphthalate	UG/KG	-	1,500 U	NA	340 U	NA	300 U
Carbazole	UG/KG	-	189 J	NA	37.6 J	NA	72.1 J
Chrysene	UG/KG	1.10E+05	924	NA	162	NA	384
Dibenz(a,h)anthracene	UG/KG	1100	610 U	NA	140 U	NA	120 U
Dibenzofuran	UG/KG	1.00E+06	112 J	NA	21.1 J	NA	50.5 J
Diethylphthalate	UG/KG	-	1,500 U	NA	340 U	NA	300 U
Dimethylphthalate	UG/KG	-	1,500 U	NA	340 U	NA	300 U
Di-n-butylphthalate	UG/KG	-	1,500 U	NA	340 U	NA	300 U
Di-n-octylphthalate	UG/KG	-	108 J	NA	340 U	NA	300 U
Fluoranthene	UG/KG	1.00E+06	2,130	NA	386	NA	845
Fluorene	UG/KG	1.00E+06	207 J	NA	40.9 J	NA	73.4 J
Indeno(1,2,3-cd)pyrene	UG/KG	11000	610 U	NA	140 U	NA	200 U
Naphthalene	UG/KG	1.00E+06	65.5 J	NA	21.0 J	NA	55.6 J
Phenanthrene	UG/KG	1.00E+06	1,510	NA	302	NA	595
Pyrene	UG/KG	1.00E+06	1,570	NA	337	NA	688
Pesticide Organic Compounds							
4,4'-DDD	UG/KG	1.80E+05	7.9 U	NA	9.1 U	NA	13.5 NJ
4,4'-DDE	UG/KG	1.20E+05	7.9 U	NA	9.1 U	NA	20.0 NJ

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Only Detected Results Reported.

Detection Limits shown are PQL

Advanced Selection: Debris Pile Soils
#Error
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[SITE KEY] = 2 AND [MATRIX] = 'SO' AND [LOCID] <> 'DRUM COMPOSITE'

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-05	DP-SB-05	DP-SB-05	DP-SB-05	DP-SB-05
Sample ID			DP-SB-05(0-2)	DP-SB-05(0-6)	DP-SB-05(2-12)	DP-SB-05(6-12)	DP-SB-05(12-24)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	0.0-0.5	0.2-1.0	0.5-1.0	1.0-2.0
Date Sampled			04/05/16	04/05/16	04/05/16	04/05/16	04/05/16
Parameter	**Units**	**Criteria***					
Pesticide Organic Compounds							
4,4'-DDT	UG/KG	94000	7.9 U	NA	9.1 U	NA	R
alpha-Chlordane	UG/KG	47000	7.9 U	NA	9.1 U	NA	7.9 UJ
Dieldrin	UG/KG	2800	13.3 J	NA	9.1 U	NA	6.2 J
gamma-Chlordane	UG/KG	-	7.9 U	NA	9.1 U	NA	7.9 U
Heptachlor epoxide	UG/KG	-	7.9 U	NA	9.1 U	NA	3.0 J
Herbicides							
2,4-D	UG/KG	-	16.8 J	NA	7.3 J	NA	9.0 J
Polychlorinated Biphenyls							
Aroclor 1254	UG/KG	-	NA	NA	NA	NA	NA
Aroclor 1260	UG/KG	-	NA	NA	NA	NA	NA
Total Polychlorinated Biphenyls	UG/KG	25000	NA	NA	NA	NA	NA
Metals							
Arsenic	MG/KG	16	5.7	NA	4.5	NA	5.2
Barium	MG/KG	10000	70.4	NA	72.9	NA	81.4
Cadmium	MG/KG	60	0.63	NA	0.41 U	NA	0.53
Chromium	MG/KG	6800	22.1	NA	13.9	NA	18.9
Lead	MG/KG	3900	64.7	NA	21.7	NA	44.9
Mercury	MG/KG	5.7	0.15	NA	0.080	NA	0.084
Selenium	MG/KG	6800	0.92 U	NA	1 U	NA	0.97 U
Silver	MG/KG	6800	0.46 U	NA	0.52 U	NA	0.48 U

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

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Concentration Exceeds Criteria

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Detection Limits shown are PQL

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[SITE KEY] = 2 AND [MATRIX] = 'SO' AND [LOCID] <> 'DRUM COMPOSITE'

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-06	DP-SB-06	DP-SB-06	DP-SB-06	DP-SB-06
Sample ID			DP-SB-06(0-2)	DP-SB-06(0-6)	DP-SB-06(2-12)	DP-SB-06(6-12)	DP-SB-06(12-24)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	0.0-0.5	0.2-1.0	0.5-1.0	1.0-2.0
Date Sampled			04/06/16	04/06/16	04/06/16	04/06/16	04/06/16
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/KG	1.00E+06	NA	1.7 U	NA	1.8 UJ	2.3 U
1,1-Dichloroethane	UG/KG	4.80E+05	NA	1.7 U	NA	1.8 U	2.3 U
1,2-Dichloroethene (cis)	UG/KG	1.00E+06	NA	1.7 U	NA	1.8 U	3.1 J
1,2-Dichloroethene (trans)	UG/KG	1.00E+06	NA	1.7 U	NA	1.8 U	2.3 U
Acetone	UG/KG	1.00E+06	NA	8.6 UJ	NA	8.8 UJ	129 J
Benzene	UG/KG	89000	NA	0.63	NA	0.40 J	0.90 J
Carbon disulfide	UG/KG	-	NA	10.5	NA	8.0 J	5.7 U
Ethylbenzene	UG/KG	7.80E+05	NA	1.7 U	NA	1.8 U	2.3 UJ
Methyl ethyl ketone (2-Butanone)	UG/KG	1.00E+06	NA	8.6 U	NA	8.8 U	23 U
Methylene chloride	UG/KG	1.00E+06	NA	0.45 J	NA	1.8 U	1.0 J
Tetrachloroethene	UG/KG	3.00E+05	NA	1.7 U	NA	1.8 U	2.3 UJ
Toluene	UG/KG	1.00E+06	NA	4.3 U	NA	4.4 U	5.7 U
Trichloroethene	UG/KG	4.00E+05	NA	0.89 J	NA	1.8 U	3.0 J
Xylene (total)	UG/KG	1.00E+06	NA	1.7 U	NA	1.8 U	2.3 UJ
Semivolatile Organic Compounds							
1,2,4-Trichlorobenzene	UG/KG	-	300 U	NA	2,800 U	NA	2,900 U
2-Methylnaphthalene	UG/KG	-	120 U	NA	1,100 U	NA	1,100 U
Acenaphthene	UG/KG	1.00E+06	46.2 J	NA	494 J	NA	1,100 U
Acenaphthylene	UG/KG	1.00E+06	120 U	NA	1,100 U	NA	1,100 U
Anthracene	UG/KG	1.00E+06	106 J	NA	883 J	NA	1,100 U
Benzo(a)anthracene	UG/KG	11000	161	NA	1,410	NA	209 J
Benzo(a)pyrene	UG/KG	1100	134	NA	1,220	NA	207 J

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

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Concentration Exceeds Criteria

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TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-06	DP-SB-06	DP-SB-06	DP-SB-06	DP-SB-06
Sample ID			DP-SB-06(0-2)	DP-SB-06(0-6)	DP-SB-06(2-12)	DP-SB-06(6-12)	DP-SB-06(12-24)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	0.0-0.5	0.2-1.0	0.5-1.0	1.0-2.0
Date Sampled			04/06/16	04/06/16	04/06/16	04/06/16	04/06/16
Parameter	**Units**	**Criteria***					
Semivolatile Organic Compounds							
Benzo(b)fluoranthene	UG/KG	11000	135	NA	1,110	NA	180 J
Benzo(g,h,i)perylene	UG/KG	1.00E+06	86.0 J	NA	753 J	NA	142 J
Benzo(k)fluoranthene	UG/KG	1.10E+05	104 J	NA	917 J	NA	1,100 U
bis(2-Ethylhexyl)phthalate	UG/KG	-	300 U	NA	2,800 U	NA	2,900 U
Butylbenzylphthalate	UG/KG	-	300 U	NA	2,800 U	NA	2,900 U
Carbazole	UG/KG	-	45.3 J	NA	556 J	NA	1,100 U
Chrysene	UG/KG	1.10E+05	148	NA	1,490	NA	214 J
Dibenz(a,h)anthracene	UG/KG	1100	29.8 J	NA	234 J	NA	1,100 U
Dibenzofuran	UG/KG	1.00E+06	22.6 J	NA	384 J	NA	1,100 U
Diethylphthalate	UG/KG	-	300 U	NA	2,800 U	NA	2,900 U
Dimethylphthalate	UG/KG	-	300 U	NA	2,800 U	NA	2,900 U
Di-n-butylphthalate	UG/KG	-	300 U	NA	2,800 U	NA	2,900 U
Di-n-octylphthalate	UG/KG	-	300 U	NA	2,800 U	NA	2,900 U
Fluoranthene	UG/KG	1.00E+06	400	NA	3,890	NA	405 J
Fluorene	UG/KG	1.00E+06	51.2 J	NA	617 J	NA	1,100 U
Indeno(1,2,3-cd)pyrene	UG/KG	11000	75.0 J	NA	654 J	NA	1,100 U
Naphthalene	UG/KG	1.00E+06	120 U	NA	351 J	NA	1,100 U
Phenanthrene	UG/KG	1.00E+06	384	NA	4,200	NA	283 J
Pyrene	UG/KG	1.00E+06	320	NA	2,740	NA	342 J
Pesticide Organic Compounds							
4,4'-DDD	UG/KG	1.80E+05	7.4 J	NA	25.1	NA	6.8 J
4,4'-DDE	UG/KG	1.20E+05	8.2	NA	23.4	NA	8.1

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

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Concentration Exceeds Criteria

Only Detected Results Reported.

Detection Limits shown are PQL

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-06	DP-SB-06	DP-SB-06	DP-SB-06	DP-SB-06
Sample ID			DP-SB-06(0-2)	DP-SB-06(0-6)	DP-SB-06(2-12)	DP-SB-06(6-12)	DP-SB-06(12-24)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	0.0-0.5	0.2-1.0	0.5-1.0	1.0-2.0
Date Sampled			04/06/16	04/06/16	04/06/16	04/06/16	04/06/16
Parameter	**Units**	**Criteria***					
Pesticide Organic Compounds							
4,4'-DDT	UG/KG	94000	3.3 J	NA	5.0 J	NA	7.7 U
alpha-Chlordane	UG/KG	47000	8.2 U	NA	7.5 U	NA	7.7 U
Dieldrin	UG/KG	2800	8.2 U	NA	4.5 J	NA	7.7 U
gamma-Chlordane	UG/KG	-	8.2 U	NA	7.5 U	NA	7.7 U
Heptachlor epoxide	UG/KG	-	8.2 U	NA	2.0 J	NA	7.7 U
Herbicides							
2,4-D	UG/KG	-	24 U	NA	23 U	NA	23 U
Polychlorinated Biphenyls							
Aroclor 1254	UG/KG	-	NA	NA	NA	NA	NA
Aroclor 1260	UG/KG	-	NA	NA	NA	NA	NA
Total Polychlorinated Biphenyls	UG/KG	25000	NA	NA	NA	NA	NA
Metals							
Arsenic	MG/KG	16	4.4	NA	5.0	NA	4.6
Barium	MG/KG	10000	61.7	NA	55.1	NA	55.3
Cadmium	MG/KG	60	0.20 J	NA	0.13 J	NA	0.17 J
Chromium	MG/KG	6800	14.1	NA	10.8	NA	14.7
Lead	MG/KG	3900	13.1	NA	12.8	NA	14.6
Mercury	MG/KG	5.7	0.037	NA	0.024 J	NA	0.033 J
Selenium	MG/KG	6800	0.9 U	NA	0.89 U	NA	0.92 U
Silver	MG/KG	6800	0.45 U	NA	0.44 U	NA	0.46 U

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

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[SITE KEY] = 2 AND [MATRIX] = 'SO' AND [LOCID] <> 'DRUM COMPOSITE'

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-07	DP-SB-07	DP-SB-07	DP-SB-07	DP-SB-07
Sample ID			DP-SB-07(0-2)	DP-SB-07(0-6)	DP-SB-07(2-12)	DP-SB-07(6-12)	DP-SB-07(12-24)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	0.0-0.5	0.2-1.0	0.5-1.0	1.0-2.0
Date Sampled			04/06/16	04/06/16	04/06/16	04/06/16	04/06/16
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/KG	1.00E+06	NA	1.6 U	NA	2.5 U	2.4 U
1,1-Dichloroethane	UG/KG	4.80E+05	NA	1.6 U	NA	2.5 U	2.4 U
1,2-Dichloroethene (cis)	UG/KG	1.00E+06	NA	0.66 J	NA	2.5 U	2.4 U
1,2-Dichloroethene (trans)	UG/KG	1.00E+06	NA	1.6 U	NA	2.5 U	2.4 U
Acetone	UG/KG	1.00E+06	NA	110 J	NA	118 J	170 J
Benzene	UG/KG	89000	NA	0.54	NA	0.57 J	1.9 J
Carbon disulfide	UG/KG	-	NA	4.1 U	NA	6.3 U	2.0 J
Ethylbenzene	UG/KG	7.80E+05	NA	1.6 U	NA	2.5 U	2.4 U
Methyl ethyl ketone (2-Butanone)	UG/KG	1.00E+06	NA	16 U	NA	25 U	24 U
Methylene chloride	UG/KG	1.00E+06	NA	0.45 J	NA	2.5 U	0.91 J
Tetrachloroethene	UG/KG	3.00E+05	NA	1.6 U	NA	2.5 U	2.4 U
Toluene	UG/KG	1.00E+06	NA	4.1 U	NA	6.3 U	6 U
Trichloroethene	UG/KG	4.00E+05	NA	1.6 U	NA	2.5 U	2.4 U
Xylene (total)	UG/KG	1.00E+06	NA	1.6 U	NA	2.5 U	2.4 U
Semivolatile Organic Compounds							
1,2,4-Trichlorobenzene	UG/KG	-	280 U	NA	300 U	NA	280 U
2-Methylnaphthalene	UG/KG	-	20.7 J	NA	120 U	NA	110 U
Acenaphthene	UG/KG	1.00E+06	110 U	NA	120 U	NA	110 U
Acenaphthylene	UG/KG	1.00E+06	110 U	NA	120 U	NA	110 U
Anthracene	UG/KG	1.00E+06	16.2 J	NA	26.7 J	NA	22.7 J
Benzo(a)anthracene	UG/KG	11000	65.6 J	NA	49.4 J	NA	61.1 J
Benzo(a)pyrene	UG/KG	1100	78.1 J	NA	44.5 J	NA	49.3 J

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

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[SITE KEY] = 2 AND [MATRIX] = 'SO' AND [LOCID] <> 'DRUM COMPOSITE'

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-07	DP-SB-07	DP-SB-07	DP-SB-07	DP-SB-07
Sample ID			DP-SB-07(0-2)	DP-SB-07(0-6)	DP-SB-07(2-12)	DP-SB-07(6-12)	DP-SB-07(12-24)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	0.0-0.5	0.2-1.0	0.5-1.0	1.0-2.0
Date Sampled			04/06/16	04/06/16	04/06/16	04/06/16	04/06/16
Parameter	**Units**	**Criteria***					
Semivolatile Organic Compounds							
Benzo(b)fluoranthene	UG/KG	11000	70.9 J	NA	41.1 J	NA	53.8 J
Benzo(g,h,i)perylene	UG/KG	1.00E+06	59.9 J	NA	33.1 J	NA	37.7 J
Benzo(k)fluoranthene	UG/KG	1.10E+05	60.2 J	NA	36.9 J	NA	38.8 J
bis(2-Ethylhexyl)phthalate	UG/KG	-	280 U	NA	300 U	NA	280 U
Butylbenzylphthalate	UG/KG	-	280 U	NA	300 U	NA	280 U
Carbazole	UG/KG	-	12.0 J	NA	120 U	NA	110 U
Chrysene	UG/KG	1.10E+05	67.1 J	NA	50.5 J	NA	62.2 J
Dibenz(a,h)anthracene	UG/KG	1100	110 U	NA	120 U	NA	110 U
Dibenzofuran	UG/KG	1.00E+06	110 U	NA	120 U	NA	110 U
Diethylphthalate	UG/KG	-	280 U	NA	300 U	NA	280 U
Dimethylphthalate	UG/KG	-	280 U	NA	300 U	NA	280 U
Di-n-butylphthalate	UG/KG	-	280 U	NA	300 U	NA	280 U
Di-n-octylphthalate	UG/KG	-	280 U	NA	300 U	NA	280 U
Fluoranthene	UG/KG	1.00E+06	104 J	NA	105 J	NA	112
Fluorene	UG/KG	1.00E+06	110 U	NA	120 U	NA	110 U
Indeno(1,2,3-cd)pyrene	UG/KG	11000	46.9 J	NA	120 U	NA	32.5 J
Naphthalene	UG/KG	1.00E+06	11.9 J	NA	120 U	NA	110 U
Phenanthrene	UG/KG	1.00E+06	69.4 J	NA	80.6 J	NA	68.4 J
Pyrene	UG/KG	1.00E+06	96.2 J	NA	81.7 J	NA	92.3 J
Pesticide Organic Compounds							
4,4'-DDD	UG/KG	1.80E+05	7.9 U	NA	8 U	NA	7.8 U
4,4'-DDE	UG/KG	1.20E+05	7.9 U	NA	8 U	NA	7.8 U

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Only Detected Results Reported.

Detection Limits shown are PQL

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[SITE KEY] = 2 AND [MATRIX] = 'SO' AND [LOCID] <> 'DRUM COMPOSITE'

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-07	DP-SB-07	DP-SB-07	DP-SB-07	DP-SB-07
Sample ID			DP-SB-07(0-2)	DP-SB-07(0-6)	DP-SB-07(2-12)	DP-SB-07(6-12)	DP-SB-07(12-24)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	0.0-0.5	0.2-1.0	0.5-1.0	1.0-2.0
Date Sampled			04/06/16	04/06/16	04/06/16	04/06/16	04/06/16
Parameter	**Units**	**Criteria***					
Pesticide Organic Compounds							
4,4'-DDT	UG/KG	94000	7.9 U	NA	8 U	NA	7.8 U
alpha-Chlordane	UG/KG	47000	7.9 U	NA	8 U	NA	7.8 U
Dieldrin	UG/KG	2800	7.9 U	NA	8 U	NA	7.8 U
gamma-Chlordane	UG/KG	-	7.9 U	NA	8 U	NA	7.8 U
Heptachlor epoxide	UG/KG	-	7.9 U	NA	8 U	NA	7.8 U
Herbicides							
2,4-D	UG/KG	-	23 U	NA	24 U	NA	23 U
Polychlorinated Biphenyls							
Aroclor 1254	UG/KG	-	NA	NA	NA	NA	NA
Aroclor 1260	UG/KG	-	NA	NA	NA	NA	NA
Total Polychlorinated Biphenyls	UG/KG	25000	NA	NA	NA	NA	NA
Metals							
Arsenic	MG/KG	16	4.7	NA	4.1	NA	3.7
Barium	MG/KG	10000	78.9	NA	146	NA	86.2
Cadmium	MG/KG	60	0.79	NA	1.0	NA	0.79
Chromium	MG/KG	6800	12.3	NA	14.1	NA	11.1
Lead	MG/KG	3900	67.9	NA	108	NA	74.8
Mercury	MG/KG	5.7	0.055	NA	0.052	NA	0.055
Selenium	MG/KG	6800	0.87 U	NA	0.92 U	NA	0.92 U
Silver	MG/KG	6800	0.17 J	NA	0.35 J	NA	0.16 J

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

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Detection Limits shown are PQL

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-08	DP-SB-08	DP-SB-08	DP-SB-08	DP-SB-08
Sample ID			DP-SB-08(0-2)	DP-SB-08(0-6)	DP-SB-08(2-12)	DP-SB-08(6-12)	DP-SB-08(12-24)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	0.0-0.5	0.2-1.0	0.5-1.0	1.0-2.0
Date Sampled			04/07/16	04/07/16	04/07/16	04/07/16	04/07/16
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/KG	1.00E+06	NA	1.7 U	NA	1.8 U	2.3 U
1,1-Dichloroethane	UG/KG	4.80E+05	NA	1.7 U	NA	1.8 U	2.3 U
1,2-Dichloroethene (cis)	UG/KG	1.00E+06	NA	0.94 J	NA	2.0	1.8 J
1,2-Dichloroethene (trans)	UG/KG	1.00E+06	NA	1.7 U	NA	0.42 J	2.3 U
Acetone	UG/KG	1.00E+06	NA	101 J	NA	58.1 J	101 J
Benzene	UG/KG	89000	NA	0.44	NA	0.45 U	0.57 U
Carbon disulfide	UG/KG	-	NA	1.6 J	NA	0.94 J	0.91 J
Ethylbenzene	UG/KG	7.80E+05	NA	1.7 U	NA	1.8 U	2.3 U
Methyl ethyl ketone (2-Butanone)	UG/KG	1.00E+06	NA	17 U	NA	18 U	23 U
Methylene chloride	UG/KG	1.00E+06	NA	1.7 U	NA	1.8 U	2.3 U
Tetrachloroethene	UG/KG	3.00E+05	NA	1.7 U	NA	1.8 U	2.3 U
Toluene	UG/KG	1.00E+06	NA	4.3 U	NA	4.5 U	5.7 U
Trichloroethene	UG/KG	4.00E+05	NA	0.75 J	NA	1.5 J	1.6 J
Xylene (total)	UG/KG	1.00E+06	NA	1.7 U	NA	1.8 U	2.3 U
Semivolatile Organic Compounds							
1,2,4-Trichlorobenzene	UG/KG	-	280 U	NA	280 U	NA	290 U
2-Methylnaphthalene	UG/KG	-	110 U	NA	16.2 J	NA	43.2 J
Acenaphthene	UG/KG	1.00E+06	15.9 J	NA	32.0 J	NA	265
Acenaphthylene	UG/KG	1.00E+06	110 U	NA	17.2 J	NA	51.6 J
Anthracene	UG/KG	1.00E+06	30.8 J	NA	71.7 J	NA	491
Benzo(a)anthracene	UG/KG	11000	125	NA	202	NA	1,120
Benzo(a)pyrene	UG/KG	1100	200	NA	274	NA	908

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Only Detected Results Reported.

Detection Limits shown are PQL

Advanced Selection: Debris Pile Soils
#Error
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[SITE KEY] = 2 AND [MATRIX] = 'SO' AND [LOCID] <> 'DRUM COMPOSITE'

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-08	DP-SB-08	DP-SB-08	DP-SB-08	DP-SB-08
Sample ID			DP-SB-08(0-2)	DP-SB-08(0-6)	DP-SB-08(2-12)	DP-SB-08(6-12)	DP-SB-08(12-24)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	0.0-0.5	0.2-1.0	0.5-1.0	1.0-2.0
Date Sampled			04/07/16	04/07/16	04/07/16	04/07/16	04/07/16
Parameter	**Units**	**Criteria***					
Semivolatile Organic Compounds							
Benzo(b)fluoranthene	UG/KG	11000	200	NA	249	NA	762
Benzo(g,h,i)perylene	UG/KG	1.00E+06	80.6 J	NA	141	NA	449 J
Benzo(k)fluoranthene	UG/KG	1.10E+05	96.3 J	NA	158	NA	718
bis(2-Ethylhexyl)phthalate	UG/KG	-	144 J	NA	146 J	NA	164 J
Butylbenzylphthalate	UG/KG	-	173 J	NA	280 U	NA	290 U
Carbazole	UG/KG	-	23.3 J	NA	34.8 J	NA	181
Chrysene	UG/KG	1.10E+05	127	NA	193	NA	1,020
Dibenz(a,h)anthracene	UG/KG	1100	110 U	NA	156	NA	254
Dibenzofuran	UG/KG	1.00E+06	110 U	NA	16.9 J	NA	103 J
Diethylphthalate	UG/KG	-	280 U	NA	280 U	NA	290 U
Dimethylphthalate	UG/KG	-	280 U	NA	280 U	NA	290 U
Di-n-butylphthalate	UG/KG	-	280 U	NA	280 U	NA	290 U
Di-n-octylphthalate	UG/KG	-	280 U	NA	280 U	NA	290 U
Fluoranthene	UG/KG	1.00E+06	245	NA	403	NA	2,210
Fluorene	UG/KG	1.00E+06	14.2 J	NA	36.6 J	NA	231
Indeno(1,2,3-cd)pyrene	UG/KG	11000	267	NA	303	NA	634
Naphthalene	UG/KG	1.00E+06	110 U	NA	18.6 J	NA	58.0 J
Phenanthrene	UG/KG	1.00E+06	141	NA	271	NA	1,720
Pyrene	UG/KG	1.00E+06	220	NA	349	NA	1,910
Pesticide Organic Compounds							
4,4'-DDD	UG/KG	1.80E+05	12.9 J	NA	38.5	NA	7.5 U
4,4'-DDE	UG/KG	1.20E+05	12.5	NA	46.6	NA	7.7 J

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Only Detected Results Reported.

Detection Limits shown are PQL

Advanced Selection: Debris Pile Soils
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TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-08	DP-SB-08	DP-SB-08	DP-SB-08	DP-SB-08
Sample ID			DP-SB-08(0-2)	DP-SB-08(0-6)	DP-SB-08(2-12)	DP-SB-08(6-12)	DP-SB-08(12-24)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	0.0-0.5	0.2-1.0	0.5-1.0	1.0-2.0
Date Sampled			04/07/16	04/07/16	04/07/16	04/07/16	04/07/16
Parameter	**Units**	**Criteria***					
Pesticide Organic Compounds							
4,4'-DDT	UG/KG	94000	7.4 U	NA	7.5 U	NA	7.5 U
alpha-Chlordane	UG/KG	47000	7.4 U	NA	7.0 J	NA	7.5 U
Dieldrin	UG/KG	2800	16.8 J	NA	22.6	NA	7.5 U
gamma-Chlordane	UG/KG	-	7.4 U	NA	R	NA	7.5 U
Heptachlor epoxide	UG/KG	-	7.4 U	NA	7.5 U	NA	7.5 U
Herbicides							
2,4-D	UG/KG	-	23 U	NA	22 U	NA	24 U
Polychlorinated Biphenyls							
Aroclor 1254	UG/KG	-	NA	NA	NA	NA	NA
Aroclor 1260	UG/KG	-	NA	NA	NA	NA	NA
Total Polychlorinated Biphenyls	UG/KG	25000	NA	NA	NA	NA	NA
Metals							
Arsenic	MG/KG	16	3.9	NA	4.4	NA	6.1
Barium	MG/KG	10000	44.1	NA	50.0	NA	46.2
Cadmium	MG/KG	60	0.17 J	NA	0.16 J	NA	0.27 J
Chromium	MG/KG	6800	8.9	NA	10.6	NA	14.4
Lead	MG/KG	3900	12.8	NA	13.5	NA	19.1
Mercury	MG/KG	5.7	0.037	NA	0.043	NA	0.094
Selenium	MG/KG	6800	0.86 U	NA	0.86 U	NA	0.89 U
Silver	MG/KG	6800	0.43 U	NA	0.43 U	NA	0.63

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

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Concentration Exceeds Criteria

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TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-09	DP-SB-09	DP-SB-09	DP-SB-09	DP-SB-09
Sample ID			DP-SB-09(0-2)	DP-SB-09(0-6)	DP-SB-09(2-12)	DP-SB-09(6-12)	DP-SB-09(12-24)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	0.0-0.5	0.2-1.0	0.5-1.0	1.0-2.0
Date Sampled			04/07/16	04/07/16	04/07/16	04/07/16	04/07/16
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/KG	1.00E+06	NA	0.49 J	NA	2.8 U	2.2 U
1,1-Dichloroethane	UG/KG	4.80E+05	NA	0.39 J	NA	2.8 U	2.2 U
1,2-Dichloroethene (cis)	UG/KG	1.00E+06	NA	0.36 J	NA	0.56 J	2.2 U
1,2-Dichloroethene (trans)	UG/KG	1.00E+06	NA	1.7 U	NA	2.8 U	2.2 U
Acetone	UG/KG	1.00E+06	NA	172 J	NA	150 J	89.3 J
Benzene	UG/KG	89000	NA	0.58	NA	0.85	0.51 J
Carbon disulfide	UG/KG	-	NA	1.3 J	NA	2.2 J	1.3 J
Ethylbenzene	UG/KG	7.80E+05	NA	1.7 U	NA	2.8 U	2.2 U
Methyl ethyl ketone (2-Butanone)	UG/KG	1.00E+06	NA	60.8	NA	28 U	22 U
Methylene chloride	UG/KG	1.00E+06	NA	1.7 U	NA	2.8 U	2.2 U
Tetrachloroethene	UG/KG	3.00E+05	NA	1.7 U	NA	2.8 U	2.2 U
Toluene	UG/KG	1.00E+06	NA	0.61 J	NA	0.90 J	0.44 J
Trichloroethene	UG/KG	4.00E+05	NA	1.4 J	NA	1.4 J	0.62 J
Xylene (total)	UG/KG	1.00E+06	NA	0.32 J	NA	2.8 U	2.2 U
Semivolatile Organic Compounds							
1,2,4-Trichlorobenzene	UG/KG	-	1,400 U	NA	5,800 U	NA	280 U
2-Methylnaphthalene	UG/KG	-	471 J	NA	5,300	NA	193
Acenaphthene	UG/KG	1.00E+06	3,170	NA	32,300	NA	1,100
Acenaphthylene	UG/KG	1.00E+06	105 J	NA	962 J	NA	33.6 J
Anthracene	UG/KG	1.00E+06	3,060	NA	33,600	NA	1,210
Benzo(a)anthracene	UG/KG	11000	11,900	NA	126,000	NA	3,930
Benzo(a)pyrene	UG/KG	1100	9,720	NA	101,000	NA	3,150

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

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TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-09	DP-SB-09	DP-SB-09	DP-SB-09	DP-SB-09
Sample ID			DP-SB-09(0-2)	DP-SB-09(0-6)	DP-SB-09(2-12)	DP-SB-09(6-12)	DP-SB-09(12-24)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	0.0-0.5	0.2-1.0	0.5-1.0	1.0-2.0
Date Sampled			04/07/16	04/07/16	04/07/16	04/07/16	04/07/16
Parameter	**Units**	**Criteria***					
Semivolatile Organic Compounds							
Benzo(b)fluoranthene	UG/KG	11000	10,500	NA	117,000	NA	3,360
Benzo(g,h,i)perylene	UG/KG	1.00E+06	5,890	NA	66,800 J	NA	1,970 J
Benzo(k)fluoranthene	UG/KG	1.10E+05	9,450	NA	91,600	NA	3,000
bis(2-Ethylhexyl)phthalate	UG/KG	-	1,400 U	NA	5,800 U	NA	280 U
Butylbenzylphthalate	UG/KG	-	1,400 U	NA	5,800 U	NA	280 U
Carbazole	UG/KG	-	3,300	NA	34,500	NA	1,200
Chrysene	UG/KG	1.10E+05	12,500	NA	133,000	NA	4,100
Dibenz(a,h)anthracene	UG/KG	1100	2,000	NA	22,000	NA	698
Dibenzofuran	UG/KG	1.00E+06	1,320	NA	13,500	NA	474
Diethylphthalate	UG/KG	-	1,400 U	NA	5,800 U	NA	280 U
Dimethylphthalate	UG/KG	-	1,400 U	NA	5,800 U	NA	280 U
Di-n-butylphthalate	UG/KG	-	1,400 U	NA	5,800 U	NA	280 U
Di-n-octylphthalate	UG/KG	-	1,400 U	NA	5,800 U	NA	280 U
Fluoranthene	UG/KG	1.00E+06	29,900	NA	311,000	NA	10,300
Fluorene	UG/KG	1.00E+06	1,960	NA	19,600	NA	739
Indeno(1,2,3-cd)pyrene	UG/KG	11000	6,800	NA	66,700	NA	1,980
Naphthalene	UG/KG	1.00E+06	470 J	NA	5,090	NA	192
Phenanthrene	UG/KG	1.00E+06	20,800	NA	216,000	NA	7,180
Pyrene	UG/KG	1.00E+06	23,200	NA	238,000	NA	7,590
Pesticide Organic Compounds							
4,4'-DDD	UG/KG	1.80E+05	9.8	NA	7.3 U	NA	13.8 J
4,4'-DDE	UG/KG	1.20E+05	13.4	NA	15.7 J	NA	21.5

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

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Concentration Exceeds Criteria

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[SITE KEY] = 2 AND [MATRIX] = 'SO' AND [LOCID] <> 'DRUM COMPOSITE'

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-09	DP-SB-09	DP-SB-09	DP-SB-09	DP-SB-09
Sample ID			DP-SB-09(0-2)	DP-SB-09(0-6)	DP-SB-09(2-12)	DP-SB-09(6-12)	DP-SB-09(12-24)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	0.0-0.5	0.2-1.0	0.5-1.0	1.0-2.0
Date Sampled			04/07/16	04/07/16	04/07/16	04/07/16	04/07/16
Parameter	**Units**	**Criteria***					
Pesticide Organic Compounds							
4,4'-DDT	UG/KG	94000	7.2 U	NA	7.3 U	NA	39.4
alpha-Chlordane	UG/KG	47000	7.2 U	NA	7.3 U	NA	7.5 U
Dieldrin	UG/KG	2800	12.5 J	NA	7.3 U	NA	7.1 J
gamma-Chlordane	UG/KG	-	7.2 U	NA	7.3 U	NA	7.5 U
Heptachlor epoxide	UG/KG	-	3.6 J	NA	7.3 U	NA	7.5 U
Herbicides							
2,4-D	UG/KG	-	22 U	NA	23 U	NA	23 U
Polychlorinated Biphenyls							
Aroclor 1254	UG/KG	-	NA	NA	NA	NA	NA
Aroclor 1260	UG/KG	-	NA	NA	NA	NA	NA
Total Polychlorinated Biphenyls	UG/KG	25000	NA	NA	NA	NA	NA
Metals							
Arsenic	MG/KG	16	4.9	NA	4.9	NA	5.7
Barium	MG/KG	10000	60.1	NA	64.8	NA	106
Cadmium	MG/KG	60	0.35	NA	0.37	NA	0.20 J
Chromium	MG/KG	6800	13.8	NA	15.0	NA	15.0
Lead	MG/KG	3900	17.7	NA	21.6	NA	11.1
Mercury	MG/KG	5.7	0.051	NA	0.053	NA	0.044
Selenium	MG/KG	6800	0.85 U	NA	0.88 U	NA	0.85 U
Silver	MG/KG	6800	0.43 U	NA	0.44 U	NA	0.43 U

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Only Detected Results Reported.

Detection Limits shown are PQL

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-10	DP-SB-10	DP-SB-10	DP-SB-10	DP-SB-10
Sample ID			DP-SB-10(0-2)	DP-SB-10(0-6)	DP-SB-10(2-12)	DP-SB-10(6-12)	DP-SB-10(12-24)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	0.0-0.5	0.2-1.0	0.5-1.0	1.0-2.0
Date Sampled			04/06/16	04/06/16	04/06/16	04/06/16	04/06/16
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/KG	1.00E+06	NA	6.5 UJ	NA	0.97 J	2.5 U
1,1-Dichloroethane	UG/KG	4.80E+05	NA	1.6 J	NA	6.2	2.5 U
1,2-Dichloroethene (cis)	UG/KG	1.00E+06	NA	4.8 J	NA	7.0	2.5 U
1,2-Dichloroethene (trans)	UG/KG	1.00E+06	NA	6.5 U	NA	1.6 J	2.5 U
Acetone	UG/KG	1.00E+06	NA	353 J	NA	213 J	125 J
Benzene	UG/KG	89000	NA	2.8	NA	0.90	0.63 U
Carbon disulfide	UG/KG	-	NA	4.3 J	NA	6.4 UJ	6.3 U
Ethylbenzene	UG/KG	7.80E+05	NA	6.5 U	NA	0.81 J	2.5 U
Methyl ethyl ketone (2-Butanone)	UG/KG	1.00E+06	NA	65 U	NA	26 U	25 U
Methylene chloride	UG/KG	1.00E+06	NA	6.5 U	NA	1.8 J	0.71 J
Tetrachloroethene	UG/KG	3.00E+05	NA	6.5 U	NA	1.1 J	2.5 U
Toluene	UG/KG	1.00E+06	NA	2.9 J	NA	1.3 J	6.3 U
Trichloroethene	UG/KG	4.00E+05	NA	11.5	NA	17.0	2.5 U
Xylene (total)	UG/KG	1.00E+06	NA	1.2 J	NA	1.7 J	2.5 U
Semivolatile Organic Compounds							
1,2,4-Trichlorobenzene	UG/KG	-	1,500 U	NA	323	NA	320 U
2-Methylnaphthalene	UG/KG	-	600 U	NA	37.7 J	NA	130 U
Acenaphthene	UG/KG	1.00E+06	600 U	NA	42.1 J	NA	130 U
Acenaphthylene	UG/KG	1.00E+06	600 U	NA	120 U	NA	130 U
Anthracene	UG/KG	1.00E+06	64.0 J	NA	100 J	NA	130 U
Benzo(a)anthracene	UG/KG	11000	208 J	NA	277	NA	35.0 J
Benzo(a)pyrene	UG/KG	1100	204 J	NA	268	NA	35.6 J

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Only Detected Results Reported.

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TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-10	DP-SB-10	DP-SB-10	DP-SB-10	DP-SB-10
Sample ID			DP-SB-10(0-2)	DP-SB-10(0-6)	DP-SB-10(2-12)	DP-SB-10(6-12)	DP-SB-10(12-24)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	0.0-0.5	0.2-1.0	0.5-1.0	1.0-2.0
Date Sampled			04/06/16	04/06/16	04/06/16	04/06/16	04/06/16
Parameter	**Units**	**Criteria***					
Semivolatile Organic Compounds							
Benzo(b)fluoranthene	UG/KG	11000	179 J	NA	265	NA	32.5 J
Benzo(g,h,i)perylene	UG/KG	1.00E+06	162 J	NA	163	NA	24.4 J
Benzo(k)fluoranthene	UG/KG	1.10E+05	166 J	NA	202	NA	28.9 J
bis(2-Ethylhexyl)phthalate	UG/KG	-	1,500 U	NA	30.7 J	NA	320 U
Butylbenzylphthalate	UG/KG	-	1,500 U	NA	50.8 J	NA	320 U
Carbazole	UG/KG	-	600 U	NA	59.2 J	NA	130 U
Chrysene	UG/KG	1.10E+05	226 J	NA	298	NA	38.3 J
Dibenz(a,h)anthracene	UG/KG	1100	600 U	NA	57.1 J	NA	130 U
Dibenzofuran	UG/KG	1.00E+06	600 U	NA	31.8 J	NA	130 U
Diethylphthalate	UG/KG	-	1,500 U	NA	300 U	NA	320 U
Dimethylphthalate	UG/KG	-	1,500 U	NA	300 U	NA	320 U
Di-n-butylphthalate	UG/KG	-	1,500 U	NA	300 U	NA	320 U
Di-n-octylphthalate	UG/KG	-	1,500 U	NA	300 U	NA	320 U
Fluoranthene	UG/KG	1.00E+06	461 J	NA	627	NA	75.8 J
Fluorene	UG/KG	1.00E+06	600 U	NA	44.2 J	NA	130 U
Indeno(1,2,3-cd)pyrene	UG/KG	11000	600 U	NA	153	NA	130 U
Naphthalene	UG/KG	1.00E+06	600 U	NA	33.5 J	NA	130 U
Phenanthrene	UG/KG	1.00E+06	302 J	NA	442	NA	44.6 J
Pyrene	UG/KG	1.00E+06	367 J	NA	534	NA	55.1 J
Pesticide Organic Compounds							
4,4'-DDD	UG/KG	1.80E+05	7.6 U	NA	8 U	NA	8.2 U
4,4'-DDE	UG/KG	1.20E+05	7.6 U	NA	8 U	NA	8.2 U

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Only Detected Results Reported.

Detection Limits shown are PQL

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-10	DP-SB-10	DP-SB-10	DP-SB-10	DP-SB-10
Sample ID			DP-SB-10(0-2)	DP-SB-10(0-6)	DP-SB-10(2-12)	DP-SB-10(6-12)	DP-SB-10(12-24)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	0.0-0.5	0.2-1.0	0.5-1.0	1.0-2.0
Date Sampled			04/06/16	04/06/16	04/06/16	04/06/16	04/06/16
Parameter	**Units**	**Criteria***					
Pesticide Organic Compounds							
4,4'-DDT	UG/KG	94000	7.6 U	NA	8 U	NA	8.2 U
alpha-Chlordane	UG/KG	47000	7.6 U	NA	8 U	NA	8.2 U
Dieldrin	UG/KG	2800	7.6 U	NA	8 U	NA	8.2 U
gamma-Chlordane	UG/KG	-	7.6 U	NA	8 U	NA	8.2 U
Heptachlor epoxide	UG/KG	-	7.6 U	NA	8 U	NA	8.2 U
Herbicides							
2,4-D	UG/KG	-	24 U	NA	24 U	NA	26 U
Polychlorinated Biphenyls							
Aroclor 1254	UG/KG	-	NA	NA	NA	NA	NA
Aroclor 1260	UG/KG	-	NA	NA	NA	NA	NA
Total Polychlorinated Biphenyls	UG/KG	25000	NA	NA	NA	NA	NA
Metals							
Arsenic	MG/KG	16	4.6	NA	6.5	NA	3.4
Barium	MG/KG	10000	60.4	NA	70.9	NA	75.7
Cadmium	MG/KG	60	0.41	NA	0.69	NA	0.19 J
Chromium	MG/KG	6800	13.9	NA	17.5	NA	14.9
Lead	MG/KG	3900	20.7	NA	24.2	NA	9.4
Mercury	MG/KG	5.7	0.13	NA	0.13	NA	0.074
Selenium	MG/KG	6800	0.92 U	NA	0.9 U	NA	0.96 U
Silver	MG/KG	6800	0.46 U	NA	0.45 U	NA	0.16 J

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Only Detected Results Reported.

Detection Limits shown are PQL

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-10	DP-SB-11	DP-SB-11	DP-SB-11	DP-SB-11
Sample ID			DP-SB-10(12-24)DUP	DP-SB-11(0-2)	DP-SB-11(0-6)	DP-SB-11(2-12)	DP-SB-11(6-12)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			1.0-2.0	0.0-0.2	0.0-0.5	0.2-1.0	0.5-1.0
Date Sampled			04/06/16	04/06/16	04/06/16	04/06/16	04/06/16
Parameter	**Units**	**Criteria***	Field Duplicate (1-1)				
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/KG	1.00E+06	2.3 U	NA	2.1 UJ	NA	2.1 U
1,1-Dichloroethane	UG/KG	4.80E+05	2.3 U	NA	2.1 U	NA	2.1 U
1,2-Dichloroethene (cis)	UG/KG	1.00E+06	2.3 U	NA	2.1 U	NA	2.1 U
1,2-Dichloroethene (trans)	UG/KG	1.00E+06	2.3 U	NA	2.1 U	NA	2.1 U
Acetone	UG/KG	1.00E+06	121 J	NA	211 J	NA	78.1 J
Benzene	UG/KG	89000	0.58 U	NA	0.52 U	NA	0.74
Carbon disulfide	UG/KG	-	5.8 U	NA	2.1 J	NA	3.9 J
Ethylbenzene	UG/KG	7.80E+05	2.3 U	NA	2.1 U	NA	2.1 U
Methyl ethyl ketone (2-Butanone)	UG/KG	1.00E+06	12 U	NA	21 U	NA	21 U
Methylene chloride	UG/KG	1.00E+06	2.3 U	NA	2.1 U	NA	0.69 J
Tetrachloroethene	UG/KG	3.00E+05	2.3 U	NA	2.1 U	NA	2.1 U
Toluene	UG/KG	1.00E+06	5.8 U	NA	5.2 U	NA	5.2 U
Trichloroethene	UG/KG	4.00E+05	2.3 U	NA	2.1 U	NA	2.1 U
Xylene (total)	UG/KG	1.00E+06	2.3 U	NA	2.1 U	NA	2.1 U
Semivolatile Organic Compounds							
1,2,4-Trichlorobenzene	UG/KG	-	320 U	280 U	NA	270 U	NA
2-Methylnaphthalene	UG/KG	-	130 U	110 U	NA	110 U	NA
Acenaphthene	UG/KG	1.00E+06	130 U	110 U	NA	110 U	NA
Acenaphthylene	UG/KG	1.00E+06	130 U	110 U	NA	110 U	NA
Anthracene	UG/KG	1.00E+06	130 U	30.1 J	NA	20.9 J	NA
Benzo(a)anthracene	UG/KG	11000	130 U	190	NA	174	NA
Benzo(a)pyrene	UG/KG	1100	130 U	248	NA	219	NA

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Only Detected Results Reported.

Detection Limits shown are PQL

Advanced Selection: Debris Pile Soils
#Error
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[SITE KEY] = 2 AND [MATRIX] = 'SO' AND [LOCID] <> 'DRUM COMPOSITE'

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-10	DP-SB-11	DP-SB-11	DP-SB-11	DP-SB-11
Sample ID			DP-SB-10(12-24)DUP	DP-SB-11(0-2)	DP-SB-11(0-6)	DP-SB-11(2-12)	DP-SB-11(6-12)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			1.0-2.0	0.0-0.2	0.0-0.5	0.2-1.0	0.5-1.0
Date Sampled			04/06/16	04/06/16	04/06/16	04/06/16	04/06/16
Parameter	**Units**	**Criteria***	Field Duplicate (1-1)				
Semivolatile Organic Compounds							
Benzo(b)fluoranthene	UG/KG	11000	130 U	291	NA	227	NA
Benzo(g,h,i)perylene	UG/KG	1.00E+06	130 U	272	NA	197	NA
Benzo(k)fluoranthene	UG/KG	1.10E+05	130 U	233	NA	168	NA
bis(2-Ethylhexyl)phthalate	UG/KG	-	320 U	280 U	NA	270 U	NA
Butylbenzylphthalate	UG/KG	-	320 U	56.4 J	NA	270 U	NA
Carbazole	UG/KG	-	130 U	24.8 J	NA	15.6 J	NA
Chrysene	UG/KG	1.10E+05	16.2 J	254	NA	204	NA
Dibenz(a,h)anthracene	UG/KG	1100	130 U	66.5 J	NA	58.5 J	NA
Dibenzofuran	UG/KG	1.00E+06	130 U	110 U	NA	110 U	NA
Diethylphthalate	UG/KG	-	320 U	280 U	NA	270 U	NA
Dimethylphthalate	UG/KG	-	320 U	280 U	NA	270 U	NA
Di-n-butylphthalate	UG/KG	-	320 U	280 U	NA	270 U	NA
Di-n-octylphthalate	UG/KG	-	320 U	280 U	NA	270 U	NA
Fluoranthene	UG/KG	1.00E+06	28.5 J	457	NA	256	NA
Fluorene	UG/KG	1.00E+06	130 U	110 U	NA	110 U	NA
Indeno(1,2,3-cd)pyrene	UG/KG	11000	130 U	217	NA	161	NA
Naphthalene	UG/KG	1.00E+06	130 U	110 U	NA	110 U	NA
Phenanthrene	UG/KG	1.00E+06	130 U	161	NA	90.8 J	NA
Pyrene	UG/KG	1.00E+06	22.6 J	343	NA	203	NA
Pesticide Organic Compounds							
4,4'-DDD	UG/KG	1.80E+05	8.6 U	5.7 U	NA	5.5 U	NA
4,4'-DDE	UG/KG	1.20E+05	8.6 U	5.7 U	NA	5.5 U	NA

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Only Detected Results Reported.

Detection Limits shown are PQL

Advanced Selection: Debris Pile Soils
#Error
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[SITE KEY] = 2 AND [MATRIX] = 'SO' AND [LOCID] <> 'DRUM COMPOSITE'

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-10	DP-SB-11	DP-SB-11	DP-SB-11	DP-SB-11
Sample ID			DP-SB-10(12-24)DUP	DP-SB-11(0-2)	DP-SB-11(0-6)	DP-SB-11(2-12)	DP-SB-11(6-12)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			1.0-2.0	0.0-0.2	0.0-0.5	0.2-1.0	0.5-1.0
Date Sampled			04/06/16	04/06/16	04/06/16	04/06/16	04/06/16
Parameter	**Units**	**Criteria***	Field Duplicate (1-1)				
Pesticide Organic Compounds							
4,4'-DDT	UG/KG	94000	8.6 U	5.7 U	NA	3.1 J	NA
alpha-Chlordane	UG/KG	47000	8.6 U	5.7 U	NA	5.5 U	NA
Dieldrin	UG/KG	2800	8.6 U	5.7 U	NA	5.5 U	NA
gamma-Chlordane	UG/KG	-	8.6 U	5.7 U	NA	5.5 U	NA
Heptachlor epoxide	UG/KG	-	8.6 U	5.7 U	NA	5.5 U	NA
Herbicides							
2,4-D	UG/KG	-	26 U	22 U	NA	22 U	NA
Polychlorinated Biphenyls							
Aroclor 1254	UG/KG	-	NA	29 U	NA	27 U	NA
Aroclor 1260	UG/KG	-	NA	25.6 J	NA	40.7	NA
Total Polychlorinated Biphenyls	UG/KG	25000	NA	25.6 J	NA	40.7	NA
Metals							
Arsenic	MG/KG	16	3.2	2.1	NA	2.4	NA
Barium	MG/KG	10000	75.4	29.2	NA	34.6	NA
Cadmium	MG/KG	60	0.22 J	0.10 J	NA	0.15 J	NA
Chromium	MG/KG	6800	14.4	14.0	NA	9.3	NA
Lead	MG/KG	3900	10.3	13.3	NA	14.7	NA
Mercury	MG/KG	5.7	0.084	0.013 J	NA	0.027 J	NA
Selenium	MG/KG	6800	1 U	0.63 J	NA	0.45 J	NA
Silver	MG/KG	6800	0.14 J	0.43 U	NA	0.41 U	NA

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Only Detected Results Reported.

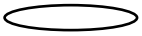
Detection Limits shown are PQL

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-11	DP-SB-12	DP-SB-12	DP-SB-12	DP-SB-12
Sample ID			DP-SB-11(12-24)	DP-SB-12(0-2)	DP-SB-12(0-6)	DP-SB-12(2-12)	DP-SB-12(6-12)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			1.0-2.0	0.0-0.2	0.0-0.5	0.2-1.0	0.5-1.0
Date Sampled			04/06/16	04/06/16	04/06/16	04/06/16	04/06/16
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/KG	1.00E+06	2 U	NA	2.1 U	NA	2 U
1,1-Dichloroethane	UG/KG	4.80E+05	2 U	NA	2.1 U	NA	2 U
1,2-Dichloroethene (cis)	UG/KG	1.00E+06	2 U	NA	2.1 U	NA	2 U
1,2-Dichloroethene (trans)	UG/KG	1.00E+06	2 U	NA	2.1 U	NA	2 U
Acetone	UG/KG	1.00E+06	78.9 J	NA	153 J	NA	166 J
Benzene	UG/KG	89000	0.78	NA	0.96	NA	0.65
Carbon disulfide	UG/KG	-	5.0	NA	2.8 J	NA	4.9 U
Ethylbenzene	UG/KG	7.80E+05	2 U	NA	2.1 U	NA	2 U
Methyl ethyl ketone (2-Butanone)	UG/KG	1.00E+06	20 U	NA	21 U	NA	20 U
Methylene chloride	UG/KG	1.00E+06	0.54 J	NA	0.64 J	NA	0.52 J
Tetrachloroethene	UG/KG	3.00E+05	2 U	NA	2.1 U	NA	2 U
Toluene	UG/KG	1.00E+06	5 U	NA	5.3 U	NA	4.9 U
Trichloroethene	UG/KG	4.00E+05	0.60 J	NA	2.1 U	NA	0.36 J
Xylene (total)	UG/KG	1.00E+06	2 U	NA	2.1 U	NA	2 U
Semivolatile Organic Compounds							
1,2,4-Trichlorobenzene	UG/KG	-	280 U	280 U	NA	270 U	NA
2-Methylnaphthalene	UG/KG	-	110 U	110 U	NA	110 U	NA
Acenaphthene	UG/KG	1.00E+06	110 U	110 U	NA	110 U	NA
Acenaphthylene	UG/KG	1.00E+06	110 U	110 U	NA	110 U	NA
Anthracene	UG/KG	1.00E+06	110 U	33.7 J	NA	13.3 J	NA
Benzo(a)anthracene	UG/KG	11000	31.2 J	131	NA	81.1 J	NA
Benzo(a)pyrene	UG/KG	1100	36.0 J	145	NA	94.4 J	NA

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

Flags assigned during chemistry validation are shown.


Concentration Exceeds Criteria

Only Detected Results Reported.

Detection Limits shown are PQL

Advanced Selection: Debris Pile Soils
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[SITE KEY] = 2 AND [MATRIX] = 'SO' AND [LOCID] <> 'DRUM COMPOSITE'

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-11	DP-SB-12	DP-SB-12	DP-SB-12	DP-SB-12
Sample ID			DP-SB-11(12-24)	DP-SB-12(0-2)	DP-SB-12(0-6)	DP-SB-12(2-12)	DP-SB-12(6-12)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			1.0-2.0	0.0-0.2	0.0-0.5	0.2-1.0	0.5-1.0
Date Sampled			04/06/16	04/06/16	04/06/16	04/06/16	04/06/16
Parameter	**Units**	**Criteria***					
Semivolatile Organic Compounds							
Benzo(b)fluoranthene	UG/KG	11000	43.7 J	158	NA	117	NA
Benzo(g,h,i)perylene	UG/KG	1.00E+06	36.1 J	120	NA	88.7 J	NA
Benzo(k)fluoranthene	UG/KG	1.10E+05	27.9 J	119	NA	68.8 J	NA
bis(2-Ethylhexyl)phthalate	UG/KG	-	280 U	280 U	NA	26.7 J	NA
Butylbenzylphthalate	UG/KG	-	280 U	280 U	NA	44.5 J	NA
Carbazole	UG/KG	-	110 U	19.3 J	NA	110 U	NA
Chrysene	UG/KG	1.10E+05	37.0 J	147	NA	102 J	NA
Dibenz(a,h)anthracene	UG/KG	1100	110 U	35.4 J	NA	110 U	NA
Dibenzofuran	UG/KG	1.00E+06	110 U	110 U	NA	110 U	NA
Diethylphthalate	UG/KG	-	280 U	280 U	NA	270 U	NA
Dimethylphthalate	UG/KG	-	280 U	280 U	NA	270 U	NA
Di-n-butylphthalate	UG/KG	-	280 U	280 U	NA	270 U	NA
Di-n-octylphthalate	UG/KG	-	280 U	280 U	NA	270 U	NA
Fluoranthene	UG/KG	1.00E+06	55.3 J	282	NA	154	NA
Fluorene	UG/KG	1.00E+06	110 U	110 U	NA	110 U	NA
Indeno(1,2,3-cd)pyrene	UG/KG	11000	32.5 J	101 J	NA	72.2 J	NA
Naphthalene	UG/KG	1.00E+06	110 U	110 U	NA	110 U	NA
Phenanthrene	UG/KG	1.00E+06	24.8 J	131	NA	63.8 J	NA
Pyrene	UG/KG	1.00E+06	47.1 J	210	NA	130	NA
Pesticide Organic Compounds							
4,4'-DDD	UG/KG	1.80E+05	5.7 U	5.6 U	NA	5.4 U	NA
4,4'-DDE	UG/KG	1.20E+05	5.7 U	5.6 U	NA	5.4 U	NA

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Only Detected Results Reported.

Detection Limits shown are PQL

Advanced Selection: Debris Pile Soils
#Error
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[SITE KEY] = 2 AND [MATRIX] = 'SO' AND [LOCID] <> 'DRUM COMPOSITE'

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-11	DP-SB-12	DP-SB-12	DP-SB-12	DP-SB-12
Sample ID			DP-SB-11(12-24)	DP-SB-12(0-2)	DP-SB-12(0-6)	DP-SB-12(2-12)	DP-SB-12(6-12)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			1.0-2.0	0.0-0.2	0.0-0.5	0.2-1.0	0.5-1.0
Date Sampled			04/06/16	04/06/16	04/06/16	04/06/16	04/06/16
Parameter	**Units**	**Criteria***					
Pesticide Organic Compounds							
4,4'-DDT	UG/KG	94000	5.7 U	5.6 U	NA	5.4 U	NA
alpha-Chlordane	UG/KG	47000	5.7 U	5.6 U	NA	5.4 U	NA
Dieldrin	UG/KG	2800	5.7 U	5.6 U	NA	5.4 U	NA
gamma-Chlordane	UG/KG	-	5.7 U	5.6 U	NA	5.4 U	NA
Heptachlor epoxide	UG/KG	-	5.7 U	5.6 U	NA	5.4 U	NA
Herbicides							
2,4-D	UG/KG	-	23 U	22 U	NA	22 U	NA
Polychlorinated Biphenyls							
Aroclor 1254	UG/KG	-	38 U	28 U	NA	27 U	NA
Aroclor 1260	UG/KG	-	26.7 J	23.7 J	NA	25.9 J	NA
Total Polychlorinated Biphenyls	UG/KG	25000	26.7 J	23.7 J	NA	25.9 J	NA
Metals							
Arsenic	MG/KG	16	4.3	2.5	NA	2.3	NA
Barium	MG/KG	10000	70.0	24.4	NA	23.6	NA
Cadmium	MG/KG	60	0.13 J	0.11 J	NA	0.11 J	NA
Chromium	MG/KG	6800	12.6	7.4	NA	8.3	NA
Lead	MG/KG	3900	9.7	13.5	NA	16.4	NA
Mercury	MG/KG	5.7	0.033 J	0.016 J	NA	0.016 J	NA
Selenium	MG/KG	6800	0.91 U	0.88 U	NA	0.88 U	NA
Silver	MG/KG	6800	0.46 U	0.44 U	NA	0.44 U	NA

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Only Detected Results Reported.

Detection Limits shown are PQL

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-12	DP-SB-13	DP-SB-13	DP-SB-13	DP-SB-13
Sample ID			DP-SB-12(12-24)	DP-SB-13(0-2)	DP-SB-13(0-6)	DP-SB-13(2-12)	DP-SB-13(6-12)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			1.0-2.0	0.0-0.2	0.0-0.5	0.2-1.0	0.5-1.0
Date Sampled			04/06/16	04/07/16	04/07/16	04/07/16	04/07/16
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/KG	1.00E+06	2 U	NA	2 U	NA	2.2 U
1,1-Dichloroethane	UG/KG	4.80E+05	2 U	NA	2 U	NA	2.2 U
1,2-Dichloroethene (cis)	UG/KG	1.00E+06	2 U	NA	2 U	NA	2.2 U
1,2-Dichloroethene (trans)	UG/KG	1.00E+06	2 U	NA	2 U	NA	2.2 U
Acetone	UG/KG	1.00E+06	63.4 J	NA	267 J	NA	103 J
Benzene	UG/KG	89000	0.49 U	NA	0.61	NA	0.56
Carbon disulfide	UG/KG	-	4.9 U	NA	1.0 J	NA	1.1 J
Ethylbenzene	UG/KG	7.80E+05	2 U	NA	2 U	NA	2.2 U
Methyl ethyl ketone (2-Butanone)	UG/KG	1.00E+06	20 U	NA	20 U	NA	22 U
Methylene chloride	UG/KG	1.00E+06	0.59 J	NA	2 U	NA	2.2 U
Tetrachloroethene	UG/KG	3.00E+05	2 U	NA	2 U	NA	2.2 U
Toluene	UG/KG	1.00E+06	4.9 U	NA	0.61 J	NA	0.55 J
Trichloroethene	UG/KG	4.00E+05	2 U	NA	2 U	NA	2.2 U
Xylene (total)	UG/KG	1.00E+06	2 U	NA	2 U	NA	2.2 U
Semivolatile Organic Compounds							
1,2,4-Trichlorobenzene	UG/KG	-	310 U	330 U	NA	290 U	NA
2-Methylnaphthalene	UG/KG	-	130 U	130 U	NA	120 U	NA
Acenaphthene	UG/KG	1.00E+06	130 U	44.2 J	NA	57.8 J	NA
Acenaphthylene	UG/KG	1.00E+06	130 U	130 U	NA	17.9 J	NA
Anthracene	UG/KG	1.00E+06	130 U	59.1 J	NA	78.2 J	NA
Benzo(a)anthracene	UG/KG	11000	130 U	161	NA	285	NA
Benzo(a)pyrene	UG/KG	1100	130 U	241	NA	317	NA

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Only Detected Results Reported.

Detection Limits shown are PQL

Advanced Selection: Debris Pile Soils
#Error
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[SITE KEY] = 2 AND [MATRIX] = 'SO' AND [LOCID] <> 'DRUM COMPOSITE'

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-12	DP-SB-13	DP-SB-13	DP-SB-13	DP-SB-13
Sample ID			DP-SB-12(12-24)	DP-SB-13(0-2)	DP-SB-13(0-6)	DP-SB-13(2-12)	DP-SB-13(6-12)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			1.0-2.0	0.0-0.2	0.0-0.5	0.2-1.0	0.5-1.0
Date Sampled			04/06/16	04/07/16	04/07/16	04/07/16	04/07/16
Parameter	**Units**	**Criteria***					
Semivolatile Organic Compounds							
Benzo(b)fluoranthene	UG/KG	11000	130 U	246	NA	334	NA
Benzo(g,h,i)perylene	UG/KG	1.00E+06	130 U	104 J	NA	185	NA
Benzo(k)fluoranthene	UG/KG	1.10E+05	130 U	121 J	NA	212	NA
bis(2-Ethylhexyl)phthalate	UG/KG	-	310 U	330 U	NA	290 U	NA
Butylbenzylphthalate	UG/KG	-	310 U	330 U	NA	17.5 J	NA
Carbazole	UG/KG	-	130 U	53.0 J	NA	67.4 J	NA
Chrysene	UG/KG	1.10E+05	130 U	166	NA	286	NA
Dibenz(a,h)anthracene	UG/KG	1100	130 U	183	NA	181	NA
Dibenzofuran	UG/KG	1.00E+06	130 U	17.8 J	NA	21.8 J	NA
Diethylphthalate	UG/KG	-	310 U	330 U	NA	290 U	NA
Dimethylphthalate	UG/KG	-	310 U	330 U	NA	290 U	NA
Di-n-butylphthalate	UG/KG	-	310 U	330 U	NA	290 U	NA
Di-n-octylphthalate	UG/KG	-	310 U	330 U	NA	290 U	NA
Fluoranthene	UG/KG	1.00E+06	130 U	407	NA	689	NA
Fluorene	UG/KG	1.00E+06	130 U	31.8 J	NA	41.9 J	NA
Indeno(1,2,3-cd)pyrene	UG/KG	11000	130 U	328	NA	357	NA
Naphthalene	UG/KG	1.00E+06	130 U	16.5 J	NA	120 U	NA
Phenanthrene	UG/KG	1.00E+06	130 U	290	NA	454	NA
Pyrene	UG/KG	1.00E+06	130 U	326	NA	551	NA
Pesticide Organic Compounds							
4,4'-DDD	UG/KG	1.80E+05	6.2 U	6.8 U	NA	5.8 U	NA
4,4'-DDE	UG/KG	1.20E+05	6.2 U	6.8 U	NA	5.8 U	NA

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Only Detected Results Reported.

Detection Limits shown are PQL

Advanced Selection: Debris Pile Soils
#Error
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[SITE KEY] = 2 AND [MATRIX] = 'SO' AND [LOCID] <> 'DRUM COMPOSITE'

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-12	DP-SB-13	DP-SB-13	DP-SB-13	DP-SB-13
Sample ID			DP-SB-12(12-24)	DP-SB-13(0-2)	DP-SB-13(0-6)	DP-SB-13(2-12)	DP-SB-13(6-12)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			1.0-2.0	0.0-0.2	0.0-0.5	0.2-1.0	0.5-1.0
Date Sampled			04/06/16	04/07/16	04/07/16	04/07/16	04/07/16
Parameter	**Units**	**Criteria***					
Pesticide Organic Compounds							
4,4'-DDT	UG/KG	94000	6.2 U	4.1 J	NA	5.8 U	NA
alpha-Chlordane	UG/KG	47000	6.2 U	6.8 U	NA	5.8 U	NA
Dieldrin	UG/KG	2800	6.2 U	6.8 U	NA	5.8 U	NA
gamma-Chlordane	UG/KG	-	6.2 U	6.8 U	NA	5.8 U	NA
Heptachlor epoxide	UG/KG	-	6.2 U	6.8 U	NA	5.8 U	NA
Herbicides							
2,4-D	UG/KG	-	25 U	27 U	NA	23 U	NA
Polychlorinated Biphenyls							
Aroclor 1254	UG/KG	-	31 U	34 U	NA	29 U	NA
Aroclor 1260	UG/KG	-	31 U	22.8 J	NA	29 U	NA
Total Polychlorinated Biphenyls	UG/KG	25000	31 U	22.8 J	NA	29 U	NA
Metals							
Arsenic	MG/KG	16	5.9	4.7	NA	4.5	NA
Barium	MG/KG	10000	104	73.6	NA	103	NA
Cadmium	MG/KG	60	0.45	0.48	NA	0.53	NA
Chromium	MG/KG	6800	17.5	13.9	NA	11.0	NA
Lead	MG/KG	3900	11.2	14.2	NA	10.6	NA
Mercury	MG/KG	5.7	0.054	0.049	NA	0.042	NA
Selenium	MG/KG	6800	0.96 U	1 U	NA	0.88 U	NA
Silver	MG/KG	6800	0.48 U	0.52 U	NA	0.44 U	NA

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

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Concentration Exceeds Criteria

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TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-13	DP-SB-13	DP-SB-14	DP-SB-14	DP-SB-14
Sample ID			DP-SB-13(12-24)	DP-SB-13(12-24)DUP	DP-SB-14(0-2)	DP-SB-14(0-6)	DP-SB-14(2-12)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			1.0-2.0	1.0-2.0	0.0-0.2	0.0-0.5	0.2-1.0
Date Sampled			04/07/16	04/07/16	04/06/16	04/06/16	04/06/16
Parameter	**Units**	**Criteria***		Field Duplicate (1-1)			
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/KG	1.00E+06	2.7 U	2.6 U	NA	2.2 U	NA
1,1-Dichloroethane	UG/KG	4.80E+05	2.7 U	2.6 U	NA	2.2 U	NA
1,2-Dichloroethene (cis)	UG/KG	1.00E+06	2.7 U	2.6 U	NA	0.43 J	NA
1,2-Dichloroethene (trans)	UG/KG	1.00E+06	2.7 U	2.6 U	NA	2.2 U	NA
Acetone	UG/KG	1.00E+06	145 J	117 J	NA	253 J	NA
Benzene	UG/KG	89000	0.75	0.66 U	NA	0.74	NA
Carbon disulfide	UG/KG	-	2.2 J	0.69 J	NA	1.5 J	NA
Ethylbenzene	UG/KG	7.80E+05	2.7 U	2.6 U	NA	2.2 U	NA
Methyl ethyl ketone (2-Butanone)	UG/KG	1.00E+06	27 U	26 U	NA	22 U	NA
Methylene chloride	UG/KG	1.00E+06	2.7 U	2.6 U	NA	0.56 J	NA
Tetrachloroethene	UG/KG	3.00E+05	2.7 U	2.6 U	NA	2.2 U	NA
Toluene	UG/KG	1.00E+06	0.55 J	6.6 U	NA	5.4 U	NA
Trichloroethene	UG/KG	4.00E+05	2.7 U	2.6 U	NA	0.93 J	NA
Xylene (total)	UG/KG	1.00E+06	2.7 U	2.6 U	NA	2.2 U	NA
Semivolatile Organic Compounds							
1,2,4-Trichlorobenzene	UG/KG	-	290 U	290 U	1,600 U	NA	340 U
2-Methylnaphthalene	UG/KG	-	120 U	120 U	650 U	NA	140 U
Acenaphthene	UG/KG	1.00E+06	120 U	120 U	337 J	NA	34.0 J
Acenaphthylene	UG/KG	1.00E+06	120 U	120 U	650 U	NA	140 U
Anthracene	UG/KG	1.00E+06	120 U	120 U	599 J	NA	75.4 J
Benzo(a)anthracene	UG/KG	11000	19.7 J	20.7 J	1,940	NA	321
Benzo(a)pyrene	UG/KG	1100	120	118 J	1,820	NA	335

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

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TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-13	DP-SB-13	DP-SB-14	DP-SB-14	DP-SB-14
Sample ID			DP-SB-13(12-24)	DP-SB-13(12-24)DUP	DP-SB-14(0-2)	DP-SB-14(0-6)	DP-SB-14(2-12)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			1.0-2.0	1.0-2.0	0.0-0.2	0.0-0.5	0.2-1.0
Date Sampled			04/07/16	04/07/16	04/06/16	04/06/16	04/06/16
Parameter	**Units**	**Criteria***		Field Duplicate (1-1)			
Semivolatile Organic Compounds							
Benzo(b)fluoranthene	UG/KG	11000	122	122	1,990	NA	333
Benzo(g,h,i)perylene	UG/KG	1.00E+06	120 U	120 U	1,280	NA	267
Benzo(k)fluoranthene	UG/KG	1.10E+05	17.0 J	18.7 J	1,480	NA	308
bis(2-Ethylhexyl)phthalate	UG/KG	-	290 U	290 U	1,600 U	NA	340 U
Butylbenzylphthalate	UG/KG	-	290 U	290 U	1,600 U	NA	340 U
Carbazole	UG/KG	-	120 U	120 U	478 J	NA	61.0 J
Chrysene	UG/KG	1.10E+05	23.5 J	24.6 J	2,220	NA	379
Dibenz(a,h)anthracene	UG/KG	1100	120 U	120 U	426 J	NA	82.6 J
Dibenzofuran	UG/KG	1.00E+06	120 U	120 U	217 J	NA	23.2 J
Diethylphthalate	UG/KG	-	290 U	290 U	1,600 U	NA	340 U
Dimethylphthalate	UG/KG	-	290 U	290 U	1,600 U	NA	340 U
Di-n-butylphthalate	UG/KG	-	290 U	290 U	1,600 U	NA	340 U
Di-n-octylphthalate	UG/KG	-	290 U	290 U	1,600 U	NA	340 U
Fluoranthene	UG/KG	1.00E+06	47.0 J	49.2 J	5,040	NA	815
Fluorene	UG/KG	1.00E+06	120 U	120 U	292 J	NA	31.7 J
Indeno(1,2,3-cd)pyrene	UG/KG	11000	218	217	1,140	NA	232
Naphthalene	UG/KG	1.00E+06	120 U	120 U	155 J	NA	19.6 J
Phenanthrene	UG/KG	1.00E+06	25.8 J	29.9 J	3,770	NA	510
Pyrene	UG/KG	1.00E+06	39.5 J	40.5 J	3,780	NA	670
Pesticide Organic Compounds							
4,4'-DDD	UG/KG	1.80E+05	5.7 U	5.9 U	6.3 U	NA	6.5 U
4,4'-DDE	UG/KG	1.20E+05	5.7 U	5.9 U	6.3 U	NA	6.5 U

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

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Concentration Exceeds Criteria

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TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-13	DP-SB-13	DP-SB-14	DP-SB-14	DP-SB-14
Sample ID			DP-SB-13(12-24)	DP-SB-13(12-24)DUP	DP-SB-14(0-2)	DP-SB-14(0-6)	DP-SB-14(2-12)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			1.0-2.0	1.0-2.0	0.0-0.2	0.0-0.5	0.2-1.0
Date Sampled			04/07/16	04/07/16	04/06/16	04/06/16	04/06/16
Parameter	**Units**	**Criteria***		Field Duplicate (1-1)			
Pesticide Organic Compounds							
4,4'-DDT	UG/KG	94000	5.7 U	5.9 U	6.3 U	NA	6.5 U
alpha-Chlordane	UG/KG	47000	5.7 U	5.9 U	6.3 U	NA	6.5 U
Dieldrin	UG/KG	2800	5.7 U	5.9 U	6.3 U	NA	6.5 U
gamma-Chlordane	UG/KG	-	5.7 U	5.9 U	6.3 U	NA	6.5 U
Heptachlor epoxide	UG/KG	-	5.7 U	5.9 U	6.3 U	NA	6.5 U
Herbicides							
2,4-D	UG/KG	-	23 U	23 U	26 U	NA	27 U
Polychlorinated Biphenyls							
Aroclor 1254	UG/KG	-	28 U	30 U	32 U	NA	33 U
Aroclor 1260	UG/KG	-	28 U	30 U	207	NA	47.8
Total Polychlorinated Biphenyls	UG/KG	25000	28 U	30 U	207	NA	47.8
Metals							
Arsenic	MG/KG	16	4.7	4.5	4.1	NA	4.6
Barium	MG/KG	10000	69.3	61.4	80.8	NA	86.4
Cadmium	MG/KG	60	0.18 J	0.15 J	0.89	NA	1.6
Chromium	MG/KG	6800	13.2	14.9	13.7	NA	18.5
Lead	MG/KG	3900	7.3	7.0	24.1	NA	31.3
Mercury	MG/KG	5.7	0.028 J	0.033 J	0.099	NA	0.094
Selenium	MG/KG	6800	0.93 U	0.9 U	0.96 U	NA	1 U
Silver	MG/KG	6800	0.47 U	0.45 U	0.48 U	NA	0.27 J

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

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[SITE KEY] = 2 AND [MATRIX] = 'SO' AND [LOCID] <> 'DRUM COMPOSITE'

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-14	DP-SB-14	DP-SB-15	DP-SB-15	DP-SB-15
Sample ID			DP-SB-14(6-12)	DP-SB-14(12-24)	DP-SB-15(0-2)	DP-SB-15(0-6)	DP-SB-15(2-12)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.5-1.0	1.0-2.0	0.0-0.2	0.0-0.5	0.2-1.0
Date Sampled			04/06/16	04/06/16	04/06/16	04/06/16	04/06/16
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/KG	1.00E+06	3.2 U	2.7 U	NA	3.9 UJ	NA
1,1-Dichloroethane	UG/KG	4.80E+05	3.2 U	2.7 U	NA	3.9 U	NA
1,2-Dichloroethene (cis)	UG/KG	1.00E+06	3.2 U	2.7 U	NA	3.9 U	NA
1,2-Dichloroethene (trans)	UG/KG	1.00E+06	3.2 U	2.7 U	NA	3.9 U	NA
Acetone	UG/KG	1.00E+06	114 J	104 J	NA	788 J	NA
Benzene	UG/KG	89000	0.8 U	0.67 U	NA	0.77 J	NA
Carbon disulfide	UG/KG	-	8 U	6.7 U	NA	3.8 J	NA
Ethylbenzene	UG/KG	7.80E+05	3.2 U	2.7 U	NA	3.9 U	NA
Methyl ethyl ketone (2-Butanone)	UG/KG	1.00E+06	32 U	27 U	NA	39 U	NA
Methylene chloride	UG/KG	1.00E+06	3.2 U	0.58 J	NA	3.9 U	NA
Tetrachloroethene	UG/KG	3.00E+05	3.2 U	2.7 U	NA	3.9 U	NA
Toluene	UG/KG	1.00E+06	8 U	6.7 U	NA	9.8 U	NA
Trichloroethene	UG/KG	4.00E+05	3.2 U	2.7 U	NA	3.9 U	NA
Xylene (total)	UG/KG	1.00E+06	3.2 U	2.7 U	NA	3.9 U	NA
Semivolatile Organic Compounds							
1,2,4-Trichlorobenzene	UG/KG	-	NA	300 U	2,700 U	NA	6,100 U
2-Methylnaphthalene	UG/KG	-	NA	120 U	1,100 U	NA	2,500 U
Acenaphthene	UG/KG	1.00E+06	NA	120 U	1,100 U	NA	7,020
Acenaphthylene	UG/KG	1.00E+06	NA	120 U	1,100 U	NA	2,500 U
Anthracene	UG/KG	1.00E+06	NA	120 U	286 J	NA	19,900
Benzo(a)anthracene	UG/KG	11000	NA	17.2 J	1,200	NA	79,600
Benzo(a)pyrene	UG/KG	1100	NA	15.1 J	1,100	NA	65,100

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

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TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-14	DP-SB-14	DP-SB-15	DP-SB-15	DP-SB-15
Sample ID			DP-SB-14(6-12)	DP-SB-14(12-24)	DP-SB-15(0-2)	DP-SB-15(0-6)	DP-SB-15(2-12)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.5-1.0	1.0-2.0	0.0-0.2	0.0-0.5	0.2-1.0
Date Sampled			04/06/16	04/06/16	04/06/16	04/06/16	04/06/16
Parameter	**Units**	**Criteria***					
Semivolatile Organic Compounds							
Benzo(b)fluoranthene	UG/KG	11000	NA	17.5 J	1,070 J	NA	66,100
Benzo(g,h,i)perylene	UG/KG	1.00E+06	NA	120 U	713 J	NA	28,400
Benzo(k)fluoranthene	UG/KG	1.10E+05	NA	120 U	945 J	NA	45,500
bis(2-Ethylhexyl)phthalate	UG/KG	-	NA	300 U	263 J	NA	6,100 U
Butylbenzylphthalate	UG/KG	-	NA	300 U	2,700 U	NA	6,100 U
Carbazole	UG/KG	-	NA	120 U	232 J	NA	3,490
Chrysene	UG/KG	1.10E+05	NA	17.6 J	1,360	NA	82,100
Dibenz(a,h)anthracene	UG/KG	1100	NA	120 U	200 J	NA	13,300
Dibenzofuran	UG/KG	1.00E+06	NA	120 U	1,100 U	NA	3,410
Diethylphthalate	UG/KG	-	NA	300 U	2,700 U	NA	6,100 U
Dimethylphthalate	UG/KG	-	NA	300 U	2,700 U	NA	6,100 U
Di-n-butylphthalate	UG/KG	-	NA	300 U	287 J	NA	6,100 U
Di-n-octylphthalate	UG/KG	-	NA	300 U	2,700 U	NA	6,100 U
Fluoranthene	UG/KG	1.00E+06	NA	31.9 J	2,400	NA	133,000
Fluorene	UG/KG	1.00E+06	NA	120 U	1,100 U	NA	7,150
Indeno(1,2,3-cd)pyrene	UG/KG	11000	NA	120 U	628 J	NA	27,300
Naphthalene	UG/KG	1.00E+06	NA	120 U	1,100 U	NA	2,500 U
Phenanthrene	UG/KG	1.00E+06	NA	120 U	1,350	NA	67,600
Pyrene	UG/KG	1.00E+06	NA	22.6 J	1,930	NA	110,000
Pesticide Organic Compounds							
4,4'-DDD	UG/KG	1.80E+05	NA	5.8 U	11 U	NA	6 U
4,4'-DDE	UG/KG	1.20E+05	NA	5.8 U	11 U	NA	6 U

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

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TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-14	DP-SB-14	DP-SB-15	DP-SB-15	DP-SB-15
Sample ID			DP-SB-14(6-12)	DP-SB-14(12-24)	DP-SB-15(0-2)	DP-SB-15(0-6)	DP-SB-15(2-12)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.5-1.0	1.0-2.0	0.0-0.2	0.0-0.5	0.2-1.0
Date Sampled			04/06/16	04/06/16	04/06/16	04/06/16	04/06/16
Parameter	**Units**	**Criteria***					
Pesticide Organic Compounds							
4,4'-DDT	UG/KG	94000	NA	5.8 U	11 U	NA	6 U
alpha-Chlordane	UG/KG	47000	NA	5.8 U	11 U	NA	6 U
Dieldrin	UG/KG	2800	NA	5.8 U	11 U	NA	6 U
gamma-Chlordane	UG/KG	-	NA	5.8 U	11 U	NA	6 U
Heptachlor epoxide	UG/KG	-	NA	5.8 U	11 U	NA	6 U
Herbicides							
2,4-D	UG/KG	-	NA	24 U	43 U	NA	25 U
Polychlorinated Biphenyls							
Aroclor 1254	UG/KG	-	NA	29 U	69 U	NA	30 U
Aroclor 1260	UG/KG	-	NA	29 U	247	NA	60.7
Total Polychlorinated Biphenyls	UG/KG	25000	NA	29 U	247	NA	60.7
Metals							
Arsenic	MG/KG	16	NA	4.5	5.4	NA	6.3
Barium	MG/KG	10000	NA	66.2	97.6	NA	72.0
Cadmium	MG/KG	60	NA	0.28 J	2.8	NA	3.4
Chromium	MG/KG	6800	NA	18.9	32.7	NA	28.4
Lead	MG/KG	3900	NA	8.3	112	NA	99.8
Mercury	MG/KG	5.7	NA	0.068	0.16	NA	0.12
Selenium	MG/KG	6800	NA	0.89 U	1.5 U	NA	0.87 U
Silver	MG/KG	6800	NA	0.26 J	0.35 J	NA	0.095 J

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

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[SITE KEY] = 2 AND [MATRIX] = 'SO' AND [LOCID] <> 'DRUM COMPOSITE'

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-15	DP-SB-15	DP-SB-16	DP-SB-16	DP-SB-16
Sample ID			DP-SB-15(6-12)	DP-SB-15(12-24)	DP-SB-16(0-2)	DP-SB-16(0-6)	DP-SB-16(2-12)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.5-1.0	1.0-2.0	0.0-0.2	0.0-0.5	0.2-1.0
Date Sampled			04/06/16	04/06/16	04/05/16	04/05/16	04/05/16
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/KG	1.00E+06	3.3 U	3 U	NA	2.3 U	NA
1,1-Dichloroethane	UG/KG	4.80E+05	3.3 U	3 U	NA	2.3 U	NA
1,2-Dichloroethene (cis)	UG/KG	1.00E+06	3.3 U	3 U	NA	2.3 U	NA
1,2-Dichloroethene (trans)	UG/KG	1.00E+06	3.3 U	3 U	NA	2.3 U	NA
Acetone	UG/KG	1.00E+06	17 UJ	15 UJ	NA	68.8 J	NA
Benzene	UG/KG	89000	0.83 U	0.74 U	NA	0.69	NA
Carbon disulfide	UG/KG	-	8.3 U	7.4 U	NA	2.3 J	NA
Ethylbenzene	UG/KG	7.80E+05	3.3 U	3 U	NA	2.3 U	NA
Methyl ethyl ketone (2-Butanone)	UG/KG	1.00E+06	17 U	15 U	NA	12 U	NA
Methylene chloride	UG/KG	1.00E+06	3.3 U	3 U	NA	2.3 U	NA
Tetrachloroethene	UG/KG	3.00E+05	3.3 U	3 U	NA	2.3 U	NA
Toluene	UG/KG	1.00E+06	8.3 U	7.4 U	NA	5.8 U	NA
Trichloroethene	UG/KG	4.00E+05	3.3 U	3 U	NA	2.3 U	NA
Xylene (total)	UG/KG	1.00E+06	3.3 U	3 U	NA	2.3 U	NA
Semivolatile Organic Compounds							
1,2,4-Trichlorobenzene	UG/KG	-	NA	330 U	5,600 U	NA	5,300 U
2-Methylnaphthalene	UG/KG	-	NA	130 U	2,200 U	NA	2,100 U
Acenaphthene	UG/KG	1.00E+06	NA	130 U	2,200 U	NA	2,100 U
Acenaphthylene	UG/KG	1.00E+06	NA	130 U	2,200 U	NA	2,100 U
Anthracene	UG/KG	1.00E+06	NA	15.8 J	278 J	NA	2,100 U
Benzo(a)anthracene	UG/KG	11000	NA	41.4 J	2,930	NA	252 J
Benzo(a)pyrene	UG/KG	1100	NA	46.4 J	4,020	NA	346 J

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Only Detected Results Reported.

Detection Limits shown are PQL

Advanced Selection: Debris Pile Soils
#Error
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[SITE KEY] = 2 AND [MATRIX] = 'SO' AND [LOCID] <> 'DRUM COMPOSITE'

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-15	DP-SB-15	DP-SB-16	DP-SB-16	DP-SB-16
Sample ID			DP-SB-15(6-12)	DP-SB-15(12-24)	DP-SB-16(0-2)	DP-SB-16(0-6)	DP-SB-16(2-12)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.5-1.0	1.0-2.0	0.0-0.2	0.0-0.5	0.2-1.0
Date Sampled			04/06/16	04/06/16	04/05/16	04/05/16	04/05/16
Parameter	**Units**	**Criteria***					
Semivolatile Organic Compounds							
Benzo(b)fluoranthene	UG/KG	11000	NA	54.7 J	4,390	NA	339 J
Benzo(g,h,i)perylene	UG/KG	1.00E+06	NA	30.0 J	4,150 U	NA	2,100 U
Benzo(k)fluoranthene	UG/KG	1.10E+05	NA	28.9 J	3,350	NA	2,100 U
bis(2-Ethylhexyl)phthalate	UG/KG	-	NA	130 J	5,600 U	NA	5,300 U
Butylbenzylphthalate	UG/KG	-	NA	330 U	5,600 U	NA	5,300 U
Carbazole	UG/KG	-	NA	130 U	441 J	NA	2,100 U
Chrysene	UG/KG	1.10E+05	NA	56.4 J	3,860	NA	280 J
Dibenz(a,h)anthracene	UG/KG	1100	NA	130 U	2,200 U	NA	2,100 U
Dibenzofuran	UG/KG	1.00E+06	NA	130 U	2,200 U	NA	2,100 U
Diethylphthalate	UG/KG	-	NA	330 U	2,300 J	NA	5,300 U
Dimethylphthalate	UG/KG	-	NA	330 U	5,600 U	NA	5,300 U
Di-n-butylphthalate	UG/KG	-	NA	330 U	5,600 U	NA	5,300 U
Di-n-octylphthalate	UG/KG	-	NA	330 U	5,600 U	NA	5,300 U
Fluoranthene	UG/KG	1.00E+06	NA	96.8 J	7,340	NA	494 J
Fluorene	UG/KG	1.00E+06	NA	130 U	2,200 U	NA	2,100 U
Indeno(1,2,3-cd)pyrene	UG/KG	11000	NA	130 U	3,340 U	NA	2,100 U
Naphthalene	UG/KG	1.00E+06	NA	130 U	2,200 U	NA	2,100 U
Phenanthrene	UG/KG	1.00E+06	NA	53.7 J	2,430	NA	2,100 U
Pyrene	UG/KG	1.00E+06	NA	77.4 J	5,630	NA	409 J
Pesticide Organic Compounds							
4,4'-DDD	UG/KG	1.80E+05	NA	6.7 U	5.6 U	NA	5.2 U
4,4'-DDE	UG/KG	1.20E+05	NA	6.7 U	5.6 UJ	NA	5.2 UJ

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

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Concentration Exceeds Criteria

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Detection Limits shown are PQL

Advanced Selection: Debris Pile Soils
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TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-15	DP-SB-15	DP-SB-16	DP-SB-16	DP-SB-16
Sample ID			DP-SB-15(6-12)	DP-SB-15(12-24)	DP-SB-16(0-2)	DP-SB-16(0-6)	DP-SB-16(2-12)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.5-1.0	1.0-2.0	0.0-0.2	0.0-0.5	0.2-1.0
Date Sampled			04/06/16	04/06/16	04/05/16	04/05/16	04/05/16
Parameter	**Units**	**Criteria***					
Pesticide Organic Compounds							
4,4'-DDT	UG/KG	94000	NA	6.7 U	5.6 UJ	NA	5.2 UJ
alpha-Chlordane	UG/KG	47000	NA	6.7 U	5.6 UJ	NA	5.2 UJ
Dieldrin	UG/KG	2800	NA	6.7 U	5.6 UJ	NA	5.2 UJ
gamma-Chlordane	UG/KG	-	NA	6.7 U	5.6 U	NA	5.2 U
Heptachlor epoxide	UG/KG	-	NA	6.7 U	5.6 U	NA	5.2 U
Herbicides							
2,4-D	UG/KG	-	NA	27 U	22.6 J	NA	21 UJ
Polychlorinated Biphenyls							
Aroclor 1254	UG/KG	-	NA	33 U	280 U	NA	26 U
Aroclor 1260	UG/KG	-	NA	33 U	280 U	NA	152
Total Polychlorinated Biphenyls	UG/KG	25000	NA	33 U	280 U	NA	152
Metals							
Arsenic	MG/KG	16	NA	2.7	1.8	NA	2.7
Barium	MG/KG	10000	NA	79.2	26.3 J	NA	57.5
Cadmium	MG/KG	60	NA	0.31 J	0.33 U	NA	0.33 U
Chromium	MG/KG	6800	NA	15.4	26.1	NA	16.7 J
Lead	MG/KG	3900	NA	11.8	28.7	NA	16.2
Mercury	MG/KG	5.7	NA	0.089	0.015 J	NA	0.057
Selenium	MG/KG	6800	NA	0.98 U	0.83 U	NA	0.83 U
Silver	MG/KG	6800	NA	0.22 J	0.42 U	NA	0.41 U

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

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Concentration Exceeds Criteria

Only Detected Results Reported.

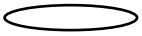
Detection Limits shown are PQL

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-16	DP-SB-16	DP-SB-16	DP-SB-16	DP-SB-17
Sample ID			DP-SB-16(2-12)DUP	DP-SB-16(6-12)	DP-SB-16(6-12)DUP	DP-SB-16(12-24)	DP-SB-17(0-2)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.2-1.0	0.5-1.0	0.5-1.0	1.0-2.0	0.0-0.2
Date Sampled			04/05/16	04/05/16	04/05/16	04/05/16	04/07/16
Parameter	**Units**	**Criteria***	Field Duplicate (1-1)		Field Duplicate (1-1)		
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/KG	1.00E+06	NA	11 U	2.6 U	2 U	NA
1,1-Dichloroethane	UG/KG	4.80E+05	NA	11 U	2.6 U	2 U	NA
1,2-Dichloroethene (cis)	UG/KG	1.00E+06	NA	11 U	2.6 U	2 U	NA
1,2-Dichloroethene (trans)	UG/KG	1.00E+06	NA	11 U	2.6 U	2 U	NA
Acetone	UG/KG	1.00E+06	NA	54 UJ	126 J	10 UJ	NA
Benzene	UG/KG	89000	NA	2.7 U	1.1	0.55	NA
Carbon disulfide	UG/KG	-	NA	27 U	1.5 J	2.5 J	NA
Ethylbenzene	UG/KG	7.80E+05	NA	11 U	2.6 U	2 U	NA
Methyl ethyl ketone (2-Butanone)	UG/KG	1.00E+06	NA	110 U	13 U	10 U	NA
Methylene chloride	UG/KG	1.00E+06	NA	11 U	2.6 U	2 U	NA
Tetrachloroethene	UG/KG	3.00E+05	NA	11 U	2.6 U	2 U	NA
Toluene	UG/KG	1.00E+06	NA	27 U	6.4 U	5 U	NA
Trichloroethene	UG/KG	4.00E+05	NA	11 U	0.48 J	2 U	NA
Xylene (total)	UG/KG	1.00E+06	NA	11 U	2.6 U	2 U	NA
Semivolatile Organic Compounds							
1,2,4-Trichlorobenzene	UG/KG	-	5,400 U	NA	NA	3,000 U	310 U
2-Methylnaphthalene	UG/KG	-	2,200 U	NA	NA	1,200 U	130 U
Acenaphthene	UG/KG	1.00E+06	2,200 U	NA	NA	1,200 U	26.2 J
Acenaphthylene	UG/KG	1.00E+06	2,200 U	NA	NA	1,200 U	73.1 J
Anthracene	UG/KG	1.00E+06	2,200 U	NA	NA	198 J	107 J
Benzo(a)anthracene	UG/KG	11000	370 J	NA	NA	2,040	596
Benzo(a)pyrene	UG/KG	1100	429 J	NA	NA	2,660	648

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

Flags assigned during chemistry validation are shown.


Concentration Exceeds Criteria

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Detection Limits shown are PQL

Advanced Selection: Debris Pile Soils
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[SITE KEY] = 2 AND [MATRIX] = 'SO' AND [LOCID] <> 'DRUM COMPOSITE'

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-16	DP-SB-16	DP-SB-16	DP-SB-16	DP-SB-17
Sample ID			DP-SB-16(2-12)DUP	DP-SB-16(6-12)	DP-SB-16(6-12)DUP	DP-SB-16(12-24)	DP-SB-17(0-2)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.2-1.0	0.5-1.0	0.5-1.0	1.0-2.0	0.0-0.2
Date Sampled			04/05/16	04/05/16	04/05/16	04/05/16	04/07/16
Parameter	**Units**	**Criteria***	Field Duplicate (1-1)		Field Duplicate (1-1)		
Semivolatile Organic Compounds							
Benzo(b)fluoranthene	UG/KG	11000	393 J	NA	NA	2,760	603
Benzo(g,h,i)perylene	UG/KG	1.00E+06	2,200 U	NA	NA	2,220 U	482 J
Benzo(k)fluoranthene	UG/KG	1.10E+05	412 J	NA	NA	2,210	528
bis(2-Ethylhexyl)phthalate	UG/KG	-	5,400 U	NA	NA	3,000 U	169 J
Butylbenzylphthalate	UG/KG	-	5,400 U	NA	NA	3,000 U	24.1 J
Carbazole	UG/KG	-	2,200 U	NA	NA	291 J	49.6 J
Chrysene	UG/KG	1.10E+05	392 J	NA	NA	2,550	618
Dibenz(a,h)anthracene	UG/KG	1100	2,200 U	NA	NA	1,200 U	237
Dibenzofuran	UG/KG	1.00E+06	2,200 U	NA	NA	1,200 U	17.1 J
Diethylphthalate	UG/KG	-	5,400 U	NA	NA	3,000 U	310 U
Dimethylphthalate	UG/KG	-	5,400 U	NA	NA	3,000 U	310 U
Di-n-butylphthalate	UG/KG	-	5,400 U	NA	NA	3,000 U	310 U
Di-n-octylphthalate	UG/KG	-	5,400 U	NA	NA	3,000 U	310 U
Fluoranthene	UG/KG	1.00E+06	724 J	NA	NA	4,810	1,120
Fluorene	UG/KG	1.00E+06	2,200 U	NA	NA	1,200 U	28.1 J
Indeno(1,2,3-cd)pyrene	UG/KG	11000	2,200 U	NA	NA	1,740 U	615
Naphthalene	UG/KG	1.00E+06	2,200 U	NA	NA	1,200 U	24.2 J
Phenanthrene	UG/KG	1.00E+06	312 J	NA	NA	1,560	447
Pyrene	UG/KG	1.00E+06	593 J	NA	NA	3,690	1,020
Pesticide Organic Compounds							
4,4'-DDD	UG/KG	1.80E+05	5.4 U	NA	NA	5.8 U	6.4 U
4,4'-DDE	UG/KG	1.20E+05	1.7 NJ	NA	NA	5.8 UJ	6.2 J

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

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Concentration Exceeds Criteria

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Advanced Selection: Debris Pile Soils
#Error
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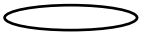
[SITE KEY] = 2 AND [MATRIX] = 'SO' AND [LOCID] <> 'DRUM COMPOSITE'

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-16	DP-SB-16	DP-SB-16	DP-SB-16	DP-SB-17
Sample ID			DP-SB-16(2-12)DUP	DP-SB-16(6-12)	DP-SB-16(6-12)DUP	DP-SB-16(12-24)	DP-SB-17(0-2)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.2-1.0	0.5-1.0	0.5-1.0	1.0-2.0	0.0-0.2
Date Sampled			04/05/16	04/05/16	04/05/16	04/05/16	04/07/16
Parameter	**Units**	**Criteria***	Field Duplicate (1-1)		Field Duplicate (1-1)		
Pesticide Organic Compounds							
4,4'-DDT	UG/KG	94000	R	NA	NA	5.8 UJ	8.7
alpha-Chlordane	UG/KG	47000	5.4 UJ	NA	NA	5.8 UJ	6.4 U
Dieldrin	UG/KG	2800	5.4 UJ	NA	NA	5.8 UJ	3.4 J
gamma-Chlordane	UG/KG	-	5.4 U	NA	NA	5.8 UJ	6.4 U
Heptachlor epoxide	UG/KG	-	5.4 U	NA	NA	5.8 UJ	6.4 U
Herbicides							
2,4-D	UG/KG	-	8.5 J	NA	NA	24 U	26 U
Polychlorinated Biphenyls							
Aroclor 1254	UG/KG	-	27 U	NA	NA	150 U	32 U
Aroclor 1260	UG/KG	-	91.9 J	NA	NA	150 U	17.9 J
Total Polychlorinated Biphenyls	UG/KG	25000	91.9 J	NA	NA	150 U	17.9 J
Metals							
Arsenic	MG/KG	16	1.8	NA	NA	1.6	5.6
Barium	MG/KG	10000	45.4	NA	NA	40.5	42.4
Cadmium	MG/KG	60	0.32 U	NA	NA	0.35 U	0.47
Chromium	MG/KG	6800	8.1 J	NA	NA	14.7	10.5
Lead	MG/KG	3900	16.4	NA	NA	26.8	21.9
Mercury	MG/KG	5.7	0.055	NA	NA	0.028 J	0.11
Selenium	MG/KG	6800	0.8 U	NA	NA	0.86 U	0.95 U
Silver	MG/KG	6800	0.4 U	NA	NA	0.43 U	0.47 U

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

Flags assigned during chemistry validation are shown.


Concentration Exceeds Criteria

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Advanced Selection: Debris Pile Soils
#Error
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[SITE KEY] = 2 AND [MATRIX] = 'SO' AND [LOCID] <> 'DRUM COMPOSITE'

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-17	DP-SB-17	DP-SB-17	DP-SB-17	DP-SB-17
Sample ID			DP-SB-17(0-6)	DP-SB-17(2-12)	DP-SB-17(6-12)	DP-SB-17(12-24)	DP-SB-17(12-24)DUP
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.5	0.2-1.0	0.5-1.0	1.0-2.0	1.0-2.0
Date Sampled			04/07/16	04/07/16	04/07/16	04/07/16	04/07/16
Parameter	**Units**	**Criteria***					Field Duplicate (1-1)
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/KG	1.00E+06	2.4 U	NA	1.9 U	2.1 U	2.1 U
1,1-Dichloroethane	UG/KG	4.80E+05	2.4 U	NA	1.9 U	2.1 U	2.1 U
1,2-Dichloroethene (cis)	UG/KG	1.00E+06	2.4 U	NA	1.9 U	2.1 U	2.1 U
1,2-Dichloroethene (trans)	UG/KG	1.00E+06	2.4 U	NA	1.9 U	2.1 U	2.1 U
Acetone	UG/KG	1.00E+06	12 UJ	NA	19 UJ	80.0 J	183 J
Benzene	UG/KG	89000	0.98	NA	0.60	0.47 J	1.7 J
Carbon disulfide	UG/KG	-	3.2 J	NA	2.9 J	3.0 J	6.0 J
Ethylbenzene	UG/KG	7.80E+05	2.4 U	NA	1.9 U	2.1 U	2.1 U
Methyl ethyl ketone (2-Butanone)	UG/KG	1.00E+06	12 U	NA	19 U	21 U	21 U
Methylene chloride	UG/KG	1.00E+06	2.4 U	NA	1.9 U	2.1 U	2.1 U
Tetrachloroethene	UG/KG	3.00E+05	2.4 U	NA	1.9 U	2.1 U	2.1 U
Toluene	UG/KG	1.00E+06	0.86 J	NA	0.56 J	5.3 UJ	1.3 J
Trichloroethene	UG/KG	4.00E+05	2.4 U	NA	1.9 U	2.1 U	2.1 U
Xylene (total)	UG/KG	1.00E+06	2.4 U	NA	1.9 U	2.1 U	0.39 J
Semivolatile Organic Compounds							
1,2,4-Trichlorobenzene	UG/KG	-	NA	270 U	NA	280 U	270 U
2-Methylnaphthalene	UG/KG	-	NA	31.2 J	NA	40.6 J	110 U
Acenaphthene	UG/KG	1.00E+06	NA	72.8 J	NA	110	58.3 J
Acenaphthylene	UG/KG	1.00E+06	NA	229	NA	588	232
Anthracene	UG/KG	1.00E+06	NA	336	NA	806	426
Benzo(a)anthracene	UG/KG	11000	NA	1,490	NA	2,560	1,740
Benzo(a)pyrene	UG/KG	1100	NA	1,480	NA	2,140	1,830

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

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TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-17	DP-SB-17	DP-SB-17	DP-SB-17	DP-SB-17
Sample ID			DP-SB-17(0-6)	DP-SB-17(2-12)	DP-SB-17(6-12)	DP-SB-17(12-24)	DP-SB-17(12-24)DUP
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.5	0.2-1.0	0.5-1.0	1.0-2.0	1.0-2.0
Date Sampled			04/07/16	04/07/16	04/07/16	04/07/16	04/07/16
Parameter	**Units**	**Criteria***					Field Duplicate (1-1)
Semivolatile Organic Compounds							
Benzo(b)fluoranthene	UG/KG	11000	NA	1,360	NA	1,930	1,870
Benzo(g,h,i)perylene	UG/KG	1.00E+06	NA	898 J	NA	1,410 J	1,160
Benzo(k)fluoranthene	UG/KG	1.10E+05	NA	1,230	NA	1,900	1,140
bis(2-Ethylhexyl)phthalate	UG/KG	-	NA	356	NA	211 J	62.5 J
Butylbenzylphthalate	UG/KG	-	NA	270 U	NA	280 U	28.3 J
Carbazole	UG/KG	-	NA	135	NA	177	136
Chrysene	UG/KG	1.10E+05	NA	1,500	NA	2,370	1,810
Dibenz(a,h)anthracene	UG/KG	1100	NA	325	NA	469	412
Dibenzofuran	UG/KG	1.00E+06	NA	46.1 J	NA	91.4 J	50.3 J
Diethylphthalate	UG/KG	-	NA	270 U	NA	280 U	270 U
Dimethylphthalate	UG/KG	-	NA	270 U	NA	280 U	270 U
Di-n-butylphthalate	UG/KG	-	NA	270 U	NA	280 U	270 U
Di-n-octylphthalate	UG/KG	-	NA	270 U	NA	280 U	270 U
Fluoranthene	UG/KG	1.00E+06	NA	2,780	NA	4,600	3,420
Fluorene	UG/KG	1.00E+06	NA	85.0 J	NA	276	128
Indeno(1,2,3-cd)pyrene	UG/KG	11000	NA	1,020	NA	1,300	1,100
Naphthalene	UG/KG	1.00E+06	NA	45.9 J	NA	55.7 J	24.2 J
Phenanthrene	UG/KG	1.00E+06	NA	1,220	NA	2,530	1,630
Pyrene	UG/KG	1.00E+06	NA	2,550	NA	4,120	2,910
Pesticide Organic Compounds							
4,4'-DDD	UG/KG	1.80E+05	NA	2.1 J	NA	4.8 J	4.9 J
4,4'-DDE	UG/KG	1.20E+05	NA	8.5	NA	22.1	15.9

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Only Detected Results Reported.

Detection Limits shown are PQL

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-17	DP-SB-17	DP-SB-17	DP-SB-17	DP-SB-17
Sample ID			DP-SB-17(0-6)	DP-SB-17(2-12)	DP-SB-17(6-12)	DP-SB-17(12-24)	DP-SB-17(12-24)DUP
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.5	0.2-1.0	0.5-1.0	1.0-2.0	1.0-2.0
Date Sampled			04/07/16	04/07/16	04/07/16	04/07/16	04/07/16
Parameter	**Units**	**Criteria***					Field Duplicate (1-1)
Pesticide Organic Compounds							
4,4'-DDT	UG/KG	94000	NA	17.3	NA	29.1 J	14.8 J
alpha-Chlordane	UG/KG	47000	NA	5.5 U	NA	3.1 J	2.9 J
Dieldrin	UG/KG	2800	NA	2.7 J	NA	5.6 U	5.5 U
gamma-Chlordane	UG/KG	-	NA	5.5 U	NA	1.7 J	5.5 U
Heptachlor epoxide	UG/KG	-	NA	5.5 U	NA	1.8 J	5.5 U
Herbicides							
2,4-D	UG/KG	-	NA	22 U	NA	23 U	22 U
Polychlorinated Biphenyls							
Aroclor 1254	UG/KG	-	NA	28 U	NA	28 U	27 U
Aroclor 1260	UG/KG	-	NA	20.8 J	NA	18.2 J	14.8 J
Total Polychlorinated Biphenyls	UG/KG	25000	NA	20.8 J	NA	18.2 J	14.8 J
Metals							
Arsenic	MG/KG	16	NA	5.8	NA	8.3	7.6
Barium	MG/KG	10000	NA	47.7	NA	62.5	59.0
Cadmium	MG/KG	60	NA	0.50	NA	0.36	0.31 J
Chromium	MG/KG	6800	NA	9.7	NA	13.6	11.7
Lead	MG/KG	3900	NA	31.3	NA	24.7	23.0
Mercury	MG/KG	5.7	NA	0.079	NA	0.068	0.093
Selenium	MG/KG	6800	NA	0.84 U	NA	0.91 U	0.9 U
Silver	MG/KG	6800	NA	0.42 U	NA	0.082 J	0.12 J

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

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Concentration Exceeds Criteria

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Advanced Selection: Debris Pile Soils
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[SITE KEY] = 2 AND [MATRIX] = 'SO' AND [LOCID] <> 'DRUM COMPOSITE'

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-18	DP-SB-18	DP-SB-18	DP-SB-18	DP-SB-18
Sample ID			DP-SB-18(0-2)	DP-SB-18(0-6)	DP-SB-18(2-12)	DP-SB-18(6-12)	DP-SB-18(12-24)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	0.0-0.5	0.2-1.0	0.5-1.0	1.0-2.0
Date Sampled			04/07/16	04/07/16	04/07/16	04/07/16	04/07/16
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/KG	1.00E+06	NA	2.8 U	NA	1.7 U	2.6 U
1,1-Dichloroethane	UG/KG	4.80E+05	NA	2.8 U	NA	1.7 U	2.6 U
1,2-Dichloroethene (cis)	UG/KG	1.00E+06	NA	2.8 U	NA	1.7 U	2.6 U
1,2-Dichloroethene (trans)	UG/KG	1.00E+06	NA	2.8 U	NA	1.7 U	2.6 U
Acetone	UG/KG	1.00E+06	NA	14 U	NA	88.1	257
Benzene	UG/KG	89000	NA	1.1	NA	0.39 J	1.3
Carbon disulfide	UG/KG	-	NA	2.8 J	NA	1.2 J	4.9 J
Ethylbenzene	UG/KG	7.80E+05	NA	2.8 U	NA	1.7 U	2.6 U
Methyl ethyl ketone (2-Butanone)	UG/KG	1.00E+06	NA	28 U	NA	17 U	26 U
Methylene chloride	UG/KG	1.00E+06	NA	2.8 U	NA	1.7 U	2.6 U
Tetrachloroethene	UG/KG	3.00E+05	NA	2.8 U	NA	1.7 U	2.6 U
Toluene	UG/KG	1.00E+06	NA	2.2 J	NA	4.3 U	1.1 J
Trichloroethene	UG/KG	4.00E+05	NA	2.8 U	NA	1.7 U	2.6 U
Xylene (total)	UG/KG	1.00E+06	NA	2.8 U	NA	1.7 U	2.6 U
Semivolatile Organic Compounds							
1,2,4-Trichlorobenzene	UG/KG	-	310 U	NA	280 U	NA	290 U
2-Methylnaphthalene	UG/KG	-	120 U	NA	110 U	NA	120 U
Acenaphthene	UG/KG	1.00E+06	120 U	NA	110 U	NA	120 U
Acenaphthylene	UG/KG	1.00E+06	120 U	NA	110 U	NA	120 U
Anthracene	UG/KG	1.00E+06	24.2 J	NA	30.4 J	NA	17.1 J
Benzo(a)anthracene	UG/KG	11000	132	NA	182	NA	84.2 J
Benzo(a)pyrene	UG/KG	1100	150	NA	222	NA	112 J

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

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Concentration Exceeds Criteria

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TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-18	DP-SB-18	DP-SB-18	DP-SB-18	DP-SB-18
Sample ID			DP-SB-18(0-2)	DP-SB-18(0-6)	DP-SB-18(2-12)	DP-SB-18(6-12)	DP-SB-18(12-24)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	0.0-0.5	0.2-1.0	0.5-1.0	1.0-2.0
Date Sampled			04/07/16	04/07/16	04/07/16	04/07/16	04/07/16
Parameter	**Units**	**Criteria***					
Semivolatile Organic Compounds							
Benzo(b)fluoranthene	UG/KG	11000	168	NA	212	NA	97.4 J
Benzo(g,h,i)perylene	UG/KG	1.00E+06	109 J	NA	166	NA	112 J
Benzo(k)fluoranthene	UG/KG	1.10E+05	106 J	NA	170	NA	79.5 J
bis(2-Ethylhexyl)phthalate	UG/KG	-	71.8 J	NA	280 U	NA	290 U
Butylbenzylphthalate	UG/KG	-	35.6 J	NA	280 U	NA	290 U
Carbazole	UG/KG	-	15.0 J	NA	15.8 J	NA	120 U
Chrysene	UG/KG	1.10E+05	162	NA	223	NA	106 J
Dibenz(a,h)anthracene	UG/KG	1100	32.0 J	NA	51.4 J	NA	28.5 J
Dibenzofuran	UG/KG	1.00E+06	120 U	NA	110 U	NA	120 U
Diethylphthalate	UG/KG	-	310 U	NA	280 U	NA	290 U
Dimethylphthalate	UG/KG	-	310 U	NA	280 U	NA	290 U
Di-n-butylphthalate	UG/KG	-	310 U	NA	280 U	NA	290 U
Di-n-octylphthalate	UG/KG	-	310 U	NA	280 U	NA	290 U
Fluoranthene	UG/KG	1.00E+06	287	NA	343	NA	151
Fluorene	UG/KG	1.00E+06	120 U	NA	110 U	NA	120 U
Indeno(1,2,3-cd)pyrene	UG/KG	11000	95.8 J	NA	143	NA	83.5 J
Naphthalene	UG/KG	1.00E+06	120 U	NA	110 U	NA	120 U
Phenanthrene	UG/KG	1.00E+06	117 J	NA	132	NA	51.1 J
Pyrene	UG/KG	1.00E+06	232	NA	294	NA	122
Pesticide Organic Compounds							
4,4'-DDD	UG/KG	1.80E+05	6.3 U	NA	5.5 U	NA	5.7 U
4,4'-DDE	UG/KG	1.20E+05	6.3 U	NA	5.5 U	NA	5.7 U

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

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Concentration Exceeds Criteria

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Detection Limits shown are PQL

Advanced Selection: Debris Pile Soils
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[SITE KEY] = 2 AND [MATRIX] = 'SO' AND [LOCID] <> 'DRUM COMPOSITE'

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-18	DP-SB-18	DP-SB-18	DP-SB-18	DP-SB-18
Sample ID			DP-SB-18(0-2)	DP-SB-18(0-6)	DP-SB-18(2-12)	DP-SB-18(6-12)	DP-SB-18(12-24)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	0.0-0.5	0.2-1.0	0.5-1.0	1.0-2.0
Date Sampled			04/07/16	04/07/16	04/07/16	04/07/16	04/07/16
Parameter	**Units**	**Criteria***					
Pesticide Organic Compounds							
4,4'-DDT	UG/KG	94000	6.3 U	NA	5.5 UJ	NA	5.7 U
alpha-Chlordane	UG/KG	47000	6.3 U	NA	5.5 U	NA	5.7 U
Dieldrin	UG/KG	2800	6.3 U	NA	5.5 U	NA	5.7 U
gamma-Chlordane	UG/KG	-	6.3 U	NA	5.5 U	NA	5.7 U
Heptachlor epoxide	UG/KG	-	6.3 U	NA	5.5 U	NA	5.7 U
Herbicides							
2,4-D	UG/KG	-	25 U	NA	23 U	NA	23 U
Polychlorinated Biphenyls							
Aroclor 1254	UG/KG	-	31 U	NA	28 U	NA	28 U
Aroclor 1260	UG/KG	-	31 U	NA	14.0 J	NA	18.7 J
Total Polychlorinated Biphenyls	UG/KG	25000	31 U	NA	14.0 J	NA	18.7 J
Metals							
Arsenic	MG/KG	16	4.3	NA	3.5	NA	5.0
Barium	MG/KG	10000	48.1	NA	45.0	NA	81.6
Cadmium	MG/KG	60	0.20 J	NA	0.16 J	NA	0.25 J
Chromium	MG/KG	6800	8.9	NA	10.5	NA	14.2
Lead	MG/KG	3900	14.2	NA	13.5	NA	15.7
Mercury	MG/KG	5.7	0.051	NA	0.047	NA	0.048
Selenium	MG/KG	6800	0.31 J	NA	0.9 U	NA	0.93 U
Silver	MG/KG	6800	0.16 J	NA	0.45 U	NA	0.17 J

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

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TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-19	DP-SB-19	DP-SB-19	DP-SB-19	DP-SB-19
Sample ID			DP-SB-19(0-2)	DP-SB-19(0-6)	DP-SB-19(2-12)	DP-SB-19(6-12)	DP-SB-19(12-24)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	0.0-0.5	0.2-1.0	0.5-1.0	1.0-2.0
Date Sampled			04/07/16	04/07/16	04/07/16	04/07/16	04/07/16
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/KG	1.00E+06	NA	1.9 U	NA	1.7 U	2.2 U
1,1-Dichloroethane	UG/KG	4.80E+05	NA	1.9 U	NA	1.7 U	2.2 U
1,2-Dichloroethene (cis)	UG/KG	1.00E+06	NA	1.9 U	NA	1.7 U	2.2 U
1,2-Dichloroethene (trans)	UG/KG	1.00E+06	NA	1.9 U	NA	1.7 U	2.2 U
Acetone	UG/KG	1.00E+06	NA	429 J	NA	208	11 U
Benzene	UG/KG	89000	NA	0.47 U	NA	0.43 U	0.63
Carbon disulfide	UG/KG	-	NA	4.7 UJ	NA	1.4 J	1.1 J
Ethylbenzene	UG/KG	7.80E+05	NA	1.9 U	NA	1.7 U	2.2 U
Methyl ethyl ketone (2-Butanone)	UG/KG	1.00E+06	NA	19 U	NA	17 U	22 U
Methylene chloride	UG/KG	1.00E+06	NA	1.9 U	NA	1.7 U	2.2 U
Tetrachloroethene	UG/KG	3.00E+05	NA	1.9 U	NA	1.7 U	2.2 U
Toluene	UG/KG	1.00E+06	NA	4.7 U	NA	1.1 J	5.5 U
Trichloroethene	UG/KG	4.00E+05	NA	1.9 U	NA	1.7 U	2.2 U
Xylene (total)	UG/KG	1.00E+06	NA	1.9 U	NA	1.7 U	2.2 U
Semivolatile Organic Compounds							
1,2,4-Trichlorobenzene	UG/KG	-	330 U	NA	290 U	NA	280 U
2-Methylnaphthalene	UG/KG	-	130 U	NA	110 U	NA	110 U
Acenaphthene	UG/KG	1.00E+06	130 U	NA	110 U	NA	110 U
Acenaphthylene	UG/KG	1.00E+06	130 U	NA	110 U	NA	110 U
Anthracene	UG/KG	1.00E+06	130 U	NA	110 U	NA	26.4 J
Benzo(a)anthracene	UG/KG	11000	21.3 J	NA	26.1 J	NA	101 J
Benzo(a)pyrene	UG/KG	1100	22.7 J	NA	25.8 J	NA	110

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

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[SITE KEY] = 2 AND [MATRIX] = 'SO' AND [LOCID] <> 'DRUM COMPOSITE'

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-19	DP-SB-19	DP-SB-19	DP-SB-19	DP-SB-19
Sample ID			DP-SB-19(0-2)	DP-SB-19(0-6)	DP-SB-19(2-12)	DP-SB-19(6-12)	DP-SB-19(12-24)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	0.0-0.5	0.2-1.0	0.5-1.0	1.0-2.0
Date Sampled			04/07/16	04/07/16	04/07/16	04/07/16	04/07/16
Parameter	**Units**	**Criteria***					
Semivolatile Organic Compounds							
Benzo(b)fluoranthene	UG/KG	11000	19.0 J	NA	29.5 J	NA	97.5 J
Benzo(g,h,i)perylene	UG/KG	1.00E+06	18.2 J	NA	21.1 J	NA	79.6 J
Benzo(k)fluoranthene	UG/KG	1.10E+05	20.7 J	NA	110 U	NA	85.3 J
bis(2-Ethylhexyl)phthalate	UG/KG	-	33.1 J	NA	65.1 J	NA	49.8 J
Butylbenzylphthalate	UG/KG	-	330 U	NA	290 U	NA	280 U
Carbazole	UG/KG	-	130 U	NA	110 U	NA	110 U
Chrysene	UG/KG	1.10E+05	23.6 J	NA	28.3 J	NA	108 J
Dibenz(a,h)anthracene	UG/KG	1100	130 U	NA	110 U	NA	110 U
Dibenzofuran	UG/KG	1.00E+06	130 U	NA	110 U	NA	110 U
Diethylphthalate	UG/KG	-	330 U	NA	290 U	NA	280 U
Dimethylphthalate	UG/KG	-	330 U	NA	290 U	NA	280 U
Di-n-butylphthalate	UG/KG	-	330 U	NA	290 U	NA	280 U
Di-n-octylphthalate	UG/KG	-	330 U	NA	290 U	NA	280 U
Fluoranthene	UG/KG	1.00E+06	43.4 J	NA	47.1 J	NA	209
Fluorene	UG/KG	1.00E+06	130 U	NA	110 U	NA	110 U
Indeno(1,2,3-cd)pyrene	UG/KG	11000	130 U	NA	110 U	NA	71.4 J
Naphthalene	UG/KG	1.00E+06	130 U	NA	110 U	NA	110 U
Phenanthrene	UG/KG	1.00E+06	20.8 J	NA	22.0 J	NA	107 J
Pyrene	UG/KG	1.00E+06	35.9 J	NA	42.3 J	NA	193
Pesticide Organic Compounds							
4,4'-DDD	UG/KG	1.80E+05	6.6 U	NA	5.8 U	NA	5.5 U
4,4'-DDE	UG/KG	1.20E+05	6.6 U	NA	3.9 J	NA	2.9 J

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

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[SITE KEY] = 2 AND [MATRIX] = 'SO' AND [LOCID] <> 'DRUM COMPOSITE'

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SB-19	DP-SB-19	DP-SB-19	DP-SB-19	DP-SB-19
Sample ID			DP-SB-19(0-2)	DP-SB-19(0-6)	DP-SB-19(2-12)	DP-SB-19(6-12)	DP-SB-19(12-24)
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			0.0-0.2	0.0-0.5	0.2-1.0	0.5-1.0	1.0-2.0
Date Sampled			04/07/16	04/07/16	04/07/16	04/07/16	04/07/16
Parameter	**Units**	**Criteria***					
Pesticide Organic Compounds							
4,4'-DDT	UG/KG	94000	6.6 U	NA	2.6 J	NA	5.5 UJ
alpha-Chlordane	UG/KG	47000	6.6 U	NA	5.8 U	NA	5.5 U
Dieldrin	UG/KG	2800	3.5 J	NA	15.2	NA	17.9
gamma-Chlordane	UG/KG	-	6.6 U	NA	5.8 U	NA	5.5 U
Heptachlor epoxide	UG/KG	-	6.6 U	NA	5.8 U	NA	5.5 U
Herbicides							
2,4-D	UG/KG	-	26 U	NA	23 U	NA	22 U
Polychlorinated Biphenyls							
Aroclor 1254	UG/KG	-	33 U	NA	29 U	NA	28 U
Aroclor 1260	UG/KG	-	33 U	NA	29 U	NA	56.8
Total Polychlorinated Biphenyls	UG/KG	25000	33 U	NA	29 U	NA	56.8
Metals							
Arsenic	MG/KG	16	5.7	NA	5.1	NA	4.8
Barium	MG/KG	10000	34.6	NA	34.1	NA	57.9
Cadmium	MG/KG	60	0.11 J	NA	0.12 J	NA	0.13 J
Chromium	MG/KG	6800	10.8	NA	9.9	NA	11.9
Lead	MG/KG	3900	10.9	NA	12.7	NA	10.2
Mercury	MG/KG	5.7	0.043	NA	0.042	NA	0.030 J
Selenium	MG/KG	6800	0.99 U	NA	0.34 J	NA	0.93 U
Silver	MG/KG	6800	0.15 J	NA	0.16 J	NA	0.47 U

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

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[SITE KEY] = 2 AND [MATRIX] = 'SO' AND [LOCID] <> 'DRUM COMPOSITE'

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SE-01	DP-SE-02	DP-SE-03	DP-SE-04	DP-SE-05
Sample ID			DP-SE-01	DP-SE-02	DP-SE-03	DP-SE-04	DP-SE-05
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			1.0-2.0	0.5-1.0	-	0.0-0.5	-
Date Sampled			04/08/16	04/08/16	04/08/16	04/08/16	04/08/16
Parameter	**Units**	**Criteria***					
Volatile Organic Compounds							
1,1,1-Trichloroethane	UG/KG	1.00E+06	2.6 U	2.3 U	2.4 U	2.7 UJ	2.7 U
1,1-Dichloroethane	UG/KG	4.80E+05	2.6 U	2.3 U	2.4 U	2.7 UJ	2.7 U
1,2-Dichloroethene (cis)	UG/KG	1.00E+06	2.6 U	2.3 U	2.4 U	2.7 UJ	2.7 U
1,2-Dichloroethene (trans)	UG/KG	1.00E+06	2.6 U	2.3 U	2.4 U	2.7 UJ	2.7 U
Acetone	UG/KG	1.00E+06	366 J	132	170	13 UJ	468 J
Benzene	UG/KG	89000	1.0 J	0.82	0.76	0.67 UJ	1.4 J
Carbon disulfide	UG/KG	-	64.6 J	4.6 J	36.6 J	6.7 UJ	13.6 J
Ethylbenzene	UG/KG	7.80E+05	0.51 J	2.3 U	2.4 U	2.7 UJ	2.7 U
Methyl ethyl ketone (2-Butanone)	UG/KG	1.00E+06	46.3 J	23 U	24 U	27 UJ	38.3 J
Methylene chloride	UG/KG	1.00E+06	2.6 U	2.3 U	2.4 U	6.0 U	2.7 U
Tetrachloroethene	UG/KG	3.00E+05	2.6 U	2.3 U	2.4 U	2.7 UJ	2.7 U
Toluene	UG/KG	1.00E+06	1.6 J	0.66 J	5.9 U	6.7 UJ	2.2 J
Trichloroethene	UG/KG	4.00E+05	2.6 U	1.7 J	2.4 U	2.7 UJ	2.7 U
Xylene (total)	UG/KG	1.00E+06	0.58 J	2.3 U	2.4 U	2.7 UJ	0.54 J
Semivolatile Organic Compounds							
1,2,4-Trichlorobenzene	UG/KG	-	340 U	300 U	280 U	340 U	1,800 U
2-Methylnaphthalene	UG/KG	-	140 U	120 U	110 U	130 U	710 U
Acenaphthene	UG/KG	1.00E+06	140 U	120 U	110 U	130 U	623 J
Acenaphthylene	UG/KG	1.00E+06	140 U	120 U	110 U	130 U	710 U
Anthracene	UG/KG	1.00E+06	42.8 J	14.8 J	14.2 J	130 U	1,580
Benzo(a)anthracene	UG/KG	11000	249	76.3 J	74.7 J	34.4 J	6,240
Benzo(a)pyrene	UG/KG	1100	288	98.1 J	85.6 J	41.7 J	6,700

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Only Detected Results Reported.

Detection Limits shown are PQL

Advanced Selection: Debris Pile Soils
#Error
Printed: 6/14/2016 8:39:56 AM
[SITE KEY] = 2 AND [MATRIX] = 'SO' AND [LOCID] <> 'DRUM COMPOSITE'

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SE-01	DP-SE-02	DP-SE-03	DP-SE-04	DP-SE-05
Sample ID			DP-SE-01	DP-SE-02	DP-SE-03	DP-SE-04	DP-SE-05
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			1.0-2.0	0.5-1.0	-	0.0-0.5	-
Date Sampled			04/08/16	04/08/16	04/08/16	04/08/16	04/08/16
Parameter	**Units**	**Criteria***					
Semivolatile Organic Compounds							
Benzo(b)fluoranthene	UG/KG	11000	341	105 J	114	50.4 J	7,010
Benzo(g,h,i)perylene	UG/KG	1.00E+06	242	92.5 J	82.6 J	35.4 J	4,380
Benzo(k)fluoranthene	UG/KG	1.10E+05	235	80.6 J	65.0 J	37.5 J	5,360
bis(2-Ethylhexyl)phthalate	UG/KG	-	340 U	32.9 J	280 U	24.0 J	1,800 U
Butylbenzylphthalate	UG/KG	-	340 U	300 U	280 U	340 U	1,800 U
Carbazole	UG/KG	-	42.1 J	120 U	110 U	130 U	881
Chrysene	UG/KG	1.10E+05	315	91.7 J	92.6 J	46.8 J	7,630
Dibenz(a,h)anthracene	UG/KG	1100	67.4 J	120 U	25.2 J	130 U	1,450
Dibenzofuran	UG/KG	1.00E+06	140 U	120 U	110 U	130 U	328 J
Diethylphthalate	UG/KG	-	340 U	300 U	280 U	340 U	1,800 U
Dimethylphthalate	UG/KG	-	340 U	300 U	98.5 J	340 U	1,800 U
Di-n-butylphthalate	UG/KG	-	340 U	300 U	280 U	340 U	1,800 U
Di-n-octylphthalate	UG/KG	-	340 U	300 U	280 U	340 U	1,800 U
Fluoranthene	UG/KG	1.00E+06	594	154	148	64.3 J	17,200
Fluorene	UG/KG	1.00E+06	140 U	120 U	110 U	130 U	777
Indeno(1,2,3-cd)pyrene	UG/KG	11000	198	75.8 J	68.7 J	130 U	3,860
Naphthalene	UG/KG	1.00E+06	140 U	120 U	110 U	130 U	710 U
Phenanthrene	UG/KG	1.00E+06	278	65.1 J	66.6 J	28.4 J	10,300
Pyrene	UG/KG	1.00E+06	474	130	117	48.1 J	11,500
Pesticide Organic Compounds							
4,4'-DDD	UG/KG	1.80E+05	7 U	6 U	5.7 U	6.7 U	7.1 U
4,4'-DDE	UG/KG	1.20E+05	7 U	6 U	5.7 U	6.7 U	7.1 U

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Only Detected Results Reported.

Detection Limits shown are PQL

TABLE 5
DEBRIS PILE AREA SOIL ANALYTICAL RESULTS
INDUSTRIAL USE CRITERIA

Location ID			DP-SE-01	DP-SE-02	DP-SE-03	DP-SE-04	DP-SE-05
Sample ID			DP-SE-01	DP-SE-02	DP-SE-03	DP-SE-04	DP-SE-05
Matrix			Soil	Soil	Soil	Soil	Soil
Depth Interval (ft)			1.0-2.0	0.5-1.0	-	0.0-0.5	-
Date Sampled			04/08/16	04/08/16	04/08/16	04/08/16	04/08/16
Parameter	**Units**	**Criteria***					
Pesticide Organic Compounds							
4,4'-DDT	UG/KG	94000	7 UJ	6 UJ	5.7 UJ	6.7 UJ	7.1 UJ
alpha-Chlordane	UG/KG	47000	7 U	6 U	5.7 U	6.7 U	3.6 J
Dieldrin	UG/KG	2800	7 U	6 U	5.7 U	6.7 U	7.1 U
gamma-Chlordane	UG/KG	-	7 U	6 U	5.7 U	6.7 U	7.1 U
Heptachlor epoxide	UG/KG	-	7 U	6 U	5.7 U	6.7 U	2.2 J
Herbicides							
2,4-D	UG/KG	-	28 U	25 U	23 U	27 U	28 U
Polychlorinated Biphenyls							
Aroclor 1254	UG/KG	-	35 U	30 U	28 U	34 U	36 U
Aroclor 1260	UG/KG	-	25.3 J	20.3 J	28 U	34 U	36 U
Total Polychlorinated Biphenyls	UG/KG	25000	25.3 J	20.3 J	28 U	34 U	36 U
Metals							
Arsenic	MG/KG	16	1.8	1.6	1.7	1.7	4.2
Barium	MG/KG	10000	30.9	29.1	57.5	47.6	44.0
Cadmium	MG/KG	60	0.20 J	0.066 J	0.055 J	0.069 J	0.32 J
Chromium	MG/KG	6800	14.8	9.3	15.1	13.9	26.6
Lead	MG/KG	3900	17.2	7.5	7.9	7.4	28.7
Mercury	MG/KG	5.7	0.017 J	0.015 J	0.029 U	0.013 J	0.033 J
Selenium	MG/KG	6800	1 U	0.95 U	0.91 U	0.98 U	1.1 U
Silver	MG/KG	6800	0.5 U	0.47 U	0.45 U	0.49 U	0.54 U

*Criteria- 6 NYCRR Part 375.6, Remedial Program Soil Cleanup Objectives, Effective 12/14/06. Protection of Public Health, Industrial.

Flags assigned during chemistry validation are shown.

Concentration Exceeds Criteria

Only Detected Results Reported.

Detection Limits shown are PQL

Advanced Selection: Debris Pile Soils
#Error
Printed: 6/14/2016 8:39:56 AM
[SITE KEY] = 2 AND [MATRIX] = 'SO' AND [LOCID] <> 'DRUM COMPOSITE'

APPENDIX F
SITE INSPECTION FORM

Former Southeast Debris/Soil Pile Restoration - Inspection Form
Carrier Corporation - Syracuse, NY

Date: _____

Personnel: _____

Component	Required Inspection Frequency	Inspection Personnel	Required Inspection and Corrective Measures	Completed? (Yes or No)	Comments
Soil Cover	Annually	Qualified Person*	Visually inspect the extents of the soil cover for any defects or signs of erosion. Signs of deterioration? If yes restore area as needed.		
Soil Cover	Annually	Qualified Person*	Visually inspect the extents of the soil cover for any indication of excavation activities. Signs of excavation activities? If yes contact the Owner to determine what occurred and if any corrective action is needed.		
Soil Cover	Annually	Qualified Person*	Verify with the Owner if any planned exavation work or any infustructure activites is planned for the upcoming year.		

*All site management inspection events will be conducted by a qualified environmental professional as defined in 6 NYCRR Part 375, a PE who is licensed and registered in New York State, or a qualified person who directly reports to a PE who is licensed and registered in New York State.

APPENDIX G
HEALTH AND SAFETY PLAN

Universal Health & Safety Plan

Former Southeast Debris/Soil Pile Restoration Health and Safety Plan

Syracuse, NY
USA

Prepared For:

Client Name:	Carrier Corporation
Client Address:	6304 Carrier Pkwy, East Syracuse, NY 13057
Project #:	60705153

Prepared By:

AECOM
AECOM
5438 Wade Park Boulevard Suite 200
Raleigh, NC 27607

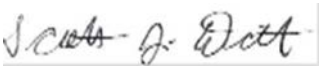
Preparer:

Name: Peter Hollatz
Title: Project Manager
Date Prepared: July 18, 2023

Signature

Reviewer *(Office SHER; Area/Regional SHEM, or Business Line SHEM)*

Name: Scott Dietz
Title: Account SH&E Manager
Date Reviewed: July 18, 2023



Signature

Approver: *(Project Manager, Project Director, or BL Lead)*

Name: Peter Hollatz
Title: Project Manager
Date Approved: July 18, 2023

Signature

Expiration:	**July 18, 2024**	Valid for one (1) year maximum or until the scope of work, subcontractor(s), methods and/or equipment change.

HASP Summary

Note: This Summary is intended to provide key information only and cannot be substituted for reading, understanding and complying with the full HASP, including the Emergency response section. This summary may be continually updated as tasks and personnel change. Use Continuation Sheets if necessary.

Client Name:	Carrier Corporation
Site Name:	FSEDSP Facility Health and Safety Plan
SH&E Incident Reporting	**SH&E Incident Hotline 1-800-348-5046** TOLL-FREE | 24 HOURS PER DAY | 7 DAYS PER WEEK Immediately report all incidents including any potential work-related injuries, illnesses, discomfort/pain, property damage, security issues, regulatory inspections and environmental impacts/spills.

Medical Treatment Resources

Identify the closest hospital to the site to be used in emergency situations. For non-emergency situations, identify the nearest Occupational Clinic to the site that accepts AECOM Workers Compensation Insurance (see **Attachment A** for instructions and to attach maps and directions).

AECOM Occupation Nurse:	**1-512-419-5016 |** *24 HOURS PER DAY | 7 DAYS PER WEEK*		
Nearest Occupational Clinic	Carrier Emergency Services		
Address:	6304 Carrier Pkwy, East Syracuse, NY, 13057		
Clinic Hours of Operation:		**Phone Number:**	315-432-5060
Nearest Hospital:	St. Joseph's Hospital		
Address:	301 Prospect Ave, Syracuse, NY 13203		
Hospital Hours of Operation:		**Phone Number:**	315-448-5111

Key Personnel

Project Manager (PM):	Peter Hollatz	**Contact No.:**	(630) 918-9648
Site Supervisor (SS):	Rob Murphy	**Contact No.:**	(716) 903-1346
Site Safety Officer (SSO):	Rob Murphy	**Contact No.:**	(716) 903-1346
Regional SH&E Manager:	Galen Cooter	**Contact No.:**	(805) 452-3523
Area/Practice SH&E Manager:	Tim Joseph	**Contact No.:**	(303) 884-2548
Account SH&E Manager:	Scott Dietz	**Contact No.:**	(240) 344-5892
Client Contact:	Don Sorbello	**Contact No.:**	(315) 525-4405

Table of Contents

Attachments

1. Introduction

This written Health and Safety Plan (HASP) has been developed to support site inspections and intrusive work that may penetrate the soil cover at the Former Southeast Debris/Soil Pile Restoration (hereinafter referred to as the "FSEDSP") at the Carrier Corporation facility in Syracuse, New York.

This HASP is designed to identify, evaluate, and control safety and health hazards, and to outline emergency response actions for AECOM-managed activities. This HASP must be kept on site during work activities and made available to all workers including subcontractors and other site occupants for informational purposes. AECOM subcontractors are expected to independently characterize, assess and control site hazards created by their specific scope of work.

This section of the HASP summarizes important AECOM SH&E Procedures that apply to all DCS Americas jobs. See **Attachment C** for the project Task Hazard Assessment (THA) forms and **Attachment D** for a list of applicable field SH&E Procedures. These field SH&E procedures must be readily available to the field employees (i.e. PDF, electronically, etc.).

1.1 Applicable References

This HASP conforms to the regulatory requirements and guidelines established in the following documents:

- Federal Occupational Safety and Health Administration (OSHA) Code of Federal Regulation Title 29, Part 1910 (29 CFR Part 1910), Safety and Health Regulations for General Industry and 29 CFR 1926, Safety and Health Regulations for Construction.
- The requirements in this HASP also conform to AECOM's Safety for Life Program requirements as specified in the AECOM Safety, Health and Environment (SH&E) Manual.

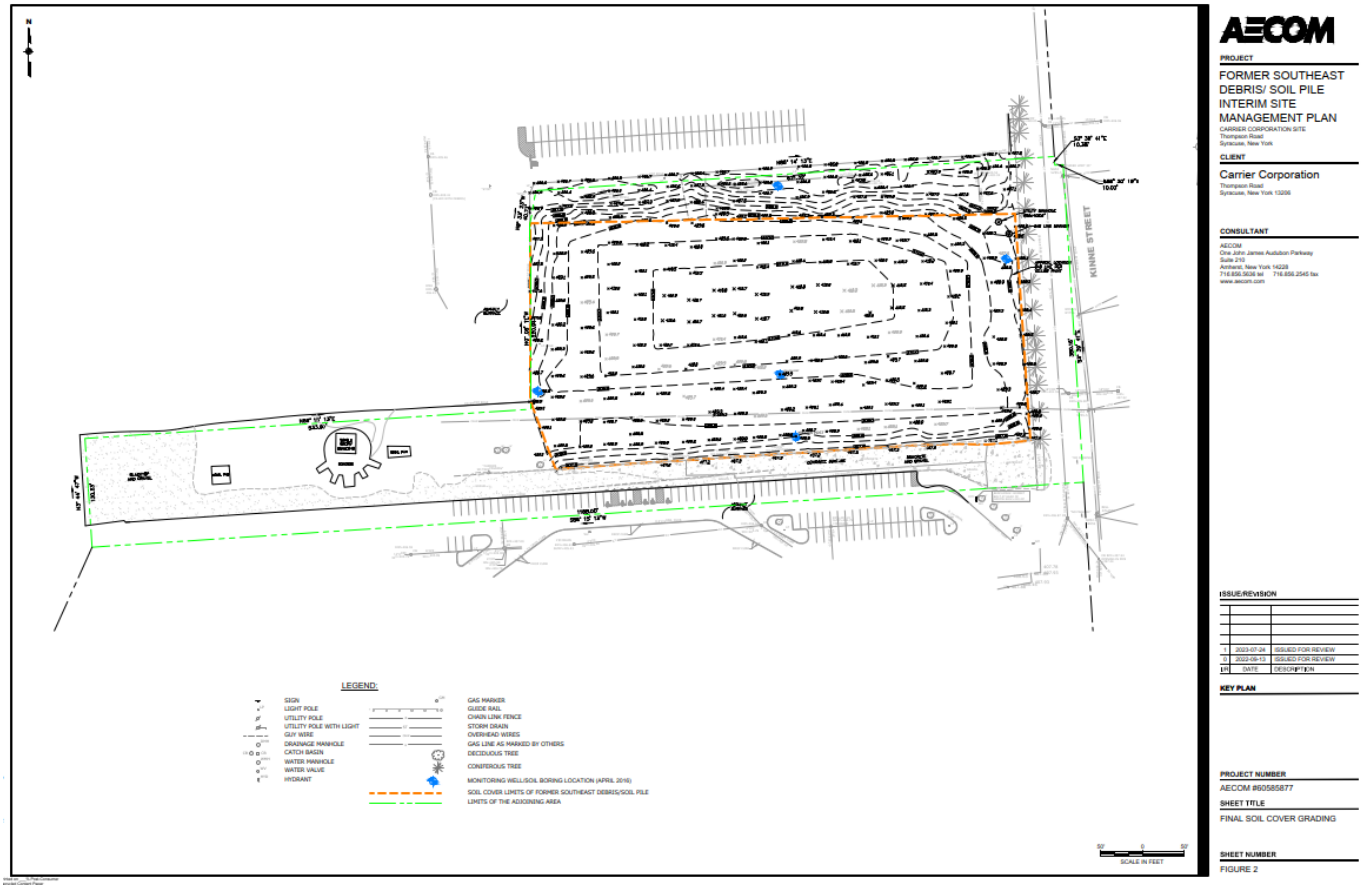
2. Site Description

Prior to its removal, the FSEDSP (see the figure below) was located in the southeast corner of the Facility property and had been measured to be approximately 250 feet (north to south) by 580 feet (east to west). The height of the FSEDSP ranged from 2 to 10 feet above the surrounding ground surface elevation. According to Carrier personnel, the FSEDSP was established to stockpile soils and construction and demolition (C&D) debris generated from onsite activities including facility expansion, remodeling and repairs. 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 FSEDSP was that it exhibited no visible evidence of contamination or odors. Materials were stockpiled starting in the late 1980s until the early 2000s. The FSEDSP was placed on existing grade.

The surface of the FSEDSP was overgrown with grass, shrubs and scrub trees. Subsurface materials consisted of soil with incidental C&D debris, including cinder block, asphalt, concrete slabs, wood-block flooring, and paint covered concrete.

The area adjoining the FSEDSP, consists of an unused asphalt/gravel parking lot, concrete/gravel lot, green area and small unoccupied storage shed.

Post remedial and restoration activities, the FSEDSP now consists of the following: a vegetated soil cover. The FSEDSP is zoned industrial and is currently vacant. The property immediately south of the FSEDSP is a recreational center (city baseball/softball fields); the property immediately north of the FSEDSP is the Carrier Facility; the properties immediately east of the FSEDSP and across Kinne Street include residential properties; and the properties to the west of the FSEDSP is the Carrier Facility.



2.1 Scope of Work

The purpose of this HASP is for annual inspections and to aid in future construction work activities (none currently planned) that involve or may involve construction workers completing sub-subsurface work in which impacted soils underneath the soil cover may be encountered. Implementation of this HASP is to aid in the protection construction workers from constituents of concern (COCs – primary semi-volatile organic compounds [SVOCs]). This HASP is not intended for any other construction risk activities as those means/methods are not known at this time.

A THA for each operation being performed by AECOM must be included in **Attachment C**, while those performed by the managed subcontractors should be prepared by the subcontractor.

Task Name	Permit(s) Required		Primary Task Performed By		
			AECOM	SUB	Third-Party
01 Driving to and from the Site	☐ Yes	☒ No	☒	☐	☐
02 Biological	☐ Yes	☒ No	☒	☐	☐
	☐ Yes	☐ No	☐	☐	☐

2.2 Key Dates

Project Start Date:	August 1, 2023
Field Work Start Date:	August 1, 2023
Project Completion Date:	August 1, 2024

2.3 High Potential Hazard Activities

In general, the following tasks are considered High Potential (HiPo) Hazard Activities, as identified in S3AM-209-PR1, Risk Assessment, based on the factors contributing to the severity and probability of credible outcomes resulting from ineffective mitigation of their hazards. Additional tasks or activities could be added to the list below based on a similar assessment of their hazards and associated control measures. The following HiPo tasks will be required to complete the approved scope of work.

High potential hazard activities may require additional documents such as: permit to work, site specific plans, task/equipment-specific training, pre-use inspections, a competent person, etc. These requirements are listed under the high potential hazard activities as a reminder that you must implement them prior to performing the activity.

All procedures referenced in the table below MUST be included in **Attachment D** for implementation into this HASP.

☐	**Drilling, Boring and Direct Push Probing** – Qualified/trained operators, pre-use inspection (S3AM-321-FM1) and THA required. Follow requirements in S3AM-321-PR1.
☐	**Electrical Safety – Work on Energized Equipment** – Permit to work (S3AM-218-FM1), competent person and THA required and only a qualified electrician will perform this work. Follow the requirements in S3AM-302-PR1.
☐	**Electrical Safety – Working On and Near Electrical Equipment and Installations** – Permit to work (S3AM-218-FM1), competent person and THA required. Follow the requirements in S3AM-302-PR1.
☐	**Hand/Power Tools – Working with Power Tools/Equipment (drill, chainsaw, grinder, power saw, pressure washer, etc.)** – Qualified/trained operators, pre-use inspections (see inspection checklists in S3AM-305-FM2) and THA required. Follow the requirements in S3AM-305-PR1.
☐	**Hazardous Waste Operations – Working with Hazardous Substances or Materials (including all HAZWOPER projects)** – Completion of this site-specific HASP required. Follow the requirements in S3AM-117-PR1.

☐	**Heavy Equipment – Working with/Operating or Working near Heavy Equipment, Mobile Equipment or Drill Rigs** – Qualified/trained operators, competent person, pre-use operations inspections (S3AM-309-FM02) and THA required. Follow the requirements in S3AM-309-PR1.
☐	**Ladders – Use, Handling and Storage of Portable Ladders** – Qualified/trained users and THA required. Follow the requirements in S3AM-312-PR1.
☐	**Lockout Tagout** – Permit to work (S3AM-218-FM1), site-specific lockout/tag out procedure, lockout/tagout permit (S3AM-325-FM4), competent person and THA required. Follow the requirements in S3AM-325-PR1.
☐	**Underground Utilities** – Site walk, completion of the Underground Utilities and Subsurface Installations checklist (S3AM-331-FM1) and THA required. Follow the requirements in S3AM-331-PR1.
☐	**Working Alone – Lone Worker** – Site specific communication plan, rescue plan and THA required and complete the Table in Section 6.4 of this HASP. Follow the requirements in S3AM-314-PR1.
☐	**Working On and Near Water** – Qualified/trained personnel, personal flotation devices (S3AM-315-ATT1) and THA required. Follow the requirements in S3AM-315-PR1.
☐	**Other**: *Please Specify*

2.4 Physical and Biological Hazards

Physical and biological hazards are hazards that threaten the physical safety of an individual; contact with the hazard typically results in an incident or injury. The following table summarizes the physical and biological hazards present at the site and the associated procedures that address protection and prevention of harm.

If there is a potential of physical or biological hazard when performing a specific task, it must be addressed in the THA.

All checked procedures MUST be included in **Attachment D** for implementation and reference. The following hazards and their site-specific description are anticipated based on the scope of work and project site:

	Hazard/ Activity (Note: Text in this column links to procedure)	Site Specific Description (Where, What Phase of Work, Frequency, Etc.)	Applicable Procedure
☒	**Cold Stress** (Continuous exposure when ambient air temperature is below 32°F (0°C) **or** when ambient air temperature is below 50°F (10°C) with wet/damp conditions.)		S3AM-112-PR1
☐	**Compressed Air Systems and Testing**		S3AM-337-PR1
☐	**Compressed Gases**		S3AM-114-PR1
☒	**Driving Safety**		S3AM-005-PR1
☐	**Hand Safety**		S3AM-317-PR1
☒	**Heat Stress** (Continuous exposure when ambient air temperature is above 80°F (26.6°C) and a standard work uniform is worn **or** when ambient air temperature is above 70°F (21.1°C) and impermeable chemical protective clothing is worn.)		S3AM-113-PR1
☐	**Ladders** (Competent Person required)		S3AM-312-PR1

Hazard/ Activity (Note: Text in this column links to procedure)		Site Specific Description (Where, What Phase of Work, Frequency, Etc.)	Applicable Procedure
☐	**Machine Guarding Safe Work Practice**		S3AM-326-PR1
☐	**Noise** (Competent Person required)		S3AM-118-PR1
☒	**Slips, Trips, Falls**		S3AM-013-PR1
☐	**Underground Utilities**		S3AM-331-PR1
☒	**Wildlife, Plants and Insects**		S3AM-313-PR1

2.4.1 COVID-19 Pandemic

COVID-19 is a disease that results from infection of the virus identified as SARS-CoV-2. SARS-CoV-2 is a Coronavirus, one of a large family of viruses found in both animals and humans, and one which has caused significant loss of life in the past year. As of early 2021, infection rates remain high, though several vaccines are now available and vaccination efforts are ongoing.

Key AECOM resources can be found at the AECOM Ecosystem Coronavirus Information Centre on the Ecosystem homepage or at this link, the Coronavirus Smart Card, and the AECOM Pandemic Procedure: SR1-003-PR2. Additional resources can be found at the following non-AECOM websites:

- Centre for Disease Control and Prevention (CDC).
- World Health Organization (WHO).

As of August 2021, AECOM's policies require a face covering for unvaccinated individuals unless they can maintain a social distance of 6 feet at all times. Unvaccinated individuals may forgo masks. However, many clients, cities, counties, regions, and states have stricter requirements. AECOM defaults to stricter requirements wherever mandates are in effect.

2.5 Hazards/ Constituents of Concern

Based on information obtained from historical investigations and other sources, the chemicals in the table below are known or suspected to be present at the site.

Summary of Hazardous Properties of Contaminant Exposure Hazards

***Notes: PEL** = Permissible Exposure Limit | **TLV** = Threshold Limit Value | **IP** = Ionization Potential | **eV** = Electron Volt*

Chemical Name	Media	Primary Routes of Exposure	PEL	TLV	IP (eV)
Pesticides					
Polychlorinated biphenyls (PCBs)	☒ Soil ☐ Groundwater ☐ Vapour ☐ NA	Absorption, ingestion	1 mg/m^3 (42% chlorine); 0.5 mg/m^3 (54% chlorine)	1 mg/m^3 (42% chlorine); 0.5 mg/m^3 (54% chlorine)	n/a
SVOCs	☒ Soil ☐ Groundwater ☐ Vapour ☐ NA	ingestion	Varies	Varies	n/a
	☐ Soil ☐ Groundwater ☐ Vapour ☐ NA				

Notes: 1. Exposure limits based on DDT.
2. Exposure limits based on Chlordane. No PELs are set for alpha or gamma chlordane.

2.6 Decontamination

All possible and necessary steps shall be taken to reduce or minimize contact with chemicals and contaminated/impacted materials while performing field activities. Decontamination steps are outlined in the Hazardous Waste Operations procedure S3AM-117-PR1.

All decontaminated equipment shall be visually inspected for contamination prior to leaving the Contaminant Reduction Zone (CRZ).

Decontamination Procedures & Equipment	
Procedure	**Equipment Needed**
Not Required	N/A

Equipment Decontamination Procedures		
Type Equipment	**Decontamination Solution**	**Procedure**
N/A		

2.7 Air Monitoring

2.7.1 Real Time Exposure Measurements/Equipment

Monitoring shall be performed within the work area on site to detect the presence and relative levels of toxic substances. The data collected throughout monitoring shall be used to determine the appropriate levels of PPE. Monitoring shall be conducted as specified in the work permit and THA as work is performed. All instrumentation needs to be rated intrinsically safe to prevent fire or explosion. Check which real-time monitoring equipment will be used and update the model type if needed. Consult a Certified Industrial Hygienist (CIH) or a Certified Safety Professional (CSP) if you are unsure regarding instrumentation and/or IH monitoring.

Instrument		Manufacturer/Model	Substances Detected
☒	**Photo Ionization Detector (PID)**	■ RAE Systems mini-RAE ■ Photovac Microtip ■ HNu Model Hnu (min. 10.6 eV bulb)	■ Petroleum hydrocarbons ■ Organic Solvents
☒	**Multi or 4 Gas Detectors**	■ RAE Systems Multi-RAE	■ Lower Explosive Limit ■ Oxygen ■ Carbon Monoxide ■ Hydrogen Sulfide

2.7.2 Monitoring Procedures

The monitoring procedures shown below are general guidelines for sampling activities. In general, readings are considered actionable if sustained readings are observed for 5 minutes or more or if intermittent peaks are seen in excess of 1 time the

action level. A reading in excess of action level outlined below will require additional ventilation (natural or mechanical) for 30 minutes, followed by re-monitoring. The reviewing SH&E Manager may modify any or all of these for site-specific application.

Check all boxes applicable to this scope of work and delete all boxes that don't apply:

Monitoring Procedures and Action Levels

	Parameter	Zone Location and Monitoring Interval	Action Level	Response Activity
☒	**Volatile Organic Compounds (VOCs) and Volatile Hydrocarbons** (total by PID)	Breathing zone, continuously during tasks where exposure to VOCs and volatile hydrocarbons is possible	< 5 ppm	■ Continue monitoring, may continue work in required PPE
			5- 25 ppm (sustained for 5 minutes)	■ **STOP WORK** and notify PM. Investigate the cause of elevated VOC measurements and identify measures to reduce concentrations (cover impacted soils, ventilation, etc.). Work activities shall only continue once levels have decreased to or below 5 units above background. If levels continue above 5 units, only individuals who are medically qualified to wear respiratory protection are permitted to continue work activities with Project Manager approval. Don Level C PPE (organic vapour respirator cartridges), continue monitoring, and initiate continuous air monitoring for benzene.
			> 25 ppm (sustained for 5 minutes)	■ Cease work, exit, and contact the Site Safety Officer, Site Supervisor, and Project Manager.

3. Personnel Responsible for Safety

Enter the personnel responsible for safety:

Role	Person Assigned to Role (Required)	Contact No. Primary (Required)	Contact No. Alt (Recommended)
AECOM Project Manager:	Peter Hollatz	(630) 918-9648	(630) 918-9648
AECOM Site Supervisor:	Rob Murphy	(716) 903-1346	(716) 903-1346
AECOM Site Safety Officer:	Rob Murphy	(716) 903-1346	(716) 903-1346
AECOM SH&E Manager:	Scott Dietz	(240) 344-5892	(240) 344-5892

4. Subcontractor Management

4.1 Subcontractor Pre-Qualification

Ensure all subcontractors including lower tier subcontractors are prequalified to perform work for AECOM. SubPort is the preferred method for pre-qualifying subcontractors. If a subcontractor is conditionally approved, ensure the subcontractor meets all conditions of approval.

If a subcontractor requires a variance, complete the Subcontractor Variance form, S3AM-213-FM2.

Complete the table below, identifying all AECOM-Controlled subcontractors working in the field (any contractor paid directly by AECOM or otherwise under our responsibility is considered AECOM—Controlled, even if we do not directly control their day-to-day operations or supervise their work).

Subcontractor 1:	**None identified at this time.** (Provide exact Subcontractor name as listed in Subport)	
Scope of Work:	**High-Risk Tasks performed?**	**Contractor Site Safety Officer & Contacts:**
Describe Contractor's Scope of Field Work	See SWP Cover Sheet for List of High-Risk Tasks	Provide Name and Cell Phone
	☐ Yes (List) Power tools, heavy equipment, ladders ☐ No	
Required Subcontractor Documents: PM must verify that the following documents are in-place for each subcontractor; check to verify.		
☐ Copy of their Project/Site-specific health and safety plan	☐ Copy of task specific THAs/JHAs and inspection/tailgate forms	☐ Copy of the signed contract
☐ Copy of their business license and training certificates (task specific)	☐ Copy of their Corporate Safety Management Manual	☐ Other
Subport Review: ☐ Approved – Skip to next Subcontractor ☐ Conditionally Approved - Identify conditions and controls below. **Check 'common subport conditions' that apply, add additional conditions, and describe how the conditions will be met**		
Subport Conditions (check or add any that apply)		**How will the condition be met?**
☐ AECOM Safety Plan must cover Subcontractor's work, and Subcontractor must provide a THA for their tasks		
☐ PM must verify that Subcontractor adheres to AECOM safety plan		
☐ Subcontractor variance is required - the form can be found at this link: https://myecosystem.aecom.com/ppf/forms/Forms/S3NA_213_FM2_Subcontractor%20Variance%20Form.docx		
☐ Supervision required		
☐ Special Conditions apply (related to Demolition, Diving, Underbridge Inspection Unit work, and Rope Access Work		
☐ Other conditions apply (Identify)		

Subcontractor 2:	(Provide exact Subcontractor name as listed in Subport)	
Scope of Work:	**High-Risk Tasks performed?**	**Contractor Site Safety Officer & Contacts:**
Describe Contractor's Scope of Field Work	See SWP Cover Sheet for List of High-Risk Tasks	Provide Name and Cell Phone
	☐ Yes (List) ☐ No	

Required Subcontractor Documents:
PM must verify that the following documents are in-place for each subcontractor; check to verify.

☐ Copy of their Project/Site-specific health and safety plan	☐ Copy of task specific THAs/JHAs and inspection/tailgate forms	☐ Copy of the signed contract
☐ Copy of their business license and training certificates (task specific)	☐ Copy of their Corporate Safety Management Manual	☐ Other

Subport Review: ☐ Approved – Skip to next Subcontractor
☐ Conditionally Approved - Identify conditions and controls below.

Check 'common subport conditions' that apply, add additional conditions, and describe how the conditions will be met

Subport Conditions (check or add any that apply)	How will the condition be met?
☐ AECOM Safety Plan must cover Subcontractor's work, and Subcontractor must provide a THA for their tasks	
☐ PM must verify that Subcontractor adheres to AECOM safety plan	
☐ Subcontractor variance is required - the form can be found at this link: https://myecosystem.aecom.com/ppf/forms/Forms/S3NA_213_FM2_Subcontractor%20Variance%20Form.docx	
☐ Supervision required	
☐ Special Conditions apply (related to Demolition, Diving, Underbridge Inspection Unit work, and Rope Access Work	
☐ Other conditions apply (Identify)	

Attach additional sheets as required to account for each subcontractor performing field work.

5. Training and Documentation

All personnel at this site must be qualified and experienced in the tasks they are assigned. SH&E Training Procedure S3AM-003-PR1 establishes the general training requirements for AECOM employees.

5.1 Site-Specific Training Requirements

Check all required training on the table below. Verify training records of employees and subcontractors.

Site Specific Training Requirements

Training		Applies to
☒	**ERP/HASP and Site Orientation**	All Employees and Subcontractors
☒	**Vehicle/Driver Safety & Defensive Driving**	All Employees who drive on behalf of AECOM, required a minimum of every 3 years if driving for AECOM business
☒	**Speak Up/Listen Up (SULU)**	All AECOM field employees and supervisors, must be completed once for anyone who supervises work of oversees subcontractors
☒	**First Aid / CPR**	Designated AECOM employees or employees performing high risk activities and medical attention is more than 4 minutes away
☒	**OSHA 10-Hr. Construction Safety (or CSTS 2020 in Canada)**	All AECOM employees working on jobsites with construction type hazards
☒	**OSHA 30-Hr. Construction Safety**	All AECOM employees supervising/overseeing jobsites with construction type hazards
☒	**HAZWOPER 40-Hour and 8-Hr. Annual Refresher**	On HAZWOPER sites, in EZ, exposed to hazardous contamination
☒	**HAZWOPER Supervisor**	Employees managing others in HAZWOPER activities or at HAZWOPER Sites, should be completed once for employees supervising HAZWOPER work

6. Site Control

6.1 Site Work Zones

Site layout and site control need to be coordinated to achieve a productive work environment and efficient work process while minimizing exposure of employees and the public to hazards associated with the work. Consider the following items when planning the site layout and controls. Check the description of the site controls **already** in place:

- ☐ Work area is within a facility/property with secure and restricted access provided by client or third party
- ☐ Work area is enclosed within a facility/property, but access is not restricted via locks, guards, or gates
- ☐ Work area is on a property that is open, but access by the public is unlikely
- ☒ Work area is on a property that is open and access by the public is likely
- ☐ Work area is in a roadway or right of way of a roadway (Traffic Control/Protection Plan required S3AM-306-PR1)
- ☐ Work area is in a parking lot or driveway
- ☐ Work area is on or near railroad, including right of way, active lines and crossings
- ☐ Other: NA

Consider the following items when planning the site layout and controls:

- "Line of Fire" hazards- overhead utilities, falling/ tipping equipment, release of energy/ pressure, flying debris
- Noise, dust, odor suppression
- Contamination containment and decontamination area layout
- Traffic control for site vehicles/ equipment (public traffic control requires Traffic Control Plan)
- Restricted access for areas requiring special training, skills, or certifications
- Restriction of work near railroads
- Presence or creation of excavations
- Loading/unloading areas
- Portable restrooms
- Dumpsters and bins
- Equipment lay down
- Heavy equipment parking
- Overnight safety and security needs

Check and describe the site controls that need to be added to protect the public and the AECOM work team.

Control Item	Description of Type and Application
☐ **Fence**	NA
☐ **Locks**	NA
☐ **Barricades**	NA
☐ **Cones**	NA
☐ **Tape**	NA
☐ **Hole Covers**	NA
☐ **Other:**	NA

6.2 Simultaneous Operations

Simultaneous and neighboring operations, including activities performed by the general public, our clients, and other workers or contractors working near our employees, often present a need for added co-ordination and communication to address hazards that are presented by multiple operations.

Simultaneous Operations – Within the Site

☐ Yes, see table below for details
☒ None, not applicable

Activity	Company	Contact Person (Activity Lead)	Contact's Phone Number	Addressed in THA(s)	
				☐ Yes	☐ No
				☐ Yes	☐ No
				☐ Yes	☐ No

Simultaneous Operations – Neighboring Sites

☐ Yes, see table below for details
☒ None, not applicable

Activity	Company	Contact Person (Activity Lead)	Contact's Phone Number	Addressed in THA(s)	
				☐ Yes	☐ No
				☐ Yes	☐ No
				☐ Yes	☐ No

6.3 Lone Worker

AECOM discourages employees from working alone (i.e., where AECOM personnel are out of visual and audio range of others) when performing field tasks (see Working Alone SHE Procedure S3AM-314-PR). If lone work is to be performed, a communications/check-in plan must be developed and implemented using the table below.

Lone Worker:	NA
Justification:	
Check-In Requirement:	
Check-In Contact:	
Hazard Summary:	
Response Plan:	

7. Emergency Contact Information

For more information on emergency management, see the Emergency Contact Information in this HASP Summary.

7.1 Emergency Management

7.1.1 Emergency Response Plan

A Project Emergency Response Plan must be developed by the AECOM Project Manager for its staff as per the project location like remote areas, industrial areas, city areas, etc. This plan and any alterations to this plan will be communicated to all AECOM project staff, subcontractors and visitors. Depending on the duration of the project, AECOM shall perform mock drills accordingly.

Subcontractors will provide their own Project Emergency Plan to AECOM for review and acceptance. Any alterations to this plan must be communicated to all parties. Both AECOM and the subcontractor shall perform mock drills periodically in accordance with the length of the project.

Refer to the **AECOM Project Emergency Response Plan (Attachment I)**. For additional information on Emergency Response Planning, please review the Emergency Response Planning procedure, S3AM-010-PR1.

7.1.2 Emergency Planning

AECOM requires that all projects, plan for reasonably foreseeable emergencies. Prior to the start of site mobilization, all AECOM personnel shall review the site-specific information regarding evacuations, muster points, communication, and other site-specific emergency procedures.

8. Personal Protective Equipment

The use of Personal Protective Equipment (PPE) forms the final barrier of protection between the employee and the hazard and applies to all employees at the work site, including Subcontractors, visitors and client or customer representatives. For additional information on PPE, please review the Personal Protective Equipment, S3AM-208-PR1.

The minimum PPE required on an AECOM project is as follows: hard hat, safety toe boots, high visibility vest, safety glasses, long pants and shirts with sleeves that cover the shoulders. If any materials are to be handled, then gloves shall be worn as well.

Specific PPE shall also be specified in Task Hazard Analyses (THAs) such as glove type (i.e. material, level of protection, etc.). Where possible, hazards will be eliminated or controlled to reduce the risk associated with a specific task.

These controls include:

- Elimination of the hazard
- Isolation of the hazard
- Engineering Controls
- Administrative Controls

With the exception of prescription safety eyewear and safety toed boots (there may be allowances for the purchase of these items), AECOM will make available all required PPE for its employees. All employees will receive training in the use, care, maintenance and storage of the PPE issued to them.

All personal protective equipment will meet the requirements of local, state, federal, client and AECOM SH&E regulations and procedures. Where site-specific PPE requirements exist, all AECOM employees, Subcontractors and visitors, who work on the Project, will follow those requirements.

PPE will **not** be modified or changed.

All PPE that is damaged or in need of service or repair will be removed from service immediately.

All PPE that has been removed from service will be tagged “OUT OF SERVICE” and will not be returned until repaired and inspected by a qualified person. Defective PPE must be removed from site to prevent it from being used.

8.1 SH&E Technology

At AECOM, we encourage the use of new technology to eliminate or reduce the risk our employees are exposed to. Mark the technology you will be using in this project (if any):

- ☑ **Wearable Technology/Smart PPEs** (e.g. clothes, helmets, glasses, harness)
- ☐ **Ergonomics Technology** (e.g. tracking or managing ergonomics data, use of technology to make a task safer ergonomically)
- ☐ **Site Sensors** (e.g. Movement, angle, noise, carbon monoxide, Dust)
- ☐ **Fatigue Monitoring**
- ☑ **Vehicle related Technology** (e.g. Telematics, Driver Training, backing cameras/sensors, collision avoidance)
- ☑ **Phone/Tablet Applications** or software:
- ☐ **Connected Worksites** (i.e., connection between employees or project elements to be successful)

- ☐ **Drones**
- ☐ **Virtual Reality (VR) or Augmented Reality (AR)**
- ☐ **GPS** – Location devices:
- ☐ **Radio Frequency Identification** (RFID)
- ☐ **Autonomous Equipment**
- ☐ **Other:**
- ☐ **None of these:** We will not use any technology in this project to reduce hazards

Find available tools and/or share the tools you will be using in the AECOM Technology Toolbox or let us know what would be interesting to assess by **clicking here**.

9. Safety, Health and Environment Program

9.1 AECOM SH&E Policy

AECOM's Safety, Health and Environment Policy, which establishes the framework to attain best-in-class Safety, Health and Environmental (SH&E) performance in the interest of benefitting AECOM's employees and stakeholder in the global marketplace, is available on AECOM's Ecosystem (intranet).

9.2 Safety for Life

"Safety for Life" is a comprehensive integrated AECOM Safety Management System that drives our employees toward AECOM's commitment to achieving zero work-related injuries and/or illnesses; preventing damage to property and the environment; and maintaining an environmentally friendly and sustainable workplace. Our Safety for Life program is supported by nine Life Preserving Principles that apply to all AECOM activities.

9.3 Life Preserving Principles

AECOM has adopted these "Life-Preserving Principles" to help demonstrate the commitment of our Safety for Life program. We firmly believe these "Life-Preserving Principles" will enable AECOM to achieve its goal of zero employee injuries, property damage and an environmentally friendly and sustainable workplace. The nine Life-Preserving Principles, along with their descriptions, can be found on AECOM's Ecosystem (intranet).

Commitment:
Managers will lead on safety, continuously demonstrating commitment to the highest standards.

Participation:
All employees are encouraged to engage in helping to control the risks we face.

Budgeting and Staffing for Safety:
The costs of managing SH&E are budgeted into every project. Our safety staff are fully trained to provide expert guidance.

Pre-planning:
We assess risks and produce detailed plans to control them during design, planning, and execution of work.

Contractor Management:
We carefully select and collaborate with all our partners to create a safe working environment.

Recognition and Rewards:
Employees are rewarded for safety excellence and we share best practices..

Orientation and Training:
Our employees will be provided with effective safety training in order to identify and mitigate hazards in the workplace to prevent injuries to themselves and others who may be affected by their actions.

Incident Investigation:
We investigate recordable incidents and serious near misses to understand the causes and take action to prevent recurrence.

Fit for Duty:
All staff come to work each day fit and well, so they do not pose a hazard to themselves or others.

9.4 Fitness for Duty

One of AECOM's nine Life-Preserving Principles is Fitness for Duty (see Fitness for Duty procedure (S3AM-008-PR1). Fitness for Duty means that individuals are in a state (physical, mental, and emotional) that enables them to perform assignments competently and in a manner that does not threaten the health and safety of themselves or others. On certain projects or for specific tasks, fit for duty certifications may be requested of medical providers by SH&E Managers or Human Resources (HR). Employees should ensure they are fit for duty prior to leaving home and unimpaired by substances or fatigue, and if necessary,

contact your supervisor rather than attempting to report to work in unfit condition. Supervisors must observe their employees and work with the employee, SH&E staff, and HR to address deficiencies. AECOM will **NOT** tolerate retaliation against any employee for filing a complaint or concern regarding their fitness for duty or participating in any way in an investigation.

9.5 Proactive Health

AECOM is committed to promoting proactive health activities in addition to the planning for prevention of safety and environmental incidents. Proactive health activities will be completed on an on-going basis at AECOM on a corporate-wide basis (i.e., the wellness program associated with employee benefits), at offices, and at this project site. Management will be actively involved in providing and encouraging opportunities for health and wellness education and improvement. Health initiatives and education will be discussed periodically during office-based meetings as the safety moment or during the daily tailgate meeting as a toolbox talk. Topics may be related to, but are not limited to, the following:

- ✓ Heart health
- ✓ Stress management
- ✓ Smoking cessation
- ✓ Diabetes prevention
- ✓ Diet
- ✓ Exercise benefits

Topics and educational materials can be located on the AECOM Wellness page, National Institutes of Health website, Centers for Disease Control and Prevention website, and other reputable sources online.

In addition, the field team will be encouraged to participate in a daily stretch and flex routine (a standardized way to avoid soft tissue damage from work activities) to the best of their abilities, given their own personal limits. It is particularly beneficial to warm and loosen muscles before repetitive work, manual handling of loads, and when working in cold temperatures or with static postures. The Stretch and Flex manual and poster (**Attachment E**) serve as guidance for the leader to follow.

9.6 Fatigue

One aspect of fit for duty is fatigue management. AECOM has developed procedures that limit work periods or requires additional rest under certain circumstances, including during long-distance travel or when working at high altitudes. These procedures also set limits on extended work periods of 14 hours per day or 60 hours per week. A fatigue management plan is required if longer working hours are necessary (see Fatigue Management Procedure S3AM-009-PR1).

9.7 Driving and Vehicle Safety

The proper operation of vehicles is critical to protecting the safety of AECOM employees and subcontractors. Drivers face numerous hazards while operating vehicles. Some of the hazards include collision with another vehicle, collision with a fixed object, vehicle break down or failure, or falling asleep or becoming otherwise incapacitated while driving. All employees will adhere to Driving procedure S3AM-005-PR, which includes the following key practices:

1. **Authorized Drivers**
   Managers must authorize drivers following evaluation of driver criteria to drive and maintain an AECOM-owned, leased or rented vehicle, a client or customer-owned vehicle, or a personal vehicle operated in the course of conducting AECOM business.

2. **Electronic Devices Prohibited**
   AECOM prohibits use of all portable electronic devices while operating a motor vehicle/ equipment, which includes being stopped at a traffic light or stop sign. Electronic devices include, but are not limited to, all mobile phones, two-way radios, pagers, iPods, MP3s, GPS, DVD players, tablets laptops, and other portable electronic devices that can cause driver distraction. Hands-free device use is **NOT** allowed.

   - GPS units and devices used for navigation may only be used if factory installed or secured to the vehicle with a bracket that allows the driver to view the image without having to take their eyes off the road. Electronic devices shall be setup for operation prior to commencing driving activities and shall NOT be changed by the driver while driving.

3. **Vehicle Inspections**
   The driver shall conduct pre-trip vehicle inspections prior to each trip. A vehicle inspection checklist, S3AM-005-FM2, can be used to guide and document the inspection process. Vehicle inspection is to include a 360-degree walk around and visual inspection under the vehicle for leaks and obstructions prior to moving the vehicle.

4. **Training**
   All drivers shall complete defensive driver training. Additional training (i.e., hands-on defensive driver training) may apply for medium and high-risk drivers; see Driving procedure S3AM-005-PR and SHE Training procedure S3AM-003-PR for more details.

5. **Journey Management Plan**
   Drivers who undertake trips in excess of 250 miles (400 kilometers) one way, drive in remote or hazardous areas, or when otherwise deemed necessary, shall develop and document a Journey Management Plan using S3AM-005-FM1 or equivalent.

6. **Secure Loads**
   Cargo is only to be carried within the passenger compartment of a vehicle when segregated and restrained to prevent objects from becoming distractions, obstructions, or projectiles to occupants should emergency vehicle maneuvers be required (e.g., harsh braking or crash). All goods transported on flatbed trucks or in pickup beds must be securely fastened to prevent them from becoming hazards. All applicable laws and regulations regarding securing of loads must be met. It is prudent to check the load after a few miles to ensure that load has not shifted or loosened prior to completing the remainder of the trip.

9.8 Fatigue and Driving Safety

The effect of fatigue is both physiological and psychological and can severely impair a driver's judgement. Fatigue can cause lapses in concentration which could prove fatal. Fatigue is not just a problem for drivers on long trips, as drivers can also suffer from fatigue on short trips.

- ✓ After strenuous fieldwork, consider overnight accommodation or vehicle sharing for staff who are not acclimatized to the type of work.
- ✓ Microsleep can occur with a limited warning, and may be linked to several factors, for example:
  - Microsleep is most likely to occur during times when the circadian rhythm dictates the body should be asleep, such as at dawn, late at night, or in the mid-afternoon (e.g., 1 and 4 am and 1 and 4 pm.).
  - Potential to feel drowsy after a meal.
  - Driving long distances (considered potentially monotonous) even with sufficient sleep.
  - Prolonged sitting and warm ambient temperature may also increase the feeling of sleepiness.
- ✓ If safe to do so, consider undertaking actions to disrupt the microsleep event while identifying a safe place to stop, e.g., open a vehicle window, listen to upbeat music/change music source or ask the passenger (if present) to engage in conversation.
- ✓ Ensure field staff are familiar with the signs of fatigue and mitigation factors.

The most common visible signs of microsleep include the following:

- Eyelid drooping
- Eyelid closure
- Head nodding
- Brief periods of snoring
- Wandering thoughts

If any of the above become apparent, immediately pull over to a safe location and contact your PM or SH&E representative.

9.9 Hand Safety

The hands are exposed to hazards more than any body part. SH&E Hand Safety Procedure S3AM-317-PR describes requirements and best practices including these notable practices:

- **All personnel shall have gloves in their immediate possession 100%** of the time when in a shop or on a work site. Gloves that address the hazard shall be worn when employees work with or near any materials or equipment that present the potential for hand injury due to sharp edges, corrosives, flammable and irritating materials, extreme temperatures, splinters, etc. Use the Gloves Needs Assessment (S3AM-317-FM1) to help determine the appropriate glove for the hazard(s).
- **Fixed open-blade knives are prohibited** from use during the course of AECOM work. Examples of fixed open-blade knives include pocket-knives, multi-tools, hunting knives, and standard utility knives. For more information about cutting tools, see S3AM-317-ATT1 Safe Alternative Tools.

9.10 Substance Abuse

Drug and alcohol abuse pose a serious threat to the health and safety of employees, clients, and the general public as well as the security of our job sites, equipment and facilities. AECOM is committed to the elimination of illegal drug use and alcohol abuse in its workplace and regards any misuse of drugs or alcohol by employees to be unacceptable. AECOM Substance Abuse Prevention Procedure (S3AM-019-PR1) prohibits the use, possession, presence in the body, manufacture, concealment, transportation, promotion or sale of the following items or substances on company premises. Company premises refer to all property, offices, facilities, land, buildings, structures, fixtures, installations, aircraft, automobiles, vessels, trucks and all other vehicles and equipment - whether owned, leased, or used.

- Illegal drugs (or their metabolites), designer and synthetic drugs, mood or mind altering substances, and drug use related paraphernalia unless authorized for administering currently prescribed medication;
- Controlled substances that are not used in accordance with physician instructions or non-prescribed controlled substances; and
- Alcoholic beverages while at work or while on any customer- or AECOM-controlled property.

This policy does not prohibit lawful use and possession of current medication prescribed in the employee's name or over-the-counter medications. Employees must consult with their health care provider about any prescribed medication's effect on their ability to perform work safely and disclose any restrictions to their supervisor.

Although some states may pass laws legalizing medical or recreational marijuana use, the use, sale, distribution and possession of marijuana are violations of federal law and AECOM policy, and will subject an employee to disciplinary action up to and including termination in accordance with controlling law. In Canada, where medical and recreational marijuana use is legal, employees must still follow Federal and Provincial laws, and AECOM policy with regards to use and possession. Employees found to be in contravention of legal requirements or AECOM policy will be subject to disciplinary action up to and including termination.

9.11 Rewards and Recognition

One of AECOM's Life Preserving Principles is Recognition and Rewards for proactive safety, health and environmentally focused behaviors. All projects are expected to participate in the rewards and recognition programs available on the Corporate and DCS Americas SH&E ecosystem pages. Large, long term projects are encouraged to establish a project specific rewards and recognition program which incorporates project specific goals and activities (template available S3AM-020-FM1). ***All rewards and recognition programs must emphasize the 9 Life Preserving Principles and proactive SH&E activities NOT solely the achievement of lagging metrics ("injury/incident-free" hours, etc.) as those may discourage incident reporting.***

There are several possible appropriate methods of rewarding and recognizing employees and contractors:

1. **Informal** – recognition via verbal acknowledgement, email, spot awards, luncheons, etc.
2. **Formal** – recognition via DCS Americas Programs:
   - AECOM Safety Star Recognition Program
   - AECOM Making a Difference (MAD) Award
   - Executive Challenge Coins

9.12 Stop Work Authority

AECOM empowers and expects all employees to exercise their Stop Work Authority (see Stop Work Authority Procedure (S3AM-002-PR1) if an incident appears imminent, or when hazardous behaviors or conditions are observed. A stop work request can be informal if the situation can be easily corrected or may require shutting down operations if revised procedures are necessary to mitigate the hazard. If an AECOM employee observes an imminently hazardous situation on a site controlled by others (i.e., a client-managed contractor), the employee can always stop work for themselves by removing themselves from the situation. Employees also may attempt to stop work to avoid allowing the contractor to come to harm by immediately notifying the contractor foreman or site engineer, or if necessary, the client or party managing the contractor.

No employee should object to the issuance of a stop-work request, nor can any disciplinary action be levied against the employee. All employees must agree that the situation has been mitigated before resuming work. No employee will be disciplined for refusing to work if they feel it is unsafe.

10. Roles and Responsibilities

10.1 AECOM Project Manager

The Project Manager (PM) has overall management authority and responsibility for all site operations, including safety. The PM will provide the site supervisor with work plans, staff, and budgetary resources, which are appropriate to meet the safety needs of the project operations. Some of the PM's specific responsibilities include:

- Develop a defined scope of work and project schedule with clear objectives and reasonable milestones.
- Budget and allocate the appropriate resources to safely and efficiently complete the work, including technical, safety and quality reviews.
- Prepare a project risk register to support project planning and risk management.
- Identify requirements and expectations applicable to the scope of work, site access, client and host facility.
- Assemble qualified project and field teams, including subcontractors, with the appropriate training, education and experience.
- Ensure subcontractors are approved in subport and obtain variances for those that have been conditionally approved.
- Review and approve the AECOM safe work plan (SWP) or health and safety plan (HASP) and task hazard assessments (THAs).
- Obtain and review subcontractor SWP/HASP and THAs or equivalent task risk assessment documents.
- Conduct a project kick-off meeting to convey information, requirements, and expectations to the field team.
- Ensure the field team has all the tools, equipment, instruments, and supplies, including PPE, to perform the work safely.
- Coordinate field activities with the client and/or host facility.
- Be visible to and maintain regular communication with the field team.
- Verify that technical, safety, and quality reviews are completed as planned.
- Verify that AECOM's SH&E policies and procedures are fully implemented.
- Coordinate the management of changes identified by the field team.
- Address and correct unsafe acts/behaviors and conditions.
- Confirm observation, near miss and incident notification and reporting are completed internally, to site and client, as required.
- Conduct a post project review.
- Lead by example – walk the talk.

10.2 AECOM Site Supervisor

The Site Supervisor has the overall responsibility and authority to direct work operations at the job site according to the provided work plans and HASP. The Project Manager may act as the Site Supervisor while on site. The Site Supervisor's responsibilities include:

- Verify the personnel, equipment/machinery and instruments anticipated to mobilize to site.
- Communicate project roles and responsibilities.
- Discuss planned activities for the day and any potential simultaneous operations (SIMOPs).
- Establish staging and work areas for planned activities.
- Confirm crews have reviewed and updated, as necessary, task hazard assessments prior to beginning the task.

- Coordinate and document project activities.
- Monitor for deviations and changes in scope, personnel, methods, materials, equipment/machinery, instrumentation, and site conditions.
- Notify the AECOM project manager of changes and coordinate change management.
- Escort or delegate the escorting of site visitors.
- Serve as AECOM's point of contact with the host facility and person-in-charge for simultaneous operations (SIMOPs).
- Delegate stop work authority to all project employees and report all unsafe acts/behaviors and conditions, near misses and incidents to the AECOM project manager.
- Lead by example – walk the talk.

10.3 AECOM Site Safety Officer

The Site Safety Officer supports the Site Supervisor in providing a safe work environment. Not all sites will have a designated Site Safety Officer; the decision should be made by the Project Manager and SH&E Manager taking into consideration the complexity and risks of the scope of work. The Site Supervisor may act as the Site Safety Officer on sites without one. The Site Safety Officer's responsibilities include:

- Conduct the site safety orientation for the entire field team, including subcontractors, and site visitors.
- Lead the tailgate safety meeting.
- Discuss hazards present at the site and/or within environmental media and their control measures.
- Communicate air monitoring methods and action levels.
- Explain emergency response and reporting procedures, including emergency contacts and muster and shelter-in-place locations.
- Establish exclusion and contamination reduction zones, as needed.
- Verify SWP/HASP, THA and safety requirements and expectations are being met.
- Confirm hazard control measures are in-place and effective.
- Perform housekeeping and site inspections to ensure a safe working environment.
- Engage outside safety, health & environment resources, as needed, to allow for the safe performance of the work.
- Assist in incident investigations and identification and implementation of corrective actions.
- Lead by example – walk the talk.

10.4 AECOM SH&E Manager

Responsibilities of the SH&E manager is to:

- Promote the AECOM Safety for Life Program and our Nine Life Preserving Principles.
- Understand the application of SH&E regulatory requirements relevant to SH&E in the company's operations and be aware of changes in regulations which may affect the company.
- Be formally trained, licensed or certified where the regulations require.
- Assist with the budgeting and staffing process to ensure project teams have the knowledge and resources needed to perform their work safely.
- Be aware of all incidents, near misses, observations, unsafe acts and unsafe conditions that are reported and participate in the investigation process where required.
- Verify incidents are reported to regulatory bodies in accordance with local legislation.
- Review investigation findings to confirm identified corrective actions are appropriate and subsequently implemented.

- Review and accept site-specific SH&E Plans and Task Hazard Analyses (THAs).
- Assist in the preparation of risk assessments.
- Assist in the review of SH&E training needs.
- Verify necessary training as required by AECOM policies and procedures and/or the regulations.
- Assist in the setting of SH&E expectations at project level and review them periodically.
- Perform project SH&E audits on a periodic basis.
- Monitor the corrective actions taken, where audits identify non-conformance or opportunities for improvement, for confirmation of their completion and effectiveness.
- Lead by example, walk the talk.

10.5 AECOM Employees

Responsibilities of employees associated with this project include, but are not limited to:

- Arrive onsite fit for duty and dressed for weather conditions.
- Actively participate in tailgate safety meetings and crew THA reviews.
- Perform only assigned tasks consistent with training & competency.
- Follow SWP/HASP, THA and safety requirements & control measures.
- Use 4-sight as a last-minute risk assessment tool.
- Notify the AECOM site supervisor prior to any deviation from the planned activity (i.e., change in personnel, methods, materials, equipment, etc.).
- Use stop work authority and report all unsafe acts/behaviors and conditions, near misses and incidents to the AECOM site supervisor.
- Always conduct yourself in a professional and ethical manner.

10.6 Visitors

Authorized visitors (e.g., client representatives, regulators, AECOM management staff, etc.) requiring entry to any work location on the site will be briefed by the Project Manager, Site Supervisor, or Site Safety Officer on the hazards present at that location. Visitors will be escorted at all times at the work location and will be responsible for compliance with their employer's health and safety policies. In addition, this HASP specifies the minimum acceptable qualifications, training and PPE that are required for entry to any controlled work area; visitors must comply with these requirements at all times.

If the site visitor requires entry to any exclusion zone (EZ), but does not comply with the above requirements, the visitor will be denied access to the EZ. If the visitor disregards instructions to remain outside the EZ, work activities will be immediately suspended, and the situation reported and documented.

Unauthorized visitors, and visitors not meeting the specified qualifications, will **NOT** be permitted within established controlled work areas. If unauthorized visitors and/or visitors not meeting the specified qualifications enter a controlled work area and/or EZ, work activities will be immediately suspended, and the situation reported and documented.

11. Subcontractor Management

11.1 AECOM Roles/Responsibilities for Sub Management

When managing an AECOM Subcontractor of any tier, AECOM management and supervision will follow the requirements in S3AM-213-PR1 and are responsible for the following:

- Direct all activities of the facility, site, or project location.
- Ensure appropriate training and experience of AECOM personnel responsible for overseeing subcontractor work.
- Verify subcontractors have the appropriate trained and competent personnel to perform their activities in a safe, healthful, and environmentally responsible manner.
- Pre-qualification of Subcontractor – Prior to performing work on an AECOM project, management and supervision must verify the Subcontractor has been pre-qualified. AECOM's preferred method of prequalification is Subport, but there are other ways to prequalify a subcontractor.
- Ensure all subcontractor employees attend the AECOM daily tailgate safety meeting.
- If you have any questions about subcontractor pre-qualification, reach out to an AECOM SH&E professional.

11.2 Subcontractor Roles/Responsibilities for Safety

Subcontractors must provide AECOM with a designated Subcontractor Safety Representative (SSR). Their responsibilities are as follows:

- Direct employees' means and methods of work and how to work safely.
- Be knowledgeable of and understand the safety requirements of the subcontractor's activities.
- Staff the project with employees that are trained and knowledgeable of the tasks they will be performing.
- Have the ability to recognize hazards and the authority to take prompt corrective actions.
- Implement the subcontractor safety program.
- Serve as the direct contact with AECOM regarding resolution of SH&E issues.
- Immediately report all work-related injuries/illnesses/incidents, environmental incidents and regulatory inspections/violations to AECOM according to AECOM procedures and/or client requirements.

11.3 Subcontractor HASP/THAs

If the subcontractor's scope of work includes hazards that are not covered by the AECOM Health and Safety Plan (HASP), the subcontractor will need to provide AECOM with their site-specific HASP and task-specific Task Hazard Analyses (THAs). All subcontractor procedures must at a minimum comply with client and AECOM requirements to ensure that hazards associated with the performance of their work activities are properly controlled. Copies of any required safety documentation for a subcontractor's work activities will be provided to AECOM for review prior mobilization to the site.

12. Training and Documentation

The following sections describe the standard practices or programs that AECOM will establish to prepare employees to perform work safely and consistent with AECOM policy and Procedures. For additional information on SH&E Training, review the Safety, Health and Environment Training, S3AM-003-PR1.

12.1 HASP/Site Safety Orientation

The Project Manager shall conduct a project/site-specific HASP orientation prior to the start of field operations, with support as needed by the SH&E Manager, Site Safety Officer, or Site Supervisor. This meeting will involve representatives from all organizations with a direct contractual relationship with AECOM on the job site. Minimum items to be covered are listed in **Attachment F**. Participants will then sign the HASP Personnel Acknowledgement register at the end of the HASP.

12.2 Worker Training and Qualifications

All personnel at this site must be qualified and experienced in the tasks they are assigned. SH&E Training Procedure S3AM-003-PR1 establishes the general training requirements for AECOM employees.

See **Section 5.1** of this HASP for site-specific required safety training and documentation.

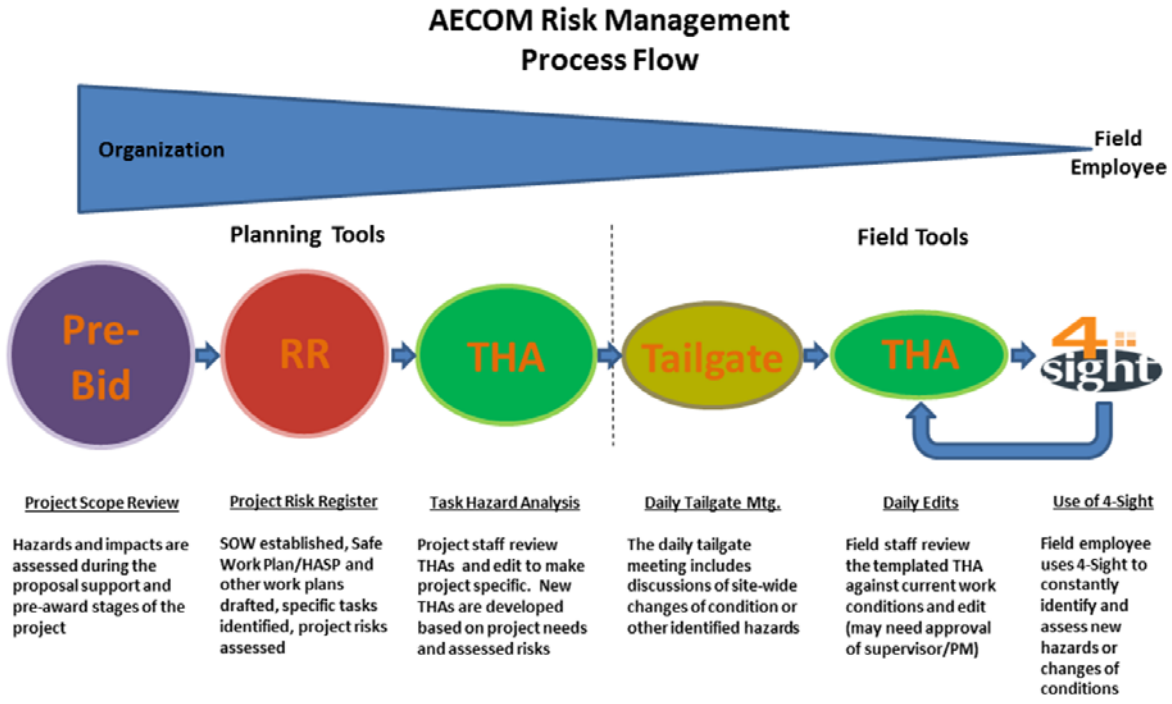
12.3 Competent Person(s)

A competent person is an employee who, through education, training, and experience, has knowledge of applicable regulatory requirements, is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

AECOM's Competent Person Designation Procedure, S3AM-202-PR1, explains the roles, responsibilities and procedures of naming a competent person. Review **Attachment L** of this HASP for a list of site-specific competent person(s) required for this scope of work.

13. Hazard Assessment and Control

AECOM has adopted an approach to hazard assessment and control that incorporates both qualitative and quantitative methods to identify hazards and the degree to which they may impact employees and AECOM operations. See S3AM-209-PR1, Risk Assessment and Management, for details regarding AECOM's process. This approach is illustrated below and described in the following section.



AECOM has adopted an approach to hazard assessment and control that incorporates both qualitative and quantitative methods to identify hazards and the degree to which they may impact employees and AECOM operations. See S3AM-209-PR1, Risk Assessment and Management, for details regarding AECOM's process. This approach is illustrated below and described in the following section.

13.1 SH&E Procedures

All AECOM SH&E procedures, in their controlled copy version, are available on the internal SH&E Policy and Procedures ecosystem page. Programmatic procedures referenced in this document (for example SH&E Training) do no need to be printed for inclusion in this HASP. The applicable field procedures checklist is in the Physical Hazards section below and procedures are included in **Attachment D**.

13.2 Task Hazard Assessments and Daily Tailgate Meetings

THA forms (a blank version is located in S3AM-209-PR1) shall be prepared for each task to be performed as part of the scope of work. This includes driving to the site, parking, and walking as well as the hazards, associated risk, and appropriate controls for all other work activities. The DCS Americas Templated THA Library may also be used to find previously approved THAs, though these should be modified to be project and site-specific. The preparer shall have one THA form for each task in the Scope of Work found in this work plan (**Attachment C**) and shall also include blank copies.

In the field, all employees and visitors shall review the daily THAs and conduct and attend the daily tailgate meeting. When employees arrive on site, conditions may be different than originally planned or additional job steps may be required. The THA requires workers to update or 'dirty up' the THA in the 'On-Site Edits' rows to assess the risks presented by the changed condition(s) and requires the worker to describe steps to reduce the risk. If the hazard(s) cannot be successfully mitigated, the work will **NOT** proceed.

A Site Safety Officer (SSO) or field supervisor shall conduct a daily tailgate meeting to review the specific requirements of this HASP prior to the commencement of daily project activities. Attendance at the daily tailgate meeting is mandatory for all employees and subcontractors at the site covered by this HASP. Simultaneous operations are encouraged to attend each other's tailgate meetings or at the very least the supervisors shall discuss the coordination of activities and associated hazards of each other's tasks. The tailgate meeting must be documented by the field Supervisor or SSO, using the New Daily Tailgate Meeting App. Use the appropriate QR code to download the App and/or go to the Daily Tailgate Meeting App Ecosystem page for details, guides, training sessions and/or other information:

iOS

Android

As an alternative you can also use or the Daily Tailgate Meeting form (S3AM-209-FM5), a blank copy of which is included in **Attachment C**.

13.3 Hazard Categories

THAs should include consideration of the following hazard categories when identifying hazards and task specific controls:

Category	Definition
Biological	A biological hazard is any living organism that could cause irritation, allergic reaction, bites, stings, illness, infection, or other injury.
Chemical	A chemical hazard is any chemical substance that could potentially cause harm to humans, equipment, or the environment either through contact, ingestion, absorption, inhalation, or reaction.
Electrical	Electrical hazards are present whenever there is potential for contact with an electric charge.
Gravity	Gravitational force can cause tools, equipment, materials, and people to fall either to the same level or from heights to the earth or a lower surface.
Mechanical	A mechanical hazard when there is energy within the components of a mechanical system within an otherwise stationary piece of equipment/machinery.
Motion	Objects or substances that can move or are moving not due to gravity create a motion hazard. Motion hazards also include body motions and positioning such as bending, stretching, kneeling, etc.

Category	Definition
	Noise hazards are sounds that may prevent effective communication or cause hearing loss.
	Any physical matter such as gases, liquids, and springs that is compressed or under a vacuum creates a pressure hazard.
	Radiation hazards include both ionizing and non-ionizing energy emitted from radioactive elements or sources.
	Thermal hazards can cause injury or damage due to their temperature.

13.4 4-Sight

When preparing hazard assessments and throughout the day workers should use 4-Sight. This is a mental process through which workers ask themselves (and each other) four questions designed to effectively assess hazards. Using these questions during each task, especially those without established THAs, will help workers identify hazards and condition changes so that they can control them or stop work to seek assistance.

- **What am I about to do?**
- **What could go wrong?**
- **What could be done to make it safer?**
- **What have I done to communicate the hazard?**

13.5 Speak Up/Listen Up

All AECOM employees have a responsibility to help create the environment where the expectation is Safety for Life. Speak Up/Listen Up (SULU) is a technique to steward jobsite safety by utilizing 4-Sight as a basis for safety feedback conversations. SULU has two main parts:

- **Speak Up** where employees use three simple steps when providing feedback to others about unsafe acts:
  - Ask to discuss their hazard assessment or 4-Sight for the task;
  - Get a commitment from the employee to apply the hazard controls and perform the task according to the accepted procedures; and
  - Follow up to ensure the employee is working safely
- **Listen Up** where employees use two simple steps when responding to safety feedback:
  - Listen – Focus on the message, not the messenger; and
  - Commit to performing the task the safer way

SULU conversations should happen consistently throughout the workday to create clear expectations of how work should be performed. All employees should recognize safe work behaviors in order to reinforce them and keep them going. An occasional correction is much more effective when employees are frequently encouraged and positively recognized for their safe actions. Managers and supervisors should be having SULU conversations during site visits and ensure peer to peer and site supervisor to crew SULU conversations are being held.

14. Incident Reporting

14.1 Incident Notifications and Reporting

NOTE! In the event of a life-threatening emergency, call 911 FIRST. A life-threatening emergency can include:

- Loss of consciousness
- Head or spinal cord injury
- Cardiac arrest
- Seizures
- Severe allergic reaction
- Broken bones
- Uncontrolled loss of blood
- Abdominal trauma
- Heat Stroke
- Difficulty breathing

Once immediate actions have been taken, if safe to do so, notifications (verbal) must be completed immediately and the involved employee, site supervisor or site safety officer most call the AECOM Incident Reporting Hotline at 1-800-348-5046. Notifications serve to engage additional resources in the management of the emergency and initiate additional processes such as medical case management, spill response, incident investigation, etc. Reporting initiates the formal documentation process and supports the development of key learnings to prevent a reoccurrence.

14.1.1 AECOM Internal Notifications

For any incident or near miss, the involved employee must notify their site supervisor or site safety office. The site supervisor or site safety officer must notify their Project Manager. Depending on the severity of the incident, the Project Manager may need to notify the following individuals:

- Regional, area, business line, practice group or account SH&E manager.
- Program Manager or Client Account Manager
- Senior Leaders

14.1.2 Client Specific Notifications

Notify our clients of incidents in accordance with their incident notification requirements.

See client contact information in the Key Personnel table at the bottom of the **HASP Summary** on Page i.

14.1.3 Incident Investigation

All incidents and near misses will be investigated and documented to determine the contributing and root causes. The investigation will verify the need for corrective actions and identify opportunities for Lessons Learned and continuous improvement. For more information in incident investigations, please review the Incident reporting, Notifications and Investigation procedure, S3AM-004-PR1.

As soon as it is safe to do so after an incident occurs, the following information will be gathered:

- An incident timeline;
- Witness statements;
- Photos of the incident;
- Police reports, if applicable;
- Any additional information that will assist in the investigation; and
- Copies of daily safety documentation and/or field notes.

14.2 Incident and Near Miss Reporting

All incidents and near misses (i.e., incidents without consequences), regardless of type and perceived severity, must be reported in accordance with the Incident Reporting, Notifications and Investigation, S3AM-004-PR1 and entered into **IndustrySafe** (AECOM's SH&E Database) within the timeframes listed below:

Incident Type	IndustrySafe Reporting Timeframe
Significant Incident, including any injury to an AECOM employee or Subcontractor	Within **4 hours**
All Other Incidents	Within **24 Hours**

Note: Only the basic facts, who, what, when, where and how, are needed to complete the initial IndustrySafe report. SH&E Managers will assist you in updating the report as additional information becomes available.

Significant incidents include:

- Fatality;
- Amputation;
- Hospitalization for treatment for more than 24 hours (admission);
- Any single event resulting in more than one employee requiring medical treatment or more than one employee being away from work for more than 3 days;
- Any SH&E-related Consent Agreement/Order/Lawsuit or enforcement action seeking more than $10,000 or alleging criminal activity;
- Any spill or release of a hazardous material that is reportable to a regulatory agency;
- Any Notices of Violation resulting from not operating within a regulatory agency permit/license or consent;
- Any incident resulting in property damage expected to exceed $10,000 United States dollars (USD);
- Any security-related incident that could have caused significant harm to an AECOM employee; and/or
- Any near miss event that may have resulted in any of the above consequences, but because of "luck" did not result in harm to persons, property or the environment.

Other incidents include:

- Any injury or illness to an AECOM employee or subcontractor, even if it does not require medical attention, including non-work-related injuries/illnesses that have become significantly aggravated by the work environment;
- An injury to a member of the public or client representative occurring on an AECOM-controlled work site;
- Re-occurring conditions such as back pain or cumulative trauma disorders (e.g., carpal tunnel syndrome);
- Fire, explosion or flash that is not an intended result of a planned event (e.g., remediation process, laboratory procedure);
- Any incident involving company-owned, rented or leased vehicles (including personal vehicles used for company business); and/or
- Any failure to comply with requirements of a regulatory permit issued to AECOM.

14.2.1 Motor Vehicle Incidents

Collisions: All vehicles should be rented through Trip Actions (accessible via Ecosystem) to ensure that AECOM insurance is included in the rental rate. All other insurances should be declined. AECOM's rental vehicle insurance policy for National/Enterprise or Avis can be found on the DCS Americas United States or Canada travel pages. **Drivers MUST print and carry the applicable insurance policy for the rental. For company owned vehicles, drivers MUST also print and carry proof of insurance.**

Breakdowns: If safe to do so, remove the car from the traveled way. To the extent possible, AECOM personnel should **NOT** change flat tires or perform similar repairs.

- For rental vehicles, contact the rental company
- For fleet vehicles, contact **ARI Fleet Management**: **1-800-422-7647**
  - Prompt 1 – Roadside Assistance
  - Prompt 3 – Maintenance Management
- For personal vehicles used on AECOM business, contact an emergency provider.

14.2.2 Safety Observation Reporting

All safety observations must be entered into **IndustrySafe™ or Lifeguard™** (AECOM's SH&E Databases).

14.2.3 SH&E Database Access

Incidents, near misses, and audits/inspections must be entered into **IndustrySafe™**, which is one of AECOM's SH&E Databases. Safety observations may also be entered into **IndustrySafe™** at the AECOM Project Manager's discretion. **IndustrySafe™** can be accessed via the SH&E Page on Ecosystem when you are in the office or connected to the AECOM network via VPN. IndustrySafe may also be accessed from your smartphone/device, if equipped with a QR Code Reader App, using the QR Code to the right.

Incidents, Near Misses, Audits/Inspections and Safety Observations

Safety observations may also be entered into **Lifeguard™**, which is one of AECOM's SH&E Databases, at the AECOM Project Manager's discretion. **Lifeguard™** can be accessed via the SH&E Page on Ecosystem when you are in the office or connected to the AECOM network via VPN. **Lifeguard™** may also be accessed from your smartphone/device, if equipped with a QR Code Reader App, using the QR Code to the right.

14.2.4 Reporting Assistance

If your field schedule, access to internet, and/or limited cellular phone coverage have the potential to impact timely incident, near miss, and/or safety observation reporting, please contact your AECOM Project Manager and/or SH&E Manager for assistance.

15. Environmental Management

15.1 Scope

AECOM implements policies and procedures to reduce risk of land and/or water pollution and other environmental concerns during the life of the project. The AECOM Project Manager will ensure compliance with all local, state, federal and client environmental laws and/or regulations. For additional information on Environmental Management, please review the Environmental Compliance procedure, S3AM-204-PR1.

15.2 Roles and Responsibilities

All AECOM staff through the leadership of the AECOM Project Manager are responsible for reducing or eliminating environmental impacts by AECOM personnel. The site supervisor and/or the site safety officer will be immediately notified of any spills, leaks, or other impacts to the ground and/or water, or other environmental emergencies, after emergency respondents have been called, if necessary. The Project Manager will be responsible for making any further notifications as required.

15.3 Staffing and Awareness

AECOM staff will receive relevant awareness training to ensure proper knowledge and training when performing activities with the potential to impact the environment, as well as the requirement of this plan for proper preparedness and response.

15.4 Pollution Prevention

Pollution/impact to the environment could be caused by the following sources:

- Air emissions
- Wastewater
- Hazardous materials
- Solid waste
- Hydrocarbons
- Storm water and sediment/erosion

AECOM will employ prevention and control measures to prevent impacts to the environment. In addition, a spill kit consisting of sorbent socks, pads, shovels and personal protective equipment (PPE) will be maintained on site by AECOM and each subcontractor.

Solid waste will be collected, segregated (recyclable, non-flammable, and flammable) and removed on a regular basis.

16. AECOM Audits and Inspections

The AECOM audit and inspection process establishes the protocol for the assessment the Safety, Health and Environment (SH&E) program and its application, as well as the process to identify and monitor corrective actions. The goal is to minimize risk and enhance operational SH&E performance. For more information on audits and inspections, please review the Compliance Assurance procedure, S3AM-216-PR1.

16.1 Project Manager Self Assessments

AECOM Project Managers will perform quarterly SH&E site audits using the DCSA Project Manager Self-Assessment form (available in IndustrySafe.

16.2 Senior Management Activities (SMAs)

AECOM Senior Managers will perform Senior Management Activity inspections on the projects under their area of responsibility. These SMAs will be entered into Lifeguard.

16.3 Project Safety Reviews (PSRs)

AECOM SH&E Managers will perform periodic Project Safety Reviews on projects in their area of responsibility. These PSRs will be entered into IndustrySafe.

16.4 Site Safety Inspections (OSHA Type)

AECOM Project Managers and SH&E Managers will perform periodic site safety inspections (OSHA type) on projects in their area of responsibility as required. These site safety inspections will be entered into IndustrySafe.

16.5 External Regulatory Inspections

If a regulatory inspector shows up on site, AECOM will follow the requirements in our Regulatory Inspections procedure S3AM-211-PR1.

17. Project Closeout

Completing a project requires procedures to close out Project Contractual and Administrative activities. The closeout process ensures all documentation is finalized and any Contractual Obligations are met. The Project is ready for close-out once it has been accepted by the end user organization. Project close-out is complete after all physical, regulatory, contractual, and financial close-out activities are complete.

17.1 Health and Safety File

The Health and Safety File will normally include:

- Brief description of the work carried out.
- Residual hazards which remain and how they have been dealt with (e.g. surveys, or information on asbestos, contaminated land, water bearing strata, buried services etc.).
- Key structural principles incorporated in the design (e.g. bracing) safe working loads etc.
- Any hazards associated with the materials used.
- Nature, location and markings of significant services including underground cables, gas supplies, firefighting etc.
- Information and ‘as built’ drawings including safe access to and from confined spaces etc.
- Daily Tailgate Meeting Forms
- Lessons Learned

18. Personal Acknowledgement

By signing below, the undersigned acknowledges that he/she has reviewed the AECOM Health and Safety Plan for the FSEDSP site. The undersigned also acknowledges that he/she has been instructed in the contents of this document and understands the information pertaining to the specified work and will comply with the provisions contained therein. The employee understands that they are **NOT** to perform any work that they have not been adequately trained for and that they are to stop work if it is unsafe to proceed. Finally, the employee understands to notify the Site Supervisor and the **Incident Hotline at 800-348-5046** for any incident, ***including ANY injury even if no first aid or medical treatment is required.***

Print Name Clearly	Signature	Organization	Date

18.1 Disclaimer

This HASP, and each of its provisions, is applicable only to, and for use only by, AECOM, its affiliates, and its subcontractors. Any use of this Plan by other parties, including, without limitation, third-party contractors on industrial sites or projects where AECOM is providing engineering, construction management, or similar services, without the express written permission of AECOM, will be at that party's sole risk, and AECOM Corporation shall have no responsibility. The existence and use of this Plan by AECOM shall not be deemed an admission or evidence of any acceptance of any safety responsibility by AECOM for other parties unless such responsibility is expressly assumed in writing by AECOM in a specific project contract.

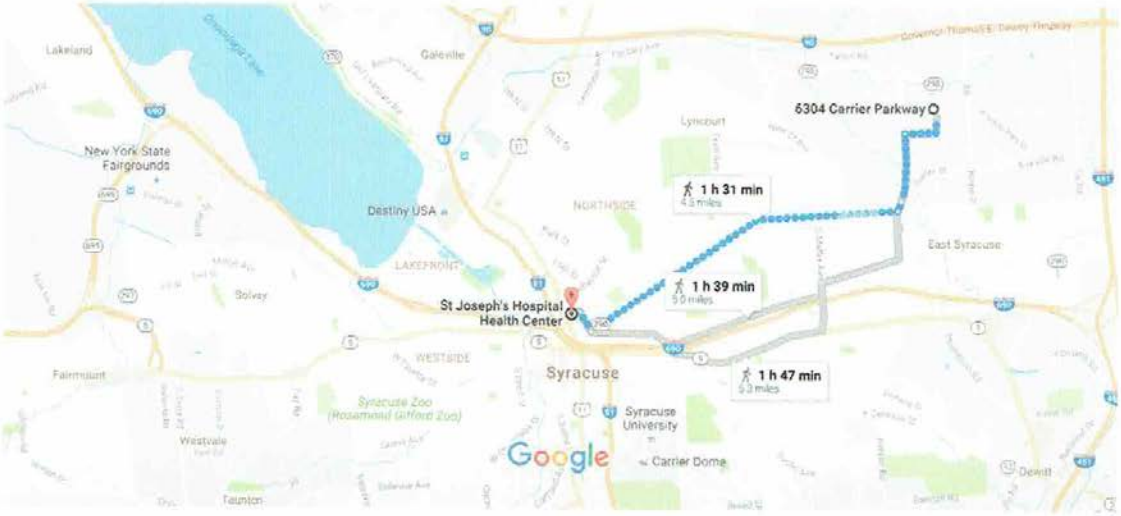
Attachment A

Hospital/Clinic Maps and Incident Reporting Flow Chart

Attachment A: Hospital/Clinic Maps

6304 Carrier Parkway, East Syracuse, NY to St Joseph's Hospital Health Center - Google ... Page 1 of 2

Google Maps 6304 Carrier Parkway, East Syracuse, NY to St Joseph's Hospital Health Center Walk 4.5 miles, 1 h 31 min



Map data ©2016 Google 1 mi

6304 Carrier Parkway

East Syracuse, NY 13057

Use caution - may involve errors or sections not suited for walking

1.	Head southwest toward NY-635 S	0.4 mi
2.	Turn left onto NY-635 N	0.6 mi
3.	Slight right to stay on NY-635 N	495 ft
4.	Turn right onto NY-290 W/James St	3.1 mi
5.	Turn right onto N Townsend St	0.2 mi
6.	Turn left onto Union Ave	348 ft

St Joseph's Hospital Health Center

301 Prospect Avenue, Syracuse, NY 13203

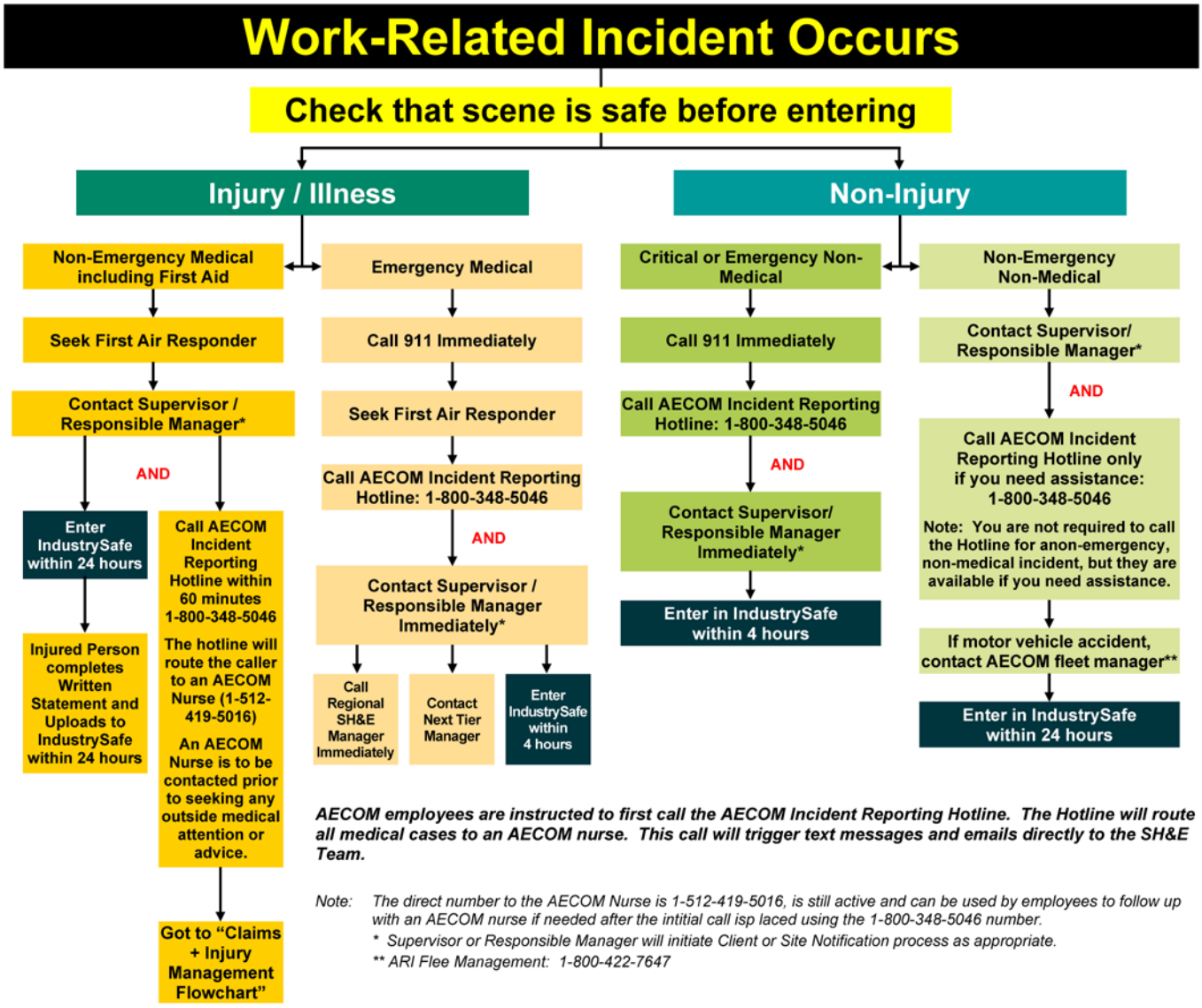
These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the

https://www.google.com/maps/dir/6304+Carrier+Parkway,+East+Syracuse,+NY/St+Josep... 8/30/2016

Attachment B

Incident Reporting Flow Chart

Attachment B: Incident Reporting Flow Chart



AECOM employees are instructed to first call the AECOM Incident Reporting Hotline. The Hotline will route all medical cases to an AECOM nurse. This call will trigger text messages and emails directly to the SH&E Team.

Note: The direct number to the AECOM Nurse is 1-512-419-5016, is still active and can be used by employees to follow up with an AECOM nurse if needed after the intitial call isp laced using the 1-800-348-5046 number.
** Supervisor or Responsible Manager will initiate Client or Site Notification process as appropriate.*
*** ARI Flee Management: 1-800-422-7647*

Attachment C

THA Forms, and Tailgate Safety Meeting Form

Attachment C: THA Forms, and Tailgate Safety Meeting Form

Each discrete task being performed during the project (i.e., Driving, Inspection, Sample Collection, etc.) requires a Task Hazard Assessment. If you don't have a THA for a task, obtain or develop one. The DCS Americas Templated THA Library may also be used to find previously approved THAs.

The THAs MUST be reviewed at the location the work will take place, just prior to beginning each task, and signed by all staff involved in the operation. The THAs should be consulted and updated throughout the day if conditions change using the 'On-Site Edits' lines.

Insert Task Hazard Analyses here. Include these documents after this cover sheet in the final SWP.

The preparer shall download a sufficient number of blank copies of the Task Hazard Analysis (THA) form as well as the Tailgate Meeting Form (S3AM-209-FM5) to use each day of field work, and insert after this cover sheet in the final SWP.

Task Hazard Assessment Instructions:

Each unique task or work group should have their own THAs. If workers have a THA for their task(s) in hand, they should simply review it and document the site-specific edits in the appropriate section. If workers do ***not*** have a THA for all tasks to be performed, a THA must be obtained or drafted *prior to starting work* on that task. Use additional pages as needed.

- Identify the basic steps of the task that must be performed in order and their associated hazards. Identify controls or barriers to mitigate each identified hazard.
- Clearly identify any **STOP WORK** triggers.
- Document stop work and change management if conditions/ scope changes.
- Use 4-Sight to identify and mitigate site-specific hazards throughout the day. Modify the THA as needed. Contact site supervisors or the PM for any significant scope changes or changes of expected conditions.
- All THAs shall be 3 pages (maximum) or less (preferred). If they are longer, the task is too broad.
- All hazards will use standardized nomenclature (Hazard Wheel), should be specific, detail how someone could be hurt and what the outcome could be.
- All actions to mitigate hazards must be specific, clearly aligned with its respective hazard and not generic. Avoid words such as "*proper", "correct*", or "*appropriate*"). Use specifics and numerical values (i.e., wear disposable nitrile gloves, stand back 6 feet/1.8 meters, take a 10-minute break every hour).
- PPE cannot be the only line of defense - PPE is always the last line of defense, so think through what other controls (engineering, administrative, etc.) could mitigate hazards.

Discuss as Applicable and Modify THA as Needed

Check ☑ if reviewed or mark N/A

- ☐ *Biological / Chemical / Electrical Hazards*
- ☐ *Decontamination Procedures*
- ☐ *Ergonomics – Lifting, Body Position*
- ☐ *Lock Out / Tag Out*
- ☐ *Short Service Employees – visual identifier and mentor / oversight assignment*
- ☐ *Simultaneous / Neighboring Operations*
- ☐ *Slip / Trip / Fall Hazards*
- ☐ *Specialized PPE Needs*
- ☐ *Traffic Control*
- ☐ *Waste Management / Decontamination*
- ☐ *Weather Hazards / Heat Stress / Cold Stress*
- ☐ *Work Permit Requirements:* Click here to Identify OR type N/A
- ☐ *Other:* Click here to Describe OR type N/A

Probability	Severity				
	5 - Catastrophic	4 – Critical	3 – Major	2 – Moderate	1 - Minor
5 – Frequent	25	20	15	10	5
4 – Probable	20	16	12	8	4
3 – Occasional	15	12	9	6	3
2 – Remote	10	8	6	4	2
1 - Improbable	5	4	3	2	1

Risk Rating (Probability x Severity)	Risk Acceptance Authority
1 to 4 (Low)	Risk is tolerable, manage at local level
5 to 9 (Medium)	Risk requires approval by Operations Lead/Supervisor & Safety Manager
10 to 25 (High)	Risk requires the approval of the Operations Manager & Safety Director

Severity – Potential Consequences				
	People	Property Damage	Environmental Impact	Public Image/Reputation
Catastrophic	Fatality, Multiple Major Incidents	>$1M USD, Structural collapse	Offsite impact requiring remediation	Government intervention
Critical	Permanent impairment, Long term injury/illness	>$250K to $1M USD	Onsite impact requiring remediation	Media intervention
Major	Lost/Restricted Work	> $10K to $250K USD	Release at/above reportable limit	Owner intervention
Moderate	Medical Treatment	> $1K to $10K USD	Release below reportable limit	Community or local attention
Minor	First Aid	</=$1K USD	Small chemical release contained onsite	Individual complaint

Probability		
Frequent	Expected to occur during task/activity	9/10
Probable	Likely to occur during task/activity	1/10
Occasional	May occur during the task/activity	1/100
Remote	Unlikely to occur during task/activity	1/1,000
Improbable	Highly unlikely to occur, but possible during task/activity	1/10,000

Using the Matrix:

1. Identify basic steps of the task and associated hazards.
2. Calculate the initial risk rating.
3. Identify control measure to eliminate or reduce the hazard's risk and calculate the residual risk rating.
4. If the risk rating (after controls are implemented) cannot be reduced to 4 or lower, additional approvals are needed before the activity can begin.

AECOM

Americas

Daily Tailgate Meeting

S3AM-209-FM5

Instructions: Conduct meeting prior to sending crews to individual tasks. Require attendance of all AECOM employees and subcontractors. Invite personnel from simultaneous operations for coordination purposes. Review scope of work and briefly discuss required and applicable topics**. This meeting is a daily refresher, not a full orientation**. Task-specific discussions associated with Task Hazard Assessment (THA) follow this meeting at the task location immediately before individual task is started.

AECOM Supervisor Name: **Phone Number:**	
AECOM SH&E Rep. Name: **Phone Number:**	
Meeting Leader:	

DCS Americas - This form may be replaced by the electronic Daily Tailgate Meeting Tool. Link - Ecosystem Daily Tailgate Meeting App Site

Date:	**Project Name/Location:**	**Project Number:**
Today's Scope of Work:		

Muster Point Location:	**First Aid Kit Location:**	**Fire Extinguisher Location:**	**Spill Kit Location:**

1. Required Topics

- ☐ Fitness for Duty requirements, all sign in / sign out
- ☐ Required training (incl. task specific) completed and current
- ☐ SH&E Plan onsite - understood, reviewed, signed by all (incl. scope, preplanning hazard assessments / risk registers, controls, procedures, requirements, etc.)
- ☐ Task Hazard Assessments (THAs) are to be reviewed and completed for each task immediately prior to conducting
- ☐ STOP WORK Right & Responsibility- all task changes/changed conditions re-assess with THA
- ☐ Requirement to report to supervisor any injury, illness, damage, near miss, unsafe act / condition
- ☐ Emergency Response Plan – including muster point, first aid kit, fire extinguisher, clinic/hospital location
- ☐ Personal Protective Equipment (PPE) - Required items per hazard assessments in good condition / in use by all
- ☐ Equipment/machinery inspected (documented as required) and in good condition - operators properly trained/certified
- ☐ Work area set up and demarcation/ barricades in place to protect workers, site staff, and the public
- ☐ Required checklists/records available, understood (describe):
- ☐ Lessons Learned / SH&E improvements (describe):

2. Discuss if Applicable to Today's Work

☑ ■ **Check ☑ as reviewed or mark ■ as not applicable**

- ☐ ☐ Biological/ Chemical / Electrical Hazards
- ☐ ☐ Ergonomics - Lifting, Body Position
- ☐ ☐ Lock Out/ Tag Out
- ☐ ☐ Short Service Employees - visual identifier and mentor/ oversight assignment
- ☐ ☐ Simultaneous/ Neighbouring Operations
- ☐ ☐ Slip/ Trip/ Fall Hazards
- ☐ ☐ Specialized PPE Needs
- ☐ ☐ Traffic Control
- ☐ ☐ Waste Management/ Decontamination
- ☐ ☐ Weather Hazards / Heat Stress / Cold Stress
- ☐ ☐ Subcontractor Requirements (e.g., JHAs, THAs, procedures, reporting, etc.)
- ☐ ☐ Work Permits / Plans required (e.g., Fall Protection, Confined Space, Hot Work, Critical Lifts, etc.); in place, understood (identify/attach):
- ☐ ☐ Other Topics (describe/attach):
- ☐ ☐ Client specific requirements (describe):

3. Daily Check Out by Site Supervisor

Describe incidents, near misses, observations or Stop Work interventions from today:	Describe Lessons Learned/ Improvement Areas from today:

The site is being left in a safe condition and work crew checked out as fit unless otherwise specified as above.

Site Supervisor Name	**Signature**	**Date** **Time** (at end of day / shift)

Worker Acknowledgement / Sign In Sign Out sheets applicable to this meeting are on reverse and, if applicable, attached.

All employees:

- **STOP WORK if concerned / uncertain about safety / hazard or additional precaution is not recorded on the THA.**
- **Be alert and communicate any changes in personnel or conditions at the worksite to the supervisor.**
- **Reassess task, hazards, & mitigations on an ongoing basis; amend the THA if needed.**

SITE WORKERS (including AECOM Contractors and Subcontractors): Your signature below means that you understand:

* The requirement to participate in creating, reviewing, & updating hazard assessments (THA) applicable to your task(s).
* The hazards & control measures associated with each task you are about to perform.
* The permit to work requirements applicable to the work you are about to perform (if it includes permitted activities).
* That no tasks or work is to be performed without a hazard assessment.
* Your authority & obligation to "Stop Work" intervene, speak up/ listen up.

Your initials (right columns) certify that you arrived & departed fit for duty, & have reported all incidents/near misses; meaning:

* You are physically and mentally fit for duty and have inspected your required PPE to ensure satisfactory condition.
* You are not under the influence of any type of medication, drugs, or alcohol that could affect your ability to work safely.
* You are aware of your responsibility to immediately report any illness, injury (regardless of where or when it occurred), or impairment/fatigue issue to the AECOM Supervisor.
* You signed out as fit / uninjured unless you have otherwise informed the AECOM Supervisor.

Print Name & Company	Signature	Initials & Sign In Time	Initials & Sign Out Time
		In & Fit	Out & Fit
		In & Fit	Out & Fit
		In & Fit	Out & Fit
		In & Fit	Out & Fit
		In & Fit	Out & Fit
		In & Fit	Out & Fit
		In & Fit	Out & Fit
		In & Fit	Out & Fit
		In & Fit	Out & Fit
		In & Fit	Out & Fit

(Attach additional Site Worker sign-in/out sheets if needed) Identify number of attached sheets: _____

SITE VISITOR / SITE REPRESENTATIVE

Name	Company Name	Arrival Time	Departure Time	Signature

Task Hazard Assessment

AECOM Imagine it. Delivered.

Task Name:	**Driving to and From Site**	**Control #:**	**01-01-12-02**

Project Name:	**Carrier – Syracuse, NY**	**Client:**	Carrier	**Date:**	7/19/2023
Permits Required? (list):	None	**Work Location:**	Carrier – Syracuse, NY		

This THA must be fully reviewed with all staff members. All job steps, hazards, work practices, and PPE are clearly understood and have been implemented. All necessary revisions have been written on the THA.

Required PPE:	☐ Hard Hat ☐ Safety Glasses ☐ HiVis Vest ☐ Safety Toe Boots ☐ Gloves: Leather / Nitrile ☐ Hearing Protection ☐ Other:
Tools & Equipment:	Emergency kit Communication device (cell phone) Navigation system

REMINDER: Use 4-Sight at the start of, and continuously throughout the job/task to identify additional and/or hazards to act on!

Job Steps *List all steps required to perform a task in the sequence they are performed*	**Potential Hazards** *How could you be hurt? What would the injury be?*	**Risk** *(initial)*	**Critical Actions To Mitigate Hazards** *List control measures required to eliminate, control or protect against the potential hazards associated with each job step to minimize the risk of injury or environmental impact.* ***Identify any 'Stop Work' triggers.***	**Risk** *(final)*
1. Trip Planning	1a. Unauthorized driving	9	1a. You must be an AECOM authorized driver to drive for AECOM business purposes. Consult the requirements of S3AM-005-PR1. Authorized Drivers shall maintain a current driver's license with full privileges applicable to the vehicle to be operated. Develop a Journey Management Plan if applicable.	4
	1b. Inclement weather	6	1b. Evaluate weather conditions prior to beginning the travel to determine if travel should proceed. Verify your vehicle is equipped to travel in poor weather. Have supplies on hand in the event that you become stranded, including a communication device to call for help.	4
	1c. Getting Lost	6	1c. Review route in advance and program GPS prior to leaving	3
	1d. Inadequate vehicle for the site/trip	7	1d. Understand what type of vehicle is necessary to transport tools & equipment to the site. Know site conditions before departure and obtain proper vehicle, 4-Wheel drive if necessary	4
	1e. Vehicle malfunction	8	1e. Inspect vehicle prior to leaving. Verify that maintenance records are current.	4
On-Site Edits:				
2. Driving	2a. Fatigue	**15**	2a. Start trip well rested & take breaks when needed. Share driving responsibilities where possible. **STOP DRIVING AND PULL OVER** in a safe place if you begin nodding off or showing other signs of fatigue.	4

Task Hazard Analysis

AECOM Imagine it. Delivered.

Task Name:	Driving to and From Site	Control #:	01-01-12-02Error! Reference source not found.

REMINDER: Use 4-Sight at the start of, and continuously throughout the job/task to identify additional and/or hazards to act on!

Job Steps *List all steps required to perform a task in the sequence they are performed*	Potential Hazards *How could you be hurt? What would the injury be?*	Risk *(initial)*	Critical Actions To Mitigate Hazards *List control measures required to eliminate, control or protect against the potential hazards associated with each job step to minimize the risk of injury or environmental impact.* ***Identify any 'Stop Work' triggers.***	Risk *(final)*
	2b. Risky driving practices	15	2b. Practice defensive driving techniques and avoid bad driving habits • Allow for adequate time to make the trip • Do not speed or attempt to multi-task • Do not use cell phone or text or attempt to program GPS while driving	4
On-Site Edits:				
3. Stops/breaks during transit	3a. Theft of equipment/materials	6	3a. Place any likely theft items out of sight and lock vehicle when leaving it. Do not leave vehicle unattended for longer than necessary. If at all possible, avoid leaving packed vehicles in public parking areas overnight, unload if possible. Park in well lighted areas.	4
	3b. Personal security risk	10	3b. Be alert and aware of surroundings when making stops. Stop at areas which are well lit and have security if possible.	3
On-Site Edits:				
4.	4a.		4a.	
On-Site Edits:				

Additional Notes:

Task Hazard Analysis

AECOM Imagine it. Delivered.

Task Name:	Driving to and From Site	Control #:	01-01-12-02Error! Reference source not found.

All Employees:

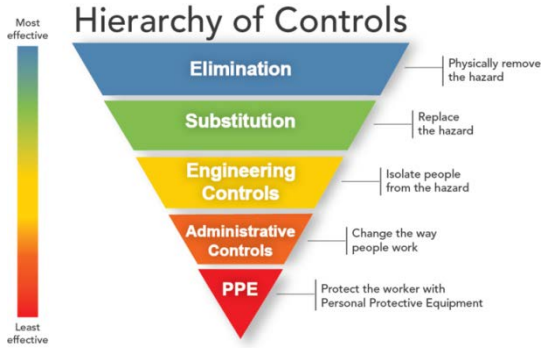
STOP WORK if uncertain about safety or if a hazard or additional precaution is not recorded on the THA.

Be alert, recognize and communicate any changes in scope, personnel or conditions at the worksite to the supervisor.

Use **4-Sight**, AECOM's last minute risk assessment process continuously throughout the day by asking yourself and your co-workers to assess your task, hazards, and mitigations. Amend the THA when needed.

- ***What am I about to do?***
- ***What can go wrong?***
- ***What can be done to make it safer?***
- ***What have I done to communicate the hazards?***

For a more thorough identification of hazards, ask "What else could go wrong?" using the Hazard Categories



- ***Most hazards need more than one control***
- ***What should you do? Stack your controls***
- ***PPE can NEVER be your only means of protection***

Worker Sign On	
I participated in the on-site review and fully understand the content of this Task Hazard Assessment.	
Printed Name	**Signature**
1. Supervisor:	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	

Visitor Acknowledgement
Visitors review task hazards and acknowledge understanding
1.
2.
3.
4.
5.
6.
7.
8.
9.
10.

Submit a new THA for addition to the DCSA THA Library or send THA improvement suggestions to DCSA.THA.Library@AECOM.com
Include a copy of the new THA or a photo of the THA modifications as appropriate.

Task Hazard Assessment – DCSA

AECOM Imagine it. Delivered.

Task Name:	**Biological**	**Control #:**	Error! Reference source not found.

Project Name:	**Carrier – Syracuse, NY**	**Client:**	Carrier	**Date:**	7/19/2023
Permits Required? (list):	None	**Work Location:**	Carrier – Syracuse, NY		

This THA must be fully reviewed with all staff members. All job steps, hazards, work practices, and PPE are clearly understood and have been implemented. All necessary revisions have been written on the THA.

Required PPE:	☐ Hard Hat ☒ Safety Glasses ☒ HiVis Vest ☒ Safety Toe Boots ☒ Gloves: _____ ☐ Hearing Protection ☐ Other: _____
Tools & Equipment:	

REMINDER: Use 4-Sight at the start of, and continuously throughout the job/task to identify additional and/or hazards to act on!

Job Steps *List all steps required to perform a task in the sequence they are performed*	**Potential Hazards** *How could you be hurt? What would the injury be?*	**Risk** *(initial)*	**Critical Actions To Mitigate Hazards** *List control measures required to eliminate, control or protect against the potential hazards associated with each job step to minimize the risk of injury or environmental impact.* ***Identify any 'Stop Work' triggers.***	**Risk** *(final)*
1. Working in grass areas	1a. Biological Hazards 1b. Feral & wild animals	4	1a. There are several different types of biological hazards that can be encountered on the work site. These include ticks, spiders, mosquitoes, chiggers, poisonous plants. Consult S3AM-313-PR1 to determine the biological hazards that may be present and the mitigation measures for each. 1b. Do not attempt to pick up, handle or otherwise handle stray or wild animals such as dogs, cats, raccoons, squirrels, etc, no matter how tame they may appear.	2 2
On-Site Edits:				
2.	2a.		2a.	
On-Site Edits:				

Task Hazard Assessment – DCSA

AECOM Imagine it. Delivered.

Task Name:	**Biological**	**Control #:**	Error! Reference source not found.

REMINDER: Use 4-Sight at the start of, and continuously throughout the job/task to identify additional and/or hazards to act on!				
Job Steps *List all steps required to perform a task in the sequence they are performed*	**Potential Hazards** *How could you be hurt? What would the injury be?*	**Risk** *(initial)*	**Critical Actions To Mitigate Hazards** *List control measures required to eliminate, control or protect against the potential hazards associated with each job step to minimize the risk of injury or environmental impact.* ***Identify any 'Stop Work' triggers.***	**Risk** *(final)*
3.	3a.		3a.	
On-Site Edits:				
4.	4a.		4a.	
On-Site Edits:				
5.	5a.		5a.	
On-Site Edits:				
6.	6a.		6a.	
On-Site Edits:				
7.	7a.		7a.	

Task Hazard Assessment – DCSA

Task Name:	Biological	Control #:	Error! Reference source not found.

REMINDER: Use 4-Sight at the start of, and continuously throughout the job/task to identify additional and/or hazards to act on!					
	Job Steps *List all steps required to perform a task in the sequence they are performed*	**Potential Hazards** *How could you be hurt? What would the injury be?*	**Risk** *(initial)*	**Critical Actions To Mitigate Hazards** *List control measures required to eliminate, control or protect against the potential hazards associated with each job step to minimize the risk of injury or environmental impact.* ***Identify any 'Stop Work' triggers.***	**Risk** *(final)*
On-Site Edits:					

Additional Notes:

Task Hazard Assessment – DCSA

AECOM Imagine it. Delivered.

Task Name:	Biological	Control #:	Error! Reference source not found.

All Employees:

STOP WORK if uncertain about safety or if a hazard or additional precaution is not recorded on the THA.

Be alert, recognize and communicate any changes in scope, personnel or conditions at the worksite to the supervisor.

Use **4-Sight**, AECOM's last minute risk assessment process continuously throughout the day by asking yourself and your co-workers to assess your task, hazards, and mitigations. Amend the THA when needed.

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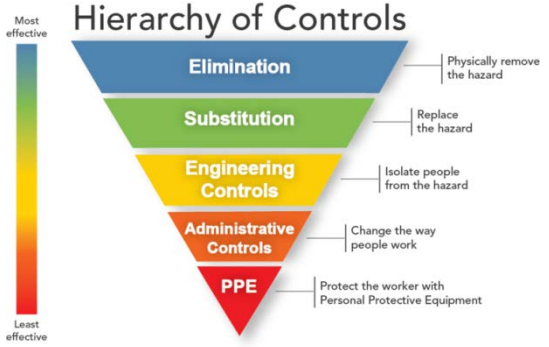
- ***What can go wrong?***
- ***What can be done to make it safer?***
- ***What have I done to communicate the hazards?***

For a more thorough identification of hazards, ask "What else could go wrong?" using the Hazard Categories



- ***Most hazards need more than one control***
- ***What should you do? Stack your controls***
- ***PPE can NEVER be your only means of protection***

Worker Sign On	
I participated in the on-site review and fully understand the content of this Task Hazard Assessment.	
Printed Name	**Signature**
1. Supervisor:	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	

Visitor Acknowledgement
Visitors review task hazards and acknowledge understanding
1.
2.
3.
4.
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7.
8.
9.
10.

Submit a new THA for addition to the DCSA THA Library or send THA improvement suggestions to DCSA.THA.Library@AECOM.com

Task Hazard Assessment – DCSA

Task Name:	Biological	Control #:	Error! Reference source not found.

Include a copy of the new THA or a photo of the THA modifications as appropriate.

Attachment D

Applicable AECOM SHE Procedures

Attachment D: Applicable AECOM SHE Procedures

Review the list below, check the boxes for hazards or activities planned as part of this project, and attach the applicable procedures, as needed for use in the field. All AECOM SH&E Procedures, in their controlled copy version, are available on the internal SH&E Policy and Procedures Ecosystem page.

Programmatic procedures referenced in this document (for example SH&E Training) DO NOT need to be printed for inclusion in this HASP. Only procedures that are needed for field activity reference and application MUST be printed in full and included in this section.

	Hazard/ Activity (Note: Text in this column links to procedure)	Applicable Procedure		Hazard / Activity (Note: Text in this column links to procedure)	Applicable Procedure
☐	Abrasive Blasting	S3AM-335-PR1	☐	Highway and Road Work	S3AM-306-PR1
☐	Aerial Work Platforms	S3AM-323-PR1	☐	Hoists Elevators and Conveyors	S3AM-343-PR1
☐	All-Terrain Vehicles	S3AM-319-PR1	☐	Hot Work	S3AM-332-PR1
☐	Blasting and Explosives	S3AM-336-PR1	☐	Ladders	S3AM-312-PR1
☐	Bloodborne Pathogens	S3AM-111-PR1	☐	Lockout Tagout	S3AM-325-PR1
☐	Cofferdams	S3AM-344-PR1	☐	Machine Guarding Safe Work Practice	S3AM-326-PR1
X ☐	Cold Stress	S3AM-112-PR1	☐	Marine Safety and Vessel Operations	S3AM-333-PR1
☐	Compressed Air Systems & Testing	S3AM-337-PR1	☐	Material Storage	S3AM-316-PR1
☐	Compressed Gases	S3AM-114-PR1	☐	Mine Site Activities	S3AM-341-PR1
☐	Concrete Work	S3AM-338-PR1	☐	Mining Operations	S3AM-345-PR1
☐	Confined Spaces	S3AM-301-PR1	☐	Non Ionizing Radiation	S3AM-121-PR1
☐	Corrosive Reactive Materials	S3AM-125-PR1	☐	Overhead Lines	S3AM-322-PR1
☐	Cranes and Lifting Devices	S3AM-310-PR1	☐	Powder-Actuated Tools	S3AM-327-PR1
☐	Demolition	S3AM-339-PR1	☐	Powered Industrial Trucks	S3AM-324-PR1
☐	Diving (scientific and commercial)	S3AM-334-PR1	☐	Radiation	S3AM-120-PR1
☐	Drilling, Boring & Direct Push Probing	S3AM-321-PR1	☐	Railroad Safety	S3AM-329-PR1
☐	Electrical Safety	S3AM-302-PR1	☐	Respiratory Protection	S3AM-123-PR1
☐	Excavation	S3AM-303-PR1	☐	Scaffolding	S3AM-311-PR1
☐	Fall Protection	S3AM-304-PR1	☐	Steel Erection	S3AM-340-PR1
☐	Flammable and Combustible Liquids	S3AM-126-PR1	☐	Temp. Floors, Stairs, Railings, Toe-boards	S3AM-342-PR1
☐	Gauge Source Radiation	S3AM-122-PR1	☐	Underground Utilities	S3AM-331-PR1
☐	Hand and Power Tools	S3AM-305-PR1	☐	Underground Work	S3AM-330-PR1
☐	Hazardous Waste Operations	S3AM-117-PR1	☒	Wildlife, Plants and Insects	S3AM-313-PR1
☒	Heat Stress	S3AM-113-PR1	☐	Working Alone	S3AM-314-PR1
☐	Heavy Equipment	S3AM-309-PR1	☐	Working On and Near Water	S3AM-315-PR1

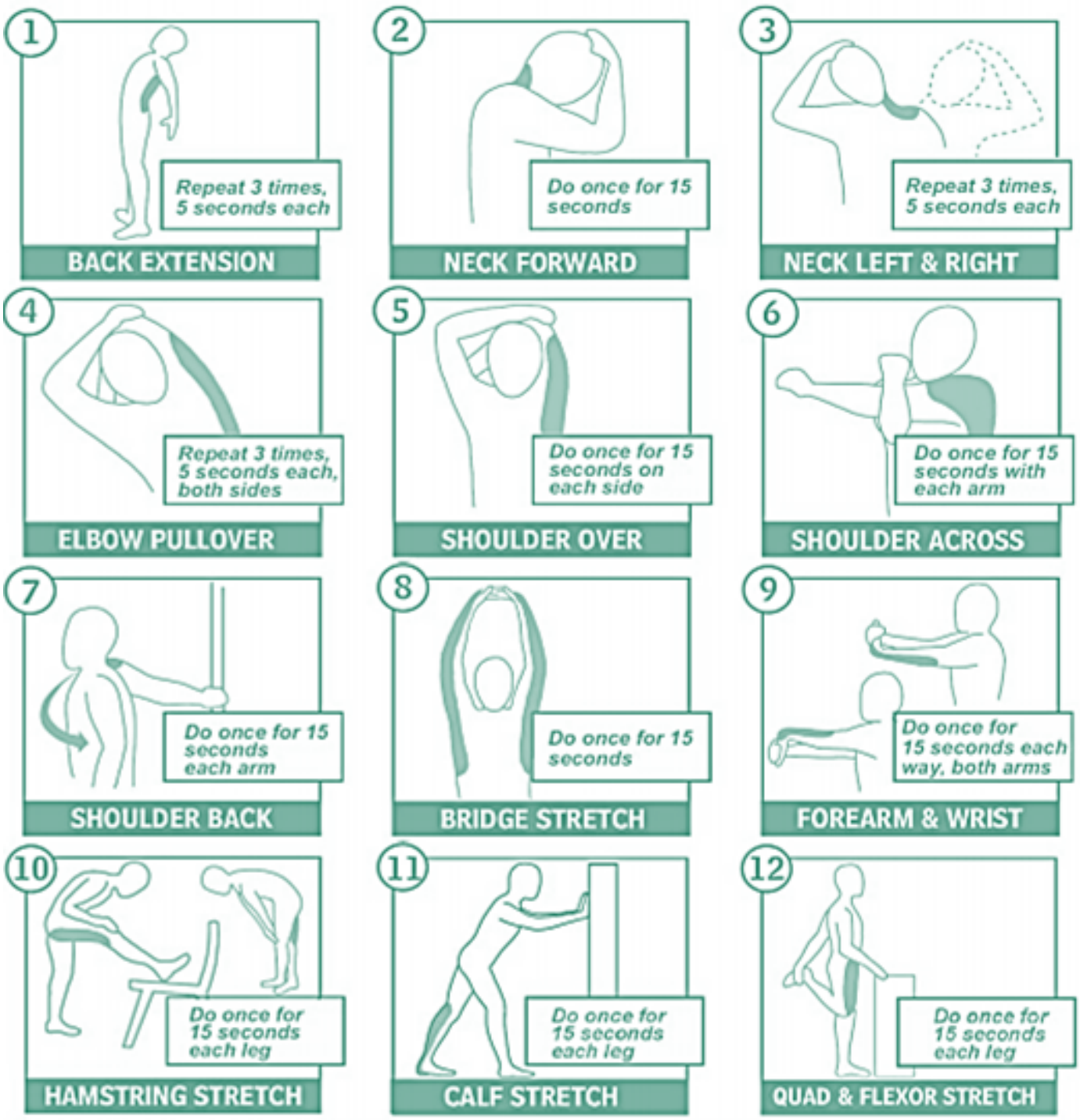
☐	**High Altitude**	S3AM-124-PR1

Attachment E

Stretch/Flex Poster

Attachment E: Stretch/Flex Poster

Examples of Stretches



Attachment F

Site Safety Orientation

Attachment F: Site Safety Orientation

AECOM will conduct a site safety briefing for a person's initial visit to the site. The briefing will be conducted:

- Prior to the start of work;
- For any new AECOM or subconsultant personnel;
- For Site Visitors; and
- At each mobilization, or whenever there is a change in task or significant change in task location.

All personnel working on the project who have received the site briefing (including the SWP review) will sign the Personal Acknowledgement located in **Section 18**. Visitors may receive a shortened version to address the hazards specific to their visit.

The following topics, at minimum, will be discussed during the site safety briefing:

- Contents of this SWP;
- The Emergency Response Plan (Table 7-1);
- Contractor SHE Management expectations;
- Injury management, including notification and hospital and occupational clinic locations;
- The AECOM 4-Sight program;
- Stop Work authority;
- The THAs (**Attachment C**) for the activities that will be performed on a given job;
- Types of hazards at the site and means for minimizing exposure to them;
- Instructions for new operations to be conducted, and safe work practices;
- PPE that must be used;
- Lone worker check-in procedures;
- Emergency evacuation routes, muster points, and tornado/storm shelters; and
- Location and use of emergency equipment.
- **These briefings must be documented and maintained in the project files.**

Attachment G

Safety Data Sheets

Attachment G: Safety Data Sheets

.....Alconox

SPI Supplies Division
Structure Probe, Inc.
P.O. Box 656 West Chester, PA 19381-0656 USA
Phone: *1-(610)-436-5400* ***Fax:*** *1-(610)-436-5755*
E-mail: *spi3spi@2spi.com*
WWW: http://www.2spi.com
Manufacturer's CAGE: 1P573

Material Safety Data Sheet

SPI #01200-AB and #01200A-AB Alconox® Powdered Detergent

Section 1: Identification


```
Date Effective..........  November 14, 2005
                          (most recent revision)

Chemical Name/Synonyms...  On Label:  Alconox®

Chemical Family.........  Anionic powdered detergent

Emergencies
Contacting CHEMTREC:

24 Hour Emergency Use Only #'s...
Worldwide phone: 1-(703)-527-3887
Worldwide FAX:   1-(703)-741-6090
Toll-free phone: 1-(800)-424-9300 USA only

Product or Trade Name....  SPI #01200-AB and #01200A-AB
                           Alconox® Powdered Detergent

CAS #...................  Not applicable

Chemical Formula.........  Not applicable
```

Section 2 Composition

Component Name	CAS #	OSHA	OSHA	ACGIH	ACGIH

No hazardous ingredients in Alconox Powdered Detergent as defined by the OSHA Standard and Hazardous Substance List 29 CFR 1910 Subpart Z.

Hazardous Material Information System USA	**Health**	**0**	**National Fire Protection Association USA**	
	Fire Hazard	**0**		
	Reactivity	**0**		
	Personal Protection			

NFPA (National Fire Protection Association) Rating (Scale 0-4):
HEALTH=0 FLAMMABILITY=0 REACTIVITY=0 OTHER=0 Not known

Section 3: Hazard Identification

Routes of entry
    Inhalation? Yes
    Skin? No
    Ingestion? Yes

Health Hazards (Acute and chronic):
    Inhalation of powder may prove locally irritating to mucous membranes. Ingestion may cause discomfort and/or diarrhea. Eye contact may prove irritating.

Carcinogenicity:
    NTP? No
    IARC Monographs? No
    OSHA Regulated? No

Section 4: First Aid Measures

Signs and Symptoms of Exposure:
    Exposure may irritate mucous membranes. May cause sneezing.

Medical conditions generally aggravated by exposure:
    Not established. Unnecessary exposure to this product or any industrial chemical should be avoided. Respiratory conditions may be aggravated by powder if air borne.

Emergency and First Aid Procedures:

Eyes: Immediately flush eyes with copious amounts of water for minimum 15 minutes. Call physician.

Skin: Flush with plenty of water.

Ingestion: Drink large quantities of water or milk. Do not induce vomiting. If vomiting occurs re-administer fluids. See a physician for discomfort.

Section 5: Fire Fighting Measures

NFPA Rating: Not known

Extinguishing Media

Suitable/Not suitable:

SMALL FIRE: Use DRY chemical powder, water, foam, carbon dioxide

LARGE FIRE: Use extinguishing media suitable for the surrounding materials.

Special firefighting procedures:
Self-contained positive pressure breathing apparatus and protective clothing should be worn when fighting fires involving chemicals.

Unusual Fire/Explosion Hazards: None

Hazardous thermal decomposition products: None known.

Protection of fire fighters: No special measures are required.

Flammable Limits:
LEL: No data
UEL: No data

Section 6: Accidental Release Measures

Personal precautions: No special precautions

Environmental Precautions and Clean Up Methods:
Material foams profusely. Recover as much as possible and flush remainder to sewer. Material is biodegradable.

Section 7: Handling and Storage

Material should be stored in a dry area to prevent caking.

Section 8: Exposure Controls and Personal Protection

Engineering controls: Normal ventilation is normally required when handling or using this product. Avoid conditions that could produce dusting.

Personal Protective Equipment

Respiratory system: Dust mask recommended but not required.

Skin and body: Laboratory coat recommended but not required.

Hands: Impervious gloves recommended

Eyes: Goggles are recommended, especially when handling solutions irrespective of what they might be.

Other: Wash hands before eating, drinking, or smoking.

Section 9: Physical and Chemical Properties

Physical State and Appearance: White powder interspersed with cream colored flakes.

Odor: None

Boiling Point: Not applicable

Melting Point: Not applicable

Density (water = 1): Not applicable

Solubility: Appreciable, to 10% at ambient conditions.

Octanol/water partition coefficient: Not available

pH: Not known

Flash Point: None

Flammability: Non-flammable

Autoignition temperature: Not applicable

Section 10: Stability and Reactivity

Chemical Stability: The product is stable

Hazardous polymerization: Will not occur

Conditions to Avoid: None

Hazardous Products of Deposition: May release CO_2 on burning.

Reactions with Air and Water:
Does not react with air, water or other common materials.

Section 11: Toxicological Information

Summary: Not considered to be toxic to humans or animals.

Skin Effects: Can be locally irritating

Eye Irritation: Can be irritating to the eyes

Inhalation: Dust can be irritating to mucous membranes

Sensitization: Not known

Chronic toxicity: There is no known effect from the chronic exposure to this product.

Section 12: Ecological Information

Exotoxicity: Not know but it is expected to be low because the material is biodegradable.

Environmental Fate: It is biodegradable.

Bioaccumulation: Not expected to occur (because the material is biodegradable).

Section 13: Disposal Considerations

This material is NOT classified as a hazardous material by RCRA. Use only licensed transporters and permitted disposal facilities and conform to all laws.

Recycle to process, if possible.

Germany water class: VCI WGK: No products were found.

Methods of disposal; waste of residues; contaminated packaging:

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14: Transport Information

Proper Shipping Name: Non-Regulated, No dangerous cargo

DOT Hazard Class: Non-Regulated, No dangerous cargo

UN/NA ID: Non-Regulated, No dangerous cargo

Packing Group: Not Applicable

Labels: Not Regulated

Marine Pollutant: No

NAER Guidebook: Not Regulated

DOT Status: Not Regulated

Land-Road/Railway:
ADR/RID Class: No dangerous cargo

Sea:
IMDG Class: No dangerous cargo

Air:
IATA-DGR Class: No dangerous cargo

Section 15: Regulatory Information

TSCA: All components of this product are listed on the TSCA 8(b) inventory. If identified components of this product are listed under the TSCA 12(b) Export Notification Rule, they will be listed below.

TSCA 12(b) Component	Listed under TSCA Section

SARA Title 3: Section 313 Information/Emissions Reporting (**40 CFR 372**):

Component	Reporting Threshold

SARA-Section 311/312:

No components present in this product are subject to the reporting requirements of this statute.

CERCLA Hazardous Substances and their Reportable Quantities:

Component	Reportable Quantity

EU Regulations: Risk Phrases: This product is not classified according to the EU regulations.

Safety Phrases: Not applicable

Contains: Not applicable

California Prop. 65:
Proposition 65 requires manufacturers or distributors of consumer products into the State of California to provide a warning statement if the product contains ingredients for which the State has found to cause cancer, birth defects or other reproductive harm. If this product contains an ingredient listed by the State of California to cause cancer or reproductive toxicity, it will be listed below:

None found

Section 16: Other Information

Disclaimer of Liability:

Caution! Do not use SPI Supplies products or materials in applications involving implantation within the body; direct or indirect contact with the blood pathway; contact with bone, tissue, tissue fluid, or blood; or prolonged contact with mucous membranes. Products offered by SPI Supplies are not designed or manufactured for use in implantation in the human body or in contact with internal body fluids or tissues. SPI Supplies will not provide to customers making devices for such applications any notice, certification, or information necessary for such medical device use required by US FDA (Food and Drug Administration) regulation or any other statute. SPI Supplies and Structure Probe, Inc. make no representation, promise, express warranty or implied warranty concerning the suitability of these materials for use in implantation in the human body or in contact with internal body tissues of fluids.

****

The information and recommendations set forth above are taken from sources believed to be accurate as of the date hereof, however SPI Supplies and Structure Probe, Inc. make no warranty with respect to the accuracy of the information or the suitability of the recommendations, and assume no liability to any user thereof. The information contained in this sheet does not constitute a hazard assessment and should not be used in place of the user's own assessment of work place risks as required by other health and safety legislation. Be aware of the Structure Probe, Inc. Copyright Policy. Structure Probe, Inc. grants a nonexclusive license to make unlimited copies of this safety sheet for internal use only. Quite obviously, this information would pertain only to this material when purchased from SPI Supplies as product from other sources, with other ingredients and impurity levels could have substantially different properties.

Thursday February 22, 2007

Worldwide Distributors, Representatives, and Agents

…..Isobutylene Calibration Gas

MATERIAL SAFETY DATA SHEET

Prepared to U.S. OSHA, CMA, ANSI and Canadian WHMIS Standards

PART I *What is the material and what do I need to know in an emergency?*

1. PRODUCT IDENTIFICATION

CHEMICAL NAME; CLASS: **NON-FLAMMABLE GAS MIXTURE**

- Document Number: 002103

PRODUCT USE: For general analytical/synthetic chemical uses.

SUPPLIER/MANUFACTURER'S NAME: AIRGAS INC.

ADDRESS: 259 North Radnor-Chester Road
Suite 100
Radnor, PA 19087-5283

BUSINESS PHONE: 1-610-687-5253

EMERGENCY PHONE: 1-800-949-7937

International: 1-423-479-0293

DATE OF PREPARATION: April 22, 2001

2. COMPOSITION and INFORMATION ON INGREDIENTS

CHEMICAL NAME	CAS #	mole %	EXPOSURE LIMITS IN AIR					
			ACGIH		OSHA		NIOSH	OTHER
			TLV ppm	STEL ppm	PEL ppm	STEL ppm	IDLH ppm	ppm
Isobutylene	115-11-7	1 ppm - 1.7%	There are no specific exposure limits for Isobutylene. Isobutylene is a simple asphyxiant (SA). Oxygen levels should be maintained above 19.5%.					
Air	25635-88-5	Balance	There are no specific exposure limits applicable to Air.					
Air is a mixture of gases. The primary components of air, and the approximate concentration of each component, are listed below								
Nitrogen	7727-37-9	79%	There are no specific exposure limits for Nitrogen. Nitrogen is a simple asphyxiant (SA). Oxygen levels should be maintained above 19.5%.					
Oxygen	7782-44-7	21%	There are no specific exposure limits for Oxygen					

NE = Not Established. See Section 16 for Definitions of Terms Used.

NOTE (1): ALL WHMIS required information is included in appropriate sections based on the ANSI Z400.1-1998 format. This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

3. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW: This product is a colorless, odorless, non-flammable gas. The main health hazards associated with releases of this gas are related to the high pressure within the cylinder. Air, the main component of this product, is generally considered non-flammable, however, Air will support combustion. The flammable component of this gas mixture is below the LEL. A cylinder rupture hazard exists when this product, which is under pressure, is subjected to heat or flames. Emergency responders must wear personal protective equipment appropriate for the situation to which they are responding.

SYMPTOMS OF OVER-EXPOSURE BY ROUTE OF EXPOSURE: The most significant route of over-exposure for air is by inhalation at elevated or reduced pressure.

INHALATION: This product is non-toxic. Air, the main component of this product, is necessary for life.

OTHER POTENTIAL HEALTH EFFECTS: Contact with rapidly expanding gases (which are released under high pressure) may cause frostbite. Symptoms of frostbite include change in skin color to white or grayish-yellow. The pain after contact with liquid can quickly subside.

HEALTH EFFECTS OR RISKS FROM EXPOSURE: An Explanation in **Lay Terms**. Over-exposure to this product may cause the following health effects:

ACUTE: The most significant hazards associated with compressed air is the pressure hazard. Contact with rapidly expanding gases (which are released under high pressure) may cause frostbite. Symptoms of frostbite include change in skin color to white or grayish-yellow. The pain after contact with liquid can quickly subside.

CHRONIC: There are currently no known adverse health effects associated with chronic exposure to this gas.

TARGET ORGANS: ACUTE: Respiratory system under ambient low pressure conditions. Central nervous system under ambient high pressure conditions. CHRONIC: None expected.

PART II *What should I do if a hazardous situation occurs?*

4. FIRST-AID MEASURES

RESCUERS SHOULD NOT ATTEMPT TO RETRIEVE VICTIMS OF EXPOSURE TO THIS PRODUCT WITHOUT ADEQUATE PERSONAL PROTECTIVE EQUIPMENT. At a minimum, Self-Contained Breathing Apparatus equipment should be worn.

Victim(s) must be taken for medical attention. Rescuers should be taken for medical attention, if necessary. Take copy of label and MSDS to physician or other health professional with victim(s). Remove victim(s) to fresh air, as quickly as possible. In case of eye contact which leads to irritation, immediately flush eyes with copious amounts of water for at least 15 minutes. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Only trained personnel should administer supplemental oxygen.

In case of frostbite, place the frostbitten part in warm water. DO NOT USE HOT WATER. If warm water is not available, or is impractical to use, wrap the affected parts gently in blankets. Alternatively, if the fingers or hands are frostbitten, place the affected area in the armpit. Encourage victim to gently exercise the affected part while being warmed. Seek immediate medical attention.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Acute or chronic respiratory conditions, as well as disorders involving the “Target Organs”, as listed in Section 3 (Hazard Information), may be aggravated by overexposure to the components of this product.
RECOMMENDATIONS TO PHYSICIANS: Administer oxygen as soon as possible, following exposure.

5. FIRE-FIGHTING MEASURES

FLASH POINT: Not applicable.
AUTOIGNITION TEMPERATURE: Not applicable.
FLAMMABLE LIMITS (in air by volume, %):
Lower (LEL): Not applicable.
Upper (UEL): Not applicable.

5. FIRE-FIGHTING MEASURES (Continued)

FIRE EXTINGUISHING MATERIALS: Non-flammable gas. Use extinguishing media appropriate for surrounding fire.
UNUSUAL FIRE AND EXPLOSION HAZARDS: When involved in a fire, this material may decompose and produce toxic gases including carbon monoxide and carbon dioxide. Additionally, when involved in fire, the cylinders may rupture.
Explosion Sensitivity to Mechanical Impact: Not Sensitive.
Explosion Sensitivity to Static Discharge: Not Sensitive.
SPECIAL FIRE-FIGHTING PROCEDURES: Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. Move fire-exposed cylinders from area, if it can be done without risk to fire-fighters. Withdraw immediately in case of rising sounds from venting pressure relief devices or any discoloration of tanks or cylinders due to a fire.

6. ACCIDENTAL RELEASE MEASURES

SPILL AND LEAK RESPONSE: Uncontrolled releases should be responded to by trained personnel using pre-planned procedures. Proper protective equipment should be used. In case of a release, clear the affected area, protect people, and respond with trained personnel. Minimum Personal Protective Equipment should be **Level D: safety glasses, and mechanically-resistant gloves. Level B, which includes the use of Self-Contained Breathing Apparatus, should be worn when oxygen levels are below 19.5% or are unknown.** Locate and seal the source of the leaking gas. If this does not stop the release (or if it is not possible to reach the valve), allow the gas to release in place or remove it to a safe area and allow the gas to be released there.

PART III *How can I prevent hazardous situations from occurring?*

7. HANDLING and STORAGE

WORK PRACTICES AND HYGIENE PRACTICES: Do not eat or drink while handling chemicals.
STORAGE AND HANDLING PRACTICES: Cylinders should be stored in dry, well-ventilated areas away from sources of heat. Compressed gases can present significant safety hazards. Store containers away from heavily trafficked areas and emergency exits.
SPECIAL PRECAUTIONS FOR HANDLING GAS CYLINDERS: Protect cylinders against physical damage. Store in cool, dry, well-ventilated, fireproof area, away from flammable or combustible materials and corrosive atmospheres. Store away from heat and ignition sources and out of direct sunlight. Do not store near elevators, corridors or loading docks. Do not allow area where cylinders are stored to exceed 52°C (125°F). Isolate from incompatible materials including flammable materials (see Section 10, Stability and Reactivity), which can burn violently. Use only storage containers and equipment (pipes, valves, fittings to relieve

pressure, etc.) designed for the storage of Air. Do not store containers where they can come into contact with moisture. Cylinders should be stored upright and be firmly secured to prevent falling or being knocked over. Cylinders can be stored in the open, but in such cases, should be protected against extremes of weather and from the dampness of the ground to prevent rusting. Never tamper with pressure relief devices in valves and cylinders. The following rules are applicable to situations in which cylinders are being used:

Before Use: Move cylinders with a suitable hand-truck. Do not drag, slide or roll cylinders. Do not drop cylinders or permit them to strike each other. Secure cylinders firmly. Leave the valve protection cap in-place until cylinder is ready for use.

During Use: Use designated CGA fittings and other support equipment. Do not use adapters. Do not heat cylinder by any means to increase the discharge rate of the product from the cylinder. Use check valve or trap in discharge line to prevent hazardous backflow into the cylinder. Do not use oils or grease on gas-handling fittings or equipment.

After Use: Close main cylinder valve. Replace valve protection cap. Mark empty cylinders "EMPTY".

NOTE: Use only DOT or ASME code containers. Earth-ground and bond all lines and equipment associated with this product. Close valve after each use and when empty. Cylinders must not be recharged except by or with the consent of owner. For additional information refer to the Compressed Gas Association Pamphlet P-1, *Safe Handling of Compressed Gases in Containers*. Additionally, refer to CGA Bulletin SB-2 "*Oxygen Deficient Atmospheres*".

7. HANDLING and STORAGE (Continued)

PROTECTIVE PRACTICES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT: Follow practices indicated in Section 6 (Accidental Release Measures). Make certain application equipment is locked and tagged out safely. Purge gas handling equipment with inert gas (i.e. nitrogen) before attempting repairs. Always use product in areas where adequate ventilation is provided.

8. EXPOSURE CONTROLS - PERSONAL PROTECTION

VENTILATION AND ENGINEERING CONTROLS: Use with adequate ventilation.

RESPIRATORY PROTECTION: Maintain Oxygen levels above 19.5% in the workplace. If respiratory protection is needed, use only protection authorized in the U.S. Federal OSHA Standard (29 CFR 1910.134), applicable U.S. State regulations, or the Canadian CSA Standard Z94.4-93 and applicable standards of Canadian Provinces. Oxygen levels below 19.5% are considered IDLH by OSHA. In such atmospheres, use of a full facepiece pressure/demand SCBA or a full facepiece, supplied air respirator with auxiliary self-contained air supply is required under OSHA's Respiratory Protection Standard (1910.134-1998).

EYE PROTECTION: Splash goggles, face-shields or safety glasses. If necessary, refer to U.S. OSHA 29 CFR 1910.133, or Canadian Standards.

HAND PROTECTION: Wear mechanically-resistant gloves when handling cylinders of this product. If necessary, refer to U.S. OSHA 29 CFR 1910.138 or appropriate Standards of Canada.

BODY PROTECTION: Use body protection appropriate for task. If a hazard of injury to the feet exists due to falling objects, rolling objects, where objects may pierce the soles of the feet or where employee's feet may be exposed to electrical hazards, use foot protection, as described in U.S. OSHA 29 CFR.

9. PHYSICAL and CHEMICAL PROPERTIES

The following information is for **Air**, the main component of this product , unless otherwise stated:

RELATIVE VAPOR DENSITY: 1 EVAPORATION RATE (nBuAc = 1): Not applicable.

SPECIFIC GRAVITY: Not applicable. FREEZING POINT: -216.2°C (-357.2°F)

SOLUBILITY IN WATER: 1.49% (v/v) BOILING POINT @ 1 atmos: -194.3°C(-317.8°F)

VAPOR PRESSURE, mmHg @ 20°C:. pH: Not applicable.

EXPANSION RATIO: Not applicable. VAPOR PRESSURE: Not applicable.

SPECIFIC VOLUME: 13.3 ft_3/lb; (0.833 m_3/kg) ODOR THRESHOLD: Not applicable.

COEFFICIENT WATER/OIL DISTRIBUTION: Not applicable.

The following information is pertinent to this gas mixture:

APPEARANCE, ODOR AND COLOR: This product is a colorless, odorless gas.

HOW TO DETECT THIS SUBSTANCE (warning properties): There are no distinctive properties to this product. In terms of leak detection, fittings and joints can be painted with a soap solution to detect leaks, which will be indicated by a bubble formation.

10. STABILITY and REACTIVITY

STABILITY: Normally stable.

DECOMPOSITION PRODUCTS: None known.

MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE. Air (the main component of this product) is not compatible with fuels, in that air will support combustion. The Isobutylene component of this mixture is incompatible with Strong oxidizers (e.g., chlorine, bromine pentafluoride, oxygen, oxygen difluoride, and nitrogen trifluoride).

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Contact with incompatible materials and exposure to heat, sparks and other sources of ignition. Cylinders exposed to high temperatures or direct flame can rupture or burst.

PART III *How can I prevent hazardous situations from occurring?*

11. TOXICOLOGICAL INFORMATION

TOXICITY DATA: The following toxicology data are for the components of this gas mixture present at a level greater than 1 mole %:

ISOBUTYLENE:

LC50 (Inhalation-Rat) 620 gm/m3/4 hours LC50 (Inhalation-Mouse) 415 gm/m3/2 hours

SUSPECTED CANCER AGENT: No component of this gas mixture is found on the following lists: FEDERAL OSHA Z LIST, NTP, CAL/OSHA, IARC, and therefore is not considered to be, nor suspected to be, cancer causing agents by these agencies.

IRRITANCY OF PRODUCT: Contact with rapidly expanding gases can cause frostbite and damage to exposed skin and eyes.

SENSITIZATION OF PRODUCT: No component of this product is a skin or respiratory sensitizer.

REPRODUCTIVE TOXICITY INFORMATION: Listed below is information concerning the effects of this product and its components on the human reproductive system.

Mutagenicity: This product is not reported to cause mutagenic effects in humans.

Embryotoxicity: This product is not reported to cause embryotoxic effects in humans.

Teratogenicity: This product is not reported to cause teratogenic effects in humans.

Reproductive Toxicity: This product is not reported to cause adverse reproductive effects in humans.

A mutagen is a chemical which causes permanent changes to genetic material (DNA) such that the changes will propagate through generation lines. An embryotoxin is a chemical which causes damage to a developing embryo (i.e. within the first eight weeks of pregnancy in humans), but the damage does not propagate across generational lines. A teratogen is a chemical which causes damage to a developing fetus, but the damage does not propagate across generational lines. A reproductive toxin is any substance which interferes in any way with
the reproductive process.
BIOLOGICAL EXPOSURE INDICES: Biological Exposure Indices (BEIs) have been determined for the components of this product are as follows:

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL STABILITY: This gas will be dissipated rapidly in well-ventilated areas.
EFFECT OF MATERIAL ON PLANTS or ANIMALS: No adverse effect is anticipated to occur to plant-life, except for frost produced in the presence of rapidly expanding gases.
EFFECT OF CHEMICAL ON AQUATIC LIFE: No evidence of an adverse effect of this product on aquatic life is currently available.

13. DISPOSAL CONSIDERATIONS

PREPARING WASTES FOR DISPOSAL: Product removed from cylinder must be disposed of in accordance with appropriate U.S. Federal, State and local regulations or with regulations of Canada and its Provinces. Return cylinders with residual product to Airgas, Inc. Do not dispose of locally.

14. TRANSPORTATION INFORMATION

THIS GAS MIXTURE IS HAZARDOUS AS DEFINED BY 49 CFR 172.101 BY THE U.S. DEPARTMENT OF TRANSPORTATION.

PROPER SHIPPING NAME: Compressed gases, n.o.s. (Air, Isobutylene)
HAZARD CLASS NUMBER and DESCRIPTION: 2.2 (Compressed Gas)
UN IDENTIFICATION NUMBER: UN 1956
PACKING GROUP: Not Applicable
DOT LABEL(S) REQUIRED: Compressed Gas
NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK NUMBER (2000): 126

TRANSPORT CANADA, TRANSPORTATION OF DANGEROUS GOODS REGULATIONS: This gas mixture is considered as dangerous goods, per regulations of Transport Canada. Use the above information for the preparation of Canadian Shipments.

15. REGULATORY INFORMATION

ADDITIONAL U.S. REGULATIONS:
U.S. SARA REPORTING REQUIREMENTS: The components of this gas mixture are not subject to the reporting requirements of Sections 302, 304 and 313 of Title III of the Superfund Amendments and Reauthorization Act.
U.S. SARA THRESHOLD PLANNING QUANTITY: There are no specific Threshold Planning Quantities for this material. The default Federal MSDS submission and inventory requirement filing threshold of 10,000 lb (4,540 kg) may apply, per 40 CFR 370.20.
U.S. CERCLA REPORTABLE QUANTITY (RQ): Not applicable.
U.S. TSCA INVENTORY STATUS: The components of this product are listed on the TSCA Inventory.
OTHER U.S. FEDERAL REGULATIONS: Not applicable.

U.S. STATE REGULATORY INFORMATION: The components of this gas mixture are covered under specific State regulations, as denoted below:

Alaska - Designated Toxic and Hazardous Substances: None.
California - Permissible Exposure Limits for Chemical Contaminants: None.
Florida - Substance List: Isobutylene. **Illinois - Toxic Substance List:** None.
Kansas - Section 302/313 List: None.
Minnesota - List of Hazardous Substances: Isobutylene.
Massachusetts - Substance List: None.
Missouri - Employer Information/Toxic Substance List: None.
New Jersey - Right to Know Hazardous Substance List: Isobutylene.
North Dakota - List of Hazardous Chemicals, Reportable Quantities: None.
Pennsylvania - Hazardous Substance List: Isobutylene.
Rhode Island - Hazardous Substance List: None.
Texas - Hazardous Substance List: None.
West Virginia - Hazardous Substance List: None.
Wisconsin - Toxic and Hazardous Substances: None.

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65): No component of this product is on the California Proposition 65 Lists.

LABELING: **CAUTION:** HIGH PRESSURE GAS.
MAY ACCELERATE COMBUSTION.
Keep oil and grease away.
Use equipment rated for cylinder pressure.
Close valve after each use and when empty.
Use in accordance with the Material Safety Data Sheet.

FIRST-AID: **IF INHALED**, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.
IN CASE OF FROSTBITE, obtain immediate medial attention.
DO NOT REMOVE THIS PRODUCT LABEL.

ADDITIONAL CANADIAN REGULATIONS:
CANADIAN DSL INVENTORY: The components of this product are listed on the DSL Inventory.
OTHER CANADIAN REGULATIONS: Not applicable.
CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS: The components of this product are not on the CEPA Priorities Substances Lists.
CANADIAN WHMIS SYMBOLS: **Class A:** Compressed Gases

16. OTHER INFORMATION

PREPARED BY: CHEMICAL SAFETY ASSOCIATES, Inc.
9163 Chesapeake Drive, San Diego, CA 92123-1002
858/565-0302

DEFINITIONS OF TERMS

A large number of abbreviations and acronyms appear on a MSDS. Some of these which are commonly used include the following:

CAS #: This is the Chemical Abstract Service Number which uniquely identifies each constituent.

EXPOSURE LIMITS IN AIR:

ACGIH - American Conference of Governmental Industrial Hygienists, a professional association which establishes exposure limits. **TLV -** Threshold Limit Value - an airborne concentration of a substance which represents conditions under which it is generally believed that nearly all workers may be repeatedly exposed without adverse effect. The duration must be considered, including the 8-hour Time Weighted Average **(TWA)**, the 15-minute Short Term Exposure Limit, and the instantaneous Ceiling Level **(C)**. Skin absorption effects must also be considered.

OSHA - U.S. Occupational Safety and Health Administration. **PEL -** Permissible Exposure Limit - This exposure value means exactly the same as a TLV, except that it is enforceable by OSHA. The OSHA Permissible Exposure Limits are based in the 1989 PELs and the June, 1993 Air Contaminants Rule (Federal Register: 58: 35338-35351 and 58: 40191). Both the current PELs and the vacated PELs are indicated. The phrase, “Vacated 1989 PEL,” is placed next to the PEL which was vacated by Court Order.

IDLH - Immediately Dangerous to Life and Health **-** This level represents a concentration from which one can escape within 30- minutes without suffering escape-preventing or permanent injury. **The DFG - MAK** is the Republic of Germany’s Maximum Exposure Level, similar to the U.S. PEL. **NIOSH** is the National Institute of Occupational Safety and Health, which is the research arm of the U.S. **O**ccupational **S**afety and **H**ealth **A**dministration (**OSHA**). NIOSH issues exposure guidelines called **R**ecommended **E**xposure **L**evels (**REL**s). When no exposure guidelines are established, an entry of **NE** is made for reference.

HAZARD RATINGS:

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM: Health Hazard: **0** (minimal acute or chronic exposure hazard); **1** (slight acute or chronic exposure hazard); **2** (moderate acute or significant chronic exposure hazard); **3** (severe acute exposure hazard; onetime overexposure can result in permanent injury and may be fatal); **4** (extreme acute exposure hazard; onetime overexposure can be fatal). Flammability Hazard: **0** (minimal hazard); **1** (materials that require substantial pre-heating before burning); **2** (combustible liquid or solids; liquids with a flash point of 38-93 [100-200 F]); **3** (Class IB and IC flammable liquids with flash points below 38 [100 F]); **4** (Class IA flammable liquids with flash points below 23 [73 F] and boiling points below 38 [100 F]). Reactivity Hazard: **0** (normally stable); **1** (material that can become unstable at elevated temperatures or which can react slightly with water); **2** (materials that are unstable but do not detonate or which can react violently with water); **3** (materials that can detonate when initiated or which can

react explosively with water); **4** (materials that can detonate at normal temperatures or pressures). **PERSONAL PROTECTIVE EQUIPMENT CODES: B:** Gloves and goggles; **C:** Gloves, goggles, rubber apron (appropriate body protection); **D:** Gloves, goggles, faceshield; rubber apron (appropriate body protection);. **X:** Special attention should be given to PPE Selection.

NATIONAL FIRE PROTECTION ASSOCIATION: Health Hazard: **0** (material that on exposure under fire conditions would offer no hazard beyond that of ordinary combustible materials); **1** (materials that on exposure under fire conditions could cause irritation or minor residual injury); **2** (materials that on intense or continued exposure under fire conditions could cause temporary incapacitation or possible residual injury); **3** (materials that can on short exposure could cause serious temporary or residual injury); **4** (materials that under very short exposure could cause death or major residual injury). Flammability Hazard and Reactivity Hazard: Refer to definitions for “Hazardous Materials Identification System”.

FLAMMABILITY LIMITS IN AIR:
Much of the information related to fire and explosion is derived from the National Fire Protection Association (**NFPA**). Flash Point – Minimum temperature at which a liquid gives off sufficient vapors to form an ignitable mixture with air. Autoignition Temperature: The minimum temperature required to initiate combustion in air with no other source of ignition. LEL - the lowest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source. UEL – the highest percent of vapor in air, by volume, that will explode or ignite in the presence of an ignition source.

TOXICOLOGICAL INFORMATION:
Possible health hazards as derived from human data, animal studies, or from the results of studies with similar compounds are presented. Definitions of some terms used in this section are: **LD50** - Lethal Dose (solids & liquids) which kills 50% of the exposed animals; **LC50** – Lethal Concentration (gases) which kills 50% of the exposed animals; **ppm** concentration expressed in parts of material per million parts of air or water; **mg/m3** concentration expressed in weight of substance per volume of air; **mg/kg** quantity of material, by weight, administered to a test subject, based on their body weight in kg. Data from several sources are used to evaluate the cancer-causing potential of the material. The sources are: **IARC** - the International Agency for Research on Cancer; **NTP** - the National Toxicology Program, **RTECS** - the Registry of Toxic Effects of Chemical Substances, **OSHA** and **CAL/OSHA**. IARC and NTP rate chemicals on a scale of decreasing potential to cause human cancer with rankings from 1 to 4. Subrankings (2A, 2B, etc.) are also used. Other measures of toxicity include **TDLo**, the lowest dose to cause a symptom and **TCLo** the lowest concentration to cause a symptom; **TDo**, **LDLo**, and **LDo**, or **TC**, **TCo**, **LCLo**, and **LCo**, the lowest dose (or concentration) to cause lethal or toxic effects. **BEI** - Biological Exposure Indices, represent the levels of determinants which are most likely to be observed in specimens collected from a healthy worker who has been exposed to chemicals to the same extent as a worker with inhalation exposure to the TLV. Ecological Information: EC is the effect concentration in water.

REGULATORY INFORMATION:
This section explains the impact of various laws and regulations on the material. **EPA** is the U.S. Environmental Protection Agency. **WHMIS** is the Canadian Workplace Hazardous Materials Information System. **DOT** and **TC** are the U.S. Department of Transportation and the Transport Canada, respectively. Superfund Amendments and Reauthorization Act **(SARA)**; the Canadian Domestic/Non-Domestic Substances List **(DSL/NDSL)**; the U.S. Toxic Substance Control Act **(TSCA)**; Marine Pollutant status according to the **DOT**; the Comprehensive Environmental Response, Compensation, and Liability Act **(CERCLA or Superfund)**; and various state regulations.

Material Safety Data Sheet

Methyl Alcohol

ACC# 14280

Section 1 - Chemical Product and Company Identification

MSDS Name: Methyl Alcohol
Catalog Numbers: S75959, S75965, S75965A, S75965HPLC, S75965SPEC, A142RS200, A33F-1GAL, A408 1, A408 4, A408-1, A408-4, A4081, A4084, A408SK 4, A408SK-4, A408SK4, A411 20, A411 4, A411-20, A411-4, A41120, A4114, A412 1, A412 20, A412 20 001, A412 200, A412 4, A412 500, A412-1, A412-20, A412-200, A412-4, A412-500, A41200LC, A4121, A41220, A41220 001, A412200, A41220001, A41220003, A41220005, A412200LC, A41220LC, A4124, A4124LC, A412500, A412500002, A412500LC, A412CU1300, A412FB115, A412FB19, A412FB200, A412FB50, A412J500, A412LC, A412P 4, A412P-4, A412P4, A412P4LC, A412RB115, A412RB19, A412RB200, A412RB50, A412RS115, A412RS200, A412RS28, A412RS50, A412SK 4, A412SK-4, A412SK4, A412SS 115, A412SS-11, A412SS-115, A412SS-20, A412SS-200, A412SS-30, A412SS-50, A412SS115, A412SS50, A413-20, A413-4, A413-500, A413200, A4134, A413500, A433P 4, A433P-4, A433P4, A433S 20, A433S 200, A433S 4, A433S-20, A433S-200, A433S-4, A433S20, A433S200, A433S20001, A433S4, A434 20, A434-20, A43420, A450 4, A450-4, A4504, A4504LOT011, A4504LOT012, A452 1, A452 4, A452 SS115, A452-1, A452-4, A4521, A4524, A4524LC, A452J1, A452RS19, A452RS200, A452RS28, A452RS50, A452SK 1, A452SK 4, A452SK-1, A452SK-4, A452SK1, A452SK4, A452SS 200, A452SS 50, A452SS-11, A452SS-115, A452SS-20, A452SS-200, A452SS-30, A452SS-50, A452SS115, A452SS200, A452SS28, A452SS50, A453 1, A453 500, A453 500 001, A453 500 002, A453 500 003, A453-500, A4531, A4531LC, A4531LOT001, A453500, A453500 001, A453500 002, A453500 003, A453500 004, A453500001, A453500002, A453500003, A453500004, A453500005, A453J1, A454 1, A454 4, A454 SS115, A454 SS30, A454 SS50, A454-1, A454-4, A4541, A4541LC, A4544, A4544LC, A4544LOT012, A4544LOT014, A45450%SS-115, A454RS115, A454RS19, A454RS200, A454RS28, A454RS50, A454SS 200, A454SS115, A454SS200, A454SS28, A454SS30, A454SS50, A457 4, A4574, A497RS28, A52RS28, A52RS50, A54RS115, A54RS200, A54RS28, A54RS50, A935 4, A935-4, A9354, A935RB200, A936-1, A936-4, A947 4, A947-4, A9474, A9474LC, A9474LOT002, A947RS115, A947RS200, A947RS28, A947SS115, A947SS200, A947SS28, A947SS50, BP1105 1, BP1105 4, BP1105-1, BP1105-4, BP11051, BP11054, BP1105SS115, BP1105SS200, BP1105SS28, BP1105SS50, BP2618100, BPA947RS-115, BPA947RS-200, BPA947RS-28, FLA412RS-115, FLA412RS-200, FLA412RS-28, FLA412RS-50, FLA452RS-115, FLA452RS-28, FLA452RS-50, FLA454RS-115, FLA454RS-200, FLA454RS-28, FLA454RS-50, HC 400 1GAL, HC400 1GAL, HC4001GAL, IEAA453500A, NC9475554, NC9500047, NC9548094, NC9633361, NC9766429, NC9780216, SC95 1, SC951, SW2 1, SW21, TIA9474, TIA947P200, TIA947P200L, XXA45220LI
Synonyms: Carbinol; Methanol; Methyl hydroxide; Monohydroxymethane; Pyroxylic spirit; Wood alcohol; Wood naptha; Wood spirit; Monohydroxymethane; Methyl hydrate
Company Identification:

Fisher Scientific
1 Reagent Lane
Fair Lawn, NJ 07410

For information, call: 201-796-7100

Emergency Number: 201-796-7100
For CHEMTREC assistance, call: 800-424-9300
For International CHEMTREC assistance, call: 703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
67-56-1	Methyl alcohol	>99.0	200-659-6

Hazard Symbols: T F
Risk Phrases: 11 23/24/25 39/23/24/25

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: clear, colorless. Flash Point: 12 deg C. **Danger! Flammable liquid and vapor.** Causes respiratory tract irritation. Harmful if inhaled. This substance has caused adverse reproductive and fetal effects in animals. May cause central nervous system depression. May be absorbed through the skin. Poison! Cannot be made non-poisonous. Causes eye and skin irritation. May be fatal or cause blindness if swallowed. May cause digestive tract irritation with nausea, vomiting, and diarrhea. May cause liver, kidney and heart damage.
Target Organs: Kidneys, heart, central nervous system, liver, eyes.

Potential Health Effects

Eye: Produces irritation, characterized by a burning sensation, redness, tearing, inflammation, and possible corneal injury. May cause painful sensitization to light.
Skin: Causes moderate skin irritation. May be absorbed through the skin in harmful amounts. Prolonged and/or repeated contact may cause defatting of the skin and dermatitis.
Ingestion: May be fatal or cause blindness if swallowed. May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause systemic toxicity with acidosis. May cause central nervous system depression, characterized by excitement, followed by headache, dizziness, drowsiness, and nausea. Advanced stages may cause collapse, unconsciousness, coma and possible death due to respiratory failure. May cause cardiopulmonary system effects.
Inhalation: Harmful if inhaled. May cause adverse central nervous system effects including headache, convulsions, and possible death. May cause visual impairment and possible permanent blindness. Causes irritation of the mucous membrane.
Chronic: Prolonged or repeated skin contact may cause dermatitis. Chronic inhalation and ingestion may cause effects similar to those of acute inhalation and ingestion. Chronic exposure may cause reproductive disorders and teratogenic effects. Laboratory experiments have resulted in mutagenic effects. Prolonged exposure may cause liver, kidney, and heart damage.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.
Skin: Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists. Wash clothing before reuse.
Ingestion: If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately. Induce vomiting by giving one teaspoon of Syrup of Ipecac.
Inhalation: Get medical aid immediately. Remove from exposure to fresh air immediately. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth respiration. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.
Notes to Physician: Effects may be delayed. Ethanol may inhibit methanol metabolism.

Section 5 - Firefighting Measures

General Information: Containers can build up pressure if exposed to heat and/or fire. As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Water runoff can cause environmental damage. Dike and collect water used to fight fire. Vapors can travel to a source of ignition and flash back. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Flammable Liquid. Can release vapors that form explosive mixtures at temperatures above the flashpoint. Use water spray to keep fire-exposed containers cool. Water may be ineffective. Material is lighter than water and a fire may be spread by the use of water. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas. May be ignited by heat, sparks, and flame.
Extinguishing Media: For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam. Use water spray to cool fire-exposed containers. Water may be ineffective. For large fires, use water spray, fog or alcohol-resistant foam. Do NOT use straight streams of water.

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks: Scoop up with a nonsparking tool, then place into a suitable container for disposal. Use water spray to disperse the gas/vapor. Remove all sources of ignition. Absorb spill using an absorbent, non-combustible material such as earth, sand, or vermiculite. Do not use combustible materials such as saw dust. Provide ventilation. A vapor suppressing foam may be used to reduce vapors. Water spray may reduce vapor but may not prevent ignition in closed spaces.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Ground and bond containers when transferring material. Do not breathe dust, vapor, mist, or gas. Do not get in eyes, on skin, or on clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Avoid contact with heat, sparks and flame. Do not ingest or inhale. Use only in a chemical fume hood. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.
Storage: Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a cool, dry, well-ventilated area away from incompatible substances. Flammables-area. Keep containers tightly closed. Do not store in aluminum or lead containers.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits. Use only under a chemical fume hood.
Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Methyl alcohol	200 ppm; 250 ppm STEL; skin - potential for cutaneous absorption	200 ppm TWA; 260 mg/m3 TWA 6000 ppm IDLH	200 ppm TWA; 260 mg/m3 TWA

OSHA Vacated PELs: Methyl alcohol: 200 ppm TWA; 260 mg/m3 TWA
Personal Protective Equipment
Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
Skin: Wear appropriate protective gloves to prevent skin exposure.
Clothing: Wear appropriate protective clothing to prevent skin exposure.
Respirators: A respiratory protection program that meets OSHA's 29 CFR §1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

Section 9 - Physical and Chemical Properties

Physical State: Liquid
Appearance: clear, colorless
Odor: alcohol-like - weak odor
pH: Not available.
Vapor Pressure: 128 mm Hg @ 20 deg C
Vapor Density: 1.11 (Air=1)
Evaporation Rate:5.2 (Ether=1)
Viscosity: 0.55 cP 20 deg

Boiling Point: 64.7 deg C @ 760.00mm Hg
Freezing/Melting Point:-98 deg C
Decomposition Temperature: Not available.
Autoignition Temperature: 455 deg C (851.00 deg F)
Flash Point: 12 deg C (53.60 deg F)
NFPA Rating: (estimated) Health: 1; Flammability: 3; Reactivity: 0
Explosion Limits, Lower:7.30 vol %
Upper: 36.00 vol %
Solubility: miscible
Specific Gravity/Density:.7910g/cm3
Molecular Formula:CH4O
Molecular Weight:32.04

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.
Conditions to Avoid: High temperatures, incompatible materials, ignition sources, oxidizers.
Incompatibilities with Other Materials: Acids (mineral, non-oxidizing, e.g. hydrochloric acid, hydrofluoric acid, muriatic acid, phosphoric acid), acids (mineral, oxidizing, e.g. chromic acid, hypochlorous acid, nitric acid, sulfuric acid), acids (organic, e.g. acetic acid, benzoic acid, formic acid, methanoic acid, oxalic acid), azo, diazo, and hydrazines (e.g. dimethyl hydrazine, hydrazine, methyl hydrazine), isocyanates (e.g. methyl isocyanate), nitrides (e.g. potassium nitride, sodium nitride), peroxides and hydroperoxides (organic, e.g. acetyl peroxide, benzoyl peroxide, butyl peroxide, methyl ethyl ketone peroxide), epoxides (e.g. butyl glycidyl ether), Oxidants (such as barium perchlorate, bromine, chlorine, hydrogen peroxide, lead perchlorate, perchloric acid, sodium hypochlorite)., Active metals (such as potassium and magnesium)., acetyl bromide, alkyl aluminum salts, beryllium dihydride, carbontetrachloride, carbon tetrachloride + metals, chloroform + heat, chloroform + sodium hydroxide, cyanuric chloride, diethyl zinc, nitric acid, potassium-tert-butoxide, chloroform + hydroxide, water reactive substances (e.g. acetic anyhdride, alkyl aluminum chloride, calcium carbide, ethyl dichlorosilane).
Hazardous Decomposition Products: Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide, formaldehyde.
Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

RTECS#:
CAS# 67-56-1 unlisted.
LD50/LC50:
CAS# 67-56-1:
Draize test, rabbit, eye: 40 mg Moderate;
Draize test, rabbit, eye: 100 mg/24H Moderate;
Draize test, rabbit, skin: 20 mg/24H Moderate;
Inhalation, rat: LC50 = 64000 ppm/4H;
Oral, mouse: LD50 = 7300 mg/kg;
Oral, rabbit: LD50 = 14200 mg/kg;
Oral, rat: LD50 = 5628 mg/kg;
Skin, rabbit: LD50 = 15800 mg/kg;<BR.

Carcinogenicity:
CAS# 67-56-1: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.
Epidemiology: Methanol has been shown to produce fetotoxicity in the embr yo or fetus of laboratory animals. Specific developmenta l abnormalities include cardiovascular, musculoskeletal, and urogenital systems.
Teratogenicity: Effects on Newborn: Behaviorial, Oral, rat: TDLo=7500 mg/kg (female 17-19 days after conception). Effects on Embryo or Fetus: Fetotoxicity, Inhalation, rat: TCLo=10000 ppm/7H (female 7-15 days after conception). Specific Developmental Abnormalities: Cardiovascular, Musculoskeletal, Urogenital, Inhalation, rat: TCLo=20000 ppm/7H (7-14 days after conception).
Reproductive Effects: Paternal Effects: Spermatogenesis: Intraperitoneal, mouse TDLo=5 g/kg (male 5 days pre-mating). Fertility: Oral, rat: TDLo = 35295 mg/kg (female 1-15 days after conception). Paternal Effects: Testes, Epididymis, Sperm duct: Oral, rat: TDLo = 200 ppm/20H (male 78 weeks pre-mating).
Neurotoxicity: No information available.
Mutagenicity: DNA inhibition: Human Lymphocyte = 300 mmol/L. DNA damage: Oral, rat = 10 umol/kg. Mutation in microorganisms: Mouse Lymphocyte = 7900 mg/L. Cytogenetic analysis: Oral, mouse = 1 gm/kg.
Other Studies: Standard Draize Test(Skin, rabbit) = 20 mg/24H (Moderate) S tandard Draize Test: Administration into the eye (rabbit) = 40 mg (Moderate). Standard Draize test: Administration int o the eye (rabbit) = 100 mg/24H (Moderate).

Section 12 - Ecological Information

Ecotoxicity: Not available.
Environmental Fate: Dangerous to aquatic life in high concentrations. Aquatic toxicity rating: TLm 96>1000 ppm. May be dangerous if it enters water intakes. Methyl alcohol is expected to biodegrade in soil and water very rapidly. This product will show high soil mobility and will be degraded from the ambient atmosphere by the reaction with photochemically produced hyroxyl radicals with an estimated half-life of 17.8 days. Bioconcentration factor for fish (golden ide) < 10. Based on a log Kow of -0.77, the BCF value for methanol can be estimated to be 0.2.
Physical/Chemical: No information available.
Other: None.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.
RCRA P-Series: None listed.
RCRA U-Series: CAS# 67-56-1: waste number U154; (Ignitable waste).

Section 14 - Transport Information

	US DOT	IATA	RID/ADR	IMO	Canada TDG

Shipping Name:	METHANOL				METHANOL
Hazard Class:	3				3(6.1)
UN Number:	UN1230				UN1230
Packing Group:	II				II
Additional Info:					FLASHPOINT 11 C

Section 15 - Regulatory Information

US FEDERAL

TSCA
CAS# 67-56-1 is listed on the TSCA inventory.
Health & Safety Reporting List
None of the chemicals are on the Health & Safety Reporting List.
Chemical Test Rules
None of the chemicals in this product are under a Chemical Test Rule.
Section 12b
None of the chemicals are listed under TSCA Section 12b.
TSCA Significant New Use Rule
None of the chemicals in this material have a SNUR under TSCA.
SARA

Section 302 (RQ)
CAS# 67-56-1: final RQ = 5000 pounds (2270 kg)
Section 302 (TPQ)
None of the chemicals in this product have a TPQ.
SARA Codes
CAS # 67-56-1: acute, flammable.
Section 313
This material contains Methyl alcohol (CAS# 67-56-1, 99 0%),which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.
Clean Air Act:
CAS# 67-56-1 is listed as a hazardous air pollutant (HAP). This material does not contain any Class 1 Ozone depletors. This material does not contain any Class 2 Ozone depletors.
Clean Water Act:
None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.
OSHA:
None of the chemicals in this product are considered highly hazardous by OSHA.
STATE
CAS# 67-56-1 can be found on the following state right to know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.
California No Significant Risk Level: None of the chemicals in this product are listed.

European / International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:
T F
Risk Phrases:
R 11 Highly flammable. R 23/24/25 Toxic by inhalation, in contact with skin and if swallowed. R 39/23/24/25 Toxic : danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.
Safety Phrases:
S 16 Keep away from sources of ignition - No smoking. S 36/37 Wear suitable protective clothing and gloves. S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). S 7 Keep container tightly closed.
WGK (Water Danger/Protection)
CAS# 67-56-1: 1
Canada
CAS# 67-56-1 is listed on Canada's DSL/NDSL List.
This product has a WHMIS classification of B2, D1A, D2A.
CAS# 67-56-1 is listed on Canada's Ingredient Disclosure List.
Exposure Limits
CAS# 67-56-1: OEL-ARAB Republic of Egypt:TWA 200 ppm (260 mg/m3);Ski
n OEL-AUSTRALIA:TWA 200 ppm (260 mg/m3);STEL 250 ppm;Skin OEL-BELGIU
M:TWA 200 ppm (262 mg/m3);STEL 250 ppm;Skin OEL-CZECHOSLOVAKIA:TWA 10
0 mg/m3;STEL 500 mg/m3 OEL-DENMARK:TWA 200 ppm (260 mg/m3);Skin OEL-
FINLAND:TWA 200 ppm (260 mg/m3);STEL 250 ppm;Skin OEL-FRANCE:TWA 200
ppm (260 mg/m3);STEL 1000 ppm (1300 mg/m3) OEL-GERMANY:TWA 200 ppm (2
60 mg/m3);Skin OEL-HUNGARY:TWA 50 mg/m3;STEL 100 mg/m3;Skin JAN9 OEL
-JAPAN:TWA 200 ppm (260 mg/m3);Skin OEL-THE NETHERLANDS:TWA 200 ppm (
260 mg/m3);Skin OEL-THE PHILIPPINES:TWA 200 ppm (260 mg/m3) OEL-POLA
ND:TWA 100 mg/m3 OEL-RUSSIA:TWA 200 ppm;STEL 5 mg/m3;Skin OEL-SWEDEN
:TWA 200 ppm (250 mg/m3);STEL 250 ppm (350 mg/m3);Skin OEL-SWITZERLAN
D:TWA 200 ppm (260 mg/m3);STEL 400 ppm;Skin OEL-THAILAND:TWA 200 ppm
(260 mg/m3) OEL-TURKEY:TWA 200 ppm (260 mg/m3) OEL-UNITED KINGDOM:TW
A 200 ppm (260 mg/m3);STEL 250 ppm;Skin OEL IN BULGARIA, COLOMBIA, JO
RDAN, KOREA check ACGIH TLV OEL IN NEW ZEALAND, SINGAPORE, VIETNAM ch
eck ACGI TLV

Section 16 - Additional Information

MSDS Creation Date: 7/21/1999
Revision #6 Date: 1/24/2001

Material Safety Data Sheet

Hydrochloric Acid, 0.1N Standard Solution

ACC# 95550

Section 1 - Chemical Product and Company Identification

MSDS Name: Hydrochloric Acid, 0.1N Standard Solution
Catalog Numbers: AC124200000, AC124200010
Synonyms: Muriatic acid; Anhydrous hydorchloric acid; Chlorohydric acid; Hydrochloride; Hydrogen chloride; Spirits of salt
Company Identification:

Acros Organics N.V.
One Reagent Lane
Fair Lawn, NJ 07410

For information in North America, call: 800-ACROS-01
For emergencies in the US, call CHEMTREC: 800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
7647-01-0	Hydrochloric Acid	<1.0	231-595-7
7732-18-5	Water	Balance	231-791-2

Hazard Symbols: C
Risk Phrases: 34

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: colorless liquid. **Danger!** Corrosive. Mutagen. May cause fetal effects based upon animal studies. Causes eye and skin burns. May cause severe respiratory tract irritation with possible burns. May cause severe digestive tract irritation with possible burns. Possible sensitizer.
Target Organs: Respiratory system, teeth, eyes, skin, circulatory system.

Potential Health Effects

Eye: May cause irreversible eye injury. Vapor or mist may cause irritation and severe burns. Contact with liquid is corrosive to the eyes and causes severe burns. May cause painful sensitization to light.
Skin: May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material. Contact with liquid is corrosive and causes severe burns and

ulceration.
Ingestion: May cause circulatory system failure. Causes severe digestive tract burns with abdominal pain, vomiting, and possible death. May cause corrosion and permanent tissue destruction of the esophagus and digestive tract.
Inhalation: May cause severe irritation of the respiratory tract with sore throat, coughing, shortness of breath and delayed lung edema. Causes chemical burns to the respiratory tract. Exposure to the mist and vapor may erode exposed teeth. Causes corrosive action on the mucous membranes.
Chronic: Prolonged or repeated skin contact may cause dermatitis. Repeated exposure may cause erosion of teeth. May cause fetal effects. Laboratory experiments have resulted in mutagenic effects. Prolonged exposure may cause conjunctivitis, photosensitization, and possible blindness.

Section 4 - First Aid Measures

Eyes: Get medical aid immediately. Do NOT allow victim to rub or keep eyes closed. Extensive irrigation is required (at least 30 minutes). SPEEDY ACTION IS CRITICAL!
Skin: Get medical aid immediately. Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Destroy contaminated shoes.
Ingestion: Do NOT induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately. Give milk of magnesia.
Inhalation: Get medical aid immediately. Remove from exposure to fresh air immediately. If breathing is difficult, give oxygen. DO NOT use mouth-to-mouth respiration. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.
Notes to Physician: Do Not use sodium bicarbonate in an attempt to neutralize the acid.
Antidote: Do Not use oils or ointments in eye.

Section 5 - Firefighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Water runoff can cause environmental damage. Dike and collect water used to fight fire. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Not flammable, but reacts with most metals to form flammable hydrogen gas. Use water spray to keep fire-exposed containers cool. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas. Reaction with water may generate much heat which will increase the concentration of fumes in the air. Containers may explode when heated.
Extinguishing Media: For large fires, use water spray, fog, or alcohol-resistant foam. Substance is nonflammable; use agent most appropriate to extinguish surrounding fire. Do NOT get water inside containers. Do NOT use straight streams of water. Most foams will react with the material and release corrosive/toxic gases. Cool containers with flooding quantities of water until well after fire is out. For small fires, use carbon dioxide (except for cyanides), dry chemical, dry sand, and alcohol-resistant foam.

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks: Large spills may be neutralized with dilute alkaline solutions of soda ash, or lime. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Remove all sources of ignition. Provide ventilation. Do not get water inside containers. A vapor suppressing foam may be used to reduce vapors. Cover with dry earth, dry sand, or other non-combustible material followed with plastic sheet to minimize spreading and contact with water.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use only in a well-ventilated area. Contents may develop pressure upon prolonged storage. Do not breathe dust, vapor, mist, or gas. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Do not ingest or inhale. Discard contaminated shoes. Use caution when opening. Keep from contact with moist air and steam.
Storage: Do not store in direct sunlight. Keep container closed when not in use. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Corrosives area. Do not store in metal containers. Do not store near flammable or oxidizing substances (especially nitric acid or chlorates).

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.
Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Hydrochloric Acid	C 5 ppm	50 ppm IDLH	C 5 ppm; C 7 mg/m3
Water	none listed	none listed	none listed

OSHA Vacated PELs: Hydrochloric Acid: No OSHA Vacated PELs are listed for this chemical. Water: No OSHA Vacated PELs are listed for this chemical.
Personal Protective Equipment
Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
Skin: Wear neoprene or polyvinyl chloride gloves to prevent exposure.
Clothing: Wear appropriate protective clothing to prevent skin exposure.
Respirators: A respiratory protection program that meets OSHA's 29 CFR §1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

Section 9 - Physical and Chemical Properties

Physical State: Clear liquid
Appearance: colorless liquid
Odor: strong, pungent
pH: 1.10 (0.1 N)
Vapor Pressure: 190225 mm Hg
Vapor Density: Not available.
Evaporation Rate: Not available.
Viscosity: Not available.
Boiling Point: Not available.
Freezing/Melting Point: Not available.
Decomposition Temperature: Not available.
Autoignition Temperature: Not applicable.
Flash Point: Not applicable.
NFPA Rating: Not published.
Explosion Limits, Lower: Not available.
Upper: Not available.
Solubility: soluble in water.
Specific Gravity/Density:1.0000g/cm3
Molecular Formula:HCl
Molecular Weight:36.45

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.
Conditions to Avoid: Mechanical shock, incompatible materials, metals, excess heat, exposure to moist air or water, bases.
Incompatibilities with Other Materials: Acetates, acetic anhydride, alcohols + hydrogen cyanide, 2-aminoethanol, ammonium hydroxide, calcium carbide, calcium phosphide, cesium acetylene carbide, cesium carbide, chlorosulfonic acid, 1,1-difluoroethylene, ethylene diamine, ethyleneimine, fluorine, lithium silicides, magnesium boride, mercuric sulfate, oleum, perchloric acid, potassium permanganate, beta-propiolactone, propylene oxide, rubidium acetylene carbide, rubidium carbide, silver perchlorate + carbon tetrachloride, sodium, sodium hydroxide, sulfuric acid, uranium phosphide, vinyl acetate, zinc, metal oxides, aluminum, amines, carbonates, iron, steel, copper alloys, copper, alkali metals, bases.
Hazardous Decomposition Products: Hydrogen chloride, chlorine, carbon monoxide, carbon dioxide, hydrogen gas.
Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#:
CAS# 7647-01-0: MW4025000
CAS# 7732-18-5: ZC0110000
LD50/LC50:
CAS# 7647-01-0:
Inhalation, mouse: LC50 =1108 ppm/1H;
Inhalation, rat: LC50 =3124 ppm/1H;

Oral, rabbit: LD50 = 900 mg/kg;<BR.

CAS# 7732-18-5:
Oral, rat: LD50 = >90 mL/kg;<BR.

Carcinogenicity:
CAS# 7647-01-0:
IARC: Group 3 carcinogen CAS# 7732-18-5: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.
Epidemiology: Experimental reproductive effects have been reported.
Teratogenicity: Embryo or Fetus: Stunted fetus, Inhalation, rat TCL0=450 mg/m3/1H Specific Developmental Abnormalities: homeostatis, ihl-rat TCL0=450 mg/m3/1H (female 1 days pre-mating).
Reproductive Effects: No information available.
Neurotoxicity: No information available.
Mutagenicity: Cytogenetic analysis: Hamster, lung = 30 mmol/L.; Cytogenetic analysis: Hamster, ovary = 8 mmol/L.
Other Studies: No data available.

Section 12 - Ecological Information

Ecotoxicity: Not available.
Environmental Fate: Rapidly hydrolyzes when exposed to water. Will exhibit extensive evaporation from soil surfaces. Upon transport through the soil, hydrochloric acid will dissolve some of the soil materials (especially those with carbonate bases) and the acid will neutralize to some degree.
Physical/Chemical: Not available.
Other: Not available.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.
RCRA P-Series: None listed.
RCRA U-Series: None listed.

Section 14 - Transport Information

	US DOT	IATA	RID/ADR	IMO	Canada TDG
Shipping Name:	HYDROCHLORIC ACID				HYDROCHLORIC ACID SOLUTION
Hazard Class:	8				8(9.2)
UN Number:	UN1789				UN1789
Packing Group:	II				II

Section 15 - Regulatory Information

US FEDERAL

TSCA
CAS# 7647-01-0 is listed on the TSCA inventory.
CAS# 7732-18-5 is listed on the TSCA inventory.
Health & Safety Reporting List
None of the chemicals are on the Health & Safety Reporting List.
Chemical Test Rules
None of the chemicals in this product are under a Chemical Test Rule.
Section 12b
None of the chemicals are listed under TSCA Section 12b.
TSCA Significant New Use Rule
None of the chemicals in this material have a SNUR under TSCA.
SARA

Section 302 (RQ)
CAS# 7647-01-0: final RQ = 5000 pounds (2270 kg)
Section 302 (TPQ)
CAS# 7647-01-0: TPQ = 500 pounds; RQ = 5000 pounds (does not meet toxi city criteria but because of high production volume and recognized tox icity is considered a chemical of concern)
SARA Codes
CAS # 7647-01-0: acute.
Section 313
This chemical is not at a high enough concentration to be reportable under Section 313. No chemicals are reportable under Section 313.
Clean Air Act:
CAS# 7647-01-0 is listed as a hazardous air pollutant (HAP). This material does not contain any Class 1 Ozone depletors. This material does not contain any Class 2 Ozone depletors.
Clean Water Act:
CAS# 7647-01-0 is listed as a Hazardous Substance under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.
OSHA:
CAS# 7647-01-0 is considered highly hazardous by OSHA.
STATE
CAS# 7647-01-0 can be found on the following state right to know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.
CAS# 7732-18-5 is not present on state lists from CA, PA, MN, MA, FL, or NJ.
California No Significant Risk Level: None of the chemicals in this product are listed.

European / International Regulations

European Labeling in Accordance with EC Directives
Hazard Symbols:
C
Risk Phrases:
R 34 Causes burns.
Safety Phrases:
S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection. S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where

possible). S 9 Keep container in a well-ventilated place.

WGK (Water Danger/Protection)

CAS# 7647-01-0: 1

CAS# 7732-18-5: No information available.

Canada

CAS# 7647-01-0 is listed on Canada's DSL/NDSL List.

CAS# 7732-18-5 is listed on Canada's DSL/NDSL List.

This product has a WHMIS classification of E, D2A.

CAS# 7647-01-0 is not listed on Canada's Ingredient Disclosure List.

CAS# 7732-18-5 is not listed on Canada's Ingredient Disclosure List.

Exposure Limits

CAS# 7647-01-0: OEL-AUSTRALIA:TWA 5 ppm (7 mg/m3) OEL-AUSTRIA:TWA 5 ppm (7 mg/m3) OEL-BELGIUM:STEL 5 ppm (7.7 mg/m3) OEL-DENMARK:STEL 5 ppm (7 mg/m3) OEL-FINLAND:STEL 5 ppm (7 mg/m3);Skin OEL-FRANCE:STEL 5 ppm (7.5 mg/m3) OEL-GERMANY:TWA 5 ppm (7 mg/m3) OEL-HUNGARY:STEL 5 mg/m3 OEL-JAPAN:STEL 5 ppm (7.5 mg/m3) OEL-THE NETHERLANDS:TWA 5 p pm (7 mg/m3) OEL-THE PHILIPPINES:TWA 5 ppm (7 mg/m3) OEL-POLAND:TWA 5 mg/m3 OEL-RUSSIA:STEL 5 ppm (5 mg/m3) OEL-SWEDEN:STEL 5 ppm (8 mg/ m3) OEL-SWITZERLAND:TWA 5 ppm (7.5 mg/m3);STEL 10 ppm (15 mg/m3) OEL -THAILAND:TWA 5 ppm (7 mg/m3) OEL-TURKEY:TWA 5 ppm (7 mg/m3) OEL-UNI TED KINGDOM:TWA 5 ppm (7 mg/m3);STEL 5 ppm (7 mg/m3) OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV OEL IN NEW ZEALAND, SINGAPOR E, VIETNAM check ACGI TLV

Section 16 - Additional Information

MSDS Creation Date: 4/14/1999

Revision #2 Date: 8/02/2000

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.

Attachment H

Work Plan/Client SH&E Requirements

Attachment H: Work Plan/Client SH&E Requirements

There is no Work Plan / Client SH&E Requirements for this plan.

Attachment I

Project Emergency Response Plan

Attachment I: Project Emergency Response Plan

Please complete the Project Emergency Response Plan, which can be found at the following location:

- https://myecosystem.aecom.com/ppf/forms/Forms/S3NA_010_FM2_A%20Short%20Visit%20ERP.dotm

Attachment I: Project Emergency Response Plan

Carrier Syracuse, NY

Emergency Response Plan

When required to operate under a client's Emergency Response Plan, this plan will be used in conjunction with the client plan. This is to ensure emergency response and notification processes meet the requirements of both the client and AECOM.

This plan is effective as of

July 18, 2023

SITE LOCATION
6304 Carrier Pkwy, East Syracuse, NY, 13057

MUSTER LOCATIONS	
Primary Muster Location	Gate 8 - South
Alternate Muster Location	Parking Lot R - North
Shelter-in-Place Location	--

ERP PHONE LIST

Site Emergency Response No.:

315 432-5060

Medical Transport	**AIR** **LAND** **WATER**	n/a – Site is not remote Ambulance n/a – Site is accessible by land		n/a 911 n/a
Fire	**East Syracuse Fire Station #2** **148 Sanders Creek Pkwy, East Syracuse, NY**		**EMERG.:** **NON-EMERG.:**	**911** 315 431-2660
Police	**Town of DeWitt Police Department** 5400 Butternut Dr, East Syracuse, NY 13057		**EMERG.:** **NON-EMERG.:**	**911** 315 449-3640
Hospital	**St. Joseph's Hospital** 301 Prospect Ave, Syracuse, NY 13203			315 448-5111

ERP PHONE LIST		
Clinic		
First Aid Provider(s)		
AECOM DCSA Incident Hotline **24 HOURS / DAY | 7 DAYS / WEEK**		**800-348-5046**
AECOM Occupational Nurse **24 HOURS / DAY | 7 DAYS / WEEK**		**512-419-5016**
Poison Control	American Association of Poison Control Ctrs.	800-222-1222
D&A Testing	AECOM Nurse AECOM D&A Program Administrator	512-419-5016

KEY PERSONNEL		
AECOM		
Emergency Response Coordinator **AECOM SITE SUPERVISOR**	Rob Murphy	716 923-1176
Local Office Resilience Coordinator (LRC)	N/A	
Project Manager	Peter Hollatz	630 918-9648
Alternate Project Manager	Jon Alberg	715 531-7010
Site Safety Officer (SSO)	Rob Murphy	716 923-1176
U.S. West SH&E Mgr. – ENV REM		
U.S. West SH&E Mgr. – ENV Lead	Scott Dietz	M: 240 344-5892
U.S. West SH&E Director		
CLIENT CONTACTS		
Project Manager	Don Sorbello – Carrier Corporation	315 525-4405
Alternate Project Manager		
INSERT SUBCONTRACTOR NAME		

KEY PERSONNEL		
INSERT SUBCONTRACTOR NAME		
INSERT SUBCONTRACTOR NAME		
INSERT SUBCONTRACTOR NAME		

UTILITY PROVIDERS & LOCATORS		
Cable/Telecommunications		
Electric		
Natural Gas		
Sewer		
Water		
Utility One-Call Service	Dig Safe	811
REGULATORY AGENCIES		
OSHA	Occupational Safety and Health Administration	800-321-6742
U.S. DOT	Dangerous Goods/Disaster Services	866-835-5322
U.S. EPA	National Response Center	800-424-8802
Local agency		

LOCATION OF EMERGENCY EQUIPMENT		
ITEM(S)	**ITEM DESCRIPTION**	**LOCATION(S)**
First Aid Kit(s)	ANSI Z308.1 Class A, Type III	■ AECOM Field Vehicle
Automated External Defibrillator(s)	Standard AED	■ n/a
Fire Extinguisher(s)	5 lb. ABC	■ AECOM Fleet Vehicle(s)
Spill Kit(s)	n/a	■ n/a
Thermal Protective Aids	Climate controlled vehicle	■ AECOM Field Vehicle(s)

EMERGENCY RESPONSE

Firefighting, medical treatment, rescue, or other emergency response activities should only be performed by properly equipped and trained emergency responders. AECOM recognizes that some of its personnel may have received training in first aid, cardiopulmonary resuscitation (CPR) and AED use, and may choose to perform these duties on injured personnel.

METHOD(S) OF ALARM:

In addition to verbal communication amongst the field team, the following methods of communicating or signaling an emergency will be used:

☒ Cell Phone	☒ Hand Signal	☐ Radio (Channel No. [Insert])		☐ Satellite Phone
☐ Host Facility Alarm (specify):		[Insert Description]	=	[Insert Meaning]
		[Insert Description]	=	[Insert Meaning]
		[Insert Description]	=	[Insert Meaning]
		[Insert Description]	=	[Insert Meaning]

REASONABLY CREDIBLE EMERGENCY SITUTATIONS

EVACUATION

1. If a situation requires an evacuation or emergency muster/assembly, the pre-determined alarm will be initiated.
2. All personnel (e.g., workers, contractors, visitors) of the area requiring evacuation or muster/assembly will immediately assemble at the designated Muster Point, Assembly Point or Shelter-in-Place as determined by the alarm or communication.
3. The Emergency Response Coordinator or designate will take action to account for all personnel, including visitors (i.e., head count, roll call).
4. The Emergency Response Coordinator or designate shall ensure the appropriate emergency response is activated.
5. Should it be determined that an individual is still within the hazard zone, establish whether a rescue can be safely attempted. Follow the 'Emergency Rescue Procedure' if properly trained and a rescue attempt will not put another individual in jeopardy.
6. Personnel shall await further instruction from the Emergency Response Coordinator or designate (e.g., all clear and re-entry or further evacuation)

SITE-SPECIFIC ADDITIONS:

7. Check with site security.

MEDICAL EMERGENCY

1. Stop the work activity.
2. Assess the cause of the injury to avoid injury to yourself (i.e. live wires, gases, hazardous materials).
3. Do not move the casualty unless they remain in danger.
4. First Aid Provider will designate an individual to call for medical assistance (e.g., ambulance, site medic).
5. First Aid Provider will designate an individual to retrieve the first aid kit and blankets.
6. Request assistance from other First Aid Providers as necessary. Administer first aid:
    a) Assess responsiveness: ask permission.
    b) Send for medical help.
    c) Place casualty/victim face up.
    d) Check Airway, Breathing and Circulation ABC's
    e) Control severe bleeding.
7. If CPR is deemed necessary:
    a) Begin chest compressions at a rate of at least 100 compressions per minute.
    b) CPR shall be continued until:
        i. until an AED is applied,
        ii. casualty begins to respond,
        iii. another first aid provider takes over,
        iv. medical help takes over, or
        v. physically unable to continue.
8. If the casualty begins to breathe on their own, place them in the recovery position, monitor and treat for shock as appropriate.
9. Individual in communication with the designated medical assistance shall attempt to answer any questions, stay on the line until information is verified and follow instruction.
10. Arrange for medical transport as needed. A designated individual should be positioned to direct medical transport to the casualty.
11. Personnel shall await further instruction from the Emergency Response Coordinator or designate (e.g., resume activity).

SITE-SPECIFIC ADDITIONS:

12. Check with site security.

FIRE

1. Alert others in the area of the fire.
2. Sound the alarm or ensure applicable notification system is initiated.
3. All personnel will vacate the building or site and proceed to the Muster Point. DO NOT use elevators.
4. If smoke and heat are strong stay low and close to the floor.
5. Emergency Response Coordinator or designate will confirm all personnel have exited.
6. If the fire can be contained, extinguish the fire with the correct type of extinguisher. Remember PASS:
    a) **P** – pull the pin.
    b) **A** – aim the hose at the base of the fire.
    c) **S** – squeeze the handle.
    d) **S** – sweep from side to side until the fire is out or the extinguisher is empty
7. If the fire cannot be contained or there is any concern of an extinguished fire reigniting, call the appropriate onsite or offsite emergency responder. Give directions to the location; stay on the line until information is verified.

8. The Emergency Response Coordinator or designate will take action to account for all personnel, including visitors (e.g., head count, roll call).
9. A designated individual should be positioned to direct the fire truck to the fire location.
10. Personnel shall await further instruction from the Emergency Response Coordinator or designate (e.g., all clear and re-entry or further evacuation).

SITE-SPECIFIC ADDITIONS:

11. Check with site security.

ELECTRICAL LIVE LINE CONTACT

1. All personnel shall evacuate to the designated muster point if safely able to do so.
2. Establish the danger zone: 33ft (10m) radius from anything in contact with the live line.
3. If contact was made while operating a vehicle or equipment, the operator shall, if feasible:
    a) Remain on the equipment or inside the cab. All other personnel must keep away from the machine and any other applicable connected or contacted components such as rope or load.
    b) Try, unaided and without anyone approaching the machine, to back off the equipment until it is well clear of the power line.
    c) If the machine cannot be self-propelled away or disentangled from the line, remain inside the machine until the electrical authorities de-energize the circuit and confirm that conditions are safe.
    d) If the cable or equipment appears to be welded to the line do not try to back the equipment off. This could cause the line to whip or snap.
4. If hazards are present, such as fire, that require the operator to leave the equipment or vehicle, the operator must jump to the ground, taking critical care to keep both feet together and not fall or touch the equipment or ground with any other body part.
5. To leave the danger zone the individual must ***Hydro Shuffle** or bunny hop with both feet leaving and making contact with the ground at the same time. Hopping shall be the secondary choice as the potential to fall is increased.
6. Notify Floor Marshall/Warden, Emergency Response Coordinator or designate. Contact electrical company.
7. Assess the scene. Lock out power supply if it is possible to do so safely. Identify potential hazards: fire, explosion, slack lines away from immediate area.
8. Take appropriate control measures to prevent further hazards if it is safe to do so.
9. Should it be determined that a worker is still within the hazard zone, establish whether a rescue can be safely attempted. Follow **Emergency Rescue Procedure** if a rescue attempt will not put another life in danger.
10. Ensure any piece of equipment that has sustained a live line contact is inspected and/or receives appropriate certifications as damage to bearings or structural integrity may have occurred.

SITE-SPECIFIC ADDITIONS:

11. Check with site security.

***Hydro Shuffle:** In order to avoid electrical shock, keep both feet tightly together. Shuffle, using short steps where the heel of one foot never moves beyond the toe of the other foot. Hopping with both feet together can also prevent shock as you leave the hazard area.

FLOODS/HEAVY RAIN

External:

1. Monitor conditions and escape routes.

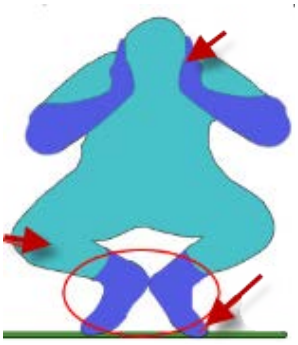
2. Monitor television, radio or other sources identified as reliable (i.e. social media, websites) for information, updates and evacuation orders.
3. Shut off electrical power and utilities if flooding is imminent.
4. Implement measures to minimize rain or flood damage if time permits (i.e. sandbags, clearing drainpipes, clearing culverts, confirm sump pump operation.
5. If ordered to evacuate, do so immediately as directed. Evacuation should be to higher ground and/or appropriate shelter — flood waters often raise rapidly.
6. Avoid walking through water covered areas as hazards may not be visible.
7. Watch for and avoid low-lying areas. Don't drive through flooded areas. If your vehicle stalls, abandon it immediately.
8. Don't attempt to cross a flowing stream, or to swim to safety.
9. Beware of wildlife displaced by floodwater.
10. Do not return unless Floor Marshall/Warden, Emergency Response Coordinator (or designate) or authorities permit.

SITE-SPECIFIC ADDITIONS:

11. Check with site security.

LIGHTNING

1. Lightning can strike several miles/kilometers from its source, so early precautions are crucial. If thunderstorms are in the forecast, reassess your plans for outdoor activities.
2. If you can hear thunder, then you are close enough to the storm to be at risk. Use the 30/30 Rule to help you. If you can count 30 seconds or less between seeing lightning and hearing thunder, you should seek shelter immediately. Take cover and lower elevated equipment (i.e. booms) if possible.
3. Seek shelter inside a house, large building or motor vehicle and keep windows and doors shut. Stand clear from windows, doors and electrical appliances and avoid contact with piping, including sinks and faucets.
4. Unplug equipment well before a storm nears - never during.
5. Avoid contact with metal and water. If boating, head for shore or, if the threat is immediate, crouch low in the boat.
6. If no shelter is readily available stay clear of high ground, open spaces, trees, sheds and small or open buildings. If in a flat open field:
    a) Crouch as low as possible but do not lie flat
    b) Only the balls of the feet contact the ground with heels together
    c) Bend forward with head down
    d) Cover ears with hands, elbows pointing down
    e) Maintain at least 17ft (5m) between personnel
7. Contact emergency services and First Aid Provider(s) if someone is struck by lightning.
8. Look for cardiopulmonary distress, broken bones, burns and entry and exit wounds when treating lightning-related injuries.
9. Look for entry and exit wounds.
10. Avoid contact with piping including sinks and faucets.
11. Check for and extinguish fires.
12. If power is lost, shut down equipment.



SITE-SPECIFIC ADDITIONS:

13. Check with site security.

PANDEMIC MANAGEMENT

If a pandemic condition exists or is imminent:

1. Local Resilience Coordinator (LRC) notifies Region Resilience Coordinator.
2. Utilize supplied infection control materials as applicable (i.e. disinfectant wipes, face masks)
3. All personnel shall monitor themselves for initial symptoms of disease
4. Report any personal suspected or confirmed cases of pandemic influenza to a supervisor (confidentiality will be maintained) who in turn will inform LRC.
5. Geography or Enterprise Resilience Team shall ensure appropriate administrative measures are in place (i.e. HR support, Communications)
6. Minimize group gatherings (employ web-based meetings, telephone conferencing) and eliminate travel
7. Human resources shall monitor illness rates.

SITE-SPECIFIC ADDITIONS:

8. Check with site security.

SEVERE WINTER STORMS

1. Monitor television, radio or other sources identified as reliable (i.e. social media, websites) for information, updates and road closures.
2. Move workers to the inside or the building, away from windows and doors.
3. Provide first aid medical services as needed.
4. Instruct all employees to keep warm and keep cell phones close.
5. Locate the emergency supplies, such as flashlights, water and medical supplies.
6. Assess hard to heat areas that contain equipment that could be negatively affected by freezing. If possible, drain any hoses or piping of liquid that could freeze causing damage.
7. If conditions deteriorate to the point of closure, ensure that employees know road conditions and that remaining on site may be the best decision.

SITE-SPECIFIC ADDITIONS:

8. Check with site security.

TORNADO

1. Monitor television, radio or other sources identified as reliable (i.e. social media, websites) for information, updates, and evacuation orders.
2. Go to a center stairwell or corridor of the building's lowest level possible. Move away from the perimeter of the building and exterior glass.
3. Close any exterior office doors.
4. Sit or kneel down to protect from a possible head injury.
5. Take shelter under a desk if there is no stairwell, basement, or other protected location.
6. Avoid seeking shelter in large open shop areas. Seek shelter in interior rooms, preferably with concrete surround. **AVOID TAKING SHELTER IN ANY TRAILER UNIT OR VEHICLE**.
7. Tornados generate considerable static electricity and can damage electrical lines, creating electrical shock hazards through telephone lines, therefore do not use "land-line" telephone systems until they are rendered safe.

8. If the facility is so equipped, listen for information and directions via Public Address System.
9. Follow the directions of the Floor Marshall/Warden, Emergency Response Coordinator (or designate) or Emergency Services personnel.
10. If outside, seek a safe place in a sturdy nearby building. As a last resort, take cover in a ditch or low-lying area away from trees; lie flat with hands covering head and neck.
11. If driving, pull over, exit vehicle, and take cover in a ditch away from the vehicle as described above OR if flying debris is encountered, stay in the vehicle, seatbelt on, and cover head with hands keeping head below closed windows.

SITE-SPECIFIC ADDITIONS:

12. Check with site security.

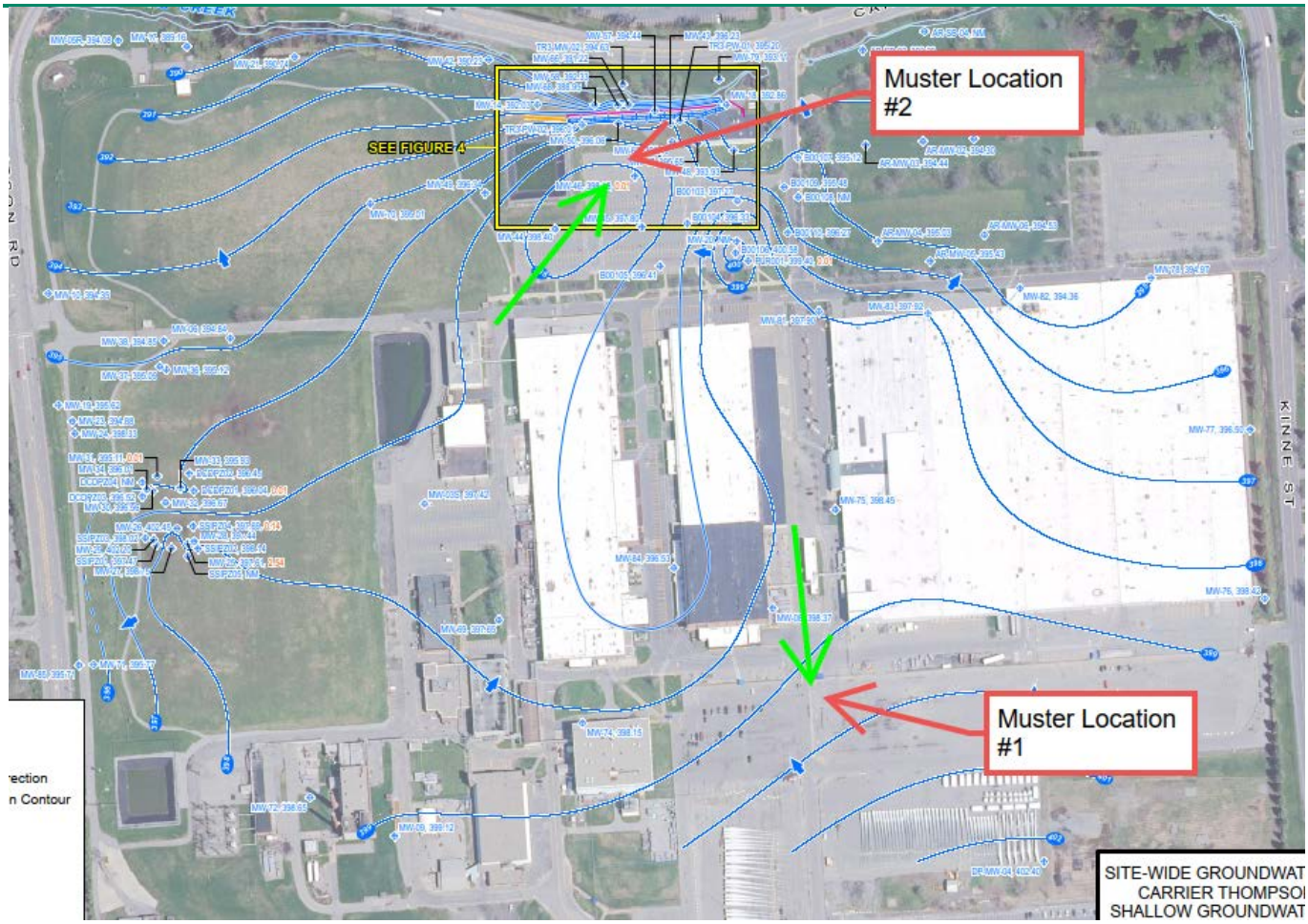
VEHICLE INCIDENT

1. In the event of a vehicle incident, pull over to the right shoulder of the road (if possible and safe to do so), stop and shut off the engine and turn on hazard lights if there are no fuel leaks.
2. Contact 911 or emergency response if medical attention is required.
3. Care for any injured individuals. Administer first aid, if trained, as outlined in 'Medical Emergency Procedure'.
4. Protect the scene from further mishap by placing reflective triangles or reflectors 100ft (30m) in front and rear of the collision. If the vehicle incident occurs at night, the reflectors must be placed 250ft (75m) from the vehicle(s).
5. In the event of a collision, ensure witness name, vehicle and insurance information and third-party information is collected.
6. Contact EMT Lead and Supervisor as soon as possible.
7. Do not admit liability or provide opinion.
8. Ensure all information reported to supervisor and local authorities is factual.

SITE-SPECIFIC ADDITIONS:

9. Check with site security.

MUSTER POINTS AND EVACUATION ROUTE MAPS



DRIVING DIRECTIONS AND MAP TO SITE

EMERGENCY RESPONSE PROCEDURE ACTION CHECKLIST

Date:	

Procedure(s) Followed:

☐ AED Use	☐ Fire	☐ Severe Winter Storm
☐ Bear Charges and Attacks	☐ Floods/Heavy Rain	☐ Spill/Leak/Release of Hazardous Material
☐ Civil Disturbance	☐ Gas Odor or Major Leak	☐ Threats of Violence / Bomb Threats
☐ Earthquake	☐ Hurricane	☐ Tornado
☐ Electrical Live Line Contact	☐ Intruder or Internal Violence	☐ Utility Shut-Off Before/During Emergency
☐ Elevator Emergency	☐ Lightning	☐ Vehicle Incident
☐ Emergency Rescue	☐ Medical Emergency	☐ Wildlife Fire
☐ Evacuation	☐ Pandemic Management	☐ Other:
☐ Explosion	☐ Power Outage	

Communications

	Yes	No	N/A		Yes	No	N/A
Alarm initiated	☐	☐	☐	Local law enforcement agency (police) contacted	☐	☐	☐
Floor Marshal/Warden or Emergency Coordinator contacted	☐	☐	☐	Client contacted Name: _____	☐	☐	☐
Internal emergency responders contacted (i.e., First Aid Providers, Onsite Medic, Rescue Crew)	☐	☐	☐	Regulatory Body contacted Name: _____	☐	☐	☐
External emergency services contacted (i.e., Fire Department, Ambulance, etc.)	☐	☐	☐	Local Resilience Coordinator contacted Name: _____	☐	☐	☐
Supervisor / Foreman contacted	☐	☐	☐	AECOM Incident Reporting Hotline called	☐	☐	☐
Concurrent operations contacted	☐	☐	☐	Others contacted Name(s): _____	☐	☐	☐

Response

Only take measures that will not put another's safety in jeopardy

	Yes	No	N/A		Yes	No	N/A
Emergency assessed for appropriate response	☐	☐	☐	Appropriate emergency equipment accessed	☐	☐	☐
Evacuation conducted	☐	☐	☐	Individual designated to provide direction to emergency location for emergency services	☐	☐	☐
Roll-Call conducted	☐	☐	☐	Spill/Leak/Release control measures initiated	☐	☐	☐
Emergency assessed for additional hazards	☐	☐	☐	Firefighting equipment used	☐	☐	☐
Rescue initiated if safety of others not compromised	☐	☐	☐	All ignition sources controlled	☐	☐	☐

Error! Reference source not found.

Response *Only take measures that will not put another's safety in jeopardy*							
	Yes	**No**	**N/A**		**Yes**	**No**	**N/A**
First aid provided	☐	☐	☐	Further evacuation conducted	☐	☐	☐
Emergency area contained, barricaded, or controlled	☐	☐	☐	Utilities shut off	☐	☐	☐
Equipment, machinery, or processes shutdown if safe to do so	☐	☐	☐	External emergency services provided (i.e., firefighting, air ambulance, etc.)	☐	☐	☐
Other response:	☐	☐	☐	Other response:	☐	☐	☐

Completed By:	Signature:
Reviewed By:	Signature:

Attachment J

Project Hazardous Materials Communication Plan

Attachment J: Project Hazardous Materials Communication Plan

Materials to be brought or encountered onsite will have a Safety Data Sheet (SDS) maintained in an accessible location for workers to review. Applicable SDSs are presented in **Attachment G**. Materials to be brought or encountered onsite will include:

- Alconox.
- Hydrochloric Acid.
- Isobutylene.

As part of the Site Safety Officer (SSO) daily activities, an inventory of hazardous materials will be prepared with the quantities expected to be on site. The inventory will be updated if any additional materials are brought on site and as frequently as necessary to reflect accurate quantities. This chemical inventory list will be readily available for review (usually kept with the SDSs).

Unless each container has appropriate labeling, all chemical containers will be labeled with the following information:

- Product name and identity of the hazardous chemical(s).
- Appropriate hazard warnings.
- Name and address of the chemical manufacturer, importer, or other responsible party.

Labels on incoming containers of hazardous materials will not be removed or defaced. Labels are also required when a hazardous substance is transferred from a primary container to a secondary container. Labels on secondary containers must indicate the product name or the names of the hazardous substances contained therein as well as related physical and health hazards and their associated target organs. Labels may incorporate words, pictures, symbols, or combinations thereof to ensure the appropriate information is provided to the end user.

Examples of acceptable labeling systems include the National Fire Protection Association Diamond, the Hazardous Materials Identification System, the Chemical Hazard Identification and Training system, or similar.

Employee requirements for reviewing SDSs for specific safety and health protection procedures are presented below.

- AHAs will incorporate information contained in the SDSs.
- SDS information will be followed in the use and disposal of material and selection of hazard control and emergency response measures.
- The SSO will obtain an SDS for each chemical before it is used. SDSs will generally be received by the person ordering the product. SDSs for products frequently used should be kept on file because additional copies may not be included in repeat shipments.
- The SSO will review each SDS when it is received to evaluate whether the information is complete and to determine whether existing protective measures are adequate.
- The SSO will maintain a collection of all applicable and relevant SDSs in an area that is accessible to all employees at all times. An electronic database is an acceptable method of maintaining the SDSs.
- The SSO will replace SDSs when updated sheets are received and will communicate any significant changes to those who work with the chemical.
- SDSs are required for all hazardous materials brought on site by project personnel.

General household products to be used for their specific purpose, food, drugs, and cosmetics brought into the workplace for employee use and consumption are all exempt, as are supplies in the first-aid kit, such as isopropyl alcohol and antibacterial wipes.

Employees bringing hazardous materials on to a site or project must submit SDSs to the SSO. The SSO may restrict the use of certain hazardous materials on a site or project due to occupational health risk, hazardous physical properties of the material, or potential employee sensitivity to odor or irritating properties of the material.

Other personnel working in the same area shall be provided with the following information on chemicals used by or provided to AECOM personnel:

- Names of hazardous chemicals to which they may be exposed while on the jobsite.
- Precautions the employees may take to lessen the possibility of exposure by usage of appropriate protective measures, such as ventilation or isolation of the work. In some cases, as an administrative control measure, a task may be delayed to a time when a minimal number of employees are present in the area.
- Location of SDSs.

As discussed in Section 5.1 of the HASP, employees will be trained initially and periodically when use of hazardous or toxic agents is altered or modified to accommodate changing on-site work procedures. Training shall cover the following topics:

- Requirements and use of the hazard communications program on the project.
- The location of all hazardous or toxic agents at the project.
- Identification and recognition of hazardous or toxic agents on the project.
- Physical and health hazards of the hazardous or toxic agents pertinent to project activities.
- Protective measures employees can implement when working with project-specific hazardous or toxic agents.

Provide training to all employees who have the potential to be exposed to hazardous materials: a) at the time of the initial task assignment, b) whenever new chemicals are introduced into the workplace, and c) more frequently where required by site-specific conditions or client-specific requirements. This training will include the following:

- Applicable regulatory requirements.
- Location of the program, inventory, and SDS.
- Site-specific chemicals used and their hazards (chemical, physical, and health), including the general characteristics of the chemicals and signs and symptoms of exposure.
- How to detect the presence or release of chemicals including the location, types, and usage of any portable and fixed monitoring or detection equipment and their associated alarms, where applicable.
- Safe work practices (S3AM-001-PR1) and methods employees can take to protect themselves from chemical hazards (metals or explosives constituents in soil).
- How to read an SDS.
- Site- or project-specific information on hazard warnings and labels in use at the location, if applicable.
- Site-specific evacuation and rescue procedures in the event of chemical release, including the location of staging areas and personnel accounting procedures.

The following documentation will be maintained in the project file:

- Chemical inventory list;
- SDSs; and
- Training records.

Attachment K

AECOM SH&E Policy

Attachment K: AECOM SH&E Policy

Safety, Health & Environment

Purpose

This policy establishes the framework to safeguard AECOM's employees and stakeholders through effective management of risk and commitment to a Culture of Caring.

Commitment

In recognition of the right to a safe and healthy working environment, AECOM is committed to maintaining the physical, psychological, and social well-being, of our employees, stakeholders, and global communities through appropriate risk management strategies.

To advance our Safety, Health & Environment (SH&E) program, we are committed to:

- Our goal of Zero work-related injuries to AECOM employees and stakeholders, incident prevention and protection of the environment while executing our work.
- Providing a highly effective SH&E management system based on our Life-Preserving Principles that empowers employees and drives continuous review and improvement opportunities.
- Effectively managing critical SH&E risk throughout the project lifecycle, through identification and development of suitable actions using the hierarchy of controls.
- Appropriately meeting client requirements and properly incorporating all applicable SH&E legal requirements and local, state, provincial and national regulations.
- Fostering an exceptional safety culture based on communication, collaboration, and consultation, where our people and stakeholders embrace ownership for the well-being of themselves and others.
- Advancing our goals of pollution prevention, resource conservation and environmental sustainability as set out in the Sustainable Legacies strategy.
- Setting aggressive SH&E performance goals and Core Value Metrics; working with employees and business partners to meet targets and promote continuous improvement opportunities.
- Establishing AECOM as the global provider of choice through safe execution of professional services throughout the project lifecycle.

Participation

Individual ownership of our Safety for Life program is required through participation of all parties in our Culture of Caring.

To that end, we expect our leaders, managers, supervisors, employees, and subcontractors to:

- Commit to the well-being of themselves and of all other stakeholders both on and off the job.
- Demonstrate this commitment through compliance with applicable rules and properly identifying, managing and eliminating hazards and reducing risk in the workplace.
- Engage in planning and training to enable competency and the proper and appropriately maintained equipment, materials, and personal protective equipment required to work safely and respond as necessary to emergencies.
- Take action to stop work if the work cannot be executed safely or if conditions or behaviors on the work activity are unsafe or unhealthy.
- Immediately report SH&E incidents, near-misses, unsafe conditions, and at-risk behaviors; participate in investigations and review findings with appropriate stakeholders to enable implementation of corrective and preventative actions.

Accountability

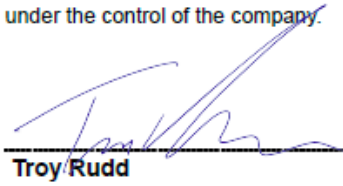
We expect continuous improvement in our journey toward a "zero" incident culture, where everyone participates and is committed to SH&E excellence.

To that end our leaders, managers, supervisors, employees, and subcontractors will be held accountable to their commitment and participation through:

- Recognition and reward of those who positively contribute to excellent SH&E performance.
- Inspections, investigations and reporting to assess SH&E management system application; elevation of high potential findings to senior and executive leadership to enable appropriate action.
- Appropriate action such as coaching or disciplinary measures when expectations are not met.

Review and Communication

This Policy and associated SH&E management system will be reviewed annually and will be made available to all persons under the control of the company.



September 3, 2021

Troy Rudd — **Date**

Chief Executive Officer

Attachment L

Competent Person Designation

Attachment L: Competent Person Designation

Activity / Area of Competency	Name of Person (Affiliation) Note: Subcontractor may provide this person
☐ Asbestos	
☐ Assured Equipment Grounding Conductor	
☐ Blasting & Explosives	
☐ Concrete & Masonry Construction	
☐ Confined Spaces	
☐ Control of Hazardous Energy (Lockout-Tagout)	
☐ Crane Assembly / Disassembly	
☐ Cranes & Derricks	
☐ Demolition	
☐ Electrical Wiring Design & Protections	
☐ Elevated Work Platforms & Aerial Lifts	
☐ Fall Protection	
☐ Hearing Protection	
☐ Heavy Equipment	
☐ Ionizing Radiation	
☐ Lead	
☐ Material Hoists & Personnel Hoists	
☐ Respiratory Protection	
☐ Rigging Equipment	
☐ Scaffolds	
☐ Stairways & Ladders	
☐ Steel Erection	
☐ Trench & Excavations	
☐ Underground Construction	
☐ Welding & Cutting	

APPENDIX H
RESPONSIBILITIES of
OWNER and REMEDIAL PARTY

Responsibilities

Carrier is the current responsible party for this SMP. This section will be updated/revised if needed in the future.

This page may be used when site management responsibilities are to be carried out by multiple parties. For example, it can be used when a Remedial Party does not own the site property, and, therefore, must share site management and/or reporting obligations with a site owner, or when the State is operating a remedial system or otherwise carrying out site management.

The responsibilities for implementing the Site Management Plan ("SMP") for the [Insert Site Name] site (the "site"), number [Insert Site Number], are divided between the site owner(s) and a Remedial Party, as defined below. The owner(s) is/are currently listed as: [Insert site owners' names, contacts and addresses] (the "owner").

Solely for the purposes of this document and based upon the facts related to a particular site and the remedial program being carried out, the term Remedial Party ("RP") refers to any of the following: certificate of completion holder, volunteer, applicant, responsible party, and, in the event the New York State Department of Environmental Conservation ("NYSDEC") is carrying out remediation or site management, the NYSDEC and/or an agent acting on its behalf. The RP is:
[Insert RP's name, contact and address].

Nothing on this page shall supersede the provisions of an Environmental Easement, Consent Order, Consent Decree, agreement, or other legally binding document that affects rights and obligations relating to the site.

Site Owner's Responsibilities:

1) The owner shall follow the provisions of the SMP as they relate to future construction and excavation at the site.

2) In accordance with a periodic time frame determined by the NYSDEC, the owner shall periodically certify, in writing, that all Institutional Controls set forth in a(n) [Select one-Environmental Easement, Deed Restriction, Environmental Notice] remain in place and continue to be complied with. The owner shall provide a written certification to the RP, upon the RP's request, in order to allow the RP to include the certification in the site's Periodic Review Report (PRR) certification to the NYSDEC.

3) In the event the site is delisted, the owner remains bound by the [Select one-Environmental Easement, Deed Restriction, Environmental Notice] and shall submit, upon request by the NYSDEC, a written certification that the [Select one-Environmental Easement, Deed Restriction, Environmental] is still in place and has been complied with.

4) The owner shall grant access to the site to the RP and the NYSDEC and its agents for the purposes of performing activities required under the SMP and assuring compliance with the SMP.

5) The owner is responsible for assuring the security of the remedial components located on its property to the best of its ability. If damage to the remedial components or

vandalism is evident, the owner shall notify the site's RP and the NYSDEC in accordance with the timeframes indicated in Section [xxx]-Notifications.

6) If some action or inaction by the owner adversely impacts the site, the owner must notify the site's RP and the NYSDEC in accordance with the time frame indicated in [Section xxx]- Notifications and coordinate the performance of necessary corrective actions with the RP.

7) The owner must notify the RP and the NYSDEC of any change in ownership of the site property (identifying the tax map numbers in any correspondence) and provide contact information for the new owner of the site property/ies. 6 NYCRR Part contains notification requirements applicable to any construction or activity changes and changes in ownership. Among the notification requirements is the following: Sixty days prior written notification must be made to the NYSDEC. Notification is to be submitted to the NYSDEC Division of Environmental Remediation's Site Control Section. Notification requirements for a change in use are detailed in Section 1.3 of the SMP. A change of use includes, but is not limited to, any activity that may increase direct human or environmental exposure (e.g., day care, school or park). A 60-Day Advance Notification Form and Instructions are found at http://www.dec.ny.gov/chemical/76250.html.

8) If an owner has a written agreement to perform work for the RP, a description of the activities may be inserted here. (The corresponding agreement should also be included in the SMP.) The owner will [insert activities here: maintain fences, conduct mowing, etc] on behalf of the RP. The RP remains ultimately responsible for maintaining the engineering controls.

9) If the site remedy requires the installation, operation, and/or maintenance of an on-site vapor intrusion mitigation system insert the following: Until such time as the NYSDEC deems the vapor mitigation system unnecessary, the owner shall operate the system, pay for the utilities for the system's operation, and report any maintenance issues to the RP and the NYSDEC.

10) If the site remedy requires the installation, operation, and/or maintenance of a drinking water treatment system, insert the following: Until such time as the NYSDEC deems the drinking water treatment system unnecessary, the owner shall operate the drinking water treatment system, pay for the utilities and report any maintenance issues to the RP and the NYSDEC.

11) In accordance with the tenant notification law, within 15 days of receipt, the owner must supply a copy of any vapor intrusion data, that is produced with respect to structures and that exceeds NYSDOH or OSHA guidelines on the site, whether produced by the NYSDEC, RP, or owner, to the tenants on the property. The owner must otherwise comply with the tenant and occupant notification provisions of Environmental Conservation Law Article 27, Title 24.

Remedial Party Responsibilities

1) The RP must follow the SMP provisions regarding any construction and/or excavation it undertakes at the site.

2) The RP shall report to the NYSDEC all activities required for remediation, operation, maintenance, monitoring, and reporting. Such reporting includes, but is not limited to, periodic review reports and certifications, electronic data deliverables, corrective action work plans and reports, and updated SMPs.

3) Before accessing the site property to undertake a specific activity, the RP shall provide the owner advance notification that shall include an explanation of the work expected to be completed. The RP shall provide to (i) the owner, upon the owner's request, (ii) the NYSDEC, and (iii) other entities, if required by the SMP, a copy of any data generated during the site visit and/or any final report produced.

4) If the NYSDEC determines that an update of the SMP is necessary, the RP shall update the SMP and obtain final approval from the NYSDEC. Within 5 business days after NYSDEC approval, the RP shall submit a copy of the approved SMP to the owner(s).

5) The RP shall notify the NYSDEC and the owner of any changes in RP ownership and/or control and of any changes in the party/entity responsible for the operation, maintenance, and monitoring of and reporting with respect to any remedial system (Engineering Controls). The RP shall provide contact information for the new party/entity. Such activity constitutes a Change of Use pursuant to 375-1.11(d) and requires 60-days prior notice to the NYSDEC. A 60-Day Advance Notification Form and Instructions are found at http://www.dec.ny.gov/chemical/76250.html .

6) The RP shall notify the NYSDEC of any damage to or modification of the systems as required under Section [xxx]- Notifications of the SMP.

7) The RP is responsible for the proper maintenance of any installed vapor intrusion mitigation systems associated with the site, as required in Section [X] or Appendix [X] (Operation, Monitoring and Maintenance Manual) of the SMP.

8) The RP is responsible for the proper monitoring and maintenance of any installed drinking water treatment system associated with the site, as required in Section [X] or Appendix [X] (Operation, Monitoring and Maintenance Manual).

9) Prior to a change in use that impacts the remedial system or requirements and/or responsibilities for implementing the SMP, the RP shall submit to the NYSDEC for approval an amended SMP.

10) Any change in use, change in ownership, change in site classification (*e.g.*, delisting), reduction or expansion of remediation, and other significant changes related to the site may result in a change in responsibilities and, therefore, necessitate an update to the

SMP and/or updated legal documents. The RP shall contact the NYSDEC project manager to discuss the need to update such documents.

Change in RP ownership and/or control and/or site ownership does not affect the RP's obligations with respect to the site unless a legally binding document executed by the NYSDEC releases the RP of its obligations.

Future site owners and RPs and their successors and assigns are required to carry out the activities set forth above.