SITE MANAGEMENT PLAN

WHITE PLAINS CHRYSLER CAR DEALERSHIP

WESTCHESTER COUNTY

WHITE PLAINS, NEW YORK

NYSDEC Site Number: C360209

Prepared for:

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Revisions to Final Approved Site Management Plan:

Revision No.	Date Submitted	Summary of Revision	NYSDEC Approval Date

June 2026

CERTIFICATION STATEMENT

I, Fuad Dahan, certify that I am currently a NYS registered professional engineer as in defined in 6 NYCRR Part 375 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) and Green Remediation (DER-31).

_____ P.E.

_____DATE

WHITE PLAINS CHRYSLER CAR DEALERSHIP SITE

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WHITE PLAINS, NEW YORK

SITE MANAGEMENT PLAN

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LIST OF ACRONYMS

Acronym	Definition
AWQS	Ambient Water Quality Standards
BCA	Brownfield Cleanup Agreement
BCP	Brownfield Cleanup Program
CAMP	Community Air Monitoring Program
Cis-1,2 DEC	cis-1,2 dichloroethene
CSCO	Commercial Soil Cleanup Objectives
CVA	Climate Vulnerability Assessment
DER-10	NYSDEC Technical Guidance for Site Investigation & Remediation
DUSR	Data Usability Summary Report
ELAP	Environmental Laboratory Accreditation Program
ft bgs	feet below ground surface
GPR	Ground-penetrating Radar
MW	Monitoring Well
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
PCB	Polychlorinated Biphenyls
PCE	Tetrachloroethene
PFAS	Per and Polyfluoroalkyl Substances
PFOA	Perfluorooctanoic Acid
PFOS	Perfluorooctanesulfonic Acid
PHC	Petroleum Hydrocarbon
ppt	Parts per trillion
RAWP	Remedial Action Work Plan
RECs	Recognized Environmental Conditions
RI	Remedial Investigation
RIR	Remedial Investigation Report
RIWP	Remedial Investigation Work Plan
RRSCO	Restricted Residential Soil Cleanup Objectives
SCG	Standards, Criteria, and Guidance
SCO	Soil Cleanup Objectives
SESI	SESI Consulting Engineers, DPC
SRIWP	Supplemental Remedial Investigation Work Plan
SVOCs	Semi-Volatile Organic Compounds

Acronym	Definition
TAGM	Technical and Administrative Guidance Memorandum
TAL	Target Analyte List
TBA	tertiary butyl alcohol
TCL	Target Compound List
TCE	Trichloroethene
USCO	Unrestricted Use Soil Cleanup Objectives
UST	Underground Storage Tank
USCO	Unrestricted Use Soil Cleanup Objective
VOCs	Volatile Organic Compounds
WCDOH	Westchester County Department of Health

ES EXECUTIVE SUMMARY

The following provides a brief summary of the controls implemented for the Site, as well as the inspections, monitoring, maintenance and reporting activities required by this Site Management Plan (SMP):

Site Identification: C360209 White Plains Chrysler Car Dealership Site
70 Westchester Avenue, White Plains, New York

Institutional Controls:	1. The property may be used for commercial, industrial, and residential use;
	2. The Brownfield Cleanup Program (BCP) Site has achieved a conditional Track 1 unrestricted use remedy with remaining contamination present in groundwater and potentially in soil vapor.
	3. An Environmental Easement (EE) was established to document existing contamination remaining on-Site. If continued monitoring of groundwater provides data that indicates compliance of groundwater with applicable regulatory criteria, this SMP will be updated to propose terminating ongoing monitoring of groundwater.
	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) 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. All ECs must be inspected at a frequency and in a manner defined in the SMP. Residual groundwater contaminants will be remediated via Monitored Natural Attenuation and will be managed pursuant to the SMP. Proposed buildings will require a soil vapor intrusion evaluation once the construction of the enclosed spaces is completed and prior to occupancy.
Engineering Controls:	1. A network of groundwater wells will be installed to monitor residual groundwater contaminants for Monitored Natural Attenuation (MNA). If continued monitoring of groundwater provides data that indicates compliances of groundwater with applicable regulatory criteria, this SMP will be updated to propose terminating ongoing monitoring of groundwater.
	2. Elements of a sub-slab depressurization system (SSDS) beneath the future building will be installed and a Soil Vapor Intrusion Evaluation will be completed. The SSDS will remain passive unless sampling determines otherwise.

Inspections:	Frequency
1. Monitor Well Inspections	During Sampling Events
Monitoring:	
1. Groundwater Monitoring Wells S M P - MW-1 through SMP-MW-8	Quarterly
2. Soil Vapor Intrusion Evaluation for New Building	As needed
Reporting:	
1. Periodic Review Report	Annually

Further descriptions of the above requirements are provided in detail in the latter sections of this Site Management Plan.

1.0 INTRODUCTION

1.1 General

This Site Management Plan (SMP) is a required element of the remedial program for the White Plains Chrysler Car Dealership Site located at 70 Westchester Avenue in White Plains, New York (hereinafter referred to as the "Site"). See **Figure 1.1**. The Site is currently in the New York State (NYS) Brownfield Cleanup Program (BCP), Site No. C360209, which is administered by the New York State Department of Environmental Conservation (NYSDEC or Department).

Saber-North White Plains, LLC entered into a Brownfield Cleanup Agreement (BCA) on May 18, 2021 with the NYSDEC to remediate the Site. A figure showing the Site location and boundaries of the Site is provided in **Figure 1.2**. The boundaries of the Site are more fully described in the metes and bounds Site description that is part of the Environmental Easement provided in **Appendix A**.

After completion of the remedial work, some contamination was left at this Site as part of Track 1, which is hereafter referred to as "remaining contamination". Institutional and Engineering Controls (ICs and ECs) have been incorporated into the Site remedy to control exposure to remaining contamination to ensure protection of public health and the environment. An Environmental Easement granted to the NYSDEC, and to be recorded with the Westchester County Clerk, requires compliance with this SMP and all ECs and ICs placed on the Site.

All soil exhibiting contaminant concentrations exceeding NYSDEC Unrestricted Use Soil Cleanup Objectives (USCOs) was excavated and removed from the Site for off-Site disposal during the remedial action. The extent of soil excavation and post-excavation soil sample locations are depicted on the Remedial Excavation and Soil Sample Location Plan included as **Figure 2.1**. A summary of the post-excavation soil sample analytical results is included as **Table 1.1** at the back-end of this report.

This SMP was prepared to manage remaining contamination at the Site until the Environmental Easement is developed and then extinguished in accordance with ECL Article 71, Title 36. This plan has been approved by the NYSDEC, and 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:

I. This SMP details the Site-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

II. Failure to comply with this SMP is also a violation of Environmental Conservation Law, 6 NYCRR Part 375 and the BCA (Index #C360209-05-21; Site #C360209) for the Site, and thereby subject to applicable penalties.

All reports associated with the Site 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 Site is provided in **Appendix B** of this SMP.

This SMP was prepared by SESI Consulting Engineers, DPC, on behalf of Saber-North White Plains, LLC, in accordance with the requirements of 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 for the Site.

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, upgrades to, or shutdown of, a remedial system, post-remedial removal of contaminated sediment or soil, or other significant change to the Site 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 Site use that are required under the terms of the BCA, 6 NYCRR Part 375 and/or Environmental Conservation Law.
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. 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 Site, 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 Site 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 BCA and all approved work plans and reports, including this SMP.
2. Within 15 days after the transfer of all or part of the Site, the new owner's name, contact representative, and contact information will be confirmed in writing to the NYSDEC.

Table 1.2 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 Site-related contact information is provided in **Appendix B**.

Table 1.2: Notifications*

Name	Contact Information	Required Notification**
Caroline Jalanti, NYSDEC Project Manager	(518) 402-9650 caroline.jalanti@dec.ny.gov	All Notifications
NYSDEC Supervisor	To Be Determined	All Notifications
NYSDEC Site Control	DERSiteControl@dec.ny.gov	Notifications 1 and 8
Emelina Rieseler, NYSDOH Project Manager	(518) 457-0679 beei@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 White Plains, Westchester County, New York and is identified as Tax Lot 126.61-3-15.1 on the White Plains Tax Map. The Site is a 1.826-acre area and is bounded by Franklin Avenue to the north, Westchester Avenue to the south, Ford and Florence Howe Auto Dealership Site (BCP C360228) to the east, and the White Coach Diner to the west (see **Figure 1.2**). The boundaries of the Site are more fully described in **Appendix A,** which contains the metes and bounds descriptions of the Site and a survey plan.

The owner(s) of the Site parcel(s) at the time of issuance of this SMP is/are:

Saber-North White Plains, LLC

2.2 Physical Setting

2.2.1 Land Use

The Site consists of the following: The former structures related to the car dealership operations were demolished following the approval of the Remedial Action Workplan (RAWP) for the Site, dated August 2023. Prior to redevelopment, the Site was vacant with only concrete pad remnants of the former structures. The Site is zoned commercial and currently supports a future residential apartment building currently under construction.

The properties adjoining the Site and in the neighborhood surrounding the Site primarily include residential and commercial properties. The properties immediately south of the Site include commercial buildings; the properties immediately north of the Site include paved parking lots and apartment buildings; the properties immediately east of the Site include a closed car dealership (Ford and Florence Howe Auto Dealership Site [BCP C360228]); and the properties to the west of the Site include commercial buildings.

2.2.2 Geology

Based on SESI's 2022 Geotechnical Investigation and previous environmental investigations, the stratigraphy of the Site consisted of brown, uncontrolled, fill below the surficial layer of asphalt millings, granular subbase, and topsoil to depths ranging from approximately six (6) to thirteen (13) feet below ground surface (ft-bgs). The uncontrolled fill generally consisted of sand or silt, with varying quantities of sand, silt, gravel, brick,

wood, and metal debris. The uncontrolled fill layer was completely removed and disposed off-Site during the remedial action. Beneath the uncontrolled fill, the site geology generally consists of native sands, with varying amounts of silt, and gravel with cobbles, boulders and fractured/weathered rock extending from approximately sixteen (16) to thirty-five (35) ft-bgs. These native soils were partially excavated and disposed off-Site during the remedial action. Bedrock composed of Schist and Gneiss was encountered in several borings at depths ranging from approximately twenty-five (25) to fifty-six (56) ft-bgs due to the slope of the Site. Bedrock is highest in the northwest portion of the Site, and the remedial excavation exposed bedrock.

Site specific boring logs are provided in **Appendix C**.

2.2.3 Hydrogeology

Based on SESI's 2022 Geotechnical Investigation and recent survey measurements in wells, the approximate groundwater elevation across the Site is between 146 and 152 ft above mean sea level (amsl). Groundwater flows across the Site in an east/southeasterly direction toward the Mamaroneck River.

Two (2) groundwater contour maps are included as **Figures 2.2A** (December 2021) and **Figure 2.2B** (October 2022).

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 for the Site. Full titles for each of the reports referenced below are provided in **Section 8.0**. Below is a summary of the contamination of the Site that warranted remediation:

- Volatile organic compound (VOC) impacts in soil exceeding the USCOs and the RRSCOs were identified in the northeastern portion of the Site to depths of seventeen (17) ft-bgs. Semi-volatile organic compound (SVOC) and metal impacts in soil exceeding the USCOs and the Restricted Residential Soil Cleanup Objectives (RRSCOs) were identified across the Site to depths of sixteen (16) ft-bgs. Perfluorooctanoic acid (PFOA) impacts in soil exceeding the USCOs were identified in the southern portion of the Site to depths of five (5) ft-bgs.

- Site groundwater has been impacted with SVOCs and metal compounds above

the Ambient Water Quality Standards (AWQS) and PFOA/ perfluorooctanesulfonic acid (PFOS) above the groundwater screening levels across of the Site. Specifically, Site groundwater has been impacted with petroleum hydrocarbon (PHC) related SVOCs on the southern and western portions of the Site. Metals above the AWQS were identified Sitewide. PFAS compounds were detected at concentrations exceeding the NYSDEC groundwater screening level of 10 ppt throughout the Site.

- Although New York State does not have standards for soil vapor, for discussion purposes, SESI has used the NYSDOH matrices lower threshold to evaluate the Matrix A, B, C, D, E and F listed compounds. PHC VOCs and chlorinated VOCs were detected in soil vapor samples collected across the Site.

Below is a summary of the remedial actions that have been performed, or will be performed:

- Removed concrete slab remnants and asphalt pavement as required.
- Installed a support-of-excavation (SOE) system around the entire Site to facilitate the removal of impacted soils, and to facilitate construction of the below grade portion of the development. The SOE extended to varying depths based on the requirements to excavate for remediation and construction. All required permits were obtained prior to the start of work.
- Excavated all Site soils to achieve an unrestricted Track 1 cleanup by removing the complete extents of contaminated fill/soil.
- Documented off-Site disposal of all material removed from the Site in accordance with all Federal, State, and local rules and regulations for handling, transport, and disposal.
- Collected end-point/documentation soil samples to confirm Track 1 was achieved at a rate of one sample per 900 square feet of excavation base.
- Backfilling of the remedial excavation to specified redevelopment construction design grades following acceptance of clean end-point soil samples to confirm Track 1.
- Backfill materials imported during redevelopment construction activities were sampled in accordance with Section 5.4(e) of the DER-10 and approved by the NYSDEC Project Manager.
- Installation of a sub-slab waterproofing/vapor barrier (Preprufe 275) to eliminate the potential for soil vapor intrusion into the Site building.
- Installation of the elements of a passive vented sub-slab depressurization system (SSDS) below the lowest slab elevation of the Site building. The SSDS

system has the capability to be made active (using blowers) in the event post-construction testing indicated soil vapor intrusion is occurring. A preliminary design of the SSDS system is included in **Appendix E**.

- An Environmental Easement (EE) for the Site was developed and recorded to document engineering and institutional controls (EC and IC). The EE will remain effective until the EC and IC are removed, if the Track 1 remedy is accomplished within five (5) years. If Track 1 is not achieved in this timeframe as a result of any remaining on-Site conditions, the EE will continue under a Track 2 remedy to account for remaining residual groundwater and soil vapor contamination.

- Prepared this Site Management Plan, for short-term management of potential residual groundwater contamination as required by the EE, including plans for: (1) ICs, (2) groundwater monitoring, and (3) reporting.

- Monitoring of groundwater quality for SVOCs, metals, and PFAS will be conducted quarterly for a two (2) year period. It is anticipated that asymptotic reductions of constituent concentrations will occur, to the satisfaction of the NYSDEC, within this two (2) year period. If this does not occur, consideration will be given to injection of oxygen releasing compounds into the groundwater system and monitoring will continue.

2.4 Remedial Action Objectives

The Remedial Action Objectives (RAOs) for the Site as listed in the Decision Document dated August 24, 2023, are as follows:

Groundwater

RAOs for Public Health Protection

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of, volatiles from contaminated groundwater.

RAOs for Environmental Protection

- Restore ground water aquifer to pre-disposal/pre-release conditions, to the extent practicable.
- Prevent the discharge of contaminants to surface water.
- Remove the source of ground or surface water contamination.

Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation of or exposure from contaminants volatilizing from contaminants in soil.

RAOs for Environmental Protection

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

Soil Vapor

RAOs for Public Health Protection

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

2.5 Remaining Contamination

The Site has achieved a conditional Track 1 remedy. The following sections discuss the residual contamination on Site.

2.5.1 Soil

A conditional Track 1 remedy was achieved across the Site. Soil contamination no longer remains on-Site above the USCOs. **Figure 2.1** depicts remedial excavation extents and post-excavation soil sample locations demonstrating achievement of the Track 1 remedy. A summary of the post-excavation soil sample analytical results is included as **Table 1.1**.

2.5.2 Groundwater

Site groundwater has been impacted with SVOCs, metals, and PFAS compounds above the AWQS and NYSDEC groundwater screening levels. Remaining groundwater contamination, based on sampling the eight (8) proposed monitoring wells is presented on **Figure 2.3**.

2.5.3 Soil Vapor

A combined waterproofing and vapor barrier (Preprufe 275), along with the elements of a SSDS, will be constructed beneath the lowest building slab to mitigate potential vapor intrusion. A vapor intrusion assessment will also be conducted during the first heating season after the building is closed. The vapor barrier is considered as a green remediation element for potential vapor intrusion. The SSDS will be made active (using a blower) if results of the vapor intrusion assessment suggest vapor intrusion is occurring. Soil vapor data collected during the vapor intrusion assessment is presented on **Figure 2.4**.

3.0 INSTITUTIONAL AND ENGINEERING CONTROL PLAN

3.1 General

Since remaining contamination exists at the Site, Institutional Controls (ICs) and Engineering Controls (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 Site. The IC/EC Plan is one component of the SMP and is subject to revision by the NYSDEC project manager.

This plan provides:

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

3.2 Institutional Controls

A series of ICs is required by the RAWP and Decision Document to: (1) implement, maintain and monitor Engineering Control systems; (2) prevent future exposure to remaining contamination; and (3) limit the use and development of the Site to residential, commercial, and industrial uses only. Adherence to these ICs on the Site 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 3.1**. These ICs are:

- The property may be used for residential, commercial, and industrial use;
- All ECs must be operated and maintained as specified in this SMP;
- All ECs must be inspected at a frequency and in a manner defined in the SMP;
- The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the Westchester 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;

- Groundwater and other environmental or public health monitoring must be performed as defined in this SMP;
- Data and information pertinent to site management must be reported at the frequency and in a manner as defined in this SMP;
- All future activities that will disturb remaining contaminated material must be conducted in accordance with this SMP;
- Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in this SMP;
- Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical component of the remedy shall be performed as defined in this SMP;
- 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 the Environmental Easement;
- The potential for vapor intrusion must be evaluated for any buildings developed in the area within the IC boundaries noted on Figure 3.1, and any potential impacts that are identified must be monitored or mitigated; and
- Vegetable gardens and farming on the Site are prohibited.

3.3 Engineering Controls

3.3.1 Sub-Slab Depressurization System

A soil vapor evaluation is required for the proposed buildings on Site. The elements of a SSDS will be constructed beneath the proposed residential building as an engineering control for the vapor intrusion. The SSDS consists of a Preprufe 275 liner underlain by a network of 4-inch perforated PVC pipes placed within 8-inches of venting stone meeting ASTM C33 size no. 5, 56, 57 or 6. The network of perforated pipes will be manifolded to solid PVC piping and to vent risers that extend to the exterior of the building. Vapor pins will be installed through the concrete slab for sub-slab vapor sampling. The SSDS may be turned active (with a blower) if the evaluation as discussed in **Section 4.4** requires it. The SSDS system designs are presented in **Appendix E**.

If based on the results of the VI evaluation the SSDS is required to function as an EC, the SMP will be updated to include the requirement of the installation of an active soil vapor mitigation system. If a soil vapor mitigation system is warranted based on future soil vapor sampling events, a design document will be submitted for evaluation and approval by the NYSDEC prior to installation.

Procedures for operating and maintaining the SSDS for any future buildings will be documented in the Operation and Maintenance Plan **(Section 5.0)** upon submittal of the

updated SMP. As-built drawings, signed and sealed by a professional engineer, will be included as an additional appendix in the updated SMP if the requirement for the installation of an active SSDS is warranted.

3.3.2 Monitoring Wells

Groundwater monitoring activities associated with source removal will continue, as determined by the NYSDEC project manager in consultation with NYSDOH project manager, until residual SVOCs, metals, and PFAS groundwater concentrations are found to be consistently below the AWQS and/or AWQSGV, concentrations have become asymptotic at an acceptable level over an extended period, or are indicative of a wholly off-Site source. If monitoring data indicates that monitoring may no longer be required, a proposal to discontinue the monitoring will be submitted by the remedial party. Monitoring will continue until permission to discontinue is granted in writing by the NYSDEC project manager. If groundwater contaminant levels remain at a level that is not acceptable to the NYSDEC treatment and/or control measures will be evaluated.

3.3.3 Criteria for Completion of Remediation/Termination of Remedial Systems

Generally, remedial processes are considered completed when monitoring indicates that the remedy has achieved the remedial action objectives identified by the decision document. The framework for determining when remedial processes are complete is provided in Section 6.4 of NYSDEC DER-10. Unless waived by the NYSDEC, confirmation samples of applicable environmental media are required before terminating any remedial actions at the Site. Confirmation samples require Category B deliverables and a Data Usability Summary Report (DUSR).

As discussed below, the NYSDEC may approve termination of a groundwater monitoring program. When a remedial party receives this approval, the remedial party will decommission all Site-related monitoring, injection and recovery wells as per the NYSDEC CP-43 policy.

The remedial party will also conduct any needed Site restoration activities, such as asphalt patching and decommissioning treatment system equipment. In addition, the remedial party will conduct any necessary restoration of vegetation coverage, trees and wetlands, and will comply with NYSDEC and United States Army Corps of Engineers regulations and guidance. Also, the remedial party will ensure that no ongoing erosion is occurring on

the Site.

3.3.3.1 Sub-Slab Depressurization System

The installed or any planned SSD system will not be discontinued unless prior written approval is granted by the NYSDEC and the NYSDOH project managers. If monitoring data indicates that the SSD system may no longer be required, a work plan to discontinue the SSD system will be submitted by the remedial party to the NYSDEC and NYSDOH project managers.

3.3.3.2 Monitoring Wells Associated with Monitored Natural Attenuation

Groundwater monitoring activities to assess natural attenuation will continue, as determined by the NYSDEC project manager in consultation with NYSDOH project manager, until residual groundwater concentrations are found to be consistently below the AWQS, the Site SCGs, or have become asymptotic at an acceptable level over an extended period. In the event that monitoring data indicates that monitoring for natural attenuation may no longer be required, a proposal to discontinue the monitoring will be submitted by the remedial party. Monitoring will continue until permission to discontinue is granted in writing by the NYSDEC project manager. If groundwater contaminant levels become asymptotic at a level that is not acceptable to the NYSDEC, additional source removal, treatment and/or control measures will be evaluated.

4.0 MONITORING AND SAMPLING PLAN

4.1 General

This Monitoring and Sampling Plan describes the measures for evaluating the overall performance and effectiveness of the remedy. This Monitoring and Sampling Plan may only be revised with the approval of the NYSDEC project manager. The Health and Safety Plan (HASP) is provided as **Appendix F**. Details regarding the sampling procedures, data quality usability objectives, analytical methods, etc. for all samples collected as part of Site management for the Site are included in the Quality Assurance Project Plan provided in **Appendix G**.

This Monitoring and Sampling Plan describes the methods to be used for:

- Sampling and analysis of all appropriate media (e.g., groundwater, indoor air, soil vapor, soils);
- Assessing compliance with applicable NYSDEC standards, criteria and guidance (SCGs), particularly groundwater standards and Part 375 SCOs for soil; and
- Evaluating Site information periodically to confirm that the remedy continues to be effective in protecting public health and the environment.

To adequately address these issues, this Monitoring and Sampling Plan provides information on:

- Sampling locations, protocol and frequency;
- Information on all designed monitoring systems;
- Analytical sampling program requirements;
- Inspection and maintenance requirements for monitoring wells;
- Monitoring well decommissioning procedures; and
- Annual inspection and periodic certification.

Reporting requirements are provided in **Section 7.0** of this SMP.

4.2 Site-Wide Inspection

Site-wide inspections will be performed quarterly during groundwater monitoring events or at a minimum of once per year. These periodic inspections must be conducted when the ground surface is visible (i.e. no snow cover). Site-wide inspections will be performed 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. Modification to

the frequency or duration of the inspections will require approval from the NYSDEC project manager. Site-wide inspections will also be performed after all severe weather conditions that may affect ECs or monitoring devices. During these inspections, an inspection form will be completed as provided in **Appendix H**. The form will compile sufficient information to assess the following:

- Compliance with all ICs, including Site usage;
- An evaluation of the condition and continued effectiveness of ECs;
- General Site conditions at the time of the inspection;
- Whether stormwater management systems, such as basins and outfalls, are working as designed;
- The Site management activities being conducted including, where appropriate, confirmation sampling and a health and safety inspection; and
- Confirm that Site records are up to date.

Inspections of all remedial components installed at the Site will be conducted. A comprehensive Site-wide inspection will be conducted and documented according to the SMP schedule, regardless of the frequency of the Periodic Review Report. The inspections will determine and document the following:

- Whether ECs continue to perform as designed;
- If these controls continue to be protective of human health and the environment;
- Compliance with requirements of this SMP and the Environmental Easement;
- Achievement of remedial performance criteria; and
- If Site records are complete and up to date.

Reporting requirements are outlined in **Section 7.0** of this SMP.

Inspections will also be performed in the event of an emergency. If an emergency, such as a natural disaster or an unforeseen failure of any of the ECs occurs that reduces or has the potential to reduce the effectiveness of ECs in place at the Site, 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.

The remedial party will conduct exterior inspections of all sub-slab depressurization (SSD) systems and perform comprehensive inspections as needed. Exterior inspections will include confirming that the fan is running correctly, determining whether there is damage to the stack or other exterior system components, and determining whether there have been structural changes, such as an addition to the structure. Comprehensive inspections include all of the activities required in the exterior inspection and an interior inspection, which includes confirming a pressure differential on the manometer, inspecting the interior components for damage, recording vacuum readings from sub-slab vacuum monitoring points (if installed), and inspecting the basement area for cracks in the basement floors and walls that may have developed since the SSD system was installed. The remedial party will notify the DEC project manager about any problems within three days of inspections. Inspection reports will be emailed to the DEC Project Manager and included in the next PRR.

4.3 Groundwater Sampling

Residual groundwater contamination remaining after active remediation will be addressed with monitored natural attenuation (MNA) through a network of eight (8) monitoring wells, as described in the RAWP. The wells will be sampled/tested Quarterly for two (2)-years, for SVOCs and metals which were detected above the AWQS during the RI, along with PFOA and/or PFOS and MNA indicators, which will allow gauging of biological degradation of contamination. It is anticipated that constituent concentrations will become asymptotic within two (2)-years. The monitoring wells will be sampled/analyzed quarterly. A report containing cumulative monitoring data will be provided either when asymptotic conditions are achieved or at the end of the two (2)-year period for review. Active remediation may be proposed if it appears that natural processes alone will not address the contamination.

Table 4.1 summarizes the proposed well identification numbers, as well as the purpose, location, depths, diameter and screened intervals of the wells. Refer to **Figure 4.1**, the Proposed Groundwater Monitoring Well and Soil Vapor Pin Location Plan.

Table 4.1 – Proposed Monitoring Well Construction Details

Monitoring Well ID	Well Location	Well Diameter (inches)	Elevation (above MSL)[1]		
			Top of Slab	Screen Top	Screen Bottom
MW-01	North Up-Gradient	2	156.5	153	143
MW-02	North Middle Up-Gradient	2	156.5	153	143
MW-03	South Middle Up-Gradient	2	153.0	151	136
MW-04	South Up-Gradient	2	153.0	151	136
MW-05	North Down-Gradient	2	153.0	151	136
MW-06	North Middle Down-Gradient	2	153.0	151	136
MW-07	South Middle Down-Gradient	2	153.5	151	136
MW-08	South Down-Gradient	2	153.5	151	136

Notes:

1. Groundwater has been measured on the Site to be between EL 146 to 152. The high EL of 152 was in the northwest corner of the site; throughout most of the site groundwater is below EL 150.
2. Wells will be sampled via low-flow sampling techniques. Approximately three (3) well volumes will be purged, and the purge water piped to a "flow cell," where groundwater parameters (pH, redox potential, specific conductance, dissolved oxygen, salinity, turbidity) will be measured at five (5) minute intervals.

Groundwater samples will be collected once these parameters stabilized for three consecutive readings unless poor recharge prevents the stabilization of the parameters prior to sampling. All samples will be submitted to a NYSDOH ELAP certified laboratory for analyses.

3. The following samples will be collected as described:

Table 4.2 – Proposed Monitoring Well Sampling Details

Monitoring Well ID	Location	Analytical Parameters	Schedule
MW-01	North Up-Gradient	SVOCs, Metals, PFAS	Quarterly groundwater monitoring until the results for all parameters show bulk reduction in groundwater contamination to asymptotic levels to the Department's satisfaction per 6 NYCRR Part 375- 3.8(e)(1)(iii)(b) for Track 1 cleanup
MW-02	North Middle Up-Gradient		
MW-03	South Middle Up-Gradient		
MW-04	South Up-Gradient		
MW-05	North Down-Gradient		
MW-06	North Middle Down-Gradient		
MW-07	South Middle Down-Gradient		
MW-08	South Down-Gradient		

If biofouling or silt accumulation occurs in the on-Site and/or off-Site monitoring wells, the wells will be physically agitated/surged and redeveloped. Additionally, monitoring wells will be properly decommissioned and replaced if an event renders the wells unusable.

Repairs and/or replacement of wells in the monitoring well network will be performed based on assessments of structural integrity and overall performance.

The NYSDEC project manager will be notified prior to any repair or decommissioning of any monitoring well for the purpose of replacement, and the repair or decommissioning and replacement process will be documented in the subsequent Periodic Review Report. Well decommissioning without replacement will be done only with the prior approval of the NYSDEC project manager. Well abandonment will be performed in accordance with NYSDEC's guidance entitled "CP-43: Groundwater Monitoring Well Decommissioning Procedures." Monitoring wells that are decommissioned because they have been rendered unusable will be replaced in kind in the nearest available location, unless otherwise approved by the NYSDEC project manager.

The sampling frequency may only be modified with the approval of the NYSDEC project manager. This SMP will be modified to reflect changes in sampling plans approved by the NYSDEC project manager.

Deliverables for the groundwater monitoring program are specified in **Section 7.0** of this SMP.

The Site Management Forms are provided in **Appendix H**.

4.4 Soil Vapor Intrusion Sampling

Soil vapor intrusion sampling will be performed once the building envelope is completed and the heating and ventilation system are installed and active to assess the performance of the remedy. The sampling will be conducted during the heating season. Modification to the frequency or sampling requirements will require approval from the NYSDEC project manager.

The network of six (6) on-Site sub-slab soil vapor intrusion sample locations will be provided to NYSDEC and NYSDOH for approval in a separate work plan once building construction is finalized. Preliminarily the locations are shown on **Figure 4.1**, the Proposed Groundwater Monitoring Well and Soil Vapor Pin Location Plan. Sampling procedures for sub-slab vapor and indoor air sampling are included in the Field Sampling Plan in **Appendix I**. If the results of the soil vapor intrusion sampling indicate exceedances of the NYSDOH Soil Vapor/Indoor Air Decision Matrices (Updated February 2024), an updated SMP will be submitted to NYSDEC which will include engineering controls for vapor mitigation.

The following samples will be collected as described:

Table 4.3 – Proposed Air Sampling Details

Sub-Slab Vapor Point ID	Location	Analytical Parameters	Schedule
VP-1	Soil Vapor	VOCs by TO-15	Will be sampled once during the heating season and prior to building occupancy
VP-2	Soil Vapor		
VP-3	Soil Vapor		
VP-4	Soil Vapor		
VP-5	Soil Vapor		
VP-6	Soil Vapor		
IA-1	Indoor Air		
IA-2	Indoor Air		
IA-3	Indoor Air		
IA-4	Indoor Air		
AA-1	Ambient Air		

Deliverables for the soil vapor intrusion sampling program are specified in **Section 7.0** of this SMP.

4.5 Monitoring and Sampling Protocol

All sampling activities will be recorded in a field book and associated sampling log as provided in **Appendix H**. Other observations (e.g., groundwater monitoring well integrity) will be noted on the sampling log. The sampling log will serve as the inspection form for the monitoring network. Additional detail regarding monitoring and sampling protocols are provided in the Site-specific Field Activities Plan provided as **Appendix I**.

5.0 OPERATION AND MAINTENANCE PLAN

5.1 General

The Site 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

Increases in both the severity and frequency of storms/weather events, an increase in sea level elevations along with accompanying flooding impacts, shifting precipitation patterns and wide temperature fluctuation, resulting from global climactic change and instability, have the potential to significantly impact the performance, effectiveness and protectiveness of a given Site and associated remedial systems. Vulnerability assessments provide information so that the Site and associated remedial systems are prepared for the impacts of the increasing frequency and intensity of severe storms/weather events and associated flooding.

This section provides a current vulnerability assessment that evaluates the vulnerability of the Site and/or engineering controls to severe storms/weather events and associated flooding. This section also identifies vulnerability assessment updates that will be conducted for the Site in Periodic Review Reports.

The vulnerability of the Site and engineering controls to severe storms/weather events and associated flooding is summarized as follows:

- The Site is not located within a floodplain.
- During severe rain events low lying areas of the Site (e.g., the lowest below-grade garage level) may experience brief flooding limiting access to monitoring wells.
- High winds are not expected to damage the groundwater wells or vapor points.
- The wells and vapor points are not vulnerable to the loss of electric power.
- No spill or containment areas exist on the Site that would cause a release during severe weather events.
- The Site and immediately surrounding areas are mostly paved with hardscape surfaces or contain buildings or a gravel cap, and therefore erosion is not expected to present a major issue for the Site.
- The area of the Site has no exposed soils and therefore landslides are not considered a potential hazard.
- The location of the Site is not considered to be susceptible to droughts or wildfires.

Any updates/changes in the above conditions will be reported in the Periodic Review Reports. Based upon the above, a climate vulnerability assessment (CVA) is not considered to be necessary for the Site at this time.

The Climate Screening process and results will be documented in the form of a completed checklist and brief letter report. If the Climate Screening results indicate that a CVA is necessary in the future, a complete CVA Report will be developed. The CVA Report will be included as an Appendix or Attachment in relevant documents and/or submitted as a standalone report. If a CVA is not required, the Climate Screening must be updated during each Periodic Review Report or after any changes in remedy or Site conditions to determine if the Site is still resilient.

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. This section provides an environmental footprint analysis of the remedy, as implemented at the time of this SMP. This section of the SMP also provides a summary of green remediation evaluations to be completed for the Site during site management and reported in Periodic Review Reports (PRRs).

A preliminary green remediation evaluation for the proposed Site monitoring activities (groundwater sampling, sub-slab vapor sampling) is presented below:

- There is no mechanical equipment required and therefore no electrical energy usage associated with the Site monitoring.
- Any waste generated as a result of Site monitoring activities is expected to be negligible.
- There is no mechanical equipment required and therefore no emissions are associated with the Site monitoring, other than vehicular usage to and from the Site.
- The Site will not disturb the land and/or ecosystems.

Green Remediation concepts and techniques that will be considered during activities will include:

- Eliminate idling vehicles and equipment when possible; reducing emission of CO2, N2O, CH4, and other greenhouse gases contributing to climate change.
- It is not anticipated that ground intrusive activities will be required; thus, monitoring of dust will likely not be necessary.
- Operation of volatile organic compound (VOC) detectors to monitor and minimize VOC exposures.
- Conducting sampling events planned simultaneously to maximize level of efforts while traveling to/from the Site (economy of scale implementing multiple sampling events).

6.2.1 Best Management Practices

In accordance with the USEPA Green Remediation Best Management Practices and DER-31, SESI will consider the best management practices for field, laboratory, and office activities associated with ongoing Site management. The following practices have been selected based on their relevance to the specifics of the Site:

- Select service providers, product suppliers, and analytical laboratories from the local area and consolidate the service and delivery schedules
- Establish electronic networks for data transfers, team decisions and document preparation
- Reduce travel through increased teleconferencing
- Soil gas surveys involving instruments such as Summa canisters to determine the presence, composition, and distribution of VOCs in the vadose zone and water table (if necessary)
- Treat potentially contaminated purge water through use of technologies such as activated carbon filtration prior to discharge to storm drains or waterways
- Choose groundwater monitoring equipment made of noncorrosive material
- Compress the number of days needed for a given round of sampling
- Minimize the need for disposable single-use items such as plastic bags
- Choose fixed laboratories demonstrating a strong commitment to environmental performance, such as routine use of management practices identified by the International Institute for Sustainable Laboratories

6.2.2 Timing of Green Remediation Evaluations

For major remedial system components, green remediation evaluations and corresponding modifications will be undertaken as part of a formal Remedial System Optimization (RSO), or at any time that the NYSDEC project manager feels appropriate, (e.g. during significant maintenance events or in conjunction with storm recovery activities).

Modifications resulting from green remediation evaluations will be routinely implemented and scheduled to occur during planned/routine operation and maintenance activities after

approval from the DER project manager. Reporting of these modifications will be presented in the PRR.

6.2.3 Frequency of System Checks, Sampling and Other Periodic Activities

Transportation to and from the Site, use of consumables in relation to visiting the Site in order to conduct system checks and/or collect samples, and shipping samples to a laboratory for analyses have direct and/or inherent energy costs. The schedule and/or means of these periodic activities have been prepared so that these tasks can be accomplished in a manner that does not impact remedy protectiveness but reduces expenditure of energy or resources.

6.2.4 Metrics and Reporting

As discussed in **Section 7.0** and as shown in **Appendix H**, information on energy usage, solid waste generation, transportation and shipping, water usage and land use and ecosystems will be recorded to facilitate and document consistent implementation of green remediation during Site management and to identify corresponding benefits. A set of metrics has been developed and will be evaluated over time to ensure that green remediation actions are achieving the desired results.

As a requirement of NYSDEC document DER-31, an environmental footprint analysis (EFA) was performed for the Site remedy and included in the FER. A summary of the EFA for the operations associated with this SMP is as follows:

- Green House Gas (GHG) emissions are mainly from residual handling and equipment use and miscellaneous. The energy used by the project is similarly mostly from residual handling and equipment use and miscellaneous. On-Site NOx, SOx, and PM10 emissions are primarily attributed to equipment use and miscellaneous. Total NOx, SOx, PM10 emissions are from consumables and equipment use and miscellaneous. Accident Risk is primarily attributed to transportation of personnel and equipment use and miscellaneous.
- The results indicate that residual handling and equipment use and miscellaneous have the biggest environmental footprint on the project (GHG, energy used, NOx, SOx, PM10).
- Groundwater monitoring activities to assess the effect of remedial excavation on groundwater contamination mitigation will continue, as determined by the NYSDEC project manager in consultation with the NYSDOH project manager,

until residual groundwater concentrations are found to be consistently below ambient water quality standards, the Site SCGs, or have become asymptotic at an acceptable level over an extended period. If groundwater contaminant levels become asymptotic at a level that is not acceptable to the NYSDEC, treatment and/or control measures will be evaluated, and further groundwater remedial measures of the residual contamination may be considered. Therefore, an EFA of the additional groundwater remedial alternatives may be conducted once the evaluation of the attenuation of groundwater contamination is completed. The environmental footprint of the remedial alternatives would also be evaluated to explore opportunities to further optimize the environmental footprint of the project and integrate sustainable remediation best practices in the operation of the additional remedial actions.

6.2.5 Remedial System Optimization

A Remedial System Optimization (RSO) study will be conducted any time that the NYSDEC project manager or the remedial party requests in writing that an in-depth evaluation of the remedy is needed. An RSO may be appropriate if any of the following occur:

- The remedial actions have not met or are not expected to meet RAOs in the time frame estimated in the Decision Document;
- The management and operation of the remedial system is exceeding the estimated costs;
- The remedial system is not performing as expected or as designed;
- Previously unidentified source material may be suspected;
- Plume shift has potentially occurred;
- Site conditions change due to development, change of use, change in groundwater use, etc.;
- There is an anticipated transfer of the Site management to another remedial party or agency; and
- A new and applicable remedial technology becomes available.

A RSO will provide a critique of a Site's conceptual model, give a summary of past performance, document current cleanup practices, summarize progress made toward the Site's cleanup goals, gather additional performance or media specific data and information and provide recommendations for improvements to enhance the ability of the present system to reach RAOs or to provide a basis for changing the remedial strategy.

The RSO study will focus on overall Site cleanup strategy, process optimization and management with the intent of identifying impediments to cleanup and improvements to site operations to increase efficiency, cost effectiveness and remedial time frames. Green remediation technology and principals are to be considered when performing the RSO.

7.0 REPORTING REQUIREMENTS

7.1 Site Management Reports

All Site management inspection, maintenance and monitoring events will be recorded on the appropriate Site management forms provided in **Appendix H**. These forms are subject to NYSDEC revision. All Site management inspection, maintenance, and monitoring events will be conducted 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.

All applicable inspection forms and other records, including media sampling data and system maintenance reports, generated for the Site during the reporting period will be provided in electronic format to the NYSDEC in accordance with the requirements of **Table 7.1** and summarized in the PRR.

Table 7.1: Schedule of Interim Monitoring/Inspection Reports

Task/Report	Reporting Frequency*
Periodic Review Report	Annually, or as otherwise determined by the NYSDEC project manager

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

All interim monitoring/inspections reports will include, at a minimum:

- Date of event or reporting period;
- Name, company, and position of person(s) conducting monitoring/inspection activities;
- Description of the activities performed;
- 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);
- Type of samples collected (e.g., sub-slab vapor, indoor air, outdoor air);
- Copies of all field forms completed (e.g., well sampling logs, chain-of-custody documentation);
- Sampling results in comparison to appropriate standards/criteria;
- A figure illustrating sample type and sampling locations;
- Copies of all laboratory data sheets and the required laboratory data deliverables required for all points sampled (to be submitted electronically

in the NYSDEC-identified format);
- Any observations, conclusions, or recommendations; and
- A determination as to whether contaminant conditions have changed since the last reporting event.

Routine maintenance event reporting forms will include, at a minimum:
- Date of event;
- Name, company, and position of person(s) conducting maintenance activities;
- Description of maintenance activities performed;
- Any modifications to the system;
- 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
- Other documentation such as copies of invoices for maintenance work, receipts for replacement equipment, etc., (attached to the checklist/form).

Non-routine maintenance event reporting forms will include, at a minimum:
- Date of event;
- Name, company, and position of person(s) conducting maintenance activities;
- Description of maintenance activities performed;
- 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
- Other documentation such as copies of invoices for maintenance work, receipts for replacement equipment, etc., (attached to the checklist/form).

Data will be reported in digital format as determined by the NYSDEC. Currently, data is to be supplied electronically and submitted to the NYSDEC EQuIS™ database in accordance with the requirements found at this link: http://www.dec.ny.gov/chemical/62440.html.

7.2 Periodic Review Report

A Periodic Review Report (PRR) will be submitted to the NYSDEC project manager beginning sixteen (16) months after the Certificate of Completion is issued. After submittal of the initial Periodic Review Report, the next PRR shall be submitted annually to the NYSDEC project manager or at another frequency as may be required by the NYSDEC project manager. In the event that the Site is subdivided into separate parcels with different ownership, a single Periodic Review Report will be prepared that addresses the Site described in **Appendix A**. The report will be prepared in accordance with NYSDEC's DER-10 and submitted within 30 days of the end of each certification period. Media

sampling results will also be incorporated into the Periodic Review Report. The report will include:

- Identification, assessment and certification of all ECs/ICs required by the remedy for the Site.
- Results of the required annual Site inspections, fire inspections and severe condition inspections, if applicable.
- Description of any change of use, import of materials, or excavation that occurred during the certifying period.
- All applicable Site management forms and other records generated for the Site during the reporting period in the NYSDEC-approved electronic format, if not previously submitted.
- Identification of any wastes generated during the reporting period, along with waste characterization data, manifests, and disposal documentation.
- A summary of any discharge monitoring data and/or information generated during the reporting period, with comments and conclusions.
- Data summary tables and graphical representations of contaminants of concern by media (groundwater, soil vapor, etc.), which include a listing of all compounds analyzed, along with the applicable standards, with all exceedances highlighted. These tables and figures will include a presentation of past data as part of an evaluation of contaminant concentration trends, including but not limited to:
  - Trend monitoring graphs that present groundwater contaminant levels from before the start of the remedy implementation to the most current sampling data;
  - Trend monitoring graphs depicting system influent analytical data on a per event and cumulative basis;
  - O&M data summary tables;
  - A current plume map for Sites with remaining groundwater contamination; and
  - A groundwater elevation contour map for each gauging event.
- Results of all analyses, copies of all laboratory data sheets, and the required laboratory data deliverables for all samples collected during the reporting period will be submitted in digital format as determined by the NYSDEC. Currently, data is supplied electronically and submitted to the NYSDEC EQuIS™ database in accordance with the requirements found at this link: http://www.dec.ny.gov/chemical/62440.html.
- A Site evaluation, which includes the following:
  - The compliance of the remedy with the requirements of the Site-specific Remedial Action Work Plan (RAWP), ROD or Decision Document;
  - The operation and the effectiveness of all treatment units, etc., including identification of any needed repairs or modifications;
  - Any new conclusions or observations regarding site contamination based on inspections or data generated by the Monitoring and Sampling Plan for the media being monitored;
  - Recommendations regarding any necessary changes to the remedy and/or Monitoring and Sampling Plan;

- An update to the climate change vulnerability assessment if Site or external conditions have changed since the previous assessment, and recommendations to address vulnerabilities.
- A summary of the Green Remediation evaluation, including a quantitative and qualitative overview of a Site's environmental impacts and recommendations to improve the remedy's environmental footprint. The PRR will include the completed Summary of Green Remediation Metrics form provided in Appendix H.
- An evaluation of trends in contaminant levels in the affected media to determine if the remedy continues to be effective in achieving remedial goals as specified by the RAWP, ROD or Decision Document; and
- The overall performance and effectiveness of the remedy.

7.2.1 Certification of Institutional and Engineering Controls

Following the last inspection of the reporting period, 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 in the Periodic Review Report, 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:*

- 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;
- 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;
- Nothing has occurred that would impair the ability of the control to protect the public health and environment;
- Nothing has occurred that would constitute a violation or failure to comply with any Site management plan for this control;
- 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;
- 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;
- Use of the Site is compliant with the environmental easement;
- The engineering control systems are performing as designed and are effective;

- 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;
- No new information has come to my attention, including groundwater monitoring data from wells located at the Site boundary, if any, to indicate that the assumptions made in the qualitative exposure assessment of off-Site contamination are no longer valid; and
- The information presented in this report is accurate and complete."

(Every 5 years, the following will be included:

- The assumptions made in the qualitative exposure assessment remain valid.)

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, Fuad Dahan, of SESI Consulting Engineers, am certifying as Owner's/Remedial Party's Designated Site Representative for the Site."

"I certify that the New York State Education Department has granted a Certificate of Authorization to provide Professional Engineering services to the firm that prepared this Periodic Review Report."

The signed certification will be included in the Periodic Review Report.

The Periodic Review Report will be submitted, in electronic format, to the NYSDEC project manager and the NYSDOH project manager. The Periodic Review 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

NYCRR Part 375, Environmental Remediation Programs. December 14, 2006. NYSDEC DER-10 – "Technical Guidance for Site Investigation and Remediation".

NYSDEC, 1998. Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1. June 1998 (April 2000 addendum).

Geotechnical Investigation Report, 70 Westchester Avenue, White Plains, New York, prepared by SESI Consulting Engineers, dated January 2021, Revised February 2022.

Phase II Environmental Site Assessment Report, 70 Westchester Avenue, White Plains, New York, prepared by SESI Consulting Engineers, dated October 2020, Revised November 2020.

Remedial Investigation Work Plan, 70 Westchester Avenue, White Plains, New York, prepared by SESI Consulting Engineers, dated June 2021, Revised October 2021.

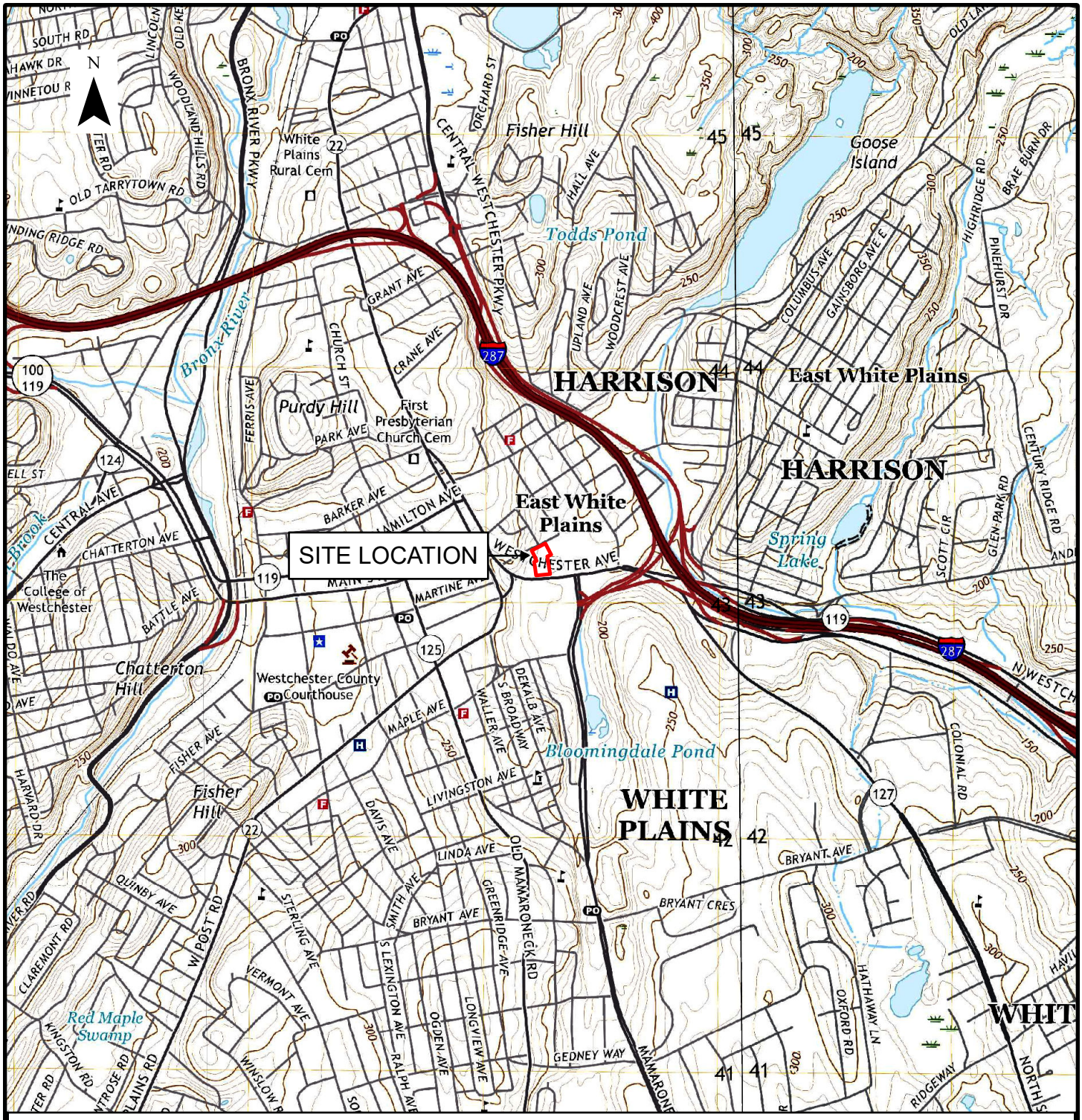
Supplemental Remedial Investigation Work Plan, 70 Westchester Avenue, White Plains, New York, prepared by SESI Consulting Engineers, dated June 2022, Revised September 2022.

Supplemental Vapor Intrusion Remedial Investigation Work Plan, 70 Westchester Avenue, White Plains, New York, prepared by SESI Consulting Engineers, dated February 2023.

Remedial Investigation Report, 70 Westchester Avenue, White Plains, New York, prepared by SESI Consulting Engineers, dated April 2022, Revised March 2023.

Remedial Action Work Plan, 70 Westchester Avenue, White Plains, New York, prepared by SESI Consulting Engineers, dated December 2022, Revised August 2023.

Figures



REFERENCE:

UNITED STATES GEOLOGICAL SURVEY (USGS)
WHITE PLAINS, NY USGS QUADRANGLE - 2019

LEGEND:

SITE LOCATION

SCALE: 1" = 2,000'

0 1,000 2,000 4,000 FEET

70 WESTCHESTER AVENUE
BLOCK 3, LOT 15.1
WHITE PLAINS, WESTCHESTER COUNTY, NY

SITE LOCATION MAP

SESI CONSULTING ENGINEERS
GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL
959 ROUTE 46E, 3RD FLOOR, PARSIPPANY, NJ 07054 PH: 973.808.9050

FIG-1.1	
DRAWN BY:	KBV
CHECKED BY:	SC
SCALE:	AS NOTED
DATE:	3/26/2026
JOB NO:	11444

Y:\GIS\Project_Numbers\11444\APRX_PROJECT\StandardMapSeries.aprx, 3/26/2026 10:47 AM, Kim Vanderklein, LAYOUT: FIG-1.1

LEGEND:

- PROPERTY LINE AND BCP BOUNDARY

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REFERENCE
AERIAL MAP TAKEN FROM NEARMAP, DATED OCT 01, 2025.

Scale 1"=60'
0 60 120

SESI CONSULTING ENGINEERS D.P.C.
SOILS / FOUNDATIONS
SITE DESIGN
ENVIRONMENTAL
959 ROUTE 46E, 3RD FLOOR, PARSIPPANY, N.J. 07054 PH: 973-808-9050

dwg by: aas
chk by: SC
scale: AS NOTED
date: 03/26/2026

project:
70 WESTCHESTER AVENUE
WHITE PLAINS, WESTCHESTER COUNTY, NY

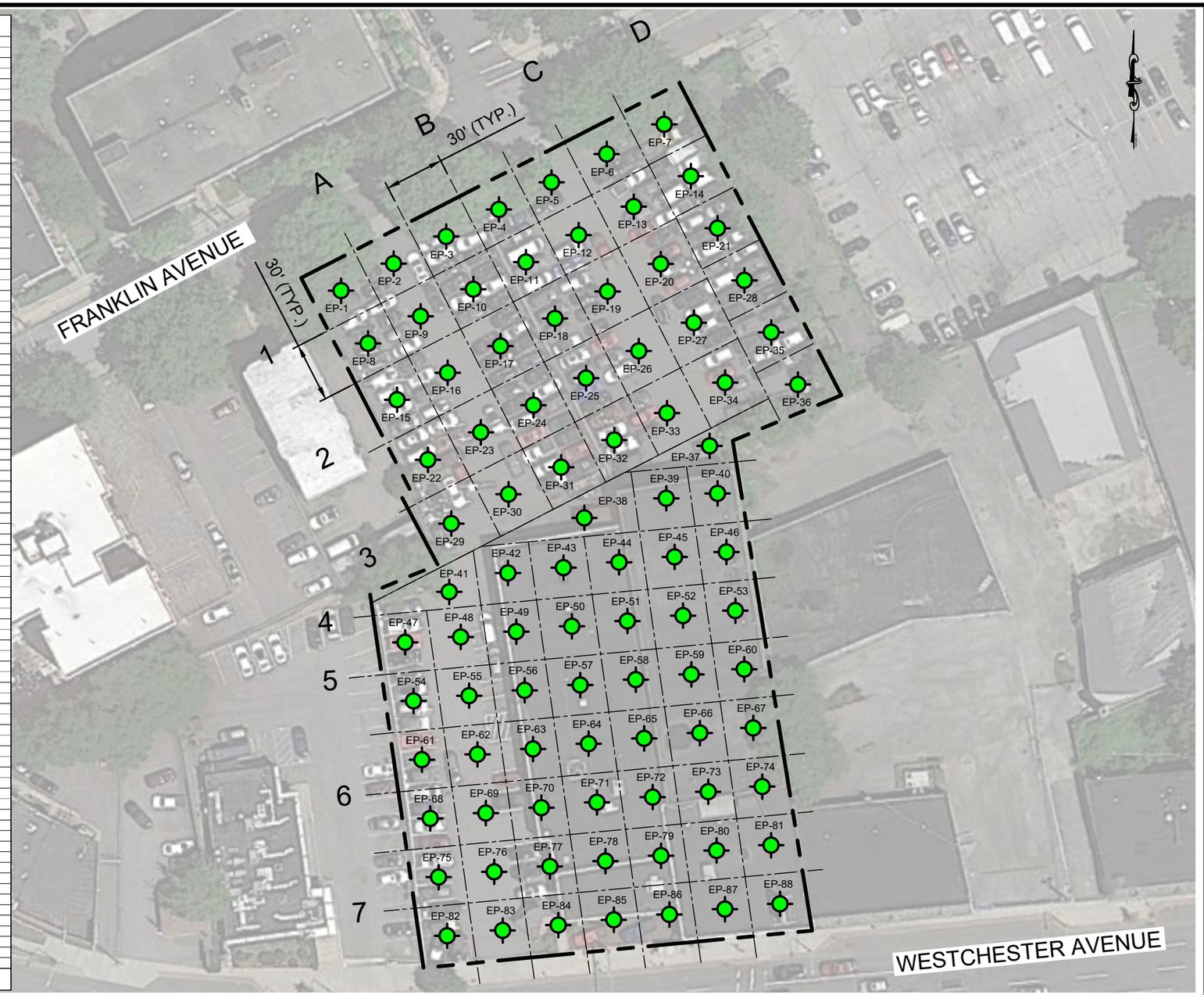
title:
SITE PLAN AND
BCP BOUNDARY MAP

job no: 11444
drawing no:

FIG-1.2

N:\ACAD\11444\CAD\RAWP\11444.DWG\SITE PLAN AND BCP BOUNDARY MAP.DWG 03/26/26 02:39:40PM, kim.vanderklein, LAYOUT:FIG-1.2

GRID	SAMPLE POINT	PRE-CONSTRUCTION GRADE ELEV (FT AMSL)	CUT THICKNESS (FT)	SURVEY ELEV (FT-AMSL)	VOLUME SOIL REMOVED (CY)
A-1	EP-1	172	18.7	153.3	623
	EP-2	172	18.3	153.7	610
	EP-8	172	19	153	633
	EP-9	172	17	155	567
A-2	EP-15	171.5	9.3	162.2	310
	EP-16	171.5	11.4	160.1	380
	EP-22	171.5	11.9	159.6	397
	EP-23	171.5	12.8	158.7	427
A-3	EP-29	167	13.2	153.8	440
	EP-30	167	14.1	152.9	470
A-4	EP-41	166.5	9	157.5	300
A-5	EP-47i	166	11.9	154.1	397
	EP-48i	166	12.2	153.8	407
	EP-54ii	166	14.2	151.8	473
	EP-55i	166	12.6	153.4	420
A-6	EP-61	165.5	12.7	152.8	423
	EP-62	165.5	12.5	153	417
	EP-68	165.5	14.5	151	483
	EP-69	165.5	14.6	150.9	487
A-7	EP-75i	165	13.3	151.7	443
	EP-76i	165	13.4	151.6	447
	EP-82i	165	13	152	433
	EP-83i	165	13.1	151.9	437
B-1	EP-3	167.5	12.5	155	417
	EP-4	163.5	4.7	158.8	157
	EP-10	167.5	8.8	158.7	293
	EP-11	163.5	5.6	157.9	187
B-2	EP-17	166	9.4	156.6	313
	EP-18	160	8	152	267
	EP-24	166	8.8	157.2	293
	EP-25	160	8.4	151.6	280
B-3	EP-31i	166	13.6	152.4	453
	EP-32	160	8.3	151.7	277
B-4	EP-38i	160	7.6	152.4	253
	EP-42	156	3.1	152.9	103
	EP-43	156	3.4	152.6	113
	EP-44	160	4.7	155.3	157
B-5	EP-49	156	3	153	100
	EP-50	156	3	153	100
	EP-51	156	3.1	152.9	103
	EP-56	156	3	153	100
	EP-57i	156	6	150	200
	EP-58	156	3.1	152.9	103
B-6	EP-63	167	12.5	154.5	417
	EP-64	167	4.7	162.3	157
	EP-65	167	9.2	157.8	307
	EP-70i	167	15.5	151.5	517
	EP-71	167	4.2	162.8	140
	EP-72i	167	12.5	154.5	417
B-7	EP-77	165	11.4	153.6	380
	EP-78	165	6.5	158.5	217
	EP-79	165	6.3	158.7	210
	EP-84	165	11	154	367
	EP-85	165	5	160	167
	EP-86	165	5.8	159.2	193
C-1	EP-5	162	5.8	156.2	193
	EP-6	162	9	153	300
	EP-12	162	10.3	151.7	343
	EP-13	162	10.6	151.4	353
C-2	EP-19	160	9	151	300
	EP-20i	160	11	149	367
	EP-26	160	8.7	151.3	290
	EP-27	160	8.1	151.9	270
C-3	EP-33i	159.5	19.5	140	650
	EP-34	159.5	17.7	141.8	590
C-4	EP-37	160	18	142	600
	EP-39	160	18	142	600
	EP-40i	160	20	140	667
	EP-45	160	18	142	600
	EP-46	160	18	142	600
C-5	EP-52	160	7	153	233
	EP-53	160	7.8	152.2	260
	EP-59i	160	7.8	152.2	260
	EP-60	160	8	152	267
C-6	EP-66i	160	17.5	142.5	583
	EP-67	160	7.6	152.4	253
	EP-73	160	7.3	152.7	243
	EP-74	160	6	154	200
C-7	EP-80	160	3	157	100
	EP-81	160	3.2	156.8	107
	EP-87	155	3.3	151.7	110
	EP-88	155	3.7	151.3	123
D-1	EP-7	161	14	147	467
	EP-14	161	14	147	467
D-2	EP-21i	159.5	10.6	148.9	353
	EP-28	159.5	3.5	156	117
D-3	EP-35	159	6.5	152.5	217
	EP-36i	159	10	149	333
				TOTAL CY SOIL REMOVED =	29597



NOTE:
THIS PLAN IS FOR LOCATING SOIL SAMPLING ONLY.
OTHER SITE WORK SHOWN HERE IS NOT INTENDED FOR CONSTRUCTION.

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LEGEND:

- PROPERTY LINE/TRACK 1 CLEANUP BOUNDARY
- EP-1 - END POINT SAMPLE LOCATION
- SAMPLE RESULTS BELOWS USCOs
- THE AVERAGE EXCAVATION CUT THICKNESS THROUGHOUT THE SITE IS 10 FEET

REFERENCE
AERIAL MAP TAKEN FROM BING MAPS, DATED 2020.

SCALE: 1"=60'
0 60 120

dwg by: AW
chk by: SG
scale: AS NOTED
date: 08/29/2025

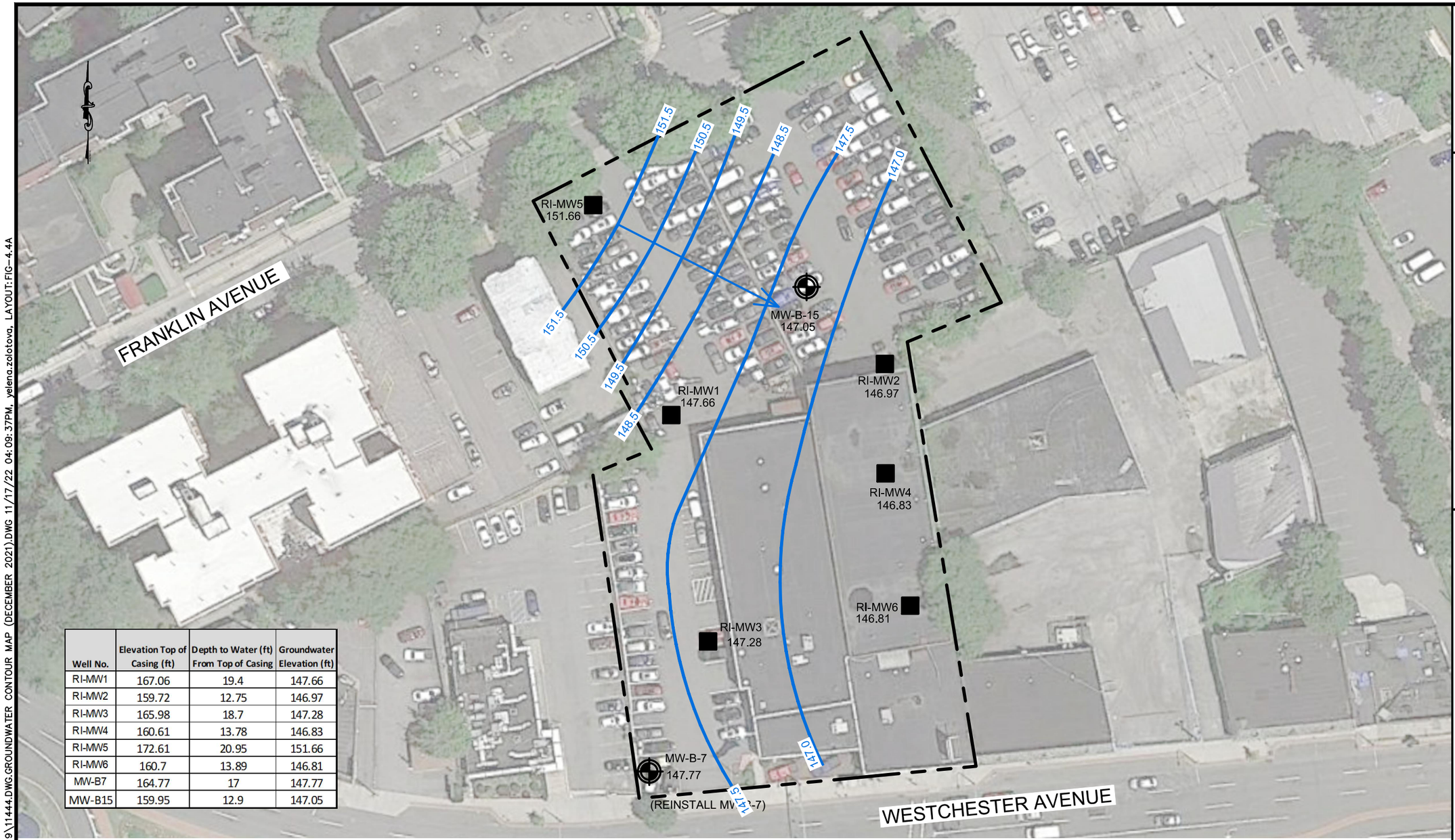
SESI CONSULTING ENGINEERS
GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL
959 route 46e, 3rd floor, parsippany, nj 07054 ph: 973.808.9050

project: WHITE PLAINS CHRYSLER CAR DEALERSHIP SITE
(BCP #C360209)
70 WESTCHESTER AVENUE
WHITE PLAINS, WESTCHESTER COUNTY, NY

title: REMEDIAL EXCAVATION AND SOIL SAMPLE LOCATION PLAN

job no: 11444
drawing no: FIG-2.1

N:\ACAD\11444\CAD\RAWP\11444.DWG.EXCAVATION PLAN.DWG 04/30/26 10:07:59AM, pinnacle, LAYOUT:FIG-4.2



Well No.	Elevation Top of Casing (ft)	Depth to Water (ft) From Top of Casing	Groundwater Elevation (ft)
RI-MW1	167.06	19.4	147.66
RI-MW2	159.72	12.75	146.97
RI-MW3	165.98	18.7	147.28
RI-MW4	160.61	13.78	146.83
RI-MW5	172.61	20.95	151.66
RI-MW6	160.7	13.89	146.81
MW-B7	164.77	17	147.77
MW-B15	159.95	12.9	147.05

REFERENCE
AERIAL MAP TAKEN FROM BING MAPS, DATED 2020.

LEGEND:

- PROPERTY LINE
- GW-1 - GROUNDWATER SAMPLE NUMBER & APPROX. LOCATION
- RI-MW3 147.28 - MONITORING WELL LOCATION AND GROUNDWATER ELEVATION
- GROUNDWATER ELEVATION CONTOUR (FEET)
- GROUNDWATER ELEVATION DIRECTION

NOTES:
1. THIS PLAN IS FOR LOCATING GROUNDWATER SAMPLING ONLY. OTHER SITE WORK SHOWN HERE IS NOT INTENDED FOR CONSTRUCTION.

SCALE: 1"=60'
0 60 120

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SESI CONSULTING ENGINEERS D.P.C.
SOILS / FOUNDATIONS
SITE DESIGN
ENVIRONMENTAL
959 ROUTE 46E, 3RD FLOOR, PARSIPPANY, N.J. 07054 PH: 973-808-9050

dwg by: aas
chk by: SSG
scale: AS NOTED
date: 11/17/2022

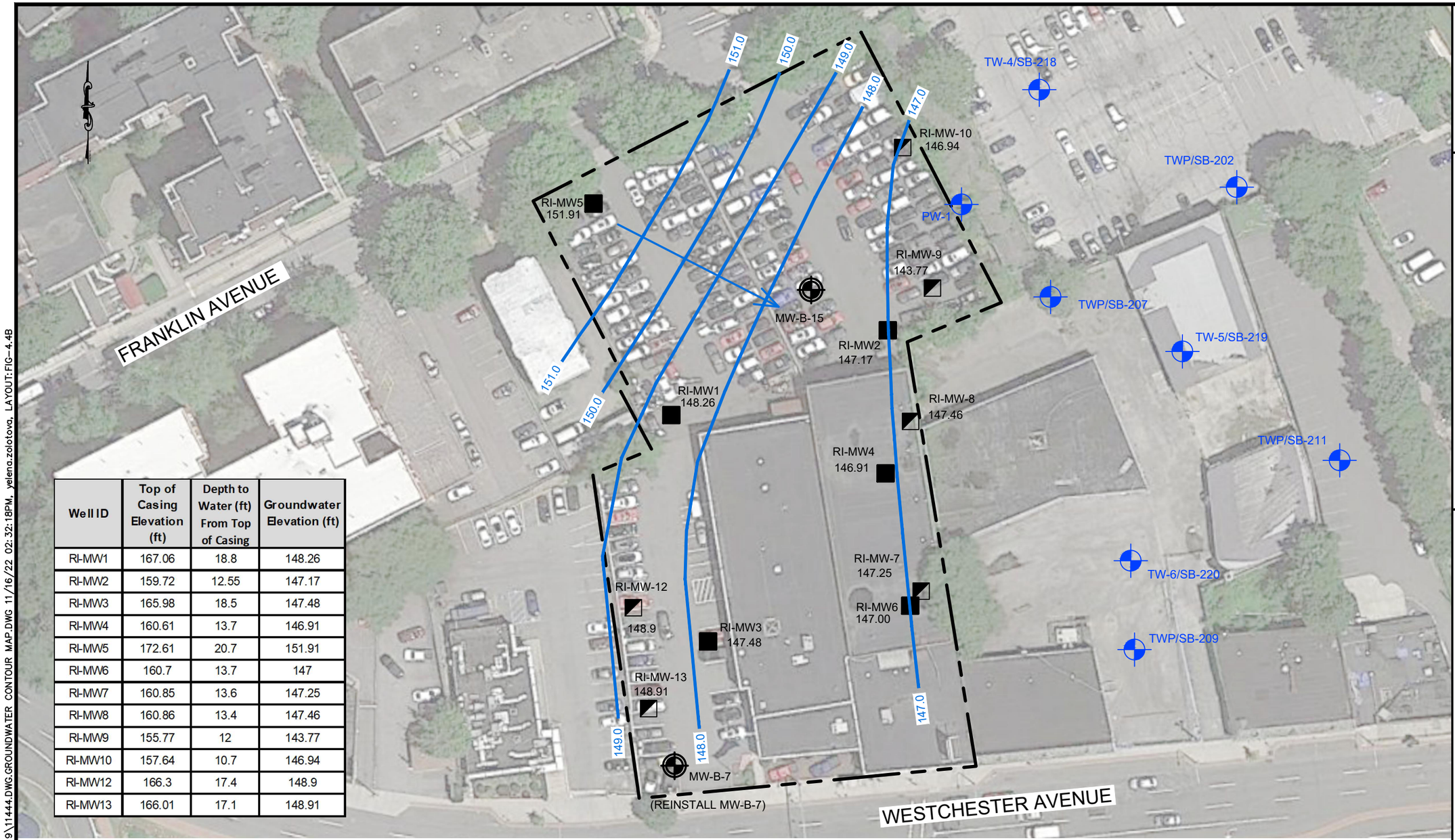
project: WHITE PLAINS CHRYSLER CAR DEALERSHIP SITE (BCP #C360209) 70 WESTCHESTER AVENUE WHITE PLAINS, WESTCHESTER COUNTY, NY

title: GROUNDWATER CONTOUR MAP (DECEMBER 2021)

job no: 11444
drawing no:

FIG-2.2A

N:\ACAD\11444\CAD\RIWP\2021-08-19\11444.DWG.GROUNDWATER CONTOUR MAP (DECEMBER 2021).DWG 11/17/22 04:09:37PM, yelena.zolotova, LAYOUT:FIG-4.4A



Well ID	Top of Casing Elevation (ft)	Depth to Water (ft) From Top of Casing	Groundwater Elevation (ft)
RI-MW1	167.06	18.8	148.26
RI-MW2	159.72	12.55	147.17
RI-MW3	165.98	18.5	147.48
RI-MW4	160.61	13.7	146.91
RI-MW5	172.61	20.7	151.91
RI-MW6	160.7	13.7	147
RI-MW7	160.85	13.6	147.25
RI-MW8	160.86	13.4	147.46
RI-MW9	155.77	12	143.77
RI-MW10	157.64	10.7	146.94
RI-MW12	166.3	17.4	148.9
RI-MW13	166.01	17.1	148.91

REFERENCE
AERIAL MAP TAKEN FROM BING MAPS, DATED 2020.

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LEGEND:

- PROPERTY LINE
- GW-1 - GROUNDWATER SAMPLE NUMBER & APPROX. LOCATION
- RI-MW3 147.28 - MONITORING WELL LOCATION AND GROUNDWATER ELEVATION
- RI-MW-7 147.25 - SUPPLEMENTAL REMEDIAL INVESTIGATION WELL AND GROUNDWATER ELEVATION
- GROUNDWATER ELEVATION CONTOUR (FEET)
- GROUNDWATER ELEVATION DIRECTION

NOTES:
1. THIS PLAN IS FOR LOCATING GROUNDWATER SAMPLING ONLY. OTHER SITE WORK SHOWN HERE IS NOT INTENDED FOR CONSTRUCTION.

SCALE: 1"=60'
0 60 120

dwg by: aas
chk by: SSG
scale: AS NOTED
date: 11/16/2022

SESI CONSULTING ENGINEERS D.P.C.
SOILS / FOUNDATIONS
SITE DESIGN
ENVIRONMENTAL
959 ROUTE 46E, 3RD FLOOR, PARSIPPANY, N.J. 07054 PH: 973-808-9050

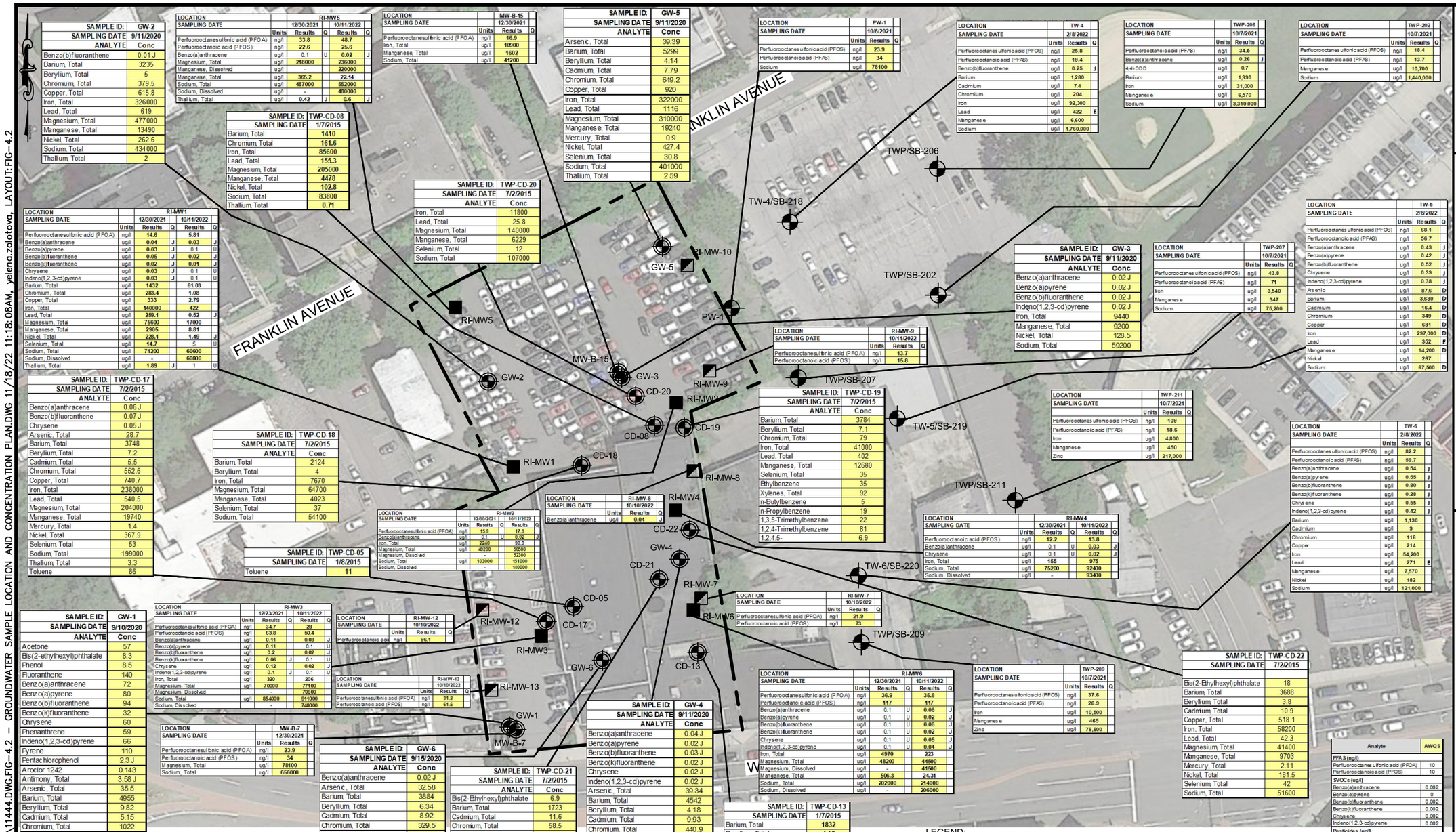
project: WHITE PLAINS CHRYSLER CAR DEALERSHIP SITE (BCP #C360209) 70 WESTCHESTER AVENUE WHITE PLAINS, WESTCHESTER COUNTY, NY

title: GROUNDWATER CONTOUR MAP (OCTOBER 2022)

job no: 11444
drawing no:

FIG-2.2B

N:\ACAD\11444\CAD\RIWP\2021-08-19\11444.DWG,GROUNDWATER CONTOUR MAP.DWG 11/16/22 02:32:18PM, yelena.zolotova, LAYOUT:FIG-4.4B



SAMPLE ID:	GW-2
SAMPLING DATE	9/11/2020
ANALYTE	Conc
Benzo(b)fluoranthene	0.01 J
Barium, Total	3235
Beryllium, Total	5
Chromium, Total	379.5
Copper, Total	615.8
Iron, Total	326000
Lead, Total	619
Magnesium, Total	477000
Manganese, Total	13490
Nickel, Total	262.6
Sodium, Total	434000
Thallium, Total	2

LOCATION		RI-MW5			
SAMPLING DATE		12/30/2021		10/11/2022	
	Units	Results	Q	Results	Q
Perfluorooctanesulfonic acid (PFOA)	ng/l	33.8		48.7	
Perfluorooctanoic acid (PFOS)	ng/l	22.6		25.6	
Benzo(a)anthracene	ug/l	0.1	U	0.02	J
Magnesium, Total	ug/l	218000		236000	
Manganese, Dissolved	ug/l	-		220000	
Manganese, Total	ug/l	365.2		22.14	
Sodium, Total	ug/l	487000		562000	
Sodium, Dissolved	ug/l	-		480000	
Thallium, Total	ug/l	0.42	J	0.6	J

LOCATION		MW-B-15	
SAMPLING DATE		12/30/2021	
	Units	Results	Q
Perfluorooctanesulfonic acid (PFOA)	ng/l	16.9	
Iron, Total	ug/l	10900	
Manganese, Total	ug/l	1602	
Sodium, Total	ug/l	41200	

SAMPLE ID:	GW-5
SAMPLING DATE	9/11/2020
ANALYTE	Conc
Arsenic, Total	39.39
Barium, Total	5299
Beryllium, Total	4.14
Cadmium, Total	7.79
Chromium, Total	649.2
Copper, Total	920
Iron, Total	322000
Lead, Total	1116
Magnesium, Total	310000
Manganese, Total	19240
Mercury, Total	0.9
Nickel, Total	427.4
Selenium, Total	30.8
Sodium, Total	401000
Thallium, Total	2.59

LOCATION		PW-1	
SAMPLING DATE		10/6/2021	
	Units	Results	Q
Perfluorooctanes ulfonic acid (PFOS)	ng/l	23.9	
Perfluorooctanoic acid (PFAS)	ng/l	34	
Sodium	ug/l	78100	

LOCATION		TW-4	
SAMPLING DATE		2/8/2022	
	Units	Results	Q
Perfluorooctanes ulfonic acid (PFOS)	ng/l	25.8	
Perfluorooctanoic acid (PFAS)	ng/l	19.4	
Benzo(b)fluoranthene	ug/l	0.25	J
Barium	ug/l	1,280	
Cadmium	ug/l	7.4	
Chromium	ug/l	204	
Iron	ug/l	92,300	
Lead	ug/l	422	E
Manganese	ug/l	6,600	
Sodium	ug/l	1,760,000	

LOCATION		TWP-206	
SAMPLING DATE		10/7/2021	
	Units	Results	Q
Perfluorooctanoic acid (PFAS)	ng/l	34.5	
Benzo(a)anthracene	ug/l	0.26	J
4,4-DDD	ug/l	0.7	
Barium	ug/l	1,990	
Iron	ug/l	31,000	
Manganese	ug/l	6,570	
Sodium	ug/l	3,310,000	

LOCATION		TWP-202	
SAMPLING DATE		10/7/2021	
	Units	Results	Q
Perfluorooctanes ulfonic acid (PFOS)	ng/l	18.4	
Perfluorooctanoic acid (PFAS)	ng/l	13.7	
Manganese	ug/l	10,700	
Sodium	ug/l	1,440,000	

SAMPLE ID:	TWP-CD-08
SAMPLING DATE	1/7/2015
Barium, Total	1410
Chromium, Total	161.6
Iron, Total	85600
Lead, Total	155.3
Magnesium, Total	205000
Manganese, Total	4478
Nickel, Total	102.8
Sodium, Total	83800
Thallium, Total	0.71

SAMPLE ID:	TWP-CD-20
SAMPLING DATE	7/2/2015
ANALYTE	Conc
Iron, Total	11800
Lead, Total	25.8
Magnesium, Total	140000
Manganese, Total	6229
Selenium, Total	12
Sodium, Total	107000

SAMPLE ID:	GW-3
SAMPLING DATE	9/11/2020
ANALYTE	Conc
Benz o(a)anthracene	0.02 J
Benz o(a)pyrene	0.02 J
Benz o(b)fluoranthene	0.02 J
Indeno(1,2,3-cd)pyrene	0.02 J
Iron, Total	9440
Manganese, Total	9200
Nickel, Total	128.5
Sodium, Total	59200

LOCATION		TWP-207	
SAMPLING DATE		10/7/2021	
	Units	Results	Q
Perfluorooctanes ulfonic acid (PFOS)	ng/l	43.8	
Perfluorooctanoic acid (PFAS)	ng/l	71	
Iron	ug/l	3,540	
Manganese	ug/l	347	
Sodium	ug/l	75,200	

LOCATION		TW-5	
SAMPLING DATE		2/8/2022	
	Units	Results	Q
Perfluorooctanes ulfonic acid (PFOS)	ng/l	68.1	
Perfluorooctanoic acid (PFAS)	ng/l	56.7	
Benzo(a)anthracene	ug/l	0.43	J
Benzo(a)pyrene	ug/l	0.42	J
Benzo(b)fluoranthene	ug/l	0.52	J
Chrysene	ug/l	0.39	J
Indeno(1,2,3-cd)pyrene	ug/l	0.38	J
Arsenic	ug/l	87.6	D
Barium	ug/l	3,680	D
Cadmium	ug/l	16.4	D
Chromium	ug/l	349	D
Copper	ug/l	681	D
Iron	ug/l	297,000	D
Lead	ug/l	352	E
Manganese	ug/l	14,200	D
Nickel	ug/l	267	
Sodium	ug/l	67,500	D

LOCATION		RI-MW1			
SAMPLING DATE		12/30/2021		10/11/2022	
	Units	Results	Q	Results	Q
Perfluorooctanesulfonic acid (PFOA)	ng/l	14.6		5.81	
Benzo(a)anthracene	ug/l	0.04	J	0.03	J
Benzo(a)pyrene	ug/l	0.03	J	0.1	U
Benzo(b)fluoranthene	ug/l	0.05	J	0.02	J
Benzo(k)fluoranthene	ug/l	0.02	J	0.01	J
Chrysene	ug/l	0.03	J	0.1	U
Indeno(1,2,3-cd)pyrene	ug/l	0.03	J	0.1	U
Barium, Total	ug/l	1432		61.03	
Chromium, Total	ug/l	283.4		1.08	
Copper, Total	ug/l	333		2.79	
Iron, Total	ug/l	140000		422	
Lead, Total	ug/l	298.1		0.52	J
Magnesium, Total	ug/l	75600		17000	
Manganese, Total	ug/l	2905		8.81	
Nickel, Total	ug/l	228.1		1.49	J
Selenium, Total	ug/l	14.7		5	U
Sodium, Total	ug/l	71200		60800	
Sodium, Dissolved	ug/l	-		60800	
Thallium, Total	ug/l	1.89	J	1	U

SAMPLE ID:	TWP-CD-17
SAMPLING DATE	7/2/2015
ANALYTE	Conc
Benzo(a)anthracene	0.06 J
Benzo(b)fluoranthene	0.07 J
Chrysene	0.05 J
Arsenic, Total	28.7
Barium, Total	3748
Beryllium, Total	7.2
Cadmium, Total	5.5
Chromium, Total	552.6
Copper, Total	740.7
Iron, Total	238000
Lead, Total	540.5
Magnesium, Total	204000
Manganese, Total	19740
Mercury, Total	1.4
Nickel, Total	367.9
Selenium, Total	53
Sodium, Total	199000
Thallium, Total	3.3
Toluene	86

SAMPLE ID:	TWP-CD-18
SAMPLING DATE	7/2/2015
ANALYTE	Conc
Barium, Total	2124
Beryllium, Total	4
Iron, Total	7670
Magnesium, Total	64700
Manganese, Total	4023
Selenium, Total	37
Sodium, Total	54100

SAMPLE ID:	TWP-CD-05
SAMPLING DATE	1/8/2015
Toluene	11

LOCATION		RI-MW2			
SAMPLING DATE		12/30/2021		10/11/2022	
	Units	Results	Q	Results	Q
Perfluorooctanesulfonic acid (PFOA)	ng/l	15.9		17.3	
Benzo(a)anthracene	ug/l	0.1	U	0.02	J
Iron, Total	ug/l	2240		90.3	
Magnesium, Total	ug/l	49200		56500	
Magnesium, Dissolved	ug/l	-		52000	
Sodium, Total	ug/l	103000		151000	
Sodium, Dissolved	ug/l	-		140000	

LOCATION		RI-MW-8	
SAMPLING DATE		10/10/2022	
	Units	Results	Q
Benzo(a)anthracene	ug/l	0.04	J

LOCATION		RI-MW4			
SAMPLING DATE		12/30/2021		10/11/2022	
	Units	Results	Q	Results	Q
Perfluorooctanoic acid (PFOS)	ng/l	12.2		13.8	
Benzo(a)anthracene	ug/l	0.1	U	0.03	J
Chrysene	ug/l	0.1	U	0.02	J
Iron, Total	ug/l	155		975	
Sodium, Total	ug/l	75200		92400	
Sodium, Dissolved	ug/l	-		93400	

LOCATION		RI-MW-7	
SAMPLING DATE		10/10/2022	
	Units	Results	Q
Perfluorooctanesulfonic acid (PFOA)	ng/l	21.9	
Perfluorooctanoic acid (PFOS)	ng/l	73	

LOCATION		RI-MW-9	
SAMPLING DATE		10/11/2022	
	Units	Results	Q
Perfluorooctanesulfonic acid (PFOA)	ng/l	13.7	
Perfluorooctanoic acid (PFOS)	ng/l	15.8	

SAMPLE ID:	TWP-CD-19
SAMPLING DATE	7/2/2015
ANALYTE	Conc
Barium, Total	3784
Beryllium, Total	7.1
Chromium, Total	79
Iron, Total	41000
Lead, Total	402
Manganese, Total	12680
Selenium, Total	35
Ethylbenzene	35
Xylenes, Total	92
n-Butylbenzene	5
n-Propylbenzene	19
1,3,5-Trimethylbenzene	22
1,2,4-Trimethylbenzene	81
1,2,4,5-	6.9

LOCATION		TWP-211	
SAMPLING DATE		10/7/2021	
	Units	Results	Q
Perfluorooctanes ulfonic acid (PFOS)	ng/l	109	
Perfluorooctanoic acid (PFAS)	ng/l	18.6	
Iron	ug/l	4,800	
Manganese	ug/l	450	
Zinc	ug/l	217,000	

LOCATION		TW-6	
SAMPLING DATE		2/8/2022	
	Units	Results	Q
Perfluorooctanes ulfonic acid (PFOS)	ng/l	82.2	
Perfluorooctanoic acid (PFAS)	ng/l	59.7	
Benzo(a)anthracene	ug/l	0.54	J
Benzo(a)pyrene	ug/l	0.55	J
Benzo(b)fluoranthene	ug/l	0.80	J
Benzo(k)fluoranthene	ug/l	0.28	J
Chrysene	ug/l	0.55	J
Indeno(1,2,3-cd)pyrene	ug/l	0.42	J
Barium	ug/l	1,130	
Cadmium	ug/l	9	
Chromium	ug/l	116	
Copper	ug/l	214	
Iron	ug/l	54,200	
Lead	ug/l	271	E
Manganese	ug/l	7,570	
Nickel	ug/l	182	
Sodium	ug/l	121,000	

LOCATION		RI-MW3			
SAMPLING DATE		12/23/2021		10/11/2022	
	Units	Results	Q	Results	Q
Perfluorooctanesulfonic acid (PFOA)	ng/l	34.7		28	
Perfluorooctanoic acid (PFOS)	ng/l	63.8		50.4	
Benzo(a)anthracene	ug/l	0.11		0.03	J
Benzo(a)pyrene	ug/l	0.11		0.1	U
Benzo(b)fluoranthene	ug/l	0.2		0.02	J
Benzo(k)fluoranthene	ug/l	0.06	J	0.1	U
Chrysene	ug/l	0.12		0.02	J
Indeno(1,2,3-cd)pyrene	ug/l	0.1	J	0.1	U
Iron, Total	ug/l	320		266	
Magnesium, Total	ug/l	70000		77100	
Magnesium, Dissolved	ug/l	-		70600	
Sodium, Total	ug/l	854000		911000	
Sodium, Dissolved	ug/l	-		748000	

LOCATION		RI-MW-12	
SAMPLING DATE		10/10/2022	
	Units	Results	Q
Perfluorooctanoic acid	ng/l	96.1	

LOCATION		RI-MW-13	
SAMPLING DATE		10/10/2022	
	Units	Results	Q
Perfluorooctanesulfonic acid (PFOA)	ng/l	31.8	
Perfluorooctanoic acid (PFOS)	ng/l	61.6	

LOCATION		MW-B-7	
SAMPLING DATE		12/30/2021	
	Units	Results	Q
Perfluorooctanesulfonic acid (PFOA)	ng/l	23.9	
Perfluorooctanoic acid (PFOS)	ng/l	34	
Magnesium, Total	ug/l	78100	
Sodium, Total	ug/l	656000	

SAMPLE ID:	GW-6
SAMPLING DATE	9/15/2020
ANALYTE	Conc
Benzo(a)anthracene	0.02 J
Arsenic, Total	32.58
Barium, Total	3884
Beryllium, Total	6.34
Cadmium, Total	8.92
Chromium, Total	329.5
Copper, Total	594.3
Iron, Total	142000
Lead, Total	216.5
Magnesium, Total	216000
Manganese, Total	30740
Nickel, Total	506.4
Selenium, Total	34
Sodium, Total	230000
Thallium, Total	1.95

SAMPLE ID:	TWP-CD-21
SAMPLING DATE	7/2/2015
ANALYTE	Conc
Bis(2-Ethylhexyl)phthalate	6.9
Barium, Total	1723
Cadmium, Total	11.6
Chromium, Total	58.5
Copper, Total	553.3
Iron, Total	25900
Lead, Total	39.4
Magnesium, Total	77100
Manganese, Total	8676
Mercury, Total	0.76
Nickel, Total	221
Selenium, Total	41
Sodium, Total	187000
Toluene	11

SAMPLE ID:	GW-4
SAMPLING DATE	9/11/2020
ANALYTE	Conc
Benz o(a)anthracene	0.04 J
Benz o(a)pyrene	0.02 J
Benz o(b)fluoranthene	0.03 J
Benz o(k)fluoranthene	0.02 J
Chrysene	0.02 J
Indeno(1,2,3-cd)pyrene	0.02 J
Arsenic, Total	39.34
Barium, Total	4542
Beryllium, Total	4.18
Cadmium, Total	9.93
Chromium, Total	440.9
Copper, Total	658
Iron, Total	411000
Lead, Total	1032
Magnesium, Total	162000
Manganese, Total	34120
Mercury, Total	1.4
Nickel, Total	485.6
Selenium, Total	32.7
Sodium, Total	112000
Thallium, Total	2.49

LOCATION		RI-MW6			
SAMPLING DATE		12/30/2021		10/11/2022	
	Units	Results	Q	Results	Q
Perfluorooctanesulfonic acid (PFOA)	ng/l	36.9		35.6	
Perfluorooctanoic acid (PFOS)	ng/l	117		117	
Benzo(a)anthracene	ug/l	0.1	U	0.06	J
Benzo(a)pyrene	ug/l	0.1	U	0.02	J
Benzo(b)fluoranthene	ug/l	0.1	U	0.06	J
Benzo(k)fluoranthene	ug/l	0.1	U	0.02	J
Chrysene	ug/l	0.1	U	0.05	J
Indeno(1,2,3-cd)pyrene	ug/l	0.1	U	0.04	J
Iron, Total	ug/l	4970		223	
Magnesium, Total	ug/l	48200		44500	
Magnesium, Dissolved	ug/l	-		41500	
Manganese, Total	ug/l	506.3		24.31	
Sodium, Total	ug/l	202000		214000	
Sodium, Dissolved	ug/l	-		206000	

LOCATION		TWP-209	
SAMPLING DATE		10/7/2021	
	Units	Results	Q
Perfluorooctanes ulfonic acid (PFOS)	ng/l	37.6	
Perfluorooctanoic acid (PFAS)	ng/l	28.9	
Iron	ug/l	10,500	
Manganese	ug/l	465	
Zinc	ug/l	78,800	

SAMPLE ID:	TWP-CD-13
SAMPLING DATE	1/7/2015
Barium, Total	1832
Beryllium, Total	4.13
Chromium, Total	109.4
Copper, Total	219.6
Iron, Total	135000
Lead, Total	93.06
Magnesium, Total	90000
Manganese, Total	13530
Nickel, Total	203
Selenium, Total	27.6
Sodium, Total	303000
Thallium, Total	1.07

SAMPLE ID:	TWP-CD-22
SAMPLING DATE	7/2/2015
Bis(2-Ethylhexyl)phthalate	18
Barium, Total	3688
Beryllium, Total	3.8
Cadmium, Total	10.9
Copper, Total	518.1
Iron, Total	58200
Lead, Total	42.3
Magnesium, Total	41400
Manganese, Total	9703
Mercury, Total	2.11
Nickel, Total	181.5
Selenium, Total	42
Sodium, Total	51600

Analyte	AWQS
PFAS (ng/l)	
Perfluorooctanes ulfonic acid (PFOA)	10
Perfluorooctanoic acid (PFOS)	10
SVOCs (ug/l)	
Benzo(a)anthracene	0.002
Benzo(a)pyrene	0
Benzo(b)fluoranthene	0.002
Benzo(k)fluoranthene	0.002
Chrysene	0.002
Indeno(1,2,3-cd)pyrene	0.002
Pesticides (ug/l)	
4,4-DDD	0.3
Metals (ug/l)	
Antimony	3
Arsenic	25
Barium	1,000
Cadmium	5
Chromium	50
Copper	200
Iron	300
Lead	25
Magnesium, Total/Dissolved	35000
Manganese	300
Nickel	100
Selenium, Total	10
Sodium, Total/Dissolved	20,000
Thallium, Total	0.5

NOTES:

1. THIS PLAN IS FOR LOCATING GROUNDWATER SAMPLING ONLY. OTHER SITE WORK SHOWN HERE IS NOT INTENDED FOR CONSTRUCTION.
2. NY-AWQS: NEW YORK TOGS 111 AMBIENT WATER QUALITY STANDARDS CRITERIA REFLECTS ALL ADDENDUM TO CRITERIA THROUGH JUNE 2004.
3. J = PRESUMPTIVE EVIDENCE OF COMPOUND

REFERENCE

AERIAL MAP TAKEN FROM BING MAPS, DATED 2020.

LEGEND:

- PROPERTY LINE
- GW-1 - GROUNDWATER SAMPLE NUMBER & APPROX. LOCATION (SEPTEMBER 2020)
- 110 - CONCENTRATION EXCEEDS NY-AWQS
- RI-MW3 - REMEDIAL INVESTIGATION MONITORING WELL LOCATION (NOVEMBER/DECEMBER 2021)
- CD-13 - GROUNDWATER SAMPLE COLLECTED BY OTHERS (JANUARY 2015)
- RI-MW-7 - SUPPLEMENTAL REMEDIAL INVESTIGATION WELL (OCTOBER 2022)
- TWP/SB-202 - APPROX. LOCATIONS OF TEMPORARY WELL POINT & SOIL BORING

SCALE: 1"=80'

0 80 160

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N:\ACAD\11444\CAD\RIWP\2021-08-19\11444.DWG,FIG-4.2 - GROUNDWATER SAMPLE LOCATION AND CONCENTRATION PLAN.DWG 11/18/22 11:18:08AM, yelena.zolotova, LAYOUT:FIG-4.2

SESI
CONSULTING ENGINEERS D.P.C.
SOILS / FOUNDATIONS
SITE DESIGN
ENVIRONMENTAL
959 ROUTE 46E, 3RD FLOOR, PARSIPPANY, N.J. 07054 PH: 973-808-9050

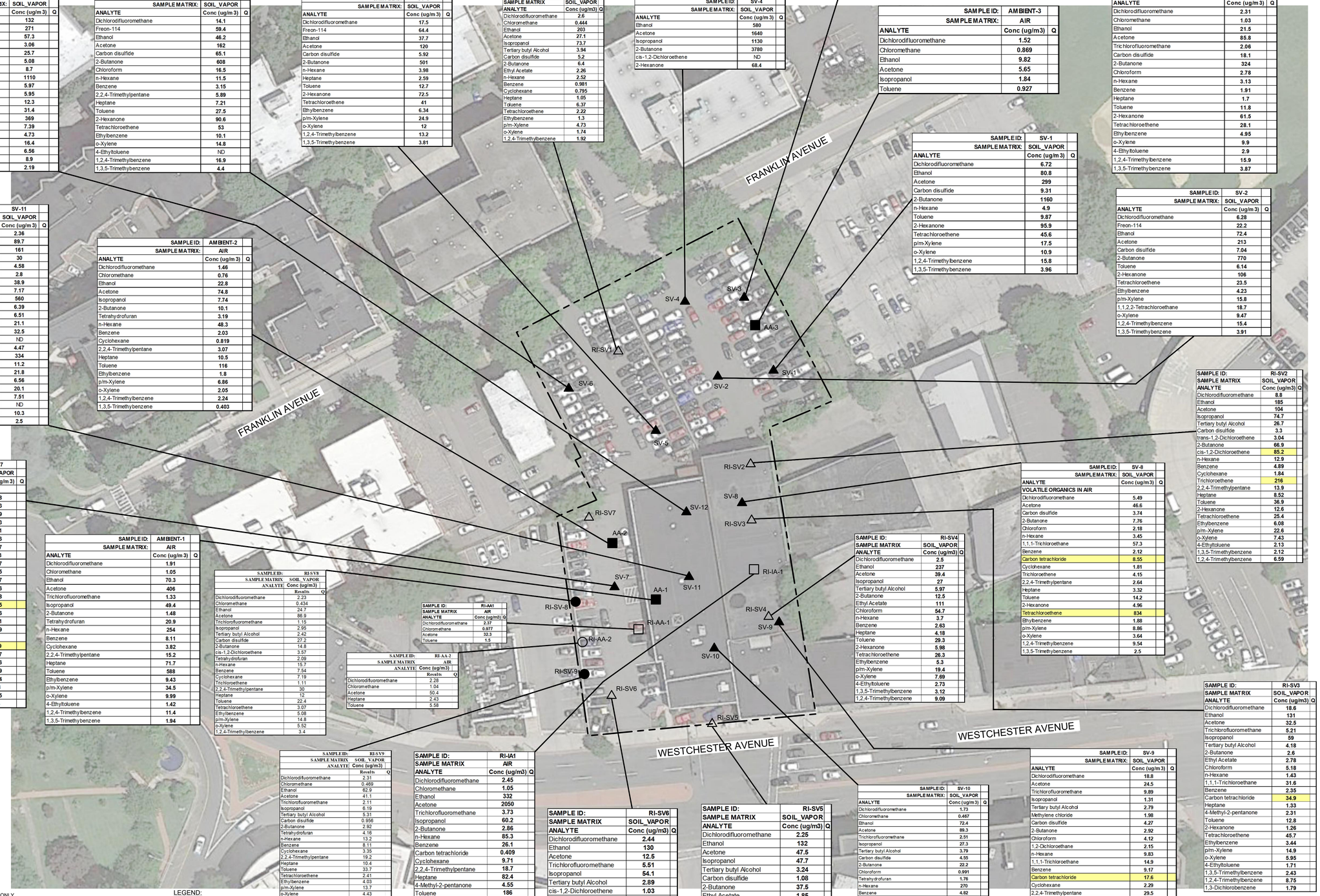
dwg by: aas
chk by: SSG
scale: AS NOTED
date: 11/18/2022

project: WHITE PLAINS CHRYSLER CAR DEALERSHIP SITE (BCP #C360209) 70 WESTCHESTER AVENUE WHITE PLAINS, WESTCHESTER COUNTY, NY

title: GROUNDWATER SAMPLE LOCATION AND CONCENTRATION PLAN

job no: 11444
drawing no:

FIG-2.3



SAMPLE ID:	SV-12	
SAMPLE MATRIX:	SOIL_VAPOR	
ANALYTE	Conc (ug/m 3)	Q
Ethanol	132	
Acetone	271	
Isopropanol	57.3	
Carbon disulfide	3.06	
2-Butanone	25.7	
Chloroform	5.08	
Tetrahydrofuran	8.7	
n-Hexane	1110	
Benzene	5.97	
Cyclohexane	5.95	
2,2,4-Trimethylpentane	12.3	
Heptane	31.4	
Toluene	369	
Tetrachloroethene	7.39	
Ethylbenzene	4.73	
p/m-Xylene	16.4	
o-Xylene	6.56	
1,2,4-Trimethylbenzene	8.9	
1,3,5-Trimethylbenzene	2.19	

SAMPLE ID:	SV-6	
SAMPLE MATRIX:	SOIL_VAPOR	
ANALYTE	Conc (ug/m 3)	Q
Dichlorodifluoromethane	14.1	
Freon-114	59.4	
Ethanol	46.2	
Acetone	162	
Carbon disulfide	65.1	
2-Butanone	608	
Chloroform	16.5	
n-Hexane	11.5	
Benzene	3.15	
2,2,4-Trimethylpentane	5.89	
Heptane	7.21	
Toluene	27.5	
2-Hexanone	90.6	
Tetrachloroethene	53	
Ethylbenzene	10.1	
o-Xylene	14.8	
4-Ethyltoluene	ND	
1,2,4-Trimethylbenzene	16.9	
1,3,5-Trimethylbenzene	4.4	

SAMPLE ID:	SV-5	
SAMPLE MATRIX:	SOIL_VAPOR	
ANALYTE	Conc (ug/m 3)	Q
Dichlorodifluoromethane	17.5	
Freon-114	64.4	
Ethanol	37.7	
Acetone	120	
Carbon disulfide	5.92	
2-Butanone	501	
n-Hexane	3.98	
Heptane	2.59	
Toluene	12.7	
2-Hexanone	72.5	
Tetrachloroethene	41	
Ethylbenzene	6.34	
p/m-Xylene	24.9	
o-Xylene	12	
1,2,4-Trimethylbenzene	13.2	
1,3,5-Trimethylbenzene	3.81	

SAMPLE ID:	RI-SV1	
SAMPLE MATRIX	SOIL_VAPOR	
ANALYTE	Conc (ug/m3)	Q
Dichlorodifluoromethane	2.6	
Chloromethane	0.444	
Ethanol	203	
Acetone	27.1	
Isopropanol	73.7	
Tertiary butyl Alcohol	3.94	
Carbon disulfide	5.2	
2-Butanone	6.4	
Ethyl Acetate	2.26	
n-Hexane	2.52	
Benzene	0.981	
Cyclohexane	0.795	
Heptane	1.05	
Toluene	6.37	
Tetrachloroethene	2.22	
Ethylbenzene	1.3	
p/m-Xylene	4.73	
o-Xylene	1.74	
1,2,4-Trimethylbenzene	1.92	

SAMPLE ID:	SV-4	
SAMPLE MATRIX:	SOIL_VAPOR	
ANALYTE	Conc (ug/m 3)	Q
Ethanol	580	
Acetone	1640	
Isopropanol	1130	
2-Butanone	3780	
cis-1,2-Dichloroethene	ND	
2-Hexanone	68.4	

SAMPLE ID:	AMBIENT-3	
SAMPLE MATRIX:	AIR	
ANALYTE	Conc (ug/m3)	Q
Dichlorodifluoromethane	1.52	
Chloromethane	0.869	
Ethanol	9.82	
Acetone	5.65	
Isopropanol	1.84	
Toluene	0.927	

SAMPLE ID:	SV-3	
SAMPLE MATRIX:	SOIL_VAPOR	
ANALYTE	Conc (ug/m3)	Q
Dichlorodifluoromethane	2.31	
Chloromethane	1.03	
Ethanol	21.5	
Acetone	85.8	
Trichlorofluoromethane	2.06	
Carbon disulfide	18.1	
2-Butanone	324	
Chloroform	2.78	
n-Hexane	3.13	
Benzene	1.91	
Heptane	1.7	
Toluene	11.8	
2-Hexanone	61.5	
Tetrachloroethene	28.1	
Ethylbenzene	4.95	
o-Xylene	9.9	
4-Ethyltoluene	2.9	
1,2,4-Trimethylbenzene	15.9	
1,3,5-Trimethylbenzene	3.87	

SAMPLE ID:	SV-1	
SAMPLE MATRIX:	SOIL_VAPOR	
ANALYTE	Conc (ug/m3)	Q
Dichlorodifluoromethane	6.72	
Ethanol	80.8	
Acetone	299	
Carbon disulfide	9.31	
2-Butanone	1160	
n-Hexane	4.9	
Toluene	9.87	
2-Hexanone	95.9	
Tetrachloroethene	45.6	
p/m-Xylene	17.5	
o-Xylene	10.9	
1,2,4-Trimethylbenzene	15.8	
1,3,5-Trimethylbenzene	3.96	

SAMPLE ID:	SV-2	
SAMPLE MATRIX:	SOIL_VAPOR	
ANALYTE	Conc (ug/m 3)	Q
Dichlorodifluoromethane	6.28	
Freon-114	22.2	
Ethanol	72.4	
Acetone	213	
Carbon disulfide	7.04	
2-Butanone	770	
Toluene	6.14	
2-Hexanone	106	
Tetrachloroethene	23.5	
Ethylbenzene	4.23	
p/m-Xylene	15.8	
1,1,2,2-Tetrachloroethane	18.7	
o-Xylene	9.47	
1,2,4-Trimethylbenzene	15.4	
1,3,5-Trimethylbenzene	3.91	

SAMPLE ID:	SV-11	
SAMPLE MATRIX:	SOIL_VAPOR	
ANALYTE	Conc (ug/m 3)	Q
Dichlorodifluoromethane	2.36	
Ethanol	89.7	
Acetone	161	
Isopropanol	30	
Tertiary butyl Alcohol	4.58	
Carbon disulfide	2.8	
2-Butanone	38.9	
Tetrahydrofuran	7.17	
n-Hexane	560	
Benzene	6.39	
Cyclohexane	6.51	
2,2,4-Trimethylpentane	21.1	
Heptane	32.5	
cis-1,3-Dichloropropene	ND	
4-Methyl-2-pentanone	4.47	
Toluene	334	
2-Hexanone	11.2	
Tetrachloroethene	21.8	
Ethylbenzene	6.56	
p/m-Xylene	20.1	
o-Xylene	7.51	
4-Ethyltoluene	ND	
1,2,4-Trimethylbenzene	10.3	
1,3,5-Trimethylbenzene	2.5	

SAMPLE ID:	AMBIENT-2	
SAMPLE MATRIX:	AIR	
ANALYTE	Conc (ug/m 3)	Q
Dichlorodifluoromethane	1.46	
Chloromethane	0.76	
Ethanol	22.8	
Acetone	74.8	
Isopropanol	7.74	
2-Butanone	10.1	
Tetrahydrofuran	3.19	
n-Hexane	48.3	
Benzene	2.03	
Cyclohexane	0.819	
2,2,4-Trimethylpentane	3.07	
Heptane	10.5	
Toluene	116	
Ethylbenzene	1.8	
p/m-Xylene	6.86	
o-Xylene	2.05	
1,2,4-Trimethylbenzene	2.24	
1,3,5-Trimethylbenzene	0.403	

SAMPLE ID:	SV-7	
SAMPLE MATRIX:	SOIL_VAPOR	
ANALYTE	Conc (ug/m 3)	Q
VOLATILE ORGANICS IN AIR		
Dichlorodifluoromethane	3.48	
Ethanol	24.3	
Acetone	63.9	
Trichlorofluoromethane	16.3	
Isopropanol	3.71	
Tertiary butyl Alcohol	2.76	
Carbon disulfide	41.7	
2-Butanone	263	
Chloroform	2.77	
Tetrahydrofuran	8.55	
n-Hexane	4.97	
Benzene	5.46	
Cyclohexane	1.28	
Trichloroethene	8.55	
2,2,4-Trimethylpentane	13.6	
Heptane	3.61	
Toluene	20.9	
2-Hexanone	41	
Tetrachloroethene	469	
Ethylbenzene	13.7	
p/m-Xylene	55.6	
Styrene	1.49	
o-Xylene	27.4	
4-Ethyltoluene	5.8	
1,2,4-Trimethylbenzene	21.5	
1,3,5-Trimethylbenzene	14	

SAMPLE ID:	AMBIENT-1	
SAMPLE MATRIX:	AIR	
ANALYTE	Conc (ug/m 3)	Q
Dichlorodifluoromethane	1.91	
Chloromethane	1.05	
Ethanol	70.3	
Acetone	406	
Trichlorofluoromethane	1.33	
Isopropanol	49.4	
2-Butanone	1.48	
Tetrahydrofuran	20.9	
n-Hexane	254	
Benzene	8.11	
Cyclohexane	3.82	
2,2,4-Trimethylpentane	15.2	
Heptane	71.7	
Toluene	588	
Ethylbenzene	9.43	
p/m-Xylene	34.5	
o-Xylene	9.99	
4-Ethyltoluene	1.42	
1,2,4-Trimethylbenzene	11.4	
1,3,5-Trimethylbenzene	1.94	

SAMPLE ID:	RI-SV8	
SAMPLE MATRIX	SOIL_VAPOR	
ANALYTE	Conc (ug/m3)	Q
	Results	
Dichlorodifluoromethane	2.23	
Chloromethane	0.434	
Ethanol	24.7	
Acetone	86.9	
Trichlorofluoromethane	1.15	
Isopropanol	2.95	
Tertiary butyl Alcohol	2.42	
Carbon disulfide	27.2	
2-Butanone	14.8	
cis-1,2-Dichloroethene	3.57	
Tetrahydrofuran	2.09	
n-Hexane	15.7	
Benzene	7.54	
Cyclohexane	7.19	
Trichloroethene	1.11	
2,2,4-Trimethylpentane	30	
Heptane	12	
Toluene	22.4	
Tetrachloroethene	3.07	
Ethylbenzene	5.08	
p/m-Xylene	14.8	
o-Xylene	5.52	
1,2,4-Trimethylbenzene	3.4	

SAMPLE ID:	RI-AA1
SAMPLE MATRIX	AIR
ANALYTE	Conc (ug/m3) Q
Dichlorodifluoromethane	2.37
Chloromethane	0.977
Acetone	32.3
Toluene	1.5

SAMPLE ID:	RI-AA-2
SAMPLE MATRIX	AIR
ANALYTE	Conc (ug/m3)
	Results Q
Dichlorodifluoromethane	2.28
Chloromethane	1.04
Acetone	50.4
Heptane	2.43
Toluene	5.58

SAMPLE ID:	RI-SV9	
SAMPLE MATRIX	SOIL_VAPOR	
ANALYTE	Conc (ug/m3)	
	Results	Q
Dichlorodifluoromethane	2.31	
Chloromethane	0.469	
Ethanol	62.9	
Acetone	41.1	
Trichlorofluoromethane	2.11	
Isopropanol	6.19	
Tertiary butyl Alcohol	5.31	
Carbon disulfide	0.956	
2-Butanone	2.92	
Tetrahydrofuran	4.16	
n-Hexane	13.2	
Benzene	8.11	
Cyclohexane	3.35	
2,2,4-Trimethylpentane	19.2	
Heptane	10.4	
Toluene	33.7	
Tetrachloroethene	2.41	
Ethylbenzene	4.03	
p/m-Xylene	13.7	
o-Xylene	4.43	
1,2,4-Trimethylbenzene	2.95	

SAMPLE ID:	RI-IA1
SAMPLE MATRIX	AIR
ANALYTE	Conc (ug/m3) Q
Dichlorodifluoromethane	2.45
Chloromethane	1.05
Ethanol	332
Acetone	2050
Trichlorofluoromethane	3.73
Isopropanol	60.2
2-Butanone	2.86
n-Hexane	85.3
Benzene	26.1
Carbon tetrachloride	0.409
Cyclohexane	9.71
2,2,4-Trimethylpentane	18.7
Heptane	82.4
4-Methyl-2-pentanone	4.55
Toluene	186
Ethylbenzene	13.7
p/m-Xylene	52.1
Styrene	1.46
o-Xylene	19.1
4-Ethyltoluene	4.28
1,3,5-Trimethylbenzene	5.11
1,2,4-Trimethylbenzene	18.4

SAMPLE ID:	RI-SV6
SAMPLE MATRIX	SOIL_VAPOR
ANALYTE	Conc (ug/m3) Q
Dichlorodifluoromethane	2.44
Ethanol	130
Acetone	12.5
Trichlorofluoromethane	5.51
Isopropanol	54.1
Tertiary butyl Alcohol	2.89
cis-1,2-Dichloroethene	1.03
Ethyl Acetate	1.96
Cyclohexane	0.716
Trichloroethene	8.33
Toluene	1.19
Tetrachloroethene	30.1
p/m-Xylene	1.89
1,2,4-Trimethylbenzene	1.07

SAMPLE ID:	RI-SV5
SAMPLE MATRIX	SOIL_VAPOR
ANALYTE	Conc (ug/m3) Q
Dichlorodifluoromethane	2.25
Ethanol	132
Acetone	47.5
Isopropanol	47.7
Tertiary butyl Alcohol	3.24
Carbon disulfide	1.08
2-Butanone	37.5
Ethyl Acetate	1.85
Tetrahydrofuran	3.42
Cyclohexane	1.52
Toluene	2.05
p/m-Xylene	2.91
o-Xylene	1.2
1,2,4-Trimethylbenzene	1.63

SAMPLE ID:	SV-10	
SAMPLE MATRIX:	SOIL_VAPOR	
ANALYTE	Conc (ug/m 3)	Q
Dichlorodifluoromethane	1.73	
Chloromethane	0.467	
Ethanol	72.4	
Acetone	89.3	
Trichlorofluoromethane	2.51	
Isopropanol	27.3	
Tertiary butyl Alcohol	3.79	
Carbon disulfide	4.55	
2-Butanone	22.2	
Chloroform	0.991	
Tetrahydrofuran	1.76	
n-Hexane	270	
Benzene	4.82	
Cyclohexane	4.06	
2,2,4-Trimethylpentane	14.5	
Heptane	24.3	
4-Methyl-2-pentanone	2.93	
Toluene	164	
2-Hexanone	8.24	
Tetrachloroethene	28.1	
Ethylbenzene	3.67	
p/m-Xylene	11.3	
o-Xylene	5.04	
4-Ethyltoluene	1.36	
1,2,4-Trimethylbenzene	9	
1,3,5-Trimethylbenzene	2.11	

SAMPLE ID:	SV-8	
SAMPLE MATRIX:	SOIL_VAPOR	
ANALYTE	Conc (ug/m3)	Q
VOLATILE ORGANICS IN AIR		
Dichlorodifluoromethane	5.49	
Acetone	46.6	
Carbon disulfide	3.74	
2-Butanone	7.76	
Chloroform	2.18	
n-Hexane	3.45	
1,1,1-Trichloroethane	57.3	
Benzene	2.12	
Carbon tetrachloride	8.55	
Cyclohexane	1.81	
Trichloroethene	4.15	
2,2,4-Trimethylpentane	2.64	
Heptane	3.32	
Toluene	14.2	
2-Hexanone	4.96	
Tetrachloroethene	834	
Ethylbenzene	1.88	
p/m-Xylene	8.86	
o-Xylene	3.64	
1,2,4-Trimethylbenzene	9.54	
1,3,5-Trimethylbenzene	2.5	

SAMPLE ID:	RI-SV4
SAMPLE MATRIX	SOIL_VAPOR
ANALYTE	Conc (ug/m3) Q
Dichlorodifluoromethane	2.5
Ethanol	237
Acetone	39.4
Isopropanol	27
Tertiary butyl Alcohol	5.97
2-Butanone	12.5
Ethyl Acetate	1.11
Chloroform	54.7
n-Hexane	3.7
Benzene	2.63
Heptane	4.18
Toluene	29.3
2-Hexanone	5.98
Tetrachloroethene	26.3
Ethylbenzene	5.3
p/m-Xylene	19.4
o-Xylene	7.69
4-Ethyltoluene	2.73
1,3,5-Trimethylbenzene	3.12
1,2,4-Trimethylbenzene	9.09

SAMPLE ID:	SV-9	
SAMPLE MATRIX:	SOIL_VAPOR	
ANALYTE	Conc (ug/m 3)	Q
Dichlorodifluoromethane	18.8	
Acetone	24.5	
Trichlorofluoromethane	9.89	
Isopropanol	1.31	
Tertiary butyl Alcohol	2.79	
Methylene chloride	1.98	
Carbon disulfide	4.27	
2-Butanone	2.92	
Chloroform	4.12	
1,2-Dichloroethane	2.15	
n-Hexane	9.83	
1,1,1-Trichloroethane	14.9	
Benzene	9.17	
Carbon tetrachloride	17.6	
Cyclohexane	2.29	
2,2,4-Trimethylpentane	29.5	
Heptane	5.49	
Toluene	37.7	
Tetrachloroethene	62.9	
Ethylbenzene	4.43	
p/m-Xylene	18.3	
o-Xylene	7.73	
4-Ethyltoluene	1.56	
1,2,4-Trimethylbenzene	10.6	
1,3,5-Trimethylbenzene	3.43	

SAMPLE ID:	RI-SV2	
SAMPLE MATRIX	SOIL_VAPOR	
ANALYTE	Conc (ug/m3)	Q
Dichlorodifluoromethane	8.8	
Ethanol	185	
Acetone	104	
Isopropanol	74.7	
Tertiary butyl Alcohol	26.7	
Carbon disulfide	3.3	
trans-1,2-Dichloroethene	3.04	
2-Butanone	66.9	
cis-1,2-Dichloroethene	85.2	
n-Hexane	12.9	
Benzene	4.89	
Cyclohexane	1.84	
Trichloroethene	216	
2,2,4-Trimethylpentane	13.9	
Heptane	8.52	
Toluene	36.9	
2-Hexanone	12.6	
Tetrachloroethene	25.4	
Ethylbenzene	6.08	
p/m-Xylene	22.6	
o-Xylene	7.43	
4-Ethyltoluene	2.13	
1,3,5-Trimethylbenzene	2.12	
1,2,4-Trimethylbenzene	6.59	

SAMPLE ID:	RI-SV3	
SAMPLE MATRIX	SOIL_VAPOR	
ANALYTE	Conc (ug/m3)	Q
Dichlorodifluoromethane	18.6	
Ethanol	131	
Acetone	32.5	
Trichlorofluoromethane	5.21	
Isopropanol	59	
Tertiary butyl Alcohol	4.18	
2-Butanone	2.6	
Ethyl Acetate	2.78	
Chloroform	5.18	
n-Hexane	1.43	
1,1,1-Trichloroethane	31.6	
Benzene	2.35	
Carbon tetrachloride	34.9	
Heptane	1.33	
4-Methyl-2-pentanone	2.31	
Toluene	12.8	
2-Hexanone	1.26	
Tetrachloroethene	45.7	
Ethylbenzene	3.44	
p/m-Xylene	14.9	
o-Xylene	5.95	
4-Ethyltoluene	1.71	
1,3,5-Trimethylbenzene	2.43	
1,2,4-Trimethylbenzene	8.75	
1,3-Dichlorobenzene	1.79	

NOTE:
THIS PLAN IS FOR LOCATING SOIL VAPOR POINTS ONLY.
OTHER SITE WORK SHOWN HERE IS NOT INTENDED FOR CONSTRUCTION.

ANALYTE	CAS	NY-SSC-A (ug/m 3)	NY-SSC-B (ug/m 3)
VOLATILE ORGANICS IN AIR			
Carbon tetrachloride	56-23-5	6	
Trichloroethene	79-01-6	6	
Tetrachloroethene	127-18-4		100

Concentration Exceed NYSDOH Sub-Slabd Vapor Matrices Criteria

NY-SSC-A: New York DOH Matrix A Sub-slab Vapor Concentrations Criteria per Guidance for Evaluating Soil Vapor Intrusion, October 2006, and updated May 2017.
NY-SSC-B: New York DOH Matrix B Sub-slab Vapor Concentrations Criteria per Guidance for Evaluating Soil Vapor Intrusion, October 2006, and updated May 2017.

LEGEND:

	-	PROPERTY LINE
SV-1	-	SOIL VAPOR SAMPLE COMPLETED BY SESI (09/2020)
AA-1	-	AMBIENT AIR SAMPLE COLLECTED BY SESI (09/2020)
IA-1	-	INDOOR AIR SAMPLE COLLECTED BY SESI (09/2020)
RI-SV1	-	SOIL VAPOR SAMPLE COMPLETED BY SESI (12/2021)
RI-AA1	-	AMBIENT AIR SAMPLE COLLECTED BY SESI (12/2021)
RI-IA1	-	INDOOR AIR SAMPLE COLLECTED BY SESI (12/2021)
RI-SV8	-	SOIL VAPOR SAMPLE COLLECTED BY SESI (02/2023)
RI-AA-2	-	AMBIENT AIR SAMPLE COLLECTED BY SESI (02/2023)

REFERENCE
AERIAL MAP TAKEN FROM BING MAPS, DATED 2020.

SCALE: 1"=40'
0 40 80

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SESI CONSULTING ENGINEERS
GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL
959 route 46e, 3rd floor, parsippany, nj 07054 ph: 973.808.9050

dwg by: AAS
chk by: SSG
scale: AS NOTED
date: 03/02/2023

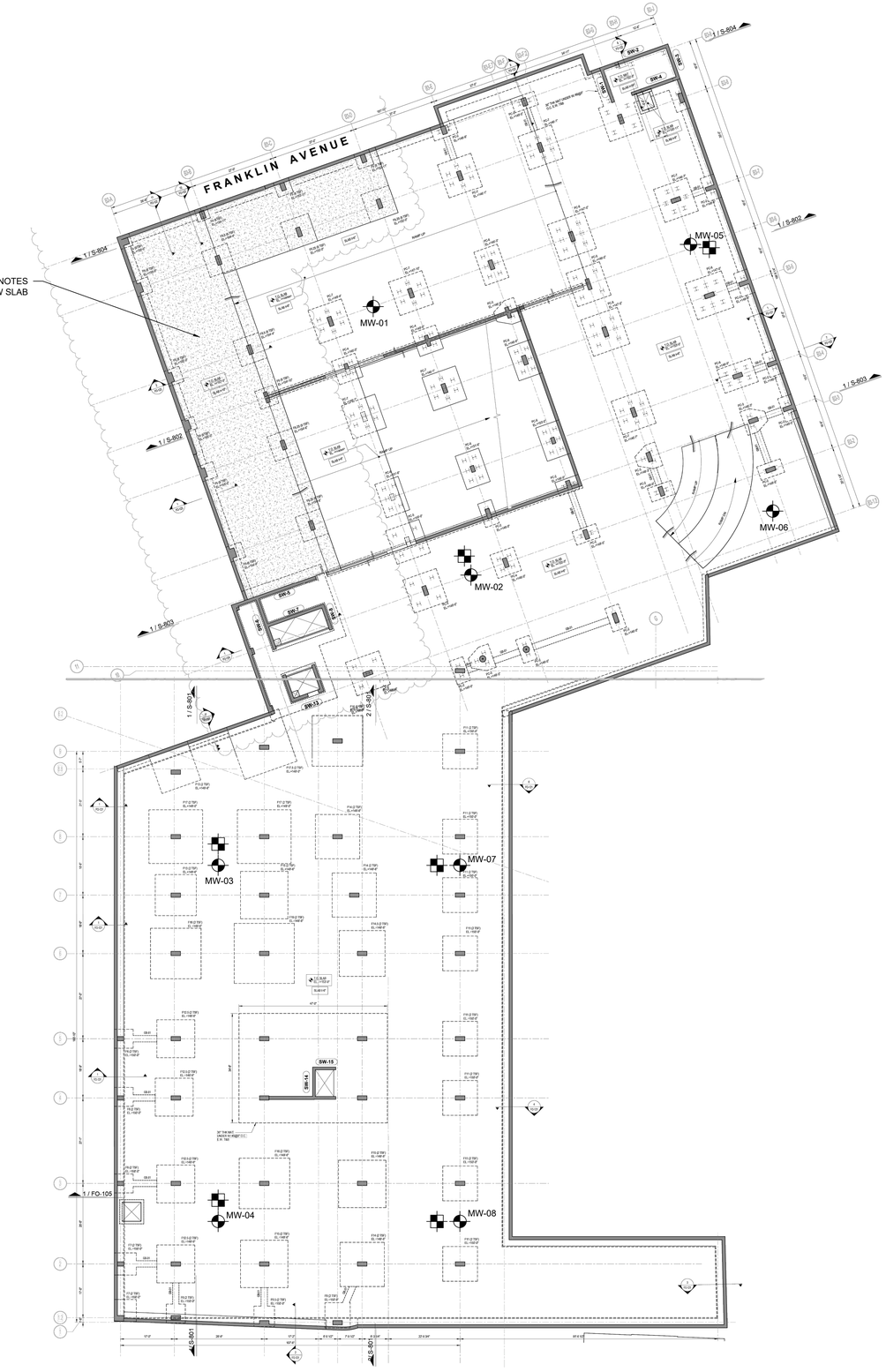
rev	date	description	by

WHITE PLAINS CHRYSLER CAR DEALERSHIP SITE
(BCP # C360209)
70 WESTCHESTER AVENUE
WHITE PLAINS, WESTCHESTER COUNTY, NY

title: SOIL VAPOR SAMPLE LOCATION AND CONCENTRATION PLAN

job no. 11444
drawing no. FIG-2.4
of 1

N:\ACAD\11444\CAD\WIP\11444 DWG SOIL VAPOR SAMPLE LOCATION & CONCENTRATION PLADWG 02/02/23 10:18:18AM, ydeniz2560us, LAYOUT FIG-4.3



Monitoring Well ID	Well Location	Well Diameter (inches)	Elevation (above MSL)[1]		
			Top of Slab	Screen Top	Screen Bottom
MW-01	North Up-Gradient	2	156.5	153	143
MW-02	North Middle Up-Gradient	2	156.5	153	143
MW-03	South Middle Up-Gradient	2	153.0	151	136
MW-04	South Up-Gradient	2	153.0	151	136
MW-05	North Down-Gradient	2	153.0	151	136
MW-06	North Middle Down-Gradient	2	153.0	151	136
MW-07	South Middle Down-Gradient	2	153.5	151	136
MW-08	South Down-Gradient	2	153.5	151	136

NOTE:

1. GROUNDWATER HAS BEEN MEASURED ON THE SITE TO BE BETWEEN EL 146 TO 152. THE HIGH EL OF 152 WAS IN THE NORTHWEST CORNER OF THE SITE; THROUGHOUT MOST OF THE SITE GROUNDWATER IS BELOW EL 150.

LEGEND:

- PROPOSED GROUNDWATER MONITORING WELL (TOTAL 8)
- PROPOSED VAPOR PIN (TOTAL 6)

Scale: 1"= 20'

0 10 20 40 60 80

REFERENCE:

SITE PLAN INFORMATION FROM DRAWINGS FO-101A & FO-101B, BY DESIMONE CONSULTING ENGINEERS, NY, NY; TITLED: "70 WESTCHESTER AVE," WHITE PLAINS, NY, LAST REV. 2/23/26.

NYS Education Law
Unauthorized alterations or additions to this plan are a violation of section 7209 (2) of the New York State Education Law. Copies of this map not having the seal of the engineer shall not be valid.

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N:\CAD\11444\CAD\GEOTECH\11444 DWG LOCATION PLAN.DWG 05/05/26 09:39:29AM acps LAYOUT 4.3

KEY MAP

rev	date	description

SESI CONSULTING ENGINEERS
GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL
999 ROUTE 46E, 3RD FLOOR, PARSIPPANY, NJ 07054 PH: 973.808.9050

project:
FINAL ENGINEERING REPORT & SITE MANAGEMENT PLAN
NYSDEC BCP NO. C360Z09
WHITE PLAINS, NY
CHRYSLER CAR DEALERSHIP

title:
GROUNDWATER MONITORING WELL AND SOIL VAPOR PIN LOCATION PLAN

dwg by: EC
chk by: CZ
scale: AS NOTED
date: 06/05/2026

job no. 11444
drawing no. 4.1
1 of 1

Tables

SGS

SGS Engage - Group Crosstab

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE24164		JE24164		JE24164		JE24164		JE24164		JE24164		JE24164	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444		11444		11444	
Client Sample ID:				EP-24		EP-31		EP-38		EP-36		EP-35		EP-28		EP-21	
Lab Sample ID:				JE24164-1		JE24164-2		JE24164-3		JE24164-4		JE24164-5		JE24164-6		JE24164-7	
Location:																	
Date Sampled:				11/25/2025 4:08 PM		11/26/2025 10:03 AM		11/25/2025 4:15 PM		11/25/2025 3:39 PM		11/25/2025 3:44 PM		11/25/2025 3:50 PM		11/25/2025 3:57 PM	
Matrix:				Soil		Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**															
(GC/LC Semi-volatiles (SW846 8081B))																	
Aldrin	309-00-2	mg/kg	0.0048	0.000091	U	0.0001	U	0.00082	U	0.000082	U	0.000079	U	0.000093	U	0.000098	U
alpha-BHC	319-84-6	mg/kg	0.02	0.000054	U	0.000059	U	0.0016	J	0.00012	J	0.000047	U	0.000055	U	0.000058	U
beta-BHC	319-85-7	mg/kg	0.021	0.000068	U	0.000074	U	0.00061	U	0.000061	U	0.000059	U	0.000069	U	0.000073	U
delta-BHC	319-86-8	mg/kg	0.04	0.00007	U	0.000077	U	0.00063	U	0.000063	U	0.000061	U	0.000071	U	0.000076	U
gamma-BHC (Lindane)	58-89-9	mg/kg	0.025	0.000082	U	0.00009	U	0.00074	U	0.000074	U	0.000071	U	0.000083	U	0.000088	U
alpha-Chlordane	5103-71-9	mg/kg	0.014	0.000084	J	0.000069	U	0.00057	U	0.000057	U	0.000055	U	0.000064	U	0.000068	U
gamma-Chlordane	5103-74-2	mg/kg		0.00007	J	0.000077	U	0.0018	J	0.00021	J	0.000061	U	0.000071	U	0.000076	U
Dieldrin	60-57-1	mg/kg	0.005	0.000075	U	0.000082	U	0.0032	J	0.000068	U	0.000065	U	0.000076	U	0.000081	U
4,4'-DDD	72-54-8	mg/kg	0.0033	0.00011	J	0.00017	J	0.0513		0.003		0.000042	U	0.00005	U	0.000053	U
4,4'-DDE	72-55-9	mg/kg	0.0033	0.000056	U	0.00016	J	0.0076		0.0076		0.000049	U	0.000057	U	0.00006	U
4,4'-DDT	50-29-3	mg/kg	0.0033	0.00037	J	0.00092		0.0992		0.015		0.000071	U	0.000083	U	0.000088	U
Endrin	72-20-8	mg/kg	0.014	0.000068	U	0.000074	U	0.0104		0.000061	U	0.000059	U	0.000069	U	0.000073	U
Endosulfan sulfate	1031-07-8	mg/kg	4.3	0.000056	U	0.000062	U	0.00051	U	0.000051	U	0.000049	U	0.000057	U	0.00006	U
Endrin aldehyde	7421-93-4	mg/kg		0.0002	J	0.00015	U	0.0029	J	0.00012	U	0.00012	U	0.00014	U	0.00015	U
Endosulfan-I	959-98-8	mg/kg	4.3	0.000063	U	0.000069	U	0.00057	U	0.000057	U	0.000055	U	0.000064	U	0.000068	U
Endosulfan-II	33213-65-9	mg/kg	4.3	0.000065	U	0.000072	U	0.0012	J	0.000059	U	0.000057	U	0.000067	U	0.00007	U
Heptachlor	76-44-8	mg/kg	0.013	0.000061	U	0.000067	U	0.0012	J	0.000055	U	0.000053	U	0.000062	U	0.000065	U
Heptachlor epoxide	1024-57-3	mg/kg		0.000084	U	0.000092	U	0.0013	J	0.000076	U	0.000073	U	0.000086	U	0.000091	U
Methoxychlor	72-43-5	mg/kg		0.00018	U	0.0002	U	0.0017	U	0.00017	U	0.00016	U	0.00019	U	0.0002	U
Endrin ketone	53494-70-5	mg/kg		0.000075	U	0.000082	U	0.00068	U	0.000068	U	0.000065	U	0.000076	U	0.000081	U
Toxaphene	8001-35-2	mg/kg		0.0039	U	0.0042	U	0.035	U	0.0035	U	0.0033	U	0.0039	U	0.0042	U
Tetrachloro-m-xylene (2)	877-09-8	%		84		94		94		87		83		92		96	
Tetrachloro-m-xylene (3)	877-09-8	%		96		105		100		94		96		100		101	
Decachlorobiphenyl (2)	2051-24-3	%		68		90		98		95		82		82		92	
Decachlorobiphenyl (3)	2051-24-3	%		128		119		210	*	136		139		115		109	
(GC/LC Semi-volatiles (SW846 8082A))																	
Aroclor 1016	12674-11-2	mg/kg	0.1	0.0099	U	0.011	U	0.009	U	0.009	U	0.0086	U	0.01	U	0.011	U
Aroclor 1221	11104-28-2	mg/kg	0.1	0.0079	U	0.0086	U	0.0071	U	0.0071	U	0.0068	U	0.008	U	0.0085	U
Aroclor 1232	11141-16-5	mg/kg	0.1	0.019	U	0.021	U	0.018	U	0.018	U	0.017	U	0.02	U	0.021	U
Aroclor 1242	53469-21-9	mg/kg	0.1	0.014	U	0.015	U	0.013	U	0.013	U	0.012	U	0.014	U	0.015	U
Aroclor 1248	12672-29-6	mg/kg	0.1	0.005	U	0.0055	U	0.0046	U	0.0046	U	0.0044	U	0.0051	U	0.0054	U
Aroclor 1254	11097-69-1	mg/kg	0.1	0.0025	U	0.0028	U	0.0023	U	0.0023	U	0.0022	U	0.0026	U	0.0027	U
Aroclor 1260	11096-82-5	mg/kg	0.1	0.0081	U	0.0089	U	0.0073	U	0.0073	U	0.007	U	0.0082	U	0.0087	U
Aroclor 1268	11100-14-4	mg/kg	0.1	0.0024	U	0.0026	U	0.0021	U	0.0021	U	0.002	U	0.0024	U	0.0025	U
Aroclor 1262	37324-23-5	mg/kg	0.1	0.0019	U	0.0021	U	0.0158	J	0.0142	J	0.0017	U	0.002	U	0.0021	U
Tetrachloro-m-xylene	877-09-8	%		78		80		57		62		80		82		80	
Tetrachloro-m-xylene (1)	877-09-8	%		82		74		60		63		84		88		84	
Decachlorobiphenyl	2051-24-3	%		61		66		50		44		45		50		52	
Decachlorobiphenyl (1)	2051-24-3	%		60		69		99		63		53		54		53	
(General Chemistry (SM2540 G 18TH ED MOD))																	
Solids, Percent	PERCENT SOLIDS	%		85.6		72.1		89.2		89.2		95.1		79.3		76.4	
(General Chemistry (SW846 9012B/LACHAT))																	
Cyanide	57-12-5	mg/kg	2.3	0.25		0.28	U	0.37		0.28		0.23	U	0.35		0.31	U
(Metals Analysis (SW846 6010D))																	
Aluminum	7429-90-5	mg/kg		11400		10600		8890		8620		6340		15400		15600	
Antimony	7440-36-0	mg/kg		2.4	U	2.7	U	2.1	U	2.2	U	2.1	U	2.4	U	2.6	U
Arsenic	7440-38-2	mg/kg	13	4.7		3.3		3.8		8.6		2.1	U	4.9		6.2	
Barium	7440-39-3	mg/kg	410	66		170		109		81.1		37		107		141	
Beryllium	7440-41-7	mg/kg	4.4	0.37		0.33		0.26		0.31		0.29		0.64		0.68	
Cadmium	7440-43-9	mg/kg	2.5	0.6	U	0.67	U	0.54	U	0.76		0.53	U	0.61	U	0.64	U
Calcium	7440-70-2	mg/kg		7630		2720		16100		3510		636		2000		2650	
Chromium	7440-47-3	mg/kg		14.5		19.8		22.1		16.6		9.6		17.7		19.9	

SGS

SGS Engage - Group Crosstab

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE24164		JE24164		JE24164		JE24164		JE24164		JE24164		JE24164	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444		11444		11444	
Client Sample ID:				EP-24		EP-31		EP-38		EP-36		EP-35		EP-28		EP-21	
Lab Sample ID:				JE24164-1		JE24164-2		JE24164-3		JE24164-4		JE24164-5		JE24164-6		JE24164-7	
Location:																	
Date Sampled:				11/25/2025 4:08 PM		11/26/2025 10:03 AM		11/25/2025 4:15 PM		11/25/2025 3:39 PM		11/25/2025 3:44 PM		11/25/2025 3:50 PM		11/25/2025 3:57 PM	
Matrix:				Soil		Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**															
(GC/LC Semi-volatiles (SW846 8081B))																	
Cobalt	7440-48-4	mg/kg		7.6		7.4		7.3		5.6	U	6.1		7.6		8.1	
Copper	7440-50-8	mg/kg	50	22.8		30.2		34.1		25.1		9.9		12.8		25.5	
Iron	7439-89-6	mg/kg		16400		15700		20200		13000		12200		17300		20000	
Lead	7439-92-1	mg/kg	63	52.1		252		95.6		254		11.5		28.4		86.5	
Magnesium	7439-95-4	mg/kg		5360		3570		8930		2600		1700		2930		3550	
Manganese	7439-96-5	mg/kg	1600	467		426		329		125		385		210		246	
Nickel	7440-02-0	mg/kg	30	15		15.1		18.1		12.8		9.7		12.9		15.7	
Potassium	7440-09-7	mg/kg		1200	U	1830		1960		1100	U	1100	U	1200	U	1300	U
Selenium	7782-49-2	mg/kg	3.9	2.4	U	2.7	U	2.1	U	2.2	U	2.1	U	2.4	U	2.6	U
Silver	7440-22-4	mg/kg	2	0.6	U	0.7	U	0.57	U	0.59	U	0.51	U	0.62	U	0.66	U
Sodium	7440-23-5	mg/kg		1200	U	1300	U	1100	U	1100	U	1100	U	1200	U	1300	U
Thallium	7440-28-0	mg/kg		1.2	U	1.3	U	1.1	U	1.1	U	1.1	U	1.2	U	1.3	U
Vanadium	7440-62-2	mg/kg		20.3		25.9		29.5		21.9		14		28.5		32.5	
Zinc	7440-66-6	mg/kg	109	69.7		219		131		269		30.3		55.7		110	
(Metals Analysis (SW846 7471B))																	
Mercury	7439-97-6	mg/kg	0.18	0.041		0.042	U	0.12		0.26		0.03	U	0.046		0.14	
(MS Semi-volatile TIC ())																	
Anthracene, 2-methyl-	613-12-7	mg/kg				0.53	JN										
n-Hexadecanoic acid	57-10-3	mg/kg		0.28	JN							0.23	JN	0.49	JN		
Cyclopenta[def]phenanthr	TIC	mg/kg				0.55	J	0.35	J								
alkane	TIC	mg/kg		0.32	J												
Octadecanoic acid	57-11-4	mg/kg						0.16	JN								
Chrysene methyl	TIC	mg/kg								0.2	J						
Pyrene methyl	TIC	mg/kg						0.18	J								
unknown	TIC	mg/kg		0.16	J												
Unknown (10)	TIC	mg/kg				0.33	J	0.25	J								
7H-Benz[de]anthracen-one	TIC	mg/kg						0.21	J								
Dibenzopyrene	TIC	mg/kg								0.28	J						
unknown (1)	TIC	mg/kg		0.18	J												
nknown PAH substance (	TIC	mg/kg				0.3	J										
nknown PAH substance (	TIC	mg/kg				0.96	J										
Unknown (11)	TIC	mg/kg				0.3	J	0.43	J								
3,3a,4,5,7,8,9,10,11,12,12	95676-40-7	mg/kg				0.37	JN										
Unknown (12)	TIC	mg/kg				0.48	J										
1,1'-Binaphthalene	TIC	mg/kg						0.23	J								
Unknown (13)	TIC	mg/kg				0.34	J										
Unknown	TIC	mg/kg				0.52	J	0.23	J	0.22	J	0.22	J	0.33	J		
Unknown (1)	TIC	mg/kg				0.56	J	0.26	J	0.16	J	0.14	J	0.3	J		
Dinaphtho[b:d]furan	TIC	mg/kg						0.21	J								
Unknown (2)	TIC	mg/kg				0.31	J	0.18	J	0.2	J	0.18	J				
Unknown (3)	TIC	mg/kg				0.35	J	0.2	J	0.17	J						
Unknown (4)	TIC	mg/kg				0.54	J	0.26	J								
Unknown (5)	TIC	mg/kg				0.37	J	0.43	J								
Unknown (6)	TIC	mg/kg				0.35	J	0.19	J								
Unknown (7)	TIC	mg/kg				0.51	J	0.14	J								
Unknown PAH substance	TIC	mg/kg				0.46	J	0.4	J	0.28	J						
nknown PAH substance (	TIC	mg/kg				0.29	J	0.16	J								
Dibenzophenanthrene	TIC	mg/kg						0.26	J								
Unknown (8)	TIC	mg/kg				0.3	J	0.17	J								
Dibenzophenanthrene (1)	TIC	mg/kg						0.19	J								
nknown PAH substance (	TIC	mg/kg				0.31	J	0.34	J								
nknown PAH substance (	TIC	mg/kg				0.55	J										

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SGS Engage - Group Crosstab

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE24164		JE24164		JE24164		JE24164		JE24164		JE24164		JE24164	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444		11444		11444	
Client Sample ID:				EP-24		EP-31		EP-38		EP-36		EP-35		EP-28		EP-21	
Lab Sample ID:				JE24164-1		JE24164-2		JE24164-3		JE24164-4		JE24164-5		JE24164-6		JE24164-7	
Location:																	
Date Sampled:				11/25/2025 4:08 PM		11/26/2025 10:03 AM		11/25/2025 4:15 PM		11/25/2025 3:39 PM		11/25/2025 3:44 PM		11/25/2025 3:50 PM		11/25/2025 3:57 PM	
Matrix:				Soil		Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**															
(GC/LC Semi-volatiles (SW846 8081B))																	
nknown PAH substance (4	TIC	mg/kg				0.45	J										
Unknown (9)	TIC	mg/kg				0.4	J	0.18	J								
nknown PAH substance (5	TIC	mg/kg				0.46	J										
Total TIC, Semi-Volatile	OTAL TIC, SEMI-VOLATIL	mg/kg		0.94	J	10.89	J	5.61	J	1.51	J	0.77	J	1.12	J	0	
(MS Semi-volatiles (SW846 8270E))																	
2-Chlorophenol	95-57-8	mg/kg		0.019	U	0.023	U	0.017	U	0.018	U	0.016	U	0.02	U	0.021	U
4-Chloro-3-methyl phenol	59-50-7	mg/kg		0.023	U	0.028	U	0.022	U	0.022	U	0.02	U	0.025	U	0.026	U
2,4-Dichlorophenol	120-83-2	mg/kg		0.032	U	0.039	U	0.03	U	0.031	U	0.028	U	0.035	U	0.036	U
2,4-Dimethylphenol	105-67-9	mg/kg		0.068	U	0.081	U	0.063	U	0.065	U	0.058	U	0.073	U	0.075	U
2,4-Dinitrophenol	51-28-5	mg/kg		0.14	U	0.17	U	0.13	U	0.14	U	0.12	U	0.15	U	0.16	U
4,6-Dinitro-o-cresol	534-52-1	mg/kg		0.041	U	0.049	U	0.038	U	0.039	U	0.035	U	0.044	U	0.045	U
2-Methylphenol	95-48-7	mg/kg	0.33	0.024	U	0.029	U	0.023	U	0.023	U	0.021	U	0.026	U	0.027	U
3&4-Methylphenol	M+P-CRESOLS	mg/kg	0.33	0.031	U	0.038	U	0.0552	J	0.03	U	0.027	U	0.034	U	0.035	U
2-Nitrophenol	88-75-5	mg/kg		0.025	U	0.03	U	0.023	U	0.024	U	0.022	U	0.027	U	0.028	U
4-Nitrophenol	100-02-7	mg/kg		0.1	U	0.12	U	0.094	U	0.098	U	0.088	U	0.11	U	0.11	U
Pentachlorophenol	87-86-5	mg/kg	0.8	0.036	U	0.043	U	0.033	U	0.034	U	0.031	U	0.039	U	0.04	U
Phenol	108-95-2	mg/kg	0.33	0.02	U	0.024	U	0.018	U	0.019	U	0.017	U	0.021	U	0.022	U
2,3,4,6-Tetrachlorophenol	58-90-2	mg/kg		0.025	U	0.03	U	0.023	U	0.024	U	0.022	U	0.027	U	0.028	U
2,4,5-Trichlorophenol	95-95-4	mg/kg		0.028	U	0.034	U	0.026	U	0.027	U	0.025	U	0.031	U	0.032	U
2,4,6-Trichlorophenol	88-06-2	mg/kg		0.023	U	0.027	U	0.021	U	0.022	U	0.02	U	0.024	U	0.025	U
Acenaphthene	83-32-9	mg/kg	20	0.013	U	0.313		0.174		0.013	U	0.011	U	0.014	U	0.015	U
Acenaphthylene	208-96-8	mg/kg	100	0.019	U	0.045	J	0.0759		0.0728		0.017	U	0.021	U	0.0361	J
Acetophenone	98-86-2	mg/kg		0.0082	U	0.0098	U	0.0076	U	0.0079	U	0.0071	U	0.0088	U	0.009	U
Anthracene	120-12-7	mg/kg	100	0.023	U	0.635		0.374		0.103		0.02	U	0.025	U	0.0262	J
Atrazine	1912-24-9	mg/kg		0.016	U	0.02	U	0.015	U	0.016	U	0.014	U	0.018	U	0.018	U
Benzo(a)anthracene	56-55-3	mg/kg	1	0.0345	J	1.51		1		0.344		0.0094	J	0.0137	J	0.0748	
Benzo(a)pyrene	50-32-8	mg/kg	1	0.0337	J	1.28		0.909		0.317		0.015	U	0.019	U	0.076	
Benzo(b)fluoranthene	205-99-2	mg/kg	1	0.0431		1.72		1.31		0.399		0.015	U	0.018	U	0.11	
Benzo(g,h,i)perylene	191-24-2	mg/kg	0.64	0.0251	J	0.826		0.605		0.237		0.016	U	0.021	U	0.064	
Benzo(k)fluoranthene	207-08-9	mg/kg	0.8	0.018	U	0.52		0.304		0.153		0.015	U	0.019	U	0.0329	J
-Bromophenyl phenyl ethe	101-55-3	mg/kg		0.015	U	0.018	U	0.014	U	0.014	U	0.013	U	0.016	U	0.016	U
Butyl benzyl phthalate	85-68-7	mg/kg		0.0093	U	0.011	U	0.0354	J	0.0089	U	0.008	U	0.01	U	0.01	U
1,1'-Biphenyl	92-52-4	mg/kg		0.0052	U	0.0235	J	0.0132	J	0.005	U	0.0045	U	0.0056	U	0.0058	U
Benzaldehyde	100-52-7	mg/kg		0.0094	U	0.011	U	0.0088	U	0.0091	U	0.0081	U	0.01	U	0.01	U
2-Chloronaphthalene	91-58-7	mg/kg		0.009	U	0.011	U	0.0084	U	0.0087	U	0.0078	U	0.0098	U	0.01	U
4-Chloroaniline	106-47-8	mg/kg		0.014	U	0.016	U	0.013	U	0.013	U	0.012	U	0.015	U	0.015	U
Carbazole	86-74-8	mg/kg		0.0055	U	0.381		0.204		0.019	J	0.0048	U	0.006	U	0.0111	J
Caprolactam	105-60-2	mg/kg		0.015	U	0.018	U	0.014	U	0.014	U	0.013	U	0.016	U	0.017	U
Chrysene	218-01-9	mg/kg	1	0.0317	J	1.32		0.905		0.295		0.01	U	0.013	U	0.0828	
is(2-Chloroethoxy)methan	111-91-1	mg/kg		0.0081	U	0.0098	U	0.0076	U	0.0078	U	0.007	U	0.0088	U	0.009	U
bis(2-Chloroethyl)ether	111-44-4	mg/kg		0.016	U	0.02	U	0.015	U	0.016	U	0.014	U	0.018	U	0.018	U
2'-Oxybis(1-chloropropan	108-60-1	mg/kg		0.014	U	0.016	U	0.013	U	0.013	U	0.012	U	0.015	U	0.015	U
-Chlorophenyl phenyl ethe	7005-72-3	mg/kg		0.012	U	0.015	U	0.011	U	0.012	U	0.011	U	0.013	U	0.014	U
2,4-Dinitrotoluene	121-14-2	mg/kg		0.012	U	0.014	U	0.011	U	0.011	U	0.01	U	0.013	U	0.013	U
2,6-Dinitrotoluene	606-20-2	mg/kg		0.019	U	0.023	U	0.018	U	0.018	U	0.016	U	0.021	U	0.021	U
3,3'-Dichlorobenzidine	91-94-1	mg/kg		0.032	U	0.038	U	0.029	U	0.031	U	0.027	U	0.034	U	0.035	U
1,4-Dioxane	123-91-1	mg/kg	0.1	0.025	U	0.03	U	0.023	U	0.024	U	0.022	U	0.027	U	0.028	U
Dibenzo(a,h)anthracene	53-70-3	mg/kg	0.33	0.017	U	0.255		0.189		0.0627		0.015	U	0.018	U	0.0193	J
Dibenzofuran	132-64-9	mg/kg	2.1	0.015	U	0.185		0.0949		0.015	U	0.013	U	0.017	U	0.017	U
Di-n-butyl phthalate	84-74-2	mg/kg		0.0062	U	0.0074	U	0.0123	J	0.0094	J	0.0054	U	0.0067	U	0.0069	U
Di-n-octyl phthalate	117-84-0	mg/kg		0.0094	U	0.011	U	0.0088	U	0.0091	U	0.0082	U	0.01	U	0.01	U
Diethyl phthalate	84-66-2	mg/kg		0.0081	U	0.0097	U	0.0075	U	0.0078	U	0.007	U	0.0087	U	0.009	U

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SGS Engage - Group Crosstab

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE24164		JE24164		JE24164		JE24164		JE24164		JE24164		JE24164	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444		11444		11444	
Client Sample ID:				EP-24		EP-31		EP-38		EP-36		EP-35		EP-28		EP-21	
Lab Sample ID:				JE24164-1		JE24164-2		JE24164-3		JE24164-4		JE24164-5		JE24164-6		JE24164-7	
Location:																	
Date Sampled:				11/25/2025 4:08 PM		11/26/2025 10:03 AM		11/25/2025 4:15 PM		11/25/2025 3:39 PM		11/25/2025 3:44 PM		11/25/2025 3:50 PM		11/25/2025 3:57 PM	
Matrix:				Soil		Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**															
(GC/LC Semi-volatiles (SW846 8081B))																	
Dimethyl phthalate	131-11-3	mg/kg		0.0068	U	0.0081	U	0.0063	U	0.0065	U	0.0058	U	0.0073	U	0.0075	U
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg		0.0166	J	0.0235	J	0.0517	J	0.0086	U	0.0077	U	0.0096	U	0.0098	U
Fluoranthene	206-44-0	mg/kg	85	0.0492		3.13		2.04		0.665		0.015	U	0.018	U	0.106	
Fluorene	86-73-7	mg/kg	30	0.017	U	0.286		0.152		0.0173	J	0.015	U	0.019	U	0.019	U
Hexachlorobenzene	118-74-1	mg/kg	0.33	0.0096	U	0.012	U	0.0089	U	0.0093	U	0.0083	U	0.01	U	0.011	U
Hexachlorobutadiene	87-68-3	mg/kg		0.015	U	0.018	U	0.014	U	0.015	U	0.013	U	0.017	U	0.017	U
Hexachlorocyclopentadiene	77-47-4	mg/kg		0.015	U	0.018	U	0.014	U	0.015	U	0.013	U	0.016	U	0.017	U
Hexachloroethane	67-72-1	mg/kg		0.019	U	0.023	U	0.018	U	0.018	U	0.016	U	0.02	U	0.021	U
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	0.5	0.0202	J	0.747		0.539		0.187		0.015	U	0.019	U	0.0524	
Isophorone	78-59-1	mg/kg		0.0081	U	0.0098	U	0.0076	U	0.0078	U	0.007	U	0.0088	U	0.009	U
2-Methylnaphthalene	91-57-6	mg/kg		0.0086	U	0.071		0.0586		0.0137	J	0.0074	U	0.0093	U	0.0095	U
2-Nitroaniline	88-74-4	mg/kg		0.009	U	0.011	U	0.0083	U	0.0086	U	0.0078	U	0.0097	U	0.0099	U
3-Nitroaniline	99-09-2	mg/kg		0.0095	U	0.011	U	0.0088	U	0.0092	U	0.0082	U	0.01	U	0.011	U
4-Nitroaniline	100-01-6	mg/kg		0.0098	U	0.012	U	0.0092	U	0.0095	U	0.0085	U	0.011	U	0.011	U
Naphthalene	91-20-3	mg/kg	12	0.011	U	0.174		0.0821		0.0119	J	0.0093	U	0.012	U	0.012	U
Nitrobenzene	98-95-3	mg/kg	0.08	0.015	U	0.018	U	0.014	U	0.014	U	0.013	U	0.016	U	0.016	U
N-Nitroso-di-n-propylamine	621-64-7	mg/kg		0.011	U	0.013	U	0.01	U	0.011	U	0.0095	U	0.012	U	0.012	U
N-Nitrosodiphenylamine	86-30-6	mg/kg		0.014	U	0.017	U	0.013	U	0.013	U	0.012	U	0.015	U	0.015	U
Phenanthrene	85-01-8	mg/kg	1.1	0.0299	J	2.56		1.42		0.148		0.011	U	0.014	U	0.0471	
Pyrene	129-00-0	mg/kg	64	0.0499		2.62		1.74		0.579		0.011	U	0.0145	J	0.108	
1,2,4,5-Tetrachlorobenzene	95-94-3	mg/kg		0.0096	U	0.012	U	0.009	U	0.0093	U	0.0083	U	0.01	U	0.011	U
2-Fluorophenol	367-12-4	%		61		38		41		39		40		49		52	
Phenol-d5	4165-62-2	%		62		43		41		42		47		50		55	
2,4,6-Tribromophenol	118-79-6	%		90		66		55		62		73		72		84	
Nitrobenzene-d5	4165-60-0	%		58		40		40		38		39		47		51	
2-Fluorobiphenyl	321-60-8	%		77		57		52		53		64		68		73	
Terphenyl-d14	1718-51-0	%		76		56		46		50		66		60		72	
(MS Volatile TIC ())																	
Total TIC, Volatile	TOTAL TIC, VOLATILE	mg/kg		0		0		0		0		0		0		0	
(MS Volatiles (SW846 8260D))																	
Acetone	67-64-1	mg/kg	0.03	0.0046	U	0.0578		0.0044	U	0.0093	U	0.0046	U	0.0044	U	0.0063	U
Benzene	71-43-2	mg/kg	0.06	0.0005	U	0.00048	U	0.00048	U	0.001	U	0.00051	U	0.00048	U	0.00069	U
Bromochloromethane	74-97-5	mg/kg		0.00062	U	0.00059	U	0.00059	U	0.0013	U	0.00063	U	0.00059	U	0.00085	U
Bromodichloromethane	75-27-4	mg/kg		0.00047	U	0.00045	U	0.00045	U	0.00096	U	0.00048	U	0.00045	U	0.00065	U
Bromoform	75-25-2	mg/kg		0.0015	U	0.0014	U	0.0014	U	0.003	U	0.0015	U	0.0014	U	0.0021	U
Bromomethane	74-83-9	mg/kg		0.00084	U	0.0008	U	0.00081	U	0.0017	U	0.00085	U	0.0008	U	0.0012	U
2-Butanone (MEK)	78-93-3	mg/kg	0.1	0.0027	U	0.0026	U	0.0026	U	0.0054	U	0.0027	U	0.0026	U	0.0037	U
Carbon disulfide	75-15-0	mg/kg		0.00059	U	0.00056	U	0.00057	U	0.0012	U	0.0006	U	0.00056	U	0.00081	U
Carbon tetrachloride	56-23-5	mg/kg	0.76	0.00068	U	0.00065	U	0.00065	U	0.0014	U	0.00069	U	0.00065	U	0.00094	U
Chlorobenzene	108-90-7	mg/kg	4.5	0.00051	U	0.00048	U	0.00049	U	0.001	U	0.00051	U	0.00048	U	0.0007	U
Chloroethane	75-00-3	mg/kg		0.00065	U	0.00062	U	0.00063	U	0.0013	U	0.00066	U	0.00062	U	0.0009	U
Chloroform	67-66-3	mg/kg	0.37	0.0011	U	0.0011	U	0.0011	U	0.0022	U	0.0011	U	0.0011	U	0.0015	U
Chloromethane	74-87-3	mg/kg		0.0022	U	0.0021	U	0.0021	U	0.0044	U	0.0022	U	0.0021	U	0.003	U
Cyclohexane	110-82-7	mg/kg		0.00072	U	0.00069	U	0.00069	U	0.0015	U	0.00073	U	0.00069	U	0.001	U
1,2-Dibromo-3-chloropropane	96-12-8	mg/kg		0.00076	U	0.00073	U	0.00073	U	0.0016	U	0.00078	U	0.00073	U	0.0011	U
Dibromochloromethane	124-48-1	mg/kg		0.00062	U	0.00059	U	0.00059	U	0.0013	U	0.00063	U	0.00059	U	0.00085	U
1,2-Dibromoethane	106-93-4	mg/kg		0.00046	U	0.00044	U	0.00045	U	0.00094	U	0.00047	U	0.00044	U	0.00064	U
1,2-Dichlorobenzene	95-50-1	mg/kg	1.1	0.0006	U	0.00057	U	0.00058	U	0.0012	U	0.00061	U	0.00057	U	0.00083	U
1,3-Dichlorobenzene	541-73-1	mg/kg	2.6	0.00055	U	0.00052	U	0.00052	U	0.0011	U	0.00055	U	0.00052	U	0.00075	U
1,4-Dichlorobenzene	106-46-7	mg/kg	1.8	0.00054	U	0.00052	U	0.00052	U	0.0011	U	0.00055	U	0.00052	U	0.00075	U
Dichlorodifluoromethane	75-71-8	mg/kg		0.0008	U	0.00076	U	0.00077	U	0.0016	U	0.00081	U	0.00076	U	0.0011	U
1,1-Dichloroethane	75-34-3	mg/kg	0.27	0.00055	U	0.00052	U	0.00052	U	0.0011	U	0.00055	U	0.00052	U	0.00075	U

SGS

SGS Engage - Group Crosstab

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE24164		JE24164		JE24164		JE24164		JE24164		JE24164		JE24164	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444		11444		11444	
Client Sample ID:				EP-24		EP-31		EP-38		EP-36		EP-35		EP-28		EP-21	
Lab Sample ID:				JE24164-1		JE24164-2		JE24164-3		JE24164-4		JE24164-5		JE24164-6		JE24164-7	
Location:																	
Date Sampled:				11/25/2025 4:08 PM		11/26/2025 10:03 AM		11/25/2025 4:15 PM		11/25/2025 3:39 PM		11/25/2025 3:44 PM		11/25/2025 3:50 PM		11/25/2025 3:57 PM	
Matrix:				Soil		Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**															
(GC/LC Semi-volatiles (SW846 8081B))																	
1,2-Dichloroethane	107-06-2	mg/kg	0.02	0.00052	U	0.00049	U	0.0005	U	0.0011	U	0.00053	U	0.00049	U	0.00072	U
1,1-Dichloroethene	75-35-4	mg/kg	0.24	0.00072	U	0.00069	U	0.00069	U	0.0015	U	0.00073	U	0.00069	U	0.001	U
cis-1,2-Dichloroethene	156-59-2	mg/kg	0.19	0.00093	U	0.00088	U	0.00089	U	0.0019	U	0.00094	U	0.00088	U	0.0013	U
trans-1,2-Dichloroethene	156-60-5	mg/kg	0.19	0.00067	U	0.00064	U	0.00065	U	0.0014	U	0.00068	U	0.00064	U	0.00093	U
1,2-Dichloropropane	78-87-5	mg/kg		0.00052	U	0.0005	U	0.0005	U	0.0011	U	0.00053	U	0.0005	U	0.00072	U
cis-1,3-Dichloropropene	10061-01-5	mg/kg		0.00052	U	0.0005	U	0.0005	U	0.0011	U	0.00053	U	0.0005	U	0.00072	U
trans-1,3-Dichloropropene	10061-02-6	mg/kg		0.0005	U	0.00048	U	0.00048	U	0.001	U	0.00051	U	0.00048	U	0.0007	U
Ethylbenzene	100-41-4	mg/kg	1	0.0005	U	0.0005	J	0.00048	U	0.001	U	0.00051	U	0.00048	U	0.00069	U
Freon 113	76-13-1	mg/kg		0.0029	U	0.0028	U	0.0028	U	0.006	U	0.003	U	0.0028	U	0.0041	U
2-Hexanone	591-78-6	mg/kg		0.0023	U	0.0022	U	0.0022	U	0.0048	U	0.0024	U	0.0022	U	0.0032	U
Isopropylbenzene	98-82-8	mg/kg		0.0016	U	0.0015	U	0.0015	U	0.0032	U	0.0016	U	0.0015	U	0.0022	U
Methyl Acetate	79-20-9	mg/kg		0.0015	U	0.0015	U	0.0015	U	0.0031	U	0.0016	U	0.0015	U	0.0021	U
Methylcyclohexane	108-87-2	mg/kg		0.00096	U	0.00092	U	0.00093	U	0.002	U	0.00098	U	0.00092	U	0.0013	U
Methyl Tert Butyl Ether	1634-04-4	mg/kg	0.1	0.00052	U	0.00049	U	0.0005	U	0.0011	U	0.00052	U	0.00049	U	0.00071	U
4-Methyl-2-pentanone(MIBK	108-10-1	mg/kg		0.0025	U	0.0024	U	0.0024	U	0.0051	U	0.0025	U	0.0024	U	0.0035	U
Methylene chloride	75-09-2	mg/kg	0.05	0.0032	J	0.0027	U	0.0048	J	0.0139		0.0046	J	0.0043	J	0.0066	J
Styrene	100-42-5	mg/kg		0.00044	U	0.00042	U	0.00043	U	0.0009	U	0.00045	U	0.00042	U	0.00061	U
1,1,2,2-Tetrachloroethane	79-34-5	mg/kg		0.00066	U	0.00063	U	0.00063	U	0.0013	U	0.00067	U	0.00063	U	0.00091	U
Tetrachloroethene	127-18-4	mg/kg	1.3	0.00064	U	0.00061	U	0.00061	U	0.0013	U	0.00065	U	0.00061	U	0.00088	U
Toluene	108-88-3	mg/kg	0.7	0.00058	U	0.00055	U	0.00056	U	0.0012	U	0.00059	U	0.00055	U	0.0008	U
1,2,3-Trichlorobenzene	87-61-6	mg/kg		0.0028	U	0.0026	U	0.0026	U	0.0056	U	0.0028	U	0.0026	U	0.0038	U
1,2,4-Trichlorobenzene	120-82-1	mg/kg		0.0028	U	0.0026	U	0.0026	U	0.0056	U	0.0028	U	0.0026	U	0.0038	U
1,1,1-Trichloroethane	71-55-6	mg/kg	0.68	0.00053	U	0.00051	U	0.00051	U	0.0011	U	0.00054	U	0.00051	U	0.00074	U
1,1,2-Trichloroethane	79-00-5	mg/kg		0.00061	U	0.00058	U	0.00059	U	0.0012	U	0.00062	U	0.00058	U	0.00084	U
Trichloroethene	79-01-6	mg/kg	0.47	0.00084	U	0.0008	U	0.00081	U	0.0017	U	0.00085	U	0.0008	U	0.0012	U
Trichlorofluoromethane	75-69-4	mg/kg		0.00075	U	0.00072	U	0.00072	U	0.0015	U	0.00077	U	0.00072	U	0.001	U
Vinyl chloride	75-01-4	mg/kg	0.03	0.00053	U	0.00051	U	0.00051	U	0.0011	U	0.00054	U	0.00051	U	0.00073	U
m,p-Xylene	M,P-XYLENE	mg/kg	0.26	0.00099	U	0.0018		0.00095	U	0.002	U	0.001	U	0.00094	U	0.0014	U
o-Xylene	95-47-6	mg/kg	0.26	0.0005	U	0.0005	J	0.00048	U	0.001	U	0.00051	U	0.00048	U	0.0007	U
Xylene (total)	1330-20-7	mg/kg	0.26	0.0005	U	0.0023		0.00048	U	0.001	U	0.00051	U	0.00048	U	0.0007	U
Dibromofluoromethane	1868-53-7	%		103		102		107		105		104		106		106	
1,2-Dichloroethane-D4	17060-07-0	%		106		107		114		106		115		113		109	
Toluene-D8	2037-26-5	%		106		113		104		98		109		104		107	
4-Bromofluorobenzene	460-00-4	%		97		90		100		92		96		93		97	
26 result(s) exceeded regulatory criteria.																	

Footnote	Comments
	*** 6 footnote comments were removed from this export ***

SGS

SGS Engage - Group Crosstab

Job Number:				NY USCO	JE24498		JE24498		JE24498		JE24498		JE24498		JE24498		JE24498		JE24498	
Client Sample ID:					EP-27		EP-19		EP-26		EP-44		EP-20		EP-67		EP-60		EP-53	
Lab Sample ID:					JE24498-1		JE24498-2		JE24498-3		JE24498-4		JE24498-5		JE24498-6		JE24498-7		JE24498-8	
Date Sampled:					12/4/2025 2:16 PM		12/4/2025 2:32 PM		12/4/2025 2:37 PM		12/4/2025 2:45 PM		12/4/2025 2:26 PM		12/4/2025 2:57 PM		12/4/2025 2:55 PM		12/4/2025 2:52 PM	
Matrix:					Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Type**	**Unit**																	
(GC/LC Semi-volatiles (SW846 8081B))																				
Aldrin	309-00-2	REG	mg/kg	0.005	0.000096	U	0.000094	U	0.000088	U	0.000085	U	0.000093	U	0.000079	U	0.000081	U	0.00012	J
alpha-BHC	319-84-6	REG	mg/kg	0.02	0.000056	U	0.000056	U	0.000052	U	0.00005	U	0.000055	U	0.000047	U	0.000048	U	0.000048	U
beta-BHC	319-85-7	REG	mg/kg	0.036	0.000071	U	0.00007	U	0.000065	U	0.000063	U	0.000069	U	0.000059	U	0.00006	U	0.00006	U
delta-BHC	319-86-8	REG	mg/kg	0.04	0.000074	U	0.000073	U	0.000068	U	0.000065	U	0.000071	U	0.000061	U	0.000063	U	0.00016	J
gamma-BHC (Lindane)	58-89-9	REG	mg/kg	0.1	0.000086	U	0.000085	U	0.000079	U	0.000076	U	0.000083	U	0.000071	U	0.000073	U	0.000073	U
alpha-Chlordane	5103-71-9	REG	mg/kg	0.094	0.000066	U	0.000065	U	0.000061	U	0.000059	U	0.000064	U	0.000055	U	0.000056	U	0.000056	U
gamma-Chlordane	5103-74-2	REG	mg/kg		0.000074	U	0.000073	U	0.000068	U	0.000065	U	0.000071	U	0.000061	U	0.000063	U	0.000062	U
Dieldrin	60-57-1	REG	mg/kg	0.005	0.000078	U	0.000077	U	0.00018	J	0.00007	U	0.000076	U	0.000065	U	0.000067	U	0.000066	U
4,4'-DDD	72-54-8	REG	mg/kg	0.0033	0.000051	U	0.000084	J	0.000047	U	0.000099	J	0.0034		0.000043	U	0.000044	U	0.000044	U
4,4'-DDE	72-55-9	REG	mg/kg	0.0033	0.000059	U	0.000058	U	0.00011	J	0.000052	U	0.00036	J	0.000049	U	0.000067	J	0.000065	J
4,4'-DDT	50-29-3	REG	mg/kg	0.0033	0.000086	U	0.000085	U	0.00065		0.000076	U	0.000083	U	0.00046		0.0003	J	0.00073	
Endrin	72-20-8	REG	mg/kg	0.014	0.000071	U	0.00007	U	0.000065	U	0.000063	U	0.000069	U	0.000059	U	0.00006	U	0.00006	U
Endosulfan sulfate	1031-07-8	REG	mg/kg	2.4	0.000059	U	0.000058	U	0.000054	U	0.000052	U	0.000057	U	0.000049	U	0.00005	U	0.00005	U
Endrin aldehyde	7421-93-4	REG	mg/kg		0.00014	U	0.00014	U	0.00013	U	0.00013	U	0.00014	U	0.00012	U	0.00012	U	0.00012	U
Endosulfan-I	959-98-8	REG	mg/kg	2.4	0.000066	U	0.000065	U	0.000061	U	0.000059	U	0.000064	U	0.000055	U	0.000056	U	0.000056	U
Endosulfan-II	33213-65-9	REG	mg/kg	2.4	0.000069	U	0.000068	U	0.000063	U	0.000061	U	0.000067	U	0.00017	J	0.000058	U	0.00054	
Heptachlor	76-44-8	REG	mg/kg	0.042	0.000064	U	0.000063	U	0.000059	U	0.000057	U	0.000062	U	0.000053	U	0.000054	U	0.000054	U
Heptachlor epoxide	1024-57-3	REG	mg/kg		0.000088	U	0.000087	U	0.000081	U	0.000078	U	0.000086	U	0.000073	U	0.000075	U	0.000075	U
Methoxychlor	72-43-5	REG	mg/kg		0.00019	U	0.00019	U	0.00018	U	0.00017	U	0.00019	U	0.00016	U	0.00016	U	0.00016	U
Endrin ketone	53494-70-5	REG	mg/kg		0.000078	U	0.000077	U	0.000072	U	0.00007	U	0.000076	U	0.000065	U	0.000067	U	0.000066	U
Toxaphene	8001-35-2	REG	mg/kg		0.004	U	0.004	U	0.0037	U	0.0036	U	0.0039	U	0.0034	U	0.0034	U	0.0034	U
Tetrachloro-m-xylene (2)	877-09-8	SURR	%		87		95		100		77		84		88		86		85	
Tetrachloro-m-xylene (3)	877-09-8	SURR	%		100		100		97		96		91		94		93		89	
Decachlorobiphenyl (2)	2051-24-3	SURR	%		84		89		92		91		84		90		81		83	
Decachlorobiphenyl (3)	2051-24-3	SURR	%		116		112		114		110		100		128		236	*	123	
(GC/LC Semi-volatiles (SW846 8082A))																				
Aroclor 1016	12674-11-2	REG	mg/kg	0.1	0.01	U	0.01	U	0.0096	U	0.0092	U	0.01	U	0.0086	U	0.0089	U	0.0088	U
Aroclor 1221	11104-28-2	REG	mg/kg	0.1	0.0082	U	0.0081	U	0.0076	U	0.0073	U	0.008	U	0.0068	U	0.007	U	0.007	U
Aroclor 1232	11141-16-5	REG	mg/kg	0.1	0.02	U	0.02	U	0.019	U	0.018	U	0.02	U	0.017	U	0.017	U	0.017	U
Aroclor 1242	53469-21-9	REG	mg/kg	0.1	0.015	U	0.015	U	0.014	U	0.013	U	0.014	U	0.012	U	0.013	U	0.012	U
Aroclor 1248	12672-29-6	REG	mg/kg	0.1	0.0053	U	0.0052	U	0.0049	U	0.0047	U	0.0051	U	0.0044	U	0.0045	U	0.0045	U
Aroclor 1254	11097-69-1	REG	mg/kg	0.1	0.0026	U	0.0026	U	0.0024	U	0.0024	U	0.0026	U	0.0022	U	0.0023	U	0.0022	U
Aroclor 1260	11096-82-5	REG	mg/kg	0.1	0.0085	U	0.0084	U	0.0078	U	0.0075	U	0.0082	U	0.007	U	0.0072	U	0.0072	U
Aroclor 1268	11100-14-4	REG	mg/kg	0.1	0.0025	U	0.0024	U	0.0023	U	0.0022	U	0.0024	U	0.0021	U	0.0021	U	0.0021	U
Aroclor 1262	37324-23-5	REG	mg/kg	0.1	0.002	U	0.002	U	0.0019	U	0.0018	U	0.002	U	0.0017	U	0.0017	U	0.0017	U
Tetrachloro-m-xylene	877-09-8	SURR	%		83		82		82		85		79		81		81		79	
Tetrachloro-m-xylene (1)	877-09-8	SURR	%		76		77		78		79		75		77		77		73	
Decachlorobiphenyl	2051-24-3	SURR	%		76		83		89		91		84		87		93		100	
Decachlorobiphenyl (1)	2051-24-3	SURR	%		70		73		79		83		75		132		89		94	
(General Chemistry (SM2540 G 18TH ED MOD))																				
Solids, Percent	PERCENT SOLIDS	REG	%		80		82.6		87		90.1		82.3		94.6		94.1		92.7	
(General Chemistry (SW846 9012B/LACHAT))																				
Cyanide	57-12-5	REG	mg/kg	27	0.34	U	0.32	U	0.33	U	0.25	U	0.3	U	0.23	U	0.26	U	0.25	U
(Metals Analysis (SW846 6010D))																				
Aluminum	7429-90-5	REG	mg/kg		13000		12000		11600		9810		12700		5150		5710		5900	
Antimony	7440-36-0	REG	mg/kg		5.1	U	2.3	U	2.4	U	2.3	U	2.3	U	2.1	U	2.1	U	2.2	U
Arsenic	7440-38-2	REG	mg/kg	13	5.9		3.6		4.7		2.8		3.5		2.1	U	2.1	U	2.2	U
Barium	7440-39-3	REG	mg/kg	350	51.3		47.4		52.3		45.8		55.3		46.1		42		31.9	
Beryllium	7440-41-7	REG	mg/kg	7.2	0.64		0.41		0.43		0.44		0.5		0.22		0.21	U	0.3	
Cadmium	7440-43-9	REG	mg/kg	2.5	0.64	U	0.59	U	0.6	U	0.58	U	0.58	U	0.53	U	0.53	U	0.54	U
Calcium	7440-70-2	REG	mg/kg		1150		985		4870		817		1010		1130		1340		1270	
Chromium	7440-47-3	REG	mg/kg	30	18.9		17.3		16.1		21.3		18.9		8.7		12.2		14.2	
Cobalt	7440-48-4	REG	mg/kg		10.6		6.2		8.6		8		6		5.4		5.3	U	5.4	U
Copper	7440-50-8	REG	mg/kg	50	15.6		12.4		16.1		12.9		17.5		16.6		8.8		9.9	
Iron	7439-89-6	REG	mg/kg		39400		17700		20400		17400		15700		11100		8890		12800	
Lead	7439-92-1	REG	mg/kg	63	6.1		10		22.4		8.5		7.4		16.9		13.2		12.2	
Magnesium	7439-95-4	REG	mg/kg		3290		3310		4000		3870		3980		2160		2630		3060	
Manganese	7439-96-5	REG	mg/kg	1600	793		246		580		429		236		459		276		234	
Nickel	7440-02-0	REG	mg/kg	30	12		12.3		14.9		13.8		13.2		12.1		8.5		11.1	
Potassium	7440-09-7	REG	mg/kg		1300	U	1200	U	1200	U	1200	U	1240		1100	U	1100	U	1100	U
Selenium	7782-49-2	REG	mg/kg	3.9	5.1	U	2.3	U	2.4	U	2.3	U	2.3	U	2.1	U	2.1	U	2.2	U
Silver	7440-22-4	REG	mg/kg	2	0.64	U	0.59	U	0.6	U	0.58	U	0.58	U	0.53	U	0.53	U	0.54	U
Sodium	7440-23-5	REG	mg/kg		1300	U	1200	U	1200	U	1200	U	1200	U	1100	U	1100	U	1100	U
Thallium	7440-28-0	REG	mg/kg		1.3	U	1.2	U	1.2	U	1.2	U	1.2	U	1.1	U	1.1	U	1.1	U
Vanadium	7440-62-2	REG	mg/kg		31.5		24.8		21.9		26.3		31.6		14.3		16.3		19.3	
Zinc	7440-66-6	REG	mg/kg	109	43.2		47.3		52.4		36.8		37.6		30.5		28.6		34.1	
(Metals Analysis (SW846 7471B))																				
Mercury	7439-97-6	REG	mg/kg	0.18	0.04	U	0.033	U	0.035		0.031	U	0.034	U	0.032	U	0.03	U	0.031	U
(MS Semi-volatile TIC ())																				
Anthracene methyl	TIC	TIC	mg/kg												0.27	J			0.25	J
n-Hexadecanoic acid	57-10-3	TIC	mg/kg						0.22	JN	0.14	JN								
Unknown	TIC	TIC	mg/kg		0.55	JB			0.52	JB	0.49	JB	0.5	JB	0.23	JB	0.43	JB	0.36	JB
4H-Cyclopenta[def]phenanthrene	TIC	TIC	mg/kg												0.19	J				
Unknown (1)	TIC	TIC	mg/kg		0.17	J			0.25	J	0.17	J			0.27	J	0.26	J	0.3	J
Pyrene methyl	TIC	TIC	mg/kg												0.15	J				
Unknown (2)	TIC	TIC	mg/kg														0.24	J		
Unknown PAH substance	TIC	TIC	mg/kg												0.18	J	0.24	J		

Job Number:				NY USCO	JE24498		JE24498		JE24498		JE24498		JE24498		JE24498		JE24498		JE24498	
Client Sample ID:					EP-27		EP-19		EP-26		EP-44		EP-20		EP-67		EP-60		EP-53	
Lab Sample ID:					JE24498-1		JE24498-2		JE24498-3		JE24498-4		JE24498-5		JE24498-6		JE24498-7		JE24498-8	
Date Sampled:					12/4/2025 2:16 PM		12/4/2025 2:32 PM		12/4/2025 2:37 PM		12/4/2025 2:45 PM		12/4/2025 2:26 PM		12/4/2025 2:57 PM		12/4/2025 2:55 PM		12/4/2025 2:52 PM	
Matrix:					Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Type**	**Unit**																	
Unknown PAH substance (1)	TIC	TIC	mg/kg												0.38	J	0.16	J		
Total TIC, Semi-Volatile	TOTAL TIC, SEMI-VOLATILE	TICTOTAL	mg/kg		0.17	J	0		0.47	J	0.31	J	0		1.44	J	0.9	J	0.55	J
(MS Semi-volatiles (SW846 8270E))																				
2-Chlorophenol	95-57-8	REG	mg/kg		0.02	U	0.019	U	0.018	U	0.018	U	0.019	U	0.017	U	0.017	U	0.017	U
4-Chloro-3-methyl phenol	59-50-7	REG	mg/kg		0.025	U	0.023	U	0.022	U	0.022	U	0.024	U	0.021	U	0.021	U	0.021	U
2,4-Dichlorophenol	120-83-2	REG	mg/kg		0.034	U	0.033	U	0.031	U	0.031	U	0.034	U	0.029	U	0.03	U	0.029	U
2,4-Dimethylphenol	105-67-9	REG	mg/kg		0.072	U	0.068	U	0.064	U	0.064	U	0.07	U	0.06	U	0.062	U	0.061	U
2,4-Dinitrophenol	51-28-5	REG	mg/kg		0.15	U	0.14	U	0.14	U	0.13	U	0.15	U	0.13	U	0.13	U	0.13	U
4,6-Dinitro-o-cresol	534-52-1	REG	mg/kg		0.043	U	0.041	U	0.039	U	0.038	U	0.042	U	0.036	U	0.038	U	0.037	U
2-Methylphenol	95-48-7	REG	mg/kg	0.33	0.026	U	0.024	U	0.023	U	0.023	U	0.025	U	0.022	U	0.022	U	0.022	U
3&4-Methylphenol	M+P-CRESOLS	REG	mg/kg		0.033	U	0.031	U	0.03	U	0.029	U	0.032	U	0.028	U	0.029	U	0.028	U
2-Nitrophenol	88-75-5	REG	mg/kg		0.027	U	0.025	U	0.024	U	0.024	U	0.026	U	0.022	U	0.023	U	0.023	U
4-Nitrophenol	100-02-7	REG	mg/kg		0.11	U	0.1	U	0.096	U	0.096	U	0.11	U	0.09	U	0.094	U	0.091	U
Pentachlorophenol	87-86-5	REG	mg/kg	0.8	0.038	U	0.036	U	0.034	U	0.034	U	0.037	U	0.032	U	0.033	U	0.032	U
Phenol	108-95-2	REG	mg/kg	0.33	0.021	U	0.02	U	0.019	U	0.019	U	0.021	U	0.018	U	0.018	U	0.018	U
2,3,4,6-Tetrachlorophenol	58-90-2	REG	mg/kg		0.027	U	0.025	U	0.024	U	0.024	U	0.026	U	0.022	U	0.023	U	0.023	U
2,4,5-Trichlorophenol	95-95-4	REG	mg/kg		0.03	U	0.029	U	0.027	U	0.027	U	0.03	U	0.025	U	0.026	U	0.026	U
2,4,6-Trichlorophenol	88-06-2	REG	mg/kg		0.024	U	0.023	U	0.021	U	0.021	U	0.024	U	0.02	U	0.021	U	0.02	U
Acenaphthene	83-32-9	REG	mg/kg	20	0.014	U	0.013	U	0.012	U	0.012	U	0.014	U	0.012	U	0.012	U	0.0209	J
Acenaphthylene	208-96-8	REG	mg/kg	100	0.02	U	0.019	U	0.018	U	0.018	U	0.02	U	0.0562		0.0311	J	0.0242	J
Acetophenone	98-86-2	REG	mg/kg		0.0086	U	0.0082	U	0.0077	U	0.0077	U	0.0085	U	0.0072	U	0.0075	U	0.0073	U
Anthracene	120-12-7	REG	mg/kg	100	0.025	U	0.023	U	0.022	U	0.022	U	0.024	U	0.0972		0.0316	J	0.0714	
Atrazine	1912-24-9	REG	mg/kg		0.017	U	0.016	U	0.015	U	0.015	U	0.017	U	0.014	U	0.015	U	0.015	U
Benzo(a)anthracene	56-55-3	REG	mg/kg	1	0.011	U	0.011	U	0.0344	J	0.01	U	0.011	U	0.597		0.122		0.168	
Benzo(a)pyrene	50-32-8	REG	mg/kg	1	0.018	U	0.017	U	0.0289	J	0.016	U	0.018	U	0.585		0.0965		0.136	
Benzo(b)fluoranthene	205-99-2	REG	mg/kg	1	0.018	U	0.017	U	0.0431		0.016	U	0.017	U	0.703		0.138		0.192	
Benzo(g,h,i)perylene	191-24-2	REG	mg/kg	100	0.02	U	0.019	U	0.0286	J	0.018	U	0.02	U	0.333		0.0579		0.0752	
Benzo(k)fluoranthene	207-08-9	REG	mg/kg	0.8	0.019	U	0.018	U	0.017	U	0.017	U	0.018	U	0.259		0.0432		0.0589	
4-Bromophenyl phenyl ether	101-55-3	REG	mg/kg		0.016	U	0.015	U	0.014	U	0.014	U	0.015	U	0.013	U	0.014	U	0.013	U
Butyl benzyl phthalate	85-68-7	REG	mg/kg		0.0098	U	0.0093	U	0.0088	U	0.0087	U	0.0096	U	0.0082	U	0.0086	U	0.0083	U
1,1'-Biphenyl	92-52-4	REG	mg/kg		0.0055	U	0.0052	U	0.0049	U	0.0049	U	0.0054	U	0.0046	U	0.0048	U	0.0047	U
Benzaldehyde	100-52-7	REG	mg/kg		0.01	U	0.0095	U	0.0089	U	0.0089	U	0.0098	U	0.0083	U	0.0087	U	0.0085	U
2-Chloronaphthalene	91-58-7	REG	mg/kg		0.0096	U	0.0091	U	0.0086	U	0.0085	U	0.0094	U	0.008	U	0.0083	U	0.0081	U
4-Chloroaniline	106-47-8	REG	mg/kg		0.014	U	0.014	U	0.013	U	0.013	U	0.014	U	0.012	U	0.013	U	0.012	U
Carbazole	86-74-8	REG	mg/kg		0.0058	U	0.0056	U	0.0052	U	0.0052	U	0.0057	U	0.0163	J	0.0071	J	0.0299	J
Caprolactam	105-60-2	REG	mg/kg		0.016	U	0.015	U	0.014	U	0.014	U	0.016	U	0.013	U	0.014	U	0.013	U
Chrysene	218-01-9	REG	mg/kg	1	0.013	U	0.012	U	0.0269	J	0.011	U	0.012	U	0.441		0.0961		0.134	
bis(2-Chloroethoxy)methane	111-91-1	REG	mg/kg		0.0086	U	0.0082	U	0.0077	U	0.0077	U	0.0084	U	0.0072	U	0.0075	U	0.0073	U
bis(2-Chloroethyl)ether	111-44-4	REG	mg/kg		0.017	U	0.017	U	0.016	U	0.015	U	0.017	U	0.015	U	0.015	U	0.015	U
2,2'-Oxybis(1-chloropropane)	108-60-1	REG	mg/kg		0.014	U	0.014	U	0.013	U	0.013	U	0.014	U	0.012	U	0.013	U	0.012	U
4-Chlorophenyl phenyl ether	7005-72-3	REG	mg/kg		0.013	U	0.012	U	0.012	U	0.012	U	0.013	U	0.011	U	0.011	U	0.011	U
2,4-Dinitrotoluene	121-14-2	REG	mg/kg		0.012	U	0.012	U	0.011	U	0.011	U	0.012	U	0.01	U	0.011	U	0.011	U
2,6-Dinitrotoluene	606-20-2	REG	mg/kg		0.02	U	0.019	U	0.018	U	0.018	U	0.02	U	0.017	U	0.018	U	0.017	U
3,3'-Dichlorobenzidine	91-94-1	REG	mg/kg		0.034	U	0.032	U	0.03	U	0.03	U	0.033	U	0.028	U	0.029	U	0.028	U
1,4-Dioxane	123-91-1	REG	mg/kg	0.1	0.027	U	0.025	U	0.024	U	0.024	U	0.026	U	0.022	U	0.023	U	0.023	U
Dibenzo(a,h)anthracene	53-70-3	REG	mg/kg	0.33	0.018	U	0.017	U	0.016	U	0.016	U	0.017	U	0.0896		0.0179	J	0.0258	J
Dibenzofuran	132-64-9	REG	mg/kg	7	0.016	U	0.016	U	0.015	U	0.015	U	0.016	U	0.014	U	0.014	U	0.0206	J
Di-n-butyl phthalate	84-74-2	REG	mg/kg		0.0066	U	0.0062	U	0.0059	U	0.0058	U	0.0064	U	0.0055	U	0.0183	J	0.0056	U
Di-n-octyl phthalate	117-84-0	REG	mg/kg		0.01	U	0.0095	U	0.009	U	0.0089	U	0.0098	U	0.0084	U	0.0087	U	0.0085	U
Diethyl phthalate	84-66-2	REG	mg/kg		0.0086	U	0.0082	U	0.0077	U	0.0076	U	0.0084	U	0.0072	U	0.0075	U	0.0073	U
Dimethyl phthalate	131-11-3	REG	mg/kg		0.0072	U	0.0068	U	0.0064	U	0.0064	U	0.007	U	0.006	U	0.0062	U	0.0061	U
bis(2-Ethylhexyl)phthalate	117-81-7	REG	mg/kg		0.0135	J	0.0155	J	0.0143	J	0.0084	U	0.019	J	0.0129	J	0.0082	U	0.008	U
Fluoranthene	206-44-0	REG	mg/kg	100	0.018	U	0.017	U	0.054		0.016	U	0.018	U	1.13		0.244		0.323	
Fluorene	86-73-7	REG	mg/kg	30	0.018	U	0.018	U	0.017	U	0.016	U	0.018	U	0.015	U	0.016	U	0.0347	
Hexachlorobenzene	118-74-1	REG	mg/kg	0.33	0.01	U	0.0097	U	0.0091	U	0.0091	U	0.01	U	0.0085	U	0.0089	U	0.0086	U
Hexachlorobutadiene	87-68-3	REG	mg/kg		0.016	U	0.015	U	0.014	U	0.014	U	0.016	U	0.014	U	0.014	U	0.014	U
Hexachlorocyclopentadiene	77-47-4	REG	mg/kg		0.016	U	0.015	U	0.014	U	0.014	U	0.016	U	0.013	U	0.014	U	0.014	U
Hexachloroethane	67-72-1	REG	mg/kg		0.02	U	0.019	U	0.018	U	0.018	U	0.02	U	0.017	U	0.017	U	0.017	U
Indeno(1,2,3-cd)pyrene	193-39-5	REG	mg/kg	0.5	0.019	U	0.018	U	0.0213	J	0.017	U	0.019	U	0.308		0.0539		0.0763	
Isophorone	78-59-1	REG	mg/kg		0.0086	U	0.0082	U	0.0077	U	0.0077	U	0.0084	U	0.0072	U	0.0075	U	0.0073	U
2-Methylnaphthalene	91-57-6	REG	mg/kg		0.0091	U	0.0087	U	0.0081	U	0.0081	U	0.0089	U	0.0076	U	0.0079	U	0.0296	J
2-Nitroaniline	88-74-4	REG	mg/kg		0.0095	U	0.009	U	0.0085	U	0.0084	U	0.0093	U	0.0079	U	0.0083	U	0.0081	U
3-Nitroaniline	99-09-2	REG	mg/kg		0.01	U	0.0096	U	0.009	U	0.009	U	0.0099	U	0.0084	U	0.0088	U	0.0085	U
4-Nitroaniline	100-01-6	REG	mg/kg		0.01	U	0.0099	U	0.0093	U	0.0093	U	0.01	U	0.0087	U	0.0091	U	0.0088	U
Naphthalene	91-20-3	REG	mg/kg	12	0.011	U	0.011	U	0.0249	J	0.01	U	0.011	U	0.0125	J	0.0099	U	0.0475	
Nitrobenzene	98-95-3	REG	mg/kg		0.016	U	0.015	U	0.014	U	0.014	U	0.015	U	0.013	U	0.014	U	0.013	U
N-Nitroso-di-n-propylamine	621-64-7	REG	mg/kg		0.012	U	0.011	U	0.01	U	0.01	U	0.011	U	0.0097	U	0.01	U	0.0099	U
N-Nitrosodiphenylamine	86-30-6	REG	mg/kg		0.015	U	0.014	U	0.013	U	0.013	U	0.014	U	0.012	U	0.013	U	0.012	U
Phenanthrene	85-01-8	REG	mg/kg	100	0.014	U	0.013	U	0.0234	J	0.012	U	0.013	U	0.162		0.0647		0.244	
Pyrene	129-00-0	REG	mg/kg	100	0.013	U	0.012	U	0.0549		0.011	U	0.013	U	0.989		0.184		0.249	
1,2,4,5-Tetrachlorobenzene	95-94-3	REG	mg/kg		0.01	U	0.0097	U	0.0092	U	0.0091	U	0.01	U	0.0086	U	0.0089	U	0.0087	U
2-Fluorophenol	367-12-4	SURR	%		57		55		60		52		54		64		52		61	
Phenol-d5	4165-62-2	SURR	%		59		55		60		55		57		65		54		61	
2,4,6-Tribromophenol	118-79-6	SURR	%		67		66		70		62		66		80		67		72	
Nitrobenzene-d5	4165-60-0	SURR	%		56		52		57		52		52		60		48		57	
2-Fluorobiphenyl	321-60-8	SURR	%		68		64		70		65		66		77		65		70	
Terphenyl-d14	1718-51-0	SURR	%		71		64		68		64		66		69		58		64	
(MS Volatile TIC ())																				
Hexane	110-54-3	TIC	mg/kg				0.017	JN							0.0069	JN				
Total TIC, Volatile	TOTAL TIC, VOLATILE	TICTOTAL	mg/kg		0		0.017	J	0		0		0		0.0069	J	0		0	

Job Number:				NY USCO	JE24498		JE24498		JE24498		JE24498		JE24498		JE24498		JE24498		JE24498	
Client Sample ID:					EP-27		EP-19		EP-26		EP-44		EP-20		EP-67		EP-60		EP-53	
Lab Sample ID:					JE24498-1		JE24498-2		JE24498-3		JE24498-4		JE24498-5		JE24498-6		JE24498-7		JE24498-8	
Date Sampled:					12/4/2025 2:16 PM		12/4/2025 2:32 PM		12/4/2025 2:37 PM		12/4/2025 2:45 PM		12/4/2025 2:26 PM		12/4/2025 2:57 PM		12/4/2025 2:55 PM		12/4/2025 2:52 PM	
Matrix:					Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Type**	**Unit**																	
(MS Volatiles (SW846 8260D))																				
Acetone	67-64-1	REG	mg/kg	0.05	0.0096		0.0094	J	0.0045	U	0.0058	J	0.0041	U	0.0153		0.0042	U	0.0039	U
Benzene	71-43-2	REG	mg/kg	0.06	0.00043	U	0.00043	U	0.00049	U	0.00044	U	0.00045	U	0.00045	U	0.00046	U	0.00042	U
Bromochloromethane	74-97-5	REG	mg/kg		0.00053	U	0.00053	U	0.00061	U	0.00055	U	0.00055	U	0.00056	U	0.00057	U	0.00052	U
Bromodichloromethane	75-27-4	REG	mg/kg		0.00041	U	0.00041	U	0.00047	U	0.00042	U	0.00042	U	0.00043	U	0.00044	U	0.0004	U
Bromoform	75-25-2	REG	mg/kg		0.0013	U	0.0013	U	0.0015	U	0.0013	U	0.0013	U	0.0014	U	0.0014	U	0.0013	U
Bromomethane	74-83-9	REG	mg/kg		0.00072	U	0.00072	U	0.00083	U	0.00074	U	0.00075	U	0.00076	U	0.00078	U	0.00071	U
2-Butanone (MEK)	78-93-3	REG	mg/kg	0.12	0.0023	U	0.0023	U	0.0026	U	0.0087	J	0.0024	U	0.0097	J	0.0025	U	0.0023	U
Carbon disulfide	75-15-0	REG	mg/kg		0.00051	U	0.00051	U	0.00058	U	0.00052	U	0.00052	U	0.00053	U	0.00055	U	0.0005	U
Carbon tetrachloride	56-23-5	REG	mg/kg	0.76	0.00059	U	0.00058	U	0.00067	U	0.0006	U	0.00061	U	0.00062	U	0.00063	U	0.00057	U
Chlorobenzene	108-90-7	REG	mg/kg	1.1	0.00043	U	0.00043	U	0.0005	U	0.00045	U	0.00045	U	0.00046	U	0.00047	U	0.00043	U
Chloroethane	75-00-3	REG	mg/kg		0.00056	U	0.00056	U	0.00064	U	0.00058	U	0.00058	U	0.00059	U	0.0006	U	0.00055	U
Chloroform	67-66-3	REG	mg/kg	0.37	0.00095	U	0.00095	U	0.0011	U	0.00097	U	0.00098	U	0.001	U	0.001	U	0.00093	U
Chloromethane	74-87-3	REG	mg/kg		0.0019	U	0.0019	U	0.0021	U	0.0019	U	0.0019	U	0.002	U	0.002	U	0.0018	U
Cyclohexane	110-82-7	REG	mg/kg		0.00062	U	0.00062	U	0.00071	U	0.00064	U	0.00064	U	0.00066	U	0.00067	U	0.00061	U
1,2-Dibromo-3-chloropropane	96-12-8	REG	mg/kg		0.00066	U	0.00066	U	0.00075	U	0.00068	U	0.00068	U	0.00069	U	0.00071	U	0.00065	U
Dibromochloromethane	124-48-1	REG	mg/kg		0.00053	U	0.00053	U	0.00061	U	0.00055	U	0.00055	U	0.00056	U	0.00057	U	0.00052	U
1,2-Dibromoethane	106-93-4	REG	mg/kg		0.0004	U	0.0004	U	0.00046	U	0.00041	U	0.00041	U	0.00042	U	0.00043	U	0.00039	U
1,2-Dichlorobenzene	95-50-1	REG	mg/kg	1.1	0.00052	U	0.00052	U	0.00059	U	0.00053	U	0.00054	U	0.00054	U	0.00056	U	0.00051	U
1,3-Dichlorobenzene	541-73-1	REG	mg/kg	2.4	0.00047	U	0.00047	U	0.00054	U	0.00048	U	0.00049	U	0.00049	U	0.00051	U	0.00046	U
1,4-Dichlorobenzene	106-46-7	REG	mg/kg	1.8	0.00047	U	0.00047	U	0.00054	U	0.00048	U	0.00048	U	0.00049	U	0.0005	U	0.00046	U
Dichlorodifluoromethane	75-71-8	REG	mg/kg		0.00069	U	0.00069	U	0.00079	U	0.00071	U	0.00071	U	0.00072	U	0.00074	U	0.00068	U
1,1-Dichloroethane	75-34-3	REG	mg/kg	0.27	0.00047	U	0.00047	U	0.00054	U	0.00048	U	0.00049	U	0.00049	U	0.00051	U	0.00046	U
1,2-Dichloroethane	107-06-2	REG	mg/kg	0.02	0.00045	U	0.00044	U	0.00051	U	0.00046	U	0.00046	U	0.00047	U	0.00048	U	0.00044	U
1,1-Dichloroethene	75-35-4	REG	mg/kg	0.33	0.00062	U	0.00062	U	0.00071	U	0.00064	U	0.00064	U	0.00065	U	0.00067	U	0.00061	U
cis-1,2-Dichloroethene	156-59-2	REG	mg/kg	0.25	0.0008	U	0.00079	U	0.00091	U	0.00082	U	0.00082	U	0.00084	U	0.00086	U	0.00078	U
trans-1,2-Dichloroethene	156-60-5	REG	mg/kg	0.19	0.00058	U	0.00058	U	0.00066	U	0.00059	U	0.0006	U	0.00061	U	0.00062	U	0.00057	U
1,2-Dichloropropane	78-87-5	REG	mg/kg		0.00045	U	0.00045	U	0.00051	U	0.00046	U	0.00046	U	0.00047	U	0.00048	U	0.00044	U
cis-1,3-Dichloropropene	10061-01-5	REG	mg/kg		0.00045	U	0.00045	U	0.00052	U	0.00046	U	0.00047	U	0.00047	U	0.00049	U	0.00044	U
trans-1,3-Dichloropropene	10061-02-6	REG	mg/kg		0.00043	U	0.00043	U	0.0005	U	0.00044	U	0.00045	U	0.00046	U	0.00047	U	0.00042	U
Ethylbenzene	100-41-4	REG	mg/kg	1	0.00043	U	0.00043	U	0.00049	U	0.00044	U	0.00044	U	0.00066	J	0.00046	U	0.00042	U
Freon 113	76-13-1	REG	mg/kg		0.0025	U	0.0025	U	0.0029	U	0.0026	U	0.0026	U	0.0027	U	0.0027	U	0.0025	U
2-Hexanone	591-78-6	REG	mg/kg		0.002	U	0.002	U	0.0023	U	0.0021	U	0.0021	U	0.0021	U	0.0022	U	0.002	U
Isopropylbenzene	98-82-8	REG	mg/kg		0.0013	U	0.0013	U	0.0015	U	0.0014	U	0.0014	U	0.0014	U	0.0015	U	0.0013	U
Methyl Acetate	79-20-9	REG	mg/kg		0.0013	U	0.0013	U	0.0015	U	0.0014	U	0.0014	U	0.0014	U	0.0014	U	0.0013	U
Methylcyclohexane	108-87-2	REG	mg/kg		0.00083	U	0.00083	U	0.00095	U	0.00085	U	0.00086	U	0.00087	U	0.00089	U	0.00081	U
Methyl Tert Butyl Ether	1634-04-4	REG	mg/kg	0.93	0.00044	U	0.00044	U	0.00051	U	0.00046	U	0.00046	U	0.00047	U	0.00048	U	0.00044	U
4-Methyl-2-pentanone(MIBK)	108-10-1	REG	mg/kg		0.0021	U	0.0021	U	0.0025	U	0.0022	U	0.0022	U	0.0023	U	0.0023	U	0.0021	U
Methylene chloride	75-09-2	REG	mg/kg	0.05	0.0027	J	0.0036	J	0.0028	U	0.0025	U	0.0026	U	0.0026	U	0.0027	U	0.0024	U
Styrene	100-42-5	REG	mg/kg		0.00038	U	0.00038	U	0.00044	U	0.00039	U	0.00039	U	0.0004	U	0.00041	U	0.00037	U
1,1,2,2-Tetrachloroethane	79-34-5	REG	mg/kg		0.00057	U	0.00057	U	0.00065	U	0.00058	U	0.00059	U	0.0006	U	0.00061	U	0.00056	U
Tetrachloroethene	127-18-4	REG	mg/kg	1.3	0.00055	U	0.00055	U	0.00063	U	0.00056	U	0.00057	U	0.00058	U	0.00059	U	0.00054	U
Toluene	108-88-3	REG	mg/kg	0.7	0.0005	U	0.0005	U	0.00057	U	0.00051	U	0.00051	U	0.00052	U	0.00054	U	0.00049	U
1,2,3-Trichlorobenzene	87-61-6	REG	mg/kg		0.0024	U	0.0024	U	0.0027	U	0.0024	U	0.0024	U	0.0025	U	0.0026	U	0.0023	U
1,2,4-Trichlorobenzene	120-82-1	REG	mg/kg		0.0024	U	0.0024	U	0.0027	U	0.0024	U	0.0024	U	0.0025	U	0.0026	U	0.0023	U
1,1,1-Trichloroethane	71-55-6	REG	mg/kg	0.68	0.00046	U	0.00046	U	0.00052	U	0.00047	U	0.00047	U	0.00048	U	0.00049	U	0.00045	U
1,1,2-Trichloroethane	79-00-5	REG	mg/kg		0.00052	U	0.00052	U	0.0006	U	0.00054	U	0.00054	U	0.00055	U	0.00057	U	0.00052	U
Trichloroethene	79-01-6	REG	mg/kg	0.47	0.00072	U	0.00072	U	0.00083	U	0.00074	U	0.00075	U	0.00076	U	0.00078	U	0.00071	U
Trichlorofluoromethane	75-69-4	REG	mg/kg		0.00065	U	0.00065	U	0.00074	U	0.00067	U	0.00067	U	0.00068	U	0.0007	U	0.00064	U
Vinyl chloride	75-01-4	REG	mg/kg	0.02	0.00046	U	0.00045	U	0.00052	U	0.00047	U	0.00047	U	0.00048	U	0.00049	U	0.00045	U
m,p-Xylene	M,P-XYLENE	REG	mg/kg	0.26	0.00085	U	0.00085	U	0.00097	U	0.0018		0.00088	U	0.0025		0.00092	U	0.00083	U
o-Xylene	95-47-6	REG	mg/kg	0.26	0.00043	U	0.00043	U	0.0005	U	0.00059	J	0.00045	U	0.0011		0.00047	U	0.00043	U
Xylene (total)	1330-20-7	REG	mg/kg	0.26	0.00043	U	0.00043	U	0.0005	U	0.0024		0.00045	U	0.0036		0.00047	U	0.00043	U
Dibromofluoromethane	1868-53-7	SURR	%		105		110		104		105		105		100		103		101	
1,2-Dichloroethane-D4	17060-07-0	SURR	%		115		120		118		117		121		117		114		114	
Toluene-D8	2037-26-5	SURR	%		99		104		99		102		102		103		102		97	
4-Bromofluorobenzene	460-00-4	SURR	%		101		103		100		97		97		106		98		98	

NY USCO: NY - New York NYCRR Part 375 New York Unrestricted use Criteria Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.

SGS

SGS Engage - Group Crosstab

Job Number:				NY USCO	JE25100		JE25100		JE25100		JE25100		JE25100		JE25100		JE25100		JE25100	
Client Sample ID:					EP-52		EP-59		EP-50		EP-58		EP-57		EP-51		EP-49		DUP-1	
Lab Sample ID:					JE25100-1		JE25100-2		JE25100-3		JE25100-4		JE25100-5		JE25100-6		JE25100-7		JE25100-8	
Date Sampled:					12/12/2025 3:10 PM		12/12/2025 3:20 PM		12/12/2025 3:36 PM		12/12/2025 3:27 PM		12/12/2025 3:31 PM		12/12/2025 3:32 PM		12/12/2025 3:47 PM		12/12/2025 3:43 PM	
Matrix:					Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Type**	**Unit**																	
(GC/LC Semi-volatiles (SW846 8081B))																				
Aldrin	309-00-2	REG	mg/kg	0.005	0.00056	U	0.00058	U	0.00057	U	0.00058	U	0.00057	U	0.00055	U	0.00053	U	0.00056	U
alpha-BHC	319-84-6	REG	mg/kg	0.02	0.00055	U	0.00057	U	0.00056	U	0.00057	U	0.00056	U	0.00054	U	0.00052	U	0.00055	U
beta-BHC	319-85-7	REG	mg/kg	0.036	0.00061	U	0.00063	U	0.00063	U	0.00063	U	0.00062	U	0.0006	U	0.00058	U	0.00061	U
delta-BHC	319-86-8	REG	mg/kg	0.04	0.00065	U	0.00067	U	0.00067	U	0.00067	U	0.00066	U	0.00064	U	0.00062	U	0.00065	U
gamma-BHC (Lindane)	58-89-9	REG	mg/kg	0.1	0.0005	U	0.00051	U	0.00051	U	0.00052	U	0.00051	U	0.00049	U	0.00047	U	0.0005	U
alpha-Chlordane	5103-71-9	REG	mg/kg	0.094	0.00055	U	0.00056	U	0.00056	U	0.00057	U	0.0021		0.00054	U	0.00052	U	0.00055	U
gamma-Chlordane	5103-74-2	REG	mg/kg		0.00031	U	0.00032	U	0.00031	U	0.00032	U	0.002		0.0003	U	0.00029	U	0.00031	U
Dieldrin	60-57-1	REG	mg/kg	0.005	0.00047	U	0.00048	U	0.00048	U	0.00048	U	0.00047	U	0.00046	U	0.00044	U	0.00047	U
4,4'-DDD	72-54-8	REG	mg/kg	0.0033	0.00062	U	0.00064	U	0.00064	U	0.00064	U	0.00063	U	0.00061	U	0.00059	U	0.00062	U
4,4'-DDE	72-55-9	REG	mg/kg	0.0033	0.0006	U	0.00061	U	0.00061	U	0.00061	U	0.0006	U	0.00058	U	0.00056	U	0.00059	U
4,4'-DDT	50-29-3	REG	mg/kg	0.0033	0.0015		0.00062	U	0.00061	U	0.00062	U	0.0012		0.00059	U	0.00057	U	0.0006	U
Endrin	72-20-8	REG	mg/kg	0.014	0.00053	U	0.00054	U	0.00054	U	0.00054	U	0.00053	U	0.00052	U	0.0005	U	0.00053	U
Endosulfan sulfate	1031-07-8	REG	mg/kg	2.4	0.00053	U	0.00055	U	0.00054	U	0.00055	U	0.00079		0.00052	U	0.0005	U	0.00053	U
Endrin aldehyde	7421-93-4	REG	mg/kg		0.00039	U	0.0004	U	0.00039	U	0.0004	U	0.00039	U	0.00038	U	0.00036	U	0.00038	U
Endosulfan-I	959-98-8	REG	mg/kg	2.4	0.00039	U	0.0004	U	0.0004	U	0.0004	U	0.0004	U	0.00038	U	0.00037	U	0.00039	U
Endosulfan-II	33213-65-9	REG	mg/kg	2.4	0.00042	U	0.00044	U	0.00043	U	0.00044	U	0.00043	U	0.00042	U	0.0004	U	0.00042	U
Heptachlor	76-44-8	REG	mg/kg	0.042	0.00059	U	0.0006	U	0.0006	U	0.0006	U	0.00059	U	0.00057	U	0.00055	U	0.00058	U
Heptachlor epoxide	1024-57-3	REG	mg/kg		0.00048	U	0.00049	U	0.00049	U	0.00049	U	0.00048	U	0.00047	U	0.00045	U	0.00048	U
Methoxychlor	72-43-5	REG	mg/kg		0.00054	U	0.00056	U	0.00055	U	0.00056	U	0.00055	U	0.00053	U	0.00051	U	0.00054	U
Endrin ketone	53494-70-5	REG	mg/kg		0.00049	U	0.0005	U	0.0005	U	0.00051	U	0.0005	U	0.00048	U	0.00046	U	0.00049	U
Toxaphene	8001-35-2	REG	mg/kg		0.016	U	0.016	U	0.016	U	0.016	U	0.016	U	0.016	U	0.015	U	0.016	U
Tetrachloro-m-xylene	877-09-8	SURR	%		82		85		56		92		71		82		63		75	
Tetrachloro-m-xylene (1)	877-09-8	SURR	%		82		85		58		92		70		85		65		77	
Decachlorobiphenyl	2051-24-3	SURR	%		62		56		58		67		43		70		50		60	
Decachlorobiphenyl (1)	2051-24-3	SURR	%		79		92		48		71		77		73		54		70	
(GC/LC Semi-volatiles (SW846 8082A))																				
Aroclor 1016	12674-11-2	REG	mg/kg	0.1	0.016	U	0.016	U	0.016	U	0.016	U	0.016	U	0.016	U	0.015	U	0.016	U
Aroclor 1221	11104-28-2	REG	mg/kg	0.1	0.021	U	0.022	U	0.021	U	0.022	U	0.021	U	0.021	U	0.02	U	0.021	U
Aroclor 1232	11141-16-5	REG	mg/kg	0.1	0.022	U	0.022	U	0.022	U	0.022	U	0.022	U	0.021	U	0.02	U	0.022	U
Aroclor 1242	53469-21-9	REG	mg/kg	0.1	0.014	U	0.014	U	0.014	U	0.014	U	0.014	U	0.014	U	0.013	U	0.014	U
Aroclor 1248	12672-29-6	REG	mg/kg	0.1	0.03	U	0.031	U	0.031	U	0.031	U	0.031	U	0.03	U	0.029	U	0.03	U
Aroclor 1254	11097-69-1	REG	mg/kg	0.1	0.018	U	0.019	U	0.019	U	0.019	U	0.018	U	0.018	U	0.017	U	0.018	U
Aroclor 1260	11096-82-5	REG	mg/kg	0.1	0.014	U	0.015	U	0.015	U	0.015	U	0.015	U	0.014	U	0.014	U	0.014	U
Aroclor 1268	11100-14-4	REG	mg/kg	0.1	0.03	U	0.031	U	0.03	U	0.031	U	0.03	U	0.029	U	0.028	U	0.03	U
Aroclor 1262	37324-23-5	REG	mg/kg	0.1	0.022	U	0.023	U	0.023	U	0.023	U	0.022	U	0.022	U	0.021	U	0.022	U
Tetrachloro-m-xylene (2)	877-09-8	SURR	%		57		60		39		60		51		59		45		54	
Tetrachloro-m-xylene (3)	877-09-8	SURR	%		77		79		55		84		69		83		65		76	
Decachlorobiphenyl (2)	2051-24-3	SURR	%		40		42		27		39		35		39		32		37	
Decachlorobiphenyl (3)	2051-24-3	SURR	%		45		50		32		46		46		48		39		48	
(General Chemistry (SM2540 G 18TH ED MOD))																				
Solids, Percent	PERCENT SOLIDS	REG	%		93.8		91.8		95.5		88.6		92.1		93.3		95		95.2	
(General Chemistry (SW846 9012B/LACHAT))																				
Cyanide	57-12-5	REG	mg/kg	27	0.25	U	0.23	U	0.25	U	0.28	U	0.33	U	0.29	U	0.26	U	0.23	U
(Metals Analysis (SW846 6010D))																				
Aluminum	7429-90-5	REG	mg/kg		7230		8580		4690		11000		5350		8330		4260		4190	
Antimony	7440-36-0	REG	mg/kg		2.2	U	2.2	U	2	U	2.2	U	2.1	U	2.1	U	2.1	U	2.1	U
Arsenic	7440-38-2	REG	mg/kg	13	2.2	U	2.2	U	2	U	2.2	U	2.1	U	2.1	U	2.1	U	2.1	U
Barium	7440-39-3	REG	mg/kg	350	48		40.5		22.9		54.1		40.8		44.2		33.3		42.8	
Beryllium	7440-41-7	REG	mg/kg	7.2	0.26		0.33		0.2		0.39		0.22		0.33		0.21	U	0.21	
Cadmium	7440-43-9	REG	mg/kg	2.5	0.55	U	0.55	U	0.5	U	0.55	U	0.52	U	0.52	U	0.53	U	0.52	U
Calcium	7440-70-2	REG	mg/kg		1840		1820		616		958		3520		924		590		820	
Chromium	7440-47-3	REG	mg/kg	30	11.3		16		7.5		15.8		16.7		15.2		6.7		7.2	
Cobalt	7440-48-4	REG	mg/kg		5.5	U	5.5	U	5	U	5.7		5.2	U	5.2		5.3	U	5.2	U
Copper	7440-50-8	REG	mg/kg	50	11.7		12.8		7.4		10.8		20.2		13		7.2		7.2	
Iron	7439-89-6	REG	mg/kg		10500		12200		9210		15600		11000		12400		9340		10000	
Lead	7439-92-1	REG	mg/kg	63	12.5		13		3.6		7.4		21.2		5.1		3.6		4.2	
Magnesium	7439-95-4	REG	mg/kg		3110		3430		2080		2880		2570		3060		1550		1520	
Manganese	7439-96-5	REG	mg/kg	1600	361		276		318		403		200		428		336		393	
Nickel	7440-02-0	REG	mg/kg	30	11.4		11.8		7.9		12.7		9.4		12.9		6.8		7.1	

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:				NY USCO	JE25100		JE25100		JE25100		JE25100		JE25100		JE25100		JE25100		JE25100	
Client Sample ID:					EP-52		EP-59		EP-50		EP-58		EP-57		EP-51		EP-49		DUP-1	
Lab Sample ID:					JE25100-1		JE25100-2		JE25100-3		JE25100-4		JE25100-5		JE25100-6		JE25100-7		JE25100-8	
Date Sampled:					12/12/2025 3:10 PM		12/12/2025 3:20 PM		12/12/2025 3:36 PM		12/12/2025 3:27 PM		12/12/2025 3:31 PM		12/12/2025 3:32 PM		12/12/2025 3:47 PM		12/12/2025 3:43 PM	
Matrix:					Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Type**	**Unit**																	
(GC/LC Semi-volatiles (SW846 8081B))																				
Potassium	7440-09-7	REG	mg/kg		1100	U	1100	U	1000	U	1100	U	1000	U	1040		1100	U	1000	U
Selenium	7782-49-2	REG	mg/kg	3.9	2.2	U	2.2	U	2	U	2.2	U	2.1	U	2.1	U	2.1	U	2.1	U
Silver	7440-22-4	REG	mg/kg	2	0.55	U	0.55	U	0.5	U	0.55	U	0.52	U	0.52	U	0.53	U	0.52	U
Sodium	7440-23-5	REG	mg/kg		1100	U	1100	U	1000	U	1100	U	1000	U	1000	U	1100	U	1000	U
Thallium	7440-28-0	REG	mg/kg		1.1	U	1.1	U	1	U	1.1	U	1	U	1	U	1.1	U	1	U
Vanadium	7440-62-2	REG	mg/kg		15.3		19.4		10.9		22.1		15.2		20.8		10.1		11.2	
Zinc	7440-66-6	REG	mg/kg	109	35.2		42.8		25.1		38.6		55.3		31.6		19.3		21.4	
(Metals Analysis (SW846 7471B))																				
Mercury	7439-97-6	REG	mg/kg	0.18	0.031	U	0.03	U	0.029	U	0.029	U	0.033	U	0.03	U	0.03	U	0.031	U
(MS Semi-volatile TIC ())																				
n-Hexadecanoic acid	57-10-3	TIC	mg/kg						0.43	JN					0.65	JN			0.54	JN
Octadecanoic acid	57-11-4	TIC	mg/kg								0.15	JN								
Phenanthrene, methyl-	TIC	TIC	mg/kg				0.21	J					0.16	J						
Unknown	TIC	TIC	mg/kg		0.27	J	0.22	J	0.29	J	0.44	J	0.18	J	0.41	J	0.17	J	0.33	J
Dibenzopyrene	TIC	TIC	mg/kg						0.15	J					0.24	J				
Naphthalene, phenyl-	TIC	TIC	mg/kg										0.16	J						
Unknown (1)	TIC	TIC	mg/kg		0.31	J	0.61	J	0.38	J	0.36	J	0.43	J	0.26	J				
Unknown (7)	TIC	TIC	mg/kg				0.23	J					0.21	J						
Chrysene, methyl-	TIC	TIC	mg/kg				0.23	J												
Unknown acid	TIC	TIC	mg/kg																0.25	J
Unknown PAH substance	TIC	TIC	mg/kg		0.14	J	0.42	J					0.27	J						
Dibenzopyrene (1)	TIC	TIC	mg/kg						0.17	J										
Unknown alcohols (1)	TIC	TIC	mg/kg														0.22	J	0.15	J
Unknown PAH substance (1)	TIC	TIC	mg/kg		0.39	J	0.57	J					0.19	J						
Unknown (12)	TIC	TIC	mg/kg				0.2	J												
Unknown (2)	TIC	TIC	mg/kg		0.15	J	0.29	J	0.23	J	0.24	J	0.19	J						
Unknown alcohols	TIC	TIC	mg/kg												0.21	J	0.31	J	0.32	J
Dibenzopyrene (2)	TIC	TIC	mg/kg						0.27	J										
Unknown (13)	TIC	TIC	mg/kg				0.22	J												
Unknown (3)	TIC	TIC	mg/kg		0.36	J	0.19	J			0.23	J	0.22	J						
Unknown PAH substance (4)	TIC	TIC	mg/kg										0.45	J						
Naphthacenedione	TIC	TIC	mg/kg				0.23	J												
Unknown (4)	TIC	TIC	mg/kg		0.28	J	0.2	J					0.15	J						
Unknown (14)	TIC	TIC	mg/kg				0.31	J												
Unknown PAH substance (2)	TIC	TIC	mg/kg		0.15	J	0.27	J					0.21	J						
Unknown (15)	TIC	TIC	mg/kg				0.21	J												
Unknown PAH substance (3)	TIC	TIC	mg/kg		0.21	J	0.23	J					0.21	J						
Dinaphtho furan	TIC	TIC	mg/kg				0.34	J												
Unknown (5)	TIC	TIC	mg/kg				0.26	J					0.22	J						
Unknown (6)	TIC	TIC	mg/kg				0.41	J					0.57	J						
Unknown (8)	TIC	TIC	mg/kg				0.3	J												
Unknown (9)	TIC	TIC	mg/kg				0.19	J												
Unknown (10)	TIC	TIC	mg/kg				0.34	J												
Unknown (11)	TIC	TIC	mg/kg				0.19	J												
Total TIC, Semi-Volatile	TOTAL TIC, SEMI-VOLATILE	TICTOTAL	mg/kg		2.26	J	6.87	J	1.92	J	1.42	J	3.82	J	1.77	J	0.7	J	1.59	J
(MS Semi-volatiles (SW846 8270E))																				
2-Chlorophenol	95-57-8	REG	mg/kg		0.017	U	0.018	U	0.017	U	0.018	U	0.018	U	0.017	U	0.017	U	0.017	U
4-Chloro-3-methyl phenol	59-50-7	REG	mg/kg		0.021	U	0.022	U	0.021	U	0.022	U	0.022	U	0.021	U	0.021	U	0.021	U
2,4-Dichlorophenol	120-83-2	REG	mg/kg		0.03	U	0.031	U	0.029	U	0.031	U	0.031	U	0.029	U	0.029	U	0.029	U
2,4-Dimethylphenol	105-67-9	REG	mg/kg		0.062	U	0.064	U	0.061	U	0.065	U	0.064	U	0.06	U	0.061	U	0.06	U
2,4-Dinitrophenol	51-28-5	REG	mg/kg		0.13	U	0.14	U	0.13	U	0.14	U	0.14	U	0.13	U	0.13	U	0.13	U
4,6-Dinitro-o-cresol	534-52-1	REG	mg/kg		0.038	U	0.038	U	0.037	U	0.039	U	0.038	U	0.036	U	0.037	U	0.036	U
2-Methylphenol	95-48-7	REG	mg/kg	0.33	0.022	U	0.023	U	0.022	U	0.023	U	0.023	U	0.021	U	0.022	U	0.022	U
3&4-Methylphenol	M+P-CRESOLS	REG	mg/kg		0.029	U	0.03	U	0.028	U	0.03	U	0.03	U	0.028	U	0.028	U	0.028	U
2-Nitrophenol	88-75-5	REG	mg/kg		0.023	U	0.024	U	0.023	U	0.024	U	0.024	U	0.022	U	0.023	U	0.022	U
4-Nitrophenol	100-02-7	REG	mg/kg		0.094	U	0.096	U	0.091	U	0.098	U	0.096	U	0.089	U	0.092	U	0.09	U
Pentachlorophenol	87-86-5	REG	mg/kg	0.8	0.033	U	0.034	U	0.032	U	0.034	U	0.034	U	0.031	U	0.032	U	0.032	U
Phenol	108-95-2	REG	mg/kg	0.33	0.018	U	0.019	U	0.018	U	0.019	U	0.019	U	0.017	U	0.018	U	0.018	U
2,3,4,6-Tetrachlorophenol	58-90-2	REG	mg/kg		0.023	U	0.024	U	0.023	U	0.024	U	0.024	U	0.022	U	0.023	U	0.022	U
2,4,5-Trichlorophenol	95-95-4	REG	mg/kg		0.026	U	0.027	U	0.026	U	0.027	U	0.027	U	0.025	U	0.026	U	0.025	U
2,4,6-Trichlorophenol	88-06-2	REG	mg/kg		0.021	U	0.021	U	0.02	U	0.022	U	0.021	U	0.02	U	0.021	U	0.02	U
Acenaphthene	83-32-9	REG	mg/kg	20	0.125		0.187		0.012	U	0.013	U	0.138		0.012	U	0.012	U	0.012	U

Job Number:				NY USCO	JE25100		JE25100		JE25100		JE25100		JE25100		JE25100		JE25100		JE25100	
Client Sample ID:					EP-52		EP-59		EP-50		EP-58		EP-57		EP-51		EP-49		DUP-1	
Lab Sample ID:					JE25100-1		JE25100-2		JE25100-3		JE25100-4		JE25100-5		JE25100-6		JE25100-7		JE25100-8	
Date Sampled:					12/12/2025 3:10 PM		12/12/2025 3:20 PM		12/12/2025 3:36 PM		12/12/2025 3:27 PM		12/12/2025 3:31 PM		12/12/2025 3:32 PM		12/12/2025 3:47 PM		12/12/2025 3:43 PM	
Matrix:					Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Type**	**Unit**																	
(GC/LC Semi-volatiles (SW846 8081B))																				
Acenaphthylene	208-96-8	REG	mg/kg	100	0.0243	J	0.0389		0.017	U	0.019	U	0.029	J	0.017	U	0.018	U	0.017	U
Acetophenone	98-86-2	REG	mg/kg		0.0075	U	0.0077	U	0.0074	U	0.0079	U	0.0077	U	0.0072	U	0.0074	U	0.0073	U
Anthracene	120-12-7	REG	mg/kg	100	0.259		0.429		0.021	U	0.022	U	0.291		0.021	U	0.021	U	0.021	U
Atrazine	1912-24-9	REG	mg/kg		0.015	U	0.015	U	0.015	U	0.016	U	0.015	U	0.014	U	0.015	U	0.014	U
Benzo(a)anthracene	56-55-3	REG	mg/kg	1	0.643		1.14		0.0182	J	0.0196	J	0.876		0.0236	J	0.0399		0.0328	J
Benzo(a)pyrene	50-32-8	REG	mg/kg	1	0.567		0.993		0.016	U	0.017	U	0.774		0.0223	J	0.0359		0.0279	J
Benzo(b)fluoranthene	205-99-2	REG	mg/kg	1	0.742		1.2		0.0178	J	0.0205	J	0.97		0.0282	J	0.0442		0.0344	
Benzo(g,h,i)perylene	191-24-2	REG	mg/kg	100	0.382		0.661		0.017	U	0.018	U	0.482		0.0181	J	0.0259	J	0.0202	J
Benzo(k)fluoranthene	207-08-9	REG	mg/kg	0.8	0.224		0.468		0.016	U	0.017	U	0.349		0.016	U	0.0168	J	0.016	U
4-Bromophenyl phenyl ether	101-55-3	REG	mg/kg		0.014	U	0.014	U	0.013	U	0.014	U	0.014	U	0.013	U	0.013	U	0.013	U
Butyl benzyl phthalate	85-68-7	REG	mg/kg		0.0086	U	0.0088	U	0.0083	U	0.0089	U	0.0088	U	0.0082	U	0.0084	U	0.0082	U
1,1'-Biphenyl	92-52-4	REG	mg/kg		0.0088	J	0.0115	J	0.0047	U	0.005	U	0.0076	J	0.0046	U	0.0047	U	0.0046	U
Benzaldehyde	100-52-7	REG	mg/kg		0.0087	U	0.0089	U	0.0085	U	0.0091	U	0.0089	U	0.0083	U	0.0086	U	0.0084	U
2-Chloronaphthalene	91-58-7	REG	mg/kg		0.0083	U	0.0086	U	0.0081	U	0.0087	U	0.0086	U	0.008	U	0.0082	U	0.008	U
4-Chloroaniline	106-47-8	REG	mg/kg		0.013	U	0.013	U	0.012	U	0.013	U	0.013	U	0.012	U	0.012	U	0.012	U
Carbazole	86-74-8	REG	mg/kg		0.148		0.233		0.005	U	0.0053	U	0.164		0.0049	U	0.0059	J	0.0049	U
Caprolactam	105-60-2	REG	mg/kg		0.014	U	0.014	U	0.014	U	0.014	U	0.014	U	0.013	U	0.014	U	0.013	U
Chrysene	218-01-9	REG	mg/kg	1	0.563		0.964		0.0129	J	0.0135	J	0.73		0.0194	J	0.0329	J	0.0243	J
bis(2-Chloroethoxy)methane	111-91-1	REG	mg/kg		0.0075	U	0.0077	U	0.0073	U	0.0078	U	0.0077	U	0.0072	U	0.0074	U	0.0072	U
bis(2-Chloroethyl)ether	111-44-4	REG	mg/kg		0.015	U	0.015	U	0.015	U	0.016	U	0.015	U	0.014	U	0.015	U	0.015	U
2,2'-Oxybis(1-chloropropane)	108-60-1	REG	mg/kg		0.013	U	0.013	U	0.012	U	0.013	U	0.013	U	0.012	U	0.012	U	0.012	U
4-Chlorophenyl phenyl ether	7005-72-3	REG	mg/kg		0.011	U	0.012	U	0.011	U	0.012	U	0.012	U	0.011	U	0.011	U	0.011	U
2,4-Dinitrotoluene	121-14-2	REG	mg/kg		0.011	U	0.011	U	0.011	U	0.011	U	0.011	U	0.01	U	0.011	U	0.01	U
2,6-Dinitrotoluene	606-20-2	REG	mg/kg		0.018	U	0.018	U	0.017	U	0.018	U	0.018	U	0.017	U	0.017	U	0.017	U
3,3'-Dichlorobenzidine	91-94-1	REG	mg/kg		0.029	U	0.03	U	0.029	U	0.03	U	0.03	U	0.028	U	0.029	U	0.028	U
1,4-Dioxane	123-91-1	REG	mg/kg	0.1	0.023	U	0.024	U	0.023	U	0.024	U	0.024	U	0.022	U	0.023	U	0.022	U
Dibenzo(a,h)anthracene	53-70-3	REG	mg/kg	0.33	0.101		0.172		0.015	U	0.016	U	0.133		0.015	U	0.015	U	0.015	U
Dibenzofuran	132-64-9	REG	mg/kg	7	0.0718		0.102		0.014	U	0.015	U	0.0662	J	0.014	U	0.014	U	0.014	U
Di-n-butyl phthalate	84-74-2	REG	mg/kg		0.0189	J	0.0363	J	0.0056	U	0.0137	J	0.0071	J	0.0055	U	0.0069	J	0.0055	U
Di-n-octyl phthalate	117-84-0	REG	mg/kg		0.0087	U	0.009	U	0.0085	U	0.0091	U	0.009	U	0.0083	U	0.0086	U	0.0084	U
Diethyl phthalate	84-66-2	REG	mg/kg		0.0075	U	0.0077	U	0.0073	U	0.0078	U	0.0077	U	0.0071	U	0.0074	U	0.0072	U
Dimethyl phthalate	131-11-3	REG	mg/kg		0.0062	U	0.0064	U	0.0061	U	0.0065	U	0.0064	U	0.006	U	0.0061	U	0.006	U
bis(2-Ethylhexyl)phthalate	117-81-7	REG	mg/kg		0.0144	J	0.0112	J	0.008	U	0.0085	U	0.0091	J	0.0078	U	0.0084	J	0.0079	U
Fluoranthene	206-44-0	REG	mg/kg	100	1.32		2.34		0.0347		0.0337	J	1.67		0.0447		0.0772		0.0534	
Fluorene	86-73-7	REG	mg/kg	30	0.113		0.168		0.016	U	0.017	U	0.111		0.015	U	0.016	U	0.016	U
Hexachlorobenzene	118-74-1	REG	mg/kg	0.33	0.0089	U	0.0091	U	0.0087	U	0.0092	U	0.0091	U	0.0085	U	0.0087	U	0.0085	U
Hexachlorobutadiene	87-68-3	REG	mg/kg		0.014	U	0.014	U	0.014	U	0.015	U	0.014	U	0.013	U	0.014	U	0.014	U
Hexachlorocyclopentadiene	77-47-4	REG	mg/kg		0.014	U	0.014	U	0.014	U	0.015	U	0.014	U	0.013	U	0.014	U	0.013	U
Hexachloroethane	67-72-1	REG	mg/kg		0.017	U	0.018	U	0.017	U	0.018	U	0.018	U	0.017	U	0.017	U	0.017	U
Indeno(1,2,3-cd)pyrene	193-39-5	REG	mg/kg	0.5	0.412		0.715		0.016	U	0.017	U	0.53		0.0169	J	0.0274	J	0.0207	J
Isophorone	78-59-1	REG	mg/kg		0.0075	U	0.0077	U	0.0073	U	0.0078	U	0.0077	U	0.0072	U	0.0074	U	0.0072	U
2-Methylnaphthalene	91-57-6	REG	mg/kg		0.03	J	0.0356	J	0.008	J	0.0083	U	0.0279	J	0.0076	U	0.0078	U	0.0076	U
2-Nitroaniline	88-74-4	REG	mg/kg		0.0083	U	0.0085	U	0.0081	U	0.0086	U	0.0085	U	0.0079	U	0.0081	U	0.008	U
3-Nitroaniline	99-09-2	REG	mg/kg		0.0088	U	0.009	U	0.0086	U	0.0091	U	0.009	U	0.0084	U	0.0086	U	0.0084	U
4-Nitroaniline	100-01-6	REG	mg/kg		0.0091	U	0.0093	U	0.0089	U	0.0095	U	0.0093	U	0.0087	U	0.0089	U	0.0087	U
Naphthalene	91-20-3	REG	mg/kg	12	0.0744		0.0934		0.0117	J	0.01	U	0.0638		0.0094	U	0.0097	U	0.0095	U
Nitrobenzene	98-95-3	REG	mg/kg		0.014	U	0.014	U	0.013	U	0.014	U	0.014	U	0.013	U	0.013	U	0.013	U
N-Nitroso-di-n-propylamine	621-64-7	REG	mg/kg		0.01	U	0.01	U	0.0099	U	0.011	U	0.01	U	0.0097	U	0.01	U	0.0098	U
N-Nitrosodiphenylamine	86-30-6	REG	mg/kg		0.013	U	0.013	U	0.013	U	0.013	U	0.013	U	0.012	U	0.013	U	0.012	U
Phenanthrene	85-01-8	REG	mg/kg	100	1.02		1.66		0.0311	J	0.0234	J	1.1		0.0289	J	0.0456		0.0214	J
Pyrene	129-00-0	REG	mg/kg	100	1.04		1.8		0.0254	J	0.0257	J	1.34		0.034		0.0578		0.0469	
1,2,4,5-Tetrachlorobenzene	95-94-3	REG	mg/kg		0.0089	U	0.0091	U	0.0087	U	0.0093	U	0.0091	U	0.0085	U	0.0088	U	0.0086	U
2-Fluorophenol	367-12-4	SURR	%		57		59		7	*	64		52		62		42		58	
Phenol-d5	4165-62-2	SURR	%		57		60		20		63		54		61		47		58	
2,4,6-Tribromophenol	118-79-6	SURR	%		71		79		4	*	78		65		73		65		67	
Nitrobenzene-d5	4165-60-0	SURR	%		58		60		48		64		55		62		42		57	
2-Fluorobiphenyl	321-60-8	SURR	%		64		66		53		67		59		66		53		59	

Job Number:				NY USCO	JE25100		JE25100		JE25100		JE25100		JE25100		JE25100		JE25100		JE25100	
Client Sample ID:					EP-52		EP-59		EP-50		EP-58		EP-57		EP-51		EP-49		DUP-1	
Lab Sample ID:					JE25100-1		JE25100-2		JE25100-3		JE25100-4		JE25100-5		JE25100-6		JE25100-7		JE25100-8	
Date Sampled:					12/12/2025 3:10 PM		12/12/2025 3:20 PM		12/12/2025 3:36 PM		12/12/2025 3:27 PM		12/12/2025 3:31 PM		12/12/2025 3:32 PM		12/12/2025 3:47 PM		12/12/2025 3:43 PM	
Matrix:					Soil		Soil		Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Type**	**Unit**																	
(GC/LC Semi-volatiles (SW846 8081B))																				
Terphenyl-d14	1718-51-0	SURR	%		64		71		47		69		58		64		58		62	
(MS Volatile TIC ())																				
Total TIC, Volatile	TOTAL TIC, VOLATILE	TICTOTAL	mg/kg		0		0		0		0		0		0		0		0	
(MS Volatiles (SW846 8260D))																				
Acetone	67-64-1	REG	mg/kg	0.05	0.0043	J	0.0042	U	0.0046	U	0.0046	U	0.0076	J	0.0048	J	0.0049	J	0.0058	J
Benzene	71-43-2	REG	mg/kg	0.06	0.0004	U	0.00046	U	0.00051	U	0.0005	U	0.00044	U	0.00046	U	0.00052	U	0.00051	U
Bromochloromethane	74-97-5	REG	mg/kg		0.00049	U	0.00056	U	0.00062	U	0.00062	U	0.00054	U	0.00057	U	0.00064	U	0.00063	U
Bromodichloromethane	75-27-4	REG	mg/kg		0.00037	U	0.00043	U	0.00048	U	0.00047	U	0.00042	U	0.00043	U	0.00049	U	0.00048	U
Bromoform	75-25-2	REG	mg/kg		0.0012	U	0.0014	U	0.0015	U	0.0015	U	0.0013	U	0.0014	U	0.0016	U	0.0015	U
Bromomethane	74-83-9	REG	mg/kg		0.00067	U	0.00077	U	0.00085	U	0.00085	U	0.00074	U	0.00077	U	0.00087	U	0.00085	U
2-Butanone (MEK)	78-93-3	REG	mg/kg	0.12	0.0021	U	0.0025	U	0.0027	U	0.0027	U	0.0024	U	0.0025	U	0.0028	U	0.0027	U
Carbon disulfide	75-15-0	REG	mg/kg		0.00047	U	0.00054	U	0.0006	U	0.00059	U	0.00052	U	0.00054	U	0.00061	U	0.0006	U
Carbon tetrachloride	56-23-5	REG	mg/kg	0.76	0.00054	U	0.00062	U	0.00069	U	0.00068	U	0.0006	U	0.00062	U	0.00071	U	0.00069	U
Chlorobenzene	108-90-7	REG	mg/kg	1.1	0.0004	U	0.00046	U	0.00051	U	0.00051	U	0.00044	U	0.00046	U	0.00053	U	0.00051	U
Chloroethane	75-00-3	REG	mg/kg		0.00052	U	0.0006	U	0.00066	U	0.00065	U	0.00057	U	0.0006	U	0.00068	U	0.00066	U
Chloroform	67-66-3	REG	mg/kg	0.37	0.00087	U	0.001	U	0.0011	U	0.0011	U	0.00097	U	0.001	U	0.0011	U	0.0011	U
Chloromethane	74-87-3	REG	mg/kg		0.0017	U	0.002	U	0.0022	U	0.0022	U	0.0019	U	0.002	U	0.0022	U	0.0022	U
Cyclohexane	110-82-7	REG	mg/kg		0.00057	U	0.00066	U	0.00073	U	0.00073	U	0.00064	U	0.00066	U	0.00075	U	0.00073	U
1,2-Dibromo-3-chloropropane	96-12-8	REG	mg/kg		0.00061	U	0.0007	U	0.00077	U	0.00077	U	0.00067	U	0.0007	U	0.00079	U	0.00078	U
Dibromochloromethane	124-48-1	REG	mg/kg		0.00049	U	0.00056	U	0.00062	U	0.00062	U	0.00054	U	0.00057	U	0.00064	U	0.00063	U
1,2-Dibromoethane	106-93-4	REG	mg/kg		0.00037	U	0.00042	U	0.00047	U	0.00047	U	0.00041	U	0.00043	U	0.00048	U	0.00047	U
1,2-Dichlorobenzene	95-50-1	REG	mg/kg	1.1	0.00048	U	0.00055	U	0.00061	U	0.0006	U	0.00053	U	0.00055	U	0.00062	U	0.00061	U
1,3-Dichlorobenzene	541-73-1	REG	mg/kg	2.4	0.00043	U	0.0005	U	0.00055	U	0.00055	U	0.00048	U	0.0005	U	0.00057	U	0.00055	U
1,4-Dichlorobenzene	106-46-7	REG	mg/kg	1.8	0.00043	U	0.0005	U	0.00055	U	0.00055	U	0.00048	U	0.0005	U	0.00057	U	0.00055	U
Dichlorodifluoromethane	75-71-8	REG	mg/kg		0.00064	U	0.00073	U	0.00081	U	0.0008	U	0.0007	U	0.00074	U	0.00083	U	0.00081	U
1,1-Dichloroethane	75-34-3	REG	mg/kg	0.27	0.00043	U	0.0005	U	0.00055	U	0.00055	U	0.00048	U	0.0005	U	0.00057	U	0.00055	U
1,2-Dichloroethane	107-06-2	REG	mg/kg	0.02	0.00041	U	0.00047	U	0.00052	U	0.00052	U	0.00046	U	0.00048	U	0.00054	U	0.00053	U
1,1-Dichloroethene	75-35-4	REG	mg/kg	0.33	0.00057	U	0.00066	U	0.00073	U	0.00072	U	0.00063	U	0.00066	U	0.00075	U	0.00073	U
cis-1,2-Dichloroethene	156-59-2	REG	mg/kg	0.25	0.00073	U	0.00085	U	0.00094	U	0.00093	U	0.00081	U	0.00085	U	0.00096	U	0.00094	U
trans-1,2-Dichloroethene	156-60-5	REG	mg/kg	0.19	0.00053	U	0.00062	U	0.00068	U	0.00068	U	0.00059	U	0.00062	U	0.0007	U	0.00068	U
1,2-Dichloropropane	78-87-5	REG	mg/kg		0.00041	U	0.00048	U	0.00053	U	0.00052	U	0.00046	U	0.00048	U	0.00054	U	0.00053	U
cis-1,3-Dichloropropene	10061-01-5	REG	mg/kg		0.00042	U	0.00048	U	0.00053	U	0.00053	U	0.00046	U	0.00048	U	0.00054	U	0.00053	U
trans-1,3-Dichloropropene	10061-02-6	REG	mg/kg		0.0004	U	0.00046	U	0.00051	U	0.00051	U	0.00044	U	0.00046	U	0.00052	U	0.00051	U
Ethylbenzene	100-41-4	REG	mg/kg	1	0.0004	U	0.00046	U	0.0005	U	0.0005	U	0.00044	U	0.00046	U	0.00052	U	0.00051	U
Freon 113	76-13-1	REG	mg/kg		0.0023	U	0.0027	U	0.003	U	0.003	U	0.0026	U	0.0027	U	0.0031	U	0.003	U
2-Hexanone	591-78-6	REG	mg/kg		0.0019	U	0.0021	U	0.0024	U	0.0023	U	0.0021	U	0.0021	U	0.0024	U	0.0024	U
Isopropylbenzene	98-82-8	REG	mg/kg		0.0012	U	0.0014	U	0.0016	U	0.0016	U	0.0014	U	0.0014	U	0.0016	U	0.0016	U
Methyl Acetate	79-20-9	REG	mg/kg		0.0012	U	0.0014	U	0.0015	U	0.0015	U	0.0013	U	0.0014	U	0.0016	U	0.0016	U
Methylcyclohexane	108-87-2	REG	mg/kg		0.00076	U	0.00088	U	0.00097	U	0.00097	U	0.00085	U	0.00088	U	0.001	U	0.00098	U
Methyl Tert Butyl Ether	1634-04-4	REG	mg/kg	0.93	0.00041	U	0.00047	U	0.00052	U	0.00052	U	0.00045	U	0.00047	U	0.00054	U	0.00052	U
4-Methyl-2-pentanone(MIBK)	108-10-1	REG	mg/kg		0.002	U	0.0023	U	0.0025	U	0.0025	U	0.0022	U	0.0023	U	0.0026	U	0.0025	U
Methylene chloride	75-09-2	REG	mg/kg	0.05	0.0023	U	0.0026	U	0.0029	U	0.0029	U	0.0025	U	0.0026	U	0.003	U	0.0029	U
Styrene	100-42-5	REG	mg/kg		0.00035	U	0.00041	U	0.00045	U	0.00044	U	0.00039	U	0.00041	U	0.00046	U	0.00045	U
1,1,2,2-Tetrachloroethane	79-34-5	REG	mg/kg		0.00052	U	0.0006	U	0.00067	U	0.00066	U	0.00058	U	0.00061	U	0.00069	U	0.00067	U
Tetrachloroethene	127-18-4	REG	mg/kg	1.3	0.00051	U	0.00059	U	0.00065	U	0.00064	U	0.00056	U	0.00059	U	0.00066	U	0.00065	U
Toluene	108-88-3	REG	mg/kg	0.7	0.00046	U	0.00053	U	0.00058	U	0.00058	U	0.00051	U	0.00053	U	0.0006	U	0.00059	U
1,2,3-Trichlorobenzene	87-61-6	REG	mg/kg		0.0022	U	0.0025	U	0.0028	U	0.0028	U	0.0024	U	0.0025	U	0.0029	U	0.0028	U
1,2,4-Trichlorobenzene	120-82-1	REG	mg/kg		0.0022	U	0.0025	U	0.0028	U	0.0028	U	0.0024	U	0.0025	U	0.0029	U	0.0028	U
1,1,1-Trichloroethane	71-55-6	REG	mg/kg	0.68	0.00042	U	0.00049	U	0.00054	U	0.00053	U	0.00047	U	0.00049	U	0.00055	U	0.00054	U
1,1,2-Trichloroethane	79-00-5	REG	mg/kg		0.00048	U	0.00056	U	0.00062	U	0.00061	U	0.00054	U	0.00056	U	0.00063	U	0.00062	U
Trichloroethene	79-01-6	REG	mg/kg	0.47	0.00067	U	0.00077	U	0.00085	U	0.00084	U	0.00074	U	0.00077	U	0.00087	U	0.00085	U
Trichlorofluoromethane	75-69-4	REG	mg/kg		0.0006	U	0.00069	U	0.00076	U	0.00076	U	0.00066	U	0.00069	U	0.00078	U	0.00076	U
Vinyl chloride	75-01-4	REG	mg/kg	0.02	0.00042	U	0.00049	U	0.00054	U	0.00053	U	0.00047	U	0.00049	U	0.00055	U	0.00054	U
m,p-Xylene	M,P-XYLENE	REG	mg/kg	0.26	0.00078	U	0.0009	U	0.001	U	0.00099	U	0.00087	U	0.00091	U	0.001	U	0.001	U
o-Xylene	95-47-6	REG	mg/kg	0.26	0.0004	U	0.00046	U	0.00051	U	0.00051	U	0.00044	U	0.00046	U	0.00052	U	0.00051	U
Xylene (total)	1330-20-7	REG	mg/kg	0.26	0.0004	U	0.00046	U	0.00051	U	0.00051	U	0.00044	U	0.00046	U	0.00052	U	0.00051	U
Dibromofluoromethane	1868-53-7	SURR	%		100		99		99		101		99		100		102		101	
1,2-Dichloroethane-D4	17060-07-0	SURR	%		109		109		109		108		110		109		111		110	
Toluene-D8	2037-26-5	SURR	%		97		97		97		98		97		98		97		98	
4-Bromofluorobenzene	460-00-4	SURR	%		109		111		111		111		111		110		110		108	

NY USCO: NY - New York NYCRR Part 375 New York Unrestricted use Criteria Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.

SGS

SGS Engage - Group Crosstab

Job Number:				NY USCO	JE25248		JE25248		JE25248		JE25248		JE25248		JE25248	
Client Sample ID:					EP-25		EP-27E		EP-6		EP-13		EP-12		TB-1	
Lab Sample ID:					JE25248-1		JE25248-2		JE25248-3		JE25248-4		JE25248-5		JE25248-6	
Date Sampled:					12/15/2025 3:03 PM		12/15/2025 3:16 PM		12/15/2025 3:27 PM		12/15/2025 3:33 PM		12/15/2025 3:41 PM		12/15/2025 3:41 PM	
Matrix:					Soil		Soil		Soil		Soil		Soil		Trip Blank Soil	
Analyte	**CAS #**	**Type**	**Unit**													
(GC/LC Semi-volatiles (SW846 8081B))																
Aldrin	309-00-2	REG	mg/kg	0.005	0.00056	U	0.00071	U	0.00058	U	0.00061	U	0.00061	U		
alpha-BHC	319-84-6	REG	mg/kg	0.02	0.00055	U	0.0007	U	0.00057	U	0.0006	U	0.0006	U		
beta-BHC	319-85-7	REG	mg/kg	0.036	0.00061	U	0.00078	U	0.00064	U	0.00066	U	0.00066	U		
delta-BHC	319-86-8	REG	mg/kg	0.04	0.00065	U	0.00083	U	0.00068	U	0.00071	U	0.00071	U		
gamma-BHC (Lindane)	58-89-9	REG	mg/kg	0.1	0.0005	U	0.00063	U	0.00052	U	0.00054	U	0.00054	U		
alpha-Chlordane	5103-71-9	REG	mg/kg	0.094	0.00055	U	0.00069	U	0.00057	U	0.00059	U	0.00059	U		
gamma-Chlordane	5103-74-2	REG	mg/kg		0.00031	U	0.00039	U	0.00032	U	0.00033	U	0.00033	U		
Dieldrin	60-57-1	REG	mg/kg	0.005	0.00047	U	0.00059	U	0.00048	U	0.00051	U	0.0005	U		
4,4'-DDD	72-54-8	REG	mg/kg	0.0033	0.00062	U	0.00079	U	0.00065	U	0.00067	U	0.00067	U		
4,4'-DDE	72-55-9	REG	mg/kg	0.0033	0.0006	U	0.00075	U	0.00062	U	0.00064	U	0.00064	U		
4,4'-DDT	50-29-3	REG	mg/kg	0.0033	0.0006	U	0.00076	U	0.00062	U	0.00065	U	0.00065	U		
Endrin	72-20-8	REG	mg/kg	0.014	0.00053	U	0.00067	U	0.00055	U	0.00057	U	0.00057	U		
Endosulfan sulfate	1031-07-8	REG	mg/kg	2.4	0.00053	U	0.00067	U	0.00055	U	0.00057	U	0.00057	U		
Endrin aldehyde	7421-93-4	REG	mg/kg		0.00039	U	0.00049	U	0.0004	U	0.00042	U	0.00042	U		
Endosulfan-I	959-98-8	REG	mg/kg	2.4	0.00039	U	0.0005	U	0.00041	U	0.00042	U	0.00042	U		
Endosulfan-II	33213-65-9	REG	mg/kg	2.4	0.00042	U	0.00054	U	0.00044	U	0.00046	U	0.00046	U		
Heptachlor	76-44-8	REG	mg/kg	0.042	0.00059	U	0.00074	U	0.00061	U	0.00063	U	0.00063	U		
Heptachlor epoxide	1024-57-3	REG	mg/kg		0.00048	U	0.0006	U	0.00049	U	0.00052	U	0.00051	U		
Methoxychlor	72-43-5	REG	mg/kg		0.00054	U	0.00068	U	0.00056	U	0.00058	U	0.00058	U		
Endrin ketone	53494-70-5	REG	mg/kg		0.00049	U	0.00062	U	0.00051	U	0.00053	U	0.00053	U		
Toxaphene	8001-35-2	REG	mg/kg		0.016	U	0.02	U	0.016	U	0.017	U	0.017	U		
Tetrachloro-m-xylene	877-09-8	SURR	%		73		78		78		92		68			
Tetrachloro-m-xylene (1)	877-09-8	SURR	%		73		76		68		80		55			
Decachlorobiphenyl	2051-24-3	SURR	%		60		58		80		72		52			
Decachlorobiphenyl (1)	2051-24-3	SURR	%		65		62		85		72		50			
(GC/LC Semi-volatiles (SW846 8082A))																
Aroclor 1016	12674-11-2	REG	mg/kg	0.1	0.016	U	0.02	U	0.016	U	0.017	U	0.017	U		
Aroclor 1221	11104-28-2	REG	mg/kg	0.1	0.021	U	0.027	U	0.022	U	0.023	U	0.023	U		
Aroclor 1232	11141-16-5	REG	mg/kg	0.1	0.022	U	0.027	U	0.022	U	0.023	U	0.023	U		
Aroclor 1242	53469-21-9	REG	mg/kg	0.1	0.014	U	0.018	U	0.014	U	0.015	U	0.015	U		
Aroclor 1248	12672-29-6	REG	mg/kg	0.1	0.03	U	0.038	U	0.031	U	0.033	U	0.033	U		
Aroclor 1254	11097-69-1	REG	mg/kg	0.1	0.018	U	0.023	U	0.019	U	0.02	U	0.02	U		
Aroclor 1260	11096-82-5	REG	mg/kg	0.1	0.014	U	0.018	U	0.015	U	0.016	U	0.016	U		
Aroclor 1268	11100-14-4	REG	mg/kg	0.1	0.03	U	0.038	U	0.031	U	0.032	U	0.032	U		
Aroclor 1262	37324-23-5	REG	mg/kg	0.1	0.022	U	0.028	U	0.023	U	0.024	U	0.024	U		
Tetrachloro-m-xylene (2)	877-09-8	SURR	%		49		53		53		59		45			
Tetrachloro-m-xylene (3)	877-09-8	SURR	%		70		76		63		85		63			
Decachlorobiphenyl (2)	2051-24-3	SURR	%		33		35		32		41		29			
Decachlorobiphenyl (3)	2051-24-3	SURR	%		44		45		42		54		39			
(General Chemistry (SM2540 G 18TH ED MOD))																
Solids, Percent	PERCENT SOLIDS	REG	%		93.7		77		91.6		88.9		88.4			
(General Chemistry (SW846 9012B/LACHAT))																
Cyanide	57-12-5	REG	mg/kg	27	0.29	U	0.35	U	0.24	U	0.24	U	0.27	U		
(Metals Analysis (SW846 6010D))																
Aluminum	7429-90-5	REG	mg/kg		10900		17200		9060		8850		10900			
Antimony	7440-36-0	REG	mg/kg		2.2	U	2.6	U	2.2	U	2.2	U	2.3	U		
Arsenic	7440-38-2	REG	mg/kg	13	2.3		6.3		2.2		2.4		2.6			
Barium	7440-39-3	REG	mg/kg	350	63.2		76.3		57.9		53.2		61.1			
Beryllium	7440-41-7	REG	mg/kg	7.2	0.31		0.69		0.34		0.36		0.33			
Cadmium	7440-43-9	REG	mg/kg	2.5	0.55	U	0.66	U	0.56	U	0.56	U	0.57	U		
Calcium	7440-70-2	REG	mg/kg		1260		2100		1590		1230		1580			
Chromium	7440-47-3	REG	mg/kg		20.3		18.6		14		14.8		15.9			
Cobalt	7440-48-4	REG	mg/kg		7.6		8.1		6.1		7		7.8			
Copper	7440-50-8	REG	mg/kg	50	16.9		12.5		13.3		14.2		15			
Iron	7439-89-6	REG	mg/kg		17300		21700		16100		16700		14900			
Lead	7439-92-1	REG	mg/kg	63	5		19.6		4.4		6.5		9.1			
Magnesium	7439-95-4	REG	mg/kg		4890		3090		2880		2800		3570			
Manganese	7439-96-5	REG	mg/kg	1600	205		686		441		350		368			
Nickel	7440-02-0	REG	mg/kg	30	16.6		12.5		13.2		14.4		13.3			
Potassium	7440-09-7	REG	mg/kg		1730		1300	U	1100	U	1170		1260			
Selenium	7782-49-2	REG	mg/kg	3.9	2.2	U	2.6	U	2.2	U	2.2	U	2.3	U		
Silver	7440-22-4	REG	mg/kg	2	0.55	U	0.66	U	0.56	U	0.56	U	0.57	U		

Job Number:				NY USCO	JE25248		JE25248		JE25248		JE25248		JE25248		JE25248	
Client Sample ID:					EP-25		EP-27E		EP-6		EP-13		EP-12		TB-1	
Lab Sample ID:					JE25248-1		JE25248-2		JE25248-3		JE25248-4		JE25248-5		JE25248-6	
Date Sampled:					12/15/2025 3:03 PM		12/15/2025 3:16 PM		12/15/2025 3:27 PM		12/15/2025 3:33 PM		12/15/2025 3:41 PM		12/15/2025 3:41 PM	
Matrix:					Soil		Soil		Soil		Soil		Soil		Trip Blank Soil	
Analyte	**CAS #**	**Type**	**Unit**													
Sodium	7440-23-5	REG	mg/kg		1100	U	1300	U	1100	U	1100	U	1100	U		
Thallium	7440-28-0	REG	mg/kg		1.1	U	1.3	U	1.1	U	1.1	U	1.1	U		
Vanadium	7440-62-2	REG	mg/kg		29.9		32		21.3		21.4		22			
Zinc	7440-66-6	REG	mg/kg	109	39.8		49.8		31.7		40		37.9			
(Metals Analysis (SW846 7471B))																
Mercury	7439-97-6	REG	mg/kg	0.18	0.032	U	0.039	U	0.031	U	0.033	U	0.032	U		
(MS Semi-volatile TIC ())																
n-Hexadecanoic acid	57-10-3	TIC	mg/kg		0.64	JNB	0.67	JNB	0.78	JNB	0.63	JNB				
Octadecanoic acid	57-11-4	TIC	mg/kg		0.22	JNB	0.19	JNB	0.19	JNB						
Phenol, -(methylethylidene)bis-	TIC	TIC	mg/kg		0.31	J			0.27	J						
Phenol,-(methylethylidene)bis-	TIC	TIC	mg/kg				0.33	J								
Phenol, -(methylethylidene)bis- (1)	TIC	TIC	mg/kg		3.2	J			3	J						
Phenol,-(methylethylidene)bis- (1)	TIC	TIC	mg/kg				3.7	J								
Unknown (2)	TIC	TIC	mg/kg		1	J	0.23	J	0.75	J	0.22	J	0.2	J		
Alkane	TIC	TIC	mg/kg		0.98	J	0.55	J					0.5	J		
Unknown acid	TIC	TIC	mg/kg						0.21	J						
Unknown (3)	TIC	TIC	mg/kg		0.2	J	0.17	J	0.16	J	0.19	J	0.15	J		
Alkane (1)	TIC	TIC	mg/kg				0.24	J					0.25	J		
Alkene (1)	TIC	TIC	mg/kg						0.25	J			0.22	J		
Octadecenamide, (Z)-	TIC	TIC	mg/kg		0.26	J							0.18	J		
Unknown (4)	TIC	TIC	mg/kg		0.17	J	0.32	J	0.18	J						
Unknown (5)	TIC	TIC	mg/kg				0.22	J								
Docosenamide, (Z)-	TIC	TIC	mg/kg				0.22	J			0.19	J				
Unknown	TIC	TIC	mg/kg		0.14	J	0.26	J	0.17	J	0.5	J	1.4	J		
Alkene	TIC	TIC	mg/kg		0.17	J			0.21	J	0.18	J	0.19	J		
Unknown (1)	TIC	TIC	mg/kg		0.17	J	0.19	J	0.16	J	0.22	J	0.14	J		
Total TIC, Semi-Volatile	TOTAL TIC, SEMI-VOLATILE	TICTOTAL	mg/kg		6.6	J	6.43	J	5.36	J	1.5	J	3.23	J		
(MS Semi-volatiles (SW846 8270E))																
2-Chlorophenol	95-57-8	REG	mg/kg		0.017	U	0.021	U	0.018	U	0.018	U	0.017	U		
4-Chloro-3-methyl phenol	59-50-7	REG	mg/kg		0.021	U	0.026	U	0.022	U	0.022	U	0.022	U		
2,4-Dichlorophenol	120-83-2	REG	mg/kg		0.029	U	0.036	U	0.031	U	0.031	U	0.03	U		
2,4-Dimethylphenol	105-67-9	REG	mg/kg		0.06	U	0.075	U	0.064	U	0.064	U	0.063	U		
2,4-Dinitrophenol	51-28-5	REG	mg/kg		0.13	U	0.16	U	0.14	U	0.14	U	0.13	U		
4,6-Dinitro-o-cresol	534-52-1	REG	mg/kg		0.036	U	0.045	U	0.039	U	0.039	U	0.038	U		
2-Methylphenol	95-48-7	REG	mg/kg	0.33	0.022	U	0.027	U	0.023	U	0.023	U	0.023	U		
3&4-Methylphenol	M+P-CRESOLS	REG	mg/kg		0.028	U	0.035	U	0.03	U	0.03	U	0.029	U		
2-Nitrophenol	88-75-5	REG	mg/kg		0.022	U	0.028	U	0.024	U	0.024	U	0.023	U		
4-Nitrophenol	100-02-7	REG	mg/kg		0.09	U	0.11	U	0.097	U	0.097	U	0.094	U		
Pentachlorophenol	87-86-5	REG	mg/kg	0.8	0.032	U	0.039	U	0.034	U	0.034	U	0.033	U		
Phenol	108-95-2	REG	mg/kg	0.33	0.018	U	0.022	U	0.019	U	0.019	U	0.018	U		
2,3,4,6-Tetrachlorophenol	58-90-2	REG	mg/kg		0.022	U	0.028	U	0.024	U	0.024	U	0.023	U		
2,4,5-Trichlorophenol	95-95-4	REG	mg/kg		0.025	U	0.031	U	0.027	U	0.027	U	0.026	U		
2,4,6-Trichlorophenol	88-06-2	REG	mg/kg		0.02	U	0.025	U	0.022	U	0.022	U	0.021	U		
Acenaphthene	83-32-9	REG	mg/kg	20	0.012	U	0.015	U	0.012	U	0.012	U	0.012	U		
Acenaphthylene	208-96-8	REG	mg/kg	100	0.017	U	0.021	U	0.018	U	0.018	U	0.018	U		
Acetophenone	98-86-2	REG	mg/kg		0.0073	U	0.009	U	0.0078	U	0.0078	U	0.0076	U		
Anthracene	120-12-7	REG	mg/kg	100	0.021	U	0.026	U	0.022	U	0.022	U	0.022	U		
Atrazine	1912-24-9	REG	mg/kg		0.014	U	0.018	U	0.015	U	0.015	U	0.015	U		
Benzo(a)anthracene	56-55-3	REG	mg/kg	1	0.0096	U	0.012	U	0.01	U	0.0145	J	0.0189	J		
Benzo(a)pyrene	50-32-8	REG	mg/kg	1	0.015	U	0.019	U	0.016	U	0.016	U	0.016	U		
Benzo(b)fluoranthene	205-99-2	REG	mg/kg	1	0.015	U	0.019	U	0.016	U	0.0294	J	0.0203	J		
Benzo(g,h,i)perylene	191-24-2	REG	mg/kg	100	0.017	U	0.021	U	0.018	U	0.018	U	0.018	U		
Benzo(k)fluoranthene	207-08-9	REG	mg/kg	0.8	0.016	U	0.02	U	0.017	U	0.017	U	0.017	U		
4-Bromophenyl phenyl ether	101-55-3	REG	mg/kg		0.013	U	0.016	U	0.014	U	0.014	U	0.014	U		
Butyl benzyl phthalate	85-68-7	REG	mg/kg		0.0082	U	0.01	U	0.0088	U	0.0088	U	0.0086	U		
1,1'-Biphenyl	92-52-4	REG	mg/kg		0.0046	U	0.0058	U	0.005	U	0.005	U	0.0048	U		
Benzaldehyde	100-52-7	REG	mg/kg		0.0084	U	0.01	U	0.009	U	0.009	U	0.0088	U		
2-Chloronaphthalene	91-58-7	REG	mg/kg		0.008	U	0.01	U	0.0086	U	0.0086	U	0.0084	U		
4-Chloroaniline	106-47-8	REG	mg/kg		0.012	U	0.015	U	0.013	U	0.013	U	0.013	U		
Carbazole	86-74-8	REG	mg/kg		0.0049	U	0.0061	U	0.0052	U	0.0052	U	0.0051	U		
Caprolactam	105-60-2	REG	mg/kg		0.013	U	0.017	U	0.014	U	0.014	U	0.014	U		
Chrysene	218-01-9	REG	mg/kg	1	0.011	U	0.013	U	0.011	U	0.0322	J	0.0164	J		
bis(2-Chloroethoxy)methane	111-91-1	REG	mg/kg		0.0072	U	0.009	U	0.0077	U	0.0077	U	0.0076	U		
bis(2-Chloroethyl)ether	111-44-4	REG	mg/kg		0.015	U	0.018	U	0.016	U	0.016	U	0.015	U		
2,2'-Oxybis(1-chloropropane)	108-60-1	REG	mg/kg		0.012	U	0.015	U	0.013	U	0.013	U	0.013	U		
4-Chlorophenyl phenyl ether	7005-72-3	REG	mg/kg		0.011	U	0.014	U	0.012	U	0.012	U	0.011	U		

Job Number:				NY USCO	JE25248		JE25248		JE25248		JE25248		JE25248		JE25248	
Client Sample ID:					EP-25		EP-27E		EP-6		EP-13		EP-12		TB-1	
Lab Sample ID:					JE25248-1		JE25248-2		JE25248-3		JE25248-4		JE25248-5		JE25248-6	
Date Sampled:					12/15/2025 3:03 PM		12/15/2025 3:16 PM		12/15/2025 3:27 PM		12/15/2025 3:33 PM		12/15/2025 3:41 PM		12/15/2025 3:41 PM	
Matrix:					Soil		Soil		Soil		Soil		Soil		Trip Blank Soil	
Analyte	**CAS #**	**Type**	**Unit**													
2,4-Dinitrotoluene	121-14-2	REG	mg/kg		0.01	U	0.013	U	0.011	U	0.011	U	0.011	U		
2,6-Dinitrotoluene	606-20-2	REG	mg/kg		0.017	U	0.021	U	0.018	U	0.018	U	0.018	U		
3,3'-Dichlorobenzidine	91-94-1	REG	mg/kg		0.028	U	0.035	U	0.03	U	0.03	U	0.029	U		
1,4-Dioxane	123-91-1	REG	mg/kg	0.1	0.022	U	0.028	U	0.024	U	0.024	U	0.023	U		
Dibenzo(a,h)anthracene	53-70-3	REG	mg/kg	0.33	0.015	U	0.019	U	0.016	U	0.016	U	0.016	U		
Dibenzofuran	132-64-9	REG	mg/kg	7	0.014	U	0.017	U	0.015	U	0.015	U	0.014	U		
Di-n-butyl phthalate	84-74-2	REG	mg/kg		0.0055	U	0.0069	U	0.0059	U	0.0059	U	0.0104	J		
Di-n-octyl phthalate	117-84-0	REG	mg/kg		0.0084	U	0.01	U	0.009	U	0.009	U	0.0088	U		
Diethyl phthalate	84-66-2	REG	mg/kg		0.0072	U	0.009	U	0.0077	U	0.0077	U	0.0075	U		
Dimethyl phthalate	131-11-3	REG	mg/kg		0.006	U	0.0075	U	0.0064	U	0.0064	U	0.0063	U		
bis(2-Ethylhexyl)phthalate	117-81-7	REG	mg/kg		0.0079	U	0.0098	U	0.0085	U	0.0085	U	0.0101	J		
Fluoranthene	206-44-0	REG	mg/kg	100	0.015	U	0.019	U	0.016	U	0.0356	J	0.0185	J		
Fluorene	86-73-7	REG	mg/kg	30	0.016	U	0.019	U	0.017	U	0.017	U	0.016	U		
Hexachlorobenzene	118-74-1	REG	mg/kg	0.33	0.0085	U	0.011	U	0.0091	U	0.0092	U	0.0089	U		
Hexachlorobutadiene	87-68-3	REG	mg/kg		0.014	U	0.017	U	0.015	U	0.015	U	0.014	U		
Hexachlorocyclopentadiene	77-47-4	REG	mg/kg		0.013	U	0.017	U	0.014	U	0.014	U	0.014	U		
Hexachloroethane	67-72-1	REG	mg/kg		0.017	U	0.021	U	0.018	U	0.018	U	0.017	U		
Indeno(1,2,3-cd)pyrene	193-39-5	REG	mg/kg	0.5	0.016	U	0.02	U	0.017	U	0.017	U	0.017	U		
Isophorone	78-59-1	REG	mg/kg		0.0072	U	0.009	U	0.0077	U	0.0077	U	0.0076	U		
2-Methylnaphthalene	91-57-6	REG	mg/kg		0.0076	U	0.0095	U	0.0082	U	0.0082	U	0.008	U		
2-Nitroaniline	88-74-4	REG	mg/kg		0.008	U	0.0099	U	0.0085	U	0.0085	U	0.0083	U		
3-Nitroaniline	99-09-2	REG	mg/kg		0.0084	U	0.011	U	0.009	U	0.009	U	0.0088	U		
4-Nitroaniline	100-01-6	REG	mg/kg		0.0087	U	0.011	U	0.0094	U	0.0094	U	0.0092	U		
Naphthalene	91-20-3	REG	mg/kg	12	0.0095	U	0.012	U	0.01	U	0.01	U	0.01	U		
Nitrobenzene	98-95-3	REG	mg/kg		0.013	U	0.016	U	0.014	U	0.014	U	0.014	U		
N-Nitroso-di-n-propylamine	621-64-7	REG	mg/kg		0.0098	U	0.012	U	0.01	U	0.01	U	0.01	U		
N-Nitrosodiphenylamine	86-30-6	REG	mg/kg		0.012	U	0.015	U	0.013	U	0.013	U	0.013	U		
Phenanthrene	85-01-8	REG	mg/kg	100	0.011	U	0.014	U	0.012	U	0.0374		0.012	U		
Pyrene	129-00-0	REG	mg/kg	100	0.011	U	0.013	U	0.012	U	0.0566		0.0229	J		
1,2,4,5-Tetrachlorobenzene	95-94-3	REG	mg/kg		0.0086	U	0.011	U	0.0092	U	0.0092	U	0.009	U		
2-Fluorophenol	367-12-4	SURR	%		71		50		39		51		47			
Phenol-d5	4165-62-2	SURR	%		71		52		39		53		46			
2,4,6-Tribromophenol	118-79-6	SURR	%		82		66		49		65		54			
Nitrobenzene-d5	4165-60-0	SURR	%		67		51		39		49		43			
2-Fluorobiphenyl	321-60-8	SURR	%		72		57		40		55		48			
Terphenyl-d14	1718-51-0	SURR	%		73		57		44		57		49			
(MS Volatile TIC ())																
Total TIC, Volatile	TOTAL TIC, VOLATILE	TICTOTAL	mg/kg		0		0		0		0		0			
Total TIC, Volatile	TOTAL TIC, VOLATILE	TICTOTAL	ug/l												0	
(MS Volatiles (SW846 8260D))																
Acetone	67-64-1	REG	mg/kg	0.05	0.0041	U	0.0048	U	0.0045	U	0.0038	U	0.0038	U		
Acetone	67-64-1	REG	ug/l												3.1	U
Benzene	71-43-2	REG	mg/kg	0.06	0.00045	U	0.00053	U	0.0005	U	0.00041	U	0.00042	U		
Bromochloromethane	74-97-5	REG	mg/kg		0.00055	U	0.00065	U	0.00061	U	0.00051	U	0.00052	U		
Benzene	71-43-2	REG	ug/l												0.43	U
Bromodichloromethane	75-27-4	REG	mg/kg		0.00042	U	0.0005	U	0.00047	U	0.00039	U	0.0004	U		
Bromoform	75-25-2	REG	mg/kg		0.0013	U	0.0016	U	0.0015	U	0.0012	U	0.0013	U		
Bromomethane	74-83-9	REG	mg/kg		0.00075	U	0.00089	U	0.00083	U	0.00069	U	0.00071	U		
2-Butanone (MEK)	78-93-3	REG	mg/kg	0.12	0.0024	U	0.0028	U	0.0027	U	0.0022	U	0.0023	U		
Bromochloromethane	74-97-5	REG	ug/l												0.48	U
Bromodichloromethane	75-27-4	REG	ug/l												0.45	U
Bromoform	75-25-2	REG	ug/l												0.63	U
Bromomethane	74-83-9	REG	ug/l												1.6	U
2-Butanone (MEK)	78-93-3	REG	ug/l												2.7	U
Carbon disulfide	75-15-0	REG	mg/kg		0.00053	U	0.00062	U	0.00058	U	0.00049	U	0.0005	U		
Carbon tetrachloride	56-23-5	REG	mg/kg	0.76	0.00061	U	0.00072	U	0.00067	U	0.00056	U	0.00057	U		
Chlorobenzene	108-90-7	REG	mg/kg	1.1	0.00045	U	0.00053	U	0.0005	U	0.00042	U	0.00043	U		
Chloroethane	75-00-3	REG	mg/kg		0.00058	U	0.00069	U	0.00065	U	0.00054	U	0.00055	U		
Carbon disulfide	75-15-0	REG	ug/l												1.8	U
Carbon tetrachloride	56-23-5	REG	ug/l												0.55	U
Chloroform	67-66-3	REG	mg/kg	0.37	0.00099	U	0.0012	U	0.0011	U	0.00091	U	0.00093	U		
Chlorobenzene	108-90-7	REG	ug/l												0.56	U
Chloromethane	74-87-3	REG	mg/kg		0.0019	U	0.0023	U	0.0021	U	0.0018	U	0.0018	U		
Chloroethane	75-00-3	REG	ug/l												0.73	U
Chloroform	67-66-3	REG	ug/l												0.5	U
Cyclohexane	110-82-7	REG	mg/kg		0.00065	U	0.00076	U	0.00072	U	0.0006	U	0.00061	U		

Job Number:				NY USCO	JE25248		JE25248		JE25248		JE25248		JE25248		JE25248	
Client Sample ID:					EP-25		EP-27E		EP-6		EP-13		EP-12		TB-1	
Lab Sample ID:					JE25248-1		JE25248-2		JE25248-3		JE25248-4		JE25248-5		JE25248-6	
Date Sampled:					12/15/2025 3:03 PM		12/15/2025 3:16 PM		12/15/2025 3:27 PM		12/15/2025 3:33 PM		12/15/2025 3:41 PM		12/15/2025 3:41 PM	
Matrix:					Soil		Soil		Soil		Soil		Soil		Trip Blank Soil	
Analyte	**CAS #**	**Type**	**Unit**													
Chloromethane	74-87-3	REG	ug/l												0.76	U
1,2-Dibromo-3-chloropropane	96-12-8	REG	mg/kg		0.00069	U	0.0008	U	0.00076	U	0.00063	U	0.00064	U		
Cyclohexane	110-82-7	REG	ug/l												0.78	U
Dibromochloromethane	124-48-1	REG	mg/kg		0.00055	U	0.00065	U	0.00061	U	0.00051	U	0.00052	U		
1,2-Dibromoethane	106-93-4	REG	mg/kg		0.00042	U	0.00049	U	0.00046	U	0.00038	U	0.00039	U		
1,2-Dichlorobenzene	95-50-1	REG	mg/kg	1.1	0.00054	U	0.00063	U	0.0006	U	0.0005	U	0.00051	U		
1,3-Dichlorobenzene	541-73-1	REG	mg/kg	2.4	0.00049	U	0.00058	U	0.00054	U	0.00045	U	0.00046	U		
1,2-Dibromo-3-chloropropane	96-12-8	REG	ug/l												0.53	U
1,4-Dichlorobenzene	106-46-7	REG	mg/kg	1.8	0.00049	U	0.00057	U	0.00054	U	0.00045	U	0.00046	U		
Dibromochloromethane	124-48-1	REG	ug/l												0.56	U
1,2-Dibromoethane	106-93-4	REG	ug/l												0.48	U
Dichlorodifluoromethane	75-71-8	REG	mg/kg		0.00072	U	0.00084	U	0.00079	U	0.00066	U	0.00067	U		
1,1-Dichloroethane	75-34-3	REG	mg/kg	0.27	0.00049	U	0.00057	U	0.00054	U	0.00045	U	0.00046	U		
1,2-Dichlorobenzene	95-50-1	REG	ug/l												0.53	U
1,2-Dichloroethane	107-06-2	REG	mg/kg	0.02	0.00046	U	0.00054	U	0.00051	U	0.00043	U	0.00044	U		
1,3-Dichlorobenzene	541-73-1	REG	ug/l												0.54	U
1,1-Dichloroethene	75-35-4	REG	mg/kg	0.33	0.00065	U	0.00076	U	0.00072	U	0.00059	U	0.00061	U		
1,4-Dichlorobenzene	106-46-7	REG	ug/l												0.51	U
cis-1,2-Dichloroethene	156-59-2	REG	mg/kg	0.25	0.00083	U	0.00097	U	0.00092	U	0.00076	U	0.00078	U		
Dichlorodifluoromethane	75-71-8	REG	ug/l												0.56	U
trans-1,2-Dichloroethene	156-60-5	REG	mg/kg	0.19	0.0006	U	0.00071	U	0.00067	U	0.00055	U	0.00057	U		
1,1-Dichloroethane	75-34-3	REG	ug/l												0.57	U
1,2-Dichloroethane	107-06-2	REG	ug/l												0.6	U
1,2-Dichloropropane	78-87-5	REG	mg/kg		0.00047	U	0.00055	U	0.00052	U	0.00043	U	0.00044	U		
1,1-Dichloroethene	75-35-4	REG	ug/l												0.59	U
cis-1,2-Dichloroethene	156-59-2	REG	ug/l												0.51	U
trans-1,2-Dichloroethene	156-60-5	REG	ug/l												0.54	U
cis-1,3-Dichloropropene	10061-01-5	REG	mg/kg		0.00047	U	0.00055	U	0.00052	U	0.00043	U	0.00044	U		
1,2-Dichloropropane	78-87-5	REG	ug/l												0.51	U
trans-1,3-Dichloropropene	10061-02-6	REG	mg/kg		0.00045	U	0.00053	U	0.0005	U	0.00041	U	0.00042	U		
cis-1,3-Dichloropropene	10061-01-5	REG	ug/l												0.47	U
trans-1,3-Dichloropropene	10061-02-6	REG	ug/l												0.43	U
Ethylbenzene	100-41-4	REG	mg/kg	1	0.00045	U	0.00053	U	0.00049	U	0.00041	U	0.00042	U		
Ethylbenzene	100-41-4	REG	ug/l												0.6	U
Freon 113	76-13-1	REG	mg/kg		0.0026	U	0.0031	U	0.0029	U	0.0024	U	0.0025	U		
Freon 113	76-13-1	REG	ug/l												0.58	U
2-Hexanone	591-78-6	REG	mg/kg		0.0021	U	0.0025	U	0.0023	U	0.0019	U	0.002	U		
2-Hexanone	591-78-6	REG	ug/l												4.8	U
Isopropylbenzene	98-82-8	REG	mg/kg		0.0014	U	0.0016	U	0.0016	U	0.0013	U	0.0013	U		
Isopropylbenzene	98-82-8	REG	ug/l												0.65	U
Methyl Acetate	79-20-9	REG	mg/kg		0.0014	U	0.0016	U	0.0015	U	0.0013	U	0.0013	U		
Methylcyclohexane	108-87-2	REG	mg/kg		0.00086	U	0.001	U	0.00096	U	0.00079	U	0.00081	U		
Methyl Acetate	79-20-9	REG	ug/l												0.8	U
Methyl Tert Butyl Ether	1634-04-4	REG	mg/kg	0.93	0.00046	U	0.00054	U	0.00051	U	0.00043	U	0.00043	U		
Methylcyclohexane	108-87-2	REG	ug/l												0.6	U
4-Methyl-2-pentanone(MIBK)	108-10-1	REG	mg/kg		0.0022	U	0.0026	U	0.0025	U	0.0021	U	0.0021	U		
Methyl Tert Butyl Ether	1634-04-4	REG	ug/l												0.51	U
Methylene chloride	75-09-2	REG	mg/kg	0.05	0.0026	U	0.003	U	0.0028	U	0.0024	U	0.0024	U		
4-Methyl-2-pentanone(MIBK)	108-10-1	REG	ug/l												4.9	U
Methylene chloride	75-09-2	REG	ug/l												1	U
Styrene	100-42-5	REG	mg/kg		0.0004	U	0.00047	U	0.00044	U	0.00036	U	0.00037	U		
Styrene	100-42-5	REG	ug/l												0.49	U
1,1,2,2-Tetrachloroethane	79-34-5	REG	mg/kg		0.00059	U	0.00069	U	0.00065	U	0.00054	U	0.00056	U		
Tetrachloroethene	127-18-4	REG	mg/kg	1.3	0.00057	U	0.00067	U	0.00063	U	0.00053	U	0.00054	U		
1,1,2,2-Tetrachloroethane	79-34-5	REG	ug/l												0.65	U
Tetrachloroethene	127-18-4	REG	ug/l												0.56	U
Toluene	108-88-3	REG	mg/kg	0.7	0.00052	U	0.00061	U	0.00057	U	0.00048	U	0.00049	U		
1,2,3-Trichlorobenzene	87-61-6	REG	mg/kg		0.0025	U	0.0029	U	0.0027	U	0.0023	U	0.0023	U		
Toluene	108-88-3	REG	ug/l												0.49	U
1,2,4-Trichlorobenzene	120-82-1	REG	mg/kg		0.0025	U	0.0029	U	0.0027	U	0.0023	U	0.0023	U		
1,1,1-Trichloroethane	71-55-6	REG	mg/kg	0.68	0.00048	U	0.00056	U	0.00053	U	0.00044	U	0.00045	U		
1,2,3-Trichlorobenzene	87-61-6	REG	ug/l												0.5	U
1,1,2-Trichloroethane	79-00-5	REG	mg/kg		0.00055	U	0.00064	U	0.0006	U	0.0005	U	0.00051	U		
1,2,4-Trichlorobenzene	120-82-1	REG	ug/l												0.5	U
1,1,1-Trichloroethane	71-55-6	REG	ug/l												0.54	U
Trichloroethene	79-01-6	REG	mg/kg	0.47	0.00075	U	0.00088	U	0.00083	U	0.00069	U	0.00071	U		

Job Number:				**NY USCO**	JE25248		JE25248		JE25248		JE25248		JE25248		JE25248	
Client Sample ID:					EP-25		EP-27E		EP-6		EP-13		EP-12		TB-1	
Lab Sample ID:					JE25248-1		JE25248-2		JE25248-3		JE25248-4		JE25248-5		JE25248-6	
Date Sampled:					12/15/2025 3:03 PM		12/15/2025 3:16 PM		12/15/2025 3:27 PM		12/15/2025 3:33 PM		12/15/2025 3:41 PM		12/15/2025 3:41 PM	
Matrix:					Soil		Soil		Soil		Soil		Soil		Trip Blank Soil	
Analyte	**CAS #**	**Type**	**Unit**													
1,1,2-Trichloroethane	79-00-5	REG	ug/l												0.53	U
Trichlorofluoromethane	75-69-4	REG	mg/kg		0.00068	U	0.00079	U	0.00075	U	0.00062	U	0.00063	U		
Trichloroethene	79-01-6	REG	ug/l												0.53	U
Trichlorofluoromethane	75-69-4	REG	ug/l												0.4	U
Vinyl chloride	75-01-4	REG	mg/kg	0.02	0.00048	U	0.00056	U	0.00053	U	0.00044	U	0.00045	U		
m,p-Xylene	M,P-XYLENE	REG	mg/kg	0.26	0.00089	U	0.001	U	0.00098	U	0.00081	U	0.00083	U		
Vinyl chloride	75-01-4	REG	ug/l												0.52	U
o-Xylene	95-47-6	REG	mg/kg	0.26	0.00045	U	0.00053	U	0.0005	U	0.00042	U	0.00042	U		
Xylene (total)	1330-20-7	REG	mg/kg	0.26	0.00045	U	0.00053	U	0.0005	U	0.00042	U	0.00042	U		
m,p-Xylene	M,P-XYLENE	REG	ug/l												0.78	U
o-Xylene	95-47-6	REG	ug/l												0.59	U
Xylene (total)	1330-20-7	REG	ug/l												0.59	U
Dibromofluoromethane	1868-53-7	SURR	%		106		106		106		108		110		111	
1,2-Dichloroethane-D4	17060-07-0	SURR	%		100		99		101		100		102		92	
Toluene-D8	2037-26-5	SURR	%		98		97		96		96		96		103	
4-Bromofluorobenzene	460-00-4	SURR	%		95		96		93		95		96		104	

NY USCO: NY - New York NYCRR Part 375 New York Unrestricted use Criteria Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.

SGS

SGS Engage - Group Crosstab

Client Sample ID:				NY USCO	EP-4		EP-5		EP-10		EP-11		EP-17		EP-18		TB-2	
Lab Sample ID:					JE25538-1		JE25538-2		JE25538-3		JE25538-4		JE25538-5		JE25538-6		JE25538-7	
Date Sampled:					12/18/2025 2:45 PM		12/18/2025 2:40 PM		12/18/2025 3:09 PM		12/18/2025 2:52 PM		12/18/2025 3:13 PM		12/18/2025 3:00 PM		12/18/2025 3:13 PM	
Matrix:					Soil		Soil		Soil		Soil		Soil		Soil		Trip Blank Soil	
Analyte	**CAS #**	**Type**	**Unit**															
(GC/LC Semi-volatiles (SW846 8081B))																		
Aldrin	309-00-2	REG	mg/kg	0.005	0.00053	U	0.00059	U	0.00061	U	0.00057	U	0.00055	U	0.00057	U		
alpha-BHC	319-84-6	REG	mg/kg	0.02	0.00052	U	0.00058	U	0.0006	U	0.00056	U	0.00055	U	0.00057	U		
beta-BHC	319-85-7	REG	mg/kg	0.036	0.00058	U	0.00065	U	0.00067	U	0.00062	U	0.00061	U	0.00063	U		
delta-BHC	319-86-8	REG	mg/kg	0.04	0.00062	U	0.00069	U	0.00071	U	0.00066	U	0.00065	U	0.00067	U		
gamma-BHC (Lindane)	58-89-9	REG	mg/kg	0.1	0.00048	U	0.00053	U	0.00055	U	0.00051	U	0.0005	U	0.00051	U		
alpha-Chlordane	5103-71-9	REG	mg/kg	0.094	0.00052	U	0.00058	U	0.0006	U	0.00055	U	0.00054	U	0.00056	U		
gamma-Chlordane	5103-74-2	REG	mg/kg		0.00029	U	0.00032	U	0.00034	U	0.00031	U	0.0003	U	0.00031	U		
Dieldrin	60-57-1	REG	mg/kg	0.005	0.00044	U	0.00049	U	0.00051	U	0.00047	U	0.00046	U	0.00048	U		
4,4'-DDD	72-54-8	REG	mg/kg	0.0033	0.00059	U	0.00066	U	0.00068	U	0.00063	U	0.00062	U	0.00064	U		
4,4'-DDE	72-55-9	REG	mg/kg	0.0033	0.00057	U	0.00063	U	0.00065	U	0.0006	U	0.00059	U	0.00061	U		
4,4'-DDT	50-29-3	REG	mg/kg	0.0033	0.00057	U	0.00063	U	0.00066	U	0.00061	U	0.0006	U	0.00062	U		
Endrin	72-20-8	REG	mg/kg	0.014	0.0005	U	0.00056	U	0.00058	U	0.00053	U	0.00052	U	0.00054	U		
Endosulfan sulfate	1031-07-8	REG	mg/kg	2.4	0.0005	U	0.00056	U	0.00058	U	0.00054	U	0.00052	U	0.00054	U		
Endrin aldehyde	7421-93-4	REG	mg/kg		0.00037	U	0.00041	U	0.00042	U	0.00039	U	0.00038	U	0.00039	U		
Endosulfan-I	959-98-8	REG	mg/kg	2.4	0.00037	U	0.00041	U	0.00043	U	0.0004	U	0.00039	U	0.0004	U		
Endosulfan-II	33213-65-9	REG	mg/kg	2.4	0.0004	U	0.00045	U	0.00046	U	0.00043	U	0.00042	U	0.00043	U		
Heptachlor	76-44-8	REG	mg/kg	0.042	0.00056	U	0.00062	U	0.00064	U	0.00059	U	0.00058	U	0.0006	U		
Heptachlor epoxide	1024-57-3	REG	mg/kg		0.00045	U	0.0005	U	0.00052	U	0.00048	U	0.00047	U	0.00049	U		
Methoxychlor	72-43-5	REG	mg/kg		0.00051	U	0.00057	U	0.00059	U	0.00055	U	0.00053	U	0.00055	U		
Endrin ketone	53494-70-5	REG	mg/kg		0.00047	U	0.00052	U	0.00054	U	0.0005	U	0.00049	U	0.0005	U		
Toxaphene	8001-35-2	REG	mg/kg		0.015	U	0.017	U	0.017	U	0.016	U	0.016	U	0.016	U		
Tetrachloro-m-xylene	877-09-8	SURR	%		54		58		65		66		63		53			
Tetrachloro-m-xylene (1)	877-09-8	SURR	%		60		59		66		68		64		55			
Decachlorobiphenyl	2051-24-3	SURR	%		42		43		47		50		50		45			
Decachlorobiphenyl (1)	2051-24-3	SURR	%		48		48		55		55		53		46			
(GC/LC Semi-volatiles (SW846 8082A))																		
Aroclor 1016	12674-11-2	REG	mg/kg	0.1	0.015	U	0.017	U	0.017	U	0.016	U	0.016	U	0.016	U		
Aroclor 1221	11104-28-2	REG	mg/kg	0.1	0.02	U	0.022	U	0.023	U	0.021	U	0.021	U	0.022	U		
Aroclor 1232	11141-16-5	REG	mg/kg	0.1	0.021	U	0.023	U	0.024	U	0.022	U	0.021	U	0.022	U		
Aroclor 1242	53469-21-9	REG	mg/kg	0.1	0.013	U	0.015	U	0.015	U	0.014	U	0.014	U	0.014	U		
Aroclor 1248	12672-29-6	REG	mg/kg	0.1	0.029	U	0.032	U	0.033	U	0.031	U	0.03	U	0.031	U		
Aroclor 1254	11097-69-1	REG	mg/kg	0.1	0.017	U	0.019	U	0.02	U	0.018	U	0.018	U	0.019	U		
Aroclor 1260	11096-82-5	REG	mg/kg	0.1	0.014	U	0.015	U	0.016	U	0.015	U	0.014	U	0.015	U		
Aroclor 1268	11100-14-4	REG	mg/kg	0.1	0.028	U	0.031	U	0.033	U	0.03	U	0.029	U	0.03	U		
Aroclor 1262	37324-23-5	REG	mg/kg	0.1	0.021	U	0.023	U	0.024	U	0.022	U	0.022	U	0.023	U		
Tetrachloro-m-xylene (2)	877-09-8	SURR	%		47		45		53		52		49		42			
Tetrachloro-m-xylene (3)	877-09-8	SURR	%		57		55		63		63		61		51			
Decachlorobiphenyl (2)	2051-24-3	SURR	%		31		28		34		35		32		27			
Decachlorobiphenyl (3)	2051-24-3	SURR	%		35		34		44		39		39		32			
(General Chemistry (SM2540 G 18TH ED MOD))																		
Solids, Percent	PERCENT SOLIDS	REG	%		94		89.5		89.6		90		94.8		93.4			
(General Chemistry (SW846 9012B/LACHAT))																		
Cyanide	57-12-5	REG	mg/kg	27	0.23	U	0.28	U	0.23	U	0.26	U	0.28	U	0.22	U		
(Metals Analysis (SW846 6010D))																		
Aluminum	7429-90-5	REG	mg/kg		10500		12700		11200		10700		8150		4550			
Antimony	7440-36-0	REG	mg/kg		2.2	U	2.3	U	2.2	U	2.2	U	2.1	U	2.1	U		
Arsenic	7440-38-2	REG	mg/kg	13	2.2	U	2.4		2.7		2.4		2.1	U	2.1	U		
Barium	7440-39-3	REG	mg/kg	350	111		46.8		65.3		69.3		44.3		31.6			
Beryllium	7440-41-7	REG	mg/kg	7.2	0.38		0.37		0.37		0.38		0.24		0.21	U		
Cadmium	7440-43-9	REG	mg/kg	2.5	0.55	U	0.58	U	0.56	U	0.55	U	0.51	U	0.53	U		
Calcium	7440-70-2	REG	mg/kg		5710		2330		4870		7440		1530		1170			
Chromium	7440-47-3	REG	mg/kg	30	16		17.4		17.1		17.5		13.2		6.2			
Cobalt	7440-48-4	REG	mg/kg		7.2		7.3		6.5		6.6		6.8		5.3	U		
Copper	7440-50-8	REG	mg/kg	50	19.2		17.2		17.2		23.1		12.1		9.1			
Iron	7439-89-6	REG	mg/kg		15300		16400		14700		15700		12300		6580			
Lead	7439-92-1	REG	mg/kg	63	12.4		9.1		22.5		26.7		5.9		3.7			
Magnesium	7439-95-4	REG	mg/kg		4070		3870		4370		4240		3260		1690			
Manganese	7439-96-5	REG	mg/kg	1600	242		265		313		288		261		250			
Nickel	7440-02-0	REG	mg/kg	30	14.3		13.9		13.3		13.5		11.1		9.9			
Potassium	7440-09-7	REG	mg/kg		1120		1200	U	1130		1250		1030		1100	U		
Selenium	7782-49-2	REG	mg/kg	3.9	2.2	U	2.3	U	2.2	U	2.2	U	2.1	U	2.1	U		
Silver	7440-22-4	REG	mg/kg	2	0.55	U	0.58	U	0.56	U	0.55	U	0.51	U	0.53	U		
Sodium	7440-23-5	REG	mg/kg		1100	U	1200	U	1100	U	1100	U	1000	U	1100	U		
Thallium	7440-28-0	REG	mg/kg		1.1	U	1.2	U	1.1	U	1.1	U	1	U	1.1	U		
Vanadium	7440-62-2	REG	mg/kg		21.2		24.6		22.6		22.1		18.9		8.4			
Zinc	7440-66-6	REG	mg/kg	109	46.8		45.2		55.6		60.8		32.4		17.6			
(Metals Analysis (SW846 7471B))																		
Mercury	7439-97-6	REG	mg/kg	0.18	0.032	U	0.032	U	0.056		0.047		0.028	U	0.031	U		
(MS Semi-volatile TIC ())																		
Alkene	TIC	TIC	mg/kg						0.3	J								

Client Sample ID:				NY USCO	EP-4		EP-5		EP-10		EP-11		EP-17		EP-18		TB-2	
Lab Sample ID:					JE25538-1		JE25538-2		JE25538-3		JE25538-4		JE25538-5		JE25538-6		JE25538-7	
Date Sampled:					12/18/2025 2:45 PM		12/18/2025 2:40 PM		12/18/2025 3:09 PM		12/18/2025 2:52 PM		12/18/2025 3:13 PM		12/18/2025 3:00 PM		12/18/2025 3:13 PM	
Matrix:					Soil		Soil		Soil		Soil		Soil		Soil		Trip Blank Soil	
Analyte	**CAS #**	**Type**	**Unit**															
(GC/LC Semi-volatiles (SW846 8081B))																		
Octadecanoic acid	57-11-4	TIC	mg/kg		0.16	JNB	0.2	JN			0.15	JN						
unknown	TIC	TIC	mg/kg										1.4	J	1.4	J		
Unknown	TIC	TIC	mg/kg				0.41	J										
unknown (1)	TIC	TIC	mg/kg										1.1	J	0.92	J		
Unknown alcohol	TIC	TIC	mg/kg		0.33	J					0.29	J						
1H-indene-dihydro-dimethyl	TIC	TIC	mg/kg		0.16	J					0.17	J						
Unknown (1)	TIC	TIC	mg/kg				0.18	J										
unknown alcohol	TIC	TIC	mg/kg										0.22	J	0.15	J		
unknown (2)	TIC	TIC	mg/kg										0.19	J	0.28	JB		
unknown (3)	TIC	TIC	mg/kg										0.38	J	0.16	J		
unknown (4)	TIC	TIC	mg/kg										0.54	J				
unknown (5)	TIC	TIC	mg/kg										0.41	J				
Total TIC, Semi-Volatile	TOTAL TIC, SEMI-VOLATILE	TICTOTAL	mg/kg		0.49	J	0.79	J	0.3	J	0.61	J	4.24	J	2.63	J		
(MS Semi-volatiles (SW846 8270E))																		
2-Chlorophenol	95-57-8	REG	mg/kg		0.017	U	0.018	U	0.018	U	0.017	U	0.017	U	0.017	U		
4-Chloro-3-methyl phenol	59-50-7	REG	mg/kg		0.022	U	0.022	U	0.023	U	0.022	U	0.021	U	0.021	U		
2,4-Dichlorophenol	120-83-2	REG	mg/kg		0.03	U	0.031	U	0.031	U	0.03	U	0.029	U	0.029	U		
2,4-Dimethylphenol	105-67-9	REG	mg/kg		0.063	U	0.064	U	0.066	U	0.063	U	0.061	U	0.061	U		
2,4-Dinitrophenol	51-28-5	REG	mg/kg		0.13	U	0.13	U	0.14	U	0.13	U	0.13	U	0.13	U		
4,6-Dinitro-o-cresol	534-52-1	REG	mg/kg		0.038	U	0.038	U	0.039	U	0.038	U	0.037	U	0.037	U		
2-Methylphenol	95-48-7	REG	mg/kg	0.33	0.023	U	0.023	U	0.024	U	0.023	U	0.022	U	0.022	U		
3&4-Methylphenol	M+P-CRESOLS	REG	mg/kg		0.029	U	0.029	U	0.03	U	0.029	U	0.028	U	0.028	U		
2-Nitrophenol	88-75-5	REG	mg/kg		0.023	U	0.024	U	0.024	U	0.023	U	0.023	U	0.023	U		
4-Nitrophenol	100-02-7	REG	mg/kg		0.094	U	0.096	U	0.098	U	0.094	U	0.091	U	0.092	U		
Pentachlorophenol	87-86-5	REG	mg/kg	0.8	0.033	U	0.034	U	0.035	U	0.033	U	0.032	U	0.032	U		
Phenol	108-95-2	REG	mg/kg	0.33	0.018	U	0.019	U	0.019	U	0.018	U	0.018	U	0.018	U		
2,3,4,6-Tetrachlorophenol	58-90-2	REG	mg/kg		0.023	U	0.024	U	0.024	U	0.023	U	0.023	U	0.023	U		
2,4,5-Trichlorophenol	95-95-4	REG	mg/kg		0.026	U	0.027	U	0.028	U	0.026	U	0.026	U	0.026	U		
2,4,6-Trichlorophenol	88-06-2	REG	mg/kg		0.021	U	0.021	U	0.022	U	0.021	U	0.02	U	0.021	U		
Acenaphthene	83-32-9	REG	mg/kg	20	0.012	U	0.012	U	0.013	U	0.012	U	0.012	U	0.012	U		
Acenaphthylene	208-96-8	REG	mg/kg	100	0.018	U	0.018	U	0.019	U	0.018	U	0.017	U	0.017	U		
Acetophenone	98-86-2	REG	mg/kg		0.0076	U	0.0077	U	0.0079	U	0.0076	U	0.0073	U	0.0074	U		
Anthracene	120-12-7	REG	mg/kg	100	0.022	U	0.022	U	0.023	U	0.022	U	0.021	U	0.021	U		
Atrazine	1912-24-9	REG	mg/kg		0.015	U	0.015	U	0.016	U	0.015	U	0.015	U	0.015	U		
Benzo(a)anthracene	56-55-3	REG	mg/kg	1	0.01	U	0.01	U	0.0165	J	0.0172	J	0.0097	U	0.0097	U		
Benzo(a)pyrene	50-32-8	REG	mg/kg	1	0.016	U	0.016	U	0.017	U	0.016	U	0.016	U	0.016	U		
Benzo(b)fluoranthene	205-99-2	REG	mg/kg	1	0.016	U	0.016	U	0.0163	J	0.0187	J	0.015	U	0.015	U		
Benzo(g,h,i)perylene	191-24-2	REG	mg/kg	100	0.018	U	0.018	U	0.018	U	0.018	U	0.017	U	0.017	U		
Benzo(k)fluoranthene	207-08-9	REG	mg/kg	0.8	0.017	U	0.017	U	0.017	U	0.016	U	0.016	U	0.016	U		
4-Bromophenyl phenyl ether	101-55-3	REG	mg/kg		0.014	U	0.014	U	0.014	U	0.014	U	0.013	U	0.013	U		
Butyl benzyl phthalate	85-68-7	REG	mg/kg		0.0086	U	0.0087	U	0.009	U	0.0104	J	0.0083	U	0.0084	U		
1,1'-Biphenyl	92-52-4	REG	mg/kg		0.0048	U	0.0049	U	0.005	U	0.0048	U	0.0047	U	0.0047	U		
Benzaldehyde	100-52-7	REG	mg/kg		0.0088	U	0.0089	U	0.0091	U	0.0087	U	0.0085	U	0.0085	U		
2-Chloronaphthalene	91-58-7	REG	mg/kg		0.0084	U	0.0085	U	0.0088	U	0.0084	U	0.0081	U	0.0082	U		
4-Chloroaniline	106-47-8	REG	mg/kg		0.013	U	0.013	U	0.013	U	0.013	U	0.012	U	0.012	U		
Carbazole	86-74-8	REG	mg/kg		0.0051	U	0.0052	U	0.0053	U	0.0051	U	0.0049	U	0.005	U		
Caprolactam	105-60-2	REG	mg/kg		0.014	U	0.014	U	0.015	U	0.014	U	0.013	U	0.014	U		
Chrysene	218-01-9	REG	mg/kg	1	0.011	U	0.011	U	0.0129	J	0.0133	J	0.011	U	0.011	U		
bis(2-Chloroethoxy)methane	111-91-1	REG	mg/kg		0.0076	U	0.0077	U	0.0079	U	0.0075	U	0.0073	U	0.0074	U		
bis(2-Chloroethyl)ether	111-44-4	REG	mg/kg		0.015	U	0.015	U	0.016	U	0.015	U	0.015	U	0.015	U		
2,2'-Oxybis(1-chloropropane)	108-60-1	REG	mg/kg		0.013	U	0.013	U	0.013	U	0.013	U	0.012	U	0.012	U		
4-Chlorophenyl phenyl ether	7005-72-3	REG	mg/kg		0.011	U	0.012	U	0.012	U	0.011	U	0.011	U	0.011	U		
2,4-Dinitrotoluene	121-14-2	REG	mg/kg		0.011	U	0.011	U	0.011	U	0.011	U	0.011	U	0.011	U		
2,6-Dinitrotoluene	606-20-2	REG	mg/kg		0.018	U	0.018	U	0.018	U	0.018	U	0.017	U	0.017	U		
3,3'-Dichlorobenzidine	91-94-1	REG	mg/kg		0.029	U	0.03	U	0.031	U	0.029	U	0.028	U	0.029	U		
1,4-Dioxane	123-91-1	REG	mg/kg	0.1	0.023	U	0.024	U	0.024	U	0.023	U	0.023	U	0.023	U		
Dibenzo(a,h)anthracene	53-70-3	REG	mg/kg	0.33	0.016	U	0.016	U	0.016	U	0.016	U	0.015	U	0.015	U		
Dibenzofuran	132-64-9	REG	mg/kg	7	0.014	U	0.015	U	0.015	U	0.014	U	0.014	U	0.014	U		
Di-n-butyl phthalate	84-74-2	REG	mg/kg		0.0075	J	0.0105	J	0.006	U	0.01	J	0.0056	U	0.0056	U		
Di-n-octyl phthalate	117-84-0	REG	mg/kg		0.0088	U	0.0089	U	0.0092	U	0.0088	U	0.0085	U	0.0086	U		
Diethyl phthalate	84-66-2	REG	mg/kg		0.0075	U	0.0076	U	0.0078	U	0.0075	U	0.0073	U	0.0073	U		
Dimethyl phthalate	131-11-3	REG	mg/kg		0.0063	U	0.0064	U	0.0066	U	0.0063	U	0.0061	U	0.0061	U		
bis(2-Ethylhexyl)phthalate	117-81-7	REG	mg/kg		0.0108	J	0.0097	J	0.0161	J	0.0106	J	0.008	U	0.0081	U		
Fluoranthene	206-44-0	REG	mg/kg	100	0.016	U	0.016	U	0.0193	J	0.0206	J	0.015	U	0.015	U		
Fluorene	86-73-7	REG	mg/kg	30	0.016	U	0.016	U	0.017	U	0.016	U	0.016	U	0.016	U		
Hexachlorobenzene	118-74-1	REG	mg/kg	0.33	0.0089	U	0.0091	U	0.0093	U	0.0089	U	0.0086	U	0.0087	U		
Hexachlorobutadiene	87-68-3	REG	mg/kg		0.014	U	0.014	U	0.015	U	0.014	U	0.014	U	0.014	U		
Hexachlorocyclopentadiene	77-47-4	REG	mg/kg		0.014	U	0.014	U	0.015	U	0.014	U	0.014	U	0.014	U		
Hexachloroethane	67-72-1	REG	mg/kg		0.017	U	0.018	U	0.018	U	0.017	U	0.017	U	0.017	U		
Indeno(1,2,3-cd)pyrene	193-39-5	REG	mg/kg	0.5	0.017	U	0.017	U	0.017	U	0.017	U	0.016	U	0.016	U		
Isophorone	78-59-1	REG	mg/kg		0.0076	U	0.0077	U	0.0079	U	0.0075	U	0.0073	U	0.0074	U		
2-Methylnaphthalene	91-57-6	REG	mg/kg		0.008	U	0.0081	U	0.0083	U	0.008	U	0.0077	U	0.0078	U		
2-Nitroaniline	88-74-4	REG	mg/kg		0.0083	U	0.0085	U	0.0087	U	0.0083	U	0.0081	U	0.0081	U		

Client Sample ID:				NY USCO	EP-4		EP-5		EP-10		EP-11		EP-17		EP-18		TB-2	
Lab Sample ID:					JE25538-1		JE25538-2		JE25538-3		JE25538-4		JE25538-5		JE25538-6		JE25538-7	
Date Sampled:					12/18/2025 2:45 PM		12/18/2025 2:40 PM		12/18/2025 3:09 PM		12/18/2025 2:52 PM		12/18/2025 3:13 PM		12/18/2025 3:00 PM		12/18/2025 3:13 PM	
Matrix:					Soil		Soil		Soil		Soil		Soil		Soil		Trip Blank Soil	
Analyte	**CAS #**	**Type**	**Unit**															
(GC/LC Semi-volatiles (SW846 8081B))																		
3-Nitroaniline	99-09-2	REG	mg/kg		0.0088	U	0.009	U	0.0092	U	0.0088	U	0.0085	U	0.0086	U		
4-Nitroaniline	100-01-6	REG	mg/kg		0.0092	U	0.0093	U	0.0095	U	0.0091	U	0.0088	U	0.0089	U		
Naphthalene	91-20-3	REG	mg/kg	12	0.01	U	0.01	U	0.01	U	0.0099	U	0.0096	U	0.0097	U		
Nitrobenzene	98-95-3	REG	mg/kg		0.014	U	0.014	U	0.014	U	0.014	U	0.013	U	0.013	U		
N-Nitroso-di-n-propylamine	621-64-7	REG	mg/kg		0.01	U	0.01	U	0.011	U	0.01	U	0.0099	U	0.0099	U		
N-Nitrosodiphenylamine	86-30-6	REG	mg/kg		0.013	U	0.013	U	0.013	U	0.013	U	0.012	U	0.013	U		
Phenanthrene	85-01-8	REG	mg/kg	100	0.012	U	0.012	U	0.012	U	0.012	U	0.011	U	0.012	U		
Pyrene	129-00-0	REG	mg/kg	100	0.011	U	0.011	U	0.018	J	0.02	J	0.011	U	0.011	U		
1,2,4,5-Tetrachlorobenzene	95-94-3	REG	mg/kg		0.009	U	0.0091	U	0.0094	U	0.009	U	0.0087	U	0.0087	U		
2-Fluorophenol	367-12-4	SURR	%		36		15		27		32		42		63			
Phenol-d5	4165-62-2	SURR	%		40		22		34		36		43		66			
2,4,6-Tribromophenol	118-79-6	SURR	%		55		49		54		55		41		77			
Nitrobenzene-d5	4165-60-0	SURR	%		36		20		28		31		43		62			
2-Fluorobiphenyl	321-60-8	SURR	%		51		36		45		51		46		68			
Terphenyl-d14	1718-51-0	SURR	%		50		42		47		51		47		72			
(MS Volatile TIC ())																		
Hexane	110-54-3	TIC	mg/kg		0.011	JN	0.014	JN	0.0091	JN	0.016	JN	0.013	JN				
Total TIC, Volatile	TOTAL TIC, VOLATILE	TICTOTAL	mg/kg		0.011	J	0.014	J	0.0091	J	0.016	J	0.013	J	0			
Total TIC, Volatile	TOTAL TIC, VOLATILE	TICTOTAL	ug/l														0	
(MS Volatiles (SW846 8260D))																		
Acetone	67-64-1	REG	mg/kg	0.05	0.0039	U	0.0039	U	0.0042	U	0.0044	U	0.0088	J	0.0048	U		
Acetone	67-64-1	REG	ug/l														3.1	U
Benzene	71-43-2	REG	mg/kg	0.06	0.00043	U	0.00043	U	0.00046	U	0.00049	U	0.00044	U	0.00053	U		
Bromochloromethane	74-97-5	REG	mg/kg		0.00053	U	0.00053	U	0.00057	U	0.0006	U	0.00055	U	0.00065	U		
Benzene	71-43-2	REG	ug/l														0.43	U
Bromodichloromethane	75-27-4	REG	mg/kg		0.00041	U	0.00041	U	0.00044	U	0.00046	U	0.00042	U	0.0005	U		
Bromoform	75-25-2	REG	mg/kg		0.0013	U	0.0013	U	0.0014	U	0.0015	U	0.0013	U	0.0016	U		
Bromomethane	74-83-9	REG	mg/kg		0.00073	U	0.00072	U	0.00078	U	0.00082	U	0.00075	U	0.00089	U		
2-Butanone (MEK)	78-93-3	REG	mg/kg	0.12	0.0023	U	0.0023	U	0.0025	U	0.0026	U	0.0024	U	0.0028	U		
Bromochloromethane	74-97-5	REG	ug/l														0.48	U
Bromodichloromethane	75-27-4	REG	ug/l														0.45	U
Bromoform	75-25-2	REG	ug/l														0.63	U
Bromomethane	74-83-9	REG	ug/l														1.6	U
2-Butanone (MEK)	78-93-3	REG	ug/l														2.7	U
Carbon disulfide	75-15-0	REG	mg/kg		0.00051	U	0.00051	U	0.00054	U	0.00057	U	0.00052	U	0.00062	U		
Carbon tetrachloride	56-23-5	REG	mg/kg	0.76	0.00059	U	0.00059	U	0.00063	U	0.00066	U	0.0006	U	0.00072	U		
Chlorobenzene	108-90-7	REG	mg/kg	1.1	0.00044	U	0.00043	U	0.00047	U	0.00049	U	0.00045	U	0.00053	U		
Chloroethane	75-00-3	REG	mg/kg		0.00056	U	0.00056	U	0.0006	U	0.00063	U	0.00058	U	0.00069	U		
Carbon disulfide	75-15-0	REG	ug/l														1.8	U
Carbon tetrachloride	56-23-5	REG	ug/l														0.55	U
Chloroform	67-66-3	REG	mg/kg	0.37	0.00095	U	0.00095	U	0.001	U	0.0011	U	0.00098	U	0.0012	U		
Chlorobenzene	108-90-7	REG	ug/l														0.56	U
Chloromethane	74-87-3	REG	mg/kg		0.0019	U	0.0019	U	0.002	U	0.0021	U	0.0019	U	0.0023	U		
Chloroethane	75-00-3	REG	ug/l														0.73	U
Chloroform	67-66-3	REG	ug/l														0.5	U
Cyclohexane	110-82-7	REG	mg/kg		0.00062	U	0.00062	U	0.00067	U	0.0007	U	0.00064	U	0.00076	U		
Chloromethane	74-87-3	REG	ug/l														0.76	U
1,2-Dibromo-3-chloropropane	96-12-8	REG	mg/kg		0.00066	U	0.00066	U	0.0007	U	0.00074	U	0.00068	U	0.00081	U		
Cyclohexane	110-82-7	REG	ug/l														0.78	U
Dibromochloromethane	124-48-1	REG	mg/kg		0.00053	U	0.00053	U	0.00057	U	0.0006	U	0.00055	U	0.00065	U		
1,2-Dibromoethane	106-93-4	REG	mg/kg		0.0004	U	0.0004	U	0.00043	U	0.00045	U	0.00041	U	0.00049	U		
1,2-Dichlorobenzene	95-50-1	REG	mg/kg	1.1	0.00052	U	0.00052	U	0.00055	U	0.00058	U	0.00053	U	0.00064	U		
1,3-Dichlorobenzene	541-73-1	REG	mg/kg	2.4	0.00047	U	0.00047	U	0.0005	U	0.00053	U	0.00048	U	0.00058	U		
1,2-Dibromo-3-chloropropane	96-12-8	REG	ug/l														0.53	U
1,4-Dichlorobenzene	106-46-7	REG	mg/kg	1.8	0.00047	U	0.00047	U	0.0005	U	0.00053	U	0.00048	U	0.00057	U		
Dibromochloromethane	124-48-1	REG	ug/l														0.56	U
1,2-Dibromoethane	106-93-4	REG	ug/l														0.48	U
Dichlorodifluoromethane	75-71-8	REG	mg/kg		0.00069	U	0.00069	U	0.00074	U	0.00078	U	0.00071	U	0.00085	U		
1,1-Dichloroethane	75-34-3	REG	mg/kg	0.27	0.00047	U	0.00047	U	0.0005	U	0.00053	U	0.00048	U	0.00058	U		
1,2-Dichlorobenzene	95-50-1	REG	ug/l														0.53	U
1,2-Dichloroethane	107-06-2	REG	mg/kg	0.02	0.00045	U	0.00045	U	0.00048	U	0.0005	U	0.00046	U	0.00055	U		
1,3-Dichlorobenzene	541-73-1	REG	ug/l														0.54	U
1,1-Dichloroethene	75-35-4	REG	mg/kg	0.33	0.00062	U	0.00062	U	0.00066	U	0.0007	U	0.00064	U	0.00076	U		
1,4-Dichlorobenzene	106-46-7	REG	ug/l														0.51	U
cis-1,2-Dichloroethene	156-59-2	REG	mg/kg	0.25	0.0008	U	0.0008	U	0.00085	U	0.0009	U	0.00082	U	0.00098	U		
Dichlorodifluoromethane	75-71-8	REG	ug/l														0.56	U
trans-1,2-Dichloroethene	156-60-5	REG	mg/kg	0.19	0.00058	U	0.00058	U	0.00062	U	0.00065	U	0.0006	U	0.00071	U		
1,1-Dichloroethane	75-34-3	REG	ug/l														0.57	U
1,2-Dichloroethane	107-06-2	REG	ug/l														0.6	U
1,2-Dichloropropane	78-87-5	REG	mg/kg		0.00045	U	0.00045	U	0.00048	U	0.00051	U	0.00046	U	0.00055	U		
1,1-Dichloroethene	75-35-4	REG	ug/l														0.59	U
cis-1,2-Dichloroethene	156-59-2	REG	ug/l														0.51	U
trans-1,2-Dichloroethene	156-60-5	REG	ug/l														0.54	U

Client Sample ID:				NY USCO	EP-4		EP-5		EP-10		EP-11		EP-17		EP-18		TB-2	
Lab Sample ID:					JE25538-1		JE25538-2		JE25538-3		JE25538-4		JE25538-5		JE25538-6		JE25538-7	
Date Sampled:					12/18/2025 2:45 PM		12/18/2025 2:40 PM		12/18/2025 3:09 PM		12/18/2025 2:52 PM		12/18/2025 3:13 PM		12/18/2025 3:00 PM		12/18/2025 3:13 PM	
Matrix:					Soil		Soil		Soil		Soil		Soil		Soil		Trip Blank Soil	
Analyte	**CAS #**	**Type**	**Unit**															
(GC/LC Semi-volatiles (SW846 8081B))																		
cis-1,3-Dichloropropene	10061-01-5	REG	mg/kg		0.00045	U	0.00045	U	0.00048	U	0.00051	U	0.00046	U	0.00055	U		
1,2-Dichloropropane	78-87-5	REG	ug/l														0.51	U
trans-1,3-Dichloropropene	10061-02-6	REG	mg/kg		0.00043	U	0.00043	U	0.00046	U	0.00049	U	0.00045	U	0.00053	U		
cis-1,3-Dichloropropene	10061-01-5	REG	ug/l														0.47	U
trans-1,3-Dichloropropene	10061-02-6	REG	ug/l														0.43	U
Ethylbenzene	100-41-4	REG	mg/kg	1	0.00043	U	0.00043	U	0.00046	U	0.00048	U	0.00044	U	0.00053	U		
Ethylbenzene	100-41-4	REG	ug/l														0.6	U
Freon 113	76-13-1	REG	mg/kg		0.0025	U	0.0025	U	0.0027	U	0.0029	U	0.0026	U	0.0031	U		
Freon 113	76-13-1	REG	ug/l														0.58	U
2-Hexanone	591-78-6	REG	mg/kg		0.002	U	0.002	U	0.0022	U	0.0023	U	0.0021	U	0.0025	U		
2-Hexanone	591-78-6	REG	ug/l														4.8	U
Isopropylbenzene	98-82-8	REG	mg/kg		0.0013	U	0.0013	U	0.0014	U	0.0015	U	0.0014	U	0.0017	U		
Isopropylbenzene	98-82-8	REG	ug/l														0.65	U
Methyl Acetate	79-20-9	REG	mg/kg		0.0013	U	0.0013	U	0.0014	U	0.0015	U	0.0014	U	0.0016	U		
Methylcyclohexane	108-87-2	REG	mg/kg		0.00083	U	0.00083	U	0.00089	U	0.00093	U	0.00085	U	0.001	U		
Methyl Acetate	79-20-9	REG	ug/l														0.8	U
Methyl Tert Butyl Ether	1634-04-4	REG	mg/kg	0.93	0.00045	U	0.00044	U	0.00048	U	0.0005	U	0.00046	U	0.00055	U		
Methylcyclohexane	108-87-2	REG	ug/l														0.6	U
4-Methyl-2-pentanone(MIBK)	108-10-1	REG	mg/kg		0.0022	U	0.0021	U	0.0023	U	0.0024	U	0.0022	U	0.0026	U		
Methyl Tert Butyl Ether	1634-04-4	REG	ug/l														0.51	U
Methylene chloride	75-09-2	REG	mg/kg	0.05	0.0073		0.0035	J	0.0036	J	0.0168		0.0172		0.003	U		
4-Methyl-2-pentanone(MIBK)	108-10-1	REG	ug/l														4.9	U
Methylene chloride	75-09-2	REG	ug/l														1	U
Styrene	100-42-5	REG	mg/kg		0.00038	U	0.00038	U	0.00041	U	0.00043	U	0.00039	U	0.00047	U		
Styrene	100-42-5	REG	ug/l														0.49	U
1,1,2,2-Tetrachloroethane	79-34-5	REG	mg/kg		0.00057	U	0.00057	U	0.00061	U	0.00064	U	0.00059	U	0.0007	U		
Tetrachloroethene	127-18-4	REG	mg/kg	1.3	0.00055	U	0.00055	U	0.00059	U	0.00062	U	0.00057	U	0.00067	U		
1,1,2,2-Tetrachloroethane	79-34-5	REG	ug/l														0.65	U
Tetrachloroethene	127-18-4	REG	ug/l														0.56	U
Toluene	108-88-3	REG	mg/kg	0.7	0.0005	U	0.0005	U	0.00053	U	0.00056	U	0.00051	U	0.00061	U		
1,2,3-Trichlorobenzene	87-61-6	REG	mg/kg		0.0024	U	0.0024	U	0.0025	U	0.0027	U	0.0024	U	0.0029	U		
Toluene	108-88-3	REG	ug/l														0.49	U
1,2,4-Trichlorobenzene	120-82-1	REG	mg/kg		0.0024	U	0.0024	U	0.0025	U	0.0027	U	0.0024	U	0.0029	U		
1,1,1-Trichloroethane	71-55-6	REG	mg/kg	0.68	0.00046	U	0.00046	U	0.00049	U	0.00052	U	0.00047	U	0.00056	U		
1,2,3-Trichlorobenzene	87-61-6	REG	ug/l														0.5	U
1,1,2-Trichloroethane	79-00-5	REG	mg/kg		0.00053	U	0.00052	U	0.00056	U	0.00059	U	0.00054	U	0.00064	U		
1,2,4-Trichlorobenzene	120-82-1	REG	ug/l														0.5	U
1,1,1-Trichloroethane	71-55-6	REG	ug/l														0.54	U
Trichloroethene	79-01-6	REG	mg/kg	0.47	0.00072	U	0.00072	U	0.00077	U	0.00081	U	0.00074	U	0.00089	U		
1,1,2-Trichloroethane	79-00-5	REG	ug/l														0.53	U
Trichlorofluoromethane	75-69-4	REG	mg/kg		0.00065	U	0.00065	U	0.00069	U	0.00073	U	0.00067	U	0.0008	U		
Trichloroethene	79-01-6	REG	ug/l														0.53	U
Trichlorofluoromethane	75-69-4	REG	ug/l														0.4	U
Vinyl chloride	75-01-4	REG	mg/kg	0.02	0.00046	U	0.00046	U	0.00049	U	0.00051	U	0.00047	U	0.00056	U		
m,p-Xylene	M,P-XYLENE	REG	mg/kg	0.26	0.00085	U	0.00085	U	0.00091	U	0.00096	U	0.00088	U	0.001	U		
Vinyl chloride	75-01-4	REG	ug/l														0.52	U
o-Xylene	95-47-6	REG	mg/kg	0.26	0.00044	U	0.00043	U	0.00046	U	0.00049	U	0.00045	U	0.00053	U		
Xylene (total)	1330-20-7	REG	mg/kg	0.26	0.00044	U	0.00043	U	0.00046	U	0.00049	U	0.00045	U	0.00053	U		
m,p-Xylene	M,P-XYLENE	REG	ug/l														0.78	U
o-Xylene	95-47-6	REG	ug/l														0.59	U
Xylene (total)	1330-20-7	REG	ug/l														0.59	U
Dibromofluoromethane	1868-53-7	SURR	%		114		113		111		113		114		114		102	
1,2-Dichloroethane-D4	17060-07-0	SURR	%		105		103		103		102		104		103		112	
Toluene-D8	2037-26-5	SURR	%		106		109		103		106		103		102		100	
4-Bromofluorobenzene	460-00-4	SURR	%		103		102		98		108		102		99		108	

NY USCO: NY - New York NYCRR Part 375 New York Unrestricted use Criteria Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.

SGS

SGS Engage - Group Crosstab

Client Sample ID:				NY USCO	EP-5 W		EP-6 W		EP-13 N		EP-12 N		EP-12 W		EP-18 N	
Lab Sample ID:					JE26004-1		JE26004-2		JE26004-3		JE26004-4		JE26004-5		JE26004-6	
Date Sampled:					12/26/2025 12:11 PM		12/26/2025 12:17 PM		12/26/2025 12:24 PM		12/26/2025 12:30 PM		12/26/2025 12:37 PM		12/26/2025 12:43 PM	
Matrix:					Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Type**	**Unit**													
(GC/LC Semi-volatiles (SW846 8081B))																
Aldrin	309-00-2	REG	mg/kg	0.005	0.0006	U	0.00063	U	0.00061	U	0.00059	U	0.00059	U	0.00055	U
alpha-BHC	319-84-6	REG	mg/kg	0.02	0.00059	U	0.00062	U	0.0006	U	0.00058	U	0.00059	U	0.00054	U
beta-BHC	319-85-7	REG	mg/kg	0.036	0.00066	U	0.00069	U	0.00067	U	0.00065	U	0.00065	U	0.0006	U
delta-BHC	319-86-8	REG	mg/kg	0.04	0.0007	U	0.00073	U	0.00071	U	0.00069	U	0.00069	U	0.00064	U
gamma-BHC (Lindane)	58-89-9	REG	mg/kg	0.1	0.00054	U	0.00056	U	0.00055	U	0.00053	U	0.00053	U	0.00049	U
alpha-Chlordane	5103-71-9	REG	mg/kg	0.094	0.00059	U	0.00061	U	0.0006	U	0.00058	U	0.00058	U	0.00054	U
gamma-Chlordane	5103-74-2	REG	mg/kg		0.00033	U	0.00034	U	0.00034	U	0.00033	U	0.00033	U	0.0003	U
Dieldrin	60-57-1	REG	mg/kg	0.005	0.0005	U	0.00052	U	0.00051	U	0.00049	U	0.0005	U	0.00046	U
4,4'-DDD	72-54-8	REG	mg/kg	0.0033	0.00067	U	0.0007	U	0.00068	U	0.00066	U	0.00066	U	0.00061	U
4,4'-DDE	72-55-9	REG	mg/kg	0.0033	0.00064	U	0.00067	U	0.00065	U	0.00063	U	0.00063	U	0.00058	U
4,4'-DDT	50-29-3	REG	mg/kg	0.0033	0.00065	U	0.00067	U	0.00066	U	0.00064	U	0.00064	U	0.00059	U
Endrin	72-20-8	REG	mg/kg	0.014	0.00057	U	0.00059	U	0.00058	U	0.00056	U	0.00056	U	0.00052	U
Endosulfan sulfate	1031-07-8	REG	mg/kg	2.4	0.00057	U	0.00059	U	0.00058	U	0.00056	U	0.00056	U	0.00052	U
Endrin aldehyde	7421-93-4	REG	mg/kg		0.00041	U	0.00043	U	0.00042	U	0.00041	U	0.00041	U	0.00038	U
Endosulfan-I	959-98-8	REG	mg/kg	2.4	0.00042	U	0.00044	U	0.00043	U	0.00041	U	0.00042	U	0.00038	U
Endosulfan-II	33213-65-9	REG	mg/kg	2.4	0.00046	U	0.00047	U	0.00046	U	0.00045	U	0.00045	U	0.00042	U
Heptachlor	76-44-8	REG	mg/kg	0.042	0.00063	U	0.00065	U	0.00064	U	0.00062	U	0.00062	U	0.00057	U
Heptachlor epoxide	1024-57-3	REG	mg/kg		0.00051	U	0.00053	U	0.00052	U	0.0005	U	0.00051	U	0.00047	U
Methoxychlor	72-43-5	REG	mg/kg		0.00058	U	0.0006	U	0.00059	U	0.00057	U	0.00057	U	0.00053	U
Endrin ketone	53494-70-5	REG	mg/kg		0.00053	U	0.00055	U	0.00054	U	0.00052	U	0.00052	U	0.00048	U
Toxaphene	8001-35-2	REG	mg/kg		0.017	U	0.018	U	0.017	U	0.017	U	0.017	U	0.016	U
Tetrachloro-m-xylene	877-09-8	SURR	%		85		78		129		81		82		102	
Tetrachloro-m-xylene (1)	877-09-8	SURR	%		85		79		126		82		84		87	
Decachlorobiphenyl	2051-24-3	SURR	%		89		82		128		76		81		119	
Decachlorobiphenyl (1)	2051-24-3	SURR	%		78		70		116		76		77		101	
(GC/LC Semi-volatiles (SW846 8082A))																
Aroclor 1016	12674-11-2	REG	mg/kg	0.1	0.017	U	0.018	U	0.017	U	0.017	U	0.017	U	0.016	U
Aroclor 1221	11104-28-2	REG	mg/kg	0.1	0.023	U	0.024	U	0.023	U	0.022	U	0.022	U	0.021	U
Aroclor 1232	11141-16-5	REG	mg/kg	0.1	0.023	U	0.024	U	0.024	U	0.023	U	0.023	U	0.021	U
Aroclor 1242	53469-21-9	REG	mg/kg	0.1	0.015	U	0.016	U	0.015	U	0.015	U	0.015	U	0.014	U
Aroclor 1248	12672-29-6	REG	mg/kg	0.1	0.033	U	0.034	U	0.033	U	0.032	U	0.032	U	0.03	U
Aroclor 1254	11097-69-1	REG	mg/kg	0.1	0.02	U	0.02	U	0.02	U	0.019	U	0.019	U	0.018	U
Aroclor 1260	11096-82-5	REG	mg/kg	0.1	0.016	U	0.016	U	0.016	U	0.015	U	0.015	U	0.014	U
Aroclor 1268	11100-14-4	REG	mg/kg	0.1	0.032	U	0.033	U	0.033	U	0.031	U	0.032	U	0.029	U
Aroclor 1262	37324-23-5	REG	mg/kg	0.1	0.024	U	0.025	U	0.024	U	0.023	U	0.024	U	0.022	U
Tetrachloro-m-xylene (2)	877-09-8	SURR	%		64		63		95		63		64		71	
Tetrachloro-m-xylene (3)	877-09-8	SURR	%		95		94		135		92		94		87	
Decachlorobiphenyl (2)	2051-24-3	SURR	%		44		42		62		41		43		45	
Decachlorobiphenyl (3)	2051-24-3	SURR	%		61		58		86		56		60		63	
(General Chemistry (SM2540 G 18TH ED MOD))																
Solids, Percent	PERCENT SOLIDS	REG	%		91.3		86.1		89.8		89.2		90.1		92.7	
(General Chemistry (SW846 9012B/LACHAT))																
Cyanide	57-12-5	REG	mg/kg	27	0.26	U	0.27	U	0.32	U	0.29	U	0.29		0.28	U
(Metals Analysis (SW846 6010D))																
Aluminum	7429-90-5	REG	mg/kg		8380		11700		10300		7870		10500		8500	
Antimony	7440-36-0	REG	mg/kg		2.2	U	2.4	U	2.2	U	2.2	U	2.1	U	2.1	U
Arsenic	7440-38-2	REG	mg/kg	13	2.2	U	3.5		2.2	U	2.2	U	2.1	U	2.1	U

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Client Sample ID:				NY USCO	EP-5 W		EP-6 W		EP-13 N		EP-12 N		EP-12 W		EP-18 N	
Lab Sample ID:					JE26004-1		JE26004-2		JE26004-3		JE26004-4		JE26004-5		JE26004-6	
Date Sampled:					12/26/2025 12:11 PM		12/26/2025 12:17 PM		12/26/2025 12:24 PM		12/26/2025 12:30 PM		12/26/2025 12:37 PM		12/26/2025 12:43 PM	
Matrix:					Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Type**	**Unit**													
(GC/LC Semi-volatiles (SW846 8081B))																
Barium	7440-39-3	REG	mg/kg	350	63.5		61.8		59		62.3		65.1		67.2	
Beryllium	7440-41-7	REG	mg/kg	7.2	0.23		0.45		0.34		0.22	U	0.38		0.25	
Cadmium	7440-43-9	REG	mg/kg	2.5	0.54	U	0.59	U	0.54	U	0.55	U	0.53	U	0.54	U
Calcium	7440-70-2	REG	mg/kg		13000		2000		3160		2590		39400		6500	
Chromium	7440-47-3	REG	mg/kg		16.8		17.7		16.7		17.2		20.3		18.4	
Cobalt	7440-48-4	REG	mg/kg		6.6		8.4		7.1		6.3		8.3		6.9	
Copper	7440-50-8	REG	mg/kg	50	16.3		18.4		15.2		15.9		17.8		19.7	
Iron	7439-89-6	REG	mg/kg		13400		18300		15700		13900		15500		13500	
Lead	7439-92-1	REG	mg/kg	63	4.1		8.7		5.9		5		5.1		7.9	
Magnesium	7439-95-4	REG	mg/kg		6490		4140		4210		3900		6580		5870	
Manganese	7439-96-5	REG	mg/kg	1600	237		317		371		287		310		284	
Nickel	7440-02-0	REG	mg/kg	30	13.6		17.2		14.3		13.1		17.2		15.3	
Potassium	7440-09-7	REG	mg/kg		1780		1200	U	1380		1540		1410		1780	
Selenium	7782-49-2	REG	mg/kg	3.9	2.2	U	2.4	U	2.2	U	2.2	U	2.1	U	2.1	U
Silver	7440-22-4	REG	mg/kg	2	0.54	U	0.59	U	0.54	U	0.55	U	0.53	U	0.54	U
Sodium	7440-23-5	REG	mg/kg		1100	U	1200	U	1100	U	1100	U	1100	U	1100	U
Thallium	7440-28-0	REG	mg/kg		1.1	U	1.2	U	1.1	U	1.1	U	1.1	U	1.1	U
Vanadium	7440-62-2	REG	mg/kg		20.7		25.7		23.7		23.1		24.7		24	
Zinc	7440-66-6	REG	mg/kg	109	34.1		47.7		37.4		37		33.4		40.3	
(Metals Analysis (SW846 7471B))																
Mercury	7439-97-6	REG	mg/kg	0.18	0.03	U	0.03	U	0.034	U	0.032	U	0.034	U	0.03	U
(MS Semi-volatile TIC ())																
Alkane	TIC	TIC	mg/kg				0.19	J							0.15	J
n-Hexadecanoic acid	57-10-3	TIC	mg/kg		0.4	JNB	0.4	JNB	0.59	JNB	0.23	JNB	0.44	JNB	0.28	JNB
Alkane (10)	TIC	TIC	mg/kg													
Unknown	TIC	TIC	mg/kg		0.48	JB	0.53	JB	0.65	JB	0.62	JB	0.45	JB	0.6	JB
Alkane (17)	TIC	TIC	mg/kg													
Unknown (1)	TIC	TIC	mg/kg		0.19	J	0.19	J	0.15	J	0.2	J	0.19	J	0.22	J
Alkane (18)	TIC	TIC	mg/kg													
Octadecenamide, (Z)-	TIC	TIC	mg/kg				0.33	J	0.28	J			0.15	J	0.28	J
Unknown (2)	TIC	TIC	mg/kg		0.15	J	0.3	J	0.24	J	0.24	J	0.21	J	0.2	J
Alkane (19)	TIC	TIC	mg/kg													
Unknown (3)	TIC	TIC	mg/kg		0.19	J			0.28	J	0.23	J				
Alkane (20)	TIC	TIC	mg/kg													
Alkane (21)	TIC	TIC	mg/kg													
Unknown (4)	TIC	TIC	mg/kg													
Alkane (22)	TIC	TIC	mg/kg													
Cyclohexane alkyl (1)	TIC	TIC	mg/kg													
Unknown (5)	TIC	TIC	mg/kg													
Alkane (1)	TIC	TIC	mg/kg													
Alkane (2)	TIC	TIC	mg/kg													
Alkane (3)	TIC	TIC	mg/kg													
Alkane (4)	TIC	TIC	mg/kg													
Cyclohexane alkyl	TIC	TIC	mg/kg													
Alkane (5)	TIC	TIC	mg/kg													
Alkane (6)	TIC	TIC	mg/kg													
Alkane (7)	TIC	TIC	mg/kg													
Alkane (8)	TIC	TIC	mg/kg													
Alkane (9)	TIC	TIC	mg/kg													

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Client Sample ID:				NY USCO	EP-5 W		EP-6 W		EP-13 N		EP-12 N		EP-12 W		EP-18 N	
Lab Sample ID:					JE26004-1		JE26004-2		JE26004-3		JE26004-4		JE26004-5		JE26004-6	
Date Sampled:					12/26/2025 12:11 PM		12/26/2025 12:17 PM		12/26/2025 12:24 PM		12/26/2025 12:30 PM		12/26/2025 12:37 PM		12/26/2025 12:43 PM	
Matrix:					Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Type**	**Unit**													
(GC/LC Semi-volatiles (SW846 8081B))																
Alkane (11)	TIC	TIC	mg/kg													
Alkane (12)	TIC	TIC	mg/kg													
Alkane (13)	TIC	TIC	mg/kg													
Alkane (14)	TIC	TIC	mg/kg													
Alkane (15)	TIC	TIC	mg/kg													
Alkane (16)	TIC	TIC	mg/kg													
Total TIC, Semi-Volatile	TOTAL TIC, SEMI-VOLATILE	TICTOTAL	mg/kg		0.53	J	1.01	J	0.95	J	0.67	J	0.55	J	0.85	J
(MS Semi-volatiles (SW846 8270E))																
2-Chlorophenol	95-57-8	REG	mg/kg		0.018	U	0.019	U	0.018	U	0.018	U	0.018	U	0.017	U
4-Chloro-3-methyl phenol	59-50-7	REG	mg/kg		0.022	U	0.023	U	0.022	U	0.023	U	0.022	U	0.021	U
2,4-Dichlorophenol	120-83-2	REG	mg/kg		0.031	U	0.033	U	0.031	U	0.032	U	0.031	U	0.029	U
2,4-Dimethylphenol	105-67-9	REG	mg/kg		0.064	U	0.068	U	0.064	U	0.066	U	0.064	U	0.061	U
2,4-Dinitrophenol	51-28-5	REG	mg/kg		0.14	U	0.14	U	0.14	U	0.14	U	0.14	U	0.13	U
4,6-Dinitro-o-cresol	534-52-1	REG	mg/kg		0.039	U	0.041	U	0.038	U	0.04	U	0.039	U	0.037	U
2-Methylphenol	95-48-7	REG	mg/kg	0.33	0.023	U	0.024	U	0.023	U	0.024	U	0.023	U	0.022	U
3&4-Methylphenol	M+P-CRESOLS	REG	mg/kg		0.03	U	0.032	U	0.03	U	0.03	U	0.03	U	0.028	U
2-Nitrophenol	88-75-5	REG	mg/kg		0.024	U	0.025	U	0.024	U	0.024	U	0.024	U	0.023	U
4-Nitrophenol	100-02-7	REG	mg/kg		0.096	U	0.1	U	0.096	U	0.099	U	0.096	U	0.092	U
Pentachlorophenol	87-86-5	REG	mg/kg	0.8	0.034	U	0.036	U	0.034	U	0.035	U	0.034	U	0.032	U
Phenol	108-95-2	REG	mg/kg	0.33	0.019	U	0.02	U	0.019	U	0.019	U	0.019	U	0.018	U
2,3,4,6-Tetrachlorophenol	58-90-2	REG	mg/kg		0.024	U	0.025	U	0.024	U	0.024	U	0.024	U	0.023	U
2,4,5-Trichlorophenol	95-95-4	REG	mg/kg		0.027	U	0.029	U	0.027	U	0.028	U	0.027	U	0.026	U
2,4,6-Trichlorophenol	88-06-2	REG	mg/kg		0.021	U	0.023	U	0.021	U	0.022	U	0.021	U	0.021	U
Acenaphthene	83-32-9	REG	mg/kg	20	0.012	U	0.013	U	0.012	U	0.013	U	0.012	U	0.012	U
Acenaphthylene	208-96-8	REG	mg/kg	100	0.018	U	0.019	U	0.018	U	0.019	U	0.018	U	0.018	U
Acetophenone	98-86-2	REG	mg/kg		0.0077	U	0.0082	U	0.0077	U	0.008	U	0.0077	U	0.0074	U
Anthracene	120-12-7	REG	mg/kg	100	0.022	U	0.023	U	0.022	U	0.023	U	0.022	U	0.021	U
Atrazine	1912-24-9	REG	mg/kg		0.015	U	0.016	U	0.015	U	0.016	U	0.015	U	0.015	U
Benzo(a)anthracene	56-55-3	REG	mg/kg	1	0.01	U	0.011	U	0.01	U	0.01	U	0.01	U	0.0098	U
Benzo(a)pyrene	50-32-8	REG	mg/kg	1	0.016	U	0.017	U	0.016	U	0.017	U	0.016	U	0.016	U
Benzo(b)fluoranthene	205-99-2	REG	mg/kg	1	0.016	U	0.017	U	0.016	U	0.016	U	0.016	U	0.015	U
Benzo(g,h,i)perylene	191-24-2	REG	mg/kg	100	0.018	U	0.019	U	0.018	U	0.018	U	0.018	U	0.017	U
Benzo(k)fluoranthene	207-08-9	REG	mg/kg	0.8	0.017	U	0.018	U	0.017	U	0.017	U	0.017	U	0.016	U
4-Bromophenyl phenyl ether	101-55-3	REG	mg/kg		0.014	U	0.015	U	0.014	U	0.014	U	0.014	U	0.013	U
Butyl benzyl phthalate	85-68-7	REG	mg/kg		0.0088	U	0.0094	U	0.0088	U	0.009	U	0.0088	U	0.0084	U
1,1'-Biphenyl	92-52-4	REG	mg/kg		0.0049	U	0.0053	U	0.0049	U	0.0051	U	0.0049	U	0.0047	U
Benzaldehyde	100-52-7	REG	mg/kg		0.0089	U	0.0095	U	0.0089	U	0.0092	U	0.0089	U	0.0085	U
2-Chloronaphthalene	91-58-7	REG	mg/kg		0.0086	U	0.0091	U	0.0085	U	0.0088	U	0.0086	U	0.0082	U
4-Chloroaniline	106-47-8	REG	mg/kg		0.013	U	0.014	U	0.013	U	0.013	U	0.013	U	0.012	U
Carbazole	86-74-8	REG	mg/kg		0.0052	U	0.0056	U	0.0052	U	0.0054	U	0.0052	U	0.005	U
Caprolactam	105-60-2	REG	mg/kg		0.014	U	0.015	U	0.014	U	0.015	U	0.014	U	0.014	U
Chrysene	218-01-9	REG	mg/kg	1	0.011	U	0.012	U	0.011	U	0.012	U	0.011	U	0.011	U
bis(2-Chloroethoxy)methane	111-91-1	REG	mg/kg		0.0077	U	0.0082	U	0.0077	U	0.0079	U	0.0077	U	0.0074	U
bis(2-Chloroethyl)ether	111-44-4	REG	mg/kg		0.016	U	0.017	U	0.015	U	0.016	U	0.016	U	0.015	U
2,2'-Oxybis(1-chloropropane)	108-60-1	REG	mg/kg		0.013	U	0.014	U	0.013	U	0.013	U	0.013	U	0.012	U
4-Chlorophenyl phenyl ether	7005-72-3	REG	mg/kg		0.012	U	0.012	U	0.012	U	0.012	U	0.012	U	0.011	U
2,4-Dinitrotoluene	121-14-2	REG	mg/kg		0.011	U	0.012	U	0.011	U	0.011	U	0.011	U	0.011	U
2,6-Dinitrotoluene	606-20-2	REG	mg/kg		0.018	U	0.019	U	0.018	U	0.019	U	0.018	U	0.017	U
3,3'-Dichlorobenzidine	91-94-1	REG	mg/kg		0.03	U	0.032	U	0.03	U	0.031	U	0.03	U	0.029	U

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Client Sample ID:				NY USCO	EP-5 W		EP-6 W		EP-13 N		EP-12 N		EP-12 W		EP-18 N	
Lab Sample ID:					JE26004-1		JE26004-2		JE26004-3		JE26004-4		JE26004-5		JE26004-6	
Date Sampled:					12/26/2025 12:11 PM		12/26/2025 12:17 PM		12/26/2025 12:24 PM		12/26/2025 12:30 PM		12/26/2025 12:37 PM		12/26/2025 12:43 PM	
Matrix:					Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Type**	**Unit**													
(GC/LC Semi-volatiles (SW846 8081B))																
1,4-Dioxane	123-91-1	REG	mg/kg	0.1	0.024	U	0.025	U	0.024	U	0.024	U	0.024	U	0.023	U
Dibenzo(a,h)anthracene	53-70-3	REG	mg/kg	0.33	0.016	U	0.017	U	0.016	U	0.016	U	0.016	U	0.015	U
Dibenzofuran	132-64-9	REG	mg/kg	7	0.015	U	0.016	U	0.015	U	0.015	U	0.015	U	0.014	U
Di-n-butyl phthalate	84-74-2	REG	mg/kg		0.0059	U	0.0062	U	0.0059	U	0.006	U	0.0059	U	0.0056	U
Di-n-octyl phthalate	117-84-0	REG	mg/kg		0.009	U	0.0095	U	0.0089	U	0.0092	U	0.009	U	0.0086	U
Diethyl phthalate	84-66-2	REG	mg/kg		0.0077	U	0.0082	U	0.0077	U	0.0079	U	0.0077	U	0.0073	U
Dimethyl phthalate	131-11-3	REG	mg/kg		0.0064	U	0.0068	U	0.0064	U	0.0066	U	0.0064	U	0.0061	U
bis(2-Ethylhexyl)phthalate	117-81-7	REG	mg/kg		0.0084	U	0.009	U	0.0084	U	0.0087	U	0.0084	U	0.0081	U
Fluoranthene	206-44-0	REG	mg/kg	100	0.016	U	0.017	U	0.016	U	0.017	U	0.016	U	0.015	U
Fluorene	86-73-7	REG	mg/kg	30	0.017	U	0.018	U	0.016	U	0.017	U	0.017	U	0.016	U
Hexachlorobenzene	118-74-1	REG	mg/kg	0.33	0.0091	U	0.0097	U	0.0091	U	0.0094	U	0.0091	U	0.0087	U
Hexachlorobutadiene	87-68-3	REG	mg/kg		0.014	U	0.015	U	0.014	U	0.015	U	0.014	U	0.014	U
Hexachlorocyclopentadiene	77-47-4	REG	mg/kg		0.014	U	0.015	U	0.014	U	0.015	U	0.014	U	0.014	U
Hexachloroethane	67-72-1	REG	mg/kg		0.018	U	0.019	U	0.018	U	0.018	U	0.018	U	0.017	U
Indeno(1,2,3-cd)pyrene	193-39-5	REG	mg/kg	0.5	0.017	U	0.018	U	0.017	U	0.017	U	0.017	U	0.016	U
Isophorone	78-59-1	REG	mg/kg		0.0077	U	0.0082	U	0.0077	U	0.0079	U	0.0077	U	0.0074	U
2-Methylnaphthalene	91-57-6	REG	mg/kg		0.0081	U	0.0087	U	0.0081	U	0.0084	U	0.0081	U	0.0078	U
2-Nitroaniline	88-74-4	REG	mg/kg		0.0085	U	0.009	U	0.0085	U	0.0087	U	0.0085	U	0.0081	U
3-Nitroaniline	99-09-2	REG	mg/kg		0.009	U	0.0096	U	0.009	U	0.0092	U	0.009	U	0.0086	U
4-Nitroaniline	100-01-6	REG	mg/kg		0.0093	U	0.0099	U	0.0093	U	0.0096	U	0.0093	U	0.0089	U
Naphthalene	91-20-3	REG	mg/kg	12	0.01	U	0.011	U	0.01	U	0.01	U	0.01	U	0.0097	U
Nitrobenzene	98-95-3	REG	mg/kg		0.014	U	0.015	U	0.014	U	0.014	U	0.014	U	0.013	U
N-Nitroso-di-n-propylamine	621-64-7	REG	mg/kg		0.01	U	0.011	U	0.01	U	0.011	U	0.01	U	0.01	U
N-Nitrosodiphenylamine	86-30-6	REG	mg/kg		0.013	U	0.014	U	0.013	U	0.014	U	0.013	U	0.013	U
Phenanthrene	85-01-8	REG	mg/kg	100	0.012	U	0.013	U	0.012	U	0.012	U	0.012	U	0.012	U
Pyrene	129-00-0	REG	mg/kg	100	0.012	U	0.012	U	0.011	U	0.012	U	0.012	U	0.011	U
1,2,4,5-Tetrachlorobenzene	95-94-3	REG	mg/kg		0.0092	U	0.0097	U	0.0091	U	0.0094	U	0.0092	U	0.0088	U
2-Fluorophenol	367-12-4	SURR	%		73		59		74		54		67		78	
Phenol-d5	4165-62-2	SURR	%		71		63		74		55		66		77	
2,4,6-Tribromophenol	118-79-6	SURR	%		90		81		91		68		81		94	
Nitrobenzene-d5	4165-60-0	SURR	%		69		58		72		52		62		75	
2-Fluorobiphenyl	321-60-8	SURR	%		75		69		77		58		69		84	
Terphenyl-d14	1718-51-0	SURR	%		84		80		84		67		77		90	
(MS Volatile TIC ())																
alkane	TIC	TIC	mg/kg													
alkane (6)	TIC	TIC	mg/kg													
Naphthalene,tetrahydro-methyl-isomer	TIC	TIC	mg/kg													
alkane (7)	TIC	TIC	mg/kg													
ketones	TIC	TIC	mg/kg													
alcohols	TIC	TIC	mg/kg													
alkane (8)	TIC	TIC	mg/kg													
alkane (9)	TIC	TIC	mg/kg													
C3 alkyl benzene	TIC	TIC	mg/kg													
alkane (10)	TIC	TIC	mg/kg													
alkane (11)	TIC	TIC	mg/kg													
ketones (1)	TIC	TIC	mg/kg													
alkane (12)	TIC	TIC	mg/kg													
alkane (1)	TIC	TIC	mg/kg													
alkane (2)	TIC	TIC	mg/kg													

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Client Sample ID:				NY USCO	EP-5 W		EP-6 W		EP-13 N		EP-12 N		EP-12 W		EP-18 N	
Lab Sample ID:					JE26004-1		JE26004-2		JE26004-3		JE26004-4		JE26004-5		JE26004-6	
Date Sampled:					12/26/2025 12:11 PM		12/26/2025 12:17 PM		12/26/2025 12:24 PM		12/26/2025 12:30 PM		12/26/2025 12:37 PM		12/26/2025 12:43 PM	
Matrix:					Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Type**	**Unit**													
(GC/LC Semi-volatiles (SW846 8081B))																
cycloalkane	TIC	TIC	mg/kg													
alkane (3)	TIC	TIC	mg/kg													
alkane (4)	TIC	TIC	mg/kg													
alkane (5)	TIC	TIC	mg/kg													
Total TIC, Volatile	TOTAL TIC, VOLATILE	TICTOTAL	mg/kg		0		0		0		0		0		0	
(MS Volatiles (SW846 8260D))																
Acetone	67-64-1	REG	mg/kg	0.05	0.004	U	0.004	U	0.004	U	0.0043	U	0.0043	U	0.004	U
Benzene	71-43-2	REG	mg/kg	0.06	0.00044	U	0.00044	U	0.00044	U	0.00047	U	0.00047	U	0.00044	U
Bromochloromethane	74-97-5	REG	mg/kg		0.00054	U	0.00054	U	0.00055	U	0.00058	U	0.00058	U	0.00054	U
Bromodichloromethane	75-27-4	REG	mg/kg		0.00041	U	0.00042	U	0.00042	U	0.00045	U	0.00044	U	0.00041	U
Bromoform	75-25-2	REG	mg/kg		0.0013	U	0.0013	U	0.0013	U	0.0014	U	0.0014	U	0.0013	U
Bromomethane	74-83-9	REG	mg/kg		0.00073	U	0.00074	U	0.00075	U	0.00079	U	0.00079	U	0.00074	U
2-Butanone (MEK)	78-93-3	REG	mg/kg	0.12	0.0023	U	0.0024	U	0.0024	U	0.0025	U	0.0025	U	0.0023	U
Carbon disulfide	75-15-0	REG	mg/kg		0.00051	U	0.00052	U	0.00052	U	0.00056	U	0.00055	U	0.00052	U
Carbon tetrachloride	56-23-5	REG	mg/kg	0.76	0.00059	U	0.0006	U	0.0006	U	0.00064	U	0.00064	U	0.0006	U
Chlorobenzene	108-90-7	REG	mg/kg	1.1	0.00044	U	0.00044	U	0.00045	U	0.00048	U	0.00047	U	0.00044	U
Chloroethane	75-00-3	REG	mg/kg		0.00057	U	0.00057	U	0.00058	U	0.00061	U	0.00061	U	0.00057	U
Chloroform	67-66-3	REG	mg/kg	0.37	0.00096	U	0.0012	J	0.00098	U	0.001	U	0.001	U	0.00096	U
Chloromethane	74-87-3	REG	mg/kg		0.0019	U	0.0019	U	0.0019	U	0.002	U	0.002	U	0.0019	U
Cyclohexane	110-82-7	REG	mg/kg		0.00063	U	0.00064	U	0.00064	U	0.00068	U	0.00068	U	0.00063	U
1,2-Dibromo-3-chloropropane	96-12-8	REG	mg/kg		0.00067	U	0.00067	U	0.00068	U	0.00072	U	0.00071	U	0.00067	U
Dibromochloromethane	124-48-1	REG	mg/kg		0.00054	U	0.00054	U	0.00055	U	0.00058	U	0.00058	U	0.00054	U
1,2-Dibromoethane	106-93-4	REG	mg/kg		0.0004	U	0.00041	U	0.00041	U	0.00044	U	0.00043	U	0.00041	U
1,2-Dichlorobenzene	95-50-1	REG	mg/kg	1.1	0.00052	U	0.00053	U	0.00053	U	0.00057	U	0.00056	U	0.00053	U
1,3-Dichlorobenzene	541-73-1	REG	mg/kg	2.4	0.00048	U	0.00048	U	0.00048	U	0.00051	U	0.00051	U	0.00048	U
1,4-Dichlorobenzene	106-46-7	REG	mg/kg	1.8	0.00047	U	0.00048	U	0.00048	U	0.00051	U	0.00051	U	0.00048	U
Dichlorodifluoromethane	75-71-8	REG	mg/kg		0.0007	U	0.0007	U	0.00071	U	0.00075	U	0.00075	U	0.0007	U
1,1-Dichloroethane	75-34-3	REG	mg/kg	0.27	0.00048	U	0.00048	U	0.00048	U	0.00051	U	0.00051	U	0.00048	U
1,2-Dichloroethane	107-06-2	REG	mg/kg	0.02	0.00045	U	0.00045	U	0.00046	U	0.00049	U	0.00048	U	0.00045	U
1,1-Dichloroethene	75-35-4	REG	mg/kg	0.33	0.00063	U	0.00063	U	0.00064	U	0.00068	U	0.00067	U	0.00063	U
cis-1,2-Dichloroethene	156-59-2	REG	mg/kg	0.25	0.00081	U	0.00081	U	0.00082	U	0.00087	U	0.00086	U	0.00081	U
trans-1,2-Dichloroethene	156-60-5	REG	mg/kg	0.19	0.00059	U	0.00059	U	0.0006	U	0.00063	U	0.00063	U	0.00059	U
1,2-Dichloropropane	78-87-5	REG	mg/kg		0.00045	U	0.00046	U	0.00046	U	0.00049	U	0.00049	U	0.00046	U
cis-1,3-Dichloropropene	10061-01-5	REG	mg/kg		0.00046	U	0.00046	U	0.00046	U	0.00049	U	0.00049	U	0.00046	U
trans-1,3-Dichloropropene	10061-02-6	REG	mg/kg		0.00044	U	0.00044	U	0.00045	U	0.00047	U	0.00047	U	0.00044	U
Ethylbenzene	100-41-4	REG	mg/kg	1	0.00044	U	0.00044	U	0.00044	U	0.00047	U	0.00047	U	0.00044	U
Freon 113	76-13-1	REG	mg/kg		0.0026	U	0.0026	U	0.0026	U	0.0028	U	0.0027	U	0.0026	U
2-Hexanone	591-78-6	REG	mg/kg		0.002	U	0.0021	U	0.0021	U	0.0022	U	0.0022	U	0.002	U
Isopropylbenzene	98-82-8	REG	mg/kg		0.0014	U	0.0014	U	0.0014	U	0.0015	U	0.0015	U	0.0014	U
Methyl Acetate	79-20-9	REG	mg/kg		0.0013	U	0.0013	U	0.0014	U	0.0014	U	0.0014	U	0.0013	U
Methylcyclohexane	108-87-2	REG	mg/kg		0.00084	U	0.00085	U	0.00085	U	0.00091	U	0.0009	U	0.00084	U
Methyl Tert Butyl Ether	1634-04-4	REG	mg/kg	0.93	0.00045	U	0.00045	U	0.00046	U	0.00049	U	0.00048	U	0.00045	U
4-Methyl-2-pentanone(MIBK)	108-10-1	REG	mg/kg		0.0022	U	0.0022	U	0.0022	U	0.0024	U	0.0023	U	0.0022	U
Methylene chloride	75-09-2	REG	mg/kg	0.05	0.0032	J	0.0031	J	0.0026	J	0.0027	U	0.0027	U	0.0025	U
Styrene	100-42-5	REG	mg/kg		0.00039	U	0.00039	U	0.00039	U	0.00042	U	0.00041	U	0.00039	U
1,1,2,2-Tetrachloroethane	79-34-5	REG	mg/kg		0.00058	U	0.00058	U	0.00059	U	0.00062	U	0.00062	U	0.00058	U
Tetrachloroethene	127-18-4	REG	mg/kg	1.3	0.00056	U	0.00056	U	0.00057	U	0.0006	U	0.0006	U	0.00056	U
Toluene	108-88-3	REG	mg/kg	0.7	0.0005	U	0.00051	U	0.00051	U	0.00054	U	0.00054	U	0.00051	U
1,2,3-Trichlorobenzene	87-61-6	REG	mg/kg		0.0024	U	0.0024	U	0.0024	U	0.0026	U	0.0026	U	0.0024	U

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Client Sample ID:				NY USCO	EP-5 W		EP-6 W		EP-13 N		EP-12 N		EP-12 W		EP-18 N	
Lab Sample ID:					JE26004-1		JE26004-2		JE26004-3		JE26004-4		JE26004-5		JE26004-6	
Date Sampled:					12/26/2025 12:11 PM		12/26/2025 12:17 PM		12/26/2025 12:24 PM		12/26/2025 12:30 PM		12/26/2025 12:37 PM		12/26/2025 12:43 PM	
Matrix:					Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Type**	**Unit**													
(GC/LC Semi-volatiles (SW846 8081B))																
1,2,4-Trichlorobenzene	120-82-1	REG	mg/kg		0.0024	U	0.0024	U	0.0024	U	0.0026	U	0.0026	U	0.0024	U
1,1,1-Trichloroethane	71-55-6	REG	mg/kg	0.68	0.00046	U	0.00047	U	0.00047	U	0.0005	U	0.0005	U	0.00047	U
1,1,2-Trichloroethane	79-00-5	REG	mg/kg		0.00053	U	0.00054	U	0.00054	U	0.00058	U	0.00057	U	0.00053	U
Trichloroethene	79-01-6	REG	mg/kg	0.47	0.00073	U	0.00074	U	0.00074	U	0.00079	U	0.00078	U	0.00073	U
Trichlorofluoromethane	75-69-4	REG	mg/kg		0.00066	U	0.00066	U	0.00067	U	0.00071	U	0.0007	U	0.00066	U
Vinyl chloride	75-01-4	REG	mg/kg	0.02	0.00046	U	0.00047	U	0.00047	U	0.0005	U	0.00049	U	0.00046	U
m,p-Xylene	M,P-XYLENE	REG	mg/kg	0.26	0.00086	U	0.00087	U	0.00088	U	0.00093	U	0.00092	U	0.00086	U
o-Xylene	95-47-6	REG	mg/kg	0.26	0.00044	U	0.00044	U	0.00045	U	0.00048	U	0.00047	U	0.00044	U
Xylene (total)	1330-20-7	REG	mg/kg	0.26	0.00044	U	0.00044	U	0.00045	U	0.00048	U	0.00047	U	0.00044	U
Dibromofluoromethane	1868-53-7	SURR	%		111		111		111		109		117		109	
1,2-Dichloroethane-D4	17060-07-0	SURR	%		107		106		105		105		107		106	
Toluene-D8	2037-26-5	SURR	%		99		98		99		101		98		98	
4-Bromofluorobenzene	460-00-4	SURR	%		94		95		94		95		97		95	

NY USCO: NY - New York NYCRR Part 375 New York Unrestricted use Criteria Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.

SGS

SGS Engage - Group Crosstab

Client Sample ID:				NY USCO	EP-18 W		EP-17 N		EP-25 W		UST-1 I		UST-1 II		DUP	
Lab Sample ID:					JE26004-7		JE26004-8		JE26004-9		JE26004-10		JE26004-11		JE26004-12	
Date Sampled:					12/26/2025 12:50 PM		12/26/2025 12:56 PM		12/26/2025 1:03 PM		12/26/2025 1:09 PM		12/26/2025 1:16 PM		12/26/2025 1:23 PM	
Matrix:					Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Type**	**Unit**													
(GC/LC Semi-volatiles (SW846 8081B))																
Aldrin	309-00-2	REG	mg/kg	0.005	0.00059	U	0.00057	U	0.00055	U	0.00063	U	0.00058	U	0.00059	U
alpha-BHC	319-84-6	REG	mg/kg	0.02	0.00058	U	0.00056	U	0.00054	U	0.00062	U	0.00058	U	0.00059	U
beta-BHC	319-85-7	REG	mg/kg	0.036	0.00064	U	0.00062	U	0.0006	U	0.00069	U	0.0012		0.00065	U
delta-BHC	319-86-8	REG	mg/kg	0.04	0.00068	U	0.00066	U	0.00064	U	0.0012		0.00093		0.00069	U
gamma-BHC (Lindane)	58-89-9	REG	mg/kg	0.1	0.00052	U	0.00051	U	0.00049	U	0.00056	U	0.00052	U	0.00053	U
alpha-Chlordane	5103-71-9	REG	mg/kg	0.094	0.00057	U	0.00056	U	0.00054	U	0.00061	U	0.00057	U	0.00058	U
gamma-Chlordane	5103-74-2	REG	mg/kg		0.00032	U	0.00031	U	0.0003	U	0.00034	U	0.00032	U	0.00033	U
Dieldrin	60-57-1	REG	mg/kg	0.005	0.00049	U	0.00047	U	0.00046	U	0.00052	U	0.00049	U	0.00049	U
4,4'-DDD	72-54-8	REG	mg/kg	0.0033	0.00065	U	0.00063	U	0.00061	U	0.0007	U	0.00065	U	0.00066	U
4,4'-DDE	72-55-9	REG	mg/kg	0.0033	0.00062	U	0.0006	U	0.00058	U	0.00067	U	0.00062	U	0.00063	U
4,4'-DDT	50-29-3	REG	mg/kg	0.0033	0.00063	U	0.00061	U	0.00059	U	0.0022		0.00063	U	0.00064	U
Endrin	72-20-8	REG	mg/kg	0.014	0.00055	U	0.00054	U	0.00052	U	0.00059	U	0.00055	U	0.00056	U
Endosulfan sulfate	1031-07-8	REG	mg/kg	2.4	0.00056	U	0.00054	U	0.00052	U	0.00059	U	0.00055	U	0.00056	U
Endrin aldehyde	7421-93-4	REG	mg/kg		0.0004	U	0.00039	U	0.00038	U	0.00043	U	0.0004	U	0.00041	U
Endosulfan-I	959-98-8	REG	mg/kg	2.4	0.00041	U	0.0004	U	0.00038	U	0.00044	U	0.00041	U	0.00041	U
Endosulfan-II	33213-65-9	REG	mg/kg	2.4	0.00044	U	0.00043	U	0.00041	U	0.00047	U	0.00044	U	0.00045	U
Heptachlor	76-44-8	REG	mg/kg	0.042	0.00061	U	0.00059	U	0.00057	U	0.00066	U	0.00061	U	0.00062	U
Heptachlor epoxide	1024-57-3	REG	mg/kg		0.0005	U	0.00048	U	0.00047	U	0.00053	U	0.0005	U	0.0005	U
Methoxychlor	72-43-5	REG	mg/kg		0.00057	U	0.00055	U	0.00053	U	0.0006	U	0.00056	U	0.00057	U
Endrin ketone	53494-70-5	REG	mg/kg		0.00051	U	0.0005	U	0.00048	U	0.00055	U	0.00051	U	0.00052	U
Toxaphene	8001-35-2	REG	mg/kg		0.017	U	0.016	U	0.015	U	0.018	U	0.017	U	0.017	U
Tetrachloro-m-xylene	877-09-8	SURR	%		74		89		82		84		101		91	
Tetrachloro-m-xylene (1)	877-09-8	SURR	%		74		91		83		102		110		87	
Decachlorobiphenyl	2051-24-3	SURR	%		77		90		83		90		103		87	
Decachlorobiphenyl (1)	2051-24-3	SURR	%		68		83		72		106		133		76	
(GC/LC Semi-volatiles (SW846 8082A))																
Aroclor 1016	12674-11-2	REG	mg/kg	0.1	0.017	U	0.016	U	0.015	U	0.018	U	0.017	U	0.017	U
Aroclor 1221	11104-28-2	REG	mg/kg	0.1	0.022	U	0.021	U	0.021	U	0.024	U	0.022	U	0.022	U
Aroclor 1232	11141-16-5	REG	mg/kg	0.1	0.023	U	0.022	U	0.021	U	0.024	U	0.023	U	0.023	U
Aroclor 1242	53469-21-9	REG	mg/kg	0.1	0.015	U	0.014	U	0.014	U	0.016	U	0.015	U	0.015	U
Aroclor 1248	12672-29-6	REG	mg/kg	0.1	0.032	U	0.031	U	0.03	U	0.034	U	0.032	U	0.032	U
Aroclor 1254	11097-69-1	REG	mg/kg	0.1	0.019	U	0.019	U	0.018	U	0.02	U	0.019	U	0.019	U
Aroclor 1260	11096-82-5	REG	mg/kg	0.1	0.015	U	0.015	U	0.014	U	0.016	U	0.015	U	0.015	U
Aroclor 1268	11100-14-4	REG	mg/kg	0.1	0.031	U	0.03	U	0.029	U	0.033	U	0.031	U	0.032	U
Aroclor 1262	37324-23-5	REG	mg/kg	0.1	0.023	U	0.023	U	0.022	U	0.025	U	0.023	U	0.024	U
Tetrachloro-m-xylene (2)	877-09-8	SURR	%		57		71		63		70		66		68	
Tetrachloro-m-xylene (3)	877-09-8	SURR	%		85		103		92		100		92		101	
Decachlorobiphenyl (2)	2051-24-3	SURR	%		38		47		41		45		44		44	
Decachlorobiphenyl (3)	2051-24-3	SURR	%		53		65		57		63		60		61	
(General Chemistry (SM2540 G 18TH ED MOD))																
Solids, Percent	PERCENT SOLIDS	REG	%		91.9		90.7		93.6		83.7		87.7		88.5	
(General Chemistry (SW846 9012B/LACHAT))																
Cyanide	57-12-5	REG	mg/kg	27	0.25	U	0.24	U	0.28	U	0.3	U	0.32		0.32	U
(Metals Analysis (SW846 6010D))																
Aluminum	7429-90-5	REG	mg/kg		6570		9530		9540		11000		10100		8330	
Antimony	7440-36-0	REG	mg/kg		2.1	U	2.2	U	2.1	U	2.4	U	2.2	U	2.2	U
Arsenic	7440-38-2	REG	mg/kg	13	2.1	U	2.2	U	2.1	U	2.6		2.6		2.2	U

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Client Sample ID:				NY USCO	EP-18 W		EP-17 N		EP-25 W		UST-1 I		UST-1 II		DUP	
Lab Sample ID:					JE26004-7		JE26004-8		JE26004-9		JE26004-10		JE26004-11		JE26004-12	
Date Sampled:					12/26/2025 12:50 PM		12/26/2025 12:56 PM		12/26/2025 1:03 PM		12/26/2025 1:09 PM		12/26/2025 1:16 PM		12/26/2025 1:23 PM	
Matrix:					Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Type**	**Unit**													
(GC/LC Semi-volatiles (SW846 8081B))																
Barium	7440-39-3	REG	mg/kg	350	71.3		63.5		63		75.1		62.8		57.7	
Beryllium	7440-41-7	REG	mg/kg	7.2	0.21	U	0.25		0.26		0.35		0.36		0.25	
Cadmium	7440-43-9	REG	mg/kg	2.5	0.53	U	0.55	U	0.52	U	0.6	U	0.56	U	0.54	U
Calcium	7440-70-2	REG	mg/kg		1990		11700		13600		2550		1650		1510	
Chromium	7440-47-3	REG	mg/kg		15.4		16.6		17.7		18.3		15.8		15.6	
Cobalt	7440-48-4	REG	mg/kg		6		6.1		6.4		7.7		6.9		5.9	
Copper	7440-50-8	REG	mg/kg	50	15.2		16.4		17.8		21.8		19.5		12.8	
Iron	7439-89-6	REG	mg/kg		11400		13800		13900		16100		14800		14000	
Lead	7439-92-1	REG	mg/kg	63	3.9		10.1		6.3		47.3		37		4.2	
Magnesium	7439-95-4	REG	mg/kg		4000		7900		8780		3610		2960		3330	
Manganese	7439-96-5	REG	mg/kg	1600	228		266		228		427		401		311	
Nickel	7440-02-0	REG	mg/kg	30	11.9		12.7		14.5		14.4		13.1		12.7	
Potassium	7440-09-7	REG	mg/kg		2050		1550		1730		1490		1240		1260	
Selenium	7782-49-2	REG	mg/kg	3.9	2.1	U	2.2	U	2.1	U	2.4	U	2.2	U	2.2	U
Silver	7440-22-4	REG	mg/kg	2	0.53	U	0.55	U	0.52	U	0.6	U	0.56	U	0.54	U
Sodium	7440-23-5	REG	mg/kg		1100	U	1100	U	1000	U	1200	U	1100	U	1100	U
Thallium	7440-28-0	REG	mg/kg		1.1	U	1.1	U	1	U	1.2	U	1.1	U	1.1	U
Vanadium	7440-62-2	REG	mg/kg		19.9		21.6		22.1		25		24		20.8	
Zinc	7440-66-6	REG	mg/kg	109	31.6		42.2		37.6		159		193		34.1	
(Metals Analysis (SW846 7471B))																
Mercury	7439-97-6	REG	mg/kg	0.18	0.033	U	0.034	U	0.032	U	0.039		0.037	U	0.035	U
(MS Semi-volatile TIC ())																
Alkane	TIC	TIC	mg/kg								0.52	J	1.2	J	0.6	J
n-Hexadecanoic acid	57-10-3	TIC	mg/kg		0.45	JNB	0.5	JNB	0.48	JNB					0.26	JN
Alkane (10)	TIC	TIC	mg/kg								0.78	J	0.74	J		
Unknown	TIC	TIC	mg/kg		0.45	JB	0.46	JB	0.54	JB	0.54	J	0.71	J	0.15	J
Alkane (17)	TIC	TIC	mg/kg								0.56	J	4.8	J		
Unknown (1)	TIC	TIC	mg/kg		0.14	J	0.16	J	0.2	J					0.51	J
Alkane (18)	TIC	TIC	mg/kg								0.99	J	0.94	J		
Octadecenamide, (Z)-	TIC	TIC	mg/kg				0.19	J	0.2	J						
Unknown (2)	TIC	TIC	mg/kg		0.16	J	0.21	J	0.26	J					0.18	J
Alkane (19)	TIC	TIC	mg/kg								3.5	J	0.68	J		
Unknown (3)	TIC	TIC	mg/kg		0.19	J									0.2	J
Alkane (20)	TIC	TIC	mg/kg								0.57	J	1.2	J		
Alkane (21)	TIC	TIC	mg/kg								0.95	J	0.78	J		
Unknown (4)	TIC	TIC	mg/kg												0.18	J
Alkane (22)	TIC	TIC	mg/kg										1.3	J		
Cyclohexane alkyl (1)	TIC	TIC	mg/kg								0.68	J				
Unknown (5)	TIC	TIC	mg/kg												0.28	J
Alkane (1)	TIC	TIC	mg/kg								0.65	J	0.67	J	0.43	J
Alkane (2)	TIC	TIC	mg/kg								0.75	J	4.1	J	0.37	J
Alkane (3)	TIC	TIC	mg/kg								0.56	J	0.99	J		
Alkane (4)	TIC	TIC	mg/kg								0.92	J	0.86	J		
Cyclohexane alkyl	TIC	TIC	mg/kg								1.6	J	2.3	J		
Alkane (5)	TIC	TIC	mg/kg								0.47	J	0.75	J		
Alkane (6)	TIC	TIC	mg/kg								0.51	J	3.3	J		
Alkane (7)	TIC	TIC	mg/kg								3.1	J	1.3	J		
Alkane (8)	TIC	TIC	mg/kg								0.6	J	3.9	J		
Alkane (9)	TIC	TIC	mg/kg								0.55	J	0.86	J		

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Client Sample ID:				NY USCO	EP-18 W		EP-17 N		EP-25 W		UST-1 I		UST-1 II		DUP	
Lab Sample ID:					JE26004-7		JE26004-8		JE26004-9		JE26004-10		JE26004-11		JE26004-12	
Date Sampled:					12/26/2025 12:50 PM		12/26/2025 12:56 PM		12/26/2025 1:03 PM		12/26/2025 1:09 PM		12/26/2025 1:16 PM		12/26/2025 1:23 PM	
Matrix:					Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Type**	**Unit**													
(GC/LC Semi-volatiles (SW846 8081B))																
Alkane (11)	TIC	TIC	mg/kg								0.62	J	2	J		
Alkane (12)	TIC	TIC	mg/kg								2.4	J	0.99	J		
Alkane (13)	TIC	TIC	mg/kg								0.95	J	0.68	J		
Alkane (14)	TIC	TIC	mg/kg								2.5	J	0.74	J		
Alkane (15)	TIC	TIC	mg/kg								1.2	J	0.66	J		
Alkane (16)	TIC	TIC	mg/kg								0.62	J	1.5	J		
Total TIC, Semi-Volatile	TOTAL TIC, SEMI-VOLATILE	TICTOTAL	mg/kg		0.49	J	0.56	J	0.66	J	27.09	J	37.95	J	3.16	J
(MS Semi-volatiles (SW846 8270E))																
2-Chlorophenol	95-57-8	REG	mg/kg		0.017	U	0.018	U	0.017	U	0.019	U	0.019	U	0.018	U
4-Chloro-3-methyl phenol	59-50-7	REG	mg/kg		0.022	U	0.022	U	0.021	U	0.023	U	0.023	U	0.023	U
2,4-Dichlorophenol	120-83-2	REG	mg/kg		0.03	U	0.03	U	0.03	U	0.032	U	0.032	U	0.031	U
2,4-Dimethylphenol	105-67-9	REG	mg/kg		0.063	U	0.063	U	0.062	U	0.068	U	0.067	U	0.066	U
2,4-Dinitrophenol	51-28-5	REG	mg/kg		0.13	U	0.13	U	0.13	U	0.14	U	0.14	U	0.14	U
4,6-Dinitro-o-cresol	534-52-1	REG	mg/kg		0.038	U	0.038	U	0.037	U	0.041	U	0.04	U	0.039	U
2-Methylphenol	95-48-7	REG	mg/kg	0.33	0.023	U	0.023	U	0.022	U	0.024	U	0.024	U	0.024	U
3&4-Methylphenol	M+P-CRESOLS	REG	mg/kg		0.029	U	0.029	U	0.029	U	0.031	U	0.031	U	0.03	U
2-Nitrophenol	88-75-5	REG	mg/kg		0.023	U	0.023	U	0.023	U	0.025	U	0.025	U	0.024	U
4-Nitrophenol	100-02-7	REG	mg/kg		0.094	U	0.095	U	0.093	U	0.1	U	0.1	U	0.098	U
Pentachlorophenol	87-86-5	REG	mg/kg	0.8	0.033	U	0.033	U	0.033	U	0.036	U	0.035	U	0.035	U
Phenol	108-95-2	REG	mg/kg	0.33	0.018	U	0.019	U	0.018	U	0.02	U	0.02	U	0.019	U
2,3,4,6-Tetrachlorophenol	58-90-2	REG	mg/kg		0.023	U	0.023	U	0.023	U	0.025	U	0.025	U	0.024	U
2,4,5-Trichlorophenol	95-95-4	REG	mg/kg		0.026	U	0.027	U	0.026	U	0.028	U	0.028	U	0.028	U
2,4,6-Trichlorophenol	88-06-2	REG	mg/kg		0.021	U	0.021	U	0.021	U	0.023	U	0.023	U	0.022	U
Acenaphthene	83-32-9	REG	mg/kg	20	0.012	U	0.012	U	0.012	U	0.013	U	0.013	U	0.013	U
Acenaphthylene	208-96-8	REG	mg/kg	100	0.018	U	0.018	U	0.018	U	0.019	U	0.019	U	0.019	U
Acetophenone	98-86-2	REG	mg/kg		0.0076	U	0.0076	U	0.0075	U	0.0082	U	0.0081	U	0.0079	U
Anthracene	120-12-7	REG	mg/kg	100	0.022	U	0.022	U	0.021	U	0.023	U	0.023	U	0.023	U
Atrazine	1912-24-9	REG	mg/kg		0.015	U	0.015	U	0.015	U	0.016	U	0.016	U	0.016	U
Benzo(a)anthracene	56-55-3	REG	mg/kg	1	0.01	U	0.01	U	0.0098	U	0.188		0.0163	J	0.01	U
Benzo(a)pyrene	50-32-8	REG	mg/kg	1	0.016	U	0.016	U	0.016	U	0.242		0.017	U	0.017	U
Benzo(b)fluoranthene	205-99-2	REG	mg/kg	1	0.016	U	0.016	U	0.015	U	0.355		0.0236	J	0.016	U
Benzo(g,h,i)perylene	191-24-2	REG	mg/kg	100	0.018	U	0.018	U	0.017	U	0.233		0.019	U	0.018	U
Benzo(k)fluoranthene	207-08-9	REG	mg/kg	0.8	0.016	U	0.017	U	0.016	U	0.108		0.018	U	0.017	U
4-Bromophenyl phenyl ether	101-55-3	REG	mg/kg		0.014	U	0.014	U	0.013	U	0.015	U	0.015	U	0.014	U
Butyl benzyl phthalate	85-68-7	REG	mg/kg		0.0086	U	0.0087	U	0.0085	U	0.0093	U	0.0092	U	0.009	U
1,1'-Biphenyl	92-52-4	REG	mg/kg		0.0048	U	0.0049	U	0.0048	U	0.0233	J	0.0449	J	0.005	U
Benzaldehyde	100-52-7	REG	mg/kg		0.0087	U	0.0088	U	0.0086	U	0.0094	U	0.0094	U	0.0091	U
2-Chloronaphthalene	91-58-7	REG	mg/kg		0.0084	U	0.0084	U	0.0083	U	0.0091	U	0.009	U	0.0088	U
4-Chloroaniline	106-47-8	REG	mg/kg		0.013	U	0.013	U	0.012	U	0.014	U	0.014	U	0.013	U
Carbazole	86-74-8	REG	mg/kg		0.0051	U	0.0051	U	0.005	U	0.0302	J	0.0055	U	0.0053	U
Caprolactam	105-60-2	REG	mg/kg		0.014	U	0.014	U	0.014	U	0.015	U	0.015	U	0.015	U
Chrysene	218-01-9	REG	mg/kg	1	0.011	U	0.011	U	0.011	U	0.236		0.0148	J	0.012	U
bis(2-Chloroethoxy)methane	111-91-1	REG	mg/kg		0.0075	U	0.0076	U	0.0074	U	0.0081	U	0.0081	U	0.0079	U
bis(2-Chloroethyl)ether	111-44-4	REG	mg/kg		0.015	U	0.015	U	0.015	U	0.016	U	0.016	U	0.016	U
2,2'-Oxybis(1-chloropropane)	108-60-1	REG	mg/kg		0.013	U	0.013	U	0.012	U	0.014	U	0.014	U	0.013	U
4-Chlorophenyl phenyl ether	7005-72-3	REG	mg/kg		0.011	U	0.011	U	0.011	U	0.012	U	0.012	U	0.012	U
2,4-Dinitrotoluene	121-14-2	REG	mg/kg		0.011	U	0.011	U	0.011	U	0.012	U	0.012	U	0.011	U
2,6-Dinitrotoluene	606-20-2	REG	mg/kg		0.018	U	0.018	U	0.017	U	0.019	U	0.019	U	0.018	U
3,3'-Dichlorobenzidine	91-94-1	REG	mg/kg		0.029	U	0.03	U	0.029	U	0.032	U	0.031	U	0.031	U

Client Sample ID:				NY USCO	EP-18 W		EP-17 N		EP-25 W		UST-1 I		UST-1 II		DUP	
Lab Sample ID:					JE26004-7		JE26004-8		JE26004-9		JE26004-10		JE26004-11		JE26004-12	
Date Sampled:					12/26/2025 12:50 PM		12/26/2025 12:56 PM		12/26/2025 1:03 PM		12/26/2025 1:09 PM		12/26/2025 1:16 PM		12/26/2025 1:23 PM	
Matrix:					Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Type**	**Unit**													
(GC/LC Semi-volatiles (SW846 8081B))																
1,4-Dioxane	123-91-1	REG	mg/kg	0.1	0.023	U	0.023	U	0.023	U	0.025	U	0.025	U	0.024	U
Dibenzo(a,h)anthracene	53-70-3	REG	mg/kg	0.33	0.016	U	0.016	U	0.015	U	0.0484		0.017	U	0.016	U
Dibenzofuran	132-64-9	REG	mg/kg	7	0.014	U	0.014	U	0.014	U	0.015	U	0.015	U	0.015	U
Di-n-butyl phthalate	84-74-2	REG	mg/kg		0.0057	U	0.0058	U	0.0057	U	0.0136	J	0.0606	J	0.006	U
Di-n-octyl phthalate	117-84-0	REG	mg/kg		0.0088	U	0.0088	U	0.0086	U	0.0095	U	0.0094	U	0.0092	U
Diethyl phthalate	84-66-2	REG	mg/kg		0.0075	U	0.0076	U	0.0074	U	0.0081	U	0.008	U	0.0078	U
Dimethyl phthalate	131-11-3	REG	mg/kg		0.0063	U	0.0063	U	0.0062	U	0.0068	U	0.0067	U	0.0066	U
bis(2-Ethylhexyl)phthalate	117-81-7	REG	mg/kg		0.0082	U	0.0083	U	0.0081	U	0.0089	U	0.0088	U	0.0086	U
Fluoranthene	206-44-0	REG	mg/kg	100	0.016	U	0.016	U	0.015	U	0.545		0.0229	J	0.016	U
Fluorene	86-73-7	REG	mg/kg	30	0.016	U	0.016	U	0.016	U	0.017	U	0.017	U	0.017	U
Hexachlorobenzene	118-74-1	REG	mg/kg	0.33	0.0089	U	0.009	U	0.0088	U	0.0096	U	0.0096	U	0.0093	U
Hexachlorobutadiene	87-68-3	REG	mg/kg		0.014	U	0.014	U	0.014	U	0.015	U	0.015	U	0.015	U
Hexachlorocyclopentadiene	77-47-4	REG	mg/kg		0.014	U	0.014	U	0.014	U	0.015	U	0.015	U	0.015	U
Hexachloroethane	67-72-1	REG	mg/kg		0.017	U	0.018	U	0.017	U	0.019	U	0.019	U	0.018	U
Indeno(1,2,3-cd)pyrene	193-39-5	REG	mg/kg	0.5	0.017	U	0.017	U	0.016	U	0.187		0.018	U	0.017	U
Isophorone	78-59-1	REG	mg/kg		0.0075	U	0.0076	U	0.0074	U	0.0081	U	0.0081	U	0.0079	U
2-Methylnaphthalene	91-57-6	REG	mg/kg		0.008	U	0.008	U	0.0078	U	0.0706		0.135		0.0083	U
2-Nitroaniline	88-74-4	REG	mg/kg		0.0083	U	0.0084	U	0.0082	U	0.009	U	0.0089	U	0.0087	U
3-Nitroaniline	99-09-2	REG	mg/kg		0.0088	U	0.0089	U	0.0087	U	0.0095	U	0.0094	U	0.0092	U
4-Nitroaniline	100-01-6	REG	mg/kg		0.0091	U	0.0092	U	0.009	U	0.0099	U	0.0098	U	0.0095	U
Naphthalene	91-20-3	REG	mg/kg	12	0.0099	U	0.01	U	0.0098	U	0.0145	J	0.0344	J	0.01	U
Nitrobenzene	98-95-3	REG	mg/kg		0.014	U	0.014	U	0.013	U	0.015	U	0.015	U	0.014	U
N-Nitroso-di-n-propylamine	621-64-7	REG	mg/kg		0.01	U	0.01	U	0.01	U	0.011	U	0.011	U	0.011	U
N-Nitrosodiphenylamine	86-30-6	REG	mg/kg		0.013	U	0.013	U	0.013	U	0.014	U	0.014	U	0.013	U
Phenanthrene	85-01-8	REG	mg/kg	100	0.012	U	0.012	U	0.012	U	0.213		0.0221	J	0.012	U
Pyrene	129-00-0	REG	mg/kg	100	0.011	U	0.011	U	0.011	U	0.515		0.025	J	0.0129	J
1,2,4,5-Tetrachlorobenzene	95-94-3	REG	mg/kg		0.0089	U	0.009	U	0.0088	U	0.0097	U	0.0096	U	0.0093	U
2-Fluorophenol	367-12-4	SURR	%		51		55		64		64		75		57	
Phenol-d5	4165-62-2	SURR	%		51		54		64		63		75		57	
2,4,6-Tribromophenol	118-79-6	SURR	%		69		72		84		83		97		74	
Nitrobenzene-d5	4165-60-0	SURR	%		49		52		62		62		73		56	
2-Fluorobiphenyl	321-60-8	SURR	%		54		60		70		70		79		61	
Terphenyl-d14	1718-51-0	SURR	%		63		68		79		76		88		73	
(MS Volatile TIC ())																
alkane	TIC	TIC	mg/kg				0.016	J			0.081	J	0.033	J		
alkane (6)	TIC	TIC	mg/kg								0.018	J	0.038	J		
Naphthalene,tetrahydro-methyl-isomer	TIC	TIC	mg/kg				0.0059	J								
alkane (7)	TIC	TIC	mg/kg								0.21	J	0.064	J		
ketones	TIC	TIC	mg/kg										0.11	J		
alcohols	TIC	TIC	mg/kg								0.034	J				
alkane (8)	TIC	TIC	mg/kg								0.069	J	0.051	J		
alkane (9)	TIC	TIC	mg/kg								0.021	J	0.2	J		
C3 alkyl benzene	TIC	TIC	mg/kg										0.026	J		
alkane (10)	TIC	TIC	mg/kg								0.039	J	0.026	J		
alkane (11)	TIC	TIC	mg/kg								0.028	J				
ketones (1)	TIC	TIC	mg/kg										0.029	J		
alkane (12)	TIC	TIC	mg/kg								0.32	J				
alkane (1)	TIC	TIC	mg/kg								0.04	J	0.34	J		
alkane (2)	TIC	TIC	mg/kg								0.032	J	0.05	J		

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Client Sample ID:				NY USCO	EP-18 W		EP-17 N		EP-25 W		UST-1 I		UST-1 II		DUP	
Lab Sample ID:					JE26004-7		JE26004-8		JE26004-9		JE26004-10		JE26004-11		JE26004-12	
Date Sampled:					12/26/2025 12:50 PM		12/26/2025 12:56 PM		12/26/2025 1:03 PM		12/26/2025 1:09 PM		12/26/2025 1:16 PM		12/26/2025 1:23 PM	
Matrix:					Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Type**	**Unit**													
(GC/LC Semi-volatiles (SW846 8081B))																
cycloalkane	TIC	TIC	mg/kg								0.035	J	0.056	J		
alkane (3)	TIC	TIC	mg/kg								0.027	J	0.029	J		
alkane (4)	TIC	TIC	mg/kg								0.03	J	0.21	J		
alkane (5)	TIC	TIC	mg/kg								0.086	J	0.035	J		
Total TIC, Volatile	TOTAL TIC, VOLATILE	TICTOTAL	mg/kg		0		0.0219	J	0		1.07	J	1.297	J	0	
(MS Volatiles (SW846 8260D))																
Acetone	67-64-1	REG	mg/kg	0.05	0.0043	U	0.0039	U	0.0039	U	0.0522		0.641		0.0041	U
Benzene	71-43-2	REG	mg/kg	0.06	0.00048	U	0.00043	U	0.00043	U	0.00049	U	0.00041	U	0.00045	U
Bromochloromethane	74-97-5	REG	mg/kg		0.00059	U	0.00052	U	0.00053	U	0.0006	U	0.00051	U	0.00056	U
Bromodichloromethane	75-27-4	REG	mg/kg		0.00045	U	0.0004	U	0.00041	U	0.00046	U	0.00039	U	0.00043	U
Bromoform	75-25-2	REG	mg/kg		0.0014	U	0.0013	U	0.0013	U	0.0015	U	0.0012	U	0.0013	U
Bromomethane	74-83-9	REG	mg/kg		0.0008	U	0.00071	U	0.00073	U	0.00081	U	0.00069	U	0.00076	U
2-Butanone (MEK)	78-93-3	REG	mg/kg	0.12	0.0025	U	0.0023	U	0.0023	U	0.0026	U	0.136		0.0024	U
Carbon disulfide	75-15-0	REG	mg/kg		0.00056	U	0.0005	U	0.00051	U	0.00057	U	0.00048	U	0.00053	U
Carbon tetrachloride	56-23-5	REG	mg/kg	0.76	0.00065	U	0.00058	U	0.00059	U	0.00066	U	0.00056	U	0.00061	U
Chlorobenzene	108-90-7	REG	mg/kg	1.1	0.00048	U	0.00043	U	0.00044	U	0.00049	U	0.00042	U	0.00045	U
Chloroethane	75-00-3	REG	mg/kg		0.00062	U	0.00055	U	0.00056	U	0.00063	U	0.00053	U	0.00059	U
Chloroform	67-66-3	REG	mg/kg	0.37	0.001	U	0.00093	U	0.00095	U	0.0011	U	0.0009	U	0.00099	U
Chloromethane	74-87-3	REG	mg/kg		0.0021	U	0.0018	U	0.0019	U	0.0021	U	0.0018	U	0.0019	U
Cyclohexane	110-82-7	REG	mg/kg		0.00069	U	0.00061	U	0.00063	U	0.0007	U	0.00059	U	0.00065	U
1,2-Dibromo-3-chloropropane	96-12-8	REG	mg/kg		0.00073	U	0.00065	U	0.00066	U	0.00074	U	0.00063	U	0.00069	U
Dibromochloromethane	124-48-1	REG	mg/kg		0.00059	U	0.00052	U	0.00053	U	0.0006	U	0.00051	U	0.00056	U
1,2-Dibromoethane	106-93-4	REG	mg/kg		0.00044	U	0.00039	U	0.0004	U	0.00045	U	0.00038	U	0.00042	U
1,2-Dichlorobenzene	95-50-1	REG	mg/kg	1.1	0.00057	U	0.00051	U	0.00052	U	0.00058	U	0.00049	U	0.00054	U
1,3-Dichlorobenzene	541-73-1	REG	mg/kg	2.4	0.00052	U	0.00046	U	0.00047	U	0.00053	U	0.00045	U	0.00049	U
1,4-Dichlorobenzene	106-46-7	REG	mg/kg	1.8	0.00052	U	0.00046	U	0.00047	U	0.00053	U	0.00045	U	0.00049	U
Dichlorodifluoromethane	75-71-8	REG	mg/kg		0.00076	U	0.00068	U	0.00069	U	0.00078	U	0.00066	U	0.00072	U
1,1-Dichloroethane	75-34-3	REG	mg/kg	0.27	0.00052	U	0.00046	U	0.00047	U	0.00053	U	0.00045	U	0.00049	U
1,2-Dichloroethane	107-06-2	REG	mg/kg	0.02	0.00049	U	0.00044	U	0.00045	U	0.0005	U	0.00043	U	0.00047	U
1,1-Dichloroethene	75-35-4	REG	mg/kg	0.33	0.00069	U	0.00061	U	0.00062	U	0.0007	U	0.00059	U	0.00065	U
cis-1,2-Dichloroethene	156-59-2	REG	mg/kg	0.25	0.00088	U	0.00078	U	0.0008	U	0.0009	U	0.00076	U	0.00083	U
trans-1,2-Dichloroethene	156-60-5	REG	mg/kg	0.19	0.00064	U	0.00057	U	0.00058	U	0.00065	U	0.00055	U	0.00061	U
1,2-Dichloropropane	78-87-5	REG	mg/kg		0.00049	U	0.00044	U	0.00045	U	0.0005	U	0.00043	U	0.00047	U
cis-1,3-Dichloropropene	10061-01-5	REG	mg/kg		0.0005	U	0.00044	U	0.00045	U	0.00051	U	0.00043	U	0.00047	U
trans-1,3-Dichloropropene	10061-02-6	REG	mg/kg		0.00048	U	0.00043	U	0.00044	U	0.00049	U	0.00041	U	0.00045	U
Ethylbenzene	100-41-4	REG	mg/kg	1	0.00047	U	0.00042	U	0.00043	U	0.00048	U	0.0024		0.00045	U
Freon 113	76-13-1	REG	mg/kg		0.0028	U	0.0025	U	0.0025	U	0.0028	U	0.0024	U	0.0026	U
2-Hexanone	591-78-6	REG	mg/kg		0.0022	U	0.002	U	0.002	U	0.0063		0.177		0.0021	U
Isopropylbenzene	98-82-8	REG	mg/kg		0.0015	U	0.0013	U	0.0014	U	0.0015	U	0.0016	J	0.0014	U
Methyl Acetate	79-20-9	REG	mg/kg		0.0015	U	0.0013	U	0.0013	U	0.0015	U	0.0013	U	0.0014	U
Methylcyclohexane	108-87-2	REG	mg/kg		0.00092	U	0.00082	U	0.00083	U	0.00093	U	0.00079	U	0.00087	U
Methyl Tert Butyl Ether	1634-04-4	REG	mg/kg	0.93	0.00049	U	0.00044	U	0.00045	U	0.0005	U	0.00042	U	0.00046	U
4-Methyl-2-pentanone(MIBK)	108-10-1	REG	mg/kg		0.0024	U	0.0021	U	0.0022	U	0.0024	U	0.0201		0.0022	U
Methylene chloride	75-09-2	REG	mg/kg	0.05	0.0027	U	0.0024	U	0.0025	U	0.0028	U	0.0024	U	0.0026	U
Styrene	100-42-5	REG	mg/kg		0.00042	U	0.00038	U	0.00038	U	0.00043	U	0.00036	U	0.0004	U
1,1,2,2-Tetrachloroethane	79-34-5	REG	mg/kg		0.00063	U	0.00056	U	0.00057	U	0.00064	U	0.00054	U	0.00059	U
Tetrachloroethene	127-18-4	REG	mg/kg	1.3	0.00061	U	0.00054	U	0.00055	U	0.00062	U	0.00052	U	0.00057	U
Toluene	108-88-3	REG	mg/kg	0.7	0.00055	U	0.00049	U	0.0005	U	0.00056	U	0.0027		0.00052	U
1,2,3-Trichlorobenzene	87-61-6	REG	mg/kg		0.0026	U	0.0023	U	0.0024	U	0.0027	U	0.0023	U	0.0025	U

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Client Sample ID:				NY USCO	EP-18 W		EP-17 N		EP-25 W		UST-1 I		UST-1 II		DUP	
Lab Sample ID:					JE26004-7		JE26004-8		JE26004-9		JE26004-10		JE26004-11		JE26004-12	
Date Sampled:					12/26/2025 12:50 PM		12/26/2025 12:56 PM		12/26/2025 1:03 PM		12/26/2025 1:09 PM		12/26/2025 1:16 PM		12/26/2025 1:23 PM	
Matrix:					Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Type**	**Unit**													
(GC/LC Semi-volatiles (SW846 8081B))																
1,2,4-Trichlorobenzene	120-82-1	REG	mg/kg		0.0026	U	0.0023	U	0.0024	U	0.0027	U	0.0023	U	0.0025	U
1,1,1-Trichloroethane	71-55-6	REG	mg/kg	0.68	0.00051	U	0.00045	U	0.00046	U	0.00052	U	0.00044	U	0.00048	U
1,1,2-Trichloroethane	79-00-5	REG	mg/kg		0.00058	U	0.00052	U	0.00053	U	0.00059	U	0.0005	U	0.00055	U
Trichloroethene	79-01-6	REG	mg/kg	0.47	0.0008	U	0.00071	U	0.00073	U	0.00081	U	0.00069	U	0.00076	U
Trichlorofluoromethane	75-69-4	REG	mg/kg		0.00072	U	0.00064	U	0.00065	U	0.00073	U	0.00062	U	0.00068	U
Vinyl chloride	75-01-4	REG	mg/kg	0.02	0.0005	U	0.00045	U	0.00046	U	0.00051	U	0.00044	U	0.00048	U
m,p-Xylene	M,P-XYLENE	REG	mg/kg	0.26	0.00094	U	0.00084	U	0.00085	U	0.004		0.0457		0.00089	U
o-Xylene	95-47-6	REG	mg/kg	0.26	0.00048	U	0.00043	U	0.00044	U	0.0015		0.0167		0.00045	U
Xylene (total)	1330-20-7	REG	mg/kg	0.26	0.00048	U	0.00043	U	0.00044	U	0.0055		0.0624		0.00045	U
Dibromofluoromethane	1868-53-7	SURR	%		107		109		111		104		109		111	
1,2-Dichloroethane-D4	17060-07-0	SURR	%		104		112		108		105		106		106	
Toluene-D8	2037-26-5	SURR	%		99		99		100		101		96		100	
4-Bromofluorobenzene	460-00-4	SURR	%		94		95		94		94		94		94	

NY USCO: NY - New York NYCRR Part 375 New York Unrestricted use Criteria Criteria per 6 NYCRR Part 375 Environmental Remediation Programs, effective December 14, 2006.

SGS

SGS Engage - Group Crosstab

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE26705		JE26705		JE26705		JE26705		JE26705		JE26705	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444		11444	
Client Sample ID:				EP-42		EP-43		EP-23		DUP20260109		EP-22		EP-15	
Lab Sample ID:				JE26705-1		JE26705-2		JE26705-3		JE26705-4		JE26705-5		JE26705-6	
Location:															
Date Sampled:				1/9/2026 10:45 AM		1/9/2026 10:43 AM		1/9/2026 10:36 AM		1/9/2026 10:40 AM		1/9/2026 10:33 AM		1/9/2026 10:30 AM	
Matrix:				Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**													
(GC/LC Semi-volatiles (SW846 8081B))															
Aldrin	309-00-2	mg/kg	0.0048	0.000081	U	0.000094	U	0.000078	U	0.000079	U	0.000081	U	0.000081	U
alpha-BHC	319-84-6	mg/kg	0.02	0.000048	U	0.000056	U	0.000046	U	0.000046	U	0.000048	U	0.000048	U
beta-BHC	319-85-7	mg/kg	0.021	0.000061	U	0.00007	U	0.000058	U	0.000059	U	0.000061	U	0.00006	U
delta-BHC	319-86-8	mg/kg	0.04	0.000063	U	0.000073	U	0.00006	U	0.000061	U	0.000063	U	0.000062	U
gamma-BHC (Lindane)	58-89-9	mg/kg	0.025	0.000073	U	0.000085	U	0.00007	U	0.000071	U	0.000073	U	0.000073	U
alpha-Chlordane	5103-71-9	mg/kg	0.014	0.000056	U	0.000065	U	0.000054	U	0.000054	U	0.000056	U	0.000056	U
gamma-Chlordane	5103-74-2	mg/kg		0.000063	U	0.000073	U	0.00006	U	0.000061	U	0.000063	U	0.000062	U
Dieldrin	60-57-1	mg/kg	0.005	0.000067	U	0.000077	U	0.000064	U	0.000065	U	0.000067	U	0.000066	U
4,4'-DDD	72-54-8	mg/kg	0.0033	0.000044	U	0.00022	J	0.000073	J	0.00011	J	0.000095	J	0.000044	U
4,4'-DDE	72-55-9	mg/kg	0.0033	0.00005	U	0.000058	U	0.0001	J	0.000048	U	0.00005	U	0.00005	U
4,4'-DDT	50-29-3	mg/kg	0.0033	0.000073	U	0.00053		0.00035	J	0.00046		0.00055		0.000073	U
Endrin	72-20-8	mg/kg	0.014	0.000061	U	0.00007	U	0.000058	U	0.000059	U	0.000061	U	0.00006	U
Endosulfan sulfate	1031-07-8	mg/kg	4.3	0.00005	U	0.000058	U	0.000048	U	0.000048	U	0.00005	U	0.00005	U
Endrin aldehyde	7421-93-4	mg/kg		0.00012	U	0.00014	U	0.00012	U	0.00012	U	0.00012	U	0.00012	U
Endosulfan-I	959-98-8	mg/kg	4.3	0.000056	U	0.000065	U	0.000054	U	0.000054	U	0.000056	U	0.000056	U
Endosulfan-II	33213-65-9	mg/kg	4.3	0.000058	U	0.000068	U	0.000056	U	0.000057	U	0.000058	U	0.000058	U
Heptachlor	76-44-8	mg/kg	0.013	0.000054	U	0.000063	U	0.000052	U	0.000052	U	0.000054	U	0.000054	U
Heptachlor epoxide	1024-57-3	mg/kg		0.000075	U	0.000087	U	0.000072	U	0.000073	U	0.000075	U	0.000075	U
Methoxychlor	72-43-5	mg/kg		0.00016	U	0.00019	U	0.00016	U	0.00016	U	0.00016	U	0.00016	U
Endrin ketone	53494-70-5	mg/kg		0.000067	U	0.000077	U	0.000064	U	0.000065	U	0.000067	U	0.000066	U
Toxaphene	8001-35-2	mg/kg		0.0034	U	0.004	U	0.0033	U	0.0033	U	0.0034	U	0.0034	U
Tetrachloro-m-xylene (2)	877-09-8	%		86		90		89		86		80		80	
Tetrachloro-m-xylene (3)	877-09-8	%		88		90		92		90		86		85	
Decachlorobiphenyl (2)	2051-24-3	%		69		78		87		91		83		98	
Decachlorobiphenyl (3)	2051-24-3	%		69		96		78		93		75		81	
(GC/LC Semi-volatiles (SW846 8082A))															
Aroclor 1016	12674-11-2	mg/kg	0.1	0.0089	U	0.01	U	0.0085	U	0.0086	U	0.0089	U	0.0088	U
Aroclor 1221	11104-28-2	mg/kg	0.1	0.007	U	0.0081	U	0.0067	U	0.0068	U	0.007	U	0.007	U
Aroclor 1232	11141-16-5	mg/kg	0.1	0.017	U	0.02	U	0.017	U	0.017	U	0.017	U	0.017	U
Aroclor 1242	53469-21-9	mg/kg	0.1	0.013	U	0.015	U	0.012	U	0.012	U	0.013	U	0.012	U
Aroclor 1248	12672-29-6	mg/kg	0.1	0.0045	U	0.0052	U	0.0043	U	0.0044	U	0.0045	U	0.0045	U
Aroclor 1254	11097-69-1	mg/kg	0.1	0.0023	U	0.0026	U	0.0021	U	0.0022	U	0.0023	U	0.0022	U
Aroclor 1260	11096-82-5	mg/kg	0.1	0.0072	U	0.0084	U	0.0069	U	0.007	U	0.0072	U	0.0071	U
Aroclor 1268	11100-14-4	mg/kg	0.1	0.0021	U	0.0024	U	0.002	U	0.002	U	0.0021	U	0.0021	U

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE26705		JE26705		JE26705		JE26705		JE26705		JE26705	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444		11444	
Client Sample ID:				EP-42		EP-43		EP-23		DUP20260109		EP-22		EP-15	
Lab Sample ID:				JE26705-1		JE26705-2		JE26705-3		JE26705-4		JE26705-5		JE26705-6	
Location:															
Date Sampled:				1/9/2026 10:45 AM		1/9/2026 10:43 AM		1/9/2026 10:36 AM		1/9/2026 10:40 AM		1/9/2026 10:33 AM		1/9/2026 10:30 AM	
Matrix:				Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**													
Aroclor 1262	37324-23-5	mg/kg	0.1	0.0017	U	0.002	U	0.0017	U	0.0017	U	0.0017	U	0.0017	U
Tetrachloro-m-xylene	877-09-8	%		67		63		64		57		58		53	
Tetrachloro-m-xylene (1)	877-09-8	%		57		54		56		53		53		48	
Decachlorobiphenyl	2051-24-3	%		34		31		33		33		32		32	
Decachlorobiphenyl (1)	2051-24-3	%		31		33		31		30		30		30	
(General Chemistry (SM2540 G 18TH ED MOD))															
Solids, Percent	PERCENT SOLIDS	%		93.9		82.6		94.8		93.5		93.9		92.8	
(General Chemistry (SW846 9012B/LACHAT))															
Cyanide	57-12-5	mg/kg	2.3	0.28	U	0.3	U	0.28	U	0.31	U	0.29	U	0.26	U
(Metals Analysis (SW846 6010D))															
Aluminum	7429-90-5	mg/kg		6540		12100		11500		11700		12100		11600	
Antimony	7440-36-0	mg/kg		2.1	U	2.4	U	2.3		2	U	2.1	U	2.1	U
Arsenic	7440-38-2	mg/kg	13	2.1	U	3.7		8.4		2.1		2.3		2.1	
Barium	7440-39-3	mg/kg	410	39.3		55.6		49.8		73.4		64.8		59.9	
Beryllium	7440-41-7	mg/kg	4.4	0.24		0.48		0.39		0.41		0.42		0.41	
Cadmium	7440-43-9	mg/kg	2.5	0.51	U	0.59	U	0.5	U	0.51	U	0.51	U	0.52	U
Calcium	7440-70-2	mg/kg		1540		2670		1230		2420		1450		1420	
Chromium	7440-47-3	mg/kg	30	9.4		21		17.9		21.1		19.6		18.5	
Cobalt	7440-48-4	mg/kg		5.1	U	7.7		7.4		7.9		8		7.6	
Copper	7440-50-8	mg/kg	50	13.2		17.6		15.1		16.8		15.2		15.7	
Iron	7439-89-6	mg/kg		8970		18300		15200		15900		16400		15300	
Lead	7439-92-1	mg/kg	63	7.7		93.2		7.4		7.8		10.6		7.4	
Magnesium	7439-95-4	mg/kg		2010		3830		4060		4930		4220		3950	
Manganese	7439-96-5	mg/kg	1600	254		298		312		339		405		325	
Nickel	7440-02-0	mg/kg	30	9.9		16.3		14.6		15.5		15.3		15.1	
Potassium	7440-09-7	mg/kg		1000	U	1220		1010		1690		1620		1320	
Selenium	7782-49-2	mg/kg	3.9	2.1	U	2.4	U	2	U	2	U	2.1	U	2.1	U
Silver	7440-22-4	mg/kg	2	0.51	U	0.59	U	0.5	U	0.51	U	0.51	U	0.52	U
Sodium	7440-23-5	mg/kg		1000	U	1200	U	1000	U	1000	U	1000	U	1000	U
Thallium	7440-28-0	mg/kg		1	U	1.2	U	1	U	1	U	1	U	1	U
Vanadium	7440-62-2	mg/kg		12.6		29.4		24.1		27.8		26.5		25.3	
Zinc	7440-66-6	mg/kg	109	29.8		44.5		39.8		41.6		44		39	
(Metals Analysis (SW846 7471B))															
Mercury	7439-97-6	mg/kg	0.18	0.029	U	0.038	U	0.032	U	0.03	U	0.028	U	0.031	U
(MS Semi-volatile TIC ())															
n-Hexadecanoic acid	57-10-3	mg/kg		0.78	JNB	0.93	JNB					1.2	JNB		
Unknown	TIC	mg/kg													

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE26705		JE26705		JE26705		JE26705		JE26705		JE26705	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444		11444	
Client Sample ID:				EP-42		EP-43		EP-23		DUP20260109		EP-22		EP-15	
Lab Sample ID:				JE26705-1		JE26705-2		JE26705-3		JE26705-4		JE26705-5		JE26705-6	
Location:															
Date Sampled:				1/9/2026 10:45 AM		1/9/2026 10:43 AM		1/9/2026 10:36 AM		1/9/2026 10:40 AM		1/9/2026 10:33 AM		1/9/2026 10:30 AM	
Matrix:				Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**													
Alkane (9)	TIC	mg/kg													
Octadecanoic acid	57-11-4	mg/kg		0.21	JN	0.18	JN	0.2	JN	0.18	JN			0.16	JN
Pentadecanoic acid	1002-84-2	mg/kg										0.22	JN		
unknown	TIC	mg/kg						0.61	JB						
Unknown	TIC	mg/kg								0.63	JB				
unknown	TIC	mg/kg													
Alkane (15)	TIC	mg/kg													
Unknown	TIC	mg/kg										0.74	JB	0.52	JB
unknown (1)	TIC	mg/kg						0.25	J						
unknown (1)	TIC	mg/kg													
Unknown alkene	TIC	mg/kg		0.48	JB										
Alkane	TIC	mg/kg		0.23	J					0.45	J			0.2	J
Alkane (16)	TIC	mg/kg													
Unknown (1)	TIC	mg/kg								0.19	J	0.39	J	0.5	J
unknown (2)	TIC	mg/kg						0.19	J						
unknown (2)	TIC	mg/kg													
Alkane (17)	TIC	mg/kg													
Unknown	TIC	mg/kg		0.21	JB	0.56	JB								
Unknown (2)	TIC	mg/kg				0.23	J								
Unknown (2)	TIC	mg/kg										0.16	J		
unknown (3)	TIC	mg/kg						0.16	J						
Alkane (18)	TIC	mg/kg													
Cyclohexane alkyl (3)	TIC	mg/kg													
unknown	TIC	mg/kg										0.24	J		
unknown (4)	TIC	mg/kg													
Cyclohexane alkyl (1)	TIC	mg/kg													
Alkane (19)	TIC	mg/kg													
Unknown (3)	TIC	mg/kg													
Alkane (20)	TIC	mg/kg													
Alkane (1)	TIC	mg/kg												0.19	J
Cyclohexane alkyl	TIC	mg/kg													
Unknown (1)	TIC	mg/kg													
Alkane (2)	TIC	mg/kg												0.19	J
Alkane (3)	TIC	mg/kg												0.16	J
Alkane (4)	TIC	mg/kg												0.34	J
Unknown (2)	TIC	mg/kg													
Alkane (5)	TIC	mg/kg												0.14	J

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE26705		JE26705		JE26705		JE26705		JE26705		JE26705	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444		11444	
Client Sample ID:				EP-42		EP-43		EP-23		DUP20260109		EP-22		EP-15	
Lab Sample ID:				JE26705-1		JE26705-2		JE26705-3		JE26705-4		JE26705-5		JE26705-6	
Location:															
Date Sampled:				1/9/2026 10:45 AM		1/9/2026 10:43 AM		1/9/2026 10:36 AM		1/9/2026 10:40 AM		1/9/2026 10:33 AM		1/9/2026 10:30 AM	
Matrix:				Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**													
Alkane (6)	TIC	mg/kg													
Alkane (7)	TIC	mg/kg													
Alkane (8)	TIC	mg/kg													
Alkane (10)	TIC	mg/kg													
Alkane (11)	TIC	mg/kg													
Cyclohexane alkyl (2)	TIC	mg/kg													
Unknown (1)	TIC	mg/kg				0.17	J								
Alkane (12)	TIC	mg/kg													
Alkane (13)	TIC	mg/kg													
Alkane (14)	TIC	mg/kg													
Total TIC, Semi-Volatile	OTAL TIC, SEMI-VOLATIL	mg/kg		0.44	J	0.58	J	0.8	J	0.82	J	1.01	J	1.88	J
(MS Semi-volatiles (SW846 8270E))															
2-Chlorophenol	95-57-8	mg/kg		0.017	U	0.02	U	0.017	U	0.017	U	0.017	U	0.017	U
4-Chloro-3-methyl phenol	59-50-7	mg/kg		0.021	U	0.025	U	0.021	U	0.021	U	0.021	U	0.021	U
2,4-Dichlorophenol	120-83-2	mg/kg		0.03	U	0.034	U	0.029	U	0.03	U	0.029	U	0.03	U
2,4-Dimethylphenol	105-67-9	mg/kg		0.062	U	0.071	U	0.06	U	0.062	U	0.061	U	0.062	U
2,4-Dinitrophenol	51-28-5	mg/kg		0.13	U	0.15	U	0.13	U	0.13	U	0.13	U	0.13	U
4,6-Dinitro-o-cresol	534-52-1	mg/kg		0.037	U	0.043	U	0.036	U	0.037	U	0.037	U	0.037	U
2-Methylphenol	95-48-7	mg/kg	0.33	0.022	U	0.026	U	0.021	U	0.022	U	0.022	U	0.022	U
3&4-Methylphenol	M+P-CRESOLS	mg/kg	0.33	0.029	U	0.033	U	0.028	U	0.029	U	0.028	U	0.029	U
2-Nitrophenol	88-75-5	mg/kg		0.023	U	0.026	U	0.022	U	0.023	U	0.023	U	0.023	U
4-Nitrophenol	100-02-7	mg/kg		0.093	U	0.11	U	0.089	U	0.093	U	0.092	U	0.093	U
Pentachlorophenol	87-86-5	mg/kg	0.8	0.033	U	0.038	U	0.031	U	0.033	U	0.032	U	0.033	U
Phenol	108-95-2	mg/kg	0.33	0.018	U	0.021	U	0.017	U	0.018	U	0.018	U	0.018	U
2,3,4,6-Tetrachlorophenol	58-90-2	mg/kg		0.023	U	0.027	U	0.022	U	0.023	U	0.023	U	0.023	U
2,4,5-Trichlorophenol	95-95-4	mg/kg		0.026	U	0.03	U	0.025	U	0.026	U	0.026	U	0.026	U
2,4,6-Trichlorophenol	88-06-2	mg/kg		0.021	U	0.024	U	0.02	U	0.021	U	0.02	U	0.021	U
Acenaphthene	83-32-9	mg/kg	20	0.012	U	0.014	U	0.012	U	0.012	U	0.012	U	0.012	U
Acenaphthylene	208-96-8	mg/kg	100	0.018	U	0.02	U	0.017	U	0.018	U	0.017	U	0.018	U
Acetophenone	98-86-2	mg/kg		0.0075	U	0.0086	U	0.0072	U	0.0075	U	0.0074	U	0.0075	U
Anthracene	120-12-7	mg/kg	100	0.021	U	0.025	U	0.021	U	0.021	U	0.021	U	0.021	U
Atrazine	1912-24-9	mg/kg		0.015	U	0.017	U	0.014	U	0.015	U	0.015	U	0.015	U
Benzo(a)anthracene	56-55-3	mg/kg	1	0.0225	J	0.0697		0.0095	U	0.0099	U	0.0119	J	0.0099	U
Benzo(a)pyrene	50-32-8	mg/kg	1	0.016	U	0.0562		0.015	U	0.016	U	0.016	U	0.016	U
Benzo(b)fluoranthene	205-99-2	mg/kg	1	0.0228	J	0.0731		0.015	U	0.015	U	0.015	U	0.015	U
Benzo(g,h,i)perylene	191-24-2	mg/kg	0.64	0.0188	J	0.0454		0.017	U	0.017	U	0.017	U	0.017	U
Benzo(k)fluoranthene	207-08-9	mg/kg	0.8	0.016	U	0.0278	J	0.016	U	0.016	U	0.016	U	0.016	U

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE26705		JE26705		JE26705		JE26705		JE26705		JE26705	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444		11444	
Client Sample ID:				EP-42		EP-43		EP-23		DUP20260109		EP-22		EP-15	
Lab Sample ID:				JE26705-1		JE26705-2		JE26705-3		JE26705-4		JE26705-5		JE26705-6	
Location:															
Date Sampled:				1/9/2026 10:45 AM		1/9/2026 10:43 AM		1/9/2026 10:36 AM		1/9/2026 10:40 AM		1/9/2026 10:33 AM		1/9/2026 10:30 AM	
Matrix:				Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**													
-Bromophenyl phenyl ethe	101-55-3	mg/kg		0.013	U	0.015	U	0.013	U	0.013	U	0.013	U	0.013	U
Butyl benzyl phthalate	85-68-7	mg/kg		0.0085	U	0.0098	U	0.0082	U	0.0085	U	0.0084	U	0.0085	U
1,1'-Biphenyl	92-52-4	mg/kg		0.0048	U	0.0055	U	0.0046	U	0.0048	U	0.0047	U	0.0048	U
Benzaldehyde	100-52-7	mg/kg		0.0086	U	0.0099	U	0.0083	U	0.0086	U	0.0085	U	0.0086	U
2-Chloronaphthalene	91-58-7	mg/kg		0.0083	U	0.0095	U	0.008	U	0.0083	U	0.0082	U	0.0083	U
4-Chloroaniline	106-47-8	mg/kg		0.013	U	0.014	U	0.012	U	0.013	U	0.012	U	0.013	U
Carbazole	86-74-8	mg/kg		0.005	U	0.0142	J	0.0049	U	0.0051	U	0.005	U	0.0051	U
Caprolactam	105-60-2	mg/kg		0.014	U	0.016	U	0.013	U	0.014	U	0.014	U	0.014	U
Chrysene	218-01-9	mg/kg	1	0.0135	J	0.0542		0.011	U	0.011	U	0.011	U	0.011	U
is(2-Chloroethoxy)methan	111-91-1	mg/kg		0.0074	U	0.0086	U	0.0072	U	0.0075	U	0.0074	U	0.0075	U
bis(2-Chloroethyl)ether	111-44-4	mg/kg		0.015	U	0.017	U	0.014	U	0.015	U	0.015	U	0.015	U
2'-Oxybis(1-chloropropan	108-60-1	mg/kg		0.012	U	0.014	U	0.012	U	0.013	U	0.012	U	0.013	U
-Chlorophenyl phenyl ethe	7005-72-3	mg/kg		0.011	U	0.013	U	0.011	U	0.011	U	0.011	U	0.011	U
2,4-Dinitrotoluene	121-14-2	mg/kg		0.011	U	0.012	U	0.01	U	0.011	U	0.011	U	0.011	U
2,6-Dinitrotoluene	606-20-2	mg/kg		0.017	U	0.02	U	0.017	U	0.017	U	0.017	U	0.018	U
3,3'-Dichlorobenzidine	91-94-1	mg/kg		0.029	U	0.033	U	0.028	U	0.029	U	0.029	U	0.029	U
1,4-Dioxane	123-91-1	mg/kg	0.1	0.023	U	0.026	U	0.022	U	0.023	U	0.023	U	0.023	U
Dibenzo(a,h)anthracene	53-70-3	mg/kg	0.33	0.015	U	0.018	U	0.015	U	0.015	U	0.015	U	0.015	U
Dibenzofuran	132-64-9	mg/kg	2.1	0.014	U	0.016	U	0.014	U	0.014	U	0.014	U	0.014	U
Di-n-butyl phthalate	84-74-2	mg/kg		0.0057	U	0.0065	U	0.009	J	0.039	J	0.0056	U	0.0283	J
Di-n-octyl phthalate	117-84-0	mg/kg		0.0087	U	0.01	U	0.0083	U	0.0087	U	0.0086	U	0.0087	U
Diethyl phthalate	84-66-2	mg/kg		0.0074	U	0.0085	U	0.0319	J	0.0074	U	0.0073	U	0.0074	U
Dimethyl phthalate	131-11-3	mg/kg		0.0062	U	0.0071	U	0.006	U	0.0062	U	0.0061	U	0.0062	U
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg		0.0143	J	0.021	J	0.0111	J	0.0107	J	0.008	U	0.0194	J
Fluoranthene	206-44-0	mg/kg	85	0.0305	J	0.125		0.015	U	0.016	U	0.015	U	0.016	U
Fluorene	86-73-7	mg/kg	30	0.016	U	0.018	U	0.015	U	0.016	U	0.016	U	0.016	U
Hexachlorobenzene	118-74-1	mg/kg	0.33	0.0088	U	0.01	U	0.0085	U	0.0088	U	0.0087	U	0.0088	U
Hexachlorobutadiene	87-68-3	mg/kg		0.014	U	0.016	U	0.013	U	0.014	U	0.014	U	0.014	U
Hexachlorocyclopentadien	77-47-4	mg/kg		0.014	U	0.016	U	0.013	U	0.014	U	0.014	U	0.014	U
Hexachloroethane	67-72-1	mg/kg		0.017	U	0.02	U	0.017	U	0.017	U	0.017	U	0.017	U
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	0.5	0.016	U	0.0338	J	0.016	U	0.016	U	0.016	U	0.016	U
Isophorone	78-59-1	mg/kg		0.0074	U	0.0086	U	0.0072	U	0.0075	U	0.0074	U	0.0075	U
2-Methylnaphthalene	91-57-6	mg/kg		0.0079	U	0.0091	U	0.0076	U	0.0079	U	0.0078	U	0.0079	U
2-Nitroaniline	88-74-4	mg/kg		0.0082	U	0.0095	U	0.0079	U	0.0082	U	0.0081	U	0.0082	U
3-Nitroaniline	99-09-2	mg/kg		0.0087	U	0.01	U	0.0084	U	0.0087	U	0.0086	U	0.0087	U
4-Nitroaniline	100-01-6	mg/kg		0.009	U	0.01	U	0.0087	U	0.009	U	0.0089	U	0.009	U
Naphthalene	91-20-3	mg/kg	12	0.0098	U	0.011	U	0.0094	U	0.0098	U	0.0097	U	0.0098	U

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE26705		JE26705		JE26705		JE26705		JE26705		JE26705	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444		11444	
Client Sample ID:				EP-42		EP-43		EP-23		DUP20260109		EP-22		EP-15	
Lab Sample ID:				JE26705-1		JE26705-2		JE26705-3		JE26705-4		JE26705-5		JE26705-6	
Location:															
Date Sampled:				1/9/2026 10:45 AM		1/9/2026 10:43 AM		1/9/2026 10:36 AM		1/9/2026 10:40 AM		1/9/2026 10:33 AM		1/9/2026 10:30 AM	
Matrix:				Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**													
Nitrobenzene	98-95-3	mg/kg	0.08	0.013	U	0.015	U	0.013	U	0.013	U	0.013	U	0.013	U
N-Nitroso-di-n-propylamine	621-64-7	mg/kg		0.01	U	0.012	U	0.0097	U	0.01	U	0.0099	U	0.01	U
N-Nitrosodiphenylamine	86-30-6	mg/kg		0.013	U	0.015	U	0.012	U	0.013	U	0.013	U	0.013	U
Phenanthrene	85-01-8	mg/kg	1.1	0.0189	J	0.0868		0.011	U	0.012	U	0.012	U	0.012	U
Pyrene	129-00-0	mg/kg	64	0.028	J	0.118		0.011	U	0.011	U	0.0149	J	0.011	U
,2,4,5-Tetrachlorobenzen	95-94-3	mg/kg		0.0088	U	0.01	U	0.0085	U	0.0088	U	0.0087	U	0.0089	U
2-Fluorophenol	367-12-4	%		70		73		62		76		64		67	
Phenol-d5	4165-62-2	%		70		71		63		74		61		66	
2,4,6-Tribromophenol	118-79-6	%		80		86		78		86		77		77	
Nitrobenzene-d5	4165-60-0	%		65		67		56		69		59		62	
2-Fluorobiphenyl	321-60-8	%		74		77		68		78		65		71	
Terphenyl-d14	1718-51-0	%		79		85		72		82		71		74	
(MS Volatile TIC ())															
alkane	TIC	mg/kg													
halene,tetrahydro-methyl-	TIC	mg/kg								0.0076	J	0.0061	J		
alkane (6)	TIC	mg/kg													
alkane (7)	TIC	mg/kg													
alkane (8)	TIC	mg/kg													
alkane (9)	TIC	mg/kg													
alkane (10)	TIC	mg/kg													
cycloalkane (1)	TIC	mg/kg													
alkane (11)	TIC	mg/kg													
alkane (12)	TIC	mg/kg													
alkane (1)	TIC	mg/kg													
alkane (2)	TIC	mg/kg													
alkane (3)	TIC	mg/kg													
cycloalkane	TIC	mg/kg													
alkane (4)	TIC	mg/kg													
alkane (5)	TIC	mg/kg													
Total TIC, Volatile	TOTAL TIC, VOLATILE	mg/kg		0		0		0		0.0076	J	0.0061	J	0	
Total TIC, Volatile	TOTAL TIC, VOLATILE	ug/l													
(MS Volatiles (SW846 8260D))															
Acetone	67-64-1	mg/kg	0.03	0.0053	J	0.0036	U	0.0044	U	0.004	U	0.0039	U	0.0051	U
Acetone	67-64-1	ug/l													
Benzene	71-43-2	mg/kg	0.06	0.0005	U	0.0004	U	0.00048	U	0.00043	U	0.00043	U	0.00056	U
Bromochloromethane	74-97-5	mg/kg		0.00062	U	0.00049	U	0.00059	U	0.00053	U	0.00052	U	0.00069	U
Benzene	71-43-2	ug/l													

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE26705		JE26705		JE26705		JE26705		JE26705		JE26705	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444		11444	
Client Sample ID:				EP-42		EP-43		EP-23		DUP20260109		EP-22		EP-15	
Lab Sample ID:				JE26705-1		JE26705-2		JE26705-3		JE26705-4		JE26705-5		JE26705-6	
Location:															
Date Sampled:				1/9/2026 10:45 AM		1/9/2026 10:43 AM		1/9/2026 10:36 AM		1/9/2026 10:40 AM		1/9/2026 10:33 AM		1/9/2026 10:30 AM	
Matrix:				Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**													
Bromodichloromethane	75-27-4	mg/kg		0.00048	U	0.00038	U	0.00045	U	0.00041	U	0.0004	U	0.00053	U
Bromoform	75-25-2	mg/kg		0.0015	U	0.0012	U	0.0014	U	0.0013	U	0.0013	U	0.0017	U
Bromomethane	74-83-9	mg/kg		0.00085	U	0.00067	U	0.00081	U	0.00073	U	0.00071	U	0.00094	U
2-Butanone (MEK)	78-93-3	mg/kg	0.1	0.0027	U	0.0021	U	0.0026	U	0.0023	U	0.0023	U	0.003	U
Bromochloromethane	74-97-5	ug/l													
Bromodichloromethane	75-27-4	ug/l													
Bromoform	75-25-2	ug/l													
Bromomethane	74-83-9	ug/l													
2-Butanone (MEK)	78-93-3	ug/l													
Carbon disulfide	75-15-0	mg/kg		0.00059	U	0.00047	U	0.00056	U	0.00051	U	0.0005	U	0.00066	U
Carbon tetrachloride	56-23-5	mg/kg	0.76	0.00069	U	0.00054	U	0.00065	U	0.00059	U	0.00058	U	0.00076	U
Chlorobenzene	108-90-7	mg/kg	4.5	0.00051	U	0.0004	U	0.00048	U	0.00044	U	0.00043	U	0.00056	U
Chloroethane	75-00-3	mg/kg		0.00066	U	0.00052	U	0.00062	U	0.00056	U	0.00055	U	0.00072	U
Carbon disulfide	75-15-0	ug/l													
Carbon tetrachloride	56-23-5	ug/l													
Chloroform	67-66-3	mg/kg	0.37	0.0011	U	0.00088	U	0.0011	U	0.00095	U	0.00093	U	0.0012	U
Chlorobenzene	108-90-7	ug/l													
Chloromethane	74-87-3	mg/kg		0.0022	U	0.0017	U	0.0021	U	0.0019	U	0.0018	U	0.0024	U
Chloroethane	75-00-3	ug/l													
Chloroform	67-66-3	ug/l													
Cyclohexane	110-82-7	mg/kg		0.00073	U	0.00058	U	0.00069	U	0.00063	U	0.00061	U	0.0008	U
Chloromethane	74-87-3	ug/l													
2-Dibromo-3-chloropropan	96-12-8	mg/kg		0.00077	U	0.00061	U	0.00073	U	0.00066	U	0.00065	U	0.00085	U
Cyclohexane	110-82-7	ug/l													
Dibromochloromethane	124-48-1	mg/kg		0.00062	U	0.00049	U	0.00059	U	0.00053	U	0.00052	U	0.00069	U
1,2-Dibromoethane	106-93-4	mg/kg		0.00047	U	0.00037	U	0.00044	U	0.0004	U	0.00039	U	0.00052	U
1,2-Dichlorobenzene	95-50-1	mg/kg	1.1	0.00061	U	0.00048	U	0.00058	U	0.00052	U	0.00051	U	0.00067	U
1,3-Dichlorobenzene	541-73-1	mg/kg	2.6	0.00055	U	0.00044	U	0.00052	U	0.00047	U	0.00046	U	0.00061	U
2-Dibromo-3-chloropropan	96-12-8	ug/l													
1,4-Dichlorobenzene	106-46-7	mg/kg	1.8	0.00055	U	0.00043	U	0.00052	U	0.00047	U	0.00046	U	0.0006	U
Dibromochloromethane	124-48-1	ug/l													
1,2-Dibromoethane	106-93-4	ug/l													
Dichlorodifluoromethane	75-71-8	mg/kg		0.00081	U	0.00064	U	0.00077	U	0.00069	U	0.00068	U	0.00089	U
1,1-Dichloroethane	75-34-3	mg/kg	0.27	0.00055	U	0.00043	U	0.00052	U	0.00047	U	0.00046	U	0.00061	U
1,2-Dichlorobenzene	95-50-1	ug/l													
1,2-Dichloroethane	107-06-2	mg/kg	0.02	0.00052	U	0.00041	U	0.0005	U	0.00045	U	0.00044	U	0.00058	U
1,3-Dichlorobenzene	541-73-1	ug/l													

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE26705		JE26705		JE26705		JE26705		JE26705		JE26705	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444		11444	
Client Sample ID:				EP-42		EP-43		EP-23		DUP20260109		EP-22		EP-15	
Lab Sample ID:				JE26705-1		JE26705-2		JE26705-3		JE26705-4		JE26705-5		JE26705-6	
Location:															
Date Sampled:				1/9/2026 10:45 AM		1/9/2026 10:43 AM		1/9/2026 10:36 AM		1/9/2026 10:40 AM		1/9/2026 10:33 AM		1/9/2026 10:30 AM	
Matrix:				Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**													
1,1-Dichloroethene	75-35-4	mg/kg	0.24	0.00073	U	0.00057	U	0.00069	U	0.00063	U	0.00061	U	0.0008	U
1,4-Dichlorobenzene	106-46-7	ug/l													
cis-1,2-Dichloroethene	156-59-2	mg/kg	0.19	0.00093	U	0.00074	U	0.00089	U	0.0008	U	0.00078	U	0.001	U
Dichlorodifluoromethane	75-71-8	ug/l													
trans-1,2-Dichloroethene	156-60-5	mg/kg	0.19	0.00068	U	0.00054	U	0.00064	U	0.00058	U	0.00057	U	0.00075	U
1,1-Dichloroethane	75-34-3	ug/l													
1,2-Dichloroethane	107-06-2	ug/l													
1,2-Dichloropropane	78-87-5	mg/kg		0.00052	U	0.00041	U	0.0005	U	0.00045	U	0.00044	U	0.00058	U
1,1-Dichloroethene	75-35-4	ug/l													
cis-1,2-Dichloroethene	156-59-2	ug/l													
trans-1,2-Dichloroethene	156-60-5	ug/l													
cis-1,3-Dichloropropene	10061-01-5	mg/kg		0.00053	U	0.00042	U	0.0005	U	0.00045	U	0.00044	U	0.00058	U
1,2-Dichloropropane	78-87-5	ug/l													
trans-1,3-Dichloropropene	10061-02-6	mg/kg		0.00051	U	0.0004	U	0.00048	U	0.00044	U	0.00043	U	0.00056	U
cis-1,3-Dichloropropene	10061-01-5	ug/l													
trans-1,3-Dichloropropene	10061-02-6	ug/l													
Ethylbenzene	100-41-4	mg/kg	1	0.0005	U	0.0004	U	0.00048	U	0.00043	U	0.00042	U	0.00055	U
Ethylbenzene	100-41-4	ug/l													
Freon 113	76-13-1	mg/kg		0.003	U	0.0023	U	0.0028	U	0.0025	U	0.0025	U	0.0033	U
Freon 113	76-13-1	ug/l													
2-Hexanone	591-78-6	mg/kg		0.0024	U	0.0019	U	0.0022	U	0.002	U	0.002	U	0.0026	U
2-Hexanone	591-78-6	ug/l													
Isopropylbenzene	98-82-8	mg/kg		0.0016	U	0.0012	U	0.0015	U	0.0014	U	0.0013	U	0.0017	U
Isopropylbenzene	98-82-8	ug/l													
Methyl Acetate	79-20-9	mg/kg		0.0015	U	0.0012	U	0.0015	U	0.0013	U	0.0013	U	0.0017	U
Methylcyclohexane	108-87-2	mg/kg		0.00097	U	0.00077	U	0.00092	U	0.00084	U	0.00082	U	0.0011	U
Methyl Acetate	79-20-9	ug/l													
Methyl Tert Butyl Ether	1634-04-4	mg/kg	0.1	0.00052	U	0.00041	U	0.00049	U	0.00045	U	0.00044	U	0.00057	U
Methylcyclohexane	108-87-2	ug/l													
4-Methyl-2-pentanone(MIBK	108-10-1	mg/kg		0.0025	U	0.002	U	0.0024	U	0.0022	U	0.0021	U	0.0028	U
Methyl Tert Butyl Ether	1634-04-4	ug/l													
Methylene chloride	75-09-2	mg/kg	0.05	0.0033	J	0.0038	J	0.0028	U	0.0028	J	0.0024	U	0.0042	J
4-Methyl-2-pentanone(MIBK	108-10-1	ug/l													
Methylene chloride	75-09-2	ug/l													
Styrene	100-42-5	mg/kg		0.00045	U	0.00035	U	0.00042	U	0.00038	U	0.00038	U	0.00049	U
Styrene	100-42-5	ug/l													
1,1,2,2-Tetrachloroethane	79-34-5	mg/kg		0.00066	U	0.00053	U	0.00063	U	0.00057	U	0.00056	U	0.00073	U

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE26705		JE26705		JE26705		JE26705		JE26705		JE26705	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444		11444	
Client Sample ID:				EP-42		EP-43		EP-23		DUP20260109		EP-22		EP-15	
Lab Sample ID:				JE26705-1		JE26705-2		JE26705-3		JE26705-4		JE26705-5		JE26705-6	
Location:															
Date Sampled:				1/9/2026 10:45 AM		1/9/2026 10:43 AM		1/9/2026 10:36 AM		1/9/2026 10:40 AM		1/9/2026 10:33 AM		1/9/2026 10:30 AM	
Matrix:				Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**													
Tetrachloroethene	127-18-4	mg/kg	1.3	0.00064	U	0.00051	U	0.00061	U	0.00055	U	0.00054	U	0.00071	U
1,1,2,2-Tetrachloroethane	79-34-5	ug/l													
Tetrachloroethene	127-18-4	ug/l													
Toluene	108-88-3	mg/kg	0.7	0.00058	U	0.00046	U	0.00055	U	0.0005	U	0.00049	U	0.00064	U
1,2,3-Trichlorobenzene	87-61-6	mg/kg		0.0028	U	0.0022	U	0.0026	U	0.0024	U	0.0023	U	0.0031	U
Toluene	108-88-3	ug/l													
1,2,4-Trichlorobenzene	120-82-1	mg/kg		0.0028	U	0.0022	U	0.0026	U	0.0024	U	0.0023	U	0.0031	U
1,1,1-Trichloroethane	71-55-6	mg/kg	0.68	0.00054	U	0.00042	U	0.00051	U	0.00046	U	0.00045	U	0.00059	U
1,2,3-Trichlorobenzene	87-61-6	ug/l													
1,1,2-Trichloroethane	79-00-5	mg/kg		0.00061	U	0.00049	U	0.00058	U	0.00053	U	0.00052	U	0.00068	U
1,2,4-Trichlorobenzene	120-82-1	ug/l													
1,1,1-Trichloroethane	71-55-6	ug/l													
Trichloroethene	79-01-6	mg/kg	0.47	0.00085	U	0.00067	U	0.0008	U	0.00073	U	0.00071	U	0.00093	U
1,1,2-Trichloroethane	79-00-5	ug/l													
Trichlorofluoromethane	75-69-4	mg/kg		0.00076	U	0.0006	U	0.00072	U	0.00065	U	0.00064	U	0.00084	U
Trichloroethene	79-01-6	ug/l													
Trichlorofluoromethane	75-69-4	ug/l													
Vinyl chloride	75-01-4	mg/kg	0.03	0.00053	U	0.00042	U	0.00051	U	0.00046	U	0.00045	U	0.00059	U
m,p-Xylene	M,P-XYLENE	mg/kg	0.26	0.00099	U	0.00079	U	0.00095	U	0.00086	U	0.00084	U	0.0011	U
Vinyl chloride	75-01-4	ug/l													
o-Xylene	95-47-6	mg/kg	0.26	0.00051	U	0.0004	U	0.00048	U	0.00044	U	0.00043	U	0.00056	U
Xylene (total)	1330-20-7	mg/kg	0.26	0.00051	U	0.0004	U	0.00048	U	0.00044	U	0.00043	U	0.00056	U
m,p-Xylene	M,P-XYLENE	ug/l													
o-Xylene	95-47-6	ug/l													
Xylene (total)	1330-20-7	ug/l													
Dibromofluoromethane	1868-53-7	%		112		116		113		118		112		113	
1,2-Dichloroethane-D4	17060-07-0	%		112		111		119		113		111		115	
Toluene-D8	2037-26-5	%		101		101		100		101		100		100	
4-Bromofluorobenzene	460-00-4	%		98		97		98		98		100		98	
2 result(s) exceeded regulatory criteria.															

Footnote	Comments
	*** 6 footnote comments were removed from this export ***

SGS

SGS Engage - Group Crosstab

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE26705		JE26705		JE26705		JE26705		JE26705		JE26705	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westche Ave, White Plains,		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444		11444	
Client Sample ID:				EP-42		EP-43		EP-3		EP-16		UST-1 11 (-2)		UST-1 (-2)		TB-3	
Lab Sample ID:				JE26705-1		JE26705-2		JE26705-7		JE26705-8		JE26705-9		JE26705-10		JE26705-11	
Location:																	
Date Sampled:				1/9/2026 10:45 AM		1/9/2026 10:43 AM		1/9/2026 10:20 AM		1/9/2026 10:25 AM		1/9/2026 10:35 AM		1/9/2026 10:27 AM		1/9/2026 10:45 AM	
Matrix:				Soil		Soil		Soil		Soil		Soil		Soil		Trip Blank Soil	
Analyte	**CAS #**	**Unit**															
(GC/LC Semi-volatiles (SW846 8081B))																	
Aldrin	309-00-2	mg/kg	0.0048	0.000081	U	0.000094		0.000084	U	0.00008	U	0.000082	U	0.000089	U		
alpha-BHC	319-84-6	mg/kg	0.02	0.000048	U	0.000056		0.00005	U	0.000047	U	0.000049	U	0.000052	U		
beta-BHC	319-85-7	mg/kg	0.021	0.000061	U	0.00007		0.000063	U	0.00006	U	0.000061	U	0.000066	U		
delta-BHC	319-86-8	mg/kg	0.04	0.000063	U	0.000073		0.000065	U	0.000062	U	0.000063	U	0.000068	U		
gamma-BHC (Lindane)	58-89-9	mg/kg	0.025	0.000073	U	0.000085		0.000076	U	0.000072	U	0.000074	U	0.000079	U		
alpha-Chlordane	5103-71-9	mg/kg	0.014	0.000056	U	0.000065		0.000097	J	0.000056	U	0.000057	U	0.000061	U		
gamma-Chlordane	5103-74-2	mg/kg		0.000063	U	0.000073		0.000067	J	0.000062	U	0.000063	U	0.000068	U		
Dieldrin	60-57-1	mg/kg	0.005	0.000067	U	0.000077		0.000069	U	0.000066	U	0.000068	U	0.000073	U		
4,4'-DDD	72-54-8	mg/kg	0.0033	0.000044	U	0.00022		0.000057	J	0.000096	J	0.000044	U	0.0003	J		
4,4'-DDE	72-55-9	mg/kg	0.0033	0.00005	U	0.000058		0.00026	J	0.000049	U	0.00033	J	0.00044	J		
4,4'-DDT	50-29-3	mg/kg	0.0033	0.000073	U	0.00053		0.00036	J	0.00053		0.0013		0.001			
Endrin	72-20-8	mg/kg	0.014	0.000061	U	0.00007		0.000063	U	0.00006	U	0.000061	U	0.000066	U		
Endosulfan sulfate	1031-07-8	mg/kg	4.3	0.00005	U	0.000058		0.000052	U	0.000049	U	0.000051	U	0.000054	U		
Endrin aldehyde	7421-93-4	mg/kg		0.00012	U	0.00014		0.00013	U	0.00012	U	0.00012	U	0.00013	U		
Endosulfan-I	959-98-8	mg/kg	4.3	0.000056	U	0.000065		0.000058	U	0.000056	U	0.000057	U	0.000061	U		
Endosulfan-II	33213-65-9	mg/kg	4.3	0.000058	U	0.000068		0.00006	U	0.000058	U	0.000059	U	0.000064	U		
Heptachlor	76-44-8	mg/kg	0.013	0.000054	U	0.000063		0.000056	U	0.000054	U	0.000055	U	0.000059	U		
Heptachlor epoxide	1024-57-3	mg/kg		0.000075	U	0.000087		0.000078	U	0.000074	U	0.000076	U	0.000082	U		
Methoxychlor	72-43-5	mg/kg		0.00016	U	0.00019		0.00017	U	0.00016	U	0.00017	U	0.00018	U		
Endrin ketone	53494-70-5	mg/kg		0.000067	U	0.000077		0.000069	U	0.000066	U	0.000068	U	0.000073	U		
Toxaphene	8001-35-2	mg/kg		0.0034	U	0.004		0.0036	U	0.0034	U	0.0035	U	0.0037	U		
Tetrachloro-m-xylene (2)	877-09-8	%		86		90		91		83		110		85			
Tetrachloro-m-xylene (3)	877-09-8	%		88		90		94		87		100		90			
Decachlorobiphenyl (2)	2051-24-3	%		69		78		81		84		98		100			
Decachlorobiphenyl (3)	2051-24-3	%		69		96		80		77		127		100			
(GC/LC Semi-volatiles (SW846 8082A))																	
Aroclor 1016	12674-11-2	mg/kg	0.1	0.0089	U	0.01		0.0092	U	0.0088	U	0.009	U	0.0096	U		
Aroclor 1221	11104-28-2	mg/kg	0.1	0.007	U	0.0081		0.0073	U	0.0069	U	0.0071	U	0.0076	U		
Aroclor 1232	11141-16-5	mg/kg	0.1	0.017	U	0.02		0.018	U	0.017	U	0.018	U	0.019	U		
Aroclor 1242	53469-21-9	mg/kg	0.1	0.013	U	0.015		0.013	U	0.012	U	0.013	U	0.014	U		
Aroclor 1248	12672-29-6	mg/kg	0.1	0.0045	U	0.0052		0.0047	U	0.0044	U	0.0046	U	0.0049	U		
Aroclor 1254	11097-69-1	mg/kg	0.1	0.0023	U	0.0026		0.0023	U	0.0022	U	0.0023	U	0.0025	U		
Aroclor 1260	11096-82-5	mg/kg	0.1	0.0072	U	0.0084		0.0074	U	0.0071	U	0.0073	U	0.0078	U		
Aroclor 1268	11100-14-4	mg/kg	0.1	0.0021	U	0.0024		0.0022	U	0.0021	U	0.0021	U	0.0023	U		

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE26705		JE26705		JE26705		JE26705		JE26705		JE26705	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444		11444	
Client Sample ID:				EP-42		EP-43		EP-3		EP-16		UST-1 11 (-2)		UST-1 (-2)		TB-3	
Lab Sample ID:				JE26705-1		JE26705-2		JE26705-7		JE26705-8		JE26705-9		JE26705-10		JE26705-11	
Location:																	
Date Sampled:				1/9/2026 10:45 AM		1/9/2026 10:43 AM		1/9/2026 10:20 AM		1/9/2026 10:25 AM		1/9/2026 10:35 AM		1/9/2026 10:27 AM		1/9/2026 10:45 AM	
Matrix:				Soil		Soil		Soil		Soil		Soil		Soil		Trip Blank Soil	
Analyte	**CAS #**	**Unit**															
Aroclor 1262	37324-23-5	mg/kg	0.1	0.0017	U	0.002		0.0018	U	0.0017	U	0.0018	U	0.0019	U		
Tetrachloro-m-xylene	877-09-8	%		67		63		69		58		50		59			
Tetrachloro-m-xylene (1)	877-09-8	%		57		54		60		52		38		47			
Decachlorobiphenyl	2051-24-3	%		34		31		32		30		29		30			
Decachlorobiphenyl (1)	2051-24-3	%		31		33		31		30		32		32			
(General Chemistry (SM2540 G 18TH ED MOD))																	
Solids, Percent	PERCENT SOLIDS	%		93.9		82.6		89.1		93.4		91		86.4			
(General Chemistry (SW846 9012B/LACHAT))																	
Cyanide	57-12-5	mg/kg	2.3	0.28	U	0.3		0.25	U	0.28	U	0.3	U	0.3	U		
(Metals Analysis (SW846 6010D))																	
Aluminum	7429-90-5	mg/kg		6540		12100		9440		11800		12000		12800			
Antimony	7440-36-0	mg/kg		2.1	U	2.4		2.1	U	2.1	U	2.1	U	2.3	U		
Arsenic	7440-38-2	mg/kg	13	2.1	U	3.7		2.1	U	2.1	U	2.4		3.2			
Barium	7440-39-3	mg/kg	410	39.3		55.6		81.9		59.7		86.7		85.1			
Beryllium	7440-41-7	mg/kg	4.4	0.24		0.48		0.33		0.41		0.46		0.45			
Cadmium	7440-43-9	mg/kg	2.5	0.51	U	0.59		0.53	U	0.52	U	0.53	U	0.56	U		
Calcium	7440-70-2	mg/kg		1540		2670		3250		1690		2200		2250			
Chromium	7440-47-3	mg/kg	30	9.4		21		16.2		20.6		21.3		19.9			
Cobalt	7440-48-4	mg/kg		5.1	U	7.7		6.4		7.6		7.6		8.1			
Copper	7440-50-8	mg/kg	50	13.2		17.6		16.9		16.7		23.3		36.2			
Iron	7439-89-6	mg/kg		8970		18300		13000		15300		17500		16400			
Lead	7439-92-1	mg/kg	63	7.7		93.2		8.7		7.2		185		46.1			
Magnesium	7439-95-4	mg/kg		2010		3830		3890		4240		4290		3800			
Manganese	7439-96-5	mg/kg	1600	254		298		367		312		362		409			
Nickel	7440-02-0	mg/kg	30	9.9		16.3		13.8		14.9		15.1		15.6			
Potassium	7440-09-7	mg/kg		1000	U	1220		1500		1460		2050		1440			
Selenium	7782-49-2	mg/kg	3.9	2.1	U	2.4		2.1	U	2.1	U	2.1	U	2.3	U		
Silver	7440-22-4	mg/kg	2	0.51	U	0.59		0.53	U	0.52	U	0.53	U	0.56	U		
Sodium	7440-23-5	mg/kg		1000	U	1200		1100	U	1000	U	1100	U	1100	U		
Thallium	7440-28-0	mg/kg		1	U	1.2		1.1	U	1	U	1.1	U	1.1	U		
Vanadium	7440-62-2	mg/kg		12.6		29.4		22.8		26.7		28.9		28.4			
Zinc	7440-66-6	mg/kg	109	29.8		44.5		42.1		40.9		80.6		85.5			
(Metals Analysis (SW846 7471B))																	
Mercury	7439-97-6	mg/kg	0.18	0.029	U	0.038		0.034	U	0.033	U	0.028	U	0.044			
(MS Semi-volatile TIC ())																	
n-Hexadecanoic acid	57-10-3	mg/kg		0.78	JNB	0.93											
Unknown	TIC	mg/kg										1.6	J				

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE26705		JE26705		JE26705		JE26705		JE26705		JE26705		JE26705	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444		11444		11444	
Client Sample ID:				EP-42		EP-43		EP-3		EP-16		UST-1 11 (-2)		UST-1 (-2)		TB-3	
Lab Sample ID:				JE26705-1		JE26705-2		JE26705-7		JE26705-8		JE26705-9		JE26705-10		JE26705-11	
Location:																	
Date Sampled:				1/9/2026 10:45 AM		1/9/2026 10:43 AM		1/9/2026 10:20 AM		1/9/2026 10:25 AM		1/9/2026 10:35 AM		1/9/2026 10:27 AM		1/9/2026 10:45 AM	
Matrix:				Soil		Soil		Soil		Soil		Soil		Soil		Trip Blank Soil	
Analyte	**CAS #**	**Unit**															
Alkane (9)	TIC	mg/kg										0.9	J	0.79	J		
Octadecanoic acid	57-11-4	mg/kg		0.21	JN	0.18		0.15	JN	0.23	JN						
Pentadecanoic acid	1002-84-2	mg/kg															
unknown	TIC	mg/kg															
Unknown	TIC	mg/kg															
unknown	TIC	mg/kg								0.7	JB						
Alkane (15)	TIC	mg/kg										1.2	J	2.5	J		
Unknown	TIC	mg/kg						0.53	JB								
unknown (1)	TIC	mg/kg															
unknown (1)	TIC	mg/kg								0.27	J						
Unknown alkene	TIC	mg/kg		0.48	JB												
Alkane	TIC	mg/kg		0.23	J							0.97	J	0.77	J		
Alkane (16)	TIC	mg/kg										2	J	0.46	J		
Unknown (1)	TIC	mg/kg						0.31	J								
unknown (2)	TIC	mg/kg															
unknown (2)	TIC	mg/kg								0.15	J						
Alkane (17)	TIC	mg/kg												0.41	J		
Unknown	TIC	mg/kg		0.21	JB	0.56								0.61	J		
Unknown (2)	TIC	mg/kg				0.23											
Unknown (2)	TIC	mg/kg															
unknown (3)	TIC	mg/kg								0.19	J						
Alkane (18)	TIC	mg/kg												0.66	J		
Cyclohexane alkyl (3)	TIC	mg/kg										1.2	J				
unknown	TIC	mg/kg															
unknown (4)	TIC	mg/kg								0.28	JB						
Cyclohexane alkyl (1)	TIC	mg/kg										0.88	J	0.53	J		
Alkane (19)	TIC	mg/kg												0.5	J		
Unknown (3)	TIC	mg/kg										0.87	J				
Alkane (20)	TIC	mg/kg												0.56	J		
Alkane (1)	TIC	mg/kg										1.4	J	0.7	J		
Cyclohexane alkyl	TIC	mg/kg										3.1	J	0.54	J		
Unknown (1)	TIC	mg/kg										0.91	J				
Alkane (2)	TIC	mg/kg										4.7	J	0.49	J		
Alkane (3)	TIC	mg/kg										1.9	J	0.42	J		
Alkane (4)	TIC	mg/kg										0.88	J	0.45	J		
Unknown (2)	TIC	mg/kg										0.89	J				
Alkane (5)	TIC	mg/kg										5.6	J	1.7	J		

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE26705		JE26705		JE26705		JE26705		JE26705		JE26705		JE26705	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444		11444		11444	
Client Sample ID:				EP-42		EP-43		EP-3		EP-16		UST-1 11 (-2)		UST-1 (-2)		TB-3	
Lab Sample ID:				JE26705-1		JE26705-2		JE26705-7		JE26705-8		JE26705-9		JE26705-10		JE26705-11	
Location:																	
Date Sampled:				1/9/2026 10:45 AM		1/9/2026 10:43 AM		1/9/2026 10:20 AM		1/9/2026 10:25 AM		1/9/2026 10:35 AM		1/9/2026 10:27 AM		1/9/2026 10:45 AM	
Matrix:				Soil		Soil		Soil		Soil		Soil		Soil		Trip Blank Soil	
Analyte	**CAS #**	**Unit**															
Alkane (6)	TIC	mg/kg										0.99	J	0.77	J		
Alkane (7)	TIC	mg/kg										1.1	J	2	J		
Alkane (8)	TIC	mg/kg										2.9	J	0.96	J		
Alkane (10)	TIC	mg/kg										1.2	J	0.5	J		
Alkane (11)	TIC	mg/kg										0.93	J	0.48	J		
Cyclohexane alkyl (2)	TIC	mg/kg										0.95	J				
Unknown (1)	TIC	mg/kg				0.17								0.6	JB		
Alkane (12)	TIC	mg/kg										1.9	J	0.7	J		
Alkane (13)	TIC	mg/kg										5	J	0.45	J		
Alkane (14)	TIC	mg/kg										1.6	J	0.41	J		
Total TIC, Semi-Volatile	OTAL TIC, SEMI-VOLATIL	mg/kg		0.44	J	0.58	0.46	J	0.84	J	45.57	J	18.36	J				
(MS Semi-volatiles (SW846 8270E))																		
2-Chlorophenol	95-57-8	mg/kg		0.017	U	0.02	0.018	U	0.017	U	0.018	U	0.019	U				
4-Chloro-3-methyl phenol	59-50-7	mg/kg		0.021	U	0.025	0.022	U	0.022	U	0.022	U	0.023	U				
2,4-Dichlorophenol	120-83-2	mg/kg		0.03	U	0.034	0.031	U	0.03	U	0.03	U	0.033	U				
2,4-Dimethylphenol	105-67-9	mg/kg		0.062	U	0.071	0.064	U	0.063	U	0.063	U	0.068	U				
2,4-Dinitrophenol	51-28-5	mg/kg		0.13	U	0.15	0.14	U	0.13	U	0.13	U	0.14	U				
4,6-Dinitro-o-cresol	534-52-1	mg/kg		0.037	U	0.043	0.039	U	0.038	U	0.038	U	0.041	U				
2-Methylphenol	95-48-7	mg/kg	0.33	0.022	U	0.026	0.023	U	0.023	U	0.023	U	0.024	U				
3&4-Methylphenol	M+P-CRESOLS	mg/kg	0.33	0.029	U	0.033	0.03	U	0.029	U	0.029	U	0.032	U				
2-Nitrophenol	88-75-5	mg/kg		0.023	U	0.026	0.024	U	0.023	U	0.023	U	0.025	U				
4-Nitrophenol	100-02-7	mg/kg		0.093	U	0.11	0.097	U	0.094	U	0.095	U	0.1	U				
Pentachlorophenol	87-86-5	mg/kg	0.8	0.033	U	0.038	0.034	U	0.033	U	0.033	U	0.036	U				
Phenol	108-95-2	mg/kg	0.33	0.018	U	0.021	0.019	U	0.018	U	0.019	U	0.02	U				
2,3,4,6-Tetrachlorophenol	58-90-2	mg/kg		0.023	U	0.027	0.024	U	0.023	U	0.023	U	0.025	U				
2,4,5-Trichlorophenol	95-95-4	mg/kg		0.026	U	0.03	0.027	U	0.026	U	0.027	U	0.029	U				
2,4,6-Trichlorophenol	88-06-2	mg/kg		0.021	U	0.024	0.022	U	0.021	U	0.021	U	0.023	U				
Acenaphthene	83-32-9	mg/kg	20	0.012	U	0.014	0.012	U	0.012	U	0.012	U	0.013	U				
Acenaphthylene	208-96-8	mg/kg	100	0.018	U	0.02	0.018	U	0.018	U	0.0216	J	0.019	U				
Acetophenone	98-86-2	mg/kg		0.0075	U	0.0086	0.0078	U	0.0076	U	0.0076	U	0.0082	U				
Anthracene	120-12-7	mg/kg	100	0.021	U	0.025	0.022	U	0.022	U	0.022	U	0.023	U				
Atrazine	1912-24-9	mg/kg		0.015	U	0.017	0.015	U	0.015	U	0.015	U	0.016	U				
Benzo(a)anthracene	56-55-3	mg/kg	1	0.0225	J	0.0697	0.01	U	0.0184	J	0.0608		0.0264	J				
Benzo(a)pyrene	50-32-8	mg/kg	1	0.016	U	0.0562	0.016	U	0.016	U	0.0732		0.031	J				
Benzo(b)fluoranthene	205-99-2	mg/kg	1	0.0228	J	0.0731	0.016	U	0.016	U	0.0873		0.038					
Benzo(g,h,i)perylene	191-24-2	mg/kg	0.64	0.0188	J	0.0454	0.018	U	0.018	U	0.018	U	0.0301	J				
Benzo(k)fluoranthene	207-08-9	mg/kg	0.8	0.016	U	0.0278	0.017	U	0.016	U	0.0244	J	0.018	U				

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE26705		JE26705		JE26705		JE26705		JE26705		JE26705		JE26705	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444		11444		11444	
Client Sample ID:				EP-42		EP-43		EP-3		EP-16		UST-1 11 (-2)		UST-1 (-2)		TB-3	
Lab Sample ID:				JE26705-1		JE26705-2		JE26705-7		JE26705-8		JE26705-9		JE26705-10		JE26705-11	
Location:																	
Date Sampled:				1/9/2026 10:45 AM		1/9/2026 10:43 AM		1/9/2026 10:20 AM		1/9/2026 10:25 AM		1/9/2026 10:35 AM		1/9/2026 10:27 AM		1/9/2026 10:45 AM	
Matrix:				Soil		Soil		Soil		Soil		Soil		Soil		Trip Blank Soil	
Analyte	**CAS #**	**Unit**															
-Bromophenyl phenyl ethe	101-55-3	mg/kg		0.013	U	0.015		0.014	U	0.014	U	0.014	U	0.015	U		
Butyl benzyl phthalate	85-68-7	mg/kg		0.0085	U	0.0098		0.0088	U	0.0086	U	0.0086	U	0.0094	U		
1,1'-Biphenyl	92-52-4	mg/kg		0.0048	U	0.0055		0.005	U	0.0048	U	0.206		0.0095	J		
Benzaldehyde	100-52-7	mg/kg		0.0086	U	0.0099		0.009	U	0.0087	U	0.0088	U	0.0095	U		
2-Chloronaphthalene	91-58-7	mg/kg		0.0083	U	0.0095		0.0086	U	0.0084	U	0.0084	U	0.0091	U		
4-Chloroaniline	106-47-8	mg/kg		0.013	U	0.014		0.013	U	0.013	U	0.013	U	0.014	U		
Carbazole	86-74-8	mg/kg		0.005	U	0.0142		0.0052	U	0.0051	U	0.0123	J	0.0056	U		
Caprolactam	105-60-2	mg/kg		0.014	U	0.016		0.014	U	0.014	U	0.014	U	0.015	U		
Chrysene	218-01-9	mg/kg	1	0.0135	J	0.0542		0.011	U	0.011	U	0.0598		0.0268	J		
is(2-Chloroethoxy)methan	111-91-1	mg/kg		0.0074	U	0.0086		0.0077	U	0.0075	U	0.0076	U	0.0082	U		
bis(2-Chloroethyl)ether	111-44-4	mg/kg		0.015	U	0.017		0.016	U	0.015	U	0.015	U	0.017	U		
2'-Oxybis(1-chloropropan	108-60-1	mg/kg		0.012	U	0.014		0.013	U	0.013	U	0.013	U	0.014	U		
-Chlorophenyl phenyl ethe	7005-72-3	mg/kg		0.011	U	0.013		0.012	U	0.011	U	0.011	U	0.012	U		
2,4-Dinitrotoluene	121-14-2	mg/kg		0.011	U	0.012		0.011	U	0.011	U	0.011	U	0.012	U		
2,6-Dinitrotoluene	606-20-2	mg/kg		0.017	U	0.02		0.018	U	0.018	U	0.018	U	0.019	U		
3,3'-Dichlorobenzidine	91-94-1	mg/kg		0.029	U	0.033		0.03	U	0.029	U	0.03	U	0.032	U		
1,4-Dioxane	123-91-1	mg/kg	0.1	0.023	U	0.026		0.024	U	0.023	U	0.023	U	0.025	U		
Dibenzo(a,h)anthracene	53-70-3	mg/kg	0.33	0.015	U	0.018		0.016	U	0.016	U	0.016	U	0.017	U		
Dibenzofuran	132-64-9	mg/kg	2.1	0.014	U	0.016		0.015	U	0.014	U	0.0398	J	0.016	U		
Di-n-butyl phthalate	84-74-2	mg/kg		0.0057	U	0.0065		0.0121	J	0.0265	J	0.561		0.0139	J		
Di-n-octyl phthalate	117-84-0	mg/kg		0.0087	U	0.01		0.009	U	0.0088	U	0.0088	U	0.0095	U		
Diethyl phthalate	84-66-2	mg/kg		0.0074	U	0.0085		0.0077	U	0.0075	U	0.0076	U	0.0082	U		
Dimethyl phthalate	131-11-3	mg/kg		0.0062	U	0.0071		0.0064	U	0.0063	U	0.0063	U	0.0068	U		
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg		0.0143	J	0.021		0.0085	U	0.0092	J	0.0371	J	0.0271	J		
Fluoranthene	206-44-0	mg/kg	85	0.0305	J	0.125		0.016	U	0.0262	J	0.1		0.0395			
Fluorene	86-73-7	mg/kg	30	0.016	U	0.018		0.017	U	0.016	U	0.016	U	0.018	U		
Hexachlorobenzene	118-74-1	mg/kg	0.33	0.0088	U	0.01		0.0092	U	0.0089	U	0.009	U	0.0097	U		
Hexachlorobutadiene	87-68-3	mg/kg		0.014	U	0.016		0.015	U	0.014	U	0.014	U	0.015	U		
Hexachlorocyclopentadien	77-47-4	mg/kg		0.014	U	0.016		0.014	U	0.014	U	0.014	U	0.015	U		
Hexachloroethane	67-72-1	mg/kg		0.017	U	0.02		0.018	U	0.017	U	0.018	U	0.019	U		
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	0.5	0.016	U	0.0338		0.017	U	0.017	U	0.04		0.0226	J		
Isophorone	78-59-1	mg/kg		0.0074	U	0.0086		0.0077	U	0.0075	U	0.0076	U	0.0082	U		
2-Methylnaphthalene	91-57-6	mg/kg		0.0079	U	0.0091		0.0082	U	0.008	U	0.665		0.0087	U		
2-Nitroaniline	88-74-4	mg/kg		0.0082	U	0.0095		0.0085	U	0.0083	U	0.0084	U	0.009	U		
3-Nitroaniline	99-09-2	mg/kg		0.0087	U	0.01		0.0091	U	0.0088	U	0.0089	U	0.0096	U		
4-Nitroaniline	100-01-6	mg/kg		0.009	U	0.01		0.0094	U	0.0091	U	0.0092	U	0.0099	U		
Naphthalene	91-20-3	mg/kg	12	0.0098	U	0.011		0.01	U	0.0099	U	0.128		0.011	U		

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE26705		JE26705		JE26705		JE26705		JE26705		JE26705		JE26705	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444		11444		11444	
Client Sample ID:				EP-42		EP-43		EP-3		EP-16		UST-1 11 (-2)		UST-1 (-2)		TB-3	
Lab Sample ID:				JE26705-1		JE26705-2		JE26705-7		JE26705-8		JE26705-9		JE26705-10		JE26705-11	
Location:																	
Date Sampled:				1/9/2026 10:45 AM		1/9/2026 10:43 AM		1/9/2026 10:20 AM		1/9/2026 10:25 AM		1/9/2026 10:35 AM		1/9/2026 10:27 AM		1/9/2026 10:45 AM	
Matrix:				Soil		Soil		Soil		Soil		Soil		Soil		Trip Blank Soil	
Analyte	**CAS #**	**Unit**															
Nitrobenzene	98-95-3	mg/kg	0.08	0.013	U	0.015		0.014	U	0.014	U	0.014	U	0.015	U		
N-Nitroso-di-n-propylamine	621-64-7	mg/kg		0.01	U	0.012		0.01	U	0.01	U	0.01	U	0.011	U		
N-Nitrosodiphenylamine	86-30-6	mg/kg		0.013	U	0.015		0.013	U	0.013	U	0.013	U	0.014	U		
Phenanthrene	85-01-8	mg/kg	1.1	0.0189	J	0.0868		0.012	U	0.017	J	0.122		0.0233	J		
Pyrene	129-00-0	mg/kg	64	0.028	J	0.118		0.012	U	0.0229	J	0.0891		0.0438			
2,2,4,5-Tetrachlorobenzen	95-94-3	mg/kg		0.0088	U	0.01		0.0092	U	0.0089	U	0.009	U	0.0097	U		
2-Fluorophenol	367-12-4	%		70		73		64		55		63		71			
Phenol-d5	4165-62-2	%		70		71		66		54		64		70			
2,4,6-Tribromophenol	118-79-6	%		80		86		79		65		82		79			
Nitrobenzene-d5	4165-60-0	%		65		67		61		52		57		66			
2-Fluorobiphenyl	321-60-8	%		74		77		73		57		69		75			
Terphenyl-d14	1718-51-0	%		79		85		77		61		70		79			
(MS Volatile TIC ())																	
alkane	TIC	mg/kg												0.019	J		
halene,tetrahydro-methyl-	TIC	mg/kg															
alkane (6)	TIC	mg/kg												0.012	J		
alkane (7)	TIC	mg/kg												0.0084	J		
alkane (8)	TIC	mg/kg												0.1	J		
alkane (9)	TIC	mg/kg												0.026	J		
alkane (10)	TIC	mg/kg												0.022	J		
cycloalkane (1)	TIC	mg/kg												0.014	J		
alkane (11)	TIC	mg/kg												0.016	J		
alkane (12)	TIC	mg/kg												0.027	J		
alkane (1)	TIC	mg/kg												0.14	J		
alkane (2)	TIC	mg/kg												0.012	J		
alkane (3)	TIC	mg/kg												0.0081	J		
cycloalkane	TIC	mg/kg												0.022	J		
alkane (4)	TIC	mg/kg												0.0084	J		
alkane (5)	TIC	mg/kg												0.034	J		
Total TIC, Volatile	TOTAL TIC, VOLATILE	mg/kg		0		0		0		0		0		0.4689	J		
Total TIC, Volatile	TOTAL TIC, VOLATILE	ug/l														0	
(MS Volatiles (SW846 8260D))																	
Acetone	67-64-1	mg/kg	0.03	0.0053	J	0.0036		0.0037	U	0.0056	J	0.0134		0.0116			
Acetone	67-64-1	ug/l														3.1	U
Benzene	71-43-2	mg/kg	0.06	0.0005	U	0.0004		0.00041	U	0.00044	U	0.0004	U	0.00041	U		
Bromochloromethane	74-97-5	mg/kg		0.00062	U	0.00049		0.00051	U	0.00055	U	0.00049	U	0.0005	U		
Benzene	71-43-2	ug/l														0.43	U

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE26705		JE26705		JE26705		JE26705		JE26705		JE26705		JE26705	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444		11444		11444	
Client Sample ID:				EP-42		EP-43		EP-3		EP-16		UST-1 11 (-2)		UST-1 (-2)		TB-3	
Lab Sample ID:				JE26705-1		JE26705-2		JE26705-7		JE26705-8		JE26705-9		JE26705-10		JE26705-11	
Location:																	
Date Sampled:				1/9/2026 10:45 AM		1/9/2026 10:43 AM		1/9/2026 10:20 AM		1/9/2026 10:25 AM		1/9/2026 10:35 AM		1/9/2026 10:27 AM		1/9/2026 10:45 AM	
Matrix:				Soil		Soil		Soil		Soil		Soil		Soil		Trip Blank Soil	
Analyte	**CAS #**	**Unit**															
Bromodichloromethane	75-27-4	mg/kg		0.00048	U	0.00038		0.00039	U	0.00042	U	0.00037	U	0.00038	U		
Bromoform	75-25-2	mg/kg		0.0015	U	0.0012		0.0012	U	0.0013	U	0.0012	U	0.0012	U		
Bromomethane	74-83-9	mg/kg		0.00085	U	0.00067		0.00069	U	0.00074	U	0.00067	U	0.00068	U		
2-Butanone (MEK)	78-93-3	mg/kg	0.1	0.0027	U	0.0021		0.0022	U	0.0024	U	0.0021	U	0.0022	U		
Bromochloromethane	74-97-5	ug/l														0.48	U
Bromodichloromethane	75-27-4	ug/l														0.45	U
Bromoform	75-25-2	ug/l														0.63	U
Bromomethane	74-83-9	ug/l														1.6	U
2-Butanone (MEK)	78-93-3	ug/l														2.7	U
Carbon disulfide	75-15-0	mg/kg		0.00059	U	0.00047		0.00048	U	0.00052	U	0.00047	U	0.00048	U		
Carbon tetrachloride	56-23-5	mg/kg	0.76	0.00069	U	0.00054		0.00056	U	0.0006	U	0.00054	U	0.00055	U		
Chlorobenzene	108-90-7	mg/kg	4.5	0.00051	U	0.0004		0.00042	U	0.00045	U	0.0004	U	0.00041	U		
Chloroethane	75-00-3	mg/kg		0.00066	U	0.00052		0.00053	U	0.00058	U	0.00052	U	0.00053	U		
Carbon disulfide	75-15-0	ug/l														1.8	U
Carbon tetrachloride	56-23-5	ug/l														0.55	U
Chloroform	67-66-3	mg/kg	0.37	0.0011	U	0.00088		0.00091	U	0.00097	U	0.00087	U	0.00089	U		
Chlorobenzene	108-90-7	ug/l														0.56	U
Chloromethane	74-87-3	mg/kg		0.0022	U	0.0017		0.0018	U	0.0019	U	0.0017	U	0.0017	U		
Chloroethane	75-00-3	ug/l														0.73	U
Chloroform	67-66-3	ug/l														0.5	U
Cyclohexane	110-82-7	mg/kg		0.00073	U	0.00058		0.00059	U	0.00064	U	0.00057	U	0.00058	U		
Chloromethane	74-87-3	ug/l														0.76	U
2-Dibromo-3-chloropropan	96-12-8	mg/kg		0.00077	U	0.00061		0.00063	U	0.00068	U	0.00061	U	0.00062	U		
Cyclohexane	110-82-7	ug/l														0.78	U
Dibromochloromethane	124-48-1	mg/kg		0.00062	U	0.00049		0.00051	U	0.00055	U	0.00049	U	0.0005	U		
1,2-Dibromoethane	106-93-4	mg/kg		0.00047	U	0.00037		0.00038	U	0.00041	U	0.00037	U	0.00037	U		
1,2-Dichlorobenzene	95-50-1	mg/kg	1.1	0.00061	U	0.00048		0.00049	U	0.00053	U	0.00048	U	0.00049	U		
1,3-Dichlorobenzene	541-73-1	mg/kg	2.6	0.00055	U	0.00044		0.00045	U	0.00048	U	0.00043	U	0.00044	U		
2-Dibromo-3-chloropropan	96-12-8	ug/l														0.53	U
1,4-Dichlorobenzene	106-46-7	mg/kg	1.8	0.00055	U	0.00043		0.00045	U	0.00048	U	0.00043	U	0.00044	U		
Dibromochloromethane	124-48-1	ug/l														0.56	U
1,2-Dibromoethane	106-93-4	ug/l														0.48	U
Dichlorodifluoromethane	75-71-8	mg/kg		0.00081	U	0.00064		0.00066	U	0.00071	U	0.00063	U	0.00065	U		
1,1-Dichloroethane	75-34-3	mg/kg	0.27	0.00055	U	0.00043		0.00045	U	0.00048	U	0.00043	U	0.00044	U		
1,2-Dichlorobenzene	95-50-1	ug/l														0.53	U
1,2-Dichloroethane	107-06-2	mg/kg	0.02	0.00052	U	0.00041		0.00043	U	0.00046	U	0.00041	U	0.00042	U		
1,3-Dichlorobenzene	541-73-1	ug/l														0.54	U

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE26705		JE26705		JE26705		JE26705		JE26705		JE26705		JE26705	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444		11444		11444	
Client Sample ID:				EP-42		EP-43		EP-3		EP-16		UST-1 11 (-2)		UST-1 (-2)		TB-3	
Lab Sample ID:				JE26705-1		JE26705-2		JE26705-7		JE26705-8		JE26705-9		JE26705-10		JE26705-11	
Location:																	
Date Sampled:				1/9/2026 10:45 AM		1/9/2026 10:43 AM		1/9/2026 10:20 AM		1/9/2026 10:25 AM		1/9/2026 10:35 AM		1/9/2026 10:27 AM		1/9/2026 10:45 AM	
Matrix:				Soil		Soil		Soil		Soil		Soil		Soil		Trip Blank Soil	
Analyte	**CAS #**	**Unit**															
1,1-Dichloroethene	75-35-4	mg/kg	0.24	0.00073	U	0.00057		0.00059	U	0.00064	U	0.00057	U	0.00058	U		
1,4-Dichlorobenzene	106-46-7	ug/l														0.51	U
cis-1,2-Dichloroethene	156-59-2	mg/kg	0.19	0.00093	U	0.00074		0.00076	U	0.00082	U	0.00073	U	0.00075	U		
Dichlorodifluoromethane	75-71-8	ug/l														0.56	U
trans-1,2-Dichloroethene	156-60-5	mg/kg	0.19	0.00068	U	0.00054		0.00055	U	0.00059	U	0.00053	U	0.00054	U		
1,1-Dichloroethane	75-34-3	ug/l														0.57	U
1,2-Dichloroethane	107-06-2	ug/l														0.6	U
1,2-Dichloropropane	78-87-5	mg/kg		0.00052	U	0.00041		0.00043	U	0.00046	U	0.00041	U	0.00042	U		
1,1-Dichloroethene	75-35-4	ug/l														0.59	U
cis-1,2-Dichloroethene	156-59-2	ug/l														0.51	U
trans-1,2-Dichloroethene	156-60-5	ug/l														0.54	U
cis-1,3-Dichloropropene	10061-01-5	mg/kg		0.00053	U	0.00042		0.00043	U	0.00046	U	0.00041	U	0.00042	U		
1,2-Dichloropropane	78-87-5	ug/l														0.51	U
trans-1,3-Dichloropropene	10061-02-6	mg/kg		0.00051	U	0.0004		0.00041	U	0.00044	U	0.0004	U	0.00041	U		
cis-1,3-Dichloropropene	10061-01-5	ug/l														0.47	U
trans-1,3-Dichloropropene	10061-02-6	ug/l														0.43	U
Ethylbenzene	100-41-4	mg/kg	1	0.0005	U	0.0004		0.00041	U	0.00044	U	0.0004	U	0.0004	U		
Ethylbenzene	100-41-4	ug/l														0.6	U
Freon 113	76-13-1	mg/kg		0.003	U	0.0023		0.0024	U	0.0026	U	0.0023	U	0.0024	U		
Freon 113	76-13-1	ug/l														0.58	U
2-Hexanone	591-78-6	mg/kg		0.0024	U	0.0019		0.0019	U	0.0021	U	0.0018	U	0.0019	U		
2-Hexanone	591-78-6	ug/l														4.8	U
Isopropylbenzene	98-82-8	mg/kg		0.0016	U	0.0012		0.0013	U	0.0014	U	0.0012	U	0.0013	U		
Isopropylbenzene	98-82-8	ug/l														0.65	U
Methyl Acetate	79-20-9	mg/kg		0.0015	U	0.0012		0.0013	U	0.0014	U	0.0012	U	0.0012	U		
Methylcyclohexane	108-87-2	mg/kg		0.00097	U	0.00077		0.00079	U	0.00085	U	0.00076	U	0.00078	U		
Methyl Acetate	79-20-9	ug/l														0.8	U
Methyl Tert Butyl Ether	1634-04-4	mg/kg	0.1	0.00052	U	0.00041		0.00042	U	0.00046	U	0.00041	U	0.00042	U		
Methylcyclohexane	108-87-2	ug/l														0.6	U
-Methyl-2-pentanone(MIBK	108-10-1	mg/kg		0.0025	U	0.002		0.0021	U	0.0022	U	0.002	U	0.002	U		
Methyl Tert Butyl Ether	1634-04-4	ug/l														0.51	U
Methylene chloride	75-09-2	mg/kg	0.05	0.0033	J	0.0038		0.0024	U	0.0034	J	0.0024	J	0.0023	U		
-Methyl-2-pentanone(MIBK	108-10-1	ug/l														4.9	U
Methylene chloride	75-09-2	ug/l														1	U
Styrene	100-42-5	mg/kg		0.00045	U	0.00035		0.00036	U	0.00039	U	0.00035	U	0.00036	U		
Styrene	100-42-5	ug/l														0.49	U
1,1,2,2-Tetrachloroethane	79-34-5	mg/kg		0.00066	U	0.00053		0.00054	U	0.00058	U	0.00052	U	0.00053	U		

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE26705		JE26705		JE26705		JE26705		JE26705		JE26705		JE26705	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444		11444		11444	
Client Sample ID:				EP-42		EP-43		EP-3		EP-16		UST-1 11 (-2)		UST-1 (-2)		TB-3	
Lab Sample ID:				JE26705-1		JE26705-2		JE26705-7		JE26705-8		JE26705-9		JE26705-10		JE26705-11	
Location:																	
Date Sampled:				1/9/2026 10:45 AM		1/9/2026 10:43 AM		1/9/2026 10:20 AM		1/9/2026 10:25 AM		1/9/2026 10:35 AM		1/9/2026 10:27 AM		1/9/2026 10:45 AM	
Matrix:				Soil		Soil		Soil		Soil		Soil		Soil		Trip Blank Soil	
Analyte	**CAS #**	**Unit**															
Tetrachloroethene	127-18-4	mg/kg	1.3	0.00064	U	0.00051		0.00052	U	0.00056	U	0.00051	U	0.00052	U		
1,1,2,2-Tetrachloroethane	79-34-5	ug/l														0.65	U
Tetrachloroethene	127-18-4	ug/l														0.56	U
Toluene	108-88-3	mg/kg	0.7	0.00058	U	0.00046		0.00048	U	0.00051	U	0.00046	U	0.00047	U		
1,2,3-Trichlorobenzene	87-61-6	mg/kg		0.0028	U	0.0022		0.0023	U	0.0024	U	0.0022	U	0.0022	U		
Toluene	108-88-3	ug/l														0.49	U
1,2,4-Trichlorobenzene	120-82-1	mg/kg		0.0028	U	0.0022		0.0023	U	0.0024	U	0.0022	U	0.0022	U		
1,1,1-Trichloroethane	71-55-6	mg/kg	0.68	0.00054	U	0.00042		0.00044	U	0.00047	U	0.00042	U	0.00043	U		
1,2,3-Trichlorobenzene	87-61-6	ug/l														0.5	U
1,1,2-Trichloroethane	79-00-5	mg/kg		0.00061	U	0.00049		0.0005	U	0.00054	U	0.00048	U	0.00049	U		
1,2,4-Trichlorobenzene	120-82-1	ug/l														0.5	U
1,1,1-Trichloroethane	71-55-6	ug/l														0.54	U
Trichloroethene	79-01-6	mg/kg	0.47	0.00085	U	0.00067		0.00069	U	0.00074	U	0.00066	U	0.00068	U		
1,1,2-Trichloroethane	79-00-5	ug/l														0.53	U
Trichlorofluoromethane	75-69-4	mg/kg		0.00076	U	0.0006		0.00062	U	0.00067	U	0.0006	U	0.00061	U		
Trichloroethene	79-01-6	ug/l														0.53	U
Trichlorofluoromethane	75-69-4	ug/l														0.4	U
Vinyl chloride	75-01-4	mg/kg	0.03	0.00053	U	0.00042		0.00044	U	0.00047	U	0.00042	U	0.00043	U		
m,p-Xylene	M,P-XYLENE	mg/kg	0.26	0.00099	U	0.00079		0.00081	U	0.00087	U	0.00078	U	0.00094			
Vinyl chloride	75-01-4	ug/l														0.52	U
o-Xylene	95-47-6	mg/kg	0.26	0.00051	U	0.0004		0.00041	U	0.00045	U	0.0004	U	0.00046	J		
Xylene (total)	1330-20-7	mg/kg	0.26	0.00051	U	0.0004		0.00041	U	0.00045	U	0.0004	U	0.0014			
m,p-Xylene	M,P-XYLENE	ug/l														0.78	U
o-Xylene	95-47-6	ug/l														0.59	U
Xylene (total)	1330-20-7	ug/l														0.59	U
Dibromofluoromethane	1868-53-7	%		112		116		113		116		111		106		90	
1,2-Dichloroethane-D4	17060-07-0	%		112		111		110		113		110		105		94	
Toluene-D8	2037-26-5	%		101		101		100		100		100		101		98	
4-Bromofluorobenzene	460-00-4	%		98		97		96		98		97		101		90	
2 result(s) exceeded regulatory criteria.																	

Footnote	Comments
	*** 6 footnote comments were removed from this export ***

SGS Engage - Group Crosstab

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE26838		JE26838	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444	
Client Sample ID:				EP-7		EP-14	
Lab Sample ID:				JE26838-1		JE26838-2	
Location:							
Date Sampled:				1/13/2026 11:23 AM		1/13/2026 11:30 AM	
Matrix:				Soil		Soil	
Analyte	**CAS #**	**Unit**					
(GC/LC Semi-volatiles (SW846 8081B))							
Aldrin	309-00-2	mg/kg	0.0048	0.00065	U	0.00063	U
alpha-BHC	319-84-6	mg/kg	0.02	0.00064	U	0.00062	U
beta-BHC	319-85-7	mg/kg	0.021	0.00071	U	0.00069	U
delta-BHC	319-86-8	mg/kg	0.04	0.00075	U	0.00073	U
gamma-BHC (Lindane)	58-89-9	mg/kg	0.025	0.00058	U	0.00056	U
alpha-Chlordane	5103-71-9	mg/kg	0.014	0.00063	U	0.00062	U
gamma-Chlordane	5103-74-2	mg/kg		0.00036	U	0.00035	U
Dieldrin	60-57-1	mg/kg	0.005	0.00054	U	0.00052	U
4,4'-DDD	72-54-8	mg/kg	0.0033	0.00072	U	0.0007	U
4,4'-DDE	72-55-9	mg/kg	0.0033	0.00069	U	0.00067	U
4,4'-DDT	50-29-3	mg/kg	0.0033	0.0007	U	0.00068	U
Endrin	72-20-8	mg/kg	0.014	0.00061	U	0.00059	U
Endosulfan sulfate	1031-07-8	mg/kg	4.3	0.00061	U	0.0006	U
Endrin aldehyde	7421-93-4	mg/kg		0.00045	U	0.00043	U
Endosulfan-I	959-98-8	mg/kg	4.3	0.00045	U	0.00044	U
Endosulfan-II	33213-65-9	mg/kg	4.3	0.00049	U	0.00048	U
Heptachlor	76-44-8	mg/kg	0.013	0.00068	U	0.00066	U
Heptachlor epoxide	1024-57-3	mg/kg		0.00055	U	0.00053	U
Methoxychlor	72-43-5	mg/kg		0.00062	U	0.00061	U
Endrin ketone	53494-70-5	mg/kg		0.00057	U	0.00055	U
Toxaphene	8001-35-2	mg/kg		0.018	U	0.018	U
Tetrachloro-m-xylene	877-09-8	%		79		78	
Tetrachloro-m-xylene (1)	877-09-8	%		78		77	
Decachlorobiphenyl	2051-24-3	%		91		87	
Decachlorobiphenyl (1)	2051-24-3	%		113		75	
(GC/LC Semi-volatiles (SW846 8082A))							
Aroclor 1016	12674-11-2	mg/kg	0.1	0.018	U	0.018	U
Aroclor 1221	11104-28-2	mg/kg	0.1	0.024	U	0.024	U
Aroclor 1232	11141-16-5	mg/kg	0.1	0.025	U	0.024	U

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE26838		JE26838	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444	
Client Sample ID:				EP-7		EP-14	
Lab Sample ID:				JE26838-1		JE26838-2	
Location:							
Date Sampled:				1/13/2026 11:23 AM		1/13/2026 11:30 AM	
Matrix:				Soil		Soil	
Analyte	**CAS #**	**Unit**					
Aroclor 1242	53469-21-9	mg/kg	0.1	0.016	U	0.016	U
Aroclor 1248	12672-29-6	mg/kg	0.1	0.035	U	0.034	U
Aroclor 1254	11097-69-1	mg/kg	0.1	0.021	U	0.021	U
Aroclor 1260	11096-82-5	mg/kg	0.1	0.017	U	0.016	U
Aroclor 1268	11100-14-4	mg/kg	0.1	0.034	U	0.033	U
Aroclor 1262	37324-23-5	mg/kg	0.1	0.026	U	0.025	U
Tetrachloro-m-xylene (2)	877-09-8	%		70		72	
Tetrachloro-m-xylene (3)	877-09-8	%		108		112	
Decachlorobiphenyl (2)	2051-24-3	%		45		46	
Decachlorobiphenyl (3)	2051-24-3	%		59		59	
(General Chemistry (SM2540 G 18TH ED MOD))							
Solids, Percent	PERCENT SOLIDS	%		82.7		83.5	
(General Chemistry (SW846 9012B/LACHAT))							
Cyanide	57-12-5	mg/kg	2.3	0.32	U	0.28	U
(Metals Analysis (SW846 6010D))							
Aluminum	7429-90-5	mg/kg		10400		12200	
Antimony	7440-36-0	mg/kg		1.2	U	1.2	U
Arsenic	7440-38-2	mg/kg	13	1.9		3.2	
Barium	7440-39-3	mg/kg	410	91.3		65.1	
Beryllium	7440-41-7	mg/kg	4.4	0.36		0.43	
Cadmium	7440-43-9	mg/kg	2.5	0.3	U	0.29	U
Calcium	7440-70-2	mg/kg		3520		1130	
Chromium	7440-47-3	mg/kg	30	21		17.4	
Cobalt	7440-48-4	mg/kg		8.1		7.9	
Copper	7440-50-8	mg/kg	50	19		15.6	
Iron	7439-89-6	mg/kg		18200		16400	
Lead	7439-92-1	mg/kg	63	7		9.5	
Magnesium	7439-95-4	mg/kg		5250		3500	
Manganese	7439-96-5	mg/kg	1600	390		148	
Nickel	7440-02-0	mg/kg	30	17.8		13.4	
Potassium	7440-09-7	mg/kg		2250		976	
Selenium	7782-49-2	mg/kg	3.9	2.4	U	2.3	U
Silver	7440-22-4	mg/kg	2	0.3	U	0.29	U

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE26838		JE26838	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444	
Client Sample ID:				EP-7		EP-14	
Lab Sample ID:				JE26838-1		JE26838-2	
Location:							
Date Sampled:				1/13/2026 11:23 AM		1/13/2026 11:30 AM	
Matrix:				Soil		Soil	
Analyte	**CAS #**	**Unit**					
Sodium	7440-23-5	mg/kg		590	U	590	U
Thallium	7440-28-0	mg/kg		1.2	U	1.2	U
Vanadium	7440-62-2	mg/kg		24.9		24.3	
Zinc	7440-66-6	mg/kg	109	47		39.3	
(Metals Analysis (SW846 7471B))							
Mercury	7439-97-6	mg/kg	0.18	0.04	U	0.035	U
(MS Semi-volatile TIC ())							
n-Hexadecanoic acid	57-10-3	mg/kg				0.34	JN
Octadecanoic acid	57-11-4	mg/kg		0.2	JN		
Unknown acid	TIC	mg/kg		0.67	JB	0.48	JB
Unknown	TIC	mg/kg		0.23	J	0.32	J
Unknown phthalate	TIC	mg/kg		1.3	J		
Unknown (1)	TIC	mg/kg		0.18	J		
Unknown (2)	TIC	mg/kg		0.33	J		
Total TIC, Semi-Volatile	OTAL TIC, SEMI-VOLATIL	mg/kg		2.24	J	0.66	J
(MS Semi-volatiles (SW846 8270E))							
2-Chlorophenol	95-57-8	mg/kg		0.019	U	0.02	U
4-Chloro-3-methyl phenol	59-50-7	mg/kg		0.024	U	0.024	U
2,4-Dichlorophenol	120-83-2	mg/kg		0.033	U	0.034	U
2,4-Dimethylphenol	105-67-9	mg/kg		0.069	U	0.07	U
2,4-Dinitrophenol	51-28-5	mg/kg		0.15	U	0.15	U
4,6-Dinitro-o-cresol	534-52-1	mg/kg		0.041	U	0.042	U
2-Methylphenol	95-48-7	mg/kg	0.33	0.025	U	0.025	U
3&4-Methylphenol	M+P-CRESOLS	mg/kg	0.33	0.032	U	0.032	U
2-Nitrophenol	88-75-5	mg/kg		0.026	U	0.026	U
4-Nitrophenol	100-02-7	mg/kg		0.1	U	0.11	U
Pentachlorophenol	87-86-5	mg/kg	0.8	0.036	U	0.037	U
Phenol	108-95-2	mg/kg	0.33	0.02	U	0.021	U
2,3,4,6-Tetrachlorophenol	58-90-2	mg/kg		0.026	U	0.026	U
2,4,5-Trichlorophenol	95-95-4	mg/kg		0.029	U	0.03	U
2,4,6-Trichlorophenol	88-06-2	mg/kg		0.023	U	0.024	U
Acenaphthene	83-32-9	mg/kg	20	0.013	U	0.014	U
Acenaphthylene	208-96-8	mg/kg	100	0.02	U	0.02	U

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE26838		JE26838	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444	
Client Sample ID:				EP-7		EP-14	
Lab Sample ID:				JE26838-1		JE26838-2	
Location:							
Date Sampled:				1/13/2026 11:23 AM		1/13/2026 11:30 AM	
Matrix:				Soil		Soil	
Analyte	**CAS #**	**Unit**					
Acetophenone	98-86-2	mg/kg		0.0083	U	0.0085	U
Anthracene	120-12-7	mg/kg	100	0.024	U	0.024	U
Atrazine	1912-24-9	mg/kg		0.017	U	0.017	U
Benzo(a)anthracene	56-55-3	mg/kg	1	0.0118	J	0.011	U
Benzo(a)pyrene	50-32-8	mg/kg	1	0.018	U	0.018	U
Benzo(b)fluoranthene	205-99-2	mg/kg	1	0.017	U	0.017	U
Benzo(g,h,i)perylene	191-24-2	mg/kg	0.64	0.019	U	0.02	U
Benzo(k)fluoranthene	207-08-9	mg/kg	0.8	0.018	U	0.018	U
-Bromophenyl phenyl ethe	101-55-3	mg/kg		0.015	U	0.015	U
Butyl benzyl phthalate	85-68-7	mg/kg		0.0094	U	0.0096	U
1,1'-Biphenyl	92-52-4	mg/kg		0.0053	U	0.0054	U
Benzaldehyde	100-52-7	mg/kg		0.0096	U	0.0098	U
2-Chloronaphthalene	91-58-7	mg/kg		0.0092	U	0.0094	U
4-Chloroaniline	106-47-8	mg/kg		0.014	U	0.014	U
Carbazole	86-74-8	mg/kg		0.0056	U	0.0057	U
Caprolactam	105-60-2	mg/kg		0.015	U	0.016	U
Chrysene	218-01-9	mg/kg	1	0.012	U	0.012	U
is(2-Chloroethoxy)methan	111-91-1	mg/kg		0.0083	U	0.0085	U
bis(2-Chloroethyl)ether	111-44-4	mg/kg		0.017	U	0.017	U
,2'-Oxybis(1-chloropropane	108-60-1	mg/kg		0.014	U	0.014	U
-Chlorophenyl phenyl ethe	7005-72-3	mg/kg		0.013	U	0.013	U
2,4-Dinitrotoluene	121-14-2	mg/kg		0.012	U	0.012	U
2,6-Dinitrotoluene	606-20-2	mg/kg		0.019	U	0.02	U
3,3'-Dichlorobenzidine	91-94-1	mg/kg		0.032	U	0.033	U
1,4-Dioxane	123-91-1	mg/kg	0.1	0.026	U	0.026	U
Dibenzo(a,h)anthracene	53-70-3	mg/kg	0.33	0.017	U	0.017	U
Dibenzofuran	132-64-9	mg/kg	2.1	0.016	U	0.016	U
Di-n-butyl phthalate	84-74-2	mg/kg		0.0124	J	0.0064	U
Di-n-octyl phthalate	117-84-0	mg/kg		0.0096	U	0.0098	U
Diethyl phthalate	84-66-2	mg/kg		0.0082	U	0.0084	U
Dimethyl phthalate	131-11-3	mg/kg		0.0069	U	0.007	U
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg		0.118		0.0092	U
Fluoranthene	206-44-0	mg/kg	85	0.017	U	0.018	U

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE26838		JE26838	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444	
Client Sample ID:				EP-7		EP-14	
Lab Sample ID:				JE26838-1		JE26838-2	
Location:							
Date Sampled:				1/13/2026 11:23 AM		1/13/2026 11:30 AM	
Matrix:				Soil		Soil	
Analyte	**CAS #**	**Unit**					
Fluorene	86-73-7	mg/kg	30	0.018	U	0.018	U
Hexachlorobenzene	118-74-1	mg/kg	0.33	0.0098	U	0.01	U
Hexachlorobutadiene	87-68-3	mg/kg		0.016	U	0.016	U
Hexachlorocyclopentadiene	77-47-4	mg/kg		0.015	U	0.016	U
Hexachloroethane	67-72-1	mg/kg		0.019	U	0.02	U
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	0.5	0.018	U	0.019	U
Isophorone	78-59-1	mg/kg		0.0083	U	0.0085	U
2-Methylnaphthalene	91-57-6	mg/kg		0.0087	U	0.0089	U
2-Nitroaniline	88-74-4	mg/kg		0.0091	U	0.0093	U
3-Nitroaniline	99-09-2	mg/kg		0.0097	U	0.0099	U
4-Nitroaniline	100-01-6	mg/kg		0.01	U	0.01	U
Naphthalene	91-20-3	mg/kg	12	0.011	U	0.011	U
Nitrobenzene	98-95-3	mg/kg	0.08	0.015	U	0.015	U
N-Nitroso-di-n-propylamine	621-64-7	mg/kg		0.011	U	0.011	U
N-Nitrosodiphenylamine	86-30-6	mg/kg		0.014	U	0.014	U
Phenanthrene	85-01-8	mg/kg	1.1	0.013	U	0.013	U
Pyrene	129-00-0	mg/kg	64	0.014	J	0.013	U
1,2,4,5-Tetrachlorobenzene	95-94-3	mg/kg		0.0098	U	0.01	U
2-Fluorophenol	367-12-4	%		76		74	
Phenol-d5	4165-62-2	%		76		75	
2,4,6-Tribromophenol	118-79-6	%		95		91	
Nitrobenzene-d5	4165-60-0	%		68		67	
2-Fluorobiphenyl	321-60-8	%		83		78	
Terphenyl-d14	1718-51-0	%		95		90	
(MS Volatile TIC ())							
Total TIC, Volatile	TOTAL TIC, VOLATILE	mg/kg		0		0	
(MS Volatiles (SW846 8260D))							
Acetone	67-64-1	mg/kg	0.03	0.0054	J	0.0038	U
Benzene	71-43-2	mg/kg	0.06	0.0004	U	0.00041	U
Bromochloromethane	74-97-5	mg/kg		0.0005	U	0.00051	U
Bromodichloromethane	75-27-4	mg/kg		0.00038	U	0.00039	U
Bromoform	75-25-2	mg/kg		0.0012	U	0.0012	U
Bromomethane	74-83-9	mg/kg		0.00068	U	0.00069	U

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE26838		JE26838	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444	
Client Sample ID:				EP-7		EP-14	
Lab Sample ID:				JE26838-1		JE26838-2	
Location:							
Date Sampled:				1/13/2026 11:23 AM		1/13/2026 11:30 AM	
Matrix:				Soil		Soil	
Analyte	**CAS #**	**Unit**					
2-Butanone (MEK)	78-93-3	mg/kg	0.1	0.0022	U	0.0022	U
Carbon disulfide	75-15-0	mg/kg		0.00048	U	0.00049	U
Carbon tetrachloride	56-23-5	mg/kg	0.76	0.00055	U	0.00056	U
Chlorobenzene	108-90-7	mg/kg	4.5	0.00041	U	0.00042	U
Chloroethane	75-00-3	mg/kg		0.00053	U	0.00054	U
Chloroform	67-66-3	mg/kg	0.37	0.00089	U	0.00091	U
Chloromethane	74-87-3	mg/kg		0.0017	U	0.0018	U
Cyclohexane	110-82-7	mg/kg		0.00058	U	0.0006	U
2-Dibromo-3-chloropropar	96-12-8	mg/kg		0.00062	U	0.00063	U
Dibromochloromethane	124-48-1	mg/kg		0.0005	U	0.00051	U
1,2-Dibromoethane	106-93-4	mg/kg		0.00037	U	0.00038	U
1,2-Dichlorobenzene	95-50-1	mg/kg	1.1	0.00049	U	0.0005	U
1,3-Dichlorobenzene	541-73-1	mg/kg	2.6	0.00044	U	0.00045	U
1,4-Dichlorobenzene	106-46-7	mg/kg	1.8	0.00044	U	0.00045	U
Dichlorodifluoromethane	75-71-8	mg/kg		0.00065	U	0.00066	U
1,1-Dichloroethane	75-34-3	mg/kg	0.27	0.00044	U	0.00045	U
1,2-Dichloroethane	107-06-2	mg/kg	0.02	0.00042	U	0.00043	U
1,1-Dichloroethene	75-35-4	mg/kg	0.24	0.00058	U	0.00059	U
cis-1,2-Dichloroethene	156-59-2	mg/kg	0.19	0.00075	U	0.00076	U
trans-1,2-Dichloroethene	156-60-5	mg/kg	0.19	0.00054	U	0.00055	U
1,2-Dichloropropane	78-87-5	mg/kg		0.00042	U	0.00043	U
cis-1,3-Dichloropropene	10061-01-5	mg/kg		0.00042	U	0.00043	U
trans-1,3-Dichloropropene	10061-02-6	mg/kg		0.00041	U	0.00041	U
Ethylbenzene	100-41-4	mg/kg	1	0.0004	U	0.00041	U
Freon 113	76-13-1	mg/kg		0.0024	U	0.0024	U
2-Hexanone	591-78-6	mg/kg		0.0019	U	0.0019	U
Isopropylbenzene	98-82-8	mg/kg		0.0013	U	0.0013	U
Methyl Acetate	79-20-9	mg/kg		0.0012	U	0.0013	U
Methylcyclohexane	108-87-2	mg/kg		0.00078	U	0.00079	U
Methyl Tert Butyl Ether	1634-04-4	mg/kg	0.1	0.00042	U	0.00043	U
-Methyl-2-pentanone(MIBK	108-10-1	mg/kg		0.002	U	0.0021	U
Methylene chloride	75-09-2	mg/kg	0.05	0.0071		0.0039	J
Styrene	100-42-5	mg/kg		0.00036	U	0.00036	U

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE26838		JE26838	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444	
Client Sample ID:				EP-7		EP-14	
Lab Sample ID:				JE26838-1		JE26838-2	
Location:							
Date Sampled:				1/13/2026 11:23 AM		1/13/2026 11:30 AM	
Matrix:				Soil		Soil	
Analyte	**CAS #**	**Unit**					
1,1,2,2-Tetrachloroethane	79-34-5	mg/kg		0.00053	U	0.00054	U
Tetrachloroethene	127-18-4	mg/kg	1.3	0.00052	U	0.00053	U
Toluene	108-88-3	mg/kg	0.7	0.00047	U	0.00048	U
1,2,3-Trichlorobenzene	87-61-6	mg/kg		0.0022	U	0.0023	U
1,2,4-Trichlorobenzene	120-82-1	mg/kg		0.0022	U	0.0023	U
1,1,1-Trichloroethane	71-55-6	mg/kg	0.68	0.00043	U	0.00044	U
1,1,2-Trichloroethane	79-00-5	mg/kg		0.00049	U	0.0005	U
Trichloroethene	79-01-6	mg/kg	0.47	0.00068	U	0.00069	U
Trichlorofluoromethane	75-69-4	mg/kg		0.00061	U	0.00062	U
Vinyl chloride	75-01-4	mg/kg	0.03	0.00043	U	0.00044	U
m,p-Xylene	M,P-XYLENE	mg/kg	0.26	0.0008	U	0.00081	U
o-Xylene	95-47-6	mg/kg	0.26	0.00041	U	0.00042	U
Xylene (total)	1330-20-7	mg/kg	0.26	0.00041	U	0.00042	U
Dibromofluoromethane	1868-53-7	%		115		116	
1,2-Dichloroethane-D4	17060-07-0	%		110		112	
Toluene-D8	2037-26-5	%		100		99	
4-Bromofluorobenzene	460-00-4	%		98		99	

Footnote	Comments
	*** 5 footnote comments were removed from this export ***

SGS

SGS Engage - Group Crosstab

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE27137		JE27137		JE27137		JE27137		JE27137	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:													
Client Sample ID:				EP-33 (142)		EP-34 (141.8)		EP-39 (142.0)		EP-40 (142)		EP-37 (142)	
Lab Sample ID:				JE27137-1		JE27137-2		JE27137-3		JE27137-4		JE27137-5	
Location:													
Date Sampled:				1/17/2026 10:20 AM		1/17/2026 10:15 AM		1/17/2026 10:05 AM		1/17/2026 10:10 AM		1/17/2026 10:00 AM	
Matrix:				Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**											
(GC/LC Semi-volatiles (SW846 8081B))													
Aldrin	309-00-2	mg/kg	0.0048	0.00063	U	0.00063	U	0.00057	U	0.00063	U	0.0006	U
alpha-BHC	319-84-6	mg/kg	0.02	0.00062	U	0.00063	U	0.00056	U	0.00062	U	0.0006	U
beta-BHC	319-85-7	mg/kg	0.021	0.00069	U	0.00069	U	0.00063	U	0.00069	U	0.00066	U
delta-BHC	319-86-8	mg/kg	0.04	0.00073	U	0.00074	U	0.00067	U	0.00074	U	0.0007	U
gamma-BHC (Lindane)	58-89-9	mg/kg	0.025	0.00056	U	0.00057	U	0.00051	U	0.00056	U	0.00054	U
alpha-Chlordane	5103-71-9	mg/kg	0.014	0.00062	U	0.00062	U	0.00056	U	0.00062	U	0.00059	U
gamma-Chlordane	5103-74-2	mg/kg		0.00035	U	0.00035	U	0.00031	U	0.00035	U	0.00033	U
Dieldrin	60-57-1	mg/kg	0.005	0.00053	U	0.00053	U	0.00048	U	0.00053	U	0.0005	U
4,4'-DDD	72-54-8	mg/kg	0.0033	0.0007	U	0.00071	U	0.00064	U	0.0007	U	0.00067	U
4,4'-DDE	72-55-9	mg/kg	0.0033	0.00067	U	0.00067	U	0.00061	U	0.00067	U	0.00064	U
4,4'-DDT	50-29-3	mg/kg	0.0033	0.00068	U	0.00068	U	0.00061	U	0.00068	U	0.00065	U
Endrin	72-20-8	mg/kg	0.014	0.00059	U	0.0006	U	0.00054	U	0.00059	U	0.00057	U
Endosulfan sulfate	1031-07-8	mg/kg	4.3	0.0006	U	0.0006	U	0.00054	U	0.0006	U	0.00057	U
Endrin aldehyde	7421-93-4	mg/kg		0.00043	U	0.00044	U	0.00039	U	0.00043	U	0.00042	U
Endosulfan-I	959-98-8	mg/kg	4.3	0.00044	U	0.00044	U	0.0004	U	0.00044	U	0.00042	U
Endosulfan-II	33213-65-9	mg/kg	4.3	0.00048	U	0.00048	U	0.00043	U	0.00048	U	0.00046	U
Heptachlor	76-44-8	mg/kg	0.013	0.00066	U	0.00066	U	0.0006	U	0.00066	U	0.00063	U
Heptachlor epoxide	1024-57-3	mg/kg		0.00054	U	0.00054	U	0.00049	U	0.00054	U	0.00051	U
Methoxychlor	72-43-5	mg/kg		0.00061	U	0.00061	U	0.00055	U	0.00061	U	0.00058	U
Endrin ketone	53494-70-5	mg/kg		0.00055	U	0.00056	U	0.0005	U	0.00055	U	0.00053	U
Toxaphene	8001-35-2	mg/kg		0.018	U	0.018	U	0.016	U	0.018	U	0.017	U
Tetrachloro-m-xylene	877-09-8	%								92			
Tetrachloro-m-xylene (1)	877-09-8	%								93			
Tetrachloro-m-xylene (2)	877-09-8	%		93		64		93				76	
Tetrachloro-m-xylene (3)	877-09-8	%		93		66		95				77	
Decachlorobiphenyl	2051-24-3	%								118			
Decachlorobiphenyl (1)	2051-24-3	%								104			
Decachlorobiphenyl (2)	2051-24-3	%		107		92		114				106	
Decachlorobiphenyl (3)	2051-24-3	%		98		82		101				98	

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE27137		JE27137		JE27137		JE27137		JE27137	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:													
Client Sample ID:				EP-33 (142)		EP-34 (141.8)		EP-39 (142.0)		EP-40 (142)		EP-37 (142)	
Lab Sample ID:				JE27137-1		JE27137-2		JE27137-3		JE27137-4		JE27137-5	
Location:													
Date Sampled:				1/17/2026 10:20 AM		1/17/2026 10:15 AM		1/17/2026 10:05 AM		1/17/2026 10:10 AM		1/17/2026 10:00 AM	
Matrix:				Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**											
(GC/LC Semi-volatiles (SW846 8081B))													
(GC/LC Semi-volatiles (SW846 8082A))													
Aroclor 1016	12674-11-2	mg/kg	0.1	0.018	U	0.018	U	0.016	U	0.018	U	0.017	U
Aroclor 1221	11104-28-2	mg/kg	0.1	0.024	U	0.024	U	0.021	U	0.024	U	0.023	U
Aroclor 1232	11141-16-5	mg/kg	0.1	0.024	U	0.025	U	0.022	U	0.024	U	0.023	U
Aroclor 1242	53469-21-9	mg/kg	0.1	0.016	U	0.016	U	0.014	U	0.016	U	0.015	U
Aroclor 1248	12672-29-6	mg/kg	0.1	0.034	U	0.034	U	0.031	U	0.034	U	0.033	U
Aroclor 1254	11097-69-1	mg/kg	0.1	0.021	U	0.021	U	0.019	U	0.021	U	0.02	U
Aroclor 1260	11096-82-5	mg/kg	0.1	0.016	U	0.016	U	0.015	U	0.016	U	0.016	U
Aroclor 1268	11100-14-4	mg/kg	0.1	0.033	U	0.034	U	0.03	U	0.034	U	0.032	U
Aroclor 1262	37324-23-5	mg/kg	0.1	0.025	U	0.025	U	0.023	U	0.025	U	0.024	U
Tetrachloro-m-xylene	877-09-8	%		75		58		77				65	
Tetrachloro-m-xylene (1)	877-09-8	%		124		93		124				105	
Tetrachloro-m-xylene (2)	877-09-8	%								72			
Tetrachloro-m-xylene (3)	877-09-8	%								112			
Decachlorobiphenyl	2051-24-3	%		59		51		61				62	
Decachlorobiphenyl (1)	2051-24-3	%		76		63		77				77	
Decachlorobiphenyl (2)	2051-24-3	%								58			
Decachlorobiphenyl (3)	2051-24-3	%								72			
(General Chemistry (SM2540 G 18TH ED MOD))													
Solids, Percent	PERCENT SOLIDS	%		78.8		79.8		84.9		84.8		84.2	
(General Chemistry (SW846 9012B/LACHAT))													
Cyanide	57-12-5	mg/kg	2.3	0.26	U	0.27	U	0.24	U	0.29	U	0.31	U
(Metals Analysis (SW846 6010D))													
Aluminum	7429-90-5	mg/kg		12800		6210		2810		3380		4880	
Antimony	7440-36-0	mg/kg		6.2	U	2.5	U	1.2	U	1.2	U	1.2	U
Arsenic	7440-38-2	mg/kg	13	1.8		1.2	U	1.2	U	1.2		1.2	U
Barium	7440-39-3	mg/kg	410	164		68.4		21.9		21.7		47.7	
Beryllium	7440-41-7	mg/kg	4.4	0.39		0.16		0.12	U	0.15		0.15	
Cadmium	7440-43-9	mg/kg	2.5	0.31	U	0.31	U	0.29	U	0.29	U	0.29	U
Calcium	7440-70-2	mg/kg		15700		14700		995		1660		25300	
Chromium	7440-47-3	mg/kg	30	34.2		17.5		6		8.6		11	
Cobalt	7440-48-4	mg/kg		11.8		6.1		2.9	U	4		4.5	

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE27137		JE27137		JE27137		JE27137		JE27137	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:													
Client Sample ID:				EP-33 (142)		EP-34 (141.8)		EP-39 (142.0)		EP-40 (142)		EP-37 (142)	
Lab Sample ID:				JE27137-1		JE27137-2		JE27137-3		JE27137-4		JE27137-5	
Location:													
Date Sampled:				1/17/2026 10:20 AM		1/17/2026 10:15 AM		1/17/2026 10:05 AM		1/17/2026 10:10 AM		1/17/2026 10:00 AM	
Matrix:				Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**											
(GC/LC Semi-volatiles (SW846 8081B))													
Copper	7440-50-8	mg/kg	50	28.2		13.7		7.9		10.4		11.5	
Iron	7439-89-6	mg/kg		27200		13700		6320		9920		9610	
Lead	7439-92-1	mg/kg	63	10.8		2.9		2		2.8		3.7	
Magnesium	7439-95-4	mg/kg		14100		9380		1480		2010		13700	
Manganese	7439-96-5	mg/kg	1600	336		134		75.6		996		193	
Nickel	7440-02-0	mg/kg	30	26.8		12.8		4.9		8.4		9.2	
Potassium	7440-09-7	mg/kg		5680		2830		746		914		1620	
Selenium	7782-49-2	mg/kg	3.9	6.2	U	2.5	U	1.2	U	1.2	U	1.2	U
Silver	7440-22-4	mg/kg	2	0.31	U	0.31	U	0.29	U	0.29	U	0.29	U
Sodium	7440-23-5	mg/kg		620	U	610	U	580	U	580	U	580	U
Thallium	7440-28-0	mg/kg		3.1	U	1.2	U	0.58	U	2.9	U	2.9	U
Vanadium	7440-62-2	mg/kg		38.8		21.8		8.2		10.9		14.3	
Zinc	7440-66-6	mg/kg	109	79.3		37.4		15.6		23.1		23.4	
(Metals Analysis (SW846 7471B))													
Mercury	7439-97-6	mg/kg	0.18	0.038	U	0.036	U	0.032	U	0.031	U	0.049	
(MS Semi-volatile TIC ())													
phthalene, tetrahydro meth	TIC	mg/kg		1.6	J								
Alkane	TIC	mg/kg		4.8	J							1.5	J
Naphthalene, 1-methyl-	90-12-0	mg/kg										1.5	JN
Octadecanoic acid	57-11-4	mg/kg				0.26	JN	0.19	JN	0.17	JN	0.24	JN
Sulfur	13798-23-7	mg/kg								0.35	JN		
Unknown (1)	TIC	mg/kg		1.9	J	0.25	J	0.2	J	0.18	J	0.22	J
Unknown (2)	TIC	mg/kg		1.6	J					1.5	J		
Unknown (3)	TIC	mg/kg		2.6	J					0.24	J		
Unknown (4)	TIC	mg/kg		1.2	J					0.19	J		
Cyclic octaatomic sulfur	TIC	mg/kg								7.3	J		
n-Hexadecanoic acid	57-10-3	mg/kg		0.44	JNB	1.1	JNB	0.97	JNB	1.1	JNB	1.1	JNB
Unknown (5)	TIC	mg/kg		0.43	JB					0.33	JB		
Unknown (6)	TIC	mg/kg		0.24	J								
Unknown	TIC	mg/kg		0.18	J	0.46	JB	0.45	JB	1.5	J	0.47	JB
Total TIC, Semi-Volatile	OTAL TIC, SEMI-VOLATIL	mg/kg		14.12	J	0.51	J	0.39	J	11.43	J	3.46	J
(MS Semi-volatiles (SW846 8270E))													

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE27137		JE27137		JE27137		JE27137		JE27137	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:													
Client Sample ID:				EP-33 (142)		EP-34 (141.8)		EP-39 (142.0)		EP-40 (142)		EP-37 (142)	
Lab Sample ID:				JE27137-1		JE27137-2		JE27137-3		JE27137-4		JE27137-5	
Location:													
Date Sampled:				1/17/2026 10:20 AM		1/17/2026 10:15 AM		1/17/2026 10:05 AM		1/17/2026 10:10 AM		1/17/2026 10:00 AM	
Matrix:				Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**											
(GC/LC Semi-volatiles (SW846 8081B))													
2-Chlorophenol	95-57-8	mg/kg		0.02	U	0.02	U	0.019	U	0.019	U	0.019	U
4-Chloro-3-methyl phenol	59-50-7	mg/kg		0.025	U	0.025	U	0.024	U	0.024	U	0.024	U
2,4-Dichlorophenol	120-83-2	mg/kg		0.035	U	0.035	U	0.033	U	0.033	U	0.033	U
2,4-Dimethylphenol	105-67-9	mg/kg		0.072	U	0.073	U	0.069	U	0.068	U	0.068	U
2,4-Dinitrophenol	51-28-5	mg/kg		0.15	U	0.15	U	0.14	U	0.14	U	0.14	U
4,6-Dinitro-o-cresol	534-52-1	mg/kg		0.043	U	0.044	U	0.041	U	0.041	U	0.041	U
2-Methylphenol	95-48-7	mg/kg	0.33	0.026	U	0.026	U	0.025	U	0.025	U	0.025	U
3&4-Methylphenol	M+P-CRESOLS	mg/kg	0.33	0.033	U	0.034	U	0.032	U	0.032	U	0.032	U
2-Nitrophenol	88-75-5	mg/kg		0.027	U	0.027	U	0.025	U	0.025	U	0.025	U
4-Nitrophenol	100-02-7	mg/kg		0.11	U	0.11	U	0.1	U	0.1	U	0.1	U
Pentachlorophenol	87-86-5	mg/kg	0.8	0.038	U	0.039	U	0.036	U	0.036	U	0.036	U
Phenol	108-95-2	mg/kg	0.33	0.021	U	0.022	U	0.02	U	0.02	U	0.02	U
2,3,4,6-Tetrachlorophenol	58-90-2	mg/kg		0.027	U	0.027	U	0.025	U	0.025	U	0.025	U
2,4,5-Trichlorophenol	95-95-4	mg/kg		0.03	U	0.031	U	0.029	U	0.029	U	0.029	U
2,4,6-Trichlorophenol	88-06-2	mg/kg		0.024	U	0.025	U	0.023	U	0.023	U	0.023	U
Acenaphthene	83-32-9	mg/kg	20	0.014	U	0.014	U	0.013	U	0.013	U	0.013	U
Acenaphthylene	208-96-8	mg/kg	100	0.021	U	0.021	U	0.02	U	0.02	U	0.02	U
Acetophenone	98-86-2	mg/kg		0.0087	U	0.0089	U	0.0083	U	0.0083	U	0.0083	U
Anthracene	120-12-7	mg/kg	100	0.025	U	0.025	U	0.024	U	0.024	U	0.024	U
Atrazine	1912-24-9	mg/kg		0.017	U	0.018	U	0.016	U	0.016	U	0.016	U
Benzo(a)anthracene	56-55-3	mg/kg	1	0.011	U	0.012	U	0.011	U	0.011	U	0.011	U
Benzo(a)pyrene	50-32-8	mg/kg	1	0.018	U	0.019	U	0.018	U	0.017	U	0.017	U
Benzo(b)fluoranthene	205-99-2	mg/kg	1	0.018	U	0.018	U	0.017	U	0.017	U	0.017	U
Benzo(g,h,i)perylene	191-24-2	mg/kg	0.64	0.02	U	0.021	U	0.019	U	0.019	U	0.019	U
Benzo(k)fluoranthene	207-08-9	mg/kg	0.8	0.019	U	0.019	U	0.018	U	0.018	U	0.018	U
-Bromophenyl phenyl ethe	101-55-3	mg/kg		0.016	U	0.016	U	0.015	U	0.015	U	0.015	U
Butyl benzyl phthalate	85-68-7	mg/kg		0.0099	U	0.01	U	0.0094	U	0.0094	U	0.0094	U
1,1'-Biphenyl	92-52-4	mg/kg		0.0056	U	0.0056	U	0.0053	U	0.0053	U	0.0053	U
Benzaldehyde	100-52-7	mg/kg		0.01	U	0.01	U	0.0095	U	0.0095	U	0.0095	U
2-Chloronaphthalene	91-58-7	mg/kg		0.0096	U	0.0098	U	0.0092	U	0.0091	U	0.0091	U
4-Chloroaniline	106-47-8	mg/kg		0.015	U	0.015	U	0.014	U	0.014	U	0.014	U
Carbazole	86-74-8	mg/kg		0.0059	U	0.006	U	0.0056	U	0.0056	U	0.0056	U

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE27137		JE27137		JE27137		JE27137		JE27137	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:													
Client Sample ID:				EP-33 (142)		EP-34 (141.8)		EP-39 (142.0)		EP-40 (142)		EP-37 (142)	
Lab Sample ID:				JE27137-1		JE27137-2		JE27137-3		JE27137-4		JE27137-5	
Location:													
Date Sampled:				1/17/2026 10:20 AM		1/17/2026 10:15 AM		1/17/2026 10:05 AM		1/17/2026 10:10 AM		1/17/2026 10:00 AM	
Matrix:				Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**											
(GC/LC Semi-volatiles (SW846 8081B))													
Caprolactam	105-60-2	mg/kg		0.016	U	0.016	U	0.015	U	0.015	U	0.015	U
Chrysene	218-01-9	mg/kg	1	0.013	U	0.013	U	0.012	U	0.012	U	0.012	U
bis(2-Chloroethoxy)methan	111-91-1	mg/kg		0.0087	U	0.0088	U	0.0082	U	0.0082	U	0.0082	U
bis(2-Chloroethyl)ether	111-44-4	mg/kg		0.017	U	0.018	U	0.017	U	0.017	U	0.017	U
,2'-Oxybis(1-chloropropane	108-60-1	mg/kg		0.015	U	0.015	U	0.014	U	0.014	U	0.014	U
-Chlorophenyl phenyl ethe	7005-72-3	mg/kg		0.013	U	0.013	U	0.012	U	0.012	U	0.012	U
2,4-Dinitrotoluene	121-14-2	mg/kg		0.013	U	0.013	U	0.012	U	0.012	U	0.012	U
2,6-Dinitrotoluene	606-20-2	mg/kg		0.02	U	0.021	U	0.019	U	0.019	U	0.019	U
3,3'-Dichlorobenzidine	91-94-1	mg/kg		0.034	U	0.034	U	0.032	U	0.032	U	0.032	U
1,4-Dioxane	123-91-1	mg/kg	0.1	0.027	U	0.027	U	0.025	U	0.025	U	0.025	U
Dibenzo(a,h)anthracene	53-70-3	mg/kg	0.33	0.018	U	0.018	U	0.017	U	0.017	U	0.017	U
Dibenzofuran	132-64-9	mg/kg	2.1	0.017	U	0.017	U	0.016	U	0.016	U	0.016	U
Di-n-butyl phthalate	84-74-2	mg/kg		0.0066	U	0.0067	U	0.0063	U	0.0063	U	0.0063	U
Di-n-octyl phthalate	117-84-0	mg/kg		0.01	U	0.01	U	0.0096	U	0.0096	U	0.0096	U
Diethyl phthalate	84-66-2	mg/kg		0.0086	U	0.0088	U	0.0082	U	0.0082	U	0.0082	U
Dimethyl phthalate	131-11-3	mg/kg		0.0072	U	0.0073	U	0.0069	U	0.0068	U	0.0068	U
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg		0.0095	U	0.0096	U	0.009	U	0.009	U	0.009	U
Fluoranthene	206-44-0	mg/kg	85	0.0192	J	0.018	U	0.017	U	0.017	U	0.017	U
Fluorene	86-73-7	mg/kg	30	0.019	U	0.019	U	0.018	U	0.018	U	0.018	U
Hexachlorobenzene	118-74-1	mg/kg	0.33	0.01	U	0.01	U	0.0097	U	0.0097	U	0.0097	U
Hexachlorobutadiene	87-68-3	mg/kg		0.016	U	0.017	U	0.015	U	0.015	U	0.015	U
Hexachlorocyclopentadiene	77-47-4	mg/kg		0.016	U	0.016	U	0.015	U	0.015	U	0.015	U
Hexachloroethane	67-72-1	mg/kg		0.02	U	0.02	U	0.019	U	0.019	U	0.019	U
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	0.5	0.019	U	0.019	U	0.018	U	0.018	U	0.018	U
Isophorone	78-59-1	mg/kg		0.0087	U	0.0088	U	0.0082	U	0.0082	U	0.0082	U
2-Methylnaphthalene	91-57-6	mg/kg		0.0092	U	0.0093	U	0.0087	U	0.0087	U	0.0087	U
2-Nitroaniline	88-74-4	mg/kg		0.0096	U	0.0097	U	0.0091	U	0.0091	U	0.0091	U
3-Nitroaniline	99-09-2	mg/kg		0.01	U	0.01	U	0.0096	U	0.0096	U	0.0096	U
4-Nitroaniline	100-01-6	mg/kg		0.011	U	0.011	U	0.01	U	0.0099	U	0.01	U
Naphthalene	91-20-3	mg/kg	12	0.011	U	0.012	U	0.011	U	0.011	U	0.011	U
Nitrobenzene	98-95-3	mg/kg	0.08	0.016	U	0.016	U	0.015	U	0.015	U	0.015	U
N-Nitroso-di-n-propylamine	621-64-7	mg/kg		0.012	U	0.012	U	0.011	U	0.011	U	0.011	U

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE27137		JE27137		JE27137		JE27137		JE27137	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:													
Client Sample ID:				EP-33 (142)		EP-34 (141.8)		EP-39 (142.0)		EP-40 (142)		EP-37 (142)	
Lab Sample ID:				JE27137-1		JE27137-2		JE27137-3		JE27137-4		JE27137-5	
Location:													
Date Sampled:				1/17/2026 10:20 AM		1/17/2026 10:15 AM		1/17/2026 10:05 AM		1/17/2026 10:10 AM		1/17/2026 10:00 AM	
Matrix:				Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**											
(GC/LC Semi-volatiles (SW846 8081B))													
N-Nitrosodiphenylamine	86-30-6	mg/kg		0.015	U	0.015	U	0.014	U	0.014	U	0.014	U
Phenanthrene	85-01-8	mg/kg	1.1	0.014	U	0.014	U	0.013	U	0.013	U	0.013	U
Pyrene	129-00-0	mg/kg	64	0.0167	J	0.013	U	0.012	U	0.012	U	0.012	U
1,2,4,5-Tetrachlorobenzene	95-94-3	mg/kg		0.01	U	0.01	U	0.0098	U	0.0098	U	0.0098	U
2-Fluorophenol	367-12-4	%		67		71		70		59		65	
Phenol-d5	4165-62-2	%		71		75		74		62		71	
2,4,6-Tribromophenol	118-79-6	%		86		95		91		75		77	
Nitrobenzene-d5	4165-60-0	%		73		78		80		66		75	
2-Fluorobiphenyl	321-60-8	%		75		81		80		65		75	
Terphenyl-d14	1718-51-0	%		79		84		86		67		80	
(MS Volatile TIC ())													
Pentane, 2,2,4-trimethyl-	540-84-1	mg/kg		0.0089	JN								
alkane	TIC	mg/kg		0.0068	J								
alkane (1)	TIC	mg/kg		0.0093	J								
C4 alkyl benzene	TIC	mg/kg		0.0067	J								
C4 alkyl benzene (1)	TIC	mg/kg		0.0054	J								
C4 alkyl benzene (2)	TIC	mg/kg		0.0051	J								
Total TIC, Volatile	TOTAL TIC, VOLATILE	mg/kg		0.0422	J	0		0		0		0	
(MS Volatiles (SW846 8260D))													
Acetone	67-64-1	mg/kg	0.03	0.0059	J	0.0087	J	0.006	J	0.0571		0.0075	J
Benzene	71-43-2	mg/kg	0.06	0.00045	U	0.00052	U	0.00047	U	0.00046	U	0.00048	U
Bromochloromethane	74-97-5	mg/kg		0.00056	U	0.00064	U	0.00058	U	0.00057	U	0.00059	U
Bromodichloromethane	75-27-4	mg/kg		0.00043	U	0.00049	U	0.00044	U	0.00044	U	0.00045	U
Bromoform	75-25-2	mg/kg		0.0013	U	0.0015	U	0.0014	U	0.0014	U	0.0014	U
Bromomethane	74-83-9	mg/kg		0.00076	U	0.00087	U	0.00079	U	0.00078	U	0.00081	U
2-Butanone (MEK)	78-93-3	mg/kg	0.1	0.0024	U	0.0028	U	0.0025	U	0.0025	U	0.0026	U
Carbon disulfide	75-15-0	mg/kg		0.00053	U	0.00061	U	0.00055	U	0.0009	J	0.00057	U
Carbon tetrachloride	56-23-5	mg/kg	0.76	0.00061	U	0.0007	U	0.00064	U	0.00063	U	0.00066	U
Chlorobenzene	108-90-7	mg/kg	4.5	0.00046	U	0.00052	U	0.00047	U	0.00047	U	0.00049	U
Chloroethane	75-00-3	mg/kg		0.00059	U	0.00067	U	0.00061	U	0.0006	U	0.00063	U
Chloroform	67-66-3	mg/kg	0.37	0.00099	U	0.0011	U	0.001	U	0.001	U	0.0011	U
Chloromethane	74-87-3	mg/kg		0.0019	U	0.0022	U	0.002	U	0.002	U	0.0021	U

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE27137		JE27137		JE27137		JE27137		JE27137	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:													
Client Sample ID:				EP-33 (142)		EP-34 (141.8)		EP-39 (142.0)		EP-40 (142)		EP-37 (142)	
Lab Sample ID:				JE27137-1		JE27137-2		JE27137-3		JE27137-4		JE27137-5	
Location:													
Date Sampled:				1/17/2026 10:20 AM		1/17/2026 10:15 AM		1/17/2026 10:05 AM		1/17/2026 10:10 AM		1/17/2026 10:00 AM	
Matrix:				Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**											
(GC/LC Semi-volatiles (SW846 8081B))													
Cyclohexane	110-82-7	mg/kg		0.00065	U	0.00075	U	0.00068	U	0.00067	U	0.0007	U
2-Dibromo-3-chloropropar	96-12-8	mg/kg		0.00069	U	0.00079	U	0.00072	U	0.00071	U	0.00074	U
Dibromochloromethane	124-48-1	mg/kg		0.00056	U	0.00064	U	0.00058	U	0.00057	U	0.00059	U
1,2-Dibromoethane	106-93-4	mg/kg		0.00042	U	0.00048	U	0.00043	U	0.00043	U	0.00045	U
1,2-Dichlorobenzene	95-50-1	mg/kg	1.1	0.00054	U	0.00062	U	0.00056	U	0.00056	U	0.00058	U
1,3-Dichlorobenzene	541-73-1	mg/kg	2.6	0.00049	U	0.00057	U	0.00051	U	0.0005	U	0.00053	U
1,4-Dichlorobenzene	106-46-7	mg/kg	1.8	0.00049	U	0.00056	U	0.00051	U	0.0005	U	0.00052	U
Dichlorodifluoromethane	75-71-8	mg/kg		0.00072	U	0.00083	U	0.00075	U	0.00074	U	0.00077	U
1,1-Dichloroethane	75-34-3	mg/kg	0.27	0.00049	U	0.00056	U	0.00051	U	0.0005	U	0.00052	U
1,2-Dichloroethane	107-06-2	mg/kg	0.02	0.00047	U	0.00054	U	0.00049	U	0.00048	U	0.0005	U
1,1-Dichloroethene	75-35-4	mg/kg	0.24	0.00065	U	0.00075	U	0.00068	U	0.00067	U	0.00069	U
cis-1,2-Dichloroethene	156-59-2	mg/kg	0.19	0.00083	U	0.00096	U	0.00087	U	0.00085	U	0.00089	U
trans-1,2-Dichloroethene	156-60-5	mg/kg	0.19	0.00061	U	0.0007	U	0.00063	U	0.00062	U	0.00065	U
1,2-Dichloropropane	78-87-5	mg/kg		0.00047	U	0.00054	U	0.00049	U	0.00048	U	0.0005	U
cis-1,3-Dichloropropene	10061-01-5	mg/kg		0.00047	U	0.00054	U	0.00049	U	0.00048	U	0.0005	U
trans-1,3-Dichloropropene	10061-02-6	mg/kg		0.00045	U	0.00052	U	0.00047	U	0.00046	U	0.00048	U
Ethylbenzene	100-41-4	mg/kg	1	0.00046	J	0.00052	U	0.0017		0.00046	U	0.00048	U
Freon 113	76-13-1	mg/kg		0.0026	U	0.003	U	0.0028	U	0.0027	U	0.0028	U
2-Hexanone	591-78-6	mg/kg		0.0021	U	0.0024	U	0.0022	U	0.0022	U	0.0022	U
Isopropylbenzene	98-82-8	mg/kg		0.0014	U	0.0016	U	0.0015	U	0.0014	U	0.0015	U
Methyl Acetate	79-20-9	mg/kg		0.0014	U	0.0016	U	0.0014	U	0.0014	U	0.0015	U
Methylcyclohexane	108-87-2	mg/kg		0.0012	J	0.001	U	0.0014	J	0.00089	U	0.00093	U
Methyl Tert Butyl Ether	1634-04-4	mg/kg	0.1	0.00046	U	0.00053	U	0.00048	U	0.00048	U	0.0005	U
-Methyl-2-pentanone(MIBK	108-10-1	mg/kg		0.0023	U	0.0026	U	0.0023	U	0.0023	U	0.0024	U
Methylene chloride	75-09-2	mg/kg	0.05	0.0026	U	0.003	U	0.0027	U	0.0027	U	0.0028	U
Styrene	100-42-5	mg/kg		0.0004	U	0.00046	U	0.00042	U	0.00041	U	0.00043	U
1,1,2,2-Tetrachloroethane	79-34-5	mg/kg		0.00059	U	0.00068	U	0.00062	U	0.00061	U	0.00064	U
Tetrachloroethene	127-18-4	mg/kg	1.3	0.00058	U	0.00066	U	0.0006	U	0.00059	U	0.00062	U
Toluene	108-88-3	mg/kg	0.7	0.00052	U	0.0006	U	0.00054	U	0.00053	U	0.00056	U
1,2,3-Trichlorobenzene	87-61-6	mg/kg		0.0025	U	0.0028	U	0.0026	U	0.0025	U	0.0027	U
1,2,4-Trichlorobenzene	120-82-1	mg/kg		0.0025	U	0.0028	U	0.0026	U	0.0025	U	0.0027	U
1,1,1-Trichloroethane	71-55-6	mg/kg	0.68	0.00048	U	0.00055	U	0.0005	U	0.00049	U	0.00051	U

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE27137		JE27137		JE27137		JE27137		JE27137	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:													
Client Sample ID:				EP-33 (142)		EP-34 (141.8)		EP-39 (142.0)		EP-40 (142)		EP-37 (142)	
Lab Sample ID:				JE27137-1		JE27137-2		JE27137-3		JE27137-4		JE27137-5	
Location:													
Date Sampled:				1/17/2026 10:20 AM		1/17/2026 10:15 AM		1/17/2026 10:05 AM		1/17/2026 10:10 AM		1/17/2026 10:00 AM	
Matrix:				Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**											
(GC/LC Semi-volatiles (SW846 8081B))													
1,1,2-Trichloroethane	79-00-5	mg/kg		0.00055	U	0.00063	U	0.00057	U	0.00056	U	0.00059	U
Trichloroethene	79-01-6	mg/kg	0.47	0.00076	U	0.00087	U	0.00079	U	0.00077	U	0.00081	U
Trichlorofluoromethane	75-69-4	mg/kg		0.00068	U	0.00078	U	0.00071	U	0.0007	U	0.00073	U
Vinyl chloride	75-01-4	mg/kg	0.03	0.00048	U	0.00055	U	0.0005	U	0.00049	U	0.00051	U
m,p-Xylene	M,P-XYLENE	mg/kg	0.26	0.00089	U	0.001	U	0.0011		0.00091	U	0.00095	U
o-Xylene	95-47-6	mg/kg	0.26	0.00045	U	0.00052	U	0.00067	J	0.00047	U	0.00049	U
Xylene (total)	1330-20-7	mg/kg	0.26	0.00045	U	0.00052	U	0.0018		0.00047	U	0.00049	U
Dibromofluoromethane	1868-53-7	%		107		107		106		105		105	
1,2-Dichloroethane-D4	17060-07-0	%		108		106		107		105		108	
Toluene-D8	2037-26-5	%		101		100		99		100		98	
4-Bromofluorobenzene	460-00-4	%		100		98		100		98		98	
1 result(s) exceeded regulatory criteria.													

Footnote	Comments
	*** 4 footnote comments were removed from this export ***

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Client Sample ID:			NY USCO	EP-20I(149.0')		EP-21I(148.9')		EP-2(153.7')		EP-32(151.7')		EP-45(142.0')	
Lab Sample ID:				JE27497-1		JE27497-2		JE27497-3		JE27497-4		JE27497-5	
Date Sampled:				1/23/2026 1:05 PM		1/23/2026 1:15 PM		1/23/2026 2:00 PM		1/23/2026 2:05 PM		1/23/2026 2:10 PM	
Matrix:				Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**											
(GC/LC Semi-volatiles (SW846 8081B))													
Aldrin	309-00-2	mg/kg	0.0048	0.00055	U	0.00058	U	0.00059	U	0.00055	U	0.00057	U
alpha-BHC	319-84-6	mg/kg	0.02	0.00055	U	0.00057	U	0.00058	U	0.00055	U	0.00056	U
beta-BHC	319-85-7	mg/kg	0.021	0.00061	U	0.00064	U	0.00064	U	0.00061	U	0.00062	U
delta-BHC	319-86-8	mg/kg	0.04	0.00065	U	0.00068	U	0.00068	U	0.00065	U	0.00066	U
gamma-BHC (Lindane)	58-89-9	mg/kg	0.025	0.0005	U	0.00052	U	0.00052	U	0.0005	U	0.00051	U
alpha-Chlordane	5103-71-9	mg/kg	0.014	0.00054	U	0.00057	U	0.00057	U	0.00054	U	0.00056	U
gamma-Chlordane	5103-74-2	mg/kg		0.0003	U	0.00032	U	0.00032	U	0.0003	U	0.00031	U
Dieldrin	60-57-1	mg/kg	0.005	0.00046	U	0.00049	U	0.00049	U	0.00046	U	0.00047	U
4,4'-DDD	72-54-8	mg/kg	0.0033	0.00062	U	0.00065	U	0.00065	U	0.00062	U	0.00063	U
4,4'-DDE	72-55-9	mg/kg	0.0033	0.00059	U	0.00062	U	0.00062	U	0.00059	U	0.0006	U
4,4'-DDT	50-29-3	mg/kg	0.0033	0.0006	U	0.00063	U	0.00063	U	0.0006	U	0.00061	U
Endrin	72-20-8	mg/kg	0.014	0.00052	U	0.00055	U	0.00055	U	0.00052	U	0.00054	U
Endosulfan sulfate	1031-07-8	mg/kg	4.3	0.00053	U	0.00055	U	0.00056	U	0.00053	U	0.00054	U
Endrin aldehyde	7421-93-4	mg/kg		0.00038	U	0.0004	U	0.0004	U	0.00038	U	0.00039	U
Endosulfan-I	959-98-8	mg/kg	4.3	0.00039	U	0.00041	U	0.00041	U	0.00039	U	0.0004	U
Endosulfan-II	33213-65-9	mg/kg	4.3	0.00042	U	0.00044	U	0.00044	U	0.00042	U	0.00043	U
Heptachlor	76-44-8	mg/kg	0.013	0.00058	U	0.00061	U	0.00061	U	0.00058	U	0.00059	U
Heptachlor epoxide	1024-57-3	mg/kg		0.00047	U	0.00049	U	0.0005	U	0.00047	U	0.00048	U
Methoxychlor	72-43-5	mg/kg		0.00054	U	0.00056	U	0.00057	U	0.00053	U	0.00055	U
Endrin ketone	53494-70-5	mg/kg		0.00049	U	0.00051	U	0.00051	U	0.00049	U	0.0005	U
Toxaphene	8001-35-2	mg/kg		0.016	U	0.016	U	0.017	U	0.016	U	0.016	U
Tetrachloro-m-xylene	877-09-8	%		104		91		78		75		89	
Tetrachloro-m-xylene (1)	877-09-8	%		121		94		85		82		99	
Decachlorobiphenyl	2051-24-3	%		122		94		88		86		105	
Decachlorobiphenyl (1)	2051-24-3	%		132		94		86		88		111	
(GC/LC Semi-volatiles (SW846 8082A))													
Aroclor 1016	12674-11-2	mg/kg	0.1	0.016	U	0.016	U	0.017	U	0.016	U	0.016	U
Aroclor 1221	11104-28-2	mg/kg	0.1	0.021	U	0.022	U	0.022	U	0.021	U	0.021	U
Aroclor 1232	11141-16-5	mg/kg	0.1	0.021	U	0.023	U	0.023	U	0.021	U	0.022	U
Aroclor 1242	53469-21-9	mg/kg	0.1	0.014	U	0.014	U	0.015	U	0.014	U	0.014	U
Aroclor 1248	12672-29-6	mg/kg	0.1	0.03	U	0.031	U	0.032	U	0.03	U	0.031	U
Aroclor 1254	11097-69-1	mg/kg	0.1	0.018	U	0.019	U	0.019	U	0.018	U	0.019	U
Aroclor 1260	11096-82-5	mg/kg	0.1	0.014	U	0.015	U	0.015	U	0.014	U	0.015	U
Aroclor 1268	11100-14-4	mg/kg	0.1	0.029	U	0.031	U	0.031	U	0.029	U	0.03	U
Aroclor 1262	37324-23-5	mg/kg	0.1	0.022	U	0.023	U	0.023	U	0.022	U	0.023	U
Tetrachloro-m-xylene (2)	877-09-8	%		65		62		60		59		66	
Tetrachloro-m-xylene (3)	877-09-8	%		97		98		93		91		104	
Decachlorobiphenyl (2)	2051-24-3	%		60		50		49		50		59	
Decachlorobiphenyl (3)	2051-24-3	%		77		62		60		57		71	
(General Chemistry (SM2540 G 18TH ED MOD))													
Solids, Percent	PERCENT SOLIDS	%		87.9		83.8		90.7		95.3		94.2	
(General Chemistry (SW846 9012B/LACHAT))													
Cyanide	57-12-5	mg/kg	2.3	0.28	U	0.3	U	0.29	U	0.26	U	0.29	U
(Metals Analysis (SW846 6010D))													
Aluminum	7429-90-5	mg/kg		10500		10500		11100		6660		2340	
Antimony	7440-36-0	mg/kg		5.4	U	5.9	U	5.3	U	5.2	U	1	U
Arsenic	7440-38-2	mg/kg	13	2.6		2.7		1.3		1.6		1	U

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Client Sample ID:			NY USCO	EP-20I(149.0')		EP-21I(148.9')		EP-2(153.7')		EP-32(151.7')		EP-45(142.0')	
Lab Sample ID:				JE27497-1		JE27497-2		JE27497-3		JE27497-4		JE27497-5	
Date Sampled:				1/23/2026 1:05 PM		1/23/2026 1:15 PM		1/23/2026 2:00 PM		1/23/2026 2:05 PM		1/23/2026 2:10 PM	
Matrix:				Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**											
(GC/LC Semi-volatiles (SW846 8081B))													
Barium	7440-39-3	mg/kg	410	57.6		75.5		81.7		42.5		20.9	
Beryllium	7440-41-7	mg/kg	4.4	0.43		0.42		0.34		0.27		0.1	U
Cadmium	7440-43-9	mg/kg	2.5	0.27	U	0.29	U	0.26	U	0.26	U	0.25	U
Calcium	7440-70-2	mg/kg		3370		1910		6890		786		883	
Chromium	7440-47-3	mg/kg	30	17.7		17		18		10.5		4.8	
Cobalt	7440-48-4	mg/kg		7.7		6.8		6.8		4.8		2.5	
Copper	7440-50-8	mg/kg	50	16.1		14.3		18.2		11.2		7.1	
Iron	7439-89-6	mg/kg		23300		18400		16100		13000		5190	
Lead	7439-92-1	mg/kg	63	5.9		16.5		5.3	U	5.4		1.9	
Magnesium	7439-95-4	mg/kg		4540		2830		7990		2410		1340	
Manganese	7439-96-5	mg/kg	1600	591		262		336		118		102	
Nickel	7440-02-0	mg/kg	30	13.4		12		14.4		10.7		5	
Potassium	7440-09-7	mg/kg		1440		1060		2020		768		663	
Selenium	7782-49-2	mg/kg	3.9	5.4	U	5.9	U	5.3	U	5.2	U	1	U
Silver	7440-22-4	mg/kg	2	0.27	U	0.29	U	0.26	U	0.26	U	0.25	U
Sodium	7440-23-5	mg/kg		540	U	590	U	530	U	520	U	500	U
Thallium	7440-28-0	mg/kg		2.7	U	2.9	U	2.6	U	2.6	U	0.5	U
Vanadium	7440-62-2	mg/kg		23.9		23.8		23.1		14.9		6.4	
Zinc	7440-66-6	mg/kg	109	37.5		45.7		35.5		27.3		14.6	
(Metals Analysis (SW846 7471B))													
Mercury	7439-97-6	mg/kg	0.18	0.033	U	0.034	U	0.032	U	0.029	U	0.033	U
(MS Semi-volatile TIC ())													
Alkane	TIC	mg/kg		0.25	J					0.4	J		
Alkane (6)	TIC	mg/kg		0.27	J								
Unknown	TIC	mg/kg				0.25	JB	0.31	JB			0.25	JB
Alkane (7)	TIC	mg/kg		0.16	J								
Alkane (8)	TIC	mg/kg		0.42	J								
Alkane (9)	TIC	mg/kg		0.23	J								
Alkane (10)	TIC	mg/kg		0.19	J								
n-Hexadecanoic acid	57-10-3	mg/kg		0.91	JNB	0.47	JNB	0.35	JNB	0.69	JNB	0.51	JNB
Alkane (11)	TIC	mg/kg		0.17	J								
Unknown acid	TIC	mg/kg		0.2	J								
Alkane (1)	TIC	mg/kg		0.19	J					0.14	J		
Alkane (2)	TIC	mg/kg		0.48	J								
Alkane (3)	TIC	mg/kg		0.21	J								
Alkane (4)	TIC	mg/kg		0.2	J								
Alkane (5)	TIC	mg/kg		0.24	J								
Total TIC, Semi-Volatile	TOTAL TIC, SEMI-VOLATILE	mg/kg		3.21	J	0		0		0.54	J	0	
(MS Semi-volatiles (SW846 8270E))													
2-Chlorophenol	95-57-8	mg/kg		0.018	U	0.019	U	0.018	U	0.017	U	0.017	U
4-Chloro-3-methyl phenol	59-50-7	mg/kg		0.023	U	0.024	U	0.023	U	0.021	U	0.021	U
2,4-Dichlorophenol	120-83-2	mg/kg		0.032	U	0.033	U	0.031	U	0.03	U	0.03	U
2,4-Dimethylphenol	105-67-9	mg/kg		0.066	U	0.07	U	0.065	U	0.062	U	0.062	U
2,4-Dinitrophenol	51-28-5	mg/kg		0.14	U	0.15	U	0.14	U	0.13	U	0.13	U
4,6-Dinitro-o-cresol	534-52-1	mg/kg		0.04	U	0.042	U	0.039	U	0.037	U	0.037	U
2-Methylphenol	95-48-7	mg/kg	0.33	0.024	U	0.025	U	0.023	U	0.022	U	0.022	U
3&4-Methylphenol	M+P-CRESOLS	mg/kg	0.33	0.031	U	0.032	U	0.03	U	0.029	U	0.029	U

Client Sample ID:			NY USCO	EP-20I(149.0')		EP-21I(148.9')		EP-2(153.7')		EP-32(151.7')		EP-45(142.0')	
Lab Sample ID:				JE27497-1		JE27497-2		JE27497-3		JE27497-4		JE27497-5	
Date Sampled:				1/23/2026 1:05 PM		1/23/2026 1:15 PM		1/23/2026 2:00 PM		1/23/2026 2:05 PM		1/23/2026 2:10 PM	
Matrix:				Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**											
(GC/LC Semi-volatiles (SW846 8081B))													
2-Nitrophenol	88-75-5	mg/kg		0.025	U	0.026	U	0.024	U	0.023	U	0.023	U
4-Nitrophenol	100-02-7	mg/kg		0.099	U	0.1	U	0.098	U	0.093	U	0.093	U
Pentachlorophenol	87-86-5	mg/kg	0.8	0.035	U	0.037	U	0.035	U	0.033	U	0.033	U
Phenol	108-95-2	mg/kg	0.33	0.019	U	0.02	U	0.019	U	0.018	U	0.018	U
2,3,4,6-Tetrachlorophenol	58-90-2	mg/kg		0.025	U	0.026	U	0.024	U	0.023	U	0.023	U
2,4,5-Trichlorophenol	95-95-4	mg/kg		0.028	U	0.029	U	0.028	U	0.026	U	0.026	U
2,4,6-Trichlorophenol	88-06-2	mg/kg		0.022	U	0.023	U	0.022	U	0.021	U	0.021	U
Acenaphthene	83-32-9	mg/kg	20	0.013	U	0.013	U	0.013	U	0.012	U	0.012	U
Acenaphthylene	208-96-8	mg/kg	100	0.019	U	0.02	U	0.019	U	0.018	U	0.018	U
Acetophenone	98-86-2	mg/kg		0.008	U	0.0084	U	0.0079	U	0.0075	U	0.0075	U
Anthracene	120-12-7	mg/kg	100	0.023	U	0.024	U	0.023	U	0.021	U	0.021	U
Atrazine	1912-24-9	mg/kg		0.016	U	0.017	U	0.016	U	0.015	U	0.015	U
Benzo(a)anthracene	56-55-3	mg/kg	1	0.0136	J	0.011	U	0.01	U	0.0098	U	0.0098	U
Benzo(a)pyrene	50-32-8	mg/kg	1	0.017	U	0.018	U	0.017	U	0.016	U	0.016	U
Benzo(b)fluoranthene	205-99-2	mg/kg	1	0.016	U	0.017	U	0.016	U	0.015	U	0.015	U
Benzo(g,h,i)perylene	191-24-2	mg/kg	0.64	0.019	U	0.02	U	0.018	U	0.017	U	0.017	U
Benzo(k)fluoranthene	207-08-9	mg/kg	0.8	0.017	U	0.018	U	0.017	U	0.016	U	0.016	U
4-Bromophenyl phenyl ether	101-55-3	mg/kg		0.014	U	0.015	U	0.014	U	0.013	U	0.013	U
Butyl benzyl phthalate	85-68-7	mg/kg		0.0091	U	0.0095	U	0.009	U	0.0085	U	0.0085	U
1,1'-Biphenyl	92-52-4	mg/kg		0.0051	U	0.0054	U	0.005	U	0.0048	U	0.0048	U
Benzaldehyde	100-52-7	mg/kg		0.0092	U	0.0097	U	0.0091	U	0.0086	U	0.0086	U
2-Chloronaphthalene	91-58-7	mg/kg		0.0088	U	0.0093	U	0.0087	U	0.0083	U	0.0083	U
4-Chloroaniline	106-47-8	mg/kg		0.013	U	0.014	U	0.013	U	0.013	U	0.012	U
Carbazole	86-74-8	mg/kg		0.0054	U	0.0057	U	0.0053	U	0.005	U	0.005	U
Caprolactam	105-60-2	mg/kg		0.015	U	0.015	U	0.015	U	0.014	U	0.014	U
Chrysene	218-01-9	mg/kg	1	0.0131	J	0.012	U	0.012	U	0.011	U	0.011	U
bis(2-Chloroethoxy)methane	111-91-1	mg/kg		0.008	U	0.0084	U	0.0079	U	0.0074	U	0.0074	U
bis(2-Chloroethyl)ether	111-44-4	mg/kg		0.016	U	0.017	U	0.016	U	0.015	U	0.015	U
2,2'-Oxybis(1-chloropropane)	108-60-1	mg/kg		0.013	U	0.014	U	0.013	U	0.012	U	0.012	U
4-Chlorophenyl phenyl ether	7005-72-3	mg/kg		0.012	U	0.013	U	0.012	U	0.011	U	0.011	U
2,4-Dinitrotoluene	121-14-2	mg/kg		0.012	U	0.012	U	0.011	U	0.011	U	0.011	U
2,6-Dinitrotoluene	606-20-2	mg/kg		0.019	U	0.02	U	0.018	U	0.017	U	0.017	U
3,3'-Dichlorobenzidine	91-94-1	mg/kg		0.031	U	0.033	U	0.031	U	0.029	U	0.029	U
1,4-Dioxane	123-91-1	mg/kg	0.1	0.025	U	0.026	U	0.024	U	0.023	U	0.023	U
Dibenzo(a,h)anthracene	53-70-3	mg/kg	0.33	0.016	U	0.017	U	0.016	U	0.015	U	0.015	U
Dibenzofuran	132-64-9	mg/kg	2.1	0.015	U	0.016	U	0.015	U	0.014	U	0.014	U
Di-n-butyl phthalate	84-74-2	mg/kg		0.0061	U	0.0064	U	0.006	U	0.0057	U	0.0057	U
Di-n-octyl phthalate	117-84-0	mg/kg		0.0093	U	0.0097	U	0.0092	U	0.0087	U	0.0086	U
Diethyl phthalate	84-66-2	mg/kg		0.0079	U	0.0083	U	0.0078	U	0.0074	U	0.0074	U
Dimethyl phthalate	131-11-3	mg/kg		0.0066	U	0.007	U	0.0065	U	0.0062	U	0.0062	U
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg		0.0087	U	0.0092	U	0.0086	U	0.0081	U	0.0081	U
Fluoranthene	206-44-0	mg/kg	85	0.0186	J	0.017	U	0.016	U	0.015	U	0.015	U
Fluorene	86-73-7	mg/kg	30	0.017	U	0.018	U	0.017	U	0.016	U	0.016	U
Hexachlorobenzene	118-74-1	mg/kg	0.33	0.0094	U	0.0099	U	0.0093	U	0.0088	U	0.0088	U
Hexachlorobutadiene	87-68-3	mg/kg		0.015	U	0.016	U	0.015	U	0.014	U	0.014	U
Hexachlorocyclopentadiene	77-47-4	mg/kg		0.015	U	0.016	U	0.015	U	0.014	U	0.014	U
Hexachloroethane	67-72-1	mg/kg		0.018	U	0.019	U	0.018	U	0.017	U	0.017	U

Client Sample ID:			NY USCO	EP-20I(149.0')		EP-21I(148.9')		EP-2(153.7')		EP-32(151.7')		EP-45(142.0')	
Lab Sample ID:				JE27497-1		JE27497-2		JE27497-3		JE27497-4		JE27497-5	
Date Sampled:				1/23/2026 1:05 PM		1/23/2026 1:15 PM		1/23/2026 2:00 PM		1/23/2026 2:05 PM		1/23/2026 2:10 PM	
Matrix:				Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**											
(GC/LC Semi-volatiles (SW846 8081B))													
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	0.5	0.017	U	0.018	U	0.017	U	0.016	U	0.016	U
Isophorone	78-59-1	mg/kg		0.008	U	0.0084	U	0.0079	U	0.0074	U	0.0074	U
2-Methylnaphthalene	91-57-6	mg/kg		0.0084	U	0.0088	U	0.0083	U	0.0079	U	0.0078	U
2-Nitroaniline	88-74-4	mg/kg		0.0088	U	0.0092	U	0.0087	U	0.0082	U	0.0082	U
3-Nitroaniline	99-09-2	mg/kg		0.0093	U	0.0098	U	0.0092	U	0.0087	U	0.0087	U
4-Nitroaniline	100-01-6	mg/kg		0.0096	U	0.01	U	0.0095	U	0.009	U	0.009	U
Naphthalene	91-20-3	mg/kg	12	0.01	U	0.011	U	0.01	U	0.0098	U	0.0098	U
Nitrobenzene	98-95-3	mg/kg	0.08	0.014	U	0.015	U	0.014	U	0.013	U	0.013	U
N-Nitroso-di-n-propylamine	621-64-7	mg/kg		0.011	U	0.011	U	0.011	U	0.01	U	0.01	U
N-Nitrosodiphenylamine	86-30-6	mg/kg		0.014	U	0.014	U	0.013	U	0.013	U	0.013	U
Phenanthrene	85-01-8	mg/kg	1.1	0.012	U	0.013	U	0.012	U	0.012	U	0.012	U
Pyrene	129-00-0	mg/kg	64	0.0203	J	0.013	U	0.012	U	0.011	U	0.011	U
1,2,4,5-Tetrachlorobenzene	95-94-3	mg/kg		0.0094	U	0.0099	U	0.0093	U	0.0088	U	0.0088	U
2-Fluorophenol	367-12-4	%		48		55		59		53		62	
Phenol-d5	4165-62-2	%		48		54		57		52		59	
2,4,6-Tribromophenol	118-79-6	%		55		60		62		51		64	
Nitrobenzene-d5	4165-60-0	%		51		55		58		54		61	
2-Fluorobiphenyl	321-60-8	%		54		62		62		57		67	
Terphenyl-d14	1718-51-0	%		60		70		71		69		73	
(MS Volatile TIC ())													
Ethanol, 2-(2-methoxyethoxy)-	111-77-3	mg/kg		0.028	JN								
Total TIC, Volatile	TOTAL TIC, VOLATILE	mg/kg		0.028	J	0		0		0		0	
Total TIC, Volatile	TOTAL TIC, VOLATILE	ug/l											
(MS Volatiles (SW846 8260D))													
Acetone	67-64-1	mg/kg	0.03	0.0061	J	0.0044	U	0.0045	U	0.0049	U	0.0048	U
Acetone	67-64-1	ug/l											
Benzene	71-43-2	mg/kg	0.06	0.00053	U	0.00048	U	0.00049	U	0.00054	U	0.00053	U
Bromochloromethane	74-97-5	mg/kg		0.00065	U	0.0006	U	0.00061	U	0.00067	U	0.00065	U
Benzene	71-43-2	ug/l											
Bromodichloromethane	75-27-4	mg/kg		0.0005	U	0.00046	U	0.00046	U	0.00051	U	0.0005	U
Bromoform	75-25-2	mg/kg		0.0016	U	0.0014	U	0.0015	U	0.0016	U	0.0016	U
Bromomethane	74-83-9	mg/kg		0.00089	U	0.00081	U	0.00083	U	0.00091	U	0.00088	U
2-Butanone (MEK)	78-93-3	mg/kg	0.1	0.0028	U	0.0026	U	0.0026	U	0.0029	U	0.0028	U
Bromochloromethane	74-97-5	ug/l											
Bromodichloromethane	75-27-4	ug/l											
Bromoform	75-25-2	ug/l											
Bromomethane	74-83-9	ug/l											
2-Butanone (MEK)	78-93-3	ug/l											
Carbon disulfide	75-15-0	mg/kg		0.00062	U	0.00057	U	0.00058	U	0.00064	U	0.00062	U
Carbon tetrachloride	56-23-5	mg/kg	0.76	0.00072	U	0.00066	U	0.00067	U	0.00074	U	0.00071	U
Chlorobenzene	108-90-7	mg/kg	4.5	0.00053	U	0.00049	U	0.0005	U	0.00055	U	0.00053	U
Chloroethane	75-00-3	mg/kg		0.00069	U	0.00063	U	0.00064	U	0.0007	U	0.00068	U
Carbon disulfide	75-15-0	ug/l											
Carbon tetrachloride	56-23-5	ug/l											
Chloroform	67-66-3	mg/kg	0.37	0.0012	U	0.0011	U	0.0011	U	0.0012	U	0.0012	U
Chlorobenzene	108-90-7	ug/l											
Chloromethane	74-87-3	mg/kg		0.0023	U	0.0021	U	0.0021	U	0.0023	U	0.0023	U

Client Sample ID:			NY USCO	EP-20I(149.0')		EP-21I(148.9')		EP-2(153.7')		EP-32(151.7')		EP-45(142.0')	
Lab Sample ID:				JE27497-1		JE27497-2		JE27497-3		JE27497-4		JE27497-5	
Date Sampled:				1/23/2026 1:05 PM		1/23/2026 1:15 PM		1/23/2026 2:00 PM		1/23/2026 2:05 PM		1/23/2026 2:10 PM	
Matrix:				Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**											
(GC/LC Semi-volatiles (SW846 8081B))													
Chloroethane	75-00-3	ug/l											
Chloroform	67-66-3	ug/l											
Cyclohexane	110-82-7	mg/kg		0.00076	U	0.0007	U	0.00071	U	0.00078	U	0.00076	U
Chloromethane	74-87-3	ug/l											
1,2-Dibromo-3-chloropropane	96-12-8	mg/kg		0.00081	U	0.00074	U	0.00075	U	0.00083	U	0.0008	U
Cyclohexane	110-82-7	ug/l											
Dibromochloromethane	124-48-1	mg/kg		0.00065	U	0.0006	U	0.00061	U	0.00067	U	0.00065	U
1,2-Dibromoethane	106-93-4	mg/kg		0.00049	U	0.00045	U	0.00046	U	0.0005	U	0.00049	U
1,2-Dichlorobenzene	95-50-1	mg/kg	1.1	0.00063	U	0.00058	U	0.00059	U	0.00065	U	0.00063	U
1,3-Dichlorobenzene	541-73-1	mg/kg	2.6	0.00058	U	0.00053	U	0.00054	U	0.00059	U	0.00057	U
1,2-Dibromo-3-chloropropane	96-12-8	ug/l											
1,4-Dichlorobenzene	106-46-7	mg/kg	1.8	0.00057	U	0.00053	U	0.00053	U	0.00059	U	0.00057	U
Dibromochloromethane	124-48-1	ug/l											
1,2-Dibromoethane	106-93-4	ug/l											
Dichlorodifluoromethane	75-71-8	mg/kg		0.00084	U	0.00077	U	0.00079	U	0.00087	U	0.00084	U
1,1-Dichloroethane	75-34-3	mg/kg	0.27	0.00057	U	0.00053	U	0.00054	U	0.00059	U	0.00057	U
1,2-Dichlorobenzene	95-50-1	ug/l											
1,2-Dichloroethane	107-06-2	mg/kg	0.02	0.00055	U	0.0005	U	0.00051	U	0.00056	U	0.00054	U
1,3-Dichlorobenzene	541-73-1	ug/l											
1,1-Dichloroethene	75-35-4	mg/kg	0.24	0.00076	U	0.0007	U	0.00071	U	0.00078	U	0.00076	U
1,4-Dichlorobenzene	106-46-7	ug/l											
cis-1,2-Dichloroethene	156-59-2	mg/kg	0.19	0.00098	U	0.00089	U	0.00091	U	0.001	U	0.00097	U
1,4-Dichlorobenzene	106-46-7	ug/l											
cis-1,2-Dichloroethene	156-59-2	mg/kg	0.19	0.00098	U	0.00089	U	0.00091	U	0.001	U	0.00097	U
Dichlorodifluoromethane	75-71-8	ug/l											
trans-1,2-Dichloroethene	156-60-5	mg/kg	0.19	0.00071	U	0.00065	U	0.00066	U	0.00073	U	0.00071	U
1,1-Dichloroethane	75-34-3	ug/l											
1,2-Dichloroethane	107-06-2	ug/l											
1,2-Dichloropropane	78-87-5	mg/kg		0.00055	U	0.0005	U	0.00051	U	0.00056	U	0.00055	U
1,1-Dichloroethene	75-35-4	ug/l											
cis-1,2-Dichloroethene	156-59-2	ug/l											
trans-1,2-Dichloroethene	156-60-5	ug/l											
cis-1,3-Dichloropropene	10061-01-5	mg/kg		0.00055	U	0.00051	U	0.00051	U	0.00057	U	0.00055	U
1,2-Dichloropropane	78-87-5	ug/l											
trans-1,3-Dichloropropene	10061-02-6	mg/kg		0.00053	U	0.00049	U	0.00049	U	0.00054	U	0.00053	U
cis-1,3-Dichloropropene	10061-01-5	ug/l											
trans-1,3-Dichloropropene	10061-02-6	ug/l											
Ethylbenzene	100-41-4	mg/kg	1	0.00053	U	0.00048	U	0.00049	U	0.00054	U	0.00052	U
Ethylbenzene	100-41-4	ug/l											
Freon 113	76-13-1	mg/kg		0.0031	U	0.0028	U	0.0029	U	0.0032	U	0.0031	U
Freon 113	76-13-1	ug/l											
2-Hexanone	591-78-6	mg/kg		0.0025	U	0.0023	U	0.0023	U	0.0025	U	0.0024	U
2-Hexanone	591-78-6	ug/l											
Isopropylbenzene	98-82-8	mg/kg		0.0016	U	0.0015	U	0.0015	U	0.0017	U	0.0016	U
Isopropylbenzene	98-82-8	ug/l											
Methyl Acetate	79-20-9	mg/kg		0.0016	U	0.0015	U	0.0015	U	0.0017	U	0.0016	U
Methylcyclohexane	108-87-2	mg/kg		0.001	U	0.00093	U	0.00095	U	0.001	U	0.001	U
Methyl Acetate	79-20-9	ug/l											
Methyl Tert Butyl Ether	1634-04-4	mg/kg	0.1	0.00054	U	0.0005	U	0.00051	U	0.00056	U	0.00054	U

Client Sample ID:			NY USCO	EP-20I(149.0')		EP-21I(148.9')		EP-2(153.7')		EP-32(151.7')		EP-45(142.0')	
Lab Sample ID:				JE27497-1		JE27497-2		JE27497-3		JE27497-4		JE27497-5	
Date Sampled:				1/23/2026 1:05 PM		1/23/2026 1:15 PM		1/23/2026 2:00 PM		1/23/2026 2:05 PM		1/23/2026 2:10 PM	
Matrix:				Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**											
(GC/LC Semi-volatiles (SW846 8081B))													
Methylcyclohexane	108-87-2	ug/l											
4-Methyl-2-pentanone(MIBK)	108-10-1	mg/kg		0.0026	U	0.0024	U	0.0025	U	0.0027	U	0.0026	U
Methyl Tert Butyl Ether	1634-04-4	ug/l											
Methylene chloride	75-09-2	mg/kg	0.05	0.003	U	0.0028	U	0.0028	U	0.0031	U	0.003	U
4-Methyl-2-pentanone(MIBK)	108-10-1	ug/l											
Methylene chloride	75-09-2	ug/l											
Styrene	100-42-5	mg/kg		0.00047	U	0.00043	U	0.00043	U	0.00048	U	0.00046	U
Styrene	100-42-5	ug/l											
1,1,2,2-Tetrachloroethane	79-34-5	mg/kg		0.0007	U	0.00064	U	0.00065	U	0.00071	U	0.00069	U
Tetrachloroethene	127-18-4	mg/kg	1.3	0.00067	U	0.00062	U	0.00063	U	0.00069	U	0.00067	U
1,1,2,2-Tetrachloroethane	79-34-5	ug/l											
Tetrachloroethene	127-18-4	ug/l											
Toluene	108-88-3	mg/kg	0.7	0.00061	U	0.00056	U	0.00057	U	0.00063	U	0.00061	U
1,2,3-Trichlorobenzene	87-61-6	mg/kg		0.0029	U	0.0027	U	0.0027	U	0.003	U	0.0029	U
Toluene	108-88-3	ug/l											
1,2,4-Trichlorobenzene	120-82-1	mg/kg		0.0029	U	0.0027	U	0.0027	U	0.003	U	0.0029	U
1,1,1-Trichloroethane	71-55-6	mg/kg	0.68	0.00056	U	0.00051	U	0.00052	U	0.00058	U	0.00056	U
1,2,3-Trichlorobenzene	87-61-6	ug/l											
1,1,2-Trichloroethane	79-00-5	mg/kg		0.00064	U	0.00059	U	0.0006	U	0.00066	U	0.00064	U
1,2,4-Trichlorobenzene	120-82-1	ug/l											
1,1,1-Trichloroethane	71-55-6	ug/l											
Trichloroethene	79-01-6	mg/kg	0.47	0.00088	U	0.00081	U	0.00082	U	0.00091	U	0.00088	U
1,1,2-Trichloroethane	79-00-5	ug/l											
Trichlorofluoromethane	75-69-4	mg/kg		0.00079	U	0.00073	U	0.00074	U	0.00082	U	0.00079	U
Trichloroethene	79-01-6	ug/l											
Trichlorofluoromethane	75-69-4	ug/l											
Vinyl chloride	75-01-4	mg/kg	0.03	0.00056	U	0.00051	U	0.00052	U	0.00057	U	0.00056	U
m,p-Xylene	M,P-XYLENE	mg/kg	0.26	0.001	U	0.00095	U	0.00097	U	0.0011	U	0.001	U
Vinyl chloride	75-01-4	ug/l											
o-Xylene	95-47-6	mg/kg	0.26	0.00053	U	0.00049	U	0.0005	U	0.00055	U	0.00053	U
Xylene (total)	1330-20-7	mg/kg	0.26	0.00053	U	0.00049	U	0.0005	U	0.00055	U	0.00053	U
m,p-Xylene	M,P-XYLENE	ug/l											
o-Xylene	95-47-6	ug/l											
Xylene (total)	1330-20-7	ug/l											
Dibromofluoromethane	1868-53-7	%		109		110		108		110		110	
1,2-Dichloroethane-D4	17060-07-0	%		120		119		119		121		117	
Toluene-D8	2037-26-5	%		98		98		99		96		97	
4-Bromofluorobenzene	460-00-4	%		93		94		93		93		94	

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Client Sample ID:			NY USCO	EP-46(142.0')		TB-4	
Lab Sample ID:				JE27497-6		JE27497-7	
Date Sampled:				1/23/2026 2:15 PM		1/23/2026 2:15 PM	
Matrix:				Soil		Trip Blank Soil	
Analyte	**CAS #**	**Unit**					
(GC/LC Semi-volatiles (SW846 8081B))							
Aldrin	309-00-2	mg/kg	0.0048	0.00054	U		
alpha-BHC	319-84-6	mg/kg	0.02	0.00053	U		
beta-BHC	319-85-7	mg/kg	0.021	0.00059	U		
delta-BHC	319-86-8	mg/kg	0.04	0.00063	U		
gamma-BHC (Lindane)	58-89-9	mg/kg	0.025	0.00048	U		
alpha-Chlordane	5103-71-9	mg/kg	0.014	0.00053	U		
gamma-Chlordane	5103-74-2	mg/kg		0.0003	U		
Dieldrin	60-57-1	mg/kg	0.005	0.00045	U		
4,4'-DDD	72-54-8	mg/kg	0.0033	0.0006	U		
4,4'-DDE	72-55-9	mg/kg	0.0033	0.00057	U		
4,4'-DDT	50-29-3	mg/kg	0.0033	0.00058	U		
Endrin	72-20-8	mg/kg	0.014	0.00051	U		
Endosulfan sulfate	1031-07-8	mg/kg	4.3	0.00051	U		
Endrin aldehyde	7421-93-4	mg/kg		0.00037	U		
Endosulfan-I	959-98-8	mg/kg	4.3	0.00038	U		
Endosulfan-II	33213-65-9	mg/kg	4.3	0.00041	U		
Heptachlor	76-44-8	mg/kg	0.013	0.00056	U		
Heptachlor epoxide	1024-57-3	mg/kg		0.00046	U		
Methoxychlor	72-43-5	mg/kg		0.00052	U		
Endrin ketone	53494-70-5	mg/kg		0.00047	U		
Toxaphene	8001-35-2	mg/kg		0.015	U		
Tetrachloro-m-xylene	877-09-8	%		88			
Tetrachloro-m-xylene (1)	877-09-8	%		94			
Decachlorobiphenyl	2051-24-3	%		91			
Decachlorobiphenyl (1)	2051-24-3	%		103			
(GC/LC Semi-volatiles (SW846 8082A))							
Aroclor 1016	12674-11-2	mg/kg	0.1	0.015	U		
Aroclor 1221	11104-28-2	mg/kg	0.1	0.02	U		
Aroclor 1232	11141-16-5	mg/kg	0.1	0.021	U		
Aroclor 1242	53469-21-9	mg/kg	0.1	0.013	U		
Aroclor 1248	12672-29-6	mg/kg	0.1	0.029	U		
Aroclor 1254	11097-69-1	mg/kg	0.1	0.018	U		
Aroclor 1260	11096-82-5	mg/kg	0.1	0.014	U		
Aroclor 1268	11100-14-4	mg/kg	0.1	0.029	U		
Aroclor 1262	37324-23-5	mg/kg	0.1	0.021	U		
Tetrachloro-m-xylene (2)	877-09-8	%		67			
Tetrachloro-m-xylene (3)	877-09-8	%		105			
Decachlorobiphenyl (2)	2051-24-3	%		57			
Decachlorobiphenyl (3)	2051-24-3	%		69			
(General Chemistry (SM2540 G 18TH ED MOD))							
Solids, Percent	PERCENT SOLIDS	%		95.2			
(General Chemistry (SW846 9012B/LACHAT))							
Cyanide	57-12-5	mg/kg	2.3	0.25	U		
(Metals Analysis (SW846 6010D))							
Aluminum	7429-90-5	mg/kg		4420			
Antimony	7440-36-0	mg/kg		1	U		
Arsenic	7440-38-2	mg/kg	13	1	U		

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Client Sample ID:			NY USCO	EP-46(142.0')		TB-4	
Lab Sample ID:				JE27497-6		JE27497-7	
Date Sampled:				1/23/2026 2:15 PM		1/23/2026 2:15 PM	
Matrix:				Soil		Trip Blank Soil	
Analyte	**CAS #**	**Unit**					
(GC/LC Semi-volatiles (SW846 8081B))							
Barium	7440-39-3	mg/kg	410	42.8			
Beryllium	7440-41-7	mg/kg	4.4	0.16			
Cadmium	7440-43-9	mg/kg	2.5	0.26	U		
Calcium	7440-70-2	mg/kg		890			
Chromium	7440-47-3	mg/kg	30	6.5			
Cobalt	7440-48-4	mg/kg		3.3			
Copper	7440-50-8	mg/kg	50	9			
Iron	7439-89-6	mg/kg		7530			
Lead	7439-92-1	mg/kg	63	2.7			
Magnesium	7439-95-4	mg/kg		1880			
Manganese	7439-96-5	mg/kg	1600	189			
Nickel	7440-02-0	mg/kg	30	7.1			
Potassium	7440-09-7	mg/kg		1140			
Selenium	7782-49-2	mg/kg	3.9	1	U		
Silver	7440-22-4	mg/kg	2	0.26	U		
Sodium	7440-23-5	mg/kg		510	U		
Thallium	7440-28-0	mg/kg		0.51	U		
Vanadium	7440-62-2	mg/kg		9.5			
Zinc	7440-66-6	mg/kg	109	23.4			
(Metals Analysis (SW846 7471B))							
Mercury	7439-97-6	mg/kg	0.18	0.032	U		
(MS Semi-volatile TIC ())							
Alkane	TIC	mg/kg		0.21	J		
Alkane (6)	TIC	mg/kg					
Unknown	TIC	mg/kg					
Alkane (7)	TIC	mg/kg					
Alkane (8)	TIC	mg/kg					
Alkane (9)	TIC	mg/kg					
Alkane (10)	TIC	mg/kg					
n-Hexadecanoic acid	57-10-3	mg/kg		0.32	JNB		
Alkane (11)	TIC	mg/kg					
Unknown acid	TIC	mg/kg					
Alkane (1)	TIC	mg/kg					
Alkane (2)	TIC	mg/kg					
Alkane (3)	TIC	mg/kg					
Alkane (4)	TIC	mg/kg					
Alkane (5)	TIC	mg/kg					
Total TIC, Semi-Volatile	TOTAL TIC, SEMI-VOLATILE	mg/kg		0.21	J		
(MS Semi-volatiles (SW846 8270E))							
2-Chlorophenol	95-57-8	mg/kg		0.017	U		
4-Chloro-3-methyl phenol	59-50-7	mg/kg		0.021	U		
2,4-Dichlorophenol	120-83-2	mg/kg		0.029	U		
2,4-Dimethylphenol	105-67-9	mg/kg		0.061	U		
2,4-Dinitrophenol	51-28-5	mg/kg		0.13	U		
4,6-Dinitro-o-cresol	534-52-1	mg/kg		0.037	U		
2-Methylphenol	95-48-7	mg/kg	0.33	0.022	U		
3&4-Methylphenol	M+P-CRESOLS	mg/kg	0.33	0.028	U		

Client Sample ID:			NY USCO	EP-46(142.0')		TB-4	
Lab Sample ID:				JE27497-6		JE27497-7	
Date Sampled:				1/23/2026 2:15 PM		1/23/2026 2:15 PM	
Matrix:				Soil		Trip Blank Soil	
Analyte	**CAS #**	**Unit**					
(GC/LC Semi-volatiles (SW846 8081B))							
2-Nitrophenol	88-75-5	mg/kg		0.023	U		
4-Nitrophenol	100-02-7	mg/kg		0.092	U		
Pentachlorophenol	87-86-5	mg/kg	0.8	0.032	U		
Phenol	108-95-2	mg/kg	0.33	0.018	U		
2,3,4,6-Tetrachlorophenol	58-90-2	mg/kg		0.023	U		
2,4,5-Trichlorophenol	95-95-4	mg/kg		0.026	U		
2,4,6-Trichlorophenol	88-06-2	mg/kg		0.021	U		
Acenaphthene	83-32-9	mg/kg	20	0.012	U		
Acenaphthylene	208-96-8	mg/kg	100	0.017	U		
Acetophenone	98-86-2	mg/kg		0.0074	U		
Anthracene	120-12-7	mg/kg	100	0.021	U		
Atrazine	1912-24-9	mg/kg		0.015	U		
Benzo(a)anthracene	56-55-3	mg/kg	1	0.034			
Benzo(a)pyrene	50-32-8	mg/kg	1	0.0231	J		
Benzo(b)fluoranthene	205-99-2	mg/kg	1	0.0348			
Benzo(g,h,i)perylene	191-24-2	mg/kg	0.64	0.017	U		
Benzo(k)fluoranthene	207-08-9	mg/kg	0.8	0.016	U		
4-Bromophenyl phenyl ether	101-55-3	mg/kg		0.013	U		
Butyl benzyl phthalate	85-68-7	mg/kg		0.0084	U		
1,1'-Biphenyl	92-52-4	mg/kg		0.0047	U		
Benzaldehyde	100-52-7	mg/kg		0.0085	U		
2-Chloronaphthalene	91-58-7	mg/kg		0.0082	U		
4-Chloroaniline	106-47-8	mg/kg		0.012	U		
Carbazole	86-74-8	mg/kg		0.005	U		
Caprolactam	105-60-2	mg/kg		0.014	U		
Chrysene	218-01-9	mg/kg	1	0.0314	J		
bis(2-Chloroethoxy)methane	111-91-1	mg/kg		0.0074	U		
bis(2-Chloroethyl)ether	111-44-4	mg/kg		0.015	U		
2,2'-Oxybis(1-chloropropane)	108-60-1	mg/kg		0.012	U		
4-Chlorophenyl phenyl ether	7005-72-3	mg/kg		0.011	U		
2,4-Dinitrotoluene	121-14-2	mg/kg		0.011	U		
2,6-Dinitrotoluene	606-20-2	mg/kg		0.017	U		
3,3'-Dichlorobenzidine	91-94-1	mg/kg		0.029	U		
1,4-Dioxane	123-91-1	mg/kg	0.1	0.023	U		
Dibenzo(a,h)anthracene	53-70-3	mg/kg	0.33	0.015	U		
Dibenzofuran	132-64-9	mg/kg	2.1	0.014	U		
Di-n-butyl phthalate	84-74-2	mg/kg		0.0056	U		
Di-n-octyl phthalate	117-84-0	mg/kg		0.0086	U		
Diethyl phthalate	84-66-2	mg/kg		0.0073	U		
Dimethyl phthalate	131-11-3	mg/kg		0.0061	U		
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg		0.0081	U		
Fluoranthene	206-44-0	mg/kg	85	0.0568			
Fluorene	86-73-7	mg/kg	30	0.016	U		
Hexachlorobenzene	118-74-1	mg/kg	0.33	0.0087	U		
Hexachlorobutadiene	87-68-3	mg/kg		0.014	U		
Hexachlorocyclopentadiene	77-47-4	mg/kg		0.014	U		
Hexachloroethane	67-72-1	mg/kg		0.017	U		

Client Sample ID:			NY USCO	EP-46(142.0')		TB-4	
Lab Sample ID:				JE27497-6		JE27497-7	
Date Sampled:				1/23/2026 2:15 PM		1/23/2026 2:15 PM	
Matrix:				Soil		Trip Blank Soil	
Analyte	**CAS #**	**Unit**					
(GC/LC Semi-volatiles (SW846 8081B))							
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	0.5	0.016	U		
Isophorone	78-59-1	mg/kg		0.0074	U		
2-Methylnaphthalene	91-57-6	mg/kg		0.0078	U		
2-Nitroaniline	88-74-4	mg/kg		0.0081	U		
3-Nitroaniline	99-09-2	mg/kg		0.0086	U		
4-Nitroaniline	100-01-6	mg/kg		0.0089	U		
Naphthalene	91-20-3	mg/kg	12	0.0097	U		
Nitrobenzene	98-95-3	mg/kg	0.08	0.013	U		
N-Nitroso-di-n-propylamine	621-64-7	mg/kg		0.01	U		
N-Nitrosodiphenylamine	86-30-6	mg/kg		0.013	U		
Phenanthrene	85-01-8	mg/kg	1.1	0.0368			
Pyrene	129-00-0	mg/kg	64	0.0536			
1,2,4,5-Tetrachlorobenzene	95-94-3	mg/kg		0.0087	U		
2-Fluorophenol	367-12-4	%		53			
Phenol-d5	4165-62-2	%		52			
2,4,6-Tribromophenol	118-79-6	%		49			
Nitrobenzene-d5	4165-60-0	%		56			
2-Fluorobiphenyl	321-60-8	%		59			
Terphenyl-d14	1718-51-0	%		65			
(MS Volatile TIC ())							
Ethanol, 2-(2-methoxyethoxy)-	111-77-3	mg/kg					
Total TIC, Volatile	TOTAL TIC, VOLATILE	mg/kg		0			
Total TIC, Volatile	TOTAL TIC, VOLATILE	ug/l				0	
(MS Volatiles (SW846 8260D))							
Acetone	67-64-1	mg/kg	0.03	0.0048	U		
Acetone	67-64-1	ug/l				3.1	U
Benzene	71-43-2	mg/kg	0.06	0.00053	U		
Bromochloromethane	74-97-5	mg/kg		0.00065	U		
Benzene	71-43-2	ug/l				0.43	U
Bromodichloromethane	75-27-4	mg/kg		0.0005	U		
Bromoform	75-25-2	mg/kg		0.0016	U		
Bromomethane	74-83-9	mg/kg		0.00089	U		
2-Butanone (MEK)	78-93-3	mg/kg	0.1	0.0028	U		
Bromochloromethane	74-97-5	ug/l				0.48	U
Bromodichloromethane	75-27-4	ug/l				0.45	U
Bromoform	75-25-2	ug/l				0.63	U
Bromomethane	74-83-9	ug/l				1.6	U
2-Butanone (MEK)	78-93-3	ug/l				2.7	U
Carbon disulfide	75-15-0	mg/kg		0.00062	U		
Carbon tetrachloride	56-23-5	mg/kg	0.76	0.00072	U		
Chlorobenzene	108-90-7	mg/kg	4.5	0.00054	U		
Chloroethane	75-00-3	mg/kg		0.00069	U		
Carbon disulfide	75-15-0	ug/l				1.8	U
Carbon tetrachloride	56-23-5	ug/l				0.55	U
Chloroform	67-66-3	mg/kg	0.37	0.0012	U		
Chlorobenzene	108-90-7	ug/l				0.56	U
Chloromethane	74-87-3	mg/kg		0.0023	U		

Client Sample ID:			NY USCO	EP-46(142.0')		TB-4	
Lab Sample ID:				JE27497-6		JE27497-7	
Date Sampled:				1/23/2026 2:15 PM		1/23/2026 2:15 PM	
Matrix:				Soil		Trip Blank Soil	
Analyte	**CAS #**	**Unit**					
(GC/LC Semi-volatiles (SW846 8081B))							
Chloroethane	75-00-3	ug/l				0.73	U
Chloroform	67-66-3	ug/l				0.5	U
Cyclohexane	110-82-7	mg/kg		0.00077	U		
Chloromethane	74-87-3	ug/l				0.76	U
1,2-Dibromo-3-chloropropane	96-12-8	mg/kg		0.00081	U		
Cyclohexane	110-82-7	ug/l				0.78	U
Dibromochloromethane	124-48-1	mg/kg		0.00065	U		
1,2-Dibromoethane	106-93-4	mg/kg		0.00049	U		
1,2-Dichlorobenzene	95-50-1	mg/kg	1.1	0.00064	U		
1,3-Dichlorobenzene	541-73-1	mg/kg	2.6	0.00058	U		
1,2-Dibromo-3-chloropropane	96-12-8	ug/l				0.53	U
1,4-Dichlorobenzene	106-46-7	mg/kg	1.8	0.00058	U		
Dibromochloromethane	124-48-1	ug/l				0.56	U
1,2-Dibromoethane	106-93-4	ug/l				0.48	U
Dichlorodifluoromethane	75-71-8	mg/kg		0.00085	U		
1,1-Dichloroethane	75-34-3	mg/kg	0.27	0.00058	U		
1,2-Dichlorobenzene	95-50-1	ug/l				0.53	U
1,2-Dichloroethane	107-06-2	mg/kg	0.02	0.00055	U		
1,3-Dichlorobenzene	541-73-1	ug/l				0.54	U
1,1-Dichloroethene	75-35-4	mg/kg	0.24	0.00076	U		
1,4-Dichlorobenzene	106-46-7	ug/l				0.51	U
cis-1,2-Dichloroethene	156-59-2	mg/kg	0.19	0.00098	U		
Dichlorodifluoromethane	75-71-8	ug/l				0.56	U
trans-1,2-Dichloroethene	156-60-5	mg/kg	0.19	0.00071	U		
1,1-Dichloroethane	75-34-3	ug/l				0.57	U
1,2-Dichloroethane	107-06-2	ug/l				0.6	U
1,2-Dichloropropane	78-87-5	mg/kg		0.00055	U		
1,1-Dichloroethene	75-35-4	ug/l				0.59	U
cis-1,2-Dichloroethene	156-59-2	ug/l				0.51	U
trans-1,2-Dichloroethene	156-60-5	ug/l				0.54	U
cis-1,3-Dichloropropene	10061-01-5	mg/kg		0.00055	U		
1,2-Dichloropropane	78-87-5	ug/l				0.51	U
trans-1,3-Dichloropropene	10061-02-6	mg/kg		0.00053	U		
cis-1,3-Dichloropropene	10061-01-5	ug/l				0.47	U
trans-1,3-Dichloropropene	10061-02-6	ug/l				0.43	U
Ethylbenzene	100-41-4	mg/kg	1	0.00053	U		
Ethylbenzene	100-41-4	ug/l				0.6	U
Freon 113	76-13-1	mg/kg		0.0031	U		
Freon 113	76-13-1	ug/l				0.58	U
2-Hexanone	591-78-6	mg/kg		0.0025	U		
2-Hexanone	591-78-6	ug/l				4.8	U
Isopropylbenzene	98-82-8	mg/kg		0.0017	U		
Isopropylbenzene	98-82-8	ug/l				0.65	U
Methyl Acetate	79-20-9	mg/kg		0.0016	U		
Methylcyclohexane	108-87-2	mg/kg		0.001	U		
Methyl Acetate	79-20-9	ug/l				0.8	U
Methyl Tert Butyl Ether	1634-04-4	mg/kg	0.1	0.00055	U		

Client Sample ID:			NY USCO	EP-46(142.0')		TB-4	
Lab Sample ID:				JE27497-6		JE27497-7	
Date Sampled:				1/23/2026 2:15 PM		1/23/2026 2:15 PM	
Matrix:				Soil		Trip Blank Soil	
Analyte	**CAS #**	**Unit**					
(GC/LC Semi-volatiles (SW846 8081B))							
Methylcyclohexane	108-87-2	ug/l				0.6	U
4-Methyl-2-pentanone(MIBK)	108-10-1	mg/kg		0.0026	U		
Methyl Tert Butyl Ether	1634-04-4	ug/l				0.51	U
Methylene chloride	75-09-2	mg/kg	0.05	0.003	U		
4-Methyl-2-pentanone(MIBK)	108-10-1	ug/l				4.9	U
Methylene chloride	75-09-2	ug/l				1	U
Styrene	100-42-5	mg/kg		0.00047	U		
Styrene	100-42-5	ug/l				0.49	U
1,1,2,2-Tetrachloroethane	79-34-5	mg/kg		0.0007	U		
Tetrachloroethene	127-18-4	mg/kg	1.3	0.00068	U		
1,1,2,2-Tetrachloroethane	79-34-5	ug/l				0.65	U
Tetrachloroethene	127-18-4	ug/l				0.56	U
Toluene	108-88-3	mg/kg	0.7	0.00061	U		
1,2,3-Trichlorobenzene	87-61-6	mg/kg		0.0029	U		
Toluene	108-88-3	ug/l				0.49	U
1,2,4-Trichlorobenzene	120-82-1	mg/kg		0.0029	U		
1,1,1-Trichloroethane	71-55-6	mg/kg	0.68	0.00056	U		
1,2,3-Trichlorobenzene	87-61-6	ug/l				0.5	U
1,1,2-Trichloroethane	79-00-5	mg/kg		0.00065	U		
1,2,4-Trichlorobenzene	120-82-1	ug/l				0.5	U
1,1,1-Trichloroethane	71-55-6	ug/l				0.54	U
Trichloroethene	79-01-6	mg/kg	0.47	0.00089	U		
1,1,2-Trichloroethane	79-00-5	ug/l				0.53	U
Trichlorofluoromethane	75-69-4	mg/kg		0.0008	U		
Trichloroethene	79-01-6	ug/l				0.53	U
Trichlorofluoromethane	75-69-4	ug/l				0.4	U
Vinyl chloride	75-01-4	mg/kg	0.03	0.00056	U		
m,p-Xylene	M,P-XYLENE	mg/kg	0.26	0.001	U		
Vinyl chloride	75-01-4	ug/l				0.52	U
o-Xylene	95-47-6	mg/kg	0.26	0.00053	U		
Xylene (total)	1330-20-7	mg/kg	0.26	0.00053	U		
m,p-Xylene	M,P-XYLENE	ug/l				0.78	U
o-Xylene	95-47-6	ug/l				0.59	U
Xylene (total)	1330-20-7	ug/l				0.59	U
Dibromofluoromethane	1868-53-7	%		112		114	
1,2-Dichloroethane-D4	17060-07-0	%		122		106	
Toluene-D8	2037-26-5	%		102		101	
4-Bromofluorobenzene	460-00-4	%		93		108	

SGS

SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	EP-31I (152.4)		EP-38I (152.4)		EP-71 (162.8)		EP-72 (158.8)		DUP 2026.01.28		TB-5	
Lab Sample ID:				JE27639-1		JE27639-2		JE27639-3		JE27639-4		JE27639-5		JE27639-6	
Date Sampled:				1/28/2026 3:08 PM		1/28/2026 3:20 PM		1/28/2026 2:50 PM		1/28/2026 2:58 PM		1/28/2026 3:15 PM		1/28/2026 3:20 PM	
Matrix:				Soil		Soil		Soil		Soil		Soil		Trip Blank Soil	
Analyte	**CAS #**	**Unit**													
(GC/LC Semi-volatiles (SW846 8081B))															
Aldrin	309-00-2	mg/kg	0.0048	0.00058	U	0.00061	U	0.00057	U	0.00064	U	0.0006	U		
alpha-BHC	319-84-6	mg/kg	0.02	0.00057	U	0.0006	U	0.00056	U	0.00063	U	0.00059	U		
beta-BHC	319-85-7	mg/kg	0.021	0.00063	U	0.00067	U	0.00062	U	0.0007	U	0.00066	U		
delta-BHC	319-86-8	mg/kg	0.04	0.00067	U	0.00071	U	0.00066	U	0.00075	U	0.0007	U		
gamma-BHC (Lindane)	58-89-9	mg/kg	0.025	0.00052	U	0.00054	U	0.00051	U	0.00057	U	0.00054	U		
alpha-Chlordane	5103-71-9	mg/kg	0.014	0.00056	U	0.0006	U	0.00056	U	0.00096		0.00059	U		
gamma-Chlordane	5103-74-2	mg/kg		0.00032	U	0.00033	U	0.00031	U	0.001		0.00033	U		
Dieldrin	60-57-1	mg/kg	0.005	0.00048	U	0.00051	U	0.00047	U	0.00053	U	0.0005	U		
4,4'-DDD	72-54-8	mg/kg	0.0033	0.00064	U	0.00068	U	0.00063	U	0.00071	U	0.00067	U		
4,4'-DDE	72-55-9	mg/kg	0.0033	0.00061	U	0.00065	U	0.00061	U	0.00068	U	0.00064	U		
4,4'-DDT	50-29-3	mg/kg	0.0033	0.00062	U	0.00066	U	0.00061	U	0.00085		0.00065	U		
Endrin	72-20-8	mg/kg	0.014	0.00054	U	0.00057	U	0.00054	U	0.0006	U	0.00057	U		
Endosulfan sulfate	1031-07-8	mg/kg	4.3	0.00055	U	0.00058	U	0.00054	U	0.00061	U	0.00057	U		
Endrin aldehyde	7421-93-4	mg/kg		0.0004	U	0.00042	U	0.00039	U	0.00044	U	0.00041	U		
Endosulfan-I	959-98-8	mg/kg	4.3	0.0004	U	0.00043	U	0.0004	U	0.00045	U	0.00042	U		
Endosulfan-II	33213-65-9	mg/kg	4.3	0.00044	U	0.00046	U	0.00043	U	0.00048	U	0.00046	U		
Heptachlor	76-44-8	mg/kg	0.013	0.0006	U	0.00064	U	0.0006	U	0.00067	U	0.00063	U		
Heptachlor epoxide	1024-57-3	mg/kg		0.00049	U	0.00052	U	0.00048	U	0.00054	U	0.00051	U		
Methoxychlor	72-43-5	mg/kg		0.00056	U	0.00059	U	0.00055	U	0.00062	U	0.00058	U		
Endrin ketone	53494-70-5	mg/kg		0.00051	U	0.00053	U	0.0005	U	0.00056	U	0.00053	U		
Toxaphene	8001-35-2	mg/kg		0.016	U	0.017	U	0.016	U	0.018	U	0.017	U		
Tetrachloro-m-xylene	877-09-8	%		69		67		88		72		61			
Tetrachloro-m-xylene (1)	877-09-8	%		75		72		92		75		66			
Decachlorobiphenyl	2051-24-3	%		82		71		88		58		52			
Decachlorobiphenyl (1)	2051-24-3	%		79		71		88		71		56			
(GC/LC Semi-volatiles (SW846 8082A))															
Aroclor 1016	12674-11-2	mg/kg	0.1	0.016	U	0.017	U	0.016	U	0.018	U	0.017	U		
Aroclor 1221	11104-28-2	mg/kg	0.1	0.022	U	0.023	U	0.021	U	0.024	U	0.023	U		
Aroclor 1232	11141-16-5	mg/kg	0.1	0.022	U	0.024	U	0.022	U	0.025	U	0.023	U		
Aroclor 1242	53469-21-9	mg/kg	0.1	0.014	U	0.015	U	0.014	U	0.016	U	0.015	U		
Aroclor 1248	12672-29-6	mg/kg	0.1	0.031	U	0.033	U	0.031	U	0.035	U	0.033	U		
Aroclor 1254	11097-69-1	mg/kg	0.1	0.019	U	0.0215	J	0.019	U	0.021	U	0.02	U		
Aroclor 1260	11096-82-5	mg/kg	0.1	0.015	U	0.016	U	0.015	U	0.017	U	0.016	U		
Aroclor 1268	11100-14-4	mg/kg	0.1	0.031	U	0.032	U	0.03	U	0.034	U	0.032	U		
Aroclor 1262	37324-23-5	mg/kg	0.1	0.023	U	0.024	U	0.023	U	0.025	U	0.024	U		
Tetrachloro-m-xylene (2)	877-09-8	%		51		58		73		55		50			
Tetrachloro-m-xylene (3)	877-09-8	%		79		92		114		87		77			
Decachlorobiphenyl (2)	2051-24-3	%		48		45		56		37		32			
Decachlorobiphenyl (3)	2051-24-3	%		60		57		72		53		43			
(General Chemistry (SM2540 G 18TH ED MOD))															
Solids, Percent	PERCENT SOLIDS	%		92.3		88.4		88.8		81		88.8			
(General Chemistry (SW846 9012B/LACHAT))															
Cyanide	57-12-5	mg/kg	2.3	0.28	U	0.31	U	0.24	U	0.27		0.24	U		
(Metals Analysis (SW846 6010D))															
Aluminum	7429-90-5	mg/kg		9500		9070		5810		6040		9020			
Antimony	7440-36-0	mg/kg		5.4	U	1.1	U	1.1	U	6.3		1.1	U		
Arsenic	7440-38-2	mg/kg	13	1.2		1.3		1.4		2.1		1.1			
Barium	7440-39-3	mg/kg	410	77.7		72		33		52.5		112			
Beryllium	7440-41-7	mg/kg	4.4	0.27		0.25		0.25		0.23		0.25			
Cadmium	7440-43-9	mg/kg	2.5	0.27	U	0.28	U	0.28	U	0.25	U	0.28	U		
Calcium	7440-70-2	mg/kg		3860		2350		2990		5550		2440			
Chromium	7440-47-3	mg/kg	30	18.3		17.9		9.7		12.6		18.7			
Cobalt	7440-48-4	mg/kg		7.1		6.7		4.3		4.8		6.4			
Copper	7440-50-8	mg/kg	50	16.4		19.1		10.5		15.6		14.5			
Iron	7439-89-6	mg/kg		16300		15900		9580		12500		14900			
Lead	7439-92-1	mg/kg	63	6.2		4.3		20		129		4.8			
Magnesium	7439-95-4	mg/kg		4960		4820		2640		3140		5060			
Manganese	7439-96-5	mg/kg	1600	383		246		205		232		250			
Nickel	7440-02-0	mg/kg	30	14.2		14		9.2		10.8		13.9			
Potassium	7440-09-7	mg/kg		2050		2000		825		921		2100			

Client Sample ID:			NY USCO	EP-31I (152.4)		EP-38I (152.4)		EP-71 (162.8)		EP-72 (158.8)		DUP 2026.01.28		TB-5	
Lab Sample ID:				JE27639-1		JE27639-2		JE27639-3		JE27639-4		JE27639-5		JE27639-6	
Date Sampled:				1/28/2026 3:08 PM		1/28/2026 3:20 PM		1/28/2026 2:50 PM		1/28/2026 2:58 PM		1/28/2026 3:15 PM		1/28/2026 3:20 PM	
Matrix:				Soil		Soil		Soil		Soil		Soil		Trip Blank Soil	
Analyte	**CAS #**	**Unit**													
(GC/LC Semi-volatiles (SW846 8081B))															
Selenium	7782-49-2	mg/kg	3.9	5.4	U	5.6	U	1.1	U	4.9	U	5.5	U		
Silver	7440-22-4	mg/kg	2	0.27	U	0.28	U	0.28	U	0.25	U	0.28	U		
Sodium	7440-23-5	mg/kg		540	U	560	U	560	U	490	U	550	U		
Thallium	7440-28-0	mg/kg		0.54	U	0.56	U	0.56	U	0.49	U	0.55	U		
Vanadium	7440-62-2	mg/kg		23.5		24.3		12.7		15.3		23.7			
Zinc	7440-66-6	mg/kg	109	38.9		39.4		46.7		66.1		40.4			
(Metals Analysis (SW846 7471B))															
Mercury	7439-97-6	mg/kg	0.18	0.031	U	0.029	U	0.034		0.066		0.032	U		
(MS Semi-volatile TIC ())															
Alkane	TIC	mg/kg		1.4	J							0.21	J		
n-Hexadecanoic acid	57-10-3	mg/kg				0.82	JNB					0.82	JNB		
Octadecanoic acid	57-11-4	mg/kg				0.15	JN	0.19	JN			0.2	JN		
Unknown (1)	TIC	mg/kg		1	J			0.18	J	0.2	J	0.16	J		
Unknown PAH substance	TIC	mg/kg								0.27	J				
Alkane (2)	TIC	mg/kg		0.17	J										
Alkane (3)	TIC	mg/kg		0.27	J										
Unknown (2)	TIC	mg/kg		0.16	J					0.18	J				
Unknown (3)	TIC	mg/kg								0.19	J				
Alkane (4)	TIC	mg/kg		0.19	J										
Unknown (4)	TIC	mg/kg								0.21	J				
Alkane (5)	TIC	mg/kg		0.39	J										
Unknown (5)	TIC	mg/kg								0.5	J				
Alkane (6)	TIC	mg/kg		0.25	J										
Unknown (6)	TIC	mg/kg								0.22	J				
Alkane (7)	TIC	mg/kg		0.25	J										
Alkane (1)	TIC	mg/kg		0.16	J							0.21	J		
Unknown	TIC	mg/kg		0.47	J	0.43	J	0.39	J	0.37	J	0.53	J		
Total TIC, Semi-Volatile	TOTAL TIC, SEMI-VOLATILE	mg/kg		4.71	J	0.58	J	0.76	J	2.14	J	1.31	J		
(MS Semi-volatiles (SW846 8270E))															
2-Chlorophenol	95-57-8	mg/kg		0.018	U	0.018	U	0.018	U	0.02	U	0.018	U		
4-Chloro-3-methyl phenol	59-50-7	mg/kg		0.022	U	0.022	U	0.023	U	0.025	U	0.023	U		
2,4-Dichlorophenol	120-83-2	mg/kg		0.031	U	0.031	U	0.032	U	0.035	U	0.032	U		
2,4-Dimethylphenol	105-67-9	mg/kg		0.064	U	0.064	U	0.066	U	0.073	U	0.066	U		
2,4-Dinitrophenol	51-28-5	mg/kg		0.14	U	0.14	U	0.14	U	0.15	U	0.14	U		
4,6-Dinitro-o-cresol	534-52-1	mg/kg		0.039	U	0.039	U	0.04	U	0.044	U	0.04	U		
2-Methylphenol	95-48-7	mg/kg	0.33	0.023	U	0.023	U	0.024	U	0.026	U	0.024	U		
3&4-Methylphenol	M+P-CRESOLS	mg/kg	0.33	0.03	U	0.03	U	0.031	U	0.034	U	0.031	U		
2-Nitrophenol	88-75-5	mg/kg		0.024	U	0.024	U	0.025	U	0.027	U	0.025	U		
4-Nitrophenol	100-02-7	mg/kg		0.096	U	0.096	U	0.1	U	0.11	U	0.1	U		
Pentachlorophenol	87-86-5	mg/kg	0.8	0.034	U	0.034	U	0.035	U	0.038	U	0.035	U		
Phenol	108-95-2	mg/kg	0.33	0.019	U	0.019	U	0.019	U	0.021	U	0.019	U		
2,3,4,6-Tetrachlorophenol	58-90-2	mg/kg		0.024	U	0.024	U	0.025	U	0.027	U	0.025	U		
2,4,5-Trichlorophenol	95-95-4	mg/kg		0.027	U	0.027	U	0.028	U	0.031	U	0.028	U		
2,4,6-Trichlorophenol	88-06-2	mg/kg		0.022	U	0.022	U	0.022	U	0.024	U	0.022	U		
Acenaphthene	83-32-9	mg/kg	20	0.012	U	0.012	U	0.013	U	0.0283	J	0.013	U		
Acenaphthylene	208-96-8	mg/kg	100	0.018	U	0.018	U	0.019	U	0.021	U	0.019	U		
Acetophenone	98-86-2	mg/kg		0.0078	U	0.0078	U	0.008	U	0.0088	U	0.008	U		
Anthracene	120-12-7	mg/kg	100	0.022	U	0.022	U	0.023	U	0.0729		0.023	U		
Atrazine	1912-24-9	mg/kg		0.015	U	0.015	U	0.016	U	0.017	U	0.016	U		
Benzo(a)anthracene	56-55-3	mg/kg	1	0.01	U	0.01	U	0.0468		0.244		0.0172	J		
Benzo(a)pyrene	50-32-8	mg/kg	1	0.016	U	0.016	U	0.0393		0.225		0.017	U		
Benzo(b)fluoranthene	205-99-2	mg/kg	1	0.016	U	0.016	U	0.0521		0.297		0.0169	J		
Benzo(g,h,i)perylene	191-24-2	mg/kg	0.64	0.018	U	0.018	U	0.0297	J	0.169		0.019	U		
Benzo(k)fluoranthene	207-08-9	mg/kg	0.8	0.017	U	0.017	U	0.022	J	0.0934		0.017	U		
4-Bromophenyl phenyl ether	101-55-3	mg/kg		0.014	U	0.014	U	0.014	U	0.016	U	0.014	U		
Butyl benzyl phthalate	85-68-7	mg/kg		0.0088	U	0.0088	U	0.0091	U	0.0182	J	0.0091	U		
1,1'-Biphenyl	92-52-4	mg/kg		0.0049	U	0.005	U	0.0051	U	0.0056	U	0.0051	U		
Benzaldehyde	100-52-7	mg/kg		0.009	U	0.009	U	0.0092	U	0.01	U	0.0092	U		
2-Chloronaphthalene	91-58-7	mg/kg		0.0086	U	0.0086	U	0.0089	U	0.0097	U	0.0089	U		
4-Chloroaniline	106-47-8	mg/kg		0.013	U	0.013	U	0.013	U	0.015	U	0.013	U		
Carbazole	86-74-8	mg/kg		0.0052	U	0.0052	U	0.0055	J	0.0366	J	0.0054	U		
Caprolactam	105-60-2	mg/kg		0.014	U	0.014	U	0.015	U	0.016	U	0.015	U		
Chrysene	218-01-9	mg/kg	1	0.011	U	0.011	U	0.0444		0.224		0.0136	J		

Client Sample ID:			NY USCO	EP-31I (152.4)		EP-38I (152.4)		EP-71 (162.8)		EP-72 (158.8)		DUP 2026.01.28		TB-5	
Lab Sample ID:				JE27639-1		JE27639-2		JE27639-3		JE27639-4		JE27639-5		JE27639-6	
Date Sampled:				1/28/2026 3:08 PM		1/28/2026 3:20 PM		1/28/2026 2:50 PM		1/28/2026 2:58 PM		1/28/2026 3:15 PM		1/28/2026 3:20 PM	
Matrix:				Soil		Soil		Soil		Soil		Soil		Trip Blank Soil	
Analyte	**CAS #**	**Unit**													
(GC/LC Semi-volatiles (SW846 8081B))															
bis(2-Chloroethoxy)methane	111-91-1	mg/kg		0.0077	U	0.0077	U	0.008	U	0.0087	U	0.008	U		
bis(2-Chloroethyl)ether	111-44-4	mg/kg		0.016	U	0.016	U	0.016	U	0.018	U	0.016	U		
2,2'-Oxybis(1-chloropropane)	108-60-1	mg/kg		0.013	U	0.013	U	0.013	U	0.015	U	0.013	U		
4-Chlorophenyl phenyl ether	7005-72-3	mg/kg		0.012	U	0.012	U	0.012	U	0.013	U	0.012	U		
2,4-Dinitrotoluene	121-14-2	mg/kg		0.011	U	0.011	U	0.012	U	0.013	U	0.012	U		
2,6-Dinitrotoluene	606-20-2	mg/kg		0.018	U	0.018	U	0.019	U	0.021	U	0.019	U		
3,3'-Dichlorobenzidine	91-94-1	mg/kg		0.03	U	0.03	U	0.031	U	0.034	U	0.031	U		
1,4-Dioxane	123-91-1	mg/kg	0.1	0.024	U	0.024	U	0.025	U	0.027	U	0.025	U		
Dibenzo(a,h)anthracene	53-70-3	mg/kg	0.33	0.016	U	0.016	U	0.016	U	0.0411		0.016	U		
Dibenzofuran	132-64-9	mg/kg	2.1	0.015	U	0.015	U	0.015	U	0.017	U	0.015	U		
Di-n-butyl phthalate	84-74-2	mg/kg		0.0197	J	0.0059	U	0.0133	J	0.0439	J	0.0061	U		
Di-n-octyl phthalate	117-84-0	mg/kg		0.009	U	0.009	U	0.0093	U	0.01	U	0.0093	U		
Diethyl phthalate	84-66-2	mg/kg		0.0077	U	0.0077	U	0.0079	U	0.0087	U	0.0079	U		
Dimethyl phthalate	131-11-3	mg/kg		0.0064	U	0.0064	U	0.0066	U	0.0073	U	0.0066	U		
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg		0.0105	J	0.0105	J	0.0156	J	0.0315	J	0.0137	J		
Fluoranthene	206-44-0	mg/kg	85	0.016	U	0.016	U	0.0823		0.457		0.0235	J		
Fluorene	86-73-7	mg/kg	30	0.017	U	0.017	U	0.017	U	0.0249	J	0.017	U		
Hexachlorobenzene	118-74-1	mg/kg	0.33	0.0091	U	0.0091	U	0.0094	U	0.01	U	0.0094	U		
Hexachlorobutadiene	87-68-3	mg/kg		0.015	U	0.015	U	0.015	U	0.016	U	0.015	U		
Hexachlorocyclopentadiene	77-47-4	mg/kg		0.014	U	0.014	U	0.015	U	0.016	U	0.015	U		
Hexachloroethane	67-72-1	mg/kg		0.018	U	0.018	U	0.018	U	0.02	U	0.018	U		
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	0.5	0.017	U	0.017	U	0.0286	J	0.171		0.017	U		
Isophorone	78-59-1	mg/kg		0.0077	U	0.0077	U	0.008	U	0.0087	U	0.008	U		
2-Methylnaphthalene	91-57-6	mg/kg		0.0082	U	0.0082	U	0.0084	U	0.0108	J	0.0084	U		
2-Nitroaniline	88-74-4	mg/kg		0.0085	U	0.0085	U	0.0088	U	0.0096	U	0.0088	U		
3-Nitroaniline	99-09-2	mg/kg		0.009	U	0.009	U	0.0093	U	0.01	U	0.0093	U		
4-Nitroaniline	100-01-6	mg/kg		0.0094	U	0.0094	U	0.0097	U	0.011	U	0.0097	U		
Naphthalene	91-20-3	mg/kg	12	0.01	U	0.01	U	0.011	U	0.0182	J	0.011	U		
Nitrobenzene	98-95-3	mg/kg	0.08	0.014	U	0.014	U	0.014	U	0.016	U	0.014	U		
N-Nitroso-di-n-propylamine	621-64-7	mg/kg		0.01	U	0.01	U	0.011	U	0.012	U	0.011	U		
N-Nitrosodiphenylamine	86-30-6	mg/kg		0.013	U	0.013	U	0.014	U	0.015	U	0.014	U		
Phenanthrene	85-01-8	mg/kg	1.1	0.0149	J	0.012	U	0.042		0.27		0.0177	J		
Pyrene	129-00-0	mg/kg	64	0.012	U	0.012	U	0.0763		0.398		0.0218	J		
1,2,4,5-Tetrachlorobenzene	95-94-3	mg/kg		0.0092	U	0.0092	U	0.0095	U	0.01	U	0.0095	U		
2-Fluorophenol	367-12-4	%		51		38		45		52		53			
Phenol-d5	4165-62-2	%		57		43		48		56		54			
2,4,6-Tribromophenol	118-79-6	%		80		79		76		74		80			
Nitrobenzene-d5	4165-60-0	%		62		46		52		62		62			
2-Fluorobiphenyl	321-60-8	%		68		54		60		64		64			
Terphenyl-d14	1718-51-0	%		83		76		75		71		77			
(MS Volatile TIC ())															
Total TIC, Volatile	TOTAL TIC, VOLATILE	mg/kg		0		0		0		0		0			
Total TIC, Volatile	TOTAL TIC, VOLATILE	ug/l												0	
(MS Volatiles (SW846 8260D))															
Acetone	67-64-1	mg/kg	0.03	0.0062	U	0.0044	U	0.0075	U	0.012	U	0.0057	U		
Acetone	67-64-1	ug/l												3.1	U
Benzene	71-43-2	mg/kg	0.06	0.00068	U	0.00049	U	0.00083	U	0.0013	U	0.00062	U		
Bromochloromethane	74-97-5	mg/kg		0.00084	U	0.0006	U	0.001	U	0.0016	U	0.00077	U		
Benzene	71-43-2	ug/l												0.43	U
Bromodichloromethane	75-27-4	mg/kg		0.00065	U	0.00046	U	0.00078	U	0.0012	U	0.00059	U		
Bromoform	75-25-2	mg/kg		0.002	U	0.0015	U	0.0025	U	0.0038	U	0.0019	U		
Bromomethane	74-83-9	mg/kg		0.0011	U	0.00082	U	0.0014	U	0.0021	U	0.001	U		
2-Butanone (MEK)	78-93-3	mg/kg	0.1	0.0037	U	0.0026	U	0.0044	U	0.0068	U	0.0033	U		
Bromochloromethane	74-97-5	ug/l												0.48	U
Bromodichloromethane	75-27-4	ug/l												0.45	U
Bromoform	75-25-2	ug/l												0.63	U
Bromomethane	74-83-9	ug/l												1.6	U
2-Butanone (MEK)	78-93-3	ug/l												2.7	U
Carbon disulfide	75-15-0	mg/kg		0.00081	U	0.00057	U	0.00097	U	0.0015	U	0.00073	U		
Carbon tetrachloride	56-23-5	mg/kg	0.76	0.00093	U	0.00066	U	0.0011	U	0.0017	U	0.00085	U		
Chlorobenzene	108-90-7	mg/kg	4.5	0.00069	U	0.00049	U	0.00083	U	0.0013	U	0.00063	U		
Chloroethane	75-00-3	mg/kg		0.00089	U	0.00063	U	0.0011	U	0.0017	U	0.00081	U		
Carbon disulfide	75-15-0	ug/l												1.8	U

Client Sample ID:			NY USCO	EP-31I (152.4)		EP-38I (152.4)		EP-71 (162.8)		EP-72 (158.8)		DUP 2026.01.28		TB-5	
Lab Sample ID:				JE27639-1		JE27639-2		JE27639-3		JE27639-4		JE27639-5		JE27639-6	
Date Sampled:				1/28/2026 3:08 PM		1/28/2026 3:20 PM		1/28/2026 2:50 PM		1/28/2026 2:58 PM		1/28/2026 3:15 PM		1/28/2026 3:20 PM	
Matrix:				Soil		Soil		Soil		Soil		Soil		Trip Blank Soil	
Analyte	**CAS #**	**Unit**													
(GC/LC Semi-volatiles (SW846 8081B))															
Carbon tetrachloride	56-23-5	ug/l												0.55	U
Chloroform	67-66-3	mg/kg	0.37	0.0015	U	0.0011	U	0.0018	U	0.0028	U	0.0014	U		
Chlorobenzene	108-90-7	ug/l												0.56	U
Chloromethane	74-87-3	mg/kg		0.0029	U	0.0021	U	0.0036	U	0.0055	U	0.0027	U		
Chloroethane	75-00-3	ug/l												0.73	U
Chloroform	67-66-3	ug/l												0.5	U
Cyclohexane	110-82-7	mg/kg		0.00099	U	0.0007	U	0.0012	U	0.0018	U	0.0009	U		
Chloromethane	74-87-3	ug/l												0.76	U
1,2-Dibromo-3-chloropropane	96-12-8	mg/kg		0.001	U	0.00074	U	0.0013	U	0.0019	U	0.00095	U		
Cyclohexane	110-82-7	ug/l												0.78	U
Dibromochloromethane	124-48-1	mg/kg		0.00084	U	0.0006	U	0.001	U	0.0016	U	0.00077	U		
1,2-Dibromoethane	106-93-4	mg/kg		0.00063	U	0.00045	U	0.00076	U	0.0012	U	0.00058	U		
1,2-Dichlorobenzene	95-50-1	mg/kg	1.1	0.00082	U	0.00058	U	0.00099	U	0.0015	U	0.00075	U		
1,3-Dichlorobenzene	541-73-1	mg/kg	2.6	0.00075	U	0.00053	U	0.0009	U	0.0014	U	0.00068	U		
1,2-Dibromo-3-chloropropane	96-12-8	ug/l												0.53	U
1,4-Dichlorobenzene	106-46-7	mg/kg	1.8	0.00074	U	0.00053	U	0.0009	U	0.0014	U	0.00068	U		
Dibromochloromethane	124-48-1	ug/l												0.56	U
1,2-Dibromoethane	106-93-4	ug/l												0.48	U
Dichlorodifluoromethane	75-71-8	mg/kg		0.0011	U	0.00078	U	0.0013	U	0.002	U	0.001	U		
1,1-Dichloroethane	75-34-3	mg/kg	0.27	0.00074	U	0.00053	U	0.0009	U	0.0014	U	0.00068	U		
1,2-Dichlorobenzene	95-50-1	ug/l												0.53	U
1,2-Dichloroethane	107-06-2	mg/kg	0.02	0.00071	U	0.0005	U	0.00085	U	0.0013	U	0.00065	U		
1,3-Dichlorobenzene	541-73-1	ug/l												0.54	U
1,1-Dichloroethene	75-35-4	mg/kg	0.24	0.00099	U	0.0007	U	0.0012	U	0.0018	U	0.0009	U		
1,4-Dichlorobenzene	106-46-7	ug/l												0.51	U
cis-1,2-Dichloroethene	156-59-2	mg/kg	0.19	0.0013	U	0.0009	U	0.0015	U	0.0024	U	0.0012	U		
Dichlorodifluoromethane	75-71-8	ug/l												0.56	U
trans-1,2-Dichloroethene	156-60-5	mg/kg	0.19	0.00092	U	0.00065	U	0.0011	U	0.0017	U	0.00084	U		
1,1-Dichloroethane	75-34-3	ug/l												0.57	U
1,2-Dichloroethane	107-06-2	ug/l												0.6	U
1,2-Dichloropropane	78-87-5	mg/kg		0.00071	U	0.0005	U	0.00086	U	0.0013	U	0.00065	U		
1,1-Dichloroethene	75-35-4	ug/l												0.59	U
cis-1,2-Dichloroethene	156-59-2	ug/l												0.51	U
trans-1,2-Dichloroethene	156-60-5	ug/l												0.54	U
cis-1,3-Dichloropropene	10061-01-5	mg/kg		0.00071	U	0.00051	U	0.00086	U	0.0013	U	0.00065	U		
1,2-Dichloropropane	78-87-5	ug/l												0.51	U
trans-1,3-Dichloropropene	10061-02-6	mg/kg		0.00069	U	0.00049	U	0.00083	U	0.0013	U	0.00063	U		
cis-1,3-Dichloropropene	10061-01-5	ug/l												0.47	U
trans-1,3-Dichloropropene	10061-02-6	ug/l												0.43	U
Ethylbenzene	100-41-4	mg/kg	1	0.00068	U	0.00048	U	0.00082	U	0.0013	U	0.00062	U		
Ethylbenzene	100-41-4	ug/l												0.6	U
Freon 113	76-13-1	mg/kg		0.004	U	0.0028	U	0.0048	U	0.0075	U	0.0037	U		
Freon 113	76-13-1	ug/l												0.58	U
2-Hexanone	591-78-6	mg/kg		0.0032	U	0.0023	U	0.0039	U	0.0059	U	0.0029	U		
2-Hexanone	591-78-6	ug/l												4.8	U
Isopropylbenzene	98-82-8	mg/kg		0.0021	U	0.0015	U	0.0026	U	0.004	U	0.002	U		
Isopropylbenzene	98-82-8	ug/l												0.65	U
Methyl Acetate	79-20-9	mg/kg		0.0021	U	0.0015	U	0.0025	U	0.0039	U	0.0019	U		
Methylcyclohexane	108-87-2	mg/kg		0.0013	U	0.00093	U	0.0016	U	0.0025	U	0.0012	U		
Methyl Acetate	79-20-9	ug/l												0.8	U
Methyl Tert Butyl Ether	1634-04-4	mg/kg	0.1	0.00071	U	0.0005	U	0.00085	U	0.0013	U	0.00064	U		
Methylcyclohexane	108-87-2	ug/l												0.6	U
4-Methyl-2-pentanone(MIBK)	108-10-1	mg/kg		0.0034	U	0.0024	U	0.0041	U	0.0064	U	0.0031	U		
Methyl Tert Butyl Ether	1634-04-4	ug/l												0.51	U
Methylene chloride	75-09-2	mg/kg	0.05	0.0039	U	0.0028	U	0.0047	U	0.0073	U	0.0036	U		
4-Methyl-2-pentanone(MIBK)	108-10-1	ug/l												4.9	U
Methylene chloride	75-09-2	ug/l												1	U
Styrene	100-42-5	mg/kg		0.0006	U	0.00043	U	0.00073	U	0.0011	U	0.00055	U		
Styrene	100-42-5	ug/l												0.49	U
1,1,2,2-Tetrachloroethane	79-34-5	mg/kg		0.0009	U	0.00064	U	0.0011	U	0.0017	U	0.00082	U		
Tetrachloroethene	127-18-4	mg/kg	1.3	0.00087	U	0.00062	U	0.0011	U	0.0016	U	0.0008	U		
1,1,2,2-Tetrachloroethane	79-34-5	ug/l												0.65	U
Tetrachloroethene	127-18-4	ug/l												0.56	U

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Client Sample ID:			NY USCO	EP-31I (152.4)		EP-38I (152.4)		EP-71 (162.8)		EP-72 (158.8)		DUP 2026.01.28		TB-5	
Lab Sample ID:				JE27639-1		JE27639-2		JE27639-3		JE27639-4		JE27639-5		JE27639-6	
Date Sampled:				1/28/2026 3:08 PM		1/28/2026 3:20 PM		1/28/2026 2:50 PM		1/28/2026 2:58 PM		1/28/2026 3:15 PM		1/28/2026 3:20 PM	
Matrix:				Soil		Soil		Soil		Soil		Soil		Trip Blank Soil	
Analyte	**CAS #**	**Unit**													
(GC/LC Semi-volatiles (SW846 8081B))															
Toluene	108-88-3	mg/kg	0.7	0.00079	U	0.00056	U	0.00095	U	0.0015	U	0.00072	U		
1,2,3-Trichlorobenzene	87-61-6	mg/kg		0.0038	U	0.0027	U	0.0045	U	0.007	U	0.0034	U		
Toluene	108-88-3	ug/l												0.49	U
1,2,4-Trichlorobenzene	120-82-1	mg/kg		0.0038	U	0.0027	U	0.0045	U	0.007	U	0.0034	U		
1,1,1-Trichloroethane	71-55-6	mg/kg	0.68	0.00073	U	0.00052	U	0.00088	U	0.0014	U	0.00066	U		
1,2,3-Trichlorobenzene	87-61-6	ug/l												0.5	U
1,1,2-Trichloroethane	79-00-5	mg/kg		0.00083	U	0.00059	U	0.001	U	0.0016	U	0.00076	U		
1,2,4-Trichlorobenzene	120-82-1	ug/l												0.5	U
1,1,1-Trichloroethane	71-55-6	ug/l												0.54	U
Trichloroethene	79-01-6	mg/kg	0.47	0.0011	U	0.00081	U	0.0014	U	0.0021	U	0.001	U		
1,1,2-Trichloroethane	79-00-5	ug/l												0.53	U
Trichlorofluoromethane	75-69-4	mg/kg		0.001	U	0.00073	U	0.0012	U	0.0019	U	0.00094	U		
Trichloroethene	79-01-6	ug/l												0.53	U
Trichlorofluoromethane	75-69-4	ug/l												0.4	U
Vinyl chloride	75-01-4	mg/kg	0.03	0.00072	U	0.00051	U	0.00087	U	0.0013	U	0.00066	U		
m,p-Xylene	M,P-XYLENE	mg/kg	0.26	0.0013	U	0.00096	U	0.0016	U	0.0025	U	0.0012	U		
Vinyl chloride	75-01-4	ug/l												0.52	U
o-Xylene	95-47-6	mg/kg	0.26	0.00069	U	0.00049	U	0.00083	U	0.0013	U	0.00063	U		
Xylene (total)	1330-20-7	mg/kg	0.26	0.00069	U	0.00049	U	0.00083	U	0.0013	U	0.00063	U		
m,p-Xylene	M,P-XYLENE	ug/l												0.78	U
o-Xylene	95-47-6	ug/l												0.59	U
Xylene (total)	1330-20-7	ug/l												0.59	U
Dibromofluoromethane	1868-53-7	%		100		99		98		100		100		106	
1,2-Dichloroethane-D4	17060-07-0	%		109		108		112		110		112		114	
Toluene-D8	2037-26-5	%		102		101		105		104		101		101	
4-Bromofluorobenzene	460-00-4	%		92		97		97		95		96		103	

1 result(s) exceeded regulatory criteria.

SGS

SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	EP-31I (152.4)		EP-38I (152.4)		EP-71 (162.8)		EP-72 (158.8)		DUP 2026.01.28		TB-5	
Lab Sample ID:				JE27639-1		JE27639-2		JE27639-3		JE27639-4		JE27639-5		JE27639-6	
Date Sampled:				1/28/2026 3:08 PM		1/28/2026 3:20 PM		1/28/2026 2:50 PM		1/28/2026 2:58 PM		1/28/2026 3:15 PM		1/28/2026 3:20 PM	
Matrix:				Soil		Soil		Soil		Soil		Soil		Trip Blank Soil	
Analyte	**CAS #**	**Unit**													
(GC/LC Semi-volatiles (SW846 8081B))															
Aldrin	309-00-2	mg/kg	0.0048	0.00058	U	0.00061	U	0.00057	U	0.00064	U	0.0006	U		
alpha-BHC	319-84-6	mg/kg	0.02	0.00057	U	0.0006	U	0.00056	U	0.00063	U	0.00059	U		
beta-BHC	319-85-7	mg/kg	0.021	0.00063	U	0.00067	U	0.00062	U	0.0007	U	0.00066	U		
delta-BHC	319-86-8	mg/kg	0.04	0.00067	U	0.00071	U	0.00066	U	0.00075	U	0.0007	U		
gamma-BHC (Lindane)	58-89-9	mg/kg	0.025	0.00052	U	0.00054	U	0.00051	U	0.00057	U	0.00054	U		
alpha-Chlordane	5103-71-9	mg/kg	0.014	0.00056	U	0.0006	U	0.00056	U	0.00096		0.00059	U		
gamma-Chlordane	5103-74-2	mg/kg		0.00032	U	0.00033	U	0.00031	U	0.001		0.00033	U		
Dieldrin	60-57-1	mg/kg	0.005	0.00048	U	0.00051	U	0.00047	U	0.00053	U	0.0005	U		
4,4'-DDD	72-54-8	mg/kg	0.0033	0.00064	U	0.00068	U	0.00063	U	0.00071	U	0.00067	U		
4,4'-DDE	72-55-9	mg/kg	0.0033	0.00061	U	0.00065	U	0.00061	U	0.00068	U	0.00064	U		
4,4'-DDT	50-29-3	mg/kg	0.0033	0.00062	U	0.00066	U	0.00061	U	0.00085		0.00065	U		
Endrin	72-20-8	mg/kg	0.014	0.00054	U	0.00057	U	0.00054	U	0.0006	U	0.00057	U		
Endosulfan sulfate	1031-07-8	mg/kg	4.3	0.00055	U	0.00058	U	0.00054	U	0.00061	U	0.00057	U		
Endrin aldehyde	7421-93-4	mg/kg		0.0004	U	0.00042	U	0.00039	U	0.00044	U	0.00041	U		
Endosulfan-I	959-98-8	mg/kg	4.3	0.0004	U	0.00043	U	0.0004	U	0.00045	U	0.00042	U		
Endosulfan-II	33213-65-9	mg/kg	4.3	0.00044	U	0.00046	U	0.00043	U	0.00048	U	0.00046	U		
Heptachlor	76-44-8	mg/kg	0.013	0.0006	U	0.00064	U	0.0006	U	0.00067	U	0.00063	U		
Heptachlor epoxide	1024-57-3	mg/kg		0.00049	U	0.00052	U	0.00048	U	0.00054	U	0.00051	U		
Methoxychlor	72-43-5	mg/kg		0.00056	U	0.00059	U	0.00055	U	0.00062	U	0.00058	U		
Endrin ketone	53494-70-5	mg/kg		0.00051	U	0.00053	U	0.0005	U	0.00056	U	0.00053	U		
Toxaphene	8001-35-2	mg/kg		0.016	U	0.017	U	0.016	U	0.018	U	0.017	U		
Tetrachloro-m-xylene	877-09-8	%		69		67		88		72		61			
Tetrachloro-m-xylene (1)	877-09-8	%		75		72		92		75		66			
Decachlorobiphenyl	2051-24-3	%		82		71		88		58		52			
Decachlorobiphenyl (1)	2051-24-3	%		79		71		88		71		56			
(GC/LC Semi-volatiles (SW846 8082A))															
Aroclor 1016	12674-11-2	mg/kg	0.1	0.016	U	0.017	U	0.016	U	0.018	U	0.017	U		
Aroclor 1221	11104-28-2	mg/kg	0.1	0.022	U	0.023	U	0.021	U	0.024	U	0.023	U		
Aroclor 1232	11141-16-5	mg/kg	0.1	0.022	U	0.024	U	0.022	U	0.025	U	0.023	U		
Aroclor 1242	53469-21-9	mg/kg	0.1	0.014	U	0.015	U	0.014	U	0.016	U	0.015	U		
Aroclor 1248	12672-29-6	mg/kg	0.1	0.031	U	0.033	U	0.031	U	0.035	U	0.033	U		
Aroclor 1254	11097-69-1	mg/kg	0.1	0.019	U	0.0215	J	0.019	U	0.021	U	0.02	U		
Aroclor 1260	11096-82-5	mg/kg	0.1	0.015	U	0.016	U	0.015	U	0.017	U	0.016	U		
Aroclor 1268	11100-14-4	mg/kg	0.1	0.031	U	0.032	U	0.03	U	0.034	U	0.032	U		
Aroclor 1262	37324-23-5	mg/kg	0.1	0.023	U	0.024	U	0.023	U	0.025	U	0.024	U		
Tetrachloro-m-xylene (2)	877-09-8	%		51		58		73		55		50			
Tetrachloro-m-xylene (3)	877-09-8	%		79		92		114		87		77			
Decachlorobiphenyl (2)	2051-24-3	%		48		45		56		37		32			
Decachlorobiphenyl (3)	2051-24-3	%		60		57		72		53		43			
(General Chemistry (SM2540 G 18TH ED MOD))															
Solids, Percent	PERCENT SOLIDS	%		92.3		88.4		88.8		81		88.8			
(General Chemistry (SW846 9012B/LACHAT))															
Cyanide	57-12-5	mg/kg	2.3	0.28	U	0.31	U	0.24	U	0.27		0.24	U		
(Metals Analysis (SW846 6010D))															
Aluminum	7429-90-5	mg/kg		9500		9070		5810		6040		9020			
Antimony	7440-36-0	mg/kg		5.4	U	1.1	U	1.1	U	6.3		1.1	U		
Arsenic	7440-38-2	mg/kg	13	1.2		1.3		1.4		2.1		1.1			
Barium	7440-39-3	mg/kg	410	77.7		72		33		52.5		112			
Beryllium	7440-41-7	mg/kg	4.4	0.27		0.25		0.25		0.23		0.25			
Cadmium	7440-43-9	mg/kg	2.5	0.27	U	0.28	U	0.28	U	0.25	U	0.28	U		
Calcium	7440-70-2	mg/kg		3860		2350		2990		5550		2440			
Chromium	7440-47-3	mg/kg	30	18.3		17.9		9.7		12.6		18.7			
Cobalt	7440-48-4	mg/kg		7.1		6.7		4.3		4.8		6.4			
Copper	7440-50-8	mg/kg	50	16.4		19.1		10.5		15.6		14.5			
Iron	7439-89-6	mg/kg		16300		15900		9580		12500		14900			
Lead	7439-92-1	mg/kg	63	6.2		4.3		20		129		4.8			
Magnesium	7439-95-4	mg/kg		4960		4820		2640		3140		5060			
Manganese	7439-96-5	mg/kg	1600	383		246		205		232		250			
Nickel	7440-02-0	mg/kg	30	14.2		14		9.2		10.8		13.9			
Potassium	7440-09-7	mg/kg		2050		2000		825		921		2100			
Selenium	7782-49-2	mg/kg	3.9	5.4	U	5.6	U	1.1	U	4.9	U	5.5	U		

Client Sample ID:			NY USCO	EP-31I (152.4)		EP-38I (152.4)		EP-71 (162.8)		EP-72 (158.8)		DUP 2026.01.28		TB-5	
Lab Sample ID:				JE27639-1		JE27639-2		JE27639-3		JE27639-4		JE27639-5		JE27639-6	
Date Sampled:				1/28/2026 3:08 PM		1/28/2026 3:20 PM		1/28/2026 2:50 PM		1/28/2026 2:58 PM		1/28/2026 3:15 PM		1/28/2026 3:20 PM	
Matrix:				Soil		Soil		Soil		Soil		Soil		Trip Blank Soil	
Analyte	**CAS #**	**Unit**													
(GC/LC Semi-volatiles (SW846 8081B))															
Silver	7440-22-4	mg/kg	2	0.27	U	0.28	U	0.28	U	0.25	U	0.28	U		
Sodium	7440-23-5	mg/kg		540	U	560	U	560	U	490	U	550	U		
Thallium	7440-28-0	mg/kg		0.54	U	0.56	U	0.56	U	0.49	U	0.55	U		
Vanadium	7440-62-2	mg/kg		23.5		24.3		12.7		15.3		23.7			
Zinc	7440-66-6	mg/kg	109	38.9		39.4		46.7		66.1		40.4			
(Metals Analysis (SW846 7471B))															
Mercury	7439-97-6	mg/kg	0.18	0.031	U	0.029	U	0.034		0.066		0.032	U		
(MS Semi-volatile TIC ())															
Alkane	TIC	mg/kg		1.4	J							0.21	J		
n-Hexadecanoic acid	57-10-3	mg/kg				0.82	JNB					0.82	JNB		
Octadecanoic acid	57-11-4	mg/kg				0.15	JN	0.19	JN			0.2	JN		
Unknown (1)	TIC	mg/kg		1	J			0.18	J	0.2	J	0.16	J		
Unknown PAH substance	TIC	mg/kg								0.27	J				
Alkane (2)	TIC	mg/kg		0.17	J										
Alkane (3)	TIC	mg/kg		0.27	J										
Unknown (2)	TIC	mg/kg		0.16	J					0.18	J				
Unknown (3)	TIC	mg/kg								0.19	J				
Alkane (4)	TIC	mg/kg		0.19	J										
Unknown (4)	TIC	mg/kg								0.21	J				
Alkane (5)	TIC	mg/kg		0.39	J										
Unknown (5)	TIC	mg/kg								0.5	J				
Alkane (6)	TIC	mg/kg		0.25	J										
Unknown (6)	TIC	mg/kg								0.22	J				
Alkane (7)	TIC	mg/kg		0.25	J										
Alkane (1)	TIC	mg/kg		0.16	J							0.21	J		
Unknown	TIC	mg/kg		0.47	J	0.43	J	0.39	J	0.37	J	0.53	J		
Total TIC, Semi-Volatile	TOTAL TIC, SEMI-VOLATILE	mg/kg		4.71	J	0.58	J	0.76	J	2.14	J	1.31	J		
(MS Semi-volatiles (SW846 8270E))															
2-Chlorophenol	95-57-8	mg/kg		0.018	U	0.018	U	0.018	U	0.02	U	0.018	U		
4-Chloro-3-methyl phenol	59-50-7	mg/kg		0.022	U	0.022	U	0.023	U	0.025	U	0.023	U		
2,4-Dichlorophenol	120-83-2	mg/kg		0.031	U	0.031	U	0.032	U	0.035	U	0.032	U		
2,4-Dimethylphenol	105-67-9	mg/kg		0.064	U	0.064	U	0.066	U	0.073	U	0.066	U		
2,4-Dinitrophenol	51-28-5	mg/kg		0.14	U	0.14	U	0.14	U	0.15	U	0.14	U		
4,6-Dinitro-o-cresol	534-52-1	mg/kg		0.039	U	0.039	U	0.04	U	0.044	U	0.04	U		
2-Methylphenol	95-48-7	mg/kg	0.33	0.023	U	0.023	U	0.024	U	0.026	U	0.024	U		
3&4-Methylphenol	M+P-CRESOLS	mg/kg	0.33	0.03	U	0.03	U	0.031	U	0.034	U	0.031	U		
2-Nitrophenol	88-75-5	mg/kg		0.024	U	0.024	U	0.025	U	0.027	U	0.025	U		
4-Nitrophenol	100-02-7	mg/kg		0.096	U	0.096	U	0.1	U	0.11	U	0.1	U		
Pentachlorophenol	87-86-5	mg/kg	0.8	0.034	U	0.034	U	0.035	U	0.038	U	0.035	U		
Phenol	108-95-2	mg/kg	0.33	0.019	U	0.019	U	0.019	U	0.021	U	0.019	U		
2,3,4,6-Tetrachlorophenol	58-90-2	mg/kg		0.024	U	0.024	U	0.025	U	0.027	U	0.025	U		
2,4,5-Trichlorophenol	95-95-4	mg/kg		0.027	U	0.027	U	0.028	U	0.031	U	0.028	U		
2,4,6-Trichlorophenol	88-06-2	mg/kg		0.022	U	0.022	U	0.022	U	0.024	U	0.022	U		
Acenaphthene	83-32-9	mg/kg	20	0.012	U	0.012	U	0.013	U	0.0283	J	0.013	U		
Acenaphthylene	208-96-8	mg/kg	100	0.018	U	0.018	U	0.019	U	0.021	U	0.019	U		
Acetophenone	98-86-2	mg/kg		0.0078	U	0.0078	U	0.008	U	0.0088	U	0.008	U		
Anthracene	120-12-7	mg/kg	100	0.022	U	0.022	U	0.023	U	0.0729		0.023	U		
Atrazine	1912-24-9	mg/kg		0.015	U	0.015	U	0.016	U	0.017	U	0.016	U		
Benzo(a)anthracene	56-55-3	mg/kg	1	0.01	U	0.01	U	0.0468		0.244		0.0172	J		
Benzo(a)pyrene	50-32-8	mg/kg	1	0.016	U	0.016	U	0.0393		0.225		0.017	U		
Benzo(b)fluoranthene	205-99-2	mg/kg	1	0.016	U	0.016	U	0.0521		0.297		0.0169	J		
Benzo(g,h,i)perylene	191-24-2	mg/kg	0.64	0.018	U	0.018	U	0.0297	J	0.169		0.019	U		
Benzo(k)fluoranthene	207-08-9	mg/kg	0.8	0.017	U	0.017	U	0.022	J	0.0934		0.017	U		
4-Bromophenyl phenyl ether	101-55-3	mg/kg		0.014	U	0.014	U	0.014	U	0.016	U	0.014	U		
Butyl benzyl phthalate	85-68-7	mg/kg		0.0088	U	0.0088	U	0.0091	U	0.0182	J	0.0091	U		
1,1'-Biphenyl	92-52-4	mg/kg		0.0049	U	0.005	U	0.0051	U	0.0056	U	0.0051	U		
Benzaldehyde	100-52-7	mg/kg		0.009	U	0.009	U	0.0092	U	0.01	U	0.0092	U		
2-Chloronaphthalene	91-58-7	mg/kg		0.0086	U	0.0086	U	0.0089	U	0.0097	U	0.0089	U		
4-Chloroaniline	106-47-8	mg/kg		0.013	U	0.013	U	0.013	U	0.015	U	0.013	U		
Carbazole	86-74-8	mg/kg		0.0052	U	0.0052	U	0.0055	J	0.0366	J	0.0054	U		
Caprolactam	105-60-2	mg/kg		0.014	U	0.014	U	0.015	U	0.016	U	0.015	U		
Chrysene	218-01-9	mg/kg	1	0.011	U	0.011	U	0.0444		0.224		0.0136	J		
bis(2-Chloroethoxy)methane	111-91-1	mg/kg		0.0077	U	0.0077	U	0.008	U	0.0087	U	0.008	U		
bis(2-Chloroethyl)ether	111-44-4	mg/kg		0.016	U	0.016	U	0.016	U	0.018	U	0.016	U		

Client Sample ID:			NY USCO	EP-31I (152.4)		EP-38I (152.4)		EP-71 (162.8)		EP-72 (158.8)		DUP 2026.01.28		TB-5	
Lab Sample ID:				JE27639-1		JE27639-2		JE27639-3		JE27639-4		JE27639-5		JE27639-6	
Date Sampled:				1/28/2026 3:08 PM		1/28/2026 3:20 PM		1/28/2026 2:50 PM		1/28/2026 2:58 PM		1/28/2026 3:15 PM		1/28/2026 3:20 PM	
Matrix:				Soil		Soil		Soil		Soil		Soil		Trip Blank Soil	
Analyte	**CAS #**	**Unit**													
(GC/LC Semi-volatiles (SW846 8081B))															
2,2'-Oxybis(1-chloropropane)	108-60-1	mg/kg		0.013	U	0.013	U	0.013	U	0.015	U	0.013	U		
4-Chlorophenyl phenyl ether	7005-72-3	mg/kg		0.012	U	0.012	U	0.012	U	0.013	U	0.012	U		
2,4-Dinitrotoluene	121-14-2	mg/kg		0.011	U	0.011	U	0.012	U	0.013	U	0.012	U		
2,6-Dinitrotoluene	606-20-2	mg/kg		0.018	U	0.018	U	0.019	U	0.021	U	0.019	U		
3,3'-Dichlorobenzidine	91-94-1	mg/kg		0.03	U	0.03	U	0.031	U	0.034	U	0.031	U		
1,4-Dioxane	123-91-1	mg/kg	0.1	0.024	U	0.024	U	0.025	U	0.027	U	0.025	U		
Dibenzo(a,h)anthracene	53-70-3	mg/kg	0.33	0.016	U	0.016	U	0.016	U	0.0411		0.016	U		
Dibenzofuran	132-64-9	mg/kg	2.1	0.015	U	0.015	U	0.015	U	0.017	U	0.015	U		
Di-n-butyl phthalate	84-74-2	mg/kg		0.0197	J	0.0059	U	0.0133	J	0.0439	J	0.0061	U		
Di-n-octyl phthalate	117-84-0	mg/kg		0.009	U	0.009	U	0.0093	U	0.01	U	0.0093	U		
Diethyl phthalate	84-66-2	mg/kg		0.0077	U	0.0077	U	0.0079	U	0.0087	U	0.0079	U		
Dimethyl phthalate	131-11-3	mg/kg		0.0064	U	0.0064	U	0.0066	U	0.0073	U	0.0066	U		
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg		0.0105	J	0.0105	J	0.0156	J	0.0315	J	0.0137	J		
Fluoranthene	206-44-0	mg/kg	85	0.016	U	0.016	U	0.0823		0.457		0.0235	J		
Fluorene	86-73-7	mg/kg	30	0.017	U	0.017	U	0.017	U	0.0249	J	0.017	U		
Hexachlorobenzene	118-74-1	mg/kg	0.33	0.0091	U	0.0091	U	0.0094	U	0.01	U	0.0094	U		
Hexachlorobutadiene	87-68-3	mg/kg		0.015	U	0.015	U	0.015	U	0.016	U	0.015	U		
Hexachlorocyclopentadiene	77-47-4	mg/kg		0.014	U	0.014	U	0.015	U	0.016	U	0.015	U		
Hexachloroethane	67-72-1	mg/kg		0.018	U	0.018	U	0.018	U	0.02	U	0.018	U		
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	0.5	0.017	U	0.017	U	0.0286	J	0.171		0.017	U		
Isophorone	78-59-1	mg/kg		0.0077	U	0.0077	U	0.008	U	0.0087	U	0.008	U		
2-Methylnaphthalene	91-57-6	mg/kg		0.0082	U	0.0082	U	0.0084	U	0.0108	J	0.0084	U		
2-Nitroaniline	88-74-4	mg/kg		0.0085	U	0.0085	U	0.0088	U	0.0096	U	0.0088	U		
3-Nitroaniline	99-09-2	mg/kg		0.009	U	0.009	U	0.0093	U	0.01	U	0.0093	U		
4-Nitroaniline	100-01-6	mg/kg		0.0094	U	0.0094	U	0.0097	U	0.011	U	0.0097	U		
Naphthalene	91-20-3	mg/kg	12	0.01	U	0.01	U	0.011	U	0.0182	J	0.011	U		
Nitrobenzene	98-95-3	mg/kg	0.08	0.014	U	0.014	U	0.014	U	0.016	U	0.014	U		
N-Nitroso-di-n-propylamine	621-64-7	mg/kg		0.01	U	0.01	U	0.011	U	0.012	U	0.011	U		
N-Nitrosodiphenylamine	86-30-6	mg/kg		0.013	U	0.013	U	0.014	U	0.015	U	0.014	U		
Phenanthrene	85-01-8	mg/kg	1.1	0.0149	J	0.012	U	0.042		0.27		0.0177	J		
Pyrene	129-00-0	mg/kg	64	0.012	U	0.012	U	0.0763		0.398		0.0218	J		
1,2,4,5-Tetrachlorobenzene	95-94-3	mg/kg		0.0092	U	0.0092	U	0.0095	U	0.01	U	0.0095	U		
2-Fluorophenol	367-12-4	%		51		38		45		52		53			
Phenol-d5	4165-62-2	%		57		43		48		56		54			
2,4,6-Tribromophenol	118-79-6	%		80		79		76		74		80			
Nitrobenzene-d5	4165-60-0	%		62		46		52		62		62			
2-Fluorobiphenyl	321-60-8	%		68		54		60		64		64			
Terphenyl-d14	1718-51-0	%		83		76		75		71		77			
(MS Volatile TIC ())															
Total TIC, Volatile	TOTAL TIC, VOLATILE	mg/kg		0		0		0		0		0			
Total TIC, Volatile	TOTAL TIC, VOLATILE	ug/l												0	
(MS Volatiles (SW846 8260D))															
Acetone	67-64-1	mg/kg	0.03	0.0062	U	0.0044	U	0.0075	U	0.012	U	0.0057	U		
Acetone	67-64-1	ug/l												3.1	U
Benzene	71-43-2	mg/kg	0.06	0.00068	U	0.00049	U	0.00083	U	0.0013	U	0.00062	U		
Bromochloromethane	74-97-5	mg/kg		0.00084	U	0.0006	U	0.001	U	0.0016	U	0.00077	U		
Benzene	71-43-2	ug/l												0.43	U
Bromodichloromethane	75-27-4	mg/kg		0.00065	U	0.00046	U	0.00078	U	0.0012	U	0.00059	U		
Bromoform	75-25-2	mg/kg		0.002	U	0.0015	U	0.0025	U	0.0038	U	0.0019	U		
Bromomethane	74-83-9	mg/kg		0.0011	U	0.00082	U	0.0014	U	0.0021	U	0.001	U		
2-Butanone (MEK)	78-93-3	mg/kg	0.1	0.0037	U	0.0026	U	0.0044	U	0.0068	U	0.0033	U		
Bromochloromethane	74-97-5	ug/l												0.48	U
Bromodichloromethane	75-27-4	ug/l												0.45	U
Bromoform	75-25-2	ug/l												0.63	U
Bromomethane	74-83-9	ug/l												1.6	U
2-Butanone (MEK)	78-93-3	ug/l												2.7	U
Carbon disulfide	75-15-0	mg/kg		0.00081	U	0.00057	U	0.00097	U	0.0015	U	0.00073	U		
Carbon tetrachloride	56-23-5	mg/kg	0.76	0.00093	U	0.00066	U	0.0011	U	0.0017	U	0.00085	U		
Chlorobenzene	108-90-7	mg/kg	4.5	0.00069	U	0.00049	U	0.00083	U	0.0013	U	0.00063	U		
Chloroethane	75-00-3	mg/kg		0.00089	U	0.00063	U	0.0011	U	0.0017	U	0.00081	U		
Carbon disulfide	75-15-0	ug/l												1.8	U
Carbon tetrachloride	56-23-5	ug/l												0.55	U
Chloroform	67-66-3	mg/kg	0.37	0.0015	U	0.0011	U	0.0018	U	0.0028	U	0.0014	U		
Chlorobenzene	108-90-7	ug/l												0.56	U

Client Sample ID:			NY USCO	EP-31I (152.4)		EP-38I (152.4)		EP-71 (162.8)		EP-72 (158.8)		DUP 2026.01.28		TB-5	
Lab Sample ID:				JE27639-1		JE27639-2		JE27639-3		JE27639-4		JE27639-5		JE27639-6	
Date Sampled:				1/28/2026 3:08 PM		1/28/2026 3:20 PM		1/28/2026 2:50 PM		1/28/2026 2:58 PM		1/28/2026 3:15 PM		1/28/2026 3:20 PM	
Matrix:				Soil		Soil		Soil		Soil		Soil		Trip Blank Soil	
Analyte	**CAS #**	**Unit**													
(GC/LC Semi-volatiles (SW846 8081B))															
Chloromethane	74-87-3	mg/kg		0.0029	U	0.0021	U	0.0036	U	0.0055	U	0.0027	U		
Chloroethane	75-00-3	ug/l												0.73	U
Chloroform	67-66-3	ug/l												0.5	U
Cyclohexane	110-82-7	mg/kg		0.00099	U	0.0007	U	0.0012	U	0.0018	U	0.0009	U		
Chloromethane	74-87-3	ug/l												0.76	U
1,2-Dibromo-3-chloropropane	96-12-8	mg/kg		0.001	U	0.00074	U	0.0013	U	0.0019	U	0.00095	U		
Cyclohexane	110-82-7	ug/l												0.78	U
Dibromochloromethane	124-48-1	mg/kg		0.00084	U	0.0006	U	0.001	U	0.0016	U	0.00077	U		
1,2-Dibromoethane	106-93-4	mg/kg		0.00063	U	0.00045	U	0.00076	U	0.0012	U	0.00058	U		
1,2-Dichlorobenzene	95-50-1	mg/kg	1.1	0.00082	U	0.00058	U	0.00099	U	0.0015	U	0.00075	U		
1,3-Dichlorobenzene	541-73-1	mg/kg	2.6	0.00075	U	0.00053	U	0.0009	U	0.0014	U	0.00068	U		
1,2-Dibromo-3-chloropropane	96-12-8	ug/l												0.53	U
1,4-Dichlorobenzene	106-46-7	mg/kg	1.8	0.00074	U	0.00053	U	0.0009	U	0.0014	U	0.00068	U		
Dibromochloromethane	124-48-1	ug/l												0.56	U
1,2-Dibromoethane	106-93-4	ug/l												0.48	U
Dichlorodifluoromethane	75-71-8	mg/kg		0.0011	U	0.00078	U	0.0013	U	0.002	U	0.001	U		
1,1-Dichloroethane	75-34-3	mg/kg	0.27	0.00074	U	0.00053	U	0.0009	U	0.0014	U	0.00068	U		
1,2-Dichlorobenzene	95-50-1	ug/l												0.53	U
1,2-Dichloroethane	107-06-2	mg/kg	0.02	0.00071	U	0.0005	U	0.00085	U	0.0013	U	0.00065	U		
1,3-Dichlorobenzene	541-73-1	ug/l												0.54	U
1,1-Dichloroethene	75-35-4	mg/kg	0.24	0.00099	U	0.0007	U	0.0012	U	0.0018	U	0.0009	U		
1,4-Dichlorobenzene	106-46-7	ug/l												0.51	U
cis-1,2-Dichloroethene	156-59-2	mg/kg	0.19	0.0013	U	0.0009	U	0.0015	U	0.0024	U	0.0012	U		
Dichlorodifluoromethane	75-71-8	ug/l												0.56	U
trans-1,2-Dichloroethene	156-60-5	mg/kg	0.19	0.00092	U	0.00065	U	0.0011	U	0.0017	U	0.00084	U		
1,1-Dichloroethane	75-34-3	ug/l												0.57	U
1,2-Dichloroethane	107-06-2	ug/l												0.6	U
1,2-Dichloropropane	78-87-5	mg/kg		0.00071	U	0.0005	U	0.00086	U	0.0013	U	0.00065	U		
1,1-Dichloroethene	75-35-4	ug/l												0.59	U
cis-1,2-Dichloroethene	156-59-2	ug/l												0.51	U
trans-1,2-Dichloroethene	156-60-5	ug/l												0.54	U
cis-1,3-Dichloropropene	10061-01-5	mg/kg		0.00071	U	0.00051	U	0.00086	U	0.0013	U	0.00065	U		
1,2-Dichloropropane	78-87-5	ug/l												0.51	U
trans-1,3-Dichloropropene	10061-02-6	mg/kg		0.00069	U	0.00049	U	0.00083	U	0.0013	U	0.00063	U		
cis-1,3-Dichloropropene	10061-01-5	ug/l												0.47	U
trans-1,3-Dichloropropene	10061-02-6	ug/l												0.43	U
Ethylbenzene	100-41-4	mg/kg	1	0.00068	U	0.00048	U	0.00082	U	0.0013	U	0.00062	U		
Ethylbenzene	100-41-4	ug/l												0.6	U
Freon 113	76-13-1	mg/kg		0.004	U	0.0028	U	0.0048	U	0.0075	U	0.0037	U		
Freon 113	76-13-1	ug/l												0.58	U
2-Hexanone	591-78-6	mg/kg		0.0032	U	0.0023	U	0.0039	U	0.0059	U	0.0029	U		
2-Hexanone	591-78-6	ug/l												4.8	U
Isopropylbenzene	98-82-8	mg/kg		0.0021	U	0.0015	U	0.0026	U	0.004	U	0.002	U		
Isopropylbenzene	98-82-8	ug/l												0.65	U
Methyl Acetate	79-20-9	mg/kg		0.0021	U	0.0015	U	0.0025	U	0.0039	U	0.0019	U		
Methylcyclohexane	108-87-2	mg/kg		0.0013	U	0.00093	U	0.0016	U	0.0025	U	0.0012	U		
Methyl Acetate	79-20-9	ug/l												0.8	U
Methyl Tert Butyl Ether	1634-04-4	mg/kg	0.1	0.00071	U	0.0005	U	0.00085	U	0.0013	U	0.00064	U		
Methylcyclohexane	108-87-2	ug/l												0.6	U
4-Methyl-2-pentanone(MIBK)	108-10-1	mg/kg		0.0034	U	0.0024	U	0.0041	U	0.0064	U	0.0031	U		
Methyl Tert Butyl Ether	1634-04-4	ug/l												0.51	U
Methylene chloride	75-09-2	mg/kg	0.05	0.0039	U	0.0028	U	0.0047	U	0.0073	U	0.0036	U		
4-Methyl-2-pentanone(MIBK)	108-10-1	ug/l												4.9	U
Methylene chloride	75-09-2	ug/l												1	U
Styrene	100-42-5	mg/kg		0.0006	U	0.00043	U	0.00073	U	0.0011	U	0.00055	U		
Styrene	100-42-5	ug/l												0.49	U
1,1,2,2-Tetrachloroethane	79-34-5	mg/kg		0.0009	U	0.00064	U	0.0011	U	0.0017	U	0.00082	U		
Tetrachloroethene	127-18-4	mg/kg	1.3	0.00087	U	0.00062	U	0.0011	U	0.0016	U	0.0008	U		
1,1,2,2-Tetrachloroethane	79-34-5	ug/l												0.65	U
Tetrachloroethene	127-18-4	ug/l												0.56	U
Toluene	108-88-3	mg/kg	0.7	0.00079	U	0.00056	U	0.00095	U	0.0015	U	0.00072	U		
1,2,3-Trichlorobenzene	87-61-6	mg/kg		0.0038	U	0.0027	U	0.0045	U	0.007	U	0.0034	U		
Toluene	108-88-3	ug/l												0.49	U
1,2,4-Trichlorobenzene	120-82-1	mg/kg		0.0038	U	0.0027	U	0.0045	U	0.007	U	0.0034	U		

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Client Sample ID:			NY USCO	EP-31I (152.4)		EP-38I (152.4)		EP-71 (162.8)		EP-72 (158.8)		DUP 2026.01.28		TB-5	
Lab Sample ID:				JE27639-1		JE27639-2		JE27639-3		JE27639-4		JE27639-5		JE27639-6	
Date Sampled:				1/28/2026 3:08 PM		1/28/2026 3:20 PM		1/28/2026 2:50 PM		1/28/2026 2:58 PM		1/28/2026 3:15 PM		1/28/2026 3:20 PM	
Matrix:				Soil		Soil		Soil		Soil		Soil		Trip Blank Soil	
Analyte	**CAS #**	**Unit**													
(GC/LC Semi-volatiles (SW846 8081B))															
1,1,1-Trichloroethane	71-55-6	mg/kg	0.68	0.00073	U	0.00052	U	0.00088	U	0.0014	U	0.00066	U		
1,2,3-Trichlorobenzene	87-61-6	ug/l												0.5	U
1,1,2-Trichloroethane	79-00-5	mg/kg		0.00083	U	0.00059	U	0.001	U	0.0016	U	0.00076	U		
1,2,4-Trichlorobenzene	120-82-1	ug/l												0.5	U
1,1,1-Trichloroethane	71-55-6	ug/l												0.54	U
Trichloroethene	79-01-6	mg/kg	0.47	0.0011	U	0.00081	U	0.0014	U	0.0021	U	0.001	U		
1,1,2-Trichloroethane	79-00-5	ug/l												0.53	U
Trichlorofluoromethane	75-69-4	mg/kg		0.001	U	0.00073	U	0.0012	U	0.0019	U	0.00094	U		
Trichloroethene	79-01-6	ug/l												0.53	U
Trichlorofluoromethane	75-69-4	ug/l												0.4	U
Vinyl chloride	75-01-4	mg/kg	0.03	0.00072	U	0.00051	U	0.00087	U	0.0013	U	0.00066	U		
m,p-Xylene	M,P-XYLENE	mg/kg	0.26	0.0013	U	0.00096	U	0.0016	U	0.0025	U	0.0012	U		
Vinyl chloride	75-01-4	ug/l												0.52	U
o-Xylene	95-47-6	mg/kg	0.26	0.00069	U	0.00049	U	0.00083	U	0.0013	U	0.00063	U		
Xylene (total)	1330-20-7	mg/kg	0.26	0.00069	U	0.00049	U	0.00083	U	0.0013	U	0.00063	U		
m,p-Xylene	M,P-XYLENE	ug/l												0.78	U
o-Xylene	95-47-6	ug/l												0.59	U
Xylene (total)	1330-20-7	ug/l												0.59	U
Dibromofluoromethane	1868-53-7	%		100		99		98		100		100		106	
1,2-Dichloroethane-D4	17060-07-0	%		109		108		112		110		112		114	
Toluene-D8	2037-26-5	%		102		101		105		104		101		101	
4-Bromofluorobenzene	460-00-4	%		92		97		97		95		96		103	
1 result(s) exceeded regulatory criteria.															

SGS

SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	TB-7		EP-74		EP-43		EP-88		DUP2026.02.05	
Lab Sample ID:				JE27950-1		JE27950-2		JE27950-3		JE27950-4		JE27950-5	
Date Sampled:				2/5/2026 3:20 PM		2/5/2026 2:50 PM		2/5/2026 2:20 PM		2/5/2026 3:20 PM		2/5/2026 2:35 PM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**											
(GC/LC Semi-volatiles (SW846 8081B))													
Aldrin	309-00-2	mg/kg	0.0048			0.00058	U	0.00056	U	0.00054	U	0.00051	U
alpha-BHC	319-84-6	mg/kg	0.02			0.00057	U	0.00055	U	0.00053	U	0.0005	U
beta-BHC	319-85-7	mg/kg	0.021			0.00063	U	0.00061	U	0.00059	U	0.00056	U
delta-BHC	319-86-8	mg/kg	0.04			0.00067	U	0.00065	U	0.00063	U	0.0006	U
gamma-BHC (Lindane)	58-89-9	mg/kg	0.025			0.00051	U	0.0005	U	0.00048	U	0.00046	U
alpha-Chlordane	5103-71-9	mg/kg	0.014			0.00056	U	0.00055	U	0.00053	U	0.0005	U
gamma-Chlordane	5103-74-2	mg/kg				0.00032	U	0.00031	U	0.0003	U	0.00028	U
Dieldrin	60-57-1	mg/kg	0.005			0.00048	U	0.00047	U	0.00045	U	0.00043	U
4,4'-DDD	72-54-8	mg/kg	0.0033			0.00064	U	0.00062	U	0.0006	U	0.00057	U
4,4'-DDE	72-55-9	mg/kg	0.0033			0.00061	U	0.00059	U	0.00057	U	0.00054	U
4,4'-DDT	50-29-3	mg/kg	0.0033			0.00062	U	0.0006	U	0.00058	U	0.00055	U
Endrin	72-20-8	mg/kg	0.014			0.00054	U	0.00053	U	0.00051	U	0.00048	U
Endosulfan sulfate	1031-07-8	mg/kg	4.3			0.00055	U	0.00053	U	0.00051	U	0.00048	U
Endrin aldehyde	7421-93-4	mg/kg				0.0004	U	0.00038	U	0.00037	U	0.00035	U
Endosulfan-I	959-98-8	mg/kg	4.3			0.0004	U	0.00039	U	0.00038	U	0.00036	U
Endosulfan-II	33213-65-9	mg/kg	4.3			0.00044	U	0.00042	U	0.00041	U	0.00039	U
Heptachlor	76-44-8	mg/kg	0.013			0.0006	U	0.00058	U	0.00056	U	0.00054	U
Heptachlor epoxide	1024-57-3	mg/kg				0.00049	U	0.00047	U	0.00046	U	0.00044	U
Methoxychlor	72-43-5	mg/kg				0.00055	U	0.00054	U	0.00052	U	0.00049	U
Endrin ketone	53494-70-5	mg/kg				0.0005	U	0.00049	U	0.00047	U	0.00045	U
Toxaphene	8001-35-2	mg/kg				0.016	U	0.016	U	0.015	U	0.014	U
Tetrachloro-m-xylene	877-09-8	%				82		75		63		55	
Tetrachloro-m-xylene (1)	877-09-8	%				89		81		68		59	
Decachlorobiphenyl	2051-24-3	%				90		92		64		63	
Decachlorobiphenyl (1)	2051-24-3	%				93		92		69		62	
(GC/LC Semi-volatiles (SW846 8082A))													
Aroclor 1016	12674-11-2	mg/kg	0.1			0.015	U	0.016	U	0.015	U	0.014	U
Aroclor 1221	11104-28-2	mg/kg	0.1			0.021	U	0.021	U	0.02	U	0.019	U
Aroclor 1232	11141-16-5	mg/kg	0.1			0.021	U	0.022	U	0.021	U	0.02	U
Aroclor 1242	53469-21-9	mg/kg	0.1			0.014	U	0.014	U	0.013	U	0.013	U
Aroclor 1248	12672-29-6	mg/kg	0.1			0.03	U	0.03	U	0.029	U	0.028	U
Aroclor 1254	11097-69-1	mg/kg	0.1			0.018	U	0.018	U	0.018	U	0.017	U
Aroclor 1260	11096-82-5	mg/kg	0.1			0.014	U	0.014	U	0.014	U	0.013	U
Aroclor 1268	11100-14-4	mg/kg	0.1			0.029	U	0.03	U	0.029	U	0.027	U
Aroclor 1262	37324-23-5	mg/kg	0.1			0.022	U	0.022	U	0.021	U	0.02	U
Tetrachloro-m-xylene (2)	877-09-8	%				70		62		52		51	
Tetrachloro-m-xylene (3)	877-09-8	%				112		97		72		80	
Decachlorobiphenyl (2)	2051-24-3	%				52		57		45		45	
Decachlorobiphenyl (3)	2051-24-3	%				65		68		59		52	

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Client Sample ID:			NY USCO	TB-7		EP-74		EP-43		EP-88		DUP2026.02.05	
Lab Sample ID:				JE27950-1		JE27950-2		JE27950-3		JE27950-4		JE27950-5	
Date Sampled:				2/5/2026 3:20 PM		2/5/2026 2:50 PM		2/5/2026 2:20 PM		2/5/2026 3:20 PM		2/5/2026 2:35 PM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**											
(General Chemistry (SM2540 G 18TH ED MOD))													
Solids, Percent	PERCENT SOLIDS	%				95.5		94.7		97.8		95.9	
(General Chemistry (SW846 9012B/LACHAT))													
Cyanide	57-12-5	mg/kg	2.3			0.26	U	0.3	U	0.24	U	0.3	U
(Metals Analysis (SW846 6010D))													
Aluminum	7429-90-5	mg/kg				4890		4460		5100		5940	
Antimony	7440-36-0	mg/kg				1	U	1.1	U	1	U	1	U
Arsenic	7440-38-2	mg/kg	13			1		1.1	U	1.1		1	U
Barium	7440-39-3	mg/kg	410			29.9		30.3		37.6		47.4	
Beryllium	7440-41-7	mg/kg	4.4			0.25		0.21		0.2		0.19	
Cadmium	7440-43-9	mg/kg	2.5			0.26	U	0.26	U	0.25	U	0.26	U
Calcium	7440-70-2	mg/kg				994		1090		1200		1070	
Chromium	7440-47-3	mg/kg	30			7.9		6.7		11.2		10.8	
Cobalt	7440-48-4	mg/kg				4		3.1		4.1		4.5	
Copper	7440-50-8	mg/kg	50			8.3		9.3		10		10.1	
Iron	7439-89-6	mg/kg				8040		6750		9800		9600	
Lead	7439-92-1	mg/kg	63			10.1		2.1		4.8		2.9	
Magnesium	7439-95-4	mg/kg				2140		1960		2880		2640	
Manganese	7439-96-5	mg/kg	1600			337		158		158		209	
Nickel	7440-02-0	mg/kg	30			7.7		8.8		8.9		9.4	
Potassium	7440-09-7	mg/kg				695		772		1910		982	
Selenium	7782-49-2	mg/kg	3.9			1	U	1.1	U	1	U	1	U
Silver	7440-22-4	mg/kg	2			0.26	U	0.26	U	0.25	U	0.26	U
Sodium	7440-23-5	mg/kg				520	U	530	U	500	U	520	U
Thallium	7440-28-0	mg/kg				0.52	U	0.53	U	0.5	U	0.52	U
Vanadium	7440-62-2	mg/kg				10.2		9.3		14		15	
Zinc	7440-66-6	mg/kg	109			29.8		18.8		33		27.1	
(Metals Analysis (SW846 7471B))													
Mercury	7439-97-6	mg/kg	0.18			0.13		0.033	U	0.03	U	0.027	U
(MS Semi-volatile TIC ())													
n-Hexadecanoic acid	57-10-3	mg/kg								0.58	JN	0.35	JN
1H-indene-dihydro-dimethyl	TIC	mg/kg						0.19	J				
Alkane (5)	TIC	mg/kg								0.47	J		
Alkene	TIC	mg/kg											
Unknown	TIC	mg/kg				0.33	JB	0.47	JB	0.48	J	0.35	JB
Alkane	TIC	mg/kg								0.33	J		
Alkane (8)	TIC	mg/kg								0.35	J		
Alkane (9)	TIC	mg/kg								0.42	J		
Unknown (1)	TIC	mg/kg								0.59	J		
Alkane (10)	TIC	mg/kg								1.1	J		
Alkane (11)	TIC	mg/kg								0.23	J		
Alkane (12)	TIC	mg/kg								0.27	J		
Alkane (13)	TIC	mg/kg								0.38	J		

Client Sample ID:			NY USCO	TB-7		EP-74		EP-43		EP-88		DUP2026.02.05	
Lab Sample ID:				JE27950-1		JE27950-2		JE27950-3		JE27950-4		JE27950-5	
Date Sampled:				2/5/2026 3:20 PM		2/5/2026 2:50 PM		2/5/2026 2:20 PM		2/5/2026 3:20 PM		2/5/2026 2:35 PM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**											
Alkane (14)	TIC	mg/kg								0.93	J		
Alkane (1)	TIC	mg/kg								0.42	J		
Alkane (2)	TIC	mg/kg								0.41	J		
Alkane (3)	TIC	mg/kg								0.41	J		
Alkane (4)	TIC	mg/kg								0.51	J		
Unknown (2)	TIC	mg/kg								0.38	J		
Unknown (3)	TIC	mg/kg								0.49	J		
Unknown (4)	TIC	mg/kg								0.48	J		
Alkane (6)	TIC	mg/kg								0.57	J		
Alkane (7)	TIC	mg/kg								0.22	J		
Octadecanoic acid	57-11-4	mg/kg								0.24	JN		
Unknown (5)	TIC	mg/kg								0.67	JB		
Unknown (6)	TIC	mg/kg								0.23	J		
Unknown (7)	TIC	mg/kg								0.27	J		
Total TIC, Semi-Volatile	TOTAL TIC, SEMI-VOLATILE	mg/kg				0		0.19	J	10.76	J	0.35	J
(MS Semi-volatiles (SW846 8270E))													
2-Chlorophenol	95-57-8	mg/kg				0.017	U	0.017	U	0.017	U	0.017	U
4-Chloro-3-methyl phenol	59-50-7	mg/kg				0.021	U	0.021	U	0.021	U	0.021	U
2,4-Dichlorophenol	120-83-2	mg/kg				0.029	U	0.029	U	0.029	U	0.029	U
2,4-Dimethylphenol	105-67-9	mg/kg				0.061	U	0.061	U	0.06	U	0.061	U
2,4-Dinitrophenol	51-28-5	mg/kg				0.13	U	0.13	U	0.13	U	0.13	U
4,6-Dinitro-o-cresol	534-52-1	mg/kg				0.037	U	0.037	U	0.036	U	0.037	U
2-Methylphenol	95-48-7	mg/kg	0.33			0.022	U	0.022	U	0.022	U	0.022	U
3&4-Methylphenol	M+P-CRESOLS	mg/kg	0.33			0.028	U	0.028	U	0.028	U	0.028	U
2-Nitrophenol	88-75-5	mg/kg				0.023	U	0.023	U	0.022	U	0.023	U
4-Nitrophenol	100-02-7	mg/kg				0.092	U	0.092	U	0.091	U	0.092	U
Pentachlorophenol	87-86-5	mg/kg	0.8			0.032	U	0.032	U	0.032	U	0.032	U
Phenol	108-95-2	mg/kg	0.33			0.018	U	0.018	U	0.018	U	0.018	U
2,3,4,6-Tetrachlorophenol	58-90-2	mg/kg				0.023	U	0.023	U	0.022	U	0.023	U
2,4,5-Trichlorophenol	95-95-4	mg/kg				0.026	U	0.026	U	0.025	U	0.026	U
2,4,6-Trichlorophenol	88-06-2	mg/kg				0.02	U	0.02	U	0.02	U	0.02	U
Acenaphthene	83-32-9	mg/kg	20			0.012	U	0.012	U	0.012	U	0.012	U
Acenaphthylene	208-96-8	mg/kg	100			0.017	U	0.017	U	0.017	U	0.017	U
Acetophenone	98-86-2	mg/kg				0.0074	U	0.0074	U	0.0073	U	0.0074	U
Anthracene	120-12-7	mg/kg	100			0.021	U	0.021	U	0.021	U	0.021	U
Atrazine	1912-24-9	mg/kg				0.015	U	0.015	U	0.015	U	0.015	U
Benzo(a)anthracene	56-55-3	mg/kg	1			0.0281	J	0.011	J	0.0096	U	0.0097	U
Benzo(a)pyrene	50-32-8	mg/kg	1			0.0208	J	0.016	U	0.015	U	0.016	U
Benzo(b)fluoranthene	205-99-2	mg/kg	1			0.0273	J	0.015	U	0.015	U	0.015	U
Benzo(g,h,i)perylene	191-24-2	mg/kg	0.64			0.0184	J	0.017	U	0.017	U	0.017	U
Benzo(k)fluoranthene	207-08-9	mg/kg	0.8			0.016	U	0.016	U	0.016	U	0.016	U
4-Bromophenyl phenyl ether	101-55-3	mg/kg				0.013	U	0.013	U	0.013	U	0.013	U
Butyl benzyl phthalate	85-68-7	mg/kg				0.0084	U	0.0084	U	0.0083	U	0.0084	U

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Client Sample ID:			NY USCO	TB-7		EP-74		EP-43		EP-88		DUP2026.02.05	
Lab Sample ID:				JE27950-1		JE27950-2		JE27950-3		JE27950-4		JE27950-5	
Date Sampled:				2/5/2026 3:20 PM		2/5/2026 2:50 PM		2/5/2026 2:20 PM		2/5/2026 3:20 PM		2/5/2026 2:35 PM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**											
1,1'-Biphenyl	92-52-4	mg/kg				0.0047	U	0.0047	U	0.0047	U	0.0047	U
Benzaldehyde	100-52-7	mg/kg				0.0085	U	0.0085	U	0.0084	U	0.0085	U
2-Chloronaphthalene	91-58-7	mg/kg				0.0082	U	0.0082	U	0.0081	U	0.0082	U
4-Chloroaniline	106-47-8	mg/kg				0.012	U	0.012	U	0.012	U	0.012	U
Carbazole	86-74-8	mg/kg				0.005	U	0.005	U	0.0049	U	0.005	U
Caprolactam	105-60-2	mg/kg				0.014	U	0.014	U	0.013	U	0.014	U
Chrysene	218-01-9	mg/kg	1			0.0202	J	0.011	U	0.011	U	0.011	U
bis(2-Chloroethoxy)methane	111-91-1	mg/kg				0.0073	U	0.0073	U	0.0073	U	0.0073	U
bis(2-Chloroethyl)ether	111-44-4	mg/kg				0.015	U	0.015	U	0.015	U	0.015	U
2,2'-Oxybis(1-chloropropane)	108-60-1	mg/kg				0.012	U	0.012	U	0.012	U	0.012	U
4-Chlorophenyl phenyl ether	7005-72-3	mg/kg				0.011	U	0.011	U	0.011	U	0.011	U
2,4-Dinitrotoluene	121-14-2	mg/kg				0.011	U	0.011	U	0.011	U	0.011	U
2,6-Dinitrotoluene	606-20-2	mg/kg				0.017	U	0.017	U	0.017	U	0.017	U
3,3'-Dichlorobenzidine	91-94-1	mg/kg				0.029	U	0.029	U	0.028	U	0.029	U
1,4-Dioxane	123-91-1	mg/kg	0.1			0.023	U	0.023	U	0.022	U	0.023	U
Dibenzo(a,h)anthracene	53-70-3	mg/kg	0.33			0.015	U	0.015	U	0.015	U	0.015	U
Dibenzofuran	132-64-9	mg/kg	2.1			0.014	U	0.014	U	0.014	U	0.014	U
Di-n-butyl phthalate	84-74-2	mg/kg				0.0145	J	0.0056	U	0.0055	U	0.0056	U
Di-n-octyl phthalate	117-84-0	mg/kg				0.0085	U	0.0085	U	0.0085	U	0.0085	U
Diethyl phthalate	84-66-2	mg/kg				0.0073	U	0.0073	U	0.0072	U	0.0073	U
Dimethyl phthalate	131-11-3	mg/kg				0.0061	U	0.0061	U	0.006	U	0.0061	U
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg				0.008	U	0.0097	J	0.0079	U	0.0103	J
Fluoranthene	206-44-0	mg/kg	85			0.0413		0.015	U	0.015	U	0.015	U
Fluorene	86-73-7	mg/kg	30			0.016	U	0.016	U	0.016	U	0.016	U
Hexachlorobenzene	118-74-1	mg/kg	0.33			0.0087	U	0.0087	U	0.0086	U	0.0087	U
Hexachlorobutadiene	87-68-3	mg/kg				0.014	U	0.014	U	0.014	U	0.014	U
Hexachlorocyclopentadiene	77-47-4	mg/kg				0.014	U	0.014	U	0.014	U	0.014	U
Hexachloroethane	67-72-1	mg/kg				0.017	U	0.017	U	0.017	U	0.017	U
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	0.5			0.016	U	0.016	U	0.016	U	0.016	U
Isophorone	78-59-1	mg/kg				0.0073	U	0.0073	U	0.0073	U	0.0073	U
2-Methylnaphthalene	91-57-6	mg/kg				0.0078	U	0.0077	U	0.0077	U	0.0078	U
2-Nitroaniline	88-74-4	mg/kg				0.0081	U	0.0081	U	0.008	U	0.0081	U
3-Nitroaniline	99-09-2	mg/kg				0.0086	U	0.0086	U	0.0085	U	0.0086	U
4-Nitroaniline	100-01-6	mg/kg				0.0089	U	0.0089	U	0.0088	U	0.0089	U
Naphthalene	91-20-3	mg/kg	12			0.0097	U	0.0097	U	0.0096	U	0.0097	U
Nitrobenzene	98-95-3	mg/kg	0.08			0.013	U	0.013	U	0.013	U	0.013	U
N-Nitroso-di-n-propylamine	621-64-7	mg/kg				0.0099	U	0.0099	U	0.0098	U	0.0099	U
N-Nitrosodiphenylamine	86-30-6	mg/kg				0.013	U	0.013	U	0.012	U	0.013	U
Phenanthrene	85-01-8	mg/kg	1.1			0.028	J	0.012	U	0.011	U	0.012	U
Pyrene	129-00-0	mg/kg	64			0.0465		0.0149	J	0.011	U	0.011	U
1,2,4,5-Tetrachlorobenzene	95-94-3	mg/kg				0.0087	U	0.0087	U	0.0086	U	0.0087	U
2-Fluorophenol	367-12-4	%				47		25		47		44	
Phenol-d5	4165-62-2	%				48		27		47		46	

Client Sample ID:			NY USCO	TB-7		EP-74		EP-43		EP-88		DUP2026.02.05	
Lab Sample ID:				JE27950-1		JE27950-2		JE27950-3		JE27950-4		JE27950-5	
Date Sampled:				2/5/2026 3:20 PM		2/5/2026 2:50 PM		2/5/2026 2:20 PM		2/5/2026 3:20 PM		2/5/2026 2:35 PM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**											
2,4,6-Tribromophenol	118-79-6	%				58		43		60		59	
Nitrobenzene-d5	4165-60-0	%				46		24		48		45	
2-Fluorobiphenyl	321-60-8	%				54		33		56		55	
Terphenyl-d14	1718-51-0	%				70		51		56		70	
(MS Volatile TIC ())													
Alkane	TIC	mg/kg						0.0078	J				
Alkane (1)	TIC	mg/kg						0.0074	J				
Naphthalene tetrahydro-methyl-isomer	TIC	mg/kg						0.0083	J				
1H-Indene-dihydro-trimethyl-isomer	TIC	mg/kg						0.0054	J				
Naphthalene,tetrahydro-methyl-isomer	TIC	mg/kg						0.0059	J				
Naphthalene,tetrahydro-dimethyl-isomer	TIC	mg/kg						0.0061	J				
alkane	TIC	mg/kg						0.0063	J				
Total TIC, Volatile	TOTAL TIC, VOLATILE	mg/kg				0		0.0472	J	0		0	
Total TIC, Volatile	TOTAL TIC, VOLATILE	ug/l		0									
(MS Volatiles (SW846 8260D))													
Acetone	67-64-1	mg/kg	0.03			0.0043	U	0.0045	U	0.0047	U	0.0042	U
Acetone	67-64-1	ug/l		3.1	U								
Benzene	71-43-2	mg/kg	0.06			0.00048	U	0.00049	U	0.00052	U	0.00047	U
Bromochloromethane	74-97-5	mg/kg				0.00059	U	0.0006	U	0.00064	U	0.00057	U
Benzene	71-43-2	ug/l		0.43	U								
Bromodichloromethane	75-27-4	mg/kg				0.00045	U	0.00046	U	0.00049	U	0.00044	U
Bromoform	75-25-2	mg/kg				0.0014	U	0.0015	U	0.0015	U	0.0014	U
Bromomethane	74-83-9	mg/kg				0.0008	U	0.00082	U	0.00087	U	0.00078	U
2-Butanone (MEK)	78-93-3	mg/kg	0.1			0.0025	U	0.0026	U	0.0028	U	0.0025	U
Bromochloromethane	74-97-5	ug/l		0.48	U								
Bromodichloromethane	75-27-4	ug/l		0.45	U								
Bromoform	75-25-2	ug/l		0.63	U								
Bromomethane	74-83-9	ug/l		1.6	U								
2-Butanone (MEK)	78-93-3	ug/l		2.7	U								
Carbon disulfide	75-15-0	mg/kg				0.00056	U	0.00058	U	0.00061	U	0.00055	U
Carbon tetrachloride	56-23-5	mg/kg	0.76			0.00065	U	0.00067	U	0.0007	U	0.00063	U
Chlorobenzene	108-90-7	mg/kg	4.5			0.00048	U	0.00049	U	0.00052	U	0.00047	U
Chloroethane	75-00-3	mg/kg				0.00062	U	0.00064	U	0.00067	U	0.0006	U
Carbon disulfide	75-15-0	ug/l		1.8	U								
Carbon tetrachloride	56-23-5	ug/l		0.55	U								
Chloroform	67-66-3	mg/kg	0.37			0.001	U	0.0011	U	0.0011	U	0.001	U
Chlorobenzene	108-90-7	ug/l		0.56	U								
Chloromethane	74-87-3	mg/kg				0.0021	U	0.0021	U	0.0022	U	0.002	U
Chloroethane	75-00-3	ug/l		0.73	U								
Chloroform	67-66-3	ug/l		0.5	U								
Cyclohexane	110-82-7	mg/kg				0.00069	U	0.00071	U	0.00075	U	0.00067	U
Chloromethane	74-87-3	ug/l		0.76	U								
1,2-Dibromo-3-chloropropane	96-12-8	mg/kg				0.00073	U	0.00075	U	0.00079	U	0.00071	U

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Client Sample ID:			NY USCO	TB-7		EP-74		EP-43		EP-88		DUP2026.02.05	
Lab Sample ID:				JE27950-1		JE27950-2		JE27950-3		JE27950-4		JE27950-5	
Date Sampled:				2/5/2026 3:20 PM		2/5/2026 2:50 PM		2/5/2026 2:20 PM		2/5/2026 3:20 PM		2/5/2026 2:35 PM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**											
Cyclohexane	110-82-7	ug/l		0.78	U								
Dibromochloromethane	124-48-1	mg/kg				0.00059	U	0.0006	U	0.00064	U	0.00057	U
1,2-Dibromoethane	106-93-4	mg/kg				0.00044	U	0.00045	U	0.00048	U	0.00043	U
1,2-Dichlorobenzene	95-50-1	mg/kg	1.1			0.00057	U	0.00059	U	0.00062	U	0.00056	U
1,3-Dichlorobenzene	541-73-1	mg/kg	2.6			0.00052	U	0.00053	U	0.00056	U	0.00051	U
1,2-Dibromo-3-chloropropane	96-12-8	ug/l		0.53	U								
1,4-Dichlorobenzene	106-46-7	mg/kg	1.8			0.00052	U	0.00053	U	0.00056	U	0.00051	U
Dibromochloromethane	124-48-1	ug/l		0.56	U								
1,2-Dibromoethane	106-93-4	ug/l		0.48	U								
Dichlorodifluoromethane	75-71-8	mg/kg				0.00076	U	0.00078	U	0.00083	U	0.00074	U
1,1-Dichloroethane	75-34-3	mg/kg	0.27			0.00052	U	0.00053	U	0.00056	U	0.00051	U
1,2-Dichlorobenzene	95-50-1	ug/l		0.53	U								
1,2-Dichloroethane	107-06-2	mg/kg	0.02			0.00049	U	0.00051	U	0.00053	U	0.00048	U
1,3-Dichlorobenzene	541-73-1	ug/l		0.54	U								
1,1-Dichloroethene	75-35-4	mg/kg	0.24			0.00069	U	0.00071	U	0.00074	U	0.00067	U
1,4-Dichlorobenzene	106-46-7	ug/l		0.51	U								
cis-1,2-Dichloroethene	156-59-2	mg/kg	0.19			0.00088	U	0.00091	U	0.00095	U	0.00086	U
Dichlorodifluoromethane	75-71-8	ug/l		0.56	U								
trans-1,2-Dichloroethene	156-60-5	mg/kg	0.19			0.00064	U	0.00066	U	0.00069	U	0.00062	U
1,1-Dichloroethane	75-34-3	ug/l		0.57	U								
1,2-Dichloroethane	107-06-2	ug/l		0.6	U								
1,2-Dichloropropane	78-87-5	mg/kg				0.0005	U	0.00051	U	0.00054	U	0.00048	U
1,1-Dichloroethene	75-35-4	ug/l		0.59	U								
cis-1,2-Dichloroethene	156-59-2	ug/l		0.51	U								
trans-1,2-Dichloroethene	156-60-5	ug/l		0.54	U								
cis-1,3-Dichloropropene	10061-01-5	mg/kg				0.0005	U	0.00051	U	0.00054	U	0.00049	U
1,2-Dichloropropane	78-87-5	ug/l		0.51	U								
trans-1,3-Dichloropropene	10061-02-6	mg/kg				0.00048	U	0.00049	U	0.00052	U	0.00047	U
cis-1,3-Dichloropropene	10061-01-5	ug/l		0.47	U								
trans-1,3-Dichloropropene	10061-02-6	ug/l		0.43	U								
Ethylbenzene	100-41-4	mg/kg	1			0.00047	U	0.00049	U	0.00051	U	0.00046	U
Ethylbenzene	100-41-4	ug/l		0.6	U								
Freon 113	76-13-1	mg/kg				0.0028	U	0.0029	U	0.003	U	0.0027	U
Freon 113	76-13-1	ug/l		0.58	U								
2-Hexanone	591-78-6	mg/kg				0.0022	U	0.0023	U	0.0024	U	0.0022	U
2-Hexanone	591-78-6	ug/l		4.8	U								
Isopropylbenzene	98-82-8	mg/kg				0.0015	U	0.0015	U	0.0016	U	0.0015	U

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Client Sample ID:			NY USCO	TB-7		EP-74		EP-43		EP-88		DUP2026.02.05	
Lab Sample ID:				JE27950-1		JE27950-2		JE27950-3		JE27950-4		JE27950-5	
Date Sampled:				2/5/2026 3:20 PM		2/5/2026 2:50 PM		2/5/2026 2:20 PM		2/5/2026 3:20 PM		2/5/2026 2:35 PM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**											
Isopropylbenzene	98-82-8	ug/l		0.65	U								
Methyl Acetate	79-20-9	mg/kg				0.0015	U	0.0015	U	0.0016	U	0.0014	U
Methylcyclohexane	108-87-2	mg/kg				0.00092	U	0.00094	U	0.00099	U	0.00089	U
Methyl Acetate	79-20-9	ug/l		0.8	U								
Methyl Tert Butyl Ether	1634-04-4	mg/kg	0.1			0.00049	U	0.00051	U	0.00053	U	0.00048	U
Methylcyclohexane	108-87-2	ug/l		0.6	U								
4-Methyl-2-pentanone(MIBK)	108-10-1	mg/kg				0.0024	U	0.0024	U	0.0026	U	0.0023	U
Methyl Tert Butyl Ether	1634-04-4	ug/l		0.51	U								
Methylene chloride	75-09-2	mg/kg	0.05			0.0027	U	0.0028	U	0.003	U	0.0027	U
4-Methyl-2-pentanone(MIBK)	108-10-1	ug/l		4.9	U								
Methylene chloride	75-09-2	ug/l		1	U								
Styrene	100-42-5	mg/kg				0.00042	U	0.00043	U	0.00046	U	0.00041	U
Styrene	100-42-5	ug/l		0.49	U								
1,1,2,2-Tetrachloroethane	79-34-5	mg/kg				0.00063	U	0.00065	U	0.00068	U	0.00061	U
Tetrachloroethene	127-18-4	mg/kg	1.3			0.00061	U	0.00062	U	0.00066	U	0.00059	U
1,1,2,2-Tetrachloroethane	79-34-5	ug/l		0.65	U								
Tetrachloroethene	127-18-4	ug/l		0.56	U								
Toluene	108-88-3	mg/kg	0.7			0.00055	U	0.00057	U	0.0006	U	0.00054	U
1,2,3-Trichlorobenzene	87-61-6	mg/kg				0.0026	U	0.0027	U	0.0028	U	0.0026	U
Toluene	108-88-3	ug/l		0.49	U								
1,2,4-Trichlorobenzene	120-82-1	mg/kg				0.0026	U	0.0027	U	0.0028	U	0.0026	U
1,1,1-Trichloroethane	71-55-6	mg/kg	0.68			0.00051	U	0.00052	U	0.00055	U	0.00049	U
1,2,3-Trichlorobenzene	87-61-6	ug/l		0.5	U								
1,1,2-Trichloroethane	79-00-5	mg/kg				0.00058	U	0.0006	U	0.00063	U	0.00057	U
1,2,4-Trichlorobenzene	120-82-1	ug/l		0.5	U								
1,1,1-Trichloroethane	71-55-6	ug/l		0.54	U								
Trichloroethene	79-01-6	mg/kg	0.47			0.0008	U	0.00082	U	0.00087	U	0.00078	U
1,1,2-Trichloroethane	79-00-5	ug/l		0.53	U								
Trichlorofluoromethane	75-69-4	mg/kg				0.00072	U	0.00074	U	0.00078	U	0.0007	U
Trichloroethene	79-01-6	ug/l		0.53	U								
Trichlorofluoromethane	75-69-4	ug/l		0.4	U								
Vinyl chloride	75-01-4	mg/kg	0.03			0.0005	U	0.00052	U	0.00055	U	0.00049	U
m,p-Xylene	M,P-XYLENE	mg/kg	0.26			0.00094	U	0.00097	U	0.001	U	0.00092	U
Vinyl chloride	75-01-4	ug/l		0.52	U								
o-Xylene	95-47-6	mg/kg	0.26			0.00048	U	0.00049	U	0.00052	U	0.00047	U
Xylene (total)	1330-20-7	mg/kg	0.26			0.00048	U	0.00049	U	0.00052	U	0.00047	U
m,p-Xylene	M,P-XYLENE	ug/l		0.78	U								
o-Xylene	95-47-6	ug/l		0.59	U								
Xylene (total)	1330-20-7	ug/l		0.59	U								
Dibromofluoromethane	1868-53-7	%		111		100		95		101		100	
1,2-Dichloroethane-D4	17060-07-0	%		127	*	121		119		118		117	
Toluene-D8	2037-26-5	%		118		98		98		99		99	
4-Bromofluorobenzene	460-00-4	%		106		100		102		104		101	

SGS

SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	UST-1 II (4)		EP-87		EP-85		EP-81		EP-36I	
Lab Sample ID:				JE27950-6		JE27950-7		JE27950-8		JE27950-9		JE27950-10	
Date Sampled:				2/5/2026 2:30 PM		2/5/2026 3:15 PM		2/5/2026 3:03 PM		2/5/2026 2:58 PM		2/5/2026 2:10 PM	
Matrix:				Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**											
(GC/LC Semi-volatiles (SW846 8081B))													
Aldrin	309-00-2	mg/kg	0.0048	0.00058	U	0.00052	U	0.00068	U	0.00052	U	0.00054	U
alpha-BHC	319-84-6	mg/kg	0.02	0.00057	U	0.00051	U	0.00067	U	0.00051	U	0.00054	U
beta-BHC	319-85-7	mg/kg	0.021	0.00064	U	0.00057	U	0.00075	U	0.00057	U	0.0006	U
delta-BHC	319-86-8	mg/kg	0.04	0.00067	U	0.0006	U	0.0008	U	0.0006	U	0.00063	U
gamma-BHC (Lindane)	58-89-9	mg/kg	0.025	0.00052	U	0.00046	U	0.00061	U	0.00046	U	0.00049	U
alpha-Chlordane	5103-71-9	mg/kg	0.014	0.00057	U	0.00051	U	0.00067	U	0.00051	U	0.00053	U
gamma-Chlordane	5103-74-2	mg/kg		0.00032	U	0.00028	U	0.00038	U	0.00028	U	0.0003	U
Dieldrin	60-57-1	mg/kg	0.005	0.00048	U	0.00043	U	0.00057	U	0.00043	U	0.00045	U
4,4'-DDD	72-54-8	mg/kg	0.0033	0.00065	U	0.00058	U	0.00076	U	0.00058	U	0.0006	U
4,4'-DDE	72-55-9	mg/kg	0.0033	0.00062	U	0.00055	U	0.00073	U	0.00055	U	0.00058	U
4,4'-DDT	50-29-3	mg/kg	0.0033	0.00062	U	0.00056	U	0.00073	U	0.00056	U	0.00058	U
Endrin	72-20-8	mg/kg	0.014	0.00055	U	0.00049	U	0.00064	U	0.00049	U	0.00051	U
Endosulfan sulfate	1031-07-8	mg/kg	4.3	0.00055	U	0.00049	U	0.00065	U	0.00049	U	0.00051	U
Endrin aldehyde	7421-93-4	mg/kg		0.0004	U	0.00036	U	0.00047	U	0.00036	U	0.00037	U
Endosulfan-I	959-98-8	mg/kg	4.3	0.0004	U	0.00036	U	0.00048	U	0.00036	U	0.00038	U
Endosulfan-II	33213-65-9	mg/kg	4.3	0.00044	U	0.00039	U	0.00052	U	0.00039	U	0.00041	U
Heptachlor	76-44-8	mg/kg	0.013	0.00061	U	0.00054	U	0.00071	U	0.00054	U	0.00057	U
Heptachlor epoxide	1024-57-3	mg/kg		0.00049	U	0.00044	U	0.00058	U	0.00044	U	0.00046	U
Methoxychlor	72-43-5	mg/kg		0.00056	U	0.0005	U	0.00066	U	0.0005	U	0.00052	U
Endrin ketone	53494-70-5	mg/kg		0.00051	U	0.00045	U	0.0006	U	0.00045	U	0.00048	U
Toxaphene	8001-35-2	mg/kg		0.016	U	0.015	U	0.019	U	0.015	U	0.015	U
Tetrachloro-m-xylene	877-09-8	%		73		79		71		81		78	
Tetrachloro-m-xylene (1)	877-09-8	%		79		85		77		87		82	
Decachlorobiphenyl	2051-24-3	%		95		97		87		94		93	
Decachlorobiphenyl (1)	2051-24-3	%		138		108		87		92		96	
(GC/LC Semi-volatiles (SW846 8082A))													
Aroclor 1016	12674-11-2	mg/kg	0.1	0.016	U	0.015	U	0.019	U	0.015	U	0.015	U
Aroclor 1221	11104-28-2	mg/kg	0.1	0.022	U	0.019	U	0.026	U	0.019	U	0.02	U
Aroclor 1232	11141-16-5	mg/kg	0.1	0.022	U	0.02	U	0.026	U	0.02	U	0.021	U
Aroclor 1242	53469-21-9	mg/kg	0.1	0.014	U	0.013	U	0.017	U	0.013	U	0.014	U
Aroclor 1248	12672-29-6	mg/kg	0.1	0.031	U	0.028	U	0.037	U	0.028	U	0.029	U
Aroclor 1254	11097-69-1	mg/kg	0.1	0.019	U	0.017	U	0.022	U	0.017	U	0.018	U
Aroclor 1260	11096-82-5	mg/kg	0.1	0.015	U	0.013	U	0.018	U	0.013	U	0.014	U
Aroclor 1268	11100-14-4	mg/kg	0.1	0.031	U	0.027	U	0.036	U	0.027	U	0.029	U
Aroclor 1262	37324-23-5	mg/kg	0.1	0.023	U	0.02	U	0.027	U	0.021	U	0.022	U
Tetrachloro-m-xylene (2)	877-09-8	%		63		70		61		74		71	
Tetrachloro-m-xylene (3)	877-09-8	%		99		110		96		118		112	
Decachlorobiphenyl (2)	2051-24-3	%		59		65		55		64		61	
Decachlorobiphenyl (3)	2051-24-3	%		71		79		67		79		74	

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Client Sample ID:			NY USCO	UST-1 II (4)		EP-87		EP-85		EP-81		EP-36I	
Lab Sample ID:				JE27950-6		JE27950-7		JE27950-8		JE27950-9		JE27950-10	
Date Sampled:				2/5/2026 2:30 PM		2/5/2026 3:15 PM		2/5/2026 3:03 PM		2/5/2026 2:58 PM		2/5/2026 2:10 PM	
Matrix:				Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**											
(General Chemistry (SM2540 G 18TH ED MOD))													
Solids, Percent	PERCENT SOLIDS	%		93.6		94.4		78.3		97.8		96.7	
(General Chemistry (SW846 9012B/LACHAT))													
Cyanide	57-12-5	mg/kg	2.3	0.27	U	0.26	U	0.36	U	0.24	U	0.22	U
(Metals Analysis (SW846 6010D))													
Aluminum	7429-90-5	mg/kg		6970		4700		13000		5630		4130	
Antimony	7440-36-0	mg/kg		1.1	U	1	U	1.3	U	1	U	1	U
Arsenic	7440-38-2	mg/kg	13	1.1	U	1.6		2.5		1		1	U
Barium	7440-39-3	mg/kg	410	69.5		25.9		164		32		33.9	
Beryllium	7440-41-7	mg/kg	4.4	0.21		0.21		0.55		0.25		0.2	
Cadmium	7440-43-9	mg/kg	2.5	0.27	U	0.26	U	0.32	U	0.25	U	0.25	U
Calcium	7440-70-2	mg/kg		925		531		2320		381		977	
Chromium	7440-47-3	mg/kg	30	14.9		7.9		20.5		10.9		8.2	
Cobalt	7440-48-4	mg/kg		5.1		3.9		8.7		4.2		4.1	
Copper	7440-50-8	mg/kg	50	9.8		9.3		11.8		9.3		8.3	
Iron	7439-89-6	mg/kg		15000		8780		23800		9300		8310	
Lead	7439-92-1	mg/kg	63	3		4		8.1		2.7		2.5	
Magnesium	7439-95-4	mg/kg		3310		1980		3550		2650		1890	
Manganese	7439-96-5	mg/kg	1600	312		225		931		223		162	
Nickel	7440-02-0	mg/kg	30	10.5		7.7		13.6		9.8		7.8	
Potassium	7440-09-7	mg/kg		1650		749		1160		947		1020	
Selenium	7782-49-2	mg/kg	3.9	5.3	U	1	U	6.3	U	1	U	1	U
Silver	7440-22-4	mg/kg	2	0.27	U	0.26	U	0.32	U	0.25	U	0.25	U
Sodium	7440-23-5	mg/kg		530	U	520	U	630	U	500	U	510	U
Thallium	7440-28-0	mg/kg		2.7	U	0.52	U	3.2	U	0.5	U	0.51	U
Vanadium	7440-62-2	mg/kg		18.2		10.2		29.5		12.7		10.2	
Zinc	7440-66-6	mg/kg	109	34.3		25.6		43.4		26.4		27.7	
(Metals Analysis (SW846 7471B))													
Mercury	7439-97-6	mg/kg	0.18	0.031	U	0.028	U	0.036	U	0.028	U	0.03	U
(MS Semi-volatile TIC ())													
n-Hexadecanoic acid	57-10-3	mg/kg								0.36	JN	0.38	JN
1H-indene-dihydro-dimethyl	TIC	mg/kg						0.34	J				
Alkane (5)	TIC	mg/kg											
Alkene	TIC	mg/kg											
Unknown	TIC	mg/kg		0.42	JB	0.42	JB	0.48	JB	0.36	JB	0.32	JB
Alkane	TIC	mg/kg				0.17	J	0.27	J				
Alkane (8)	TIC	mg/kg											
Alkane (9)	TIC	mg/kg											
Unknown (1)	TIC	mg/kg				0.17	J						
Alkane (10)	TIC	mg/kg											
Alkane (11)	TIC	mg/kg											
Alkane (12)	TIC	mg/kg											
Alkane (13)	TIC	mg/kg											

Client Sample ID:			NY USCO	UST-1 II (4)		EP-87		EP-85		EP-81		EP-36I	
Lab Sample ID:				JE27950-6		JE27950-7		JE27950-8		JE27950-9		JE27950-10	
Date Sampled:				2/5/2026 2:30 PM		2/5/2026 3:15 PM		2/5/2026 3:03 PM		2/5/2026 2:58 PM		2/5/2026 2:10 PM	
Matrix:				Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**											
Alkane (14)	TIC	mg/kg											
Alkane (1)	TIC	mg/kg											
Alkane (2)	TIC	mg/kg											
Alkane (3)	TIC	mg/kg											
Alkane (4)	TIC	mg/kg											
Unknown (2)	TIC	mg/kg											
Unknown (3)	TIC	mg/kg											
Unknown (4)	TIC	mg/kg											
Alkane (6)	TIC	mg/kg											
Alkane (7)	TIC	mg/kg											
Octadecanoic acid	57-11-4	mg/kg											
Unknown (5)	TIC	mg/kg											
Unknown (6)	TIC	mg/kg											
Unknown (7)	TIC	mg/kg											
Total TIC, Semi-Volatile	TOTAL TIC, SEMI-VOLATILE	mg/kg		0		0.34	J	0.61	J	0.36	J	0.38	J
(MS Semi-volatiles (SW846 8270E))													
2-Chlorophenol	95-57-8	mg/kg		0.017	U	0.017	U	0.02	U	0.017	U	0.017	U
4-Chloro-3-methyl phenol	59-50-7	mg/kg		0.021	U	0.02	U	0.025	U	0.021	U	0.021	U
2,4-Dichlorophenol	120-83-2	mg/kg		0.029	U	0.029	U	0.035	U	0.029	U	0.029	U
2,4-Dimethylphenol	105-67-9	mg/kg		0.061	U	0.059	U	0.074	U	0.06	U	0.06	U
2,4-Dinitrophenol	51-28-5	mg/kg		0.13	U	0.13	U	0.16	U	0.13	U	0.13	U
4,6-Dinitro-o-cresol	534-52-1	mg/kg		0.037	U	0.036	U	0.044	U	0.036	U	0.036	U
2-Methylphenol	95-48-7	mg/kg	0.33	0.022	U	0.021	U	0.026	U	0.021	U	0.021	U
3&4-Methylphenol	M+P-CRESOLS	mg/kg	0.33	0.028	U	0.027	U	0.034	U	0.028	U	0.028	U
2-Nitrophenol	88-75-5	mg/kg		0.023	U	0.022	U	0.027	U	0.022	U	0.022	U
4-Nitrophenol	100-02-7	mg/kg		0.092	U	0.089	U	0.11	U	0.09	U	0.09	U
Pentachlorophenol	87-86-5	mg/kg	0.8	0.032	U	0.031	U	0.039	U	0.032	U	0.032	U
Phenol	108-95-2	mg/kg	0.33	0.018	U	0.017	U	0.022	U	0.018	U	0.018	U
2,3,4,6-Tetrachlorophenol	58-90-2	mg/kg		0.023	U	0.022	U	0.027	U	0.022	U	0.022	U
2,4,5-Trichlorophenol	95-95-4	mg/kg		0.026	U	0.025	U	0.031	U	0.025	U	0.025	U
2,4,6-Trichlorophenol	88-06-2	mg/kg		0.021	U	0.02	U	0.025	U	0.02	U	0.02	U
Acenaphthene	83-32-9	mg/kg	20	0.012	U	0.012	U	0.014	U	0.012	U	0.012	U
Acenaphthylene	208-96-8	mg/kg	100	0.018	U	0.017	U	0.021	U	0.017	U	0.017	U
Acetophenone	98-86-2	mg/kg		0.0074	U	0.0072	U	0.0089	U	0.0072	U	0.0072	U
Anthracene	120-12-7	mg/kg	100	0.021	U	0.02	U	0.025	U	0.021	U	0.021	U
Atrazine	1912-24-9	mg/kg		0.015	U	0.014	U	0.018	U	0.014	U	0.014	U
Benzo(a)anthracene	56-55-3	mg/kg	1	0.0098	U	0.0095	U	0.012	U	0.0095	U	0.0095	U
Benzo(a)pyrene	50-32-8	mg/kg	1	0.016	U	0.015	U	0.019	U	0.015	U	0.015	U
Benzo(b)fluoranthene	205-99-2	mg/kg	1	0.015	U	0.015	U	0.018	U	0.015	U	0.015	U
Benzo(g,h,i)perylene	191-24-2	mg/kg	0.64	0.017	U	0.017	U	0.021	U	0.017	U	0.017	U
Benzo(k)fluoranthene	207-08-9	mg/kg	0.8	0.016	U	0.016	U	0.019	U	0.016	U	0.016	U
4-Bromophenyl phenyl ether	101-55-3	mg/kg		0.013	U	0.013	U	0.016	U	0.013	U	0.013	U
Butyl benzyl phthalate	85-68-7	mg/kg		0.0084	U	0.0082	U	0.01	U	0.0082	U	0.0082	U

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Client Sample ID:			NY USCO	UST-1 II (4)		EP-87		EP-85		EP-81		EP-36I	
Lab Sample ID:				JE27950-6		JE27950-7		JE27950-8		JE27950-9		JE27950-10	
Date Sampled:				2/5/2026 2:30 PM		2/5/2026 3:15 PM		2/5/2026 3:03 PM		2/5/2026 2:58 PM		2/5/2026 2:10 PM	
Matrix:				Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**											
1,1'-Biphenyl	92-52-4	mg/kg		0.0047	U	0.0046	U	0.0057	U	0.0046	U	0.0046	U
Benzaldehyde	100-52-7	mg/kg		0.0085	U	0.0083	U	0.01	U	0.0083	U	0.0083	U
2-Chloronaphthalene	91-58-7	mg/kg		0.0082	U	0.008	U	0.0098	U	0.008	U	0.008	U
4-Chloroaniline	106-47-8	mg/kg		0.012	U	0.012	U	0.015	U	0.012	U	0.012	U
Carbazole	86-74-8	mg/kg		0.005	U	0.0048	U	0.006	U	0.0049	U	0.0049	U
Caprolactam	105-60-2	mg/kg		0.014	U	0.013	U	0.016	U	0.013	U	0.013	U
Chrysene	218-01-9	mg/kg	1	0.011	U	0.011	U	0.013	U	0.011	U	0.011	U
bis(2-Chloroethoxy)methane	111-91-1	mg/kg		0.0074	U	0.0072	U	0.0088	U	0.0072	U	0.0072	U
bis(2-Chloroethyl)ether	111-44-4	mg/kg		0.015	U	0.014	U	0.018	U	0.014	U	0.014	U
2,2'-Oxybis(1-chloropropane)	108-60-1	mg/kg		0.012	U	0.012	U	0.015	U	0.012	U	0.012	U
4-Chlorophenyl phenyl ether	7005-72-3	mg/kg		0.011	U	0.011	U	0.013	U	0.011	U	0.011	U
2,4-Dinitrotoluene	121-14-2	mg/kg		0.011	U	0.01	U	0.013	U	0.01	U	0.01	U
2,6-Dinitrotoluene	606-20-2	mg/kg		0.017	U	0.017	U	0.021	U	0.017	U	0.017	U
3,3'-Dichlorobenzidine	91-94-1	mg/kg		0.029	U	0.028	U	0.034	U	0.028	U	0.028	U
1,4-Dioxane	123-91-1	mg/kg	0.1	0.023	U	0.022	U	0.027	U	0.022	U	0.022	U
Dibenzo(a,h)anthracene	53-70-3	mg/kg	0.33	0.015	U	0.015	U	0.018	U	0.015	U	0.015	U
Dibenzofuran	132-64-9	mg/kg	2.1	0.014	U	0.014	U	0.017	U	0.014	U	0.014	U
Di-n-butyl phthalate	84-74-2	mg/kg		0.0056	U	0.0061	J	0.0085	J	0.0055	U	0.0055	U
Di-n-octyl phthalate	117-84-0	mg/kg		0.0086	U	0.0083	U	0.01	U	0.0084	U	0.0084	U
Diethyl phthalate	84-66-2	mg/kg		0.0073	U	0.0071	U	0.0088	U	0.0072	U	0.0072	U
Dimethyl phthalate	131-11-3	mg/kg		0.0061	U	0.0059	U	0.0074	U	0.006	U	0.006	U
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg		0.0081	U	0.0078	U	0.0101	J	0.0079	U	0.0079	U
Fluoranthene	206-44-0	mg/kg	85	0.015	U	0.015	U	0.018	U	0.015	U	0.015	U
Fluorene	86-73-7	mg/kg	30	0.016	U	0.015	U	0.019	U	0.015	U	0.015	U
Hexachlorobenzene	118-74-1	mg/kg	0.33	0.0087	U	0.0085	U	0.01	U	0.0085	U	0.0085	U
Hexachlorobutadiene	87-68-3	mg/kg		0.014	U	0.013	U	0.017	U	0.014	U	0.013	U
Hexachlorocyclopentadiene	77-47-4	mg/kg		0.014	U	0.013	U	0.016	U	0.013	U	0.013	U
Hexachloroethane	67-72-1	mg/kg		0.017	U	0.017	U	0.02	U	0.017	U	0.017	U
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	0.5	0.016	U	0.016	U	0.019	U	0.016	U	0.016	U
Isophorone	78-59-1	mg/kg		0.0074	U	0.0072	U	0.0088	U	0.0072	U	0.0072	U
2-Methylnaphthalene	91-57-6	mg/kg		0.0078	U	0.0076	U	0.0093	U	0.0076	U	0.0076	U
2-Nitroaniline	88-74-4	mg/kg		0.0081	U	0.0079	U	0.0098	U	0.0079	U	0.0079	U
3-Nitroaniline	99-09-2	mg/kg		0.0086	U	0.0084	U	0.01	U	0.0084	U	0.0084	U
4-Nitroaniline	100-01-6	mg/kg		0.0089	U	0.0087	U	0.011	U	0.0087	U	0.0087	U
Naphthalene	91-20-3	mg/kg	12	0.0097	U	0.0094	U	0.012	U	0.0095	U	0.0095	U
Nitrobenzene	98-95-3	mg/kg	0.08	0.013	U	0.013	U	0.016	U	0.013	U	0.013	U
N-Nitroso-di-n-propylamine	621-64-7	mg/kg		0.01	U	0.0097	U	0.012	U	0.0097	U	0.0097	U
N-Nitrosodiphenylamine	86-30-6	mg/kg		0.013	U	0.012	U	0.015	U	0.012	U	0.012	U
Phenanthrene	85-01-8	mg/kg	1.1	0.012	U	0.011	U	0.014	U	0.011	U	0.011	U
Pyrene	129-00-0	mg/kg	64	0.011	U	0.011	U	0.013	U	0.011	U	0.011	U
1,2,4,5-Tetrachlorobenzene	95-94-3	mg/kg		0.0088	U	0.0085	U	0.01	U	0.0085	U	0.0085	U
2-Fluorophenol	367-12-4	%		43		47		43		45		29	
Phenol-d5	4165-62-2	%		49		47		45		47		32	

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Client Sample ID:			NY USCO	UST-1 II (4)		EP-87		EP-85		EP-81		EP-36I	
Lab Sample ID:				JE27950-6		JE27950-7		JE27950-8		JE27950-9		JE27950-10	
Date Sampled:				2/5/2026 2:30 PM		2/5/2026 3:15 PM		2/5/2026 3:03 PM		2/5/2026 2:58 PM		2/5/2026 2:10 PM	
Matrix:				Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**											
2,4,6-Tribromophenol	118-79-6	%		67		62		54		61		55	
Nitrobenzene-d5	4165-60-0	%		44		46		43		46		30	
2-Fluorobiphenyl	321-60-8	%		57		55		52		56		42	
Terphenyl-d14	1718-51-0	%		80		75		65		74		69	
(MS Volatile TIC ())													
Alkane	TIC	mg/kg											
Alkane (1)	TIC	mg/kg											
Naphthalene tetrahydro-methyl-isomer	TIC	mg/kg											
1H-Indene-dihydro-trimethyl-isomer	TIC	mg/kg											
Naphthalene,tetrahydro-methyl-isomer	TIC	mg/kg											
Naphthalene,tetrahydro-dimethyl-isomer	TIC	mg/kg											
alkane	TIC	mg/kg											
Total TIC, Volatile	TOTAL TIC, VOLATILE	mg/kg		0		0		0		0		0	
Total TIC, Volatile	TOTAL TIC, VOLATILE	ug/l											
(MS Volatiles (SW846 8260D))													
Acetone	67-64-1	mg/kg	0.03	0.0044	U	0.0055	J	0.0047	U	0.0068	U	0.0052	U
Acetone	67-64-1	ug/l											
Benzene	71-43-2	mg/kg	0.06	0.00049	U	0.00054	U	0.00052	U	0.00075	U	0.00057	U
Bromochloromethane	74-97-5	mg/kg		0.0006	U	0.00066	U	0.00064	U	0.00092	U	0.00071	U
Benzene	71-43-2	ug/l											
Bromodichloromethane	75-27-4	mg/kg		0.00046	U	0.0005	U	0.00049	U	0.00071	U	0.00054	U
Bromoform	75-25-2	mg/kg		0.0015	U	0.0016	U	0.0016	U	0.0022	U	0.0017	U
Bromomethane	74-83-9	mg/kg		0.00082	U	0.0009	U	0.00087	U	0.0013	U	0.00096	U
2-Butanone (MEK)	78-93-3	mg/kg	0.1	0.0026	U	0.0029	U	0.0028	U	0.004	U	0.0031	U
Bromochloromethane	74-97-5	ug/l											
Bromodichloromethane	75-27-4	ug/l											
Bromoform	75-25-2	ug/l											
Bromomethane	74-83-9	ug/l											
2-Butanone (MEK)	78-93-3	ug/l											
Carbon disulfide	75-15-0	mg/kg		0.00057	U	0.00063	U	0.00061	U	0.00088	U	0.00067	U
Carbon tetrachloride	56-23-5	mg/kg	0.76	0.00066	U	0.00073	U	0.0007	U	0.001	U	0.00078	U
Chlorobenzene	108-90-7	mg/kg	4.5	0.00049	U	0.00054	U	0.00052	U	0.00076	U	0.00058	U
Chloroethane	75-00-3	mg/kg		0.00063	U	0.0007	U	0.00067	U	0.00097	U	0.00075	U
Carbon disulfide	75-15-0	ug/l											
Carbon tetrachloride	56-23-5	ug/l											
Chloroform	67-66-3	mg/kg	0.37	0.0011	U	0.0012	U	0.0011	U	0.0016	U	0.0013	U
Chlorobenzene	108-90-7	ug/l											
Chloromethane	74-87-3	mg/kg		0.0021	U	0.0023	U	0.0022	U	0.0032	U	0.0025	U
Chloroethane	75-00-3	ug/l											
Chloroform	67-66-3	ug/l											
Cyclohexane	110-82-7	mg/kg		0.0007	U	0.00077	U	0.00075	U	0.0011	U	0.00083	U
Chloromethane	74-87-3	ug/l											
1,2-Dibromo-3-chloropropane	96-12-8	mg/kg		0.00074	U	0.00082	U	0.00079	U	0.0011	U	0.00088	U

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Client Sample ID:			NY USCO	UST-1 II (4)		EP-87		EP-85		EP-81		EP-36I	
Lab Sample ID:				JE27950-6		JE27950-7		JE27950-8		JE27950-9		JE27950-10	
Date Sampled:				2/5/2026 2:30 PM		2/5/2026 3:15 PM		2/5/2026 3:03 PM		2/5/2026 2:58 PM		2/5/2026 2:10 PM	
Matrix:				Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**											
Cyclohexane	110-82-7	ug/l											
Dibromochloromethane	124-48-1	mg/kg		0.0006	U	0.00066	U	0.00064	U	0.00092	U	0.00071	U
1,2-Dibromoethane	106-93-4	mg/kg		0.00045	U	0.0005	U	0.00048	U	0.00069	U	0.00053	U
1,2-Dichlorobenzene	95-50-1	mg/kg	1.1	0.00058	U	0.00064	U	0.00062	U	0.0009	U	0.00069	U
1,3-Dichlorobenzene	541-73-1	mg/kg	2.6	0.00053	U	0.00058	U	0.00057	U	0.00082	U	0.00063	U
1,2-Dibromo-3-chloropropane	96-12-8	ug/l											
1,4-Dichlorobenzene	106-46-7	mg/kg	1.8	0.00053	U	0.00058	U	0.00056	U	0.00081	U	0.00062	U
Dibromochloromethane	124-48-1	ug/l											
1,2-Dibromoethane	106-93-4	ug/l											
Dichlorodifluoromethane	75-71-8	mg/kg		0.00078	U	0.00086	U	0.00083	U	0.0012	U	0.00092	U
1,1-Dichloroethane	75-34-3	mg/kg	0.27	0.00053	U	0.00058	U	0.00056	U	0.00082	U	0.00062	U
1,2-Dichlorobenzene	95-50-1	ug/l											
1,2-Dichloroethane	107-06-2	mg/kg	0.02	0.0005	U	0.00055	U	0.00054	U	0.00078	U	0.00059	U
1,3-Dichlorobenzene	541-73-1	ug/l											
1,1-Dichloroethene	75-35-4	mg/kg	0.24	0.0007	U	0.00077	U	0.00075	U	0.0011	U	0.00083	U
1,4-Dichlorobenzene	106-46-7	ug/l											
cis-1,2-Dichloroethene	156-59-2	mg/kg	0.19	0.0009	U	0.00099	U	0.00096	U	0.0014	U	0.0011	U
Dichlorodifluoromethane	75-71-8	ug/l											
trans-1,2-Dichloroethene	156-60-5	mg/kg	0.19	0.00065	U	0.00072	U	0.0007	U	0.001	U	0.00077	U
1,1-Dichloroethane	75-34-3	ug/l											
1,2-Dichloroethane	107-06-2	ug/l											
1,2-Dichloropropane	78-87-5	mg/kg		0.00051	U	0.00056	U	0.00054	U	0.00078	U	0.0006	U
1,1-Dichloroethene	75-35-4	ug/l											
cis-1,2-Dichloroethene	156-59-2	ug/l											
trans-1,2-Dichloroethene	156-60-5	ug/l											
cis-1,3-Dichloropropene	10061-01-5	mg/kg		0.00051	U	0.00056	U	0.00054	U	0.00078	U	0.0006	U
1,2-Dichloropropane	78-87-5	ug/l											
trans-1,3-Dichloropropene	10061-02-6	mg/kg		0.00049	U	0.00054	U	0.00052	U	0.00075	U	0.00058	U
cis-1,3-Dichloropropene	10061-01-5	ug/l											
trans-1,3-Dichloropropene	10061-02-6	ug/l											
Ethylbenzene	100-41-4	mg/kg	1	0.00048	U	0.00053	U	0.00052	U	0.00075	U	0.00057	U
Ethylbenzene	100-41-4	ug/l											
Freon 113	76-13-1	mg/kg		0.0029	U	0.0031	U	0.003	U	0.0044	U	0.0034	U
Freon 113	76-13-1	ug/l											
2-Hexanone	591-78-6	mg/kg		0.0023	U	0.0025	U	0.0024	U	0.0035	U	0.0027	U
2-Hexanone	591-78-6	ug/l											
Isopropylbenzene	98-82-8	mg/kg		0.0015	U	0.0017	U	0.0016	U	0.0023	U	0.0018	U

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Client Sample ID:			NY USCO	UST-1 II (4)		EP-87		EP-85		EP-81		EP-36I	
Lab Sample ID:				JE27950-6		JE27950-7		JE27950-8		JE27950-9		JE27950-10	
Date Sampled:				2/5/2026 2:30 PM		2/5/2026 3:15 PM		2/5/2026 3:03 PM		2/5/2026 2:58 PM		2/5/2026 2:10 PM	
Matrix:				Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**											
Isopropylbenzene	98-82-8	ug/l											
Methyl Acetate	79-20-9	mg/kg		0.0015	U	0.0016	U	0.0016	U	0.0023	U	0.0018	U
Methylcyclohexane	108-87-2	mg/kg		0.00093	U	0.001	U	0.001	U	0.0014	U	0.0011	U
Methyl Acetate	79-20-9	ug/l											
Methyl Tert Butyl Ether	1634-04-4	mg/kg	0.1	0.0005	U	0.00055	U	0.00053	U	0.00077	U	0.00059	U
Methylcyclohexane	108-87-2	ug/l											
4-Methyl-2-pentanone(MIBK)	108-10-1	mg/kg		0.0024	U	0.0027	U	0.0026	U	0.0037	U	0.0029	U
Methyl Tert Butyl Ether	1634-04-4	ug/l											
Methylene chloride	75-09-2	mg/kg	0.05	0.0028	U	0.0031	U	0.003	U	0.0043	U	0.0033	U
4-Methyl-2-pentanone(MIBK)	108-10-1	ug/l											
Methylene chloride	75-09-2	ug/l											
Styrene	100-42-5	mg/kg		0.00043	U	0.00047	U	0.00046	U	0.00066	U	0.00051	U
Styrene	100-42-5	ug/l											
1,1,2,2-Tetrachloroethane	79-34-5	mg/kg		0.00064	U	0.00071	U	0.00068	U	0.00099	U	0.00076	U
Tetrachloroethene	127-18-4	mg/kg	1.3	0.00062	U	0.00068	U	0.00066	U	0.00096	U	0.00073	U
1,1,2,2-Tetrachloroethane	79-34-5	ug/l											
Tetrachloroethene	127-18-4	ug/l											
Toluene	108-88-3	mg/kg	0.7	0.00056	U	0.00062	U	0.0006	U	0.00087	U	0.00066	U
1,2,3-Trichlorobenzene	87-61-6	mg/kg		0.0027	U	0.0029	U	0.0029	U	0.0041	U	0.0032	U
Toluene	108-88-3	ug/l											
1,2,4-Trichlorobenzene	120-82-1	mg/kg		0.0027	U	0.0029	U	0.0029	U	0.0041	U	0.0032	U
1,1,1-Trichloroethane	71-55-6	mg/kg	0.68	0.00052	U	0.00057	U	0.00055	U	0.0008	U	0.00061	U
1,2,3-Trichlorobenzene	87-61-6	ug/l											
1,1,2-Trichloroethane	79-00-5	mg/kg		0.00059	U	0.00065	U	0.00063	U	0.00091	U	0.0007	U
1,2,4-Trichlorobenzene	120-82-1	ug/l											
1,1,1-Trichloroethane	71-55-6	ug/l											
Trichloroethene	79-01-6	mg/kg	0.47	0.00081	U	0.0009	U	0.00087	U	0.0013	U	0.00096	U
1,1,2-Trichloroethane	79-00-5	ug/l											
Trichlorofluoromethane	75-69-4	mg/kg		0.00073	U	0.00081	U	0.00078	U	0.0011	U	0.00086	U
Trichloroethene	79-01-6	ug/l											
Trichlorofluoromethane	75-69-4	ug/l											
Vinyl chloride	75-01-4	mg/kg	0.03	0.00051	U	0.00057	U	0.00055	U	0.00079	U	0.00061	U
m,p-Xylene	M,P-XYLENE	mg/kg	0.26	0.00096	U	0.0011	U	0.001	U	0.0015	U	0.0011	U
Vinyl chloride	75-01-4	ug/l											
o-Xylene	95-47-6	mg/kg	0.26	0.00049	U	0.00054	U	0.00052	U	0.00076	U	0.00058	U
Xylene (total)	1330-20-7	mg/kg	0.26	0.00049	U	0.00054	U	0.00052	U	0.00076	U	0.00058	U
m,p-Xylene	M,P-XYLENE	ug/l											
o-Xylene	95-47-6	ug/l											
Xylene (total)	1330-20-7	ug/l											
Dibromofluoromethane	1868-53-7	%		101		101		102		103		105	
1,2-Dichloroethane-D4	17060-07-0	%		126		120		119		119		119	
Toluene-D8	2037-26-5	%		98		100		100		98		97	
4-Bromofluorobenzene	460-00-4	%		101		101		101		99		101	

SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	EP-86		EP-40I		EP-8		EP-80	
Lab Sample ID:				JE27950-11		JE27950-12		JE27950-13		JE27950-14	
Date Sampled:				2/5/2026 3:08 PM		2/5/2026 2:00 PM		2/5/2026 2:25 PM		2/5/2026 2:43 PM	
Matrix:				Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**									
(GC/LC Semi-volatiles (SW846 8081B))											
Aldrin	309-00-2	mg/kg	0.0048	0.00054	U	0.00072	U	0.0006	U	0.00052	U
alpha-BHC	319-84-6	mg/kg	0.02	0.00053	U	0.00071	U	0.0006	U	0.00051	U
beta-BHC	319-85-7	mg/kg	0.021	0.00059	U	0.00079	U	0.00066	U	0.00057	U
delta-BHC	319-86-8	mg/kg	0.04	0.00062	U	0.00084	U	0.0007	U	0.00061	U
gamma-BHC (Lindane)	58-89-9	mg/kg	0.025	0.00048	U	0.00065	U	0.00054	U	0.00047	U
alpha-Chlordane	5103-71-9	mg/kg	0.014	0.00053	U	0.00071	U	0.00059	U	0.00051	U
gamma-Chlordane	5103-74-2	mg/kg		0.00029	U	0.0004	U	0.00033	U	0.00029	U
Dieldrin	60-57-1	mg/kg	0.005	0.00045	U	0.0006	U	0.0005	U	0.00043	U
4,4'-DDD	72-54-8	mg/kg	0.0033	0.0006	U	0.00081	U	0.00067	U	0.00058	U
4,4'-DDE	72-55-9	mg/kg	0.0033	0.00057	U	0.00077	U	0.00064	U	0.00055	U
4,4'-DDT	50-29-3	mg/kg	0.0033	0.00058	U	0.00078	U	0.00065	U	0.00056	U
Endrin	72-20-8	mg/kg	0.014	0.00051	U	0.00068	U	0.00057	U	0.00049	U
Endosulfan sulfate	1031-07-8	mg/kg	4.3	0.00051	U	0.00069	U	0.00057	U	0.00049	U
Endrin aldehyde	7421-93-4	mg/kg		0.00037	U	0.0005	U	0.00042	U	0.00036	U
Endosulfan-I	959-98-8	mg/kg	4.3	0.00037	U	0.00051	U	0.00042	U	0.00036	U
Endosulfan-II	33213-65-9	mg/kg	4.3	0.00041	U	0.00055	U	0.00046	U	0.00039	U
Heptachlor	76-44-8	mg/kg	0.013	0.00056	U	0.00076	U	0.00063	U	0.00054	U
Heptachlor epoxide	1024-57-3	mg/kg		0.00046	U	0.00061	U	0.00051	U	0.00044	U
Methoxychlor	72-43-5	mg/kg		0.00052	U	0.0007	U	0.00058	U	0.0005	U
Endrin ketone	53494-70-5	mg/kg		0.00047	U	0.00063	U	0.00053	U	0.00046	U
Toxaphene	8001-35-2	mg/kg		0.015	U	0.02	U	0.017	U	0.015	U
Tetrachloro-m-xylene	877-09-8	%		84		94		87		75	
Tetrachloro-m-xylene (1)	877-09-8	%		89		102		93		79	
Decachlorobiphenyl	2051-24-3	%		96		104		96		92	
Decachlorobiphenyl (1)	2051-24-3	%		91		112		93		81	
(GC/LC Semi-volatiles (SW846 8082A))											
Aroclor 1016	12674-11-2	mg/kg	0.1	0.015	U	0.02	U	0.017	U	0.015	U
Aroclor 1221	11104-28-2	mg/kg	0.1	0.02	U	0.027	U	0.023	U	0.02	U
Aroclor 1232	11141-16-5	mg/kg	0.1	0.021	U	0.028	U	0.023	U	0.02	U
Aroclor 1242	53469-21-9	mg/kg	0.1	0.013	U	0.018	U	0.015	U	0.013	U
Aroclor 1248	12672-29-6	mg/kg	0.1	0.029	U	0.039	U	0.033	U	0.028	U
Aroclor 1254	11097-69-1	mg/kg	0.1	0.018	U	0.024	U	0.02	U	0.017	U
Aroclor 1260	11096-82-5	mg/kg	0.1	0.014	U	0.019	U	0.016	U	0.013	U
Aroclor 1268	11100-14-4	mg/kg	0.1	0.029	U	0.038	U	0.032	U	0.028	U
Aroclor 1262	37324-23-5	mg/kg	0.1	0.021	U	0.029	U	0.024	U	0.021	U
Tetrachloro-m-xylene (2)	877-09-8	%		74		85		75		64	
Tetrachloro-m-xylene (3)	877-09-8	%		118		136		120		104	
Decachlorobiphenyl (2)	2051-24-3	%		60		71		61		52	
Decachlorobiphenyl (3)	2051-24-3	%		73		87		74		63	

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Client Sample ID:			NY USCO	EP-86		EP-40I		EP-8		EP-80	
Lab Sample ID:				JE27950-11		JE27950-12		JE27950-13		JE27950-14	
Date Sampled:				2/5/2026 3:08 PM		2/5/2026 2:00 PM		2/5/2026 2:25 PM		2/5/2026 2:43 PM	
Matrix:				Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**									
(General Chemistry (SM2540 G 18TH ED MOD))											
Solids, Percent	PERCENT SOLIDS	%		92		75.5		87.9		95.3	
(General Chemistry (SW846 9012B/LACHAT))											
Cyanide	57-12-5	mg/kg	2.3	0.27	U	0.32	U	0.3	U	0.24	U
(Metals Analysis (SW846 6010D))											
Aluminum	7429-90-5	mg/kg		10100		5050		15000		5910	
Antimony	7440-36-0	mg/kg		1.1	U	1	U	1.1	U	1	U
Arsenic	7440-38-2	mg/kg	13	2		1	U	2		1.2	
Barium	7440-39-3	mg/kg	410	52.2		51.2		109		33.9	
Beryllium	7440-41-7	mg/kg	4.4	0.38		0.17		0.67		0.23	
Cadmium	7440-43-9	mg/kg	2.5	0.27	U	0.26	U	0.3		0.26	U
Calcium	7440-70-2	mg/kg		1080		21500		14700		2080	
Chromium	7440-47-3	mg/kg	30	15.7		13.3		21.8		8.8	
Cobalt	7440-48-4	mg/kg		6.4		3.8		8.5		3.9	
Copper	7440-50-8	mg/kg	50	11.5		10.2		17.8		8.9	
Iron	7439-89-6	mg/kg		17600		9920		19600		8980	
Lead	7439-92-1	mg/kg	63	6		2.3		6.1		21.6	
Magnesium	7439-95-4	mg/kg		3070		11500		20300		2800	
Manganese	7439-96-5	mg/kg	1600	220		134		974		237	
Nickel	7440-02-0	mg/kg	30	13.7		8.9		20.8		8.3	
Potassium	7440-09-7	mg/kg		1150		1910		2060		749	
Selenium	7782-49-2	mg/kg	3.9	5.4	U	1	U	5.6	U	1	U
Silver	7440-22-4	mg/kg	2	0.27	U	0.26	U	0.28	U	0.26	U
Sodium	7440-23-5	mg/kg		540	U	520	U	560	U	520	U
Thallium	7440-28-0	mg/kg		2.7	U	0.52	U	2.8	U	0.52	U
Vanadium	7440-62-2	mg/kg		19.7		16.6		28.1		11.2	
Zinc	7440-66-6	mg/kg	109	36.3		24.6		41.1		30.3	
(Metals Analysis (SW846 7471B))											
Mercury	7439-97-6	mg/kg	0.18	0.03	U	0.035	U	0.034	U	0.031	U
(MS Semi-volatile TIC ())											
n-Hexadecanoic acid	57-10-3	mg/kg		0.57	JN	0.51	JN			0.35	JN
1H-indene-dihydro-dimethyl	TIC	mg/kg									
Alkane (5)	TIC	mg/kg									
Alkene	TIC	mg/kg				0.44	JB				
Unknown	TIC	mg/kg		0.55	JB			0.41	JB	0.32	JB
Alkane	TIC	mg/kg		0.15	J			0.15	J		
Alkane (8)	TIC	mg/kg									
Alkane (9)	TIC	mg/kg									
Unknown (1)	TIC	mg/kg		0.32	J						
Alkane (10)	TIC	mg/kg									
Alkane (11)	TIC	mg/kg									
Alkane (12)	TIC	mg/kg									
Alkane (13)	TIC	mg/kg									

Client Sample ID:			NY USCO	EP-86		EP-40I		EP-8		EP-80	
Lab Sample ID:				JE27950-11		JE27950-12		JE27950-13		JE27950-14	
Date Sampled:				2/5/2026 3:08 PM		2/5/2026 2:00 PM		2/5/2026 2:25 PM		2/5/2026 2:43 PM	
Matrix:				Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**									
Alkane (14)	TIC	mg/kg									
Alkane (1)	TIC	mg/kg									
Alkane (2)	TIC	mg/kg									
Alkane (3)	TIC	mg/kg									
Alkane (4)	TIC	mg/kg									
Unknown (2)	TIC	mg/kg									
Unknown (3)	TIC	mg/kg									
Unknown (4)	TIC	mg/kg									
Alkane (6)	TIC	mg/kg									
Alkane (7)	TIC	mg/kg									
Octadecanoic acid	57-11-4	mg/kg									
Unknown (5)	TIC	mg/kg									
Unknown (6)	TIC	mg/kg									
Unknown (7)	TIC	mg/kg									
Total TIC, Semi-Volatile	TOTAL TIC, SEMI-VOLATILE	mg/kg		1.04	J	0.51	J	0.15	J	0.35	J
(MS Semi-volatiles (SW846 8270E))											
2-Chlorophenol	95-57-8	mg/kg		0.017	U	0.022	U	0.019	U	0.017	U
4-Chloro-3-methyl phenol	59-50-7	mg/kg		0.022	U	0.027	U	0.023	U	0.021	U
2,4-Dichlorophenol	120-83-2	mg/kg		0.03	U	0.037	U	0.032	U	0.029	U
2,4-Dimethylphenol	105-67-9	mg/kg		0.063	U	0.078	U	0.067	U	0.06	U
2,4-Dinitrophenol	51-28-5	mg/kg		0.13	U	0.16	U	0.14	U	0.13	U
4,6-Dinitro-o-cresol	534-52-1	mg/kg		0.038	U	0.047	U	0.04	U	0.036	U
2-Methylphenol	95-48-7	mg/kg	0.33	0.022	U	0.028	U	0.024	U	0.022	U
3&4-Methylphenol	M+P-CRESOLS	mg/kg	0.33	0.029	U	0.036	U	0.031	U	0.028	U
2-Nitrophenol	88-75-5	mg/kg		0.023	U	0.029	U	0.025	U	0.022	U
4-Nitrophenol	100-02-7	mg/kg		0.094	U	0.12	U	0.1	U	0.091	U
Pentachlorophenol	87-86-5	mg/kg	0.8	0.033	U	0.041	U	0.035	U	0.032	U
Phenol	108-95-2	mg/kg	0.33	0.018	U	0.023	U	0.02	U	0.018	U
2,3,4,6-Tetrachlorophenol	58-90-2	mg/kg		0.023	U	0.029	U	0.025	U	0.022	U
2,4,5-Trichlorophenol	95-95-4	mg/kg		0.026	U	0.033	U	0.028	U	0.025	U
2,4,6-Trichlorophenol	88-06-2	mg/kg		0.021	U	0.026	U	0.022	U	0.02	U
Acenaphthene	83-32-9	mg/kg	20	0.012	U	0.015	U	0.013	U	0.012	U
Acenaphthylene	208-96-8	mg/kg	100	0.018	U	0.022	U	0.019	U	0.017	U
Acetophenone	98-86-2	mg/kg		0.0076	U	0.0094	U	0.0081	U	0.0073	U
Anthracene	120-12-7	mg/kg	100	0.022	U	0.027	U	0.023	U	0.021	U
Atrazine	1912-24-9	mg/kg		0.015	U	0.019	U	0.016	U	0.015	U
Benzo(a)anthracene	56-55-3	mg/kg	1	0.01	U	0.012	U	0.011	U	0.0225	J
Benzo(a)pyrene	50-32-8	mg/kg	1	0.016	U	0.02	U	0.017	U	0.0154	J
Benzo(b)fluoranthene	205-99-2	mg/kg	1	0.016	U	0.019	U	0.017	U	0.0193	J
Benzo(g,h,i)perylene	191-24-2	mg/kg	0.64	0.018	U	0.022	U	0.019	U	0.017	U
Benzo(k)fluoranthene	207-08-9	mg/kg	0.8	0.016	U	0.02	U	0.018	U	0.016	U
4-Bromophenyl phenyl ether	101-55-3	mg/kg		0.014	U	0.017	U	0.015	U	0.013	U
Butyl benzyl phthalate	85-68-7	mg/kg		0.0086	U	0.011	U	0.0092	U	0.0083	U

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Client Sample ID:			NY USCO	EP-86		EP-40I		EP-8		EP-80	
Lab Sample ID:				JE27950-11		JE27950-12		JE27950-13		JE27950-14	
Date Sampled:				2/5/2026 3:08 PM		2/5/2026 2:00 PM		2/5/2026 2:25 PM		2/5/2026 2:43 PM	
Matrix:				Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**									
1,1'-Biphenyl	92-52-4	mg/kg		0.0048	U	0.006	U	0.0052	U	0.0047	U
Benzaldehyde	100-52-7	mg/kg		0.0087	U	0.011	U	0.0093	U	0.0084	U
2-Chloronaphthalene	91-58-7	mg/kg		0.0084	U	0.01	U	0.009	U	0.0081	U
4-Chloroaniline	106-47-8	mg/kg		0.013	U	0.016	U	0.014	U	0.012	U
Carbazole	86-74-8	mg/kg		0.0051	U	0.0064	U	0.0055	U	0.0049	U
Caprolactam	105-60-2	mg/kg		0.014	U	0.017	U	0.015	U	0.013	U
Chrysene	218-01-9	mg/kg	1	0.011	U	0.014	U	0.012	U	0.0165	J
bis(2-Chloroethoxy)methane	111-91-1	mg/kg		0.0075	U	0.0094	U	0.0081	U	0.0073	U
bis(2-Chloroethyl)ether	111-44-4	mg/kg		0.015	U	0.019	U	0.016	U	0.015	U
2,2'-Oxybis(1-chloropropane)	108-60-1	mg/kg		0.013	U	0.016	U	0.014	U	0.012	U
4-Chlorophenyl phenyl ether	7005-72-3	mg/kg		0.011	U	0.014	U	0.012	U	0.011	U
2,4-Dinitrotoluene	121-14-2	mg/kg		0.011	U	0.014	U	0.012	U	0.011	U
2,6-Dinitrotoluene	606-20-2	mg/kg		0.018	U	0.022	U	0.019	U	0.017	U
3,3'-Dichlorobenzidine	91-94-1	mg/kg		0.029	U	0.037	U	0.031	U	0.028	U
1,4-Dioxane	123-91-1	mg/kg	0.1	0.023	U	0.029	U	0.025	U	0.022	U
Dibenzo(a,h)anthracene	53-70-3	mg/kg	0.33	0.016	U	0.019	U	0.017	U	0.015	U
Dibenzofuran	132-64-9	mg/kg	2.1	0.014	U	0.018	U	0.015	U	0.014	U
Di-n-butyl phthalate	84-74-2	mg/kg		0.0057	U	0.0071	U	0.0138	J	0.0055	U
Di-n-octyl phthalate	117-84-0	mg/kg		0.0088	U	0.011	U	0.0094	U	0.0085	U
Diethyl phthalate	84-66-2	mg/kg		0.0075	U	0.0093	U	0.008	U	0.0072	U
Dimethyl phthalate	131-11-3	mg/kg		0.0063	U	0.0078	U	0.0067	U	0.006	U
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg		0.0082	U	0.0125	J	0.0088	U	0.0096	J
Fluoranthene	206-44-0	mg/kg	85	0.016	U	0.02	U	0.017	U	0.0323	J
Fluorene	86-73-7	mg/kg	30	0.016	U	0.02	U	0.017	U	0.016	U
Hexachlorobenzene	118-74-1	mg/kg	0.33	0.0089	U	0.011	U	0.0095	U	0.0086	U
Hexachlorobutadiene	87-68-3	mg/kg		0.014	U	0.018	U	0.015	U	0.014	U
Hexachlorocyclopentadiene	77-47-4	mg/kg		0.014	U	0.017	U	0.015	U	0.014	U
Hexachloroethane	67-72-1	mg/kg		0.017	U	0.022	U	0.019	U	0.017	U
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	0.5	0.016	U	0.021	U	0.018	U	0.016	U
Isophorone	78-59-1	mg/kg		0.0075	U	0.0094	U	0.0081	U	0.0073	U
2-Methylnaphthalene	91-57-6	mg/kg		0.0079	U	0.0099	U	0.0085	U	0.0077	U
2-Nitroaniline	88-74-4	mg/kg		0.0083	U	0.01	U	0.0089	U	0.008	U
3-Nitroaniline	99-09-2	mg/kg		0.0088	U	0.011	U	0.0094	U	0.0085	U
4-Nitroaniline	100-01-6	mg/kg		0.0091	U	0.011	U	0.0098	U	0.0088	U
Naphthalene	91-20-3	mg/kg	12	0.0099	U	0.012	U	0.011	U	0.0096	U
Nitrobenzene	98-95-3	mg/kg	0.08	0.014	U	0.017	U	0.015	U	0.013	U
N-Nitroso-di-n-propylamine	621-64-7	mg/kg		0.01	U	0.013	U	0.011	U	0.0098	U
N-Nitrosodiphenylamine	86-30-6	mg/kg		0.013	U	0.016	U	0.014	U	0.012	U
Phenanthrene	85-01-8	mg/kg	1.1	0.012	U	0.015	U	0.013	U	0.0258	J
Pyrene	129-00-0	mg/kg	64	0.011	U	0.014	U	0.012	U	0.0362	
1,2,4,5-Tetrachlorobenzene	95-94-3	mg/kg		0.0089	U	0.011	U	0.0096	U	0.0086	U
2-Fluorophenol	367-12-4	%		53		37		43		46	
Phenol-d5	4165-62-2	%		53		39		46		49	

Client Sample ID:			NY USCO	EP-86		EP-40I		EP-8		EP-80	
Lab Sample ID:				JE27950-11		JE27950-12		JE27950-13		JE27950-14	
Date Sampled:				2/5/2026 3:08 PM		2/5/2026 2:00 PM		2/5/2026 2:25 PM		2/5/2026 2:43 PM	
Matrix:				Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**									
2,4,6-Tribromophenol	118-79-6	%		65		63		58		67	
Nitrobenzene-d5	4165-60-0	%		52		37		48		45	
2-Fluorobiphenyl	321-60-8	%		61		50		57		61	
Terphenyl-d14	1718-51-0	%		78		75		71		82	
(MS Volatile TIC ())											
Alkane	TIC	mg/kg									
Alkane (1)	TIC	mg/kg									
Naphthalene tetrahydro-methyl-isomer	TIC	mg/kg									
1H-Indene-dihydro-trimethyl-isomer	TIC	mg/kg									
Naphthalene,tetrahydro-methyl-isomer	TIC	mg/kg									
Naphthalene,tetrahydro-dimethyl-isomer	TIC	mg/kg									
alkane	TIC	mg/kg									
Total TIC, Volatile	TOTAL TIC, VOLATILE	mg/kg		0		0		0		0	
Total TIC, Volatile	TOTAL TIC, VOLATILE	ug/l									
(MS Volatiles (SW846 8260D))											
Acetone	67-64-1	mg/kg	0.03	0.004	U	0.0051	U	0.0044	U	0.0045	U
Acetone	67-64-1	ug/l									
Benzene	71-43-2	mg/kg	0.06	0.00044	U	0.00056	U	0.00048	U	0.0005	U
Bromochloromethane	74-97-5	mg/kg		0.00054	U	0.00069	U	0.00059	U	0.00061	U
Benzene	71-43-2	ug/l									
Bromodichloromethane	75-27-4	mg/kg		0.00042	U	0.00053	U	0.00045	U	0.00047	U
Bromoform	75-25-2	mg/kg		0.0013	U	0.0017	U	0.0014	U	0.0015	U
Bromomethane	74-83-9	mg/kg		0.00074	U	0.00094	U	0.0008	U	0.00084	U
2-Butanone (MEK)	78-93-3	mg/kg	0.1	0.0024	U	0.003	U	0.0026	U	0.0027	U
Bromochloromethane	74-97-5	ug/l									
Bromodichloromethane	75-27-4	ug/l									
Bromoform	75-25-2	ug/l									
Bromomethane	74-83-9	ug/l									
2-Butanone (MEK)	78-93-3	ug/l									
Carbon disulfide	75-15-0	mg/kg		0.00052	U	0.00066	U	0.00056	U	0.00058	U
Carbon tetrachloride	56-23-5	mg/kg	0.76	0.0006	U	0.00076	U	0.00065	U	0.00068	U
Chlorobenzene	108-90-7	mg/kg	4.5	0.00045	U	0.00056	U	0.00048	U	0.0005	U
Chloroethane	75-00-3	mg/kg		0.00057	U	0.00072	U	0.00062	U	0.00065	U
Carbon disulfide	75-15-0	ug/l									
Carbon tetrachloride	56-23-5	ug/l									
Chloroform	67-66-3	mg/kg	0.37	0.00097	U	0.0012	U	0.0011	U	0.0011	U
Chlorobenzene	108-90-7	ug/l									
Chloromethane	74-87-3	mg/kg		0.0019	U	0.0024	U	0.0021	U	0.0021	U
Chloroethane	75-00-3	ug/l									
Chloroform	67-66-3	ug/l									
Cyclohexane	110-82-7	mg/kg		0.00064	U	0.00081	U	0.00069	U	0.00072	U
Chloromethane	74-87-3	ug/l									
1,2-Dibromo-3-chloropropane	96-12-8	mg/kg		0.00067	U	0.00085	U	0.00073	U	0.00076	U

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Client Sample ID:			NY USCO	EP-86		EP-40I		EP-8		EP-80	
Lab Sample ID:				JE27950-11		JE27950-12		JE27950-13		JE27950-14	
Date Sampled:				2/5/2026 3:08 PM		2/5/2026 2:00 PM		2/5/2026 2:25 PM		2/5/2026 2:43 PM	
Matrix:				Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**									
Cyclohexane	110-82-7	ug/l									
Dibromochloromethane	124-48-1	mg/kg		0.00054	U	0.00069	U	0.00059	U	0.00061	U
1,2-Dibromoethane	106-93-4	mg/kg		0.00041	U	0.00052	U	0.00044	U	0.00046	U
1,2-Dichlorobenzene	95-50-1	mg/kg	1.1	0.00053	U	0.00067	U	0.00058	U	0.0006	U
1,3-Dichlorobenzene	541-73-1	mg/kg	2.6	0.00048	U	0.00061	U	0.00052	U	0.00054	U
1,2-Dibromo-3-chloropropane	96-12-8	ug/l									
1,4-Dichlorobenzene	106-46-7	mg/kg	1.8	0.00048	U	0.00061	U	0.00052	U	0.00054	U
Dibromochloromethane	124-48-1	ug/l									
1,2-Dibromoethane	106-93-4	ug/l									
Dichlorodifluoromethane	75-71-8	mg/kg		0.00071	U	0.00089	U	0.00077	U	0.00079	U
1,1-Dichloroethane	75-34-3	mg/kg	0.27	0.00048	U	0.00061	U	0.00052	U	0.00054	U
1,2-Dichlorobenzene	95-50-1	ug/l									
1,2-Dichloroethane	107-06-2	mg/kg	0.02	0.00046	U	0.00058	U	0.0005	U	0.00051	U
1,3-Dichlorobenzene	541-73-1	ug/l									
1,1-Dichloroethene	75-35-4	mg/kg	0.24	0.00064	U	0.0008	U	0.00069	U	0.00072	U
1,4-Dichlorobenzene	106-46-7	ug/l									
cis-1,2-Dichloroethene	156-59-2	mg/kg	0.19	0.00082	U	0.001	U	0.00088	U	0.00092	U
Dichlorodifluoromethane	75-71-8	ug/l									
trans-1,2-Dichloroethene	156-60-5	mg/kg	0.19	0.00059	U	0.00075	U	0.00064	U	0.00067	U
1,1-Dichloroethane	75-34-3	ug/l									
1,2-Dichloroethane	107-06-2	ug/l									
1,2-Dichloropropane	78-87-5	mg/kg		0.00046	U	0.00058	U	0.0005	U	0.00052	U
1,1-Dichloroethene	75-35-4	ug/l									
cis-1,2-Dichloroethene	156-59-2	ug/l									
trans-1,2-Dichloroethene	156-60-5	ug/l									
cis-1,3-Dichloropropene	10061-01-5	mg/kg		0.00046	U	0.00058	U	0.0005	U	0.00052	U
1,2-Dichloropropane	78-87-5	ug/l									
trans-1,3-Dichloropropene	10061-02-6	mg/kg		0.00044	U	0.00056	U	0.00048	U	0.0005	U
cis-1,3-Dichloropropene	10061-01-5	ug/l									
trans-1,3-Dichloropropene	10061-02-6	ug/l									
Ethylbenzene	100-41-4	mg/kg	1	0.00044	U	0.00056	U	0.00048	U	0.0005	U
Ethylbenzene	100-41-4	ug/l									
Freon 113	76-13-1	mg/kg		0.0026	U	0.0033	U	0.0028	U	0.0029	U
Freon 113	76-13-1	ug/l									
2-Hexanone	591-78-6	mg/kg		0.0021	U	0.0026	U	0.0022	U	0.0023	U
2-Hexanone	591-78-6	ug/l									
Isopropylbenzene	98-82-8	mg/kg		0.0014	U	0.0017	U	0.0015	U	0.0016	U

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Client Sample ID:			NY USCO	EP-86		EP-40I		EP-8		EP-80	
Lab Sample ID:				JE27950-11		JE27950-12		JE27950-13		JE27950-14	
Date Sampled:				2/5/2026 3:08 PM		2/5/2026 2:00 PM		2/5/2026 2:25 PM		2/5/2026 2:43 PM	
Matrix:				Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**									
Isopropylbenzene	98-82-8	ug/l									
Methyl Acetate	79-20-9	mg/kg		0.0013	U	0.0017	U	0.0015	U	0.0015	U
Methylcyclohexane	108-87-2	mg/kg		0.00085	U	0.0011	U	0.00092	U	0.00096	U
Methyl Acetate	79-20-9	ug/l									
Methyl Tert Butyl Ether	1634-04-4	mg/kg	0.1	0.00046	U	0.00058	U	0.00049	U	0.00051	U
Methylcyclohexane	108-87-2	ug/l									
4-Methyl-2-pentanone(MIBK)	108-10-1	mg/kg		0.0022	U	0.0028	U	0.0024	U	0.0025	U
Methyl Tert Butyl Ether	1634-04-4	ug/l									
Methylene chloride	75-09-2	mg/kg	0.05	0.0025	U	0.0032	U	0.0027	U	0.0029	U
4-Methyl-2-pentanone(MIBK)	108-10-1	ug/l									
Methylene chloride	75-09-2	ug/l									
Styrene	100-42-5	mg/kg		0.00039	U	0.00049	U	0.00042	U	0.00044	U
Styrene	100-42-5	ug/l									
1,1,2,2-Tetrachloroethane	79-34-5	mg/kg		0.00058	U	0.00073	U	0.00063	U	0.00065	U
Tetrachloroethene	127-18-4	mg/kg	1.3	0.00056	U	0.00071	U	0.00061	U	0.00063	U
1,1,2,2-Tetrachloroethane	79-34-5	ug/l									
Tetrachloroethene	127-18-4	ug/l									
Toluene	108-88-3	mg/kg	0.7	0.00051	U	0.00064	U	0.00055	U	0.00057	U
1,2,3-Trichlorobenzene	87-61-6	mg/kg		0.0024	U	0.0031	U	0.0026	U	0.0027	U
Toluene	108-88-3	ug/l									
1,2,4-Trichlorobenzene	120-82-1	mg/kg		0.0024	U	0.0031	U	0.0026	U	0.0027	U
1,1,1-Trichloroethane	71-55-6	mg/kg	0.68	0.00047	U	0.00059	U	0.00051	U	0.00053	U
1,2,3-Trichlorobenzene	87-61-6	ug/l									
1,1,2-Trichloroethane	79-00-5	mg/kg		0.00054	U	0.00068	U	0.00058	U	0.00061	U
1,2,4-Trichlorobenzene	120-82-1	ug/l									
1,1,1-Trichloroethane	71-55-6	ug/l									
Trichloroethene	79-01-6	mg/kg	0.47	0.00074	U	0.00093	U	0.0008	U	0.00083	U
1,1,2-Trichloroethane	79-00-5	ug/l									
Trichlorofluoromethane	75-69-4	mg/kg		0.00066	U	0.00084	U	0.00072	U	0.00075	U
Trichloroethene	79-01-6	ug/l									
Trichlorofluoromethane	75-69-4	ug/l									
Vinyl chloride	75-01-4	mg/kg	0.03	0.00047	U	0.00059	U	0.00051	U	0.00053	U
m,p-Xylene	M,P-XYLENE	mg/kg	0.26	0.00087	U	0.0011	U	0.00094	U	0.00098	U
Vinyl chloride	75-01-4	ug/l									
o-Xylene	95-47-6	mg/kg	0.26	0.00044	U	0.00056	U	0.00048	U	0.0005	U
Xylene (total)	1330-20-7	mg/kg	0.26	0.00044	U	0.00056	U	0.00048	U	0.0005	U
m,p-Xylene	M,P-XYLENE	ug/l									
o-Xylene	95-47-6	ug/l									
Xylene (total)	1330-20-7	ug/l									
Dibromofluoromethane	1868-53-7	%		105		102		102		105	
1,2-Dichloroethane-D4	17060-07-0	%		117		114		120		118	
Toluene-D8	2037-26-5	%		98		100		98		99	
4-Bromofluorobenzene	460-00-4	%		102		102		102		102	

SGS

SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	TB-8		EP-9 (155')		EP-1 (153.3')		EP-65 (157.8')		EP-73 (152.7')		EP-57I (150')	
Lab Sample ID:				JE28074-1		JE28074-2		JE28074-3		JE28074-4		JE28074-5		JE28074-6	
Date Sampled:				2/9/2026 10:50 AM		2/9/2026 10:18 AM		2/9/2026 10:13 AM		2/9/2026 10:29 AM		2/9/2026 10:33 AM		2/9/2026 10:00 AM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**													
(GC/LC Semi-volatiles (SW846 8081B))															
Aldrin	309-00-2	mg/kg	0.0048			0.00058	U	0.00057	U	0.00062	U	0.00051	U	0.00054	U
alpha-BHC	319-84-6	mg/kg	0.02			0.00058	U	0.00056	U	0.00061	U	0.0005	U	0.00053	U
beta-BHC	319-85-7	mg/kg	0.021			0.00064	U	0.00062	U	0.00068	U	0.00056	U	0.00059	U
delta-BHC	319-86-8	mg/kg	0.04			0.00068	U	0.00066	U	0.00072	U	0.00059	U	0.00062	U
gamma-BHC (Lindane)	58-89-9	mg/kg	0.025			0.00052	U	0.00051	U	0.00056	U	0.00045	U	0.00048	U
alpha-Chlordane	5103-71-9	mg/kg	0.014			0.00057	U	0.00056	U	0.00061	U	0.0005	U	0.00052	U
gamma-Chlordane	5103-74-2	mg/kg				0.00032	U	0.00031	U	0.00034	U	0.00028	U	0.00029	U
Dieldrin	60-57-1	mg/kg	0.005			0.00049	U	0.00047	U	0.00052	U	0.00042	U	0.00045	U
4,4'-DDD	72-54-8	mg/kg	0.0033			0.00065	U	0.00063	U	0.00069	U	0.00057	U	0.0006	U
4,4'-DDE	72-55-9	mg/kg	0.0033			0.00062	U	0.00061	U	0.00066	U	0.00054	U	0.00057	U
4,4'-DDT	50-29-3	mg/kg	0.0033			0.00063	U	0.00061	U	0.0009		0.00055	U	0.00058	U
Endrin	72-20-8	mg/kg	0.014			0.00055	U	0.00054	U	0.00059	U	0.00048	U	0.0005	U
Endosulfan sulfate	1031-07-8	mg/kg	4.3			0.00055	U	0.00054	U	0.00059	U	0.00048	U	0.00051	U
Endrin aldehyde	7421-93-4	mg/kg				0.0004	U	0.00039	U	0.00043	U	0.00035	U	0.00037	U
Endosulfan-I	959-98-8	mg/kg	4.3			0.00041	U	0.0004	U	0.00043	U	0.00036	U	0.00037	U
Endosulfan-II	33213-65-9	mg/kg	4.3			0.00044	U	0.00043	U	0.00047	U	0.00039	U	0.00041	U
Heptachlor	76-44-8	mg/kg	0.013			0.00061	U	0.0006	U	0.00065	U	0.00053	U	0.00056	U
Heptachlor epoxide	1024-57-3	mg/kg				0.0005	U	0.00048	U	0.00053	U	0.00043	U	0.00046	U
Methoxychlor	72-43-5	mg/kg				0.00056	U	0.00055	U	0.0006	U	0.00049	U	0.00052	U
Endrin ketone	53494-70-5	mg/kg				0.00051	U	0.0005	U	0.00054	U	0.00045	U	0.00047	U
Toxaphene	8001-35-2	mg/kg				0.016	U	0.016	U	0.018	U	0.014	U	0.015	U
Tetrachloro-m-xylene (2)	877-09-8	%				49		51		56		54		67	
Tetrachloro-m-xylene (3)	877-09-8	%				53		54		61		57		70	
Decachlorobiphenyl (2)	2051-24-3	%				56		56		72		61		73	
Decachlorobiphenyl (3)	2051-24-3	%				54		54		58		58		71	
(GC/LC Semi-volatiles (SW846 8082A))															
Aroclor 1016	12674-11-2	mg/kg	0.1			0.016	U	0.016	U	0.018	U	0.014	U	0.015	U
Aroclor 1221	11104-28-2	mg/kg	0.1			0.022	U	0.021	U	0.023	U	0.019	U	0.02	U
Aroclor 1232	11141-16-5	mg/kg	0.1			0.023	U	0.022	U	0.024	U	0.02	U	0.021	U
Aroclor 1242	53469-21-9	mg/kg	0.1			0.015	U	0.014	U	0.015	U	0.013	U	0.013	U
Aroclor 1248	12672-29-6	mg/kg	0.1			0.032	U	0.031	U	0.034	U	0.028	U	0.029	U
Aroclor 1254	11097-69-1	mg/kg	0.1			0.019	U	0.019	U	0.02	U	0.017	U	0.017	U
Aroclor 1260	11096-82-5	mg/kg	0.1			0.015	U	0.015	U	0.016	U	0.013	U	0.014	U
Aroclor 1268	11100-14-4	mg/kg	0.1			0.031	U	0.03	U	0.033	U	0.027	U	0.028	U
Aroclor 1262	37324-23-5	mg/kg	0.1			0.023	U	0.023	U	0.025	U	0.02	U	0.021	U
Tetrachloro-m-xylene	877-09-8	%				41		43		39		42		48	
Tetrachloro-m-xylene (1)	877-09-8	%				63		66		62		62		74	
Decachlorobiphenyl	2051-24-3	%				36		37		33		29		35	
Decachlorobiphenyl (1)	2051-24-3	%				43		44		49		38		44	
(General Chemistry (SM2540 G 18TH ED MOD))															
Solids, Percent	PERCENT SOLIDS	%				94.2		95.9		87.3		95.3		96.2	
(General Chemistry (SW846 9012B/LACHAT))															
Cyanide	57-12-5	mg/kg	2.3			0.28	U	0.24	U	0.4		0.29	U	0.22	U
(Metals Analysis (SW846 6010D))															
Aluminum	7429-90-5	mg/kg				12900		7440		7280		8120		3300	
Antimony	7440-36-0	mg/kg				1.1	U	1	U	1.1	U	1	U	1	U
Arsenic	7440-38-2	mg/kg	13			1.2		1	U	1.9		1.5		1.1	

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SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	TB-8		EP-9 (155')		EP-1 (153.3')		EP-65 (157.8')		EP-73 (152.7')		EP-57I (150')	
Lab Sample ID:				JE28074-1		JE28074-2		JE28074-3		JE28074-4		JE28074-5		JE28074-6	
Date Sampled:				2/9/2026 10:50 AM		2/9/2026 10:18 AM		2/9/2026 10:13 AM		2/9/2026 10:29 AM		2/9/2026 10:33 AM		2/9/2026 10:00 AM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**													
Barium	7440-39-3	mg/kg	410			71.4		27.4		57.1		55.4		21.4	
Beryllium	7440-41-7	mg/kg	4.4			0.44		0.48		0.25		0.29		0.17	
Cadmium	7440-43-9	mg/kg	2.5			0.27	U	0.26	U	0.28	U	0.26	U	0.26	U
Calcium	7440-70-2	mg/kg				69300		169000		16500		14500		928	
Chromium	7440-47-3	mg/kg	30			19.4		11.5		19.5		14.2		6.4	
Cobalt	7440-48-4	mg/kg				7.9		4.9		6		6.1		2.9	
Copper	7440-50-8	mg/kg	50			16.5		9.3		25.5		15.6		6.4	
Iron	7439-89-6	mg/kg				14100		9880	H	13600		12600		6830	
Lead	7439-92-1	mg/kg	63			4.7		2.8		42.8		10.4		2.6	
Magnesium	7439-95-4	mg/kg				26000		14400	H	5690		5840		1810	
Manganese	7439-96-5	mg/kg	1600			532		194		229		297		187	
Nickel	7440-02-0	mg/kg	30			15.8		12.8		13.8		12.2		6.6	
Potassium	7440-09-7	mg/kg				2010		838		1350		1420		946	
Selenium	7782-49-2	mg/kg	3.9			11	U	1	U	2.3	U	2.1	U	1	U
Silver	7440-22-4	mg/kg	2			0.27	U	0.26	U	0.28	U	0.26	U	0.26	U
Sodium	7440-23-5	mg/kg				530	U	932		789		520	U	510	U
Thallium	7440-28-0	mg/kg				5.3	U	0.51	U	0.57	U	0.52	U	0.51	U
Vanadium	7440-62-2	mg/kg				24.3		12.8		20.8		17.9		9	
Zinc	7440-66-6	mg/kg	109			35		17.9		65.8		35.7		20.5	
(Metals Analysis (SW846 7471B))															
Mercury	7439-97-6	mg/kg	0.18			0.031	U	0.027	U	0.041		0.03	U	0.031	U
(MS Semi-volatile TIC ())															
Alkane	TIC	mg/kg				1.4	J			1.5	J				
Naphthalene, 1-methyl-	90-12-0	mg/kg								1.6	JN				
Naphthalene, tetrahydro- methyl-	TIC	mg/kg													
Alkane (11)	TIC	mg/kg													
4H-Cyclopenta[def]phenanthrene	TIC	mg/kg													
Alkane (12)	TIC	mg/kg													
Alkane (13)	TIC	mg/kg													
Dibenzopyrene	TIC	mg/kg										0.24	J		
Alkane (14)	TIC	mg/kg													
Phenanthrene, dimethyl-	TIC	mg/kg													
Alkane (15)	TIC	mg/kg													
Alkane (16)	TIC	mg/kg													
Octadecanoic acid	57-11-4	mg/kg								0.15	JN				
Alkane (17)	TIC	mg/kg													
Unknown (10)	TIC	mg/kg								0.22	J	0.19	J		
Unknown (11)	TIC	mg/kg								0.29	J	0.25	J		
Alkane (1)	TIC	mg/kg								0.29	J				
Alkane (2)	TIC	mg/kg								0.25	J				
Alkane (3)	TIC	mg/kg								0.63	J				
Alkane (4)	TIC	mg/kg								0.15	J				
Unknown (2)	TIC	mg/kg								0.36	J	0.16	J		
Cyclohexane alkyl	TIC	mg/kg													
Unknown	TIC	mg/kg				0.34	JB	0.36	JB	0.22	J	0.18	J	0.31	JB
Alkane (5)	TIC	mg/kg								0.16	J				
Unknown (3)	TIC	mg/kg								0.43	J	0.19	J		
Alkane (6)	TIC	mg/kg								0.23	J				

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SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	TB-8		EP-9 (155')		EP-1 (153.3')		EP-65 (157.8')		EP-73 (152.7')		EP-57I (150')	
Lab Sample ID:				JE28074-1		JE28074-2		JE28074-3		JE28074-4		JE28074-5		JE28074-6	
Date Sampled:				2/9/2026 10:50 AM		2/9/2026 10:18 AM		2/9/2026 10:13 AM		2/9/2026 10:29 AM		2/9/2026 10:33 AM		2/9/2026 10:00 AM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**													
Unknown PAH substance	TIC	mg/kg								0.36	J				
Alkane (7)	TIC	mg/kg								0.23	J				
Dinaphtho[b:d]furan	TIC	mg/kg													
Alkane (8)	TIC	mg/kg								0.17	J				
Unknown (4)	TIC	mg/kg								0.29	J	0.29	J		
Alkane (9)	TIC	mg/kg								0.42	J				
Unknown PAH substance (1)	TIC	mg/kg													
n-Hexadecanoic acid	57-10-3	mg/kg										0.55	JNB	0.44	JNB
Unknown (5)	TIC	mg/kg								0.26	J	0.16	J		
Alkane (10)	TIC	mg/kg													
Unknown (6)	TIC	mg/kg								0.46	J	0.37	JB		
Unknown (1)	TIC	mg/kg						0.16	J	0.21	J	0.18	J		
Unknown (7)	TIC	mg/kg								0.33	J	0.19	J		
Unknown (8)	TIC	mg/kg								0.63	J	0.38	J		
Unknown (9)	TIC	mg/kg								0.18	J	0.25	J		
Total TIC, Semi-Volatile	TOTAL TIC, SEMI-VOLATILE	mg/kg				1.4	J	0.16	J	10.02	J	2.66	J	0	
(MS Semi-volatiles (SW846 8270E))															
2-Chlorophenol	95-57-8	mg/kg				0.017	U	0.017	U	0.018	U	0.017	U	0.017	U
4-Chloro-3-methyl phenol	59-50-7	mg/kg				0.021	U	0.021	U	0.023	U	0.021	U	0.021	U
2,4-Dichlorophenol	120-83-2	mg/kg				0.03	U	0.029	U	0.032	U	0.029	U	0.029	U
2,4-Dimethylphenol	105-67-9	mg/kg				0.062	U	0.061	U	0.066	U	0.061	U	0.061	U
2,4-Dinitrophenol	51-28-5	mg/kg				0.13	U	0.13	U	0.14	U	0.13	U	0.13	U
4,6-Dinitro-o-cresol	534-52-1	mg/kg				0.037	U	0.037	U	0.04	U	0.037	U	0.037	U
2-Methylphenol	95-48-7	mg/kg	0.33			0.022	U	0.022	U	0.024	U	0.022	U	0.022	U
3&4-Methylphenol	M+P-CRESOLS	mg/kg	0.33			0.029	U	0.028	U	0.03	U	0.028	U	0.028	U
2-Nitrophenol	88-75-5	mg/kg				0.023	U	0.023	U	0.024	U	0.023	U	0.023	U
4-Nitrophenol	100-02-7	mg/kg				0.094	U	0.092	U	0.099	U	0.092	U	0.091	U
Pentachlorophenol	87-86-5	mg/kg	0.8			0.033	U	0.032	U	0.035	U	0.032	U	0.032	U
Phenol	108-95-2	mg/kg	0.33			0.018	U	0.018	U	0.019	U	0.018	U	0.018	U
2,3,4,6-Tetrachlorophenol	58-90-2	mg/kg				0.023	U	0.023	U	0.024	U	0.023	U	0.023	U
2,4,5-Trichlorophenol	95-95-4	mg/kg				0.026	U	0.026	U	0.028	U	0.026	U	0.026	U
2,4,6-Trichlorophenol	88-06-2	mg/kg				0.021	U	0.021	U	0.022	U	0.02	U	0.02	U
Acenaphthene	83-32-9	mg/kg	20			0.012	U	0.012	U	0.0488		0.012	U	0.012	U
Acenaphthylene	208-96-8	mg/kg	100			0.018	U	0.017	U	0.019	U	0.017	U	0.017	U
Acetophenone	98-86-2	mg/kg				0.0075	U	0.0074	U	0.0079	U	0.0074	U	0.0074	U
Anthracene	120-12-7	mg/kg	100			0.021	U	0.021	U	0.103		0.021	U	0.021	U
Atrazine	1912-24-9	mg/kg				0.015	U	0.015	U	0.016	U	0.015	U	0.015	U
Benzo(a)anthracene	56-55-3	mg/kg	1			0.0099	U	0.0097	U	0.345		0.0097	U	0.0097	U
Benzo(a)pyrene	50-32-8	mg/kg	1			0.016	U	0.016	U	0.293		0.016	U	0.016	U
Benzo(b)fluoranthene	205-99-2	mg/kg	1			0.015	U	0.015	U	0.423		0.015	U	0.015	U
Benzo(g,h,i)perylene	191-24-2	mg/kg	0.64			0.018	U	0.017	U	0.182		0.017	U	0.017	U
Benzo(k)fluoranthene	207-08-9	mg/kg	0.8			0.016	U	0.016	U	0.146		0.016	U	0.016	U
4-Bromophenyl phenyl ether	101-55-3	mg/kg				0.014	U	0.013	U	0.014	U	0.013	U	0.013	U
Butyl benzyl phthalate	85-68-7	mg/kg				0.0085	U	0.0084	U	0.0276	J	0.0084	U	0.0083	U
1,1'-Biphenyl	92-52-4	mg/kg				0.0048	U	0.0047	U	0.006	J	0.0047	U	0.0047	U
Benzaldehyde	100-52-7	mg/kg				0.0087	U	0.0085	U	0.0092	U	0.0085	U	0.0085	U
2-Chloronaphthalene	91-58-7	mg/kg				0.0083	U	0.0082	U	0.0088	U	0.0082	U	0.0081	U
4-Chloroaniline	106-47-8	mg/kg				0.013	U	0.012	U	0.013	U	0.012	U	0.012	U

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SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	TB-8		EP-9 (155')		EP-1 (153.3')		EP-65 (157.8')		EP-73 (152.7')		EP-57I (150')	
Lab Sample ID:				JE28074-1		JE28074-2		JE28074-3		JE28074-4		JE28074-5		JE28074-6	
Date Sampled:				2/9/2026 10:50 AM		2/9/2026 10:18 AM		2/9/2026 10:13 AM		2/9/2026 10:29 AM		2/9/2026 10:33 AM		2/9/2026 10:00 AM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**													
Carbazole	86-74-8	mg/kg				0.0051	U	0.005	U	0.0662	J	0.005	U	0.005	U
Caprolactam	105-60-2	mg/kg				0.014	U	0.014	U	0.015	U	0.014	U	0.014	U
Chrysene	218-01-9	mg/kg	1			0.011	U	0.011	U	0.346		0.011	U	0.011	U
bis(2-Chloroethoxy)methane	111-91-1	mg/kg				0.0075	U	0.0074	U	0.0079	U	0.0073	U	0.0073	U
bis(2-Chloroethyl)ether	111-44-4	mg/kg				0.015	U	0.015	U	0.016	U	0.015	U	0.015	U
2,2'-Oxybis(1-chloropropane)	108-60-1	mg/kg				0.013	U	0.012	U	0.013	U	0.012	U	0.012	U
4-Chlorophenyl phenyl ether	7005-72-3	mg/kg				0.011	U	0.011	U	0.012	U	0.011	U	0.011	U
2,4-Dinitrotoluene	121-14-2	mg/kg				0.011	U	0.011	U	0.011	U	0.011	U	0.011	U
2,6-Dinitrotoluene	606-20-2	mg/kg				0.018	U	0.017	U	0.019	U	0.017	U	0.017	U
3,3'-Dichlorobenzidine	91-94-1	mg/kg				0.029	U	0.029	U	0.031	U	0.029	U	0.029	U
1,4-Dioxane	123-91-1	mg/kg	0.1			0.023	U	0.023	U	0.024	U	0.023	U	0.023	U
Dibenzo(a,h)anthracene	53-70-3	mg/kg	0.33			0.015	U	0.015	U	0.0419		0.015	U	0.015	U
Dibenzofuran	132-64-9	mg/kg	2.1			0.014	U	0.014	U	0.03	J	0.014	U	0.014	U
Di-n-butyl phthalate	84-74-2	mg/kg				0.0101	J	0.0071	J	0.0641	J	0.0056	U	0.0056	U
Di-n-octyl phthalate	117-84-0	mg/kg				0.0087	U	0.0086	U	0.0092	U	0.0085	U	0.0085	U
Diethyl phthalate	84-66-2	mg/kg				0.0075	U	0.0073	U	0.0079	U	0.0073	U	0.0073	U
Dimethyl phthalate	131-11-3	mg/kg				0.0062	U	0.0061	U	0.0066	U	0.0061	U	0.0061	U
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg				0.0082	U	0.0081	U	0.0786		0.008	U	0.008	U
Fluoranthene	206-44-0	mg/kg	85			0.016	U	0.015	U	0.649		0.015	U	0.015	U
Fluorene	86-73-7	mg/kg	30			0.016	U	0.016	U	0.0487		0.016	U	0.016	U
Hexachlorobenzene	118-74-1	mg/kg	0.33			0.0089	U	0.0087	U	0.0093	U	0.0087	U	0.0087	U
Hexachlorobutadiene	87-68-3	mg/kg				0.014	U	0.014	U	0.015	U	0.014	U	0.014	U
Hexachlorocyclopentadiene	77-47-4	mg/kg				0.014	U	0.014	U	0.015	U	0.014	U	0.014	U
Hexachloroethane	67-72-1	mg/kg				0.017	U	0.017	U	0.018	U	0.017	U	0.017	U
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	0.5			0.016	U	0.016	U	0.159		0.016	U	0.016	U
Isophorone	78-59-1	mg/kg				0.0075	U	0.0074	U	0.0079	U	0.0073	U	0.0073	U
2-Methylnaphthalene	91-57-6	mg/kg				0.0079	U	0.0078	U	0.0204	J	0.0077	U	0.0077	U
2-Nitroaniline	88-74-4	mg/kg				0.0083	U	0.0081	U	0.0087	U	0.0081	U	0.0081	U
3-Nitroaniline	99-09-2	mg/kg				0.0088	U	0.0086	U	0.0092	U	0.0086	U	0.0085	U
4-Nitroaniline	100-01-6	mg/kg				0.0091	U	0.0089	U	0.0096	U	0.0089	U	0.0089	U
Naphthalene	91-20-3	mg/kg	12			0.0099	U	0.0097	U	0.0281	J	0.0097	U	0.0096	U
Nitrobenzene	98-95-3	mg/kg	0.08			0.014	U	0.013	U	0.014	U	0.013	U	0.013	U
N-Nitroso-di-n-propylamine	621-64-7	mg/kg				0.01	U	0.0099	U	0.011	U	0.0099	U	0.0099	U
N-Nitrosodiphenylamine	86-30-6	mg/kg				0.013	U	0.013	U	0.014	U	0.013	U	0.013	U
Phenanthrene	85-01-8	mg/kg	1.1			0.012	U	0.012	U	0.47		0.012	U	0.011	U
Pyrene	129-00-0	mg/kg	64			0.011	U	0.011	U	0.651		0.011	U	0.011	U
1,2,4,5-Tetrachlorobenzene	95-94-3	mg/kg				0.0089	U	0.0087	U	0.0094	U	0.0087	U	0.0087	U
2-Fluorophenol	367-12-4	%				48		53		53		43		61	
Phenol-d5	4165-62-2	%				50		54		53		44		60	
2,4,6-Tribromophenol	118-79-6	%				43		46		26		41		51	
Nitrobenzene-d5	4165-60-0	%				49		53		55		44		56	
2-Fluorobiphenyl	321-60-8	%				53		58		60		48		62	
Terphenyl-d14	1718-51-0	%				67		70		60		57		76	
(MS Volatile TIC ())															
Naphthalene,tetrahydro-methyl-isomer	TIC	mg/kg													
Naphthalene,tetrahydro-dimethyl-isomer	TIC	mg/kg													
Naphthalene,tetrahydro-dimethyl-isomer (1)	TIC	mg/kg													
Total TIC, Volatile	TOTAL TIC, VOLATILE	mg/kg				0		0		0		0		0	

SGS

SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	TB-8		EP-9 (155')		EP-1 (153.3')		EP-65 (157.8')		EP-73 (152.7')		EP-57I (150')	
Lab Sample ID:				JE28074-1		JE28074-2		JE28074-3		JE28074-4		JE28074-5		JE28074-6	
Date Sampled:				2/9/2026 10:50 AM		2/9/2026 10:18 AM		2/9/2026 10:13 AM		2/9/2026 10:29 AM		2/9/2026 10:33 AM		2/9/2026 10:00 AM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**													
Total TIC, Volatile	TOTAL TIC, VOLATILE	ug/l		0											
(MS Volatiles (SW846 8260D))															
Acetone	67-64-1	mg/kg	0.03			0.0059	J	0.004	U	0.0058	J	0.0051	U	0.0048	U
Acetone	67-64-1	ug/l		3.1	U										
Benzene	71-43-2	mg/kg	0.06			0.00055	U	0.00044	U	0.00045	U	0.00056	U	0.00053	U
Bromochloromethane	74-97-5	mg/kg				0.00068	U	0.00054	U	0.00055	U	0.00068	U	0.00065	U
Benzene	71-43-2	ug/l		0.43	U										
Bromodichloromethane	75-27-4	mg/kg				0.00052	U	0.00041	U	0.00042	U	0.00052	U	0.0005	U
Bromoform	75-25-2	mg/kg				0.0016	U	0.0013	U	0.0013	U	0.0017	U	0.0016	U
Bromomethane	74-83-9	mg/kg				0.00092	U	0.00074	U	0.00075	U	0.00093	U	0.00088	U
2-Butanone (MEK)	78-93-3	mg/kg	0.1			0.0029	U	0.0023	U	0.0024	U	0.003	U	0.0028	U
Bromochloromethane	74-97-5	ug/l		0.48	U										
Bromodichloromethane	75-27-4	ug/l		0.45	U										
Bromoform	75-25-2	ug/l		0.63	U										
Bromomethane	74-83-9	ug/l		1.6	U										
2-Butanone (MEK)	78-93-3	ug/l		2.7	U										
Carbon disulfide	75-15-0	mg/kg				0.00065	U	0.00052	U	0.00053	U	0.00065	U	0.00062	U
Carbon tetrachloride	56-23-5	mg/kg	0.76			0.00075	U	0.0006	U	0.00061	U	0.00075	U	0.00071	U
Chlorobenzene	108-90-7	mg/kg	4.5			0.00055	U	0.00044	U	0.00045	U	0.00056	U	0.00053	U
Chloroethane	75-00-3	mg/kg				0.00071	U	0.00057	U	0.00058	U	0.00072	U	0.00068	U
Carbon disulfide	75-15-0	ug/l		1.8	U										
Carbon tetrachloride	56-23-5	ug/l		0.55	U										
Chloroform	67-66-3	mg/kg	0.37			0.0012	U	0.00097	U	0.00099	U	0.0012	U	0.0012	U
Chlorobenzene	108-90-7	ug/l		0.56	U										
Chloromethane	74-87-3	mg/kg				0.0024	U	0.0019	U	0.0019	U	0.0024	U	0.0023	U
Chloroethane	75-00-3	ug/l		0.73	U										
Chloroform	67-66-3	ug/l		0.5	U										
Cyclohexane	110-82-7	mg/kg				0.00079	U	0.00063	U	0.00065	U	0.0008	U	0.00076	U
Chloromethane	74-87-3	ug/l		0.76	U										
1,2-Dibromo-3-chloropropane	96-12-8	mg/kg				0.00084	U	0.00067	U	0.00069	U	0.00085	U	0.0008	U
Cyclohexane	110-82-7	ug/l		0.78	U										
Dibromochloromethane	124-48-1	mg/kg				0.00068	U	0.00054	U	0.00055	U	0.00068	U	0.00065	U
1,2-Dibromoethane	106-93-4	mg/kg				0.00051	U	0.00041	U	0.00042	U	0.00051	U	0.00049	U
1,2-Dichlorobenzene	95-50-1	mg/kg	1.1			0.00066	U	0.00053	U	0.00054	U	0.00067	U	0.00063	U
1,3-Dichlorobenzene	541-73-1	mg/kg	2.6			0.0006	U	0.00048	U	0.00049	U	0.00061	U	0.00057	U
1,2-Dibromo-3-chloropropane	96-12-8	ug/l		0.53	U										
1,4-Dichlorobenzene	106-46-7	mg/kg	1.8			0.0006	U	0.00048	U	0.00049	U	0.0006	U	0.00057	U
Dibromochloromethane	124-48-1	ug/l		0.56	U										
1,2-Dibromoethane	106-93-4	ug/l		0.48	U										
Dichlorodifluoromethane	75-71-8	mg/kg				0.00088	U	0.0007	U	0.00072	U	0.00089	U	0.00084	U
1,1-Dichloroethane	75-34-3	mg/kg	0.27			0.0006	U	0.00048	U	0.00049	U	0.0006	U	0.00057	U
1,2-Dichlorobenzene	95-50-1	ug/l		0.53	U										
1,2-Dichloroethane	107-06-2	mg/kg	0.02			0.00057	U	0.00045	U	0.00046	U	0.00057	U	0.00054	U
1,3-Dichlorobenzene	541-73-1	ug/l		0.54	U										
1,1-Dichloroethene	75-35-4	mg/kg	0.24			0.00079	U	0.00063	U	0.00065	U	0.0008	U	0.00076	U
1,4-Dichlorobenzene	106-46-7	ug/l		0.51	U										
cis-1,2-Dichloroethene	156-59-2	mg/kg	0.19			0.001	U	0.00081	U	0.00083	U	0.001	U	0.00097	U
Dichlorodifluoromethane	75-71-8	ug/l		0.56	U										

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SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	TB-8		EP-9 (155')		EP-1 (153.3')		EP-65 (157.8')		EP-73 (152.7')		EP-57I (150')	
Lab Sample ID:				JE28074-1		JE28074-2		JE28074-3		JE28074-4		JE28074-5		JE28074-6	
Date Sampled:				2/9/2026 10:50 AM		2/9/2026 10:18 AM		2/9/2026 10:13 AM		2/9/2026 10:29 AM		2/9/2026 10:33 AM		2/9/2026 10:00 AM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**													
trans-1,2-Dichloroethene	156-60-5	mg/kg	0.19			0.00074	U	0.00059	U	0.0006	U	0.00075	U	0.00071	U
1,1-Dichloroethane	75-34-3	ug/l		0.57	U										
1,2-Dichloroethane	107-06-2	ug/l		0.6	U										
1,2-Dichloropropane	78-87-5	mg/kg				0.00057	U	0.00046	U	0.00047	U	0.00058	U	0.00055	U
1,1-Dichloroethene	75-35-4	ug/l		0.59	U										
cis-1,2-Dichloroethene	156-59-2	ug/l		0.51	U										
trans-1,2-Dichloroethene	156-60-5	ug/l		0.54	U										
cis-1,3-Dichloropropene	10061-01-5	mg/kg				0.00057	U	0.00046	U	0.00047	U	0.00058	U	0.00055	U
1,2-Dichloropropane	78-87-5	ug/l		0.51	U										
trans-1,3-Dichloropropene	10061-02-6	mg/kg				0.00055	U	0.00044	U	0.00045	U	0.00056	U	0.00053	U
cis-1,3-Dichloropropene	10061-01-5	ug/l		0.47	U										
trans-1,3-Dichloropropene	10061-02-6	ug/l		0.43	U										
Ethylbenzene	100-41-4	mg/kg	1			0.00055	U	0.00044	U	0.00045	U	0.00055	U	0.00052	U
Ethylbenzene	100-41-4	ug/l		0.6	U										
Freon 113	76-13-1	mg/kg				0.0032	U	0.0026	U	0.0026	U	0.0033	U	0.0031	U
Freon 113	76-13-1	ug/l		0.58	U										
2-Hexanone	591-78-6	mg/kg				0.0026	U	0.002	U	0.0021	U	0.0026	U	0.0024	U
2-Hexanone	591-78-6	ug/l		4.8	U										
Isopropylbenzene	98-82-8	mg/kg				0.0017	U	0.0014	U	0.0014	U	0.0017	U	0.0016	U
Isopropylbenzene	98-82-8	ug/l		0.65	U										
Methyl Acetate	79-20-9	mg/kg				0.0017	U	0.0013	U	0.0014	U	0.0017	U	0.0016	U
Methylcyclohexane	108-87-2	mg/kg				0.0011	U	0.00084	U	0.00086	U	0.0011	U	0.001	U
Methyl Acetate	79-20-9	ug/l		0.8	U										
Methyl Tert Butyl Ether	1634-04-4	mg/kg	0.1			0.00057	U	0.00045	U	0.00046	U	0.00057	U	0.00054	U
Methylcyclohexane	108-87-2	ug/l		0.6	U										
4-Methyl-2-pentanone(MIBK)	108-10-1	mg/kg				0.0027	U	0.0022	U	0.0022	U	0.0028	U	0.0026	U
Methyl Tert Butyl Ether	1634-04-4	ug/l		0.51	U										
Methylene chloride	75-09-2	mg/kg	0.05			0.0031	U	0.0025	U	0.0026	U	0.0032	U	0.003	U
4-Methyl-2-pentanone(MIBK)	108-10-1	ug/l		4.9	U										
Methylene chloride	75-09-2	ug/l		1	U										
Styrene	100-42-5	mg/kg				0.00048	U	0.00039	U	0.0004	U	0.00049	U	0.00046	U
Styrene	100-42-5	ug/l		0.49	U										
1,1,2,2-Tetrachloroethane	79-34-5	mg/kg				0.00072	U	0.00058	U	0.00059	U	0.00073	U	0.00069	U
Tetrachloroethene	127-18-4	mg/kg	1.3			0.0007	U	0.00056	U	0.00057	U	0.00071	U	0.00067	U
1,1,2,2-Tetrachloroethane	79-34-5	ug/l		0.65	U										
Tetrachloroethene	127-18-4	ug/l		0.56	U										
Toluene	108-88-3	mg/kg	0.7			0.00063	U	0.00051	U	0.00052	U	0.00064	U	0.00061	U
1,2,3-Trichlorobenzene	87-61-6	mg/kg				0.003	U	0.0024	U	0.0025	U	0.0031	U	0.0029	U
Toluene	108-88-3	ug/l		0.49	U										
1,2,4-Trichlorobenzene	120-82-1	mg/kg				0.003	U	0.0024	U	0.0025	U	0.0031	U	0.0029	U
1,1,1-Trichloroethane	71-55-6	mg/kg	0.68			0.00058	U	0.00047	U	0.00048	U	0.00059	U	0.00056	U
1,2,3-Trichlorobenzene	87-61-6	ug/l		0.5	U										
1,1,2-Trichloroethane	79-00-5	mg/kg				0.00067	U	0.00053	U	0.00055	U	0.00068	U	0.00064	U
1,2,4-Trichlorobenzene	120-82-1	ug/l		0.5	U										
1,1,1-Trichloroethane	71-55-6	ug/l		0.54	U										
Trichloroethene	79-01-6	mg/kg	0.47			0.00092	U	0.00074	U	0.00075	U	0.00093	U	0.00088	U
1,1,2-Trichloroethane	79-00-5	ug/l		0.53	U										
Trichlorofluoromethane	75-69-4	mg/kg				0.00083	U	0.00066	U	0.00068	U	0.00083	U	0.00079	U

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SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	TB-8		EP-9 (155')		EP-1 (153.3')		EP-65 (157.8')		EP-73 (152.7')		EP-57I (150')	
Lab Sample ID:				JE28074-1		JE28074-2		JE28074-3		JE28074-4		JE28074-5		JE28074-6	
Date Sampled:				2/9/2026 10:50 AM		2/9/2026 10:18 AM		2/9/2026 10:13 AM		2/9/2026 10:29 AM		2/9/2026 10:33 AM		2/9/2026 10:00 AM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**													
Trichloroethene	79-01-6	ug/l		0.53	U										
Trichlorofluoromethane	75-69-4	ug/l		0.4	U										
Vinyl chloride	75-01-4	mg/kg	0.03			0.00058	U	0.00046	U	0.00047	U	0.00059	U	0.00056	U
m,p-Xylene	M,P-XYLENE	mg/kg	0.26			0.0011	U	0.00087	U	0.00088	U	0.0011	U	0.001	U
Vinyl chloride	75-01-4	ug/l		0.52	U										
o-Xylene	95-47-6	mg/kg	0.26			0.00055	U	0.00044	U	0.00045	U	0.00056	U	0.00053	U
Xylene (total)	1330-20-7	mg/kg	0.26			0.00055	U	0.00044	U	0.00045	U	0.00056	U	0.00053	U
m,p-Xylene	M,P-XYLENE	ug/l		0.78	U										
o-Xylene	95-47-6	ug/l		0.59	U										
Xylene (total)	1330-20-7	ug/l		0.59	U										
Dibromofluoromethane	1868-53-7	%		104		101		101		100		101		101	
1,2-Dichloroethane-D4	17060-07-0	%		111		117		116		115		117		118	
Toluene-D8	2037-26-5	%		99		98		98		99		99		98	
4-Bromofluorobenzene	460-00-4	%		105		103		101		103		103		101	

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SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	EP-64 (162.3')		EP-59I (152.2')		EP-78 (158.5')		EP-79 (158.7')		EP-66 (152.5')	
Lab Sample ID:				JE28074-7		JE28074-8		JE28074-9		JE28074-10		JE28074-11	
Date Sampled:				2/9/2026 10:25 AM		2/9/2026 10:05 AM		2/9/2026 10:42 AM		2/9/2026 10:38 AM		2/9/2026 10:50 AM	
Matrix:				Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**											
(GC/LC Semi-volatiles (SW846 8081B))													
Aldrin	309-00-2	mg/kg	0.0048	0.00053	U	0.00056	U	0.00054	U	0.0006	U	0.00057	U
alpha-BHC	319-84-6	mg/kg	0.02	0.00052	U	0.00055	U	0.00054	U	0.0006	U	0.00056	U
beta-BHC	319-85-7	mg/kg	0.021	0.00058	U	0.00061	U	0.0006	U	0.00066	U	0.00063	U
delta-BHC	319-86-8	mg/kg	0.04	0.00062	U	0.00065	U	0.00063	U	0.0007	U	0.00067	U
gamma-BHC (Lindane)	58-89-9	mg/kg	0.025	0.00047	U	0.0005	U	0.00049	U	0.00054	U	0.00051	U
alpha-Chlordane	5103-71-9	mg/kg	0.014	0.00052	U	0.00055	U	0.00053	U	0.00059	U	0.00056	U
gamma-Chlordane	5103-74-2	mg/kg		0.00029	U	0.00031	U	0.0003	U	0.00033	U	0.00031	U
Dieldrin	60-57-1	mg/kg	0.005	0.00044	U	0.00047	U	0.00045	U	0.0005	U	0.00048	U
4,4'-DDD	72-54-8	mg/kg	0.0033	0.00059	U	0.00062	U	0.00061	U	0.00067	U	0.0011	
4,4'-DDE	72-55-9	mg/kg	0.0033	0.00057	U	0.0006	U	0.00058	U	0.00064	U	0.00061	U
4,4'-DDT	50-29-3	mg/kg	0.0033	0.00057	U	0.0006	U	0.00059	U	0.00065	U	0.0019	
Endrin	72-20-8	mg/kg	0.014	0.0005	U	0.00053	U	0.00051	U	0.00057	U	0.00054	U
Endosulfan sulfate	1031-07-8	mg/kg	4.3	0.0005	U	0.00053	U	0.00052	U	0.00057	U	0.00054	U
Endrin aldehyde	7421-93-4	mg/kg		0.00037	U	0.00038	U	0.00037	U	0.00041	U	0.00039	U
Endosulfan-I	959-98-8	mg/kg	4.3	0.00037	U	0.00039	U	0.00038	U	0.00042	U	0.0004	U
Endosulfan-II	33213-65-9	mg/kg	4.3	0.0004	U	0.00042	U	0.00041	U	0.00046	U	0.00043	U
Heptachlor	76-44-8	mg/kg	0.013	0.00056	U	0.00058	U	0.00057	U	0.00063	U	0.0006	U
Heptachlor epoxide	1024-57-3	mg/kg		0.00045	U	0.00048	U	0.00046	U	0.00051	U	0.00049	U
Methoxychlor	72-43-5	mg/kg		0.00051	U	0.00054	U	0.00053	U	0.00058	U	0.00055	U
Endrin ketone	53494-70-5	mg/kg		0.00047	U	0.00049	U	0.00048	U	0.00053	U	0.0005	U
Toxaphene	8001-35-2	mg/kg		0.015	U	0.016	U	0.015	U	0.017	U	0.016	U
Tetrachloro-m-xylene (2)	877-09-8	%		49		67		58		52		58	
Tetrachloro-m-xylene (3)	877-09-8	%		52		71		67		57		56	
Decachlorobiphenyl (2)	2051-24-3	%		51		71		67		60		58	
Decachlorobiphenyl (3)	2051-24-3	%		52		70		73		60		63	
(GC/LC Semi-volatiles (SW846 8082A))													
Aroclor 1016	12674-11-2	mg/kg	0.1	0.015	U	0.016	U	0.015	U	0.017	U	0.016	U
Aroclor 1221	11104-28-2	mg/kg	0.1	0.02	U	0.021	U	0.02	U	0.023	U	0.021	U
Aroclor 1232	11141-16-5	mg/kg	0.1	0.021	U	0.022	U	0.021	U	0.023	U	0.022	U
Aroclor 1242	53469-21-9	mg/kg	0.1	0.013	U	0.014	U	0.014	U	0.015	U	0.014	U
Aroclor 1248	12672-29-6	mg/kg	0.1	0.029	U	0.03	U	0.029	U	0.033	U	0.031	U
Aroclor 1254	11097-69-1	mg/kg	0.1	0.017	U	0.018	U	0.018	U	0.02	U	0.019	U
Aroclor 1260	11096-82-5	mg/kg	0.1	0.014	U	0.014	U	0.014	U	0.016	U	0.015	U
Aroclor 1268	11100-14-4	mg/kg	0.1	0.028	U	0.03	U	0.029	U	0.032	U	0.03	U
Aroclor 1262	37324-23-5	mg/kg	0.1	0.021	U	0.022	U	0.022	U	0.024	U	0.023	U
Tetrachloro-m-xylene	877-09-8	%		61		56		44		42		45	
Tetrachloro-m-xylene (1)	877-09-8	%		95		89		66		64		62	
Decachlorobiphenyl	2051-24-3	%		46		44		39		37		38	
Decachlorobiphenyl (1)	2051-24-3	%		56		53		47		42		82	
(General Chemistry (SM2540 G 18TH ED MOD))													
Solids, Percent	PERCENT SOLIDS	%		96.4		95.7		92.9		89.3		94.9	
(General Chemistry (SW846 9012B/LACHAT))													
Cyanide	57-12-5	mg/kg	2.3	0.25	U	0.23	U	0.24	U	0.27	U	0.39	
(Metals Analysis (SW846 6010D))													
Aluminum	7429-90-5	mg/kg		5100		6200		10500		10900		8820	
Antimony	7440-36-0	mg/kg		1	U	1	U	1.1	U	1.1	U	1	U
Arsenic	7440-38-2	mg/kg	13	1	U	1	U	2		2.1		1.9	

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SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	EP-64 (162.3')		EP-59I (152.2')		EP-78 (158.5')		EP-79 (158.7')		EP-66 (152.5')	
Lab Sample ID:				JE28074-7		JE28074-8		JE28074-9		JE28074-10		JE28074-11	
Date Sampled:				2/9/2026 10:25 AM		2/9/2026 10:05 AM		2/9/2026 10:42 AM		2/9/2026 10:38 AM		2/9/2026 10:50 AM	
Matrix:				Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**											
Barium	7440-39-3	mg/kg	410	29.1		51.5		83.6		58.2		67.7	
Beryllium	7440-41-7	mg/kg	4.4	0.21		0.24		0.41		0.4		0.29	
Cadmium	7440-43-9	mg/kg	2.5	0.25	U	0.26	U	0.27	U	0.27	U	0.26	U
Calcium	7440-70-2	mg/kg		904		893		3490		829		16600	
Chromium	7440-47-3	mg/kg	30	12.6		12.8		16.3		14.4		21.4	
Cobalt	7440-48-4	mg/kg		3.9		4.7		6.2		6.4		6.9	
Copper	7440-50-8	mg/kg	50	8.8		11		14.3		8.8		51.7	
Iron	7439-89-6	mg/kg		8550		10400		13900		14100		14800	
Lead	7439-92-1	mg/kg	63	14		3		13.7		7.6		28.8	
Magnesium	7439-95-4	mg/kg		2630		3390		3430		2700		6670	
Manganese	7439-96-5	mg/kg	1600	169		208		386		314		266	
Nickel	7440-02-0	mg/kg	30	8.5		11.1		12.1		11.7		15.1	
Potassium	7440-09-7	mg/kg		932		1310		962		716		1700	
Selenium	7782-49-2	mg/kg	3.9	1	U	2	U	2.1	U	2.2	U	2.1	U
Silver	7440-22-4	mg/kg	2	0.25	U	0.26	U	0.27	U	0.27	U	0.26	U
Sodium	7440-23-5	mg/kg		510	U	510	U	540	U	550	U	520	U
Thallium	7440-28-0	mg/kg		0.51	U	0.51	U	0.54	U	0.55	U	0.52	U
Vanadium	7440-62-2	mg/kg		12.3		14.6		20.5		18.6		25.1	
Zinc	7440-66-6	mg/kg	109	32.1		31.7		43.7		37.4		53.8	
(Metals Analysis (SW846 7471B))													
Mercury	7439-97-6	mg/kg	0.18	0.028	U	0.031	U	0.033	U	0.032	U	0.033	
(MS Semi-volatile TIC ())													
Alkane	TIC	mg/kg						3	J	1.5	J	0.24	J
Naphthalene, 1-methyl-	90-12-0	mg/kg											
Naphthalene, tetrahydro- methyl-	TIC	mg/kg						2.1	J	0.97	J		
Alkane (11)	TIC	mg/kg						0.19	J	4	J		
4H-Cyclopenta[def]phenanthrene	TIC	mg/kg										0.26	J
Alkane (12)	TIC	mg/kg						0.15	J	1.1	J		
Alkane (13)	TIC	mg/kg						2	J	1.2	J		
Dibenzopyrene	TIC	mg/kg											
Alkane (14)	TIC	mg/kg						6.2	J	3.5	J		
Phenanthrene, dimethyl-	TIC	mg/kg										0.24	J
Alkane (15)	TIC	mg/kg						2	J	1.4	J		
Alkane (16)	TIC	mg/kg						3	J	2.1	J		
Octadecanoic acid	57-11-4	mg/kg										0.31	JN
Alkane (17)	TIC	mg/kg						2	J	0.16	J		
Unknown (10)	TIC	mg/kg										0.22	J
Unknown (11)	TIC	mg/kg											
Alkane (1)	TIC	mg/kg						0.21	J	0.23	J	0.2	J
Alkane (2)	TIC	mg/kg						0.31	J	0.33	J	0.37	J
Alkane (3)	TIC	mg/kg						0.44	J	0.16	J	0.26	J
Alkane (4)	TIC	mg/kg						0.16	J	0.37	J	0.43	J
Unknown (2)	TIC	mg/kg						0.18	J			0.25	J
Cyclohexane alkyl	TIC	mg/kg						0.16	J				
Unknown	TIC	mg/kg		0.36	J	1.3	J	1.4	J	0.18	J	0.24	J
Alkane (5)	TIC	mg/kg						0.18	J	0.28	J	0.2	J
Unknown (3)	TIC	mg/kg						0.2	J			0.48	J
Alkane (6)	TIC	mg/kg						0.47	J	0.15	J	0.21	J

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SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	EP-64 (162.3')		EP-59I (152.2')		EP-78 (158.5')		EP-79 (158.7')		EP-66 (152.5')	
Lab Sample ID:				JE28074-7		JE28074-8		JE28074-9		JE28074-10		JE28074-11	
Date Sampled:				2/9/2026 10:25 AM		2/9/2026 10:05 AM		2/9/2026 10:42 AM		2/9/2026 10:38 AM		2/9/2026 10:50 AM	
Matrix:				Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**											
Unknown PAH substance	TIC	mg/kg										0.36	J
Alkane (7)	TIC	mg/kg						0.19	J	0.31	J	0.42	J
Dinaphtho[b:d]furan	TIC	mg/kg										0.29	J
Alkane (8)	TIC	mg/kg						0.4	J	0.22	J		
Unknown (4)	TIC	mg/kg						1.8	JB			0.21	J
Alkane (9)	TIC	mg/kg						1.3	J	0.24	J		
Unknown PAH substance (1)	TIC	mg/kg										0.52	J
n-Hexadecanoic acid	57-10-3	mg/kg				0.52	JNB			0.75	JNB		
Unknown (5)	TIC	mg/kg										0.27	J
Alkane (10)	TIC	mg/kg						0.19	J	0.18	J		
Unknown (6)	TIC	mg/kg										0.2	J
Unknown (1)	TIC	mg/kg		0.17	J	0.32	JB	0.36	JB	0.48	JB	0.34	J
Unknown (7)	TIC	mg/kg										0.29	J
Unknown (8)	TIC	mg/kg										0.38	J
Unknown (9)	TIC	mg/kg										0.22	J
Total TIC, Semi-Volatile	TOTAL TIC, SEMI-VOLATILE	mg/kg		0.53	J	1.3	J	26.43	J	18.58	J	7.41	J
(MS Semi-volatiles (SW846 8270E))													
2-Chlorophenol	95-57-8	mg/kg		0.017	U	0.017	U	0.017	U	0.018	U	0.017	U
4-Chloro-3-methyl phenol	59-50-7	mg/kg		0.021	U	0.021	U	0.021	U	0.023	U	0.021	U
2,4-Dichlorophenol	120-83-2	mg/kg		0.029	U	0.029	U	0.03	U	0.031	U	0.029	U
2,4-Dimethylphenol	105-67-9	mg/kg		0.061	U	0.06	U	0.062	U	0.066	U	0.061	U
2,4-Dinitrophenol	51-28-5	mg/kg		0.13	U	0.13	U	0.13	U	0.14	U	0.13	U
4,6-Dinitro-o-cresol	534-52-1	mg/kg		0.037	U	0.036	U	0.037	U	0.039	U	0.037	U
2-Methylphenol	95-48-7	mg/kg	0.33	0.022	U	0.021	U	0.022	U	0.024	U	0.022	U
3&4-Methylphenol	M+P-CRESOLS	mg/kg	0.33	0.028	U	0.028	U	0.029	U	0.03	U	0.028	U
2-Nitrophenol	88-75-5	mg/kg		0.023	U	0.022	U	0.023	U	0.024	U	0.023	U
4-Nitrophenol	100-02-7	mg/kg		0.092	U	0.089	U	0.093	U	0.098	U	0.092	U
Pentachlorophenol	87-86-5	mg/kg	0.8	0.032	U	0.031	U	0.033	U	0.035	U	0.032	U
Phenol	108-95-2	mg/kg	0.33	0.018	U	0.017	U	0.018	U	0.019	U	0.018	U
2,3,4,6-Tetrachlorophenol	58-90-2	mg/kg		0.023	U	0.022	U	0.023	U	0.024	U	0.023	U
2,4,5-Trichlorophenol	95-95-4	mg/kg		0.026	U	0.025	U	0.026	U	0.028	U	0.026	U
2,4,6-Trichlorophenol	88-06-2	mg/kg		0.02	U	0.02	U	0.021	U	0.022	U	0.021	U
Acenaphthene	83-32-9	mg/kg	20	0.012	U	0.012	U	0.013	J	0.013	U	0.0947	
Acenaphthylene	208-96-8	mg/kg	100	0.017	U	0.017	U	0.018	U	0.019	U	0.0265	J
Acetophenone	98-86-2	mg/kg		0.0074	U	0.0072	U	0.0075	U	0.0079	U	0.0074	U
Anthracene	120-12-7	mg/kg	100	0.021	U	0.021	U	0.021	U	0.023	U	0.219	
Atrazine	1912-24-9	mg/kg		0.015	U	0.014	U	0.015	U	0.016	U	0.015	U
Benzo(a)anthracene	56-55-3	mg/kg	1	0.0366		0.0095	U	0.0548		0.01	U	0.749	
Benzo(a)pyrene	50-32-8	mg/kg	1	0.0342		0.015	U	0.0454		0.017	U	0.639	
Benzo(b)fluoranthene	205-99-2	mg/kg	1	0.0431		0.015	U	0.066		0.016	U	0.817	
Benzo(g,h,i)perylene	191-24-2	mg/kg	0.64	0.0291	J	0.017	U	0.0429		0.018	U	0.381	
Benzo(k)fluoranthene	207-08-9	mg/kg	0.8	0.0164	J	0.016	U	0.0218	J	0.017	U	0.285	
4-Bromophenyl phenyl ether	101-55-3	mg/kg		0.013	U	0.013	U	0.013	U	0.014	U	0.013	U
Butyl benzyl phthalate	85-68-7	mg/kg		0.0084	U	0.0082	U	0.0085	U	0.009	U	0.0125	J
1,1'-Biphenyl	92-52-4	mg/kg		0.0047	U	0.0046	U	0.0069	J	0.005	U	0.0065	J
Benzaldehyde	100-52-7	mg/kg		0.0085	U	0.0083	U	0.0086	U	0.0091	U	0.0085	U
2-Chloronaphthalene	91-58-7	mg/kg		0.0082	U	0.008	U	0.0083	U	0.0088	U	0.0082	U
4-Chloroaniline	106-47-8	mg/kg		0.012	U	0.012	U	0.013	U	0.013	U	0.012	U

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Lab Sample ID:				JE28074-7		JE28074-8		JE28074-9		JE28074-10		JE28074-11	
Date Sampled:				2/9/2026 10:25 AM		2/9/2026 10:05 AM		2/9/2026 10:42 AM		2/9/2026 10:38 AM		2/9/2026 10:50 AM	
Matrix:				Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**											
Carbazole	86-74-8	mg/kg		0.005	U	0.0049	U	0.0117	J	0.0053	U	0.117	
Caprolactam	105-60-2	mg/kg		0.014	U	0.013	U	0.014	U	0.015	U	0.014	U
Chrysene	218-01-9	mg/kg	1	0.0335	J	0.011	U	0.0504		0.012	U	0.667	
bis(2-Chloroethoxy)methane	111-91-1	mg/kg		0.0074	U	0.0072	U	0.0074	U	0.0079	U	0.0074	U
bis(2-Chloroethyl)ether	111-44-4	mg/kg		0.015	U	0.014	U	0.015	U	0.016	U	0.015	U
2,2'-Oxybis(1-chloropropane)	108-60-1	mg/kg		0.012	U	0.012	U	0.012	U	0.013	U	0.012	U
4-Chlorophenyl phenyl ether	7005-72-3	mg/kg		0.011	U	0.011	U	0.011	U	0.012	U	0.011	U
2,4-Dinitrotoluene	121-14-2	mg/kg		0.011	U	0.01	U	0.011	U	0.011	U	0.011	U
2,6-Dinitrotoluene	606-20-2	mg/kg		0.017	U	0.017	U	0.017	U	0.018	U	0.017	U
3,3'-Dichlorobenzidine	91-94-1	mg/kg		0.029	U	0.028	U	0.029	U	0.031	U	0.029	U
1,4-Dioxane	123-91-1	mg/kg	0.1	0.023	U	0.022	U	0.023	U	0.024	U	0.023	U
Dibenzo(a,h)anthracene	53-70-3	mg/kg	0.33	0.015	U	0.015	U	0.0174	J	0.016	U	0.0942	
Dibenzofuran	132-64-9	mg/kg	2.1	0.014	U	0.014	U	0.014	U	0.015	U	0.047	J
Di-n-butyl phthalate	84-74-2	mg/kg		0.0093	J	0.0055	U	0.0065	J	0.006	U	0.0323	J
Di-n-octyl phthalate	117-84-0	mg/kg		0.0086	U	0.0083	U	0.0086	U	0.0092	U	0.0086	U
Diethyl phthalate	84-66-2	mg/kg		0.0073	U	0.0071	U	0.0074	U	0.0078	U	0.0073	U
Dimethyl phthalate	131-11-3	mg/kg		0.0061	U	0.006	U	0.0062	U	0.0066	U	0.0061	U
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg		0.0124	J	0.0078	U	0.0099	J	0.0127	J	0.0658	J
Fluoranthene	206-44-0	mg/kg	85	0.0539		0.015	U	0.0942		0.016	U	1.28	
Fluorene	86-73-7	mg/kg	30	0.016	U	0.015	U	0.016	U	0.017	U	0.0877	
Hexachlorobenzene	118-74-1	mg/kg	0.33	0.0087	U	0.0085	U	0.0088	U	0.0093	U	0.0087	U
Hexachlorobutadiene	87-68-3	mg/kg		0.014	U	0.013	U	0.014	U	0.015	U	0.014	U
Hexachlorocyclopentadiene	77-47-4	mg/kg		0.014	U	0.013	U	0.014	U	0.015	U	0.014	U
Hexachloroethane	67-72-1	mg/kg		0.017	U	0.017	U	0.017	U	0.018	U	0.017	U
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	0.5	0.0194	J	0.016	U	0.0362		0.017	U	0.329	
Isophorone	78-59-1	mg/kg		0.0074	U	0.0072	U	0.0074	U	0.0079	U	0.0074	U
2-Methylnaphthalene	91-57-6	mg/kg		0.0078	U	0.0076	U	0.0214	J	0.0091	J	0.0166	J
2-Nitroaniline	88-74-4	mg/kg		0.0081	U	0.0079	U	0.0082	U	0.0087	U	0.0081	U
3-Nitroaniline	99-09-2	mg/kg		0.0086	U	0.0084	U	0.0087	U	0.0092	U	0.0086	U
4-Nitroaniline	100-01-6	mg/kg		0.0089	U	0.0087	U	0.009	U	0.0095	U	0.0089	U
Naphthalene	91-20-3	mg/kg	12	0.0097	U	0.0094	U	0.0115	J	0.01	U	0.0337	J
Nitrobenzene	98-95-3	mg/kg	0.08	0.013	U	0.013	U	0.013	U	0.014	U	0.013	U
N-Nitroso-di-n-propylamine	621-64-7	mg/kg		0.0099	U	0.0097	U	0.01	U	0.011	U	0.01	U
N-Nitrosodiphenylamine	86-30-6	mg/kg		0.013	U	0.012	U	0.013	U	0.013	U	0.013	U
Phenanthrene	85-01-8	mg/kg	1.1	0.026	J	0.011	U	0.0787		0.012	U	0.866	
Pyrene	129-00-0	mg/kg	64	0.0648		0.011	U	0.103		0.014	J	1.3	
1,2,4,5-Tetrachlorobenzene	95-94-3	mg/kg		0.0087	U	0.0085	U	0.0088	U	0.0094	U	0.0087	U
2-Fluorophenol	367-12-4	%		66		46		48		55		53	
Phenol-d5	4165-62-2	%		66		51		52		57		59	
2,4,6-Tribromophenol	118-79-6	%		59		48		47		48		26	
Nitrobenzene-d5	4165-60-0	%		65		50		50		52		57	
2-Fluorobiphenyl	321-60-8	%		71		57		58		58		63	
Terphenyl-d14	1718-51-0	%		87		69		64		71		66	
(MS Volatile TIC ())													
Naphthalene,tetrahydro-methyl-isomer	TIC	mg/kg						0.0084	J	0.0073	J		
Naphthalene,tetrahydro-dimethyl-isomer	TIC	mg/kg								0.0066	J		
Naphthalene,tetrahydro-dimethyl-isomer (1)	TIC	mg/kg								0.0077	J		
Total TIC, Volatile	TOTAL TIC, VOLATILE	mg/kg		0		0		0.0084	J	0.0216	J	0	

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Client Sample ID:			NY USCO	EP-64 (162.3')		EP-59I (152.2')		EP-78 (158.5')		EP-79 (158.7')		EP-66 (152.5')	
Lab Sample ID:				JE28074-7		JE28074-8		JE28074-9		JE28074-10		JE28074-11	
Date Sampled:				2/9/2026 10:25 AM		2/9/2026 10:05 AM		2/9/2026 10:42 AM		2/9/2026 10:38 AM		2/9/2026 10:50 AM	
Matrix:				Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**											
Total TIC, Volatile	TOTAL TIC, VOLATILE	ug/l											
(MS Volatiles (SW846 8260D))													
Acetone	67-64-1	mg/kg	0.03	0.005	U	0.0059	J	0.0053	U	0.0055	J	0.0042	U
Acetone	67-64-1	ug/l											
Benzene	71-43-2	mg/kg	0.06	0.00055	U	0.00058	U	0.00058	U	0.00053	U	0.00046	U
Bromochloromethane	74-97-5	mg/kg		0.00068	U	0.00071	U	0.00072	U	0.00065	U	0.00057	U
Benzene	71-43-2	ug/l											
Bromodichloromethane	75-27-4	mg/kg		0.00052	U	0.00055	U	0.00055	U	0.0005	U	0.00043	U
Bromoform	75-25-2	mg/kg		0.0016	U	0.0017	U	0.0017	U	0.0016	U	0.0014	U
Bromomethane	74-83-9	mg/kg		0.00092	U	0.00097	U	0.00098	U	0.00089	U	0.00077	U
2-Butanone (MEK)	78-93-3	mg/kg	0.1	0.0029	U	0.0031	U	0.0031	U	0.0028	U	0.0025	U
Bromochloromethane	74-97-5	ug/l											
Bromodichloromethane	75-27-4	ug/l											
Bromoform	75-25-2	ug/l											
Bromomethane	74-83-9	ug/l											
2-Butanone (MEK)	78-93-3	ug/l											
Carbon disulfide	75-15-0	mg/kg		0.00065	U	0.00068	U	0.00069	U	0.00062	U	0.00054	U
Carbon tetrachloride	56-23-5	mg/kg	0.76	0.00075	U	0.00079	U	0.00079	U	0.00072	U	0.00063	U
Chlorobenzene	108-90-7	mg/kg	4.5	0.00055	U	0.00058	U	0.00059	U	0.00054	U	0.00047	U
Chloroethane	75-00-3	mg/kg		0.00071	U	0.00075	U	0.00076	U	0.00069	U	0.0006	U
Carbon disulfide	75-15-0	ug/l											
Carbon tetrachloride	56-23-5	ug/l											
Chloroform	67-66-3	mg/kg	0.37	0.0012	U	0.0013	U	0.0013	U	0.0012	U	0.001	U
Chlorobenzene	108-90-7	ug/l											
Chloromethane	74-87-3	mg/kg		0.0024	U	0.0025	U	0.0025	U	0.0023	U	0.002	U
Chloroethane	75-00-3	ug/l											
Chloroform	67-66-3	ug/l											
Cyclohexane	110-82-7	mg/kg		0.00079	U	0.00084	U	0.00084	U	0.00077	U	0.00067	U
Chloromethane	74-87-3	ug/l											
1,2-Dibromo-3-chloropropane	96-12-8	mg/kg		0.00084	U	0.00088	U	0.00089	U	0.00081	U	0.0007	U
Cyclohexane	110-82-7	ug/l											
Dibromochloromethane	124-48-1	mg/kg		0.00068	U	0.00071	U	0.00072	U	0.00065	U	0.00057	U
1,2-Dibromoethane	106-93-4	mg/kg		0.00051	U	0.00054	U	0.00054	U	0.00049	U	0.00043	U
1,2-Dichlorobenzene	95-50-1	mg/kg	1.1	0.00066	U	0.0007	U	0.0007	U	0.00064	U	0.00055	U
1,3-Dichlorobenzene	541-73-1	mg/kg	2.6	0.0006	U	0.00063	U	0.00064	U	0.00058	U	0.0005	U
1,2-Dibromo-3-chloropropane	96-12-8	ug/l											
1,4-Dichlorobenzene	106-46-7	mg/kg	1.8	0.0006	U	0.00063	U	0.00063	U	0.00058	U	0.0005	U
Dibromochloromethane	124-48-1	ug/l											
1,2-Dibromoethane	106-93-4	ug/l											
Dichlorodifluoromethane	75-71-8	mg/kg		0.00088	U	0.00093	U	0.00093	U	0.00085	U	0.00074	U
1,1-Dichloroethane	75-34-3	mg/kg	0.27	0.0006	U	0.00063	U	0.00063	U	0.00058	U	0.0005	U
1,2-Dichlorobenzene	95-50-1	ug/l											
1,2-Dichloroethane	107-06-2	mg/kg	0.02	0.00057	U	0.0006	U	0.0006	U	0.00055	U	0.00048	U
1,3-Dichlorobenzene	541-73-1	ug/l											
1,1-Dichloroethene	75-35-4	mg/kg	0.24	0.00079	U	0.00083	U	0.00084	U	0.00076	U	0.00066	U
1,4-Dichlorobenzene	106-46-7	ug/l											
cis-1,2-Dichloroethene	156-59-2	mg/kg	0.19	0.001	U	0.0011	U	0.0011	U	0.00098	U	0.00085	U
Dichlorodifluoromethane	75-71-8	ug/l											

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Matrix:				Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**											
trans-1,2-Dichloroethene	156-60-5	mg/kg	0.19	0.00074	U	0.00078	U	0.00078	U	0.00071	U	0.00062	U
1,1-Dichloroethane	75-34-3	ug/l											
1,2-Dichloroethane	107-06-2	ug/l											
1,2-Dichloropropane	78-87-5	mg/kg		0.00057	U	0.0006	U	0.00061	U	0.00055	U	0.00048	U
1,1-Dichloroethene	75-35-4	ug/l											
cis-1,2-Dichloroethene	156-59-2	ug/l											
trans-1,2-Dichloroethene	156-60-5	ug/l											
cis-1,3-Dichloropropene	10061-01-5	mg/kg		0.00057	U	0.00061	U	0.00061	U	0.00055	U	0.00048	U
1,2-Dichloropropane	78-87-5	ug/l											
trans-1,3-Dichloropropene	10061-02-6	mg/kg		0.00055	U	0.00058	U	0.00059	U	0.00053	U	0.00046	U
cis-1,3-Dichloropropene	10061-01-5	ug/l											
trans-1,3-Dichloropropene	10061-02-6	ug/l											
Ethylbenzene	100-41-4	mg/kg	1	0.00055	U	0.00058	U	0.00058	U	0.00053	U	0.00046	U
Ethylbenzene	100-41-4	ug/l											
Freon 113	76-13-1	mg/kg		0.0032	U	0.0034	U	0.0034	U	0.0031	U	0.0027	U
Freon 113	76-13-1	ug/l											
2-Hexanone	591-78-6	mg/kg		0.0026	U	0.0027	U	0.0027	U	0.0025	U	0.0021	U
2-Hexanone	591-78-6	ug/l											
Isopropylbenzene	98-82-8	mg/kg		0.0017	U	0.0018	U	0.0018	U	0.0017	U	0.0014	U
Isopropylbenzene	98-82-8	ug/l											
Methyl Acetate	79-20-9	mg/kg		0.0017	U	0.0018	U	0.0018	U	0.0016	U	0.0014	U
Methylcyclohexane	108-87-2	mg/kg		0.0011	U	0.0011	U	0.0011	U	0.001	U	0.00089	U
Methyl Acetate	79-20-9	ug/l											
Methyl Tert Butyl Ether	1634-04-4	mg/kg	0.1	0.00057	U	0.0006	U	0.0006	U	0.00055	U	0.00048	U
Methylcyclohexane	108-87-2	ug/l											
4-Methyl-2-pentanone(MIBK)	108-10-1	mg/kg		0.0027	U	0.0029	U	0.0029	U	0.0026	U	0.0023	U
Methyl Tert Butyl Ether	1634-04-4	ug/l											
Methylene chloride	75-09-2	mg/kg	0.05	0.0031	U	0.0033	U	0.0033	U	0.003	U	0.0026	U
4-Methyl-2-pentanone(MIBK)	108-10-1	ug/l											
Methylene chloride	75-09-2	ug/l											
Styrene	100-42-5	mg/kg		0.00048	U	0.00051	U	0.00052	U	0.00047	U	0.00041	U
Styrene	100-42-5	ug/l											
1,1,2,2-Tetrachloroethane	79-34-5	mg/kg		0.00072	U	0.00076	U	0.00077	U	0.0007	U	0.00061	U
Tetrachloroethene	127-18-4	mg/kg	1.3	0.0007	U	0.00074	U	0.00074	U	0.00068	U	0.00059	U
1,1,2,2-Tetrachloroethane	79-34-5	ug/l											
Tetrachloroethene	127-18-4	ug/l											
Toluene	108-88-3	mg/kg	0.7	0.00063	U	0.00067	U	0.00067	U	0.00061	U	0.00053	U
1,2,3-Trichlorobenzene	87-61-6	mg/kg		0.003	U	0.0032	U	0.0032	U	0.0029	U	0.0025	U
Toluene	108-88-3	ug/l											
1,2,4-Trichlorobenzene	120-82-1	mg/kg		0.003	U	0.0032	U	0.0032	U	0.0029	U	0.0025	U
1,1,1-Trichloroethane	71-55-6	mg/kg	0.68	0.00058	U	0.00062	U	0.00062	U	0.00056	U	0.00049	U
1,2,3-Trichlorobenzene	87-61-6	ug/l											
1,1,2-Trichloroethane	79-00-5	mg/kg		0.00067	U	0.00071	U	0.00071	U	0.00065	U	0.00056	U
1,2,4-Trichlorobenzene	120-82-1	ug/l											
1,1,1-Trichloroethane	71-55-6	ug/l											
Trichloroethene	79-01-6	mg/kg	0.47	0.00092	U	0.00097	U	0.00098	U	0.00089	U	0.00077	U
1,1,2-Trichloroethane	79-00-5	ug/l											
Trichlorofluoromethane	75-69-4	mg/kg		0.00083	U	0.00087	U	0.00088	U	0.0008	U	0.00069	U

SGS

SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	EP-64 (162.3')		EP-59I (152.2')		EP-78 (158.5')		EP-79 (158.7')		EP-66 (152.5')	
Lab Sample ID:				JE28074-7		JE28074-8		JE28074-9		JE28074-10		JE28074-11	
Date Sampled:				2/9/2026 10:25 AM		2/9/2026 10:05 AM		2/9/2026 10:42 AM		2/9/2026 10:38 AM		2/9/2026 10:50 AM	
Matrix:				Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**											
Trichloroethene	79-01-6	ug/l											
Trichlorofluoromethane	75-69-4	ug/l											
Vinyl chloride	75-01-4	mg/kg	0.03	0.00058	U	0.00061	U	0.00062	U	0.00056	U	0.00049	U
m,p-Xylene	M,P-XYLENE	mg/kg	0.26	0.0011	U	0.0011	U	0.0011	U	0.001	U	0.00091	U
Vinyl chloride	75-01-4	ug/l											
o-Xylene	95-47-6	mg/kg	0.26	0.00055	U	0.00058	U	0.00059	U	0.00053	U	0.00046	U
Xylene (total)	1330-20-7	mg/kg	0.26	0.00055	U	0.00058	U	0.00059	U	0.00053	U	0.00046	U
m,p-Xylene	M,P-XYLENE	ug/l											
o-Xylene	95-47-6	ug/l											
Xylene (total)	1330-20-7	ug/l											
Dibromofluoromethane	1868-53-7	%		102		101		103		101		100	
1,2-Dichloroethane-D4	17060-07-0	%		119		120		117		114		115	
Toluene-D8	2037-26-5	%		99		97		99		99		98	
4-Bromofluorobenzene	460-00-4	%		102		102		100		102		102	

SGS

SGS Engage - Group Crosstab

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE28590		JE28590		JE28590		JE28590		JE28590		JE28590	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444		11444	
Client Sample ID:				TB-9		EP-29		EP-30		EP-41		EP-47		EP-48	
Lab Sample ID:				JE28590-1		JE28590-2		JE28590-3		JE28590-4		JE28590-5		JE28590-6	
Location:															
Date Sampled:				2/19/2026 2:55 PM		2/19/2026 2:30 PM		2/19/2026 2:36 PM		2/19/2026 2:43 PM		2/19/2026 2:50 PM		2/19/2026 2:55 PM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**													
(GC/LC Semi-volatiles (SW846 8081B))															
Aldrin	309-00-2	mg/kg	0.0048			0.00056	U	0.00059	U	0.00059	U	0.003	U	0.0028	U
alpha-BHC	319-84-6	mg/kg	0.02			0.00056	U	0.00058	U	0.00058	U	0.0029	U	0.0028	U
beta-BHC	319-85-7	mg/kg	0.021			0.00062	U	0.00065	U	0.00065	U	0.0033	U	0.0031	U
delta-BHC	319-86-8	mg/kg	0.04			0.00066	U	0.00069	U	0.00069	U	0.0035	U	0.0033	U
gamma-BHC (Lindane)	58-89-9	mg/kg	0.025			0.0005	U	0.00053	U	0.00053	U	0.0027	U	0.0025	U
alpha-Chlordane	5103-71-9	mg/kg	0.014			0.00055	U	0.00058	U	0.0025		0.0029	U	0.0425	
gamma-Chlordane	5103-74-2	mg/kg				0.00031	U	0.00033	U	0.0018		0.0016	U	0.0355	
Dieldrin	60-57-1	mg/kg	0.005			0.00047	U	0.00049	U	0.00049	U	0.0025	U	0.0023	U
4,4'-DDD	72-54-8	mg/kg	0.0033			0.00063	U	0.00066	U	0.0015		0.0033	U	0.0031	U
4,4'-DDE	72-55-9	mg/kg	0.0033			0.0006	U	0.00063	U	0.00063	U	0.0032	U	0.003	U
4,4'-DDT	50-29-3	mg/kg	0.0033			0.00061	U	0.00064	U	0.0025		0.0032	U	0.003	U
Endrin	72-20-8	mg/kg	0.014			0.00053	U	0.00056	U	0.00056	U	0.0028	U	0.0026	U
Endosulfan sulfate	1031-07-8	mg/kg	4.3			0.00053	U	0.00056	U	0.00056	U	0.0028	U	0.0027	U
Endrin aldehyde	7421-93-4	mg/kg				0.00039	U	0.00041	U	0.00041	U	0.0021	U	0.0019	U
Endosulfan-I	959-98-8	mg/kg	4.3			0.00039	U	0.00041	U	0.00041	U	0.0021	U	0.002	U
Endosulfan-II	33213-65-9	mg/kg	4.3			0.00043	U	0.00045	U	0.00045	U	0.0023	U	0.0021	U
Heptachlor	76-44-8	mg/kg	0.013			0.00059	U	0.00062	U	0.00062	U	0.0031	U	0.0029	U
Heptachlor epoxide	1024-57-3	mg/kg				0.00048	U	0.0005	U	0.0005	U	0.0025	U	0.0053	
Methoxychlor	72-43-5	mg/kg				0.00054	U	0.00057	U	0.00057	U	0.0029	U	0.0027	U
Endrin ketone	53494-70-5	mg/kg				0.0005	U	0.00052	U	0.00052	U	0.0026	U	0.0025	U
Toxaphene	8001-35-2	mg/kg				0.016	U	0.017	U	0.017	U	0.084	U	0.079	U
Tetrachloro-m-xylene	877-09-8	%										95		89	
Tetrachloro-m-xylene (1)	877-09-8	%										108		100	
Tetrachloro-m-xylene (2)	877-09-8	%				106		87		73					
Tetrachloro-m-xylene (3)	877-09-8	%				113		93		78					
Decachlorobiphenyl	2051-24-3	%										88		98	
Decachlorobiphenyl (1)	2051-24-3	%										346	*	162	
Decachlorobiphenyl (2)	2051-24-3	%				103		90		80					
Decachlorobiphenyl (3)	2051-24-3	%				102		92		107					

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE28590		JE28590		JE28590		JE28590		JE28590		JE28590	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444		11444	
Client Sample ID:				TB-9		EP-29		EP-30		EP-41		EP-47		EP-48	
Lab Sample ID:				JE28590-1		JE28590-2		JE28590-3		JE28590-4		JE28590-5		JE28590-6	
Location:															
Date Sampled:				2/19/2026 2:55 PM		2/19/2026 2:30 PM		2/19/2026 2:36 PM		2/19/2026 2:43 PM		2/19/2026 2:50 PM		2/19/2026 2:55 PM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**													
(GC/LC Semi-volatiles (SW846 8082A))															
Aroclor 1016	12674-11-2	mg/kg	0.1			0.016	U	0.017	U	0.017	U	0.017	U	0.016	U
Aroclor 1221	11104-28-2	mg/kg	0.1			0.021	U	0.022	U	0.022	U	0.022	U	0.021	U
Aroclor 1232	11141-16-5	mg/kg	0.1			0.022	U	0.023	U	0.023	U	0.023	U	0.022	U
Aroclor 1242	53469-21-9	mg/kg	0.1			0.014	U	0.015	U	0.015	U	0.015	U	0.014	U
Aroclor 1248	12672-29-6	mg/kg	0.1			0.031	U	0.032	U	0.032	U	0.032	U	0.03	U
Aroclor 1254	11097-69-1	mg/kg	0.1			0.018	U	0.019	U	0.019	U	0.0351	J	0.018	U
Aroclor 1260	11096-82-5	mg/kg	0.1			0.015	U	0.015	U	0.015	U	0.015	U	0.0157	J
Aroclor 1268	11100-14-4	mg/kg	0.1			0.03	U	0.031	U	0.031	U	0.032	U	0.03	U
Aroclor 1262	37324-23-5	mg/kg	0.1			0.022	U	0.023	U	0.023	U	0.0254	J	0.022	U
Tetrachloro-m-xylene	877-09-8	%				82		69		60					
Tetrachloro-m-xylene (1)	877-09-8	%				127		107		94					
Tetrachloro-m-xylene (2)	877-09-8	%										67		65	
Tetrachloro-m-xylene (3)	877-09-8	%										99		99	
Decachlorobiphenyl	2051-24-3	%				55		52		48					
Decachlorobiphenyl (1)	2051-24-3	%				63		57		57					
Decachlorobiphenyl (2)	2051-24-3	%										64		50	
Decachlorobiphenyl (3)	2051-24-3	%										124		75	
(General Chemistry (SM2540 G 18TH ED MOD))															
Solids, Percent	PERCENT SOLIDS	%				90.7		91		89.8		86.9		90.9	
(General Chemistry (SW846 9012B/LACHAT))															
Cyanide	57-12-5	mg/kg	2.3			0.26	U	0.39		0.28	U	0.62		0.26	U
(Metals Analysis (SW846 6010D))															
Aluminum	7429-90-5	mg/kg				9420		8020		8640		9830		6610	
Antimony	7440-36-0	mg/kg				1.5	U	1.5	U	1.5	U	1.5	U	1.4	U
Arsenic	7440-38-2	mg/kg	13			2.2		1.5		2.4		3.7		1.8	
Barium	7440-39-3	mg/kg	410			50.3		56.4		76.4		145		81.5	
Beryllium	7440-41-7	mg/kg	4.4			0.99		0.87		0.97		0.94		0.72	
Cadmium	7440-43-9	mg/kg	2.5			0.36	U	0.36	U	0.37	U	0.71		0.36	U
Calcium	7440-70-2	mg/kg				1090		4170		5480		57000		9630	
Chromium	7440-47-3	mg/kg				14.5		13.1		17.1		12.3		11.3	
Cobalt	7440-48-4	mg/kg				6.7		5.7		6.4		3.8	U	4.1	
Copper	7440-50-8	mg/kg	50			15.2		15		24.5		14.8		12.4	

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE28590		JE28590		JE28590		JE28590		JE28590		JE28590	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444		11444	
Client Sample ID:				TB-9		EP-29		EP-30		EP-41		EP-47		EP-48	
Lab Sample ID:				JE28590-1		JE28590-2		JE28590-3		JE28590-4		JE28590-5		JE28590-6	
Location:															
Date Sampled:				2/19/2026 2:55 PM		2/19/2026 2:30 PM		2/19/2026 2:36 PM		2/19/2026 2:43 PM		2/19/2026 2:50 PM		2/19/2026 2:55 PM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**													
Iron	7439-89-6	mg/kg				21500		12300		13700		11700		10200	
Lead	7439-92-1	mg/kg	63			7.3	U	10.1		53.8		127		198	
Magnesium	7439-95-4	mg/kg				2970		4050		4100		3910		3120	
Manganese	7439-96-5	mg/kg	1600			372		301		311		188		216	
Nickel	7440-02-0	mg/kg	30			11.9		11.5		14.7		8.3		9.4	
Potassium	7440-09-7	mg/kg				1110		1240		1440		1820		1140	
Selenium	7782-49-2	mg/kg	3.9			7.3	U	1.5	U	1.5	U	1.5	U	1.4	U
Silver	7440-22-4	mg/kg	2			0.36	U	0.36	U	0.37	U	0.38	U	0.36	U
Sodium	7440-23-5	mg/kg				730	U	730	U	730	U	807		720	U
Thallium	7440-28-0	mg/kg				3.6	U	0.73	U	0.73	U	0.76	U	0.72	U
Vanadium	7440-62-2	mg/kg				20.6		17.3		21.6		19.3		15.2	
Zinc	7440-66-6	mg/kg	109			29.8		34		67.5		125		67.7	
(Metals Analysis (SW846 7471B))															
Mercury	7439-97-6	mg/kg	0.18			0.031	U	0.028	U	0.076		0.14		0.038	
(MS Semi-volatile TIC ())															
n-Hexadecanoic acid	57-10-3	mg/kg				0.46	JNB			0.69	JNB			1.1	JN
Alkane	TIC	mg/kg				0.27	J	0.16	J			0.22	J	0.16	J
Naphthalene, dimethyl	TIC	mg/kg										0.35	J		
Alkane (1)	TIC	mg/kg				0.76	J	0.22	J			0.41	J	0.3	J
-Cyclopenta[def]phenanthr	TIC	mg/kg												0.38	J
Alkane (2)	TIC	mg/kg				0.4	J					0.33	J	0.16	J
Unknown (1)	TIC	mg/kg						0.15	J	0.43	JB	0.18	J	0.44	J
Unknown PAH Substances	TIC	mg/kg								0.28	J	1.1	J		
Alkane (3)	TIC	mg/kg				0.5	J					0.17	J		
Unknown (2)	TIC	mg/kg						0.19	J	0.16	J	1.3	J		
9,10-Anthracenedione	84-65-1	mg/kg												0.17	JN
Alkane (4)	TIC	mg/kg				0.31	J					0.17	J		
Phenanthrene, methyl	TIC	mg/kg										0.15	J		
Unknown (3)	TIC	mg/kg								0.3	J	1.7	J		
Alkane (5)	TIC	mg/kg				0.26	J								
Anthracene, methyl	TIC	mg/kg										0.51	J		
Unknown (4)	TIC	mg/kg								0.15	J				
H-Cyclopenta phenanthrer	TIC	mg/kg										0.4	J		

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE28590		JE28590		JE28590		JE28590		JE28590		JE28590	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444		11444	
Client Sample ID:				TB-9		EP-29		EP-30		EP-41		EP-47		EP-48	
Lab Sample ID:				JE28590-1		JE28590-2		JE28590-3		JE28590-4		JE28590-5		JE28590-6	
Location:															
Date Sampled:				2/19/2026 2:55 PM		2/19/2026 2:30 PM		2/19/2026 2:36 PM		2/19/2026 2:43 PM		2/19/2026 2:50 PM		2/19/2026 2:55 PM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**													
Unknown	TIC	mg/kg				0.14	J	0.48	JB	0.15	J	0.15	J	0.18	J
11H-Benzo[b]fluorene	TIC	mg/kg												0.2	J
7H-Benz[de]anthracen-one	TIC	mg/kg												0.17	J
H-Benz[de]anthracen-one (	TIC	mg/kg												0.41	J
Octadecanoic acid	57-11-4	mg/kg										0.23	JN		
Unknown PAH substance	TIC	mg/kg												0.92	J
nknown PAH Substances (	TIC	mg/kg										2.5	J		
nknown PAH Substances (	TIC	mg/kg										0.71	J		
nknown PAH Substances (	TIC	mg/kg										0.53	J		
nknown PAH Substances (	TIC	mg/kg										1.1	J		
Total TIC, Semi-Volatile	OTAL TIC, SEMI-VOLATIL	mg/kg				2.64	J	0.72	J	1.04	J	12.21	J	4.59	J
(MS Semi-volatiles (SW846 8270E))															
2-Chlorophenol	95-57-8	mg/kg				0.017	U	0.018	U	0.018	U	0.019	U	0.018	U
4-Chloro-3-methyl phenol	59-50-7	mg/kg				0.021	U	0.022	U	0.022	U	0.023	U	0.022	U
2,4-Dichlorophenol	120-83-2	mg/kg				0.03	U	0.03	U	0.03	U	0.032	U	0.03	U
2,4-Dimethylphenol	105-67-9	mg/kg				0.062	U	0.063	U	0.063	U	0.067	U	0.063	U
2,4-Dinitrophenol	51-28-5	mg/kg				0.13	U	0.13	U	0.13	U	0.14	U	0.13	U
4,6-Dinitro-o-cresol	534-52-1	mg/kg				0.037	U	0.038	U	0.038	U	0.041	U	0.038	U
2-Methylphenol	95-48-7	mg/kg	0.33			0.022	U	0.023	U	0.023	U	0.024	U	0.023	U
3&4-Methylphenol	M+P-CRESOLS	mg/kg	0.33			0.028	U	0.029	U	0.029	U	0.0399	J	0.029	U
2-Nitrophenol	88-75-5	mg/kg				0.023	U	0.024	U	0.023	U	0.025	U	0.024	U
4-Nitrophenol	100-02-7	mg/kg				0.093	U	0.095	U	0.095	U	0.1	U	0.095	U
Pentachlorophenol	87-86-5	mg/kg	0.8			0.033	U	0.033	U	0.033	U	0.036	U	0.033	U
Phenol	108-95-2	mg/kg	0.33			0.018	U	0.019	U	0.019	U	0.0255	J	0.019	U
2,3,4,6-Tetrachlorophenol	58-90-2	mg/kg				0.023	U	0.024	U	0.023	U	0.025	U	0.024	U
2,4,5-Trichlorophenol	95-95-4	mg/kg				0.026	U	0.027	U	0.027	U	0.028	U	0.027	U
2,4,6-Trichlorophenol	88-06-2	mg/kg				0.021	U	0.021	U	0.021	U	0.023	U	0.021	U
Acenaphthene	83-32-9	mg/kg	20			0.012	U	0.0324	J	0.0362		0.191		0.0376	
Acenaphthylene	208-96-8	mg/kg	100			0.018	U	0.018	U	0.0404		0.694		0.267	
Acetophenone	98-86-2	mg/kg				0.0075	U	0.0076	U	0.0076	U	0.0301	J	0.0077	U
Anthracene	120-12-7	mg/kg	100			0.021	U	0.0674		0.116		1.62		0.344	
Atrazine	1912-24-9	mg/kg				0.015	U	0.015	U	0.015	U	0.016	U	0.015	U
Benzo(a)anthracene	56-55-3	mg/kg	1			0.0098	U	0.218		0.427		5.2		1.06	

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE28590		JE28590		JE28590		JE28590		JE28590		JE28590	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444		11444	
Client Sample ID:				TB-9		EP-29		EP-30		EP-41		EP-47		EP-48	
Lab Sample ID:				JE28590-1		JE28590-2		JE28590-3		JE28590-4		JE28590-5		JE28590-6	
Location:															
Date Sampled:				2/19/2026 2:55 PM		2/19/2026 2:30 PM		2/19/2026 2:36 PM		2/19/2026 2:43 PM		2/19/2026 2:50 PM		2/19/2026 2:55 PM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**													
Benzo(a)pyrene	50-32-8	mg/kg	1			0.016	U	0.173		0.401		4.59		0.952	
Benzo(b)fluoranthene	205-99-2	mg/kg	1			0.015	U	0.207		0.516		6.42		1.27	
Benzo(g,h,i)perylene	191-24-2	mg/kg	0.64			0.017	U	0.117		0.316		3.19		0.872	
Benzo(k)fluoranthene	207-08-9	mg/kg	0.8			0.016	U	0.0872		0.157		2.14		0.389	
-Bromophenyl phenyl ethe	101-55-3	mg/kg				0.013	U	0.014	U	0.014	U	0.015	U	0.014	U
Butyl benzyl phthalate	85-68-7	mg/kg				0.0085	U	0.0087	U	0.0161	J	0.11		0.0678	J
1,1'-Biphenyl	92-52-4	mg/kg				0.0047	U	0.0049	U	0.0059	J	0.0326	J	0.0099	J
Benzaldehyde	100-52-7	mg/kg				0.0086	U	0.0088	U	0.0088	U	0.0094	U	0.0088	U
2-Chloronaphthalene	91-58-7	mg/kg				0.0083	U	0.0085	U	0.0084	U	0.009	U	0.0085	U
4-Chloroaniline	106-47-8	mg/kg				0.012	U	0.013	U	0.013	U	0.014	U	0.013	U
Carbazole	86-74-8	mg/kg				0.005	U	0.035	J	0.0592	J	0.54		0.162	
Caprolactam	105-60-2	mg/kg				0.014	U	0.014	U	0.014	U	0.015	U	0.014	U
Chrysene	218-01-9	mg/kg	1			0.011	U	0.188		0.395		5.12		1	
is(2-Chloroethoxy)methan	111-91-1	mg/kg				0.0074	U	0.0076	U	0.0076	U	0.0081	U	0.0076	U
bis(2-Chloroethyl)ether	111-44-4	mg/kg				0.015	U	0.015	U	0.015	U	0.016	U	0.015	U
,2'-Oxybis(1-chloropropane	108-60-1	mg/kg				0.012	U	0.013	U	0.013	U	0.014	U	0.013	U
-Chlorophenyl phenyl ethe	7005-72-3	mg/kg				0.011	U	0.012	U	0.011	U	0.012	U	0.012	U
2,4-Dinitrotoluene	121-14-2	mg/kg				0.011	U	0.011	U	0.011	U	0.012	U	0.011	U
2,6-Dinitrotoluene	606-20-2	mg/kg				0.017	U	0.018	U	0.018	U	0.019	U	0.018	U
3,3'-Dichlorobenzidine	91-94-1	mg/kg				0.029	U	0.03	U	0.03	U	0.032	U	0.03	U
1,4-Dioxane	123-91-1	mg/kg	0.1			0.023	U	0.024	U	0.023	U	0.025	U	0.024	U
Dibenzo(a,h)anthracene	53-70-3	mg/kg	0.33			0.015	U	0.0325	J	0.0848		1.02		0.195	
Dibenzofuran	132-64-9	mg/kg	2.1			0.014	U	0.014	U	0.0283	J	0.165		0.0433	J
Di-n-butyl phthalate	84-74-2	mg/kg				0.0057	U	0.0062	J	0.0058	U	0.0062	U	0.0058	U
Di-n-octyl phthalate	117-84-0	mg/kg				0.0086	U	0.0089	U	0.0088	U	0.0094	U	0.0089	U
Diethyl phthalate	84-66-2	mg/kg				0.0074	U	0.0076	U	0.0076	U	0.0081	U	0.0076	U
Dimethyl phthalate	131-11-3	mg/kg				0.0062	U	0.0063	U	0.0063	U	0.0067	U	0.0063	U
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg				0.0081	U	0.0083	U	0.0337	J	9.65		0.0723	
Fluoranthene	206-44-0	mg/kg	85			0.015	U	0.405		0.761		10.3		1.86	
Fluorene	86-73-7	mg/kg	30			0.016	U	0.0242	J	0.038		0.33		0.0593	
Hexachlorobenzene	118-74-1	mg/kg	0.33			0.0088	U	0.009	U	0.009	U	0.0096	U	0.009	U
Hexachlorobutadiene	87-68-3	mg/kg				0.014	U	0.014	U	0.014	U	0.015	U	0.014	U
Hexachlorocyclopentadiene	77-47-4	mg/kg				0.014	U	0.014	U	0.014	U	0.015	U	0.014	U

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE28590		JE28590		JE28590		JE28590		JE28590		JE28590	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444		11444	
Client Sample ID:				TB-9		EP-29		EP-30		EP-41		EP-47		EP-48	
Lab Sample ID:				JE28590-1		JE28590-2		JE28590-3		JE28590-4		JE28590-5		JE28590-6	
Location:															
Date Sampled:				2/19/2026 2:55 PM		2/19/2026 2:30 PM		2/19/2026 2:36 PM		2/19/2026 2:43 PM		2/19/2026 2:50 PM		2/19/2026 2:55 PM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**													
Hexachloroethane	67-72-1	mg/kg				0.017	U	0.018	U	0.018	U	0.019	U	0.018	U
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	0.5			0.016	U	0.1		0.262		2.8		0.714	
Isophorone	78-59-1	mg/kg				0.0074	U	0.0076	U	0.0076	U	0.0081	U	0.0076	U
2-Methylnaphthalene	91-57-6	mg/kg				0.0078	U	0.008	U	0.0489		0.112		0.0245	J
2-Nitroaniline	88-74-4	mg/kg				0.0082	U	0.0084	U	0.0084	U	0.0089	U	0.0084	U
3-Nitroaniline	99-09-2	mg/kg				0.0087	U	0.0089	U	0.0089	U	0.0095	U	0.0089	U
4-Nitroaniline	100-01-6	mg/kg				0.009	U	0.0092	U	0.0092	U	0.0098	U	0.0092	U
Naphthalene	91-20-3	mg/kg	12			0.0098	U	0.01	U	0.0443		0.157		0.0435	
Nitrobenzene	98-95-3	mg/kg	0.08			0.013	U	0.014	U	0.014	U	0.015	U	0.014	U
N-Nitroso-di-n-propylamine	621-64-7	mg/kg				0.01	U	0.01	U	0.01	U	0.011	U	0.01	U
N-Nitrosodiphenylamine	86-30-6	mg/kg				0.013	U	0.013	U	0.013	U	0.014	U	0.013	U
Phenanthrene	85-01-8	mg/kg	1.1			0.012	U	0.25		0.416		5.23		1.01	
Pyrene	129-00-0	mg/kg	64			0.011	U	0.359		0.754		8.78		1.87	
1,2,4,5-Tetrachlorobenzene	95-94-3	mg/kg				0.0088	U	0.009	U	0.009	U	0.0096	U	0.009	U
2-Fluorophenol	367-12-4	%				45		50		52		45		54	
2-Fluorophenol (1)	367-12-4	%										50			
Phenol-d5	4165-62-2	%				45		56		55		43		56	
Phenol-d5 (1)	4165-62-2	%										53			
2,4,6-Tribromophenol	118-79-6	%				48		67		62		62		64	
2,4,6-Tribromophenol (1)	118-79-6	%										57			
Nitrobenzene-d5	4165-60-0	%				44		48		53		48		56	
Nitrobenzene-d5 (1)	4165-60-0	%										52			
2-Fluorobiphenyl	321-60-8	%				44		60		61		63		62	
2-Fluorobiphenyl (1)	321-60-8	%										55			
Terphenyl-d14	1718-51-0	%				57		69		68		62		65	
Terphenyl-d14 (1)	1718-51-0	%										57			
(MS Volatile TIC ())															
Total TIC, Volatile	TOTAL TIC, VOLATILE	mg/kg				0		0		0		0		0	
Total TIC, Volatile	TOTAL TIC, VOLATILE	ug/l		0											
(MS Volatiles (SW846 8260D))															
Acetone	67-64-1	mg/kg	0.03			0.0046	U	0.0038	U	0.0035	U	0.0053	U	0.0044	U
Acetone	67-64-1	ug/l		3.1	U										
Benzene	71-43-2	mg/kg	0.06			0.0005	U	0.00042	U	0.00038	U	0.00058	U	0.00048	U

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE28590		JE28590		JE28590		JE28590		JE28590		JE28590	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444		11444	
Client Sample ID:				TB-9		EP-29		EP-30		EP-41		EP-47		EP-48	
Lab Sample ID:				JE28590-1		JE28590-2		JE28590-3		JE28590-4		JE28590-5		JE28590-6	
Location:															
Date Sampled:				2/19/2026 2:55 PM		2/19/2026 2:30 PM		2/19/2026 2:36 PM		2/19/2026 2:43 PM		2/19/2026 2:50 PM		2/19/2026 2:55 PM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**													
Bromochloromethane	74-97-5	mg/kg				0.00062	U	0.00051	U	0.00047	U	0.00072	U	0.00059	U
Benzene	71-43-2	ug/l		0.43	U										
Bromodichloromethane	75-27-4	mg/kg				0.00047	U	0.00039	U	0.00036	U	0.00055	U	0.00045	U
Bromoform	75-25-2	mg/kg				0.0015	U	0.0012	U	0.0011	U	0.0017	U	0.0014	U
Bromomethane	74-83-9	mg/kg				0.00084	U	0.0007	U	0.00064	U	0.00098	U	0.00081	U
2-Butanone (MEK)	78-93-3	mg/kg	0.1			0.0027	U	0.0022	U	0.0021	U	0.0031	U	0.0026	U
Bromochloromethane	74-97-5	ug/l		0.48	U										
Bromodichloromethane	75-27-4	ug/l		0.45	U										
Bromoform	75-25-2	ug/l		0.63	U										
Bromomethane	74-83-9	ug/l		1.6	U										
2-Butanone (MEK)	78-93-3	ug/l		2.7	U										
Carbon disulfide	75-15-0	mg/kg				0.00059	U	0.00049	U	0.00045	U	0.00068	U	0.00057	U
Carbon tetrachloride	56-23-5	mg/kg	0.76			0.00068	U	0.00057	U	0.00052	U	0.00079	U	0.00065	U
Chlorobenzene	108-90-7	mg/kg	4.5			0.00051	U	0.00042	U	0.00039	U	0.00059	U	0.00049	U
Chloroethane	75-00-3	mg/kg				0.00065	U	0.00054	U	0.0005	U	0.00076	U	0.00063	U
Carbon disulfide	75-15-0	ug/l		1.8	U										
Carbon tetrachloride	56-23-5	ug/l		0.55	U										
Chloroform	67-66-3	mg/kg	0.37			0.0011	U	0.00092	U	0.00084	U	0.0013	U	0.0011	U
Chlorobenzene	108-90-7	ug/l		0.56	U										
Chloromethane	74-87-3	mg/kg				0.0022	U	0.0018	U	0.0017	U	0.0025	U	0.0021	U
Chloroethane	75-00-3	ug/l		0.73	U										
Chloroform	67-66-3	ug/l		0.5	U										
Cyclohexane	110-82-7	mg/kg				0.00072	U	0.0006	U	0.00055	U	0.00084	U	0.00069	U
Chloromethane	74-87-3	ug/l		0.76	U										
2-Dibromo-3-chloropropar	96-12-8	mg/kg				0.00077	U	0.00064	U	0.00059	U	0.00089	U	0.00073	U
Cyclohexane	110-82-7	ug/l		0.78	U										
Dibromochloromethane	124-48-1	mg/kg				0.00062	U	0.00051	U	0.00047	U	0.00072	U	0.00059	U
1,2-Dibromoethane	106-93-4	mg/kg				0.00046	U	0.00039	U	0.00036	U	0.00054	U	0.00045	U
1,2-Dichlorobenzene	95-50-1	mg/kg	1.1			0.0006	U	0.0005	U	0.00046	U	0.0007	U	0.00058	U
1,3-Dichlorobenzene	541-73-1	mg/kg	2.6			0.00055	U	0.00045	U	0.00042	U	0.00063	U	0.00052	U
2-Dibromo-3-chloropropar	96-12-8	ug/l		0.53	U										
1,4-Dichlorobenzene	106-46-7	mg/kg	1.8			0.00054	U	0.00045	U	0.00042	U	0.00063	U	0.00052	U
Dibromochloromethane	124-48-1	ug/l		0.56	U										

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE28590		JE28590		JE28590		JE28590		JE28590		JE28590	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444		11444	
Client Sample ID:				TB-9		EP-29		EP-30		EP-41		EP-47		EP-48	
Lab Sample ID:				JE28590-1		JE28590-2		JE28590-3		JE28590-4		JE28590-5		JE28590-6	
Location:															
Date Sampled:				2/19/2026 2:55 PM		2/19/2026 2:30 PM		2/19/2026 2:36 PM		2/19/2026 2:43 PM		2/19/2026 2:50 PM		2/19/2026 2:55 PM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**													
1,2-Dibromoethane	106-93-4	ug/l		0.48	U										
Dichlorodifluoromethane	75-71-8	mg/kg				0.0008	U	0.00067	U	0.00061	U	0.00093	U	0.00077	U
1,1-Dichloroethane	75-34-3	mg/kg	0.27			0.00055	U	0.00045	U	0.00042	U	0.00063	U	0.00052	U
1,2-Dichlorobenzene	95-50-1	ug/l		0.53	U										
1,2-Dichloroethane	107-06-2	mg/kg	0.02			0.00052	U	0.00043	U	0.0004	U	0.0006	U	0.0005	U
1,3-Dichlorobenzene	541-73-1	ug/l		0.54	U										
1,1-Dichloroethene	75-35-4	mg/kg	0.24			0.00072	U	0.0006	U	0.00055	U	0.00084	U	0.00069	U
1,4-Dichlorobenzene	106-46-7	ug/l		0.51	U										
cis-1,2-Dichloroethene	156-59-2	mg/kg	0.19			0.00093	U	0.00077	U	0.00071	U	0.0011	U	0.00089	U
Dichlorodifluoromethane	75-71-8	ug/l		0.56	U										
trans-1,2-Dichloroethene	156-60-5	mg/kg	0.19			0.00067	U	0.00056	U	0.00052	U	0.00078	U	0.00065	U
1,1-Dichloroethane	75-34-3	ug/l		0.57	U										
1,2-Dichloroethane	107-06-2	ug/l		0.6	U										
1,2-Dichloropropane	78-87-5	mg/kg				0.00052	U	0.00043	U	0.0004	U	0.0006	U	0.0005	U
1,1-Dichloroethene	75-35-4	ug/l		0.59	U										
cis-1,2-Dichloroethene	156-59-2	ug/l		0.51	U										
trans-1,2-Dichloroethene	156-60-5	ug/l		0.54	U										
cis-1,3-Dichloropropene	10061-01-5	mg/kg				0.00052	U	0.00043	U	0.0004	U	0.00061	U	0.0005	U
1,2-Dichloropropane	78-87-5	ug/l		0.51	U										
trans-1,3-Dichloropropene	10061-02-6	mg/kg				0.0005	U	0.00042	U	0.00039	U	0.00058	U	0.00048	U
cis-1,3-Dichloropropene	10061-01-5	ug/l		0.47	U										
trans-1,3-Dichloropropene	10061-02-6	ug/l		0.43	U										
Ethylbenzene	100-41-4	mg/kg	1			0.0005	U	0.00041	U	0.00038	U	0.00058	U	0.00048	U
Ethylbenzene	100-41-4	ug/l		0.6	U										
Freon 113	76-13-1	mg/kg				0.0029	U	0.0024	U	0.0023	U	0.0034	U	0.0028	U
Freon 113	76-13-1	ug/l		0.58	U										
2-Hexanone	591-78-6	mg/kg				0.0023	U	0.0019	U	0.0018	U	0.0027	U	0.0022	U
2-Hexanone	591-78-6	ug/l		4.8	U										
Isopropylbenzene	98-82-8	mg/kg				0.0016	U	0.0013	U	0.0012	U	0.0018	U	0.0015	U
Isopropylbenzene	98-82-8	ug/l		0.65	U										
Methyl Acetate	79-20-9	mg/kg				0.0015	U	0.0013	U	0.0012	U	0.0018	U	0.0015	U
Methylcyclohexane	108-87-2	mg/kg				0.00096	U	0.0008	U	0.00074	U	0.0011	U	0.00093	U
Methyl Acetate	79-20-9	ug/l		0.8	U										

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE28590		JE28590		JE28590		JE28590		JE28590		JE28590	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444		11444	
Client Sample ID:				TB-9		EP-29		EP-30		EP-41		EP-47		EP-48	
Lab Sample ID:				JE28590-1		JE28590-2		JE28590-3		JE28590-4		JE28590-5		JE28590-6	
Location:															
Date Sampled:				2/19/2026 2:55 PM		2/19/2026 2:30 PM		2/19/2026 2:36 PM		2/19/2026 2:43 PM		2/19/2026 2:50 PM		2/19/2026 2:55 PM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**													
Methyl Tert Butyl Ether	1634-04-4	mg/kg	0.1			0.00052	U	0.00043	U	0.0004	U	0.0006	U	0.0005	U
Methylcyclohexane	108-87-2	ug/l		0.6	U										
-Methyl-2-pentanone(MIBK	108-10-1	mg/kg				0.0025	U	0.0021	U	0.0019	U	0.0029	U	0.0024	U
Methyl Tert Butyl Ether	1634-04-4	ug/l		0.51	U										
Methylene chloride	75-09-2	mg/kg	0.05			0.0029	U	0.0024	U	0.0022	U	0.0033	U	0.0028	U
-Methyl-2-pentanone(MIBK	108-10-1	ug/l		4.9	U										
Methylene chloride	75-09-2	ug/l		1	U										
Styrene	100-42-5	mg/kg				0.00044	U	0.00037	U	0.00034	U	0.00051	U	0.00043	U
Styrene	100-42-5	ug/l		0.49	U										
1,1,2,2-Tetrachloroethane	79-34-5	mg/kg				0.00066	U	0.00055	U	0.00051	U	0.00077	U	0.00063	U
Tetrachloroethene	127-18-4	mg/kg	1.3			0.00064	U	0.00053	U	0.00049	U	0.00074	U	0.00061	U
1,1,2,2-Tetrachloroethane	79-34-5	ug/l		0.65	U										
Tetrachloroethene	127-18-4	ug/l		0.56	U										
Toluene	108-88-3	mg/kg	0.7			0.00058	U	0.00048	U	0.00044	U	0.00067	U	0.00056	U
1,2,3-Trichlorobenzene	87-61-6	mg/kg				0.0028	U	0.0023	U	0.0021	U	0.0032	U	0.0026	U
Toluene	108-88-3	ug/l		0.49	U										
1,2,4-Trichlorobenzene	120-82-1	mg/kg				0.0028	U	0.0023	U	0.0021	U	0.0032	U	0.0026	U
1,1,1-Trichloroethane	71-55-6	mg/kg	0.68			0.00053	U	0.00044	U	0.00041	U	0.00062	U	0.00051	U
1,2,3-Trichlorobenzene	87-61-6	ug/l		0.5	U										
1,1,2-Trichloroethane	79-00-5	mg/kg				0.00061	U	0.00051	U	0.00047	U	0.00071	U	0.00059	U
1,2,4-Trichlorobenzene	120-82-1	ug/l		0.5	U										
1,1,1-Trichloroethane	71-55-6	ug/l		0.54	U										
Trichloroethene	79-01-6	mg/kg	0.47			0.00084	U	0.0007	U	0.00064	U	0.00097	U	0.00081	U
1,1,2-Trichloroethane	79-00-5	ug/l		0.53	U										
Trichlorofluoromethane	75-69-4	mg/kg				0.00075	U	0.00063	U	0.00058	U	0.00087	U	0.00072	U
Trichloroethene	79-01-6	ug/l		0.53	U										
Trichlorofluoromethane	75-69-4	ug/l		0.4	U										
Vinyl chloride	75-01-4	mg/kg	0.03			0.00053	U	0.00044	U	0.00041	U	0.00062	U	0.00051	U
m,p-Xylene	M,P-XYLENE	mg/kg	0.26			0.00099	U	0.00082	U	0.00076	U	0.0011	U	0.00095	U
Vinyl chloride	75-01-4	ug/l		0.52	U										
o-Xylene	95-47-6	mg/kg	0.26			0.0005	U	0.00042	U	0.00039	U	0.00059	U	0.00048	U
Xylene (total)	1330-20-7	mg/kg	0.26			0.0005	U	0.00042	U	0.00039	U	0.00059	U	0.00048	U
m,p-Xylene	M,P-XYLENE	ug/l		0.78	U										

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE28590		JE28590		JE28590		JE28590		JE28590		JE28590	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444		11444	
Client Sample ID:				TB-9		EP-29		EP-30		EP-41		EP-47		EP-48	
Lab Sample ID:				JE28590-1		JE28590-2		JE28590-3		JE28590-4		JE28590-5		JE28590-6	
Location:															
Date Sampled:				2/19/2026 2:55 PM		2/19/2026 2:30 PM		2/19/2026 2:36 PM		2/19/2026 2:43 PM		2/19/2026 2:50 PM		2/19/2026 2:55 PM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**													
o-Xylene	95-47-6	ug/l		0.59	U										
Xylene (total)	1330-20-7	ug/l		0.59	U										
Dibromofluoromethane	1868-53-7	%		98		104		102		104		103		99	
1,2-Dichloroethane-D4	17060-07-0	%		97		108		106		107		107		106	
Toluene-D8	2037-26-5	%		103		101		98		99		98		97	
4-Bromofluorobenzene	460-00-4	%		101		94		92		94		95		96	
18 result(s) exceeded regulatory criteria.															

Footnote	Comments
	*** 7 footnote comments were removed from this export ***

SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	TB-10		EP-33I (140)		EP-47I (155)		EP-48I (155)		EP-54 (155)		EP-55 (155)	
Lab Sample ID:				JE29170-1		JE29170-2		JE29170-3		JE29170-4		JE29170-5		JE29170-6	
Date Sampled:				3/3/2026 12:25 PM		3/3/2026 12:00 PM		3/3/2026 12:10 PM		3/3/2026 12:15 PM		3/3/2026 12:20 PM		3/3/2026 12:25 PM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**													
(GC/LC Semi-volatiles (SW846 8081B))															
Aldrin	309-00-2	mg/kg	0.0048			0.00054	U	0.00057	U	0.00055	U	0.00058	U	0.00056	U
alpha-BHC	319-84-6	mg/kg	0.02			0.00054	U	0.00056	U	0.00054	U	0.00058	U	0.00055	U
beta-BHC	319-85-7	mg/kg	0.021			0.0006	U	0.00062	U	0.0006	U	0.00064	U	0.00061	U
delta-BHC	319-86-8	mg/kg	0.04			0.00063	U	0.00066	U	0.00064	U	0.00068	U	0.00065	U
gamma-BHC (Lindane)	58-89-9	mg/kg	0.025			0.00049	U	0.00051	U	0.00049	U	0.00052	U	0.0005	U
alpha-Chlordane	5103-71-9	mg/kg	0.014			0.00053	U	0.00085		0.0013		0.003		0.00086	
gamma-Chlordane	5103-74-2	mg/kg				0.0003	U	0.00031	U	0.00088		0.0022		0.00068	
Dieldrin	60-57-1	mg/kg	0.005			0.00045	U	0.00047	U	0.00046	U	0.00049	U	0.00046	U
4,4'-DDD	72-54-8	mg/kg	0.0033			0.00061	U	0.00063	U	0.00061	U	0.00065	U	0.00062	U
4,4'-DDE	72-55-9	mg/kg	0.0033			0.00058	U	0.0006	U	0.00058	U	0.00062	U	0.00059	U
4,4'-DDT	50-29-3	mg/kg	0.0033			0.00058	U	0.00061	U	0.00059	U	0.00071		0.0006	U
Endrin	72-20-8	mg/kg	0.014			0.00051	U	0.00053	U	0.00051	U	0.00055	U	0.00052	U
Endosulfan sulfate	1031-07-8	mg/kg	4.3			0.00052	U	0.00054	U	0.00052	U	0.00055	U	0.00053	U
Endrin aldehyde	7421-93-4	mg/kg				0.00037	U	0.00039	U	0.00038	U	0.0004	U	0.00038	U
Endosulfan-I	959-98-8	mg/kg	4.3			0.00038	U	0.0004	U	0.00038	U	0.00041	U	0.00039	U
Endosulfan-II	33213-65-9	mg/kg	4.3			0.00041	U	0.00043	U	0.00041	U	0.00044	U	0.00042	U
Heptachlor	76-44-8	mg/kg	0.013			0.00057	U	0.00059	U	0.00057	U	0.00061	U	0.00058	U
Heptachlor epoxide	1024-57-3	mg/kg				0.00046	U	0.00048	U	0.00046	U	0.0005	U	0.00047	U
Methoxychlor	72-43-5	mg/kg				0.00052	U	0.00055	U	0.00053	U	0.00056	U	0.00054	U
Endrin ketone	53494-70-5	mg/kg				0.00048	U	0.0005	U	0.00048	U	0.00051	U	0.00049	U
Toxaphene	8001-35-2	mg/kg				0.015	U	0.016	U	0.015	U	0.017	U	0.016	U
Tetrachloro-m-xylene (2)	877-09-8	%				55		78		81		74		69	
Tetrachloro-m-xylene (3)	877-09-8	%				52		72		72		67		62	
Decachlorobiphenyl (2)	2051-24-3	%				64		82		92		81		76	
Decachlorobiphenyl (3)	2051-24-3	%				65		99		115		85		97	
(GC/LC Semi-volatiles (SW846 8082A))															
Aroclor 1016	12674-11-2	mg/kg	0.1			0.015	U	0.016	U	0.015	U	0.017	U	0.016	U
Aroclor 1221	11104-28-2	mg/kg	0.1			0.02	U	0.021	U	0.021	U	0.022	U	0.021	U
Aroclor 1232	11141-16-5	mg/kg	0.1			0.021	U	0.022	U	0.021	U	0.023	U	0.022	U
Aroclor 1242	53469-21-9	mg/kg	0.1			0.014	U	0.014	U	0.014	U	0.015	U	0.014	U
Aroclor 1248	12672-29-6	mg/kg	0.1			0.029	U	0.031	U	0.03	U	0.032	U	0.03	U
Aroclor 1254	11097-69-1	mg/kg	0.1			0.018	U	0.018	U	0.018	U	0.019	U	0.018	U
Aroclor 1260	11096-82-5	mg/kg	0.1			0.014	U	0.015	U	0.014	U	0.015	U	0.014	U
Aroclor 1268	11100-14-4	mg/kg	0.1			0.029	U	0.03	U	0.029	U	0.031	U	0.03	U
Aroclor 1262	37324-23-5	mg/kg	0.1			0.022	U	0.022	U	0.022	U	0.023	U	0.022	U
Tetrachloro-m-xylene	877-09-8	%				41		55		59		49		48	
Tetrachloro-m-xylene (1)	877-09-8	%				51		69		71		62		59	
Decachlorobiphenyl	2051-24-3	%				31		42		46		40		38	

SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	TB-10		EP-33I (140)		EP-47I (155)		EP-48I (155)		EP-54 (155)		EP-55 (155)	
Lab Sample ID:				JE29170-1		JE29170-2		JE29170-3		JE29170-4		JE29170-5		JE29170-6	
Date Sampled:				3/3/2026 12:25 PM		3/3/2026 12:00 PM		3/3/2026 12:10 PM		3/3/2026 12:15 PM		3/3/2026 12:20 PM		3/3/2026 12:25 PM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**													
Decachlorobiphenyl (1)	2051-24-3	%				40		53		58		49		49	
(General Chemistry (SM2540 G 18TH ED MOD))															
Solids, Percent	PERCENT SOLIDS	%				91.3		91.5		90.4		91.6		90.8	
(General Chemistry (SW846 9012B/LACHAT))															
Cyanide	57-12-5	mg/kg	2.3			0.25	U	0.23	U	0.24	U	0.24	U	0.26	U
(Metals Analysis (SW846 6010D))															
Aluminum	7429-90-5	mg/kg				3740		9670		8660		10200		6400	
Antimony	7440-36-0	mg/kg				1.4	U	2.9	U	1.5	U	2.8	U	1.5	U
Arsenic	7440-38-2	mg/kg	13			1.4	U	2.3		2.1		2.4		1.5	
Barium	7440-39-3	mg/kg	410			32.4		71.9		75.5		69.1		62.1	
Beryllium	7440-41-7	mg/kg	4.4			0.14	U	0.33		0.29		0.35		0.21	
Cadmium	7440-43-9	mg/kg	2.5			0.36	U	0.36	U	0.37	U	0.35	U	0.37	U
Calcium	7440-70-2	mg/kg				10400		1870		3450		3760		2500	
Chromium	7440-47-3	mg/kg	30			8.8		18.2		15.3		16.8		12.2	
Cobalt	7440-48-4	mg/kg				3.6	U	7.9		5.9		6.6		5.6	
Copper	7440-50-8	mg/kg	50			10.4		14.6		20.5		144		15.9	
Iron	7439-89-6	mg/kg				8750		14900		14000		15900		11300	
Lead	7439-92-1	mg/kg	63			2.4		20.9		31.7		44.3		15.1	
Magnesium	7439-95-4	mg/kg				6550		3920		3460		7010		2610	
Manganese	7439-96-5	mg/kg	1600			118		319		289		344		263	
Nickel	7440-02-0	mg/kg	30			7.8		14.4		13.2		13.1		10.3	
Potassium	7440-09-7	mg/kg				1180		1990		1550		1930		1410	
Selenium	7782-49-2	mg/kg	3.9			1.4	U	4		1.5	U	4.2		1.5	U
Silver	7440-22-4	mg/kg	2			0.36	U	0.36	U	0.37	U	0.35	U	0.37	U
Sodium	7440-23-5	mg/kg				720	U	730	U	730	U	700	U	730	U
Thallium	7440-28-0	mg/kg				0.72	U	1.5	U	0.73	U	1.4	U	0.73	U
Vanadium	7440-62-2	mg/kg				11.3		22.5		20.5		24.2		16.8	
Zinc	7440-66-6	mg/kg	109			25.4		46.1		56.3		120		41.9	
(Metals Analysis (SW846 7471B))															
Mercury	7439-97-6	mg/kg	0.18			0.031	U	0.048		0.036		0.075		0.031	U
(MS Semi-volatile TIC ())															
9H-Fluoren-9-one	486-25-9	mg/kg						0.32	JN						
Dibenzopyrene	TIC	mg/kg								0.22	J				
n-Hexadecanoic acid	57-10-3	mg/kg				0.57	JNB								
Naphthalene, 1-methyl-	90-12-0	mg/kg												0.45	JN
Dibenzothiophene	132-65-0	mg/kg						0.17	JN						
Naphthalene dimethyl	TIC	mg/kg												0.48	J
Octadecanoic acid	57-11-4	mg/kg				0.16	JN	0.19	JN			0.15	JN		
Naphthalene trimethyl	TIC	mg/kg												0.45	J

SGS

SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	TB-10		EP-33I (140)		EP-47I (155)		EP-48I (155)		EP-54 (155)		EP-55 (155)	
Lab Sample ID:				JE29170-1		JE29170-2		JE29170-3		JE29170-4		JE29170-5		JE29170-6	
Date Sampled:				3/3/2026 12:25 PM		3/3/2026 12:00 PM		3/3/2026 12:10 PM		3/3/2026 12:15 PM		3/3/2026 12:20 PM		3/3/2026 12:25 PM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**													
Phenanthrene methyl	TIC	mg/kg						0.3	J						
Unknown	TIC	mg/kg				0.28	JB	0.17	J	0.31	JB	0.22	JB	1.5	J
Cyclopenta[]phenanthrene	TIC	mg/kg												0.43	J
Unknown (1)	TIC	mg/kg				0.14	JB	0.22	JB	0.24	JB	0.24	JB	1.1	J
Unknown (9)	TIC	mg/kg						0.16	J					0.49	J
Dibenzopyrene (1)	TIC	mg/kg								0.21	J				
Phenylnaphthalene	TIC	mg/kg						0.22	J						
Unknown (2)	TIC	mg/kg				0.19	J	0.27	J	0.15	JB	0.16	J	0.7	J
9,10-Anthracenedione	84-65-1	mg/kg						0.22	JN						
Benz[a]anthracene, -methy	TIC	mg/kg												0.42	J
Dibenzopyrene (2)	TIC	mg/kg								0.26	J				
Phenanthrene dimethyl	TIC	mg/kg						0.16	J						
Benz(a)anthracene, -dimeth	TIC	mg/kg												0.83	J
Unknown (10)	TIC	mg/kg						0.31	J					0.81	J
Pyrene methyl	TIC	mg/kg						0.16	J					0.53	J
Unknown C17H10O	TIC	mg/kg						0.21	J						
Unknown C17H10O (1)	TIC	mg/kg						0.16	J						
Phexene-1-carboxaldehyde,	432-24-6	mg/kg												0.86	JN
Unknown (3)	TIC	mg/kg						0.36	J	0.23	J	0.39	J	0.73	J
Phoxymethylphenanthren-3-	1000201-97-9	mg/kg												0.59	JN
Unknown (4)	TIC	mg/kg						0.16	J	0.31	J			0.77	J
Unknown PAH substance	TIC	mg/kg						0.47	J			0.15	J	1.4	J
Unknown (5)	TIC	mg/kg						0.3	J	0.51	J			0.48	J
Unknown (6)	TIC	mg/kg						0.17	J					0.68	J
Unknown (7)	TIC	mg/kg						0.57	J					1.5	J
Unknown (8)	TIC	mg/kg						0.19	J					0.57	J
Unknown PAH substance (1	TIC	mg/kg						0.18	J					2.1	J
Unknown PAH substance (2	TIC	mg/kg						0.23	J					0.89	J
Unknown PAH substance (3	TIC	mg/kg						0.18	J					0.49	J
Unknown PAH substance (4	TIC	mg/kg												0.62	J
Total TIC, Semi-Volatile	OTAL TIC, SEMI-VOLATIL	mg/kg				0.77	J	6.05	J	2.44	J	0.85	J	19.87	J
(MS Semi-volatiles (SW846 8270E))															
2-Chlorophenol	95-57-8	mg/kg				0.018	U	0.018	U	0.018	U	0.017	U	0.018	U
4-Chloro-3-methyl phenol	59-50-7	mg/kg				0.022	U	0.022	U	0.022	U	0.021	U	0.022	U
2,4-Dichlorophenol	120-83-2	mg/kg				0.031	U	0.031	U	0.031	U	0.03	U	0.031	U
2,4-Dimethylphenol	105-67-9	mg/kg				0.064	U	0.064	U	0.065	U	0.062	U	0.065	U
2,4-Dinitrophenol	51-28-5	mg/kg				0.13	U	0.14	U	0.14	U	0.13	U	0.14	U
4,6-Dinitro-o-cresol	534-52-1	mg/kg				0.038	U	0.039	U	0.039	U	0.037	U	0.039	U
2-Methylphenol	95-48-7	mg/kg	0.33			0.023	U	0.023	U	0.023	U	0.022	U	0.023	U

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SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	TB-10		EP-33I (140)		EP-47I (155)		EP-48I (155)		EP-54 (155)		EP-55 (155)	
Lab Sample ID:				JE29170-1		JE29170-2		JE29170-3		JE29170-4		JE29170-5		JE29170-6	
Date Sampled:				3/3/2026 12:25 PM		3/3/2026 12:00 PM		3/3/2026 12:10 PM		3/3/2026 12:15 PM		3/3/2026 12:20 PM		3/3/2026 12:25 PM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**													
3&4-Methylphenol	M+P-CRESOLS	mg/kg	0.33			0.029	U	0.03	U	0.03	U	0.028	U	0.03	U
2-Nitrophenol	88-75-5	mg/kg				0.024	U	0.024	U	0.024	U	0.023	U	0.024	U
4-Nitrophenol	100-02-7	mg/kg				0.096	U	0.096	U	0.098	U	0.093	U	0.098	U
Pentachlorophenol	87-86-5	mg/kg	0.8			0.034	U	0.034	U	0.034	U	0.033	U	0.034	U
Phenol	108-95-2	mg/kg	0.33			0.019	U	0.019	U	0.019	U	0.018	U	0.019	U
2,3,4,6-Tetrachlorophenol	58-90-2	mg/kg				0.024	U	0.024	U	0.024	U	0.023	U	0.024	U
2,4,5-Trichlorophenol	95-95-4	mg/kg				0.027	U	0.027	U	0.027	U	0.026	U	0.027	U
2,4,6-Trichlorophenol	88-06-2	mg/kg				0.021	U	0.021	U	0.022	U	0.021	U	0.022	U
Acenaphthene	83-32-9	mg/kg	20			0.012	U	0.0413		0.0139	J	0.012	U	1.01	
Acenaphthylene	208-96-8	mg/kg	100			0.018	U	0.153		0.019	U	0.0252	J	0.275	
Acetophenone	98-86-2	mg/kg				0.0077	U	0.0078	U	0.0079	U	0.0075	U	0.0079	U
Anthracene	120-12-7	mg/kg	100			0.027	J	0.509		0.0468		0.0601		1.69	
Atrazine	1912-24-9	mg/kg				0.015	U	0.015	U	0.016	U	0.015	U	0.016	U
Benzo(a)anthracene	56-55-3	mg/kg	1			0.07		1.33		0.158		0.214		0.324	J
Benzo(a)pyrene	50-32-8	mg/kg	1			0.0587		0.941		0.148		0.221		3.18	
Benzo(b)fluoranthene	205-99-2	mg/kg	1			0.0758		1.3		0.171		0.257		3.38	
Benzo(g,h,i)perylene	191-24-2	mg/kg	0.64			0.0452		0.627		0.111		0.179		1.62	
Benzo(k)fluoranthene	207-08-9	mg/kg	0.8			0.0294	J	0.496		0.0675		0.104		1.13	
-Bromophenyl phenyl ethe	101-55-3	mg/kg				0.014	U	0.014	U	0.014	U	0.013	U	0.014	U
Butyl benzyl phthalate	85-68-7	mg/kg				0.0087	U	0.0227	J	0.0089	U	0.0085	U	0.0089	U
1,1'-Biphenyl	92-52-4	mg/kg				0.0049	U	0.0054	J	0.005	U	0.0047	U	0.122	
Benzaldehyde	100-52-7	mg/kg				0.0089	U	0.0089	U	0.0091	U	0.0086	U	0.0091	U
2-Chloronaphthalene	91-58-7	mg/kg				0.0085	U	0.0086	U	0.0087	U	0.0082	U	0.0087	U
4-Chloroaniline	106-47-8	mg/kg				0.013	U	0.013	U	0.013	U	0.012	U	0.013	U
Carbazole	86-74-8	mg/kg				0.0171	J	0.264		0.0267	J	0.0306	J	0.581	
Caprolactam	105-60-2	mg/kg				0.014	U	0.014	U	0.014	U	0.014	U	0.014	U
Chrysene	218-01-9	mg/kg	1			0.0706		1.2		0.159		0.202		0.232	J
is(2-Chloroethoxy)methan	111-91-1	mg/kg				0.0077	U	0.0077	U	0.0078	U	0.0074	U	0.0078	U
bis(2-Chloroethyl)ether	111-44-4	mg/kg				0.015	U	0.016	U	0.016	U	0.015	U	0.016	U
,2'-Oxybis(1-chloropropane	108-60-1	mg/kg				0.013	U	0.013	U	0.013	U	0.012	U	0.013	U
-Chlorophenyl phenyl ethe	7005-72-3	mg/kg				0.012	U	0.012	U	0.012	U	0.011	U	0.012	U
2,4-Dinitrotoluene	121-14-2	mg/kg				0.011	U	0.011	U	0.011	U	0.011	U	0.011	U
2,6-Dinitrotoluene	606-20-2	mg/kg				0.018	U	0.018	U	0.018	U	0.017	U	0.018	U
3,3'-Dichlorobenzidine	91-94-1	mg/kg				0.03	U	0.03	U	0.031	U	0.029	U	0.031	U
1,4-Dioxane	123-91-1	mg/kg	0.1			0.024	U	0.024	U	0.024	U	0.023	U	0.024	U
Dibenzo(a,h)anthracene	53-70-3	mg/kg	0.33			0.016	U	0.204		0.0287	J	0.0437		0.497	
Dibenzofuran	132-64-9	mg/kg	2.1			0.015	U	0.0722		0.015	U	0.014	U	0.428	
Di-n-butyl phthalate	84-74-2	mg/kg				0.0058	U	0.0157	J	0.0096	J	0.01	J	0.006	U
Di-n-octyl phthalate	117-84-0	mg/kg				0.0089	U	0.009	U	0.0091	U	0.0086	U	0.0091	U

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SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	TB-10		EP-33I (140)		EP-47I (155)		EP-48I (155)		EP-54 (155)		EP-55 (155)	
Lab Sample ID:				JE29170-1		JE29170-2		JE29170-3		JE29170-4		JE29170-5		JE29170-6	
Date Sampled:				3/3/2026 12:25 PM		3/3/2026 12:00 PM		3/3/2026 12:10 PM		3/3/2026 12:15 PM		3/3/2026 12:20 PM		3/3/2026 12:25 PM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**													
Diethyl phthalate	84-66-2	mg/kg				0.0076	U	0.0077	U	0.0078	U	0.0074	U	0.0078	U
Dimethyl phthalate	131-11-3	mg/kg				0.0064	U	0.0064	U	0.0065	U	0.0062	U	0.0065	U
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg				0.0123	J	0.0487	J	0.0165	J	0.0327	J	0.103	
Fluoranthene	206-44-0	mg/kg	85			0.135		2.86		0.336		0.386		0.491	
Fluorene	86-73-7	mg/kg	30			0.0163	J	0.0862		0.017	U	0.016	U	1.1	
Hexachlorobenzene	118-74-1	mg/kg	0.33			0.0091	U	0.0091	U	0.0093	U	0.0088	U	0.0093	U
Hexachlorobutadiene	87-68-3	mg/kg				0.014	U	0.014	U	0.015	U	0.014	U	0.015	U
Hexachlorocyclopentadiene	77-47-4	mg/kg				0.014	U	0.014	U	0.015	U	0.014	U	0.015	U
Hexachloroethane	67-72-1	mg/kg				0.018	U	0.018	U	0.018	U	0.017	U	0.018	U
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	0.5			0.0374		0.559		0.0891		0.139		1.32	
Isophorone	78-59-1	mg/kg				0.0077	U	0.0077	U	0.0078	U	0.0074	U	0.0078	U
2-Methylnaphthalene	91-57-6	mg/kg				0.0081	U	0.0107	J	0.0083	U	0.0078	U	0.808	
2-Nitroaniline	88-74-4	mg/kg				0.0084	U	0.0085	U	0.0086	U	0.0082	U	0.0086	U
3-Nitroaniline	99-09-2	mg/kg				0.0089	U	0.009	U	0.0092	U	0.0087	U	0.0091	U
4-Nitroaniline	100-01-6	mg/kg				0.0093	U	0.0093	U	0.0095	U	0.009	U	0.0095	U
Naphthalene	91-20-3	mg/kg	12			0.01	U	0.0192	J	0.01	U	0.0098	U	1.19	
Nitrobenzene	98-95-3	mg/kg	0.08			0.014	U	0.014	U	0.014	U	0.013	U	0.014	U
N-Nitroso-di-n-propylamine	621-64-7	mg/kg				0.01	U	0.01	U	0.011	U	0.01	U	0.011	U
N-Nitrosodiphenylamine	86-30-6	mg/kg				0.013	U	0.013	U	0.013	U	0.013	U	0.013	U
Phenanthrene	85-01-8	mg/kg	1.1			0.1		2.63		0.221		0.182		0.23	J
Pyrene	129-00-0	mg/kg	64			0.118		2.46		0.313		0.344		0.406	
1,2,4,5-Tetrachlorobenzene	95-94-3	mg/kg				0.0091	U	0.0092	U	0.0093	U	0.0088	U	0.0093	U
2-Fluorophenol	367-12-4	%				42		72		64		57		62	
2-Fluorophenol (1)	367-12-4	%												45	
Phenol-d5	4165-62-2	%				45		72		61		58		63	
Phenol-d5 (1)	4165-62-2	%												46	
2,4,6-Tribromophenol	118-79-6	%				51		75		69		62		69	
2,4,6-Tribromophenol (1)	118-79-6	%												47	
Nitrobenzene-d5	4165-60-0	%				41		70		62		59		60	
Nitrobenzene-d5 (1)	4165-60-0	%												46	
2-Fluorobiphenyl	321-60-8	%				48		72		65		61		68	
2-Fluorobiphenyl (1)	321-60-8	%												47	
Terphenyl-d14	1718-51-0	%				48		71		64		60		68	
Terphenyl-d14 (1)	1718-51-0	%												44	
(MS Volatile TIC ())															
Total TIC, Volatile	TOTAL TIC, VOLATILE	mg/kg				0		0		0		0		0	
Total TIC, Volatile	TOTAL TIC, VOLATILE	ug/l		0											
(MS Volatiles (SW846 8260D))															
Acetone	67-64-1	mg/kg	0.03			0.004	U	0.0038	U	0.0039	U	0.004	U	0.0039	U

SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	TB-10		EP-33I (140)		EP-47I (155)		EP-48I (155)		EP-54 (155)		EP-55 (155)	
Lab Sample ID:				JE29170-1		JE29170-2		JE29170-3		JE29170-4		JE29170-5		JE29170-6	
Date Sampled:				3/3/2026 12:25 PM		3/3/2026 12:00 PM		3/3/2026 12:10 PM		3/3/2026 12:15 PM		3/3/2026 12:20 PM		3/3/2026 12:25 PM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	CAS #	Unit													
Acetone	67-64-1	ug/l		3.1	U										
Benzene	71-43-2	mg/kg	0.06			0.00044	U	0.00042	U	0.00043	U	0.00044	U	0.00042	U
Bromochloromethane	74-97-5	mg/kg				0.00055	U	0.00052	U	0.00053	U	0.00054	U	0.00052	U
Benzene	71-43-2	ug/l		0.43	U										
Bromodichloromethane	75-27-4	mg/kg				0.00042	U	0.0004	U	0.00041	U	0.00041	U	0.0004	U
Bromoform	75-25-2	mg/kg				0.0013	U	0.0013	U	0.0013	U	0.0013	U	0.0013	U
Bromomethane	74-83-9	mg/kg				0.00075	U	0.00071	U	0.00073	U	0.00073	U	0.00071	U
2-Butanone (MEK)	78-93-3	mg/kg	0.1			0.0024	U	0.0023	U	0.0023	U	0.0023	U	0.0023	U
Bromochloromethane	74-97-5	ug/l		0.48	U										
Bromodichloromethane	75-27-4	ug/l		0.45	U										
Bromoform	75-25-2	ug/l		0.63	U										
Bromomethane	74-83-9	ug/l		1.6	U										
2-Butanone (MEK)	78-93-3	ug/l		2.7	U										
Carbon disulfide	75-15-0	mg/kg				0.00052	U	0.0005	U	0.00051	U	0.00051	U	0.0005	U
Carbon tetrachloride	56-23-5	mg/kg	0.76			0.0006	U	0.00057	U	0.00059	U	0.00059	U	0.00058	U
Chlorobenzene	108-90-7	mg/kg	4.5			0.00045	U	0.00043	U	0.00044	U	0.00044	U	0.00043	U
Chloroethane	75-00-3	mg/kg				0.00058	U	0.00055	U	0.00056	U	0.00057	U	0.00055	U
Carbon disulfide	75-15-0	ug/l		1.8	U										
Carbon tetrachloride	56-23-5	ug/l		0.55	U										
Chloroform	67-66-3	mg/kg	0.37			0.00098	U	0.00093	U	0.00095	U	0.00096	U	0.00093	U
Chlorobenzene	108-90-7	ug/l		0.56	U										
Chloromethane	74-87-3	mg/kg				0.0019	U	0.0018	U	0.0019	U	0.0019	U	0.0018	U
Chloroethane	75-00-3	ug/l		0.73	U										
Chloroform	67-66-3	ug/l		0.5	U										
Cyclohexane	110-82-7	mg/kg				0.00064	U	0.00061	U	0.00063	U	0.00063	U	0.00061	U
Chloromethane	74-87-3	ug/l		0.76	U										
2-Dibromo-3-chloropropar	96-12-8	mg/kg				0.00068	U	0.00064	U	0.00066	U	0.00066	U	0.00065	U
Cyclohexane	110-82-7	ug/l		0.78	U										
Dibromochloromethane	124-48-1	mg/kg				0.00055	U	0.00052	U	0.00053	U	0.00054	U	0.00052	U
1,2-Dibromoethane	106-93-4	mg/kg				0.00041	U	0.00039	U	0.0004	U	0.0004	U	0.00039	U
1,2-Dichlorobenzene	95-50-1	mg/kg	1.1			0.00053	U	0.00051	U	0.00052	U	0.00052	U	0.00051	U
1,3-Dichlorobenzene	541-73-1	mg/kg	2.6			0.00049	U	0.00046	U	0.00047	U	0.00047	U	0.00046	U
2-Dibromo-3-chloropropar	96-12-8	ug/l		0.53	U										
1,4-Dichlorobenzene	106-46-7	mg/kg	1.8			0.00048	U	0.00046	U	0.00047	U	0.00047	U	0.00046	U
Dibromochloromethane	124-48-1	ug/l		0.56	U										
1,2-Dibromoethane	106-93-4	ug/l		0.48	U										
Dichlorodifluoromethane	75-71-8	mg/kg				0.00071	U	0.00067	U	0.00069	U	0.0007	U	0.00068	U
1,1-Dichloroethane	75-34-3	mg/kg	0.27			0.00048	U	0.00046	U	0.00047	U	0.00047	U	0.00046	U
1,2-Dichlorobenzene	95-50-1	ug/l		0.53	U										

SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	TB-10		EP-33I (140)		EP-47I (155)		EP-48I (155)		EP-54 (155)		EP-55 (155)	
Lab Sample ID:				JE29170-1		JE29170-2		JE29170-3		JE29170-4		JE29170-5		JE29170-6	
Date Sampled:				3/3/2026 12:25 PM		3/3/2026 12:00 PM		3/3/2026 12:10 PM		3/3/2026 12:15 PM		3/3/2026 12:20 PM		3/3/2026 12:25 PM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	CAS #	Unit													
1,2-Dichloroethane	107-06-2	mg/kg	0.02			0.00046	U	0.00044	U	0.00045	U	0.00045	U	0.00044	U
1,3-Dichlorobenzene	541-73-1	ug/l		0.54	U										
1,1-Dichloroethene	75-35-4	mg/kg	0.24			0.00064	U	0.00061	U	0.00062	U	0.00063	U	0.00061	U
1,4-Dichlorobenzene	106-46-7	ug/l		0.51	U										
cis-1,2-Dichloroethene	156-59-2	mg/kg	0.19			0.00082	U	0.00078	U	0.0008	U	0.0008	U	0.00078	U
Dichlorodifluoromethane	75-71-8	ug/l		0.56	U										
trans-1,2-Dichloroethene	156-60-5	mg/kg	0.19			0.0006	U	0.00057	U	0.00058	U	0.00059	U	0.00057	U
1,1-Dichloroethane	75-34-3	ug/l		0.57	U										
1,2-Dichloroethane	107-06-2	ug/l		0.6	U										
1,2-Dichloropropane	78-87-5	mg/kg				0.00046	U	0.00044	U	0.00045	U	0.00045	U	0.00044	U
1,1-Dichloroethene	75-35-4	ug/l		0.59	U										
cis-1,2-Dichloroethene	156-59-2	ug/l		0.51	U										
trans-1,2-Dichloroethene	156-60-5	ug/l		0.54	U										
cis-1,3-Dichloropropene	10061-01-5	mg/kg				0.00046	U	0.00044	U	0.00045	U	0.00045	U	0.00044	U
1,2-Dichloropropane	78-87-5	ug/l		0.51	U										
trans-1,3-Dichloropropene	10061-02-6	mg/kg				0.00045	U	0.00042	U	0.00044	U	0.00044	U	0.00043	U
cis-1,3-Dichloropropene	10061-01-5	ug/l		0.47	U										
trans-1,3-Dichloropropene	10061-02-6	ug/l		0.43	U										
Ethylbenzene	100-41-4	mg/kg	1			0.00044	U	0.00042	U	0.00043	U	0.00043	U	0.00042	U
Ethylbenzene	100-41-4	ug/l		0.6	U										
Freon 113	76-13-1	mg/kg				0.0026	U	0.0025	U	0.0025	U	0.0026	U	0.0025	U
Freon 113	76-13-1	ug/l		0.58	U										
2-Hexanone	591-78-6	mg/kg				0.0021	U	0.002	U	0.002	U	0.002	U	0.002	U
2-Hexanone	591-78-6	ug/l		4.8	U										
Isopropylbenzene	98-82-8	mg/kg				0.0014	U	0.0013	U	0.0014	U	0.0014	U	0.0013	U
Isopropylbenzene	98-82-8	ug/l		0.65	U										
Methyl Acetate	79-20-9	mg/kg				0.0014	U	0.0013	U	0.0013	U	0.0013	U	0.0013	U
Methylcyclohexane	108-87-2	mg/kg				0.00086	U	0.00081	U	0.00083	U	0.00084	U	0.00082	U
Methyl Acetate	79-20-9	ug/l		0.8	U										
Methyl Tert Butyl Ether	1634-04-4	mg/kg	0.1			0.00046	U	0.00043	U	0.00045	U	0.00045	U	0.00044	U
Methylcyclohexane	108-87-2	ug/l		0.6	U										
-Methyl-2-pentanone(MIBK	108-10-1	mg/kg				0.0022	U	0.0021	U	0.0022	U	0.0022	U	0.0021	U
Methyl Tert Butyl Ether	1634-04-4	ug/l		0.51	U										
Methylene chloride	75-09-2	mg/kg	0.05			0.0026	U	0.0024	U	0.0025	U	0.0025	U	0.0024	U
-Methyl-2-pentanone(MIBK	108-10-1	ug/l		4.9	U										
Methylene chloride	75-09-2	ug/l		1	U										
Styrene	100-42-5	mg/kg				0.00039	U	0.00037	U	0.00038	U	0.00038	U	0.00038	U
Styrene	100-42-5	ug/l		0.49	U										
1,1,2,2-Tetrachloroethane	79-34-5	mg/kg				0.00059	U	0.00055	U	0.00057	U	0.00057	U	0.00056	U

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SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	TB-10		EP-33I (140)		EP-47I (155)		EP-48I (155)		EP-54 (155)		EP-55 (155)	
Lab Sample ID:				JE29170-1		JE29170-2		JE29170-3		JE29170-4		JE29170-5		JE29170-6	
Date Sampled:				3/3/2026 12:25 PM		3/3/2026 12:00 PM		3/3/2026 12:10 PM		3/3/2026 12:15 PM		3/3/2026 12:20 PM		3/3/2026 12:25 PM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**													
Tetrachloroethene	127-18-4	mg/kg	1.3			0.00057	U	0.00054	U	0.00055	U	0.00056	U	0.00054	U
1,1,2,2-Tetrachloroethane	79-34-5	ug/l		0.65	U										
Tetrachloroethene	127-18-4	ug/l		0.56	U										
Toluene	108-88-3	mg/kg	0.7			0.00051	U	0.00049	U	0.0005	U	0.0005	U	0.00049	U
1,2,3-Trichlorobenzene	87-61-6	mg/kg				0.0024	U	0.0023	U	0.0024	U	0.0024	U	0.0023	U
Toluene	108-88-3	ug/l		0.49	U										
1,2,4-Trichlorobenzene	120-82-1	mg/kg				0.0024	U	0.0023	U	0.0024	U	0.0024	U	0.0023	U
1,1,1-Trichloroethane	71-55-6	mg/kg	0.68			0.00047	U	0.00045	U	0.00046	U	0.00046	U	0.00045	U
1,2,3-Trichlorobenzene	87-61-6	ug/l		0.5	U										
1,1,2-Trichloroethane	79-00-5	mg/kg				0.00054	U	0.00051	U	0.00053	U	0.00053	U	0.00052	U
1,2,4-Trichlorobenzene	120-82-1	ug/l		0.5	U										
1,1,1-Trichloroethane	71-55-6	ug/l		0.54	U										
Trichloroethene	79-01-6	mg/kg	0.47			0.00075	U	0.00071	U	0.00073	U	0.00073	U	0.00071	U
1,1,2-Trichloroethane	79-00-5	ug/l		0.53	U										
Trichlorofluoromethane	75-69-4	mg/kg				0.00067	U	0.00063	U	0.00065	U	0.00066	U	0.00064	U
Trichloroethene	79-01-6	ug/l		0.53	U										
Trichlorofluoromethane	75-69-4	ug/l		0.4	U										
Vinyl chloride	75-01-4	mg/kg	0.03			0.00047	U	0.00045	U	0.00046	U	0.00046	U	0.00045	U
m,p-Xylene	M,P-XYLENE	mg/kg	0.26			0.00088	U	0.00083	U	0.00085	U	0.00086	U	0.00084	U
Vinyl chloride	75-01-4	ug/l		0.52	U										
o-Xylene	95-47-6	mg/kg	0.26			0.00045	U	0.00042	U	0.00044	U	0.00044	U	0.00043	U
Xylene (total)	1330-20-7	mg/kg	0.26			0.00045	U	0.00042	U	0.00044	U	0.00044	U	0.00043	U
m,p-Xylene	M,P-XYLENE	ug/l		0.78	U										
o-Xylene	95-47-6	ug/l		0.59	U										
Xylene (total)	1330-20-7	ug/l		0.59	U										
Dibromofluoromethane	1868-53-7	%		104		102		101		107		106		111	
1,2-Dichloroethane-D4	17060-07-0	%		118		113		116		117		115		118	
Toluene-D8	2037-26-5	%		102		87		89		95		101		98	
4-Bromofluorobenzene	460-00-4	%		102		90		93		96		97		99	

SGS

SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	TB-11		EP-56 (153.0')		EP-61 (152.8')		EP-62 (153.0')	
Lab Sample ID:				JE29651-1		JE29651-2		JE29651-3		JE29651-4	
Date Sampled:				3/10/2026 2:30 PM		3/10/2026 2:20 PM		3/10/2026 2:25 PM		3/10/2026 2:30 PM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**									
(GC/LC Semi-volatiles (SW846 8081B))											
Aldrin	309-00-2	mg/kg	0.0048			0.00056	U	0.00056	U	0.00058	U
alpha-BHC	319-84-6	mg/kg	0.02			0.00055	U	0.00056	U	0.00057	U
beta-BHC	319-85-7	mg/kg	0.021			0.00061	U	0.00062	U	0.00063	U
delta-BHC	319-86-8	mg/kg	0.04			0.00065	U	0.00066	U	0.00067	U
gamma-BHC (Lindane)	58-89-9	mg/kg	0.025			0.0005	U	0.0005	U	0.00051	U
alpha-Chlordane	5103-71-9	mg/kg	0.014			0.00055	U	0.002		0.0034	
gamma-Chlordane	5103-74-2	mg/kg				0.00031	U	0.0012		0.0028	
Dieldrin	60-57-1	mg/kg	0.005			0.00046	U	0.00047	U	0.00048	U
4,4'-DDD	72-54-8	mg/kg	0.0033			0.00062	U	0.00063	U	0.00064	U
4,4'-DDE	72-55-9	mg/kg	0.0033			0.00059	U	0.0006	U	0.00061	U
4,4'-DDT	50-29-3	mg/kg	0.0033			0.0006	U	0.00071		0.00086	
Endrin	72-20-8	mg/kg	0.014			0.00052	U	0.00053	U	0.00054	U
Endosulfan sulfate	1031-07-8	mg/kg	4.3			0.00053	U	0.00053	U	0.00055	U
Endrin aldehyde	7421-93-4	mg/kg				0.00038	U	0.00039	U	0.0004	U
Endosulfan-I	959-98-8	mg/kg	4.3			0.00039	U	0.00039	U	0.0004	U
Endosulfan-II	33213-65-9	mg/kg	4.3			0.00042	U	0.00043	U	0.00044	U
Heptachlor	76-44-8	mg/kg	0.013			0.00058	U	0.00059	U	0.0006	U
Heptachlor epoxide	1024-57-3	mg/kg				0.00047	U	0.00048	U	0.00049	U
Methoxychlor	72-43-5	mg/kg				0.00054	U	0.00054	U	0.00056	U
Endrin ketone	53494-70-5	mg/kg				0.00049	U	0.00049	U	0.0005	U
Toxaphene	8001-35-2	mg/kg				0.016	U	0.016	U	0.016	U
Tetrachloro-m-xylene (2)	877-09-8	%				50		68		62	
Tetrachloro-m-xylene (3)	877-09-8	%				48		65		58	
Decachlorobiphenyl (2)	2051-24-3	%				49		70		74	
Decachlorobiphenyl (3)	2051-24-3	%				83		74		87	
(GC/LC Semi-volatiles (SW846 8082A))											
Aroclor 1016	12674-11-2	mg/kg	0.1			0.016	U	0.016	U	0.016	U
Aroclor 1221	11104-28-2	mg/kg	0.1			0.021	U	0.021	U	0.022	U
Aroclor 1232	11141-16-5	mg/kg	0.1			0.022	U	0.022	U	0.022	U
Aroclor 1242	53469-21-9	mg/kg	0.1			0.014	U	0.014	U	0.014	U
Aroclor 1248	12672-29-6	mg/kg	0.1			0.03	U	0.03	U	0.031	U
Aroclor 1254	11097-69-1	mg/kg	0.1			0.018	U	0.018	U	0.019	U
Aroclor 1260	11096-82-5	mg/kg	0.1			0.014	U	0.015	U	0.015	U
Aroclor 1268	11100-14-4	mg/kg	0.1			0.03	U	0.03	U	0.031	U
Aroclor 1262	37324-23-5	mg/kg	0.1			0.022	U	0.022	U	0.023	U
Tetrachloro-m-xylene	877-09-8	%				46		35		54	
Tetrachloro-m-xylene (1)	877-09-8	%				72		56		87	
Decachlorobiphenyl	2051-24-3	%				40		36		49	
Decachlorobiphenyl (1)	2051-24-3	%				53		43		67	
(General Chemistry (SM2540 G 18TH ED MOD))											
Solids, Percent	PERCENT SOLIDS	%				93.1		93.3		93	
(General Chemistry (SW846 9012B/LACHAT))											
Cyanide	57-12-5	mg/kg	2.3			0.32	U	0.26	U	0.26	
(Metals Analysis (SW846 6010D))											
Aluminum	7429-90-5	mg/kg				3570		6800		5940	
Antimony	7440-36-0	mg/kg				1.4	U	1.4	U	1.4	U
Arsenic	7440-38-2	mg/kg	13			1.4	U	2.2		2.2	
Barium	7440-39-3	mg/kg	410			25		43.2		59.3	
Beryllium	7440-41-7	mg/kg	4.4			0.14		0.24		0.24	
Cadmium	7440-43-9	mg/kg	2.5			0.35	U	0.35	U	0.35	U
Calcium	7440-70-2	mg/kg				787		2550		3950	
Chromium	7440-47-3	mg/kg	30			7		12		12.1	
Cobalt	7440-48-4	mg/kg				3.5	U	5.3		4.7	
Copper	7440-50-8	mg/kg	50			8.1		15.4		16.3	
Iron	7439-89-6	mg/kg				7270		10600		10500	
Lead	7439-92-1	mg/kg	63			2.5		55.8		52.9	
Magnesium	7439-95-4	mg/kg				1870		3140		3100	

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SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	TB-11		EP-56 (153.0')		EP-61 (152.8')		EP-62 (153.0')	
Lab Sample ID:				JE29651-1		JE29651-2		JE29651-3		JE29651-4	
Date Sampled:				3/10/2026 2:30 PM		3/10/2026 2:20 PM		3/10/2026 2:25 PM		3/10/2026 2:30 PM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**									
Manganese	7439-96-5	mg/kg	1600			179		285		233	
Nickel	7440-02-0	mg/kg	30			6.8		10.4		10.6	
Potassium	7440-09-7	mg/kg				966		990		1170	
Selenium	7782-49-2	mg/kg	3.9			1.4	U	1.4	U	1.4	U
Silver	7440-22-4	mg/kg	2			0.35	U	0.35	U	0.35	U
Sodium	7440-23-5	mg/kg				690	U	710	U	690	U
Thallium	7440-28-0	mg/kg				0.69	U	0.71	U	0.69	U
Vanadium	7440-62-2	mg/kg				9.5		16.1		15.4	
Zinc	7440-66-6	mg/kg	109			23.4		76.6		60	
(Metals Analysis (SW846 7471B))											
Mercury	7439-97-6	mg/kg	0.18			0.04	U	0.13		0.039	U
(MS Semi-volatile TIC ())											
unknown	TIC	mg/kg				1.4	J	0.22	J	0.4	J
alkane	TIC	mg/kg				0.14	J	0.16	J		
alkene	TIC	mg/kg						0.26	J	0.3	J
unknown (6)	TIC	mg/kg				0.17	J	0.65	JB	0.38	J
unknown PAH substance	TIC	mg/kg								0.37	J
unknown PAH substance (1)	TIC	mg/kg						0.25	J		
alkane (1)	TIC	mg/kg				0.14	J				
unknown (15)	TIC	mg/kg						0.23	JB		
alkane (2)	TIC	mg/kg				0.15	J				
unknown (16)	TIC	mg/kg						0.19	J		
n-Hexadecanoic acid	57-10-3	mg/kg				0.42	JNB	0.3	JNB	0.61	JNB
unknown (7)	TIC	mg/kg				0.18	JB	0.18	J	0.64	J
unknown pah substance	TIC	mg/kg								0.49	J
unknown PAH substance (2)	TIC	mg/kg						0.27	J		
unknown (17)	TIC	mg/kg						0.17	J		
unknown (8)	TIC	mg/kg				0.21	J	0.32	J	0.42	JB
unknown (18)	TIC	mg/kg						0.3	J		
unknown (9)	TIC	mg/kg				0.23	J	0.33	J	0.27	J
unknown (1)	TIC	mg/kg				0.55	JB	0.31	J	0.4	J
unknown acid	TIC	mg/kg								0.35	J
unknown (2)	TIC	mg/kg				0.2	J	0.21	J	0.34	J
unknown (3)	TIC	mg/kg				0.35	J	0.21	J	0.65	JB
unknown (4)	TIC	mg/kg				0.14	J	0.31	J	0.31	J
unknown (5)	TIC	mg/kg				0.15	J	0.25	J	0.33	J
unknown pah substance	TIC	mg/kg								0.42	J
unknown (10)	TIC	mg/kg						0.21	J	0.57	JB
unknown pah substance (1)	TIC	mg/kg								0.24	J
unknown (11)	TIC	mg/kg						0.61	J	0.26	J
unknown pah substance (2)	TIC	mg/kg								0.28	J
unknown (12)	TIC	mg/kg						0.27	J	0.25	J
unknown PAH substance	TIC	mg/kg						0.21	J		
unknown (13)	TIC	mg/kg						0.25	J	0.25	J
unknown pah substance (3)	TIC	mg/kg								0.39	J
unknown (14)	TIC	mg/kg						0.16	J	0.24	J
Total TIC, Semi-Volatile	TOTAL TIC, SEMI-VOLATILE	mg/kg				3.28	J	5.65	J	6.91	J
(MS Semi-volatiles (SW846 8270E))											
2-Chlorophenol	95-57-8	mg/kg				0.017	U	0.018	U	0.017	U
4-Chloro-3-methyl phenol	59-50-7	mg/kg				0.021	U	0.022	U	0.021	U
2,4-Dichlorophenol	120-83-2	mg/kg				0.029	U	0.03	U	0.03	U
2,4-Dimethylphenol	105-67-9	mg/kg				0.061	U	0.063	U	0.062	U
2,4-Dinitrophenol	51-28-5	mg/kg				0.13	U	0.13	U	0.13	U
4,6-Dinitro-o-cresol	534-52-1	mg/kg				0.036	U	0.038	U	0.037	U
2-Methylphenol	95-48-7	mg/kg	0.33			0.022	U	0.023	U	0.022	U
3&4-Methylphenol	M+P-CRESOLS	mg/kg	0.33			0.028	U	0.029	U	0.029	U
2-Nitrophenol	88-75-5	mg/kg				0.022	U	0.023	U	0.023	U
4-Nitrophenol	100-02-7	mg/kg				0.091	U	0.095	U	0.093	U

SGS

SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	TB-11		EP-56 (153.0')		EP-61 (152.8')		EP-62 (153.0')	
Lab Sample ID:				JE29651-1		JE29651-2		JE29651-3		JE29651-4	
Date Sampled:				3/10/2026 2:30 PM		3/10/2026 2:20 PM		3/10/2026 2:25 PM		3/10/2026 2:30 PM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**									
Pentachlorophenol	87-86-5	mg/kg	0.8			0.032	U	0.033	U	0.033	U
Phenol	108-95-2	mg/kg	0.33			0.018	U	0.019	U	0.018	U
2,3,4,6-Tetrachlorophenol	58-90-2	mg/kg				0.023	U	0.023	U	0.023	U
2,4,5-Trichlorophenol	95-95-4	mg/kg				0.025	U	0.027	U	0.026	U
2,4,6-Trichlorophenol	88-06-2	mg/kg				0.02	U	0.021	U	0.021	U
Acenaphthene	83-32-9	mg/kg	20			0.012	U	0.015	J	0.0415	
Acenaphthylene	208-96-8	mg/kg	100			0.017	U	0.018	U	0.0314	J
Acetophenone	98-86-2	mg/kg				0.0073	U	0.0076	U	0.0075	U
Anthracene	120-12-7	mg/kg	100			0.021	U	0.0469		0.126	
Atrazine	1912-24-9	mg/kg				0.015	U	0.015	U	0.015	U
Benzo(a)anthracene	56-55-3	mg/kg	1			0.0096	U	0.17		0.502	
Benzo(a)pyrene	50-32-8	mg/kg	1			0.015	U	0.165		0.504	
Benzo(b)fluoranthene	205-99-2	mg/kg	1			0.015	U	0.202		0.625	
Benzo(g,h,i)perylene	191-24-2	mg/kg	0.64			0.017	U	0.123		0.336	
Benzo(k)fluoranthene	207-08-9	mg/kg	0.8			0.016	U	0.0743		0.22	
4-Bromophenyl phenyl ether	101-55-3	mg/kg				0.013	U	0.014	U	0.013	U
Butyl benzyl phthalate	85-68-7	mg/kg				0.0083	U	0.0087	U	0.0142	J
1,1'-Biphenyl	92-52-4	mg/kg				0.0047	U	0.0049	U	0.0048	U
Benzaldehyde	100-52-7	mg/kg				0.0084	U	0.0088	U	0.0086	U
2-Chloronaphthalene	91-58-7	mg/kg				0.0081	U	0.0084	U	0.0083	U
4-Chloroaniline	106-47-8	mg/kg				0.012	U	0.013	U	0.013	U
Carbazole	86-74-8	mg/kg				0.0049	U	0.0242	J	0.0629	J
Caprolactam	105-60-2	mg/kg				0.013	U	0.014	U	0.014	U
Chrysene	218-01-9	mg/kg	1			0.011	U	0.163		0.508	
bis(2-Chloroethoxy)methane	111-91-1	mg/kg				0.0073	U	0.0076	U	0.0074	U
bis(2-Chloroethyl)ether	111-44-4	mg/kg				0.015	U	0.015	U	0.015	U
2,2'-Oxybis(1-chloropropane)	108-60-1	mg/kg				0.012	U	0.013	U	0.012	U
4-Chlorophenyl phenyl ether	7005-72-3	mg/kg				0.011	U	0.011	U	0.011	U
2,4-Dinitrotoluene	121-14-2	mg/kg				0.011	U	0.011	U	0.011	U
2,6-Dinitrotoluene	606-20-2	mg/kg				0.017	U	0.018	U	0.017	U
3,3'-Dichlorobenzidine	91-94-1	mg/kg				0.028	U	0.03	U	0.029	U
1,4-Dioxane	123-91-1	mg/kg	0.1			0.022	U	0.023	U	0.023	U
Dibenzo(a,h)anthracene	53-70-3	mg/kg	0.33			0.015	U	0.0333	J	0.0922	
Dibenzofuran	132-64-9	mg/kg	2.1			0.014	U	0.014	U	0.0197	J
Di-n-butyl phthalate	84-74-2	mg/kg				0.0055	U	0.0058	U	0.0057	U
Di-n-octyl phthalate	117-84-0	mg/kg				0.0085	U	0.0088	U	0.0087	U
Diethyl phthalate	84-66-2	mg/kg				0.0072	U	0.0076	U	0.0074	U
Dimethyl phthalate	131-11-3	mg/kg				0.0061	U	0.0063	U	0.0062	U
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg				0.008	U	0.0195	J	0.0246	J
Fluoranthene	206-44-0	mg/kg	85			0.015	U	0.27		0.724	
Fluorene	86-73-7	mg/kg	30			0.016	U	0.016	U	0.0395	
Hexachlorobenzene	118-74-1	mg/kg	0.33			0.0086	U	0.009	U	0.0088	U
Hexachlorobutadiene	87-68-3	mg/kg				0.014	U	0.014	U	0.014	U
Hexachlorocyclopentadiene	77-47-4	mg/kg				0.014	U	0.014	U	0.014	U
Hexachloroethane	67-72-1	mg/kg				0.017	U	0.018	U	0.017	U
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	0.5			0.016	U	0.122		0.357	
Isophorone	78-59-1	mg/kg				0.0073	U	0.0076	U	0.0074	U
2-Methylnaphthalene	91-57-6	mg/kg				0.0077	U	0.008	U	0.0109	J
2-Nitroaniline	88-74-4	mg/kg				0.008	U	0.0084	U	0.0082	U
3-Nitroaniline	99-09-2	mg/kg				0.0085	U	0.0089	U	0.0087	U
4-Nitroaniline	100-01-6	mg/kg				0.0088	U	0.0092	U	0.009	U
Naphthalene	91-20-3	mg/kg	12			0.0096	U	0.01	U	0.0196	J
Nitrobenzene	98-95-3	mg/kg	0.08			0.013	U	0.014	U	0.013	U
N-Nitroso-di-n-propylamine	621-64-7	mg/kg				0.0098	U	0.01	U	0.01	U
N-Nitrosodiphenylamine	86-30-6	mg/kg				0.012	U	0.013	U	0.013	U
Phenanthrene	85-01-8	mg/kg	1.1			0.0122	J	0.154		0.411	
Pyrene	129-00-0	mg/kg	64			0.0117	J	0.299		0.866	
1,2,4,5-Tetrachlorobenzene	95-94-3	mg/kg				0.0086	U	0.009	U	0.0088	U

SGS

SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	TB-11		EP-56 (153.0')		EP-61 (152.8')		EP-62 (153.0')	
Lab Sample ID:				JE29651-1		JE29651-2		JE29651-3		JE29651-4	
Date Sampled:				3/10/2026 2:30 PM		3/10/2026 2:20 PM		3/10/2026 2:25 PM		3/10/2026 2:30 PM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**									
2-Fluorophenol	367-12-4	%				66		59		73	
Phenol-d5	4165-62-2	%				73		65		82	
2,4,6-Tribromophenol	118-79-6	%				76		64		81	
Nitrobenzene-d5	4165-60-0	%				97		86		113	*
2-Fluorobiphenyl	321-60-8	%				72		61		79	
Terphenyl-d14	1718-51-0	%				81		69		91	
(MS Volatile TIC ())											
Total TIC, Volatile	TOTAL TIC, VOLATILE	mg/kg				0		0		0	
Total TIC, Volatile	TOTAL TIC, VOLATILE	ug/l		0							
(MS Volatiles (SW846 8260D))											
Acetone	67-64-1	mg/kg	0.03			0.0043	U	0.0038	U	0.004	U
Acetone	67-64-1	ug/l		3.1	U						
Benzene	71-43-2	mg/kg	0.06			0.00047	U	0.00042	U	0.00044	U
Bromochloromethane	74-97-5	mg/kg				0.00058	U	0.00052	U	0.00054	U
Benzene	71-43-2	ug/l		0.43	U						
Bromodichloromethane	75-27-4	mg/kg				0.00044	U	0.0004	U	0.00041	U
Bromoform	75-25-2	mg/kg				0.0014	U	0.0013	U	0.0013	U
Bromomethane	74-83-9	mg/kg				0.00079	U	0.00071	U	0.00073	U
2-Butanone (MEK)	78-93-3	mg/kg	0.1			0.0025	U	0.0022	U	0.0023	U
Bromochloromethane	74-97-5	ug/l		0.48	U						
Bromodichloromethane	75-27-4	ug/l		0.45	U						
Bromoform	75-25-2	ug/l		0.63	U						
Bromomethane	74-83-9	ug/l		1.6	U						
2-Butanone (MEK)	78-93-3	ug/l		2.7	U						
Carbon disulfide	75-15-0	mg/kg				0.00055	U	0.00049	U	0.00051	U
Carbon tetrachloride	56-23-5	mg/kg	0.76			0.00064	U	0.00057	U	0.00059	U
Chlorobenzene	108-90-7	mg/kg	4.5			0.00047	U	0.00042	U	0.00044	U
Chloroethane	75-00-3	mg/kg				0.00061	U	0.00055	U	0.00057	U
Carbon disulfide	75-15-0	ug/l		1.8	U						
Carbon tetrachloride	56-23-5	ug/l		0.55	U						
Chloroform	67-66-3	mg/kg	0.37			0.001	U	0.00092	U	0.00096	U
Chlorobenzene	108-90-7	ug/l		0.56	U						
Chloromethane	74-87-3	mg/kg				0.002	U	0.0018	U	0.0019	U
Chloroethane	75-00-3	ug/l		0.73	U						
Chloroform	67-66-3	ug/l		0.5	U						
Cyclohexane	110-82-7	mg/kg				0.00068	U	0.00061	U	0.00063	U
Chloromethane	74-87-3	ug/l		0.76	U						
1,2-Dibromo-3-chloropropane	96-12-8	mg/kg				0.00072	U	0.00064	U	0.00067	U
Cyclohexane	110-82-7	ug/l		0.78	U						
Dibromochloromethane	124-48-1	mg/kg				0.00058	U	0.00052	U	0.00054	U
1,2-Dibromoethane	106-93-4	mg/kg				0.00043	U	0.00039	U	0.0004	U
1,2-Dichlorobenzene	95-50-1	mg/kg	1.1			0.00056	U	0.0005	U	0.00052	U
1,3-Dichlorobenzene	541-73-1	mg/kg	2.6			0.00051	U	0.00046	U	0.00048	U
1,2-Dibromo-3-chloropropane	96-12-8	ug/l		0.53	U						
1,4-Dichlorobenzene	106-46-7	mg/kg	1.8			0.00051	U	0.00046	U	0.00047	U
Dibromochloromethane	124-48-1	ug/l		0.56	U						
1,2-Dibromoethane	106-93-4	ug/l		0.48	U						
Dichlorodifluoromethane	75-71-8	mg/kg				0.00075	U	0.00067	U	0.0007	U
1,1-Dichloroethane	75-34-3	mg/kg	0.27			0.00051	U	0.00046	U	0.00048	U
1,2-Dichlorobenzene	95-50-1	ug/l		0.53	U						
1,2-Dichloroethane	107-06-2	mg/kg	0.02			0.00049	U	0.00043	U	0.00045	U
1,3-Dichlorobenzene	541-73-1	ug/l		0.54	U						
1,1-Dichloroethene	75-35-4	mg/kg	0.24			0.00068	U	0.00061	U	0.00063	U
1,4-Dichlorobenzene	106-46-7	ug/l		0.51	U						
cis-1,2-Dichloroethene	156-59-2	mg/kg	0.19			0.00087	U	0.00078	U	0.00081	U
Dichlorodifluoromethane	75-71-8	ug/l		0.56	U						
trans-1,2-Dichloroethene	156-60-5	mg/kg	0.19			0.00063	U	0.00056	U	0.00059	U
1,1-Dichloroethane	75-34-3	ug/l		0.57	U						

SGS

SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	TB-11		EP-56 (153.0')		EP-61 (152.8')		EP-62 (153.0')	
Lab Sample ID:				JE29651-1		JE29651-2		JE29651-3		JE29651-4	
Date Sampled:				3/10/2026 2:30 PM		3/10/2026 2:20 PM		3/10/2026 2:25 PM		3/10/2026 2:30 PM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**									
1,2-Dichloroethane	107-06-2	ug/l		0.6	U						
1,2-Dichloropropane	78-87-5	mg/kg				0.00049	U	0.00044	U	0.00045	U
1,1-Dichloroethene	75-35-4	ug/l		0.59	U						
cis-1,2-Dichloroethene	156-59-2	ug/l		0.51	U						
trans-1,2-Dichloroethene	156-60-5	ug/l		0.54	U						
cis-1,3-Dichloropropene	10061-01-5	mg/kg				0.00049	U	0.00044	U	0.00046	U
1,2-Dichloropropane	78-87-5	ug/l		0.51	U						
trans-1,3-Dichloropropene	10061-02-6	mg/kg				0.00047	U	0.00042	U	0.00044	U
cis-1,3-Dichloropropene	10061-01-5	ug/l		0.47	U						
trans-1,3-Dichloropropene	10061-02-6	ug/l		0.43	U						
Ethylbenzene	100-41-4	mg/kg	1			0.00047	U	0.00042	U	0.00043	U
Ethylbenzene	100-41-4	ug/l		0.6	U						
Freon 113	76-13-1	mg/kg				0.0028	U	0.0025	U	0.0026	U
Freon 113	76-13-1	ug/l		0.58	U						
2-Hexanone	591-78-6	mg/kg				0.0022	U	0.002	U	0.002	U
2-Hexanone	591-78-6	ug/l		4.8	U						
Isopropylbenzene	98-82-8	mg/kg				0.0015	U	0.0013	U	0.0014	U
Isopropylbenzene	98-82-8	ug/l		0.65	U						
Methyl Acetate	79-20-9	mg/kg				0.0014	U	0.0013	U	0.0013	U
Methylcyclohexane	108-87-2	mg/kg				0.0009	U	0.00081	U	0.00084	U
Methyl Acetate	79-20-9	ug/l		0.8	U						
Methyl Tert Butyl Ether	1634-04-4	mg/kg	0.1			0.00048	U	0.00043	U	0.00045	U
Methylcyclohexane	108-87-2	ug/l		0.6	U						
4-Methyl-2-pentanone(MIBK)	108-10-1	mg/kg				0.0023	U	0.0021	U	0.0022	U
Methyl Tert Butyl Ether	1634-04-4	ug/l		0.51	U						
Methylene chloride	75-09-2	mg/kg	0.05			0.0043	J	0.0039	J	0.0047	J
4-Methyl-2-pentanone(MIBK)	108-10-1	ug/l		4.9	U						
Methylene chloride	75-09-2	ug/l		1	U						
Styrene	100-42-5	mg/kg				0.00042	U	0.00037	U	0.00039	U
Styrene	100-42-5	ug/l		0.49	U						
1,1,2,2-Tetrachloroethane	79-34-5	mg/kg				0.00062	U	0.00055	U	0.00058	U
Tetrachloroethene	127-18-4	mg/kg	1.3			0.0006	U	0.00054	U	0.00056	U
1,1,2,2-Tetrachloroethane	79-34-5	ug/l		0.65	U						
Tetrachloroethene	127-18-4	ug/l		0.56	U						
Toluene	108-88-3	mg/kg	0.7			0.00054	U	0.00049	U	0.0005	U
1,2,3-Trichlorobenzene	87-61-6	mg/kg				0.0026	U	0.0023	U	0.0024	U
Toluene	108-88-3	ug/l		0.49	U						
1,2,4-Trichlorobenzene	120-82-1	mg/kg				0.0026	U	0.0023	U	0.0024	U
1,1,1-Trichloroethane	71-55-6	mg/kg	0.68			0.0005	U	0.00045	U	0.00046	U
1,2,3-Trichlorobenzene	87-61-6	ug/l		0.5	U						
1,1,2-Trichloroethane	79-00-5	mg/kg				0.00057	U	0.00051	U	0.00053	U
1,2,4-Trichlorobenzene	120-82-1	ug/l		0.5	U						
1,1,1-Trichloroethane	71-55-6	ug/l		0.54	U						
Trichloroethene	79-01-6	mg/kg	0.47			0.00079	U	0.0007	U	0.00073	U
1,1,2-Trichloroethane	79-00-5	ug/l		0.53	U						
Trichlorofluoromethane	75-69-4	mg/kg				0.00071	U	0.00063	U	0.00066	U
Trichloroethene	79-01-6	ug/l		0.53	U						
Trichlorofluoromethane	75-69-4	ug/l		0.4	U						
Vinyl chloride	75-01-4	mg/kg	0.03			0.0005	U	0.00044	U	0.00046	U
m,p-Xylene	M,P-XYLENE	mg/kg	0.26			0.00093	U	0.00083	U	0.00086	U
Vinyl chloride	75-01-4	ug/l		0.52	U						
o-Xylene	95-47-6	mg/kg	0.26			0.00047	U	0.00042	U	0.00044	U
Xylene (total)	1330-20-7	mg/kg	0.26			0.00047	U	0.00042	U	0.00044	U
m,p-Xylene	M,P-XYLENE	ug/l		0.78	U						
o-Xylene	95-47-6	ug/l		0.59	U						
Xylene (total)	1330-20-7	ug/l		0.59	U						
Dibromofluoromethane	1868-53-7	%		99		106		104		105	
1,2-Dichloroethane-D4	17060-07-0	%		94		124		124		122	

SGS

SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	TB-11		EP-56 (153.0')		EP-61 (152.8')		EP-62 (153.0')	
Lab Sample ID:				JE29651-1		JE29651-2		JE29651-3		JE29651-4	
Date Sampled:				3/10/2026 2:30 PM		3/10/2026 2:20 PM		3/10/2026 2:25 PM		3/10/2026 2:30 PM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil	
Analyte	CAS #	Unit									
Toluene-D8	2037-26-5	%		96		105		102		107	
4-Bromofluorobenzene	460-00-4	%		92		104		101		102	

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SGS Engage - Group Crosstab

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE30219		JE30219		JE30219		JE30219		JE30219		JE30219	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444		11444	
Client Sample ID:				TB-12		EP-75 (154.7')		EP-76 (154.1')		EP-77 (153.6')		EP-82 (154.8')		EP-83 (154.0')	
Lab Sample ID:				JE30219-1		JE30219-2		JE30219-3		JE30219-4		JE30219-5		JE30219-6	
Location:															
Date Sampled:				3/17/2026 2:27 PM		3/17/2026 2:00 PM		3/17/2026 2:07 PM		3/17/2026 2:12 PM		3/17/2026 2:16 PM		3/17/2026 2:20 PM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**													
(GC/LC Semi-volatiles (SW846 8081B))															
Aldrin	309-00-2	mg/kg	0.0048			0.00058	U	0.00058	U	0.00053	U	0.00063	U	0.00068	U
alpha-BHC	319-84-6	mg/kg	0.02			0.00057	U	0.00057	U	0.00052	U	0.00079		0.00067	U
beta-BHC	319-85-7	mg/kg	0.021			0.00064	U	0.00063	U	0.00058	U	0.00069	U	0.00074	U
delta-BHC	319-86-8	mg/kg	0.04			0.00068	U	0.00067	U	0.00062	U	0.00073	U	0.00079	U
gamma-BHC (Lindane)	58-89-9	mg/kg	0.025			0.00052	U	0.00052	U	0.00048	U	0.00056	U	0.00061	U
alpha-Chlordane	5103-71-9	mg/kg	0.014			0.0105		0.0111		0.00052	U	0.0036		0.0015	
gamma-Chlordane	5103-74-2	mg/kg				0.0132		0.013		0.00029	U	0.0041		0.0015	
Dieldrin	60-57-1	mg/kg	0.005			0.0017		0.00048	U	0.00044	U	0.0031		0.00092	
4,4'-DDD	72-54-8	mg/kg	0.0033			0.0068		0.0034		0.00059	U	0.0036		0.0018	
4,4'-DDE	72-55-9	mg/kg	0.0033			0.0015		0.0015		0.00057	U	0.00067	U	0.00072	U
4,4'-DDT	50-29-3	mg/kg	0.0033			0.0017		0.0017		0.00057	U	0.0025		0.0022	
Endrin	72-20-8	mg/kg	0.014			0.00055	U	0.00055	U	0.0005	U	0.00059	U	0.00064	U
Endosulfan sulfate	1031-07-8	mg/kg	4.3			0.0017		0.0017		0.0005	U	0.0016		0.0012	
Endrin aldehyde	7421-93-4	mg/kg				0.0004	U	0.0004	U	0.00037	U	0.00043	U	0.00047	U
Endosulfan-I	959-98-8	mg/kg	4.3			0.00041	U	0.0004	U	0.00037	U	0.00044	U	0.00047	U
Endosulfan-II	33213-65-9	mg/kg	4.3			0.00044	U	0.00044	U	0.0004	U	0.00047	U	0.00051	U
Heptachlor	76-44-8	mg/kg	0.013			0.00061	U	0.0006	U	0.00056	U	0.00066	U	0.00071	U
Heptachlor epoxide	1024-57-3	mg/kg				0.0008		0.00089		0.00045	U	0.00096		0.00058	U
Methoxychlor	72-43-5	mg/kg				0.00056	U	0.00056	U	0.00051	U	0.0006	U	0.00065	U
Endrin ketone	53494-70-5	mg/kg				0.00051	U	0.00051	U	0.00047	U	0.00055	U	0.00059	U
Toxaphene	8001-35-2	mg/kg				0.016	U	0.016	U	0.015	U	0.018	U	0.019	U
Tetrachloro-m-xylene (2)	877-09-8	%				76		73		65		90		72	
Tetrachloro-m-xylene (3)	877-09-8	%				72		54		60		79		69	
Decachlorobiphenyl (2)	2051-24-3	%				110		111		78		165		81	
Decachlorobiphenyl (3)	2051-24-3	%				84		86		75		87		107	
(GC/LC Semi-volatiles (SW846 8082A))															
Aroclor 1016	12674-11-2	mg/kg	0.1			0.016	U	0.016	U	0.015	U	0.018	U	0.019	U
Aroclor 1221	11104-28-2	mg/kg	0.1			0.022	U	0.022	U	0.02	U	0.024	U	0.025	U
Aroclor 1232	11141-16-5	mg/kg	0.1			0.022	U	0.022	U	0.021	U	0.024	U	0.026	U

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE30219		JE30219		JE30219		JE30219		JE30219		JE30219	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444		11444	
Client Sample ID:				TB-12		EP-75 (154.7')		EP-76 (154.1')		EP-77 (153.6')		EP-82 (154.8')		EP-83 (154.0')	
Lab Sample ID:				JE30219-1		JE30219-2		JE30219-3		JE30219-4		JE30219-5		JE30219-6	
Location:															
Date Sampled:				3/17/2026 2:27 PM		3/17/2026 2:00 PM		3/17/2026 2:07 PM		3/17/2026 2:12 PM		3/17/2026 2:16 PM		3/17/2026 2:20 PM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**													
Aroclor 1242	53469-21-9	mg/kg	0.1			0.014	U	0.014	U	0.013	U	0.016	U	0.017	U
Aroclor 1248	12672-29-6	mg/kg	0.1			0.031	U	0.031	U	0.029	U	0.034	U	0.037	U
Aroclor 1254	11097-69-1	mg/kg	0.1			0.019	U	0.019	U	0.017	U	0.02	U	0.022	U
Aroclor 1260	11096-82-5	mg/kg	0.1			0.015	U	0.015	U	0.014	U	0.016	U	0.018	U
Aroclor 1268	11100-14-4	mg/kg	0.1			0.031	U	0.031	U	0.028	U	0.033	U	0.036	U
Aroclor 1262	37324-23-5	mg/kg	0.1			0.023	U	0.023	U	0.021	U	0.025	U	0.027	U
Tetrachloro-m-xylene	877-09-8	%				55		58		54		64		62	
Tetrachloro-m-xylene (1)	877-09-8	%				83		74		84		96		94	
Decachlorobiphenyl	2051-24-3	%				53		46		43		63		49	
Decachlorobiphenyl (1)	2051-24-3	%				89		85		58		122		75	
(General Chemistry (SM2540 G 18TH ED MOD))															
Solids, Percent	PERCENT SOLIDS	%				90		86.4		93.3		86		81.1	
(General Chemistry (SW846 9012B/LACHAT))															
Cyanide	57-12-5	mg/kg	2.3			0.27	U	0.24	U	0.25	U	0.25	U	0.26	U
(Metals Analysis (SW846 6010D))															
Aluminum	7429-90-5	mg/kg				7090		6620		4230		7050		8490	
Antimony	7440-36-0	mg/kg				1.4	U	1.5	U	1.4	U	1.5	U	1.6	U
Arsenic	7440-38-2	mg/kg	13			2.2		2.5		1.4	U	2.6		2.4	
Barium	7440-39-3	mg/kg	410			106		81		25		113		87.2	
Beryllium	7440-41-7	mg/kg	4.4			0.31		0.24		0.17		0.28		0.32	
Cadmium	7440-43-9	mg/kg	2.5			0.36	U	0.38	U	0.35	U	0.38	U	11.9	
Calcium	7440-70-2	mg/kg				8960		9530		727		14800		4790	
Chromium	7440-47-3	mg/kg				17.1		13.1		7.6		12.3		14.2	
Cobalt	7440-48-4	mg/kg				4.9		5		3.5	U	4.7		5.5	
Copper	7440-50-8	mg/kg	50			16.5		21.7		6.9		16.8		14.1	
Iron	7439-89-6	mg/kg				10600		11200		7520		12000		12400	
Lead	7439-92-1	mg/kg	63			109		73.5		7		78.5		43.7	
Magnesium	7439-95-4	mg/kg				3990		4580		1950		2730		3660	
Manganese	7439-96-5	mg/kg	1600			210		216		160		252		474	
Nickel	7440-02-0	mg/kg	30			13.9		11		6.3		10.7		12.8	
Potassium	7440-09-7	mg/kg				1250		1120		810		1070		1170	
Selenium	7782-49-2	mg/kg	3.9			1.4	U	1.5	U	1.4	U	1.5	U	1.6	U
Silver	7440-22-4	mg/kg	2			0.36	U	0.38	U	0.35	U	0.38	U	0.41	U

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE30219		JE30219		JE30219		JE30219		JE30219		JE30219	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444		11444	
Client Sample ID:				TB-12		EP-75 (154.7')		EP-76 (154.1')		EP-77 (153.6')		EP-82 (154.8')		EP-83 (154.0')	
Lab Sample ID:				JE30219-1		JE30219-2		JE30219-3		JE30219-4		JE30219-5		JE30219-6	
Location:															
Date Sampled:				3/17/2026 2:27 PM		3/17/2026 2:00 PM		3/17/2026 2:07 PM		3/17/2026 2:12 PM		3/17/2026 2:16 PM		3/17/2026 2:20 PM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**													
Sodium	7440-23-5	mg/kg				720	U	750	U	710	U	760	U	810	U
Thallium	7440-28-0	mg/kg				0.72	U	0.75	U	0.71	U	0.76	U	0.81	U
Vanadium	7440-62-2	mg/kg				19.1		16.7		9.9		17.1		18.5	
Zinc	7440-66-6	mg/kg	109			98.3		76.4		25.7		113		77.6	
(Metals Analysis (SW846 7471B))															
Mercury	7439-97-6	mg/kg	0.18			0.057		0.067		0.04	U	0.06		0.044	U
(MS Semi-volatile TIC ())															
Alkane	TIC	mg/kg				0.35	J								
Cyclopenta[]phenanthrene	TIC	mg/kg													
n-Hexadecanoic acid	57-10-3	mg/kg						0.8	JNB	0.55	JN				
Unknown (4)	TIC	mg/kg				0.34	J	0.52	J	0.23	J	0.39	J	1.5	J
Unknown	TIC	mg/kg				0.37	JB	1.5	J	1.4	J	1.5	JB	1.5	J
Unknown (5)	TIC	mg/kg				0.29	J	0.3	J	0.25	J	0.29	J	0.29	J
Alkane (1)	TIC	mg/kg				0.38	J								
Dibenzopyrene	TIC	mg/kg						0.47	J					0.21	J
Unknown (6)	TIC	mg/kg				0.46	J	0.66	J	0.17	J	0.49	J	0.42	J
Pyrene methyl	TIC	mg/kg												0.16	J
Unknown (7)	TIC	mg/kg				0.34	J	0.46	J	0.15	J	0.31	J	0.43	J
Unknown PAH substance	TIC	mg/kg				0.87	J	0.28	J			0.65	J	0.18	J
Unknown PAH substance (6	TIC	mg/kg				0.7	J					0.85	J		
Benzo[]naphtho[]thiophene	239-35-0	mg/kg												0.17	JN
Unknown (1)	TIC	mg/kg				0.75	J	0.24	J	0.18	J	0.27	J	0.19	J
Unknown (12)	TIC	mg/kg				0.54	J	0.77	J			0.26	J		
Unknown (16)	TIC	mg/kg						0.57	J			0.57	J		
Unknown (8)	TIC	mg/kg				1	J	0.27	J	0.22	J	0.52	J		
Unknown (13)	TIC	mg/kg				0.43	J	0.46	J			0.35	J		
Unknown (2)	TIC	mg/kg				0.31	J	0.26	J	0.38	J	0.28	J	0.28	J
Unknown (9)	TIC	mg/kg				0.32	J	0.25	J			0.99	J		
Unknown (10)	TIC	mg/kg				0.34	J	0.24	J			0.28	JB		
Unknown (14)	TIC	mg/kg				0.42	J	0.32	J			0.29	J		
Unknown (17)	TIC	mg/kg						0.31	J			0.36	J		
Unknown (3)	TIC	mg/kg				0.54	J	0.32	J	0.15	J	0.27	J	0.5	J
Unknown PAH substance (7	TIC	mg/kg													

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE30219		JE30219		JE30219		JE30219		JE30219		JE30219	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444		11444	
Client Sample ID:				TB-12		EP-75 (154.7')		EP-76 (154.1')		EP-77 (153.6')		EP-82 (154.8')		EP-83 (154.0')	
Lab Sample ID:				JE30219-1		JE30219-2		JE30219-3		JE30219-4		JE30219-5		JE30219-6	
Location:															
Date Sampled:				3/17/2026 2:27 PM		3/17/2026 2:00 PM		3/17/2026 2:07 PM		3/17/2026 2:12 PM		3/17/2026 2:16 PM		3/17/2026 2:20 PM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**													
Unknown (11)	TIC	mg/kg				0.35	J	0.34	J			0.38	J		
Unknown (15)	TIC	mg/kg				0.36	J	0.38	JB			0.26	J		
Unknown (18)	TIC	mg/kg						0.58	J						
Unknown PAH substance (1	TIC	mg/kg				0.56	J	0.29	J			0.36	J	0.25	J
Alkene	TIC	mg/kg													
Unknown PAH substance (2	TIC	mg/kg				0.36	J	0.36	J			0.39	J		
Unknown PAH substance (3	TIC	mg/kg				0.31	J	0.55	J			0.32	J		
Unknown PAH substance (4	TIC	mg/kg				0.33	J					0.35	J		
Unknown PAH substance (5	TIC	mg/kg				0.4	J					0.5	J		
Total TIC, Semi-Volatile	OTAL TIC, SEMI-VOLATIL	mg/kg				11.05	J	10.32	J	3.68	J	9.7	J	6.08	J
(MS Semi-volatiles (SW846 8270E))															
2-Chlorophenol	95-57-8	mg/kg				0.018	U	0.019	U	0.018	U	0.019	U	0.019	U
4-Chloro-3-methyl phenol	59-50-7	mg/kg				0.022	U	0.024	U	0.022	U	0.023	U	0.024	U
2,4-Dichlorophenol	120-83-2	mg/kg				0.031	U	0.033	U	0.03	U	0.032	U	0.033	U
2,4-Dimethylphenol	105-67-9	mg/kg				0.065	U	0.069	U	0.064	U	0.067	U	0.069	U
2,4-Dinitrophenol	51-28-5	mg/kg				0.14	U	0.15	U	0.13	U	0.14	U	0.14	U
4,6-Dinitro-o-cresol	534-52-1	mg/kg				0.039	U	0.041	U	0.038	U	0.041	U	0.041	U
2-Methylphenol	95-48-7	mg/kg	0.33			0.023	U	0.025	U	0.023	U	0.024	U	0.025	U
3&4-Methylphenol	M+P-CRESOLS	mg/kg	0.33			0.03	U	0.032	U	0.029	U	0.031	U	0.032	U
2-Nitrophenol	88-75-5	mg/kg				0.024	U	0.026	U	0.024	U	0.025	U	0.025	U
4-Nitrophenol	100-02-7	mg/kg				0.097	U	0.1	U	0.095	U	0.1	U	0.1	U
Pentachlorophenol	87-86-5	mg/kg	0.8			0.034	U	0.036	U	0.034	U	0.036	U	0.036	U
Phenol	108-95-2	mg/kg	0.33			0.019	U	0.02	U	0.019	U	0.02	U	0.02	U
2,3,4,6-Tetrachlorophenol	58-90-2	mg/kg				0.024	U	0.026	U	0.024	U	0.025	U	0.026	U
2,4,5-Trichlorophenol	95-95-4	mg/kg				0.027	U	0.029	U	0.027	U	0.028	U	0.029	U
2,4,6-Trichlorophenol	88-06-2	mg/kg				0.022	U	0.023	U	0.021	U	0.023	U	0.023	U
Acenaphthene	83-32-9	mg/kg	20			0.0473		0.0364	J	0.012	U	0.0597		0.0234	J
Acenaphthylene	208-96-8	mg/kg	100			0.0911		0.0513		0.018	U	0.164		0.0418	
Acetophenone	98-86-2	mg/kg				0.0078	U	0.0083	U	0.0077	U	0.0081	U	0.0083	U
Anthracene	120-12-7	mg/kg	100			0.202		0.136		0.022	U	0.339		0.105	
Atrazine	1912-24-9	mg/kg				0.016	U	0.017	U	0.015	U	0.016	U	0.016	U
Benzo(a)anthracene	56-55-3	mg/kg	1			0.634		0.451		0.0263	J	1.04		0.402	
Benzo(a)pyrene	50-32-8	mg/kg	1			0.65		0.434		0.0236	J	0.985		0.358	

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE30219		JE30219		JE30219		JE30219		JE30219		JE30219	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444		11444	
Client Sample ID:				TB-12		EP-75 (154.7')		EP-76 (154.1')		EP-77 (153.6')		EP-82 (154.8')		EP-83 (154.0')	
Lab Sample ID:				JE30219-1		JE30219-2		JE30219-3		JE30219-4		JE30219-5		JE30219-6	
Location:															
Date Sampled:				3/17/2026 2:27 PM		3/17/2026 2:00 PM		3/17/2026 2:07 PM		3/17/2026 2:12 PM		3/17/2026 2:16 PM		3/17/2026 2:20 PM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**													
Benzo(b)fluoranthene	205-99-2	mg/kg	1			0.868		0.539		0.0281	J	1.21		0.49	
Benzo(g,h,i)perylene	191-24-2	mg/kg	0.64			0.511		0.295		0.0194	J	0.703		0.242	
Benzo(k)fluoranthene	207-08-9	mg/kg	0.8			0.295		0.203		0.017	U	0.51		0.152	
-Bromophenyl phenyl ethe	101-55-3	mg/kg				0.014	U	0.015	U	0.014	U	0.015	U	0.015	U
Butyl benzyl phthalate	85-68-7	mg/kg				0.0237	J	0.0238	J	0.0087	U	0.0371	J	0.0174	J
1,1'-Biphenyl	92-52-4	mg/kg				0.0055	J	0.0053	U	0.0049	U	0.0056	J	0.0053	U
Benzaldehyde	100-52-7	mg/kg				0.009	U	0.0096	U	0.0089	U	0.0094	U	0.0096	U
2-Chloronaphthalene	91-58-7	mg/kg				0.0087	U	0.0092	U	0.0085	U	0.009	U	0.0092	U
4-Chloroaniline	106-47-8	mg/kg				0.013	U	0.014	U	0.013	U	0.014	U	0.014	U
Carbazole	86-74-8	mg/kg				0.0918		0.0605	J	0.0052	U	0.14		0.0368	J
Caprolactam	105-60-2	mg/kg				0.014	U	0.015	U	0.014	U	0.015	U	0.015	U
Chrysene	218-01-9	mg/kg	1			0.651		0.445		0.0201	J	0.977		0.373	
is(2-Chloroethoxy)methan	111-91-1	mg/kg				0.0078	U	0.0083	U	0.0076	U	0.0081	U	0.0082	U
bis(2-Chloroethyl)ether	111-44-4	mg/kg				0.016	U	0.017	U	0.015	U	0.016	U	0.017	U
,2'-Oxybis(1-chloropropane	108-60-1	mg/kg				0.013	U	0.014	U	0.013	U	0.014	U	0.014	U
-Chlorophenyl phenyl ethe	7005-72-3	mg/kg				0.012	U	0.012	U	0.012	U	0.012	U	0.012	U
2,4-Dinitrotoluene	121-14-2	mg/kg				0.011	U	0.012	U	0.011	U	0.012	U	0.012	U
2,6-Dinitrotoluene	606-20-2	mg/kg				0.018	U	0.019	U	0.018	U	0.019	U	0.019	U
3,3'-Dichlorobenzidine	91-94-1	mg/kg				0.03	U	0.032	U	0.03	U	0.032	U	0.032	U
1,4-Dioxane	123-91-1	mg/kg	0.1			0.024	U	0.026	U	0.024	U	0.025	U	0.025	U
Dibenzo(a,h)anthracene	53-70-3	mg/kg	0.33			0.118		0.0783		0.016	U	0.17		0.0621	
Dibenzofuran	132-64-9	mg/kg	2.1			0.0246	J	0.017	J	0.015	U	0.0381	J	0.016	U
Di-n-butyl phthalate	84-74-2	mg/kg				0.0086	J	0.0063	U	0.0058	U	0.0137	J	0.0133	J
Di-n-octyl phthalate	117-84-0	mg/kg				0.0091	U	0.0096	U	0.0089	U	0.0094	U	0.0096	U
Diethyl phthalate	84-66-2	mg/kg				0.0078	U	0.0082	U	0.0076	U	0.0081	U	0.0082	U
Dimethyl phthalate	131-11-3	mg/kg				0.0065	U	0.0069	U	0.0064	U	0.0067	U	0.377	
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg				0.0982		0.044	J	0.0084	U	1.31		0.0723	J
Fluoranthene	206-44-0	mg/kg	85			1.15		0.792		0.0359	J	1.75		0.656	
Fluorene	86-73-7	mg/kg	30			0.0587		0.0374	J	0.016	U	0.0887		0.0224	J
Hexachlorobenzene	118-74-1	mg/kg	0.33			0.0092	U	0.0098	U	0.009	U	0.0096	U	0.0097	U
Hexachlorobutadiene	87-68-3	mg/kg				0.015	U	0.016	U	0.014	U	0.015	U	0.015	U
Hexachlorocyclopentadiene	77-47-4	mg/kg				0.014	U	0.015	U	0.014	U	0.015	U	0.015	U
Hexachloroethane	67-72-1	mg/kg				0.018	U	0.019	U	0.018	U	0.019	U	0.019	U

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE30219		JE30219		JE30219		JE30219		JE30219		JE30219	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444		11444	
Client Sample ID:				TB-12		EP-75 (154.7')		EP-76 (154.1')		EP-77 (153.6')		EP-82 (154.8')		EP-83 (154.0')	
Lab Sample ID:				JE30219-1		JE30219-2		JE30219-3		JE30219-4		JE30219-5		JE30219-6	
Location:															
Date Sampled:				3/17/2026 2:27 PM		3/17/2026 2:00 PM		3/17/2026 2:07 PM		3/17/2026 2:12 PM		3/17/2026 2:16 PM		3/17/2026 2:20 PM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**													
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	0.5			0.483		0.322		0.0184	J	0.705		0.25	
Isophorone	78-59-1	mg/kg				0.0078	U	0.0083	U	0.0076	U	0.0081	U	0.0082	U
2-Methylnaphthalene	91-57-6	mg/kg				0.0169	J	0.011	J	0.0081	U	0.0175	J	0.0146	J
2-Nitroaniline	88-74-4	mg/kg				0.0086	U	0.0091	U	0.0084	U	0.0089	U	0.0091	U
3-Nitroaniline	99-09-2	mg/kg				0.0091	U	0.0096	U	0.0089	U	0.0095	U	0.0096	U
4-Nitroaniline	100-01-6	mg/kg				0.0094	U	0.01	U	0.0093	U	0.0098	U	0.01	U
Naphthalene	91-20-3	mg/kg	12			0.0244	J	0.0151	J	0.01	U	0.0261	J	0.0218	J
Nitrobenzene	98-95-3	mg/kg	0.08			0.014	U	0.015	U	0.014	U	0.015	U	0.015	U
N-Nitroso-di-n-propylamine	621-64-7	mg/kg				0.011	U	0.011	U	0.01	U	0.011	U	0.011	U
N-Nitrosodiphenylamine	86-30-6	mg/kg				0.013	U	0.014	U	0.013	U	0.014	U	0.014	U
Phenanthrene	85-01-8	mg/kg	1.1			0.537		0.413		0.0195	J	1		0.285	
Pyrene	129-00-0	mg/kg	64			1.05		0.762		0.0404		1.71		0.667	
1,2,4,5-Tetrachlorobenzene	95-94-3	mg/kg				0.0093	U	0.0098	U	0.0091	U	0.0096	U	0.0098	U
2-Fluorophenol	367-12-4	%				54		59		48		54		52	
Phenol-d5	4165-62-2	%				62		65		52		58		59	
2,4,6-Tribromophenol	118-79-6	%				55		56		45		50		51	
Nitrobenzene-d5	4165-60-0	%				62		69		53		62		58	
2-Fluorobiphenyl	321-60-8	%				58		63		49		55		55	
Terphenyl-d14	1718-51-0	%				59		60		52		55		56	
(MS Volatile TIC ())															
Total TIC, Volatile	TOTAL TIC, VOLATILE	mg/kg				0		0		0		0		0	
Total TIC, Volatile	TOTAL TIC, VOLATILE	ug/l		0											
(MS Volatiles (SW846 8260D))															
Acetone	67-64-1	mg/kg	0.03			0.0041	U	0.0039	U	0.004	U	0.0039	U	0.0039	U
Acetone	67-64-1	ug/l		3.1	U										
Benzene	71-43-2	mg/kg	0.06			0.00045	U	0.00042	U	0.00044	U	0.00043	U	0.00043	U
Bromochloromethane	74-97-5	mg/kg				0.00056	U	0.00052	U	0.00055	U	0.00053	U	0.00052	U
Benzene	71-43-2	ug/l		0.43	U										
Bromodichloromethane	75-27-4	mg/kg				0.00043	U	0.0004	U	0.00042	U	0.0004	U	0.0004	U
Bromoform	75-25-2	mg/kg				0.0013	U	0.0013	U	0.0013	U	0.0013	U	0.0013	U
Bromomethane	74-83-9	mg/kg				0.00076	U	0.00071	U	0.00074	U	0.00072	U	0.00071	U
2-Butanone (MEK)	78-93-3	mg/kg	0.1			0.0024	U	0.0023	U	0.0024	U	0.0023	U	0.0023	U
Bromochloromethane	74-97-5	ug/l		0.48	U										

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE30219		JE30219		JE30219		JE30219		JE30219		JE30219	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444		11444	
Client Sample ID:				TB-12		EP-75 (154.7')		EP-76 (154.1')		EP-77 (153.6')		EP-82 (154.8')		EP-83 (154.0')	
Lab Sample ID:				JE30219-1		JE30219-2		JE30219-3		JE30219-4		JE30219-5		JE30219-6	
Location:															
Date Sampled:				3/17/2026 2:27 PM		3/17/2026 2:00 PM		3/17/2026 2:07 PM		3/17/2026 2:12 PM		3/17/2026 2:16 PM		3/17/2026 2:20 PM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**													
Bromodichloromethane	75-27-4	ug/l		0.45	U										
Bromoform	75-25-2	ug/l		0.63	U										
Bromomethane	74-83-9	ug/l		1.6	U										
2-Butanone (MEK)	78-93-3	ug/l		2.7	U										
Carbon disulfide	75-15-0	mg/kg				0.00053	U	0.0005	U	0.00052	U	0.0005	U	0.0005	U
Carbon tetrachloride	56-23-5	mg/kg	0.76			0.00061	U	0.00058	U	0.0006	U	0.00058	U	0.00058	U
Chlorobenzene	108-90-7	mg/kg	4.5			0.00046	U	0.00043	U	0.00045	U	0.00043	U	0.00043	U
Chloroethane	75-00-3	mg/kg				0.00059	U	0.00055	U	0.00058	U	0.00055	U	0.00055	U
Carbon disulfide	75-15-0	ug/l		1.8	U										
Carbon tetrachloride	56-23-5	ug/l		0.55	U										
Chloroform	67-66-3	mg/kg	0.37			0.00099	U	0.00093	U	0.00097	U	0.00094	U	0.00093	U
Chlorobenzene	108-90-7	ug/l		0.56	U										
Chloromethane	74-87-3	mg/kg				0.0019	U	0.0018	U	0.0019	U	0.0018	U	0.0018	U
Chloroethane	75-00-3	ug/l		0.73	U										
Chloroform	67-66-3	ug/l		0.5	U										
Cyclohexane	110-82-7	mg/kg				0.00065	U	0.00061	U	0.00064	U	0.00062	U	0.00061	U
Chloromethane	74-87-3	ug/l		0.76	U										
2-Dibromo-3-chloropropar	96-12-8	mg/kg				0.00069	U	0.00065	U	0.00068	U	0.00065	U	0.00065	U
Cyclohexane	110-82-7	ug/l		0.78	U										
Dibromochloromethane	124-48-1	mg/kg				0.00056	U	0.00052	U	0.00055	U	0.00053	U	0.00052	U
1,2-Dibromoethane	106-93-4	mg/kg				0.00042	U	0.00039	U	0.00041	U	0.00039	U	0.00039	U
1,2-Dichlorobenzene	95-50-1	mg/kg	1.1			0.00054	U	0.00051	U	0.00053	U	0.00051	U	0.00051	U
1,3-Dichlorobenzene	541-73-1	mg/kg	2.6			0.00049	U	0.00046	U	0.00048	U	0.00047	U	0.00046	U
2-Dibromo-3-chloropropar	96-12-8	ug/l		0.53	U										
1,4-Dichlorobenzene	106-46-7	mg/kg	1.8			0.00049	U	0.00046	U	0.00048	U	0.00046	U	0.00046	U
Dibromochloromethane	124-48-1	ug/l		0.56	U										
1,2-Dibromoethane	106-93-4	ug/l		0.48	U										
Dichlorodifluoromethane	75-71-8	mg/kg				0.00072	U	0.00068	U	0.00071	U	0.00068	U	0.00068	U
1,1-Dichloroethane	75-34-3	mg/kg	0.27			0.00049	U	0.00046	U	0.00048	U	0.00046	U	0.00046	U
1,2-Dichlorobenzene	95-50-1	ug/l		0.53	U										
1,2-Dichloroethane	107-06-2	mg/kg	0.02			0.00047	U	0.00044	U	0.00046	U	0.00044	U	0.00044	U
1,3-Dichlorobenzene	541-73-1	ug/l		0.54	U										
1,1-Dichloroethene	75-35-4	mg/kg	0.24			0.00065	U	0.00061	U	0.00064	U	0.00061	U	0.00061	U

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE30219		JE30219		JE30219		JE30219		JE30219		JE30219	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444		11444	
Client Sample ID:				TB-12		EP-75 (154.7')		EP-76 (154.1')		EP-77 (153.6')		EP-82 (154.8')		EP-83 (154.0')	
Lab Sample ID:				JE30219-1		JE30219-2		JE30219-3		JE30219-4		JE30219-5		JE30219-6	
Location:															
Date Sampled:				3/17/2026 2:27 PM		3/17/2026 2:00 PM		3/17/2026 2:07 PM		3/17/2026 2:12 PM		3/17/2026 2:16 PM		3/17/2026 2:20 PM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**													
1,4-Dichlorobenzene	106-46-7	ug/l		0.51	U										
cis-1,2-Dichloroethene	156-59-2	mg/kg	0.19			0.00083	U	0.00078	U	0.00082	U	0.00079	U	0.00078	U
Dichlorodifluoromethane	75-71-8	ug/l		0.56	U										
trans-1,2-Dichloroethene	156-60-5	mg/kg	0.19			0.00061	U	0.00057	U	0.0006	U	0.00057	U	0.00057	U
1,1-Dichloroethane	75-34-3	ug/l		0.57	U										
1,2-Dichloroethane	107-06-2	ug/l		0.6	U										
1,2-Dichloropropane	78-87-5	mg/kg				0.00047	U	0.00044	U	0.00046	U	0.00044	U	0.00044	U
1,1-Dichloroethene	75-35-4	ug/l		0.59	U										
cis-1,2-Dichloroethene	156-59-2	ug/l		0.51	U										
trans-1,2-Dichloroethene	156-60-5	ug/l		0.54	U										
cis-1,3-Dichloropropene	10061-01-5	mg/kg				0.00047	U	0.00044	U	0.00046	U	0.00045	U	0.00044	U
1,2-Dichloropropane	78-87-5	ug/l		0.51	U										
trans-1,3-Dichloropropene	10061-02-6	mg/kg				0.00045	U	0.00043	U	0.00045	U	0.00043	U	0.00043	U
cis-1,3-Dichloropropene	10061-01-5	ug/l		0.47	U										
trans-1,3-Dichloropropene	10061-02-6	ug/l		0.43	U										
Ethylbenzene	100-41-4	mg/kg	1			0.00045	U	0.00042	U	0.00044	U	0.00042	U	0.00042	U
Ethylbenzene	100-41-4	ug/l		0.6	U										
Freon 113	76-13-1	mg/kg				0.0026	U	0.0025	U	0.0026	U	0.0025	U	0.0025	U
Freon 113	76-13-1	ug/l		0.58	U										
2-Hexanone	591-78-6	mg/kg				0.0021	U	0.002	U	0.0021	U	0.002	U	0.002	U
2-Hexanone	591-78-6	ug/l		4.8	U										
Isopropylbenzene	98-82-8	mg/kg				0.0014	U	0.0013	U	0.0014	U	0.0013	U	0.0013	U
Isopropylbenzene	98-82-8	ug/l		0.65	U										
Methyl Acetate	79-20-9	mg/kg				0.0014	U	0.0013	U	0.0014	U	0.0013	U	0.0013	U
Methylcyclohexane	108-87-2	mg/kg				0.00087	U	0.00082	U	0.00085	U	0.00082	U	0.00082	U
Methyl Acetate	79-20-9	ug/l		0.8	U										
Methyl Tert Butyl Ether	1634-04-4	mg/kg	0.1			0.00047	U	0.00044	U	0.00046	U	0.00044	U	0.00044	U
Methylcyclohexane	108-87-2	ug/l		0.6	U										
-Methyl-2-pentanone(MIBK	108-10-1	mg/kg				0.0023	U	0.0021	U	0.0022	U	0.0021	U	0.0021	U
Methyl Tert Butyl Ether	1634-04-4	ug/l		0.51	U										
Methylene chloride	75-09-2	mg/kg	0.05			0.0026	U	0.0024	U	0.0025	U	0.0024	U	0.0024	U
-Methyl-2-pentanone(MIBK	108-10-1	ug/l		4.9	U										
Methylene chloride	75-09-2	ug/l		1	U										

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE30219		JE30219		JE30219		JE30219		JE30219		JE30219	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444		11444	
Client Sample ID:				TB-12		EP-75 (154.7')		EP-76 (154.1')		EP-77 (153.6')		EP-82 (154.8')		EP-83 (154.0')	
Lab Sample ID:				JE30219-1		JE30219-2		JE30219-3		JE30219-4		JE30219-5		JE30219-6	
Location:															
Date Sampled:				3/17/2026 2:27 PM		3/17/2026 2:00 PM		3/17/2026 2:07 PM		3/17/2026 2:12 PM		3/17/2026 2:16 PM		3/17/2026 2:20 PM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**													
Styrene	100-42-5	mg/kg				0.0004	U	0.00038	U	0.00039	U	0.00038	U	0.00038	U
Styrene	100-42-5	ug/l		0.49	U										
1,1,2,2-Tetrachloroethane	79-34-5	mg/kg				0.00059	U	0.00056	U	0.00058	U	0.00056	U	0.00056	U
Tetrachloroethene	127-18-4	mg/kg	1.3			0.00058	U	0.00054	U	0.00057	U	0.00054	U	0.00054	U
1,1,2,2-Tetrachloroethane	79-34-5	ug/l		0.65	U										
Tetrachloroethene	127-18-4	ug/l		0.56	U										
Toluene	108-88-3	mg/kg	0.7			0.00052	U	0.00049	U	0.00051	U	0.00049	U	0.00049	U
1,2,3-Trichlorobenzene	87-61-6	mg/kg				0.0025	U	0.0023	U	0.0024	U	0.0023	U	0.0023	U
Toluene	108-88-3	ug/l		0.49	U										
1,2,4-Trichlorobenzene	120-82-1	mg/kg				0.0025	U	0.0023	U	0.0024	U	0.0023	U	0.0023	U
1,1,1-Trichloroethane	71-55-6	mg/kg	0.68			0.00048	U	0.00045	U	0.00047	U	0.00045	U	0.00045	U
1,2,3-Trichlorobenzene	87-61-6	ug/l		0.5	U										
1,1,2-Trichloroethane	79-00-5	mg/kg				0.00055	U	0.00052	U	0.00054	U	0.00052	U	0.00052	U
1,2,4-Trichlorobenzene	120-82-1	ug/l		0.5	U										
1,1,1-Trichloroethane	71-55-6	ug/l		0.54	U										
Trichloroethene	79-01-6	mg/kg	0.47			0.00076	U	0.00071	U	0.00074	U	0.00071	U	0.00071	U
1,1,2-Trichloroethane	79-00-5	ug/l		0.53	U										
Trichlorofluoromethane	75-69-4	mg/kg				0.00068	U	0.00064	U	0.00067	U	0.00064	U	0.00064	U
Trichloroethene	79-01-6	ug/l		0.53	U										
Trichlorofluoromethane	75-69-4	ug/l		0.4	U										
Vinyl chloride	75-01-4	mg/kg	0.03			0.00048	U	0.00045	U	0.00047	U	0.00045	U	0.00045	U
m,p-Xylene	M,P-XYLENE	mg/kg	0.26			0.00089	U	0.00084	U	0.00087	U	0.00084	U	0.00084	U
Vinyl chloride	75-01-4	ug/l		0.52	U										
o-Xylene	95-47-6	mg/kg	0.26			0.00045	U	0.00043	U	0.00045	U	0.00043	U	0.00043	U
Xylene (total)	1330-20-7	mg/kg	0.26			0.00045	U	0.00043	U	0.00045	U	0.00043	U	0.00043	U
m,p-Xylene	M,P-XYLENE	ug/l		0.78	U										
o-Xylene	95-47-6	ug/l		0.59	U										
Xylene (total)	1330-20-7	ug/l		0.59	U										
Dibromofluoromethane	1868-53-7	%		100		102		103		104		108		105	
1,2-Dichloroethane-D4	17060-07-0	%		99		117		116		119		116		115	
Toluene-D8	2037-26-5	%		99		103		102		101		101		102	
4-Bromofluorobenzene	460-00-4	%		88		101		99		101		99		99	

18 result(s) exceeded regulatory criteria.

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE30219	JE30219	JE30219	JE30219	JE30219	JE30219
Client:				SESI Consulting Engineers (Parsippany, NJ)	SESI Consulting Engineers (Parsippany, NJ)	SESI Consulting Engineers (Parsippany, NJ)	SESI Consulting Engineers (Parsippany, NJ)	SESI Consulting Engineers (Parsippany, NJ)	SESI Consulting Engineers (Parsippany, NJ)
Project Description:				11444, 70 Westchester Ave, White Plains, NY	11444, 70 Westchester Ave, White Plains, NY	11444, 70 Westchester Ave, White Plains, NY	11444, 70 Westchester Ave, White Plains, NY	11444, 70 Westchester Ave, White Plains, NY	11444, 70 Westchester Ave, White Plains, NY
Job Reference:				11444	11444	11444	11444	11444	11444
Client Sample ID:				TB-12	EP-75 (154.7')	EP-76 (154.1')	EP-77 (153.6')	EP-82 (154.8')	EP-83 (154.0')
Lab Sample ID:				JE30219-1	JE30219-2	JE30219-3	JE30219-4	JE30219-5	JE30219-6
Location:									
Date Sampled:				3/17/2026 2:27 PM	3/17/2026 2:00 PM	3/17/2026 2:07 PM	3/17/2026 2:12 PM	3/17/2026 2:16 PM	3/17/2026 2:20 PM
Matrix:				Trip Blank Soil	Soil	Soil	Soil	Soil	Soil
Analyte	**CAS #**	**Unit**							

Footnote	Comments
	*** 6 footnote comments were removed from this export ***

SGS

SGS Engage - Group Crosstab

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE30219		JE30219		JE30219		JE30219		JE30219	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444	
Client Sample ID:				EP-84 (154.0')		EP-47II (153.0')		EP-54I (153.0')		EP-55II (153.0')		DUP2026.03.17	
Lab Sample ID:				JE30219-7		JE30219-8		JE30219-9		JE30219-10		JE30219-11	
Location:													
Date Sampled:				3/17/2026 2:25 PM		3/17/2026 2:30 PM		3/17/2026 2:35 PM		3/17/2026 2:40 PM		3/17/2026 2:27 PM	
Matrix:				Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**											
(GC/LC Semi-volatiles (SW846 8081B))													
Aldrin	309-00-2	mg/kg	0.0048	0.00056	U	0.00059	U	0.00061	U	0.0006	U	0.00058	U
alpha-BHC	319-84-6	mg/kg	0.02	0.00056	U	0.00059	U	0.0006	U	0.00059	U	0.00057	U
beta-BHC	319-85-7	mg/kg	0.021	0.00062	U	0.00065	U	0.00067	U	0.00065	U	0.00064	U
delta-BHC	319-86-8	mg/kg	0.04	0.00066	U	0.00069	U	0.00071	U	0.0007	U	0.00068	U
gamma-BHC (Lindane)	58-89-9	mg/kg	0.025	0.0005	U	0.00053	U	0.00054	U	0.00053	U	0.00052	U
alpha-Chlordane	5103-71-9	mg/kg	0.014	0.00055	U	0.00058	U	0.0024		0.0032		0.00057	U
gamma-Chlordane	5103-74-2	mg/kg		0.00031	U	0.00033	U	0.0027		0.0021		0.00032	U
Dieldrin	60-57-1	mg/kg	0.005	0.00047	U	0.0005	U	0.00051	U	0.0005	U	0.00048	U
4,4'-DDD	72-54-8	mg/kg	0.0033	0.00063	U	0.00066	U	0.00068	U	0.00076		0.00065	U
4,4'-DDE	72-55-9	mg/kg	0.0033	0.0006	U	0.00063	U	0.00065	U	0.00064	U	0.00062	U
4,4'-DDT	50-29-3	mg/kg	0.0033	0.0006	U	0.00064	U	0.0017		0.0016		0.00063	U
Endrin	72-20-8	mg/kg	0.014	0.00053	U	0.00056	U	0.00057	U	0.00056	U	0.00055	U
Endosulfan sulfate	1031-07-8	mg/kg	4.3	0.00053	U	0.00056	U	0.0013		0.00057	U	0.00055	U
Endrin aldehyde	7421-93-4	mg/kg		0.00039	U	0.00041	U	0.00042	U	0.00041	U	0.0004	U
Endosulfan-I	959-98-8	mg/kg	4.3	0.00039	U	0.00042	U	0.00042	U	0.00042	U	0.00041	U
Endosulfan-II	33213-65-9	mg/kg	4.3	0.00043	U	0.00045	U	0.00046	U	0.00045	U	0.00044	U
Heptachlor	76-44-8	mg/kg	0.013	0.00059	U	0.00062	U	0.00063	U	0.00062	U	0.00061	U
Heptachlor epoxide	1024-57-3	mg/kg		0.00048	U	0.00051	U	0.00073	J	0.00056	J	0.00049	U
Methoxychlor	72-43-5	mg/kg		0.00054	U	0.00057	U	0.00059	U	0.00058	U	0.00056	U
Endrin ketone	53494-70-5	mg/kg		0.00049	U	0.00052	U	0.00053	U	0.00052	U	0.00051	U
Toxaphene	8001-35-2	mg/kg		0.016	U	0.017	U	0.017	U	0.017	U	0.016	U
Tetrachloro-m-xylene (2)	877-09-8	%		52		63		85		74		75	
Tetrachloro-m-xylene (3)	877-09-8	%		50		61		77		66		72	
Decachlorobiphenyl (2)	2051-24-3	%		62		81		98		93		91	
Decachlorobiphenyl (3)	2051-24-3	%		57		87		79		94		79	
(GC/LC Semi-volatiles (SW846 8082A))													
Aroclor 1016	12674-11-2	mg/kg	0.1	0.016	U	0.017	U	0.017	U	0.017	U	0.016	U
Aroclor 1221	11104-28-2	mg/kg	0.1	0.021	U	0.022	U	0.023	U	0.022	U	0.022	U
Aroclor 1232	11141-16-5	mg/kg	0.1	0.022	U	0.023	U	0.023	U	0.023	U	0.023	U

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE30219		JE30219		JE30219		JE30219		JE30219	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444	
Client Sample ID:				EP-84 (154.0')		EP-47II (153.0')		EP-54I (153.0')		EP-55II (153.0')		DUP2026.03.17	
Lab Sample ID:				JE30219-7		JE30219-8		JE30219-9		JE30219-10		JE30219-11	
Location:													
Date Sampled:				3/17/2026 2:25 PM		3/17/2026 2:30 PM		3/17/2026 2:35 PM		3/17/2026 2:40 PM		3/17/2026 2:27 PM	
Matrix:				Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**											
Aroclor 1242	53469-21-9	mg/kg	0.1	0.014	U	0.015	U	0.015	U	0.015	U	0.014	U
Aroclor 1248	12672-29-6	mg/kg	0.1	0.03	U	0.032	U	0.033	U	0.032	U	0.031	U
Aroclor 1254	11097-69-1	mg/kg	0.1	0.018	U	0.019	U	0.02	U	0.019	U	0.019	U
Aroclor 1260	11096-82-5	mg/kg	0.1	0.015	U	0.015	U	0.0234	J	0.015	U	0.015	U
Aroclor 1268	11100-14-4	mg/kg	0.1	0.03	U	0.032	U	0.032	U	0.032	U	0.031	U
Aroclor 1262	37324-23-5	mg/kg	0.1	0.022	U	0.024	U	0.024	U	0.024	U	0.023	U
Tetrachloro-m-xylene	877-09-8	%		48		54		66		55		67	
Tetrachloro-m-xylene (1)	877-09-8	%		76		85		110		80		107	
Decachlorobiphenyl	2051-24-3	%		39		53		65		49		56	
Decachlorobiphenyl (1)	2051-24-3	%		51		66		101		82		74	
(General Chemistry (SM2540 G 18TH ED MOD))													
Solids, Percent	PERCENT SOLIDS	%		95.1		88.8		87.1		88.5		94.5	
(General Chemistry (SW846 9012B/LACHAT))													
Cyanide	57-12-5	mg/kg	2.3	0.3	U	0.25	U	0.26	U	0.31	U	0.25	U
(Metals Analysis (SW846 6010D))													
Aluminum	7429-90-5	mg/kg		4180		4770		7510		7600		4240	
Antimony	7440-36-0	mg/kg		1.4	U	1.5	U	1.5	U	1.5	U	1.4	U
Arsenic	7440-38-2	mg/kg	13	1.4	U	1.5	U	1.9		1.7		1.4	U
Barium	7440-39-3	mg/kg	410	21.7		46.6		69.9		69.3		24.7	
Beryllium	7440-41-7	mg/kg	4.4	0.25		0.18		0.25		0.24		0.26	
Cadmium	7440-43-9	mg/kg	2.5	0.34	U	0.36	U	0.37	U	0.37	U	0.34	U
Calcium	7440-70-2	mg/kg		600		5300		8980		5650		650	
Chromium	7440-47-3	mg/kg		6.2		11.1		15.9		15.6		7.2	
Cobalt	7440-48-4	mg/kg		3.4	U	4.1		5.6		6.2		3.4	U
Copper	7440-50-8	mg/kg	50	6.8		9.2		17.3		17.8		6.4	
Iron	7439-89-6	mg/kg		7770		9260		12500		12600		7330	
Lead	7439-92-1	mg/kg	63	7.2		15		217		40.6		2.9	
Magnesium	7439-95-4	mg/kg		2440		3370		5430		4900		2660	
Manganese	7439-96-5	mg/kg	1600	286		149		232		252		252	
Nickel	7440-02-0	mg/kg	30	5.7		8		12.4		12.3		5.9	
Potassium	7440-09-7	mg/kg		690	U	1530		1610		1980		690	U
Selenium	7782-49-2	mg/kg	3.9	1.4	U	1.5	U	1.5	U	1.5	U	1.4	U
Silver	7440-22-4	mg/kg	2	0.34	U	0.36	U	0.37	U	0.37	U	0.34	U

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE30219		JE30219		JE30219		JE30219		JE30219	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444	
Client Sample ID:				EP-84 (154.0')		EP-47II (153.0')		EP-54I (153.0')		EP-55II (153.0')		DUP2026.03.17	
Lab Sample ID:				JE30219-7		JE30219-8		JE30219-9		JE30219-10		JE30219-11	
Location:													
Date Sampled:				3/17/2026 2:25 PM		3/17/2026 2:30 PM		3/17/2026 2:35 PM		3/17/2026 2:40 PM		3/17/2026 2:27 PM	
Matrix:				Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**											
Sodium	7440-23-5	mg/kg		690	U	730	U	750	U	730	U	690	U
Thallium	7440-28-0	mg/kg		0.69	U	0.73	U	0.75	U	0.73	U	0.69	U
Vanadium	7440-62-2	mg/kg		8.7		14.1		20		21.2		8.6	
Zinc	7440-66-6	mg/kg	109	41.3		48.5		95.4		59.5		48.3	
(Metals Analysis (SW846 7471B))													
Mercury	7439-97-6	mg/kg	0.18	0.038	U	0.039	U	0.042	U	0.044	U	0.036	U
(MS Semi-volatile TIC ())													
Alkane	TIC	mg/kg				0.17	J			0.16	J		
Cyclopenta[]phenanthrene	TIC	mg/kg						0.32	J				
n-Hexadecanoic acid	57-10-3	mg/kg		0.8	JNB	0.73	JN	0.59	JN	0.74	JN	0.43	JNB
Unknown (4)	TIC	mg/kg		0.22	J			0.27	J			0.49	JB
Unknown	TIC	mg/kg		1.4	JB	1.5	J	0.26	J	0.45	J	0.19	J
Unknown (5)	TIC	mg/kg						0.21	J			0.17	J
Alkane (1)	TIC	mg/kg											
Dibenzopyrene	TIC	mg/kg								0.23	J		
Unknown (6)	TIC	mg/kg						0.53	J			0.18	J
Pyrene methyl	TIC	mg/kg						0.21	J				
Unknown (7)	TIC	mg/kg						0.25	J			0.17	J
Unknown PAH substance	TIC	mg/kg						0.25	J	0.21	J		
Unknown PAH substance (6	TIC	mg/kg						0.38	J				
Benzo[]naphtho[]thiophene	239-35-0	mg/kg											
Unknown (1)	TIC	mg/kg		0.51	JB	0.55	J	0.22	J	0.15	J	0.44	J
Unknown (12)	TIC	mg/kg						0.37	J				
Unknown (16)	TIC	mg/kg											
Unknown (8)	TIC	mg/kg						0.24	J			0.16	J
Unknown (13)	TIC	mg/kg											
Unknown (2)	TIC	mg/kg		0.17	J	0.16	J	0.26	J	0.17	J	0.18	J
Unknown (9)	TIC	mg/kg						0.23	J			0.36	J
Unknown (10)	TIC	mg/kg						0.24	J			0.15	J
Unknown (14)	TIC	mg/kg											
Unknown (17)	TIC	mg/kg											
Unknown (3)	TIC	mg/kg		0.2	J	0.2	J	0.27	J	0.53	J	0.17	J
Unknown PAH substance (7	TIC	mg/kg						0.76	J				

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE30219		JE30219		JE30219		JE30219		JE30219	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444	
Client Sample ID:				EP-84 (154.0')		EP-47II (153.0')		EP-54I (153.0')		EP-55II (153.0')		DUP2026.03.17	
Lab Sample ID:				JE30219-7		JE30219-8		JE30219-9		JE30219-10		JE30219-11	
Location:													
Date Sampled:				3/17/2026 2:25 PM		3/17/2026 2:30 PM		3/17/2026 2:35 PM		3/17/2026 2:40 PM		3/17/2026 2:27 PM	
Matrix:				Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**											
Unknown (11)	TIC	mg/kg						0.25	J			0.2	J
Unknown (15)	TIC	mg/kg											
Unknown (18)	TIC	mg/kg											
Unknown PAH substance (1	TIC	mg/kg						0.5	J	0.32	J		
Alkene	TIC	mg/kg						0.53	J				
Unknown PAH substance (2	TIC	mg/kg						0.29	J				
Unknown PAH substance (3	TIC	mg/kg						0.34	J				
Unknown PAH substance (4	TIC	mg/kg						0.3	J				
Unknown PAH substance (5	TIC	mg/kg						0.33	J				
Total TIC, Semi-Volatile	OTAL TIC, SEMI-VOLATIL	mg/kg		0.59	J	3.31	J	8.4	J	2.96	J	2.37	J
(MS Semi-volatiles (SW846 8270E))													
2-Chlorophenol	95-57-8	mg/kg		0.017	U	0.018	U	0.018	U	0.018	U	0.017	U
4-Chloro-3-methyl phenol	59-50-7	mg/kg		0.021	U	0.022	U	0.023	U	0.023	U	0.021	U
2,4-Dichlorophenol	120-83-2	mg/kg		0.029	U	0.031	U	0.032	U	0.032	U	0.03	U
2,4-Dimethylphenol	105-67-9	mg/kg		0.06	U	0.065	U	0.066	U	0.066	U	0.062	U
2,4-Dinitrophenol	51-28-5	mg/kg		0.13	U	0.14	U	0.14	U	0.14	U	0.13	U
4,6-Dinitro-o-cresol	534-52-1	mg/kg		0.036	U	0.039	U	0.04	U	0.04	U	0.037	U
2-Methylphenol	95-48-7	mg/kg	0.33	0.022	U	0.023	U	0.024	U	0.024	U	0.022	U
3&4-Methylphenol	M+P-CRESOLS	mg/kg	0.33	0.028	U	0.03	U	0.031	U	0.031	U	0.029	U
2-Nitrophenol	88-75-5	mg/kg		0.022	U	0.024	U	0.025	U	0.025	U	0.023	U
4-Nitrophenol	100-02-7	mg/kg		0.091	U	0.098	U	0.1	U	0.099	U	0.093	U
Pentachlorophenol	87-86-5	mg/kg	0.8	0.032	U	0.034	U	0.035	U	0.035	U	0.033	U
Phenol	108-95-2	mg/kg	0.33	0.018	U	0.019	U	0.019	U	0.019	U	0.018	U
2,3,4,6-Tetrachlorophenol	58-90-2	mg/kg		0.022	U	0.024	U	0.025	U	0.025	U	0.023	U
2,4,5-Trichlorophenol	95-95-4	mg/kg		0.025	U	0.027	U	0.028	U	0.028	U	0.026	U
2,4,6-Trichlorophenol	88-06-2	mg/kg		0.02	U	0.022	U	0.022	U	0.022	U	0.021	U
Acenaphthene	83-32-9	mg/kg	20	0.012	U	0.013	U	0.128		0.022	J	0.012	U
Acenaphthylene	208-96-8	mg/kg	100	0.017	U	0.019	U	0.106		0.04		0.018	U
Acetophenone	98-86-2	mg/kg		0.0073	U	0.0079	U	0.008	U	0.008	U	0.0075	U
Anthracene	120-12-7	mg/kg	100	0.021	U	0.022	U	0.376		0.0818		0.021	U
Atrazine	1912-24-9	mg/kg		0.015	U	0.016	U	0.016	U	0.016	U	0.015	U
Benzo(a)anthracene	56-55-3	mg/kg	1	0.0096	U	0.075		1.17		0.319		0.0099	U
Benzo(a)pyrene	50-32-8	mg/kg	1	0.015	U	0.0681		0.987		0.284		0.016	U

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE30219		JE30219		JE30219		JE30219		JE30219	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444	
Client Sample ID:				EP-84 (154.0')		EP-47II (153.0')		EP-54I (153.0')		EP-55II (153.0')		DUP2026.03.17	
Lab Sample ID:				JE30219-7		JE30219-8		JE30219-9		JE30219-10		JE30219-11	
Location:													
Date Sampled:				3/17/2026 2:25 PM		3/17/2026 2:30 PM		3/17/2026 2:35 PM		3/17/2026 2:40 PM		3/17/2026 2:27 PM	
Matrix:				Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**											
Benzo(b)fluoranthene	205-99-2	mg/kg	1	0.015	U	0.0885		1.27		0.383		0.015	U
Benzo(g,h,i)perylene	191-24-2	mg/kg	0.64	0.017	U	0.0443		0.603		0.206		0.017	U
Benzo(k)fluoranthene	207-08-9	mg/kg	0.8	0.016	U	0.0299	J	0.493		0.144		0.016	U
-Bromophenyl phenyl ethe	101-55-3	mg/kg		0.013	U	0.014	U	0.014	U	0.014	U	0.013	U
Butyl benzyl phthalate	85-68-7	mg/kg		0.0083	U	0.0089	U	0.0091	U	0.0091	U	0.0085	U
1,1'-Biphenyl	92-52-4	mg/kg		0.0046	U	0.005	U	0.0105	J	0.0051	U	0.0048	U
Benzaldehyde	100-52-7	mg/kg		0.0084	U	0.0091	U	0.0092	U	0.0092	U	0.0086	U
2-Chloronaphthalene	91-58-7	mg/kg		0.0081	U	0.0087	U	0.0089	U	0.0088	U	0.0083	U
4-Chloroaniline	106-47-8	mg/kg		0.012	U	0.013	U	0.013	U	0.013	U	0.013	U
Carbazole	86-74-8	mg/kg		0.0049	U	0.0053	U	0.182		0.0379	J	0.005	U
Caprolactam	105-60-2	mg/kg		0.013	U	0.014	U	0.015	U	0.015	U	0.014	U
Chrysene	218-01-9	mg/kg	1	0.011	U	0.0712		1.08		0.314		0.011	U
is(2-Chloroethoxy)methan	111-91-1	mg/kg		0.0073	U	0.0078	U	0.008	U	0.008	U	0.0074	U
bis(2-Chloroethyl)ether	111-44-4	mg/kg		0.015	U	0.016	U	0.016	U	0.016	U	0.015	U
,2'-Oxybis(1-chloropropane	108-60-1	mg/kg		0.012	U	0.013	U	0.013	U	0.013	U	0.012	U
-Chlorophenyl phenyl ethe	7005-72-3	mg/kg		0.011	U	0.012	U	0.012	U	0.012	U	0.011	U
2,4-Dinitrotoluene	121-14-2	mg/kg		0.011	U	0.011	U	0.012	U	0.012	U	0.011	U
2,6-Dinitrotoluene	606-20-2	mg/kg		0.017	U	0.018	U	0.019	U	0.019	U	0.017	U
3,3'-Dichlorobenzidine	91-94-1	mg/kg		0.028	U	0.03	U	0.031	U	0.031	U	0.029	U
1,4-Dioxane	123-91-1	mg/kg	0.1	0.022	U	0.024	U	0.025	U	0.025	U	0.023	U
Dibenzo(a,h)anthracene	53-70-3	mg/kg	0.33	0.015	U	0.016	U	0.167		0.0583		0.015	U
Dibenzofuran	132-64-9	mg/kg	2.1	0.014	U	0.015	U	0.0791		0.015	U	0.014	U
Di-n-butyl phthalate	84-74-2	mg/kg		0.0055	U	0.006	U	0.0061	U	0.0061	U	0.0057	U
Di-n-octyl phthalate	117-84-0	mg/kg		0.0084	U	0.0091	U	0.0093	U	0.0093	U	0.0087	U
Diethyl phthalate	84-66-2	mg/kg		0.0072	U	0.0078	U	0.0079	U	0.0079	U	0.0074	U
Dimethyl phthalate	131-11-3	mg/kg		0.006	U	0.0065	U	0.0066	U	0.0066	U	0.0062	U
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg		0.0079	U	0.0133	J	0.0301	J	0.0375	J	0.0081	U
Fluoranthene	206-44-0	mg/kg	85	0.015	U	0.108		2.2		0.542		0.016	U
Fluorene	86-73-7	mg/kg	30	0.016	U	0.017	U	0.124		0.0229	J	0.016	U
Hexachlorobenzene	118-74-1	mg/kg	0.33	0.0086	U	0.0093	U	0.0094	U	0.0094	U	0.0088	U
Hexachlorobutadiene	87-68-3	mg/kg		0.014	U	0.015	U	0.015	U	0.015	U	0.014	U
Hexachlorocyclopentadiene	77-47-4	mg/kg		0.014	U	0.015	U	0.015	U	0.015	U	0.014	U
Hexachloroethane	67-72-1	mg/kg		0.017	U	0.018	U	0.018	U	0.018	U	0.017	U

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE30219		JE30219		JE30219		JE30219		JE30219	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444	
Client Sample ID:				EP-84 (154.0')		EP-47II (153.0')		EP-54I (153.0')		EP-55II (153.0')		DUP2026.03.17	
Lab Sample ID:				JE30219-7		JE30219-8		JE30219-9		JE30219-10		JE30219-11	
Location:													
Date Sampled:				3/17/2026 2:25 PM		3/17/2026 2:30 PM		3/17/2026 2:35 PM		3/17/2026 2:40 PM		3/17/2026 2:27 PM	
Matrix:				Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**											
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	0.5	0.016	U	0.0462		0.66		0.215		0.016	U
Isophorone	78-59-1	mg/kg		0.0073	U	0.0078	U	0.008	U	0.008	U	0.0074	U
2-Methylnaphthalene	91-57-6	mg/kg		0.0077	U	0.0083	U	0.0435		0.009	J	0.0079	U
2-Nitroaniline	88-74-4	mg/kg		0.008	U	0.0086	U	0.0088	U	0.0088	U	0.0082	U
3-Nitroaniline	99-09-2	mg/kg		0.0085	U	0.0091	U	0.0093	U	0.0093	U	0.0087	U
4-Nitroaniline	100-01-6	mg/kg		0.0088	U	0.0095	U	0.0097	U	0.0096	U	0.009	U
Naphthalene	91-20-3	mg/kg	12	0.0096	U	0.01	U	0.104		0.0187	J	0.0098	U
Nitrobenzene	98-95-3	mg/kg	0.08	0.013	U	0.014	U	0.014	U	0.014	U	0.013	U
N-Nitroso-di-n-propylamine	621-64-7	mg/kg		0.0098	U	0.011	U	0.011	U	0.011	U	0.01	U
N-Nitrosodiphenylamine	86-30-6	mg/kg		0.012	U	0.013	U	0.014	U	0.014	U	0.013	U
Phenanthrene	85-01-8	mg/kg	1.1	0.011	U	0.0384		1.23		0.243		0.012	U
Pyrene	129-00-0	mg/kg	64	0.011	U	0.114		2.06		0.55		0.011	U
1,2,4,5-Tetrachlorobenzene	95-94-3	mg/kg		0.0086	U	0.0093	U	0.0095	U	0.0094	U	0.0088	U
2-Fluorophenol	367-12-4	%		51		61		52		57		35	
Phenol-d5	4165-62-2	%		58		67		59		61		43	
2,4,6-Tribromophenol	118-79-6	%		54		57		48		52		39	
Nitrobenzene-d5	4165-60-0	%		57		69		59		65		40	
2-Fluorobiphenyl	321-60-8	%		55		61		54		57		39	
Terphenyl-d14	1718-51-0	%		65		65		52		59		47	
(MS Volatile TIC ())													
Total TIC, Volatile	TOTAL TIC, VOLATILE	mg/kg		0		0		0		0		0	
Total TIC, Volatile	TOTAL TIC, VOLATILE	ug/l											
(MS Volatiles (SW846 8260D))													
Acetone	67-64-1	mg/kg	0.03	0.0079	J	0.0044	U	0.0051	J	0.0037	U	0.0163	
Acetone	67-64-1	ug/l											
Benzene	71-43-2	mg/kg	0.06	0.00052	U	0.00048	U	0.00038	U	0.00041	U	0.00055	U
Bromochloromethane	74-97-5	mg/kg		0.00064	U	0.00059	U	0.00047	U	0.0005	U	0.00067	U
Benzene	71-43-2	ug/l											
Bromodichloromethane	75-27-4	mg/kg		0.00049	U	0.00046	U	0.00036	U	0.0011	J	0.0016	J
Bromoform	75-25-2	mg/kg		0.0016	U	0.0014	U	0.0011	U	0.0012	U	0.0016	U
Bromomethane	74-83-9	mg/kg		0.00087	U	0.00081	U	0.00064	U	0.00069	U	0.00092	U
2-Butanone (MEK)	78-93-3	mg/kg	0.1	0.0028	U	0.0026	U	0.0021	U	0.0022	U	0.0029	U
Bromochloromethane	74-97-5	ug/l											

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE30219		JE30219		JE30219		JE30219		JE30219	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444	
Client Sample ID:				EP-84 (154.0')		EP-47II (153.0')		EP-54I (153.0')		EP-55II (153.0')		DUP2026.03.17	
Lab Sample ID:				JE30219-7		JE30219-8		JE30219-9		JE30219-10		JE30219-11	
Location:													
Date Sampled:				3/17/2026 2:25 PM		3/17/2026 2:30 PM		3/17/2026 2:35 PM		3/17/2026 2:40 PM		3/17/2026 2:27 PM	
Matrix:				Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**											
Bromodichloromethane	75-27-4	ug/l											
Bromoform	75-25-2	ug/l											
Bromomethane	74-83-9	ug/l											
2-Butanone (MEK)	78-93-3	ug/l											
Carbon disulfide	75-15-0	mg/kg		0.00061	U	0.00057	U	0.00045	U	0.00048	U	0.00064	U
Carbon tetrachloride	56-23-5	mg/kg	0.76	0.00071	U	0.00066	U	0.00052	U	0.00055	U	0.00074	U
Chlorobenzene	108-90-7	mg/kg	4.5	0.00052	U	0.00049	U	0.00039	U	0.00041	U	0.00055	U
Chloroethane	75-00-3	mg/kg		0.00068	U	0.00063	U	0.0005	U	0.00053	U	0.00071	U
Carbon disulfide	75-15-0	ug/l											
Carbon tetrachloride	56-23-5	ug/l											
Chloroform	67-66-3	mg/kg	0.37	0.0011	U	0.0011	U	0.00084	U	0.0074		0.0088	
Chlorobenzene	108-90-7	ug/l											
Chloromethane	74-87-3	mg/kg		0.0022	U	0.0021	U	0.0017	U	0.0018	U	0.0024	U
Chloroethane	75-00-3	ug/l											
Chloroform	67-66-3	ug/l											
Cyclohexane	110-82-7	mg/kg		0.00075	U	0.0007	U	0.00055	U	0.00059	U	0.00079	U
Chloromethane	74-87-3	ug/l											
2-Dibromo-3-chloropropar	96-12-8	mg/kg		0.00079	U	0.00074	U	0.00059	U	0.00062	U	0.00083	U
Cyclohexane	110-82-7	ug/l											
Dibromochloromethane	124-48-1	mg/kg		0.00064	U	0.00059	U	0.00047	U	0.0005	U	0.00067	U
1,2-Dibromoethane	106-93-4	mg/kg		0.00048	U	0.00045	U	0.00036	U	0.00038	U	0.00051	U
1,2-Dichlorobenzene	95-50-1	mg/kg	1.1	0.00062	U	0.00058	U	0.00046	U	0.00049	U	0.00066	U
1,3-Dichlorobenzene	541-73-1	mg/kg	2.6	0.00057	U	0.00053	U	0.00042	U	0.00044	U	0.0006	U
2-Dibromo-3-chloropropar	96-12-8	ug/l											
1,4-Dichlorobenzene	106-46-7	mg/kg	1.8	0.00056	U	0.00052	U	0.00042	U	0.00044	U	0.00059	U
Dibromochloromethane	124-48-1	ug/l											
1,2-Dibromoethane	106-93-4	ug/l											
Dichlorodifluoromethane	75-71-8	mg/kg		0.00083	U	0.00077	U	0.00061	U	0.00065	U	0.00087	U
1,1-Dichloroethane	75-34-3	mg/kg	0.27	0.00057	U	0.00053	U	0.00042	U	0.00044	U	0.0006	U
1,2-Dichlorobenzene	95-50-1	ug/l											
1,2-Dichloroethane	107-06-2	mg/kg	0.02	0.00054	U	0.0005	U	0.0004	U	0.00042	U	0.00057	U
1,3-Dichlorobenzene	541-73-1	ug/l											
1,1-Dichloroethene	75-35-4	mg/kg	0.24	0.00075	U	0.0007	U	0.00055	U	0.00059	U	0.00079	U

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE30219		JE30219		JE30219		JE30219		JE30219	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444	
Client Sample ID:				EP-84 (154.0')		EP-47II (153.0')		EP-54I (153.0')		EP-55II (153.0')		DUP2026.03.17	
Lab Sample ID:				JE30219-7		JE30219-8		JE30219-9		JE30219-10		JE30219-11	
Location:													
Date Sampled:				3/17/2026 2:25 PM		3/17/2026 2:30 PM		3/17/2026 2:35 PM		3/17/2026 2:40 PM		3/17/2026 2:27 PM	
Matrix:				Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**											
1,4-Dichlorobenzene	106-46-7	ug/l											
cis-1,2-Dichloroethene	156-59-2	mg/kg	0.19	0.00096	U	0.00089	U	0.00071	U	0.00075	U	0.001	U
Dichlorodifluoromethane	75-71-8	ug/l											
trans-1,2-Dichloroethene	156-60-5	mg/kg	0.19	0.0007	U	0.00065	U	0.00052	U	0.00055	U	0.00073	U
1,1-Dichloroethane	75-34-3	ug/l											
1,2-Dichloroethane	107-06-2	ug/l											
1,2-Dichloropropane	78-87-5	mg/kg		0.00054	U	0.0005	U	0.0004	U	0.00042	U	0.00057	U
1,1-Dichloroethene	75-35-4	ug/l											
cis-1,2-Dichloroethene	156-59-2	ug/l											
trans-1,2-Dichloroethene	156-60-5	ug/l											
cis-1,3-Dichloropropene	10061-01-5	mg/kg		0.00054	U	0.0005	U	0.0004	U	0.00043	U	0.00057	U
trans-1,2-Dichloroethene	156-60-5	ug/l											
cis-1,3-Dichloropropene	10061-01-5	mg/kg		0.00054	U	0.0005	U	0.0004	U	0.00043	U	0.00057	U
1,2-Dichloropropane	78-87-5	ug/l											
trans-1,3-Dichloropropene	10061-02-6	mg/kg		0.00052	U	0.00049	U	0.00039	U	0.00041	U	0.00055	U
cis-1,3-Dichloropropene	10061-01-5	ug/l											
trans-1,3-Dichloropropene	10061-02-6	ug/l											
Ethylbenzene	100-41-4	mg/kg	1	0.00052	U	0.00048	U	0.00038	U	0.00041	U	0.00054	U
Ethylbenzene	100-41-4	ug/l											
Freon 113	76-13-1	mg/kg		0.0031	U	0.0028	U	0.0023	U	0.0024	U	0.0032	U
Freon 113	76-13-1	ug/l											
2-Hexanone	591-78-6	mg/kg		0.0024	U	0.0023	U	0.0018	U	0.0019	U	0.0025	U
2-Hexanone	591-78-6	ug/l											
Isopropylbenzene	98-82-8	mg/kg		0.0016	U	0.0015	U	0.0012	U	0.0013	U	0.0017	U
Isopropylbenzene	98-82-8	ug/l											
Methyl Acetate	79-20-9	mg/kg		0.0016	U	0.0015	U	0.0012	U	0.0012	U	0.0017	U
Methylcyclohexane	108-87-2	mg/kg		0.001	U	0.00093	U	0.00074	U	0.00078	U	0.0011	U
Methyl Acetate	79-20-9	ug/l											
Methyl Tert Butyl Ether	1634-04-4	mg/kg	0.1	0.00054	U	0.0005	U	0.0004	U	0.00042	U	0.00056	U
Methylcyclohexane	108-87-2	ug/l											
-Methyl-2-pentanone(MIBK	108-10-1	mg/kg		0.0026	U	0.0024	U	0.0019	U	0.002	U	0.0027	U
Methyl Tert Butyl Ether	1634-04-4	ug/l											
Methylene chloride	75-09-2	mg/kg	0.05	0.003	U	0.0028	U	0.0022	U	0.0023	U	0.0031	U
-Methyl-2-pentanone(MIBK	108-10-1	ug/l											
Methylene chloride	75-09-2	ug/l											

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE30219		JE30219		JE30219		JE30219		JE30219	
Client:				SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)		SESI Consulting Engineers (Parsippany, NJ)	
Project Description:				11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY		11444, 70 Westchester Ave, White Plains, NY	
Job Reference:				11444		11444		11444		11444		11444	
Client Sample ID:				EP-84 (154.0')		EP-47II (153.0')		EP-54I (153.0')		EP-55II (153.0')		DUP2026.03.17	
Lab Sample ID:				JE30219-7		JE30219-8		JE30219-9		JE30219-10		JE30219-11	
Location:													
Date Sampled:				3/17/2026 2:25 PM		3/17/2026 2:30 PM		3/17/2026 2:35 PM		3/17/2026 2:40 PM		3/17/2026 2:27 PM	
Matrix:				Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**											
Styrene	100-42-5	mg/kg		0.00046	U	0.00043	U	0.00034	U	0.00036	U	0.00048	U
Styrene	100-42-5	ug/l											
1,1,2,2-Tetrachloroethane	79-34-5	mg/kg		0.00068	U	0.00064	U	0.00051	U	0.00054	U	0.00072	U
Tetrachloroethene	127-18-4	mg/kg	1.3	0.00066	U	0.00062	U	0.00049	U	0.00052	U	0.0007	U
1,1,2,2-Tetrachloroethane	79-34-5	ug/l											
Tetrachloroethene	127-18-4	ug/l											
Toluene	108-88-3	mg/kg	0.7	0.0006	U	0.00056	U	0.00044	U	0.00047	U	0.00063	U
1,2,3-Trichlorobenzene	87-61-6	mg/kg		0.0029	U	0.0027	U	0.0021	U	0.0022	U	0.003	U
Toluene	108-88-3	ug/l											
1,2,4-Trichlorobenzene	120-82-1	mg/kg		0.0029	U	0.0027	U	0.0021	U	0.0022	U	0.003	U
1,1,1-Trichloroethane	71-55-6	mg/kg	0.68	0.00055	U	0.00051	U	0.00041	U	0.00043	U	0.00058	U
1,2,3-Trichlorobenzene	87-61-6	ug/l											
1,1,2-Trichloroethane	79-00-5	mg/kg		0.00063	U	0.00059	U	0.00047	U	0.0005	U	0.00067	U
1,2,4-Trichlorobenzene	120-82-1	ug/l											
1,1,1-Trichloroethane	71-55-6	ug/l											
Trichloroethene	79-01-6	mg/kg	0.47	0.00087	U	0.00081	U	0.00064	U	0.00068	U	0.00092	U
1,1,2-Trichloroethane	79-00-5	ug/l											
Trichlorofluoromethane	75-69-4	mg/kg		0.00078	U	0.00073	U	0.00058	U	0.00061	U	0.00082	U
Trichloroethene	79-01-6	ug/l											
Trichlorofluoromethane	75-69-4	ug/l											
Vinyl chloride	75-01-4	mg/kg	0.03	0.00055	U	0.00051	U	0.00041	U	0.00043	U	0.00058	U
m,p-Xylene	M,P-XYLENE	mg/kg	0.26	0.001	U	0.00095	U	0.00076	U	0.0008	U	0.0011	U
Vinyl chloride	75-01-4	ug/l											
o-Xylene	95-47-6	mg/kg	0.26	0.00052	U	0.00049	U	0.00039	U	0.00041	U	0.00055	U
Xylene (total)	1330-20-7	mg/kg	0.26	0.00052	U	0.00049	U	0.00039	U	0.00041	U	0.00055	U
m,p-Xylene	M,P-XYLENE	ug/l											
o-Xylene	95-47-6	ug/l											
Xylene (total)	1330-20-7	ug/l											
Dibromofluoromethane	1868-53-7	%		104		104		105		107		103	
1,2-Dichloroethane-D4	17060-07-0	%		117		120		118		119		116	
Toluene-D8	2037-26-5	%		103		103		101		105		99	
4-Bromofluorobenzene	460-00-4	%		101		97		101		97		100	

18 result(s) exceeded regulatory criteria.

Table 1.1 - Summary of Post-Excavation Soil Analytical Results

Job Number:			NYSDEC Part 375 (2025) SO Cleanup-Unrestricted use (NYCRR 375-6 12/25) >=	JE30219	JE30219	JE30219	JE30219	JE30219
Client:				SESI Consulting Engineers (Parsippany, NJ)	SESI Consulting Engineers (Parsippany, NJ)	SESI Consulting Engineers (Parsippany, NJ)	SESI Consulting Engineers (Parsippany, NJ)	SESI Consulting Engineers (Parsippany, NJ)
Project Description:				11444, 70 Westchester Ave, White Plains, NY	11444, 70 Westchester Ave, White Plains, NY	11444, 70 Westchester Ave, White Plains, NY	11444, 70 Westchester Ave, White Plains, NY	11444, 70 Westchester Ave, White Plains, NY
Job Reference:				11444	11444	11444	11444	11444
Client Sample ID:				EP-84 (154.0')	EP-47II (153.0')	EP-54I (153.0')	EP-55II (153.0')	DUP2026.03.17
Lab Sample ID:				JE30219-7	JE30219-8	JE30219-9	JE30219-10	JE30219-11
Location:								
Date Sampled:				3/17/2026 2:25 PM	3/17/2026 2:30 PM	3/17/2026 2:35 PM	3/17/2026 2:40 PM	3/17/2026 2:27 PM
Matrix:				Soil	Soil	Soil	Soil	Soil
Analyte	**CAS #**	**Unit**						

Footnote	Comments
	*** 6 footnote comments were removed from this export ***

SGS

SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	EP-63		EP-66I		EP-68		EP-69		EP-70		EP-72I		TB-14	
Lab Sample ID:				JE30810-1		JE30810-2		JE30810-3		JE30810-4		JE30810-5		JE30810-6		JE30810-7	
Date Sampled:				3/24/2026 3:00 PM		3/24/2026 3:05 PM		3/24/2026 3:10 PM		3/24/2026 3:15 PM		3/24/2026 3:20 PM		3/24/2026 3:25 PM		3/24/2026 3:25 PM	
Matrix:				Soil		Soil		Soil		Soil		Soil		Soil		Trip Blank Soil	
Analyte	**CAS #**	**Unit**															
(GC/LC Semi-volatiles (SW846 8081B))																	
Aldrin	309-00-2	mg/kg	0.0048	0.00061	U	0.00057	U	0.00056	U	0.00056	U	0.00055	U	0.00067	U		
alpha-BHC	319-84-6	mg/kg	0.02	0.0006	U	0.00057	U	0.00055	U	0.00055	U	0.00054	U	0.00066	U		
beta-BHC	319-85-7	mg/kg	0.021	0.00067	U	0.00063	U	0.00061	U	0.00062	U	0.0006	U	0.00073	U		
delta-BHC	319-86-8	mg/kg	0.04	0.00071	U	0.00067	U	0.00065	U	0.00065	U	0.00064	U	0.00077	U		
gamma-BHC (Lindane)	58-89-9	mg/kg	0.025	0.00054	U	0.00051	U	0.0005	U	0.0005	U	0.00049	U	0.00059	U		
alpha-Chlordane	5103-71-9	mg/kg	0.014	0.0039		0.00056	U	0.00054	U	0.00055	U	0.0018		0.00065	U		
gamma-Chlordane	5103-74-2	mg/kg		0.0036		0.00032	U	0.00031	U	0.00031	U	0.0024		0.00037	U		
Dieldrin	60-57-1	mg/kg	0.005	0.00051	U	0.00048	U	0.00046	U	0.00047	U	0.00046	U	0.00055	U		
4,4'-DDD	72-54-8	mg/kg	0.0033	0.0011		0.00064	U	0.00062	U	0.00062	U	0.0014		0.00074	U		
4,4'-DDE	72-55-9	mg/kg	0.0033	0.00065	U	0.00061	U	0.00059	U	0.0006	U	0.00058	U	0.00071	U		
4,4'-DDT	50-29-3	mg/kg	0.0033	0.0014		0.00062	U	0.0006	U	0.0006	U	0.0012		0.00072	U		
Endrin	72-20-8	mg/kg	0.014	0.00057	U	0.00054	U	0.00052	U	0.00053	U	0.00052	U	0.00063	U		
Endosulfan sulfate	1031-07-8	mg/kg	4.3	0.00057	U	0.00054	U	0.00053	U	0.00053	U	0.00052	U	0.00063	U		
Endrin aldehyde	7421-93-4	mg/kg		0.00042	U	0.0004	U	0.00038	U	0.00039	U	0.00038	U	0.00046	U		
Endosulfan-I	959-98-8	mg/kg	4.3	0.00042	U	0.0004	U	0.00039	U	0.00039	U	0.00038	U	0.00046	U		
Endosulfan-II	33213-65-9	mg/kg	4.3	0.00046	U	0.00044	U	0.00042	U	0.00042	U	0.00041	U	0.0005	U		
Heptachlor	76-44-8	mg/kg	0.013	0.00063	U	0.0006	U	0.00058	U	0.00059	U	0.00057	U	0.0007	U		
Heptachlor epoxide	1024-57-3	mg/kg		0.00052	U	0.00049	U	0.00047	U	0.00048	U	0.00046	U	0.00057	U		
Methoxychlor	72-43-5	mg/kg		0.00059	U	0.00055	U	0.00054	U	0.00054	U	0.00053	U	0.00064	U		
Endrin ketone	53494-70-5	mg/kg		0.00053	U	0.0005	U	0.00049	U	0.00049	U	0.00048	U	0.00058	U		
Toxaphene	8001-35-2	mg/kg		0.017	U	0.016	U	0.016	U	0.016	U	0.015	U	0.019	U		
Tetrachloro-m-xylene (2)	877-09-8	%		77		57		75		94		96		60			
Tetrachloro-m-xylene (3)	877-09-8	%		64		53		69		87		88		56			
Decachlorobiphenyl (2)	2051-24-3	%		86		59		71		89		86		72			
Decachlorobiphenyl (3)	2051-24-3	%		93		54		69		86		101		56			
(GC/LC Semi-volatiles (SW846 8082A))																	
Aroclor 1016	12674-11-2	mg/kg	0.1	0.017	U	0.016	U	0.016	U	0.016	U	0.015	U	0.019	U		
Aroclor 1221	11104-28-2	mg/kg	0.1	0.023	U	0.022	U	0.021	U	0.021	U	0.021	U	0.025	U		
Aroclor 1232	11141-16-5	mg/kg	0.1	0.023	U	0.022	U	0.022	U	0.022	U	0.021	U	0.026	U		
Aroclor 1242	53469-21-9	mg/kg	0.1	0.015	U	0.014	U	0.014	U	0.014	U	0.014	U	0.017	U		
Aroclor 1248	12672-29-6	mg/kg	0.1	0.033	U	0.031	U	0.03	U	0.03	U	0.03	U	0.036	U		
Aroclor 1254	11097-69-1	mg/kg	0.1	0.02	U	0.019	U	0.018	U	0.018	U	0.018	U	0.022	U		
Aroclor 1260	11096-82-5	mg/kg	0.1	0.016	U	0.015	U	0.014	U	0.014	U	0.014	U	0.017	U		
Aroclor 1268	11100-14-4	mg/kg	0.1	0.032	U	0.031	U	0.03	U	0.03	U	0.029	U	0.035	U		
Aroclor 1262	37324-23-5	mg/kg	0.1	0.024	U	0.023	U	0.022	U	0.022	U	0.022	U	0.026	U		
Tetrachloro-m-xylene	877-09-8	%		62		54		62		79		73		56			
Tetrachloro-m-xylene (1)	877-09-8	%		88		89		104		131		119		94			
Decachlorobiphenyl	2051-24-3	%		50		41		50		51		55		44			
Decachlorobiphenyl (1)	2051-24-3	%		83		60		67		87		85		66			
(General Chemistry (SM2540 G 18TH ED MOD))																	
Solids, Percent	PERCENT SOLIDS	%		89.4		93.1		95		94.2		93.1		82.6			
(General Chemistry (SW846 9012B/LACHAT))																	
Cyanide	57-12-5	mg/kg	2.3	0.92		0.26	U	0.21	U	0.29	U	0.31	U	0.25	U		
(Metals Analysis (SW846 6010D))																	
Aluminum	7429-90-5	mg/kg		7070		7900		3620		3540		5920		14200			
Antimony	7440-36-0	mg/kg		1.5	U	1.4	U	1.4	U	1.4	U	1.4	U	3.2	U		
Arsenic	7440-38-2	mg/kg	13	2.1		1.5		1.4	U	1.4	U	3.4		4			
Barium	7440-39-3	mg/kg	410	61.2		58.1		38.1		30.1		95.2		82.1			
Beryllium	7440-41-7	mg/kg	4.4	0.26		0.26		0.18		0.19		0.24		0.45			
Cadmium	7440-43-9	mg/kg	2.5	0.36	U	0.35	U	0.34	U	0.34	U	0.35	U	0.39	U		

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SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	EP-63		EP-66I		EP-68		EP-69		EP-70		EP-72I		TB-14	
Lab Sample ID:				JE30810-1		JE30810-2		JE30810-3		JE30810-4		JE30810-5		JE30810-6		JE30810-7	
Date Sampled:				3/24/2026 3:00 PM		3/24/2026 3:05 PM		3/24/2026 3:10 PM		3/24/2026 3:15 PM		3/24/2026 3:20 PM		3/24/2026 3:25 PM		3/24/2026 3:25 PM	
Matrix:				Soil		Soil		Soil		Soil		Soil		Soil		Trip Blank Soil	
Analyte	**CAS #**	**Unit**															
(GC/LC Semi-volatiles (SW846 8081B))																	
Calcium	7440-70-2	mg/kg		8060		3550		1240		1490		46700		1230			
Chromium	7440-47-3	mg/kg	30	13.9		14		8.6		9.3		8.6		15.5			
Cobalt	7440-48-4	mg/kg		5.2		5.7		4		4.2		4		6.3			
Copper	7440-50-8	mg/kg	50	16.5		15		6.9		6.9		12.3		7.5			
Iron	7439-89-6	mg/kg		11700		12900		7330		7630		9090		21400			
Lead	7439-92-1	mg/kg	63	56		4.8		1.8		2		141		9.8			
Magnesium	7439-95-4	mg/kg		4020		4540		2780		2560		9180		3050			
Manganese	7439-96-5	mg/kg	1600	247		250		119		120		695		230			
Nickel	7440-02-0	mg/kg	30	11.4		12.1		7.1		7		7.9		10.9			
Potassium	7440-09-7	mg/kg		1370		1600		1420		1370		1350		790	U		
Selenium	7782-49-2	mg/kg	3.9	1.5	U	1.4	U	1.4	U	1.4	U	1.4	U	3.2	U		
Silver	7440-22-4	mg/kg	2	0.36	U	0.35	U	0.34	U	0.34	U	0.35	U	0.39	U		
Sodium	7440-23-5	mg/kg		730	U	690	U	680	U	690	U	700	U	790	U		
Thallium	7440-28-0	mg/kg		0.73	U	0.69	U	0.68	U	0.69	U	3.5	U	0.79	U		
Vanadium	7440-62-2	mg/kg		17.5		19		9.7		10.7		12.3		25.3			
Zinc	7440-66-6	mg/kg	109	60.9		35		30.3		28		74.1		34.6			
(Metals Analysis (SW846 7471B))																	
Mercury	7439-97-6	mg/kg	0.18	0.055		0.038	U	0.039	U	0.038	U	0.039	U	0.042	U		
(MS Semi-volatile TIC ())																	
n-Hexadecanoic acid	57-10-3	mg/kg				0.88	JNB	0.77	JNB	0.88	JNB			0.82	JNB		
Unknown	TIC	mg/kg		0.34	JB	0.32	JB					0.42	JB	1.6	J		
Octadecanoic acid	57-11-4	mg/kg								0.2	JN						
Unknown (10)	TIC	mg/kg		0.28	J							0.2	J				
Unknown acid	TIC	mg/kg						0.14	J								
Unknown alcohol	TIC	mg/kg				0.47	JB	0.48	JB								
unknown alcohol	TIC	mg/kg								0.48	JB						
Unknown PAH substance (5)	TIC	mg/kg		0.42	J							0.32	J				
alkane	TIC	mg/kg								0.15	J						
Unknown (12)	TIC	mg/kg		0.24	J												
Unknown alcohol	TIC	mg/kg												0.36	JB		
Alkane (1)	TIC	mg/kg		0.57	J	0.15	J	0.14	J								
alkane (1)	TIC	mg/kg								0.15	J						
Alkane (5)	TIC	mg/kg										0.41	J				
Dibenzopyrene	TIC	mg/kg				0.26	J										
Unknown PAH substance (6)	TIC	mg/kg		0.62	J												
Alkane (6)	TIC	mg/kg										0.55	J				
Unknown (13)	TIC	mg/kg		0.22	J												
1-Cyclopentenecarbonitrile, 2-[(2-	1000264-24-2	mg/kg										0.26	JN				
Unknown (14)	TIC	mg/kg		0.24	J												
Alkane (2)	TIC	mg/kg		0.42	J	0.15	J					0.16	J	0.22	J		
Unknown (1)	TIC	mg/kg		0.26	J							0.17	J	2.4	J		
Unknown (2)	TIC	mg/kg		0.22	J							0.16	J	0.2	JB		
Alkane	TIC	mg/kg										0.38	J	0.19	J		
Unknown (3)	TIC	mg/kg		0.35	J							0.39	J				
Unknown (4)	TIC	mg/kg		0.26	J							0.17	J				
Alkane	TIC	mg/kg		0.32	J	0.15	J	0.14	J								
Unknown (5)	TIC	mg/kg		0.53	J							0.17	J				
Unknown (6)	TIC	mg/kg		0.21	J							0.23	J				
Alkane (1)	TIC	mg/kg										0.51	J	0.22	J		
Unknown (7)	TIC	mg/kg		0.29	J							0.5	JB				

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SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	EP-63		EP-66I		EP-68		EP-69		EP-70		EP-72I		TB-14	
Lab Sample ID:				JE30810-1		JE30810-2		JE30810-3		JE30810-4		JE30810-5		JE30810-6		JE30810-7	
Date Sampled:				3/24/2026 3:00 PM		3/24/2026 3:05 PM		3/24/2026 3:10 PM		3/24/2026 3:15 PM		3/24/2026 3:20 PM		3/24/2026 3:25 PM		3/24/2026 3:25 PM	
Matrix:				Soil		Soil		Soil		Soil		Soil		Soil		Trip Blank Soil	
Analyte	**CAS #**	**Unit**															
(GC/LC Semi-volatiles (SW846 8081B))																	
Unknown (8)	TIC	mg/kg		0.28	J							0.33	J				
Unknown (9)	TIC	mg/kg		0.88	JB							0.17	J				
Unknown PAH substance	TIC	mg/kg		0.58	J							0.4	J				
Unknown PAH substance (1)	TIC	mg/kg		0.27	J							0.26	J				
Alkane (3)	TIC	mg/kg										0.38	J	0.16	J		
Unknown PAH substance (2)	TIC	mg/kg		0.25	J							0.2	J				
Unknown PAH substance (3)	TIC	mg/kg		0.29	J							0.17	J				
Unknown (11)	TIC	mg/kg		0.23	J												
Alkane (4)	TIC	mg/kg										0.28	J				
Unknown PAH substance (4)	TIC	mg/kg		0.27	J							0.23	J				
Total TIC, Semi-Volatile	TOTAL TIC, SEMI-VOLATILE	mg/kg		7.62	J	0.71	J	0.42	J	0.5	J	6.5	J	4.79	J		
(MS Semi-volatiles (SW846 8270E))																	
2-Chlorophenol	95-57-8	mg/kg		0.018	U	0.018	U	0.017	U	0.017	U	0.018	U	0.019	U		
4-Chloro-3-methyl phenol	59-50-7	mg/kg		0.022	U	0.022	U	0.021	U	0.021	U	0.022	U	0.024	U		
2,4-Dichlorophenol	120-83-2	mg/kg		0.031	U	0.031	U	0.029	U	0.029	U	0.03	U	0.034	U		
2,4-Dimethylphenol	105-67-9	mg/kg		0.065	U	0.064	U	0.06	U	0.062	U	0.064	U	0.07	U		
2,4-Dinitrophenol	51-28-5	mg/kg		0.14	U	0.13	U	0.13	U	0.13	U	0.13	U	0.15	U		
4,6-Dinitro-o-cresol	534-52-1	mg/kg		0.039	U	0.038	U	0.036	U	0.037	U	0.038	U	0.042	U		
2-Methylphenol	95-48-7	mg/kg	0.33	0.023	U	0.023	U	0.021	U	0.022	U	0.023	U	0.025	U		
3&4-Methylphenol	M+P-CRESOLS	mg/kg	0.33	0.03	U	0.029	U	0.028	U	0.028	U	0.029	U	0.032	U		
2-Nitrophenol	88-75-5	mg/kg		0.024	U	0.024	U	0.022	U	0.023	U	0.024	U	0.026	U		
4-Nitrophenol	100-02-7	mg/kg		0.097	U	0.096	U	0.09	U	0.092	U	0.095	U	0.1	U		
Pentachlorophenol	87-86-5	mg/kg	0.8	0.034	U	0.034	U	0.031	U	0.032	U	0.034	U	0.037	U		
Phenol	108-95-2	mg/kg	0.33	0.019	U	0.019	U	0.017	U	0.018	U	0.019	U	0.021	U		
2,3,4,6-Tetrachlorophenol	58-90-2	mg/kg		0.024	U	0.024	U	0.022	U	0.023	U	0.024	U	0.026	U		
2,4,5-Trichlorophenol	95-95-4	mg/kg		0.027	U	0.027	U	0.025	U	0.026	U	0.027	U	0.029	U		
2,4,6-Trichlorophenol	88-06-2	mg/kg		0.022	U	0.021	U	0.02	U	0.021	U	0.021	U	0.023	U		
Acenaphthene	83-32-9	mg/kg	20	0.0926		0.012	U	0.012	U	0.012	U	0.0213	J	0.014	U		
Acenaphthylene	208-96-8	mg/kg	100	0.0533		0.018	U	0.017	U	0.018	U	0.0269	J	0.02	U		
Acetophenone	98-86-2	mg/kg		0.0078	U	0.0077	U	0.0072	U	0.0074	U	0.0077	U	0.0085	U		
Anthracene	120-12-7	mg/kg	100	0.268		0.022	U	0.021	U	0.021	U	0.074		0.024	U		
Atrazine	1912-24-9	mg/kg		0.016	U	0.015	U	0.014	U	0.015	U	0.015	U	0.017	U		
Benzo(a)anthracene	56-55-3	mg/kg	1	0.725		0.01	U	0.0095	U	0.0098	U	0.26		0.011	U		
Benzo(a)pyrene	50-32-8	mg/kg	1	0.648		0.016	U	0.015	U	0.016	U	0.258		0.018	U		
Benzo(b)fluoranthene	205-99-2	mg/kg	1	0.825		0.016	U	0.015	U	0.015	U	0.332		0.017	U		
Benzo(g,h,i)perylene	191-24-2	mg/kg	0.64	0.443		0.018	U	0.017	U	0.017	U	0.189		0.02	U		
Benzo(k)fluoranthene	207-08-9	mg/kg	0.8	0.312		0.017	U	0.016	U	0.016	U	0.109		0.018	U		
4-Bromophenyl phenyl ether	101-55-3	mg/kg		0.014	U	0.014	U	0.013	U	0.013	U	0.014	U	0.015	U		
Butyl benzyl phthalate	85-68-7	mg/kg		0.0141	J	0.0087	U	0.0082	U	0.0084	U	0.0099	J	0.0096	U		
1,1'-Biphenyl	92-52-4	mg/kg		0.0077	J	0.0049	U	0.0046	U	0.0047	U	0.0049	U	0.0054	U		
Benzaldehyde	100-52-7	mg/kg		0.009	U	0.0089	U	0.0083	U	0.0086	U	0.0088	U	0.0097	U		
2-Chloronaphthalene	91-58-7	mg/kg		0.0086	U	0.0085	U	0.008	U	0.0082	U	0.0085	U	0.0094	U		
4-Chloroaniline	106-47-8	mg/kg		0.013	U	0.013	U	0.012	U	0.012	U	0.013	U	0.014	U		
Carbazole	86-74-8	mg/kg		0.126		0.0052	U	0.0049	U	0.005	U	0.0335	J	0.0057	U		
Caprolactam	105-60-2	mg/kg		0.014	U	0.014	U	0.013	U	0.014	U	0.014	U	0.016	U		
Chrysene	218-01-9	mg/kg	1	0.7		0.011	U	0.011	U	0.011	U	0.253		0.012	U		
bis(2-Chloroethoxy)methane	111-91-1	mg/kg		0.0078	U	0.0077	U	0.0072	U	0.0074	U	0.0076	U	0.0084	U		
bis(2-Chloroethyl)ether	111-44-4	mg/kg		0.016	U	0.015	U	0.014	U	0.015	U	0.015	U	0.017	U		
2,2'-Oxybis(1-chloropropane)	108-60-1	mg/kg		0.013	U	0.013	U	0.012	U	0.012	U	0.013	U	0.014	U		
4-Chlorophenyl phenyl ether	7005-72-3	mg/kg		0.012	U	0.012	U	0.011	U	0.011	U	0.012	U	0.013	U		

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SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	EP-63		EP-66I		EP-68		EP-69		EP-70		EP-72I		TB-14	
Lab Sample ID:				JE30810-1		JE30810-2		JE30810-3		JE30810-4		JE30810-5		JE30810-6		JE30810-7	
Date Sampled:				3/24/2026 3:00 PM		3/24/2026 3:05 PM		3/24/2026 3:10 PM		3/24/2026 3:15 PM		3/24/2026 3:20 PM		3/24/2026 3:25 PM		3/24/2026 3:25 PM	
Matrix:				Soil		Soil		Soil		Soil		Soil		Soil		Trip Blank Soil	
Analyte	**CAS #**	**Unit**															
(GC/LC Semi-volatiles (SW846 8081B))																	
2,4-Dinitrotoluene	121-14-2	mg/kg		0.011	U	0.011	U	0.01	U	0.011	U	0.011	U	0.012	U		
2,6-Dinitrotoluene	606-20-2	mg/kg		0.018	U	0.018	U	0.017	U	0.017	U	0.018	U	0.02	U		
3,3'-Dichlorobenzidine	91-94-1	mg/kg		0.03	U	0.03	U	0.028	U	0.029	U	0.03	U	0.033	U		
1,4-Dioxane	123-91-1	mg/kg	0.1	0.024	U	0.024	U	0.022	U	0.023	U	0.024	U	0.026	U		
Dibenzo(a,h)anthracene	53-70-3	mg/kg	0.33	0.116		0.016	U	0.015	U	0.015	U	0.0467		0.017	U		
Dibenzofuran	132-64-9	mg/kg	2.1	0.0544	J	0.015	U	0.014	U	0.014	U	0.015	U	0.016	U		
Di-n-butyl phthalate	84-74-2	mg/kg		0.0095	J	0.0058	U	0.0055	U	0.0056	U	0.0059	J	0.0064	U		
Di-n-octyl phthalate	117-84-0	mg/kg		0.009	U	0.0089	U	0.0083	U	0.0086	U	0.0089	U	0.0098	U		
Diethyl phthalate	84-66-2	mg/kg		0.0077	U	0.0076	U	0.0071	U	0.0074	U	0.0076	U	0.0084	U		
Dimethyl phthalate	131-11-3	mg/kg		0.0065	U	0.0064	U	0.006	U	0.0062	U	0.0064	U	0.007	U		
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg		0.0407	J	0.0084	U	0.0078	U	0.0081	U	0.0731		0.0092	U		
Fluoranthene	206-44-0	mg/kg	85	1.32		0.016	U	0.015	U	0.015	U	0.418		0.018	U		
Fluorene	86-73-7	mg/kg	30	0.0958		0.016	U	0.015	U	0.016	U	0.0219	J	0.018	U		
Hexachlorobenzene	118-74-1	mg/kg	0.33	0.0092	U	0.0091	U	0.0085	U	0.0087	U	0.009	U	0.0099	U		
Hexachlorobutadiene	87-68-3	mg/kg		0.015	U	0.014	U	0.013	U	0.014	U	0.014	U	0.016	U		
Hexachlorocyclopentadiene	77-47-4	mg/kg		0.014	U	0.014	U	0.013	U	0.014	U	0.014	U	0.016	U		
Hexachloroethane	67-72-1	mg/kg		0.018	U	0.018	U	0.017	U	0.017	U	0.018	U	0.019	U		
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	0.5	0.472		0.017	U	0.016	U	0.016	U	0.185		0.018	U		
Isophorone	78-59-1	mg/kg		0.0078	U	0.0077	U	0.0072	U	0.0074	U	0.0076	U	0.0084	U		
2-Methylnaphthalene	91-57-6	mg/kg		0.0306	J	0.0081	U	0.0076	U	0.0078	U	0.0087	J	0.0089	U		
2-Nitroaniline	88-74-4	mg/kg		0.0086	U	0.0084	U	0.0079	U	0.0082	U	0.0084	U	0.0093	U		
3-Nitroaniline	99-09-2	mg/kg		0.0091	U	0.009	U	0.0084	U	0.0086	U	0.0089	U	0.0098	U		
4-Nitroaniline	100-01-6	mg/kg		0.0094	U	0.0093	U	0.0087	U	0.009	U	0.0092	U	0.01	U		
Naphthalene	91-20-3	mg/kg	12	0.0508		0.01	U	0.0095	U	0.0098	U	0.0122	J	0.011	U		
Nitrobenzene	98-95-3	mg/kg	0.08	0.014	U	0.014	U	0.013	U	0.013	U	0.014	U	0.015	U		
N-Nitroso-di-n-propylamine	621-64-7	mg/kg		0.01	U	0.01	U	0.0097	U	0.01	U	0.01	U	0.011	U		
N-Nitrosodiphenylamine	86-30-6	mg/kg		0.013	U	0.013	U	0.012	U	0.013	U	0.013	U	0.014	U		
Phenanthrene	85-01-8	mg/kg	1.1	0.96		0.012	U	0.011	U	0.012	U	0.206		0.013	U		
Pyrene	129-00-0	mg/kg	64	1.36		0.011	U	0.011	U	0.011	U	0.44		0.013	U		
1,2,4,5-Tetrachlorobenzene	95-94-3	mg/kg		0.0092	U	0.0091	U	0.0085	U	0.0088	U	0.0091	U	0.01	U		
2-Fluorophenol	367-12-4	%		61		51		30		43		59		60			
Phenol-d5	4165-62-2	%		66		56		32		47		63		64			
2,4,6-Tribromophenol	118-79-6	%		56		55		38		52		65		65			
Nitrobenzene-d5	4165-60-0	%		72		60		32		47		70		68			
2-Fluorobiphenyl	321-60-8	%		65		55		32		48		65		61			
Terphenyl-d14	1718-51-0	%		73		63		44		59		74		73			
(MS Volatile TIC ())																	
Total TIC, Volatile	TOTAL TIC, VOLATILE	mg/kg		0		0		0		0		0		0			
Total TIC, Volatile	TOTAL TIC, VOLATILE	ug/l														0	
(MS Volatiles (SW846 8260D))																	
Acetone	67-64-1	mg/kg	0.03	0.0052	J	0.0063	J	0.0051	J	0.0057	J	0.0043	U	0.0039	U		
Acetone	67-64-1	ug/l														3.1	U
Benzene	71-43-2	mg/kg	0.06	0.00044	U	0.0005	U	0.0005	U	0.00053	U	0.00047	U	0.00042	U		
Bromochloromethane	74-97-5	mg/kg		0.00054	U	0.00061	U	0.00061	U	0.00065	U	0.00058	U	0.00052	U		
Benzene	71-43-2	ug/l														0.43	U
Bromodichloromethane	75-27-4	mg/kg		0.00041	U	0.00047	U	0.00047	U	0.0005	U	0.00044	U	0.0004	U		
Bromoform	75-25-2	mg/kg		0.0013	U	0.0015	U	0.0015	U	0.0016	U	0.0014	U	0.0013	U		
Bromomethane	74-83-9	mg/kg		0.00074	U	0.00084	U	0.00084	U	0.00088	U	0.00079	U	0.00071	U		
2-Butanone (MEK)	78-93-3	mg/kg	0.1	0.0023	U	0.0027	U	0.0027	U	0.0028	U	0.0025	U	0.0023	U		
Bromochloromethane	74-97-5	ug/l														0.48	U

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SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	EP-63		EP-66I		EP-68		EP-69		EP-70		EP-72I		TB-14	
Lab Sample ID:				JE30810-1		JE30810-2		JE30810-3		JE30810-4		JE30810-5		JE30810-6		JE30810-7	
Date Sampled:				3/24/2026 3:00 PM		3/24/2026 3:05 PM		3/24/2026 3:10 PM		3/24/2026 3:15 PM		3/24/2026 3:20 PM		3/24/2026 3:25 PM		3/24/2026 3:25 PM	
Matrix:				Soil		Soil		Soil		Soil		Soil		Soil		Trip Blank Soil	
Analyte	**CAS #**	**Unit**															
(GC/LC Semi-volatiles (SW846 8081B))																	
Bromodichloromethane	75-27-4	ug/l														0.45	U
Bromoform	75-25-2	ug/l														0.63	U
Bromomethane	74-83-9	ug/l														1.6	U
2-Butanone (MEK)	78-93-3	ug/l														2.7	U
Carbon disulfide	75-15-0	mg/kg		0.00052	U	0.00059	U	0.00059	U	0.00062	U	0.00055	U	0.0005	U		
Carbon tetrachloride	56-23-5	mg/kg	0.76	0.0006	U	0.00068	U	0.00068	U	0.00071	U	0.00064	U	0.00058	U		
Chlorobenzene	108-90-7	mg/kg	4.5	0.00044	U	0.0005	U	0.0005	U	0.00053	U	0.00047	U	0.00043	U		
Chloroethane	75-00-3	mg/kg		0.00057	U	0.00065	U	0.00065	U	0.00068	U	0.00061	U	0.00055	U		
Carbon disulfide	75-15-0	ug/l														1.8	U
Carbon tetrachloride	56-23-5	ug/l														0.55	U
Chloroform	67-66-3	mg/kg	0.37	0.00096	U	0.0011	U	0.0011	U	0.0012	U	0.001	U	0.00093	U		
Chlorobenzene	108-90-7	ug/l														0.56	U
Chloromethane	74-87-3	mg/kg		0.0019	U	0.0021	U	0.0021	U	0.0023	U	0.002	U	0.0018	U		
Chloroethane	75-00-3	ug/l														0.73	U
Chloroform	67-66-3	ug/l														0.74	J
Cyclohexane	110-82-7	mg/kg		0.00063	U	0.00072	U	0.00072	U	0.00076	U	0.00068	U	0.00061	U		
Chloromethane	74-87-3	ug/l														0.76	U
1,2-Dibromo-3-chloropropane	96-12-8	mg/kg		0.00067	U	0.00076	U	0.00076	U	0.0008	U	0.00072	U	0.00065	U		
Cyclohexane	110-82-7	ug/l														0.78	U
Dibromochloromethane	124-48-1	mg/kg		0.00054	U	0.00061	U	0.00061	U	0.00065	U	0.00058	U	0.00052	U		
1,2-Dibromoethane	106-93-4	mg/kg		0.00041	U	0.00046	U	0.00046	U	0.00049	U	0.00043	U	0.00039	U		
1,2-Dichlorobenzene	95-50-1	mg/kg	1.1	0.00053	U	0.0006	U	0.0006	U	0.00063	U	0.00056	U	0.00051	U		
1,3-Dichlorobenzene	541-73-1	mg/kg	2.6	0.00048	U	0.00054	U	0.00054	U	0.00057	U	0.00051	U	0.00046	U		
1,2-Dibromo-3-chloropropane	96-12-8	ug/l														0.53	U
1,4-Dichlorobenzene	106-46-7	mg/kg	1.8	0.00048	U	0.00054	U	0.00054	U	0.00057	U	0.00051	U	0.00046	U		
Dibromochloromethane	124-48-1	ug/l														0.56	U
1,2-Dibromoethane	106-93-4	ug/l														0.48	U
Dichlorodifluoromethane	75-71-8	mg/kg		0.0007	U	0.0008	U	0.0008	U	0.00084	U	0.00075	U	0.00068	U		
1,1-Dichloroethane	75-34-3	mg/kg	0.27	0.00048	U	0.00054	U	0.00054	U	0.00057	U	0.00051	U	0.00046	U		
1,2-Dichlorobenzene	95-50-1	ug/l														0.53	U
1,2-Dichloroethane	107-06-2	mg/kg	0.02	0.00045	U	0.00052	U	0.00052	U	0.00054	U	0.00049	U	0.00044	U		
1,3-Dichlorobenzene	541-73-1	ug/l														0.54	U
1,1-Dichloroethene	75-35-4	mg/kg	0.24	0.00063	U	0.00072	U	0.00072	U	0.00076	U	0.00068	U	0.00061	U		
1,4-Dichlorobenzene	106-46-7	ug/l														0.51	U
cis-1,2-Dichloroethene	156-59-2	mg/kg	0.19	0.00081	U	0.00092	U	0.00092	U	0.00097	U	0.00087	U	0.00078	U		
Dichlorodifluoromethane	75-71-8	ug/l														0.56	U
trans-1,2-Dichloroethene	156-60-5	mg/kg	0.19	0.00059	U	0.00067	U	0.00067	U	0.00071	U	0.00063	U	0.00057	U		
1,1-Dichloroethane	75-34-3	ug/l														0.57	U
1,2-Dichloroethane	107-06-2	ug/l														0.6	U
1,2-Dichloropropane	78-87-5	mg/kg		0.00046	U	0.00052	U	0.00052	U	0.00055	U	0.00049	U	0.00044	U		
1,1-Dichloroethene	75-35-4	ug/l														0.59	U
cis-1,2-Dichloroethene	156-59-2	ug/l														0.51	U
trans-1,2-Dichloroethene	156-60-5	ug/l														0.54	U
cis-1,3-Dichloropropene	10061-01-5	mg/kg		0.00046	U	0.00052	U	0.00052	U	0.00055	U	0.00049	U	0.00044	U		
1,2-Dichloropropane	78-87-5	ug/l														0.51	U
trans-1,3-Dichloropropene	10061-02-6	mg/kg		0.00044	U	0.0005	U	0.0005	U	0.00053	U	0.00047	U	0.00043	U		
cis-1,3-Dichloropropene	10061-01-5	ug/l														0.47	U
trans-1,3-Dichloropropene	10061-02-6	ug/l														0.43	U
Ethylbenzene	100-41-4	mg/kg	1	0.00044	U	0.0005	U	0.0005	U	0.00052	U	0.00047	U	0.00042	U		
Ethylbenzene	100-41-4	ug/l														0.6	U

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SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	EP-63		EP-66I		EP-68		EP-69		EP-70		EP-72I		TB-14	
Lab Sample ID:				JE30810-1		JE30810-2		JE30810-3		JE30810-4		JE30810-5		JE30810-6		JE30810-7	
Date Sampled:				3/24/2026 3:00 PM		3/24/2026 3:05 PM		3/24/2026 3:10 PM		3/24/2026 3:15 PM		3/24/2026 3:20 PM		3/24/2026 3:25 PM		3/24/2026 3:25 PM	
Matrix:				Soil		Soil		Soil		Soil		Soil		Soil		Trip Blank Soil	
Analyte	**CAS #**	**Unit**															
(GC/LC Semi-volatiles (SW846 8081B))																	
Freon 113	76-13-1	mg/kg		0.0026	U	0.0029	U	0.0029	U	0.0031	U	0.0028	U	0.0025	U		
Freon 113	76-13-1	ug/l														0.58	U
2-Hexanone	591-78-6	mg/kg		0.002	U	0.0023	U	0.0023	U	0.0024	U	0.0022	U	0.002	U		
2-Hexanone	591-78-6	ug/l														4.8	U
Isopropylbenzene	98-82-8	mg/kg		0.0014	U	0.0016	U	0.0016	U	0.0016	U	0.0015	U	0.0013	U		
Isopropylbenzene	98-82-8	ug/l														0.65	U
Methyl Acetate	79-20-9	mg/kg		0.0013	U	0.0015	U	0.0015	U	0.0016	U	0.0014	U	0.0013	U		
Methylcyclohexane	108-87-2	mg/kg		0.00084	U	0.00096	U	0.00096	U	0.001	U	0.0009	U	0.00081	U		
Methyl Acetate	79-20-9	ug/l														0.8	U
Methyl Tert Butyl Ether	1634-04-4	mg/kg	0.1	0.00045	U	0.00051	U	0.00051	U	0.00054	U	0.00048	U	0.00044	U		
Methylcyclohexane	108-87-2	ug/l														0.6	U
4-Methyl-2-pentanone(MIBK)	108-10-1	mg/kg		0.0022	U	0.0025	U	0.0025	U	0.0026	U	0.0023	U	0.0021	U		
Methyl Tert Butyl Ether	1634-04-4	ug/l														0.51	U
Methylene chloride	75-09-2	mg/kg	0.05	0.0025	U	0.0029	U	0.0029	U	0.003	U	0.0027	U	0.0024	U		
4-Methyl-2-pentanone(MIBK)	108-10-1	ug/l														4.9	U
Methylene chloride	75-09-2	ug/l														1	U
Styrene	100-42-5	mg/kg		0.00039	U	0.00044	U	0.00044	U	0.00046	U	0.00042	U	0.00037	U		
Styrene	100-42-5	ug/l														0.49	U
1,1,2,2-Tetrachloroethane	79-34-5	mg/kg		0.00058	U	0.00066	U	0.00066	U	0.00069	U	0.00062	U	0.00056	U		
Tetrachloroethene	127-18-4	mg/kg	1.3	0.00056	U	0.00064	U	0.00064	U	0.00067	U	0.0006	U	0.00054	U		
1,1,2,2-Tetrachloroethane	79-34-5	ug/l														0.65	U
Tetrachloroethene	127-18-4	ug/l														0.56	U
Toluene	108-88-3	mg/kg	0.7	0.00051	U	0.00058	U	0.00058	U	0.00061	U	0.00054	U	0.00049	U		
1,2,3-Trichlorobenzene	87-61-6	mg/kg		0.0024	U	0.0027	U	0.0027	U	0.0029	U	0.0026	U	0.0023	U		
Toluene	108-88-3	ug/l														0.49	U
1,2,4-Trichlorobenzene	120-82-1	mg/kg		0.0024	U	0.0027	U	0.0027	U	0.0029	U	0.0026	U	0.0023	U		
1,1,1-Trichloroethane	71-55-6	mg/kg	0.68	0.00047	U	0.00053	U	0.00053	U	0.00056	U	0.0005	U	0.00045	U		
1,2,3-Trichlorobenzene	87-61-6	ug/l														0.5	U
1,1,2-Trichloroethane	79-00-5	mg/kg		0.00053	U	0.00061	U	0.00061	U	0.00064	U	0.00057	U	0.00052	U		
1,2,4-Trichlorobenzene	120-82-1	ug/l														0.5	U
1,1,1-Trichloroethane	71-55-6	ug/l														0.54	U
Trichloroethene	79-01-6	mg/kg	0.47	0.00073	U	0.00084	U	0.00084	U	0.00088	U	0.00079	U	0.00071	U		
1,1,2-Trichloroethane	79-00-5	ug/l														0.53	U
Trichlorofluoromethane	75-69-4	mg/kg		0.00066	U	0.00075	U	0.00075	U	0.00079	U	0.00071	U	0.00064	U		
Trichloroethene	79-01-6	ug/l														0.53	U
Trichlorofluoromethane	75-69-4	ug/l														0.4	U
Vinyl chloride	75-01-4	mg/kg	0.03	0.00046	U	0.00053	U	0.00053	U	0.00056	U	0.0005	U	0.00045	U		
m,p-Xylene	M,P-XYLENE	mg/kg	0.26	0.00086	U	0.00098	U	0.00098	U	0.001	U	0.00093	U	0.00083	U		
Vinyl chloride	75-01-4	ug/l														0.52	U
o-Xylene	95-47-6	mg/kg	0.26	0.00044	U	0.0005	U	0.0005	U	0.00053	U	0.00047	U	0.00043	U		
Xylene (total)	1330-20-7	mg/kg	0.26	0.00044	U	0.0005	U	0.0005	U	0.00053	U	0.00047	U	0.00043	U		
m,p-Xylene	M,P-XYLENE	ug/l														0.78	U
o-Xylene	95-47-6	ug/l														0.59	U
Xylene (total)	1330-20-7	ug/l														0.59	U
Dibromofluoromethane	1868-53-7	%		102		101		101		99		99		101		102	
1,2-Dichloroethane-D4	17060-07-0	%		107		104		107		105		104		105		101	
Toluene-D8	2037-26-5	%		98		98		98		100		98		98		101	
4-Bromofluorobenzene	460-00-4	%		99		99		98		97		99		99		100	

1 result(s) exceeded regulatory criteria.

SGS

SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	TB-15		EP-54II (152.0')		EP-75I (152.0')		EP-76I (152.0')		EP-82I (152.0')		EP-83I (152.0')	
Lab Sample ID:				JE31224-1		JE31224-2		JE31224-3		JE31224-4		JE31224-5		JE31224-6	
Date Sampled:				3/31/2026 1:59 PM		3/31/2026 1:30 PM		3/31/2026 1:40 PM		3/31/2026 1:46 PM		3/31/2026 1:52 PM		3/31/2026 1:59 PM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**													
(GC/LC Semi-volatiles (SW846 8081B))															
Aldrin	309-00-2	mg/kg	0.0048			0.00058	U	0.00054	U	0.00056	U	0.00054	U	0.00057	U
alpha-BHC	319-84-6	mg/kg	0.02			0.00057	U	0.00053	U	0.00055	U	0.00053	U	0.00056	U
beta-BHC	319-85-7	mg/kg	0.021			0.00064	U	0.00059	U	0.00061	U	0.00059	U	0.00062	U
delta-BHC	319-86-8	mg/kg	0.04			0.00068	U	0.00063	U	0.00065	U	0.00062	U	0.00066	U
gamma-BHC (Lindane)	58-89-9	mg/kg	0.025			0.00052	U	0.00048	U	0.0005	U	0.00048	U	0.00051	U
alpha-Chlordane	5103-71-9	mg/kg	0.014			0.00057	U	0.00053	U	0.00084		0.00075		0.00056	U
gamma-Chlordane	5103-74-2	mg/kg				0.00032	U	0.0003	U	0.00031	U	0.00077		0.00031	U
Dieldrin	60-57-1	mg/kg	0.005			0.00048	U	0.00045	U	0.00046	U	0.00045	U	0.00047	U
4,4'-DDD	72-54-8	mg/kg	0.0033			0.00065	U	0.0006	U	0.00073		0.0006	U	0.00063	U
4,4'-DDE	72-55-9	mg/kg	0.0033			0.00062	U	0.00057	U	0.00059	U	0.00057	U	0.0006	U
4,4'-DDT	50-29-3	mg/kg	0.0033			0.00063	U	0.00058	U	0.0006	U	0.0013		0.00061	U
Endrin	72-20-8	mg/kg	0.014			0.00055	U	0.00051	U	0.00052	U	0.0005	U	0.00054	U
Endosulfan sulfate	1031-07-8	mg/kg	4.3			0.00055	U	0.00051	U	0.00053	U	0.00051	U	0.00054	U
Endrin aldehyde	7421-93-4	mg/kg				0.0004	U	0.00037	U	0.00038	U	0.00037	U	0.00039	U
Endosulfan-I	959-98-8	mg/kg	4.3			0.00041	U	0.00038	U	0.00039	U	0.00037	U	0.0004	U
Endosulfan-II	33213-65-9	mg/kg	4.3			0.00044	U	0.00041	U	0.00042	U	0.00041	U	0.00043	U
Heptachlor	76-44-8	mg/kg	0.013			0.00061	U	0.00056	U	0.00058	U	0.00056	U	0.00059	U
Heptachlor epoxide	1024-57-3	mg/kg				0.00049	U	0.00046	U	0.00047	U	0.00046	U	0.00048	U
Methoxychlor	72-43-5	mg/kg				0.00056	U	0.00052	U	0.00054	U	0.00052	U	0.00055	U
Endrin ketone	53494-70-5	mg/kg				0.00051	U	0.00047	U	0.00049	U	0.00047	U	0.0005	U
Toxaphene	8001-35-2	mg/kg				0.016	U	0.015	U	0.016	U	0.015	U	0.016	U
Tetrachloro-m-xylene (2)	877-09-8	%				82		42		72		86		85	
Tetrachloro-m-xylene (3)	877-09-8	%				78		42		67		81		80	
Decachlorobiphenyl (2)	2051-24-3	%				80		43		84		89		84	
Decachlorobiphenyl (3)	2051-24-3	%				79		47		75		99		75	
(GC/LC Semi-volatiles (SW846 8082A))															
Aroclor 1016	12674-11-2	mg/kg	0.1			0.016	U	0.015	U	0.016	U	0.015	U	0.016	U
Aroclor 1221	11104-28-2	mg/kg	0.1			0.022	U	0.021	U	0.021	U	0.02	U	0.021	U
Aroclor 1232	11141-16-5	mg/kg	0.1			0.022	U	0.021	U	0.022	U	0.021	U	0.022	U
Aroclor 1242	53469-21-9	mg/kg	0.1			0.014	U	0.014	U	0.014	U	0.013	U	0.014	U
Aroclor 1248	12672-29-6	mg/kg	0.1			0.031	U	0.03	U	0.03	U	0.029	U	0.031	U
Aroclor 1254	11097-69-1	mg/kg	0.1			0.019	U	0.018	U	0.018	U	0.0479		0.019	U
Aroclor 1260	11096-82-5	mg/kg	0.1			0.015	U	0.014	U	0.014	U	0.014	U	0.015	U
Aroclor 1268	11100-14-4	mg/kg	0.1			0.031	U	0.029	U	0.03	U	0.028	U	0.03	U
Aroclor 1262	37324-23-5	mg/kg	0.1			0.023	U	0.022	U	0.022	U	0.021	U	0.023	U
Tetrachloro-m-xylene	877-09-8	%				59		30		49		55		58	
Tetrachloro-m-xylene (1)	877-09-8	%				95		49		81		94		94	
Decachlorobiphenyl	2051-24-3	%				50		27		45		52		49	
Decachlorobiphenyl (1)	2051-24-3	%				65		35		75		76		66	
(General Chemistry (SM2540 G 18TH ED MOD))															
Solids, Percent	PERCENT SOLIDS	%				91.4		97.2		95.5		93.3		96	
(General Chemistry (SW846 9012B/LACHAT))															
Cyanide	57-12-5	mg/kg	2.3			0.31	U	0.29	U	0.23	U	0.32	U	0.24	U
(Metals Analysis (SW846 6010D))															
Aluminum	7429-90-5	mg/kg				8420		5550		5400		5820		3790	
Antimony	7440-36-0	mg/kg				1.4	U	1.3	U	1.4	U	1.4	U	1.4	U
Arsenic	7440-38-2	mg/kg	13			1.5		1.6		1.4		1.5		1.4	U
Barium	7440-39-3	mg/kg	410			47.9		51.8		60.6		55.2		43.4	
Beryllium	7440-41-7	mg/kg	4.4			0.3		0.23		0.2		0.25		0.16	
Cadmium	7440-43-9	mg/kg	2.5			0.35	U	0.33	U	0.34	U	0.35	U	0.34	U
Calcium	7440-70-2	mg/kg				24600		2400		2350		1930		1120	
Chromium	7440-47-3	mg/kg	30			14.3		10.1		10.7		10.2		5.7	
Cobalt	7440-48-4	mg/kg				6.5		4.2		4.3		4.2		3.4	U
Copper	7440-50-8	mg/kg	50			15.4		8.6		9.3		8.7		6	
Iron	7439-89-6	mg/kg				12900		9540		10700		10200		5990	
Lead	7439-92-1	mg/kg	63			3.6		19		34.3		22.9		2.3	
Magnesium	7439-95-4	mg/kg				24300		2590		2890		2580		1620	
Manganese	7439-96-5	mg/kg	1600			236		205		272		187		116	
Nickel	7440-02-0	mg/kg	30			13.3		8.4		9.2		8.8		7.8	
Potassium	7440-09-7	mg/kg				1680		991		1520		1020		870	
Selenium	7782-49-2	mg/kg	3.9			1.4	U	1.3	U	1.4	U	1.4	U	1.4	U
Silver	7440-22-4	mg/kg	2			0.35	U	0.33	U	0.34	U	0.35	U	0.34	U
Sodium	7440-23-5	mg/kg				710	U	670	U	680	U	690	U	680	U

SGS

SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	TB-15		EP-54II (152.0')		EP-75I (152.0')		EP-76I (152.0')		EP-82I (152.0')		EP-83I (152.0')	
Lab Sample ID:				JE31224-1		JE31224-2		JE31224-3		JE31224-4		JE31224-5		JE31224-6	
Date Sampled:				3/31/2026 1:59 PM		3/31/2026 1:30 PM		3/31/2026 1:40 PM		3/31/2026 1:46 PM		3/31/2026 1:52 PM		3/31/2026 1:59 PM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**													
Thallium	7440-28-0	mg/kg				0.71	U	0.67	U	0.68	U	0.69	U	0.68	U
Vanadium	7440-62-2	mg/kg				22.6		13.9		14.3		14.6		8	
Zinc	7440-66-6	mg/kg	109			26.2		39.7		44		44.4		18.8	
(Metals Analysis (SW846 7471B))															
Mercury	7439-97-6	mg/kg	0.18			0.039	U	0.038	U	0.038		0.041	U	0.037	U
(MS Semi-volatile TIC ())															
n-Hexadecanoic acid	57-10-3	mg/kg				0.87	JN	0.48	JN	0.34	JN	0.46	JN	0.64	JN
Octadecanoic acid	57-11-4	mg/kg				0.19	JN	0.16	JN			0.17	JN		
Chrysene, methyl-	TIC	mg/kg								0.23	J				
Unknown alcohol	TIC	mg/kg				0.45	J	0.34	J	0.25	J	0.32	J	0.51	J
Unknown alcohol (1)	TIC	mg/kg												0.22	J
Alkane	TIC	mg/kg										0.19	J		
Unknown	TIC	mg/kg						0.21	J	1	J	0.16	J		
Unknown (7)	TIC	mg/kg								0.16	J				
Unknown alcohol (2)	TIC	mg/kg												0.14	J
Unknown (8)	TIC	mg/kg								0.16	J				
Unknown (9)	TIC	mg/kg								0.31	J				
Unknown (10)	TIC	mg/kg								0.3	J				
Unknown (11)	TIC	mg/kg								0.31	J				
Unknown (12)	TIC	mg/kg								0.36	J				
Unknown (1)	TIC	mg/kg								0.15	J				
Unknown (2)	TIC	mg/kg								0.3	J				
Unknown (3)	TIC	mg/kg								0.48	J				
Unknown (4)	TIC	mg/kg								0.42	J				
Unknown (5)	TIC	mg/kg								0.54	J				
Unknown (6)	TIC	mg/kg								0.4	JB				
Unknown PAH substance	TIC	mg/kg								0.22	J				
Unknown PAH substance (1)	TIC	mg/kg								0.5	J				
Total TIC, Semi-Volatile	TOTAL TIC, SEMI-VOLATILE	mg/kg				1.51	J	1.19	J	6.03	J	1.3	J	1.51	J
(MS Semi-volatiles (SW846 8270E))															
2-Chlorophenol	95-57-8	mg/kg				0.018	U	0.017	U	0.017	U	0.017	U	0.017	U
4-Chloro-3-methyl phenol	59-50-7	mg/kg				0.022	U	0.021	U	0.021	U	0.021	U	0.021	U
2,4-Dichlorophenol	120-83-2	mg/kg				0.031	U	0.029	U	0.029	U	0.03	U	0.029	U
2,4-Dimethylphenol	105-67-9	mg/kg				0.065	U	0.06	U	0.061	U	0.062	U	0.06	U
2,4-Dinitrophenol	51-28-5	mg/kg				0.14	U	0.13	U	0.13	U	0.13	U	0.13	U
4,6-Dinitro-o-cresol	534-52-1	mg/kg				0.039	U	0.036	U	0.037	U	0.037	U	0.036	U
2-Methylphenol	95-48-7	mg/kg	0.33			0.023	U	0.022	U	0.022	U	0.022	U	0.022	U
3&4-Methylphenol	M+P-CRESOLS	mg/kg	0.33			0.03	U	0.028	U	0.028	U	0.029	U	0.028	U
2-Nitrophenol	88-75-5	mg/kg				0.024	U	0.022	U	0.023	U	0.023	U	0.022	U
4-Nitrophenol	100-02-7	mg/kg				0.097	U	0.09	U	0.091	U	0.093	U	0.09	U
Pentachlorophenol	87-86-5	mg/kg	0.8			0.034	U	0.032	U	0.032	U	0.033	U	0.032	U
Phenol	108-95-2	mg/kg	0.33			0.019	U	0.018	U	0.018	U	0.018	U	0.018	U
2,3,4,6-Tetrachlorophenol	58-90-2	mg/kg				0.024	U	0.022	U	0.023	U	0.023	U	0.022	U
2,4,5-Trichlorophenol	95-95-4	mg/kg				0.027	U	0.025	U	0.026	U	0.026	U	0.025	U
2,4,6-Trichlorophenol	88-06-2	mg/kg				0.022	U	0.02	U	0.02	U	0.021	U	0.02	U
Acenaphthene	83-32-9	mg/kg	20			0.013	U	0.012	U	0.0188	J	0.012	U	0.012	U
Acenaphthylene	208-96-8	mg/kg	100			0.019	U	0.017	U	0.0178	J	0.018	U	0.017	U
Acetophenone	98-86-2	mg/kg				0.0078	U	0.0073	U	0.0074	U	0.0075	U	0.0072	U
Anthracene	120-12-7	mg/kg	100			0.022	U	0.0334	J	0.0836		0.021	U	0.021	U
Atrazine	1912-24-9	mg/kg				0.016	U	0.014	U	0.015	U	0.015	U	0.014	U
Benzo(a)anthracene	56-55-3	mg/kg	1			0.01	U	0.139		0.283		0.0778		0.0209	J
Benzo(a)pyrene	50-32-8	mg/kg	1			0.017	U	0.131		0.238		0.0691		0.015	U
Benzo(b)fluoranthene	205-99-2	mg/kg	1			0.016	U	0.166		0.3		0.0863		0.0192	J
Benzo(g,h,i)perylene	191-24-2	mg/kg	0.64			0.018	U	0.098		0.176		0.0506		0.017	U
Benzo(k)fluoranthene	207-08-9	mg/kg	0.8			0.017	U	0.062		0.116		0.0293	J	0.016	U
4-Bromophenyl phenyl ether	101-55-3	mg/kg				0.014	U	0.013	U	0.013	U	0.013	U	0.013	U
Butyl benzyl phthalate	85-68-7	mg/kg				0.0089	U	0.0083	U	0.0083	U	0.0085	U	0.0082	U
1,1'-Biphenyl	92-52-4	mg/kg				0.005	U	0.0046	U	0.0047	U	0.0048	U	0.0046	U
Benzaldehyde	100-52-7	mg/kg				0.009	U	0.0084	U	0.0085	U	0.0087	U	0.0084	U
2-Chloronaphthalene	91-58-7	mg/kg				0.0087	U	0.0081	U	0.0081	U	0.0083	U	0.008	U
4-Chloroaniline	106-47-8	mg/kg				0.013	U	0.012	U	0.012	U	0.013	U	0.012	U
Carbazole	86-74-8	mg/kg				0.0053	U	0.017	J	0.0314	J	0.0086	J	0.0049	U
Caprolactam	105-60-2	mg/kg				0.014	U	0.013	U	0.014	U	0.014	U	0.013	U
Chrysene	218-01-9	mg/kg	1			0.011	U	0.13		0.262		0.0696		0.0135	J

SGS

SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	TB-15		EP-54II (152.0')		EP-75I (152.0')		EP-76I (152.0')		EP-82I (152.0')		EP-83I (152.0')	
Lab Sample ID:				JE31224-1		JE31224-2		JE31224-3		JE31224-4		JE31224-5		JE31224-6	
Date Sampled:				3/31/2026 1:59 PM		3/31/2026 1:30 PM		3/31/2026 1:40 PM		3/31/2026 1:46 PM		3/31/2026 1:52 PM		3/31/2026 1:59 PM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	**CAS #**	**Unit**													
bis(2-Chloroethoxy)methane	111-91-1	mg/kg				0.0078	U	0.0072	U	0.0073	U	0.0075	U	0.0072	U
bis(2-Chloroethyl)ether	111-44-4	mg/kg				0.016	U	0.015	U	0.015	U	0.015	U	0.015	U
2,2'-Oxybis(1-chloropropane)	108-60-1	mg/kg				0.013	U	0.012	U	0.012	U	0.013	U	0.012	U
4-Chlorophenyl phenyl ether	7005-72-3	mg/kg				0.012	U	0.011	U	0.011	U	0.011	U	0.011	U
2,4-Dinitrotoluene	121-14-2	mg/kg				0.011	U	0.01	U	0.011	U	0.011	U	0.01	U
2,6-Dinitrotoluene	606-20-2	mg/kg				0.018	U	0.017	U	0.017	U	0.018	U	0.017	U
3,3'-Dichlorobenzidine	91-94-1	mg/kg				0.03	U	0.028	U	0.029	U	0.029	U	0.028	U
1,4-Dioxane	123-91-1	mg/kg	0.1			0.024	U	0.022	U	0.023	U	0.023	U	0.022	U
Dibenzo(a,h)anthracene	53-70-3	mg/kg	0.33			0.016	U	0.0223	J	0.0434		0.015	U	0.015	U
Dibenzofuran	132-64-9	mg/kg	2.1			0.015	U	0.014	U	0.014	U	0.014	U	0.014	U
Di-n-butyl phthalate	84-74-2	mg/kg				0.0059	U	0.0055	U	0.0056	U	0.0057	U	0.0055	U
Di-n-octyl phthalate	117-84-0	mg/kg				0.0091	U	0.0084	U	0.0085	U	0.0087	U	0.0084	U
Diethyl phthalate	84-66-2	mg/kg				0.0078	U	0.0072	U	0.0073	U	0.0074	U	0.0072	U
Dimethyl phthalate	131-11-3	mg/kg				0.0065	U	0.006	U	0.0061	U	0.0062	U	0.006	U
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg				0.0085	U	0.0316	J	0.008	U	0.0082	U	0.0079	U
Fluoranthene	206-44-0	mg/kg	85			0.016	U	0.261		0.463		0.115		0.0253	J
Fluorene	86-73-7	mg/kg	30			0.017	U	0.016	U	0.0253	J	0.016	U	0.015	U
Hexachlorobenzene	118-74-1	mg/kg	0.33			0.0092	U	0.0086	U	0.0087	U	0.0088	U	0.0085	U
Hexachlorobutadiene	87-68-3	mg/kg				0.015	U	0.014	U	0.014	U	0.014	U	0.014	U
Hexachlorocyclopentadiene	77-47-4	mg/kg				0.015	U	0.013	U	0.014	U	0.014	U	0.013	U
Hexachloroethane	67-72-1	mg/kg				0.018	U	0.017	U	0.017	U	0.017	U	0.017	U
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	0.5			0.017	U	0.079		0.141		0.0408		0.016	U
Isophorone	78-59-1	mg/kg				0.0078	U	0.0072	U	0.0073	U	0.0075	U	0.0072	U
2-Methylnaphthalene	91-57-6	mg/kg				0.0082	U	0.0076	U	0.0077	U	0.0079	U	0.0076	U
2-Nitroaniline	88-74-4	mg/kg				0.0086	U	0.008	U	0.0081	U	0.0082	U	0.008	U
3-Nitroaniline	99-09-2	mg/kg				0.0091	U	0.0085	U	0.0086	U	0.0087	U	0.0084	U
4-Nitroaniline	100-01-6	mg/kg				0.0094	U	0.0088	U	0.0089	U	0.009	U	0.0087	U
Naphthalene	91-20-3	mg/kg	12			0.01	U	0.0095	U	0.0096	U	0.0098	U	0.0095	U
Nitrobenzene	98-95-3	mg/kg	0.08			0.014	U	0.013	U	0.013	U	0.013	U	0.013	U
N-Nitroso-di-n-propylamine	621-64-7	mg/kg				0.011	U	0.0098	U	0.0099	U	0.01	U	0.0097	U
N-Nitrosodiphenylamine	86-30-6	mg/kg				0.013	U	0.012	U	0.013	U	0.013	U	0.012	U
Phenanthrene	85-01-8	mg/kg	1.1			0.012	U	0.125		0.267		0.0482		0.0129	J
Pyrene	129-00-0	mg/kg	64			0.012	U	0.279		0.501		0.127		0.0263	J
1,2,4,5-Tetrachlorobenzene	95-94-3	mg/kg				0.0093	U	0.0086	U	0.0087	U	0.0089	U	0.0086	U
2-Fluorophenol	367-12-4	%				64		61		53		45		69	
Phenol-d5	4165-62-2	%				67		65		55		50		70	
2,4,6-Tribromophenol	118-79-6	%				81		67		64		64		86	
Nitrobenzene-d5	4165-60-0	%				75		68		62		55		81	
2-Fluorobiphenyl	321-60-8	%				72		60		58		54		74	
Terphenyl-d14	1718-51-0	%				77		76		64		61		81	
(MS Volatile TIC ())															
Total TIC, Volatile	TOTAL TIC, VOLATILE	mg/kg				0		0		0		0		0	
Total TIC, Volatile	TOTAL TIC, VOLATILE	ug/l		0											
(MS Volatiles (SW846 8260D))															
Acetone	67-64-1	mg/kg	0.03			0.0093	J	0.007	J	0.0114	J	0.0047	J	0.0159	
Acetone	67-64-1	ug/l		3.1	U										
Benzene	71-43-2	mg/kg	0.06			0.00044	U	0.00059	U	0.00053	U	0.00045	U	0.0005	U
Bromochloromethane	74-97-5	mg/kg				0.00055	U	0.00072	U	0.00065	U	0.00056	U	0.00062	U
Benzene	71-43-2	ug/l		0.43	U										
Bromodichloromethane	75-27-4	mg/kg				0.00042	U	0.00055	U	0.0005	U	0.00043	U	0.00048	U
Bromoform	75-25-2	mg/kg				0.0013	U	0.0017	U	0.0016	U	0.0013	U	0.0015	U
Bromomethane	74-83-9	mg/kg				0.00075	U	0.00098	U	0.00089	U	0.00076	U	0.00085	U
2-Butanone (MEK)	78-93-3	mg/kg	0.1			0.0024	U	0.0031	U	0.0028	U	0.0024	U	0.0027	U
Bromochloromethane	74-97-5	ug/l		0.48	U										
Bromodichloromethane	75-27-4	ug/l		0.45	U										
Bromoform	75-25-2	ug/l		0.63	U										
Bromomethane	74-83-9	ug/l		1.6	U										
2-Butanone (MEK)	78-93-3	ug/l		2.7	U										
Carbon disulfide	75-15-0	mg/kg				0.00052	U	0.00069	U	0.00062	U	0.00053	U	0.00059	U
Carbon tetrachloride	56-23-5	mg/kg	0.76			0.0006	U	0.00079	U	0.00072	U	0.00061	U	0.00068	U
Chlorobenzene	108-90-7	mg/kg	4.5			0.00045	U	0.00059	U	0.00053	U	0.00046	U	0.00051	U
Chloroethane	75-00-3	mg/kg				0.00058	U	0.00076	U	0.00069	U	0.00059	U	0.00065	U
Carbon disulfide	75-15-0	ug/l		1.8	U										
Carbon tetrachloride	56-23-5	ug/l		0.55	U										

SGS

SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	TB-15		EP-54II (152.0')		EP-75I (152.0')		EP-76I (152.0')		EP-82I (152.0')		EP-83I (152.0')	
Lab Sample ID:				JE31224-1		JE31224-2		JE31224-3		JE31224-4		JE31224-5		JE31224-6	
Date Sampled:				3/31/2026 1:59 PM		3/31/2026 1:30 PM		3/31/2026 1:40 PM		3/31/2026 1:46 PM		3/31/2026 1:52 PM		3/31/2026 1:59 PM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	CAS #	Unit													
Chloroform	67-66-3	mg/kg	0.37			0.00098	U	0.0013	U	0.0012	U	0.00099	U	0.0011	U
Chlorobenzene	108-90-7	ug/l		0.56	U										
Chloromethane	74-87-3	mg/kg				0.0019	U	0.0025	U	0.0023	U	0.0019	U	0.0022	U
Chloroethane	75-00-3	ug/l		0.73	U										
Chloroform	67-66-3	ug/l		0.5	U										
Cyclohexane	110-82-7	mg/kg				0.00064	U	0.00084	U	0.00076	U	0.00065	U	0.00073	U
Chloromethane	74-87-3	ug/l		0.76	U										
1,2-Dibromo-3-chloropropane	96-12-8	mg/kg				0.00068	U	0.00089	U	0.00081	U	0.00069	U	0.00077	U
Cyclohexane	110-82-7	ug/l		0.78	U										
Dibromochloromethane	124-48-1	mg/kg				0.00055	U	0.00072	U	0.00065	U	0.00056	U	0.00062	U
1,2-Dibromoethane	106-93-4	mg/kg				0.00041	U	0.00054	U	0.00049	U	0.00042	U	0.00047	U
1,2-Dichlorobenzene	95-50-1	mg/kg	1.1			0.00053	U	0.0007	U	0.00064	U	0.00054	U	0.00061	U
1,3-Dichlorobenzene	541-73-1	mg/kg	2.6			0.00048	U	0.00064	U	0.00058	U	0.00049	U	0.00055	U
1,2-Dibromo-3-chloropropane	96-12-8	ug/l		0.53	U										
1,4-Dichlorobenzene	106-46-7	mg/kg	1.8			0.00048	U	0.00064	U	0.00057	U	0.00049	U	0.00055	U
Dibromochloromethane	124-48-1	ug/l		0.56	U										
1,2-Dibromoethane	106-93-4	ug/l		0.48	U										
Dichlorodifluoromethane	75-71-8	mg/kg				0.00071	U	0.00093	U	0.00085	U	0.00072	U	0.00081	U
1,1-Dichloroethane	75-34-3	mg/kg	0.27			0.00048	U	0.00064	U	0.00058	U	0.00049	U	0.00055	U
1,2-Dichlorobenzene	95-50-1	ug/l		0.53	U										
1,2-Dichloroethane	107-06-2	mg/kg	0.02			0.00046	U	0.0006	U	0.00055	U	0.00047	U	0.00052	U
1,3-Dichlorobenzene	541-73-1	ug/l		0.54	U										
1,1-Dichloroethene	75-35-4	mg/kg	0.24			0.00064	U	0.00084	U	0.00076	U	0.00065	U	0.00073	U
1,4-Dichlorobenzene	106-46-7	ug/l		0.51	U										
cis-1,2-Dichloroethene	156-59-2	mg/kg	0.19			0.00082	U	0.0011	U	0.00098	U	0.00083	U	0.00093	U
Dichlorodifluoromethane	75-71-8	ug/l		0.56	U										
trans-1,2-Dichloroethene	156-60-5	mg/kg	0.19			0.0006	U	0.00079	U	0.00071	U	0.00061	U	0.00068	U
1,1-Dichloroethane	75-34-3	ug/l		0.57	U										
1,2-Dichloroethane	107-06-2	ug/l		0.6	U										
1,2-Dichloropropane	78-87-5	mg/kg				0.00046	U	0.00061	U	0.00055	U	0.00047	U	0.00052	U
1,1-Dichloroethene	75-35-4	ug/l		0.59	U										
cis-1,2-Dichloroethene	156-59-2	ug/l		0.51	U										
trans-1,2-Dichloroethene	156-60-5	ug/l		0.54	U										
cis-1,3-Dichloropropene	10061-01-5	mg/kg				0.00046	U	0.00061	U	0.00055	U	0.00047	U	0.00053	U
1,2-Dichloropropane	78-87-5	ug/l		0.51	U										
trans-1,3-Dichloropropene	10061-02-6	mg/kg				0.00045	U	0.00059	U	0.00053	U	0.00045	U	0.00051	U
cis-1,3-Dichloropropene	10061-01-5	ug/l		0.47	U										
trans-1,3-Dichloropropene	10061-02-6	ug/l		0.43	U										
Ethylbenzene	100-41-4	mg/kg	1			0.00044	U	0.00058	U	0.00053	U	0.00045	U	0.0005	U
Ethylbenzene	100-41-4	ug/l		0.6	U										
Freon 113	76-13-1	mg/kg				0.0026	U	0.0034	U	0.0031	U	0.0026	U	0.003	U
Freon 113	76-13-1	ug/l		0.58	U										
2-Hexanone	591-78-6	mg/kg				0.0021	U	0.0027	U	0.0025	U	0.0021	U	0.0023	U
2-Hexanone	591-78-6	ug/l		4.8	U										
Isopropylbenzene	98-82-8	mg/kg				0.0014	U	0.0018	U	0.0017	U	0.0014	U	0.0016	U
Isopropylbenzene	98-82-8	ug/l		0.65	U										
Methyl Acetate	79-20-9	mg/kg				0.0014	U	0.0018	U	0.0016	U	0.0014	U	0.0015	U
Methylcyclohexane	108-87-2	mg/kg				0.00085	U	0.0011	U	0.001	U	0.00087	U	0.00097	U
Methyl Acetate	79-20-9	ug/l		0.8	U										
Methyl Tert Butyl Ether	1634-04-4	mg/kg	0.1			0.00046	U	0.0006	U	0.00055	U	0.00047	U	0.00052	U
Methylcyclohexane	108-87-2	ug/l		0.6	U										
4-Methyl-2-pentanone(MIBK)	108-10-1	mg/kg				0.0022	U	0.0029	U	0.0026	U	0.0023	U	0.0025	U
Methyl Tert Butyl Ether	1634-04-4	ug/l		0.51	U										
Methylene chloride	75-09-2	mg/kg	0.05			0.0025	U	0.0034	U	0.003	U	0.0026	U	0.0029	U
4-Methyl-2-pentanone(MIBK)	108-10-1	ug/l		4.9	U										
Methylene chloride	75-09-2	ug/l		1	U										
Styrene	100-42-5	mg/kg				0.00039	U	0.00052	U	0.00047	U	0.0004	U	0.00045	U
Styrene	100-42-5	ug/l		0.49	U										
1,1,2,2-Tetrachloroethane	79-34-5	mg/kg				0.00059	U	0.00077	U	0.0007	U	0.00059	U	0.00066	U
Tetrachloroethene	127-18-4	mg/kg	1.3			0.00057	U	0.00075	U	0.00067	U	0.00058	U	0.00064	U
1,1,2,2-Tetrachloroethane	79-34-5	ug/l		0.65	U										
Tetrachloroethene	127-18-4	ug/l		0.56	U										
Toluene	108-88-3	mg/kg	0.7			0.00051	U	0.00068	U	0.00061	U	0.00052	U	0.00058	U
1,2,3-Trichlorobenzene	87-61-6	mg/kg				0.0024	U	0.0032	U	0.0029	U	0.0025	U	0.0028	U

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SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	TB-15		EP-54II (152.0')		EP-75I (152.0')		EP-76I (152.0')		EP-82I (152.0')		EP-83I (152.0')	
Lab Sample ID:				JE31224-1		JE31224-2		JE31224-3		JE31224-4		JE31224-5		JE31224-6	
Date Sampled:				3/31/2026 1:59 PM		3/31/2026 1:30 PM		3/31/2026 1:40 PM		3/31/2026 1:46 PM		3/31/2026 1:52 PM		3/31/2026 1:59 PM	
Matrix:				Trip Blank Soil		Soil		Soil		Soil		Soil		Soil	
Analyte	CAS #	Unit													
Toluene	108-88-3	ug/l		0.49	U										
1,2,4-Trichlorobenzene	120-82-1	mg/kg				0.0024	U	0.0032	U	0.0029	U	0.0025	U	0.0028	U
1,1,1-Trichloroethane	71-55-6	mg/kg	0.68			0.00047	U	0.00062	U	0.00056	U	0.00048	U	0.00054	U
1,2,3-Trichlorobenzene	87-61-6	ug/l		0.5	U										
1,1,2-Trichloroethane	79-00-5	mg/kg				0.00054	U	0.00071	U	0.00064	U	0.00055	U	0.00061	U
1,2,4-Trichlorobenzene	120-82-1	ug/l		0.5	U										
1,1,1-Trichloroethane	71-55-6	ug/l		0.54	U										
Trichloroethene	79-01-6	mg/kg	0.47			0.00074	U	0.00098	U	0.00089	U	0.00076	U	0.00084	U
1,1,2-Trichloroethane	79-00-5	ug/l		0.53	U										
Trichlorofluoromethane	75-69-4	mg/kg				0.00067	U	0.00088	U	0.0008	U	0.00068	U	0.00076	U
Trichloroethene	79-01-6	ug/l		0.53	U										
Trichlorofluoromethane	75-69-4	ug/l		0.4	U										
Vinyl chloride	75-01-4	mg/kg	0.03			0.00047	U	0.00062	U	0.00056	U	0.00048	U	0.00053	U
m,p-Xylene	M,P-XYLENE	mg/kg	0.26			0.00088	U	0.0012	U	0.001	U	0.00089	U	0.00099	U
Vinyl chloride	75-01-4	ug/l		0.52	U										
o-Xylene	95-47-6	mg/kg	0.26			0.00045	U	0.00059	U	0.00053	U	0.00045	U	0.00051	U
Xylene (total)	1330-20-7	mg/kg	0.26			0.00045	U	0.00059	U	0.00053	U	0.00045	U	0.00051	U
m,p-Xylene	M,P-XYLENE	ug/l		0.78	U										
o-Xylene	95-47-6	ug/l		0.59	U										
Xylene (total)	1330-20-7	ug/l		0.59	U										
Dibromofluoromethane	1868-53-7	%		113		101		102		102		102		103	
1,2-Dichloroethane-D4	17060-07-0	%		99		107		110		108		108		106	
Toluene-D8	2037-26-5	%		104		98		98		98		98		98	
4-Bromofluorobenzene	460-00-4	%		97		99		97		99		100		98	

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SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	TB-16		EP-70I (152.0)	
Lab Sample ID:				JE32067-1		JE32067-2	
Date Sampled:				4/13/2026 2:30 PM		4/13/2026 2:30 PM	
Matrix:				Trip Blank Soil		Soil	
Analyte	**CAS #**	**Unit**					
(GC/LC Semi-volatiles (SW846 8081B))							
Aldrin	309-00-2	mg/kg	0.0048			0.00052	U
alpha-BHC	319-84-6	mg/kg	0.02			0.00052	U
beta-BHC	319-85-7	mg/kg	0.021			0.00057	U
delta-BHC	319-86-8	mg/kg	0.04			0.00061	U
gamma-BHC (Lindane)	58-89-9	mg/kg	0.025			0.00047	U
alpha-Chlordane	5103-71-9	mg/kg	0.014			0.00051	U
gamma-Chlordane	5103-74-2	mg/kg				0.00029	U
Dieldrin	60-57-1	mg/kg	0.005			0.00044	U
4,4'-DDD	72-54-8	mg/kg	0.0033			0.00058	U
4,4'-DDE	72-55-9	mg/kg	0.0033			0.00056	U
4,4'-DDT	50-29-3	mg/kg	0.0033			0.00056	U
Endrin	72-20-8	mg/kg	0.014			0.00049	U
Endosulfan sulfate	1031-07-8	mg/kg	4.3			0.0005	U
Endrin aldehyde	7421-93-4	mg/kg				0.00036	U
Endosulfan-I	959-98-8	mg/kg	4.3			0.00037	U
Endosulfan-II	33213-65-9	mg/kg	4.3			0.0004	U
Heptachlor	76-44-8	mg/kg	0.013			0.00055	U
Heptachlor epoxide	1024-57-3	mg/kg				0.00045	U
Methoxychlor	72-43-5	mg/kg				0.0005	U
Endrin ketone	53494-70-5	mg/kg				0.00046	U
Toxaphene	8001-35-2	mg/kg				0.015	U
Tetrachloro-m-xylene (2)	877-09-8	%				86	
Tetrachloro-m-xylene (3)	877-09-8	%				79	
Decachlorobiphenyl (2)	2051-24-3	%				111	
Decachlorobiphenyl (3)	2051-24-3	%				105	
(GC/LC Semi-volatiles (SW846 8082A))							
Aroclor 1016	12674-11-2	mg/kg	0.1			0.015	U
Aroclor 1221	11104-28-2	mg/kg	0.1			0.02	U
Aroclor 1232	11141-16-5	mg/kg	0.1			0.02	U
Aroclor 1242	53469-21-9	mg/kg	0.1			0.013	U
Aroclor 1248	12672-29-6	mg/kg	0.1			0.028	U
Aroclor 1254	11097-69-1	mg/kg	0.1			0.017	U
Aroclor 1260	11096-82-5	mg/kg	0.1			0.014	U
Aroclor 1268	11100-14-4	mg/kg	0.1			0.028	U
Aroclor 1262	37324-23-5	mg/kg	0.1			0.021	U
Tetrachloro-m-xylene	877-09-8	%				80	
Tetrachloro-m-xylene (1)	877-09-8	%				75	
Decachlorobiphenyl	2051-24-3	%				71	

SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	TB-16		EP-70I (152.0)	
Lab Sample ID:				JE32067-1		JE32067-2	
Date Sampled:				4/13/2026 2:30 PM		4/13/2026 2:30 PM	
Matrix:				Trip Blank Soil		Soil	
Analyte	**CAS #**	**Unit**					
Decachlorobiphenyl (1)	2051-24-3	%				59	
(General Chemistry (SM2540 G 18TH ED MOD))							
Solids, Percent	PERCENT SOLIDS	%				96.6	
(General Chemistry (SW846 9012B/LACHAT))							
Cyanide	57-12-5	mg/kg	2.3			0.26	U
(Metals Analysis (SW846 6010D))							
Aluminum	7429-90-5	mg/kg				4200	
Antimony	7440-36-0	mg/kg				1.3	U
Arsenic	7440-38-2	mg/kg	13			1.3	U
Barium	7440-39-3	mg/kg	410			31	
Beryllium	7440-41-7	mg/kg	4.4			0.17	
Cadmium	7440-43-9	mg/kg	2.5			0.34	U
Calcium	7440-70-2	mg/kg				895	
Chromium	7440-47-3	mg/kg	30			7.9	
Cobalt	7440-48-4	mg/kg				4.6	
Copper	7440-50-8	mg/kg	50			11.8	
Iron	7439-89-6	mg/kg				8880	
Lead	7439-92-1	mg/kg	63			3.4	
Magnesium	7439-95-4	mg/kg				2370	
Manganese	7439-96-5	mg/kg	1600			183	
Nickel	7440-02-0	mg/kg	30			8	
Potassium	7440-09-7	mg/kg				1280	
Selenium	7782-49-2	mg/kg	3.9			1.3	U
Silver	7440-22-4	mg/kg	2			0.34	U
Sodium	7440-23-5	mg/kg				670	U
Thallium	7440-28-0	mg/kg				0.67	U
Vanadium	7440-62-2	mg/kg				11.3	
Zinc	7440-66-6	mg/kg	109			27.5	

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SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	TB-16		EP-70I (152.0)	
Lab Sample ID:				JE32067-1		JE32067-2	
Date Sampled:				4/13/2026 2:30 PM		4/13/2026 2:30 PM	
Matrix:				Trip Blank Soil		Soil	
Analyte	**CAS #**	**Unit**					
(Metals Analysis (SW846 7471B))							
Mercury	7439-97-6	mg/kg	0.18			0.041	U
(MS Semi-volatile TIC ())							
n-Hexadecanoic acid	57-10-3	mg/kg				0.39	JNB
unknown	TIC	mg/kg				0.42	JB
Total TIC, Semi-Volatile	TOTAL TIC, SEMI-VOLATILE	mg/kg				0	
(MS Semi-volatiles (SW846 8270E))							
2-Chlorophenol	95-57-8	mg/kg				0.016	U
4-Chloro-3-methyl phenol	59-50-7	mg/kg				0.02	U
2,4-Dichlorophenol	120-83-2	mg/kg				0.028	U
2,4-Dimethylphenol	105-67-9	mg/kg				0.059	U
2,4-Dinitrophenol	51-28-5	mg/kg				0.12	U
4,6-Dinitro-o-cresol	534-52-1	mg/kg				0.035	U
2-Methylphenol	95-48-7	mg/kg	0.33			0.021	U
3&4-Methylphenol	M+P-CRESOLS	mg/kg	0.33			0.027	U
2-Nitrophenol	88-75-5	mg/kg				0.022	U
4-Nitrophenol	100-02-7	mg/kg				0.088	U
Pentachlorophenol	87-86-5	mg/kg	0.8			0.031	U
Phenol	108-95-2	mg/kg	0.33			0.017	U
2,3,4,6-Tetrachlorophenol	58-90-2	mg/kg				0.022	U
2,4,5-Trichlorophenol	95-95-4	mg/kg				0.025	U
2,4,6-Trichlorophenol	88-06-2	mg/kg				0.02	U
Acenaphthene	83-32-9	mg/kg	20			0.011	U
Acenaphthylene	208-96-8	mg/kg	100			0.017	U
Acetophenone	98-86-2	mg/kg				0.0071	U
Anthracene	120-12-7	mg/kg	100			0.02	U
Atrazine	1912-24-9	mg/kg				0.014	U
Benzo(a)anthracene	56-55-3	mg/kg	1			0.0094	U
Benzo(a)pyrene	50-32-8	mg/kg	1			0.015	U
Benzo(b)fluoranthene	205-99-2	mg/kg	1			0.015	U
Benzo(g,h,i)perylene	191-24-2	mg/kg	0.64			0.017	U
Benzo(k)fluoranthene	207-08-9	mg/kg	0.8			0.015	U
4-Bromophenyl phenyl ether	101-55-3	mg/kg				0.013	U
Butyl benzyl phthalate	85-68-7	mg/kg				0.0081	U
1,1'-Biphenyl	92-52-4	mg/kg				0.0045	U
Benzaldehyde	100-52-7	mg/kg				0.0082	U
2-Chloronaphthalene	91-58-7	mg/kg				0.0079	U
4-Chloroaniline	106-47-8	mg/kg				0.012	U
Carbazole	86-74-8	mg/kg				0.0048	U

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SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	TB-16		EP-70I (152.0)	
Lab Sample ID:				JE32067-1		JE32067-2	
Date Sampled:				4/13/2026 2:30 PM		4/13/2026 2:30 PM	
Matrix:				Trip Blank Soil		Soil	
Analyte	**CAS #**	**Unit**					
Caprolactam	105-60-2	mg/kg				0.013	U
Chrysene	218-01-9	mg/kg	1			0.01	U
bis(2-Chloroethoxy)methane	111-91-1	mg/kg				0.0071	U
bis(2-Chloroethyl)ether	111-44-4	mg/kg				0.014	U
2,2'-Oxybis(1-chloropropane)	108-60-1	mg/kg				0.012	U
4-Chlorophenyl phenyl ether	7005-72-3	mg/kg				0.011	U
2,4-Dinitrotoluene	121-14-2	mg/kg				0.01	U
2,6-Dinitrotoluene	606-20-2	mg/kg				0.017	U
3,3'-Dichlorobenzidine	91-94-1	mg/kg				0.028	U
1,4-Dioxane	123-91-1	mg/kg	0.1			0.022	U
Dibenzo(a,h)anthracene	53-70-3	mg/kg	0.33			0.015	U
Dibenzofuran	132-64-9	mg/kg	2.1			0.013	U
Di-n-butyl phthalate	84-74-2	mg/kg				0.0054	U
Di-n-octyl phthalate	117-84-0	mg/kg				0.0082	U
Diethyl phthalate	84-66-2	mg/kg				0.007	U
Dimethyl phthalate	131-11-3	mg/kg				0.0059	U
bis(2-Ethylhexyl)phthalate	117-81-7	mg/kg				0.0077	U
Fluoranthene	206-44-0	mg/kg	85			0.015	U
Fluorene	86-73-7	mg/kg	30			0.015	U
Hexachlorobenzene	118-74-1	mg/kg	0.33			0.0084	U
Hexachlorobutadiene	87-68-3	mg/kg				0.013	U
Hexachlorocyclopentadiene	77-47-4	mg/kg				0.013	U
Hexachloroethane	67-72-1	mg/kg				0.016	U
Indeno(1,2,3-cd)pyrene	193-39-5	mg/kg	0.5			0.016	U
Isophorone	78-59-1	mg/kg				0.0071	U
2-Methylnaphthalene	91-57-6	mg/kg				0.0075	U
2-Nitroaniline	88-74-4	mg/kg				0.0078	U
3-Nitroaniline	99-09-2	mg/kg				0.0083	U
4-Nitroaniline	100-01-6	mg/kg				0.0086	U
Naphthalene	91-20-3	mg/kg	12			0.0093	U
Nitrobenzene	98-95-3	mg/kg	0.08			0.013	U
N-Nitroso-di-n-propylamine	621-64-7	mg/kg				0.0096	U
N-Nitrosodiphenylamine	86-30-6	mg/kg				0.012	U
Phenanthrene	85-01-8	mg/kg	1.1			0.011	U
Pyrene	129-00-0	mg/kg	64			0.011	U
1,2,4,5-Tetrachlorobenzene	95-94-3	mg/kg				0.0084	U
2-Fluorophenol	367-12-4	%				59	
Phenol-d5	4165-62-2	%				59	
2,4,6-Tribromophenol	118-79-6	%				72	

SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	TB-16		EP-70I (152.0)	
Lab Sample ID:				JE32067-1		JE32067-2	
Date Sampled:				4/13/2026 2:30 PM		4/13/2026 2:30 PM	
Matrix:				Trip Blank Soil		Soil	
Analyte	**CAS #**	**Unit**					
Nitrobenzene-d5	4165-60-0	%				70	
2-Fluorobiphenyl	321-60-8	%				61	
Terphenyl-d14	1718-51-0	%				73	
(MS Volatile TIC ())							
Total TIC, Volatile	TOTAL TIC, VOLATILE	mg/kg				0	
Total TIC, Volatile	TOTAL TIC, VOLATILE	ug/l		0			

SGS

SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	TB-16		EP-70I (152.0)	
Lab Sample ID:				JE32067-1		JE32067-2	
Date Sampled:				4/13/2026 2:30 PM		4/13/2026 2:30 PM	
Matrix:				Trip Blank Soil		Soil	
Analyte	**CAS #**	**Unit**					
(MS Volatiles (SW846 8260D))							
Acetone	67-64-1	mg/kg	0.03			0.0048	U
Acetone	67-64-1	ug/l		3.1	U		
Benzene	71-43-2	mg/kg	0.06			0.00052	U
Bromochloromethane	74-97-5	mg/kg				0.00064	U
Benzene	71-43-2	ug/l		0.43	U		
Bromodichloromethane	75-27-4	mg/kg				0.00049	U
Bromoform	75-25-2	mg/kg				0.0016	U
Bromomethane	74-83-9	mg/kg				0.00088	U
2-Butanone (MEK)	78-93-3	mg/kg	0.1			0.0028	U
Bromochloromethane	74-97-5	ug/l		0.48	U		
Bromodichloromethane	75-27-4	ug/l		0.45	U		
Bromoform	75-25-2	ug/l		0.63	U		
Bromomethane	74-83-9	ug/l		1.6	U		
2-Butanone (MEK)	78-93-3	ug/l		2.7	U		
Carbon disulfide	75-15-0	mg/kg				0.00062	U
Carbon tetrachloride	56-23-5	mg/kg	0.76			0.00071	U
Chlorobenzene	108-90-7	mg/kg	4.5			0.00053	U
Chloroethane	75-00-3	mg/kg				0.00068	U
Carbon disulfide	75-15-0	ug/l		1.8	U		
Carbon tetrachloride	56-23-5	ug/l		0.55	U		
Chloroform	67-66-3	mg/kg	0.37			0.0012	U
Chlorobenzene	108-90-7	ug/l		0.56	U		
Chloromethane	74-87-3	mg/kg				0.0023	U
Chloroethane	75-00-3	ug/l		0.73	U		
Chloroform	67-66-3	ug/l		0.5	U		
Cyclohexane	110-82-7	mg/kg				0.00076	U
Chloromethane	74-87-3	ug/l		0.76	U		
1,2-Dibromo-3-chloropropane	96-12-8	mg/kg				0.0008	U
Cyclohexane	110-82-7	ug/l		0.78	U		
Dibromochloromethane	124-48-1	mg/kg				0.00064	U
1,2-Dibromoethane	106-93-4	mg/kg				0.00048	U
1,2-Dichlorobenzene	95-50-1	mg/kg	1.1			0.00063	U
1,3-Dichlorobenzene	541-73-1	mg/kg	2.6			0.00057	U
1,2-Dibromo-3-chloropropane	96-12-8	ug/l		0.53	U		
1,4-Dichlorobenzene	106-46-7	mg/kg	1.8			0.00057	U
Dibromochloromethane	124-48-1	ug/l		0.56	U		
1,2-Dibromoethane	106-93-4	ug/l		0.48	U		
Dichlorodifluoromethane	75-71-8	mg/kg				0.00084	U

SGS

SGS Engage - Group Crosstab

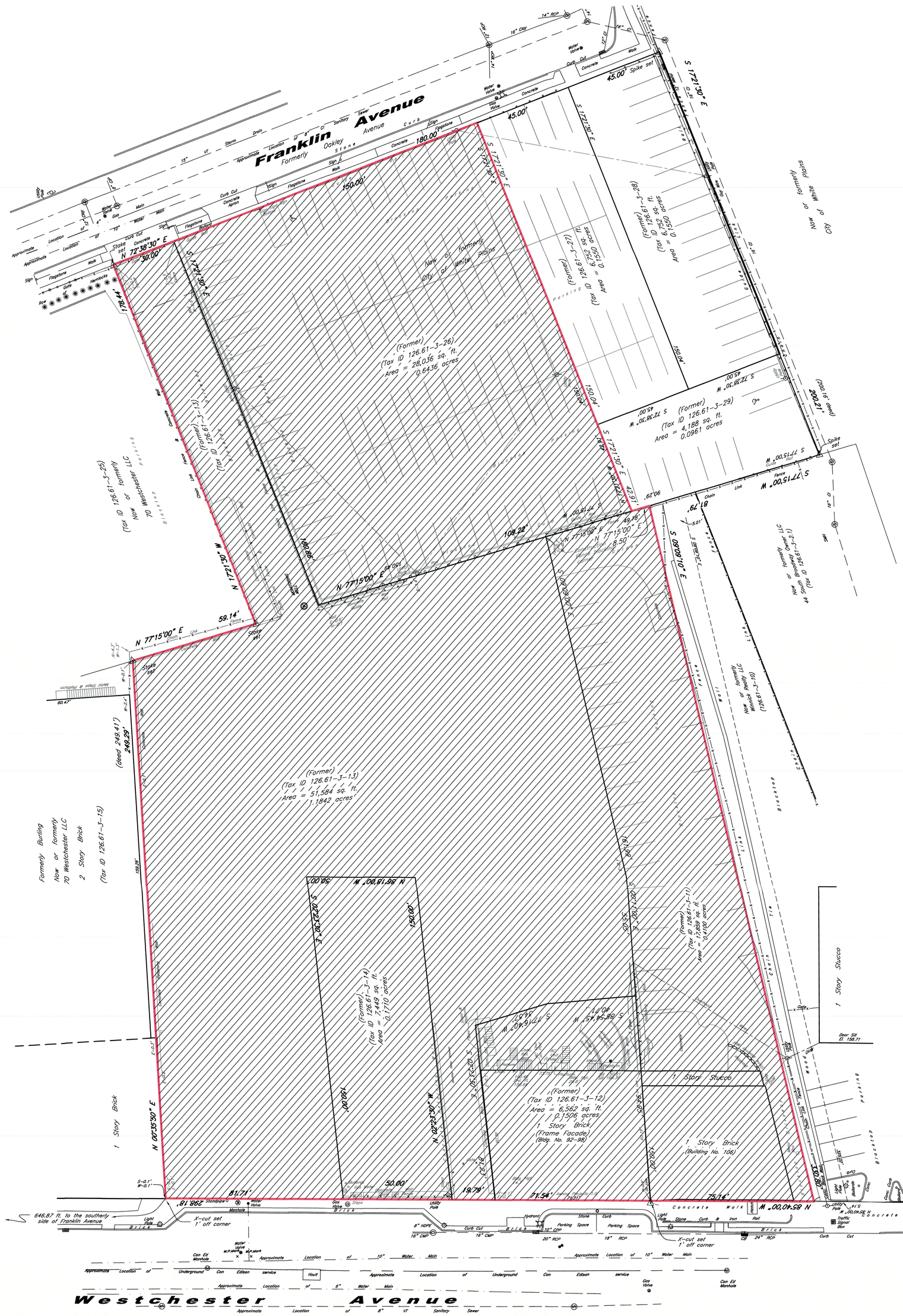
Client Sample ID:			NY USCO	TB-16		EP-70I (152.0)	
Lab Sample ID:				JE32067-1		JE32067-2	
Date Sampled:				4/13/2026 2:30 PM		4/13/2026 2:30 PM	
Matrix:				Trip Blank Soil		Soil	
Analyte	CAS #	Unit					
1,1-Dichloroethane	75-34-3	mg/kg	0.27			0.00057	U
1,2-Dichlorobenzene	95-50-1	ug/l		0.53	U		
1,2-Dichloroethane	107-06-2	mg/kg	0.02			0.00054	U
1,3-Dichlorobenzene	541-73-1	ug/l		0.54	U		
1,1-Dichloroethene	75-35-4	mg/kg	0.24			0.00075	U
1,4-Dichlorobenzene	106-46-7	ug/l		0.51	U		
cis-1,2-Dichloroethene	156-59-2	mg/kg	0.19			0.00097	U
Dichlorodifluoromethane	75-71-8	ug/l		0.56	U		
trans-1,2-Dichloroethene	156-60-5	mg/kg	0.19			0.0007	U
1,1-Dichloroethane	75-34-3	ug/l		0.57	U		
1,2-Dichloroethane	107-06-2	ug/l		0.6	U		
1,2-Dichloropropane	78-87-5	mg/kg				0.00054	U
1,1-Dichloroethene	75-35-4	ug/l		0.59	U		
cis-1,2-Dichloroethene	156-59-2	ug/l		0.51	U		
trans-1,2-Dichloroethene	156-60-5	ug/l		0.54	U		
cis-1,3-Dichloropropene	10061-01-5	mg/kg				0.00055	U
1,2-Dichloropropane	78-87-5	ug/l		0.51	U		
cis-1,3-Dichloropropene	10061-01-5	mg/kg				0.00055	U
1,2-Dichloropropane	78-87-5	ug/l		0.51	U		
trans-1,3-Dichloropropene	10061-02-6	mg/kg				0.00053	U
cis-1,3-Dichloropropene	10061-01-5	ug/l		0.47	U		
trans-1,3-Dichloropropene	10061-02-6	ug/l		0.43	U		
Ethylbenzene	100-41-4	mg/kg	1			0.00052	U
Ethylbenzene	100-41-4	ug/l		0.6	U		
Freon 113	76-13-1	mg/kg				0.0031	U
Freon 113	76-13-1	ug/l		0.58	U		
2-Hexanone	591-78-6	mg/kg				0.0024	U
2-Hexanone	591-78-6	ug/l		4.8	U		
Isopropylbenzene	98-82-8	mg/kg				0.0016	U
Isopropylbenzene	98-82-8	ug/l		0.65	U		
Methyl Acetate	79-20-9	mg/kg				0.0016	U
Methylcyclohexane	108-87-2	mg/kg				0.001	U
Methyl Acetate	79-20-9	ug/l		0.8	U		
Methyl Tert Butyl Ether	1634-04-4	mg/kg	0.1			0.00054	U
Methylcyclohexane	108-87-2	ug/l		0.6	U		
4-Methyl-2-pentanone(MIBK)	108-10-1	mg/kg				0.0026	U
Methyl Tert Butyl Ether	1634-04-4	ug/l		0.51	U		
Methylene chloride	75-09-2	mg/kg	0.05			0.003	U
4-Methyl-2-pentanone(MIBK)	108-10-1	ug/l		4.9	U		
Methylene chloride	75-09-2	ug/l		1	U		
Styrene	100-42-5	mg/kg				0.00046	U

SGS Engage - Group Crosstab

Client Sample ID:			NY USCO	TB-16		EP-70I (152.0)	
Lab Sample ID:				JE32067-1		JE32067-2	
Date Sampled:				4/13/2026 2:30 PM		4/13/2026 2:30 PM	
Matrix:				Trip Blank Soil		Soil	
Analyte	**CAS #**	**Unit**					
Styrene	100-42-5	ug/l		0.49	U		
1,1,2,2-Tetrachloroethane	79-34-5	mg/kg				0.00069	U
Tetrachloroethene	127-18-4	mg/kg	1.3			0.00067	U
1,1,2,2-Tetrachloroethane	79-34-5	ug/l		0.65	U		
Tetrachloroethene	127-18-4	ug/l		0.56	U		
Toluene	108-88-3	mg/kg	0.7			0.0006	U
1,2,3-Trichlorobenzene	87-61-6	mg/kg				0.0029	U
Toluene	108-88-3	ug/l		0.49	U		
1,2,4-Trichlorobenzene	120-82-1	mg/kg				0.0029	U
1,1,1-Trichloroethane	71-55-6	mg/kg	0.68			0.00056	U
1,2,3-Trichlorobenzene	87-61-6	ug/l		0.5	U		
1,1,2-Trichloroethane	79-00-5	mg/kg				0.00064	U
1,2,4-Trichlorobenzene	120-82-1	ug/l		0.5	U		
1,1,1-Trichloroethane	71-55-6	ug/l		0.54	U		
Trichloroethene	79-01-6	mg/kg	0.47			0.00088	U
1,1,2-Trichloroethane	79-00-5	ug/l		0.53	U		
Trichlorofluoromethane	75-69-4	mg/kg				0.00079	U
Trichloroethene	79-01-6	ug/l		0.53	U		
Trichlorofluoromethane	75-69-4	ug/l		0.4	U		
Vinyl chloride	75-01-4	mg/kg	0.03			0.00055	U
m,p-Xylene	M,P-XYLENE	mg/kg	0.26			0.001	U
Vinyl chloride	75-01-4	ug/l		0.52	U		
o-Xylene	95-47-6	mg/kg	0.26			0.00053	U
Xylene (total)	1330-20-7	mg/kg	0.26			0.00053	U
m,p-Xylene	M,P-XYLENE	ug/l		0.78	U		
o-Xylene	95-47-6	ug/l		0.59	U		
Xylene (total)	1330-20-7	ug/l		0.59	U		
Dibromofluoromethane	1868-53-7	%		98		96	
1,2-Dichloroethane-D4	17060-07-0	%		93		113	
Toluene-D8	2037-26-5	%		100		105	
4-Bromofluorobenzene	460-00-4	%		93		103	

Appendix A:

Environmental Easement


Franklin Avenue
Formerly Oakley Avenue
Westchester Avenue
(Former) (Tax ID 126.61-3-26) Area = 28,036 sq. ft. = 0.6436 acres
(Former) (Tax ID 126.61-3-13) Area = 51,584 sq. ft. = 1.1842 acres
(Former) (Tax ID 126.61-3-14) Area = 7,449 sq. ft. = 0.1710 acres
(Former) (Tax ID 126.61-3-11) Area = 17,859 sq. ft. = 0.4100 acres
(Former) (Tax ID 126.61-3-12) Area = 6,562 sq. ft. = 0.1506 acres
(Former) (Tax ID 126.61-3-29) Area = 4,188 sq. ft. = 0.0961 acres
Now or formerly 70 Westchester LLC (Tax ID 126.61-3-25)
Now or formerly Winnick Realty LLC (126.61-3-10)
Now or formerly 10 White Plains Apartments LLC (126.61-3-15)
Now or formerly City of White Plains
Formerly Building 2 Story Brick (Tax ID 126.61-3-15)
1 Story Brick (Frame Facade) (Bldg. No. 92-98)
1 Story Brick (Building No. 106)
1 Story Stucco
1 Story Brick
1 Story Stucco
Point of Beginning
P.O.B.
Concrete Walk
Brick Paving
Parking Spaces
Curb Cut
Monument
646.87 ft. to the southerly side of Franklin Avenue
138.16 ft. from Monument to southeast corner of Tax Lot 11
64.38'
213.32'
N 72°38'30" E 30.00'
S 17°21'30" E 248.29' (Deed 249.41')
N 77°15'00" E 59.14'
N 17°21'30" W 178.11'
S 17°21'30" E 150.00'
N 77°15'00" E 108.22'
S 17°21'30" E 150.04'
N 77°15'00" E 49.76'
S 17°21'30" E 42.71'
S 17°21'30" E 45.00'
S 17°21'30" E 45.00'
S 17°21'30" E 200.21' (Deed 199.41')
N 00°35'50" E 178.11'
N 00°35'50" E 150.00'
N 00°35'50" E 150.00'
S 00°35'50" E 150.00'
S 00°35'50" E 150.00'
S 00°35'50" E 150.00'
S 00°35'50" E 150.00'
N 00°35'50" E 150.00'
N 00°35'50" E 150.00'
N 00°35'50" E 150.00'
N 00°35'50" E 150.00'
S 00°35'50" E 150.00'
S

Appendix B:

List of Site Contacts

Name	Phone/Email Address
Martin Berger (Saber-North White Plains, LLC)	914-250-0600 berger@saberfund.com
Fuad Dahan (Remedial Engineer)	973-808-9050 fd@sesi.org
Caroline Jalanti (NYSDEC PM)	518-402-9650 caroline.jalanti@dec.ny.gov
NYSDEC Supervisor	To Be Determined
NYSDEC Site Control	DERSiteControl@dec.ny.gov
Emelina Rieseler (NYSDOH PM)	(518) 457-0679 beei@health.ny.gov

Appendix C:

Boring and Monitoring Well Logs

LEGEND:

———	-	PROPERTY LINE
B-101	-	BORING NUMBER & APPROX. LOCATION
{155'}	-	BOTTOM OF FILL ELEVATION
<141.5>	-	TOP OF WEATHERED ROCK ELEVATION
[147.5]	-	TOP OF WATER TABLE ELEVATION
RI-MW6	-	MONITORING WELL NUMBER & APPROX. LOCATION
SB-10	-	APPROX. LOCATION & NUMBER OF BORINGS BY SESI, DATED 11/25/2014
B-7	-	APPROX. LOCATION & NUMBER OF BORINGS BY SOIL TESTING INC., DATED FROM 3/20/2014 TO 3/27/2014
10' F	-	APPROX. DEPTH OF FILL FROM HISTORIC BORING
R 28'	-	APPROX. DEPTH TO REFUSAL FROM HISTORIC BORING

Scale 1"=60'

0 60 120

NOTE:
THIS PLAN IS FOR LOCATING GEOTECHNICAL SOIL BORINGS ONLY.
OTHER SITE WORK SHOWN HERE IS NOT INTENDED FOR CONSTRUCTION.

REFERENCE
1. SITE & SURROUNDING PROPERTY INFORMATION TAKEN FROM "LOWER LEVEL FLOOR PLAN EL:150'-0" " COMPLETED BY DESIGN DEVELOPMENT, PLLC , DATED DECEMBER 02, 2020, LAST REVISED JULY 09, 2021.

NYS Education Law
Unauthorized alterations or additions to this plan are a violation of section 7209 (2) of the New York State Education Law. Copies of this map not having the seal of the engineer shall not be valid.

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SESI CONSULTING ENGINEERS
SOILS / FOUNDATIONS
SITE DESIGN
ENVIRONMENTAL
12A MAPLE AVE. PINE BROOK, N.J. 07058 PH: 973-808-9050

dwg by: AAS
chk by: JMR
scale: AS NOTED
date: 01/11/2022

project:
70 WESTCHESTER AVENUE
WHITE PLAINS, WESTCHESTER COUNTY, NY

title:
PROPOSED GEOTECHNICAL BORING LOCATION PLAN

job no: 11444A
drawing no:

N:\ACAD\11444\CAD\PERMIT\11444A – FIG–1 – PROPOSED SOIL BORING LOCATION PLAN_RS.DWG 01/11/22 11:12:03AM, cad, LAYOUT:FIG–1

SESI CONSULTING ENGINEERS

BORING LOG

Job:	11444A	Boring:	B-101	Client:	Saber-North White Plains, LLC		
Project:	70 Westchester Ave			Observer:	MZ		
Location:	White Plains, NY			Elevation:	±165		
Date Started:	December 1, 2021	Date Completed:	December 2, 2021	Boring Location Offset:			
Contractor:	CES	Type of Rig:	Geoprobe 7822DT	Weather:	Overcast	Temperature:	37°F
Driller:	Tom	Helper:	Mark	Rotary Bit Diameter:			
Casing Dia.:	Inches	Casing Depth:	Feet	Auger Diameter:	OD: Inches	ID: 3 1/4	Inches

Drilling Mud Utilized: ☐ None ☑ Water ☐ Quickgel ☐ Bentonite ☐ Revert ☑ Ez Mud ☐ Other

SAMPLING EQUIPMENT (type and size)

Split Spoon Sampler:	☑ 2-inch Diameter	☐ 3-inch Diameter		
U-tube Sampler:	☐ Piston	☐ Shelby	☐ Other	
Core Barrel:		Core Bit:		
Sampler Hammer:	☐ External Anvil	☐ Mobile Safety	☑ Auto	☐ Mechanical Trip
Weight:	140 lbs.	Drop Height: 30 Inches		

WATER LEVEL OBSERVATIONS

Date	Time	Depth of Hole	Depth of Casing	Depth to Water	Remarks
12/2/2021		39±		N/E	

SAMPLE Number	Interval	Blows/6"		N- Value	SAMPLE DESCRIPTION	Depth	Strata	Rec.	REMARKS
					Asphalt, ± 3-5"				Drill through to 5'
					Subbase				Install 5' casing
						5	F		
S-1	5-7	2	2	3	Fill: Brown coarse to fine SAND, little coarse to fine Gravel, little Silt			6''	Install 5' casing
		1	3						
						10			
S-2	10-12	16	15	23	Light brown medium to fine SAND, little coarse to fine Gravel, trace Silt			11''	Drive Casing
		8	7						
						15			
S-3	15-17	3	4	10	Brown-gray medium to fine SAND, trace Silt		S	12''	Drive Casing
		6	9						
						20			
S-4	20-22	13	13	27	Orange-brown coarse to fine SAND, and coarse to fine Gravel, little Silt			12''	
		14	14		W.C. = 10.62% (-200) = 11.95%				
						25			
S-5	25-27	9	29	71	White-gray coarse to fine SAND, little coarse to fine Gravel, trace Silt			16''	Rock in shoe
		42	100				DR		
						30	WR		

Figure No.: 2

The subsurface information shown hereon was obatined for the design and estimating purposes for our client. It is made available to authorized users only that they may have access to the same information available to our client. It is presented in good faith, but it is not intended as a substitute for investigations, interpretations or jeudgement of such authorized users. Information on the logs should not be relied upon without the geotechnical engineers recommendations contained in the report from which these logs were extracted.

Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: ———— Inferred Change in Strata: -

Soil descriptions represent a field identification after D.M. Burmister unless otherwise noted.

SESI CONSULTING ENGINEERS

BORING LOG

Job:	11444A	Boring:	B-101	Client:	Saber-North White Plains, LLC		
Project:	70 Westchester Ave			Observer:	MZ		
Location:	White Plains, NY			Elevation:	165.0±		
Date Started:	December 1, 2021	Date Completed:	December 2, 2021	Boring Location Offset:			
Contractor:	CES	Type of Rig:	Geoprobe 7822DT	Weather:	Overcast	Temperature:	37°F
Driller:	Tom	Helper:	Mark	Rotary Bit Diameter:			
Casing Dia.:	Inches	Casing Depth:	Feet	Auger Diameter:	OD: Inches	ID: 3 1/4	Inches

Drilling Mud Utilized: ☐ None ☑ Water ☐ Quickgel ☐ Bentonite ☐ Revert ☑ Ez Mud ☐ Other

SAMPLING EQUIPMENT (type and size)

Split Spoon Sampler:	☑ 2-inch Diameter	☐ 3-inch Diameter		
U-tube Sampler:	☐ Piston	☐ Shelby	☐ Other	
Core Barrel:		Core Bit:		
Sampler Hammer:	☐ External Anvil	☐ Mobile Safety	☑ Auto	☐ Mechanical Trip
Weight:	140 lbs.	Drop Height: 30 Inches		

WATER LEVEL OBSERVATIONS

Date	Time	Depth of Hole	Depth of Casing	Depth to Water	Remarks
12/2/2021		39±		N/E	

SAMPLE Number	Interval	Blows/6"		N- Value	SAMPLE DESCRIPTION	Depth	Strata	Rec.	REMARKS
S-6	30-30.5	50/1"	-	-	No Recovery			NR	Weathered Rock
RC-1	31-35				Schist				
					(Rec= 60.4%, RQD=36.5%)				
						35	WR		
RC-2	35-39				Schist				
					(Rec= 95.9%, RQD=39.3%)				
					END OF BORING AT 39± FEET	40			
									MW-7 Installed
									1" diam. well
									10' screen
									15' riser
						45			
						50			
						55			
						60			

Figure No.: 2

The subsurface information shown hereon was obatined for the design and estimating purposes for our client. It is made available to authorized users only that they may have access to the same information available to our client. It is presented in good faith, but it is not intended as a substitute for investigations, interpretations or jeudgement of such authorized users. Information on the logs should not be relied upon without the geotechnical engineers recommendations contained in the report from which these logs were extracted.

Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: ———— Inferred Change in Strata: -

Soil descriptions represent a field identification after D.M. Burmister unless otherwise noted.

SESI CONSULTING ENGINEERS

BORING LOG

Job:	11444A	Boring:	B-102	Client:	Saber-North White Plains, LLC		
Project:	70 Westchester Ave			Observer:	MZ		
Location:	White Plains, NY			Elevation:	165.0±		
Date Started:	December 2, 2021	Date Completed:	December 2, 2021	Boring Location Offset:			
Contractor:	CES	Type of Rig:	Geoprobe 7822DT	Weather:	Sunny	Temperature:	53°F
Driller:	Tom	Helper:	Mark	Rotary Bit Diameter:			
Casing Dia.:	Inches	Casing Depth:	Feet	Auger Diameter:	OD: Inches	ID: 3 1/4	Inches

Drilling Mud Utilized: ☐ None ☑ Water ☐ Quickgel ☐ Bentonite ☐ Revert ☑ Ez Mud ☐ Other

SAMPLING EQUIPMENT (type and size)

Split Spoon Sampler:	☑ 2-inch Diameter	☐ 3-inch Diameter		
U-tube Sampler:	☐ Piston	☐ Shelby	☐ Other	
Core Barrel:		Core Bit:		
Sampler Hammer:	☐ External Anvil	☐ Mobile Safety	☑ Auto	☐ Mechanical Trip
Weight:	140 lbs.	Drop Height: 30 Inches		

WATER LEVEL OBSERVATIONS

Date	Time	Depth of Hole	Depth of Casing	Depth to Water	Remarks
12/2/2021		35±		N/E	

SAMPLE Number	Interval	Blows/6"		N- Value	SAMPLE DESCRIPTION	Depth	Strata	Rec.	REMARKS
					Asphalt, ± 1-5"				Drill through to 5'
					Subbase				Install 5' casing
						5	F		
S-1	5-7	2	WOH	1	Fill: Brown coarse to fine SAND, some Silt, little coarse to fine Gravel,			9''	Install casing
		1	4		with brick fragments				
						10			
S-2	10-12	2	3	6	Brown medium to fine SAND, trace Gravel, trace Silt			11''	Install casing
		3	4						
						15			Install casing
S-3	15-17	3	3	7	Brown-gray coarse to fine SAND, little medium to fine Gravel, trace Silt		S	10''	
		4	4		W.C. = 19.62% (-200) = 4.1%				
						20			
S-4	20-25	20	50/3"	50/3	No Recovery			NR	Install casing,
		-	-						
						25			Drill rotary bit through 2' boulder
S-5	25-27	6	14	38	Brown-white-orange coarse to fine SAND, little Silt, trace Gravel		DR	14''	
		24	20		(Decomposed Rock)				
						30			

Figure No.: 3

The subsurface information shown hereon was obatined for the design and estimating purposes for our client. It is made available to authorized users only that they may have access to the same information available to our client. It is presented in good faith, but it is not intended as a substitute for investigations, interpretations or jeudgement of such authorized users. Information on the logs should not be relied upon without the geotechnical engineers recommendations contained in the report from which these logs were extracted.

Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: ———— Inferred Change in Strata: -

Soil descriptions represent a field identification after D.M. Burmister unless otherwise noted.

SESI CONSULTING ENGINEERS

BORING LOG

Job:	11444A	Boring:	B-102	Client:	Saber-North White Plains, LLC		
Project:	70 Westchester Ave			Observer:	MZ		
Location:	White Plains, NY			Elevation:	165.0±		
Date Started:	December 2, 2021	Date Completed:	December 2, 2021	Boring Location Offset:			
Contractor:	CES	Type of Rig:	Geoprobe 7822DT	Weather:	Overcast	Temperature:	53°F
Driller:	Tom	Helper:	Mark	Rotary Bit Diameter:			
Casing Dia.:	Inches	Casing Depth:	Feet	Auger Diameter:	OD: Inches	ID: 3 1/4	Inches

Drilling Mud Utilized: ☐ None ☑ Water ☐ Quickgel ☐ Bentonite ☐ Revert ☑ Ez Mud ☐ Other

SAMPLING EQUIPMENT (type and size)

Split Spoon Sampler:	☑ 2-inch Diameter	☐ 3-inch Diameter		
U-tube Sampler:	☐ Piston	☐ Shelby	☐ Other	
Core Barrel:		Core Bit:		
Sampler Hammer:	☐ External Anvil	☐ Mobile Safety	☑ Auto	☐ Mechanical Trip
Weight:	140 lbs.	Drop Height: 30 Inches		

WATER LEVEL OBSERVATIONS

Date	Time	Depth of Hole	Depth of Casing	Depth to Water	Remarks
12/2/2021		35±		N/E	

SAMPLE					SAMPLE DESCRIPTION	Depth	Strata	Rec.	REMARKS
				N- Value					
S-6	30-31	18	25	75/8	Black/white medium to fine SAND, some Silt, trace Gravel (Decomposed Rock)		DR	8"	
		50/2"	-		Rock Core 1				
RC-1	31.5-35				Schist		WR		Weathered Rock
					(Rec=100%, RQD=15%)				
						35			
					END OF BORING AT 35± FEET				
						40			
						45			
						50			
						55			
						60			

Figure No.: 3

The subsurface information shown hereon was obatined for the design and estimating purposes for our client. It is made available to authorized users only that they may have access to the same information available to our client. It is presented in good faith, but it is not intended as a substitute for investigations, interpretations or jeudgement of such authorized users. Information on the logs should not be relied upon without the geotechnical engineers recommendations contained in the report from which these logs were extracted.

Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: ———— Inferred Change in Strata: -

Soil descriptions represent a field identification after D.M. Burmister unless otherwise noted.

SESI CONSULTING ENGINEERS

BORING LOG

Job:	11444A	Boring:	B-103	Client:	Saber-North White Plains, LLC		
Project:	70 Westchester Ave			Observer:	MZ		
Location:	White Plains, NY			Elevation:			
Date Started:		Date Completed:		Boring Location Offset:			
Contractor:	CES	Type of Rig:	Geoprobe 7822DT	Weather:		Temperature:	
Driller:	Tom	Helper:	Mark	Rotary Bit Diameter:			
Casing Dia.:	Inches	Casing Depth:	Feet	Auger Diameter:	OD: Inches	ID: 3 1/4	Inches

Drilling Mud Utilized: ☐ None ☑ Water ☐ Quickgel ☐ Bentonite ☐ Revert ☑ Ez Mud ☐ Other

SAMPLING EQUIPMENT (type and size)

Split Spoon Sampler:	☑ 2-inch Diameter	☐ 3-inch Diameter		
U-tube Sampler:	☐ Piston	☐ Shelby	☐ Other	
Core Barrel:		Core Bit:		
Sampler Hammer:	☐ External Anvil	☐ Mobile Safety	☑ Auto	☐ Mechanical Trip
Weight:	140 lbs.	Drop Height: 30 Inches		

WATER LEVEL OBSERVATIONS

Date	Time	Depth of Hole	Depth of Casing	Depth to Water	Remarks
		N/E		N/E	

SAMPLE Number	Interval	Blows/6"		N- Value	SAMPLE DESCRIPTION	Depth	Strata	Rec.	REMARKS
					Boring Not Drilled				
						5			
						10			
						15			
						20			
						25			
						30			

Figure No.: 4

The subsurface information shown hereon was obatined for the design and estimating purposes for our client. It is made available to authorized users only that they may have access to the same information available to our client. It is presented in good faith, but it is not intended as a substitute for investigations, interpretations or jeudgement of such authorized users. Information on the logs should not be relied upon without the geotechnical engineers recommendations contained in the report from which these logs were extracted.

Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: ———— Inferred Change in Strata: -

Soil descriptions represent a field identification after D.M. Burmister unless otherwise noted.

SESI CONSULTING ENGINEERS

BORING LOG

Job:	11444A	Boring:	B-104	Client:	Saber-North White Plains, LLC		
Project:	70 Westchester Ave			Observer:	MZ		
Location:	White Plains, NY			Elevation:			
Date Started:		Date Completed:		Boring Location Offset:			
Contractor:	CES	Type of Rig:	Geoprobe 7822DT	Weather:		Temperature:	
Driller:	Tom	Helper:	Mark	Rotary Bit Diameter:			
Casing Dia.:	Inches	Casing Depth:	Feet	Auger Diameter:	OD: Inches	ID: 3 1/4	Inches

Drilling Mud Utilized: ☐ None ☑ Water ☐ Quickgel ☐ Bentonite ☐ Revert ☑ Ez Mud ☐ Other

SAMPLING EQUIPMENT (type and size)

Split Spoon Sampler:	☑ 2-inch Diameter	☐ 3-inch Diameter		
U-tube Sampler:	☐ Piston	☐ Shelby	☐ Other	
Core Barrel:		Core Bit:		
Sampler Hammer:	☐ External Anvil	☐ Mobile Safety	☑ Auto	☐ Mechanical Trip
Weight:	140 lbs.	Drop Height: 30 Inches		

WATER LEVEL OBSERVATIONS

Date	Time	Depth of Hole	Depth of Casing	Depth to Water	Remarks
		N/E		N/E	

SAMPLE Number	Interval	Blows/6"		N- Value	SAMPLE DESCRIPTION	Depth	Strata	Rec.	REMARKS
					Boring Not Drilled				
						5			
						10			
						15			
						20			
						25			
						30			

Figure No.: 5

The subsurface information shown hereon was obatined for the design and estimating purposes for our client. It is made available to authorized users only that they may have access to the same information available to our client. It is presented in good faith, but it is not intended as a substitute for investigations, interpretations or jeudgement of such authorized users. Information on the logs should not be relied upon without the geotechnical engineers recommendations contained in the report from which these logs were extracted.

Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: ———— Inferred Change in Strata: -

Soil descriptions represent a field identification after D.M. Burmister unless otherwise noted.

SESI CONSULTING ENGINEERS

BORING LOG

Job:	11444A	Boring:	B-105	Client:	Saber-North White Plains, LLC		
Project:	70 Westchester Ave			Observer:	MZ		
Location:	White Plains, NY			Elevation:	±166		
Date Started:	December 15, 2021	Date Completed:	December 15, 2021	Boring Location Offset:			
Contractor:	CES	Type of Rig:	Geoprobe 7822DT	Weather:	Sunny	Temperature:	53°F
Driller:	Tom	Helper:	Mark	Rotary Bit Diameter:			
Casing Dia.:	Inches	Casing Depth:	Feet	Auger Diameter:	OD: Inches	ID: 3 1/4	Inches

Drilling Mud Utilized: ☐ None ☑ Water ☐ Quickgel ☐ Bentonite ☐ Revert ☑ Ez Mud ☐ Other

SAMPLING EQUIPMENT (type and size)

Split Spoon Sampler:	☑ 2-inch Diameter	☐ 3-inch Diameter		
U-tube Sampler:	☐ Piston	☐ Shelby	☐ Other	
Core Barrel:		Core Bit:		
Sampler Hammer:	☐ External Anvil	☐ Mobile Safety	☑ Auto	☐ Mechanical Trip
Weight:	140 lbs.	Drop Height: 30 Inches		

WATER LEVEL OBSERVATIONS

Date	Time	Depth of Hole	Depth of Casing	Depth to Water	Remarks
12/15/2021		30±		N/E	

SAMPLE Number	Interval	Blows/6"		N- Value	SAMPLE DESCRIPTION	Depth	Strata	Rec.	REMARKS
					Asphalt, ± 1-5"				
					Subbase				
						5			
S-1	5-7	9	8	18	Fill: Brown coarse to fine SAND, little Silt, little coarse to fine			18''	
		10	13		Gravel with brick and wood debris				
							F		
						10			
S-2	10-12	17	32	84	Fill: Brown/red-brown coarse to fine SAND, some coarse to fine			12''	
		52	23		Gravel, trace Silt, with metal debris				
						15			
S-3	15-17	13	6	9	Gray-brown coarse to fine SAND, some coarse to fine Gravel,			7''	
		3	4		little Silt				
							S		
						20			
S-4	20-22	4	3	7	No Recovery			0''	
		4	14						
S-5	23	12	50/2"	50/2	No Recovery			0''	Rock in Shoe
	23.7	-	-			25			
RC-1	25-30				Schist				
					(Rec=93.3%, RQD=76.3%)				
							R		
					END OF BORING AT 30 FEET	30			

Figure No.: 6

The subsurface information shown hereon was obatined for the design and estimating purposes for our client. It is made available to authorized users only that they may have access to the same information available to our client. It is presented in good faith, but it is not intended as a substitute for investigations, interpretations or jeudgement of such authorized users. Information on the logs should not be relied upon without the geotechnical engineers recommendations contained in the report from which these logs were extracted.

Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: ———— Inferred Change in Strata: -

Soil descriptions represent a field identification after D.M. Burmister unless otherwise noted.

SESI CONSULTING ENGINEERS

BORING LOG

Job:	11444A	Boring:	B-106	Client:	Saber-North White Plains, LLC		
Project:	70 Westchester Ave			Observer:	MZ		
Location:	White Plains, NY			Elevation:	±166.5		
Date Started:	December 16, 2021	Date Completed:	December 16, 2021	Boring Location Offset:			
Contractor:	CES	Type of Rig:	Geoprobe 7822DT	Weather:	Sunny	Temperature:	50°F
Driller:	Tom	Helper:	Mark	Rotary Bit Diameter:			
Casing Dia.:	Inches	Casing Depth:	Feet	Auger Diameter:	OD: Inches	ID: 3 1/4	Inches

Drilling Mud Utilized: ☐ None ☑ Water ☐ Quickgel ☐ Bentonite ☐ Revert ☑ Ez Mud ☐ Other

SAMPLING EQUIPMENT (type and size)

Split Spoon Sampler:	☑ 2-inch Diameter	☐ 3-inch Diameter		
U-tube Sampler:	☐ Piston	☐ Shelby	☐ Other	
Core Barrel:		Core Bit:		
Sampler Hammer:	☐ External Anvil	☐ Mobile Safety	☑ Auto	☐ Mechanical Trip
Weight:	140 lbs.	Drop Height: 30 Inches		

WATER LEVEL OBSERVATIONS

Date	Time	Depth of Hole	Depth of Casing	Depth to Water	Remarks
12/16/2021		28±		N/E	

SAMPLE Number	Interval	Blows/6"		N- Value	SAMPLE DESCRIPTION	Depth	Strata	Rec.	REMARKS
					Asphalt, ± 1-5"				
					Subbase				
						5			
						10	F		
S-1	10-12	50/4"	-	-	Fill: Brown coarse to fine SAND, little coarse to fine Gravel, trace			3''	Hard Drilling 10-15'
		-	-		Silt with brick				
						15			
S-2	15.5-17.5	10	7	15	Brown-gray coarse to fine SAND, little coarse to fine Gravel, little Silt			9''	Hard drilling 16-17
		8	8						Rock in Shoe
						20			
S-3	20-22	7	11	27	Brown-gray coarse to fine SAND, little coarse to fine Gravel, little Clayey			14''	Weathered rock in Shoe
		16	82		Silt		S		Difficulty installing larger
									casing to 20' installed larger
									casing
						25			
S-4	26-28	6	17	27	Brown-gray/orange coarse to fine SAND, little coarse to fine Gravel,			15''	Decomposed Rock in tip
		10	28		trace Silt				
S-5	28-28.2	50/2"		-	Brown-orange coarse to fine SAND, little Silt, trace Gravel (Decomposed Rock)		DR	1''	
					END OF BORING AT 28.2 FEET ±	30			

Figure No.: 7

The subsurface information shown hereon was obatined for the design and estimating purposes for our client. It is made available to authorized users only that they may have access to the same information available to our client. It is presented in good faith, but it is not intended as a substitute for investigations, interpretations or jeudgement of such authorized users. Information on the logs should not be relied upon without the geotechnical engineers recommendations contained in the report from which these logs were extracted.

Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: ———— Inferred Change in Strata: -

Soil descriptions represent a field identification after D.M. Burmister unless otherwise noted.

SESI CONSULTING ENGINEERS

BORING LOG

Job:	11444A	Boring:	B-107	Client:	Saber-North White Plains, LLC		
Project:	70 Westchester Ave			Observer:	MZ		
Location:	White Plains, NY			Elevation:	±167		
Date Started:	December 8, 2021	Date Completed:	December 8, 2021	Boring Location Offset:			
Contractor:	CES	Type of Rig:	Geoprobe 7822DT	Weather:	Overcast	Temperature:	33°F
Driller:	Tom	Helper:	Mark	Rotary Bit Diameter:			
Casing Dia.:	Inches	Casing Depth:	Feet	Auger Diameter:	OD: Inches	ID: 3 1/4	Inches

Drilling Mud Utilized: ☐ None ☑ Water ☐ Quickgel ☐ Bentonite ☐ Revert ☑ Ez Mud ☐ Other

SAMPLING EQUIPMENT (type and size)

Split Spoon Sampler:	☑ 2-inch Diameter	☐ 3-inch Diameter		
U-tube Sampler:	☐ Piston	☐ Shelby	☐ Other	
Core Barrel:		Core Bit:		
Sampler Hammer:	☐ External Anvil	☐ Mobile Safety	☑ Auto	☐ Mechanical Trip
Weight:	140 lbs.	Drop Height: 30 Inches		

WATER LEVEL OBSERVATIONS

Date	Time	Depth of Hole	Depth of Casing	Depth to Water	Remarks
12/8/2021		37±		N/E	

SAMPLE Number	Interval	Blows/6"		N- Value	SAMPLE DESCRIPTION	Depth	Strata	Rec.	REMARKS
					Asphalt, ± 1-5"				Drill through to 5'
					Subbase				Install 5' casing
						5	F		
S-1	5	10	7	10	Fill: Brown coarse to fine SAND, little Silt, trace fine Gravel, with asphalt			13''	
	7	3	1		and brick fragments				
						10			
S-2	10	6	8	20	Brown fine SAND, little Silt, grading to medium to fine SAND, trace Silt			17''	
	12	12	10						
						15			
S-3	15	4	5	10	Brown medium to fine SAND, trace Gravel, trace Silt			12''	
	17	5	5				S		
						20			
S-4	20	1	WOH	2	Gray medium to fine SAND, some Silt, trace Gravel			3''	
	22	2	1		W.C. = 19.63% (-200) = 21.28%				
						25			
S-5	25	4	20	60	White/black/red medium to fine SAND, some Silt, trace Gravel			14''	
	27	40	48		(Decomposed Rock)		DR		
						30			

Figure No.: 8

The subsurface information shown hereon was obatined for the design and estimating purposes for our client. It is made available to authorized users only that they may have access to the same information available to our client. It is presented in good faith, but it is not intended as a substitute for investigations, interpretations or jeudgement of such authorized users. Information on the logs should not be relied upon without the geotechnical engineers recommendations contained in the report from which these logs were extracted.

Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: ———— Inferred Change in Strata: - - -

SESI CONSULTING ENGINEERS

BORING LOG

Job:	11444A	Boring:	B-107	Client:	Saber-North White Plains, LLC		
Project:	70 Westchester Ave			Observer:	MZ		
Location:	White Plains, NY			Elevation:	167.0±		
Date Started:	December 8, 2021	Date Completed:	December 8, 2021	Boring Location Offset:			
Contractor:	CES	Type of Rig:	Geoprobe 7822DT	Weather:	Overcast	Temperature:	33°F
Driller:	Tom	Helper:	Mark	Rotary Bit Diameter:			
Casing Dia.:	Inches	Casing Depth:	Feet	Auger Diameter:	OD: Inches	ID: 3 1/4	Inches

Drilling Mud Utilized: ☐ None ☑ Water ☐ Quickgel ☐ Bentonite ☐ Revert ☑ Ez Mud ☐ Other

SAMPLING EQUIPMENT (type and size)

Split Spoon Sampler:	☑ 2-inch Diameter	☐ 3-inch Diameter		
U-tube Sampler:	☐ Piston	☐ Shelby	☐ Other	
Core Barrel:		Core Bit:		
Sampler Hammer:	☐ External Anvil	☐ Mobile Safety	☑ Auto	☐ Mechanical Trip
Weight:	140 lbs.	Drop Height: 30 Inches		

WATER LEVEL OBSERVATIONS

Date	Time	Depth of Hole	Depth of Casing	Depth to Water	Remarks
12/8/2021		37±		N/E	

SAMPLE					SAMPLE DESCRIPTION	Depth	Strata	Rec.	REMARKS
				N- Value					
S-6	30-30.2	50/1"	-	-	White/black medium to fine SAND, little Silt		DR	1"	
		-	-		(Decomposed Rock)				
RC-1	32-37				Schist		R		
					(Rec=85.0%, RQD=75.0%)				
						35			
					END OF BORING AT 37± FEET	40			
						45			
						50			
						55			
						60			

Figure No.: 8

The subsurface information shown hereon was obatined for the design and estimating purposes for our client. It is made available to authorized users only that they may have access to the same information available to our client. It is presented in good faith, but it is not intended as a substitute for investigations, interpretations or jeudgement of such authorized users. Information on the logs should not be relied upon without the geotechnical engineers recommendations contained in the report from which these logs were extracted.

Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: ———— Inferred Change in Strata: - - -

SESI CONSULTING ENGINEERS

BORING LOG

Job:	11444A	Boring:	B-108	Client:	Saber-North White Plains, LLC		
Project:	70 Westchester Ave			Observer:	MZ		
Location:	White Plains, NY			Elevation:	±170		
Date Started:	December 7,2021	Date Completed:	December 8, 2021	Boring Location Offset:			
Contractor:	CES	Type of Rig:	Geoprobe 7822DT	Weather:	Sunny	Temperature:	47°F
Driller:	Tom	Helper:	Mark	Rotary Bit Diameter:			
Casing Dia.:	Inches	Casing Depth:	Feet	Auger Diameter:	OD: Inches	ID: 3 1/4	Inches

Drilling Mud Utilized: ☐ None ☑ Water ☐ Quickgel ☐ Bentonite ☐ Revert ☑ Ez Mud ☐ Other

SAMPLING EQUIPMENT (type and size)

Split Spoon Sampler:	☑ 2-inch Diameter	☐ 3-inch Diameter		
U-tube Sampler:	☐ Piston	☐ Shelby	☐ Other	
Core Barrel:		Core Bit:		
Sampler Hammer:	☐ External Anvil	☐ Mobile Safety	☑ Auto	☐ Mechanical Trip
Weight:	140 lbs.	Drop Height: 30 Inches		

WATER LEVEL OBSERVATIONS

Date	Time	Depth of Hole	Depth of Casing	Depth to Water	Remarks
12/8/2021		30±		N/E	

SAMPLE Number	Interval	Blows/6"		N- Value	SAMPLE DESCRIPTION	Depth	Strata	Rec.	REMARKS
					Asphalt, ± 1-5"				Drill through to 5'
					Subbase				Install 5' casing
						5	F		
S-1	5-7	2	WOH	WOH	Fill: Brown coarse to fine SAND, trace Gravel, trace Silt with Cobbles			18''	
		WOH	1						
						10			
S-2	10-12	6	8	18	Brown coarse to fine SAND, trace Silt with Cobbles			10''	
		10	14						
						15			
S-3	15-17	5	6	11	Brown medium to fine SAND, little coarse to fine Gravel, trace Silt			12''	
		5	6				S		
						20			
S-4	20-22	15	15	27	Gray-brown coarse to fine Sand, some Silt, some fine Gravel			7''	Decomposed Rock in shoe
		12	12		W.C. =19.0% (-200) =30.7%				
						25			
S-5	25-27	18	27	67	White/orange coarse to fine SAND, trace Silt			13''	
		40	41		(Decomposed Rock)		DR		
RC-1	28-30				Schist (Rec=100%, RQD=70%)		R		Begin to Lose Water
					END OF BORING AT 30± FEET	30			Lost all Water in mud tub

Figure No.: 9

The subsurface information shown hereon was obatined for the design and estimating purposes for our client. It is made available to authorized users only that they may have access to the same information available to our client. It is presented in good faith, but it is not intended as a substitute for investigations, interpretations or jeudgement of such authorized users. Information on the logs should not be relied upon without the geotechnical engineers recommendations contained in the report from which these logs were extracted.

Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: ———— Inferred Change in Strata: -

Soil descriptions represent a field identification after D.M. Burmister unless otherwise noted.

SESI CONSULTING ENGINEERS

BORING LOG

Job:	11444A	Boring:	B-109	Client:	Saber-North White Plains, LLC		
Project:	70 Westchester Ave			Observer:	MZ		
Location:	White Plains, NY			Elevation:	±173		
Date Started:	December 7,2021	Date Completed:	December 7, 2021	Boring Location Offset:			
Contractor:	CES	Type of Rig:	Geoprobe 7822DT	Weather:	Sunny	Temperature:	36°F
Driller:	Tom	Helper:	Mark	Rotary Bit Diameter:			
Casing Dia.:	Inches	Casing Depth:	Feet	Auger Diameter:	OD: Inches	ID: 3 1/4	Inches

Drilling Mud Utilized: ☐ None ☑ Water ☐ Quickgel ☐ Bentonite ☐ Revert ☑ Ez Mud ☐ Other

SAMPLING EQUIPMENT (type and size)

Split Spoon Sampler:	☑ 2-inch Diameter	☐ 3-inch Diameter		
U-tube Sampler:	☐ Piston	☐ Shelby	☐ Other	
Core Barrel:		Core Bit:		
Sampler Hammer:	☐ External Anvil	☐ Mobile Safety	☑ Auto	☐ Mechanical Trip
Weight:	140 lbs.	Drop Height: 30 Inches		

WATER LEVEL OBSERVATIONS

Date	Time	Depth of Hole	Depth of Casing	Depth to Water	Remarks
12/7/2021		24.5±		N/E	

SAMPLE Number	Interval	Blows/6"		N- Value	SAMPLE DESCRIPTION	Depth	Strata	Rec.	REMARKS
					Asphalt, ± 1-5"				Drill through to 5'
					Subbase				Install 5' casing
						5	F		
S-1	5-7	2	2	5	Fill: Dark brown/orange Clayey SILT, trace Sand, with roots			7"	
		3	1						
						10	S		
S-2	10-12	3	8	17	Brown coarse to fine SAND, little coarse to fine Gravel, little Silt			6"	
		9	5						
						15			
S-3	15-17	3	2	13	Brown medium to fine SAND, trace Silt, trace Gravel			8"	
		11	14		White-orange-gray coarse to fine SAND, some coarse to fine Gravel, trace				
					Silt (Decomposed Rock)		DR		
						20			
S-4	20-20.5	27	50/1"	50/1	...Same as Above			4"	
		-	-		Schist				
RC-1	20.5-24.5				(Rec=58.3%, RQD=22%)		WR		Weathered Rock
						25			
					END OF BORING AT 24.5± FEET				
						30			

Figure No.: 10

The subsurface information shown hereon was obatined for the design and estimating purposes for our client. It is made available to authorized users only that they may have access to the same information available to our client. It is presented in good faith, but it is not intended as a substitute for investigations, interpretations or jeudgement of such authorized users. Information on the logs should not be relied upon without the geotechnical engineers recommendations contained in the report from which these logs were extracted.

Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: ———— Inferred Change in Strata: -

Soil descriptions represent a field identification after D.M. Burmister unless otherwise noted.

SESI CONSULTING ENGINEERS

BORING LOG

Job:	11444A	Boring:	B-110	Client:	Saber-North White Plains, LLC		
Project:	70 Westchester Ave			Observer:	MZ		
Location:	White Plains, NY			Elevation:			
Date Started:		Date Completed:		Boring Location Offset:			
Contractor:	CES	Type of Rig:	Geoprobe 7822DT	Weather:		Temperature:	
Driller:	Tom	Helper:	Mark	Rotary Bit Diameter:			
Casing Dia.:	Inches	Casing Depth:	Feet	Auger Diameter:	OD: Inches	ID: 3 1/4	Inches

Drilling Mud Utilized: ☐ None ☑ Water ☐ Quickgel ☐ Bentonite ☐ Revert ☑ Ez Mud ☐ Other

SAMPLING EQUIPMENT (type and size)

Split Spoon Sampler:	☑ 2-inch Diameter	☐ 3-inch Diameter		
U-tube Sampler:	☐ Piston	☐ Shelby	☐ Other	
Core Barrel:		Core Bit:		
Sampler Hammer:	☐ External Anvil	☐ Mobile Safety	☑ Auto	☐ Mechanical Trip
Weight:	140 lbs.	Drop Height: 30 Inches		

WATER LEVEL OBSERVATIONS

Date	Time	Depth of Hole	Depth of Casing	Depth to Water	Remarks
		N/E		N/E	

SAMPLE Number	Interval	Blows/6"		N- Value	SAMPLE DESCRIPTION	Depth	Strata	Rec.	REMARKS
					Boring Not Drilled				
						5			
						10			
						15			
						20			
						25			
						30			

Figure No.: 11

The subsurface information shown hereon was obatined for the design and estimating purposes for our client. It is made available to authorized users only that they may have access to the same information available to our client. It is presented in good faith, but it is not intended as a substitute for investigations, interpretations or jeudgement of such authorized users. Information on the logs should not be relied upon without the geotechnical engineers recommendations contained in the report from which these logs were extracted.

Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: ———— Inferred Change in Strata: -

Soil descriptions represent a field identification after D.M. Burmister unless otherwise noted.

SESI CONSULTING ENGINEERS

BORING LOG

Job:	11444A	Boring:	B-111	Client:	Saber-North White Plains, LLC		
Project:	70 Westchester Ave			Observer:	MZ		
Location:	White Plains, NY			Elevation:	±160		
Date Started:	December 8, 2021	Date Completed:	December 8, 2021	Boring Location Offset:			
Contractor:	CES	Type of Rig:	Geoprobe 7822DT	Weather:	Sunny	Temperature:	39°F
Driller:	Tom	Helper:	Mark	Rotary Bit Diameter:			
Casing Dia.:	Inches	Casing Depth:	Feet	Auger Diameter:	OD: Inches	ID: 3 1/4	Inches

Drilling Mud Utilized: ☐ None ☑ Water ☐ Quickgel ☐ Bentonite ☐ Revert ☑ Ez Mud ☐ Other

SAMPLING EQUIPMENT (type and size)

Split Spoon Sampler:	☑ 2-inch Diameter	☐ 3-inch Diameter		
U-tube Sampler:	☐ Piston	☐ Shelby	☐ Other	
Core Barrel:		Core Bit:		
Sampler Hammer:	☐ External Anvil	☐ Mobile Safety	☑ Auto	☐ Mechanical Trip
Weight:	140 lbs.	Drop Height: 30 Inches		

WATER LEVEL OBSERVATIONS

Date	Time	Depth of Hole	Depth of Casing	Depth to Water	Remarks
12/8/2021		32±		N/E	

SAMPLE Number	Interval	Blows/6"		N- Value	SAMPLE DESCRIPTION	Depth	Strata	Rec.	REMARKS
					Asphalt, ± 1-5"				Drill through to 5'
					Subbase				Install 5' casing
						5	F		
S-1	5-7	4	5	15	Fill: Brown mottled varved Clayey SILT, and medium to fine Sand, with			18''	
		10	17		wood fibers				
						10			
S-2	10-12	3	3	6	Brown coarse to fine SAND, trace Gravel, trace Silt			5''	
		3	3						
						15			
S-3	15-17	2	1	4	Gray SILT, trace Sand			12''	
		3	2						
						20			
S-4	20-22	4	3	6	No Recovery			NR	
		3	5						
S-5	22-24	5	6	12	Brown-gray medium to fine SAND, some Silt, trace Gravel			10''	
		6	6						
						25			
S-6	25-27	1	2	4	Brown-gray coarse to fine SAND, trace Gravel, trace Silt			4''	
		2	1						
						30			

Figure No.: 12

The subsurface information shown hereon was obatined for the design and estimating purposes for our client. It is made available to authorized users only that they may have access to the same information available to our client. It is presented in good faith, but it is not intended as a substitute for investigations, interpretations or jeudgement of such authorized users. Information on the logs should not be relied upon without the geotechnical engineers recommendations contained in the report from which these logs were extracted.

Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: ———— Inferred Change in Strata: -

Soil descriptions represent a field identification after D.M. Burmister unless otherwise noted.

SESI CONSULTING ENGINEERS

BORING LOG

Job:	11444A	Boring:	B-111	Client:	Saber-North White Plains, LLC		
Project:	70 Westchester Ave			Observer:	MZ		
Location:	White Plains, NY			Elevation:	160.0±		
Date Started:	December 8, 2021	Date Completed:	December 8, 2021	Boring Location Offset:			
Contractor:	CES	Type of Rig:	Geoprobe 7822DT	Weather:	Sunny	Temperature:	39°F
Driller:	Tom	Helper:	Mark	Rotary Bit Diameter:			
Casing Dia.:	Inches	Casing Depth:	Feet	Auger Diameter:	OD: Inches	ID: 3 1/4	Inches

Drilling Mud Utilized: ☐ None ☑ Water ☐ Quickgel ☐ Bentonite ☐ Revert ☑ Ez Mud ☐ Other

SAMPLING EQUIPMENT (type and size)

Split Spoon Sampler:	☑ 2-inch Diameter	☐ 3-inch Diameter		
U-tube Sampler:	☐ Piston	☐ Shelby	☐ Other	
Core Barrel:		Core Bit:		
Sampler Hammer:	☐ External Anvil	☐ Mobile Safety	☑ Auto	☐ Mechanical Trip
Weight:	140 lbs.	Drop Height: 30 Inches		

WATER LEVEL OBSERVATIONS

Date	Time	Depth of Hole	Depth of Casing	Depth to Water	Remarks
12/8/2021		32±		N/E	

SAMPLE					SAMPLE DESCRIPTION	Depth	Strata	Rec.	REMARKS
				N- Value					
S-7	30-32	10	9	19	Gray-brown coarse to fine GRAVEL, some coarse to fine Sand, trace Silt		G	7"	
		10	4						
					END OF BORING AT 32± FEET				Attempt 2-separate rock core
									locations, lost water at high
						35			volume due to possible highly
									fractured rock - no core
						40			
						45			
						50			
						55			
						60			

Figure No.: 12

The subsurface information shown hereon was obatined for the design and estimating purposes for our client. It is made available to authorized users only that they may have access to the same information available to our client. It is presented in good faith, but it is not intended as a substitute for investigations, interpretations or jeudgement of such authorized users. Information on the logs should not be relied upon without the geotechnical engineers recommendations contained in the report from which these logs were extracted.

Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: ———— Inferred Change in Strata: -

Soil descriptions represent a field identification after D.M. Burmister unless otherwise noted.

SESI CONSULTING ENGINEERS

BORING LOG

Job:	11444A	Boring:	B-112	Client:	Saber-North White Plains, LLC		
Project:	70 Westchester Ave			Observer:	MZ		
Location:	White Plains, NY			Elevation:	160.0±		
Date Started:	December 8, 2021	Date Completed:	December 8, 2021	Boring Location Offset:			
Contractor:	CES	Type of Rig:	Geoprobe 7822DT	Weather:	Sunny	Temperature:	39°F
Driller:	Mark	Helper:	Jay	Rotary Bit Diameter:			
Casing Dia.:	Inches	Casing Depth:	Feet	Auger Diameter:	OD: Inches	ID: 3 1/4	Inches

Drilling Mud Utilized: ☐ None ☑ Water ☐ Quickgel ☐ Bentonite ☐ Revert ☑ Ez Mud ☐ Other

SAMPLING EQUIPMENT (type and size)

Split Spoon Sampler:	☑ 2-inch Diameter	☐ 3-inch Diameter		
U-tube Sampler:	☐ Piston	☐ Shelby	☐ Other	
Core Barrel:		Core Bit:		
Sampler Hammer:	☐ External Anvil	☐ Mobile Safety	☑ Auto	☐ Mechanical Trip
Weight:	140 lbs.	Drop Height: 30 Inches		

WATER LEVEL OBSERVATIONS

Date	Time	Depth of Hole	Depth of Casing	Depth to Water	Remarks
12/8/2021		37±		N/E	

SAMPLE Number	Interval	Blows/6"		N- Value	SAMPLE DESCRIPTION	Depth	Strata	Rec.	REMARKS
					Asphalt, ± 1-5"				Drill through to 5'
					Subbase				Install 5' casing
									Hard drilling 3-4.5'
						5	F		
S-1	5-7	7	1	3	No Recovery			NR	
		2	7						
						10			
S-2	10-12	1	2	6	Brown coarse to fine SAND, trace Gravel, trace Silt			12''	
		4	4						
						15			
S-3	15-17	1	1	3	Brown-Gray SILT, trace Sand			17''	
		2	3		W.C.= 24.6% (-200)= 92.8%				
						20	S		
S-4	20-22	5	4	8	Brown-gray fine SAND, trace Silt			9''	
		4	4						
						25			
S-5	25-27	1	2	5	Brown-gray coarse to fine SAND, trace Silt			9''	
		3	4						
									Hard Drilling 28-30'
									Possible Weathered/fracture rock
						30			

Figure No.: 13

The subsurface information shown hereon was obatined for the design and estimating purposes for our client. It is made available to authorized users only that they may have access to the same information available to our client. It is presented in good faith, but it is not intended as a substitute for investigations, interpretations or jeudgement of such authorized users. Information on the logs should not be relied upon without the geotechnical engineers recommendations contained in the report from which these logs were extracted.

Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: ———— Inferred Change in Strata: -

Soil descriptions represent a field identification after D.M. Burmister unless otherwise noted.

SESI CONSULTING ENGINEERS

BORING LOG

Job:	11444A	Boring:	B-112	Client:	Saber-North White Plains, LLC		
Project:	70 Westchester Ave			Observer:	MZ		
Location:	White Plains, NY			Elevation:	±160		
Date Started:	December 8, 2021	Date Completed:	December 8, 2021	Boring Location Offset:			
Contractor:	CES	Type of Rig:	Geoprobe 7822DT	Weather:	Sunny	Temperature:	39°F
Driller:	Mark	Helper:	Jay	Rotary Bit Diameter:			
Casing Dia.:	Inches	Casing Depth:	Feet	Auger Diameter:	OD: Inches	ID: 3 1/4	Inches

Drilling Mud Utilized: ☐ None ☑ Water ☐ Quickgel ☐ Bentonite ☐ Revert ☑ Ez Mud ☐ Other

SAMPLING EQUIPMENT (type and size)

Split Spoon Sampler:	☑ 2-inch Diameter	☐ 3-inch Diameter		
U-tube Sampler:	☐ Piston	☐ Shelby	☐ Other	
Core Barrel:		Core Bit:		
Sampler Hammer:	☐ External Anvil	☐ Mobile Safety	☑ Auto	☐ Mechanical Trip
Weight:	140 lbs.	Drop Height: 30 Inches		

WATER LEVEL OBSERVATIONS

Date	Time	Depth of Hole	Depth of Casing	Depth to Water	Remarks
12/8/2021		37±		N/E	

SAMPLE					SAMPLE DESCRIPTION	Depth	Strata	Rec.	REMARKS
				N- Value					
S-7	30-32	9	9	21	Gray-brown coarse to fine GRAVEL, little coarse to fine Sand, trace Silt		G	2"	No Recovery in Spoon, Sample
		12	14						Recovered in tip
RC-1	32-37				Gneiss				
					(Rec=76.6%, RQD=71.3%)				
						35	R1		
					BORING COMPLETE AT 37± FEET				
						40			
						45			
						50			
						55			
						60			

Figure No.: 13

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Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: ———— Inferred Change in Strata: -

Soil descriptions represent a field identification after D.M. Burmister unless otherwise noted.

SESI CONSULTING ENGINEERS

BORING LOG

Job:	11444A	Boring:	B-113	Client:	Saber-North White Plains, LLC		
Project:	70 Westchester Ave			Observer:	MZ		
Location:	White Plains, NY			Elevation:	160.0±		
Date Started:	December 14, 2021	Date Completed:	December 14, 2021	Boring Location Offset:			
Contractor:	CES	Type of Rig:	Geoprobe 7822DT	Weather:	Sunny	Temperature:	38°F
Driller:	Tom	Helper:	Jay	Rotary Bit Diameter:			
Casing Dia.:	Inches	Casing Depth:	Feet	Auger Diameter:	OD: Inches	ID: 3 1/4	Inches

Drilling Mud Utilized: ☐ None ☑ Water ☐ Quickgel ☐ Bentonite ☐ Revert ☑ Ez Mud ☐ Other

SAMPLING EQUIPMENT (type and size)

Split Spoon Sampler:	☑ 2-inch Diameter	☐ 3-inch Diameter		
U-tube Sampler:	☐ Piston	☐ Shelby	☐ Other	
Core Barrel:		Core Bit:		
Sampler Hammer:	☐ External Anvil	☐ Mobile Safety	☑ Auto	☐ Mechanical Trip
Weight:	140 lbs.	Drop Height: 30 Inches		

WATER LEVEL OBSERVATIONS

Date	Time	Depth of Hole	Depth of Casing	Depth to Water	Remarks
12/14/2021		45±		N/E	

SAMPLE Number	Interval	Blows/6"		N- Value	SAMPLE DESCRIPTION	Depth	Strata	Rec.	REMARKS
					Asphalt, ± 1-5"				
					Subbase				
						5	F		
S-1	5-7	7	3	4	Fill: Brown/gray fine SAND, some Silt, trace Gravel, trace			10''	
		1	2		organic fibers, with glass				
							S		
						10			
S-2	10-12	7	7	14	Orange-Brown medium to fine SAND, trace Silt			14''	
		7	4						
						15			
S-3	15-17	WOH	WOH	1	Brown-gray coarse to fine SAND, trace Silt, trace Gravel			5''	Wet
		1	1						
						20			
S-4	20-22	3	3	6	Gray SILT, trace Sand			16''	
		3	3						
						25			
S-5	25-27	2	2	4	Gray SILT, trace Sand			16''	
		2	2		W.C.= 32.6% (-200)= 92.0%				
						30			

Figure No.: 14

The subsurface information shown hereon was obatined for the design and estimating purposes for our client. It is made available to authorized users only that they may have access to the same information available to our client. It is presented in good faith, but it is not intended as a substitute for investigations, interpretations or jeudgement of such authorized users. Information on the logs should not be relied upon without the geotechnical engineers recommendations contained in the report from which these logs were extracted.

Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: ———— Inferred Change in Strata: -

Soil descriptions represent a field identification after D.M. Burmister unless otherwise noted.

SESI CONSULTING ENGINEERS

BORING LOG

Job:	11444A	Boring:	B-113	Client:	Saber-North White Plains, LLC		
Project:	70 Westchester Ave			Observer:	MZ		
Location:	White Plains, NY			Elevation:	160.0±		
Date Started:	December 14, 2021	Date Completed:	December 14, 2021	Boring Location Offset:			
Contractor:	CES	Type of Rig:	Geoprobe 7822DT	Weather:	Sunny	Temperature:	38°F
Driller:	Mark	Helper:	Jay	Rotary Bit Diameter:			
Casing Dia.:	Inches	Casing Depth:	Feet	Auger Diameter:	OD: Inches	ID: 3 1/4	Inches

Drilling Mud Utilized: ☐ None ☑ Water ☐ Quickgel ☐ Bentonite ☐ Revert ☑ Ez Mud ☐ Other

SAMPLING EQUIPMENT (type and size)

Split Spoon Sampler:	☑ 2-inch Diameter	☐ 3-inch Diameter		
U-tube Sampler:	☐ Piston	☐ Shelby	☐ Other	
Core Barrel:		Core Bit:		
Sampler Hammer:	☐ External Anvil	☐ Mobile Safety	☑ Auto	☐ Mechanical Trip
Weight:	140 lbs.	Drop Height: 30 Inches		

WATER LEVEL OBSERVATIONS

Date	Time	Depth of Hole	Depth of Casing	Depth to Water	Remarks
12/14/2021		45±		N/E	

SAMPLE					SAMPLE DESCRIPTION	Depth	Strata	Rec.	REMARKS
				N- Value					
S-6	30-32	10	12	18	Gray coarse to fine SAND, little Silt, little coarse to fine Gravel		S	11''	
		6	3						
						35			
S-7	35-37	10	18	40	Gray coarse to fine SAND, some coarses to fine Gravel, little Silt			8''	
		22	15						
						40			
S-8	40-40.2	50/2"	-	-	Schist		R	0''	
RC-1	40.5-45				(Rec=88.6%, RQD=86.7%)				
						45			
					END OF BORING AT 45± FEET				
						50			
						55			
						60			

Figure No.: 14

The subsurface information shown hereon was obatined for the design and estimating purposes for our client. It is made available to authorized users only that they may have access to the same information available to our client. It is presented in good faith, but it is not intended as a substitute for investigations, interpretations or jeudgement of such authorized users. Information on the logs should not be relied upon without the geotechnical engineers recommendations contained in the report from which these logs were extracted.

Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: ———— Inferred Change in Strata: -

Soil descriptions represent a field identification after D.M. Burmister unless otherwise noted.

SESI CONSULTING ENGINEERS

BORING LOG

Job:	11444A	Boring:	B-114	Client:	Saber-North White Plains, LLC		
Project:	70 Westchester Ave			Observer:	MAR/MZ		
Location:	White Plains, NY			Elevation:	162.0±		
Date Started:	December 10, 2021	Date Completed:	December 10, 2021	Boring Location Offset:			
Contractor:	CES	Type of Rig:	Geoprobe 7822DT	Weather:	Overcast	Temperature:	35°F
Driller:	Tom	Helper:	Jay	Rotary Bit Diameter:			
Casing Dia.:	Inches	Casing Depth:	Feet	Auger Diameter:	OD: Inches	ID: 3 1/4	Inches

Drilling Mud Utilized: ☐ None ☑ Water ☐ Quickgel ☐ Bentonite ☐ Revert ☑ Ez Mud ☐ Other

SAMPLING EQUIPMENT (type and size)

Split Spoon Sampler:	☑ 2-inch Diameter	☐ 3-inch Diameter		
U-tube Sampler:	☐ Piston	☐ Shelby	☐ Other	
Core Barrel:		Core Bit:		
Sampler Hammer:	☐ External Anvil	☐ Mobile Safety	☑ Auto	☐ Mechanical Trip
Weight:	140 lbs.	Drop Height: 30 Inches		

WATER LEVEL OBSERVATIONS

Date	Time	Depth of Hole	Depth of Casing	Depth to Water	Remarks
12/10/2021		59±		N/E	

SAMPLE Number	Interval	Blows/6"		N- Value	SAMPLE DESCRIPTION	Depth	Strata	Rec.	REMARKS
					Asphalt, ± 1-5"				Drill through to 5'
					Subbase				Install 5' casing
						5	F		
S-1	5-7	4	2	6	Fill: Brown coarse to fine SAND, little Silt			6''	
		4	2						
						10			
S-2	10-12	7	13	21	Orange-brown medium to fine SAND, some Silt, trace Gravel			18''	
		12	14						
						15			
S-3	15-17	5	7	16	Brown coarse to fine SAND, some coarse to fine Gravel, little Silt			5''	
		9	6		W.C. = 16.85% (-200) = 10.6%		S		
S-4	20-22	5	7	16	Brown-gray coarse to fine GRAVEL, some Silt, little coarse to fine Sand	20		10''	
		9	6						
						25			
S-5	25-27	15	26	56	Brown-gray medium to fine SAND, some medium to fine Gravel, some Silt			13''	
		30	35		(Decomposed Rock)		DR		
						30			

Figure No.: 15

The subsurface information shown hereon was obatined for the design and estimating purposes for our client. It is made available to authorized users only that they may have access to the same information available to our client. It is presented in good faith, but it is not intended as a substitute for investigations, interpretations or jeudgement of such authorized users. Information on the logs should not be relied upon without the geotechnical engineers recommendations contained in the report from which these logs were extracted.

Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: ———— Inferred Change in Strata: -

Soil descriptions represent a field identification after D.M. Burmister unless otherwise noted.

SESI CONSULTING ENGINEERS

BORING LOG

Job:	11444A	Boring:	B-114	Client:	Saber-North White Plains, LLC		
Project:	70 Westchester Ave			Observer:	MAR/MZ		
Location:	White Plains, NY			Elevation:	±162		
Date Started:	December 10, 2021	Date Completed:	December 10, 2021	Boring Location Offset:			
Contractor:	CES	Type of Rig:	Geoprobe 7822DT	Weather:	Overcast	Temperature:	35°F
Driller:	Tom	Helper:	Jay	Rotary Bit Diameter:			
Casing Dia.:	Inches	Casing Depth:	Feet	Auger Diameter:	OD: Inches	ID: 3 1/4	Inches

Drilling Mud Utilized: ☐ None ☑ Water ☐ Quickgel ☐ Bentonite ☐ Revert ☑ Ez Mud ☐ Other

SAMPLING EQUIPMENT (type and size)

Split Spoon Sampler:	☑ 2-inch Diameter	☐ 3-inch Diameter		
U-tube Sampler:	☐ Piston	☐ Shelby	☐ Other	
Core Barrel:		Core Bit:		
Sampler Hammer:	☐ External Anvil	☐ Mobile Safety	☑ Auto	☐ Mechanical Trip
Weight:	140 lbs.	Drop Height: 30 Inches		

WATER LEVEL OBSERVATIONS

Date	Time	Depth of Hole	Depth of Casing	Depth to Water	Remarks
12/10/2021		59±		N/E	

SAMPLE					SAMPLE DESCRIPTION	Depth	Strata	Rec.	REMARKS
				N- Value					
S-6	30-32	25	16	38	Black/white coarse to fine SAND, some Silt, little medium to fine Gravel			15''	
		22	34		(Decomposed Rock) W.C. 16.0% (-200)=27.5				
						35			
S-7	35-37	40	44	-	Black/white/red coarse fine SAND, some Silt, little medium to fine Gravel			9"	
		50/3"	-		(Decomposed Rock)				
						40	DR		
S-8	40-42	50/1"	-	-	No Recovery			NR	
		-	-						
						45			
S-9	45-47	50/1"	-	-	No Recvoery			NR	
		-	-						
						50			
RC-1	50-55				Gneiss				Weathered Rock
					(Rec=94.1%, RQD=33%)				
						55	WR		
RC-1	55-59				Gneiss				
					(Rec=88.5%, RQD=30.2%)				
					END OF BORING AT 59± FEET	60			

Figure No.: 15

The subsurface information shown hereon was obatined for the design and estimating purposes for our client. It is made available to authorized users only that they may have access to the same information available to our client. It is presented in good faith, but it is not intended as a substitute for investigations, interpretations or jeudgement of such authorized users. Information on the logs should not be relied upon without the geotechnical engineers recommendations contained in the report from which these logs were extracted.

Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: ———— Inferred Change in Strata: -

Soil descriptions represent a field identification after D.M. Burmister unless otherwise noted.

SESI CONSULTING ENGINEERS

BORING LOG

Job:	11444	Boring:	B-115	Client:	Saber-North White Plains, LLC		
Project:	70 Westchester Ave			Observer:	MAR/RAR/MZ		
Location:	White Plains, NY			Elevation:	±160		
Date Started:	December 9, 2021	Date Completed:	December 10, 2021	Boring Location Offset:			
Contractor:	CES	Type of Rig:	Geoprobe 7822DT	Weather:	Sunny	Temperature:	37°F
Driller:	Mark/Tom	Helper:	Jay	Rotary Bit Diameter:			
Casing Dia.:	Inches	Casing Depth:	Feet	Auger Diameter:	OD: Inches	ID: 3 1/4	Inches

Drilling Mud Utilized: ☐ None ☑ Water ☐ Quickgel ☐ Bentonite ☐ Revert ☑ Ez Mud ☐ Other

SAMPLING EQUIPMENT (type and size)

Split Spoon Sampler:	☑ 2-inch Diameter	☐ 3-inch Diameter		
U-tube Sampler:	☐ Piston	☐ Shelby	☐ Other	
Core Barrel:		Core Bit:		
Sampler Hammer:	☐ External Anvil	☐ Mobile Safety	☑ Auto	☐ Mechanical Trip
Weight:	140 lbs.	Drop Height: 30 Inches		

WATER LEVEL OBSERVATIONS

Date	Time	Depth of Hole	Depth of Casing	Depth to Water	Remarks
12/10/2021		56.4±		N/E	

SAMPLE Number	Interval	Blows/6"		N- Value	SAMPLE DESCRIPTION	Depth	Strata	Rec.	REMARKS
					Asphalt, ± 1-5"				Drill through to 5'
					Subbase				Install 5' casing
						5	F		
S-1	5-7	7	10	17	Fill: Brown coarse to fine SAND, little Silt, trace Gravel			11''	
		7	8						
						10			
S-2	10-12	9	9	22	Orange-brown medium to fine SAND, some Silt, trace			15''	
		13	13						
						15			
S-3	15-17	3	2	6	Gray-brown SILT, trace Sand			17''	
		4	4		W.C. = 30.31% (-200)= 97.38%				
						20	S		
S-4	20-22	3	1	2	Gray-brown coarse to fine SAND, little medium to fine Gravel, trace Silt			8''	
		1	2		W.C. = 23.68% (-200) = 7.8%				
S-5	23-25	12	16	28	Gray-brown coarse to fine SAND, little coarse to fine Gravel, trace Silt			10''	Rock in shoe
		12	12			25			
S-6	25-27	9	10	27	Gray-brown coarse to fine SAND, and medium to fine Gravel, trace Silt			12''	
		17	17						
						30			

Figure No.: 16

The subsurface information shown hereon was obatined for the design and estimating purposes for our client. It is made available to authorized users only that they may have access to the same information available to our client. It is presented in good faith, but it is not intended as a substitute for investigations, interpretations or jeudgement of such authorized users. Information on the logs should not be relied upon without the geotechnical engineers recommendations contained in the report from which these logs were extracted.

Pp: Pocket Penetrometer; WOH: Weight of Hammer; WOR: Weight of Rod

Approximate Change in Strata: ———— Inferred Change in Strata: -

Soil descriptions represent a field identification after D.M. Burmister unless otherwise noted.

SESI CONSULTING ENGINEERS

BORING LOG

Job:	11444A	Boring:	B-115	Client:	Saber-North White Plains, LLC		
Project:	70 Westchester Ave			Observer:	MAR/MZ		
Location:	White Plains, NY			Elevation:	±160		
Date Started:	December 9, 2021	Date Completed:	December 10, 2021	Boring Location Offset:			
Contractor:	CES	Type of Rig:	Geoprobe 7822DT	Weather:	Sunny	Temperature:	37°F
Driller:	Tom	Helper:	Jay	Rotary Bit Diameter:			
Casing Dia.:	Inches	Casing Depth:	Feet	Auger Diameter:	OD: Inches	ID: 3 1/4	Inches

Drilling Mud Utilized: ☐ None ☑ Water ☐ Quickgel ☐ Bentonite ☐ Revert ☑ Ez Mud ☐ Other

SAMPLING EQUIPMENT (type and size)

Split Spoon Sampler:	☑ 2-inch Diameter	☐ 3-inch Diameter		
U-tube Sampler:	☐ Piston	☐ Shelby	☐ Other	
Core Barrel:		Core Bit:		
Sampler Hammer:	☐ External Anvil	☐ Mobile Safety	☑ Auto	☐ Mechanical Trip
Weight:	140 lbs.	Drop Height: 30 Inches		

WATER LEVEL OBSERVATIONS

Date	Time	Depth of Hole	Depth of Casing	Depth to Water	Remarks
12/10/2021		56.4±		N/E	

SAMPLE				N- Value	SAMPLE DESCRIPTION	Depth	Strata	Rec.	REMARKS
					Rock Core Attempt			15''	
									Break through boulder
									Drill to 35'
						35			
S-8	35-37	45	57	107/7	Black/white coarse to fine SAND, some Silt, little medium to fine Gravel			5''	
		50/1"	-		(Decomposed Rock)				
							DR		
						40			
S-8	40-42	50/2"	-	-	Black/white coarse to fine SAND, some Silt, little medium to fine Gravel			2''	
		-	-		(Decomposed Rock)				
RC-1	42-46.4				Schist				Weathered Rock
					(Rec=88.6%, RQD=50.5%)				
					Decomposed Rock	45			
RC-2	46.4-51.4				Schist		WR		
					(Rec=96.7%, RQD=11.7%)				
					Decomposed Rock				
						50			
					Schist				
RC-3	51.4-56.4				(Rec=100%, RQD=92.5%)		R		
						55			
					END OF BORING AT 56.4± FEET				
						60			

Figure No.: 16

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Approximate Change in Strata: ———— Inferred Change in Strata: -

Soil descriptions represent a field identification after D.M. Burmister unless otherwise noted.

Appendix D:

Excavation Work Plan

An Excavation Work Plan is not necessary for this site because it is highly unlikely that any significant excavations will be performed in the future. However, the below text (D-1 through D-16) is included for completeness.

D-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 Site's cover system, the Site owner or their representative will notify the NYSDEC contacts listed in the table below. **Table D.1** below 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 D.1: Notifications*

Caroline Jalanti, NYSDEC Project Manager	(518) 402-9650 caroline.jalanti@dec.ny.gov
Emelina Rieseler, NYSDOH Project Manager	(518) 457-0679 beei@health.ny.gov
NYSDEC Project Manager's Supervisor	To Be Determined
NYSDEC Site Control	DERSiteControl@dec.ny.gov

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

This notification will include:

- 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;
- 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;
- 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;
- A summary of the applicable components of this EWP;
- A statement that the work will be performed in compliance with this EWP, 29 CFR 1910.120 and 29 CFR 1926 Subpart P;
- A copy of the contractor's health and safety plan (HASP), in electronic format, if it differs from the HASP provided in Appendix F of this SMP;
- Identification of disposal facilities for potential waste streams; and
- 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.

D-2 SOIL SCREENING METHODS

Visual, olfactory 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 cover system. 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. Soil screening will be performed when invasive work is done and will include all excavation and invasive work performed during development, such as excavations for foundations and utility work, after issuance of the COC.

Soils will be segregated based on previous environmental data and screening results into material that requires off-Site disposal and material that requires testing to determine if the material can be reused on-Site as soil beneath a cover or if the material can be used as cover soil. Further discussion of off-Site disposal of materials and on-Site reuse is provided below.

D-3 SOIL STAGING METHODS

Soil stockpiles will be continuously encircled with a berm and/or silt fence. Hay bales will be used as needed near catch basins, surface waters and other discharge points.

Stockpiles will be kept covered at all times with appropriately anchored tarps. 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.

D-4 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.

D-5 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.

Material transported by trucks exiting the Site will be secured with either tight-fitting opaque covers that are secured on the sides and/or back, or opaque covers that are locked on all sides. Loose-fitting canvas-type truck covers will be prohibited. If loads contain wet material capable of producing free liquid, truck liners will be used.

All trucks loaded with Site materials will exit the vicinity of the Site using only these

approved truck routes. This is the most appropriate route and takes into account: (a) limiting transport through residential areas and past sensitive Sites; (b) use of city mapped truck routes; (c) prohibiting off-Site queuing of trucks entering the facility; (d) limiting total distance to major highways; (e) promoting safety in access to highways; and (f) overall safety in transport.

Trucks will be prohibited from stopping and idling in the neighborhood outside the project Site.

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

Queuing of trucks will be performed on-Site in order to minimize off-Site disturbance. Off-Site queuing will be prohibited.

D-6 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, C&D debris recovery facility). Actual disposal quantities and associated documentation will be reported to the NYSDEC in the Periodic Review Report. 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 SCOs is prohibited from being taken to a New York State C&D debris recovery facility (6 NYCRR Subpart 361-5 registered or permitted facility).

D-7 MATERIALS REUSE ON-SITE

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 the cover system or within landscaping berms. 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. 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. 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 Sections D-2 and D-3 of 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 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 may only be reused on-Site with written approval from the NYSDEC project manager.

D-8 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.

D-9 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 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 Periodic Review 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.

D-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.

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 residential reuse. Based on an evaluation of the land use, protection of groundwater and protection of ecological resources criteria, the resulting soil quality standards can be found here: https://dec.ny.gov/sites/default/files/2025-12/6nycrrpart375final.pdf.

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. Solid waste will not be imported onto the Site.

Trucks entering the Site with imported soils will be securely covered with tight fitting covers. Imported soils will be stockpiled separately from excavated materials and covered to prevent dust releases.

D-11 STORMWATER POLLUTION PREVENTION

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.

D-12 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. The NYSDEC project manager will be promptly notified of the discovery.

Sampling will be performed on product, 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 [TAL metals, TCL volatiles and semi-volatiles, TCL pesticides, and PCBs, 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 two hours to NYSDEC's Project Manager. Reportable quantities of petroleum product will also be reported to the NYSDEC spills hotline. These findings will be also included in the Periodic Review Report.

D-13 COMMUNITY AIR MONITORING PLAN

The air sampling stations will be placed 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.

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

D-14 ODOR CONTROL PLAN

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 limiting stockpiles and minimizing ground intrusive activities. 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 discussed in the Periodic Review Report.

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.

D-15 DUST CONTROL PLAN

Particulate monitoring must be conducted according to the Community Air Monitoring Plan (CAMP) provided in **Section D-13**. 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:

- 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.
- Clearing and grubbing of larger Sites will be done in stages to limit the area of exposed, unvegetated soils vulnerable to dust production.
- Gravel will be used on roadways to provide a clean and dust-free road surface.
- On-Site roads will be limited in total area to minimize the area required for water truck sprinkling.

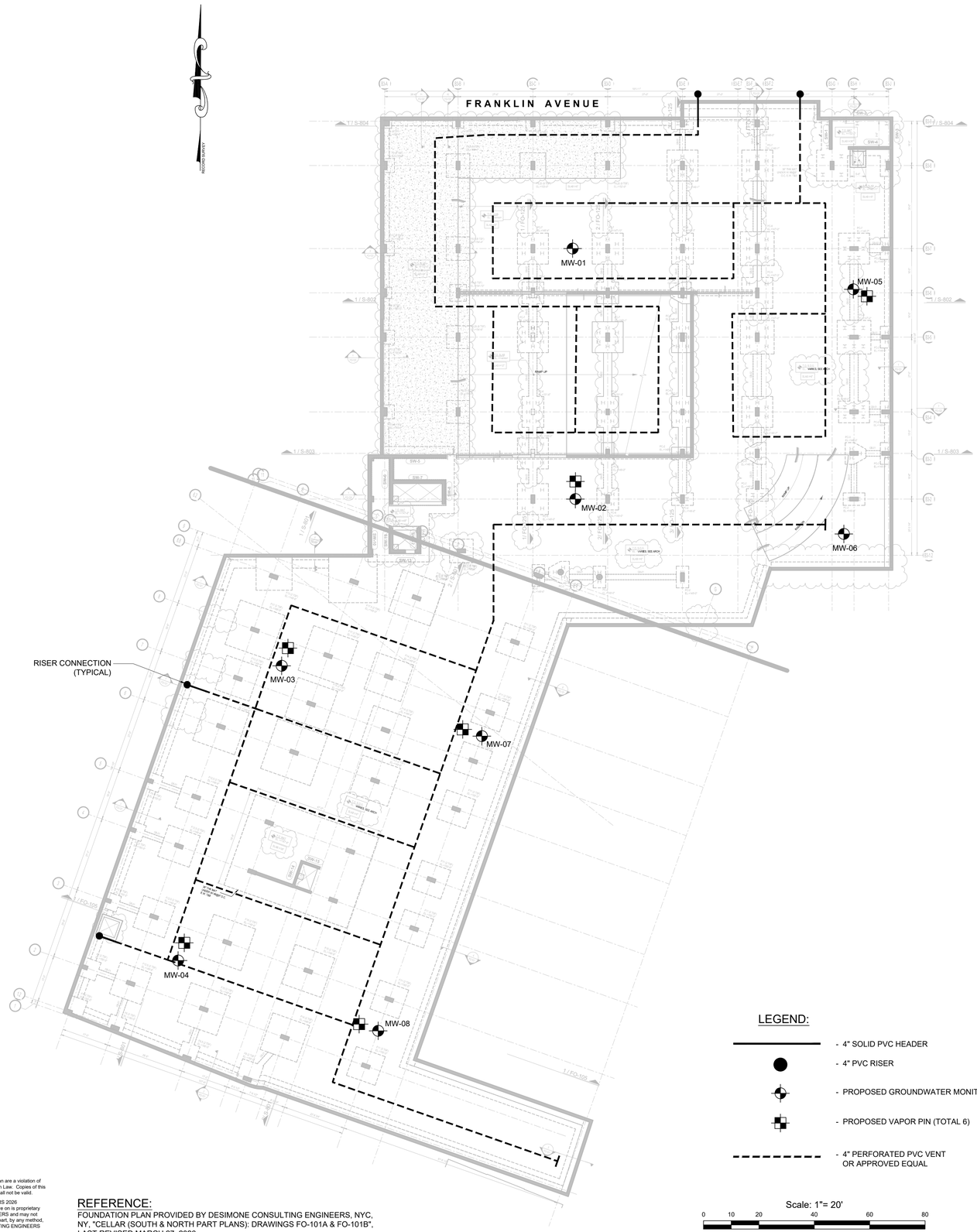
D-16 OTHER NUISANCES

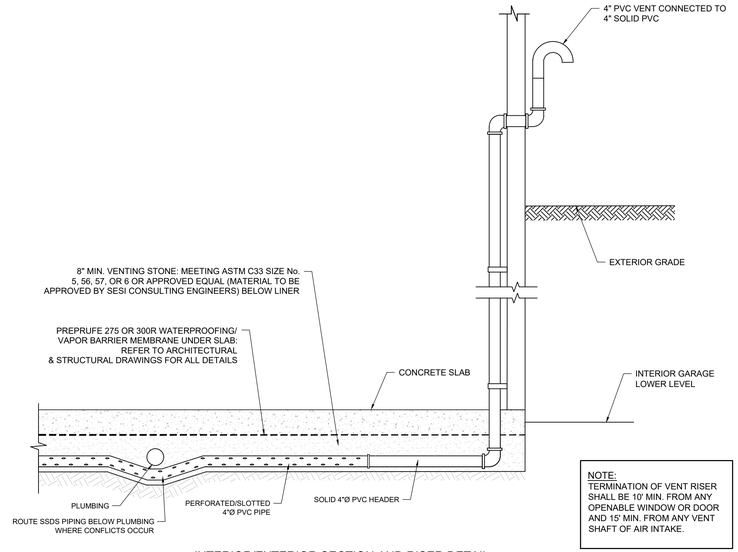
A plan for rodent control will be developed and utilized by the contractor prior to and during site clearing and Site grubbing, and during all remedial work.

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

Appendix E:

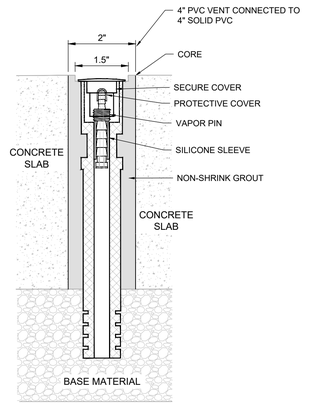
Sub-slab Depressurization System (SSDS) and Details





INTERIOR/EXTERIOR SECTION AND RISER DETAIL
N.T.S.

NOTE:
TERMINATION OF VENT RISER SHALL BE 10' MIN. FROM ANY OPENABLE WINDOW OR DOOR AND 15' MIN. FROM ANY VENT SHAFT OF AIR INTAKE.



VAPOR PIN DETAIL
SCALE: N.T.S.

LEGEND:

- 4" SOLID PVC HEADER
- 4" PVC RISER
- PROPOSED GROUNDWATER MONITORING WELL (TOTAL 8)
- PROPOSED VAPOR PIN (TOTAL 6)
- 4" PERFORATED PVC VENT OR APPROVED EQUAL

Scale: 1"= 20'
0 10 20 40 60 80

GENERAL NOTES

1. THE PLANNED SUB-SLAB VAPOR INTRUSION (VI) MITIGATION SYSTEM WILL BE PLACED BENEATH THE CONCRETE SLAB. THE VI MITIGATION SYSTEM INCLUDES THE FOLLOWING ELEMENTS:
   a) VENTING LAYER- A MINIMUM, 8-INCH VENTING STONE MEETING ASTM C33 SIZE NO. 5, 56, 57, 6 OR APPROVED EQUAL (MATERIAL TO BE APPROVED BY SESI CONSULTING ENGINEERS) SHALL BE PLACED BELOW THE VAPOR BARRIER.
   b) SUB-SLAB COLLECTION PIPING - A NETWORK OF VENTING PIPES (4" PVC PIPE OR HDPE PIPE) WILL BE PLACED WITHIN THE VENTING LAYER. THE VENTING PIPES WILL BE MANIFOLDED AS SHOWN IN THE DRAWING.
   c) RISERS - CONVEYANCE RISER PIPES WILL BE INSTALLED FROM THE SUB-SLAB HEADER PIPES TO THE FIRST FLOOR GARAGE AS SHOWN IN THE DRAWING.
   d) OPTIONAL BLOWER(S) - A BLOWER(S) CAN BE CONNECTED TO ANY OF THE RISERS IN THE FUTURE, IF NECESSARY, TO CONVERT THE PASSIVE-VENTED SYSTEM TO AN ACTIVE SYSTEM.
2. ALL CONDUITS AND/OR PIPE PENETRATIONS INTO THE SLAB SHOULD BE GAS TIGHT - REFER TO PIPE OR CONDUIT PENETRATION DETAIL ON THIS DRAWING.
3. OPERATION OF THE VI MITIGATION SYSTEM IS DESIGNED TO BE PASSIVE. THERE ARE NO MOVING OR MECHANICAL PARTS. ALL VENT RISERS SHALL BE FREE OF OBSTRUCTIONS AND VENT VALVES SHALL BE SET IN A FULLY OPEN POSITION.
4. ALL SUB-SLAB COLLECTION LATERALS AND VERTICAL VENT RISERS SHALL BE FREE OF OBSTRUCTIONS, AND ABLE TO VENT AIR FREELY FROM BELOW THE BUILDING SLAB TO THE ATMOSPHERE.
5. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF VI MITIGATION SYSTEM WITH OTHER TRADES.
6. ARCHITECTUAL AND ENGINEERING CONSTRUCTION DOCUMENTS HAVE BEEN COORDINATED WITH THESE DRAWINGS. THE GENERAL CONTRACTOR SHALL NOT DEVIATE FROM THESE DOCUMENTS WITHOUT APPROVAL FROM THE RESPECTIVE DESIGN PROFESSIONALS.
7. THESE PLANS AND DETAILS SHALL BE PROVIDED TO THE STRUCTURAL ENGINEER FOR REVIEW TO DETERMINE IF THE VAPOR MITIGATION SYSTEM WILL CONFLICT WITH THE INTEGRITY OF PROPOSED BUILDING SLAB AND/OR THE ACTIVATION OF ANY PROPOSED CONTROL JOINTS.

REFERENCE:
FOUNDATION PLAN PROVIDED BY DESIMONE CONSULTING ENGINEERS, NYC, NY, "CELLAR (SOUTH & NORTH PART PLANS): DRAWINGS FO-101A & FO-101B", LAST REVISED MARCH 27, 2026.

NYS Education Law
Unauthorized alterations or additions to this plan are a violation of section 7209 (2) of the New York State Education Law. Copies of this map not having the seal of the engineer shall not be valid.

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N:\JOBS\11444\CAD\GEOTECH\11444 SHEETS\SSDS PLANS_REVT.DWG 06/05/26 07:42:23AM apg LAYOUT: SSDS PLAN

KEY MAP

rev	date	description
3	06/5/2026	SSDS SYSTEM REVISIONS PER CLIENT
2	04/28/2026	SSDS SYSTEM REVISIONS PER CLIENT
1	04/15/2026	SSDS SYSTEM REVISIONS PER CLIENT

SESI CONSULTING ENGINEERS
GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL
959 ROUTE 46E, 3RD FLOOR, PARSIPPANY, NJ 07054 PH: 973.808.9050

STATE OF NEW YORK
CHRISTOPHER FOX ZWINGLE
No. 061541-1
LICENSED PROFESSIONAL ENGINEER

CHRIS ZWINGLE, P.E.
PROFESSIONAL ENGINEER
N.Y. LIC. NO. 061541-1

project:
70 WESTCHESTER AVE.
WHITE PLAINS, NY 10601

title:
SSDS PLAN

dwg by: APG
chk by: CZ
scale: AS NOTED
date: 03/19/2026

job no. 11444
drawing no.
V-1
1 of 1

Appendix F:

Health and Safety Plan

SESI
CONSULTING ENGINEERS

Geotechnical
Environmental
Site Civil

959 Route 46E, Fl 3, Ste 300
Parsippany, NJ 07054
973.808.9050
www.sesi.org

Site Specific Health and Safety Plan

For:
White Plains Chrysler Car Dealership
70 Westchester Avenue
White Plains, Westchester County, NY
BCP. No. C360209

Prepared for:

Saber-North White Plains, LLC
April 2026

SESI Project No:
11444

Disclaimer: This Health and Safety Plan (HASP) is based upon information provided [and, if applicable, conditions discovered during a site visit], and is limited by the project scope.

The HASP should be periodically reviewed and updated based on a number of factors, including but not limited to: (1) changes in applicable governmental requirements; (2) changes in procedures at the site; and (3) site conditions which were unknown to SESI Consulting Engineers (SESI) as of the time the HASP was prepared.

This HASP has been prepared for the sole and exclusive use of Client listed above, and may not be relied upon by any other person without the express written consent and authorization of SESI.

SITE-SPECIFIC HEALTH AND SAFETY PLAN

For

White Plains Chrysler Car Dealership
70 Westchester Avenue
White Plains, New York
NYSDEC BCP Site # C360209

Prepared by: _____ Date: 04/15/2026

Sharon Cashel
SESI-Assistant Project Manager

Approved by: _____ Date: 04/15/2026

Christopher Zwingle, PE
SESI-Senior Engineer

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LIST OF ACRONYMS AND ABBREVIATIONS

ACGIH	American Conference of Governmental Industrial Hygienists
COC	Constituent(s) of Concern
CRZ	Contamination Reduction Zone
EZ	Exclusion Zone
FS	Field Supervisor
GFCI	Ground Fault Circuit Interrupter
HASP	Health and Safety Plan
HSM	Health and Safety Manager
LEL	Lower Explosive Limit
MSDS	Material Safety Data Sheet
OSHA	Occupational Safety and Health Administration
PCB	Polychlorinated Biphenyls
PEL	Permissible Exposure Limit
PID	Photoionization Detector
PM	Project Manager
PO	Project Officer
PPE	Personal Protective Equipment
SESI	SESI Consulting Engineers
SSO	Site Safety Officer
SVOC	Semi-Volatile Organic Compound
SZ	Support Zone
TLV	Threshold Limit Value
USCG	United States Coast Guard
USEPA	United States Environmental Protection Agency
VOC	Volatile Organic Compound

1.0 INTRODUCTION

1.1 Objective

The objective of this Health and Safety Plan (HASP) is to provide a mechanism for establishing safe working conditions during activities at the Former White Plains Chrysler Car Dealership Site (C360209), located at 70 Westchester Avenue, White Plains, New York (the Site). The safety organization, procedures, and protective equipment have been established based on an analysis of potential physical, chemical, and biological hazards. Specific hazard control methodologies have been evaluated and selected to minimize the potential of injury, illness, or other hazardous incidents.

The HASP was written to meet the requirements of all applicable Federal, State, and local health and safety regulations, including 29 CFR 1910.120. The HASP is based on current knowledge regarding the specific chemical and physical hazards that are known or anticipated at the Site. This HASP is a dynamic document, for which changes and/or revisions may be realized as changes in scope and/or Site conditions are encountered. Should revised documents be produced, said revised documents will refer to the specific changes and why they were made.

1.2 Site and Facility Description

The Site is located at 70 Westchester Avenue, White Plains, New York. The Site consists of one (1) parcel totaling approximately 1.826 acres of land identified on local tax maps under Tax Map ID 126.61-3-15.1. The Site is currently vacant with no structures present.

The Site is located in a mixed-use commercial and residential area. The Site is bound by Franklin Avenue and retail businesses to the north, the White Coach Diner to the west, Westchester Avenue and the Westchester Mall to the south, and a closed car dealership to the east. The closest surface water body is the Silver Lake, located approximately 0.75 miles northeast of the Site. The Site topography is generally level, decreasing to the east and south.

1.3 Policy Statement

The policy of SESI Consulting Engineers (SESI) is to provide a safe and healthful work environment. No aspect of operations is of greater importance than injury and illness prevention. A fundamental principle of safety management is that all injuries, illnesses, and incidents are preventable. SESI will take every reasonable step to eliminate or control hazards in order to minimize the possibility of injury, illness, or incident.

This HASP prescribes the procedures that must be followed by SESI personnel during activities at the Site. Operational changes that could affect the health and safety of personnel, the community, or the environment will not be made without the prior approval of the Project Manager (PM) and the Health and Safety Manager (HSM). This document will be reviewed periodically by the HSM to ensure that it is current and technically correct. Any changes in Site conditions and/or the scope of work will require a review and modification to this HASP. Such changes will be completed in the form of an addendum or a revision to the plan.

The provisions of this plan are mandatory for all SESI personnel and are advisory for all contractors, and subcontractors assigned to the project. ***Subcontractors will be responsible for preparing their own Site-specific HASPs that meet the basic requirements outlined in this HASP.*** All visitors to SESI work areas at the Site must abide by the requirements of this plan.

1.4 References

This HASP complies with applicable Occupational Safety and Health Administration (OSHA) regulations, United States Environmental Protection Agency (USEPA) regulations, and SESI health and safety policies and procedures. This plan follows the guidelines established in the following:

- *Standard Operating Safety Guides*, USEPA (Publication 9285.1-03, June 1992).
- *Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities*, NIOSH, OSHA, USCG, USEPA (86116, October 1985).
- *Title 29 of the Code of Federal Regulations* (CFR), Part 1910.
- *Title 29 of the Code of Federal Regulations* (CFR), Part 1926.
- *Pocket Guide to Chemical Hazards*, DHHS, PHS, CDC, NIOSH (2004).
- *Threshold Limit Values*, ACGIH (2005).

- *Guide to Occupational Exposure Values*, ACGIH (2005).
- *Quick Selection Guide to Chemical Protective Clothing*, Forsberg, K. and S.Z. Mansdorf, 2nd Ed. (1993).

1.5 Definitions

The following definitions (listed alphabetically) are applicable to this HASP:

- *Contamination Reduction Zone (CRZ)* - Area between the exclusion zone and support zone that provides a transition between contaminated and clean areas. Decontamination stations are located in this zone.
- *Exclusion Zone (EZ)* - Any portions of the Site where hazardous substances are, or are reasonably suspected to be present, and pose an exposure hazard to on-Site personnel.
- *Incident* - All losses, including first aid cases, injuries, illnesses, spills/leaks, equipment and property damage, motor vehicle accidents, regulatory violations, fires, and business interruptions.
- *On-Site Personnel* - All SESI and subcontractors involved with the project.
- *Project* - All on-Site work performed under the scope of work.
- *Site* - The area described in Section 1.2, Site and Facility Description, where the work is to be performed by SESI personnel and subcontractors.
- *Support Zone (SZ)* - All areas of the Site except the EZ and CRZ. The SZ surrounds the CRZ and EZ. Support equipment and break areas are located in this zone.
- *Subcontractor* - Includes contractor personnel hired by SESI.
- *Visitor* - All other personnel, except the on-Site personnel.
- *Work Area* - The portion of the Site where work activities are actively being performed. This area may change daily as work progresses and includes the SZ, CRZ, and EZ. If the work area is located in an area on the Site that is not contaminated, or suspected of being contaminated, the entire work area may be a SZ.

2.0 PROJECT SCOPE OF WORK

This HASP contains information for the following tasks that SESI is anticipated to conduct at the Site. Should additional and/or different tasks be identified, amendments to this HASP will be required to address these changed items.

- Mobilization;
- Groundwater sampling;
- Soil vapor sampling;
- Decontamination and Demobilization.

3.0 ROLES AND RESPONSIBILITIES

3.1 All Personnel

All SESI project personnel must adhere to the procedures outlined in this HASP during the performance of their work. Each person is responsible for completing tasks safely and reporting any unsafe acts or conditions to their supervisor. No person may work in a manner that conflicts with these procedures. After due warnings, the PM will dismiss from the Site any SESI employee or subcontractor who violates safety procedures.

All SESI project personnel will receive training in accordance with applicable regulations and be familiar with the requirements and procedures contained in this HASP prior to initiating Site activities. In addition, all SESI personnel will attend an initial hazard briefing prior to beginning work at the Site.

The roles of key safety personnel and subcontractors are outlined in the following sections. Key project personnel and contacts are summarized in **Table 1** on page 8.

3.2 Key Safety Personnel

3.2.1 Project Officer (PO)

The PO is responsible for providing resources to assure project activities are completed in accordance with this HASP, and for meeting all regulatory and contractual requirements.

3.2.2 Project Manager (PM)

The PM is responsible for verifying that project activities are completed in accordance with the requirements of this HASP. The PM is responsible for confirming that the Field Supervisor (FS) has the equipment, materials, and qualified personnel to fully implement the safety requirements of this HASP, and/or that subcontractors assigned to this project meet the requirements established by SESI. It is also the responsibility of the PM to:

- Consult with the HSM on Site health and safety issues;
- Verify that subcontractors meet health and safety requirements prior to commencing work;
- Verify that all incidents are thoroughly investigated;
- Approve, in writing, addenda or modifications of this HASP; and

- Suspend work or modify work practices, as necessary, for personal safety, protection of property, and regulatory compliance.

3.2.3 Health and Safety Manager (HSM)

The HSM or his designee, the health and safety manager (HSM), has overall responsibility for the technical health and safety aspects of the project, including review and approval of this HASP. Inquiries regarding health and safety procedures, project procedures, and other technical or regulatory issues should be addressed to this individual. The HSM or his designee must approve changes or addenda to this HASP.

3.2.4 Site Safety Officer (SSO)

The SSO is responsible for field health and safety issues, including the execution of this HASP. Questions in the field regarding health and safety procedures, project procedures, and other technical or regulatory issues should be addressed to this individual. The SSO will advise the PM on health and safety issues and will establish and coordinate the project air-monitoring program if one is deemed necessary (see Section 5.1, Air Monitoring). The SSO is the primary Site contact on health and safety matters. It is the responsibility of the SSO to:

- Provide on-Site technical assistance, if necessary;
- Participate in all accident/incident reports and ensure that they are reported to the HSM, client, and PM within 24 hours;
- Coordinate Site and personal air monitoring as required, including equipment maintenance and calibration;
- Conduct Site safety orientation training and safety meetings;
- Verify that project personnel have received the required physical examinations and medical certifications;
- Review Site activities with respect to compliance with this HASP;
- Maintain required health and safety documents and records; and
- Assist the FS in instructing field personnel on project hazards and protective procedures.

3.2.5 Field Supervisor (FS)

The FS is responsible for implementing this HASP, including communicating requirements to on-Site personnel and subcontractors. The FS will be responsible for informing the PM of changes in the work plan, procedures, or Site conditions so that those changes may be addressed in this HASP. Other responsibilities are to:

- Consult with the SSO on Site health and safety issues;
- Stop work, as necessary, for personal safety, protection of property, and regulatory compliance;
- Obtain a Site map and determine and post routes to medical facilities and emergency telephone numbers;
- Notify local public emergency representatives (as appropriate) of the nature of the Site operations, and post their telephone numbers (i.e., local fire department personnel who would respond for a confined space rescue);
- Observe on-Site project personnel for signs of ill health effects;
- Investigate and report any incidents to the SSO;
- Verify that all on-Site personnel have had applicable training;
- Verify that on-Site personnel are informed of the physical, chemical, and biological hazards associated with the Site activities, and the procedures and protective equipment necessary to control the hazards; and
- Issue/obtain any required work permits (hot work, confined space, etc.).

3.2.6 Field Personnel (FP)

All SESI field personnel are responsible for following the Health and Safety procedures specified in this HASP and work practices specified in applicable operation procedures. Some specific responsibilities include, but are not limited to:

- Reading and understanding the HASP;
- Reporting all accidents, incidents, injuries, or illnesses to the FS;
- Complying with the requests of the SSO;
- Immediately communicating newly identified hazards or noncompliance issues to the FS or SSO; and
- Stopping work in cases of immediate danger.

3.3 Subcontractors

Subcontractors and their personnel must understand and comply with applicable regulations and site requirements established in this HASP. Subcontractors will prepare their own Site-specific HASP that must be consistent with the requirements of this HASP.

All subcontractor personnel will receive training in accordance with applicable regulations and be familiar with the requirements and procedures contained in this HASP prior to initiating Site activities. All subcontractor personnel will attend an initial hazard briefing prior to beginning work at the Site. Additionally, on-Site subcontractor personnel must conduct daily Site safety meetings.

Subcontractors must designate individuals to function as the PM, HSM, SSO, and FS. In some firms the HSM to be carried out by the PM. This is acceptable provided the PM has the required knowledge, training, and experience to properly address all hazards associated with the work, and to prepare, approve, and oversee the execution of the site-specific HASP. A subcontractor may designate the same person to perform the duties of both the SSO and the FS. However, depending on the level of complexity of a contractor's scope of work, it may be infeasible for one person to perform both functions satisfactorily.

3.4 Stop Work Authority

Every SESI employee and subcontractor is empowered, expected, and has the responsibility to stop the work of another co-worker if the working conditions or behaviors are considered unsafe.

3.5 All On-Site Personnel

All on-Site SESI personnel (including SESI subcontractors) must read and acknowledge their understanding of their respective HASPs before commencing work and abide by the requirements of the plans. All on-Site SESI personnel shall sign their HASP Acknowledgement Form following their review of their HASP.

All SESI project personnel will receive training in accordance with applicable regulations and be familiar with the requirements and procedures contained in this HASP prior to initiating Site activities. In addition, all on-Site personnel will attend an initial hazard briefing provided by the SSO prior to beginning work at the Site and conduct daily safety meetings thereafter.

On-Site personnel will immediately report the following to the FS or SSO:

- Personal injuries and illnesses no matter how minor;
- Unexpected or uncontrolled release of chemical substances;
- Symptoms of chemical exposure;
- Unsafe or hazardous situations;
- Unsafe or malfunctioning equipment;
- Changes in Site conditions that may affect the health and safety of project personnel;

- Damage to equipment or property; and
- Situations or activities for which they are not properly trained.

3.6 Visitors

All SESI personnel and subcontractors visiting the Site must check in with the FS. Visitors will be cautioned to avoid skin contact with surfaces, soils, groundwater, or other materials that may impacted or be suspected to be impacted by constituents of concern (COCs).

Visitors requesting to observe work at the Site must don appropriate personal protective equipment (PPE) prior to entry to the work area and must have the appropriate training and medical clearances to do so. If respiratory protective devices are necessary, visitors who wish to enter the work area must have been respirator-trained and fit tested for a respirator within the past 12 months.

Table 1 – Key Safety Personnel

SESI Personnel		
Role	**Name**	**Telephone No.**
Project Principal	Fuad Dahan, P.E., PhD	973-808-9050 x249
Project Manager (PM)	Christopher Zwingle, P.E.	973-808-9050 x302
Principal Engineer	Fuad Dahan, P.E., PhD	973-808-9050 x249
Site Management Project Manager	Christopher Zwingle, P.E.	973-808-9050 x302
Field Team Leader	TBD	TBD
Quality Assurance Officer	TBD	TBD
Field Personnel	TBD	TBD

4.0 PERSONAL PROTECTIVE EQUIPMENT

4.1 Levels of Protection

PPE is required to safeguard Site personnel from various hazards. Varying levels of protection may be required depending on the levels of COCs and the degree of physical hazard. This section presents the various levels of protection and defines the conditions of use for each level. A summary of the levels is presented in **Table 2** on page 12.

4.1.1 Level D Protection

The minimum level of protection that will be required of project personnel at the Site will be Level D, which will be worn when Site conditions or air monitoring indicates no inhalation hazard exists. The following equipment will be used:

- Work clothing as prescribed by weather;
- Steel toe work boots, meeting American National Standards Institute (ANSI) Z41;
- Safety glasses or goggles, meeting ANSI Z87;
- Leather work gloves and/or nitrile surgical gloves;
- Hard hat, meeting ANSI Z89, when falling object hazards are present;
- Hearing protection (if noise levels exceed 85 dBA, then hearing protection with a USEPA NRR of at least 20 dBA must be used); and
- PFD if working on or near the water.

4.1.2 Modified Level D Protection

Modified Level D will be used when airborne contaminants are not present at levels of concern, but Site activities present an increased potential for skin contact with contaminated materials. Modified Level D consists of:

- Nitrile gloves worn over nitrile surgical gloves;
- Latex/polyvinyl chloride (PVC) overboots when contact with COC-impacted media is anticipated;
- Steel toe work boots, meeting ANSI Z41;
- Safety glasses or goggles, meeting ANSI Z87;
- Face shield in addition to safety glasses or goggles when projectiles or splash hazards exist (e.g. during Power Washing activities);
- Hard hat, meeting ANSI Z89, when falling object hazards are present;
- Hearing protection (if noise levels exceed 85 dBA, then hearing protection with a USEPA NRR of at least 20 dBA must be used);
- Tyvek® suit (polyethylene coated Tyvek® suits for handling liquids) when body contact with COC-impacted media is anticipated; and
- PFD if working on or near the water.

4.1.3 Level C Protection

Level C protection will be required when the airborne concentration of COC reaches one-half of the OSHA Permissible Exposure Limit or ACGIH TLV. The following equipment will be used for Level C protection:

- Full-face, air-purifying respirator with combination organic vapor/HEPA cartridges;
- Polyethylene-coated Tyvek® suit, with ankles and cuffs taped to boots and gloves;
- Nitrile gloves worn over nitrile surgical gloves;
- Steel toe work boots, meeting ANSI Z41;
- Chemical-resistant boots with steel toes or latex/PVC overboots over steel toe boots;
- Hard hat, meeting ANSI Z89;
- Hearing protection (if noise levels exceed 85 dBA, then hearing protection with a USEPA NRR of at least 20 dBA must be used); and
- PFD if working on or near the water.

4.2 Selection of PPE

Equipment for personal protection will be selected based on the potential for contact, Site conditions, ambient air quality, and the judgment of supervising Site personnel and health and safety professionals. The PPE used will be chosen to be effective against the COCs present on the Site.

4.3 Site Respiratory Protection Program

Respiratory protection is an integral part of employee health and safety at the Site due to potentially hazardous concentrations of airborne COCs. The Site respiratory protection program will consist of the following (as a minimum):

- All on-Site personnel who may use respiratory protection will have an assigned respirator.
- All on-Site personnel who may use respiratory protection will have been fit tested and trained in the use of a full-face air-purifying respirator within the past 12 months. Documentation of the fit test must be provided to the SSO prior to commencement of work.
- All on-Site personnel who may use respiratory protection must within the past year have been medically certified as being capable of wearing a respirator. Documentation of the medical certification must be provided to the SSO, prior to commencement of Site work.
- Only cleaned, maintained, NIOSH-approved respirators will be used.
- If respirators are used, the respirator cartridge is to be properly disposed of at the end of each work shift, or when load-up or breakthrough occurs.
- Contact lenses are not to be worn when a respirator is worn.
- All on-Site personnel who may use respiratory protection must be clean-shaven. Mustaches and sideburns are permitted, but they must not touch the sealing surface of the respirator.
- Respirators will be inspected, and a negative pressure test performed prior to each use.

- After each use, the respirator will be wiped with a disinfectant, cleansing wipe. When used, the respirator will be thoroughly cleaned at the end of the work shift. The respirator will be stored in a clean plastic bag, away from direct sunlight in a clean, dry location, in a manner that will not distort the face piece.

4.4 Using PPE

Depending upon the level of protection selected, specific donning and doffing procedures may be required. The procedures presented in this section are mandatory if Modified Level D or Level C PPE is used. All personnel entering the EZ must put on the required PPE in accordance with the requirements of this HASP. When leaving the EZ, PPE will be removed in accordance with the procedures listed, to minimize the spread of COCs.

4.4.1 Donning Procedures

These procedures are mandatory only if Modified Level D or Level C PPE is used on the Site:

- Remove bulky outerwear. Remove street clothes and store in clean location;
- Put on work clothes or coveralls;
- Put on the required chemical protective coveralls;
- Put on the required chemical protective boots or boot covers;
- Tape the legs of the coveralls to the boots with duct tape;
- Put on the required chemical protective gloves;
- Tape the wrists of the protective coveralls to the gloves;
- Don the required respirator and perform appropriate fit check (Level C);
- Put hood or head covering over-head and respirator straps and tape hood to facepiece (Level C); and
- Don remaining PPE, such as safety glasses or goggles and hard hat.

When these procedures are instituted, one person must remain outside the work area to ensure that each person entering has the proper protective equipment.

4.4.2 Doffing Procedures

The following procedures are only mandatory if Modified Level D or Level C PPE is required for the Site. Whenever a person leaves the work area, the following decontamination sequence will be followed:

- Upon entering the CRZ, rinse contaminated materials from the boots or remove contaminated boot covers;

- Clean reusable protective equipment;
- Remove protective garments, equipment, and respirator (Level C). All disposable clothing should be placed in plastic bags, which are labeled with contaminated waste labels;
- Wash hands, face, and neck (or shower if necessary);
- Proceed to clean area and dress in clean clothing; and
- Clean and disinfect respirator for next use.

All disposable equipment, garments, and PPE must be bagged in plastic bags, labeled for disposal. See Section 6.2, Decontamination, for detailed information on decontamination stations.

4.5 Selection Matrix

The level of personal protection selected will be based on air monitoring of the work environment and an assessment by the FS and SSO of the potential for skin contact with COCs. The PPE selection matrix is presented in **Table 2** below. This matrix is based on information available at the time this plan was written. The Airborne Contaminant Action Levels in **Table 3** on page 13, Airborne Contaminant Action Levels, should be used to verify that the PPE prescribed in these matrices is appropriate.

Table 2 – PPE Selection Matrix

Task	Anticipated Level of Protection
Mobilization	Level D
Subsurface Intrusive Activities (Excavation, Drilling)	Modified Level D/Level C
Earthwork/Grading	Level D
Chemical Sampling / Delineation	Modified Level D/Level C
Decontamination	Modified Level D
Demobilization	Level D

5.0 AIR AND NOISE MONITORING

5.1 Air Monitoring

Air monitoring, sampling, and testing will be conducted to determine employee exposure to airborne constituents. The monitoring results will dictate work procedures and the selection

of PPE. The SESI SSO will be responsible for defining appropriate air monitoring procedures and for utilizing the air monitoring results to determine appropriate procedures and PPE for project personnel. Air monitoring results should be recorded in field notebooks or on an air monitoring log (see Attachment 1 for a copy of the Air Monitoring Log). Any deviations from the procedures listed here should be documented and explained in the Air Monitoring Log.

The monitoring devices to be used are a PDR1000 particulate monitor (or equivalent) and a Rae Systems MultiRAE detector (PID with a 11.7 eV lamp/oxygen/LEL/hydrogen sulfide sensors). Colorimetric detector tubes may be utilized to estimate airborne concentrations of benzene and should be onsite during any activities that may result in elevated PID readings including drilling, excavating, and groundwater sampling.

Air monitoring will be conducted continuously with the LEL/Oxygen meter during drilling in areas where flammable vapors or gases are suspect. All work activity must stop where tests indicate the concentration of flammable vapors exceeds 10% of the LEL at a location with a potential ignition source. Such an area must be ventilated to reduce the concentration to an acceptable level.

5.2 Noise Monitoring

Noise monitoring may be conducted as required. Hearing protection is mandatory for all employees in noise hazardous areas, such as around heavy equipment. As a general rule, sound levels that cause speech interference at normal conversation distance should require the use of hearing protection.

5.3 Monitoring Equipment Maintenance and Calibration

All direct-reading instrumentation calibrations should be conducted under the approximate environmental conditions the instrument will be used. Instruments must be calibrated before and after use, noting the reading(s) and any adjustments that are necessary. All air monitoring equipment calibrations, including the standard used for calibration, must be documented on a calibration log or in the field notebook. All completed health and safety documentation/forms must be reviewed by the SSO and maintained by the FS.

All air monitoring equipment will be maintained and calibrated in accordance with the specific manufacturer's procedures. Preventive maintenance and repairs will be conducted in accordance with the respective manufacturer's procedures. When applicable, only manufacturer-trained and/or authorized personnel will be allowed to perform instrument repairs or preventive maintenance.

If an instrument is found to be inoperative or suspected of giving erroneous readings, the SSO must be responsible for immediately removing the instrument from service and obtaining a replacement unit. If the instrument is essential for safe operation during a specific activity, that activity must cease until an appropriate replacement unit is obtained. The SSO will be responsible for ensuring a replacement unit is obtained and/or repairs are initiated on the defective equipment.

5.4 Action Levels

Table 3 below presents airborne contaminant action levels that will be used to determine the procedures and protective equipment necessary based on conditions as measured at the Site.

Table 3 – Airborne Contaminant Action Levels

Parameter	Reading	Action
Total Hydrocarbons	0 ppm to ≤ 1 ppm	Normal operations; continue hourly breathing zone monitoring
	> 1 ppm to 5 ppm	Increase monitoring frequency to every 15 minutes and use benzene detector tube to screen for the presence of benzene
	≥ 5 ppm to ≤ 50 ppm	
	> 50 ppm	Upgrade to Level C PPE; continue screening for benzene
	At any reading > 5 ppm	Stop work; investigate cause of reading Monitor perimeter per CAMP

Parameter	Reading	Action
Benzene	≥ 1 ppm to 5 ppm	Upgrade to Level C PPE
	> 5 ppm	Stop work; investigate cause of reading
Dust	0 to .05 mg/m^3	Normal operations
	0.05 to 0.1 mg/m^3	Begin soil wetting procedure (Level C protection would be needed beyond this point)
	> 0.15 mg/m^3	Stop work, fully implement dust control plan
Oxygen	≤ 19.5%	Stop work, evacuate confined spaces/work area, investigate cause of reading, and ventilate area
	> 19.5% to < 23.5%	Normal operations
	≥ 23.5%	Stop work, evacuate confined spaces/work area, investigate cause of reading, and ventilate area
Carbon Monoxide	0 ppm to ≤ 20 ppm	Normal operations
	> 20 ppm	Stop work, evacuate confined spaces/work area, investigate cause of reading, and ventilate area
Hydrogen Sulfide	0 ppm to ≤ 5 ppm	Normal operations
	> 5 ppm	Stop work, evacuate confined spaces/work area, investigate cause of reading, and ventilate area
Flammable Vapors (LEL)	< 10% LEL	Normal operations
	≥ 10% LEL	Stop work, ventilate area, investigate source of vapors

6.0 WORK ZONES AND DECONTAMINATION

6.1 Work Zones

6.1.1 Authorization to Enter

Only personnel with the appropriate training and medical certifications (if respirators are required) will be allowed to work at the project Site. The FS will maintain a list of authorized persons; only personnel on the authorized persons list will be allowed to enter the Site work areas.

6.1.2 Site Orientation and Hazard Briefing

No person will be allowed in the work area during Site operations without first being given a Site orientation and hazard briefing. This orientation will be presented by the FS or SSO and will consist of a review of this HASP. This review must cover the chemical, physical, and biological hazards, protective equipment, safe work procedures, and emergency procedures for the project. Following this initial meeting, daily safety meetings will be held each day before work begins.

All people entering the Site work areas, including visitors, must document their attendance at this briefing, as well as the daily safety meetings on the forms included with this plan.

6.1.3 Certification Documents

A training and medical file may be established for the project and kept on Site during all Site operations. Specialty training, such as first aid/cardiopulmonary resuscitation (CPR) certificates, as well as current medical clearances for all project field personnel required to wear respirators, will be maintained within that file. All project personnel must provide their training and medical documentation to the SSO prior to starting work.

6.1.4 Entry Log

A log-in/log-out sheet will be maintained at the Site by the FS. Personnel must sign in and out on a log sheet as they enter and leave the work area, and the FS may document entry and exit in the field notebook.

6.1.5 Entry Requirements

In addition to the authorization, hazard briefing, and certification requirements listed above, no person will be allowed in any SESI work area unless they are wearing the minimum PPE as described in Section 4.0.

6.1.6 Emergency Entry and Exit

People who must enter the work area on an emergency basis will be briefed of the hazards by the FS or SSO. All activities will cease in the event of an emergency. People exiting the work area because of an emergency will gather in a designated safe area for a head count. The FS is responsible for ensuring that all people who entered the work area have exited in the event of an emergency.

6.1.7 Contamination Control Zones

Contamination control zones are maintained to prevent the spread of contamination and to prevent unauthorized people from entering hazardous areas.

6.1.8 Exclusion Zone (EZ)

An EZ may consist of a specific work area or may be the entire area of potential contamination. All employees entering an EZ must use the required PPE and must have the appropriate training and medical clearance for hazardous waste work. The EZ is the defined area where there is a possible respiratory and/or contact health hazard. Cones, caution tape, or a posted Site diagram will identify the location of each EZ.

6.1.9 Contamination Reduction Zone

The CRZ or transition area will be established, if necessary, to perform decontamination of personnel and equipment. All personnel entering or leaving the EZ will pass through this area to prevent any cross-contamination. Tools, equipment, and machinery will be decontaminated in a specific location. The decontamination of all personnel will be performed on Site adjacent to the EZ. Personal protective outer garments and respiratory protection will be removed in the CRZ and prepared for cleaning or disposal. This zone is the only appropriate corridor between the EZ and the support zone (SZ) discussed below.

6.1.10 Support Zone (SZ)

The SZ is a clean area outside the CRZ located to prevent employee exposure to hazardous substances. Eating and drinking will be permitted in the support area only after proper decontamination. Smoking may be permitted in the SZ, subject to Site requirements.

6.1.11 Posting

Work areas will be prominently marked and delineated using cones, caution tape, or a posted Site diagram.

6.1.12 Site Inspections

The FS will conduct a daily inspection of site activities, equipment, and procedures to verify that the required elements are in place.

6.2 Decontamination

6.2.1 Personnel Decontamination

All personnel wearing Modified Level D or Level C protective equipment in the EZ must undergo personal decontamination prior to entering the SZ. The personnel decontamination area will consist of the following stations at a minimum:

- *Station 1*: Personnel leaving the contaminated zone will remove the gross contamination from their outer clothing and boots.
- *Station 2*: Personnel will remove their outer garment and gloves and dispose of it in properly labeled containers. Personnel will then decontaminate their hard hats, and boots with an aqueous solution of detergent or other appropriate cleaning solution. These items are then hand carried to the next station.
- *Station 3*: Personnel will thoroughly wash their hands and face before leaving the CRZ. Respirators will be sanitized and then placed in a clean plastic bag.

6.2.2 Equipment Decontamination

All vehicles that have entered the EZ will be decontaminated at the decontamination pad prior to leaving the zone. If the level of vehicle contamination is low, decontamination may be limited to rinsing of tires and wheel wells with water. If the vehicle is significantly

contaminated, steam cleaning or pressure washing of vehicles and equipment may be required.

6.2.3 Personal Protective Equipment Decontamination

Where and whenever possible, single-use, external protective clothing must be used for work within the EZ or CRZ. This protective clothing must be disposed of in properly labeled containers. Reusable protective clothing will be rinsed at the Site with detergent and water. The rinsate will be collected for disposal.

When removed from the CRZ, the respirator will be thoroughly cleaned with soap and water. The respirator face piece, straps, valves, and covers must be thoroughly cleaned at the end of each work shift, and ready for use prior to the next shift. Respirator parts may be disinfected with a solution of bleach and water (mixed at 2% bleach by volume), or by using a spray disinfectant

7.0 TRAINING AND MEDICAL SURVEILLANCE

7.1 Training

7.1.1 General

All on-Site project personnel who work in areas where they may be exposed to site contaminants must be trained as required by OSHA Regulation 29 CFR 1910.120 (HAZWOPER). Field employees also must receive a minimum of three days of actual field experience under the direct supervision of a trained, experienced supervisor. Personnel who completed their initial training more than 12 months prior to the start of the project must have completed an eight-hour refresher course within the past 12 months. The FS must have completed an additional eight hours of supervisory training and must have a current first-aid/CPR certificate (See **Attachment 2**).

7.1.2 Basic 40-Hour Course

The following is a list of the topics typically covered in a 40-hour HAZWOPER training course:

- General safety procedures;
- Physical hazards (fall protection, noise, heat stress, cold stress);

- Names and job descriptions of key personnel responsible for Site health and safety;
- Safety, health, and other hazards typically present at hazardous waste sites;
- Use, application, and limitations of PPE;
- Work practices by which employees can minimize risks from hazards;
- Safe use of engineering controls and equipment on Site;
- Medical surveillance requirements;
- Recognition of symptoms and signs which might indicate overexposure to hazards;
- Worker right-to-know (Hazard Communication OSHA 1910.1200);
- Routes of exposure to contaminants;
- Engineering controls and safe work practices;
- Components of a health and safety program and a Site-specific HASP;
- Decontamination practices for personnel and equipment;
- Confined-space entry procedures; and
- General emergency response procedures.

7.1.3 Supervisor Course

Management and supervisors must receive an additional eight hours of training, which typically includes:

- General Site safety and health procedures;
- PPE programs; and
- Air monitoring techniques.

7.1.4 Site-Specific Training

Site-specific training will be accomplished by on-Site personnel reading this HASP, and through a thorough Site briefing by the PM, FS, or SSO on the contents of this HASP before work begins. The review must include a discussion of the chemical, physical, and biological hazards; the protective equipment and safety procedures; and emergency procedures.

7.1.5 Daily Safety Meetings

Daily safety meetings will be held to cover the work to be accomplished, the hazards anticipated, the PPE and procedures required to minimize Site hazards, and emergency procedures. The FS or SSO should present these meetings prior to beginning the day's fieldwork. No work will be performed in an EZ before a daily safety meeting has been held. An additional safety meeting must also be held prior to new tasks, or if new hazards are encountered. The daily safety meetings will be logged in the field notebook.

7.1.6 First Aid and CPR

At least one employee current in first aid/CPR will be assigned to the work crew and will be on the Site during operations. Site records will document the presence of this individual. Refresher training in first aid (triennially) and CPR (annually) is required to keep the certificate current. These individuals must also receive training regarding the precautions and protective equipment necessary to protect against exposure to blood-borne pathogens.

7.2 Medical Surveillance

7.2.1 Medical Examination

All personnel who are potentially exposed to Site contaminants must participate in a medical surveillance program as defined by OSHA at 29 CFR 1910.120 (f).

7.2.2 Pre-placement Medical Examination

All potentially exposed personnel must have completed a comprehensive medical examination prior to assignment, and periodically thereafter as defined by applicable regulations. The pre-placement and periodic medical examinations typically include the following elements:

- Medical and occupational history questionnaire;
- Physical examination;
- Complete blood count, with differential;
- Liver enzyme profile;
- Chest X-ray, at a frequency determined by the physician;
- Pulmonary function test;
- Audiogram;
- Electrocardiogram for persons older than 45 years of age, or if indicated during the physical examination;
- Drug and alcohol screening, as required by job assignment;
- Visual acuity; and
- Follow-up examinations, at the discretion of the examining physician or the corporate medical director.

The examining physician provides the employee with a letter summarizing his findings and recommendations, confirming the worker's fitness for work and ability to wear a respirator. Documentation of medical clearance will be available for each employee during all project Site work.

Subcontractors will certify that all their employees have successfully completed a physical examination by a qualified physician. The physical examinations must meet the requirements of 29 CFR 1910.120 and 29 CFR 1910.134. Subcontractors will supply copies of the medical examination certificate for each on-Site employee.

7.2.3 Other Medical Examinations

In addition to pre-employment, annual, and exit physicals, personnel may be examined:

- At employee request after known or suspected exposure to toxic or hazardous materials; and
- At the discretion of the SSO, HSM, or occupational physician in anticipation of, or after known or suspected exposure to toxic or hazardous materials.

7.2.4 Periodic Exam

Following the placement examination, all employees must undergo a periodic examination, similar in scope to the placement examination. For employees potentially exposed over 30 days per year, the frequency of periodic examinations will be annual. For employees potentially exposed less than 30 days per year, the frequency for periodic examinations will be 24 months.

7.2.5 Medical Restriction

When the examining physician identifies a need to restrict work activity, the employee's supervisor must communicate the restriction to the employee and the SSO. The terms of the restriction will be discussed with the employee and the supervisor.

8.0 GENERAL SAFETY PRACTICES

8.1 General Safety Rules

General safety rules for Site activities include, but are not limited to, the following:

- At least one copy of this HASP must be in a location at the Site that is readily available to personnel, and all project personnel shall review the plan prior to starting work.

- Consume or use food, beverages, chewing gum, and tobacco products only in the SZ or other designated area outside the EZ and CRZ. Cosmetics shall not be applied in the EZ or CRZ.
- Wash hands before eating, drinking, smoking, or using toilet facilities.
- Wear all PPE as required and stop work and replace damaged PPE immediately.
- Secure disposable coveralls, boots, and gloves at the wrists and legs and ensure closure of the suit around the neck.
- Upon skin contact with materials that may be impacted by COCs, remove contaminated clothing and wash the affected area immediately. Contaminated clothing must be changed. Any skin contact with materials potentially impacted by COCs must be reported to the FS or SSO immediately. If needed, medical attention should be sought.
- Practice contamination avoidance. Avoid contact with surfaces either suspected or known to be impacted by COCs, such as standing water, mud, or discolored soil. Equipment must be stored on elevated or protected surfaces to reduce the potential for incidental contamination.
- Remove PPE as required in the CRZ to limit the spread of COC-containing materials.
- At the end of each shift or as required, dispose of all single-use coveralls, soiled gloves, and respirator cartridges in designated receptacles designated for this purpose.
- Removing soil containing site COCs from protective clothing or equipment with compressed air, shaking, or any other means that disperses contaminants into the air is prohibited.
- Inspect all non-disposable PPE for contamination in the CRZ. Any PPE found to be contaminated must be decontaminated or disposed of appropriately.
- Recognize emergency signals used for evacuation, injury, fire, etc.
- Report all injuries, illnesses, and unsafe conditions or work practices to the FS or SSO.
- Use the “buddy system” during all operations requiring Level C PPE, and when appropriate, during Modified Level D operations.
- Obey all warning signs, tags, and barriers. Do not remove any warnings unless authorized to do so.
- Use, adjust, alter, and repair equipment only if trained and authorized to do so, and in accordance with the manufacturer’s directions.
- Personnel are to perform only tasks for which they have been properly trained and will advise their supervisor if they have been assigned a task for which they are not trained.
- The presence or consumption of alcoholic beverages or illicit drugs during the workday, including breaks, is strictly prohibited. Notify your supervisor if you must take prescription or over-the-counter drugs that indicate they may cause drowsiness or, that you should not operate heavy equipment.
- Remain upwind during Site activities whenever possible.

8.2 Buddy System

On-Site personnel must use the buddy system as required by operations. Use of the "buddy system" is required during all operations requiring Level C to Level A PPE, and when appropriate, during Level D operations. Crewmembers must observe each other for signs of chemical exposure, and heat or cold stress. Indications of adverse effects include, but are not limited to:

- Changes in complexion and skin coloration;
- Changes in coordination;
- Changes in demeanor;
- Excessive salivation and pupillary response; and
- Changes in speech pattern.

Crewmembers must also be aware of the potential exposure to possible safety hazards, unsafe acts, or non-compliance with safety procedures.

Field personnel must inform their partners or fellow crewmembers of non-visible effects of exposure to toxic materials that they may be experiencing. The symptoms of such exposure may include, but are not limited to:

- Headaches;
- Dizziness;
- Nausea;
- Blurred vision;
- Cramps; and
- Irritation of eyes, skin, or respiratory tract.

If protective equipment or noise levels impair communications, prearranged hand signals must be used for communication. Personnel must stay within line of sight of another team member.

8.3 Heat Stress

Heat stress is caused by a number of interacting factors, including environmental conditions, clothing, workload, etc., as well as the physical and conditioning characteristics of the individual. Since heat stress is one of the most common illnesses associated with heavy outdoor work conducted with direct solar load and, in particular, because wearing

PPE can increase the risk of developing heat stress, workers must be capable of recognizing the signs and symptoms of heat-related illnesses. Personnel must be aware of the types and causes of heat-related illnesses and be able to recognize the signs and symptoms of these illnesses in both themselves and their co-workers.

Heat rashes are one of the most common problems in hot work environments. Commonly known as prickly heat, a heat rash is manifested as red papules and usually appears in areas where the clothing is restrictive. As sweating increases, these papules give rise to a prickling sensation. Prickly heat occurs in skin that is persistently wetted by unevaporated sweat, and heat rash papules may become infected if they are not treated. In most cases, heat rashes will disappear when the affected individual returns to a cool environment.

Heat cramps are usually caused by performing hard physical labor in a hot environment. These cramps have been attributed to an electrolyte imbalance caused by sweating. It is important to understand that cramps can be caused both by too much or too little salt.

Cramps appear to be caused by the lack of water replenishment. Because sweat is a hypotonic solution (plus or minus 0.3% NaCl), excess salt can build up in the body if the water lost through sweating is not replaced. Thirst cannot be relied on as a guide to the need for water; instead, water must be taken every 15 to 20 minutes in hot environments.

Under extreme conditions, such as working for 6 to 8 hours in heavy protective gear, a loss of sodium may occur. Drinking commercially available carbohydrate electrolyte replacement liquids is effective in minimizing physiological disturbances during recovery.

Heat exhaustion occurs from increased stress on various body organs due to inadequate blood circulation, cardiovascular insufficiency, or dehydration. Signs and symptoms include pale, cool, moist skin; heavy sweating; dizziness; nausea; headache, vertigo, weakness, thirst, and giddiness. Fortunately, this condition responds readily to prompt treatment.

Heat exhaustion should not be dismissed lightly, however, for several reasons. One is that the fainting associated with heat exhaustion can be dangerous because the victim may be operating machinery or controlling an operation that should not be left unattended;

moreover, the victim may be injured when he or she faints. Also, the signs and symptoms seen in heat exhaustion are similar to those of heat stroke, which is a medical emergency.

Workers suffering from heat exhaustion should be removed from the hot environment, be given fluid replacement, and be encouraged to get adequate rest.

Heat stroke is the most serious form of heat stress. Heat stroke occurs when the body's system of temperature regulation fails and the body's temperature rises to critical levels. This condition is caused by a combination of highly variable factors, and its occurrence is difficult to predict. Heat stroke is a medical emergency. The primary signs and symptoms of heat stroke are confusion; irrational behavior; loss of consciousness; convulsions; a lack of sweating (usually); hot, dry skin; and an abnormally high body temperature, e.g., a rectal temperature of 41°C (105.8°F). If body temperature is too high, it causes death. The elevated metabolic temperatures caused by a combination of workload and environmental heat load, both of which contribute to heat stroke, are also highly variable and difficult to predict.

If a worker shows signs of possible heat stroke, professional medical treatment should be obtained immediately. The worker should be placed in a shady area, and the outer clothing should be removed. The worker's skin should be wetted and air movement around the worker should be increased to improve evaporative cooling until professional methods of cooling are initiated and the seriousness of the condition can be assessed. Fluids should be replaced as soon as possible. The medical outcome of an episode of heat stroke depends on the victim's physical fitness and the timing and effectiveness of first aid treatment.

Regardless of the worker's protestations, no employee suspected of being ill from heat stroke should be sent home or left unattended unless a physician has specifically approved such an order.

Proper training and preventive measures will help avert serious illness and loss of work productivity. Preventing heat stress is particularly important because once someone suffers from heat stroke or exhaustion, that person may be predisposed to additional heat injuries.

8.4 Heat Stress Safety Precautions

Heat stress monitoring and work rest cycle implementation should commence when the ambient adjusted temperature exceeds 72°F. A minimum work rest regimen and procedures for calculating ambient adjusted temperature are described in **Table 4** below.

Table 4 – Work/Rest Schedule

Adjusted Temperature[b]	Work/Rest Regimen Normal Work Ensemble[c]	Work/Rest Regimen Impermeable Ensemble
90ºF (32.2ºC) or above	After each 45 minutes of work	After each 15 minutes of work
87.5º - 90ºF (30.8º-32.2ºC)	After each 60 minutes of work	After each 30 minutes of work
82.5º - 87.5ºF (28.1º - 30.8ºC)	After each 90 minutes of work	After each 60 minutes of work
77.5º - 82.5ºF (25.3º - 28.1ºC)	After each 120 minutes of work	After each 90 minutes of work
72.5º - 77.5ºF (30.8º - 32.2ºC)	After each 150 minutes of work	After each 120 minutes of work

a. For work levels of 250 kilocalories/hour (Light-Moderate Type of Work)
b. Calculate the adjusted air temperature (ta adj) by using this equation: ta adj °F = ta °F + (13 x % sunshine). Measure air temperature (ta) with a standard mercury-in-glass thermometer, with the bulb shielded from radiant heat. Estimate percent sunshine by judging what percent time the sun is not covered by clouds that are thick enough to produce a shadow. (100 percent sunshine = no cloud cover and a sharp, distinct shadow; 0 percent sunshine = no shadows.)
c. A normal work ensemble consists of cotton coveralls or other cotton clothing with long sleeves and pants.
d. The information presented above was generated using the information provided in the American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values (TLV) Handbook.

In order to determine if the work rest cycles are adequate for the personnel and specific Site conditions, additional monitoring of individual heart rates will be conducted during the rest cycle. To check the heart rate, count the radial pulse for 30 seconds at the beginning of the rest period. If the heart rate exceeds 110 beats per minute, shorten the next work period by one third and maintain the same rest period.

Additionally, one or more of the following control measures can be used to help control heat stress and are mandatory if any Site worker has a heart rate (measure immediately prior to rest period) exceeding 115 beats per minute:

- Site workers will be encouraged to drink plenty of water and electrolyte replacement fluids throughout the day.
- On-Site drinking water will be kept cool (50 to 60°F).
- A work regimen that will provide adequate rest periods for cooling down will be established, as required.
- All personnel will be advised of the dangers and symptoms of heat stroke, heat exhaustion, and heat cramps.
- Cooling devices, such as vortex tubes or cooling vests, should be used when personnel must wear impermeable clothing in conditions of extreme heat.
- Employees should be instructed to monitor themselves and co-workers for signs of heat stress and to take additional breaks as necessary.
- A shaded rest area must be provided. All breaks should take place in the shaded rest area.
- Employees must not be assigned to other tasks during breaks.
- Employees must remove impermeable garments during rest periods. This includes white Tyvek-type garments.

All employees must be informed of the importance of adequate rest, acclimation, and proper diet in the prevention of heat stress disorders.

8.5 Cold Stress

Cold stress normally occurs in temperatures at or below freezing, or under certain circumstances, in temperatures of 40°F. Extreme cold for a short time may cause severe injury to exposed body surfaces or result in profound generalized cooling, causing death. Areas of the body that have high surface area-to-volume ratio, such as fingers, toes, and ears, are the most susceptible. Two factors influence the development of a cold weather injury: ambient temperature and the velocity of the wind. For instance, 10°F with a wind of 15 miles per hour (mph) is equivalent in chilling effect to still air at 18°F. An equivalent chill temperature chart relating the actual dry bulb temperature and wind velocity is presented in **Table 5** below.

Table 5 – Wind Chill Temperature Chart

Estimated Wind Speed (in mph)	Actual Temperature Reading (ºF)											
	50	**40**	**30**	**20**	**10**	**0**	**-10**	**-20**	**-30**	**-40**	**-50**	**-60**
	Equivalent Chill Temperature (ºF)											
Calm	50	40	30	20	10	0	-10	-20	-30	-40	-50	-60
5	48	37	27	16	6	-5	-15	-26	-36	-47	-57	-68
10	40	28	16	4	-9	-24	-33	-46	-58	-70	-83	-95
15	36	22	9	-5	-18	-32	-45	-58	-72	-85	-99	-112
20	32	18	4	-10	-25	-39	-53	-67	-82	-96	-110	-121
25	30	16	0	-15	-29	-44	-59	-74	-88	-104	-118	-133
30	28	13	-2	-18	-33	-48	-63	-79	-94	-109	-125	-140
35	27	11	-4	-20	-35	-51	-67	-82	-98	-113	-129	-145
40	26	10	-6	-21	-37	-53	-69	-85	-100	-116	-132	-148
(Wind speeds greater than 40 mph have little additional effect.)	**LITTLE DANGER Maximum danger of false sense of security.**				**INCREASING DANGER Danger from freezing of exposed flesh within one minute.**			**GREAT DANGER Flesh may freeze within 30 seconds.**				
	Trench foot and immersion foot may occur at any point on this chart.											

[This chart was developed by the U.S. Army Research Institute of Environmental Medicine, Natick, MA (Source: ACGIH Threshold Limit Values for Chemical Substances and Physical Agents)].

Local injury resulting from cold is included in the generic term frostbite. There are several degrees of tissue damage associated with frostbite. Frostbite of the extremities can be categorized into:

- *Frost Nip or Incipient Frostbite* - characterized by sudden blanching or whitening of skin.
- *Superficial Frostbite* - skin has a waxy or white appearance and is firm to the touch, but tissue beneath is resilient.
- *Deep Frostbite* - tissues are cold, pale, and solid; extremely serious injury.

Systemic hypothermia is caused by exposure to freezing or rapidly dropping temperature. It can be fatal. Its symptoms are usually exhibited in five stages: 1) shivering; 2) apathy, listlessness, sleepiness, and (sometimes) rapid cooling of the body to less than 95°F; 3) unconsciousness, glassy stare, slow pulse, and slow respiratory rate; 4) freezing of the extremities; and 5) death. Trauma sustained in freezing or sub-zero conditions requires special attention because an injured worker is predisposed to secondary cold injury. Special provisions must be made to prevent hypothermia and secondary freezing of damaged tissues in addition to providing for first aid treatment. To avoid cold stress, site personnel must wear protective clothing appropriate for the level of cold and physical activity. In addition to protective clothing, preventive safe work practices, additional training, and warming regimens may be utilized to prevent cold stress.

8.6 Safety Precautions for Cold Stress Prevention

For air temperature of 0°F or less, mittens should be used to protect the hands. For exposed skin, continuous exposure should not be permitted when air speed and temperature results in a wind chill temperature of -25°F.

At air temperatures of 36°F or less, field personnel who become immersed in water or whose clothing becomes wet must be immediately provided with a change of clothing and be treated for hypothermia.

If work is done at normal temperature or in a hot environment before entering the cold, the field personnel must ensure that their clothing is not wet as a consequence of sweating. Wet field personnel must change into dry clothes prior to entering the cold area.

If the available clothing does not give adequate protection to prevent hypothermia or frostbite, work must be modified or suspended until adequate clothing is made available or until weather conditions improve.

Field personnel handling evaporative liquid (e.g., gasoline, alcohol, or cleaning fluids) at air temperatures below 40°F must take special precaution to avoid soaking of clothing or gloves with the liquids because of the added danger of cold injury due to evaporative cooling.

8.7 Safe Work Practices

Direct contact between bare skin and cold surfaces (< 20°F) should be avoided. Metal tool handles and/or equipment controls should be covered by thermal insulating material.

For work performed in a wind chill temperature at or below 10°F, workers should be under constant protective observation (buddy system). The work rate should be established to prevent heavy sweating that will result in wet clothing. For heavy work, rest periods must be taken in heated shelters and workers should be provided with an opportunity to change into dry clothing if needed.

Field personnel should be provided the opportunity to become accustomed to cold-weather working conditions and required protective clothing. Work should be arranged in such a way that sitting or standing still for long periods is minimized.

During the warming regimen (rest period), field personnel should be encouraged to remove outer clothing to permit sweat evaporation or to change into dry work clothing. Dehydration, or loss of body fluids, occurs insidiously in the cold environment and may increase susceptibility to cold injury due to a significant change in blood flow to the extremities. Fluid replacement with warm, sweet drinks and soups is recommended. The intake of coffee should be limited because of diuretic and circulatory effects.

8.8 Biological Hazards

Biological hazards may include poison ivy, snakes, thorny bushes and trees, ticks, mosquitoes, spiders, and other pests.

8.8.1 Tick Borne Diseases

Lyme Disease - The disease commonly occurs in summer and is transmitted by the bite of infected ticks. “Hot spots” in the United States include New York, New Jersey, Pennsylvania, Massachusetts, Connecticut, Rhode Island, Minnesota, and Wisconsin.

Erlichiosis - The disease also commonly occurs in summer and is transmitted by the bite of infected ticks. “Hot spots” in the United States include New York, Massachusetts, Connecticut, Rhode Island, Minnesota, and Wisconsin.

These diseases are transmitted primarily by the deer tick, which is smaller and redder than the common wood tick. The disease may be transmitted by immature ticks, which are small and hard to see. The tick may be as small as a period on this page.

Symptoms of Lyme disease include a rash or a peculiar red spot, like a bull's eye, which expands outward in a circular manner. The victim may have headache, weakness, fever, a stiff neck, and swelling and pain in the joints, and eventually, arthritis. Symptoms of erlichiosis include muscle and joint aches, flu-like symptoms, but there is typically no skin rash.

Rocky Mountain Spotted Fever (RMSF) - This disease is transmitted via the bite of an infected tick. The tick must be attached 4 to 6 hours before the disease-causing organism (Rickettsia rickettsii) becomes reactivated and can infect humans. The primary symptom of RMSF is the sudden appearance of a moderate-to-high fever. The fever may persist for two to three weeks. The victim may also have a headache, deep muscle pain, and chills. A rash appears on the hands and feet on about the third day and eventually spreads to all parts of the body. For this reason, RMSF may be confused with measles or meningitis. The disease may cause death, if untreated, but if identified and treated promptly, death is uncommon.

Control - Tick repellant containing diethyltoluamide (DEET) should be used when working in tick-infested areas, and pant legs should be tucked into boots. In addition, workers should search the entire body every three or four hours for attached ticks. Ticks should be removed promptly and carefully without crushing, since crushing can squeeze the disease-causing organism into the skin. A gentle and steady pulling action should be used to avoid leaving the head or mouth parts in the skin. Hands should be protected with surgical gloves when removing ticks.

8.8.2 Poisonous Plants

Poisonous plants may be present in the work area. Personnel should be alerted to its presence and instructed on methods to prevent exposure.

Control - The main control is to avoid contact with the plant, cover arms and hands, and frequently wash potentially exposed skin. Particular attention must be given to avoiding skin

contact with objects or protective clothing that have touched the plants. Treat every surface that may have touched the plant as contaminated, and practice contamination avoidance. If skin contact is made, the area should be washed immediately with soap and water and observed for signs of reddening.

8.8.3 Snakes

The possibility of encountering snakes exists, specifically for personnel working in wooded/vegetated areas. Snake venoms are complex and include proteins, some of which have enzymatic activity. The effects produced by venoms include neurotoxic effects with sensory, motor, cardiac, and respiratory difficulties; cytotoxic effects on red blood cells, blood vessels, heart muscle, kidneys, and lungs; defects in coagulation; and effects from local release of substances by enzymatic actions. Other noticeable effects of venomous snakebites include swelling, edema, and pain around the bite, and the development of ecchymosis (the escape of blood into tissues from ruptured blood vessels).

Control - To minimize the threat of snakebites, all personnel walking through vegetated areas must be aware of the potential for encountering snakes, and the need to avoid actions potentiating encounters, such as turning over logs, etc. If a snakebite occurs, an attempt should be made to safely identify the snake via size and markings. The victim must be transported to the nearest hospital within 30 minutes; first aid consists of applying a constriction band and washing the area around the wound to remove any unabsorbed venom.

8.8.4 Spiders

Personnel may encounter spiders during work activities.

Two spiders are of concern, the black widow and the brown recluse. Both prefer dark sheltered areas such as basements, equipment sheds and enclosures, and around woodpiles or other scattered debris. The black widow is shiny black, approximately one inch long, and found throughout the United States. There is a distinctive red hourglass marking on the underside of the black widows body. The bite of a black widow is seldom fatal to healthy adults, but effects include respiratory distress, nausea, vomiting, and muscle spasms. The brown recluse is smaller than the black widow and gets its name from its

brown coloring and behavior. The brown recluse is more prevalent in the southern United States. The brown recluse has a distinctive violin shape on the top of its body. The bite of the brown recluse is painful and the bite site ulcerates and takes many weeks to heal completely.

Control - To minimize the threat of spider bites, all personnel walking through vegetated areas must be aware of the potential for encountering these arachnids. Personnel need to avoid actions that may result in encounters, such as turning over logs, and placing hands in dark places such as behind equipment or in corners of equipment sheds or enclosures. If a spider bite occurs, the victim must be transported to the nearest hospital as soon as possible; first aid consists of applying ice packs and washing the area around the wound to remove any unabsorbed venom.

8.9 Noise

Exposure to noise over the OSHA action level can cause temporary impairment of hearing; prolonged and repeated exposure can cause permanent damage to hearing. The risk and severity of hearing loss increases with the intensity and duration of exposure to noise. In addition to damaging hearing, noise can impair voice communication, thereby increasing the risk of accidents on Site.

Control - All personnel must wear hearing protection, with a Noise Reduction Rating (NRR) of at least 20, when noise levels exceed 85 dBA. When it is difficult to hear a co-worker at normal conversation distance, the noise level is approaching or exceeding 85 dBA, and hearing protection is necessary. All Site personnel who may be exposed to noise must also receive baseline and annual audiograms and training as to the causes and prevention of hearing loss. Noise monitoring is discussed in Section 5.2, Noise Monitoring.

Whenever possible, equipment that does not generate excessive noise levels will be selected for this project. If the use of noisy equipment is unavoidable, barriers or increased distance will be used to minimize worker exposure to noise, if feasible.

8.10 Spill Control

All personnel must take every precaution to minimize the potential for spills during Site operations. All on-Site personnel shall immediately report any discharge, no matter how small, to the FS.

Spill control equipment and materials will be located on the site at locations that present the potential for discharge. All sorbent materials used for the cleanup of spills will be containerized and labeled appropriately. In the event of a spill, the FS will follow the provisions in Section 10.0, Emergency Procedures, to contain and control released materials and to prevent their spread to off-Site areas.

8.11 Sanitation

Site sanitation will be maintained according to OSHA requirements.

8.11.1 Break Area

Breaks must be taken in the SZ, away from the active work area after site personnel go through decontamination procedures. There will be no smoking, eating, drinking, or chewing gum or tobacco in any area other than the SZ.

8.11.2 Potable Water

The following rules apply to all field operations:

- An adequate supply of potable water will be provided at each project Site. Potable water must be kept away from hazardous materials or media, and contaminated clothing or equipment.
- Portable containers used to dispense drinking water must be capable of being tightly closed and must be equipped with a tap dispenser. Water must not be consumed directly from the container (drinking from the tap is prohibited) nor may it be removed from the container by dipping.
- Containers used for drinking water must be clearly marked and shall not be used for any other purpose.
- Disposable drinking cups must be provided. A sanitary container for dispensing cups and a receptacle for disposing of used cups is required.

8.11.3 Sanitary Facilities

Access to facilities for washing before eating, drinking, or smoking, or alternate methods such as waterless hand-cleaner and paper towels will be provided.

8.11.4 Lavatory

If permanent toilet facilities are not available, an appropriate number of portable chemical toilets will be provided. This requirement does not apply to mobile crews or to normally unattended Site locations so long as employees at these locations have transportation immediately available to nearby toilet facilities.

8.12 Emergency Equipment

Adequate emergency equipment for the activities being conducted on Site and as required by applicable sections of 29 CFR 1910 and 29 CFR 1926 will be on Site prior to the commencement of project activities. Personnel will be provided with access to emergency equipment, including, but not limited to, the following:

- Fire extinguishers of adequate size, class, number, and location as required by applicable sections of 29 CFR 1910 and 1926;
- Industrial first aid kits of adequate size for the number of personnel on Site; and
- Emergency eyewash and/or shower if required by operations being conducted on Site.

8.13 Lockout/Tagout Procedures

Only fully qualified and trained personnel will perform maintenance procedures. Before maintenance begins, lockout/tagout procedures per OSHA 29 CFR 1910.147 will be followed.

Lockout is the placement of a device that uses a positive means, such as lock, to hold an energy or material-isolating device such that the equipment cannot be operated until the lockout device is removed. If a device cannot be locked out, a tagout system shall be used. Tagout is the placement of a warning tag on an energy or material isolating device indicating that the equipment controls may not be operated until the personnel who attached the tag remove the tag.

8.14 Electrical Safety

Electricity may pose a particular hazard to Site workers due to the use of portable electrical equipment. If wiring or other electrical work is needed, a qualified electrician must perform it.

General electrical safety requirements include:

- All electrical wiring and equipment must be a type listed by Underwriters Laboratories (UL), Factory Mutual Engineering Corporation (FM), or other recognized testing or listing agency.
- All installations must comply with the National Electrical Safety Code (NESC), the National Electrical Code (NEC), or USCG regulations.
- Portable and semi-portable tools and equipment must be grounded by a multi-conductor cord having an identified grounding conductor and a multi-contact polarized plug-in receptacle.
- Tools protected by an approved system of double insulation, or its equivalent, need not be grounded. Double insulated tools must be distinctly marked and listed by UL or FM.
- Live parts of wiring or equipment must be guarded to prevent persons or objects from touching them.
- Electric wire or flexible cord passing through work areas must be covered or elevated to protect it from damage by foot traffic, vehicles, sharp corners, projections, or pinching.
- All circuits must be protected from overload.
- Temporary power lines, switchboxes, receptacle boxes, metal cabinets, and enclosures around equipment must be marked to indicate the maximum operating voltage.
- Plugs and receptacles must be kept out of water unless of an approved submersible construction.
- All extension cord outlets must be equipped with ground fault circuit interrupters (GFCI).
- Attachment plugs or other connectors must be equipped with a cord grip and be constructed to endure rough treatment.
- Extension cords or cables must be inspected prior to each use and replaced if worn or damaged. Cords and cables must not be fastened with staples, hung from nails, or suspended by bare wire.
- Flexible cords must be used only in continuous lengths without splice, with the exception of molded or vulcanized splices made by a qualified electrician.

8.15 Lifting Safety

Using proper lifting techniques may prevent back strain or injury. The fundamentals of proper lifting include:

- Consider the size, shape, and weight of the object to be lifted. A mechanical lifting device or additional persons must be used to lift an object if it cannot be lifted safely alone.
- The hands and the object should be free of dirt or grease that could prevent a firm grip.
- Gloves must be used, and the object inspected for metal slivers, jagged edges, burrs, or rough or slippery surfaces.
- Fingers must be kept away from points that could crush or pinch them, especially when putting an object down.
- Feet must be placed far enough apart for balance. The footing should be solid and the intended pathway should be clear.
- The load should be kept as low as possible, close to the body with the knees bent.
- To lift the load, grip firmly and lift with the legs, keeping the back as straight as possible.
- A worker should not carry a load that he or she cannot see around or over.
- When putting an object down, the stance and position are identical to that for lifting; the legs are bent at the knees, and the back is straight as the object is lowered.

8.16 Ladder Safety

When portable ladders are used for access to an upper landing surface, the ladder side rails shall extend at least 3 feet (9 m) above the upper landing surface to which the ladder is used to gain access; or, when such an extension is not possible because of the ladder's length, then the ladder shall be secured at its top to a rigid support that will not deflect, and a grasping device, such as a grabrail, shall be provided to assist employees in mounting and dismounting the ladder. In no case shall the extension be such that ladder deflection under a load would, by itself, cause the ladder to slip off its support.

- Ladders shall be maintained free of oil, grease, and other slipping hazards.
- Ladders shall not be loaded beyond the maximum intended load for which they were built, or beyond their manufacturer's rated capacity.
- Ladders shall be used only for the purpose for which they were designed.
- Non-self-supporting ladders shall be used at an angle such that the horizontal distance from the top support to the foot of the ladder is approximately one-quarter of the working length of the ladder (the distance along the ladder between the foot and the top support).
- Wood job-made ladders with spliced side rails shall be used at an angle such that the horizontal distance is one-eighth the working length of the ladder.
- Fixed ladders shall be used at a pitch no greater than 90 degrees from the horizontal, as measured to the back side of the ladder.
- Ladders shall be used only on stable and level surfaces unless secured to prevent accidental displacement.

- Ladders shall not be used on slippery surfaces unless secured or provided with slip-resistant feet to prevent accidental displacement. Slip-resistant feet shall not be used as a substitute for care in placing, lashing, or holding a ladder that is used upon slippery surfaces, including, but not limited to, flat metal or concrete surfaces that are constructed so they cannot be prevented from becoming slippery.
- Ladders placed in any location where they can be displaced by workplace activities or traffic, such as in passageways, doorways, or driveways, shall be secured to prevent accidental displacement, or a barricade shall be used to keep the activities or traffic away from the ladder.
- The area around the top and bottom of ladders shall be kept clear.
- The top of a non-self-supporting ladder shall be placed with the two rails supported equally unless it is equipped with a single support attachment.
- Ladders shall not be moved, shifted, or extended while occupied.
- Ladders shall have non-conductive side rails if they are used where the employee or the ladder could contact exposed energized electrical equipment.
- The top, top step, or the step labeled that it or any step above it should not be used as a step.
- Cross-bracing on the rear section of stepladders shall not be used for climbing unless the ladders are designed and provided with steps for climbing on both front and rear sections.
- Ladders shall be inspected by the HSM for visible defects on a daily basis and after any occurrence that could affect their safe use.
- Portable ladders with structural defects, such as, but not limited to, broken or missing rungs, cleats, or steps; broken or split rails; corroded components; or other faulty or defective components shall either be immediately marked in a manner that readily identifies them as defective or be tagged with “Do Not Use” or similar language and shall be withdrawn from service.
- Fixed ladders with structural defects, such as, but not limited to, broken or missing rungs, cleats, or steps; broken or split rails; or corroded components; shall be withdrawn from service.
- Ladder repairs shall restore the ladder to a condition meeting its original design criteria, before the ladder is returned to use.
- Single-rail ladders shall not be used.
- When ascending or descending a ladder, the user shall face the ladder.
- Each employee shall use at least one hand to grasp the ladder when progressing up and/or down the ladder.
- An employee shall not carry any object or load that could cause the employee to lose balance and fall.

8.17 Traffic Safety

The project Site is located adjacent to a public roadway where exposure to vehicular traffic is likely. Traffic may also be encountered as vehicles enter and exit the area. To minimize the likelihood of project personnel and activities being affected by traffic, the following procedures will be implemented.

Cones must be placed along the shoulder of the roadway starting 100 feet from the work area to alert passing motorists to the presence of personnel and equipment. A “Slow” or “Men Working” sign must be placed at the first cone. Barricades with flashing lights should be placed between the roadway and the work area.

During activities along a roadway, equipment will be aligned parallel to the roadway to the extent feasible, facing into the oncoming traffic so as to place a barrier between the work crew and the oncoming traffic. All crewmembers must remain behind the equipment and the traffic barrier.

All Site personnel who are potentially exposed to vehicular traffic must wear an outer layer of orange warning garments, such as vests, jackets, or shirts. If work is performed in hours of dusk or darkness, workers will be outfitted with reflective garments either orange, white (including silver-coated reflective coatings or elements that reflect white light), yellow, fluorescent red-orange, or fluorescent yellow-orange.

The flow of traffic into and out of the adjacent business must be assessed, and precautions taken to warn motorists of the presence of workers and equipment. Where possible, vehicles should be aligned to provide physical protection of people and equipment.

9.0 SITE-SPECIFIC HAZARDS AND CONTROL MEASURES

9.1 Evaluation of Hazards

The evaluation of hazards is provided as a quick reference as to the known conditions for the Site, wherein the level of detail for each of the subsections is identified.

9.1.1 Hazard Characteristics

Existing information for Site:

__X__ Detailed _____ Preliminary _____ None

Hazardous/Contaminated Material Form(s):

__X__ Solid __X__ Liquid _____ Sludge ___ Gas __X__ Vapor

Containment Type(s):

_____ Drum _____ Tank _____ Pit _____ Debris

_____ Pond _____Lagoon Other:

Hazardous Material Characteristics:

__X__ Volatile _____ Corrosive _____ Reactive _____ Radioactive

_____ Ignitable __X__ Toxic __X__ Unknown

Routes of Exposure:

__X__ Oral __X__ Dermal __X__ Eye __X__ Respiratory

9.1.2 Potential Health and Safety Hazards

__X__ Heat
__X__ Cold
_____ Confined space entry
_____ Oxygen depletion
_____ Asphyxiation
__X__ Excavation
__X__ Cave-ins
__X__ Falls, slippage
__X__ Heavy equipment
_____ Other: Potential Ignition Hazard.

__X__ Congested areas
__X__ General Construction
__X__ Physical injury
__X__ Electrical hazards
__X__ Handling and product transfer
__X__ Fire
__X__ Explosion
__X__ Biological Hazards
- __X__ Plants – Poison Ivy, Poison Oak
- __X__ Insects – Ticks
- __X__ Insects – Mosquitoes
- __X__ Insects – Bees and Wasps
- __X__ Rats and Mice

_____ Non-ionizing Radiation (i.e. UV, IR, etc.)

9.2 Field Activities, Hazards, and Control Procedures

The following task-specific safety analyses identify potential health, safety, and environmental hazards associated with each type of field activity. Because of the complex

and changing nature of field projects, supervisors must continually inspect the Site to identify hazards that may affect on-Site personnel, the community, or the environment. The FS must be aware of these changing conditions and discuss them with the PM whenever these changes impact employee health, safety, the environment, or performance of the project. The FS will keep on-Site personnel informed of the changing conditions, and the PM will write and/or approve addenda or revisions to this HASP as necessary.

9.2.1 Mobilization/Construction Stakeout

Description of Tasks

Site mobilization will include establishing excavation locations, determining the location of utilities and other installations, and establishing work areas. Mobilization will also include setting up equipment and establishing a temporary Site office. A break area will be set up outside of regulated work areas. Mobilization may involve clearing areas for the SZ and CRZ. During this initial phase, project personnel will walk the site to confirm the existence of anticipated hazards and identify safety and health issues that may have arisen since the writing of this plan.

Hazard Identification

The hazards of this phase of activity are associated with heavy equipment operation, manual materials handling, installation of temporary on-Site facilities, and manual Site preparation.

Manual materials handling and manual site preparation may cause blisters, sore muscles, and joint and skeletal injuries; and may present eye, contusion, and laceration hazards. Installation of temporary field office and support facilities may expose personnel to electrical hazards, underground and overhead utilities, and physical injury due to the manual lifting and moving of materials. The work area presents slip, trip, and fall hazards from scattered debris and irregular walking surfaces. Rainy weather may cause wet, muddy, slick walking surfaces, and unstable soil. Freezing weather hazards include frozen, slick, and irregular walking surfaces.

Environmental hazards include plants, such as poison ivy and poison oak; aggressive fauna, such as ticks, fleas, mosquitoes, wasps, spiders, and snakes; weather, such as

sunburn, lightning, rain, and heat- or cold-related illnesses; and pathogens, such as rabies, Lyme disease, and blood-borne pathogens.

Controls

Control procedures for these hazards are discussed in Section 8.0, General Safety Practices.

9.2.2 Demolition/Site Clearing

Description of Tasks

Site clearance will involve manual or mechanical removal of objects impeding access to the construction footprint. These obstructions are both natural and man-made items and will include, but not be limited to, fabricated metal and concrete structures, trees, vegetation, rubble, and miscellaneous trash/debris.

Hazard Identification

Hazards associated with demolition and Site clearance include personnel working in and around potentially unstable structures, or locations of potential contact with hazardous chemicals, utilities, and/or falling objects. This task will involve manual, as well as mechanical demolition/clearance efforts so exertion and equipment hazards exist.

Controls

PPE – Personnel shall be protected from hazards of irritant and toxic plants and suitably instructed in the first aid treatment available.

Preparatory Operations – Prior to permitting employees to start demolition operations, an engineering survey shall be made, by a licensed Professional Engineer, of the structure to determine the stability of the structure. Any adjacent structure where personnel may be exposed shall also be similarly checked. The PO shall have in writing evidence that such a survey has been performed. All structural instabilities shall be shored or braced, under the supervision of a licensed Professional Engineer, prior to access by an FP.

Utilities – All electric, gas, water, steam, sewer, and other service lines shall be shut off, caped, or otherwise controlled, outside the building line before demolition work is started.

In each case, any utility company that is involved shall be notified in advance. If it is necessary to maintain any power, water or other utilities during demolition, such lines shall be temporarily relocated, as necessary.

Hazardous Substances – It shall also be determined if any type of hazardous chemicals, gases, explosives, flammable materials, or similarly dangerous substances have been used in any pipes, tanks, or other equipment on the property. When the presence of any such substances is apparent or suspected, testing and purging shall be performed and the hazard eliminated before demolition is started.

Falling Debris/Objects – No material shall be dropped to any point lying outside the exterior walls of the structure unless the area is effective protected. Access to the area where falling objects/debris may be encountered must be gated and controlled.

Structural Collapse – Structural or load supporting members on any floor shall not be cut or removed until all stories above such a floor have been demolished and removed. Walls, which are to serve as retaining walls against which debris will be piled, shall not be so used unless capable of safely supporting the imposed load. Mechanical equipment shall not be used on floors or working surfaces unless such floors or surfaces are not of sufficient strength to support the imposed load.

Rollover Guards – All equipment used in site clearing operations shall be equipped with rollover guards meeting the applicable requirements. In addition, rider-operated equipment shall be equipped with an overhead and rear canopy guard meeting the applicable requirements.

Inspections – During demolition, continuing inspections by a licensed Professional Engineer shall be made as the work progresses to detect hazards resulting from weakened or deteriorated floors, walls, or loosened material. No FP shall be permitted to work where such hazards exist until they are corrected by shoring, bracing, or other effective means.

9.2.3 Excavation and Cut/Fill Operations

9.2.3.1 Excavation/Trenching

Description of Tasks

This task includes the excavation of contaminated soils and superficial debris. Excavation depths vary across the Site.

Hazard Identification

The hazards of this activity are associated with heavy equipment operation, subsurface intrusion, manual materials handling, stockpiling, and disposal. Subsurface intrusion presents hazards associated with negotiating buried utilities, cave-ins of the excavated areas, and regress methods for personnel working inside the excavated areas. Disruption of contaminated soil also presents a health hazard.

Controls

Underground Utilities – The estimated locations of utility installations, such as sewer, telephone, fuel, electric, water lines, or any other underground installations that reasonably may be expected to be encountered during the excavation work, shall be determined prior to opening an excavation. Utility companies or owners shall be contacted ("Call Before You Dig") within established or customary local response times, advised of the proposed work, and asked to establish the location of the utility underground installations prior to the start of actual excavation.

When excavation operations approach the estimated location of underground installations, the exact location of the installations shall be determined by save and acceptable means. While the excavation is open, underground installations shall be protected, supported, or removed, as necessary, to safeguard Site personnel.

Cave-Ins – Project personnel in an excavation shall be protected from cave-ins by an adequate protective system, except when:

- Excavations are made entirely in stable rock or excavations are less than five feet in depth and examination of the ground by the SSO provides no indication of a potential cave-in.

- Protective systems shall have the capacity to resist, without failure, all loads that are intended or could reasonably be expected to be applied or transmitted to the system.

Project personnel shall be protected from excavated or other materials or equipment that could pose a hazard by falling or rolling into excavations. Protection shall be provided by placing and keeping such materials or equipment at least two feet from the edge of excavations, or by the use of retaining devices that are sufficient to prevent materials or equipment from falling or rolling into excavations, or by a combination of both if necessary.

Daily inspections of excavations, the adjacent areas, and protective systems shall be made by the SSO for evidence of a situation that could result in possible cave-ins, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions. An inspection shall be conducted by the SSO prior to the start of work and as needed throughout operations. Inspections shall also be made after every rainstorm or other hazard-increasing occurrence. These inspections are only required when project personnel exposure can be reasonably anticipated.

Where the SSO finds evidence of a situation that could result in a possible cave-in, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions, exposed personnel shall be removed from the hazardous area until the necessary precautions have been taken to ensure their safety.

Excavation Egress – A stairway, ladder, ramp, or other safe means of egress shall be located in trench excavations that are four feet or more in depth so as to require no more than 25 feet or lateral travel for project personnel.

9.2.3.2 Heavy Equipment Operation

Description of Tasks

Heavy equipment to be used for this task include, but are not limited to, excavators, dozers, dump trucks, and water sprayers (if required).

Hazard Identification

The most common type of accident that occurs in material handling operations is the "caught between" situation when a load is being handled and an object gets caught between two moving parts of the equipment. Operation of the heavy construction equipment may produce harmful noise.

Controls

Equipment Inspection – All vehicles in use shall be checked prior to operation to ensure that all parts, equipment, and accessories that affect safe operations are in proper operating condition and free from defects. All defects shall be corrected before the vehicle is placed in service.

Ground Guides – No personnel shall use any motor vehicle, earthmoving, or compacting equipment having an obstructed view to the rear, unless:

- The vehicle has a reverse signal alarm distinguishable from the surrounding noise level; or
- The vehicle is backed up only when an observer signals that it is safe to do so.

Blocking – Heavy machinery, equipment, or parts thereof that are suspended or held aloft shall be substantially blocked to prevent falling or shifting before employees are permitted to work under or between them.

Noise – Control measures for noise are addressed in Section 4.9.

Traffic – Control measures for traffic are addressed in Section 8.17.

9.2.3.3 Disturbance/Handling of Contaminated Material

Description of Tasks

After the contaminated soil is excavated from below the Site's surface, the material will be stockpiled, dried, and either transported offsite or relocated and backfilled on Site.

Hazard Identification

The hazards associated with materials handling include contact of the contaminated material with project personnel, or cross contamination with other Site soil.

Controls

Cross Contamination – Following excavation, contaminated soil stockpiles will be placed on a structure constructed to separate the material from the Site soil and collect any groundwater leachate. The material shall be covered to prevent storm water erosion or migration of contaminants through storm water.

Air Monitoring – Air and particulate monitoring will be conducted during soil excavation activities to assess the potential for exposure to airborne COCs. If the results of air monitoring indicate the presence of organic vapors or particulates in a concentration causing concern, personnel will upgrade to Level C protection. Refer to Section 5.1, Air Monitoring, for a description of air monitoring requirements and action levels. A description of each level of personal protection is included in Section 4.0, Personal Protective Equipment.

Traffic – Control measures for traffic are addressed in Section 8.17.

9.2.4 Drilling/Subsurface Intrusion Activities

Description of Tasks

Site mobilization will include establishing excavation locations, determining the location of utilities and other installations, and establishing work areas. Mobilization will also include setting up equipment and establishing a temporary Site office. A break area will be set up outside of regulated work areas. Mobilization may involve clearing areas for the SZ and CRZ. During this initial phase, project personnel will walk the site to confirm the existence of anticipated hazards and identify safety and health issues that may have arisen since the writing of this plan.

Hazard Identification

The primary physical hazards for this activity are associated with the use of soil boring and grouting equipment. The equipment is hydraulically powered and uses static force and dynamic percussion force to advance sampling and penetrating tubes.

Accidents can occur as a result of improperly placing the equipment on uneven or unstable terrain or failing to adequately secure the equipment prior to the start of operations. Overhead utility lines can create hazardous conditions if contacted by the equipment. Underground installations such as electrical lines, conduit, and product lines pose a significant hazard if contacted.

Controls

Geoprobe and Drill Rig Safety Procedures - The operator of the equipment must possess required state or local licenses to perform such work. All members of the crew shall receive Site-specific training prior to beginning work.

The operator is responsible for the safe operation of the rig, as well as the crew's adherence to the requirements of this HASP. The operator must ensure that all safety equipment is in proper condition and is properly used. The members of the crew must follow all instructions of the operator, wear all personal protective equipment, and be aware of all hazards and control procedures. The operator and crew must participate in the Daily Safety Meetings and be aware of all emergency procedures.

Equipment Inspection - Each day, prior to the start of work, the rig and associated equipment must be inspected by the operator. The following items must be inspected:

- Vehicle condition;
- Proper storage of equipment;
- Condition of all hydraulic lines;
- Fire extinguisher; and
- First aid kit.

Equipment Set Up - The drill rig must be properly blocked and leveled prior to raising the derrick. The wheels which remain on the ground must be chocked. The leveling jacks shall not be raised until the derrick is lowered. The rig shall be moved only after the derrick has been lowered.

All well sites will be inspected by the driller prior to the location of the rig to verify a stable surface exists. This is especially important in areas where soft, unstable terrain is common.

The drill rig must be properly blocked and leveled prior to raising the derrick. Blocking provides a more stable drilling structure by evenly distributing the weight of the rig. Proper blocking ensures that differential settling of the rig does not occur.

When the ground surface is soft or otherwise unstable, wooden blocks, at least 24" by 24" and 4" to 8" thick shall be placed between the jack swivels and the ground. The emergency brake shall be engaged, and the wheels that are on the ground shall be chocked.

Rules for Intrusive Activity - Before beginning any intrusive activity, the existence and location of underground pipe, conduit, electrical equipment, and other installations will be determined. This will be done, if possible, by contacting the appropriate client representative to mark the location of the lines. "Call Before You Dig" will verify the potential for encountering subsurface utilities. If the client's knowledge of the area is incomplete, an appropriate device, such as a magnetometer, will be used to locate the line.

Combustible gas readings of the general work area will be made regularly in areas where and/or during operations when the presence of flammable vapors or gases is suspected, such as during intrusive activities (see Section 5.1). Operations must be suspended and corrective action taken if the airborne flammable concentration reaches 10% of the LEL in the immediate area (a one-foot radius) of the point of drilling, or near any other ignition sources.

Overhead Electrical Clearances - If equipment is operated in the vicinity of overhead power lines, the power to the lines must be shut off or the equipment must be positioned and blocked such that no part, including cables, can come within the minimum clearances as follows:

Nominal System Voltage	Minimum Required Clearance
0-50kV	10 feet
51-100kV	12 feet
101-200kV	15 feet
201-300kV	20 feet
301-500kV	25 feet
501-750kV	35 feet
751-1,000kV	45 feet

When the drill rig is in transit, with the boom lowered and no load, the equipment clearance must be at least 4 feet for voltages less than 50kV, 10 feet for voltages of 50 kV to 345 kV, and 16 feet for voltages above 345 kV.

Hoisting Operations - Drillers should never engage the rotary clutch without watching the rotary table, and ensuring it is clear of personnel and equipment.

Unless the drawworks is equipped with an automatic feed control, the brake should not be left unattended without first being tied down.

Drill pipe, auger strings or casing should be picked up slowly. Drill pipe should not be hoisted until the driller is sure that the pipe is latched in the elevator, or the derrickman has signaled that he may safely hoist the pipe.

During instances of unusual loading of the derrick or mast, such as when making an unusually hard pull, only the driller should be on the rig floor; no one else should be on the rig or derrick.

The brakes on the drawworks of the drill rig should be tested by the driller each day. The brakes should be thoroughly inspected by a competent individual each week.

A hoisting line with a load imposed should not be permitted to be in direct contact with any derrick member or stationary equipment, unless it has been specifically designed for line contact.

Workers should never stand near the borehole whenever any wire line device is being run.

Hoisting control stations should be kept clean and controls labeled as to their functions.

Catline Operations - Only experienced workers will be allowed to operate the cathead controls. The kill switch must be clearly labeled and operational prior to operation of the catline. The cathead area must be kept free of obstructions and entanglements.

The operator should not use more wraps than necessary to pick up the load. More than one layer of wrapping is not permitted.

Personnel should not stand near, step over, or go under a cable or catline which is under tension.

Employees rigging loads on catlines shall:

- Keep out from under the load;
- Keep fingers and feet where they will not be crushed;
- Be sure to signal clearly when the load is being picked;
- Use standard visual signals only and not depend on shouting to coworkers; and
- Make sure the load is properly rigged, since a sudden jerk in the catline will shift or drop the load.

Wire Rope - When two wires are broken or rust or corrosion is found adjacent to a socket or end fitting, the wire rope shall be removed from service or re-socketed. Special attention shall be given to the inspection of end fittings on boom support, pendants, and guy ropes.

Wire rope removed from service due to defects shall be cut up or plainly marked as being unfit for further use as rigging.

Wire rope clips attached with U-bolts shall have the U-bolts on the dead or short end of the rope; the clip nuts shall be re-tightened immediately after initial load carrying use and at frequent intervals thereafter.

When a wedge socket fastening is used, the dead or short end of the wire rope shall have a clip attached to it or looped back and secured to itself by a clip; the clip shall not be attached directly to the live end.

Protruding ends of strands in splices on slings and bridles shall be covered or blunted.

Except for eye splices in the ends of wires and for endless wire rope slings, wire rope used in hoisting, lowering, or pulling loads, shall consist of one continuous piece without knot or splice.

An eye splice made in any wire rope shall have not less that five full tucks.

Wire rope shall not be secured by knots. Wire rope clips shall not be used to splice rope.

Eyes in wire rope bridles, slings, or bull wires shall not be formed by wire clips or knots.

Pipe/Auger Handling - Pipe and auger sections shall be transported by cart or carried by two persons. Individuals should not carry auger or pipe sections without assistance.

Workers should not be permitted on top of the load during loading, unloading, or transferring of pipe or rolling stock.

Employees should be instructed never to try to stop rolling pipe or casing; they should be instructed to stand clear of rolling pipe.

Slip handles should be used to lift and move slips. Employees are not permitted to kick slips into position.

When pipe is being hoisted, personnel should not stand where the bottom end of the pipe could whip and strike them.

Pipe and augers stored in racks, catwalks or on flatbed trucks should be secured to prevent rolling.

9.2.5 Subsurface Chemical Sample Collection/Analysis

Description of Tasks

This sub-task consists of the collection of soil samples for subsequent field and laboratory analysis. The physical hazards of soil sampling are primarily associated with the sample collection methods, procedures utilized, and the environment itself.

Hazard Identification

Incidental contact with COCs is the primary hazard associated with sampling the stabilized material. This contact may occur through the manipulation of sample media and equipment, manual transfer of media into sample containers, and proximity of operations to the breathing zone. The primary hazards associated with these sampling procedures are not potentially serious; however, other operations in the area, or the conditions under which samples must be collected, may present chemical and physical hazards. The hazards directly associated with sampling procedures are generally limited to strains/sprains and potential eye hazards. Potential chemical hazards may include contact with media containing Site COCs and potential contact with chemicals used for equipment decontamination.

Controls

PPE – To control dermal exposure during sampling activities, a minimum of Level D protection will be worn. If necessary, based on field observations and Site conditions, air monitoring may be conducted during sediment sampling activities. If the results of air monitoring indicate the presence of airborne contaminants in a concentration causing concern, personnel will upgrade to Level C protection. Refer to Section 5.1, Air Monitoring, for a description of air monitoring requirements and action levels. A description of each level of personal protection is included in Section 4.0, Personal Protective Equipment.

9.2.6 UST Closure

9.2.6.1 Working in Confined Spaces

Description of Tasks

The project may involve the closure of USTs, if identified.

Hazard Identification

Closure activities may require the entrance into confined spaces to facilitate cleaning and removal of the USTs.

Controls

All personnel required to enter into confined or enclosed spaces must be instructed as to the nature of the hazards involved, the necessary precautions to be taken, and in the use of required protective and emergency equipment. The PO shall comply with all specific regulations that apply to work in dangerous or potentially dangerous areas.

9.2.6.2 Working with Compressed Air

Description of Tasks

The proposed method of purging the USTs includes the injection of compressed gas into the tank and attached piping network.

Hazard Identification

Uncontrolled release of the highly pressured air can cause injury to FP during this task. Cylinders must also be properly managed to ensure they are not compromised during storage and/or use.

Controls

Pressure Regulation – Compressed air used for cleaning purposes shall be reduced to less than 30 pounds per square inch and then only with effective chip guarding and personal protective equipment.

Cylinder Storage – Valve protection caps shall be in place and secured when compressed gas cylinders are transported, moved, or stored. Cylinder valves shall be closed when work

is finished and when cylinders are empty or are moved. Compressed gas cylinders shall be secured in an upright position at all times, except if necessary for short periods of time when cylinders are actually being hoisted or carried. Cylinders shall be placed in a location where they cannot become part of an electrical circuit.

9.2.7 Decontamination

All equipment will be decontaminated before leaving the Site. Personnel involved in decontamination activities may be inadvertently exposed to skin contact with contaminated materials and chemicals brought from the EZ. Personnel involved in decontamination activities must wear PPE that is, at a minimum, one level below the level worn by personnel working in the EZ.

9.2.8 Demobilization

Demobilization involves the removal of all tools, equipment, supplies, and vehicles brought to the Site. The hazards of this phase of activity are associated with heavy equipment operation and manual materials handling.

Manual materials handling may cause blisters, sore muscles, and joint and skeletal injuries; and may present eye, contusion, and laceration hazards. Heavy equipment operation presents noise and vibration hazards, and hot surfaces, to operators. Personnel in the vicinity of heavy equipment operation may be exposed to physical hazards resulting in fractures, contusions, and lacerations and may be exposed to high noise levels. The work area presents slip, trip, and fall hazards from scattered debris and irregular walking surfaces. Rainy weather may cause wet, muddy, slick walking surfaces, and unstable soil. Freezing weather hazards include frozen, slick, and irregular walking surfaces.

Environmental hazards include plants, such as poison ivy and poison oak; aggressive fauna, such as ticks, fleas, mosquitoes, wasps, spiders, and snakes; weather, such as sunburn, lightning, rain, and heat-or cold-related illnesses; and pathogens, such as rabies, Lyme disease, and blood-borne pathogens.

Control procedures for these hazards are discussed in Section 8.0, General Safety Practices.

9.3 Chemical Hazards

The chemical hazards associated with Site operations are related to inhalation, ingestion, and skin exposure to Site COCs. Concentrations of airborne COCs during Site tasks may be measurable and will require air monitoring during certain operations. Air monitoring requirements for Site tasks are outlined in Section 5.1.

COCs at the Site include heavy metals, some VOC compounds, some SVOC compounds and potentially other industrial chemicals including PCBs and pesticides.

The potential for inhalation of Site COCs is low. The potential for dermal contact with soils containing Site COCs during remedial operations is moderate. **Table 6** below lists the primary contaminants that have been identified at the Site and the media in which they are present.

Table 6 – List of Primary Contaminants

Media: Soil		
Pesticides	**Maximum Concentration (mg/kg)**	**Applicable Monitoring Instrument**
4,4'-DDE	0.018	Not Applicable
4,4'-DDD	0.0484	Not Applicable
4,4'-DDT	0.0394	Not Applicable
Cis-chlordane	0.223	Not Applicable
SVOCs	**Maximum Concentration (mg/kg)**	**Applicable Monitoring Instrument**
Acenapthelene	150	PID
Fluoranthene	940	PID
Naphthalene	120	PID
Benzo(a)anthracene	350	PID
Benzo(a)pyrene	330	PID
Benzo(b)fluoranthene	390	PID
Benzo(k)fluoranthene	150	PID
Chrysene	320	PID
Anthracene	260	PID

SVOCs	Maximum Concentration (mg/kg)	Applicable Monitoring Instrument
Benzo(g,h,i)perylene	190	PID
Fluorene	130	PID
Phenanthrene	800	PID
Dibenzo(a,h)anthracene	45	PID
Indeno(1,2,3-cd)pyrene	220	PID
Pyrene	750	PID
Dibenzofuran	79	PID
PCBs	**Maximum Concentration (mg/kg)**	**Applicable Monitoring Instrument**
PCBs, Total	0.178	Not Applicable
Metals	**Maximum Concentration (mg/kg)**	**Applicable Monitoring Instrument**
Chromium	65.9	Not Applicable
Copper	179	Not Applicable
Lead	524	Not Applicable
Mercury	0.347	Not Applicable
Nickel	61.9	Not Applicable
Zinc	360	Not Applicable

Media: Groundwater		
PFOAs	**Maximum Concentration (ug/L)**	**Applicable Monitoring Instrument**
Perfluorooctanoic Acid	36.9	Not Applicable
Perfluorooctanesulfonic Acid	117	Not Applicable
SVOCs	**Maximum Concentration (ug/L)**	**Applicable Monitoring Instrument**
Fluoranthene	140	PID
Benzo(a)anthracene	0.13	PID
Benzo(a)pyrene	0.11	PID
Benzo(b)fluoranthene	0.14	PID
Benzo(k)fluoranthene	32	PID
Chrysene	0.12	PID

SVOCs	Maximum Concentration (ug/L)	Applicable Monitoring Instrument
Bis(2-Ethylhexyl)phthalate	18	PID
Pyrene	110	PID
Pentachlorophenol	2.3	PID
Phenol	8.5	PID
Metals	**Maximum Concentration (ug/L)**	**Applicable Monitoring Instrument**
Barium	1432	Not Applicable
Chromium	283.4	Not Applicable
Copper	333	Not Applicable
Iron	140000	Not Applicable
Lead	3.15	Not Applicable
Magnesium	236000	Not Applicable
Manganese	2905	Not Applicable
Nickel	228.1	Not Applicable
Selenium	14.7	Not Applicable
Sodium	911000	Not Applicable
Thalium	1.89	Not Applicable

Media: Vapor		
VOCs	**Maximum Concentration (ug/m3)**	**Applicable Monitoring Instrument**
Toluene	36.9	PID
Ethanol	237	PID
Ethylbenzene	6.08	PID
2-Butanone	66.9	PID
Tertiary butyl Alcohol	26.7	PID
Xylene	30.03	PID
cis-1,2 Dichloroethene	85.2	PID
Trichloroethene	216	PID
Carbon tetrachloride	34.9	PID
Tetrachloroethene	834	PID

10.0 EMERGENCY PROCEDURES

10.1 General

Prior to the start of operations, the work area will be evaluated for the potential for fire, contaminant release, or other catastrophic event. Unusual conditions or events, activities, chemicals, and conditions will be reported to the FS/SSO immediately.

The FS/SSO will establish evacuation routes and assembly areas for the Site. All personnel entering the Site will be informed of this route and the assembly area.

10.2 Emergency Response

If an incident occurs, the following steps will be taken:

- The FS/SSO will evaluate the incident and assess the need for assistance and/or evacuation;
- The FS/SSO will call for outside assistance as needed;
- The FS/SSO will ensure the PM is notified promptly of the incident; and
- The FS/SSO will take appropriate measures to stabilize the incident scene.

10.2.1 Fire

In the case of a fire at the Site, the FS/SSO will assess the situation and direct fire-fighting activities. The FS/SSO will ensure that the PM is immediately notified of any fires. Site personnel will attempt to extinguish the fire with available extinguishers, if safe to do so. In the event of a fire that Site personnel are unable to safely extinguish with one fire extinguisher, the local fire department will be summoned.

10.2.2 Contaminant Release

In the event of a contaminant release, the following steps will be taken:

- Notify FS/SSO immediately;
- Evacuate immediate area of release;
- Conduct air monitoring to determine needed level of PPE; and
- Don required level of PPE and prepare to implement control procedures.

The FS/SSO has the authority to commit resources as needed to contain and control released material and to prevent its spread to off-Site areas.

10.3 Medical Emergency

All employee injuries must be promptly reported to the SSO/FS, who will:

- Ensure that the injured employee receives prompt first aid and medical attention;
- In emergency situations, the worker is to be transported by appropriate means to the nearest urgent care facility (normally a hospital emergency room); and
- If the injured person is a SESI employee, notify SESI at 973-808-9050.

10.3.1 Emergency Care Steps

Survey the scene. Determine if it is safe to proceed. Try to determine if the conditions that caused the incident are still a threat. Protect yourself from exposure before attempting to rescue the victim.

- Do a primary survey of the victim. Check for airway obstruction, breathing, and pulse. Assess likely routes of chemical exposure by examining the eyes, mouth, nose, and skin of the victim for symptoms.
- Phone Emergency Medical Services (EMS). Give the location, telephone number used, caller's name, what happened, number of victims, victim's condition, and help being given.
- Maintain airway and perform rescue breathing as necessary.
- Perform CPR as necessary.
- Do a secondary survey of the victim. Check vital signs and do a head-to-toe exam.

Treat other conditions as necessary. If the victim can be moved, take him/her to a location away from the work area where EMS can gain access.

10.4 First Aid - General

All persons must report any injury or illness to their immediate supervisor or the FS. Trained personnel will provide first aid. Injuries and illnesses requiring medical treatment must be documented. The FS and SSO must fill out an accident/incident report as soon as emergency conditions no longer exist and first aid and/or medical treatment has been ensured. The report must be completed and submitted to the PM within 24 hours after the incident.

If first-aid treatment is required, first aid kits are kept at the CRZ. If treatment beyond first aid is required, the injured person(s) should be transported to the medical facility. If the injured person is not ambulatory or shows any sign of not being in a comfortable and stable

condition for transport, then an ambulance/paramedics should be summoned. If there is any doubt as to the injured worker's condition, it is best to let the local paramedic or ambulance service examine and transport the worker.

10.4.1 First Aid - Inhalation

Any employee complaining of symptoms of chemical overexposure as described in Section 4, General Site Safety Procedures, will be removed from the work area and transported to the designated medical facility for examination and treatment.

10.4.2 First Aid - Ingestion

Call EMS and consult a poison control center for advice. If available, refer to the MSDS for treatment information. If the victim is unconscious, keep them on their side and clear the airway if vomiting occurs.

10.4.3 First Aid - Skin Contact

Project personnel who have had skin contact with contaminants will, unless the contact is severe, proceed through the CRZ, to the wash area. Personnel will remove any contaminated clothing and then flush the affected area with water for at least 15 minutes. The worker should be transported to the medical facility if he/she shows any sign of skin reddening, irritation, or if he/she requests a medical examination.

10.4.4 First Aid - Eye Contact

Project personnel who have had contaminants splashed in their eyes or who have experienced eye irritation while in the EZ, must immediately proceed to the eyewash station in the CRZ. Do not decontaminate prior to using the eyewash. Remove whatever protective clothing is necessary to use the eyewash. Flush the eye with clean running water for at least 15 minutes. Arrange prompt transport to the designated medical facility.

10.5 Reporting Injuries, Illnesses, and Safety Incidents

Injuries and illnesses, however minor, will be reported to the FS immediately. The FS will complete an injury report and submit it to the HSM, and the PM by end of shift.

10.6 Emergency Information

The means to summon local public response agencies such as police, fire, and ambulance will be reviewed in the daily safety meeting. These agencies are identified in **Table 7** below.

Table 7 – Emergency Contacts

Local Emergency Contacts	**Telephone No.**
EMERGENCY	911
White Plains Hospital	(914) 681-0600
Police Emergency	911
Fire Emergency	911
Rescue Squad	911
Ambulance	911
Miscellaneous Contacts	**Telephone No.**
N.Y. Poison Control Center	(800) 222-1222
National Response Center and Terrorist Hotline	(800) 424-8802
Center for Disease Control	(800) 311-3435
Utility Mark-Out	(800) 962-7962

10.6.1 Directions to Hospital

White Plains Hospital

41 E Post Rd, White Plains, NY 10601

(914) 681-0600

Directions to Hospital:

70 Westchester Ave
White Plains, NY 10601

↑ Head toward Westchester Ave

62 ft

↱ Turn right onto Westchester Ave

0.1 mi

↖ Use the 2nd from the left lane to turn slightly left toward S Broadway

377 ft

↰ Use the right lane to turn left onto S Broadway

0.2 mi

↑ Continue onto E Post Rd
ⓘ Pass by Webster Bank (on the right)

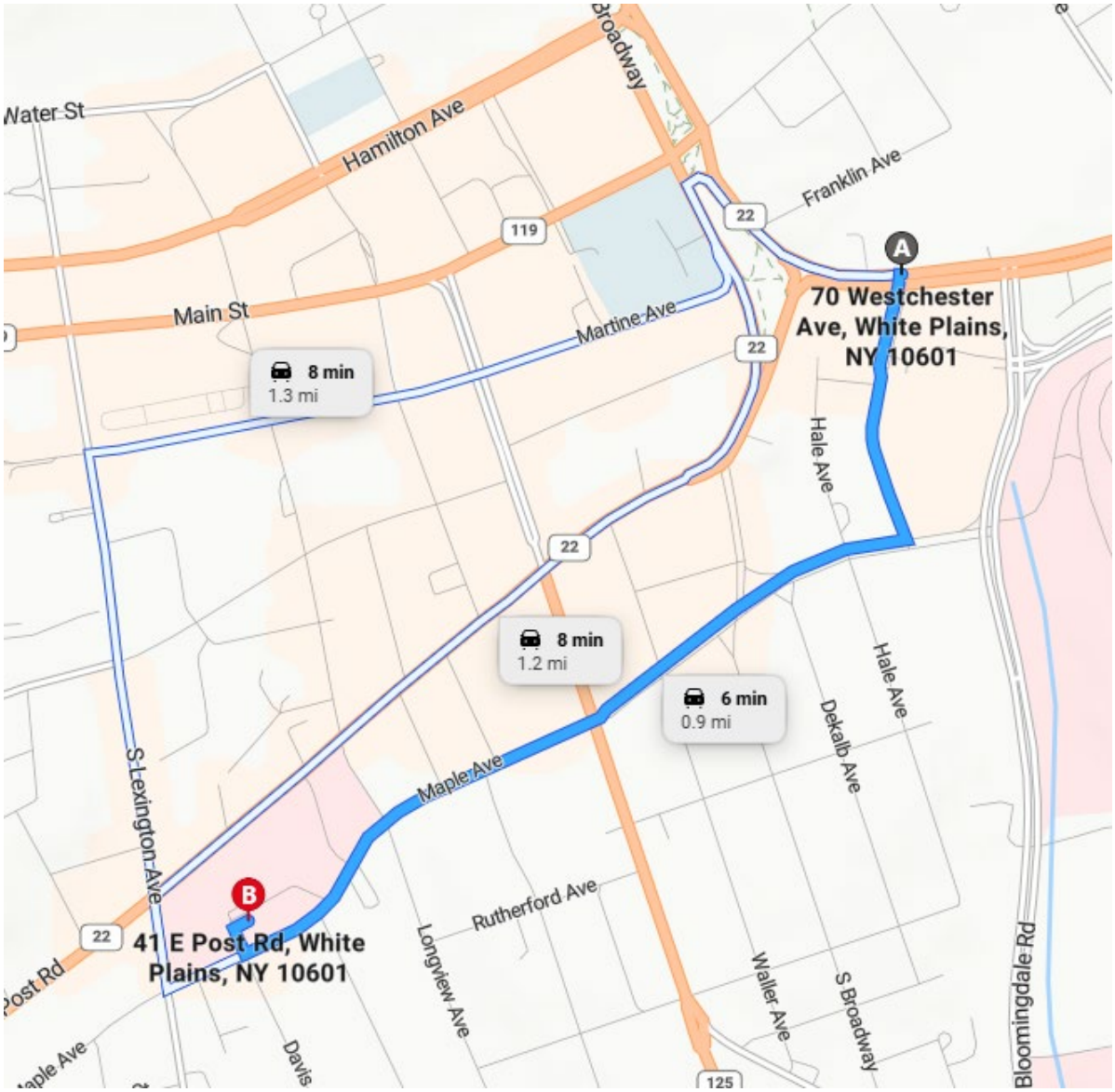
0.5 mi

↰ Turn left
ⓘ Destination will be on the right

154 ft

White Plains Hospital
41 E Post Rd, White Plains, NY 10601

Figure 10.1: Directions to Hospital



White Plains Hospital is depicted on **Figure 10.1**.

11.0 LOGS, REPORTS, AND RECORD KEEPING

The following is a summary of required health and safety logs, reports, and record keeping for the operations at the subject Site.

11.1 HASP Field Change Request

To be completed for initiating a change to the HASP. PM approval is required. The original will be kept in the project file (See Attachment 3).

11.2 Medical and Training Records

The HSM must obtain and keep a log of personnel meeting appropriate training and medical qualifications for the Site work. The log will be kept in the project file. Each company's Human Resources Department will maintain medical records, in accordance with 29 CFR 1910.1020.

11.3 Exposure Records

Any personnel monitoring results, laboratory reports, calculations, and air sampling data sheets are part of an employee exposure record. These records will be kept in accordance with 29 CFR 1910.1020. For SESI employees, the originals will be sent to the Human Resources Manager. For subcontractor employees, the original file will be sent to the subcontractor employer with a copy maintained in the SESI project file.

11.4 Accident/Incident Report

Any accident/incident reports must be completed following procedures given in Section 10.5 of this HASP. The originals will be sent to the HSM for maintenance. A copy of the forms will be kept in the project file. (See Attachment 4)

11.5 OSHA Form 200

An OSHA Form 200 (Log of Occupational Injuries and Illnesses) will be kept at the project Site. All recordable injuries or illnesses will be recorded on this form. At the end of the project, the original will be sent to the Human Resources Manager for maintenance. Subcontractor employees must also meet the requirements of maintaining an OSHA 200 Form. The accident/incident report meets the requirements of the OSHA Form 101 (Supplemental Record), which must be maintained with the OSHA Form 200 for all recordable injuries or illnesses.

11.6 On-Site Health and Safety Field Logbooks

The HSM or designee will maintain an on-Site health and safety log book in which daily Site conditions, activities, personnel, and significant events will be recorded. Calibration records

and personnel monitoring results, if available, will also be recorded in the field logbook. The original logbook will be kept in the project file.

Whenever any personnel monitoring is conducted on-Site, the monitoring results will be noted in the filed logbook. These will become part of the exposure records file and will be maintained by the HSM.

A signatory page is included (See Attachment 5) and is to be signed by those working on and/or visiting the Site.

11.7 Material Safety Data Sheets

Material Safety Data Sheets (MSDS) will be obtained and kept on file at the project Site for each hazardous chemical brought to, use, or stored at the Site (See Attachment 6).

12.0 COVID-19 RESPONSE ACTION PLAN

SESI is concerned with the safety and well-being of its employees, vendors, subcontractors, and others with access to its offices and job Sites, with particular emphasis on the unique challenges posed by COVID-19.

SESI has established the following protocols in keeping with the recommendations of the CDC and other sources including State Governor Executive Orders for work taking place on construction Sites.

We request that all SESI employees, vendors, and subcontractors help with our prevention efforts while at work.

In order to minimize the spread of COVID-19, we must all cooperate in doing the following:

- Frequently wash your hands with soap and water for at least 20 seconds. When soap and running water are unavailable, use an alcohol-based hand rub with at least 60% alcohol. Always wash hands that are visibly soiled.
- Cover your mouth and nose with a tissue when you cough or sneeze or use the inside of your elbow.

- Discourage handshaking, avoid touching your eyes, nose, or mouth with unwashed hands.
- Limit the sharing of tools, machinery, equipment, phones, desks, and computers.
- Wear cloth face coverings on all construction sites.
- Avoid close contact with people who are sick.
- Employees who have symptoms (i.e., fever, cough, or shortness of breath) should notify their supervisor and stay home—DO NOT GO TO WORK.
- Sick employees should follow CDC-recommended steps. Employees should not return to work until the criteria to discontinue home isolation are met, in consultation with healthcare providers and state and local health departments.

The following are the specific jobsite protocols and response actions to be taken in the event someone on Site has been in contact with, or has themselves, the COVID-19 virus:

OFFICE/JOBSITE PROTOCOL

- If an employee/worker exhibits COVID-19 symptoms, the employee/worker must remain at home until he or she is symptom free for 72 hours (3 full days) without the use of fever-reducing or other symptom-altering medicines (e.g. acetaminophen, cough suppressants). SESI will similarly require an employee or worker that reports to work with symptoms to return home until they are symptom free for 72 hours (3 full days).
- Limit person to person contact, and when unavoidable, maintain CDC distancing guidelines.
- Avoid eating lunch in groups.
- Avoid in-person meetings if possible. If an in-person meeting is necessary, conduct it in a well-ventilated area with enough space for attendees to distance themselves from one another. Field jobsite meetings should be conducted in smaller group meetings (no more than 5 persons when possible) versus one large meeting.
- Only workers necessary to the execution of the work should be at the jobsites. No non-essential visitors should be permitted at the worksite.

RESPONSE ACTION TRIGGER EVENTS:

- an employee/worker at work has tested positive for COVID-19
- an employee/worker at work has suspected, but unconfirmed, case of COVID-19
- an employee/worker self-reported that they came in contact with someone who had a presumptive positive case of COVID-19
- an employee/worker has been exposed to the virus but only found out after they have interacted with others

RESPONSE ACTIONS:

- Upon occurrence of any of the Trigger Events above, employees/subcontractors shall notify SESI Management about the suspected employee/worker infected with, or exposed to, COVID-19.
- SESI Management will investigate the incident to confirm the report is valid.

- Employees/Subcontractors shall investigate their respective infected employee(s) and report the following to SESI Management and HR:
    - Identify all individuals who worked in proximity (six feet) of the infected employee/worker,
    - Employee(s)/Worker(s) infected with the COVID-19 virus, and employee(s)/worker(s) that came in contact with the infected employee/worker shall be sent home for a period of 14 days,
    - Do not identify the infected employee/worker by name to avoid violation of privacy/confidentiality laws, and,
    - Keep SESI Management informed of progress and updates.

- If an infected person was in the office, SESI will clean and disinfect common areas and surfaces, in accordance with CDC recommendations.
- SESI Management will notify affected employees/workers of the Trigger Event and instruct them to take the response actions above.
- **SESI Management policy requires written documentation from a health care professional, that confirmed infected employees can return to work.**

Except for circumstances in which SESI is legally required to report workplace occurrences of communicable disease, the confidentiality of all medical conditions will be maintained in accordance with applicable law and to the extent practical under the circumstances. When required, the number of persons who will be informed of an employee's/worker's condition will be kept at the minimum needed to appropriately notify other potentially affected employees/workers of Trigger Events and to attempt to minimize the potential for transmission of the virus.

Attachment 1:
Air Monitor Log

Air Monitoring: Sample Collection and Analysis

Date & Time of Monitoring	Task / Operation Being	Substance(s)/ Hazard(s) Being	Monitoring Location	Type/Method of Monitoring	Monitoring Results	Exposure Limits	Required Action

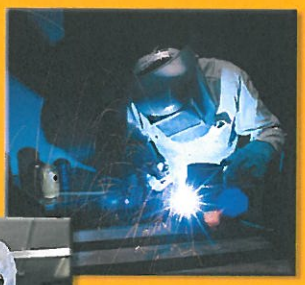
Attachment 2:
OSHA Poster

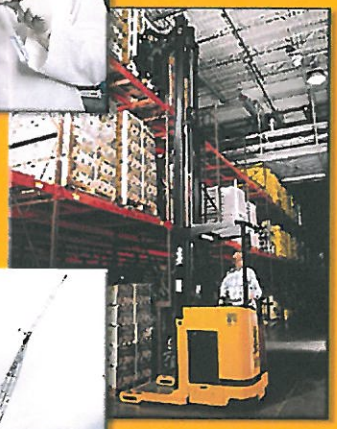
Job Safety and Health

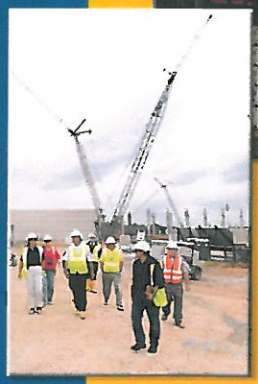
It's the law!

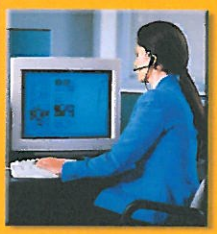
OSHA®

Occupational Safety and Health Administration
U.S. Department of Labor









EMPLOYEES:

- You have the right to notify your employer or OSHA about workplace hazards. You may ask OSHA to keep your name confidential.
- You have the right to request an OSHA inspection if you believe that there are unsafe and unhealthful conditions in your workplace. You or your representative may participate in that inspection.
- You can file a complaint with OSHA within 30 days of retaliation or discrimination by your employer for making safety and health complaints or for exercising your rights under the *OSH Act*.
- You have the right to see OSHA citations issued to your employer. Your employer must post the citations at or near the place of the alleged violations.
- Your employer must correct workplace hazards by the date indicated on the citation and must certify that these hazards have been reduced or eliminated.
- You have the right to copies of your medical records and records of your exposures to toxic and harmful substances or conditions.
- Your employer must post this notice in your workplace.
- You must comply with all occupational safety and health standards issued under the *OSH Act* that apply to your own actions and conduct on the job.

EMPLOYERS:

- You must furnish your employees a place of employment free from recognized hazards.
- You must comply with the occupational safety and health standards issued under the *OSH Act*.

This free poster available from OSHA –
The Best Resource for Safety and Health

Free assistance in identifying and correcting hazards or complying with standards is available to employers, without citation or penalty, through OSHA-supported consultation programs in each state.

1-800-321-OSHA (6742)
www.osha.gov

OSHA 3165-02 2012R

Attachment 3:
Field Change Request Form

HEALTH & SAFETY PLAN
CHANGE NOTICE

Pages _____ of _____

Project: H&S-CN

1) HASP VERSION: _____ SECTION: _____ PAGE (s): _____

RE: --- Change to existing HASP Anticipated Revision Date: _____
--- Addition to existing HASP
--- Other: _____
_____CONT._____

2) PROPOSED CHANGE: _____
_____
_____
_____

3) REASON FOR PROPOSED CHANGE(s):
--- Required by SPEC or Change Order --- Other: _____
--- Disposition of Deficiency _____CONT._____
--- Change in Regulatory or Other Requirements
--- Operational Experience

4) EXHIBITS ATTACHED ____ NO ____ YES (If YES, describe) _____
_____CONT._____

5) PMK APPROVALS PROJECT MANAGER: _____ Date: _____
SITE MANAGER: _____ Date: _____
H&S MANAGER: _____ Date: _____

Client Approval Required: ____ NO ____ YES (If YES, date submitted) _____

6) CLIENT APPROVAL _____ APPROVED _____ REMANDED _____ REJECTED

Comments: _____
_____
_____ CONT._____

Client Representative: _____Date: _____

7) DISTRIBUTION AFTER APPROVAL

X HASP UPDATE LIST --- OTHER: _____
X CLIENT _____
X PROJECT FILES _____

8) PREPARED BY: _____Date: _____
Title: _____

Attachment 4:
Injury Report Form

OSHA's Form 301
Injury and Illness Incident Report

Attention: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.

U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

This *Injury and Illness Incident Report* is one of the first forms you must fill out when a recordable work-related injury or illness has occurred. Together with the *Log of Work-Related Injuries and Illnesses* and the accompanying *Summary*, these forms help the employer and OSHA develop a picture of the extent and severity of work-related incidents.

Within 7 calendar days after you receive information that a recordable work-related injury or illness has occurred, you must fill out this form or an equivalent. Some state workers' compensation, insurance, or other reports may be acceptable substitutes. To be considered an equivalent form, any substitute must contain all the information asked for on this form.

According to Public Law 91-596 and 29 CFR 1904, OSHA's recordkeeping rule, you must keep this form on file for 5 years following the year to which it pertains.

If you need additional copies of this form, you may photocopy and use as many as you need.

Completed by _____

Title _____

Phone (_____)_____-_____ Date ____/ ____/ ____

Information about the employee

1) Full name _____

2) Street _____

City _____ State _____ ZIP _____

3) Date of birth ____/ ____/ ____

4) Date hired ____/ ____/ ____

5) ☐ Male
☐ Female

Information about the physician or other health care professional

6) Name of physician or other health care professional _____

_____

7) If treatment was given away from the worksite, where was it given?

Facility _____

Street _____

City _____ State _____ ZIP _____

8) Was employee treated in an emergency room?
☐ Yes
☐ No

9) Was employee hospitalized overnight as an in-patient?
☐ Yes
☐ No

Information about the case

10) Case number from the *Log* _____ *(Transfer the case number from the Log after you record the case.)*

11) Date of injury or illness ____/ ____/ ____

12) Time employee began work _____ AM / PM

13) Time of event _____ AM / PM ☐ Check if time cannot be determined

14) ***What was the employee doing just before the incident occurred?*** Describe the activity, as well as the tools, equipment, or material the employee was using. Be specific. *Examples:* "climbing a ladder while carrying roofing materials"; "spraying chlorine from hand sprayer"; "daily computer key-entry."

15) ***What happened?*** Tell us how the injury occurred. *Examples:* "When ladder slipped on wet floor, worker fell 20 feet"; "Worker was sprayed with chlorine when gasket broke during replacement"; "Worker developed soreness in wrist over time."

16) ***What was the injury or illness?*** Tell us the part of the body that was affected and how it was affected; be more specific than "hurt," "pain," or sore." *Examples:* "strained back"; "chemical burn, hand"; "carpal tunnel syndrome."

17) ***What object or substance directly harmed the employee?*** *Examples:* "concrete floor"; "chlorine"; "radial arm saw." *If this question does not apply to the incident, leave it blank.*

18) ***If the employee died, when did death occur?*** Date of death ____/ ____/ ____

Public reporting burden for this collection of information is estimated to average 22 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Persons are not required to respond to the collection of information unless it displays a current valid OMB control number. If you have any comments about this estimate or any other aspects of this data collection, including suggestions for reducing this burden, contact: US Department of Labor, OSHA Office of Statistical Analysis, Room N-3644, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office.

OSHA's Form 300 (Rev. 01/2004)

Log of Work-Related Injuries and Illnesses

Attention: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.

Year 20__ __

U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

You must record information about every work-related death and about every work-related injury or illness that involves loss of consciousness, restricted work activity or job transfer, days away from work, or medical treatment beyond first aid. You must also record significant work-related injuries and illnesses that are diagnosed by a physician or licensed health care professional. You must also record work-related injuries and illnesses that meet any of the specific recording criteria listed in 29 CFR Part 1904.8 through 1904.12. Feel free to use two lines for a single case if you need to. You must complete an Injury and Illness Incident Report (OSHA Form 301) or equivalent form for each injury or illness recorded on this form. If you're not sure whether a case is recordable, call your local OSHA office for help.

Establishment name _____

City _____ State _____

Identify the person			Describe the case			Classify the case (CHECK ONLY ONE box for each case based on the most serious outcome for that case:)				Enter the number of days the injured or ill worker was:		Check the "Injury" column or choose one type of illness:					
								Remained at Work				(M)					
(A) Case no.	(B) Employee's name	(C) Job title (*e.g., Welder*)	(D) Date of injury or onset of illness	(E) Where the event occurred (*e.g., Loading dock north end*)	(F) Describe injury or illness, parts of body affected, and object/substance that directly injured or made person ill (*e.g., Second degree burns on right forearm from acetylene torch*)	Death (G)	Days away from work (H)	Job transfer or restriction (I)	Other recordable cases (J)	Away from work (K)	On job transfer or restriction (L)	Injury (1)	Skin disorder (2)	Respiratory condition (3)	Poisoning (4)	Hearing loss (5)	All other illnesses (6)
____			__/__ month/day			☐	☐	☐	☐	____ days	____ days	☐	☐	☐	☐	☐	☐
____			__/__ month/day			☐	☐	☐	☐	____ days	____ days	☐	☐	☐	☐	☐	☐
____			__/__ month/day			☐	☐	☐	☐	____ days	____ days	☐	☐	☐	☐	☐	☐
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____			__/__ month/day			☐	☐	☐	☐	____ days	____ days	☐	☐	☐	☐	☐	☐
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____			__/__ month/day			☐	☐	☐	☐	____ days	____ days	☐	☐	☐	☐	☐	☐
Page totals ➤						____	____	____	____	____	____	____	____	____	____	____	____

Be sure to transfer these totals to the Summary page (Form 300A) before you post it.

Public reporting burden for this collection of information is estimated to average 14 minutes per response, including time to review the instructions, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any other aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistical Analysis, Room N-3644, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office.

Injury (1) Skin disorder (2) Respiratory condition (3) Poisoning (4) Hearing loss (5) All other illnesses (6)

OSHA's Form 300A (Rev. 01/2004)

Summary of Work-Related Injuries and Illnesses

Year 20__ __

U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

All establishments covered by Part 1904 must complete this Summary page, even if no work-related injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete and accurate before completing this summary.

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the Log. If you had no cases, write "0."

Employees, former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR Part 1904.35, in OSHA's recordkeeping rule, for further details on the access provisions for these forms.

Number of Cases

Total number of deaths	Total number of cases with days away from work	Total number of cases with job transfer or restriction	Total number of other recordable cases
_____	_____	_____	_____
(G)	(H)	(I)	(J)

Number of Days

Total number of days away from work	Total number of days of job transfer or restriction
_____	_____
(K)	(L)

Injury and Illness Types

Total number of . . .	(M)		
(1) Injuries	_____	(4) Poisonings	_____
		(5) Hearing loss	_____
(2) Skin disorders	_____	(6) All other illnesses	_____
(3) Respiratory conditions	_____		

Post this Summary page from February 1 to April 30 of the year following the year covered by the form.

Public reporting burden for this collection of information is estimated to average 58 minutes per response, including time to review the instructions, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any other aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistical Analysis, Room N-3644, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office.

Establishment information

Your establishment name _____

Street _____

City _____ State _____ ZIP _____

Industry description (*e.g., Manufacture of motor truck trailers*)

_____

Standard Industrial Classification (SIC), if known (*e.g., 3715*)

__ __ __ __

OR

North American Industrial Classification (NAICS), if known (e.g., 336212)

__ __ __ __ __ __

Employment information *(If you don't have these figures, see the Worksheet on the back of this page to estimate.)*

Annual average number of employees _____

Total hours worked by all employees last year _____

Sign here

Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

_____ _____
Company executive Title

( ) - / /
Phone Date

Attachment 5:
Signatory Page

Attachment 5 – Site-Specific Health and Safety Orientation Signatory Page
HEALTH AND SAFETY PLAN

Title	Name	Signature
Project Manager:	TBD	
Health and Safety Manager:	TBD	

I have read the attached Health and Safety Plan (HASP) and have received site-specific information and orientation regarding the identified physical, chemical, and biological hazards anticipated at this site. My signature certifies that I understand the procedures, equipment, and restrictions applicable to this project site and agree to abide by them.

Signature	Printed Name	Company	Date

Attachment 5– Health and Safety Orientation Signatory Page (continued)

Signature	Printed Name	Company	Date

Attachment 6:

Material Safety Data Sheets

ChemicalBook

Chemical Safety Data Sheet MSDS / SDS

1,1,1-Trichloroethane

Revision Date:2026-04-04 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: 1,1,1-Trichloroethane
CBnumber	: CB3701849
CAS	: 71-55-6
EINECS Number	: 200-756-3
Synonyms	: 1，1，1-trichloroethane,Trichloroethane

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Warning

Precautionary statements

P502 Refer to manufacturer/supplier for information on recovery/recycling

Hazard statements

H420 Harms public health and the environment by destroying ozone in the upper atmosphere

SECTION 3: Composition/information on ingredients

Substance

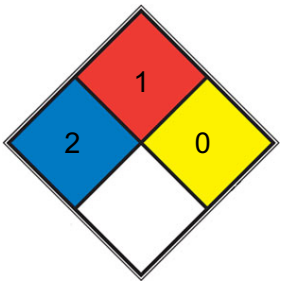
Product name	: 1,1,1-Trichloroethane
Synonyms	: 1，1，1-trichloroethane,Trichloroethane

CAS	: 71-55-6
EC number	: 200-756-3
MF	: C2H3Cl3
MW	: 133.4

SECTION 4: First aid measures

SECTION 5: Firefighting measures

NFPA 704



HEALTH	2	Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury (e.g. diethyl ether, ammonium phosphate, iodine)
FIRE	1	Materials that require considerable preheating, under all ambient temperature conditions, before ignition and combustion can occur. Includes some finely divided suspended solids that do not require heating before ignition can occur. Flash point at or above 93.3 °C (200 °F). (e.g. mineral oil, ammonia)
REACT	0	Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium,N2)
SPEC. HAZ.		

SECTION 6: Accidental release measures

SECTION 7: Handling and storage

SECTION 8: Exposure controls/personal protection

control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

SECTION 9: Physical and chemical properties

SECTION 10: Stability and reactivity

SECTION 11: Toxicological information

SECTION 12: Ecological information

SECTION 13: Disposal considerations

SECTION 14: Transport information

SECTION 15: Regulatory information

SECTION 16: Other information

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

ChemicalBook

Chemical Safety Data Sheet MSDS / SDS

1,2,4-Trimethylbenzene

Revision Date:2026-04-04 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: 1,2,4-Trimethylbenzene
CBnumber	: CB0854702
CAS	: 95-63-6
EINECS Number	: 202-436-9
Synonyms	: 1,2,4-Trimethylbenzene,trimethylbenzene

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Danger

Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P273 Avoid release to the environment.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continuerinsing.

P331 Do NOT induce vomiting.

P405 Store locked up.

Hazard statements

H226 Flammable liquid and vapour

H304 May be fatal if swallowed and enters airways

H315 Causes skin irritation

H319 Causes serious eye irritation

H332 Harmful if inhaled

H335 May cause respiratory irritation

H401 Toxic to aquatic life

H411 Toxic to aquatic life with long lasting effects

SECTION 3: Composition/information on ingredients

Substance

Product name	: 1,2,4-Trimethylbenzene
Synonyms	: 1,2,4-Trimethylbenzene,trimethylbenzene
CAS	: 95-63-6
EC number	: 202-436-9
MF	: C9H12
MW	: 120.19

SECTION 4: First aid measures

Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Dry powder Dry sand

Unsuitable extinguishing media

Do NOT use water jet.

Special hazards arising from the substance or mixture

Carbon oxides

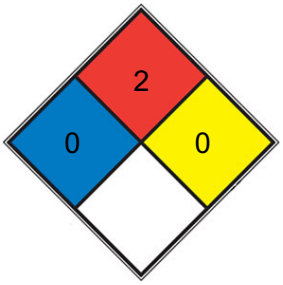
Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

Use water spray to cool unopened containers.

NFPA 704



■	HEALTH	0	Poses no health hazard, no precautions necessary and would offer no hazard beyond that of ordinary combustible materials
■	FIRE	2	Must be moderately heated or exposed to relatively high ambient temperature before ignition can occur and multiple finely divided suspended solids that do not require heating before ignition can occur. Flash point between 37.8 and 93.3 °C (100 and 200 °F). (e.g. diesel fuel, sulfur)
■	REACT	0	Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium,N2)
□	SPEC. HAZ.		

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking.Take measures to prevent the build up of electrostatic charge.

For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store in cool place.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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SECTION 8: Exposure controls/personal protection

control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Full contact

Material: Fluorinated rubber

Minimum layer thickness: 0,7 mm Break through time: 480 min

Material tested:Vitoject? (KCL 890 / Aldrich Z677698, Size M)

Splash contact Material: Nitrile rubber

Minimum layer thickness: 0,4 mm Break through time: 30 min

Material tested:Camatril? (KCL 730 / Aldrich Z677442, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full- face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Exposure limits

NIOSH REL: TWA 25 ppm (125 mg/m^3); ACGIH TLV: TWA for mixed isomers 25 ppm (adopted).

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Appearance	colourless liquid, clear
Odour	No data available
Odour Threshold	0.12ppm
pH	No data available
Melting point/freezing point	-43,7 °C
Initial boiling point and boiling range	168,0 - 169,0 °C
Flash point	48,0 °C - closed cup
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	Upper explosion limit: 6,4 %(V) Lower explosion limit: 0,9 %(V)
Vapour pressure	2,3 hPa at 20,0 °C
Vapour density	4.1 (vs air)
Relative density	0,88 g/cm3
Water solubility	0,057 g/l at 25 °C - slightly soluble
Partition coefficient: n-octanol/water	No data available
Autoignition temperature	515,0 °C
Decomposition temperature	No data available
Viscosity	No data available

Explosive properties	No data available
Oxidizing properties	No data available
Henry's Law Constant	6.946, 11.202, and 15.702 at 27.0, 35.0, and 45.0 °C, respectively (dynamic headspace, Hansen et al., 1995)

Other safety information

No data available

SECTION 10: Stability and reactivity

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No data available

Conditions to avoid

Heat, flames and sparks.

Incompatible materials

Strong oxidizing agents

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides Other decomposition products - No data available

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - male - 6.000 mg/kg

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

in vitro assay

S. typhimurium Result: negative

Mutagenicity (micronucleus test)

Rat - male and female - Bone marrow Result: negative

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Additional Information

RTECS: DC3325000

prolonged or repeated exposure can cause:, narcosis, Bronchitis., Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Central nervous system -

Toxicity

LD50 i.p. in male, female mice (mg/kg): 5000, 4100 (Janik-Spiechowicz)

SECTION 12: Ecological information

Toxicity

Toxicity to fish

flow-through test LC50 - Pimephales promelas (fathead minnow) - 7,72 mg/l - 96,0 h

Toxicity to daphnia and other aquatic invertebrates

static test EC50 - Daphnia magna (Water flea) - 3,6 mg/l - 48 h (OECD Test Guideline 202)

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Toxics Screening Level

The initial threshold screening level (ITSL) for 1,2,4-trimethylbenzene is 185 µg/m3 based on an annual averaging time.

Other adverse effects

Toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

UN number

ADR/RID: 3295 IMDG: 3295 IATA: 3295

UN proper shipping name

ADR/RID: HYDROCARBONS, LIQUID, N.O.S. IMDG: HYDROCARBONS, LIQUID, N.O.S.

IATA: Hydrocarbons, liquid, n.o.s.

Transport hazard class(es)

ADR/RID: 3 IMDG: 3 IATA: 3

Packaging group

ADR/RID: III IMDG: III IATA: III

Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

Special precautions for user

No data available

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Listed. website: https://www.mem.gov.cn/

Measures for Environmental Management of New Chemical Substances

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Listed. website: https://www.mee.gov.cn/

EC Inventory:Listed.

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: https://echa.europa.eu/

Korea Existing Chemicals List (KECL):Listed. website: http://ncis.nier.go.kr

New Zealand Inventory of Chemicals (NZIoC):Listed. website: https://www.epa.govt.nz/

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Listed. website: https://emb.gov.ph/

United States Toxic Substances Control Act (TSCA) Inventory:Listed. website: https://www.epa.gov/

Vietnam National Chemical Inventory:Listed. website: https://chemicaldata.gov.vn/

SECTION 16: Other information

Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CAS: Chemical Abstracts Service

EC50: Effective Concentration 50%

IATA: International Air Transportation Association

IMDG: International Maritime Dangerous Goods

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

STEL: Short term exposure limit

TWA: Time Weighted Average

References

【1】CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

【2】ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

【3】ECHA - European Chemicals Agency, website: https://echa.europa.eu/

【4】eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

【5】ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

【6】Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

【7】HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

【8】IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

【9】IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

【10】Sigma-Aldrich, website: https://www.sigmaaldrich.com/

Other Information

Use of alcoholic beverages enhances the harmful effect.Depending on the degree of exposure, periodic medical examination is suggested.See ICSCs 1155, 1362 and 1389.1,3,5-Trimethylbenzene (Mesitylene) is classified as a marine pollutant.

Disclaimer:

The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

ChemicalBook

Chemical Safety Data Sheet MSDS / SDS

1,3-Dichlorobenzene

Revision Date:2026-04-04 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: 1,3-Dichlorobenzene
CBnumber	: CB8853781
CAS	: 541-73-1
EINECS Number	: 208-792-1
Synonyms	: 1,3-Dichlorobenzene,M-Dichlorobenzene

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Danger

Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P264 Wash hands thoroughly after handling.

P264 Wash skin thouroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P314 Get medical advice/attention if you feel unwell.

P391 Collect spillage. Hazardous to the aquatic environment

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P403+P235 Store in a well-ventilated place. Keep cool.

P501 Dispose of contents/container to.....

Hazard statements

H225 Highly Flammable liquid and vapour

H227 Combustible liquid

H302 Harmful if swallowed

H370 Causes damage to organs

H373 May cause damage to organs through prolonged or repeated exposure

H411 Toxic to aquatic life with long lasting effects

SECTION 3: Composition/information on ingredients

Substance

Product name	: 1,3-Dichlorobenzene
Synonyms	: 1,3-Dichlorobenzene,M-Dichlorobenzene
CAS	: 541-73-1
EC number	: 208-792-1
MF	: C6H4Cl2
MW	: 147

SECTION 4: First aid measures

Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media

Do NOT use water jet.

Special hazards arising from the substance or mixture

Carbon oxides, Hydrogen chloride gas

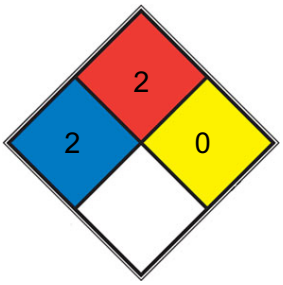
Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

Use water spray to cool unopened containers.

NFPA 704



■	HEALTH	2	Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury (e.g. diethyl ether, ammonium phosphate, iodine)
■	FIRE	2	Must be moderately heated or exposed to relatively high ambient temperature before ignition can occur and multiple finely divided suspended solids that do not require heating before ignition can occur. Flash point between 37.8 and 93.3 °C (100 and 200 °F). (e.g. diesel fuel, sulfur)
■	REACT	0	Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium,N2)
□	SPEC. HAZ.		

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

For personal protection see section 8.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Keep in suitable, closed containers for disposal.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking.Take measures to prevent the build up of electrostatic charge.

For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store in cool place.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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SECTION 8: Exposure controls/personal protection

control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Full contact

Material: Fluorinated rubber Minimum layer thickness: 0,7 mm Break through time: 480 min

Material tested:Vitoject? (KCL 890 / Aldrich Z677698, Size M)

Splash contact Material: Nitrile rubber

Minimum layer thickness: 0,4 mm Break through time: 37 min

Material tested:Camatril? (KCL 730 / Aldrich Z677442, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full- face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Appearance	colourless liquid, clear
Odour	No data available
Odour Threshold	No data available
pH	No data available
Melting point/freezing point	Melting point/range: -25 - -22 °C - lit.
Initial boiling point and boiling range	172 - 173 °C - lit.
Flash point	67,0 °C - closed cup
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	No data available
Vapour pressure	5 mm Hg (38.8 °C)
Vapour density	No data available
Relative density	1,288 g/cm3 at 25 °C
Water solubility	Difficult to mix.
Partition coefficient: n-octanol/water	log Pow: 5
Autoignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available
Henry's Law Constant	2.14 at 20.00 °C (inert gas stripping, Hovorka and Dohnal, 1997)

Other safety information

No data available

SECTION 10: Stability and reactivity

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No data available

Conditions to avoid

Heat, flames and sparks.

Incompatible materials

Strong oxidizing agents

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen chloride gas

Other decomposition products - No data available In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

LD50 Intraperitoneal - Mouse - 1.062 mg/kg

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Additional Information

RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Toxicity

LD50 orally in Rabbit: 580 mg/kg

SECTION 12: Ecological information

Toxicity

Toxicity to fish

LC50 - Pimephales promelas (fathead minnow) - 7,8 mg/l - 96,0 h

Toxicity to daphnia and other aquatic invertebrates

LC50 - Daphnia magna (Water flea) - 1,7 mg/l - 48 h

Persistence and degradability

No data available

Bioaccumulative potential

Bioaccumulation Pimephales promelas (fathead minnow) - 32 d

- 0,3 mg/l(1,3-Dichlorobenzene)

Bioconcentration factor (BCF): 97

Mobility in soil

No data available

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Toxics Screening Level

The Initial Threshold Screening Level (ITSL) for 1,3-Dichlorobenzene is 3 µg/m3 with annual averaging time.

Other adverse effects

Toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

Incompatibilities

For o-DCB and m-DCB: acid fumes, chlorides, strong oxidizers; hot aluminum, or aluminum alloys. For p-DCB: Strong oxidizers; although, incompatibilities for this chemical may also include other materials listed for o-DCB.

Waste Disposal

Incineration, preferably after mixing with another combustible fuel. Care must be exercised to assure complete combustion to prevent the formation of phosgene. An acid scrubber is necessary to remove the halo acids produced.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

UN number

ADR/RID: 3082 IMDG: 3082 IATA: 3082

UN proper shipping name

ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (1,3-Dichlorobenzene)

IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (1,3-Dichlorobenzene)

IATA: Environmentally hazardous substance, liquid, n.o.s. (1,3-Dichlorobenzene)

Transport hazard class(es)

ADR/RID: 9 IMDG: 9 IATA: 9

Packaging group

ADR/RID: III IMDG: III IATA: III

Environmental hazards

ADR/RID: yes IMDG Marine pollutant: yes IATA: yes

Special precautions for user

Further information

EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packagings and combination packagings containing inner packagings with Dangerous Goods > 5L for liquids or > 5kg for solids.

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Listed. website: https://www.mem.gov.cn/

Measures for Environmental Management of New Chemical Substances

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Listed. website: https://www.mee.gov.cn/

EC Inventory:Listed.

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: https://echa.europa.eu/

Korea Existing Chemicals List (KECL):Listed. website: http://ncis.nier.go.kr

New Zealand Inventory of Chemicals (NZIoC):Listed. website: https://www.epa.govt.nz/

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Listed. website: https://emb.gov.ph/

United States Toxic Substances Control Act (TSCA) Inventory:Listed. website: https://www.epa.gov/

Vietnam National Chemical Inventory:Listed. website: https://chemicaldata.gov.vn/

SECTION 16: Other information

Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CAS: Chemical Abstracts Service

EC50: Effective Concentration 50%

IATA: International Air Transportation Association

IMDG: International Maritime Dangerous Goods

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

STEL: Short term exposure limit

TWA: Time Weighted Average

References

【1】CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

【2】ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

【3】ECHA - European Chemicals Agency, website: https://echa.europa.eu/

【4】eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

【5】ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

【6】Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

【7】HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

【8】IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

【9】IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

【10】Sigma-Aldrich, website: https://www.sigmaaldrich.com/

Other Information

Data on the toxicity of m-dichlorobenzene are limited.See ICSCs 0037 and 1066.

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

ChemicalBook

Chemical Safety Data Sheet MSDS / SDS

2,2,4-Trimethylpentane

Revision Date:2026-04-04 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: 2,2,4-Trimethylpentane
CBnumber	: CB9853773
CAS	: 540-84-1
EINECS Number	: 208-759-1
Synonyms	: Isooctane,2,2,4-trimethylpentane

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Danger

Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P273 Avoid release to the environment.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.

P331 Do NOT induce vomiting.

P370+P378 In case of fire: Use … for extinction.

P403+P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

P501 Dispose of contents/container to.....

Hazard statements

H225 Highly Flammable liquid and vapour

H304 May be fatal if swallowed and enters airways

H315 Causes skin irritation

H336 May cause drowsiness or dizziness

H400 Very toxic to aquatic life

H410 Very toxic to aquatic life with long lasting effects

SECTION 3: Composition/information on ingredients

Substance

Product name	: 2,2,4-Trimethylpentane
Synonyms	: Isooctane,2,2,4-trimethylpentane
CAS	: 540-84-1
EC number	: 208-759-1
MF	: C8H18
MW	: 114.23

SECTION 4: First aid measures

Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Dry powder Dry sand

Unsuitable extinguishing media

Do NOT use water jet.

Special hazards arising from the substance or mixture

Carbon oxides

Flash back possible over considerable distance., Container explosion may occur under fire conditions.

Combustible.

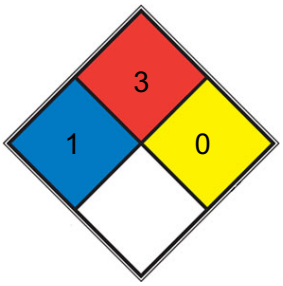
Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

Use water spray to cool unopened containers.

NFPA 704



■	HEALTH	1	Exposure would cause irritation with only minor residual injury (e.g. acetone, sodium bromate, potassium chloride)
■	FIRE	3	Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions . Liquids having a flash point below 22.8 °C (73 °F) and having a boiling point at or above 37.8 °C (100 °F) or having a flash point between 22.8 and 37.8 °C (73 and 100 °F). (e.g. gasoline, acetone)
■	REACT	0	Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium,N2)
□	SPEC. HAZ.		

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition.

Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

For personal protection see section 8.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking.Take measures to prevent the build up of electrostatic charge.

For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store in cool place.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

---

SECTION 8: Exposure controls/personal protection

control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0,2 mm Break through time: 482 min

Material tested:Dermatril? P (KCL 743 / Aldrich Z677388, Size M)

Splash contact Material: Nitrile rubber

Minimum layer thickness: 0,11 mm Break through time: 90 min

Material tested:Dermatril? (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full- face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Exposure limits

ACGIH TLV: TWA for all isomers 300 ppm (adopted).

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Appearance	colourless liquid
Odour	No data available
Odour Threshold	0.11ppm
pH	No data available
Melting point/freezing point	Melting point/range: -107 °C
Initial boiling point and boiling range	98 - 99 °C
Flash point	-12 °C - closed cup
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	Upper explosion limit: 6 %(V) Lower explosion limit: 1 %(V)
Vapour pressure	55 hPa at 21 °C 117 hPa at 37,80 °C
Vapour density	3,94 - (Air = 1.0)
Relative density	0,692 g/mL at 25 °C
Water solubility	insoluble
Partition coefficient: n-octanol/water	log Pow: 4,6 - Bioaccumulation is not expected.
Autoignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No data available

Oxidizing properties	No data available
Henry's Law Constant	3.23 at 25 °C (Mackay and Shiu, 1981)
λmax	λ: 205 nm Amax: 1.00
	λ: 225 nm Amax: 0.10
	λ: 254 nm Amax: 0.01

Other safety information

Relative vapour density

3,94 - (Air = 1.0)

SECTION 10: Stability and reactivity

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No data available

Conditions to avoid

Heat, flames and sparks.

Incompatible materials

Strong oxidizing agents

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides Other decomposition products - No data available

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - male and female - > 5.000 mg/kg (OECD Test Guideline 401)

LC50 Inhalation - Rat - male and female - 4 h - > 33,52 mg/l (OECD Test Guideline 403)

LD50 Dermal - Rabbit - male and female - > 2.000 mg/kg (OECD Test Guideline 402)

Skin corrosion/irritation

Skin - Rabbit

Result: Irritating to skin. - 24 h (OECD Test Guideline 404)

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2) Repeated or prolonged exposure may cause skin

irritation and dermatitis, due to degreasing properties of the product.

Serious eye damage/eye irritation

Eyes - Rabbit

Result: No eye irritation (OECD Test Guideline 405)

Respiratory or skin sensitisation

(OECD Test Guideline 406)

Germ cell mutagenicity

Ames test TA98

Result: negative

In vitro mammalian cell gene mutation test human lymphoblastoid cells

Result: negative

OECD Test Guideline 486 Rat - male - Liver cells Result: negative

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

May cause drowsiness or dizziness. - Central nervous system

Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2) Acute inhalation toxicity - mucosal irritations

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

Aspiration hazard, Aspiration may cause pulmonary oedema and pneumonitis.

Additional Information

RTECS: SA3320000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

It generally applies for aliphatic hydrocarbons with 6 - 18 carbon atoms that they may cause pneumonia, in some cases also pulmonary oedema, upon direct inhalation, i.e. in conditions that can occur only in very special circumstances (nebulizations, spraying, inhalation of aerosols and similar). After absorption of very large quantities: narcosis.

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice. Liver - Irregularities - Based on Human Evidence

Toxicity

LD50 orally in Rabbit: > 2500 mg/kg

SECTION 12: Ecological information

Toxicity

Toxicity to fish

semi-static test LC50 - Oncorhynchus mykiss (rainbow trout) - 0,11 mg/l - 96 h

(OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates

static test EC50 - Daphnia magna (Water flea) - 0,4 mg/l - 48 h Remarks: (in analogy to similar products)(ECHA)

Toxicity to bacteria

EC0 - Pseudomonas putida - 10.000 mg/l Remarks: (IUCLID)

Persistence and degradability

Biodegradability aerobic - Exposure time 28 d

Result: 51,3 % - Inherently biodegradable. (OECD Test Guideline 301F)

Bioaccumulative potential

Mobility in soil

No data available

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Toxics Screening Level

The ITSL is being established at 3500 µg/m3 with 8 hour averaging.

Other adverse effects

Very toxic to aquatic life with long lasting effects. Biological effects:

Endangers drinking-water supplies if allowed to enter soil and/or waters in large quantities.

Discharge into the environment must be avoided.

SECTION 13: Disposal considerations

Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

Incompatibilities

Reacts with strong oxidizers, causing fire and explosion hazard. Attacks some forms of plastics, rubber and coatings.

Waste Disposal

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an after burner and scrubber. All federal, state, and local environmental regulations must be observed.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

UN number

ADR/RID: 1262 IMDG: 1262

UN proper shipping name

ADR/RID: OCTANES IMDG: OCTANES IATA: Octanes

Transport hazard class(es)

ADR/RID: 3 IMDG: 3 IATA: 3

Packaging group

ADR/RID: II IMDG: II IATA: II

Environmental hazards

ADR/RID: yes IMDG Marine pollutant: yes IATA: no

Special precautions for user

No data available

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Listed. website: https://www.mem.gov.cn/

Measures for Environmental Management of New Chemical Substances

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Listed. website: https://www.mee.gov.cn/

EC Inventory:Listed.

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: https://echa.europa.eu/

Korea Existing Chemicals List (KECL):Listed. website: http://ncis.nier.go.kr

New Zealand Inventory of Chemicals (NZIoC):Listed. website: https://www.epa.govt.nz/

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Listed. website: https://emb.gov.ph/

United States Toxic Substances Control Act (TSCA) Inventory:Listed. website: https://www.epa.gov/

Vietnam National Chemical Inventory:Listed. website: https://chemicaldata.gov.vn/

SECTION 16: Other information

Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CAS: Chemical Abstracts Service

EC50: Effective Concentration 50%

IATA: International Air Transportation Association

IMDG: International Maritime Dangerous Goods

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

STEL: Short term exposure limit

TWA: Time Weighted Average

References

【1】CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

【2】ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

【3】ECHA - European Chemicals Agency, website: https://echa.europa.eu/

【4】eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

【5】ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

【6】Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

【7】HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

【8】IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

【9】IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

【10】Sigma-Aldrich, website: https://www.sigmaaldrich.com/

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

ChemicalBook

Chemical Safety Data Sheet MSDS / SDS

2-Butanone

Revision Date:2026-04-04 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: 2-Butanone
CBnumber	: CB4854386
CAS	: 78-93-3
EINECS Number	: 201-159-0
Synonyms	: 2-Butanone,MEK

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Danger

Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continuerinsing.

P405 Store locked up.

Hazard statements

H225 Highly Flammable liquid and vapour

H319 Causes serious eye irritation

H336 May cause drowsiness or dizziness

SECTION 3: Composition/information on ingredients

Substance

Product name	: 2-Butanone
Synonyms	: 2-Butanone,MEK
CAS	: 78-93-3
EC number	: 201-159-0
MF	: C4H8O
MW	: 72.11

SECTION 4: First aid measures

Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Dry powder Dry sand

Unsuitable extinguishing media

Do NOT use water jet.

Special hazards arising from the substance or mixture

Carbon oxides

Flash back possible over considerable distance., Container explosion may occur under fire conditions.

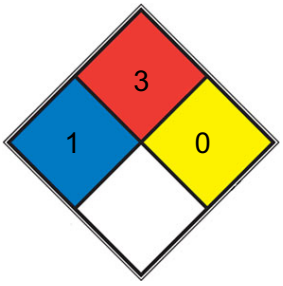
Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

Use water spray to cool unopened containers.

NFPA 704



■	HEALTH	1	Exposure would cause irritation with only minor residual injury (e.g. acetone, sodium bromate, potassium chloride)
■	FIRE	3	Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions . Liquids having a flash point below 22.8 °C (73 °F) and having a boiling point at or above 37.8 °C (100 °F) or having a flash point between 22.8 and 37.8 °C (73 and 100 °F). (e.g. gasoline, acetone)
■	REACT	0	Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium,N2)
□	SPEC. HAZ.		

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking.Take measures to prevent the build up of electrostatic charge.

For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Store under inert gas. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store in cool place.

Hygroscopic. Store under nitrogen.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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SECTION 8: Exposure controls/personal protection

control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Splash contact Material: butyl-rubber

Minimum layer thickness: 0,3 mm Break through time: 292 min

Material tested:Butoject? (KCL 897 / Aldrich Z677647, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our

customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

Impervious clothing, Flame retardant antistatic protective clothing., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full- face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Exposure limits

TLV-TWA, PEL 590 mg/m^3 (200 ppm) (ACGIH, OSHA); STEL 885 mg/m^3 (300 ppm) (ACGIH); IDLH 3000 ppm (NIOSH).

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Appearance	colourless liquid, clear
Odour	No data available
Odour Threshold	0.44ppm
pH	pH(1+4, 25℃):6.0～7.0
Melting point/freezing point	-87 °C
Initial boiling point and boiling range	80 °C - lit.
Flash point	-3 °C - closed cup
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	Upper explosion limit: 10,1 %(V) Lower explosion limit: 1,8 %(V)
Vapour pressure	95 hPa at 20 °C
Vapour density	2,49 - (Air = 1.0)
Relative density	0,805 g/mL at 25 °C
Water solubility	soluble
Partition coefficient: n-octanol/water	log Pow: 0,29
Autoignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available
Henry's Law Constant	23.0 at 50.00 °C, 34.1 at 60.00 °C, 50.6 at 70.00 °C, 70.4 at 80.00 °C (headspace-GC, Hovorka et al., 2002)

Other safety information

Surface tension 24,6 mN/m at 20 °C

Relative vapour density

2,49 - (Air = 1.0)

SECTION 10: Stability and reactivity

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No data available

Conditions to avoid

Exposure to moisture Heat, flames and sparks.

Incompatible materials

Oxidizing agents, Strong reducing agents

Hazardous decomposition products

Other decomposition products - No data available

Hazardous decomposition products formed under fire conditions. - Carbon oxides In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - 2.737 mg/kg

LC50 Inhalation - Mouse - 4 h - 32.000 mg/m3 LC50 Inhalation - Mammal - 38.000 mg/m3 LD50 Dermal - Rabbit - 6.480 mg/kg

Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation (OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Irritating to eyes. (OECD Test Guideline 405)

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

May cause drowsiness or dizziness.

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Additional Information

RTECS: EL6475000

Central nervous system depression, Gastrointestinal disturbance, narcosis

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Liver - Irregularities - Based on Human Evidence

Toxicity

LD50 orally in rats: 6.86 ml/kg (Smyth)

SECTION 12: Ecological information

Toxicity

Toxicity to fish

mortality NOEC - Cyprinodon variegatus (sheepshead minnow) - 400 mg/l - 96 h

LC50 - Pimephales promelas (fathead minnow) - 3.130 - 3.320 mg/l

- 96 h

Toxicity to daphnia and other aquatic invertebrates

LC50 - Daphnia magna (Water flea) - > 520 mg/l - 48 h

EC50 - Daphnia magna (Water flea) - 7.060 mg/l - 24 h

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Toxics Screening Level

The current ITSL for Methyl Ethyl Ketone (also known as 2-butanone or MEK) is 5000 µg/m3, with 24 hr averaging time (AT).

Other adverse effects

No data available

SECTION 13: Disposal considerations

Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Waste material
must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

Incompatibilities

Violent reaction with strong oxidizers, amines, ammonia, inorganic acids; caustics, isocyanates, pyridines. Incompatible with potassium tert-butoxide, 2-propanol, chlorosulfonic acid; oleum.

Waste Disposal

Consult with environmental regulatory agencies for guidance on acceptable disposal practices. Generators of waste containing this contaminant (≥100 kg/mo) must conform to EPA regulations governing storage, transportation, treatment, and waste disposal. Incineration

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

UN number

ADR/RID: 1193 IMDG: 1193 IATA: 1193

UN proper shipping name

	ADR/RID: ETHYL METHYL KETONE IMDG: ETHYL METHYL KETONE	
IATA: Ethyl methyl ketone		
14.3	Transport hazard class(es)	
	ADR/RID: 3 IMDG: 3	IATA: 3
14.4	Packaging group	
	ADR/RID: II IMDG: II	IATA: II
14.5	Environmental hazards	
	ADR/RID: no IMDG Marine pollutant: no	IATA: no
14.6	Special precautions for user	
	No data available	

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Listed. website: https://www.mem.gov.cn/

Measures for Environmental Management of New Chemical Substances

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Listed. website: https://www.mee.gov.cn/

EC Inventory:Listed.

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: https://echa.europa.eu/

Korea Existing Chemicals List (KECL):Listed. website: http://ncis.nier.go.kr

New Zealand Inventory of Chemicals (NZIoC):Listed. website: https://www.epa.govt.nz/

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Listed. website: https://emb.gov.ph/

United States Toxic Substances Control Act (TSCA) Inventory:Listed. website: https://www.epa.gov/

Vietnam National Chemical Inventory:Listed. website: https://chemicaldata.gov.vn/

SECTION 16: Other information

Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CAS: Chemical Abstracts Service

EC50: Effective Concentration 50%

IATA: International Air Transportation Association

IMDG: International Maritime Dangerous Goods

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

STEL: Short term exposure limit

TWA: Time Weighted Average

References

【1】CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

【2】ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

【3】ECHA - European Chemicals Agency, website: https://echa.europa.eu/

【4】eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

【5】ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

【6】Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

【7】HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

【8】IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

【9】IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

【10】Sigma-Aldrich, website: https://www.sigmaaldrich.com/

Other Information

The odour warning when the exposure limit value is exceeded is insufficient.

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

ChemicalBook

Chemical Safety Data Sheet MSDS / SDS

2-Hexanone

Revision Date:2026-04-04 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: 2-Hexanone
CBnumber	: CB1682968
CAS	: 591-78-6
EINECS Number	: 209-731-1
Synonyms	: 2-Hexanone,hexan-2-one

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Danger

Precautionary statements

P308+P313 IF exposed or concerned: Get medical advice/attention.

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P201 Obtain special instructions before use.

Hazard statements

H372 Causes damage to organs through prolonged or repeated exposure

H336 May cause drowsiness or dizziness

H226 Flammable liquid and vapour

SECTION 3: Composition/information on ingredients

Substance

Product name	: 2-Hexanone
Synonyms	: 2-Hexanone,hexan-2-one
CAS	: 591-78-6
EC number	: 209-731-1
MF	: C6H12O
MW	: 100.16

SECTION 4: First aid measures

General advice

Show this safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Call in physician.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

If swallowed

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11

Protection of first-aiders

For personal protection see section 8.

Notes to physician

No data available

SECTION 5: Firefighting measures

Suitable extinguishing media

Foam Carbon dioxide (CO2) Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

Specific hazards during fire fighting

Combustible. Vapours are heavier than air and may spread along floors. Forms explosive mixtures with air at elevated temperatures. Development of hazardous combustion gases or vapours possible in the event of fire.

Hazardous combustion products

Carbon oxides

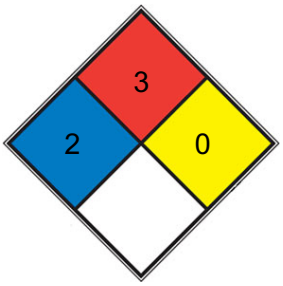
Specific extinguishing methods

Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

Special protective equipment for fire-fighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

NFPA 704



■	HEALTH	2	Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury (e.g. diethyl ether, ammonium phosphate, iodine)
■	FIRE	3	Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions . Liquids having a flash point below 22.8 °C (73 °F) and having a boiling point at or above 37.8 °C (100 °F) or having a flash point between 22.8 and 37.8 °C (73 and 100 °F). (e.g. gasoline, acetone)
■	REACT	0	Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium,N2)
□	SPEC. HAZ.		

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapours, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert. Advice for emergency responders: For personal protection see section 8.

Environmental precautions

Do not let product enter drains. Risk of explosion.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-

absorbent material . Dispose of properly. Clean up affected area.

SECTION 7: Handling and storage

Handling

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

Advice on safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

Avoidance of contact

Oxidizing agents Strong bases

Storage

Further information on storage conditions

Keep container tightly closed in a dry and wellventilated place. Keep away from heat and sources of ignition. Keep locked up or in an area accessible only to qualified or authorised persons.

Storage class

3, Flammable liquids

Recommended storage temperature

Recommended storage temperature see product label.

SECTION 8: Exposure controls/personal protection

control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

Engineering measures

No data available

Personal protective equipment

Respiratory protection

required when vapours/aerosols are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type

Filter type ABEK

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Safety glasses

Skin and body protection

Flame retardant antistatic protective clothing.

Hand protection

Remarks

required

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

liquid

Color

colourless

Odor

at 1.00 % in dipropylene glycol. fruity fungal meaty buttery

Odor Threshold

No data available

pH

No data available

Melting point/ range

-57 °C

Method: lit.

Boiling point/boiling range

127 °C

Method: lit.

Flash point

23 °C

Method: closed cup

Evaporation rate

No data available

Flammability (solid, gas)

No data available

Flammability (liquids)

No data available

Burning rate

No data available

Upper explosion limit / Upper flammability limit

8.1 %(V)

Lower explosion limit / Lower flammability limit

1.3 %(V)

Vapor pressure

1,013 hPa (127.5 °C) 13 hPa (39 °C)

Relative vapor density

3.46

Relative density

0.812 g/mL at 25 °C(lit.)

Density

0.812 g/mL (25 °C)

Method: lit.

Water solubility

slightly soluble

Partition coefficient: n-octanol/water

log Pow: 1.38

Autoignition temperature

423 °C

Decomposition temperature Viscosity: No data available

Viscosity, dynamic

0.62 mPa.s (20 °C)

Viscosity, kinematic

No data available

Flow time

No data available

Explosive properties

Not classified as explosive.

Oxidizing properties

none

Surface tension

25.49 mN/m, 20 °C

Molecular weight

100.16 g/mol

Particle characteristics Particle size

No data available

Solubility

Soluble in acetone, ethanol, and ether (Weast, 1986)

Physical state

Liquid

Henry's Law Constant

24.4 at 37 °C (static headspace-GC, Bylaite et al., 2004)

Dielectric constant

14.6（15℃）

SECTION 10: Stability and reactivity

Reactivity

Vapour/air-mixtures are explosive at intense warming.

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

Possibility of hazardous reactions

No data available

Conditions to avoid

Heating.

Incompatible materials

Oxidizing agents Strong bases

Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - 2,590 mg/kg

LC50 Inhalation - Rat - 4 h - 8000 ppm - vapour

LD50 Dermal - Rabbit - 4,800 mg/kg

Skin corrosion/irritation

Skin - Rabbit

Result: Mild skin irritation - 24 h

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Mild eye irritation - 24 h

Respiratory or skin sensitization

Classified based on available data. For more details, see section 2

Germ cell mutagenicity

Classified based on available data. For more details, see section 2

Carcinogenicity

Classified based on available data. For more details, see section 2

Reproductive toxicity

Overexposure may cause reproductive disorder(s) based on tests with laboratory animals.

Suspected of damaging fertility.

Specific target organ toxicity - single exposure

May cause drowsiness or dizziness.

Specific target organ toxicity - repeated exposure

Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard

Classified based on available data. For more details, see section 2

11.2 Additional Information

RTECS: MP1400000 narcosis, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12: Ecological information

Ecotoxicity

Components:

Methyl butyl ketone:

Toxicity to fish

LC50 (Pimephales promelas (fathead minnow)): 428 mg/l Exposure time: 96 h

Persistence and degradability

No data available

Bioaccumulative potential

Components:

Methyl butyl ketone:

Partition coefficient: noctanol/water

log Pow: 1.38

Mobility in soil

No data available

Other adverse effects

No data available

SECTION 13: Disposal considerations

Disposal methods

Waste from residues

Offer surplus and non-recyclable solutions to a licensed disposal company.

SECTION 14: Transport information

International Regulations

IATA-DGR

UN/ID No. : UN 1224

Proper shipping name : Ketones, liquid, n.o.s.

(Methyl butyl ketone)

Class : 3

Packing group : III

Labels : Class 3 - Flammable liquids

Packing instruction (cargo aircraft) : 366

Packing instruction (passenger aircraft) : 355

IMDG-Code

UN number : UN 1224

Proper shipping name : KETONES, LIQUID, N.O.S.

(Methyl butyl ketone)

Class : 3

Packing group : III

Labels : 3

EmS Code : F-E, S-D

Marine pollutant : no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National Regulations

JT/T 617

UN number : UN 1224

Proper shipping name : KETONES, LIQUID, N.O.S.

(Methyl butyl ketone)

Class : 3

Packing group : III

Labels : 3

Environmentally hazardous : no

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15: Regulatory information

National regulatory information

Law on the Prevention and Control of Occupational Diseases

Regulations on Safety Management of Hazardous Chemicals

Catalogue of Hazardous Chemicals

Listed

Identification of Major Hazard Installations for Hazardous Chemicals (GB 18218)

No. / Code Chemical name / Category Threshold quantity

W5.4 Flammable liquids 5,000 t

Hazardous Chemicals for Priority Management

Not listed under SAWS

Catalogue of Specially Controlled Hazardous

Not listed Chemicals

List of Explosive Precursors

Not listed

Regulations on Labour Protection in Workplaces where Toxic Substances are Used

Catalogue of Highly Toxic Chemicals

Not listed

Regulation of Environmental Management on the First Import of Chemicals and the Import and Export of Toxic Chemicals

China Severely Restricted Toxic Chemicals for Import and Export

Not listed

Regulation on the Administration of Precursor Chemicals

Catalogue and Classification of Precursor Chemicals

Not listed

Regulations on the Administration of Controlled Chemicals

List of Controlled Chemicals

Not listed

Regulations of Ozone Depleting Substances Management

List of Controlled Ozone Depleting Substances

Not listed

List of Controlled Ozone Depleting Substances Import and Export

Not listed

Environmental Protection Law

List of Priority Controlled Chemicals

Not listed

List of Key Controlled New Pollutants

Not listed

SECTION 16: Other information

Full text of other abbreviations

ACGIH

USA. ACGIH Threshold Limit Values (TLV)

GBZ 2.1-2007

Occupational exposure limits for hazardous agents in the workplace - Chemical hazardous agents.

ACGIH / TWA

8-hour, time-weighted average

ACGIH / STEL

Short-term exposure limit

GBZ 2.1-2007 / PC-TWA

Permissible concentration - time weighted average

GBZ 2.1-2007 / PC-STEL AIIC - Australian Invent Transport by Land of Bra bw - Body weight; CMR Standard of the German List (Canada); ECx - Conc associated with x%respo Chemical Substances (Jap response; ERG - Emerge GLP - Good Laboratory P cer; IATA - International Construction and Equipm Half maximal inhibitory c tion; IECSC - Inventory o tional Maritime Dangerou Industrial Safety and H Standardisation; KECI - K tration to 50 %of a test (Median Lethal Dose); MA lution from Ships; MERC of Dangerous Goods; n.o. - No Observed (Adverse) fect Level; NOELR - No Norm; NTP - National Toxi icals; OECD - Organisatio fice of Chemical Safety a and Toxic substance; PIC stances; (Q)SAR - (Quant (EC) No 1907/2006 of th Registration, Evaluation, Accelerating Decompositi Chemical Substance Inve Thailand Existing Chemica States); UN - United Nat Transport of Dangerous WHMIS - Workplace Hazar

Permissible concentration - short term exposure limit ry of Industrial Chemicals

ANTT - National Agency for il

ASTM - American Society for the Testing of Materials

- Carcinogen, Mutagen or Reproductive Toxicant

DIN nstitute for Standardisation

DSL - Domestic Substances ntration associated with x% response

ELx - Loading rate se

EmS - Emergency Schedule

ENCS - Existing and New n)

ErCx - Concentration associated with x% growth rate cy Response Guide

GHS - Globally Harmonised System

actice

IARC - International Agency for Research on Canir Transport Association

IBC - International Code for the nt of Ships carrying Dangerous Chemicals in Bulk

IC50 ncentration

ICAO - International Civil Aviation Organiza- Existing Chemical Substances in China

IMDG - Interna- Goods

IMO - International Maritime Organisation

ISHL alth Law (Japan)

ISO - International Organisation for rea Existing Chemicals Inventory

LC50 - Lethal Concenopulation

LD50 - Lethal Dose to 50% of a test population POL - International Convention for the Prevention of Pol- SUR - The Agreement for the Facilitation of the Transport . - Not Otherwise Specified

Nch - Chilean Norm

NO(A)EC ffect Concentration

NO(A)EL - No Observed (Adverse) Efbservable Effect Loading Rate

NOM - Official Mexican ology Program

NZIoC - New Zealand Inventory of Chemfor Economic Co-operation and Development

OPPTS - Ofd Pollution Prevention

PBT - Persistent, Bioaccumulative S - Philippines Inventory of Chemicals and Chemical Subtative) Structure Activity Relationship

REACH - Regulation European Parliament and of the Council concerning the uthorisation and Restriction of Chemicals

SADT - Selfn Temperature

SDS - Safety Data Sheet

TCSI - Taiwan tory

TDG - Transportation of Dangerous Goods

TECI s Inventory

TSCA - Toxic Substances Control Act (United ons

UNRTDG - United Nations Recommendations on the oods

vPvB - Very Persistent and Very Bioaccumulative

ous Materials Information System

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

ChemicalBook

Chemical Safety Data Sheet MSDS / SDS

4-ETHYLTOLUENE

Revision Date:2026-04-11 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: 4-ETHYLTOLUENE
CBnumber	: CB3720095
CAS	: 622-96-8
EINECS Number	: 210-761-2
Synonyms	: Benzene, 1-ethyl-4-methyl-,4-ethyltoluene

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Danger

Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.

P331 Do NOT induce vomiting.

P370+P378 In case of fire: Use … for extinction.

P403+P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

P501 Dispose of contents/container to.....

Hazard statements

H226 Flammable liquid and vapour

H304 May be fatal if swallowed and enters airways

SECTION 3: Composition/information on ingredients

Substance

Product name	: 4-ETHYLTOLUENE
Synonyms	: Benzene, 1-ethyl-4-methyl-,4-ethyltoluene
CAS	: 622-96-8
EC number	: 210-761-2
MF	: C9H12
MW	: 120.19

SECTION 4: First aid measures

Description of first aid measures

General advice

Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

In case of eye contact

After eye contact: rinse out with plenty of water. Remove contact lenses.

If swallowed

After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO2) Foam Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture

Nature of decomposition products not known. Combustible.

Vapors are heavier than air and may spread along floors. Forms explosive mixtures with air at elevated temperatures.

Development of hazardous combustion gases or vapours possible in the event of fire.

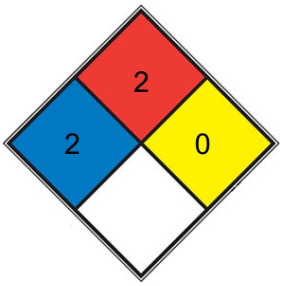
Advice for firefighters

In the event of fire, wear self-contained breathing apparatus.

Further information

Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

NFPA 704



■	HEALTH	2	Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury (e.g. diethyl ether, ammonium phosphate, iodine)
■	FIRE	2	Must be moderately heated or exposed to relatively high ambient temperature before ignition can occur and multiple finely divided suspended solids that do not require heating before ignition can occur. Flash point between 37.8 and 93.3 °C (100 and 200 °F). (e.g. diesel fuel, sulfur)
■	REACT	0	Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium,N2)
□	SPEC. HAZ.		

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

Environmental precautions

Do not let product enter drains. Risk of explosion.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent

material (e.g. Chemizorb?). Dispose of properly. Clean up affected area.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition.Take precautionary measures against static discharge.

Hygiene measures

Change contaminated clothing. Wash hands after working with substance. For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Storage conditions

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and
sources of ignition.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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SECTION 8: Exposure controls/personal protection

control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

Exposure controls

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate
government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Full contact Material: Viton?

Minimum layer thickness: 0,7 mm Break through time: 480 min

Material tested:Vitoject? (KCL 890 / Aldrich Z677698, Size M)

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving

in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Splash contact Material: Nitrile rubber

Minimum layer thickness: 0,4 mm Break through time: 10 min

Material tested:Camatril? (KCL 730 / Aldrich Z677442, Size M)

Body Protection

Flame retardant antistatic protective clothing.

Respiratory protection

Recommended Filter type: Filter A (acc. to DIN 3181) for vapours of organic compounds

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains. Risk of explosion.

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Appearance	light yellow clear, liquid
Odour	characteristic
Odour Threshold	0.0083ppm
pH	No data available
Melting point/freezing point	Melting point: -62 °C
Initial boiling point and boiling range	162 °C - lit.
Flash point	43 °C - closed cup
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	Upper explosion limit: 7 %(V) Lower explosion limit: 1,2 %(V)
Vapour pressure	No data available
Vapour density	No data available
Relative density	0,861 g/mL at 25 °C
Water solubility	0,0949 g/l at 25 °C - (experimental)
Partition coefficient: n-octanol/water	log Pow: 3,63 - (Lit.), Bioaccumulation is not expected.
Autoignition temperature	No data available
Decomposition temperature	No data available
Viscosity	Viscosity, kinematic: 0,812 mm2/s at 20 °C Viscosity, dynamic: No data available
Explosive properties	No data available
Oxidizing properties	No data available

Other safety information

No data available

SECTION 10: Stability and reactivity

Reactivity

Vapor/air-mixtures are explosive at intense warming.

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

Possibility of hazardous reactions

Risk of ignition or formation of inflammable gases or vapours with:

Strong oxidizing agents combustible substances

Conditions to avoid

Heating.

Incompatible materials

Oxidizing agents, Strong oxidizing agents

Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - 4.850 mg/kg Remarks: (RTECS)

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Toxicity

LD50 orally in Rabbit: 4850 mg/kg

SECTION 12: Ecological information

Toxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Toxics Screening Level

The initial threshold screening level (ITSL) for 4-ethyl toluene (also known as p-ethyl toluene or PET) is 350 .µg/m3 (24-hr averaging time).

Other adverse effects

No data available

SECTION 13: Disposal considerations

Waste treatment methods

Product

See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

SECTION 14: Transport information

UN number

ADR/RID: 3295 IMDG: 3295 IATA: 3295

UN proper shipping name

ADR/RID: HYDROCARBONS, LIQUID, N.O.S. IMDG: HYDROCARBONS, LIQUID, N.O.S.

IATA: Hydrocarbons, liquid, n.o.s.

Transport hazard class(es)

ADR/RID: 3 IMDG: 3 IATA: 3

Packaging group

ADR/RID: III IMDG: III IATA: III

Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

Special precautions for user

No data available

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Not Listed. website: https://www.mem.gov.cn/

Measures for Environmental Management of New Chemical Substances

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Listed. website: https://www.mee.gov.cn/

EC Inventory:Listed.

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: https://echa.europa.eu/

New Zealand Inventory of Chemicals (NZIoC):Listed. website: https://www.epa.govt.nz/

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Listed. website: https://emb.gov.ph/

United States Toxic Substances Control Act (TSCA) Inventory:Listed. website: https://www.epa.gov/

Vietnam National Chemical Inventory:Listed. website: https://chemicaldata.gov.vn/

Korea Existing Chemicals List (KECL):Not Listed. website: http://ncis.nier.go.kr

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SECTION 16: Other information

Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CAS: Chemical Abstracts Service

EC50: Effective Concentration 50%

IATA: International Air Transportation Association

IMDG: International Maritime Dangerous Goods

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

STEL: Short term exposure limit

TWA: Time Weighted Average

References

【1】CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

【2】ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

【3】ECHA - European Chemicals Agency, website: https://echa.europa.eu/

【4】eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

【5】ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

【6】Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

【7】HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

【8】IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

【9】IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

【10】Sigma-Aldrich, website: https://www.sigmaaldrich.com/

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

ChemicalBook

Chemical Safety Data Sheet MSDS / SDS

4-Methyl-2-pentanone

Revision Date:2026-04-04 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: 4-Methyl-2-pentanone
CBnumber	: CB8691781
CAS	: 108-10-1
EINECS Number	: 203-550-1
Synonyms	: MIBK,methyl isobutyl ketone

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Danger

Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continuerinsing.

P311 Call a POISON CENTER or doctor/physician.

P370+P378 In case of fire: Use … for extinction.

P403+P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

Hazard statements

H225 Highly Flammable liquid and vapour

H319 Causes serious eye irritation

H332 Harmful if inhaled

H335 May cause respiratory irritation

H370 Causes damage to organs

Disposal

WARNING.Cancer - https://oehha.ca.gov/proposition-65/chemicals/methyl-isobutyl-ketone-mibk

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SECTION 3: Composition/information on ingredients

Substance

Product name	: 4-Methyl-2-pentanone
Synonyms	: MIBK,methyl isobutyl ketone
CAS	: 108-10-1
EC number	: 203-550-1
MF	: C6H12O
MW	: 100.16

SECTION 4: First aid measures

Description of first aid measures

General advice

Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

If swallowed

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO2) Foam Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture

Carbon oxides Combustible.

Pay attention to flashback.

Vapors are heavier than air and may spread along floors.

Development of hazardous combustion gases or vapours possible in the event of fire. Forms explosive mixtures with air at ambient temperatures.

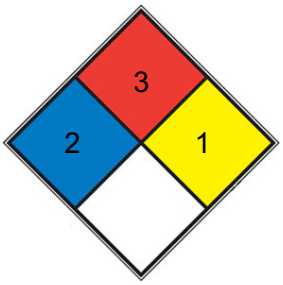
Advice for firefighters

In the event of fire, wear self-contained breathing apparatus.

Further information

Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

NFPA 704



■	HEALTH	2	Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury (e.g. diethyl ether, ammonium phosphate, iodine)
■	FIRE	3	Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions . Liquids having a flash point below 22.8 °C (73 °F) and having a boiling point at or above 37.8 °C (100 °F) or having a flash point between 22.8 and 37.8 °C (73 and 100 °F). (e.g. gasoline, acetone)
■	REACT	1	Normally stable, but can become unstable at elevated temperatures and pressures (e.g. propene)
□	SPEC. HAZ.		

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition.

Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

Environmental precautions

Do not let product enter drains. Risk of explosion.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb?). Dispose of properly. Clean up affected area.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Advice on safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition.Take precautionary measures against static discharge.

Hygiene measures

Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance.

For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Storage conditions

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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SECTION 8: Exposure controls/personal protection

control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

Exposure controls

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Splash contact Material: butyl-rubber

Minimum layer thickness: 0,7 mm Break through time: 240 min Material tested:Butoject? (KCL 898)

Body Protection

Flame retardant antistatic protective clothing.

Respiratory protection

Recommended Filter type: Filter A (acc. to DIN 3181) for vapours of organic compounds

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains. Risk of explosion.

Exposure limits

TLV-TWA 205 mg/m^3 (50 ppm); STEL 300 mg/m^3 (75 ppm) (ACGIH); IDLH 3000 ppm (NIOSH).

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Appearance	colorless liquid
Odour	characteristic
Odour Threshold	0,1 ppm
pH	at 20 °C neutral
Melting point/freezing point	Melting point/range: -80 °C - lit.
Initial boiling point and boiling range	117 - 118 °C
Flash point	14 °C - closed cup - DIN 51755 Part 1
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	Upper explosion limit: 8 %(V) Lower explosion limit: 1,2 %(V)
Vapour pressure	20 hPa at 20 °C
Vapour density	3,46 - (Air = 1.0)
Relative density	0,801 g/cm3 at 25 °C - lit. No data available
Water solubility	14,1 g/l at 20 °C - OECD Test Guideline 105- completely soluble
Partition coefficient: n-octanol/water	log Pow: 1,9 - Bioaccumulation is not expected.
Autoignition temperature	No data available

Decomposition temperature	No data available
Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: 0,59 mPa.s at 20 °C
Explosive properties	No data available
Oxidizing properties	No data available
Henry's Law Constant	2.56 at 25 °C (batch stripping method-GC, Kim et al., 2000)
λmax	λ: 335 nm Amax: 1.00
	λ: 340 nm Amax: 0.50
	λ: 360 nm Amax: 0.15
	λ: 380 nm Amax: 0.02
	λ: 400 nm Amax: 0.01

Other safety information

Surface tension 23,6 mN/m at 20 °C

Relative vapor density

3,46 - (Air = 1.0)

SECTION 10: Stability and reactivity

Reactivity

Stable under recommended storage conditions. Vapors may form explosive mixture with air.

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) . Stable under recommended storage conditions.

Possibility of hazardous reactions

No data available

Conditions to avoid

Heat, flames and sparks. Extremes of temperature and direct sunlight. May form peroxides of unknown stability.

Warming.

Incompatible materials

rubber, various plastics, Copper

Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - 2.080 mg/kg

(OECD Test Guideline 401)

LC50 Inhalation - Rat - male - 4 h - 11,6 mg/l (OECD Test Guideline 403)

Dermal

Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation - 4 h (OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Causes serious eye irritation. - 72 h (OECD Test Guideline 405)

(Regulation (EC) No 1272/2008, Annex VI)

Respiratory or skin sensitization

(OECD Test Guideline 406)

Germ cell mutagenicity

Test Type: Ames test

Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471

Result: negative

Test Type: Mutagenicity (mammal cell test): chromosome aberration. Test system: rat hepatocytes

Metabolic activation: without metabolic activation Method: OECD Test Guideline 473

Result: negative

Test Type: In vitro mammalian cell gene mutation test Test system: mouse lymphoma cells

Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476

Result: negative

Test Type: Micronucleus test Species: Mouse

Cell type: Bone marrow Application Route: Intraperitoneal Method: OECD Test Guideline 474 Result: negative

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

May cause respiratory irritation. - Respiratory system

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Toxicity

LD50 orally in rats: 2.08 g/kg (Smyth)

SECTION 12: Ecological information

Toxicity

Toxicity to fish

static test LC50 - Danio rerio (zebra fish) - > 179 mg/l - 96 h (OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates

static test EC50 - Daphnia magna (Water flea) - > 200 mg/l - 48 h (OECD Test Guideline 202)

Persistence and degradability

Biodegradability aerobic - Exposure time 28 d

Result: 83 % - Readily biodegradable. (OECD Test Guideline 301F)

Theoretical oxygen demand

2.720 mg/g Remarks: (Lit.)

Bioaccumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Toxics Screening Level

The Initial Threshold Screening Level (ITSL) for methyl isobutyl ketone (MIBK) is 820 µg/m3 with an 8-hr averaging time.

Other adverse effects

No data available

SECTION 13: Disposal considerations

Waste treatment methods

Product

See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

Incompatibilities

Able to form unstable and explosive peroxides on contact with air. Reacts violently with strong oxidizers, potassium tert-butoxide; strong acids; aliphatic amines; reducing agents

Waste Disposal

Consult with environmental regulatory agencies for guidance on acceptable disposal practices. Generators of waste containing this contaminant (≥100 kg/mo) must conform to EPA regulations governing storage, transportation, treatment, and waste disposal. Incineration.

SECTION 14: Transport information

UN number

ADR/RID: 1245 IMDG: 1245 IATA: 1245

UN proper shipping name

	ADR/RID: METHYL ISOBUTYL KETONE IMDG: METHYL ISOBUTYL KETONE	
IATA: Methyl isobutyl ketone		
14.3	Transport hazard class(es)	
	ADR/RID: 3 IMDG: 3	IATA: 3
14.4	Packaging group	
	ADR/RID: II IMDG: II	IATA: II
14.5	Environmental hazards	
	ADR/RID: no IMDG Marine pollutant: no	IATA: no
14.6	Special precautions for user	
	No data available	

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Listed. website: https://www.mem.gov.cn/

Measures for Environmental Management of New Chemical Substances

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: https://echa.europa.eu/

Korea Existing Chemicals List (KECL):Listed. website: http://ncis.nier.go.kr

United States Toxic Substances Control Act (TSCA) Inventory:Listed. website: https://www.epa.gov/

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Listed. website: https://www.mee.gov.cn/

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Listed. website: https://emb.gov.ph/

Vietnam National Chemical Inventory:Listed. website: https://chemicaldata.gov.vn/

EC Inventory:Listed.

New Zealand Inventory of Chemicals (NZIoC):Listed. website: https://www.epa.govt.nz/

SECTION 16: Other information

Abbreviations and acronyms

CAS: Chemical Abstracts Service

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

IMDG: International Maritime Dangerous Goods

IATA: International Air Transportation Association

TWA: Time Weighted Average

STEL: Short term exposure limit

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

EC50: Effective Concentration 50%

References

【1】CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

【2】ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

【3】ECHA - European Chemicals Agency, website: https://echa.europa.eu/

【4】eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

【5】ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

【6】Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

【7】HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

【8】IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

【9】IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

【10】Sigma-Aldrich, website: https://www.sigmaaldrich.com/

Other Information

Check for peroxides prior to distillation; eliminate if found.

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

Chemical Safety Data Sheet MSDS / SDS

Acetone

Revision Date:2026-04-04 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: Acetone
CBnumber	: CB3130928
CAS	: 67-64-1
EINECS Number	: 200-662-2
Synonyms	: Acetone,aceton

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Danger

Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continuerinsing.

P405 Store locked up.

Hazard statements

H225 Highly Flammable liquid and vapour

H319 Causes serious eye irritation

H336 May cause drowsiness or dizziness

SECTION 3: Composition/information on ingredients

Substance

Product name	: Acetone
Synonyms	: Acetone,aceton
CAS	: 67-64-1
EC number	: 200-662-2
MF	: C3H6O
MW	: 58.08

SECTION 4: First aid measures

Description of first aid measures

General advice

Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Call in physician.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

If swallowed

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO2) Foam Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture

Carbon oxides Combustible.

Pay attention to flashback.

Vapors are heavier than air and may spread along floors.

Development of hazardous combustion gases or vapours possible in the event of fire. Forms explosive mixtures with air at ambient temperatures.

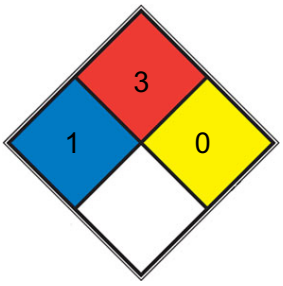
Advice for firefighters

In the event of fire, wear self-contained breathing apparatus.

Further information

Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

NFPA 704



■	HEALTH	1	Exposure would cause irritation with only minor residual injury (e.g. acetone, sodium bromate, potassium chloride)
■	FIRE	3	Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions . Liquids having a flash point below 22.8 °C (73 °F) and having a boiling point at or above 37.8 °C (100 °F) or having a flash point between 22.8 and 37.8 °C (73 and 100 °F). (e.g. gasoline, acetone)
■	REACT	0	Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium,N2)
□	SPEC. HAZ.		

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition.

Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

Environmental precautions

Do not let product enter drains. Risk of explosion.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb?). Dispose of properly. Clean up affected area.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Advice on safe handling

Avoid generation of vapours/aerosols.

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition.Take precautionary measures against static discharge.

Hygiene measures

Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance.

For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Storage conditions

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and

sources of ignition.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

Exposure controls

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate

government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Full contact

Material: butyl-rubber

Minimum layer thickness: 0,7 mm Break through time: 480 min Material tested:Butoject? (KCL 898)

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving

in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Splash contact Material: Latex gloves

Minimum layer thickness: 0,6 mm Break through time: 10 min

Material tested:Lapren? (KCL 706 / Aldrich Z677558, Size M)

Body Protection

Flame retardant antistatic protective clothing.

Respiratory protection

required when vapours/aerosols are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type AX

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains. Risk of explosion.

Exposure limits

TLV-TWA 1780 mg/m^3 (750 ppm), STEL 2375 mg/m^3 (ACGIH); 10 h–TWA 590 mg/m^3 (250 ppm); IDLH 20,000 ppm (NIOSH).

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Appearance	colorless clear, liquid
Odour	pungent, weakly aromatic
Odour Threshold	0,1 ppm
pH	5 - 6 at 395 g/l at 20 °C
Melting point/freezing point	Melting point/range: -94 °C - lit. 56 °C at 1.013 hPa - lit.
Initial boiling point and boiling range	56 °C at 1.013 hPa - lit.
Flash point	-17,0 °C - closed cup
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	Upper explosion limit: 13 %(V) Lower explosion limit: 2 %(V)
Vapour pressure	245,3 hPa at 20,0 °C
Vapour density	2 (vs air)
Relative density	0,791 g/cm3 at 25 °C
Water solubility	soluble, in all proportions
Partition coefficient: n-octanol/water	No data available
Autoignition temperature	465,0 °C
Decomposition temperature	Distillable in an undecomposed state at normal pressure.
Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available

Explosive properties	No data available
Oxidizing properties	No data available
Henry's Law Constant	2.27 at 14.9 °C, 3.03 at 25 °C, 7.69 at 35.1 °C, 11.76 at 44.9 °C (Betterton, 1991)

Other safety information

Conductivity 0,01 µS/cm at 20 °C Surface tension 23,2 mN/m at 20,0 °C

SECTION 10: Stability and reactivity

Reactivity

Vapors may form explosive mixture with air.

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

Possibility of hazardous reactions

Risk of ignition or formation of inflammable gases or vapours with: chromosulfuric acid

chromyl chloride ethanolamine

Fluorine

Strong oxidizing agents strong reducing agents Nitric acid chromium(VI) oxide Risk of explosion with: nonmetallic oxyhalides

halogen-halogen compounds Chloroform

nitrating acid nitrosyl compounds hydrogen peroxide halogen oxides

organic nitro compounds peroxi compounds Exothermic reaction with: Bromine

Alkali metals alkali hydroxides

Halogenated hydrocarbon Sulfur dichloride phosphorous oxichloride

Conditions to avoid

Warming.

Incompatible materials

rubber, various plastics

Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - female - 5.800 mg/kg

Remarks:

(ECHA)

LC50 Inhalation - Rat - 4 h - 76 mg/l Remarks:

Unconsciousness Drowsiness Dizziness (External MSDS)

LD50 Dermal - Rabbit - 20.000 mg/kg Remarks:

(IUCLID)

Skin corrosion/irritation

Skin - Rabbit

Result: Mild skin irritation - 24 h (Draize Test)

Remarks:

(RTECS)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Eye irritation - 24 h (Draize Test)

Remarks:

(RTECS)

Respiratory or skin sensitization

Remarks:

(ECHA)

Chronic exposure may cause dermatitis.

Germ cell mutagenicity

Mutagenicity (mammal cell test): chromosome aberration. Chinese hamster ovary cells

Result: negative Ames test

Salmonella typhimurium Result: negative

In vitro mammalian cell gene mutation test Mouse lymphoma test

Result: negative

Carcinogenicity

IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

Inhalation - May cause drowsiness or dizziness. - Narcotic effects

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Toxicity

LD50 in rats: 10.7 ml/kg orally (Smyth)

SECTION 12: Ecological information

Toxicity

Toxicity to fish

flow-through test LC50 - Pimephales promelas (fathead minnow) -

6.210 mg/l - 96 h

(OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates

static test LC50 - Daphnia pulex (Water flea) - 8.800 mg/l - 48 h Remarks: (ECHA)

Toxicity to algae

static test NOEC - M.aeruginosa - 530 mg/l - 8 d

(DIN 38412)

Remarks: (maximum permissible toxic concentration) (IUCLID)

Toxicity to bacteria

static test EC50 - activated sludge - 61,15 mg/l - 30 min (OECD Test Guideline 209)

Persistence and degradability

Biodegradability aerobic - Exposure time 28 d

Result: 91 % - Readily biodegradable. (OECD Test Guideline 301B)

Biochemical Oxygen Demand (BOD)

Chemical Oxygen Demand (COD)

Theoretical oxygen demand

1.850 mg/g Remarks: (IUCLID)

2.070 mg/g Remarks: (IUCLID)

2.200 mg/g Remarks: (Lit.)

Bioaccumulative potential

Does not bioaccumulate.

Mobility in soil

No data available

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Toxics Screening Level

The ITSL for Acetone is 5.9 µg/m3 with 8 hr averaging time.

Other adverse effects

Additional ecological information: No data available

SECTION 13: Disposal considerations

Waste treatment methods

Incompatibilities

Acetone reacts violently with oxidizing agents, chlorinated solvents, and alkali mixtures. It reacts vigorously with sulfur dichloride, potassium t-butoxide, and hexachloromelamine. Acetone should not be used as a solvent for iodine, as it forms a volatile compound that is extremely irritating to the eyes.

Waste Disposal

Consult with environmental regulatory agencies for guidance on acceptable disposal practices. Generators of waste containing this contaminant (≥100 kg/mo) must conform with EPA regulations governing storage, transportation, treatment, and waste disposal. Incineration.

SECTION 14: Transport information

UN number

ADR/RID: 1090 IMDG: 1090

UN proper shipping name

ADR/RID: ACETONE IMDG: ACETONE IATA: Acetone

Transport hazard class(es)

ADR/RID: 3 IMDG: 3 IATA: 3

Packaging group

ADR/RID: II IMDG: II IATA: II

Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

Special precautions for user

No data available

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Listed. website: https://www.mem.gov.cn/

Measures for Environmental Management of New Chemical Substances

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Listed. website: https://www.mee.gov.cn/

EC Inventory:Listed.

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: https://echa.europa.eu/

Korea Existing Chemicals List (KECL):Listed. website: http://ncis.nier.go.kr

New Zealand Inventory of Chemicals (NZIoC):Listed. website: https://www.epa.govt.nz/

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Listed. website: https://emb.gov.ph/

United States Toxic Substances Control Act (TSCA) Inventory:Listed. website: https://www.epa.gov/

Vietnam National Chemical Inventory:Listed. website: https://chemicaldata.gov.vn/

SECTION 16: Other information

Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CAS: Chemical Abstracts Service

EC50: Effective Concentration 50%

IATA: International Air Transportation Association

IMDG: International Maritime Dangerous Goods

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

STEL: Short term exposure limit

TWA: Time Weighted Average

References

【1】CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

【2】ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

【3】ECHA - European Chemicals Agency, website: https://echa.europa.eu/

【4】eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

【5】ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

【6】Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

【7】HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

【8】IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

【9】IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

【10】Sigma-Aldrich, website: https://www.sigmaaldrich.com/

Other Information

Use of alcoholic beverages enhances the harmful effect.

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

ChemicalBook

Chemical Safety Data Sheet MSDS / SDS

Barium

Revision Date:2026-04-04 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: Barium
CBnumber	: CB0854186
CAS	: 7440-39-3
EINECS Number	: 231-149-1
Synonyms	: Barium,Barium Metal

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Danger

Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P223 Keep away from any possible contact with water, because of violent reaction and possible flash fire.

P231+P232 Handle under inert gas. Protect from moisture.

P240 Ground/bond container and receiving equipment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P335+P334 Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages.

P370+P378 In case of fire: Use … for extinction.

P402+P404 Store in a dry place. Store in a closed container.

Hazard statements

H228 Flammable solid

H261 In contact with water releases flammable gas

SECTION 3: Composition/information on ingredients

Substance

Product name	: Barium
Synonyms	: Barium,Barium Metal
CAS	: 7440-39-3
EC number	: 231-149-1
MF	: Ba
MW	: 137.33

SECTION 4: First aid measures

Description of first aid measures

General advice

First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Call in physician.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.

In case of eye contact

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

If swallowed

If swallowed: give water to drink (two glasses at most). Seek medical advice immediately. In exceptional cases only, if medical care is not available within one hour, induce vomiting (only in persons who are wide awake and fully conscious), administer activated charcoal (20 - 40 g in a 10% slurry) and consult a doctor as quickly as possible. Do not attempt to neutralise.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

Water Foam

Special hazards arising from the substance or mixture

Barium oxide Not combustible.

May not get in touch with: Water

Ambient fire may liberate hazardous vapours.

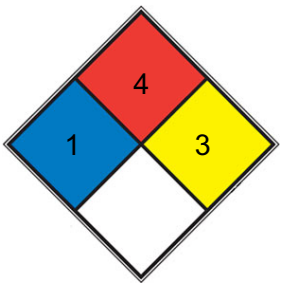
Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

Further information

Prevent fire extinguishing water from contaminating surface water or the ground water system.

NFPA 704



■	HEALTH	1	Exposure would cause irritation with only minor residual injury (e.g. acetone, sodium bromate, potassium chloride)
■	FIRE	4	Will rapidly or completely vaporize at normal atmospheric pressure and temperature, or is readily dispersed in air and will burn readily. Includes pyrophoric substances. Flash point below room temperature at 22.8 °C (73 °F). (e.g. acetylene, propane, hydrogen gas)
■	REACT	3	Capable of detonation or explosive decomposition but requires a strong initiating source, must be heated under confinement before initiation, reacts explosively with water, or will detonate if severely shocked (e.g. ammonium nitrate, cesium, hydrogen peroxide)
□	SPEC. HAZ.		

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

Environmental precautions

Do not let product enter drains. Risk of explosion.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully. Dispose of

properly. Clean up affected area. Avoid generation of dusts.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Advice on safe handling

Keep workplace dry. Do not allow product to come into contact with water.

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition.Take precautionary measures against static discharge.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Storage conditions

Tightly closed. Keep away from heat and sources of ignition. Keep locked up or in an area accessible only to qualified or authorized persons. Never allow product to get in contact with water during storage. Store under inert gas.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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SECTION 8: Exposure controls/personal protection

control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

Exposure controls

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate

government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggles

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm Break through time: 480 min

Material tested:KCL 741 Dermatril? L

Splash contact Material: Nitrile rubber

Minimum layer thickness: 0,11 mm Break through time: 480 min

Material tested:KCL 741 Dermatril? L

Body Protection

Flame retardant antistatic protective clothing.

Respiratory protection

required when dusts are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type P3

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains. Risk of explosion.

Exposure limits

TLV-TWA 0.5 mg/m^3 (for soluble compounds) (ACGIH and MSHA); IDLH (for soluble compounds) 250 mg/m^3 (NIOSH). .

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Appearance	gray Pieces
Odour	No data available
Odour Threshold	No data available
pH	No data available
Melting point/freezing point	Melting point/range: 725 °C - lit.
Initial boiling point and boiling range	1.640 °C - lit.
Flash point	Not applicable
Evaporation rate	No data available
Flammability (solid, gas)	The substance or mixture is a flammable solid with the category 1.
Upper/lower flammability or explosive limits	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density	3.51
Water solubility	No data available
Partition coefficient: n-octanol/water	Not applicable for inorganic substances
Autoignition temperature	No data available

Decomposition temperature	No data available
Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
Explosive properties	No data available
Oxidizing properties	No data available
resistivity	50.0 μΩ-cm, 20°C

Other safety information

No data available

SECTION 10: Stability and reactivity

Reactivity

No data available

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

Possibility of hazardous reactions

No data available

Conditions to avoid

Heat. Moisture.

Incompatible materials

Oxidizing agents, Water, acids, Oxygen, Chlorinated solvents, Carbon dioxide (CO2), Halogens, Halogenated hydrocarbon, Alcohols, Sulfur compounds, Hydrogen sulfide gas

Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Oral

Skin corrosion/irritation

Causes severe burns. (ECHA)

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

Test Type: In vitro mammalian cell gene mutation test Test system: mouse lymphoma cells

Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476

Result: negative

Test Type: Chromosome aberration test in vitro Test system: Chinese hamster ovary cells

Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 473

Result: negative

Test Type: Ames test

Test system: S. typhimurium

Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471

Result: negative

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Toxicity

An element; the heaviest of the stable alkaline earths. Barium sulfate is used as a diagnostic aid in radiology due to its radio-opaqueness and, because of its insolubility and lack of absorption, it is safe barring iatrogenic episodes. Poisoning usually results from deliberate or accidental ingestion of soluble barium compounds. The Ba^{2+} ion is a muscle poison due to the blocking of the K1 channels of the Na^{+}/K^{+} pump in cell membranes. Because cases of barium poisoning are accompanied by severe hypokalemia, potassium infusion is an effective antidote. The toxicity of barium compounds depends on their solubility, with the free ion being readily absorbed from gastrointestinal tract or lung, whereas the sulfate is essentially unabsorbed. Thus, administration of soluble sulfates immediately after ingestion is another effective antidote.

SECTION 12: Ecological information

Toxicity

Toxicity to fish

static test LC50 - Danio rerio (zebra fish) - > 3,5 mg/l - 96 h (OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates

static test EC50 - Daphnia magna (Water flea) - 14,5 mg/l - 48 h Remarks: (ECHA)

Toxicity to algae

Growth inhibition ErC50 - Pseudokirchneriella subcapitata (green algae) - > 1,15 mg/l - 72 h

(OECD Test Guideline 201)

Toxicity to bacteria

static test EC50 - activated sludge - > 1.000 mg/l - 3 h (OECD Test Guideline 209)

Persistence and degradability

The methods for determining the biological degradability are not applicable to inorganic substances.

Bioaccumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Toxics Screening Level

The ITSL for barium is 5 µg/m3 based on an 8-hour averaging time.

Other adverse effects

Biological effects:

Product reacts with water. Hazardous decomposition products Harmful effect due to pH shift.

Discharge into the environment must be avoided.

SECTION 13: Disposal considerations

Waste treatment methods

Product

See www.retrologistik.com for processes regarding the return of chemicals and

containers, or contact us there if you have further questions.

Incompatibilities

Barium powder may spontaneously ignite on contact with air. It is a strong reducing agent and Barium 337 reacts violently with oxidizers and acids. Reacts with water, forming combustible hydrogen gas and barium hydroxide. Reacts violently with halogenated hydrocarbon solvents, causing a fire and explosion hazard.

Waste Disposal

Barium in solution (see spill handling) may be precipitated with soda ash and the sludge may be landfilled.

SECTION 14: Transport information

UN number

ADR/RID: 1400 IMDG: 1400 IATA: 1400

UN proper shipping name

ADR/RID: BARIUM IMDG: BARIUM

IATA: Barium

Transport hazard class(es)

ADR/RID: 4.3 IMDG: 4.3 IATA: 4.3

Packaging group

ADR/RID: II IMDG: II IATA: II

Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

Special precautions for user

No data available

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Listed. website: https://www.mem.gov.cn/

Measures for Environmental Management of New Chemical Substances

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Listed. website: https://www.mee.gov.cn/

EC Inventory:Listed.

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: https://echa.europa.eu/

Korea Existing Chemicals List (KECL):Listed. website: http://ncis.nier.go.kr

New Zealand Inventory of Chemicals (NZIoC):Listed. website: https://www.epa.govt.nz/

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Listed. website: https://emb.gov.ph/

United States Toxic Substances Control Act (TSCA) Inventory:Listed. website: https://www.epa.gov/

Vietnam National Chemical Inventory:Listed. website: https://chemicaldata.gov.vn/

SECTION 16: Other information

Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CAS: Chemical Abstracts Service

EC50: Effective Concentration 50%

IATA: International Air Transportation Association

IMDG: International Maritime Dangerous Goods

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

STEL: Short term exposure limit

TWA: Time Weighted Average

References

【1】CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

【2】ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

【3】ECHA - European Chemicals Agency, website: https://echa.europa.eu/

【4】eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

【5】ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

【6】Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

【7】HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

【8】IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

【9】IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

【10】Sigma-Aldrich, website: https://www.sigmaaldrich.com/

Other Information

Reacts violently with fire extinguishing agents such as water, bicarbonate, powder, foam, and carbon dioxide.Rinse contaminated clothing with plenty of water because of fire hazard.

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

ChemicalBook

Chemical Safety Data Sheet MSDS / SDS

Benzene

Revision Date:2026-04-04 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: Benzene
CBnumber	: CB6854153
CAS	: 71-43-2
EINECS Number	: 200-753-7
Synonyms	: benzene,Benzen

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Danger

Precautionary statements

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P264 Wash hands thoroughly after handling.

P264 Wash skin thouroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continuerinsing.

P307+P311 IF exposed: call a POISON CENTER or doctor/physician.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P311 Call a POISON CENTER or doctor/physician.

P331 Do NOT induce vomiting.

P370+P378 In case of fire: Use … for extinction.

P391 Collect spillage. Hazardous to the aquatic environment

P403+P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

Hazard statements

H225 Highly Flammable liquid and vapour

H302 Harmful if swallowed

H304 May be fatal if swallowed and enters airways

H315 Causes skin irritation

H319 Causes serious eye irritation

H336 May cause drowsiness or dizziness

H340 May cause genetic defects

H350 May cause cancer

H361 Suspected of damaging fertility or the unborn child

H370 Causes damage to organs

H372 Causes damage to organs through prolonged or repeated exposure

H373 May cause damage to organs through prolonged or repeated exposure

H411 Toxic to aquatic life with long lasting effects

H412 Harmful to aquatic life with long lasting effects

Disposal

WARNING.Cancer - https://oehha.ca.gov/proposition-65/chemicals/benzene

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SECTION 3: Composition/information on ingredients

Substance

Product name	: Benzene
Synonyms	: benzene,Benzen
CAS	: 71-43-2
EC number	: 200-753-7
MF	: C6H6
MW	: 78.11

SECTION 4: First aid measures

Description of first aid measures

General advice

Consult a physician. Show this material safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Dry powder Dry sandDry powder Dry sand

Unsuitable extinguishing media

Do NOT use water jet.Do NOT use water jet.

Special hazards arising from the substance or mixture

Carbon oxides

Flash back possible over considerable distance., Container explosion may occur under fire conditions.

Combustible.

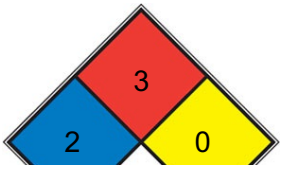
Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

Use water spray to cool unopened containers.

NFPA 704



HEALTH	2	Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury (e.g. diethyl ether, ammonium phosphate, iodine)
FIRE	3	Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions . Liquids having a flash point below 22.8 °C (73 °F) and having a boiling point at or above 37.8 °C (100 °F) or having a flash point between 22.8 and 37.8 °C (73 and 100 °F). (e.g. gasoline, acetone)
REACT	0	Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium,N2)
SPEC. HAZ.		

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. For personal protection see section 8.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Advice on safe handling

Avoid exposure - obtain special instructions before use. **Advice on safe handling**

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking.Take measures to prevent the build up of electrostatic charge.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Storage conditions

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store in cool place.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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SECTION 8: Exposure controls/personal protection

control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

Exposure controls

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Full contact

Material: Fluorinated rubber Minimum layer thickness: 0,7 mm Break through time: 480 min

Material tested:Vitoject? (KCL 890 / Aldrich Z677698, Size M)

Splash contact

Material: Fluorinated rubber Minimum layer thickness: 0,7 mm Break through time: 480 min

Material tested:Vitoject? (KCL 890 / Aldrich Z677698, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the EC approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full- face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face

supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Exposure limits

TLV-TWA 10 ppm (～32 mg/m^3) (ACGIH and OSHA); ceiling 25 ppm (～80 mg/m^3) (OSHA and MSHA); peak 50 ppm (～160 mg/m^3)/10 min/8 h (OSHA); carcinogenicity: Suspected Human Carcinogen (ACGIH), Human Sufficient Evidence (IARC).

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Appearance	clear, colorless liquid
Odour	No data available
Odour Threshold	2.7ppm
pH	No data available
Melting point/freezing point	Melting point/range: 5,5 °C - lit.
Initial boiling point and boiling range	80 °C - lit.
Flash point	-11 °C - DIN 51755 Part 1
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	Lower explosion limit: 1,4 %(V)
Vapour pressure	100 hPa at 20 °C
Vapour density	2.77 (vs air)
Relative density	0,874 g/cm3 at 25 °C - lit. No data available
Water solubility	ca.1,88 g/l at 23,5 °C - soluble
Partition coefficient: n-octanol/water	No data available
Autoignition temperature	498 °C at 1.013,5 hPa
Decomposition temperature	No data available
Viscosity	Viscosity, kinematic: 0,604 mm2/s at 25 °C Viscosity, dynamic: No data available
Explosive properties	No data available
Oxidizing properties	No data available
Henry's Law Constant	10.4 at 45.00 °C, 11.4 at 50.00 °C, 13.3 at 55.00 °C, 14.5 at 60.00 °C, 16.8 at 65.00 °C, 19.2 at 70.00 °C (static headspace-GC, Park et al., 2004)
λmax	λ: 280 nm Amax: 1.0 λ: 290 nm Amax: 0.15 λ: 300 nm Amax: 0.06 λ: 330 nm Amax: 0.02 λ: 350-400 nm Amax: 0.01

Other safety information

No data available

SECTION 10: Stability and reactivity

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No data available

Conditions to avoid

Heat, flames and sparks.

Incompatible materials

acids, Bases, Halogens, Strong oxidizing agents, Metallic salts

Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - male - > 2.000 mg/kg (OECD Test Guideline 401)

Symptoms: Nausea

LC50 Inhalation - Rat - female - 4 h - 43,7 mg/l (OECD Test Guideline 403)

LD50 Dermal - Rabbit - male and female - > 8.260 mg/kg (OECD Test Guideline 402)

Skin corrosion/irritation

Skin - Rabbit

Result: Irritating to skin. - 4 h (OECD Test Guideline 404)

Drying-out effect resulting in rough and chapped skin.

Serious eye damage/eye irritation

Eyes - Rabbit Result: Eye irritation Remarks: (ECHA)

Respiratory or skin sensitization

Maximization Test - Guinea pig

Result: negative

(OECD Test Guideline 406)

Germ cell mutagenicity

Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471

Result: negative

Test Type: Mutagenicity (mammal cell test): chromosome aberration. Test system: Chinese hamster lung cells

Metabolic activation: with and without metabolic activation Method: US-EPA

Result: positive

Test Type: In vitro mammalian cell gene mutation test Metabolic activation: with and without metabolic activation Method: US-EPA

Result: positive

Test Type: Mutagenicity (mammal cell test): micronucleus. Species: Mouse

Cell type: Bone marrow

Application Route: inhalation (vapor) Method: OECD Test Guideline 474 Result: positive

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

Causes damage to organs through prolonged or repeated exposure. - Blood

Aspiration hazard

May be fatal if swallowed and enters airways.

Toxicity

LD50 orally in young adult rats: 3.8 ml/kg (Kimura)

SECTION 12: Ecological information

Toxicity

Toxicity to fish

flow-through test LC50 - Oncorhynchus mykiss (rainbow trout) - 5,3 mg/l - 96 h

(OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates

static test EC50 - Daphnia magna (Water flea) - 10 mg/l - 48 h (OECD Test Guideline 202)

Toxicity to algae

static test ErC50 - Pseudokirchneriella subcapitata (green algae) - 100 mg/l - 72 h

(OECD Test Guideline 201)

Toxicity to bacteria

static test IC50 - - 13 mg/l - 24 h

Remarks: (ECHA)

Persistence and degradability

Biodegradability aerobic - Exposure time 28 d

Result: 96 % - Readily biodegradable. (OECD Test Guideline 301F)

Bioaccumulative potential

Bioaccumulation Leuciscus idus (Golden orfe) - 3 d

- 0,05 mg/l(benzene)

Bioconcentration factor (BCF): 10

Mobility in soil

No data available

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Toxics Screening Level

The acute initial threshold screening level (ITSL) for benzene (CAS # 71-43-2) is 30 µg/m3 based on a 24-hour averaging time.

Other adverse effects

Toxic to aquatic life.
Endangers drinking-water supplies if allowed to enter soil or water. Discharge into the environment must be avoided.

SECTION 13: Disposal considerations

Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

Incompatibilities

Incompatible with oxidizers (chlorates, nitrates, peroxides, permanganates, perchlorates, chlorine, bromine, fluorine, etc.); contact may cause fires or explosions. Keep away from alkaline materials, strong bases, strong acids, oxoacids, epoxides, many fluorides and perchlorates, nitric acid.

Waste Disposal

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. All federal, state, and local environmental regulations must be observed. Dilution with alcohol or acetone to minimize smoke is recommended. Bacterial degradation is also possible.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

UN number

ADR/RID: 1114 IMDG: 1114

UN proper shipping name

ADR/RID: BENZENE IMDG: BENZENE IATA: Benzene

Transport hazard class(es)

ADR/RID: 3 IMDG: 3 IATA: 3

Packaging group

ADR/RID: II IMDG: II IATA: II

Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

Special precautions for user

No data available

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Listed. website: https://www.mem.gov.cn/

Measures for Environmental Management of New Chemical Substances

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Listed. website: https://www.mee.gov.cn/

EC Inventory:Listed.

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: https://echa.europa.eu/

Korea Existing Chemicals List (KECL):Listed. website: http://ncis.nier.go.kr

New Zealand Inventory of Chemicals (NZIoC):Listed. website: https://www.epa.govt.nz/

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Listed. website: https://emb.gov.ph/

United States Toxic Substances Control Act (TSCA) Inventory:Listed. website: https://www.epa.gov/

Vietnam National Chemical Inventory:Listed. website: https://chemicaldata.gov.vn/

SECTION 16: Other information

Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CAS: Chemical Abstracts Service

EC50: Effective Concentration 50%

IATA: International Air Transportation Association

IMDG: International Maritime Dangerous Goods

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

STEL: Short term exposure limit

TWA: Time Weighted Average

References

【1】CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

【2】ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

【3】ECHA - European Chemicals Agency, website: https://echa.europa.eu/

【4】eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

【5】ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

【6】Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

【7】HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

【8】IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

【9】IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

【10】Sigma-Aldrich, website: https://www.sigmaaldrich.com/

Other Information

Use of alcoholic beverages enhances the harmful effect.Depending on the degree of exposure, periodic medical examination is suggested.The odour warning when the exposure limit value is exceeded is insufficient.Benzene causes acute myeloid leukaemia/acute non-lymphocytic leukaemia. Also, a positive association has been observed between exposure to benzene and acute lymphocytic leukaemia, chronic lymphocytic leukaemia, multiple myeloma, and non-Hodgkin lymphoma.

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

ChemicalBook

Chemical Safety Data Sheet MSDS / SDS

BENZO(A)ANTHRACENE D12

Revision Date:2026-01-17 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: BENZO(A)ANTHRACENE D12
CBnumber	: CB9339547
CAS	: 1718-53-2
Synonyms	: Benz[a]anthracene-d12,benzo(a)anthracene d12

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Danger

Precautionary statements

P501 Dispose of contents/container to.....

P308+P313 IF exposed or concerned: Get medical advice/attention.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continuerinsing.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P273 Avoid release to the environment.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P201 Obtain special instructions before use.

Hazard statements

H410 Very toxic to aquatic life with long lasting effects

H373 May cause damage to organs through prolonged or repeated exposure

H350 May cause cancer

H336 May cause drowsiness or dizziness

H335 May cause respiratory irritation

H319 Causes serious eye irritation

H315 Causes skin irritation

SECTION 3: Composition/information on ingredients

Substance

Product name	: BENZO(A)ANTHRACENE D12
Synonyms	: Benz[a]anthracene-d12,benzo(a)anthracene d12
CAS	: 1718-53-2
MF	: C18D12
MW	: 240.36

SECTION 4: First aid measures

Description of first aid measures

General advice

Consult a physician. Show this material safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture

Carbon oxides

Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

No data available

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Advice on safe handling

Avoid formation of dust and aerosols. **Advice on safe handling**
Avoid exposure - obtain special instructions before use.

Advice on protection against fire and explosion

Provide appropriate exhaust ventilation at places where dust is formed.Normal measures for preventive fire protection.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Storage conditions

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.
Store under inert gas. hygroscopic

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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SECTION 8: Exposure controls/personal protection

control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

Exposure controls

Personal protective equipment

Eye/face protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye
protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Body Protection

Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full- face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Appearance	solid
Odour	No data available
Odour Threshold	No data available
pH	No data available
Melting point/freezing point	Melting point/range: 157 - 159 °C - lit.
Initial boiling point and boiling range	437,6 °C at 1.013 hPa
Flash point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	No data available

Upper/lower flammability or explosive limits	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density	No data available No data available
Water solubility	No data available
Partition coefficient: n-octanol/water	log Pow: 5,672
Autoignition temperature	No data available
Decomposition temperature	No data available
Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
Explosive properties	No data available
Oxidizing properties	No data available

Other safety information

No data available

SECTION 10: Stability and reactivity

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No data available

Conditions to avoid

No data available

Incompatible materials

Strong oxidizing agents

Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Oral

Inhalation

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

SECTION 12: Ecological information

Toxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

This substance/mixture contains components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB).

Other adverse effects

Very toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a
licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

UN number

ADR/RID: 3077 IMDG: 3077 IATA: 3077

UN proper shipping name

ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(Benz[a]anthracene-d12)
IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
(Benz[a]anthracene-d12)
IATA: Environmentally hazardous substance, solid, n.o.s. (Benz[a]anthracene-d12)

Transport hazard class(es)

ADR/RID: 9 IMDG: 9 IATA: 9

Packaging group

ADR/RID: III IMDG: III IATA: III

Environmental hazards

ADR/RID: yes IMDG Marine pollutant: yes IATA: yes

Special precautions for user

Further information

EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packagings and combination packagings containing inner packagings with Dangerous Goods > 5L for liquids or > 5kg for solids.

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Not Listed. website: https://www.mem.gov.cn/

Measures for Environmental Management of New Chemical Substances

Vietnam National Chemical Inventory:Not Listed. website: https://chemicaldata.gov.vn/

United States Toxic Substances Control Act (TSCA) Inventory:Not Listed. website: https://www.epa.gov/

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Not Listed. website: https://emb.gov.ph/

New Zealand Inventory of Chemicals (NZIoC):Not Listed. website: https://www.epa.govt.nz/

Korea Existing Chemicals List (KECL):Not Listed. website: http://ncis.nier.go.kr

European Inventory of Existing Commercial Chemical Substances (EINECS):Not Listed. website: https://echa.europa.eu/

EC Inventory:Not Listed.

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Not Listed. website: https://www.mee.gov.cn/

SECTION 16: Other information

Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CAS: Chemical Abstracts Service

EC50: Effective Concentration 50%

IATA: International Air Transportation Association

IMDG: International Maritime Dangerous Goods

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

STEL: Short term exposure limit

TWA: Time Weighted Average

References

【1】CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

【2】ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

【3】ECHA - European Chemicals Agency, website: https://echa.europa.eu/

【4】eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

【5】ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

【6】Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

【7】HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

【8】IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

【9】IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

【10】Sigma-Aldrich, website: https://www.sigmaaldrich.com/

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

ChemicalBook

Chemical Safety Data Sheet MSDS / SDS

Benzo[a]pyrene

Revision Date:2026-04-19 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: Benzo[a]pyrene
CBnumber	: CB3696680
CAS	: 50-32-8
EINECS Number	: 200-028-5
Synonyms	: BP,BAP

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Danger

Precautionary statements

P501 Dispose of contents/container to.....

P405 Store locked up.

P391 Collect spillage. Hazardous to the aquatic environment

P308+P313 IF exposed or concerned: Get medical advice/attention.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P273 Avoid release to the environment.

P272 Contaminated work clothing should not be allowed out of the workplace.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P202 Do not handle until all safety precautions have been read and understood.

P201 Obtain special instructions before use.

Hazard statements

H412 Harmful to aquatic life with long lasting effects

H410 Very toxic to aquatic life with long lasting effects

H400 Very toxic to aquatic life

H373 May cause damage to organs through prolonged or repeated exposure

H360 May damage fertility or the unborn child

H350 May cause cancer

H340 May cause genetic defects

H336 May cause drowsiness or dizziness

H319 Causes serious eye irritation

H317 May cause an allergic skin reaction

H315 Causes skin irritation

H304 May be fatal if swallowed and enters airways

H225 Highly Flammable liquid and vapour

Disposal

WARNING.Cancer - https://oehha.ca.gov/proposition-65/chemicals/benzoapyrene

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SECTION 3: Composition/information on ingredients

Substance

Product name	: Benzo[a]pyrene
Synonyms	: BP,BAP
CAS	: 50-32-8
EC number	: 200-028-5
MF	: C20H12
MW	: 252.31

SECTION 4: First aid measures

Description of first aid measures

General advice

Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Call in physician.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

If swallowed

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Water Foam Carbon dioxide (CO2) Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture

Carbon oxides Combustible.

Development of hazardous combustion gases or vapours possible in the event of fire.

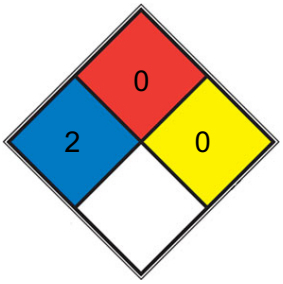
Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

Further information

Prevent fire extinguishing water from contaminating surface water or the ground water system.

NFPA 704



■	HEALTH	2	Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury (e.g. diethyl ether, ammonium phosphate, iodine)
■	FIRE	0	Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand. Materials that will not burn in air when exposed to a temperature of 820 °C (1,500 °F) for a period of 5 minutes.(e.g. Carbon tetrachloride)
■	REACT	0	Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium,N2)
□	SPEC. HAZ.		

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid generation and inhalation of dusts in all circumstances. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.
For personal protection see section 8.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully. Dispose of properly. Clean up affected area. Avoid generation of dusts.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Advice on safe handling

Work under hood. Do not inhale substance/mixture.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.
For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Storage conditions

Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

Exposure controls

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm Break through time: 480 min

Material tested:KCL 741 Dermatril? L

Splash contact Material: Nitrile rubber

Minimum layer thickness: 0,11 mm Break through time: 480 min

Material tested:KCL 741 Dermatril? L

Body Protection

protective clothing

Respiratory protection

required when dusts are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type P3

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains.

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Appearance	yellow solid
Odour	weakly aromatic
Odour Threshold	No data available
pH	No data available
Melting point/freezing point	Melting point/range: 177 - 180 °C - lit.
Initial boiling point and boiling range	495 °C - lit.
Flash point	495°C
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive	No data available

limits	
Vapour pressure	2.4 at 25 °C (McVeety and Hites, 1988)
Vapour density	No data available
Relative density	1,35 g/cm3 No data available
Water solubility	Soluble in benzene, toluene, and xylene; sparingly soluble in ethanol and methanol (Windholz et al., 1983)
Partition coefficient: n-octanol/water	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available
Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
Explosive properties	No data available
Oxidizing properties	No data available
Henry's Law Constant	7.35 at 25 °C (thermodynamic method-GC/UV spectrophotometry, Altschuh et al., 1999)(x 10^{-10} mmHg at 25 °C):

Other safety information

No data available

SECTION 10: Stability and reactivity

Reactivity

The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

Possibility of hazardous reactions

No data available

Conditions to avoid

no information available

Incompatible materials

Strong oxidizing agents

Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Oral

Skin corrosion/irritation

Skin - Mouse

Result: Mild skin irritation Remarks: (RTECS)

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

May cause allergic skin reaction. Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Germ cell mutagenicity

Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation Result: positive

Remarks: (Lit.)

Test Type: Mutagenicity (mammal cell test): chromosome aberration. Test system: Chinese hamster ovary cells

Metabolic activation: with and without metabolic activation Result: positive

Remarks: (National Toxicology Program) Test Type: sister chromatid exchange assay Test system: Chinese hamster ovary cells

Metabolic activation: with and without metabolic activation Result: positive

Remarks: (National Toxicology Program)

Test Type: Chromosome aberration test Species: Mouse

Cell type: Bone marrow

Application Route: Intraperitoneal injection

Result: positive

Remarks: (National Toxicology Program)

Carcinogenicity

No data available

Reproductive toxicity

May damage the unborn child. May damage fertility.

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Toxicity

LD_{50} for mice (intraperitoneal) 232 mg/kg (Salamone, 1981).

SECTION 12: Ecological information

Toxicity

No data available

Toxicity to daphnia and other aquatic invertebrates

EC50 - Daphnia magna (Water flea) - 0,25 mg/l - 48 h Remarks: (above the solubility limit in the test medium) (ECOTOX Database)

Toxicity to algae

static test ErC50 - Scenedesmus acutus - 0,005 mg/l - 72 h Remarks: (ECOTOX Database)

Persistence and degradability

No data available

Bioaccumulative potential

Bioaccumulation Lepomis macrochirus (Bluegill) - 48 h

- 0,0005 mg/l(benzo[a]pyrene)

Bioconcentration factor (BCF): 3.208

Mobility in soil

No data available

Results of PBT and vPvB assessment

This substance/mixture contains components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB).

Toxics Screening Level

The initial risk screening level and secondary risk screening level (SRSL) for benzo(a)pyrene (B(a)P) are 1E-3 µg/m3 (0.001 µg/m3) and 1E-2 µg/m3 (0.01 µg/m3), respectively. The Initial Threshold Screening Level (ITSL) for B(a)P is 0.002 µg/m3 with 24-hr averaging time.

Other adverse effects

No data available

SECTION 13: Disposal considerations

Waste treatment methods

Product

See www.retrologistik.com for processes regarding the return of chemicals and

containers, or contact us there if you have further questions.

Incompatibilities

Incompatible with oxidizers (chlorates, nitrates, peroxides, permanganates, perchlorates, chlorine, bromine, fluorine, etc.); contact may cause fires or explosions. Keep away from alkaline materials, strong bases, strong acids, oxoacids, epoxides, nitrogen dioxide and ozone.

Waste Disposal

Incineration in admixture with a flammable solvent.

SECTION 14: Transport information

UN number

ADR/RID: 3077 IMDG: 3077 IATA: 3077

UN proper shipping name

ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (benzo[a]pyrene) IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (benzo[a]pyrene)

IATA: Environmentally hazardous substance, solid, n.o.s. (benzo[a]pyrene)

Transport hazard class(es)

ADR/RID: 9 IMDG: 9 IATA: 9

Packaging group

ADR/RID: III IMDG: III IATA: III

Environmental hazards

ADR/RID: yes IMDG Marine pollutant: yes IATA: yes

Special precautions for user

Further information

EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packagings and combination packagings containing inner packagings with Dangerous Goods > 5L for liquids or > 5kg for solids.

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Not Listed. website: https://www.mem.gov.cn/

Measures for Environmental Management of New Chemical Substances

Vietnam National Chemical Inventory:Listed. website: https://chemicaldata.gov.vn/

United States Toxic Substances Control Act (TSCA) Inventory:Listed. website: https://www.epa.gov/

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Listed. website: https://emb.gov.ph/

New Zealand Inventory of Chemicals (NZIoC):Listed. website: https://www.epa.govt.nz/

Korea Existing Chemicals List (KECL):Listed. website: http://ncis.nier.go.kr

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: https://echa.europa.eu/

EC Inventory:Listed.

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Listed. website: https://www.mee.gov.cn/

SECTION 16: Other information

Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CAS: Chemical Abstracts Service

EC50: Effective Concentration 50%

IATA: International Air Transportation Association

IMDG: International Maritime Dangerous Goods

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

STEL: Short term exposure limit

TWA: Time Weighted Average

References

【1】CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

【2】ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

【3】ECHA - European Chemicals Agency, website: https://echa.europa.eu/

【4】eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

【5】ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

【6】Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

【7】HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

【8】IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

【9】IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

【10】Sigma-Aldrich, website: https://www.sigmaaldrich.com/

Other Information

Do NOT take working clothes home.Insufficient data are available on the effect of this substance on human health, therefore utmost care must be taken.Benzo(a)pyrene is present as a component of polycyclic aromatic hydrocarbons (PAHs) in the environment, usually resulting from the incomplete combustion or pyrolysis of organic matters, especially fossil fuels and tobacco.

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

ChemicalBook

Chemical Safety Data Sheet MSDS / SDS

BENZO(B)FLUORANTHENE

Revision Date:2026-01-17 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: BENZO(B)FLUORANTHENE
CBnumber	: CB5302581
CAS	: 205-99-2
EINECS Number	: 205-911-9
Synonyms	: Benzo(b)fluoranthene,Benz[e]acephenanthrylene

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Danger

Precautionary statements

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P311 Call a POISON CENTER or doctor/physician.

P331 Do NOT induce vomiting.

P391 Collect spillage. Hazardous to the aquatic environment

P405 Store locked up.

P501 Dispose of contents/container to.....

Hazard statements

H225 Highly Flammable liquid and vapour

H304 May be fatal if swallowed and enters airways

H315 Causes skin irritation

H319 Causes serious eye irritation

H336 May cause drowsiness or dizziness

H350 May cause cancer

H370 Causes damage to organs

H410 Very toxic to aquatic life with long lasting effects

H412 Harmful to aquatic life with long lasting effects

Disposal

WARNING.Cancer - https://oehha.ca.gov/proposition-65/chemicals/benzobfluoranthene

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SECTION 3: Composition/information on ingredients

Substance

Product name	: BENZO(B)FLUORANTHENE
Synonyms	: Benzo(b)fluoranthene,Benz[e]acephenanthrylene
CAS	: 205-99-2
EC number	: 205-911-9
MF	: C20H12
MW	: 252.31

SECTION 4: First aid measures

Description of first aid measures

General advice

Consult a physician. Show this material safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture

Carbon oxides

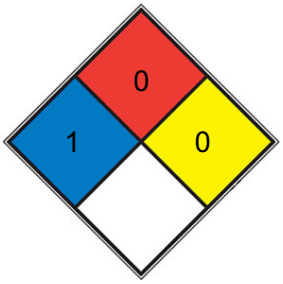
Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

No data available

NFPA 704



■	HEALTH	1	Exposure would cause irritation with only minor residual injury (e.g. acetone, sodium bromate, potassium chloride)
■	FIRE	0	Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand. Materials that will not burn in air when exposed to a temperature of 820 °C (1,500 °F) for a period of 5 minutes.(e.g. Carbon tetrachloride)
■	REACT	0	Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium,N2)
□	SPEC. HAZ.		

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Advice on safe handling

Avoid formation of dust and aerosols. **Advice on safe handling**

Avoid exposure - obtain special instructions before use.

Advice on protection against fire and explosion

Provide appropriate exhaust ventilation at places where dust is formed.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Storage conditions

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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SECTION 8: Exposure controls/personal protection

control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

Exposure controls

Personal protective equipment

Eye/face protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm Break through time: 480 min

Material tested:Dermatril? (KCL 740 / Aldrich Z677272, Size M)

Splash contact Material: Nitrile rubber

Minimum layer thickness: 0,11 mm Break through time: 480 min

Material tested:Dermatril? (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the EC approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full- face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Appearance	solid
Odour	No data available
Odour Threshold	No data available
pH	No data available
Melting point/freezing point	point/range: 163 - 165 °C - lit.
Initial boiling point and boiling range	481°C(lit.)
Flash point	-18 °C
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	No data available
Vapour pressure	5×10^{-7} mmHg at 20 °C (U.S. EPA, 1982)
Vapour density	No data available

Relative density	No data available No data available
Water solubility	Soluble in most solvents (U.S. EPA, 1985)
Partition coefficient: n-octanol/water	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available
Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
Explosive properties	No data available
Oxidizing properties	No data available
Henry's Law Constant	2.47, 5.03, 11.74, 14.90, 20.53, and 36.52 at 10.0, 20.0, 35.0, 40.1, 45.0, and 55.0 °C, respectively (wetted-wall column, ten Hulscher et al., 1992)

Other safety information

No data available

SECTION 10: Stability and reactivity

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No data available

Conditions to avoid

No data available

Incompatible materials

Strong oxidizing agents

Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

TDLo Oral - Mouse - 7,57 mg/kg Remarks: Liver:Changes in liver weight. Endocrine:Changes in thymus weight.

Inhalation

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Toxicity

LC_{50} (21-d) for Folsomia fimetaria >3,600 mg/kg (Sverdrup et al., 2002).

SECTION 12: Ecological information

Toxicity

Toxicity to daphnia and other aquatic invertebrates

Immobilization EC50 - Daphnia magna (Water flea) - > 1,024 mg/l - 24 h

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Toxics Screening Level

The IRSL for benzo(b)fluoranthene is 5E-4 µg/m3.

Other adverse effects

Very toxic to aquatic life.

SECTION 13: Disposal considerations

Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Incompatibilities

Incompatible with oxidizers (chlorates, nitrates, peroxides, permanganates, perchlorates, chlorine, bromine, fluorine, etc.); contact may cause fires or explosions. Keep away from alkaline materials, strong bases, strong acids, oxoacids, epoxides.

Waste Disposal

Residues and sorbent media may be packaged in 17H epoxy-lined drums and disposed of at an EPA-approved site. Destroy by permanganate oxidation, high-temperature incineration with scrubbing equipment, or microwave plasma treatment, if available. Confirm disposal procedures with responsible environmental engineer and regulatory officials.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

UN number

ADR/RID: 3077 IMDG: 3077 IATA: 3077

UN proper shipping name

ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

(Benz[e]acephenanthrylene)

IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

(Benz[e]acephenanthrylene)

IATA: Environmentally hazardous substance, solid, n.o.s. (Benz[e]acephenanthrylene)

Transport hazard class(es)

ADR/RID: 9 IMDG: 9 IATA: 9

Packaging group

ADR/RID: III IMDG: III IATA: III

Environmental hazards

ADR/RID: yes IMDG Marine pollutant: yes IATA: yes

Special precautions for user

Further information

EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packagings and combination packagings containing inner packagings with Dangerous Goods > 5L for liquids or > 5kg for solids.Packages smaller than or equal to 5 kg / L , not dangerous goods of Class 9

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Not Listed. website: https://www.mem.gov.cn/

Measures for Environmental Management of New Chemical Substances

EC Inventory:Listed.

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: https://echa.europa.eu/

New Zealand Inventory of Chemicals (NZIoC):Listed. website: https://www.epa.govt.nz/

Vietnam National Chemical Inventory:Listed. website: https://chemicaldata.gov.vn/

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Not Listed. website: https://www.mee.gov.cn/

Korea Existing Chemicals List (KECL):Not Listed. website: http://ncis.nier.go.kr

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Not Listed. website: https://emb.gov.ph/

United States Toxic Substances Control Act (TSCA) Inventory:Not Listed. website: https://www.epa.gov/

SECTION 16: Other information

Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CAS: Chemical Abstracts Service

EC50: Effective Concentration 50%

IATA: International Air Transportation Association

IMDG: International Maritime Dangerous Goods

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

STEL: Short term exposure limit

TWA: Time Weighted Average

References

【1】CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

【2】ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

【3】ECHA - European Chemicals Agency, website: https://echa.europa.eu/

【4】eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

【5】ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

【6】Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

【7】HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

【8】IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

【9】IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

【10】Sigma-Aldrich, website: https://www.sigmaaldrich.com/

Other Information

Benzo(b)fluoranthene is present as a component of polycyclic aromatic hydrocarbons (PAH) content in the environment usually resulting from the incomplete combustion or pyrolysis of organic matters, especially fossil fuels and tobacco.ACGIH recommends environment containing benzo(b)fluoranthene should be evaluated in terms of the TLV-TWA for coal tar pitch volatile, as benzene soluble 0.2 mg/m³.TLV Note: Exposure by all routes should be carefully controlled to levels as low as possible.Insufficient data are available on the effect of this substance on human health, therefore utmost care must be taken.

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

ChemicalBook

Chemical Safety Data Sheet MSDS / SDS

Benzo[k]fluoranthene

Revision Date:2026-02-14 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: Benzo[k]fluoranthene
CBnumber	: CB0727341
CAS	: 207-08-9
EINECS Number	: 205-916-6
Synonyms	: Benzo(k)fluoranthene,Benzo[k]fluorathene

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Danger

Precautionary statements

P201 Obtain special instructions before use.

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P281 Use personal protective equipment as required.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continuerinsing.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P501 Dispose of contents/container to.....

Hazard statements

H225 Highly Flammable liquid and vapour

H315 Causes skin irritation

H319 Causes serious eye irritation

H335 May cause respiratory irritation

H336 May cause drowsiness or dizziness

H350 May cause cancer

H351 Suspected of causing cancer

H373 May cause damage to organs through prolonged or repeated exposure

H410 Very toxic to aquatic life with long lasting effects

H412 Harmful to aquatic life with long lasting effects

Disposal

WARNING.Cancer - https://oehha.ca.gov/proposition-65/chemicals/benzokfluoranthene

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SECTION 3: Composition/information on ingredients

Substance

Product name	: Benzo[k]fluoranthene
Synonyms	: Benzo(k)fluoranthene,Benzo[k]fluorathene
CAS	: 207-08-9
EC number	: 205-916-6
MF	: C20H12
MW	: 252.31

SECTION 4: First aid measures

Description of first aid measures

General advice

Consult a physician. Show this material safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture

Carbon oxides

Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

No data available

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Advice on safe handling

Avoid formation of dust and aerosols. **Advice on safe handling**

Avoid exposure - obtain special instructions before use.

Advice on protection against fire and explosion

Provide appropriate exhaust ventilation at places where dust is formed.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Storage conditions

Keep container tightly closed in a dry and well-ventilated place. Store in cool place.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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SECTION 8: Exposure controls/personal protection

control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

Exposure controls

Personal protective equipment

Eye/face protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm Break through time: 480 min

Material tested:Dermatril? (KCL 740 / Aldrich Z677272, Size M)

Splash contact Material: Nitrile rubber

Minimum layer thickness: 0,11 mm Break through time: 480 min

Material tested:Dermatril? (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the EC approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full- face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Appearance	yellow crystalline
Odour	No data available
Odour Threshold	No data available
pH	No data available
Melting point/freezing point	Melting point/range: 215 - 217 °C - lit.
Initial boiling point and boiling range	480 °C
Flash point	100 °C
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	No data available
Vapour pressure	9.59 x 10^{-11} mmHg at 25 °C (extrapolated from vapor pressures determined at higher temperatures, Puppet al., 1974)
Vapour density	No data available
Relative density	1,286 g/cm3 at 20 °C No data available
Water solubility	insoluble
Partition coefficient: n-octanol/water	log Pow: 6,188 at 25 °C
Autoignition temperature	No data available
Decomposition temperature	No data available
Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
Explosive properties	No data available
Oxidizing properties	No data available
Henry's Law Constant	2.17, 4.24, 10.56, 13.62, 19.54, and 39.77 at 10.0, 20.0, 35.0, 40.1, 45.0, and 55.0 °C, respectively (wetted-wall column, ten Hulscher et al., 1992)

Other safety information

No data available

SECTION 10: Stability and reactivity

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No data available

Conditions to avoid

No data available

Incompatible materials

Strong oxidizing agents

Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Oral

Inhalation: Irritating to respiratory system.

Dermal

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Toxicity

LC_{50} (21-d) for Folsomia fimetaria >560 mg/kg (Sverdrup et al., 2002).

SECTION 12: Ecological information

Toxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

This substance/mixture contains components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB).

Toxics Screening Level

The IRSL for Benzo(a)pyrene equivalent carcinogenic PAHs is 1E-6/IUR.

Other adverse effects

Very toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

UN number

ADR/RID: 3077 IMDG: 3077 IATA: 3077

UN proper shipping name

ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

(Benzo[k]fluoranthene)

IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.

(Benzo[k]fluoranthene)

IATA: Environmentally hazardous substance, solid, n.o.s. (Benzo[k]fluoranthene)

Transport hazard class(es)

ADR/RID: 9 IMDG: 9 IATA: 9

Packaging group

ADR/RID: III IMDG: III IATA: III

Environmental hazards

ADR/RID: yes IMDG Marine pollutant: yes IATA: yes

Special precautions for user

Further information

EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packagings and combination packagings containing inner packagings with Dangerous Goods > 5L for liquids or > 5kg for solids.

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Not Listed. website: https://www.mem.gov.cn/

Measures for Environmental Management of New Chemical Substances

EC Inventory:Listed.

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: https://echa.europa.eu/

New Zealand Inventory of Chemicals (NZIoC):Listed. website: https://www.epa.govt.nz/

Vietnam National Chemical Inventory:Listed. website: https://chemicaldata.gov.vn/

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Not Listed. website: https://www.mee.gov.cn/

Korea Existing Chemicals List (KECL):Not Listed. website: http://ncis.nier.go.kr

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Not Listed. website: https://emb.gov.ph/

United States Toxic Substances Control Act (TSCA) Inventory:Not Listed. website: https://www.epa.gov/

SECTION 16: Other information

Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CAS: Chemical Abstracts Service

EC50: Effective Concentration 50%

IATA: International Air Transportation Association

IMDG: International Maritime Dangerous Goods

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

STEL: Short term exposure limit

TWA: Time Weighted Average

References

【9】IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

【1】CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

【2】ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

【3】ECHA - European Chemicals Agency, website: https://echa.europa.eu/

【4】eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

【5】ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

【6】Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

【7】HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

【8】IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

【10】Sigma-Aldrich, website: https://www.sigmaaldrich.com/

Other Information

Benzo(k)fluoranthene is present as a component of polycyclic aromatic hydrocarbons (PAH) content in the environment usually resulting from the incomplete combustion or pyrolysis of organic matters, especially fossil fuels and tobacco.ACGIH recommends environment containing benzo(k)fluoranthene should be evaluated in terms of the TLV-TWA for coal tar pitch volatile, as benzene soluble 0.2 mg/m³.Insufficient data are available on the effect of this substance on human health, therefore utmost care must be taken.

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

ChemicalBook

Chemical Safety Data Sheet MSDS / SDS

Carbon disulfide

Revision Date:2026-04-04 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: Carbon disulfide
CBnumber	: CB6279761
CAS	: 75-15-0
EINECS Number	: 200-843-6
Synonyms	: CS2,Carbon Disulfide

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Danger

Precautionary statements

P201 Obtain special instructions before use.

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continuerinsing.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P370+P378 In case of fire: Use … for extinction.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P403+P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

Hazard statements

H225 Highly Flammable liquid and vapour

H302 Harmful if swallowed

H315 Causes skin irritation

H319 Causes serious eye irritation

H332 Harmful if inhaled

H333 May be harmful if inhaled

H335 May cause respiratory irritation

H351 Suspected of causing cancer

H361 Suspected of damaging fertility or the unborn child

H370 Causes damage to organs

H372 Causes damage to organs through prolonged or repeated exposure

H373 May cause damage to organs through prolonged or repeated exposure

Disposal

WARNING.Cancer - https://oehha.ca.gov/proposition-65/chemicals/carbon-disulfide

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SECTION 3: Composition/information on ingredients

Substance

Product name	: Carbon disulfide
Synonyms	: CS2,Carbon Disulfide
CAS	: 75-15-0
EC number	: 200-843-6
MF	: CS2
MW	: 76.14

SECTION 4: First aid measures

Description of first aid measures

General advice

Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

If swallowed

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Water Foam Carbon dioxide (CO2) Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture

Carbon oxides Sulfur oxides

Flash back possible over considerable distance., Container explosion may occur under fire conditions., Vapors may form explosive mixture with air., May explode when heated.

Combustible.

Pay attention to flashback.

Vapors are heavier than air and may spread along floors.

Development of hazardous combustion gases or vapours possible in the event of fire. Forms explosive mixtures with air at ambient temperatures.

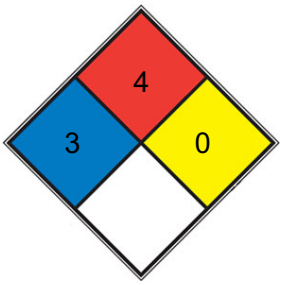
Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

Further information

Remove container from danger zone and cool with water. Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

NFPA 704



HEALTH	3	Short exposure could cause serious temporary or moderate residual injury (e.g. liquid hydrogen, sulfuric acid, calcium hypochlorite, hexafluorosilicic acid)
		Will rapidly or completely vaporize at normal atmospheric pressure and temperature, or is readily dispersed in air and will

■	FIRE	4	burn readily. Includes pyrophoric substances. Flash point below room temperature at 22.8 °C (73 °F). (e.g. acetylene, propane, hydrogen gas)
■	REACT	0	Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium,N2)
□	SPEC. HAZ.		

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition.

Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

Environmental precautions

Do not let product enter drains. Risk of explosion.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material (e.g.

Chemizorb?). Dispose of properly. Clean up affected area.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Advice on safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition.Take precautionary measures against static discharge.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Storage conditions

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and

sources of ignition. Keep locked up or in an area accessible only to qualified or authorized persons.

Refrigerate before opening.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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SECTION 8: Exposure controls/personal protection

control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

Exposure controls

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Full contact Material: Viton?

Minimum layer thickness: 0,7 mm Break through time: 480 min

Material tested:Vitoject? (KCL 890 / Aldrich Z677698, Size M)

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Splash contact Material: butyl-rubber

Minimum layer thickness: 0,7 mm Break through time: 30 min

Material tested:Butoject? (KCL 898)

Body Protection

Flame retardant antistatic protective clothing.

Respiratory protection

Recommended Filter type: Filter B-(P3)

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains. Risk of explosion.

Exposure limits

NIOSH REL: TWA 1 ppm, STEL 10 ppm, IDLH 500 ppm; OSHA PEL: TWA 20 ppm, C 30 ppm; ACGIH TLV: TWA 10 ppm.

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Appearance	colorless clear, liquid
Odour	odorless
Odour Threshold	Not applicable
pH	No data available
Melting point/freezing point	Melting point: -111,5 °C Freezing point:< -76 °C - OECD Test Guideline 102
Initial boiling point and boiling range	42,2 °C at 997 - 998 hPa - OECD Test Guideline 103
Flash point	-30 °C - c.c.
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	Upper explosion limit: 60 %(V) Lower explosion limit: 1 %(V)
Vapour pressure	274 hPa at 25 °C - OECD Test Guideline 104
Vapour density	2.67 (vs air)
Relative density	1.26
Water solubility	2,9 g/l at 20 °C - OECD Test Guideline 105- soluble
Partition coefficient: n-octanol/water	log Pow: 2,7 at 25 °C - OECD Test Guideline 117 - Bioaccumulation is not expected.
Autoignition temperature	No data available
Decomposition temperature	415 °C, 89,7 kJ/mol -
Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
Explosive properties	No data available
Oxidizing properties	No data available
Henry's Law Constant	24.25 (atm?m^3/mol) at 24 °C (Elliott, 1989)
λmax	λ: 386 nm Amax: ≤1.0 λ: 388 nm Amax: 0.50 λ: 394 nm Amax: 0.25 λ: 403 nm Amax: 0.10 λ: 410 nm Amax: 0.05 λ: 500-750 nm Amax: 0.01

Other safety information

Surface tension 71,9 mN/m at 1g/l at 19,5 °C

- OECD Test Guideline 115

SECTION 10: Stability and reactivity

Reactivity

Vapors may form explosive mixture with air.

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

Possibility of hazardous reactions

Risk of explosion with:

nitrogen oxides permanganic acid Oxidizing agents

halogen-halogen compounds halogen oxides

Iron

ferric oxide Chlorine hydrazines

powdered aluminium chlorine oxides Potassium

potassium permanganate Lithium

sodium nitrogen dioxide azides

Risk of ignition or formation of inflammable gases or vapours with:

Fluorine phosphorus sulfur

Activated charcoal Powdered metals Reducing agents Exothermic reaction with: Zinc

Acids

Conditions to avoid

Warming.

Incompatible materials

rubber, various plastics

Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - female - > 2.000 mg/kg (OECD Test Guideline 423)

LC50 Inhalation - Rat - male and female - 4 h - 10,35 mg/l (OECD Test Guideline 403)

Dermal

Skin corrosion/irritation

Skin - Rabbit

Result: Severe irritations

Remarks: (Regulation (EC) No 1272/2008, Annex VI) (IUCLID)

Serious eye damage/eye irritation

Eyes - Human

Result: Severe irritations

Remarks: (Regulation (EC) No 1272/2008, Annex VI) (IUCLID)

Respiratory or skin sensitization

(OECD Test Guideline 429)

Germ cell mutagenicity

Test Type: In vitro mammalian cell gene mutation test Test system: mouse lymphoma cells

Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476

Result: negative

Test Type: Micronucleus test Species: Mouse

Cell type: Red blood cells (erythrocytes) Application Route: inhalation (vapor) Method: OECD Test Guideline 474 Result: negative

Carcinogenicity

No data available

Reproductive toxicity

Suspected of damaging the unborn child. Suspected of damaging fertility.

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

Causes damage to organs through prolonged or repeated exposure. - Peripheral nervous system, Central nervous system, Cardio-vascular system, Eyes

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Aspiration hazard

No data available

Toxicity

LC50 inhal (rat) 25,000 mg/m3 (2 h)

STEL (OSHA) 12 ppm (36 mg/m3)-skin

PEL (OSHA) 4 ppm (12 mg/m3)

TLV-TWA (ACGIH) 10 ppm (31 mg/m3)-skin

SECTION 12: Ecological information

Toxicity

Toxicity to fish

semi-static test LC50 - Danio rerio (zebra fish) - 3 mg/l - 96 h (OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates

EC50 - Daphnia magna (Water flea) - 2,1 mg/l - 48 h (OECD Test Guideline 202)

Toxicity to algae

static test EC50 - Chlorella pyrenoidosa - 21 mg/l - 96 h (OECD Test Guideline 201)

Toxicity to bacteria

static test EC50 - Bacteria - 13 mg/l - 24 h

Remarks: (ECHA)

Persistence and degradability

Biodegradability aerobic - Exposure time 28 d

Chemical Oxygen Demand (COD)

Result: > 80 % - Readily biodegradable. (OECD Test Guideline 301D)

1,47 mg/g Remarks: (IUCLID)

Bioaccumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Toxics Screening Level

The current ITSL for carbon disulfide (700µg/m3) was established on August 2, 1995 (see attached).

Other adverse effects

Additional ecological information
Hazard for drinking water supplies.

Discharge into the environment must be avoided.

Stability in water - > 1 yr
Remarks: (IUCLID)

SECTION 13: Disposal considerations

Waste treatment methods

Incompatibilities

Incompatible with oxidizer; contact may cause fires or explosions. Keep away from alkaline materials, strong bases, strong acids, oxoacids, epoxides. Reacts violently with oxidants to produce oxides of sulfur and carbon monoxide, and causing fire and explosion hazard. Attacks some forms of plastic, rubber, and coating.

Product

See www.retrologistik.com for processes regarding the return of chemicals and
containers, or contact us there if you have further questions.

Waste Disposal

The pure liquid presents an acute fire and explosion hazard. The following disposal procedure is suggested: All equipment or contact surfaces should be grounded to avoid ignition by static charges. Absorb on vermiculite, sand, or ashes and cover with water. Transfer underwater in buckets to an open area. If quantity is large, Carbon disulfide may be recovered by distillation and repackaged for use.

SECTION 14: Transport information

UN number

ADR/RID: 1131 IMDG: 1131 IATA: 1131

UN proper shipping name

	ADR/RID: CARBON DISULPHIDE IMDG: CARBON DISULPHIDE	
IATA: Carbon disulphide Passenger Aircraft: Not permitted for transport Cargo Aircraft: Not permitted for transport		
14.3	Transport hazard class(es) ADR/RID: 3 (6.1) IMDG: 3 (6.1)	IATA: 3 (6.1)
14.4	Packaging group ADR/RID: I IMDG: I	IATA: -
14.5	Environmental hazards ADR/RID: no IMDG Marine pollutant: no	IATA: no
14.6	Special precautions for user No data available	

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Listed. website: https://www.mem.gov.cn/

Measures for Environmental Management of New Chemical Substances

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Listed. website: https://www.mee.gov.cn/

EC Inventory:Listed.

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: https://echa.europa.eu/

Korea Existing Chemicals List (KECL):Listed. website: http://ncis.nier.go.kr

New Zealand Inventory of Chemicals (NZIoC):Listed. website: https://www.epa.govt.nz/

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Listed. website: https://emb.gov.ph/

United States Toxic Substances Control Act (TSCA) Inventory:Listed. website: https://www.epa.gov/

Vietnam National Chemical Inventory:Listed. website: https://chemicaldata.gov.vn/

SECTION 16: Other information

Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CAS: Chemical Abstracts Service

EC50: Effective Concentration 50%

IATA: International Air Transportation Association

IMDG: International Maritime Dangerous Goods

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

STEL: Short term exposure limit

TWA: Time Weighted Average

References

【1】CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

【2】ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

【3】ECHA - European Chemicals Agency, website: https://echa.europa.eu/

【4】eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

【5】ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

【6】Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

【7】HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

【8】IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

【9】IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

【10】Sigma-Aldrich, website: https://www.sigmaaldrich.com/

Other Information

Depending on the degree of exposure, periodic medical examination is suggested.

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

ChemicalBook

Chemical Safety Data Sheet MSDS / SDS

Carbon tetrachloride

Revision Date:2026-04-04 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: Carbon tetrachloride
CBnumber	: CB6177304
CAS	: 56-23-5
EINECS Number	: 200-262-8
Synonyms	: CCl4,carbon tetrachloride

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Danger

Precautionary statements

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P502 Refer to manufacturer/supplier for information on recovery/recycling

Hazard statements

H317 May cause an allergic skin reaction

H351 Suspected of causing cancer

H372 Causes damage to organs through prolonged or repeated exposure

H412 Harmful to aquatic life with long lasting effects

H420 Harms public health and the environment by destroying ozone in the upper atmosphere

SECTION 3: Composition/information on ingredients

Substance

Product name	: Carbon tetrachloride
Synonyms	: CCl4,carbon tetrachloride
CAS	: 56-23-5
EC number	: 200-262-8
MF	: CCl4
MW	: 153.82

SECTION 4: First aid measures

4.1 Description of first aid measures

If inhaled

After inhalation: fresh air.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

In case of eye contact

After eye contact: rinse out with plenty of water. Remove contact lenses.

If swallowed

After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water Foam Carbon dioxide (CO2) Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

Nature of decomposition products not known.

Combustible.

Development of hazardous combustion gases or vapours possible in the event of fire.

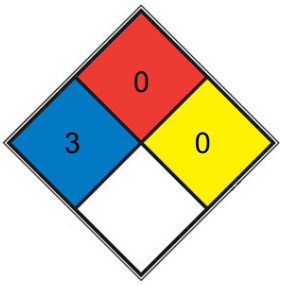
5.3 Advice for firefighters

In the event of fire, wear self-contained breathing apparatus.

5.4 Further information

Prevent fire extinguishing water from contaminating surface water or the ground water system.

NFPA 704



■	HEALTH	3	Short exposure could cause serious temporary or moderate residual injury (e.g. liquid hydrogen, sulfuric acid, calcium hypochlorite, hexafluorosilicic acid)
■	FIRE	0	Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand. Materials that will not burn in air when exposed to a temperature of 820 °C (1,500 °F) for a period of 5 minutes.(e.g. Carbon tetrachloride)
■	REACT	0	Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium,N2)
□	SPEC. HAZ.		

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Tightly closed. Dry.

Storage stabilityRecommended storage temperature

-20 °C

Storage class

Storage class (TRGS 510): 11: Combustible Solids

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with workplace control parameters

8.2 Exposure controls

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN 16523-1 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell,
Internet: www.kcl.de).
Full contact
Material: Nitrile rubber
Minimum layer thickness: 0,11 mm
Break through time: 480 min
Material tested:KCL 741 L
Splash contact
Material: Nitrile rubber
Minimum layer thickness: 0,11 mm
Break through time: 480 min
Material tested:KCL 741 L

Respiratory protection

required when dusts are generated.
Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type P1

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains.

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

a) Physical state	solid
b) Color	Clear colorless
c) Odor	Ethereal, sweet, pungent odor detectable at 140 to 584 ppm (mean = 252 ppm)
d) Melting point/freezing point	No data available
e) Initial boiling point and boiling range	76-77 °C(lit.)
f) Flammability (solid, gas)	No data available
g) Upper/lower flammability or explosive limits	No data available
h) Flash point	−2 °F
i) Autoignition temperature	No data available
j) Decomposition temperature	No data available
k) pH	No data available
l) Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
m) Water solubility	0.8 g/L (20 ºC)
n) Partition coefficient n-octanol/water	No data available
o) Vapor pressure	4.05 psi (20 °C)
p) Density	1.594 g/mL at 25 °C(lit.)
Relative density	1.594 g/mL at 25 °C(lit.)
q) Relative vapour density	5.32 (vs air)
r) Particle characteristics	No data available
s) Explosive properties	Not classified as explosive.
t) Oxidizing properties	none
Solubility	Miscible with ethanol, benzene, chloroform, ether, carbon disulfide (U.S. EPA, 1985), petroleum ether, solvent naphtha, and volatile oils (Yoshida et al., 1983a).
Henry's Law Constant	2.15 at 30 °C (headspace-GC, Sanz et al., 1997)
Dielectric constant	2.2（20℃）

9.2 Other safety information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

no information available

10.5 Incompatible materials

Strong oxidizing agents

10.6 Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Mixture Acute toxicity

Oral: No data available

Inhalation: No data available

Dermal: No data available

Skin corrosion/irritation

Classified based on available data. For more details, see section 2

Serious eye damage/eye irritation

Classified based on available data. For more details, see section 2

Respiratory or skin sensitization

Classified based on available data. For more details, see section 2

Germ cell mutagenicity

Classified based on available data. For more details, see section 2

Carcinogenicity

Classified based on available data. For more details, see section 2

Reproductive toxicity

Classified based on available data. For more details, see section 2

Specific target organ toxicity - single exposure

Classified based on available data. For more details, see section 2

Specific target organ toxicity - repeated exposure

Classified based on available data. For more details, see section 2

Aspiration hazard

Classified based on available data. For more details, see section 2

11.2 Additional Information

Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Hazardous properties cannot be excluded but are unlikely when the product is handled appropriately.

SECTION 12: Ecological information

12.1 Toxicity

Mixture

No data available

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission

Delegated regulation (EU) 2017/2100 or Commission

Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

No data available

Components

SECTION 13: Disposal considerations

13.1 Waste treatment methods

No data available

SECTION 14: Transport information

14.1 UN number

ADR/RID: -

IMDG: -

IATA: -

14.2 UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

14.3 Transport hazard class(es)

ADR/RID: -

IMDG: -

IATA: -

14.4 Packaging group

ADR/RID: -

IMDG: -

IATA: -

14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

14.6 Special precautions for user

No data available

Further information: Not classified as dangerous in the meaning of transport regulations.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

This material safety data sheet complies with the requirements of Regulation (EC) No.

1907/2006.

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out

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SECTION 16: Other information

Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

ADR - Agreement concerning the International Carriage ofDangerous Goods by Road

AIIC - Australian Inventory of Industrial Chemicals

ASTM -American Society for the Testing of Materials

bw - Body weight

CMR - Carcinogen,Mutagen or Reproductive Toxicant

DIN - Standard of the German Institute forStandardisation

DSL - Domestic Substances List (Canada)

ECx - Concentration associated with x% response

ELx - Loading rate associated with x% response

EmS -Emergency Schedule

ENCS - Existing and New Chemical Substances (Japan)

ErCx -Concentration associated with x% growth rate response

GHS - Globally HarmonisedSystem

GLP - Good Laboratory Practice

IARC - International Agency for Research onCancer

IATA - International Air Transport Association

IBC - International Code for theConstruction and Equipment of Ships carrying Dangerous Chemicals in Bulk

IC50 - Half maximal inhibitory concentration

ICAO - International Civil Aviation Organization

IECSC - Inventory of Existing Chemical Substances in China

IMDG - InternationalMaritime Dangerous Goods

IMO - International Maritime Organisation

ISHL - IndustrialSafety and Health Law (Japan)

ISO - International Organisation for Standardisation

KECI - Korea Existing Chemicals Inventory

LC50 - Lethal Concentration to 50 % of a test population

LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose)

MARPOL - International Convention for the Prevention of Pollution from Ships

n.o.s. -Not Otherwise Specified

NO(A)EC - No Observed (Adverse) Effect Concentration

NO(A)EL - No Observed (Adverse) Effect Level

NOELR - No Observable Effect LoadingRate

NZIoC - New Zealand Inventory of Chemicals

OECD - Organisation for EconomicCo-operation and Development

OPPTS - Office of Chemical Safety and PollutionPrevention

PBT - Persistent, Bioaccumulative and Toxic substance

PICCS - PhilippinesInventory of Chemicals and Chemical Substances

(Q)SAR - (Quantitative) StructureActivity Relationship

REACH - Regulation (EC) No 1907/2006 of the EuropeanParliament and of the Council concerning the Registration, Evaluation, Authorisation andRestriction of Chemicals

RID - Regulations concerning the International Carriage ofDangerous Goods by Rail

SADT - Self-Accelerating Decomposition Temperature

SDS -Safety Data Sheet

TCSI - Taiwan Chemical Substance Inventory

TECI - ThailandExisting Chemicals Inventory

TSCA - Toxic Substances Control Act (United States)

UN - United Nations

UNRTDG - United Nations Recommendations on the Transport ofDangerous Goods

vPvB - Very Persistent and Very Bioaccumulative

Disclaimer:
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Chemical Safety Data Sheet MSDS / SDS

Chloroform

Revision Date:2026-04-04 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: Chloroform
CBnumber	: CB5413313
CAS	: 67-66-3
EINECS Number	: 200-663-8
Synonyms	: chloroform,CHCl3

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Danger

Precautionary statements

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continuerinsing.

P308+P313 IF exposed or concerned: Get medical advice/attention.

Hazard statements

H225 Highly Flammable liquid and vapour

H319 Causes serious eye irritation

H336 May cause drowsiness or dizziness

H351 Suspected of causing cancer

H373 May cause damage to organs through prolonged or repeated exposure

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SECTION 3: Composition/information on ingredients

Substance

Product name	: Chloroform
Synonyms	: chloroform,CHCl3
CAS	: 67-66-3
EC number	: 200-663-8
MF	: CHCl3
MW	: 119.38

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

If swallowed

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

Carbon oxides

Hydrogen chloride gas

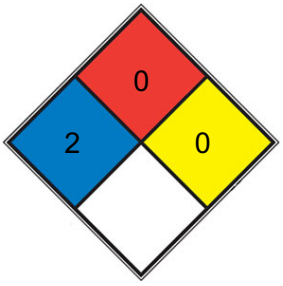
5.3 Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

5.4 Further information

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

NFPA 704



■	HEALTH	2	Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury (e.g. diethyl ether, ammonium phosphate, iodine)
■	FIRE	0	Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand. Materials that will not burn in air when exposed to a temperature of 820 °C (1,500 °F) for a period of 5 minutes.(e.g. Carbon tetrachloride)
■	REACT	0	Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium,N2)
□	SPEC. HAZ.		

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material (e.g.

Chemizorb®). Dispose of properly. Clean up affected area.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Tightly closed. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons.

Storage class

Storage class (TRGS 510): 6.1D: Non-combustible, acute toxic Cat.3 / toxic hazardous materials or hazardous materials causing chronic effects

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with workplace control parameters Derived No Effect Level (DNEL)

['Worker DNEL, longterm', 'inhalation', 'Systemic effects', '2,5 mg/m3']	['Worker DNEL, longterm', 'dermal', 'Systemic effects', '']	['Worker DNEL, longterm', 'inhalation', 'Local effects', '2,5 mg/m3']	['Consumer DNEL, longterm', 'inhalation', 'Systemic effects', '0,18 mg/m3']

Predicted No Effect Concentration (PNEC)

['Fresh water sediment', '0,45 mg/kg']	['Sea water', '0,015 mg/l']	['Sea sediment', '0,09 mg/kg']	['Aquatic intermittent release', '0,133 mg/l']	['Soil', '0,56 mg/kg']	['Sewage treatment plant', '0,048 mg/l']

8.2 Exposure controls

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Full contact

Material: Fluorinated rubber

Minimum layer thickness: 0,7 mm

Break through time: 480 min

Material tested:Vitoject® (KCL 890 / Aldrich Z677698, Size M)

Splash contact

Material: Fluorinated rubber

Minimum layer thickness: 0,7 mm

Break through time: 480 min

Material tested:Vitoject® (KCL 890 / Aldrich Z677698, Size M) data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the EC approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

protective clothing

Respiratory protection

required when vapours/aerosols are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type AX

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains.

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

a) Physical state	liquid, clear
b) Color	colorless
c) Odor	sweet
d) Melting point/freezing point	Melting point/ range: -63 °C
e) Initial boiling point and boiling range	60,5 - 61,5 °C
f) Flammability (solid, gas)	No data available
g) Upper/lower flammability or explosive limits	No data available
h) Flash point	- Regulation (EC) No. 440/2008, Annex, A.9does not flash
i) Autoignition temperature	No data available
j) Decomposition temperature	Distillable in an undecomposed state at normal pressure.

k) pH	No data available
l) Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
m) Water solubility	8,7 g/l at 23 °C - OECD Test Guideline 105
n) Partition coefficient n-octanol/water	No data available
o) Vapor pressure	210 hPa at 20 °C
p) Density	1,492 g/mL at 25 °C
Relative density	1.492 g/mL at 25 °C(lit.)
q) Relative vapor density	4.1 (vs air)
r) Particle characteristics	No data available
s) Explosive properties	No data available
t) Oxidizing properties	none
Solubility	Miscible with diethyl ether, oils, ligroin, alcohol, carbon tetrachloride and carbon disulfide.
Henry's Law Constant	1.07 at 2 °C, 1.49 at 6 °C, 1.79 at 10 °C, 3.02 at 18 °C, 4.02 at 25 °C, 5.20 at 30 °C, 7.60 at 40 °C, 11.1 at 50 °C, 14.8 at 60 °C (EPICS-SPME-GC, Grgényi et al., 2002))
Dielectric constant	5.5（0℃）

9.2 Other safety information

Solubility in other solvents

organic solvent at 20 °C - miscible

Relative vapor density

4,12 - (Air = 1.0)

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

Contains the following stabilizer(s): 2-methyl-2-butene (>=0,001 - <=0,015 %)

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

no information available

10.5 Incompatible materials

various plastics, RubberStrong oxidizing agents

10.6 Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Oral: No data available

LD50 Oral - Rat - male - 908 mg/kg (OECD Test Guideline 401)

Acute toxicity estimate Oral - 908 mg/kg (ATE value derived from LD50/LC50 value)

Acute toxicity estimate Inhalation - 4 h - 3,1 mg/l - vapor(Calculation method)

LC50 Inhalation - Rat - 6 h - 9,17 mg/l - vapor

Acute toxicity estimate Inhalation - Expert judgment - 4 h - 3,1 mg/l - vapor

Dermal: No data available

Skin corrosion/irritation

Skin - Rabbit

Result: Irritating to skin. - 24 h

Remarks: (ECHA)

Remarks: Drying-out effect resulting in rough and chapped skin.

Skin - Rabbit

Result: slight irritation

Remarks: (IUCLID)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Irritating to eyes.

Remarks: (ECHA)

Remarks: (Regulation (EC) No 1272/2008, Annex VI)

Respiratory or skin sensitization

Maximization Test - Guinea pig

Result: negative (Regulation (EC) No. 440/2008, Annex, B.6)

Germ cell mutagenicity

Test Type: Ames test

Test system: Escherichia coli/Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Result: negative

Remarks: (ECHA)

Test Type: unscheduled DNA synthesis assay

Test system: Liver

Metabolic activation: without metabolic activation

Result: negative

Remarks: (ECHA)

Test Type: Micronucleus test

Species: Rat

Cell type: Red blood cells (erythrocytes)

Application Route: Oral

Method: OECD Test Guideline 474

Result: negative

Test Type: unscheduled DNA synthesis assay

Species: Rat

Cell type: Liver cells

Application Route: Oral

Method: OECD Test Guideline 486

Result: negative

Test Type: in vivo assay

Species: Mouse

Application Route: Inhalation

Result: negative

Remarks: (ECHA)

Carcinogenicity

Suspected of causing cancer.

Reproductive toxicity

Suspected of damaging the unborn child.

Specific target organ toxicity - single exposure

May cause drowsiness or dizziness.

Specific target organ toxicity - repeated exposure

Oral - Causes damage to organs through prolonged or repeated exposure.

- Liver, Kidney

Aspiration hazard

Classified based on available data. For more details, see section 2

11.2 Additional Information

Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Repeated dose toxicity - Rat - female - Oral - NOAEL (No observed adverse effect level) - 34 mg/kg

RTECS: FS9100000

Vomiting, Cough, irritant effects, Shortness of breath, respiratory arrest, narcosis,

Dizziness, Nausea, agitation, spasms, inebriation, Headache, Stomach/intestinal disorders, ataxia (impaired locomotor coordination), cardiovascular disorders

Drying-out effect resulting in rough and chapped skin.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to daphnia static test EC50 - Crassostrea gigas - 152,5 mg/l - 48 h and other aquatic Remarks: (ECHA) invertebrates

Toxicity to algae static test ErC50 - Chlamydomonas reinhardtii (green algae) - 13,3 mg/l - 72 h

Remarks: (ECHA)

Toxicity to daphnia semi-static test NOEC - Daphnia magna (Water flea) - 6,3 mg/l - 21 and other aquatic d invertebrates(Chronic Remarks: (ECHA) toxicity)

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission

Delegated regulation (EU) 2017/2100 or Commission

Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

No data available

SECTION 14: Transport information

14.1 UN number

ADR/RID: 1888

IMDG: 1888

IATA: 1888

14.2 UN proper shipping name

ADR/RID: CHLOROFORM

IMDG: CHLOROFORM

IATA: Chloroform

14.3 Transport hazard class(es)

ADR/RID: 6.1

IMDG: 6.1

IATA: 6.1

14.4 Packaging group

ADR/RID: III

IMDG: III

IATA: III

14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

14.6 Special precautions for user

Tunnel restriction code : (E)

Further information : No data available

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

This material safety data sheet complies with the requirements of Regulation (EC) No.

1907/2006.

Authorisations and/or restrictions on use

REACH - Restrictions on the manufacture, : Chloroform placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII) National legislation

Seveso III: Directive 2012/18/EU of the H2 ACUTE TOXIC

European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

H2 ACUTE TOXIC

Other regulations

Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable.

Take note of Dir 94/33/EC on the protection of young people at work.

15.2 Chemical Safety Assessment

A Chemical Safety Assessment has been carried out for this substance.

SECTION 16: Other information

Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

ADR - Agreement concerning the International Carriage ofDangerous Goods by Road

AIIC - Australian Inventory of Industrial Chemicals

ASTM -American Society for the Testing of Materials

bw - Body weight

CMR - Carcinogen,Mutagen or Reproductive Toxicant

DIN - Standard of the German Institute forStandardisation

DSL - Domestic Substances List (Canada)

ECx - Concentration associated with x% response

ELx - Loading rate associated with x% response

EmS -Emergency Schedule

ENCS - Existing and New Chemical Substances (Japan)

ErCx -Concentration associated with x% growth rate response

GHS - Globally HarmonizedSystem

GLP - Good Laboratory Practice

IARC - International Agency for Research onCancer

IATA - International Air Transport Association

IBC - International Code for theConstruction and Equipment of Ships carrying Dangerous Chemicals in Bulk

IC50 - Half maximal inhibitory concentration

ICAO - International Civil Aviation Organization

IECSC - Inventory of Existing Chemical Substances in China

IMDG - InternationalMaritime Dangerous Goods

IMO - International Maritime Organization

ISHL - IndustrialSafety and Health Law (Japan)

ISO - International Organisation for Standardization

KECI - Korea Existing Chemicals Inventory

LC50 - Lethal Concentration to 50 % of a test population

LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose)

MARPOL - International Convention for the Prevention of Pollution from Ships

n.o.s. -Not Otherwise Specified

NO(A)EC - No Observed (Adverse) Effect Concentration

NO(A)EL - No Observed (Adverse) Effect Level

NOELR - No Observable Effect LoadingRate

NZIoC - New Zealand Inventory of Chemicals

OECD - Organization for EconomicCo-operation and Development

OPPTS - Office of Chemical Safety and PollutionPrevention

PBT - Persistent, Bioaccumulative and Toxic substance

PICCS - PhilippinesInventory of Chemicals and Chemical Substances

(Q)SAR - (Quantitative) StructureActivity Relationship

REACH - Regulation (EC) No 1907/2006 of the EuropeanParliament and of the Council concerning the Registration, Evaluation, Authorisation andRestriction of Chemicals

RID - Regulations concerning the International Carriage ofDangerous Goods by Rail

SADT - Self-Accelerating Decomposition Temperature

SDS -Safety Data Sheet

TCSI - Taiwan Chemical Substance Inventory

TECI - ThailandExisting Chemicals Inventory

TSCA - Toxic Substances Control Act (United States)

UN - United Nations

UNRTDG - United Nations Recommendations on the Transport ofDangerous Goods

vPvB - Very Persistent and Very Bioaccumulative

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

ChemicalBook

Chemical Safety Data Sheet MSDS / SDS

Chloromethane

Revision Date:2026-04-04 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: Chloromethane
CBnumber	: CB9673584
CAS	: 74-87-3
EINECS Number	: 200-817-4
Synonyms	: Methyl Chloride,CH3CL

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Danger

Precautionary statements

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P410+P403 Protect from sunlight. Store in a well-ventilated place.

P502 Refer to manufacturer/supplier for information on recovery/recycling

Hazard statements

H221 Flammable gas

H280 Contains gas under pressure; may explode if heated

H351 Suspected of causing cancer

H373 May cause damage to organs through prolonged or repeated exposure

H420 Harms public health and the environment by destroying ozone in the upper atmosphere

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SECTION 3: Composition/information on ingredients

Substance

Product name	: Chloromethane
Synonyms	: Methyl Chloride,CH3CL
CAS	: 74-87-3
EC number	: 200-817-4
MF	: CH3Cl
MW	: 50.49

SECTION 4: First aid measures

If inhaled

Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/ physician.

In case of skin contact

Take off all contaminated clothing immediately. If on skin, rinse well with water. Call a POISON CENTER or doctor/ physician.

In case of eye contact

Rinse with plenty of water. If easy to do, remove contact lens, if worn. Call a POISON CENTER or doctor/ physician.

If swallowed

Call a POISON CENTER or doctor/ physician. Rinse mouth.

Most important symptoms and effects, both acute and delayed

None known.

SECTION 5: Firefighting measures

Suitable extinguishing media

Dry powder, Foam, Water spray, Carbon dioxide (CO2)

Specific hazards during fire fighting

No information available.

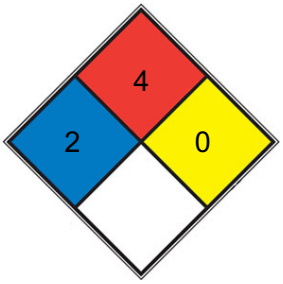
Specific extinguishing methods

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Immediately evacuate personnel to safe areas. Remove undamaged containers from fire area if it is safe to do so.

Special protective equipment for fire-fighters

Use personal protective equipment.

NFPA 704



HEALTH	2	Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury (e.g. diethyl ether, ammonium phosphate, iodine)
FIRE	4	Will rapidly or completely vaporize at normal atmospheric pressure and temperature, or is readily dispersed in air and will burn readily. Includes pyrophoric substances. Flash point below room temperature at 22.8 °C (73 °F). (e.g. acetylene, propane, hydrogen gas)
REACT	0	Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium,N2)
SPEC. HAZ.		

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear suitable protective equipment. Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc.

Environmental precautions

Prevent product from entering drains.

Methods and materials for containment and cleaning up

Collect as much of the spill as possible with a suitable absorbent material.

SECTION 7: Handling and storage

Handling

Technical measures

Prevent generation of vapor or mist. Take precautionary measures against static discharge. Use explosion-proof equipment.

Local/Total ventilation

Ensure adequate ventilation. Handle product only in closed system or provide appropriate exhaust ventilation at machinery. Use a local exhaust ventilation.

Advice on safe handling

Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not subject to grinding, shock or friction. Wash hands and face thoroughly after handling.

Avoidance of contact

Oxidizing agents

Storage

Conditions for safe storage

Keep container tightly closed. Store in a refrigerator. Keep in a well-ventilated place. Use explosion-proof equipment. Keep under inert gas. Store locked up.

SECTION 8: Exposure controls/personal protection

Ingredients with workplace control parameters

Components	CAS RN	Value type (Form of ex- posure)	Control parameters / Permissible con- centration	Basis
Tetrahydrofuran	109-99-9	PC-TWA	300 mg/m3	CN OEL
		TWA	50 ppm	ACGIH
		STEL	100 ppm	ACGIH
Methyl Chloride	74-87-3	PC-TWA	60 mg/m3	CN OEL
	Further information: Skin			
		PC-STEL	120 mg/m3	CN OEL
	Further information: Skin			
		TWA	50 ppm	ACGIH
		STEL	100 ppm	ACGIH

Components CAS RN Value type Control parameters Basis (Form of ex- / Permissible conposure) centration

Tetrahydrofuran 109-99-9 PC-TWA 300 mg/m3 CN OEL

TWA 50 ppm ACGIH

STEL 100 ppm ACGIH

Methyl Chloride 74-87-3 PC-TWA 60 mg/m3 CN OEL

Further information

Skin

PC-STEL 120 mg/m3 CN OEL

Further information

Skin

TWA 50 ppm ACGIH

STEL 100 ppm ACGIH

Engineering measures

Install a closed system or local exhaust.

Also install safety shower and eye bath.

Personal protective equipment

Respiratory protection

Gas mask

Self-contained breathing apparatus

Eye/face protection

Safety glasses

Safety goggles

Face-shield

Skin and body protection

Impervious protective clothing

Hand protection

Impervious gloves *Use personal protective equipment(PPE) approved under appropriate government standards and follow local and national regulations.

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

liquid

Color

colorless

Odor

faint sweet ethereal odor

Odor Threshold

No data available

pH

No data available

Melting point/freezing point

No data available

Boiling point/boiling range

−24.2 °C(lit.)

Flash point

<-30 °F

Evaporation rate

No data available

Flammability

No data available

Upper explosion limit / Upper flammability limit

19%

Lower explosion limit / Lower flammability limit

19%

Vapor pressure

3796 mm Hg (20 °C)

Solubility(ies)

water: soluble5.32g/L at 25°C

Water solubility

5.347g/L(24.9 ºC)

Solubility in other solvents

water: soluble5.32g/L at 25°C

Partition coefficient: n-octanol/water

No data available

Autoignition temperature

No data available

Decomposition temperature

No data available

Viscosity

Viscosity, dynamic

No data available

Viscosity, kinematic

No data available

Molecular weight

50.49 g/mol

Density and/or relative density

0.915 g/mL at 25 °C(lit.)

Vapour density

1.74 (vs air)

Physical state

Colorless gas

Henry's Law Constant

In seawater: 5.22 at 5 °C, 6.36 at 10 °C, 8.72 at 15 °C, 9.35 at 20 °C, 11.20 at 25 °C (Moore, 2000)

Dielectric constant

12.6（-20℃）

SECTION 10: Stability and reactivity

Reactivity

No data available

Chemical stability

Stable under normal conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to avoid

Electrical spark Open flame Electrostatic discharge Exposure to air.

Incompatible materials

Oxidizing agents

Hazardous decomposition products

Carbon monoxide, Carbon dioxide (CO2), Hydrogen chloride gas

SECTION 11: Toxicological information

Acute toxicity

Product

Acute oral toxicity

Assessment: The component/mixture is moderately toxic after single ingestion.

Acute inhalation toxicity

Acute toxicity estimate: > 40 mg/l Exposure time: 4 h Test atmosphere: vapor Method: Calculation method

Components

Tetrahydrofuran

Acute oral toxicity

LD50 (Rat): 1,650 mg/kg Assessment: The component/mixture is moderately toxic after single ingestion.

Acute inhalation toxicity

LC50 (Rat): 21000 ppm Exposure time: 3 h Test atmosphere: gas Assessment: The substance or mixture has no acute inhalation toxicity

Acute toxicity (other routes of administration)

LD50 (Rat): 2,900 mg/kg Application Route: Intraperitoneal injection

Methyl Chloride

Acute oral toxicity

Assessment: The component/mixture is moderately toxic after single ingestion.

Acute inhalation toxicity

Assessment: The component/mixture is moderately toxic after short term inhalation.

Skin corrosion/irritation

Product

Result

Skin irritation

Components

Tetrahydrofuran

Result

Skin irritation

Serious eye damage/eye irritation

Product

Result

Eye irritation

Components

Tetrahydrofuran

Result

Eye irritation

Respiratory or skin sensitization

Classified based on available data. For more details, see section 2.

Germ cell mutagenicity

Product

Germ cell mutagenicity - Assessment

Suspected of inducing heritable mutations in the germ cells of humans.

Components

Methyl Chloride

Germ cell mutagenicity - Assessment

Suspected of inducing heritable mutations in the germ cells of humans.

Carcinogenicity

Product

Carcinogenicity - Assessment

Suspected human carcinogens

Components

Tetrahydrofuran

Carcinogenicity - Assessment

Suspected human carcinogens

Methyl Chloride

Carcinogenicity - Assessment

Suspected human carcinogens

Reproductive toxicity

Product

Reproductive toxicity - Assessment

Presumed human reproductive toxicant

Components

Methyl Chloride

Reproductive toxicity - Assessment

Presumed human reproductive toxicant

STOT-single exposure

Product

Assessment

May cause respiratory irritation.

Target Organs

Liver, Nervous system, Cardio-vascular system, Kidney

Assessment

May cause damage to organs.

Components

Tetrahydrofuran

Assessment

May cause respiratory irritation.

Target Organs

Nervous system

Assessment

May cause damage to organs.

Methyl Chloride

Assessment

May cause drowsiness or dizziness.

Target Organs

Liver, Nervous system, Cardio-vascular system, Kidney

Assessment

Causes damage to organs.

STOT-repeated exposure

Product

Target Organs

Liver, Nervous system, Kidney

Assessment

Causes damage to organs through prolonged or repeated exposure.

Target Organs

Central nervous system

Assessment

May cause damage to organs through prolonged or repeated exposure.

Components

Tetrahydrofuran

Target Organs

Liver, Nervous system, Kidney

Assessment

Causes damage to organs through prolonged or repeated exposure.

Methyl Chloride

Target Organs

Liver, Kidney, Central nervous system

Assessment

Causes damage to organs through prolonged or repeated exposure.

Target Organs

Systemic toxicity

Assessment

May cause damage to organs through prolonged or repeated exposure.

Repeated dose toxicity

Classified based on available data. For more details, see section 2.

Aspiration toxicity

Classified based on available data. For more details, see section 2.

RTECS No.

LU5950000 (Tetrahydrofuran)

SECTION 12: Ecological information

Ecotoxicity

Components:

Tetrahydrofuran:

Toxicity to fish

LC50 (Pimephales promelas (fathead minnow)): 2,160 mg/l Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 5,930 mg/l Exposure time: 24 h

Persistence and degradability

Components:

Tetrahydrofuran:

Biodegradability

Biochemical oxygen demand Result: Readily biodegradable. Biodegradation: 100 %

Bioaccumulative potential

Components:

Tetrahydrofuran:

octanol/water

Partition coefficient: noctanol/water

0.46

Mobility in soil

Components:

Tetrahydrofuran:

tal compartments

Distribution among environmental compartments

Koc: 18 - 23

Other adverse effects

No data available

SECTION 13: Disposal considerations

Disposal methods

Waste from residues

Disposal in accordance with local and national regulations. Take precautions against ignition or explode. Entrust disposal to a licensed waste disposal company.

Contaminated packaging

Disposal in accordance with local and national regulations. Before disposal of used container, remove contents completely.

SECTION 14: Transport information

International Regulations

IATA-DGR

UN/ID No.

UN 1993

Proper shipping name

Flammable liquid, n.o.s.

Class

3

Packing group

II

IMDG-Code

UN number

UN 1993

Proper shipping name

FLAMMABLE LIQUID, N.O.S.

Class

3

Packing group

II

EmS Code

F-E, S-E

Domestic regulation

GB 6944/12268

UN number

UN 1993

Proper shipping name

FLAMMABLE LIQUID, N.O.S.

Class

3

Packing group

II

SECTION 15: Regulatory information

Regulations on Safety Management of Hazardous Chemicals

Catalogue of Hazardous Chemicals

Listed

The ingredients of this product are reported in the following inventories

TCSI

On the inventory, or in compliance with the inventory

TSCA

All substances listed as active on the TSCA inventory

AIIC

On the inventory, or in compliance with the inventory

DSL

All components of this product are on the Canadian DSL

ENCS

On the inventory, or in compliance with the inventory

ISHL

On the inventory, or in compliance with the inventory

KECI

On the inventory, or in compliance with the inventory

PICCS

On the inventory, or in compliance with the inventory

IECSC

On the inventory, or in compliance with the inventory

NZIoC

Not in compliance with the inventory

TECI

On the inventory, or in compliance with the inventory

SECTION 16: Other information

Abbreviations and acronyms

CAS: Chemical Abstracts Service

TWA: Time-Weighted Average

STEL: Short-Term Exposure Limit

LD50: Lethal Dose 50%

LC50: Lethal Concentration 50%

EC50: Effective Concentration 50%

PEL: Permissible Exposure Limit

TLV: Threshold Limit Value

IMDG: International Maritime Dangerous Goods Code

IATA: International Air Transport Association

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

DOT: US Department of Transportation

NFPA: National Fire Protection Association

NIOSH: National Institute for Occupational Safety and Health

OSHA: Occupational Safety and Health Administration

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the

appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

Chemical Safety Data Sheet MSDS / SDS

Chromium

Revision Date:2026-04-04 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: Chromium
CBnumber	: CB7854190
CAS	: 7440-47-3
EINECS Number	: 231-157-5
Synonyms	: Chromium,chrome

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Warning

Precautionary statements

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P240 Ground/bond container and receiving equipment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P405 Store locked up.

Hazard statements

H228 Flammable solid

H351 Suspected of causing cancer

H410 Very toxic to aquatic life with long lasting effects

Disposal

WARNING.Cancer - https://oehha.ca.gov/proposition-65/chemicals/chromium-hexavalent-compounds

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SECTION 3: Composition/information on ingredients

Substance

Product name	: Chromium
Synonyms	: Chromium,chrome
CAS	: 7440-47-3
EC number	: 231-157-5
MF	: Cr
MW	: 52

SECTION 4: First aid measures

Description of first aid measures

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact

Wash off with soap and plenty of water.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture

Chromium oxides

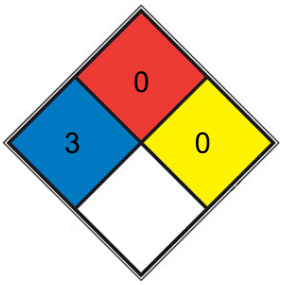
Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

No data available

NFPA 704



HEALTH	3	Short exposure could cause serious temporary or moderate residual injury (e.g. liquid hydrogen, sulfuric acid, calcium hypochlorite, hexafluorosilicic acid)
FIRE	0	Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand. Materials that will not burn in air when exposed to a temperature of 820 °C (1,500 °F) for a period of 5 minutes.(e.g. Carbon tetrachloride)
REACT	0	Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium,N2)
SPEC. HAZ.		

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing vapors, mist or gas. For personal protection see section 8.

Environmental precautions

No special environmental precautions required.

Methods and materials for containment and cleaning up

Sweep up and shovel. Keep in suitable, closed containers for disposal.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Advice on protection against fire and explosion

Provide appropriate exhaust ventilation at places where dust is formed.

Hygiene measures

General industrial hygiene practice. For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Storage conditions

Keep container tightly closed in a dry and well-ventilated place. Store in cool place.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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SECTION 8: Exposure controls/personal protection

control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

Exposure controls

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm Break through time: 480 min

Material tested:Dermatril? (KCL 740 / Aldrich Z677272, Size M)

Splash contact Material: Nitrile rubber

Minimum layer thickness: 0,11 mm Break through time: 480 min

Material tested:Dermatril? (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the EC approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

No special environmental precautions required.

Exposure limits

TLV-TWA: chromium metal 0.5 mg/m^3 (ACGIH and MSHA), 1 mg/m^3 (OSHA); Cr(II) and Cr(III) compounds 0.5 mg/m^3 (ACGIH); Cr(VI) compounds, water soluble and certain water insoluble, 0.05 mg/m^3 (ACGIH).

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Appearance	light gray chips
Odour	odorless
Odour Threshold	No data available
pH	<1 (H_2O, 20°C)
Melting point/freezing point	Melting point/range: 1.857 °C - lit.
Initial boiling point and boiling range	2.672 °C - lit.
Flash point	Not applicable
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density	7.2
Water solubility	No data available
Partition coefficient: n-octanol/water	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available
Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
Explosive properties	No data available
Oxidizing properties	No data available
resistivity	12.7 μΩ-cm, 20°C

Other safety information

No data available

SECTION 10: Stability and reactivity

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No data available

Conditions to avoid

No data available

Incompatible materials

Strong acids, Strong oxidizing agents

Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Toxicity

Elemental chromium and certain chromium compounds have been designated as carcinogens, hazardous substances, hazardous waste constituents, and priority toxic pollutants. Some of those compounds designated as hazardous are chromic acetate, chromic acid, chromic sulfate, and chromous chloride. Although chromium in the 6+ state is regarded as being the most carcinogenic, there are 6+ compounds that

appear to be non-carcinogenic. In addition to their possible carcinogenicity, chromium compounds may have local allergic effects leading to dermatitis. Systemically, 6+ chromium compounds are irritants to the respiratory system and may give rise to pulmonary edema.

SECTION 12: Ecological information

Toxicity

Toxicity to fish

LC50 - Cyprinus carpio (Carp) - 14,3 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates

EC50 - Daphnia magna (Water flea) - 0,07 mg/l - 48 h

Persistence and degradability

The methods for determining biodegradability are not applicable to inorganic substances.

Bioaccumulative potential

Bioaccumulation Oncorhynchus mykiss (rainbow trout) - 30 d

- 50 µg/l(chromium)

Bioconcentration factor (BCF): 1,03 - 1,22

Mobility in soil

No data available

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Other adverse effects

No data available

SECTION 13: Disposal considerations

Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Incompatibilities

Dust may be pyrophoric in air. Chromium metal (especially in finely divided or powder form) and insoluble salts reacts violently with strong oxidants, such as hydrogen peroxide, causing fire and explosion hazard. Reacts with diluted hydrochloric and sulfuric acids. Incompatible with alkalis and alkali carbonates

Waste Disposal

Recovery and recycling is a viable alternative to disposal for chromium in plating wastes; tannery wastes; cooling tower blowdown water and chemical plant wastes.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

UN number

ADR/RID: 3077 IMDG: 3077 IATA: 3077

UN proper shipping name

ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. () IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. ()

IATA: Environmentally hazardous substance, solid, n.o.s. ()

Transport hazard class(es)

ADR/RID: 9 IMDG: 9 IATA: 9

Packaging group

ADR/RID: III IMDG: III IATA: III

Environmental hazards

ADR/RID: yes IMDG Marine pollutant: yes IATA: yes

Special precautions for user

Further information

EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packagings and combination packagings containing inner packagings with Dangerous Goods > 5L for liquids or > 5kg for solids.

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Not Listed. website: https://www.mem.gov.cn/

Measures for Environmental Management of New Chemical Substances

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Listed. website: https://www.mee.gov.cn/

EC Inventory:Listed.

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: https://echa.europa.eu/

Korea Existing Chemicals List (KECL):Listed. website: http://ncis.nier.go.kr

New Zealand Inventory of Chemicals (NZIoC):Listed. website: https://www.epa.govt.nz/

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Listed. website: https://emb.gov.ph/

United States Toxic Substances Control Act (TSCA) Inventory:Listed. website: https://www.epa.gov/

Vietnam National Chemical Inventory:Listed. website: https://chemicaldata.gov.vn/

SECTION 16: Other information

Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CAS: Chemical Abstracts Service

EC50: Effective Concentration 50%

IATA: International Air Transportation Association

IMDG: International Maritime Dangerous Goods

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

STEL: Short term exposure limit

TWA: Time Weighted Average

References

【1】CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

【2】ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

【3】ECHA - European Chemicals Agency, website: https://echa.europa.eu/

【4】eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

【5】ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

【6】Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

【7】HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

【8】IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

【9】IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

【10】Sigma-Aldrich, website: https://www.sigmaaldrich.com/

Other Information

The surface of the chromium particles is oxidized to chromium(III)oxide in air.See ICSC 1531.

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

ChemicalBook

Chemical Safety Data Sheet MSDS / SDS

Chrysene

Revision Date:2026-04-19 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: Chrysene
CBnumber	: CB9853344
CAS	: 218-01-9
EINECS Number	: 205-923-4
Synonyms	: Chrysene,chrysen

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

Classification of the substance or mixture

Germ cell mutagenicity, Category 2

Carcinogenicity, Category 1B

Hazardous to the aquatic environment, short-term (Acute) - Category Acute 1

Hazardous to the aquatic environment, long-term (Chronic) - Category Chronic 1

Label elements

Pictogram(s)

□□□□

Signal word Danger

Hazard statement(s)

H225 Highly Flammable liquid and vapour

H319 Causes serious eye irritation

H336 May cause drowsiness or dizziness

H341 Suspected of causing genetic defects

H350 May cause cancer

H351 Suspected of causing cancer

H410 Very toxic to aquatic life with long lasting effects

H412 Harmful to aquatic life with long lasting effects

Precautionary statement(s)

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P281 Use personal protective equipment as required.

P391 Collect spillage. Hazardous to the aquatic environment

P308+P313 IF exposed or concerned: Get medical advice/attention.

P405 Store locked up.

P501 Dispose of contents/container to.....

Prevention

P203 Obtain, read and follow all safety instructions before use.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...

P273 Avoid release to the environment.

Response

P318 IF exposed or concerned, get medical advice.

P391 Collect spillage.

Storage

P405 Store locked up.

Disposal

P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Other hazards

no data available

SECTION 3: Composition/information on ingredients

Substance

Product name	: Chrysene
Synonyms	: Chrysene,chrysen
CAS	: 218-01-9
EC number	: 205-923-4
MF	: C18H12
MW	: 228.29

SECTION 4: First aid measures

Description of first aid measures

If inhaled

Fresh air, rest.

Following skin contact

Remove contaminated clothes. Rinse and then wash skin with water and soap.

Following eye contact

First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then refer for medical attention.

Following ingestion

Rinse mouth.

Most important symptoms and effects, both acute and delayed

ACUTE/CHRONIC HAZARDS: Toxic. (NTP, 1992)

Indication of any immediate medical attention and special treatment needed

Immediate first aid: Ensure that adequate decontamination has been carried out. If patient is not breathing, start artificial respiration, preferably with a demand-valve resuscitator, bag-valve-mask device, or pocket mask, as trained. Perform CPR if necessary. Immediately flush contaminated eyes with gently flowing water. Do not induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain an open airway and prevent aspiration. Keep patient quiet and maintain normal body temperature. Obtain medical attention. Naphthalene and Related Compounds

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SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide.

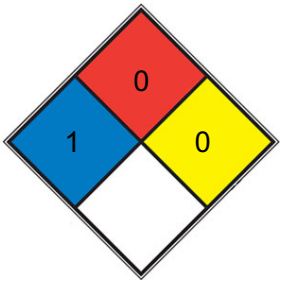
Specific Hazards Arising from the Chemical

Excerpt from ERG Guide 171 [Substances (Low to Moderate Hazard)]: Some may burn but none ignite readily. Containers may explode when heated. Some may be transported hot. For UN3508, be aware of possible short circuiting as this product is transported in a charged state. (ERG, 2016)

Advice for firefighters

Use water spray, dry powder, foam, carbon dioxide.

NFPA 704



HEALTH	1	Exposure would cause irritation with only minor residual injury (e.g. acetone, sodium bromate, potassium chloride)
		Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete,

■	FIRE	0	stone, and sand. Materials that will not burn in air when exposed to a temperature of 820 °C (1,500 °F) for a period of 5 minutes.(e.g. Carbon tetrachloride)
■	REACT	0	Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium,N2)
□	SPEC. HAZ.		

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal protection: particulate filter respirator adapted to the airborne concentration of the substance. Do NOT let this chemical enter the environment. Sweep spilled substance into covered sealable containers. If appropriate, moisten first to prevent dusting. Carefully collect remainder. Then store and dispose of according to local regulations.

Environmental precautions

Personal protection: particulate filter respirator adapted to the airborne concentration of the substance. Do NOT let this chemical enter the environment. Sweep spilled substance into covered sealable containers. If appropriate, moisten first to prevent dusting. Carefully collect remainder. Then store and dispose of according to local regulations.

Methods and materials for containment and cleaning up

ACCIDENTAL RELEASE MEASURES: Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided. Methods and materials for containment and cleaning up: Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

SECTION 7: Handling and storage

Precautions for safe handling

NO open flames. Closed system, dust explosion-proof electrical equipment and lighting. Prevent deposition of dust. Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

Conditions for safe storage, including any incompatibilities

Separated from strong oxidants. Store in an area without drain or sewer access. Provision to contain effluent from fire extinguishing.Keep container tightly closed in a dry and well-ventilated place.

SECTION 8: Exposure controls/personal protection

Control parameters

Occupational Exposure limit values

TLV: A3 (confirmed animal carcinogen with unknown relevance to humans); BEI issued.MAK: skin absorption (H); carcinogen category: 2

Biological limit values

no data available

Exposure controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

Individual protection measures

Eye/face protection

Wear safety goggles.

Skin protection

Protective gloves. Protective clothing.

Respiratory protection

Use local exhaust or breathing protection.

Thermal hazards

no data available

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Physical state	neat
Colour	Red blue fluorescent orthorhombic plates from benzene, acetic acid
Odour	no data available
Melting point/freezing point	250°C(lit.)
Boiling point or initial boiling point and boiling range	448°C(lit.)
Flammability	Combustible.
Lower and upper explosion limit/flammability limit	no data available
Flash point	100°C(lit.)
Auto-ignition temperature	no data available
Decomposition temperature	no data available
pH	no data available
Kinematic viscosity	no data available
Solubility	<0.0001g/l
Partition coefficient n-octanol/water	log Kow = 5.73
Vapour pressure	4.3 at 25 °C (de Kruif, 1980)
Density and/or relative density	1.274
Relative vapour density	no data available
Particle characteristics	no data available

SECTION 10: Stability and reactivity

Reactivity

NIOSH considers coal tar pitch volatiles to be potential occupational carcinogens. Coal tar pitch volatiles

Decomposes on burning. This produces toxic fumes. Reacts violently with strong oxidants.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

Dust explosion possible if in powder or granular form, mixed with air.Vigorous reactions, sometimes amounting to explosions, can result from the contact between aromatic hydrocarbons, such as CHRYSENE, and strong oxidizing agents. They can react exothermically with bases and with diazo compounds. Substitution at the benzene nucleus occurs by halogenation (acid catalyst), nitration, sulfonation, and the Friedel-Crafts reaction.

Conditions to avoid

no data available

Incompatible materials

Incompatible materials: Strong oxidizing agents.

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions - Carbon oxides.

SECTION 11: Toxicological information

Acute toxicity

- Oral: no data available
- Inhalation: no data available
- Dermal: no data available

Skin corrosion/irritation

no data available

Serious eye damage/irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

CLASSIFICATION: B2; probable human carcinogen. BASIS FOR CLASSIFICATION: No human data and sufficient data from animal bioasays. Chrysene produced carcinomas and malignant lymphoma in mice after intraperitoneal injection and skin carcinomas in mice following dermal exposure. Chrysene produced chromosomal abnormalities in hamsters and mouse germ cells after gavage exposure, positive responses in bacterial gene mutation assays and transformed mammalian cells exposed in culture. HUMAN CARCINOGENICITY DATA: None. ANIMAL CARCINOGENICITY DATA: Sufficient.

Reproductive toxicity

no data available

STOT-single exposure

no data available

STOT-repeated exposure

This substance is possibly carcinogenic to humans.

Aspiration hazard

A harmful concentration of airborne particles can be reached quickly when dispersed.

SECTION 12: Ecological information

Toxicity

Toxicity to fish: no data available

Toxicity to daphnia and other aquatic invertebrates: LC50; Species: Daphnia magna /(Water flea)/; Concentration: 1.9 mg/L for 2 hr /Conditions of bioassay not specified

Toxicity to algae: no data available

Toxicity to microorganisms: no data available

Persistence and degradability

AEROBIC: Biodegradation half-lives of 371 and 387 days were observed for chrysene in Kidman and McLaurin sandy loam soils, respectively(1). No significant degradation of chrysene was observed in soil obtained from a former tar-oil refinery following 8 weeks of incubation in a percolator(2). However, when sand was contaminated with soil extracts containing polycyclic aromatic hydrocarbons, including chrysene, and inoculated with a polycyclic aromatic hydrocarbon degrading mixed culture, the chrysene concentration was reduced from approx. 50 mg/kg soil to approx. 19 mg/kg soil(2). The inhibition of chrysene biodegradation was attributed to binding of chrysene with the soil(2). In a 240 day soil microcosm study, half-lives of 980, 1000, and 730 days at 10, 20, and 30 deg C, respectively, were estimated for chrysene(3). In bench-scale biotreatability studies using a solid-phase bioremediation process (landfarming chambers containing sediment and soil collected from the American Creosote Works Superfund site, Pensacola, FL), the chrysene concentration was reduced from 114.0 to 53.4 mg/landfarming chamber in unamended surface soil; 114.0 to 46.2 mg/landfarming chamber in nutrient-amended surface soil; 1443.6 to 1146.6 mg/landfarming chamber in unamended sediment; and 1443.6 to 992.4 mg/landfarming chamber in nutrient-amended sediment following 12 weeks incubation(4). After 16 months incubation in biologically active soils containing 1-phenyldecane as a primary substrate, 84% of chrysene was recovered; 95% of chrysene was recovered from a poisoned control after 16 months incubation(5). Half-lives for chrysene ranged from 1000 days, using a synthetic mixture of polycyclic aromatic hydrocarbons applied and incubated together in Kidman sandy loam soil, to 77 days in a mixture of oil refinery wastes applied to Kidman sandy loam soil(6). A half-life of 371 days was observed for chrysene when applied and incubated as a single constituent in Kidman sandy loam soil(6).

Bioaccumulative potential

Some marine organisms have no detectable aryl hydrocarbon hydroxylase enzyme systems, namely: phytoplankton, certain zooplankton, mussels (Mytilus edulis), scallops (Placopecten sp), and snails (Litternia littorea). ... Those organisms which lack a metabolic detoxification enzyme system, tend to accumulate polycyclic aromatic hydrocarbons. Polycyclic aromatic hydrocarbons

Mobility in soil

The log Koc value for chrysene in 100 soil samples was 6.11-7.34(1). The log Koc for chrysene was reported as 5.40(2). The log Koc value of chrysene measured in sediment from San Francisco Bay was 5.98(3). The log Koc of chrysene in sediment collected from Utica Harbor, NY and the Rouge River, MI was 4.81-6.75(4). The log Koc values for chrysene in 52 sediment samples was 5.12-7.79(5). According to a classification scheme(6), the reported log Koc values suggest that chrysene is expected to be immobile in soil. Sorption removal accounted for >6.2% and >8.5% of the chrysene present in the influent of a high-loaded laboratory scale activated sludge reactor and a biological aerated filter reactor, respectively(7).

Toxics Screening Level

The IRSL for Chrysene is 1.76E-3 per µg/m3.

Other adverse effects

no data available

SECTION 13: Disposal considerations

Disposal methods

Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

SECTION 14: Transport information

UN Number

ADR/RID: UN3077 (For reference only, please check.)

IMDG: UN3077 (For reference only, please check.)

IATA: UN3077 (For reference only, please check.)

UN Proper Shipping Name

ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (For reference only, please check.)

IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (For reference only, please check.)

IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (For reference only, please check.)

Transport hazard class(es)

ADR/RID: 9 (For reference only, please check.)

IMDG: 9 (For reference only, please check.)

IATA: 9 (For reference only, please check.)

Packing group, if applicable

ADR/RID: III (For reference only, please check.)

IMDG: III (For reference only, please check.)

IATA: III (For reference only, please check.)

Environmental hazards

ADR/RID: Yes

IMDG: Yes

IATA: Yes

Special precautions for user

no data available

Transport in bulk according to IMO instruments

no data available

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

European Inventory of Existing Commercial Chemical Substances (EINECS)

Listed.

EC Inventory

Listed.

United States Toxic Substances Control Act (TSCA) Inventory

Listed.

China Catalog of Hazardous chemicals 2015

Not Listed.

New Zealand Inventory of Chemicals (NZIoC)

Listed.

PICCS

Not Listed.

Vietnam National Chemical Inventory

Listed.

IECSC

Not Listed.

Korea Existing Chemicals List (KECL)

Listed.

SECTION 16: Other information

Abbreviations and acronyms

CAS: Chemical Abstracts Service

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

IMDG: International Maritime Dangerous Goods

IATA: International Air Transportation Association

TWA: Time Weighted Average

STEL: Short term exposure limit

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

EC50: Effective Concentration 50%

References

IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

ECHA - European Chemicals Agency, website: https://echa.europa.eu/

Other Information

Depending on the degree of exposure, periodic medical examination is suggested.Do NOT take working clothes home.This substance does not usually occur as a pure substance but as a component of polyaromatic hydrocarbon (PAH) mixtures.Human population studies have associated PAH's exposure with cancer and cardiovascular diseases.TLV Note: Exposure by all routes should be carefully controlled to levels as low as possible.

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

ChemicalBook

Chemical Safety Data Sheet MSDS / SDS

CIS-1,2-DICHLOROETHYLENE

Revision Date:2026-04-11 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: CIS-1,2-DICHLOROETHYLENE
CBnumber	: CB8481427
CAS	: 156-59-2
EINECS Number	: 205-859-7
Synonyms	: Cis-1,2-dichloroethylene,cis-1,2-Dichloroethene

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Danger

Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P311 Call a POISON CENTER or doctor/physician.

Hazard statements

H225 Highly Flammable liquid and vapour

H332 Harmful if inhaled

H370 Causes damage to organs

H412 Harmful to aquatic life with long lasting effects

SECTION 3: Composition/information on ingredients

Substance

Product name	: CIS-1,2-DICHLOROETHYLENE
Synonyms	: Cis-1,2-dichloroethylene,cis-1,2-Dichloroethene
CAS	: 156-59-2
EC number	: 205-859-7
MF	: C2H2Cl2
MW	: 96.94

SECTION 4: First aid measures

Description of first aid measures

General advice

Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. If breathing stops: mouth-to-mouth breathing or artificial respiration. Oxygen if necessary. Immediately call in physician.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

In case of eye contact

After eye contact: rinse out with plenty of water. Remove contact lenses.

If swallowed

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Water Foam Carbon dioxide (CO2) Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture

Carbon oxides Hydrogen chloride gas Combustible.

Pay attention to flashback.

Vapors are heavier than air and may spread along floors.

Development of hazardous combustion gases or vapours possible in the event of fire. Forms explosive mixtures with air at ambient temperatures.

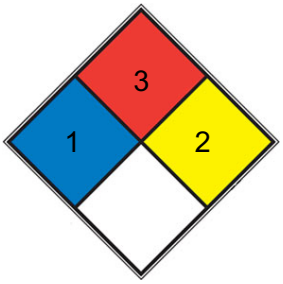
Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

Further information

Remove container from danger zone and cool with water. Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

NFPA 704



■	HEALTH	1	Exposure would cause irritation with only minor residual injury (e.g. acetone, sodium bromate, potassium chloride)
■	FIRE	3	Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions . Liquids having a flash point below 22.8 °C (73 °F) and having a boiling point at or above 37.8 °C (100 °F) or having a flash point between 22.8 and 37.8 °C (73 and 100 °F). (e.g. gasoline, acetone)
■	REACT	2	Undergoes violent chemical change at elevated temperatures and pressures, reacts violently with water, or may form explosive mixtures with water (e.g. white phosphorus, potassium, sodium)
□	SPEC. HAZ.		

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition.

Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

Environmental precautions

Do not let product enter drains. Risk of explosion.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb?). Dispose of properly. Clean up affected area.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Advice on safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition.Take precautionary measures against static discharge.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.
For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Storage conditions

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.
Handle and store under inert gas. Air and moisture sensitive. Light sensitive.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

---

SECTION 8: Exposure controls/personal protection

control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

Exposure controls

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Skin protection

required

Body Protection

Flame retardant antistatic protective clothing.

Respiratory protection

required when vapours/aerosols are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type AX

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains. Risk of explosion.

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Appearance	light yellow liquid
Odour	No data available
Odour Threshold	No data available
pH	No data available
Melting point/freezing point	Melting point/range: -80 °C - lit.
Initial boiling point and boiling range	60 °C - lit.
Flash point	6,0 °C - closed cup
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density	No data available
Water solubility	No data available
Partition coefficient: n-octanol/water	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available
Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
Explosive properties	No data available
Oxidizing properties	No data available

Other safety information

No data available

SECTION 10: Stability and reactivity

Reactivity

Vapors may form explosive mixture with air.

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

Possibility of hazardous reactions

No data available

Conditions to avoid

Warming.

Incompatible materials

Oxidizing agents

Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - 770 mg/kg

LC50 Inhalation - Rat - 13700 ppm

Remarks: Behavioral:Somnolence (general depressed activity).Liver:Fatty liver degeneration.LC50 Inhalation - 4 h - 11 mg/l

Skin corrosion/irritation

Skin - Rabbit

Result: Moderate skin irritation - 24 h

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

SECTION 12: Ecological information

Toxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Toxics Screening Level

The Initial Threshold Screening Level (ITSL) for cis-1,2-dichloroethylene is 18 µg/m3 with annual averaging time.

Other adverse effects

SECTION 13: Disposal considerations

Waste treatment methods

Incompatibilities

May form explosive mixture with air. Attacks some plastics, rubber, and coatings. Incompatible with oxidizers (chlorates, nitrates, peroxides, permanganates, perchlorates, chlorine, bromine, fluorine, etc.); contact may cause fires or explosions. Keep away from alkaline materials, strong bases, strong acids, oxoacids, and epoxides. Attacks some plastics and coatings.

Product

See www.retrologistik.com for processes regarding the return of chemicals and
containers, or contact us there if you have further questions.

Waste Disposal

Incineration, preferably after mixing with another combustible fuel. Care must be exercised to assure complete combustion to prevent the formation of phosgene. An acid scrubber is necessary to remove the halo acids produced. Consult with environmental regulatory agencies for guidance on acceptable disposal practices.

SECTION 14: Transport information

UN number

ADR/RID: 1150 IMDG: 1150 IATA: 1150

UN proper shipping name

	ADR/RID: 1,2-DICHLOROETHYLENE IMDG: 1,2-DICHLOROETHYLENE	
IATA: 1,2-Dichloroethylene		
14.3	Transport hazard class(es)	
	ADR/RID: 3 IMDG: 3	IATA: 3
14.4	Packaging group	
	ADR/RID: II IMDG: II	IATA: II
14.5	Environmental hazards	
	ADR/RID: no IMDG Marine pollutant: no	IATA: no
14.6	Special precautions for user	
	No data available	

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Not Listed. website: https://www.mem.gov.cn/

Measures for Environmental Management of New Chemical Substances

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Listed. website: https://www.mee.gov.cn/

EC Inventory:Listed.

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: https://echa.europa.eu/

Korea Existing Chemicals List (KECL):Listed. website: http://ncis.nier.go.kr

New Zealand Inventory of Chemicals (NZIoC):Listed. website: https://www.epa.govt.nz/

United States Toxic Substances Control Act (TSCA) Inventory:Listed. website: https://www.epa.gov/

Vietnam National Chemical Inventory:Listed. website: https://chemicaldata.gov.vn/

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Not Listed. website: https://emb.gov.ph/

SECTION 16: Other information

Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CAS: Chemical Abstracts Service

EC50: Effective Concentration 50%

IATA: International Air Transportation Association

IMDG: International Maritime Dangerous Goods

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

STEL: Short term exposure limit

TWA: Time Weighted Average

References

【1】CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

【2】ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

【3】ECHA - European Chemicals Agency, website: https://echa.europa.eu/

【4】eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

【5】ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

【6】Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

【7】HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

【8】IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

【9】IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

【10】Sigma-Aldrich, website: https://www.sigmaaldrich.com/

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

ChemicalBook

Chemical Safety Data Sheet MSDS / SDS

Copper

Revision Date:2026-04-04 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: Copper
CBnumber	: CB2165990
CAS	: 7440-50-8
EINECS Number	: 231-159-6
Synonyms	: Cu,copper

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Danger

Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P304+P340 IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continuerinsing.

P405 Store locked up.

Hazard statements

H228 Flammable solid

H319 Causes serious eye irritation

H335 May cause respiratory irritation

H401 Toxic to aquatic life

H410 Very toxic to aquatic life with long lasting effects

H411 Toxic to aquatic life with long lasting effects

SECTION 3: Composition/information on ingredients

Substance

Product name	: Copper
Synonyms	: Cu,copper
CAS	: 7440-50-8
EC number	: 231-159-6
MF	: Cu
MW	: 63.55

SECTION 4: First aid measures

Description of first aid measures

If inhaled

After inhalation: fresh air.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

In case of eye contact

After eye contact: rinse out with plenty of water. Remove contact lenses.

If swallowed

After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

Extinguishing media

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture

Copper oxides Not combustible.

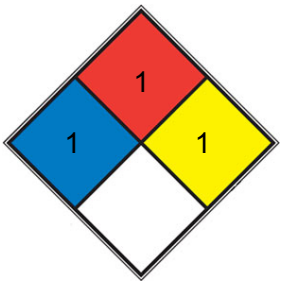
Advice for firefighters

In the event of fire, wear self-contained breathing apparatus.

Further information

none

NFPA 704



■	HEALTH	1	Exposure would cause irritation with only minor residual injury (e.g. acetone, sodium bromate, potassium chloride)
■	FIRE	1	Materials that require considerable preheating, under all ambient temperature conditions, before ignition and combustion can occur. Includes some finely divided suspended solids that do not require heating before ignition can occur. Flash point at or above 93.3 °C (200 °F). (e.g. mineral oil, ammonia)
■	REACT	1	Normally stable, but can become unstable at elevated temperatures and pressures (e.g. propene)
□	SPEC. HAZ.		

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

Environmental precautions

No special precautionary measures necessary.

Methods and materials for containment and cleaning up

Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Storage conditions

Tightly closed. Dry.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

---

SECTION 8: Exposure controls/personal protection

control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

Exposure controls

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm Break through time: 480 min

Material tested:KCL 741 Dermatril? L

Splash contact Material: Nitrile rubber

Minimum layer thickness: 0,11 mm Break through time: 480 min

Material tested:KCL 741 Dermatril? L

Respiratory protection

required when dusts are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type P1

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

Control of environmental exposure

No special precautionary measures necessary.

Exposure limits

TLV-TWA 1 mg(Cu)/m^3 (dusts and mists) (ACGIH and MSHA); 0.2 mg/m^3 (fumes) (ACGIH).

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Appearance	copper Foil
Odour	No data available
Odour Threshold	No data available
pH	No data available
Melting point/freezing point	1083.4 °C (lit.)
Initial boiling point and boiling range	2567 °C (lit.)
Flash point	Not applicable
Evaporation rate	No data available
Flammability (solid, gas)	The product is not flammable.
Upper/lower flammability or explosive limits	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density	8.92
Water solubility	No data available
Partition coefficient: n-octanol/water	Not applicable for inorganic substances
Autoignition temperature	No data available
Decomposition temperature	No data available
Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
Explosive properties	No data available
Oxidizing properties	No data available
resistivity	1.673 μΩ-cm, 20°C

Other safety information

No data available

SECTION 10: Stability and reactivity

Reactivity

No data available

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

Possibility of hazardous reactions

No data available

Conditions to avoid

no information available

Incompatible materials

Strong oxidizing agents

Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Toxicity

LD50 intraperitoneal in mouse: 3500ug/kg

SECTION 12: Ecological information

Toxicity

No data available

Persistence and degradability

The methods for determining biodegradability are not applicable to inorganic substances.

Bioaccumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Toxics Screening Level

The ITSL for copper is being set at a value, which is 2 µg/m3 with 8-hour averaging.

Other adverse effects

No data available

SECTION 13: Disposal considerations

Waste treatment methods

Product

See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

Incompatibilities

Copper dust, fume, and mists form shock-sensitive compounds with acetylene gas, acetylenic compounds, azides, and ethylene oxides. Incompatible with acids, chemically active metals, such as potassium; sodium, magnesium, zinc, zirconium, strong bases. Violent reaction, possibly explosive, if finely divided material come in contact with strong oxidizers

Waste Disposal

Copper-containing wastes can be concentrated through the use of ion exchange, reverse osmosis, or evaporators to the point where copper can be electrolytically removed and sent to a reclaiming firm. If recovery is not feasible, the copper can be precipitated through the use of caustics and the sludge deposited in a chemical waste landfill.

SECTION 14: Transport information

UN number

ADR/RID: - IMDG: - IATA: -

UN proper shipping name

ADR/RID: Not dangerous goods IMDG: Not dangerous goods IATA: Not dangerous goods

Transport hazard class(es)

ADR/RID: - IMDG: - IATA: -

Packaging group

ADR/RID: - IMDG: - IATA: -

Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

Special precautions for user

Further information

Not classified as dangerous in the meaning of transport regulations.

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Not Listed. website: https://www.mem.gov.cn/

Measures for Environmental Management of New Chemical Substances

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Listed. website: https://www.mee.gov.cn/

EC Inventory:Listed.

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: https://echa.europa.eu/

Korea Existing Chemicals List (KECL):Listed. website: http://ncis.nier.go.kr

New Zealand Inventory of Chemicals (NZIoC):Listed. website: https://www.epa.govt.nz/

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Listed. website: https://emb.gov.ph/

United States Toxic Substances Control Act (TSCA) Inventory:Listed. website: https://www.epa.gov/

Vietnam National Chemical Inventory:Listed. website: https://chemicaldata.gov.vn/

SECTION 16: Other information

Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CAS: Chemical Abstracts Service

EC50: Effective Concentration 50%

IATA: International Air Transportation Association

IMDG: International Maritime Dangerous Goods

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

STEL: Short term exposure limit

TWA: Time Weighted Average

References

【1】CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

【2】ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

【3】ECHA - European Chemicals Agency, website: https://echa.europa.eu/

【4】eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

【5】ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

【6】Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

【7】HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

【8】IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

【9】IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

【10】Sigma-Aldrich, website: https://www.sigmaaldrich.com/

Other Information

The symptoms of metal fume fever do not become manifest until a few hours have passed.UN 3089 refers to METAL POWDERS, FLAMMABLE, (n.o.s.)

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

Chemical Safety Data Sheet MSDS / SDS

Cyclohexane

Revision Date:2026-04-04 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: Cyclohexane
CBnumber	: CB4193601
CAS	: 110-82-7
EINECS Number	: 203-806-2
Synonyms	: cyclohexane,cyclohexan

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Danger

Precautionary statements

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash hands thoroughly after handling.

P264 Wash skin thouroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.

P331 Do NOT induce vomiting.

P370+P378 In case of fire: Use … for extinction.

P391 Collect spillage. Hazardous to the aquatic environment

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P403+P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

P501 Dispose of contents/container to.....

Hazard statements

H225 Highly Flammable liquid and vapour

H304 May be fatal if swallowed and enters airways

H313 May be harmful in contact with skin

H315 Causes skin irritation

H319 Causes serious eye irritation

H335 May cause respiratory irritation

H336 May cause drowsiness or dizziness

H361 Suspected of damaging fertility or the unborn child

H371 May cause damage to organs

H400 Very toxic to aquatic life

H410 Very toxic to aquatic life with long lasting effects

H412 Harmful to aquatic life with long lasting effects

SECTION 3: Composition/information on ingredients

Substance

Product name	: Cyclohexane
Synonyms	: cyclohexane,cyclohexan
CAS	: 110-82-7
EC number	: 203-806-2
MF	: C6H12
MW	: 84.16

SECTION 4: First aid measures

Description of first aid measures

General advice

Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Call in physician.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

In case of eye contact

After eye contact: rinse out with plenty of water. Remove contact lenses.

If swallowed

After swallowing: caution if victim vomits. Risk of aspiration! Keep airways free. Pulmonary failure possible after aspiration of vomit. Call a physician immediately.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Foam Carbon dioxide (CO2) Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture

Carbon oxides Combustible.

Pay attention to flashback.

Vapors are heavier than air and may spread along floors.

Development of hazardous combustion gases or vapours possible in the event of fire. Forms explosive mixtures with air at ambient temperatures.

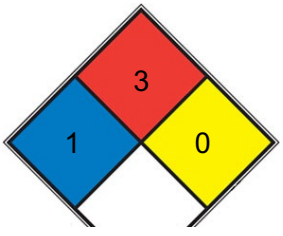
Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

Further information

Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

NFPA 704



■	HEALTH	1	Exposure would cause irritation with only minor residual injury (e.g. acetone, sodium bromate, potassium chloride)
■	FIRE	3	Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions . Liquids having a flash point below 22.8 °C (73 °F) and having a boiling point at or above 37.8 °C (100 °F) or having a flash point between 22.8 and 37.8 °C (73 and 100 °F). (e.g. gasoline, acetone)
■	REACT	0	Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium,N2)
□	SPEC. HAZ.		

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition.

Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

Environmental precautions

Do not let product enter drains. Risk of explosion.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material (e.g.

Chemizorb?). Dispose of properly. Clean up affected area.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Advice on safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition.Take precautionary measures against static discharge.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Storage conditions

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.

Store under inert gas.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

---

SECTION 8: Exposure controls/personal protection

control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

Exposure controls

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0,4 mm Break through time: 480 min

Material tested:Camatril? (KCL 730 / Aldrich Z677442, Size M)

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Splash contact Material: Nitrile rubber

Minimum layer thickness: 0,11 mm Break through time: 30 min

Material tested:KCL 741 Dermatril? L

Body Protection

Flame retardant antistatic protective clothing.

Respiratory protection

Recommended Filter type: Filter A (acc. to DIN 3181) for vapours of organic compounds

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains. Risk of explosion.

Exposure limits

TLV-TWA 300 ppm (～1050 mg/m^3) (ACGIH, OSHA, and NIOSH); IDLH 10,000 ppm (NIOSH).

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Appearance	colorless liquid
Odour	sweet
Odour Threshold	0,5 ppm
pH	No data available
Melting point/freezing point	Melting point/range: 4 - 7 °C - lit.
Initial boiling point and boiling range	80,7 °C - lit.
Flash point	-20 °C - closed cup
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	Upper explosion limit: 8,3 %(V) Lower explosion limit: 1,2 %(V)
Vapour pressure	124 hPa at 24 °C
Vapour density	2.9 (vs air)
Relative density	0,779 g/cm3 at 25 °C - lit. No data available
Water solubility	52 g/l at 23,5 °C - partly soluble
Partition coefficient: n-octanol/water	log Pow: 3,44 at 25 °C - Bioaccumulation is not expected.
Autoignition temperature	260,0 °C
Decomposition temperature	No data available
Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: 0,89 mPa.s at 25 °C
Explosive properties	No data available
Oxidizing properties	No data available
Henry's Law Constant	1.03, 1.26, 1.40, 1.77, and 2.23 at 10, 15, 20, 25, and 30 °C, respectively (EPICS, Ashworth et al., 1988) 0.54, 0.69, 0.82, 1.43, and 1.79 at 2.0, 6.0, 10.0, 18.0, and 25.0 °C, respectively (Dewulf et al.,1999)
λmax	λ: 210 nm Amax: ≤1.00 λ: 220 nm Amax: ≤0.50 λ: 230 nm Amax: ≤0.20 λ: 235 nm Amax: ≤0.10 λ: 240 nm Amax: ≤0.08 λ: 250 nm Amax: ≤0.03 λ: 255 nm Amax: ≤0.01

Other safety information

No data available

SECTION 10: Stability and reactivity

Reactivity

Vapors may form explosive mixture with air.

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

Possibility of hazardous reactions

Risk of explosion with:

nitrogen dioxide

Risk of ignition or formation of inflammable gases or vapours with: Strong oxidizing agents

Conditions to avoid

Warming.

Incompatible materials

rubber, various plastics

Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - male and female - > 5.000 mg/kg (OECD Test Guideline 401)

Symptoms: gastric pain, Stomach/intestinal disorders LC50 Inhalation - Rat - male and female - 4 h - 19,07 mg/l (OECD Test Guideline 403)

Symptoms: Possible damages:, Irritation symptoms in the respiratory tract., Inhalation may lead to the formation of oedemas in the respiratory tract.

LD50 Dermal - Rabbit - male and female - > 2.000 mg/kg (OECD Test Guideline 402)

Skin corrosion/irritation

Causes skin irritation. Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

Buehler Test - Guinea pig Result: negative

(Regulation (EC) No. 440/2008, Annex, B.6)

Germ cell mutagenicity

Test Type: Ames test

Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471

Result: negative

Test Type: In vitro mammalian cell gene mutation test Test system: Mouse lymphoma test

Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476

Result: negative

Test Type: Chromosome aberration test Species: Rat

Cell type: Bone marrow

Application Route: inhalation (vapor) Method: OECD Test Guideline 475 Result: negative

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

May cause drowsiness or dizziness.

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

May be fatal if swallowed and enters airways.

Aspiration hazard, Aspiration may cause pulmonary edema and pneumonitis.

Toxicity

LC in mice: ~60-70 mg/l air (Lazarew)

SECTION 12: Ecological information

Toxicity

Toxicity to fish

flow-through test LC50 - Pimephales promelas (fathead minnow) - 4,53 mg/l - 96 h

(OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates

static test EC50 - Daphnia magna (Water flea) - 0,9 mg/l - 48 h (OECD Test Guideline 202)

Toxicity to algae

ErC50 - Pseudokirchneriella subcapitata (green algae) - > 4,425 mg/l

- 72 h

(OECD Test Guideline 201)

Toxicity to bacteria

IC50 - Bacteria - 29 mg/l - 15 h

Remarks: (ECHA)

Persistence and degradability

Biodegradability aerobic - Exposure time 28 d

Result: 77 % - Readily biodegradable. (OECD Test Guideline 301F)

Bioaccumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Toxics Screening Level

The current ITSL for Cyclohexane is 6000 µg/m3, with 24 hr averaging time (AT).

Other adverse effects

Biological effects:

Endangers drinking-water supplies if allowed to enter soil and/or waters in large quantities.

Change in the flavour characteristics of fish protein. Discharge into the environment must be avoided.

SECTION 13: Disposal considerations

Waste treatment methods

Product

See www.retrologistik.com for processes regarding the return of chemicals and

containers, or contact us there if you have further questions.

Incompatibilities

May form explosive mixture with air. Contact with oxidizers, nitrogen dioxide, and oxygen can cause fire and explosion hazard. Can explode in heat when mixed with dinitrogen tetraoxide liquid.

Waste Disposal

Dissolve or mix the material with a combustible solvent and burn in a chemical incinera- tor equipped with an afterburner and scrubber. All federal, state, and local environmental regulations must be observed.

SECTION 14: Transport information

UN number

ADR/RID: 1145 IMDG: 1145

UN proper shipping name

ADR/RID: CYCLOHEXANE IMDG: CYCLOHEXANE IATA: Cyclohexane

Transport hazard class(es)

ADR/RID: 3 IMDG: 3 IATA: 3

Packaging group

ADR/RID: II IMDG: II IATA: II

Environmental hazards

ADR/RID: yes IMDG Marine pollutant: yes IATA: no

Special precautions for user

No data available

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Listed. website: https://www.mem.gov.cn/

Measures for Environmental Management of New Chemical Substances

New Zealand Inventory of Chemicals (NZIoC):Listed. website: https://www.epa.govt.nz/

Korea Existing Chemicals List (KECL):Listed. website: http://ncis.nier.go.kr

Vietnam National Chemical Inventory:Listed. website: https://chemicaldata.gov.vn/

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: https://echa.europa.eu/

United States Toxic Substances Control Act (TSCA) Inventory:Listed. website: https://www.epa.gov/

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Listed. website: https://emb.gov.ph/

EC Inventory:Listed.

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Listed. website: https://www.mee.gov.cn/

SECTION 16: Other information

Abbreviations and acronyms

CAS: Chemical Abstracts Service

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

IMDG: International Maritime Dangerous Goods

IATA: International Air Transportation Association

TWA: Time Weighted Average

STEL: Short term exposure limit

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

EC50: Effective Concentration 50%

References

【1】CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

【2】ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

【3】ECHA - European Chemicals Agency, website: https://echa.europa.eu/

【4】eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

【5】ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

【6】Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

【7】HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

【8】IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

【9】IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

【10】Sigma-Aldrich, website: https://www.sigmaaldrich.com/

Other Information

The odour warning when the exposure limit value is exceeded is insufficient.

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

ChemicalBook

Chemical Safety Data Sheet MSDS / SDS

Dichlorodifluoromethane

Revision Date:2026-04-04 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: Dichlorodifluoromethane
CBnumber	: CB1202887
CAS	: 75-71-8
EINECS Number	: 200-893-9
Synonyms	: Dichlorodifluoromethane,CFC-12

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Danger

Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P311 Call a POISON CENTER or doctor/physician.

Hazard statements

H225 Highly Flammable liquid and vapour

H370 Causes damage to organs

H420 Harms public health and the environment by destroying ozone in the upper atmosphere

SECTION 3: Composition/information on ingredients

Substance

Product name	: Dichlorodifluoromethane
Synonyms	: Dichlorodifluoromethane,CFC-12
CAS	: 75-71-8
EC number	: 200-893-9
MF	: CCl2F2
MW	: 120.91

SECTION 4: First aid measures

4.1 Description of first-aid measures

If inhaled

After inhalation: fresh air.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

In case of eye contact

After eye contact: rinse out with plenty of water. Remove contact lenses.

If swallowed

After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

Nature of decomposition products not known.

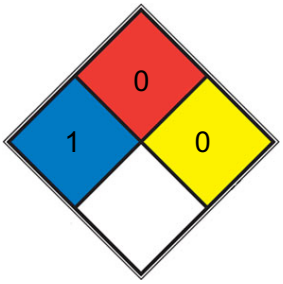
5.3 Advice for firefighters

In the event of fire, wear self-contained breathing apparatus.

5.4 Further information

Prevent fire extinguishing water from contaminating surface water or the ground water system.

NFPA 704



■	HEALTH	1	Exposure would cause irritation with only minor residual injury (e.g. acetone, sodium bromate, potassium chloride)
■	FIRE	0	Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand. Materials that will not burn in air when exposed to a temperature of 820 °C (1,500 °F) for a period of 5 minutes.(e.g. Carbon tetrachloride)
■	REACT	0	Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium,N2)
□	SPEC. HAZ.		

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb®).

Dispose of properly. Clean up affected area.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Tightly closed.

Storage stabilityRecommended storage temperature

-20 °C

Storage class

Storage class (TRGS 510): 10: Combustible liquids

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

---

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with workplace control parameters

8.2 Exposure controls

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Skin protection

not required

Respiratory protection

Not required; except in case of aerosol formation.

Control of environmental exposure

Do not let product enter drains.

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

a) Physical state	liquid
b) Color	Colorless gas with an ethereal odor
c) Odor	No data available
d) Melting point/freezing point	No data available
e) Initial boiling point and boiling range	-29.79°C
f) Flammability (solid, gas)	No data available
g) Upper/lower flammability or explosive limits	No data available
h) Flash point	11 °C
i) Autoignition temperature	No data available
j) Decomposition temperature	No data available
k) pH	No data available
l) Viscosity	Viscosity, kinematic: No data available

	Viscosity, dynamic: No data available
m) Water solubility	Insoluble. 0.028 g/100 mL
n) Partition coefficient n-octanol/water	No data available
o) Vapor pressure	4,306 at 20 °C (McConnell et al., 1975)
p) Density	1.329
Relative density	1.329
q) Relative vapor density	No data available
r) Particle characteristics	No data available
s) Explosive properties	Not classified as explosive.
t) Oxidizing properties	none
Solubility	Soluble in acetic acid, acetone, chloroform, ether (Weast, 1986), and ethanol (ITII, 1986)
Henry's Law Constant	1.72, 2.63, and 3.91 at 10, 20, and 30 °C, respectively (Munz and Roberts, 1987)
Dielectric constant	2.4（21℃）

9.2 Other safety information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

10.3 Possibility of hazardous reactions

Violent reactions possible with:

The generally known reaction partners of water.

10.4 Conditions to avoid

no information available

10.5 Incompatible materials

No data available

10.6 Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Mixture Acute toxicity

Oral: No data available

Inhalation: No data available

Dermal: No data available

Skin corrosion/irritation

Classified based on available data. For more details, see section 2

Serious eye damage/eye irritation

Classified based on available data. For more details, see section 2

Respiratory or skin sensitization

Classified based on available data. For more details, see section 2

Germ cell mutagenicity

Classified based on available data. For more details, see section 2

Carcinogenicity

Classified based on available data. For more details, see section 2

Reproductive toxicity

Classified based on available data. For more details, see section 2

Specific target organ toxicity - single exposure

Classified based on available data. For more details, see section 2

Specific target organ toxicity - repeated exposure

Classified based on available data. For more details, see section 2

Aspiration hazard

Classified based on available data. For more details, see section 2

11.2 Additional Information

Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Hazardous properties cannot be excluded but are unlikely when the product is handled appropriately.

SECTION 12: Ecological information

12.1 Toxicity

Mixture

No data available

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission

Delegated regulation (EU) 2017/2100 or Commission

Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

No data available

Components

SECTION 13: Disposal considerations

13.1 Waste treatment methods

No data available

SECTION 14: Transport information

14.1 UN number

ADR/RID: -

IMDG: -

IATA: -

14.2 UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

14.3 Transport hazard class(es)

ADR/RID: -

IMDG: -

IATA: -

14.4 Packaging group

ADR/RID: -

IMDG: -

IATA: -

14.5 Environmental hazards

ADR/RID: no

IMDG Marine pollutant: no

IATA: no

14.6 Special precautions for user

No data available

Further information: Not classified as dangerous in the meaning of transport regulations.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

This material safety data sheet complies with the requirements of Regulation (EC) No.

1907/2006.

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

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SECTION 16: Other information

Full text of other abbreviations

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

ADR - Agreement concerning the International Carriage ofDangerous Goods by Road

AIIC - Australian Inventory of Industrial Chemicals

ASTM -American Society for the Testing of Materials

bw - Body weight

CMR - Carcinogen,Mutagen or Reproductive Toxicant

DIN - Standard of the German Institute forStandardisation

DSL - Domestic Substances List (Canada)

ECx - Concentration associated with x% response

ELx - Loading rate associated with x% response

EmS -Emergency Schedule

ENCS - Existing and New Chemical Substances (Japan)

ErCx -Concentration associated with x% growth rate response

GHS - Globally HarmonizedSystem

GLP - Good Laboratory Practice

IARC - International Agency for Research onCancer

IATA - International Air Transport Association

IBC - International Code for theConstruction and Equipment of Ships carrying Dangerous Chemicals in Bulk

IC50 - Half maximal inhibitory concentration

ICAO - International Civil Aviation Organization

IECSC - Inventory of Existing Chemical Substances in China

IMDG - InternationalMaritime Dangerous Goods

IMO - International Maritime Organization

ISHL - IndustrialSafety and Health Law (Japan)

ISO - International Organisation for Standardization

KECI - Korea Existing Chemicals Inventory

LC50 - Lethal Concentration to 50 % of a test population

LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose)

MARPOL - International Convention for the Prevention of Pollution from Ships

n.o.s. -Not Otherwise Specified

NO(A)EC - No Observed (Adverse) Effect Concentration

NO(A)EL - No Observed (Adverse) Effect Level

NOELR - No Observable Effect LoadingRate

NZIoC - New Zealand Inventory of Chemicals

OECD - Organization for EconomicCo-operation and Development

OPPTS - Office of Chemical Safety and PollutionPrevention

PBT - Persistent, Bioaccumulative and Toxic substance

PICCS - PhilippinesInventory of Chemicals and Chemical Substances

(Q)SAR - (Quantitative) StructureActivity Relationship

REACH - Regulation (EC) No 1907/2006 of the EuropeanParliament and of the Council concerning the Registration, Evaluation, Authorisation andRestriction of Chemicals

RID - Regulations concerning the International Carriage ofDangerous Goods by Rail

SADT - Self-Accelerating Decomposition Temperature

SDS -Safety Data Sheet

TCSI - Taiwan Chemical Substance Inventory

TECI - ThailandExisting Chemicals Inventory

TSCA - Toxic Substances Control Act (United States)

UN - United Nations

UNRTDG - United Nations Recommendations on the Transport ofDangerous Goods

vPvB - Very Persistent and Very Bioaccumulative

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

ChemicalBook

Chemical Safety Data Sheet MSDS / SDS

Ethanol

Revision Date:2026-04-11 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: Ethanol
CBnumber	: CB2362508
CAS	: 64-17-5
EINECS Number	: 200-578-6
Synonyms	: Ethanol,ETHYL ALCOHOL

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Danger

Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continuerinsing.

P311 Call a POISON CENTER or doctor/physician.

P337+P313 IF eye irritation persists: Get medical advice/attention.

P370+P378 In case of fire: Use … for extinction.

P403+P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

Hazard statements

H225 Highly Flammable liquid and vapour

H226 Flammable liquid and vapour

H302 Harmful if swallowed

H313 May be harmful in contact with skin

H319 Causes serious eye irritation

H333 May be harmful if inhaled

H370 Causes damage to organs

H371 May cause damage to organs

H402 Harmful to aquatic life

H412 Harmful to aquatic life with long lasting effects

SECTION 3: Composition/information on ingredients

Substance

Product name	: Ethanol
Synonyms	: Ethanol,ETHYL ALCOHOL
CAS	: 64-17-5
EC number	: 200-578-6
MF	: C2H6O
MW	: 46.07

SECTION 4: First aid measures

Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Dry powder Dry sand

Unsuitable extinguishing media

Do NOT use water jet.

Special hazards arising from the substance or mixture

Carbon oxides Combustible.

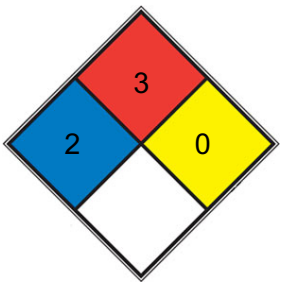
Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

Use water spray to cool unopened containers.

NFPA 704



■	HEALTH	2	Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury (e.g. diethyl ether, ammonium phosphate, iodine)
■	FIRE	3	Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions . Liquids having a flash point below 22.8 °C (73 °F) and having a boiling point at or above 37.8 °C (100 °F) or having a flash point between 22.8 and 37.8 °C (73 and 100 °F). (e.g. gasoline, acetone)
■	REACT	0	Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium,N2)
□	SPEC. HAZ.		

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking.Take measures to prevent the build up of electrostatic charge.

For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store in cool place.

Hygroscopic.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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SECTION 8: Exposure controls/personal protection

control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Full contact

Material: butyl-rubber

Minimum layer thickness: 0,3 mm Break through time: 480 min

Material tested:Butoject? (KCL 897 / Aldrich Z677647, Size M)

Splash contact Material: Nitrile rubber

Minimum layer thickness: 0,2 mm Break through time: 38 min

Material tested:Dermatril? P (KCL 743 / Aldrich Z677388, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

Impervious clothing, Flame retardant antistatic protective clothing., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full- face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Exposure limits

TLV-TWA 1900 mg/m^3 (1000 ppm) (ACGIH).

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Appearance	colourless liquid
Odour	pungent
Odour Threshold	0.52ppm
pH	7,0 at 10 g/l at 20 °C
Melting point/freezing point	Melting point/range: -114 °C
Initial boiling point and boiling range	78 °C
Flash point	13 °C - closed cup
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	Upper explosion limit: 13,5 %(V) Lower explosion limit: 2,5 %(V)
Vapour pressure	0,57 hPa at 19,6 °C
Vapour density	1,6
Relative density	0,789 g/mL at 25 °C

Water solubility	1.000 g/l at 20 °C - completely miscible
Partition coefficient: n-octanol/water	log Pow: -0,35 at 24 °C - Bioaccumulation is not expected.
Autoignition temperature	455 °C at 1.013 hPa - DIN 51794
Decomposition temperature	Distillable in an undecomposed state at normal pressure.
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available
λmax	λ: 240 nm Amax: 0.40
	λ: 250 nm Amax: 0.30
	λ: 260 nm Amax: 0.30
	λ: 270 nm Amax: 0.10
	λ: 340 nm Amax: 0.10

Other safety information

Conductivity < 1 µS/cm

Surface tension 72,75 mN/m at 20 °C

Relative vapour density

1,6

SECTION 10: Stability and reactivity

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

Risk of explosion/exothermic reaction with:hydrogen peroxide, perchlorates, perchloric acid, Nitric acid, mercury(II) nitrate, permanganic acid, Nitriles, peroxi compounds, Strong oxidizing agents, nitrosyl compounds, Peroxides, sodium, Potassium, halogen oxides, calcium hypochlorite, nitrogen dioxide, metallic oxides, uranium hexafluoride, iodides, Chlorine, Alkali metals, Alkaline earth metals, alkali oxides, Ethylene oxidesilver, with, Nitric acidsilver compounds, with, Ammoniapotassium permanganate, with, conc. sulfuric acidRisk of ignition or formation of inflammable gases or vapours with:halogen-halogen compounds, chromium(VI) oxide, chromyl chloride, Fluorine, hydrides, Oxides of phosphorus, platinumNitric acid, with, potassium permanganate

Conditions to avoid

Warming.

Heat, flames and sparks.

Incompatible materials

rubber, various plastics

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides Other decomposition products - No data available

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - male and female - 10.470 mg/kg (OECD Test Guideline 401)

LC50 Inhalation - Rat - male and female - 4 h - 124,7 mg/l (OECD Test Guideline 403)

Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation - 24 h (OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Causes serious eye irritation. (OECD Test Guideline 405)

Respiratory or skin sensitisation

(OECD Test Guideline 406)

Remarks: (in analogy to similar products)

Germ cell mutagenicity

Ames test

Salmonella typhimurium Result: negative

In vitro mammalian cell gene mutation test mouse lymphoma cells

Result: negative

OECD Test Guideline 478 Mouse - male

Result: Positive results were obtained in some in vivo tests.

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Additional Information

Repeated dose toxicity - Rat - male - Oral - No observed adverse effect level - 1.730 mg/kg

- Lowest observed adverse effect level - 3.200 mg/kg RTECS: KQ6300000

irritant effects, respiratory paralysis, Dizziness, narcosis, inebriation, euphoria, Nausea, Vomiting

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Toxicity

LD50 in young, old rats (g/kg): 10.6, 7.06 orally (Wiberg)

SECTION 12: Ecological information

Toxicity

Toxicity to fish

flow-through test LC50 - Pimephales promelas (fathead minnow) -

15.300 mg/l - 96 h (US-EPA)

Toxicity to daphnia and other aquatic invertebrates

static test LC50 - Ceriodaphnia dubia (water flea) - 5.012 mg/l - 48 h

Remarks: (ECHA)

Toxicity to algae

static test ErC50 - Chlorella vulgaris (Fresh water algae) - 275 mg/l

- 72 h

(OECD Test Guideline 201)

Toxicity to bacteria

static test IC50 - activated sludge - > 1.000 mg/l - 3 h (OECD Test Guideline 209)

Persistence and degradability

Biodegradability aerobic - Exposure time 15 d

Result: ca.95 % - Readily biodegradable. (OECD Test Guideline 301E)

Biochemical Oxygen Demand (BOD)

Theoretical oxygen demand

930 - 1.670 mg/g Remarks: (Lit.)

2.100 mg/g Remarks: (Lit.)

Bioaccumulative potential

Due to the distribution coefficient n-octanol/water, accumulation in organisms is not expected.

Mobility in soil

No data available

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Toxics Screening Level

The current ITSL for Ethyl alcohol is 19000 µg/m3, with 1 hour averaging time (AT).

Other adverse effects

Additional ecological information

No data available

SECTION 13: Disposal considerations

Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

Incompatibilities

In acidic conditions, ethanol solutions may react vigorously with oxidizing materials. Mixtures with alkali may darken in color owing to a reaction with residual amounts of aldehyde. Organic salts or acacia may be precipitated from aqueous solutions or dispersions. Ethanol solutions are also incompatible with aluminum containers and may interact with some drugs.

Waste Disposal

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

UN number

ADR/RID: 1170 IMDG: 1170

UN proper shipping name

ADR/RID: ETHANOL IMDG: ETHANOL IATA: Ethanol

Transport hazard class(es)

ADR/RID: 3 IMDG: 3 IATA: 3

Packaging group

ADR/RID: II IMDG: II IATA: II

Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

Special precautions for user

No data available

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Listed. website: https://www.mem.gov.cn/

Measures for Environmental Management of New Chemical Substances

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Listed. website: https://www.mee.gov.cn/

EC Inventory:Listed.

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: https://echa.europa.eu/

Korea Existing Chemicals List (KECL):Listed. website: http://ncis.nier.go.kr

New Zealand Inventory of Chemicals (NZIoC):Listed. website: https://www.epa.govt.nz/

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Listed. website: https://emb.gov.ph/

United States Toxic Substances Control Act (TSCA) Inventory:Listed. website: https://www.epa.gov/

Vietnam National Chemical Inventory:Listed. website: https://chemicaldata.gov.vn/

SECTION 16: Other information

Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CAS: Chemical Abstracts Service

EC50: Effective Concentration 50%

IATA: International Air Transportation Association

IMDG: International Maritime Dangerous Goods

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

STEL: Short term exposure limit

TWA: Time Weighted Average

References

【1】CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

【2】ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

【3】ECHA - European Chemicals Agency, website: https://echa.europa.eu/

【4】eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

【5】ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

【6】Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

【7】HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

【8】IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

【9】IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

【10】Sigma-Aldrich, website: https://www.sigmaaldrich.com/

Other Information

Ethanol consumption during pregnancy may adversely affect the unborn child.Chronic ingestion of ethanol may cause liver cirrhosis and cancer.

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of

this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

ChemicalBook

Chemical Safety Data Sheet MSDS / SDS

Ethyl acetate

Revision Date:2026-04-04 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: Ethyl acetate
CBnumber	: CB7255315
CAS	: 141-78-6
EINECS Number	: 205-500-4
Synonyms	: ethyl acetate,EtOH

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Danger

Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash hands thoroughly after handling.

P264 Wash skin thouroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continuerinsing.

P307+P311 IF exposed: call a POISON CENTER or doctor/physician.

P311 Call a POISON CENTER or doctor/physician.

P370+P378 In case of fire: Use … for extinction.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P403+P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

P501 Dispose of contents/container to.....

Hazard statements

H225 Highly Flammable liquid and vapour

H319 Causes serious eye irritation

H320 Causes eye irritation

H336 May cause drowsiness or dizziness

H370 Causes damage to organs

SECTION 3: Composition/information on ingredients

Substance

Product name	: Ethyl acetate
Synonyms	: ethyl acetate,EtOH
CAS	: 141-78-6
EC number	: 205-500-4
MF	: C4H8O2
MW	: 88.11

SECTION 4: First aid measures

Description of first aid measures

General advice

Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Call in physician.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

If swallowed

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO2) Foam Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture

Carbon oxides Combustible.

Pay attention to flashback.

Vapors are heavier than air and may spread along floors. Risk of dust explosion.

Development of hazardous combustion gases or vapours possible in the event of fire. Forms explosive mixtures with air at ambient temperatures.

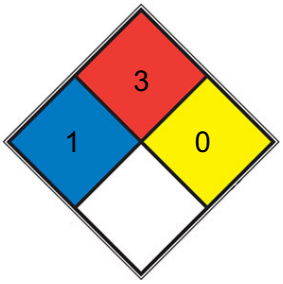
Advice for firefighters

In the event of fire, wear self-contained breathing apparatus.

Further information

Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

NFPA 704



■	HEALTH	1	Exposure would cause irritation with only minor residual injury (e.g. acetone, sodium bromate, potassium chloride)
■	FIRE	3	Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions . Liquids having a flash point below 22.8 °C (73 °F) and having a boiling point at or above 37.8 °C (100 °F) or having a flash point between 22.8 and 37.8 °C (73 and 100 °F). (e.g. gasoline, acetone)
■	REACT	0	Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium,N2)
□	SPEC. HAZ.		

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition.
Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

Environmental precautions

Do not let product enter drains. Risk of explosion.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb?). Dispose of properly. Clean up affected area.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Advice on safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition.Take precautionary measures against static discharge.

Hygiene measures

Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance.
For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Storage conditions

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

Exposure controls

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Splash contact Material: butyl-rubber

Minimum layer thickness: 0,7 mm Break through time: 120 min Material tested:Butoject? (KCL 898)

Body Protection

Flame retardant antistatic protective clothing.

Respiratory protection

Recommended Filter type: Filter A (acc. to DIN 3181) for vapours of organic compounds

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains. Risk of explosion.

Exposure limits

TLV-TWA 400 ppm (～1400 mg/m^3) (ACGIH, MSHA, and OSHA); IDLH 10,000 ppm (NIOSH).

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Appearance	colorless clear, liquid
Odour	No data available
Odour Threshold	0.87ppm
pH	No data available
Melting point/freezing point	Melting point/range: -84 °C
Initial boiling point and boiling range	76,5 - 77,5 °C
Flash point	-4 °C - closed cup
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	Lower explosion limit: 2,2 %(V)

Vapour pressure	73 mm Hg (20 °C)
Vapour density	3 (20 °C, vs air)
Relative density	0.902 (20/20℃)
Water solubility	Miscible with ethanol, acetone, diethyl ether and benzene.
Partition coefficient: n-octanol/water	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available
Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
Explosive properties	No data available
Oxidizing properties	No data available
Henry's Law Constant	0.39 at 5.00 °C, 0.58 at 10.00 °C, 0.85 at 15.00 °C, 1.17 at 20.00 °C, 1.58 at 25.00 °C (column stripping-UV, Kutsuna et al., 2005)
λmax	λ: 256 nm Amax: ≤1.00 λ: 275 nm Amax: ≤0.05 λ: 300 nm Amax: ≤0.03 λ: 325-400 nm Amax: ≤0.005

Other safety information

No data available

SECTION 10: Stability and reactivity

Reactivity

Vapors may form explosive mixture with air.

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

Possibility of hazardous reactions

Risk of ignition or formation of inflammable gases or vapours with: Exothermic reaction with:

Fluorine chlorosulfonic acid

Strong oxidizing agents fuming sulfuric acid

Risk of explosion with:

lithium aluminium hydride Alkali metals

hydrides

Alkaline earth metals

Violent reactions possible with:

Strong acids and strong bases

Conditions to avoid

Warming.

Incompatible materials

various plastics

Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - 5.620 mg/kg Remarks: (RTECS)

Inhalation

LD50 Dermal - Rabbit - male - > 20.000 mg/kg Remarks: (ECHA)

Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation Remarks: (IUCLID)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: slight irritation (OECD Test Guideline 405)

Remarks: (Regulation (EC) No 1272/2008, Annex VI)

Respiratory or skin sensitization

(OECD Test Guideline 406)

Germ cell mutagenicity

Test Type: UDS (Unscheduled DNA synthesis assay) Test system: Escherichia coli

Metabolic activation: with and without metabolic activation Method: US-EPA

Result: negative

Test Type: Ames test

Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471

Result: negative

Test Type: Chromosome aberration test in vitro

Test system: Chinese hamster ovary cells

Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 473

Result: negative

Test Type: Micronucleus test Species: Chinese hamster

Cell type: Red blood cells (erythrocytes) Application Route: Oral

Method: OECD Test Guideline 474 Result: negative

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

May cause drowsiness or dizziness. - Central nervous system

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Toxicity

LD50 orally in rats: 11.3 ml/kg (Smyth)

SECTION 12: Ecological information

Toxicity

Toxicity to fish

flow-through test LC50 - Pimephales promelas (fathead minnow) - 230 mg/l - 96 h

(US-EPA)

Toxicity to algae

static test NOEC - Desmodesmus subspicatus (green algae) - > 100 mg/l - 72 h

(OECD Test Guideline 201)

Persistence and degradability

Biodegradability aerobic - Exposure time 20 d

Result: ca.69 % - Readily biodegradable. Remarks: (ECHA)

Theoretical oxygen demand

1.820 mg/g Remarks: (Lit.)

Bioaccumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Toxics Screening Level

The initial threshold screening level (ITSL) for ethyl acetate is 3200 µg/m3, with annual averaging time.

Other adverse effects

No data available

SECTION 13: Disposal considerations

Waste treatment methods

Product

See www.retrologistik.com for processes regarding the return of chemicals and

containers, or contact us there if you have further questions.

Incompatibilities

Ethyl acetate can react vigorously with strong oxidizers, strong alkalis, strong acids, and nitrates to cause fires or explosions. It also reacts vigorously with chlorosulfonic acid, lithium aluminum hydride, 2-chloromethylfuran, and potassium tert-butoxide.

Waste Disposal

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. All federal, state, and local environmental regulations must be observed. Generators of waste containing this contaminant (≧100 kg/ mo) must conform with regulations governing storage, transportation, treatment, and waste disposal.

SECTION 14: Transport information

UN number

ADR/RID: 1173 IMDG: 1173

UN proper shipping name

ADR/RID: ETHYL ACETATE IMDG: ETHYL ACETATE IATA: Ethyl acetate

Transport hazard class(es)

ADR/RID: 3 IMDG: 3 IATA: 3

Packaging group

ADR/RID: II IMDG: II IATA: II

Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

Special precautions for user

No data available

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Listed. website: https://www.mem.gov.cn/

Measures for Environmental Management of New Chemical Substances

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Listed. website: https://www.mee.gov.cn/

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: https://echa.europa.eu/

United States Toxic Substances Control Act (TSCA) Inventory:Listed. website: https://www.epa.gov/

New Zealand Inventory of Chemicals (NZIoC):Listed. website: https://www.epa.govt.nz/

EC Inventory:Listed.

Korea Existing Chemicals List (KECL):Listed. website: http://ncis.nier.go.kr

Vietnam National Chemical Inventory:Listed. website: https://chemicaldata.gov.vn/

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Listed. website: https://emb.gov.ph/

SECTION 16: Other information

Abbreviations and acronyms

CAS: Chemical Abstracts Service

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

IMDG: International Maritime Dangerous Goods

IATA: International Air Transportation Association

TWA: Time Weighted Average

STEL: Short term exposure limit

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

EC50: Effective Concentration 50%

References

【1】CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

【2】ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

【3】ECHA - European Chemicals Agency, website: https://echa.europa.eu/

【4】eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

【5】ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

【6】Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

【7】HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

【8】IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

【9】IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

【10】Sigma-Aldrich, website: https://www.sigmaaldrich.com/

Other Information

Do NOT take working clothes home.

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

Chemical Safety Data Sheet MSDS / SDS

Ethylbenzene

Revision Date:2026-04-04 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: Ethylbenzene
CBnumber	: CB4672779
CAS	: 100-41-4
EINECS Number	: 200-467-2
Synonyms	: Et2O,Ethylbenzene

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Danger

Precautionary statements

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash hands thoroughly after handling.

P264 Wash skin thouroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continuerinsing.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P331 Do NOT induce vomiting.

P370+P378 In case of fire: Use … for extinction.

P391 Collect spillage. Hazardous to the aquatic environment

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P403+P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

Hazard statements

H225 Highly Flammable liquid and vapour

H302 Harmful if swallowed

H304 May be fatal if swallowed and enters airways

H315 Causes skin irritation

H319 Causes serious eye irritation

H320 Causes eye irritation

H331 Toxic if inhaled

H332 Harmful if inhaled

H335 May cause respiratory irritation

H351 Suspected of causing cancer

H360 May damage fertility or the unborn child

H361 Suspected of damaging fertility or the unborn child

H371 May cause damage to organs

H372 Causes damage to organs through prolonged or repeated exposure

H373 May cause damage to organs through prolonged or repeated exposure

H400 Very toxic to aquatic life

Disposal

WARNING.Cancer - https://oehha.ca.gov/proposition-65/chemicals/ethylbenzene

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SECTION 3: Composition/information on ingredients

Substance

Product name	: Ethylbenzene
Synonyms	: Et2O,Ethylbenzene
CAS	: 100-41-4
EC number	: 200-467-2
MF	: C8H10
MW	: 106.17

SECTION 4: First aid measures

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Water Carbon dioxide (CO2) Foam Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture

Carbon oxides Combustible.

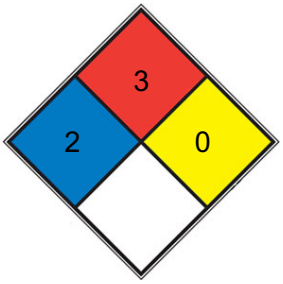
Advice for firefighters

No data available

Further information

No data available

NFPA 704



■	HEALTH	2	Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury (e.g. diethyl ether, ammonium phosphate, iodine)
■	FIRE	3	Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions . Liquids having a flash point below 22.8 °C (73 °F) and having a boiling point at or above 37.8 °C (100 °F) or having a flash point between 22.8 and 37.8 °C (73 and 100 °F). (e.g. gasoline, acetone)
■	REACT	0	Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium,N2)
□	SPEC. HAZ.		

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

For personal protection see section 8.

Environmental precautions

No data available

Methods and materials for containment and cleaning up

Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

hygroscopic

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

Exposure controls

Personal protective equipment

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Full contact

Material: Fluorinated rubber Minimum layer thickness: 0,7 mm Break through time: 480 min

Material tested:Vitoject? (KCL 890 / Aldrich Z677698, Size M)

Splash contact

Material: Fluorinated rubber Minimum layer thickness: 0,7 mm Break through time: 480 min

Material tested:Vitoject? (KCL 890 / Aldrich Z677698, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the EC approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Respiratory protection

Recommended Filter type: Filter A (acc. to DIN 3181) for vapours of organic compounds

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

Control of environmental exposure

Prevent product from entering drains.

Exposure limits

TLV-TWA 100 ppm (~433 mg/m^3) (ACGIH, NIOSH, MSHA, and OSHA); STEL 125 ppm (541 mg/m^3) (ACGIH); IDLH 2000 ppm (NIOSH).

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Appearance	colorless liquid
Odour	aromatic
Odour Threshold	0.17ppm
pH	No data available
Melting point/freezing point	Melting point/range: -95 °C - lit.
Initial boiling point and boiling range	136 °C - lit.
Flash point	23 °C - closed cup - Regulation (EC) No. 440/2008, Annex, A.9
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	Upper explosion limit: 6,7 %(V) Lower explosion limit: 1 %(V)
Vapour pressure	9,52 hPa at 20 °C - OECD Test Guideline 104
Vapour density	3.7 (vs air)
Relative density	0,86 - 0,87 at 20 °C
Water solubility	0,2 g/l at 25 °C - Regulation (EC) No. 440/2008, Annex, A.6- slightly soluble
Partition coefficient: n-octanol/water	Pow: 4.170; log Pow: 3,6 at 20 °C - Regulation (EC) No. 440/2008, Annex, A.8
Autoignition temperature	430 °C at 1.013 hPa
Decomposition temperature	No data available
Viscosity	Viscosity, kinematic: 0,773 mm2/s at 20 °C - OECD Test Guideline 114 Viscosity, dynamic: No data available

Explosive properties	No data available
Oxidizing properties	No data available
Henry's Law Constant	13.9(x 10^{-3} atm?m^3/mol) at 45.00 °C, 15.1 at 50.00 °C, 17.1 at 55.00 °C, 20.1 at 60.00 °C, 20.9 at 65.00 °C, 22.7 at 70.00 °C, 34.3 at 80.00 °C (static headspace-GC, Park et al., 2004)

Other safety information

Surface tension 71,2 mN/m at 23 °C

SECTION 10: Stability and reactivity

Reactivity

No data available

Chemical stability

No data available

Possibility of hazardous reactions

Violent reactions possible with:

Strong oxidizing agents

Conditions to avoid

No data available

Incompatible materials

rubber, various plastics

Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - male and female - 3.500 mg/kg Remarks:

(ECHA)

LC50 Inhalation - Rat - male - 4 h - 17,8 mg/l Remarks:

(ECHA)

LD50 Dermal - Rabbit - 15.433 mg/kg Remarks:

(RTECS)

Skin corrosion/irritation

Skin - Rabbit

Result: Moderate skin irritation - 24 h

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Mild eye irritation Remarks:

(ECHA)

Respiratory or skin sensitization

Patch test: - Human Result: negative Remarks:

(IUCLID)

Germ cell mutagenicity

Mutagenicity (mammal cell test):

Mouse lymphoma test Result: negative Ames test

Salmonella typhimurium Result: negative Hamster

ovary

Result: negative

OECD Test Guideline 474 Mouse - male and female Result: negative

Carcinogenicity

IARC: 2B - Group 2B: Possibly carcinogenic to humans (ethylbenzene)

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

May cause damage to organs through prolonged or repeated exposure. - hearing organs

Aspiration hazard

May be fatal if swallowed and enters airways.

Toxicity

LD50 orally in rats: 5.46 g/kg (Smyth)

SECTION 12: Ecological information

Toxicity

Toxicity to fish

semi-static test LC50 - Oncorhynchus mykiss (rainbow trout) - 4,2

Toxicity to daphnia and other aquatic invertebrates

mg/l - 96 h

(OECD Test Guideline 203)

static test EC50 - Daphnia magna (Water flea) - 1,8 - 2,4 mg/l - 48 h

(US-EPA)

Toxicity to algae

static test EC50 - Pseudokirchneriella subcapitata (green algae) - 3,6 mg/l - 96 h

(US-EPA)

Toxicity to bacteria

EC50 - Photobacterium phosphoreum - 9,68 mg/l - 30 min Remarks: (IUCLID)

Persistence and degradability

Biodegradability aerobic - Exposure time 28 d

Result: ca.79 % - Readily biodegradable. (ISO 14593)

Bioaccumulative potential

Due to the distribution coefficient n-octanol/water, accumulation in organisms is not expected.

Mobility in soil

No data available

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Toxics Screening Level

The Initial Risk Screening Level (IRSL) for ethylbenzene is 0.4 µg/m3 with annual averaging time.

Other adverse effects

No data available

SECTION 13: Disposal considerations

Waste treatment methods

Incompatibilities

Vapors may form explosive mixture with air. Incompatible with oxidizers (chlorates, nitrates, peroxides, permanganates, perchlorates, chlorine, bromine, fluorine, etc.); contact may cause fires or explosions. Keep away from alkaline materials, strong bases, strong acids,oxoacids, and epoxides. Attacks plastics and rubber. May accumulate static electrical charges, and may cause ignition of its vapors.

Product

No data available

Waste Disposal

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. All federal, state, and local environmental regulations must be observed

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SECTION 14: Transport information

UN number

ADR/RID: 1175 IMDG: 1175

UN proper shipping name

ADR/RID: ETHYLBENZENE IMDG: ETHYLBENZENE IATA: Ethylbenzene

Transport hazard class(es)

ADR/RID: 3 IMDG: 3 IATA: 3

Packaging group

ADR/RID: II IMDG: II IATA: II

Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

Special precautions for user

No data available

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Listed. website: https://www.mem.gov.cn/

Measures for Environmental Management of New Chemical Substances

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: https://echa.europa.eu/

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Listed. website: https://emb.gov.ph/

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Listed. website: https://www.mee.gov.cn/

EC Inventory:Listed.

United States Toxic Substances Control Act (TSCA) Inventory:Listed. website: https://www.epa.gov/

Korea Existing Chemicals List (KECL):Listed. website: http://ncis.nier.go.kr

Vietnam National Chemical Inventory:Listed. website: https://chemicaldata.gov.vn/

New Zealand Inventory of Chemicals (NZIoC):Listed. website: https://www.epa.govt.nz/

SECTION 16: Other information

Abbreviations and acronyms

CAS: Chemical Abstracts Service

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

IMDG: International Maritime Dangerous Goods

IATA: International Air Transportation Association

TWA: Time Weighted Average

STEL: Short term exposure limit

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

EC50: Effective Concentration 50%

References

【1】CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

【2】ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

【3】ECHA - European Chemicals Agency, website: https://echa.europa.eu/

【4】eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

【5】ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

【6】Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

【7】HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

【8】IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

【9】IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

【10】Sigma-Aldrich, website: https://www.sigmaaldrich.com/

Other Information

The odour warning when the exposure limit value is exceeded is insufficient.

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

ChemicalBook

Chemical Safety Data Sheet MSDS / SDS

Heptane

Revision Date:2026-04-18 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: Heptane
CBnumber	: CB0426554
CAS	: 142-82-5
EINECS Number	: 205-563-8
Synonyms	: heptane,n-heptane

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Danger

Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P223 Keep away from any possible contact with water, because of violent reaction and possible flash fire.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash hands thoroughly after handling.

P264 Wash skin thouroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continuerinsing.

P331 Do NOT induce vomiting.

P370+P378 In case of fire: Use … for extinction.

P391 Collect spillage. Hazardous to the aquatic environment

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P403+P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

P501 Dispose of contents/container to.…

Hazard statements

H225 Highly Flammable liquid and vapour

H260 In contact with water releases flammable gases which may ignite spontaneously

H304 May be fatal if swallowed and enters airways

H315 Causes skin irritation

H319 Causes serious eye irritation

H320 Causes eye irritation

H333 May be harmful if inhaled

H335 May cause respiratory irritation

H336 May cause drowsiness or dizziness

H400 Very toxic to aquatic life

H410 Very toxic to aquatic life with long lasting effects

SECTION 3: Composition/information on ingredients

Substance

Product name	: Heptane
Synonyms	: heptane,n-heptane
CAS	: 142-82-5
EC number	: 205-563-8
MF	: C7H16
MW	: 100.2

SECTION 4: First aid measures

Description of first aid measures

General advice

Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Call in physician.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

In case of eye contact

After eye contact: rinse out with plenty of water. Remove contact lenses.

If swallowed

After swallowing: caution if victim vomits. Risk of aspiration! Keep airways free. Pulmonary failure possible after aspiration of vomit. Call a physician immediately.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO2) Foam Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture

Carbon oxides

Flash back possible over considerable distance. Combustible.

Pay attention to flashback.

Vapors are heavier than air and may spread along floors.

Development of hazardous combustion gases or vapours possible in the event of fire. Forms explosive mixtures with air at ambient temperatures.

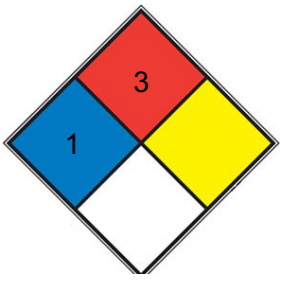
Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

Further information

In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

NFPA 704



HEALTH	1	Exposure would cause irritation with only minor residual injury (e.g. acetone, sodium bromate, potassium chloride)
FIRE	3	Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions . Liquids having a flash point below 22.8 °C (73 °F) and having a boiling point at or above 37.8 °C (100 °F) or having a flash point between 22.8 and 37.8 °C (73 and 100 °F). (e.g. gasoline, acetone)
REACT		
SPEC. HAZ.		

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition.

Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

Environmental precautions

Do not let product enter drains. Risk of explosion.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material (e.g.

Chemizorb?). Dispose of properly. Clean up affected area.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Advice on safe handling

Avoid generation of vapours/aerosols.

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition.Take precautionary measures against static discharge.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Storage conditions

Store under inert gas.

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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SECTION 8: Exposure controls/personal protection

control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

Exposure controls

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0,4 mm Break through time: 480 min

Material tested:Camatril? (KCL 730 / Aldrich Z677442, Size M)

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Splash contact Material: Nitrile rubber

Minimum layer thickness: 0,2 mm Break through time: 60 min

Material tested:Dermatril? P (KCL 743 / Aldrich Z677388, Size M)

Body Protection

Flame retardant antistatic protective clothing.

Respiratory protection

Recommended Filter type: Filter A (acc. to DIN 3181) for vapours of organic compounds

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains. Risk of explosion.

Exposure limits

NIOSH REL: TWA 85 ppm (350 mg/m^3), 15-min ceiling 440 ppm (1,800 mg/m^3), IDLH 750 ppm; OSHA PEL: TWA 500 ppm (2,000 mg/m^3); ACGIH TLV: TWA 400 ppm, STEL 500 ppm (adopted).

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Appearance	liquid
Odour	No data available
Odour Threshold	0.67ppm
pH	No data available
Melting point/freezing point	Melting point/range: -91 °C
Initial boiling point and boiling range	98 °C
Flash point	-4 °C - c.c.
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	Upper explosion limit: 7 %(V) Lower explosion limit: 1,1 %(V)
Vapour pressure	111 hPa at 37,7 °C 53,3 hPa at 20,0 °C
Vapour density	3.5 (vs air)
Relative density	0.684 (20/4℃)
Water solubility	insoluble
Partition coefficient: n-octanol/water	log Pow: >3 - Bioaccumulation is not expected.
Autoignition temperature	223,0 °C
Decomposition temperature	No data available
Viscosity	Viscosity, kinematic: 0,64 mm2/s at 20 °C Viscosity, dynamic: No data available
Explosive properties	No data available
Oxidizing properties	No data available
Henry's Law Constant	0.901, 1.195, and 1.905(atm?m^3/mol) at 26.0, 35.8, and 45.0 °C, respectively (dynamic headspace, Hansen et al., 1995)
λmax	λ: 200 nm Amax: ≤1.0 λ: 225 nm Amax: ≤0.10 λ: 250 nm Amax: ≤0.01 λ: 300-400 nm Amax: ≤0.005

Other safety information

No data available

SECTION 10: Stability and reactivity

Reactivity

Vapors may form explosive mixture with air.

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

Possibility of hazardous reactions

Risk of ignition or formation of inflammable gases or vapours with:

Strong oxidizing agents phosphorus

in the presence of:

Chlorine

Conditions to avoid

Warming.

Incompatible materials

rubber, various plastics

Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - male and female - > 5.000 mg/kg

(OECD Test Guideline 401)

Remarks: (in analogy to similar compounds)

The value is given in analogy to the following substances: isooctane LC50 Inhalation - Rat - male and female - 4 h - > 29,29 mg/l (OECD Test Guideline 403)

LD50 Dermal - Rabbit - male and female - > 2.000 mg/kg (OECD Test Guideline 402)

Remarks: The value is given in analogy to the following substances: isooctane

Skin corrosion/irritation

Skin - Rabbit

Result: Irritating to skin. - 24 h (OECD Test Guideline 404)

Remarks: The value is given in analogy to the following substances: isooctane Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product.

Serious eye damage/eye irritation

Eyes - Rabbit

Result: No eye irritation (OECD Test Guideline 405)

Remarks: The value is given in analogy to the following substances: isooctane

Respiratory or skin sensitization

(OECD Test Guideline 406) Remarks:

Test system: Escherichia coli/Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471

Result: negative

Test Type: Chromosome aberration test in vitro Test system: rat hepatocytes

Method: OECD Test Guideline 473 Result: negative

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

May cause drowsiness or dizziness.

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

May be fatal if swallowed and enters airways.

Aspiration hazard, Aspiration may cause pulmonary edema and pneumonitis.

Toxicity

LC (2 hr in air) in mice: 75 mg/l (Lazarew)

SECTION 12: Ecological information

Toxicity

Toxicity to daphnia and other aquatic invertebrates

static test EC50 - Daphnia magna (Water flea) - 1,50 mg/l - 48 h Remarks: (ECHA)

Persistence and degradability

Biodegradability aerobic - Exposure time 10 d

Result: 70 % - Readily biodegradable. Remarks: (ECHA)

Biochemical Oxygen Demand (BOD)

Theoretical oxygen demand

1.920 mg/g Remarks: (IUCLID)

3.500 mg/g Remarks: (Lit.)

Ratio BOD/ThBOD 55 %

Remarks: (Lit.)

Bioaccumulative potential

Indication of bioaccumulation.

Mobility in soil

No data available

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and

very bioaccumulative (vPvB) at levels of 0.1% or higher.

Toxics Screening Level

The initial threshold screening level for heptane is 3500 µg/m3 based on an 8-hour averaging time.

Other adverse effects

Additional ecological information

Do not empty into drains.

Avoid release to the environment.

SECTION 13: Disposal considerations

Waste treatment methods

Incompatibilities

May form explosive mixture with air. Strong oxidizers may cause fire and explosions. Attacks some plastics, rubber and coatings. May accumulate static electric charges that can ignite its vapors.

Waste Disposal

Dissolve or mix the material with a combustible solvent and burn in a chemical incinera tor equipped with an afterburner and scrubber. All federal, state, and local environmental regulations must be observed.

SECTION 14: Transport information

UN number

ADR/RID: 1206 IMDG: 1206

UN proper shipping name

ADR/RID: HEPTANES IMDG: HEPTANES IATA: Heptanes

Transport hazard class(es)

ADR/RID: 3 IMDG: 3 IATA: 3

Packaging group

ADR/RID: II IMDG: II IATA: II

Environmental hazards

ADR/RID: yes IMDG Marine pollutant: yes IATA: no

Special precautions for user

No data available

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Listed. website: https://www.mem.gov.cn/

Measures for Environmental Management of New Chemical Substances

United States Toxic Substances Control Act (TSCA) Inventory:Listed. website: https://www.epa.gov/

Korea Existing Chemicals List (KECL):Listed. website: http://ncis.nier.go.kr

New Zealand Inventory of Chemicals (NZIoC):Listed. website: https://www.epa.govt.nz/

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Listed. website: https://emb.gov.ph/

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Listed. website: https://www.mee.gov.cn/

EC Inventory:Listed.

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: https://echa.europa.eu/

Vietnam National Chemical Inventory:Listed. website: https://chemicaldata.gov.vn/

SECTION 16: Other information

Abbreviations and acronyms

CAS: Chemical Abstracts Service

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

IMDG: International Maritime Dangerous Goods

IATA: International Air Transportation Association

TWA: Time Weighted Average

STEL: Short term exposure limit

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

EC50: Effective Concentration 50%

References

【1】CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

【2】ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

【3】ECHA - European Chemicals Agency, website: https://echa.europa.eu/

【4】eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

【5】ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

【6】Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

【7】HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

【8】IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

【9】IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

【10】Sigma-Aldrich, website: https://www.sigmaaldrich.com/

Other Information

The odour warning when the exposure limit value is exceeded is insufficient.The symptoms of chemical pneumonitis do not become manifest until a few hours or even days have passed.

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

ChemicalBook

Chemical Safety Data Sheet MSDS / SDS

Hexane

Revision Date:2026-04-18 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: Hexane
CBnumber	: CB1852811
CAS	: 110-54-3
EINECS Number	: 203-777-6
Synonyms	: hexane,n-Hexane

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Danger

Precautionary statements

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash hands thoroughly after handling.

P264 Wash skin thouroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P281 Use personal protective equipment as required.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P331 Do NOT induce vomiting.

P370+P378 In case of fire: Use … for extinction.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P403+P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

Hazard statements

H225 Highly Flammable liquid and vapour

H304 May be fatal if swallowed and enters airways

H315 Causes skin irritation

H319 Causes serious eye irritation

H336 May cause drowsiness or dizziness

H361 Suspected of damaging fertility or the unborn child

H372 Causes damage to organs through prolonged or repeated exposure

H373 May cause damage to organs through prolonged or repeated exposure

H401 Toxic to aquatic life

H411 Toxic to aquatic life with long lasting effects

Disposal

WARNING.Cancer - https://oehha.ca.gov/proposition-65/chemicals/n-hexane

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SECTION 3: Composition/information on ingredients

Substance

Product name	: Hexane
Synonyms	: hexane,n-Hexane
CAS	: 110-54-3
EC number	: 203-777-6
MF	: C6H14
MW	: 86.18

SECTION 4: First aid measures

Description of first aid measures

General advice

Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Call in physician.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

If swallowed

After swallowing: caution if victim vomits. Risk of aspiration! Keep airways free. Pulmonary failure possible after aspiration of vomit. Call a physician immediately.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO2) Foam Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture

Carbon oxides Combustible.

Pay attention to flashback.

Vapors are heavier than air and may spread along floors.

Development of hazardous combustion gases or vapours possible in the event of fire. Forms explosive mixtures with air at ambient temperatures.

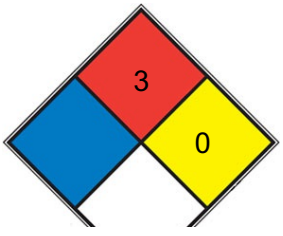
Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

Further information

Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

NFPA 704



■	HEALTH		
■	FIRE	3	Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions . Liquids having a flash point below 22.8 °C (73 °F) and having a boiling point at or above 37.8 °C (100 °F) or having a flash point between 22.8 and 37.8 °C (73 and 100 °F). (e.g. gasoline, acetone)
■	REACT	0	Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium,N2)
□	SPEC. HAZ.		

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition.

Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

Environmental precautions

Do not let product enter drains. Risk of explosion.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material (e.g.

Chemizorb?). Dispose of properly. Clean up affected area.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Advice on safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

Advice on protection against fire and explosion

Flash back possible over considerable distance.Container explosion may occur under fire conditions. **Advice on protection against fire and explosion**

Keep away from open flames, hot surfaces and sources of ignition.Take precautionary measures against static discharge.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Storage conditions

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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SECTION 8: Exposure controls/personal protection

control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

Exposure controls

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate
government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0,4 mm Break through time: 480 min

Material tested:Camatril? (KCL 730 / Aldrich Z677442, Size M)

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Splash contact Material: Nitrile rubber

Minimum layer thickness: 0,11 mm Break through time: 10 min

Material tested:KCL 741 Dermatril? L

Body Protection

Flame retardant antistatic protective clothing.

Respiratory protection

Recommended Filter type: Filter A (acc. to DIN 3181) for vapours of organic compounds

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains. Risk of explosion.

Exposure limits

TLV-TWA 50 ppm (～175 mg/m^3) (ACGIH), 500 ppm (～1750 mg/m^3) (OSHA); IDLH 5000 ppm (NIOSH).

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Appearance	colorless liquid
Odour	hydrocarbon-like
Odour Threshold	1.5ppm
pH	7,0
Melting point/freezing point	Melting point/range: -95 °C
Initial boiling point and boiling range	69 °C
Flash point	-22 °C - c.c.
Evaporation rate	15,8
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	Upper explosion limit: 8,1 %(V) Lower explosion limit: 1,0 %(V)
Vapour pressure	100 hPa at 9,8 °C
Vapour density	3.5 (vs air)
Relative density	0.660 (20/4℃)
Water solubility	0,01 g/l at 25 °C - slightly soluble
Partition coefficient: n-octanol/water	log Pow: ca.4 at 20 °C - (Lit.), Potential bioaccumulation
Autoignition temperature	225 °C at 1.013 hPa
Decomposition temperature	No data available
Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: 0,3 mPa.s at 25 °C
Explosive properties	No data available
Oxidizing properties	No data available
Henry's Law Constant	0.238, 0.413, 0.883, 0.768, and 1.56 at 10, 15, 20, 25, and 30 °C, respectively (EPICS, Ashworth et al., 1988)
λmax	λ: 200 nm Amax: ≤0.70 λ: 225 nm Amax: ≤0.10 λ: 250 nm Amax: ≤0.01

Other safety information

No data available

SECTION 10: Stability and reactivity

Reactivity

Vapors may form explosive mixture with air. Vapors may form explosive mixture with air.

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) . The product is chemically stable under standard ambient conditions (room temperature) .

Possibility of hazardous reactions

Risk of explosion with:

Strong oxidizing agents nitrogen oxides

Violent reactions possible with:

halogens

Risk of ignition or formation of inflammable gases or vapours with:

Peroxides (sodium salt)

Conditions to avoid

Exposure to moisture may affect product quality. Warming.

Incompatible materials

rubber, various plastics

Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - male and female - 16.000 mg/kg (OECD Test Guideline 401)

LC50 Inhalation - Rat - 4 h - 172 mg/l Remarks: (RTECS)

LD50 Dermal - Rabbit - male - > 2.000 mg/kg (OECD Test Guideline 402)

Remarks: (ECHA)

Skin corrosion/irritation

Skin - Rabbit

Result: Skin irritation - 24 h (OECD Test Guideline 404)

Remarks: (Regulation (EC) No 1272/2008, Annex VI)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: No eye irritation - 72 h (OECD Test Guideline 405)

Respiratory or skin sensitization

(OECD Test Guideline 429)

Germ cell mutagenicity

No data available Test Type: Ames test

Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471

Result: negative

Test Type: dominant lethal test Species: Mouse

Application Route: inhalation (vapor) Result: negative

Remarks: (ECHA)

Carcinogenicity

No data available

Reproductive toxicity

Overexposure may cause reproductive disorder(s) based on tests with laboratory animals. Suspected human reproductive toxicant Suspected of damaging fertility.

Suspected of damaging fertility.

Specific target organ toxicity - single exposure

May cause drowsiness or dizziness. - Central nervous system

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Specific target organ toxicity - repeated exposure

Inhalation - May cause damage to organs through prolonged or repeated exposure. - Nervous system

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Aspiration hazard

May be fatal if swallowed and enters airways.

Aspiration hazard, Aspiration may cause pulmonary edema and pneumonitis.

Toxicity

LC50 (4 hr) in mice by inhalation: 48000 ppm; LD50 orally in rats: 32.0 g/kg (Couri, Milks)

SECTION 12: Ecological information

Toxicity

Toxicity to fish

LC50 - Pimephales promelas (fathead minnow) - 2,5 mg/l - 96 h Remarks: (ECOTOX Database)

Toxicity to daphnia and other aquatic invertebrates

EC50 - Daphnia magna (Water flea) - 2,1 mg/l - 48 h Remarks: (Lit.)

Persistence and degradability

Biodegradability aerobic - Exposure time 28 d

Result: 98 % - Readily biodegradable. (OECD Test Guideline 301F)

Remarks: (in analogy to similar products)

Bioaccumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Toxics Screening Level

The initial threshold screening level (ITSL) for n-hexane is 700 µg/m3 based on an annual averaging time.

Other adverse effects

No data available

SECTION 13: Disposal considerations

Waste treatment methods

Incompatibilities

May form explosive mixture with air. Contact with strong oxidizers may cause fire and explo sions. Contact with dinitrogen tetraoxide may explode @ 28℃.Attacks some plastics, rubber and coatings. May accumulate static electrical charges, and may cause ignition of its vapors.

Waste Disposal

Dissolve or mix the material with a combustible solvent and burn in a chemical incinera tor equipped with an afterburner and scrubber. All federal, state, and local environmental regulations must be observed.

SECTION 14: Transport information

UN number

ADR/RID: 1208 IMDG: 1208

UN proper shipping name

ADR/RID: HEXANES IMDG: HEXANES IATA: Hexanes

Transport hazard class(es)

ADR/RID: 3 IMDG: 3 IATA: 3

Packaging group

ADR/RID: II IMDG: II IATA: II

Environmental hazards

ADR/RID: yes IMDG Marine pollutant: yes IATA: no

Special precautions for user

No data available

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Listed. website: https://www.mem.gov.cn/

Measures for Environmental Management of New Chemical Substances

Vietnam National Chemical Inventory:Listed. website: https://chemicaldata.gov.vn/

EC Inventory:Listed.

United States Toxic Substances Control Act (TSCA) Inventory:Listed. website: https://www.epa.gov/

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Listed. website: https://www.mee.gov.cn/

New Zealand Inventory of Chemicals (NZIoC):Listed. website: https://www.epa.govt.nz/

Korea Existing Chemicals List (KECL):Listed. website: http://ncis.nier.go.kr

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Listed. website: https://emb.gov.ph/

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: https://echa.europa.eu/

SECTION 16: Other information

Abbreviations and acronyms

CAS: Chemical Abstracts Service

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

IMDG: International Maritime Dangerous Goods

IATA: International Air Transportation Association

TWA: Time Weighted Average

STEL: Short term exposure limit

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

EC50: Effective Concentration 50%

References

【1】CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

【2】ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

【3】ECHA - European Chemicals Agency, website: https://echa.europa.eu/

【4】eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

【5】ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

【6】Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

【7】HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

【8】IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

【9】IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

【10】Sigma-Aldrich, website: https://www.sigmaaldrich.com/

Other Information

Depending on the degree of exposure, periodic medical examination is suggested.

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of

this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

ChemicalBook

Chemical Safety Data Sheet MSDS / SDS

INDENO(1,2,3-C,D)PYRENE

Revision Date:2026-01-17 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: INDENO(1,2,3-C,D)PYRENE
CBnumber	: CB0761644
CAS	: 193-39-5
EINECS Number	: 205-893-2
Synonyms	: IP,INDENO(1,2,3-C,D)PYRENE

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

Classification of the substance or mixture

Carcinogenicity, Category 2

Label elements

Pictogram(s)

Signal word	Danger

Hazard statement(s)

H225 Highly Flammable liquid and vapour

H304 May be fatal if swallowed and enters airways

H315 Causes skin irritation

H336 May cause drowsiness or dizziness

H351 Suspected of causing cancer

H370 Causes damage to organs

H410 Very toxic to aquatic life with long lasting effects

Precautionary statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P281 Use personal protective equipment as required.

P311 Call a POISON CENTER or doctor/physician.

P331 Do NOT induce vomiting.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P501 Dispose of contents/container to.....

Prevention

P203 Obtain, read and follow all safety instructions before use.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...

Response

P318 IF exposed or concerned, get medical advice.

Storage

P405 Store locked up.

Disposal

P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Other hazards

no data available

SECTION 3: Composition/information on ingredients

Substance

Product name	: INDENO(1,2,3-C,D)PYRENE
Synonyms	: IP,INDENO(1,2,3-C,D)PYRENE
CAS	: 193-39-5
EC number	: 205-893-2
MF	: C22H12
MW	: 276.33

SECTION 4: First aid measures

Description of first aid measures

If inhaled

Fresh air, rest.

Following skin contact

Remove contaminated clothes. Rinse and then wash skin with water and soap.

Following eye contact

First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then refer for medical attention.

Following ingestion

Rinse mouth. Refer for medical attention .

Most important symptoms and effects, both acute and delayed

ACUTE/CHRONIC HAZARDS: Toxic. (NTP, 1992)

Indication of any immediate medical attention and special treatment needed

Immediate First Aid: Ensure that adequate decontamination has been carried out. If patient is not breathing, start artificial respiration, preferably with a demand-valve resuscitator, bag-valve-mask device, or pocket mask, as trained. Perform CPR if necessary. Immediately flush contaminated eyes with gently flowing water. Do not induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain an open airway and prevent aspiration. Keep patient quiet and maintain normal body temperature. Obtain medical attention. Aromatic hydrocarbons and related compounds

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SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.[Sigma-Aldrich; Safety Data Sheet for Indeno

Specific Hazards Arising from the Chemical

Excerpt from ERG Guide 171 [Substances (Low to Moderate Hazard)]: Some may burn but none ignite readily. Containers may explode when heated. Some may be transported hot. For UN3508, be aware of possible short circuiting as this product is transported in a charged state. (ERG, 2016)

Advice for firefighters

In case of fire in the surroundings, use appropriate extinguishing media.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Sweep spilled substance into covered containers. If appropriate, moisten first to prevent dusting. Carefully collect remainder. Then store and dispose of according to local regulations. Do NOT let this chemical enter the environment.

Environmental precautions

Sweep spilled substance into covered containers. If appropriate, moisten first to prevent dusting. Carefully collect remainder. Then store and dispose of according to local regulations. Do NOT let this chemical enter the environment.

Methods and materials for containment and cleaning up

ACCIDENTAL RELEASE MEASURES: Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Methods and

materials for containment and cleaning up: Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.[Sigma-Aldrich; Safety Data Sheet for Indeno

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SECTION 7: Handling and storage

Precautions for safe handling

Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

Conditions for safe storage, including any incompatibilities

Provision to contain effluent from fire extinguishing. Well closed.Keep container tightly closed in a dry and well-ventilated place. Storage class (TRGS 510): Non Combustible Solids.[Sigma-Aldrich; Safety Data Sheet for Indeno

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SECTION 8: Exposure controls/personal protection

Control parameters

Occupational Exposure limit values

MAK: skin absorption (H); carcinogen category: 2

Biological limit values

no data available

Exposure controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

Individual protection measures

Eye/face protection

Wear safety spectacles or eye protection in combination with breathing protection.

Skin protection

Protective gloves. Protective clothing.

Respiratory protection

Use local exhaust or breathing protection.

Thermal hazards

no data available

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Physical state	neat
Colour	Light Yellow to Very Dark Orange
Odour	no data available

Melting point/freezing point	163.6°C
Boiling point or initial boiling point and boiling range	497.1°C at 760 mmHg
Flammability	no data available
Lower and upper explosion limit/flammability limit	no data available
Flash point	247.2°C
Auto-ignition temperature	no data available
Decomposition temperature	no data available
pH	no data available
Kinematic viscosity	no data available
Solubility	Soluble in most solvents (U.S. EPA, 1985) including low molecular weight liquid hydrocarbons such as benzene, ethylene, and toluene.
Partition coefficient n-octanol/water	log Kow = 6.70 (est)
Vapour pressure	1.01 x 10^{-10} mmHg at 25 °C (McVeety and Hites, 1988)
Density and/or relative density	1.378 g/cm3
Relative vapour density	no data available
Particle characteristics	no data available

SECTION 10: Stability and reactivity

Reactivity

NIOSH considers coal tar pitch volatiles to be potential occupational carcinogens. Coal tar pitch volatiles

Upon heating, toxic fumes are formed. Decomposes on heating. This produces toxic fumes.

Chemical stability

Stable under recommended storage conditions.[Sigma-Aldrich; Safety Data Sheet for Indeno

Possibility of hazardous reactions

IP itself burns only with difficulty.Vigorous reactions, sometimes amounting to explosions, can result from the contact between aromatic hydrocarbons, such as INDENO(1,2,3-CD)PYRENE, and strong oxidizing agents. They can react exothermically with bases and with diazo compounds. Substitution at the benzene nucleus occurs by halogenation (acid catalyst), nitration, sulfonation, and the Friedel-Crafts reaction.

Conditions to avoid

no data available

Incompatible materials

Incompatible materials: Strong oxidizing agents.[Sigma-Aldrich; Safety Data Sheet for Indeno

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions - Carbon oxides.[Sigma-Aldrich; Safety Data Sheet for Indeno

SECTION 11: Toxicological information

Acute toxicity

- Oral: no data available
- Inhalation: no data available
- Dermal: no data available

Skin corrosion/irritation

no data available

Serious eye damage/irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

OVERALL EVALUATION: Group 2B: The agent is possibly carcinogenic to humans.

Reproductive toxicity

no data available

STOT-single exposure

no data available

STOT-repeated exposure

This substance is possibly carcinogenic to humans.

Aspiration hazard

Evaporation at 20°C is negligible; a harmful concentration of airborne particles can, however, be reached quickly.

SECTION 12: Ecological information

Toxicity

Toxicity to fish: no data available

Toxicity to daphnia and other aquatic invertebrates: no data available

Toxicity to algae: no data available

Toxicity to microorganisms: no data available

Persistence and degradability

AEROBIC: In a 240 day soil microcosm study, half-lives of 600, 730, and 630 days at 10, 20, and 30 deg C, respectively, were estimated for

indeno(1,2,3-cd)pyrene(1). Half-lives for indeno(1,2,3-cd)pyrene ranged from 730 days, using a synthetic mixture of polycyclic aromatic hydrocarbons applied and incubated together in Kidman sandy loam soil, to 139 days in a mixture of oil refinery wastes applied to Kidman sandy loam soil(2). A half-life of 288 days was observed for indeno(1,2,3-cd)pyrene when applied and incubated as a single constituent in Kidman sandy loam soil(2). Biodegradation half-lives of 288 and 289 days were observed for indeno(1,2,3-cd)pyrene in Kidman and McLaurin sandy loam soils, respectively(3). In soil-water slurry systems, with actual town gas soil, indeno(1,2,3-cd)pyrene was biodegraded approx. 33% after 5 weeks incubation using a polycyclic aromatic hydrocarbon- acclimated mixed culture(4). In bench-scale biotreatability studies using a solid-phase bioremediation process (land farming chambers containing sediment and soil collected from the American Creosote Works Superfund site, Pensacola, FL), the indeno(1,2,3-cd)pyrene concentration was reduced from 29.7 to 29.2 mg/land farming chamber in unamended surface soil; 29.7 to 24.3 mg/land farming chamber in nutrient-amended surface soil; 67.8 to 54.0 mg/land farming chamber in unamended sediment; and 67.8 to 47.4 mg/land farming chamber in nutrient-amended sediment following 12 weeks incubation(5). In shake flask studies, an initial indeno(1,2,3-cd)pyrene concentration of 1.9 ug/mL was reduced to 0.9 ug/mL following 2 weeks incubation in contaminated groundwater from the American Creosote Works Superfund site, Pensacola, FL(6). Indeno(1,2,3-cd)pyrene was removed up to 95% over 36 days in an activated sludge pilot reactor, 40-65% was attributed to biodegradation(7). After 60 days of batch slurry bioremediation, the initial solid-phase indeno(1,2,3-cd)pyrene concentration of 37 ug/g was reduced to 17.1 ug/g, a 53.8% removal(8).

Bioaccumulative potential

An estimated BCF of 12,000 was calculated in fish for indeno(1,2,3-cd)pyrene(SRC), using an estimated log Kow of 6.70(1) and a regression-derived equation(1). According to a classification scheme(2), this BCF suggests the potential for bioconcentration in aquatic organisms is very high(SRC), provided the compound is not metabolized by the organism(SRC). Polyaromatic hydrocarbons, including indeno(1,2,3-cd)pyrene, have been shown to be rapidly metabolized by some aquatic organisms(3). A BCF of approximately 1X10+4 was measured in the amphipod Rhepoxynius abronius after 10 days exposure to indeno(1,2,3-cd)pyrene(4). The biota-sediment accumulation factor (BSAF) for indeno(1,2,3-cd)pyrene determined using oligochaete worm (Lumbriculus variegatus) was 1.7 and 0.0094 in Lake Erie sediment from Vermilion, OH and Dunkirk, NY, respectively(5). The BSAF of indeno(1,2,3-cd)pyrene was measured in polychaete (Nereis diversicolor) and gastropod (Hinia reticulata) exposed to sediment from three harbors in Norway at 0.0022-0.010 and 0.008-0.016(6).

Mobility in soil

Using a structure estimation method based on molecular connectivity indices(1), the Koc of indeno(1,2,3-cd)pyrene can be estimated to be 1.9X10+6(SRC). According to a classification scheme(2), this estimated Koc value suggests that indeno(1,2,3-cd)pyrene is expected to be immobile in soil. Log Koc values of 6.84 to 6.88 and 6.8 were determined for indeno(1,2,3-cd)pyrene with dissolved and particulate organic material, respectively, from Lake Ketelmeer at 20 deg C(3). The log Koc value of indeno(1,2,3-cd)pyrene measured in sediment from San Francisco Bay was 6.93(4). The log Koc values for indeno(1,2,3-cd)pyrene in 34 sediment samples was 5.78-8.82(5). [

Toxics Screening Level

The initial risk screening level and secondary risk screening level (SRSL) for benzo(a)pyrene (B(a)P) are 6E-4 µg/m3 and 6E-3 µg/m3, respectively. The IRSL and SRSL were derived from the inhalation unit risk (IUR) factor for B(a)P of 1.76E-3 per µg/m3 (1.1E-3 per µg/m3 multiplied by an age-dependent adjustment factor or ADAF of 1.6).

Other adverse effects

no data available

SECTION 13: Disposal considerations

Disposal methods

Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

SECTION 14: Transport information

UN Number

ADR/RID: UN2811 (For reference only, please check.)

IMDG: UN2811 (For reference only, please check.)

IATA: UN2811 (For reference only, please check.)

UN Proper Shipping Name

ADR/RID: TOXIC SOLID, ORGANIC, N.O.S. (For reference only, please check.)

IMDG: TOXIC SOLID, ORGANIC, N.O.S. (For reference only, please check.)

IATA: TOXIC SOLID, ORGANIC, N.O.S. (For reference only, please check.)

Transport hazard class(es)

ADR/RID: 6.1 (For reference only, please check.)

IMDG: 6.1 (For reference only, please check.)

IATA: 6.1 (For reference only, please check.)

Packing group, if applicable

ADR/RID: I (For reference only, please check.)

IMDG: I (For reference only, please check.)

IATA: I (For reference only, please check.)

Environmental hazards

ADR/RID: No

IMDG: No

IATA: No

Special precautions for user

no data available

Transport in bulk according to IMO instruments

no data available

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

European Inventory of Existing Commercial Chemical Substances (EINECS)

Listed.

EC Inventory

Listed.

United States Toxic Substances Control Act (TSCA) Inventory

Listed.

China Catalog of Hazardous chemicals 2015

Not Listed.

New Zealand Inventory of Chemicals (NZIoC)

Listed.

PICCS

Not Listed.

Vietnam National Chemical Inventory

Listed.

IECSC

Not Listed.

Korea Existing Chemicals List (KECL)

Not Listed.

SECTION 16: Other information

Abbreviations and acronyms

CAS: Chemical Abstracts Service

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

IMDG: International Maritime Dangerous Goods

IATA: International Air Transportation Association

TWA: Time Weighted Average

STEL: Short term exposure limit

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

EC50: Effective Concentration 50%

References

IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

ECHA - European Chemicals Agency, website: https://echa.europa.eu/

Other Information

Indeno(1,2,3-cd)pyrene is present as a component of polycyclic aromatic hydrocarbons (PAH) content in the environment usually resulting from the incomplete combustion or pyrolysis of organic matters, especially fossil fuels and tobacco.ACGIH recommends environment containing Indeno(1,2,3-c,d)pyrene should be evaluated in terms of the TLV-TWA for coal tar pitch volatile, as benzene soluble 0.2 mg/m3.Insufficient data are available on the effect of this substance on human health, therefore utmost care must be taken.

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

ChemicalBook

Chemical Safety Data Sheet MSDS / SDS

Iron

Revision Date:2026-04-04 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: Iron
Product name	: Iron
CBnumber	: CB8280013
CBnumber	: CB8280013
CAS	: 7439-89-6
CAS	: 7439-89-6
EINECS Number	: 231-096-4
EINECS Number	: 231-096-4
Synonyms	: Fe,Iron

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Danger

Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P304+P340 IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continuerinsing.

P370+P378 In case of fire: Use … for extinction.

P405 Store locked up.

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

Hazard statements

H228 Flammable solid

H319 Causes serious eye irritation

H335 May cause respiratory irritation

H228 Flammable solid

SECTION 3: Composition/information on ingredients

Substance

Product name	: Iron
Product name	: Iron
Synonyms	: Fe,Iron
CAS	: 7439-89-6
CAS	: 7439-89-6
EC number	: 231-096-4
EC number	: 231-096-4
MF	: Fe
MF	: Fe
MW	: 55.85
MW	: 55.85

SECTION 4: First aid measures

Description of first aid measures

General advice

Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

In case of eye contact

After eye contact: rinse out with plenty of water. Remove contact lenses.

If swallowed

After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture

Iron oxides

Not combustible.

Vapors are heavier than air and may spread along floors. Ambient fire may liberate hazardous vapours.

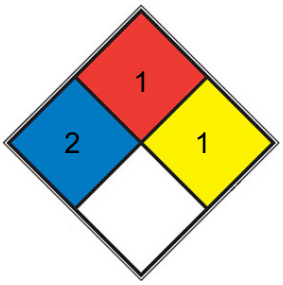
Advice for firefighters

In the event of fire, wear self-contained breathing apparatus.

Further information

Suppress (knock down) gases/vapors/mists with a water spray jet.

NFPA 704



■	HEALTH	2	Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury (e.g. diethyl ether, ammonium phosphate, iodine)
■	FIRE	1	Materials that require considerable preheating, under all ambient temperature conditions, before ignition and combustion can occur. Includes some finely divided suspended solids that do not require heating before ignition can occur. Flash point at or above 93.3 °C (200 °F). (e.g. mineral oil, ammonia)
■	REACT	1	Normally stable, but can become unstable at elevated temperatures and pressures (e.g. propene)
□	SPEC. HAZ.		

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Keep away from heat

and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

Environmental precautions

Do not let product enter drains. Risk of explosion.

Methods and materials for containment and cleaning up

Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition.Take precautionary measures against static discharge.

Hygiene measures

Change contaminated clothing. Wash hands after working with substance. For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Storage conditions

Tightly closed. Keep away from heat and sources of ignition.

Store under inert gas. Moisture sensitive.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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SECTION 8: Exposure controls/personal protection

control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

Exposure controls

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate

government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm Break through time: 480 min

Material tested:KCL 741 Dermatril? L

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm Break through time: 480 min

Material tested:KCL 741 Dermatril? L

Body Protection

Flame retardant antistatic protective clothing.

Respiratory protection

required when dusts are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type P1

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains. Risk of explosion.

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Appearance	gray powder
Odour	odorless
Odour Threshold	Not applicable
pH	No data available
Melting point/freezing point	Melting point/range: 1.535 °C
Initial boiling point and boiling range	2.750 °C
Flash point	>230 °F
Evaporation rate	No data available
Flammability (solid, gas)	The substance or mixture is a flammable solid with the category 2.
Upper/lower flammability or explosive limits	No data available

Vapour pressure	No data available
Vapour density	No data available
Relative density	7.86
Water solubility	insoluble
Partition coefficient: n-octanol/water	No data available
Autoignition temperature	The substance or mixture is classified as self heating with the category 2.
Decomposition temperature	No data available
Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
Explosive properties	No data available
Oxidizing properties	No data available
resistivity	9.71 μΩ-cm

Other safety information

No data available

SECTION 10: Stability and reactivity

Reactivity

No data available

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

Possibility of hazardous reactions

Violent reactions possible with:

ammonium compounds Oxidizing agents

halogen-halogen compounds nitryl compounds

nitrates Fluorine oils

hydrogen peroxide hydrogen sulphide Acetaldehyde

Generates dangerous gases or fumes in contact with:

Water acids

Risk of explosion with:

ammonium nitrate Ammonium peroxodisulfate potassium dichromate perchlorates

Air nitrates

performic acid chlorine acid oils

with Water

Risk of ignition or formation of inflammable gases or vapours with:

Peroxides

nitryl compounds hydrogen sulphide nitrogen dioxide hydrogen peroxide halogens

oils

with Air

Conditions to avoid

Exposure to moisture. Heat, flames and sparks. no information available

Incompatible materials

Strong acids

Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - 30.000 mg/kg

Remarks: (RTECS) Inhalation

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Toxicity

LD50 oral in rat: 30gm/kg

SECTION 12: Ecological information

Toxicity

No data available

Persistence and degradability

The methods for determining the biological degradability are not applicable to inorganic substances.

Bioaccumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Other adverse effects

No data available

SECTION 13: Disposal considerations

Waste treatment methods

Product

See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

SECTION 14: Transport information

UN number

ADR/RID: 3089 IMDG: 3089 IATA: 3089

UN proper shipping name

	ADR/RID: METAL POWDER, FLAMMABLE, N.O.S. IMDG: METAL POWDER, FLAMMABLE, N.O.S.	
IATA: Metal powder, flammable, n.o.s.		
14.3	Transport hazard class(es) ADR/RID: 4.1 IMDG: 4.1	IATA: 4.1
14.4	Packaging group ADR/RID: III IMDG: III	IATA: III
14.5	Environmental hazards ADR/RID: no IMDG Marine pollutant: no	IATA: no

14.6 Special precautions for user

No data available

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Not Listed. website: https://www.mem.gov.cn/

Measures for Environmental Management of New Chemical Substances

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Listed. website: https://www.mee.gov.cn/

EC Inventory:Listed.

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: https://echa.europa.eu/

Korea Existing Chemicals List (KECL):Listed. website: http://ncis.nier.go.kr

New Zealand Inventory of Chemicals (NZIoC):Listed. website: https://www.epa.govt.nz/

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Listed. website: https://emb.gov.ph/

United States Toxic Substances Control Act (TSCA) Inventory:Listed. website: https://www.epa.gov/

Vietnam National Chemical Inventory:Listed. website: https://chemicaldata.gov.vn/

SECTION 16: Other information

Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CAS: Chemical Abstracts Service

EC50: Effective Concentration 50%

IATA: International Air Transportation Association

IMDG: International Maritime Dangerous Goods

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

STEL: Short term exposure limit

TWA: Time Weighted Average

References

【1】CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

【2】ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

【3】ECHA - European Chemicals Agency, website: https://echa.europa.eu/

【4】eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

【5】ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

【6】Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

【7】HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

【8】IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

【9】IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

【10】Sigma-Aldrich, website: https://www.sigmaaldrich.com/

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

ChemicalBook

Chemical Safety Data Sheet MSDS / SDS

Isopropyl alcohol

Revision Date:2026-04-11 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: Isopropyl alcohol
CBnumber	: CB8854102
CAS	: 67-63-0
EINECS Number	: 200-661-7
Synonyms	: IPA,Isopropyl Alcohol

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Danger

Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continuerinsing.

P337+P313 IF eye irritation persists: Get medical advice/attention.

P370+P378 In case of fire: Use … for extinction.

P403+P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

Hazard statements

H225 Highly Flammable liquid and vapour

H319 Causes serious eye irritation

H336 May cause drowsiness or dizziness

SECTION 3: Composition/information on ingredients

Substance

Product name	: Isopropyl alcohol
Synonyms	: IPA,Isopropyl Alcohol
CAS	: 67-63-0
EC number	: 200-661-7
MF	: C3H8O
MW	: 60.1

SECTION 4: First aid measures

Description of first aid measures

General advice

Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Call in physician.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

If swallowed

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO2) Foam Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture

Carbon oxides Combustible.

Pay attention to flashback.

Vapors are heavier than air and may spread along floors.

Development of hazardous combustion gases or vapours possible in the event of fire. Forms explosive mixtures with air at ambient temperatures.

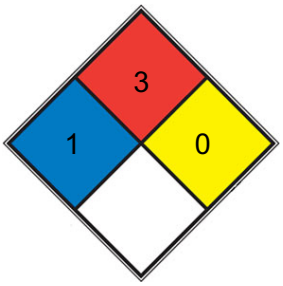
Advice for firefighters

In the event of fire, wear self-contained breathing apparatus.

Further information

Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

NFPA 704



■	HEALTH	1	Exposure would cause irritation with only minor residual injury (e.g. acetone, sodium bromate, potassium chloride)
■	FIRE	3	Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions . Liquids having a flash point below 22.8 °C (73 °F) and having a boiling point at or above 37.8 °C (100 °F) or having a flash point between 22.8 and 37.8 °C (73 and 100 °F). (e.g. gasoline, acetone)
■	REACT	0	Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium,N2)
□	SPEC. HAZ.		

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition.

Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

Environmental precautions

Do not let product enter drains. Risk of explosion.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb?). Dispose of properly. Clean up affected area.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Advice on safe handling

Avoid generation of vapours/aerosols.

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition.Take precautionary measures against static discharge.

Hygiene measures

Change contaminated clothing. Wash hands after working with substance. For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Storage conditions

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.
Handle and store under inert gas. Hygroscopic.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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SECTION 8: Exposure controls/personal protection

control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

Exposure controls

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0,4 mm Break through time: 480 min

Material tested:Camatril? (KCL 730 / Aldrich Z677442, Size M)

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Splash contact Material: Chloroprene

Minimum layer thickness: 0,65 mm Break through time: 120 min Material tested:KCL 720 Camapren?

Body Protection

Flame retardant antistatic protective clothing.

Respiratory protection

Recommended Filter type: Filter A (acc. to DIN 3181) for vapours of organic compounds

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains. Risk of explosion.

Exposure limits

TLV-TWA 980 mg/m^3 (400 ppm); STEL 1225 mg/m^3 (500 ppm) (ACGIH); IDLH 12,000 ppm (NIOSH).

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Appearance	colorless liquid
Odour	alcohol-like
Odour Threshold	1 ppm
pH	at 20 °C neutral
Melting point/freezing point	Melting point/range: -89,5 °C
Initial boiling point and boiling range	82 °C
Flash point	12,0 °C - closed cup
Evaporation rate	3,0
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	Upper explosion limit: 13,4 %(V) Lower explosion limit: 2 %(V)
Vapour pressure	43 hPa at 20 °C
Vapour density	2,07
Relative density	0,785 g/mL at 25 °C
Water solubility	at 20 °C soluble
Partition coefficient: n-octanol/water	log Pow: 0,05 - Bioaccumulation is not expected.
Autoignition temperature	425,0 °C
Decomposition temperature	Distillable in an undecomposed state at normal pressure.

Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: 2,2 mPa.s at 20 °C
Explosive properties	No data available
Oxidizing properties	No data available
λmax	λ: 260 nm Amax: 0.02 λ: 280 nm Amax: 0.01

Other safety information

Minimum ignition energy

0,65 mJ

Conductivity < 0,1 µS/cm

Surface tension 20,8 mN/m at 25,0 °C

Relative vapor density

2,07

SECTION 10: Stability and reactivity

Reactivity

Vapors may form explosive mixture with air.

Chemical stability

Reacts with air to form peroxides.

The product is chemically stable under standard ambient conditions (room temperature) .

Possibility of hazardous reactions

No data available

Conditions to avoid

Warming.

Incompatible materials

Acid anhydrides, Aluminum, Halogenated compounds, Acids, Strong oxidizing agents

Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - 5.840 mg/kg

(OECD Test Guideline 401)

LC50 Inhalation - Rat - male and female - 4 h - 37,5 mg/l (OECD Test Guideline 403)

LD50 Dermal - Rabbit - 12.800 mg/kg Remarks:

(RTECS)

Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation - 4 h (OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes - Rabbit Result: Eye irritation

(OECD Test Guideline 405)

(Regulation (EC) No 1272/2008, Annex VI)

Respiratory or skin sensitization

Buehler Test - Guinea pig Result: negative

(OECD Test Guideline 406)

Germ cell mutagenicity

Ames test

Salmonella typhimurium Result: negative

In vitro mammalian cell gene mutation test Chinese hamster ovary cells

Result: negative

OECD Test Guideline 474

Mouse - male and female - Bone marrow

Result: negative

Carcinogenicity

This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

IARC: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

Inhalation, Oral - May cause drowsiness or dizziness. - Central nervous system Remarks:

Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2) Acute inhalation toxicity - Central nervous system

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Toxicity

LD50 orally in rats: 5.8 g/kg (Smyth, Carpenter)

SECTION 12: Ecological information

Toxicity

Toxicity to fish

flow-through test LC50 - Pimephales promelas (fathead minnow) - 9.640 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates

(OECD Test Guideline 203)

EC50 - Daphnia magna (Water flea) - 13.299 mg/l - 48 h Remarks: (IUCLID)

Toxicity to algae

IC50 - Desmodesmus subspicatus (green algae) - > 1.000 mg/l - 72 h

Remarks: (IUCLID)

Toxicity to bacteria

EC5 - Pseudomonas putida - 1.050 mg/l - 16 h

Remarks: (Lit.)

Persistence and degradability

Biodegradability aerobic - Exposure time 5 d

Result: 53 % - Readily biodegradable. (Directive 67/548/EEC, Annex V, C.6)

Theoretical oxygen demand

2.400 mg/g Remarks: (Lit.)

Ratio BOD/ThBOD 49 %

Remarks: (IUCLID)

Bioaccumulative potential

No bioaccumulation is to be expected (log Pow <= 4).

Mobility in soil

No data available

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Toxics Screening Level

The initial threshold screening level (ITSL) for isopropyl alcohol is 220 µg/m3 based on an annual averaging time.

Other adverse effects

No data available

SECTION 13: Disposal considerations

Waste treatment methods

Incompatibilities

Incompatible with oxidizing agents such as hydrogen peroxide and nitric acid, which cause decomposition. Isopropyl alcohol may be salted out from aqueous mixtures by the addition of sodium chloride, sodium sulfate, and other salts, or by the addition of sodium hydroxide.

SECTION 14: Transport information

UN number

ADR/RID: 1219 IMDG: 1219

UN proper shipping name

ADR/RID: ISOPROPANOL IMDG: ISOPROPANOL IATA: Isopropanol

Transport hazard class(es)

ADR/RID: 3 IMDG: 3 IATA: 3

Packaging group

ADR/RID: II IMDG: II IATA: II

Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

Special precautions for user

No data available

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Listed. website: https://www.mem.gov.cn/

Measures for Environmental Management of New Chemical Substances

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Listed. website: https://www.mee.gov.cn/

EC Inventory:Listed.

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: https://echa.europa.eu/

Korea Existing Chemicals List (KECL):Listed. website: http://ncis.nier.go.kr

New Zealand Inventory of Chemicals (NZIoC):Listed. website: https://www.epa.govt.nz/

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Listed. website: https://emb.gov.ph/

United States Toxic Substances Control Act (TSCA) Inventory:Listed. website: https://www.epa.gov/

Vietnam National Chemical Inventory:Listed. website: https://chemicaldata.gov.vn/

SECTION 16: Other information

Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CAS: Chemical Abstracts Service

EC50: Effective Concentration 50%

IATA: International Air Transportation Association

IMDG: International Maritime Dangerous Goods

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

STEL: Short term exposure limit

TWA: Time Weighted Average

References

【1】CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

【2】ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

【3】ECHA - European Chemicals Agency, website: https://echa.europa.eu/

【4】eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

【5】ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

【6】Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

【7】HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

【8】IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

【9】IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

【10】Sigma-Aldrich, website: https://www.sigmaaldrich.com/

Other Information

Use of alcoholic beverages enhances the harmful effect.

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

ChemicalBook

Chemical Safety Data Sheet MSDS / SDS

Lead

Revision Date:2026-04-04 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: Lead
CBnumber	: CB9854174
CAS	: 7439-92-1
EINECS Number	: 231-100-4
Synonyms	: pb,lead

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Danger

Precautionary statements

P201 Obtain special instructions before use.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 IF ON SKIN: wash with plenty of soap and water.

P304+P340 IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P322 Specific measures (see …on this label).

P391 Collect spillage. Hazardous to the aquatic environment

P405 Store locked up.

Hazard statements

H301 Toxic if swalloed

H302 Harmful if swallowed

H311 Toxic in contact with skin

H332 Harmful if inhaled

H350 May cause cancer

H351 Suspected of causing cancer

H360 May damage fertility or the unborn child

H373 May cause damage to organs through prolonged or repeated exposure

H400 Very toxic to aquatic life

H410 Very toxic to aquatic life with long lasting effects

SECTION 3: Composition/information on ingredients

Substance

Product name	: Lead
Synonyms	: pb,lead
CAS	: 7439-92-1
EC number	: 231-100-4
MF	: Pb
MW	: 207.2

SECTION 4: First aid measures

Description of first aid measures

General advice

Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Call in physician.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

If swallowed

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture

Nature of decomposition products not known. Not combustible.

Ambient fire may liberate hazardous vapours.

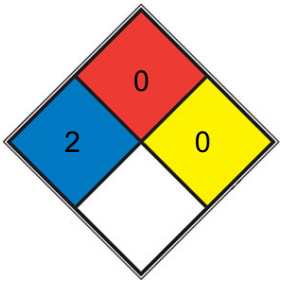
Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

Further information

Suppress (knock down) gases/vapors/mists with a water spray jet.

NFPA 704



■	HEALTH	2	Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury (e.g. diethyl ether, ammonium phosphate, iodine)
■	FIRE	0	Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand. Materials that will not burn in air when exposed to a temperature of 820 °C (1,500 °F) for a period of 5 minutes.(e.g. Carbon tetrachloride)
■	REACT	0	Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium,N2)
□	SPEC. HAZ.		

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid generation and inhalation of dusts in all circumstances. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

Environmental precautions

No special precautionary measures necessary.

Methods and materials for containment and cleaning up

Observe possible material restrictions (see sections 7 and 10). Take up carefully. Dispose of properly. Clean up affected area. Avoid generation of dusts.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Advice on safe handling

Work under hood. Do not inhale substance/mixture.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.
For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Storage conditions

Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible
only to qualified or authorized persons.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

---

SECTION 8: Exposure controls/personal protection

control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

Exposure controls

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate
government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm Break through time: 480 min

Material tested:KCL 741 Dermatril? L

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Splash contact Material: Nitrile rubber

Minimum layer thickness: 0,11 mm Break through time: 480 min

Material tested:KCL 741 Dermatril? L

Body Protection

protective clothing

Respiratory protection

required when dusts are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type P3

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

Control of environmental exposure

No special precautionary measures necessary.

Exposure limits

TLV-TWA 0.15 mg/m^3 as Pb (ACGIH and MSHA), 0.05 mg (Pb)/m^3 (OSHA); 10-h TWA 0.1 mg(inorganic lead)/m^3 (NIOSH).

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Appearance	powder
Odour	No data available
Odour Threshold	No data available
pH	No data available
Melting point/freezing point	Melting point: 326 °C at ca.1.013 hPa - OECD Test Guideline 102
Initial boiling point and boiling range	1.740 °C
Flash point	Not applicable
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive	No data available

limits	
Vapour pressure	No data available
Vapour density	No data available
Relative density	11,45 g/cm3 at 23,8 °C at 1.013 hPa - OECD Test Guideline 109 11,45 at 23,8 °C - OECD Test Guideline 109
Water solubility	0,185 g/l at 20 °C at 1.013 hPa - OECD Test Guideline 105- partly soluble
Partition coefficient: n-octanol/water	Not applicable for inorganic substances
Autoignition temperature	No data available
Decomposition temperature	No data available
Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
Explosive properties	No data available
Oxidizing properties	No data available
resistivity	20.65 µΩ-cm

Other safety information

No data available

SECTION 10: Stability and reactivity

Reactivity

No data available

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

Possibility of hazardous reactions

Risk of explosion with:

azides picrates

ammonium nitrate Strong oxidizing agents Exothermic reaction with:

Fluorine

hydrogen peroxide

Generates dangerous gases or fumes in contact with: Nitric acid

Conditions to avoid

no information available

Incompatible materials

No data available

Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - male and female - > 2.000 mg/kg (OECD Test Guideline 423)

LC50 Inhalation - Rat - male and female - 4 h - > 5,05 mg/l (OECD Test Guideline 403)

LD50 Dermal - Rat - male and female - > 2.000 mg/kg (OECD Test Guideline 402)

Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation - 4 h (OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: No eye irritation - 72 h (OECD Test Guideline 405)

Respiratory or skin sensitization

(OECD Test Guideline 406)

Germ cell mutagenicity

Test Type: Micronucleus test Species: Rat

Cell type: Red blood cells (erythrocytes) Application Route: Oral

Result: positive Remarks: (ECHA)

Test Type: comet assay Species: Mouse

Cell type: Liver cells Application Route: Inhalation

Result: negative Remarks: (ECHA)

Test Type: Micronucleus test Species: Mouse

Cell type: Bone marrow Application Route: Oral

Result: Positive results were obtained in some in vivo tests. Remarks: (ECHA)

Test Type: Chromosome aberration test in vitro Species: Monkey

Cell type: lymphocyte Application Route: Oral

Result: Positive results were obtained in some in vivo tests. Remarks: (ECHA)

Carcinogenicity

No data available

Reproductive toxicity

May damage the unborn child. Positive evidence from human epidemiological studies. May damage fertility. Positive evidence from human epidemiological studies. Studies indicating a hazard to babies during the lactation period

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

Oral - Causes damage to organs through prolonged or repeated exposure. - Central nervous system, Blood, Immune system, Kidney

Aspiration hazard

No data available

Toxicity

LDLO oral (pigeon)

160 mg/kg

PEL (OSHA)

0.05 mg/m3

PEL (action level)

0.03 mg/m3

TLV-TWA (ACGIH)

0.05 mg/m3

(PEL and TLV apply to lead and inorganic lead compounds)

SECTION 12: Ecological information

Toxicity

Toxicity to fish

static test LC50 - Oncorhynchus mykiss (rainbow trout) - 0,1 mg/l - 96 h

Remarks: (ECHA)

Toxicity to algae

mortality EC50 - Skeletonema costatum - 7,94 mg/l - 10 d Remarks: (ECOTOX Database)

(Lead)

Persistence and degradability

Biodegradability Result: - According to the results of tests of biodegradability this product is not readily biodegradable.

Remarks: The methods for determining biodegradability are not applicable to inorganic substances.

Bioaccumulative potential

Bioaccumulation Oncorhynchus kisutch - 2 Weeks

- 150 µg/l(Lead)

Bioconcentration factor (BCF): 12

Mobility in soil

No data available

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Other adverse effects

Discharge into the environment must be avoided.

SECTION 13: Disposal considerations

Waste treatment methods

Product

See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

Incompatibilities

Violent reactions of lead with sodium azide, zirconium, sodium acetylide, and chlorine trifluoride have been reported. Reactivity of lead compounds varies depending on structure.

Waste Disposal

Excess lead and waste material containing this substance should be placed in an appropriate container, clearly labeled, and handled according to your institution's waste disposal guidelines. For more information on disposal procedures, see Chapter 7 of this volume.

SECTION 14: Transport information

UN number

ADR/RID: 2291 IMDG: 2291 IATA: 2291

UN proper shipping name

ADR/RID: LEAD COMPOUND, SOLUBLE, N.O.S. (Lead) IMDG: LEAD COMPOUND, SOLUBLE, N.O.S. (Lead)

IATA: Lead compound, soluble, n.o.s. (Lead)

Transport hazard class(es)

ADR/RID: 6.1 IMDG: 6.1 IATA: 6.1

Packaging group

ADR/RID: III IMDG: III IATA: III

Environmental hazards

ADR/RID: yes IMDG Marine pollutant: yes IATA: no

Special precautions for user

No data available

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Not Listed. website: https://www.mem.gov.cn/

Measures for Environmental Management of New Chemical Substances

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Listed. website: https://www.mee.gov.cn/

EC Inventory:Listed.

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: https://echa.europa.eu/

Korea Existing Chemicals List (KECL):Listed. website: http://ncis.nier.go.kr

New Zealand Inventory of Chemicals (NZIoC):Listed. website: https://www.epa.govt.nz/

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Listed. website: https://emb.gov.ph/

United States Toxic Substances Control Act (TSCA) Inventory:Listed. website: https://www.epa.gov/

Vietnam National Chemical Inventory:Listed. website: https://chemicaldata.gov.vn/

SECTION 16: Other information

Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CAS: Chemical Abstracts Service

EC50: Effective Concentration 50%

IATA: International Air Transportation Association

IMDG: International Maritime Dangerous Goods

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

STEL: Short term exposure limit

TWA: Time Weighted Average

References

【1】CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

【2】ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

【3】ECHA - European Chemicals Agency, website: https://echa.europa.eu/

【4】eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

【5】ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

【6】Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

【7】HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

【8】IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

【9】IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

【10】Sigma-Aldrich, website: https://www.sigmaaldrich.com/

Other Information

Depending on the degree of exposure, periodic medical examination is suggested.Do NOT take working clothes home.

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

Chemical Safety Data Sheet MSDS / SDS

Magnesium

Revision Date:2026-04-04 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: Magnesium
CBnumber	: CB9249642
CAS	: 7439-95-4
EINECS Number	: 231-104-6
Synonyms	: magnesium,magnesium turnings

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Danger

Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P222 Do not allow contact with air.

P223 Keep away from any possible contact with water, because of violent reaction and possible flash fire.

P231+P232 Handle under inert gas. Protect from moisture.

P235+P410 Keep cool. Protect from sunlight.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P370+P378 In case of fire: Use … for extinction.

P402+P404 Store in a dry place. Store in a closed container.

P403+P235 Store in a well-ventilated place. Keep cool.

P407 Maintain air gap between stacks/pallets.

P413 Store bulk masses greater than … kg/…lbs at temperatures not exceeding … oC/…oF.

P420 Store away from other materials.

P422 Store contents under …

Hazard statements

H225 Highly Flammable liquid and vapour

H228 Flammable solid

H250 Catches fire spontaneously if exposed to air

H251 Self-heating; may catch fire

H260 In contact with water releases flammable gases which may ignite spontaneously

H261 In contact with water releases flammable gas

H302 Harmful if swallowed

H319 Causes serious eye irritation

H335 May cause respiratory irritation

H351 Suspected of causing cancer

SECTION 3: Composition/information on ingredients

Substance

Product name	: Magnesium
Synonyms	: magnesium,magnesium turnings
CAS	: 7439-95-4
EC number	: 231-104-6
MF	: Mg
MW	: 24.31

SECTION 4: First aid measures

Description of first aid measures

General advice

Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

In case of eye contact

After eye contact: rinse out with plenty of water. Remove contact lenses.

If swallowed

After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Special powder against metal fire Cover with dry sand or cement.

Unsuitable extinguishing media

Foam Water

Special hazards arising from the substance or mixture

Magnesium oxide Not combustible.

May not get in touch with: Water

Ambient fire may liberate hazardous vapours.

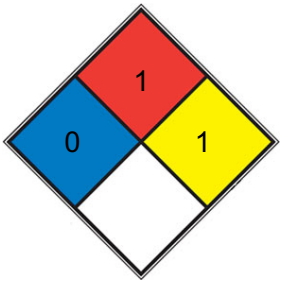
Advice for firefighters

In the event of fire, wear self-contained breathing apparatus.

Further information

none

NFPA 704



■	HEALTH	0	Poses no health hazard, no precautions necessary and would offer no hazard beyond that of ordinary combustible materials
■	FIRE	1	Materials that require considerable preheating, under all ambient temperature conditions, before ignition and combustion can occur. Includes some finely divided suspended solids that do not require heating before ignition can occur. Flash point at or above 93.3 °C (200 °F). (e.g. mineral oil, ammonia)
■	REACT	1	Normally stable, but can become unstable at elevated temperatures and pressures (e.g. propene)
□	SPEC. HAZ.		

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert.
For personal protection see section 8.

Environmental precautions

Do not let product enter drains. Risk of explosion.

Methods and materials for containment and cleaning up

Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Advice on safe handling

Keep workplace dry. Do not allow product to come into contact with water.

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition.Take precautionary measures against static discharge.

Hygiene measures

Change contaminated clothing. Wash hands after working with substance. For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Storage conditions

Tightly closed. Keep away from heat and sources of ignition.
Never allow product to get in contact with water during storage.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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SECTION 8: Exposure controls/personal protection

control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

Exposure controls

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate
government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm Break through time: 480 min

Material tested:KCL 741 Dermatril? L

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Splash contact Material: Nitrile rubber

Minimum layer thickness: 0,11 mm Break through time: 480 min

Material tested:KCL 741 Dermatril? L

Body Protection

Flame retardant antistatic protective clothing.

Respiratory protection

required when dusts are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type P1

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains. Risk of explosion.

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Appearance	powder
Odour	No data available
Odour Threshold	No data available
pH	No data available
Melting point/freezing point	Melting point/range: 648 °C
Initial boiling point and boiling range	1.090 °C
Flash point	−26 °F
Evaporation rate	No data available

Flammability (solid, gas)	May form combustible dust concentrations in air.
Upper/lower flammability or explosive limits	No data available
Vapour pressure	1 hPa at 621 °C
Vapour density	6 (vs air)
Relative density	1.74
Water solubility	H_2O: 1 M at 20 °C, clear, colorless
Partition coefficient: n-octanol/water	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available
Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
Explosive properties	No data available
Oxidizing properties	No data available
resistivity	4.46 μΩ-cm, 20°C

Other safety information

No data available

SECTION 10: Stability and reactivity

Reactivity

Self-heating; may catch fire.

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

Possibility of hazardous reactions

Risk of dust explosion.

Reacts with the following substances: Acids

Bases

Oxidizing agents

Conditions to avoid

Exposure to moisture. Exposure to air. Moisture.

Incompatible materials

No data available

Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Oral

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

SECTION 12: Ecological information

Toxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Toxics Screening Level

The ITSL for magnesium, magnesium oxide and magnesium hydroxide, either individually or in any combination, is being established at 100

µg/m3 with an 8-hour average based on 1 percent of the ACGIH TLV for magnesium oxide.

Other adverse effects

No data available

SECTION 13: Disposal considerations

Waste treatment methods

Incompatibilities

Reacts violently with, oxidizers, strong acids; acetylene, ammonium salts; arsenic, beryllium fluoride, carbon tetrachloride, carbonates, chloroform, cyanides, chlorinated hydrocarbons; ethylene oxide; hydrocarbons, metal oxides; methanol, phosphates, silver nitrate; sodium peroxide; sulfates, trichloroethylene.

Product

See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

SECTION 14: Transport information

SECTION 14: Transport information

IATA:

UN number

ADR/RID:IMDG:IATA:ADR/RID:IMDG:IATA:

UN number

ADR/RID:IMDG:IATA:ADR/RID:IMDG:IATA:

UN number

ADR/RID: - IMDG: - IATA: -

ADR/RID: 3077 IMDG: 3077 IATA: 3077

ADR/RID: 2811 IMDG: 2811 IATA: 2811

ADR/RID: 2811 IMDG: 2811 IATA: 2811

ADR/RID: - IMDG: - IATA: -

ADR/RID: - IMDG: - IATA: -

ADR/RID: 2789 IMDG: 2789 IATA: 2789

ADR/RID: 3 IMDG: 3 IATA: 3

ADR/RID: 1987 IMDG: 1987 IATA: 1987

ADR/RID: 1993 IMDG: 1993 IATA: 1993

UN proper shipping name

ADR/RID: FLAMMABLE LIQUID, N.O.S. (2-Ethylfuran) IMDG: FLAMMABLE LIQUID, N.O.S. (2-Ethylfuran) IATA: Flammable liquid, n.o.s. (2-Ethylfuran)

ADR/RID: ALCOHOLS, N.O.S. (Pent-3-yn-1-ol) IMDG: ALCOHOLS, N.O.S. (Pent-3-yn-1-ol) IATA: Alcohols, n.o.s. (Pent-3-yn-1-ol)

ADR/RID: II IMDG: II IATA: II

ADR/RID: ACETIC ACID, GLACIAL IMDG: ACETIC ACID, GLACIAL IATA: Acetic acid, glacial

ADR/RID: - IMDG: - IATA: -

ADR/RID: - IMDG: - IATA: -

ADR/RID: TOXIC SOLID, ORGANIC, N.O.S. (Genipin) IMDG: TOXIC SOLID, ORGANIC, N.O.S. (Genipin) IATA: Toxic solid, organic, n.o.s. (Genipin)

ADR/RID: TOXIC SOLID, ORGANIC, N.O.S. (cupferron) IMDG: TOXIC SOLID, ORGANIC, N.O.S. (cupferron) IATA: Toxic solid, organic, n.o.s. (cupferron)

ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (2-(4- Chlorophenoxy)benzaldehyde) IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (2-(4- Chlorophenoxy)benzaldehyde) IATA: Environmentally hazardous substance, solid, n.o.s. Chlorophenoxy)benzaldehyde)

ADR/RID: Not dangerous goods IMDG: Not dangerous goods IATA: Not dangerous goods

Transport hazard class(es)

ADR/RID: - IMDG: - IATA: -

(2-(4- ADR/RID: 9 IMDG: 9 IATA: 9

ADR/RID: 6.1 IMDG: 6.1 IATA: 6.1

ADR/RID: 6.1 IMDG: 6.1 IATA: 6.1

ADR/RID: no IMDG Marine pollutant: no IATA: no

ADR/RID: no IMDG Marine pollutant: no IATA: no

ADR/RID: 8 (3) IMDG: 8 (3) IATA: 8 (3)

ADR/RID: yes IMDG Marine pollutant: yes IATA: no

ADR/RID: 3 IMDG: 3 IATA: 3

ADR/RID: 3 IMDG: 3 IATA: 3

Packaging group

ADR/RID: II IMDG: II IATA: II

ADR/RID: III IMDG: III IATA: III

No data available

ADR/RID: II IMDG: II IATA: II

No data available

No data available

ADR/RID: III IMDG: III IATA: III

ADR/RID: III IMDG: III IATA: III

ADR/RID: - IMDG: - IATA: -

ADR/RID: III IMDG: III IATA: III

Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

ADR/RID: no IMDG Marine pollutant: no IATA: no

ADR/RID: yes IMDG Marine pollutant: yes IATA: yes

ADR/RID: no IMDG Marine pollutant: no IATA: no

ADR/RID: no IMDG Marine pollutant: no IATA: no

ADR/RID: no IMDG Marine pollutant: no IATA: no

Special precautions for user

No data available

No data available

No data available

Further information EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packagings and combination packagings containing inner packagings with Dangerous Goods > 5L for liquids or > 5kg for solids.

No data available

No data available

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

Other regulations

Take note of Dir 94/33/EC on the protection of young people at work.

-

Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

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SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

H228 Flammable solid.

H251 Self-heating; may catch fire.

H261 In contact with water releases flammable gas.

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

Chemical Safety Data Sheet MSDS / SDS

Manganese

Revision Date:2026-04-04 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: Manganese
CBnumber	: CB5683079
CAS	: 7439-96-5
EINECS Number	: 231-105-1
Synonyms	: Mn,Manganese

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Danger

Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P223 Keep away from any possible contact with water, because of violent reaction and possible flash fire.

P231+P232 Handle under inert gas. Protect from moisture.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ventilating/lighting/…/equipment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P370+P378 In case of fire: Use … for extinction.

P422 Store contents under …

Hazard statements

H228 Flammable solid

H260 In contact with water releases flammable gases which may ignite spontaneously

SECTION 3: Composition/information on ingredients

Substance

Product name	: Manganese
Synonyms	: Mn,Manganese
CAS	: 7439-96-5
EC number	: 231-105-1
MF	: Mn
MW	: 54.94

SECTION 4: First aid measures

Description of first aid measures

General advice

Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

In case of eye contact

After eye contact: rinse out with plenty of water. Remove contact lenses.

If swallowed

After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO2) Dry powder

Unsuitable extinguishing media

Water Foam

Special hazards arising from the substance or mixture

Manganese/manganese oxides Combustible.

May not get in touch with: Water

Development of hazardous combustion gases or vapours possible in the event of fire.

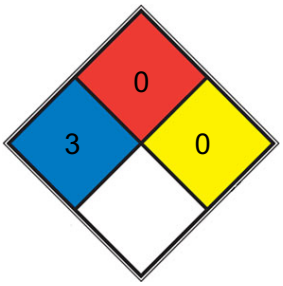
Advice for firefighters

In the event of fire, wear self-contained breathing apparatus.

Further information

Prevent fire extinguishing water from contaminating surface water or the ground water system.

NFPA 704



■	HEALTH	3	Short exposure could cause serious temporary or moderate residual injury (e.g. liquid hydrogen, sulfuric acid, calcium hypochlorite, hexafluorosilicic acid)
■	FIRE	0	Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand. Materials that will not burn in air when exposed to a temperature of 820 °C (1,500 °F) for a period of 5 minutes.(e.g. Carbon tetrachloride)
■	REACT	0	Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium,N2)
□	SPEC. HAZ.		

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

Environmental precautions

Do not let product enter drains. Risk of explosion.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Advice on safe handling

Keep workplace dry. Do not allow product to come into contact with water.

Hygiene measures

Change contaminated clothing. Wash hands after working with substance.

For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Storage conditions

Tightly closed. Keep away from heat and sources of ignition. Never allow product to get in contact with water during storage.

Moisture sensitive.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

Exposure controls

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate

government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm Break through time: 480 min

Material tested:KCL 741 Dermatril? L

Splash contact Material: Nitrile rubber

Minimum layer thickness: 0,11 mm Break through time: 480 min

Material tested:KCL 741 Dermatril? L

Body Protection

protective clothing

Respiratory protection

required when dusts are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type P1

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains. Risk of explosion.

Exposure limits

Ceiling: 5 mg(Mn)/m^3 (ACGIH and OSHA) TWA: 1 mg(Mn)/m^3 (NIOSH).

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Appearance	gray powder
Odour	No data available
Odour Threshold	No data available
pH	<1 (H_2O, 20°C)
Melting point/freezing point	Melting point/range: 1.244 °C - lit.
Initial boiling point and boiling range	1.962 °C - lit.
Flash point	Not applicable
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	No data available
Vapour pressure	No data available
Vapour density	No data available
Relative density	7,3 g/mL at 25 °C - lit. 7,4 at 19 °C - Regulation (EC) No. 440/2008, Annex, A.3
Water solubility	0,001 g/l at 20 °C - Regulation (EC) No. 440/2008, Annex, A.6- slightly soluble
Partition coefficient: n-octanol/water	Not applicable for inorganic substances
Autoignition temperature	No data available
Decomposition temperature	No data available
Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
Explosive properties	No data available
Oxidizing properties	No data available
resistivity	185 µΩ-cm, 20°C

Other safety information

No data available

SECTION 10: Stability and reactivity

Reactivity

The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

Possibility of hazardous reactions

No data available

Conditions to avoid

Avoid moisture. Moisture.

Incompatible materials

acids, Halogens, Bases, Phosphorus, Sulfur oxides, Peroxides

Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - female - > 2.000 mg/kg (OECD Test Guideline 420)

LC50 Inhalation - Rat - male and female - 4 h - > 5,14 mg/l (OECD Test Guideline 403)

Dermal

Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation - 4 h (OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: No eye irritation - 72 h (OECD Test Guideline 405)

Respiratory or skin sensitization

(OECD Test Guideline 429)

Germ cell mutagenicity

Test Type: Ames test

Test system: Escherichia coli/Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471

Result: negative

Test Type: Chromosome aberration test in vitro Test system: Human lymphocytes

Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 473

Result: negative

Test Type: In vitro mammalian cell gene mutation test Test system: mouse lymphoma cells

Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476

Result: negative

Test Type: Micronucleus test Species: Mouse

Cell type: Red blood cells (erythrocytes) Application Route: Oral

Method: OECD Test Guideline 474 Result: negative

Carcinogenicity

No data available

Reproductive toxicity

May cause reproductive disorders.

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Toxicity

LD50 orally in Rabbit: 9000 mg/kg

SECTION 12: Ecological information

Toxicity

Toxicity to fish

semi-static test LC50 - Oncorhynchus mykiss (rainbow trout) - > 3,6 mg/l - 96 h

(OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates

static test EC50 - Daphnia magna (Water flea) - > 1,6 mg/l - 48 h (OECD Test Guideline 202)

Toxicity to algae

static test ErC50 - Desmodesmus subspicatus (green algae) - 4,5 mg/l - 72 h

(OECD Test Guideline 201)

Toxicity to bacteria

static test EC50 - activated sludge - 1.000 mg/l - 3 h

(OECD Test Guideline 209)

Persistence and degradability

The methods for determining biodegradability are not applicable to inorganic substances.

Bioaccumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Toxics Screening Level

The ITSL for manganese and manganese compounds is being revised to 0.3 µg/m3 with an annual averaging time.

Other adverse effects

No data available

SECTION 13: Disposal considerations

Waste treatment methods

Incompatibilities

Reacts with water (slowly), steam, or acid producing flammable hydrogen gas. Reacts violently with concentrated hydrogen peroxide. Incompatible with nitrogen gas above 200℃.

Product

See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

Waste Disposal

All federal, state, and local environmental regulations must be observed. Do not discharge into drains or sewers. Manganese metal-sanitary landfill. Manganese chloride or sulfate-chemical conversion to the oxide followed by land filling, or conversion to the sulfate for use in fertilizer. Consult with environmental regulatory agencies for guidance on acceptable disposal practices.

SECTION 14: Transport information

UN number

ADR/RID: 3208 IMDG: 3208 IATA: 3208

UN proper shipping name

ADR/RID: METALLIC SUBSTANCE, WATER-REACTIVE, N.O.S. (Manganese) IMDG: METALLIC SUBSTANCE, WATER-REACTIVE, N.O.S. (Manganese)

IATA: Metallic substance, water-reactive, n.o.s. (Manganese) Passenger Aircraft: Not permitted for transport

Transport hazard class(es)

ADR/RID: 4.3 IMDG: 4.3 IATA: 4.3

Packaging group

ADR/RID: I IMDG: I IATA: I

Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

Special precautions for user

No data available

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Listed. website: https://www.mem.gov.cn/

Measures for Environmental Management of New Chemical Substances

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Listed. website: https://www.mee.gov.cn/

EC Inventory:Listed.

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: https://echa.europa.eu/

Korea Existing Chemicals List (KECL):Listed. website: http://ncis.nier.go.kr

New Zealand Inventory of Chemicals (NZIoC):Listed. website: https://www.epa.govt.nz/

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Listed. website: https://emb.gov.ph/

United States Toxic Substances Control Act (TSCA) Inventory:Listed. website: https://www.epa.gov/

Vietnam National Chemical Inventory:Listed. website: https://chemicaldata.gov.vn/

SECTION 16: Other information

Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CAS: Chemical Abstracts Service

EC50: Effective Concentration 50%

IATA: International Air Transportation Association

IMDG: International Maritime Dangerous Goods

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

STEL: Short term exposure limit

TWA: Time Weighted Average

References

【1】CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

【2】ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

【3】ECHA - European Chemicals Agency, website: https://echa.europa.eu/

【4】eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

【5】ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

【6】Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

【7】HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

【8】IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

【9】IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

【10】Sigma-Aldrich, website: https://www.sigmaaldrich.com/

Other Information

Depending on the degree of exposure, periodic medical examination is suggested.The recommendations on this Card also apply to ferro manganese.

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

ChemicalBook

Chemical Safety Data Sheet MSDS / SDS

Mesitylene

Revision Date:2026-04-19 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: Mesitylene
CBnumber	: CB5852758
CAS	: 108-67-8
EINECS Number	: 203-604-4
Synonyms	: mesitylene,1,3,5-trimethylbenzene

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Warning

Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P273 Avoid release to the environment.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.

P391 Collect spillage. Hazardous to the aquatic environment

P403+P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

P501 Dispose of contents/container to.....

Hazard statements

H226 Flammable liquid and vapour

H315 Causes skin irritation

H335 May cause respiratory irritation

H411 Toxic to aquatic life with long lasting effects

SECTION 3: Composition/information on ingredients

Substance

Product name	: Mesitylene
Synonyms	: mesitylene,1,3,5-trimethylbenzene
CAS	: 108-67-8
EC number	: 203-604-4
MF	: C9H12
MW	: 120.19

SECTION 4: First aid measures

Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Dry powder Dry sand

Unsuitable extinguishing media

Do NOT use water jet.

Special hazards arising from the substance or mixture

Carbon oxides

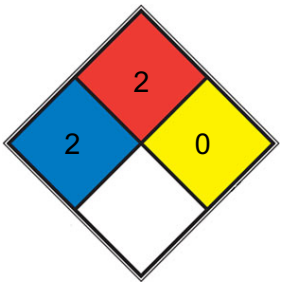
Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

Use water spray to cool unopened containers.

NFPA 704



■	HEALTH	2	Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury (e.g. diethyl ether, ammonium phosphate, iodine)
■	FIRE	2	Must be moderately heated or exposed to relatively high ambient temperature before ignition can occur and multiple finely divided suspended solids that do not require heating before ignition can occur. Flash point between 37.8 and 93.3 °C (100 and 200 °F). (e.g. diesel fuel, sulfur)
■	REACT	0	Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium,N2)
□	SPEC. HAZ.		

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking.Take measures to prevent the build up of electrostatic charge.

For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store in cool place.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Full contact

Material: Fluorinated rubber Minimum layer thickness: 0,7 mm Break through time: 480 min

Material tested:Vitoject? (KCL 890 / Aldrich Z677698, Size M)

Splash contact

Material: Fluorinated rubber

Minimum layer thickness: 0,7 mm Break through time: 480 min

Material tested:Vitoject? (KCL 890 / Aldrich Z677698, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific

situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full- face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Exposure limits

NIOSH REL: TWA 25 ppm (125 mg/m^3); ACGIH TLV: TWA for mixed isomers 25 ppm (adopted).

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Appearance	colourless liquid, clear
Odour	No data available
Odour Threshold	0.17ppm
pH	No data available
Melting point/freezing point	Melting point/range: -45 °C - lit.
Initial boiling point and boiling range	163 - 166 °C - lit.
Flash point	50 °C at ca.1.013,25 hPa
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	Upper explosion limit: 6 %(V) Lower explosion limit: 0,88 %(V)
Vapour pressure	3,2 hPa at 25 °C
Vapour density	4.1 (vs air)
Relative density	0,864 g/mL at 25 °C
Water solubility	0,0482 g/l at 25 °C - slightly soluble
Partition coefficient: n-octanol/water	No data available
Autoignition temperature	550,0 °C
Decomposition temperature	No data available
Viscosity	0,843 mm2/s at 20 °C - 0,630 mm2/s at 50 °C -
Explosive properties	No data available
Oxidizing properties	No data available
Henry's Law Constant	4.03, 4.60, 5.71, 6.73, and 9.63 at 10, 15, 20, 25, and 30 °C, respectively (EPICS, Ashworth et al.,1988)

Other safety information

Surface tension 27,55 mN/m at 25 °C

SECTION 10: Stability and reactivity

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No data available

Conditions to avoid

Heat, flames and sparks.

Incompatible materials

Strong oxidizing agents

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides Other decomposition products - No data available

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - male - 6.000 mg/kg

(EC Directive 92/69/EEC B.1 Acute Toxicity (Oral))

LC50 Inhalation - Rat - male and female - 4 h - 10,2 mg/l Remarks: (ECHA)

LD50 Dermal - Rat - male and female - > 2.000 mg/kg Remarks: (ECHA)

Skin corrosion/irritation

Skin - Rabbit

Result: Irritating to skin. - 4 h

(Regulation (EC) No. 440/2008, Annex, B.4)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: No eye irritation (OECD Test Guideline 405)

Remarks: (in analogy to similar products)

Respiratory or skin sensitisation

(OECD Test Guideline 406)

Remarks: (in analogy to similar products)

Germ cell mutagenicity

Ames test

S. typhimurium Result: negative

OECD Test Guideline 474

Mouse - male and female - Red blood cells (erythrocytes) Result: negative

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

May cause respiratory irritation. - Respiratory system

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

May be fatal if swallowed and enters airways.

Additional Information

Repeated dose toxicity - Rat - male and female - Oral - 90 Days - No observed adverse effect level - 600 mg/kg

RTECS: OX6825000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Toxicity

LD50 (inhalation) for rats 24 g/m^3/4-h (quoted, RTECS, 1985).

SECTION 12: Ecological information

Toxicity

Toxicity to fish

flow-through test LC50 - Carassius auratus (goldfish) - 12,52 mg/l - 96 h

Remarks: (ECHA)

Toxicity to daphnia and other aquatic invertebrates

static test LC50 - Daphnia magna (Water flea) - 6 mg/l - 48 h (OECD Test Guideline 202)

Toxicity to algae

static test ErC50 - Desmodesmus subspicatus (green algae) - 53 mg/l - 48 h

(DIN 38412)

Toxicity to bacteria

static test NOEC - activated sludge - 24,2 mg/l - 28 h Remarks: (ECHA)

Persistence and degradability

Biodegradability aerobic Theoretical oxygen demand - Exposure time 28 d Result: 61 % - Readily biodegradable.

(OECD Test Guideline 301F)

Remarks: The 10 day time window criterion is not fulfilled.

Bioaccumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Toxics Screening Level

The acute initial threshold screening level (ITSL) for all trimethylbenzene (TMB) isomers combined is 1200 µg/m3 with 8-hr averaging time

Other adverse effects

Toxic to aquatic life with long lasting effects. No data available

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SECTION 13: Disposal considerations

Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

Incompatibilities

Vapors forms explosive mixture with air. Violent reaction with nitric acid. Incompatible with oxidizers (chlorates, nitrates, peroxides, permanganates, perchlorates, chlorine, bromine, fluorine, etc.); contact may cause fires or explosions. Keep away from alkaline materials, strong bases, strong acids, oxoacids, epoxides

Waste Disposal

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. All federal, state, and local environmental regulations must be observed.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

UN number

ADR/RID: 2325 IMDG: 2325 IATA: 2325

UN proper shipping name

ADR/RID: 1,3,5-TRIMETHYLBENZENE IMDG: 1,3,5-TRIMETHYLBENZENE IATA: 1,3,5-Trimethylbenzene

Transport hazard class(es)

ADR/RID: 3 IMDG: 3 IATA: 3

Packaging group

ADR/RID: III IMDG: III IATA: III

Environmental hazards

ADR/RID: yes IMDG Marine pollutant: yes IATA: no

Special precautions for user

No data available

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Listed. website: https://www.mem.gov.cn/

Measures for Environmental Management of New Chemical Substances

Vietnam National Chemical Inventory:Listed. website: https://chemicaldata.gov.vn/

Korea Existing Chemicals List (KECL):Listed. website: http://ncis.nier.go.kr

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Listed. website: https://emb.gov.ph/

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: https://echa.europa.eu/

New Zealand Inventory of Chemicals (NZIoC):Listed. website: https://www.epa.govt.nz/

EC Inventory:Listed.

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Listed. website: https://www.mee.gov.cn/

United States Toxic Substances Control Act (TSCA) Inventory:Listed. website: https://www.epa.gov/

SECTION 16: Other information

Abbreviations and acronyms

CAS: Chemical Abstracts Service

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

IMDG: International Maritime Dangerous Goods

IATA: International Air Transportation Association

TWA: Time Weighted Average

STEL: Short term exposure limit

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

EC50: Effective Concentration 50%

References

【1】CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

【2】ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

【3】ECHA - European Chemicals Agency, website: https://echa.europa.eu/

【4】eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

【5】ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

【6】Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

【7】HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

【8】IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

【9】IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

【10】Sigma-Aldrich, website: https://www.sigmaaldrich.com/

Other Information

Use of alcoholic beverages enhances the harmful effect.Depending on the degree of exposure, periodic medical examination is suggested.See ICSCs 1362, 1389 and 1433.

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

ChemicalBook

Chemical Safety Data Sheet MSDS / SDS

Nickel

Revision Date:2026-04-04 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: Nickel
CBnumber	: CB4854179
CAS	: 7440-02-0
EINECS Number	: 231-111-4
Synonyms	: Nl,raney ni

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

Classification of the substance or mixture

Skin sensitization, Category 1

Carcinogenicity, Category 2

Specific target organ toxicity – repeated exposure, Category 1

Label elements

Pictogram(s)

Signal word	Danger

Hazard statement(s)

H228 Flammable solid

H250 Catches fire spontaneously if exposed to air

H301 Toxic if swalloed

H311 Toxic in contact with skin

H315 Causes skin irritation

H317 May cause an allergic skin reaction

H319 Causes serious eye irritation

H332 Harmful if inhaled

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled

H335 May cause respiratory irritation

H350 May cause cancer

H351 Suspected of causing cancer

H372 Causes damage to organs through prolonged or repeated exposure

H373 May cause damage to organs through prolonged or repeated exposure

H412 Harmful to aquatic life with long lasting effects

H413 May cause long lasting harmful effects to aquatic life

Precautionary statement(s)

P201 Obtain special instructions before use.

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P222 Do not allow contact with air.

P231 Handle under inert gas.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P285 In case of inadequate ventilation wear respiratory protection.

P314 Get medical advice/attention if you feel unwell.

P321 Specific treatment (see … on this label).

P302+P334 IF ON SKIN: Immerse in cool water/wrap in wet bandages.

P302+P352 IF ON SKIN: wash with plenty of soap and water.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continuerinsing.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P333+P313 IF SKIN irritation or rash occurs: Get medical advice/attention.

P370+P378 In case of fire: Use … for extinction.

P405 Store locked up.

P422 Store contents under …

Prevention

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...

P203 Obtain, read and follow all safety instructions before use.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P264 Wash ... thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

Response

P302+P352 IF ON SKIN: Wash with plenty of water/...

P333+P317 If skin irritation or rash occurs: Get medical help.

P321 Specific treatment (see ... on this label).

P362+P364 Take off contaminated clothing and wash it before reuse.

P318 IF exposed or concerned, get medical advice.

P319 Get medical help if you feel unwell.

Storage

P405 Store locked up.

Disposal

P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Other hazards

no data available

SECTION 3: Composition/information on ingredients

Substance

Product name	: Nickel
Synonyms	: Nl,raney ni
CAS	: 7440-02-0
EC number	: 231-111-4
MF	: Ni
MW	: 58.69

SECTION 4: First aid measures

Description of first aid measures

If inhaled

Fresh air, rest.

Following skin contact

Remove contaminated clothes. Rinse and then wash skin with water and soap.

Following eye contact

First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then refer for medical attention.

Following ingestion

Rinse mouth.

Most important symptoms and effects, both acute and delayed

Excerpt from ERG Guide 170 [Metals (Powders, Dusts, Shavings, Borings, Turnings, or Cuttings, etc.)]: Oxides from metallic fires are a severe health hazard. Inhalation or contact with substance or decomposition products may cause severe injury or death. Fire may produce irritating, corrosive and/or toxic gases. Runoff from fire control or dilution water may cause pollution. (ERG, 2016)

Exposure Routes: inhalation, ingestion, skin and/or eye contact Symptoms: Sensitization dermatitis, allergic asthma, pneumonitis; [potential occupational carcinogen] Target Organs: Nasal cavities, lungs, skin (NIOSH, 2016)

Excerpt from ERG Guide 135 [Substances - Spontaneously Combustible]: Fire will produce irritating, corrosive and/or toxic gases. Inhalation of decomposition products may cause severe injury or death. Contact with substance may cause severe burns to skin and eyes. Runoff from fire

control may cause pollution. (ERG, 2016)

Indication of any immediate medical attention and special treatment needed

Basic treatment: Establish a patent airway. Suction if necessary. Watch for signs of respiratory insufficiency and assist ventilation if necessary. Administer oxygen by nonrebreather mask at 10 t0 15 L/min. Monitor for shock and treat if necessary . Monitor for pulmonary edema and treat if necessary . For eye contamination, flush eyes immediately with water. Irrigate each eye continuously with normal saline during transport . Do not use emetics. For ingestion, rinse mouth and administer 5 ml/kg up to 200 ml of water for dilution if the patient can swallow, has a strong gag reflex, and does not drool . Nickel and related compounds

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SECTION 5: Firefighting measures

Extinguishing media

Flood with water. Use dry chemical, graphite, or dry earth. Nickel catalyst, wet

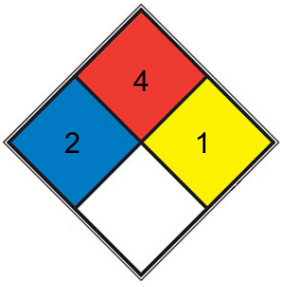
Specific Hazards Arising from the Chemical

Excerpt from ERG Guide 170 [Metals (Powders, Dusts, Shavings, Borings, Turnings, or Cuttings, etc.)]: May react violently or explosively on contact with water. Some are transported in flammable liquids. May be ignited by friction, heat, sparks or flames. Some of these materials will burn with intense heat. Dusts or fumes may form explosive mixtures in air. Containers may explode when heated. May re-ignite after fire is extinguished. (ERG, 2016)
Excerpt from ERG Guide 135 [Substances - Spontaneously Combustible]: Flammable/combustible material. May ignite on contact with moist air or moisture. May burn rapidly with flare-burning effect. Some react vigorously or explosively on contact with water. Some may decompose explosively when heated or involved in a fire. May re-ignite after fire is extinguished. Runoff may create fire or explosion hazard. Containers may explode when heated. (ERG, 2016)

Advice for firefighters

Use dry sand, dry powder. NO carbon dioxide. NO water.

NFPA 704



■	HEALTH	2	Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury (e.g. diethyl ether, ammonium phosphate, iodine)
■	FIRE	4	Will rapidly or completely vaporize at normal atmospheric pressure and temperature, or is readily dispersed in air and will burn readily. Includes pyrophoric substances. Flash point below room temperature at 22.8 °C (73 °F). (e.g. acetylene, propane, hydrogen gas)
■	REACT	1	Normally stable, but can become unstable at elevated temperatures and pressures (e.g. propene)
□	SPEC. HAZ.		

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal protection: particulate filter respirator adapted to the airborne concentration of the substance. Do NOT let this chemical enter the environment. Sweep spilled substance into sealable containers. If appropriate, moisten first to prevent dusting. Carefully collect remainder. Then store and dispose of according to local regulations.

Environmental precautions

Personal protection: particulate filter respirator adapted to the airborne concentration of the substance. Vacuum spilled material with specialist equipment. Carefully collect remainder. Then store and dispose of according to local regulations.

Methods and materials for containment and cleaning up

PRECAUTIONS FOR "CARCINOGENS": A high efficiency particulate arrestor (HEPA) or charcoal filters can be used to minimize amt of carcinogen in exhausted air ventilated safety cabinets, lab hoods, glove boxes or animal rooms. ... Filter housing that is designed so that used filters can be transferred into plastic bag without contaminating maintenance staff is avail commercially. Filters should be placed in plastic bags immediately after removal. ... The plastic bag should be sealed immediately. ... The sealed bag should be labelled properly. ... Waste liquids ... should be placed or collected in proper containers for disposal. The lid should be secured & the bottles properly labelled. Once filled, bottles should be placed in plastic bag, so that outer surface ... is not contaminated. ... The plastic bag should also be sealed & labelled. ... Broken glassware ... should be decontaminated by solvent extraction, by chemical destruction, or in specially designed incinerators. Chemical Carcinogens

SECTION 7: Handling and storage

Precautions for safe handling

Closed system, dust explosion-proof electrical equipment and lighting. Prevent deposition of dust. Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

Conditions for safe storage, including any incompatibilities

Separated from strong acids.PRECAUTIONS FOR "CARCINOGENS": Storage site should be as close as practicable to lab in which carcinogens are to be used, so that only small quantities required for ... expt need to be carried. Carcinogens should be kept in only one section of cupboard, an explosion proof refrigerator or freezer (depending on chemicophysical properties ...) that bears appropriate label. An inventory ... should be kept, showing quantity of carcinogen & date it was acquired ... Facilities for dispensing ... should be contiguous to storage area. Chemical Carcinogens

SECTION 8: Exposure controls/personal protection

Control parameters

Occupational Exposure limit values

TLV: (inhalable fraction): 1.5 mg/m3, as TWA; A5 (not suspected as a human carcinogen).MAK: sensitization of respiratory tract and skin

(SAH); carcinogen category: 1

Biological limit values

no data available

Exposure controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

Individual protection measures

Eye/face protection

Wear safety spectacles or eye protection in combination with breathing protection.

Skin protection

Protective gloves. Protective clothing.

Respiratory protection

Use local exhaust or breathing protection.

Thermal hazards

no data available

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Physical state	wire
Colour	White to gray-white
Odour	Odorless
Melting point/freezing point	1 455 °C.
Boiling point or initial boiling point and boiling range	2732°C(lit.)
Flammability	Metal: Combustible Solid; nickel sponge catalyst may ignite SPONTANEOUSLY in air.
Lower and upper explosion limit/flammability limit	Flammable ... as dust or fume.
Flash point	27°C(lit.)
Auto-ignition temperature	no data available
Decomposition temperature	no data available
pH	8.5-12.0
Kinematic viscosity	no data available
Solubility	Insoluble (NIOSH, 2016)
Partition coefficient n-octanol/water	no data available
Vapour pressure	0 mm Hg (approx) (NIOSH, 2016)
Density and/or relative density	8.9
Relative vapour density	8.9
Particle characteristics	no data available

SECTION 10: Stability and reactivity

Reactivity

NIOSH considers nickel metal and other compounds (as Ni) to be a potential occupational carcinogen. Nickel metal and other compounds (as Ni)
Reacts with titanium powder, potassium perchlorate and oxidants such as ammonium nitrate. This generates fire and explosion hazard. Reacts slowly with non-oxidizing acids more rapidly with oxidizing acids. Toxic gases and vapours (such as nickel carbonyl) may be released in a fire involving nickel.

Chemical stability

Stable in air @ ordinary temp; not affected by water

Possibility of hazardous reactions

Dust explosion possible if in powder or granular form, mixed with air.NICKEL CATALYST tends to react with oxidizing agents. If exposed to air may react rapidly enough to ignite. Can generate hydrogen gas with fire and explosion hazards during storage [Handling Chemicals Safely 1980. p. 807]. Reacts violently with acids forming gaseous hydrogen. May react with azo/diazo compounds to form explosive products. Can catalyze polymerization reactions in several classes of organic compounds; these polymerizations sometimes proceed rapidly or even explosively. May form explosive products with halogenated hydrocarbons.

Conditions to avoid

no data available

Incompatible materials

Mixtures containing potassium perchlorate with nickel & titanium powders & infusorial earth gave severe explosions during a friction test.

Hazardous decomposition products

Toxic gases and vapors (such as nickel carbonyl) may be released ... in the decomp of nickel cmpd. Nickel & sol nickel cmpd

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SECTION 11: Toxicological information

Acute toxicity

- Oral: no data available
- Inhalation: no data available
- Dermal: no data available

Skin corrosion/irritation

no data available

Serious eye damage/irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

NTP: Reasonably anticipated to be a human carcinogen. NTP: Known to be a human carcinogen

Reproductive toxicity

No information is available regarding the reproductive or developmental effects of nickel in humans. Animal studies have reported reproductive and developmental effects, such as a decreased number of live pups per litter, increased pup mortality, and reduction in fetal body weight, and effects to the dam from oral exposure to soluble salts of nickel. Sperm abnormalities and decreased sperm count have been reported in animals exposed to nickel nitrate orally and nickel oxide by inhalation, respectively.

STOT-single exposure

May cause mechanical irritation. Inhalation of fume may cause pneumonitis.

STOT-repeated exposure

Repeated or prolonged contact may cause skin sensitization. Repeated or prolonged inhalation may cause asthma. The substance may have effects on the respiratory tract. This may result in chronic inflammation of the respiratory tract and fibrosis. This substance is possibly carcinogenic to humans if inhaled.

Aspiration hazard

Evaporation at 20°C is negligible; a harmful concentration of airborne particles can, however, be reached quickly when dispersed.

SECTION 12: Ecological information

Toxicity

Toxicity to fish: LC50 - Oncorhynchus mykiss (previous name: Salmo gairdneri) - 15.3 mg/L - 96 h. Remarks:Ni.
Toxicity to daphnia and other aquatic invertebrates: LC50 - Ceriodaphnia dubia - 276 µg/L - 48 h. Remarks:Hardness=268 mg/L as CaCO3.
Toxicity to algae: EC50 - Ankistrodesmus falcatus - 237 µg/L - 72 h.
Toxicity to microorganisms: EC50 - activated sludge - 33 mg/L - 30 min. Remarks:Respiration rate.

Persistence and degradability

No data was found to suggest that nickel is involved in any biological transformation in the aquatic environment.

Bioaccumulative potential

no ... nickel bioaccumulation in voles fed sludge-fertilized soybeans containing 30 ppm nickel ...

Mobility in soil

no data available

Toxics Screening Level

The Initial Risk Screening Level (IRSL) and Secondary Risk Screening Level (SRSL) for nickel and nickel compounds (excluding nickel subsulfide; CAS No. 12035-72-2) are 0.006 and 0.06 µg/m3 based on an annual averaging time, respectively.

Other adverse effects

no data available

SECTION 13: Disposal considerations

Disposal methods

Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

SECTION 14: Transport information

UN Number

ADR/RID: Not dangerous goods. (For reference only, please check.)

IMDG: Not dangerous goods. (For reference only, please check.)

IATA: Not dangerous goods. (For reference only, please check.)

UN Proper Shipping Name

ADR/RID: Not dangerous goods. (For reference only, please check.)

IMDG: Not dangerous goods. (For reference only, please check.)

IATA: Not dangerous goods. (For reference only, please check.)

Transport hazard class(es)

ADR/RID: Not dangerous goods. (For reference only, please check.)

IMDG: Not dangerous goods. (For reference only, please check.)

IATA: Not dangerous goods. (For reference only, please check.)

Packing group, if applicable

ADR/RID: Not dangerous goods. (For reference only, please check.)

IMDG: Not dangerous goods. (For reference only, please check.)

IATA: Not dangerous goods. (For reference only, please check.)

Environmental hazards

ADR/RID: No

IMDG: No

IATA: No

Special precautions for user

no data available

Transport in bulk according to IMO instruments

no data available

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

European Inventory of Existing Commercial Chemical Substances (EINECS)

Listed.

EC Inventory

Listed.

United States Toxic Substances Control Act (TSCA) Inventory

Listed.

China Catalog of Hazardous chemicals 2015

Not Listed.

New Zealand Inventory of Chemicals (NZIoC)

Listed.

PICCS

Listed.

Vietnam National Chemical Inventory

Listed.

IECSC

Listed.

Korea Existing Chemicals List (KECL)

Listed.

SECTION 16: Other information

Abbreviations and acronyms

CAS: Chemical Abstracts Service

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

IMDG: International Maritime Dangerous Goods

IATA: International Air Transportation Association

TWA: Time Weighted Average

STEL: Short term exposure limit

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

EC50: Effective Concentration 50%

References

IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

ECHA - European Chemicals Agency, website: https://echa.europa.eu/

Other Information

At high temperatures, toxic fumes of nickel(II)oxide may be formed (see ICSC 0926).Depending on the degree of exposure, periodic medical examination is suggested.The symptoms of asthma often do not become manifest until a few hours have passed and they are aggravated by physical effort.Anyone who has shown symptoms of sensitization due to this substance should avoid all further contact with nickel, nickel compounds and other metal compounds of e.g. copper, chromium and cobalt.Isolate contaminated clothing by sealing in a bag or other container.Do NOT take working clothes home.

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

ChemicalBook

Chemical Safety Data Sheet MSDS / SDS

o-Xylene

Revision Date:2026-04-04 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: o-Xylene
CBnumber	: CB1854693
CAS	: 95-47-6
EINECS Number	: 202-422-2
Synonyms	: o-xylene,Xylenes

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Danger

Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.

P304+P340 IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing.

P311 Call a POISON CENTER or doctor/physician.

P331 Do NOT induce vomiting.

Hazard statements

H225 Highly Flammable liquid and vapour

H226 Flammable liquid and vapour

H304 May be fatal if swallowed and enters airways

H312 Harmful in contact with skin

H315 Causes skin irritation

H319 Causes serious eye irritation

H332 Harmful if inhaled

H335 May cause respiratory irritation

H370 Causes damage to organs

H412 Harmful to aquatic life with long lasting effects

SECTION 3: Composition/information on ingredients

Substance

Product name	: o-Xylene
Synonyms	: o-xylene,Xylenes
CAS	: 95-47-6
EC number	: 202-422-2
MF	: C8H10
MW	: 106.17

SECTION 4: First aid measures

Description of first aid measures

General advice

Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

In case of eye contact

After eye contact: rinse out with plenty of water. Remove contact lenses.

If swallowed

After swallowing: caution if victim vomits. Risk of aspiration! Keep airways free. Pulmonary failure possible after aspiration of vomit. Call a physician immediately.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO2) Foam Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture

Carbon oxides Combustible.

Vapors are heavier than air and may spread along floors. Forms explosive mixtures with air at elevated temperatures.

Development of hazardous combustion gases or vapours possible in the event of fire.

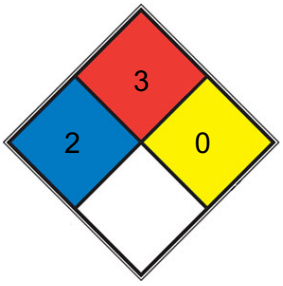
Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

Further information

Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

NFPA 704



■	HEALTH	2	Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury (e.g. diethyl ether, ammonium phosphate, iodine)
■	FIRE	3	Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions . Liquids having a flash point below 22.8 °C (73 °F) and having a boiling point at or above 37.8 °C (100 °F) or having a flash point between 22.8 and 37.8 °C (73 and 100 °F). (e.g. gasoline, acetone)
■	REACT	0	Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium,N2)
□	SPEC. HAZ.		

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition.

Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

Environmental precautions

Do not let product enter drains. Risk of explosion.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material (e.g.

Chemizorb?). Dispose of properly. Clean up affected area.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Advice on safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition.Take precautionary measures against static discharge.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Storage conditions

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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SECTION 8: Exposure controls/personal protection

control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

Exposure controls

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Full contact Material: Viton?

Minimum layer thickness: 0,7 mm Break through time: 480 min

Material tested:Vitoject? (KCL 890 / Aldrich Z677698, Size M)

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Splash contact Material: Nitrile rubber

Minimum layer thickness: 0,4 mm Break through time: 30 min

Material tested:Camatril? (KCL 730 / Aldrich Z677442, Size M)

Body Protection

Flame retardant antistatic protective clothing.

Respiratory protection

Recommended Filter type: Filter A (acc. to DIN 3181) for vapours of organic compounds

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains. Risk of explosion.

Exposure limits

NIOSH REL: 100 ppm (435 mg/m^3), STEL 150 ppm (655 mg/m^3), IDLH 900 ppm; OSHA PEL: TWA 100 ppm; ACGIH TLV: TWA 100 ppm, STEL 150 ppm (adopted).

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Appearance	colorless liquid
Odour	aromatic
Odour Threshold	0.38ppm
pH	No data available
Melting point/freezing point	Melting point/range: -26 - -23 °C - lit.
Initial boiling point and boiling range	143 - 145 °C - lit.
Flash point	32,0 °C - closed cup
Evaporation rate	No data available
Flammability (solid, gas)	No data available

Upper/lower flammability or explosive limits	Upper explosion limit: 6,7 %(V) Lower explosion limit: 0,9 %(V)
Vapour pressure	13,37 hPa at 32,22 °C
Vapour density	3.7 (vs air)
Relative density	0,879 g/cm3 at 20 °C - lit. No data available
Water solubility	0,1705 g/l at 25 °C - partly soluble
Partition coefficient: n-octanol/water	log Pow: 3,12 at 20 °C - Bioaccumulation is not expected.
Autoignition temperature	463 °C at 1.013 hPa
Decomposition temperature	No data available
Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: 0,76 mPa.s at 25,00 °C0,81 mPa.s at 20 °C
Explosive properties	No data available
Oxidizing properties	No data available
Henry's Law Constant	14.0 at 45.00 °C, 16.4 at 50.00 °C, 19.0 at 55.00 °C, 21.3 at 60.00 °C, 26.3 at 70.00 °C (static headspace-GC, Park et al., 2004)
λmax	λ: 288 nm Amax: 1.00 λ: 300 nm Amax: 0.40 λ: 325 nm Amax: 0.05 λ: 350-400 nm Amax: 0.01

Other safety information

Surface tension 29,8 mN/m at 25,0 °C

SECTION 10: Stability and reactivity

Reactivity

Vapor/air-mixtures are explosive at intense warming.

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

Possibility of hazardous reactions

Risk of explosion with: Strong oxidizing agents

conc. sulfuric acid Nitric acid

uranium hexafluoride sulfur

Conditions to avoid

Heating.

Incompatible materials

rubber, various plastics

Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - male - 3.523 mg/kg

(EC Directive 92/69/EEC B.1 Acute Toxicity (Oral))

LC50 Inhalation - Rat - male and female - 4 h - 27,12 mg/l (US-EPA)

Symptoms: Inhalation may lead to the formation of oedemas in the respiratory tract. Symptoms: mucosal irritations, Cough, Shortness of breath, Possible damages:, damage of respiratory tract

Dermal: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Skin corrosion/irritation

Skin - Rabbit

Result: Moderate skin irritation - 4 h (Regulation (EC) No. 440/2008, Annex, B.4)

Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product.

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

(OECD Test Guideline 429)

Germ cell mutagenicity

Test Type: Ames test

Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471

Result: negative

Test Type: Mutagenicity (mammal cell test): chromosome aberration. Test system: Chinese hamster ovary cells

Metabolic activation: with and without metabolic activation Method: Mutagenicity (in vitro mammalian cytogenetic test) Result: negative

Test Type: sister chromatid exchange assay Test system: Chinese hamster ovary cells

Metabolic activation: with and without metabolic activation Method: Regulation (EC) No. 440/2008, Annex, B.19 Result: negative

Test Type: Mutagenicity (mammal cell test): micronucleus. Species: Mouse

Cell type: Red blood cells (erythrocytes) Application Route: Intraperitoneal Method: OECD Test Guideline 474 Result: negative

Remarks: (IUCLID)

Test Type: dominant lethal test Species: Mouse

Application Route: Subcutaneous Method: OECD Test Guideline 478 Result: negative

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

Inhalation - May cause respiratory irritation. - Respiratory system

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

May be fatal if swallowed and enters airways.

Aspiration hazard, Aspiration may cause pulmonary edema and pneumonitis.

Toxicity

Acute oral LD50 in rats is approximately 5 g/kg (quoted, RTECS, 1992).

SECTION 12: Ecological information

Toxicity

Toxicity to fish

static test LC50 - Oncorhynchus mykiss (rainbow trout) - 2,60 mg/l

- 96 h

(OECD Test Guideline 203)

Toxicity to algae

static test EC50 - Pseudokirchneriella subcapitata - 4,36 mg/l - 73 h

(OECD Test Guideline 201)

Toxicity to bacteria

Remarks: (ECHA)

(o-xylene)

Persistence and degradability

Biodegradability aerobic - Exposure time 28 d

Result: 94 % - Readily biodegradable. (OECD Test Guideline 301F)

Theoretical oxygen demand

3.125 mg/g Remarks: (Lit.)

Bioaccumulative potential

Bioaccumulation Oncorhynchus mykiss (rainbow trout) - 56 d

at 10 °C - 1,3 mg/l(o-xylene)

Bioconcentration factor (BCF): 7,4 - 18,5

Mobility in soil

No data available

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Toxics Screening Level

The Initial Threshold Screening Level (ITSL) is 390 µg/m3 annual average.

Other adverse effects

No data available

SECTION 13: Disposal considerations

Waste treatment methods

SECTION 14: Transport information

UN number

ADR/RID: 1307 IMDG: 1307

UN proper shipping name

ADR/RID: XYLENES IMDG: XYLENES IATA: Xylenes

Transport hazard class(es)

ADR/RID: 3 IMDG: 3 IATA: 3

Packaging group

ADR/RID: III IMDG: III IATA: III

Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

Special precautions for user

No data available

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Listed. website: https://www.mem.gov.cn/

Measures for Environmental Management of New Chemical Substances

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Listed. website: https://www.mee.gov.cn/

EC Inventory:Listed.

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: https://echa.europa.eu/

Korea Existing Chemicals List (KECL):Listed. website: http://ncis.nier.go.kr

New Zealand Inventory of Chemicals (NZIoC):Listed. website: https://www.epa.govt.nz/

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Listed. website: https://emb.gov.ph/

United States Toxic Substances Control Act (TSCA) Inventory:Listed. website: https://www.epa.gov/

Vietnam National Chemical Inventory:Listed. website: https://chemicaldata.gov.vn/

SECTION 16: Other information

Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CAS: Chemical Abstracts Service

EC50: Effective Concentration 50%

IATA: International Air Transportation Association

IMDG: International Maritime Dangerous Goods

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

STEL: Short term exposure limit

TWA: Time Weighted Average

References

【1】CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

【2】ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

【3】ECHA - European Chemicals Agency, website: https://echa.europa.eu/

【4】eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

【5】ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

【6】Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

【7】HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

【8】IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

【9】IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

【10】Sigma-Aldrich, website: https://www.sigmaaldrich.com/

Other Information

Depending on the degree of exposure, periodic medical examination is suggested.The recommendations on this Card also apply to technical xylene.See ICSCs 0085 and 0086.

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

SAFETY DATA SHEET

Creation Date 06-Feb-2012 **Revision Date** 22-Dec-2025 **Revision Number** 6

This safety data sheet was created pursuant to the requirements of: US OSHA Hazard Communication Standard 2024 (29 CFR 1910.1200)

1. Identification

Product Name **Perfluorooctanoic acid**

Cat No. : **L08862**

CAS No 335-67-1
Synonyms No information available

Recommended Use Laboratory chemicals.
Uses advised against Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet

Company
Thermo Fisher Scientific Chemicals, Inc.
30 Bond Street
Ward Hill, MA 01835-8099
Tel: 800-343-0660
Fax: 800-322-4757

Emergency Telephone Number
For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11
Emergency Number **US:**001-201-796-7100 / **Europe:** +32 14 57 52 99
CHEMTREC Tel. No. **US:**001-800-424-9300 / **Europe:**001-703-527-3887

2. Hazard(s) identification

Classification
This chemical is considered hazardous according to [US] OSHA (29 CFR 1910.1200, 2024)

Acute oral toxicity	Category 4
Acute Inhalation Toxicity - Dusts and Mists	Category 4
Serious Eye Damage/Eye Irritation	Category 1
Carcinogenicity	Category 2
Reproductive Toxicity	Category 1B
Effects on or via lactation	
Specific target organ toxicity - (repeated exposure)	Category 1
Target Organs - Liver.	

Label Elements

Signal Word

Danger

Hazard Statements
Causes serious eye damage
Suspected of causing cancer
May damage the unborn child
May cause harm to breast-fed children
Causes damage to organs through prolonged or repeated exposure
Harmful if swallowed or if inhaled

Precautionary Statements
Prevention
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Do not breathe dust/fume/gas/mist/vapors/spray
Avoid contact during pregnancy and while nursing
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Use only outdoors or in a well-ventilated area
Wear protective gloves/protective clothing/eye protection/face protection
Response
IF exposed or concerned: Get medical attention/advice
Inhalation
IF INHALED: Remove person to fresh air and keep comfortable for breathing
Eyes
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Immediately call a POISON CENTER or doctor/physician
Ingestion
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth
Storage
Store locked up
Disposal
Dispose of contents/container to an approved waste disposal plant
Hazards not otherwise classified (HNOC)

Hazards classified under paragraph (d)(1)(ii) of 1910.1200
No information available
WARNING. Cancer and Reproductive Harm - https://www.p65warnings.ca.gov/.

3. Composition/information on Ingredients

Component	CAS No	Weight %
Octanoic acid, pentadecafluoro-	335-67-1	>95

4. First-aid measures

General Advice If symptoms persist, call a physician.

Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.
Inhalation	Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.
Ingestion	Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.
Most important symptoms and effects	None reasonably foreseeable. Causes severe eye damage. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation
Notes to Physician	Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media	Water spray. Carbon dioxide (CO_2). Dry chemical. Chemical foam.
Unsuitable Extinguishing Media	No information available
Flash Point	No information available
Method -	No information available
Autoignition Temperature	No information available
Explosion Limits	
Upper	No data available
Lower	No data available
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available

Specific Hazards Arising from the Chemical
Thermal decomposition can lead to release of irritating gases and vapors. In the event of fire and/or explosion do not breathe fumes.

Hazardous Combustion Products
Carbon monoxide (CO). Carbon dioxide (CO_2). Gaseous hydrogen fluoride (HF). Thermal decomposition can lead to release of irritating gases and vapors.

Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health	Flammability	Instability	Physical hazards
3	1	0	N/A

6. Accidental release measures

Personal Precautions	Use personal protective equipment as required. Ensure adequate ventilation. Avoid dust formation.
Environmental Precautions	Should not be released into the environment.
Methods for Containment and Clean Up	Sweep up and shovel into suitable containers for disposal. Keep in suitable, closed containers for disposal.

7. Handling and Storage

Handling Do not get in eyes, on skin, or on clothing. Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid ingestion and inhalation. Avoid dust formation.

Storage. Corrosives area. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labeled containers. Incompatible Materials. Bases. Strong acids. Reducing Agent.

8. Exposure controls / personal protection

Exposure Guidelines This product does not contain any hazardous materials with occupational exposure limitsestablished by the region specific regulatory bodies.

Engineering Measures Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protective Equipment

Eye/face Protection Tight sealing safety goggles. Face protection shield.

Skin and body protection Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Recommended Filter type: Particulates filter conforming to EN 143.

Hygiene Measures Keep away from food, drink and animal feeding stuffs. When using do not eat, drink or smoke. Contaminated work clothing should not be allowed out of the workplace. Provide regular cleaning of equipment, work area and clothing. Avoid contact with skin, eyes or clothing. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wear suitable gloves and eye/face protection.

9. Physical and chemical properties

Appearance

Physical State	Solid		
Color	Off-white		
Odor	pungent		
Odor Threshold	No information available		
Property	**Values**	**Remarks**	**• Method**
Melting Point/Range	53 - 60 °C / 127.4 - 140 °F		
Softening Point	No data available		
Boiling Point/Range	189 - 192 °C / 372.2 - 377.6 °F	@ 760 mmHg	
Flash Point	No information available	**Method -** No information available	
Flammability (liquid)	Not applicable	Solid	
Flammability (solid,gas)	No information available		
Explosion Limits	No data available		
Autoignition Temperature	No data available		
Decomposition Temperature	> 300°C		
pH	2.6	1g/l aq.sol., 20°C	
Viscosity	Not applicable	Solid	
Water Solubility	3.4g/l		
Solubility in other solvents	No information available		

Partition Coefficient (n-octanol/water)		
Vapor Pressure	No data available	
Density / Specific Gravity	No data available	
Bulk Density	No data available	
Vapor Density	Not applicable	Solid
Particle characteristics	No data available	

Other Information

Molecular Formula	C8 H F15 O2
Molecular Weight	414.07
Evaporation Rate	Not applicable - Solid

10. Stability and reactivity

Reactive Hazard None known, based on information available

Stability Stable under normal conditions.

Conditions to Avoid Incompatible products. Exposure to air or moisture over prolonged periods.

Incompatible Materials Bases, Strong acids, Reducing Agent

Hazardous Decomposition Products Carbon monoxide (CO), Carbon dioxide (CO_2), Gaseous hydrogen fluoride (HF), Thermal decomposition can lead to release of irritating gases and vapors

Hazardous Polymerization No information available.

Hazardous Reactions None under normal processing.

11. Toxicological information

Information on expected route of exposure

Inhalation	Harmful by inhalation.
Ingestion	Ingestion causes burns of the upper digestive and respiratory tracts. Can burn mouth, throat, and stomach. Harmful if swallowed.
Eyes	Causes burns. Corrosive to the eyes and may cause severe damage including blindness. Risk of serious damage to eyes.
Skin	Causes burns.

Toxicology data for the components

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Octanoic acid, pentadecafluoro-	LD50 200 - 2000 mg/kg (Rat)	-	-

Toxicologically Synergistic Products No information available

(b) skin corrosion/irritation; No data available

(c) serious eye damage/irritation; Category 1

(d) respiratory or skin sensitization;

Respiratory	No data available
Skin	No data available

(e) germ cell mutagenicity; No data available

(f) carcinogenicity; Category 2

The table below indicates whether each agency has listed any ingredient as a carcinogen

Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
Octanoic acid, pentadecafluoro-	335-67-1	Group 2B	Not listed	Not listed	X	Not listed

IARC (International Agency for Research on Cancer)

IARC (International Agency for Research on Cancer)
Group 1 - Carcinogenic to Humans
Group 2A - Probably Carcinogenic to Humans
Group 2B - Possibly Carcinogenic to Humans

(g) reproductive toxicity; Category 1B

Reproductive Effects Experiments have shown reproductive toxicity effects on laboratory animals.

(h) STOT-single exposure; No data available

(i) STOT-repeated exposure; Category 1

Target Organs Liver.

(j) aspiration hazard; Not applicable
Solid

Symptoms / effects,both acute and delayed Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation.

Other Adverse Effects The toxicological properties have not been fully investigated.

Endocrine Disrupting Properties This product does not contain any known or suspected endocrine disruptors.

12. Ecological information

Ecotoxicity

Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate ground water system.

Persistence and Degradability Soluble in water Persistence is unlikely based on information available.

Bioaccumulation/ Accumulation No information available.

Mobility Will likely be mobile in the environment due to its water solubility.

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT

UN-No UN3261
Proper Shipping Name Corrosive solid, acidic, organic, n.o.s.
Technical Shipping Name Octanoic acid, pentadecafluoro-

Hazard Class 8
Packing Group III

TDG
UN-No UN3261
Proper Shipping Name Corrosive solid, acidic, organic, n.o.s.
Technical Shipping Name Octanoic acid, pentadecafluoro-
Hazard Class 8
Packing Group III

IATA
UN-No UN3261
Proper Shipping Name Corrosive solid, acidic, organic, n.o.s.
Technical Shipping Name Octanoic acid, pentadecafluoro-
Hazard Class 8
Packing Group III

IMDG/IMO
UN-No UN3261
Proper Shipping Name Corrosive solid, acidic, organic, n.o.s.
Technical Shipping Name Octanoic acid, pentadecafluoro-
Hazard Class 8
Packing Group III

15. Regulatory Information

United States of America Inventory

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	TSCA - EPA Regulatory Flags
Octanoic acid, pentadecafluoro-	335-67-1	X	ACTIVE	S;SP

Legend:
TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)
X - Listed
'-' - Not Listed
SP - Indicates a substance that is identified in a proposed SNUR

TSCA - Per 40 CFR 751, Regulation of Certain Chemical Substances & Mixtures, Under TSCA Section 6(h) (PBT) Not applicable

TSCA 12(b) - Notices of Export

Component	CAS No	**TSCA 12(b)** - Notices of Export
Octanoic acid, pentadecafluoro-	335-67-1	Section 5(a)(2) Section 5(f)

International Inventories
Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

Component	CAS No	DSL	NDSL	EINECS	PICCS	ENCS	ISHL	AICS	IECSC	KECL
Octanoic acid, pentadecafluoro-	335-67-1	-	-	206-397-9	X	X	X	X	X	KE-27883

KECL - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

U.S. Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Component	CAS No	Weight %	SARA 313 - Threshold Values %	SARA 313 - Reporting threasholds
Octanoic acid,	335-67-1	>95	-	RT = 100 lb

pentadecafluoro-				

SARA 311/312 Hazard Categories
Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act) Not applicable

Clean Air Act Not applicable

OSHA - Occupational Safety and Health Administration Not applicable

CERCLA
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

California Proposition 65 This product contains the following Proposition 65 chemicals.

Component	CAS No	California Prop. 65	Prop 65 NSRL	Category
Octanoic acid, pentadecafluoro-	335-67-1	Carcinogen Developmental	-	Carcinogen Developmental

U.S. State Right-to-Know Regulations Not applicable

U.S. Department of Transportation
Reportable Quantity (RQ): N
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

U.S. Department of Homeland Security This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade No information available

Authorisation/Restrictions according to EU REACH

Component	CAS No	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Octanoic acid, pentadecafluoro-	335-67-1	-	Use restricted. See entry 75. (see link for restriction details) Use restricted. See entry 30. (see link for restriction details)	SVHC Candidate list - Toxic for reproduction (Article 57 c) SVHC Candidate list - PBT (Article 57 d)

After the sunset date the use of this substance requires either an authorization or can only be used for exempted uses, e.g. use in scientific research and development which includes routine analytics or use as intermediate.

REACH links
https://echa.europa.eu/authorisation-list
https://echa.europa.eu/candidate-list-table

Safety, health and environmental regulations/legislation specific for the substance or mixture

Component	CAS No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
Octanoic acid, pentadecafluoro-	335-67-1	Not applicable	Annex I - Substance subject to prohibitions Annex IV : 1 mg/kg (Waste Management - Conc. Limit) Stockholm Convention - Persistent Organic Pollutant	Not applicable	Not applicable

Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?
See table for values

Component	OECD PFAS	US (EPA) PFAS	EU (ECHA) PFAS	UK (HSE) PFAS	Chemsec PFAS (Sin List)
Octanoic acid, pentadecafluoro- (CAS #: 335-67-1)	Listed	Listed	Listed	Listed	Listed

PFAS Legend
Listed = Meets the PFAS definition of the named authority

Other International Regulations

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)
Octanoic acid, pentadecafluoro-	335-67-1	Not applicable	Not applicable	X	Not applicable

16. Other Information

Prepared By
Health, Safety and Environmental Department
Email: chem.techinfo@thermofisher.com
www.thermofisher.com

Creation Date 06-Feb-2012
Revision Date 22-Dec-2025
Print Date 22-Dec-2025
Revision Summary Updated to the U.S. Department of Labor’s Occupational Safety and Health Administration (OSHA) which published its Final Rule in the Federal Register revising the Hazard Communication Standard (HCS/HazCom), 29 CFR 1910.1200 (2024) (HCS §1910.1200, 2024), May 20, 2024, effective July 19, 2024.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS

ChemicalBook

Chemical Safety Data Sheet MSDS / SDS

Perfluorooctanesulfonic acid

Revision Date:2026-04-11 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: Perfluorooctanesulfonic acid
CBnumber	: CB0745383
CAS	: 1763-23-1
EINECS Number	: 217-179-8
Synonyms	: PFOS,Perfluorooctanesulfonic acid

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Danger

Precautionary statements

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P263 Avoid contact during pregnancy/while nursing.

P273 Avoid release to the environment.

P301+P312 IF SWALLOWED: call a POISON CENTER or doctor/physician IF you feel unwell.

P308+P313 IF exposed or concerned: Get medical advice/attention.

Hazard statements

H302 Harmful if swallowed

H351 Suspected of causing cancer

H362 May cause harm to breast-fed children

H372 Causes damage to organs through prolonged or repeated exposure

H411 Toxic to aquatic life with long lasting effects

SECTION 3: Composition/information on ingredients

Substance

Product name	: Perfluorooctanesulfonic acid
Synonyms	: PFOS,Perfluorooctanesulfonic acid
CAS	: 1763-23-1
EC number	: 217-179-8
MF	: C8HF17O3S
MW	: 500.13

SECTION 4: First aid measures

General advice

First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.

In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

If swallowed

After swallowing: fresh air. Make victim drink ethanol (e.g. 1 drinking glass of a 40% alcoholic beverage). Call a doctor immediately (mention methanol ingestion). Only in exceptional cases, if no medical care is available within one hour, induce vomiting (only in fully conscious persons) and make victim drink ethanol again (approx. 0.3 ml of a 40% alcoholic beverage/kg body weight/hour).

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11

Protection of first-aiders

For personal protection see section 8.

Notes to physician

No data available

SECTION 5: Firefighting measures

Suitable extinguishing media

Foam Carbon dioxide (CO2) Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

Specific hazards during fire fighting

Combustible. Pay attention to flashback. Vapors are heavier than air and may spread along floors. Development of hazardous combustion gases or vapours possible in the event of fire. Forms explosive mixtures with air at ambient temperatures.

Hazardous combustion products

Carbon oxides Carbon oxides

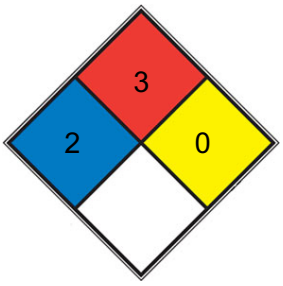
Specific extinguishing methods

Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

Special protective equipment for fire-fighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

NFPA 704



■	HEALTH	2	Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury (e.g. diethyl ether, ammonium phosphate, iodine)
■	FIRE	3	Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions . Liquids having a flash point below 22.8 °C (73 °F) and having a boiling point at or above 37.8 °C (100 °F) or having a flash point between 22.8 and 37.8 °C (73 and 100 °F). (e.g. gasoline, acetone)
■	REACT	0	Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium,N2)
□	SPEC. HAZ.		

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away

from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert. Advice for emergency responders: For personal protection see section 8.

Environmental precautions

Do not let product enter drains. Risk of explosion.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material . Dispose of properly. Clean up affected area.

SECTION 7: Handling and storage

Handling

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

Advice on safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

Avoidance of contact

acids Acid chlorides Acid anhydrides Oxidizing agents Alkali metals

Storage

Further information on storage conditions

Keep container tightly closed in a dry and wellventilated place. Keep away from heat and sources of ignition. Keep locked up or in an area accessible only to qualified or authorized persons.

Storage class

3, Flammable liquids

Recommended storage temperature

2 - 8 °C

SECTION 8: Exposure controls/personal protection

Ingredients with workplace control parameters

Biological occupational exposure limits

Engineering measures

No data available

Personal protective equipment

Respiratory protection

required when vapours/aerosols are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type

Filter type ABEK

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Safety glasses

Skin and body protection

Flame retardant antistatic protective clothing.

Hand protection

Material

butyl-rubber

Break through time

480 min

Glove thickness

0.3 mm

Protective index

Full contact

Manufacturer

Butoject® (KCL 897 / Aldrich Z677647, Size M)

Material

Nitrile rubber

Break through time

30 min

Glove thickness

0.4 mm

Protective index

Splash contact

Manufacturer

Camatril® (KCL 730 / Aldrich Z677442, Size M)

Manufacturer

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

Remarks

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the EC approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

liquid

Color

No data available

Odor

No data available

Odor Threshold

No data available

pH

No data available

Melting point/ range

No data available

Boiling point/boiling range

260 °C

Flash point

11 °C

Method: closed cup

Evaporation rate

No data available

Flammability (solid, gas)

No data available

Flammability (liquids)

No data available

Burning rate

No data available

Upper explosion limit / Upper flammability limit

36 %(V)

Lower explosion limit / Lower flammability limit

6 %(V)

Vapor pressure

No data available

Relative vapor density

No data available

Relative density

1.25

Density

1.25

Water solubility

No data available

Partition coefficient: n-octanol/water

No data available

Autoignition temperature

385 °C

Decomposition temperature

No data available

Viscosity, dynamic

No data available

Viscosity, kinematic

No data available

Flow time

No data available

Explosive properties

No data available

Oxidizing properties

No data available

Molecular weight

500.13 g/mol

Particle characteristics Particle size

No data available

Solubility

Ethanol: 10 mg/ml

SECTION 10: Stability and reactivity

Reactivity

Vapors may form explosive mixture with air.

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

Possibility of hazardous reactions

No data available

Conditions to avoid

Warming.

Incompatible materials

acids Acid chlorides Acid anhydrides Oxidizing agents Alkali metals

Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Mixture Acute toxicity

Oral: No data available

Acute toxicity estimate Oral - 100.2 mg/kg (Calculation method)

Acute toxicity estimate Inhalation - 4 h - 3.1 mg/l - vapor(Calculation method)

Acute toxicity estimate Dermal - 300.4 mg/kg (Calculation method)

Skin corrosion/irritation

Remarks: No data available

Serious eye damage/eye irritation

Remarks: No data available

Respiratory or skin sensitization

Classified based on available data. For more details, see section 2

Germ cell mutagenicity

Classified based on available data. For more details, see section 2

Carcinogenicity

Classified based on available data. For more details, see section 2

Reproductive toxicity

Classified based on available data. For more details, see section 2

Specific target organ toxicity - single exposure

Remarks: No data available

Mixture causes damage to organs. - Eyes, Central nervous system

Specific target organ toxicity - repeated exposure

Classified based on available data. For more details, see section 2

Aspiration hazard

Classified based on available data. For more details, see section 2

11.2 Additional Information

Methyl alcohol may be fatal or cause blindness if swallowed., Cannot be made non- poisonous., Effects due to ingestion may include:, Nausea, Headache, Vomiting,

Gastrointestinal disturbance, Dizziness, Weakness, Confusion., Drowsiness, Uncon- sciousness, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

Components Methanol

Acute toxicity

Acute toxicity estimate Oral - 100.1 mg/kg (Expert judgment)

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Symptoms: Nausea, Vomiting

Acute toxicity estimate Inhalation - 4 h - 3.1 mg/l - vapor (Expert judgment)

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Symptoms: Irritation symptoms in the respiratory tract.

Acute toxicity estimate Dermal - 300.1 mg/kg (Expert judgment)

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation

Remarks: (ECHA)

Remarks: Drying-out effect resulting in rough and chapped skin.

Serious eye damage/eye irritation

Eyes - Rabbit

Result: No eye irritation

Remarks: (ECHA)

Respiratory or skin sensitization

Sensitisation test: - Guinea pig

Result: negative (OECD Test Guideline 406)

Germ cell mutagenicity

Based on available data the classification criteria are not met.

Test Type: Ames test

Test system: Salmonella typhimurium

Result: negative

Test Type: In vitro mammalian cell gene mutation test

Test system: Chinese hamster lung cells

Result: negative

Method: OECD Test Guideline 474

Species: Mouse - male and female - Bone marrow

Result: negative

Carcinogenicity

Did not show carcinogenic effects in animal experiments.

Reproductive toxicity

Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

Causes damage to organs. - Eyes, Central nervous system

Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2)

Acute oral toxicity - Nausea, Vomiting

Acute inhalation toxicity - Irritation symptoms in the respiratory tract.

Specific target organ toxicity - repeated exposure

Classified based on available data. For more details, see section 2

Aspiration hazard

Classified based on available data. For more details, see section 2

SECTION 12: Ecological information

Ecotoxicity

Toxicity to fish

Remarks: No data available

Components:

Methanol:

Toxicity to fish

LC50 (Lepomis macrochirus (Bluegill)): 15,400.0 mg/l End point: mortality Exposure time: 96 h Test Type: flow-through test Analytical monitoring: yes Method: US-EPA

Toxicity to daphnia and other aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 18,260 mg/l End point: Immobilization Exposure time: 96 h Test Type: semi-static test Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants

ErC50 (Pseudokirchneriella subcapitata (green algae)): ca. 22,000.0 mg/l Exposure time: 96 h Test Type: static test Method: OECD Test Guideline 201

Toxicity to fish (Chronic toxicity)

NOEC (Oryzias latipes (Orange-red killifish)): 7,900 mg/l Exposure time: 200 h Remarks: (External MSDS)

Toxicity to microorganisms

IC50 (activated sludge): > 1,000 mg/l Exposure time: 3 h Test Type: static test Analytical monitoring: yes Method: OECD Test Guideline 209

Persistence and degradability

Biodegradability

Remarks: No data available

Components:

Methanol:

Biodegradability

Result: Readily biodegradable. Biodegradation: 99 % Exposure time: 30 d Method: OECD Test Guideline 301D

Biochemical Oxygen Demand (BOD)

600 - 1,120 mg/g Incubation time: 5 d Remarks: (IUCLID)

Chemical Oxygen Demand (COD)

1,420 mg/g Remarks: (IUCLID)

ThOD

1,500 mg/g Remarks: (Lit.)

BOD/ThOD

76 % Remarks: Closed Bottle test (IUCLID)

Stability in water

Hydrolysis: 83 - 91 % at 19 °C(72 h) Remarks: Hydrolyzes on contact with water. Hydrolyzes readily. Degradation half life: 2.2 yr Remarks: reaction with hydroxyl radicals (IUCLID)

Photodegradation

Degradation (direct photolysis): 50 % Degradation half life: 17.2 d

Bioaccumulative potential

Bioaccumulation

Remarks: No data available

Components:

Methanol:

Bioaccumulation

Species: Cyprinus carpio (Carp) Bioconcentration factor (BCF): 1.0 Exposure time: 72 d Temperature: 20 °C Concentration: 5 mg/l

Partition coefficient: noctanol/water

log Pow: -0.77 (25 °C) Method: (experimental) Remarks: (HSDB) Bioaccumulation is not expected.

Mobility in soil

Stability in soil

Remarks: No data available

Components:

Methanol:

Stability in soil

Remarks: Will not adsorb on soil.

Other adverse effects

Additional ecological information

No data available

Components:

Methanol:

Results of PBT and vPvB assessment

Substance is not persistent, bioaccumulative, and toxic (PBT).

Additional ecological information

Avoid release to the environment.

SECTION 13: Disposal considerations

Disposal methods

Waste from residues

Offer surplus and non-recyclable solutions to a licensed disposal company.

SECTION 14: Transport information

International Regulations

IATA-DGR

UN/ID No. : UN 1230

Proper shipping name : Methanol solution

Class : 3

Subsidiary risk : 6.1

Packing group : II

Labels : Class 3 - Flammable liquids, Division 6.1 - Toxic substances

Packing instruction (cargo aircraft) : 364

Packing instruction (passenger aircraft) : 352

IMDG-Code

UN number : UN 1230

Proper shipping name : METHANOL SOLUTION

Class : 3

Subsidiary risk : 6.1

Packing group : II

Labels : 3 (6.1)

EmS Code : F-E, S-D

Marine pollutant : no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National regulation GB 6944/12268

UN number : UN 1230

Proper shipping name : METHANOL

Class : 3

Subsidiary risk : 6.1

Packing group : II

Labels : 3 (6.1)

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15: Regulatory information

National regulatory information

Law on the Prevention and Control of Occupational Diseases

Regulations on Safety Management of Hazardous Chemicals

Catalogue of Hazardous Chemicals

Identification of Major Hazard Installations for Hazardous Chemicals (GB 18218)

No. / Code Chemical name / Category Threshold quantity

W5.3 Flammable liquids 1,000 t

Hazardous Chemicals for Priority Management

under SAWS

Catalogue of Specially Controlled Hazardous

Listed Chemicals

List of Explosive Precursors

Not listed

Regulation of Environmental Management on the First Import of Chemicals and the Import and Export of Toxic Chemicals

China Severely Restricted Toxic Chemicals for Import and Export

Regulation on the Administration of Precursor Chemicals

Catalogue and Classification of Precursor Chemicals

Not listed

Regulations on the Administration of Controlled Chemicals

List of Controlled Chemicals

Not listed

Regulations of Ozone Depleting Substances Management

List of Controlled Ozone Depleting Substances

Not listed

List of Controlled Ozone Depleting Substances Import and Export

Not listed

Environmental Protection Law

List of Priority Controlled Chemicals

Listed

List of Key Controlled New Pollutants

Listed

Stockholm Convention (Persistent Organic Pol-

Heptadecafluorooctane-1lutants) sulphonic acid

SECTION 16: Other information

Full text of other abbreviations

ACGIH

USA. ACGIH Threshold Limit Values (TLV)

ACGIH BEI

ACGIH - Biological Exposure Indices (BEI)

GBZ 2.1-2007

Occupational exposure limits for hazardous agents in the workplace - Chemical hazardous agents.

ACGIH / TWA

8-hour, time-weighted average

ACGIH / STEL

Short-term exposure limit

GBZ 2.1-2007 / PC-TWA

Permissible concentration - time weighted average

GBZ 2.1-2007 / PC-STEL AIIC - Australian Invent Transport by Land of Bra bw - Body weight; CMR Standard of the German List (Canada); ECx - Conc associated with x%respo Chemical Substances (Jap response; ERG - Emerge GLP - Good Laboratory P cer; IATA - International Construction and Equipm Half maximal inhibitory c tion; IECSC - Inventory o tional Maritime Dangerou Industrial Safety and H Standardization; KECI - K tration to 50 %of a test (Median Lethal Dose); MA lution from Ships; n.o.s. No Observed (Adverse) E fect Level; NOELR - No Norm; NTP - National Toxi icals; OECD - Organizatio fice of Chemical Safety a and Toxic substance; PIC stances; (Q)SAR - (Quant (EC) No 1907/2006 of th Registration, Evaluation, Accelerating Decompositi Chemical Substance Inve Thailand Existing Chemica States); UN - United Nat Transport of Dangerous WHMIS - Workplace Hazar

Permissible concentration - short term exposure limit ry of Industrial Chemicals

ANTT - National Agency for il

ASTM - American Society for the Testing of Materials

- Carcinogen, Mutagen or Reproductive Toxicant

DIN nstitute for Standardisation

DSL - Domestic Substances ntration associated with x% response

ELx - Loading rate se

EmS - Emergency Schedule

ENCS - Existing and New n)

ErCx - Concentration associated with x% growth rate cy Response Guide

GHS - Globally Harmonized System

actice

IARC - International Agency for Research on Canir Transport Association

IBC - International Code for the nt of Ships carrying Dangerous Chemicals in Bulk

IC50 ncentration

ICAO - International Civil Aviation Organiza- Existing Chemical Substances in China

IMDG - Interna- Goods

IMO - International Maritime Organization

ISHL alth Law (Japan)

ISO - International Organisation for rea Existing Chemicals Inventory

LC50 - Lethal Concenopulation

LD50 - Lethal Dose to 50% of a test population POL - International Convention for the Prevention of Pol- Not Otherwise Specified

Nch - Chilean Norm

NO(A)EC fect Concentration

NO(A)EL - No Observed (Adverse) Efbservable Effect Loading Rate

NOM - Official Mexican ology Program

NZIoC - New Zealand Inventory of Chemfor Economic Co-operation and Development

OPPTS - Ofd Pollution Prevention

PBT - Persistent, Bioaccumulative S - Philippines Inventory of Chemicals and Chemical Subtative) Structure Activity Relationship

REACH - Regulation European Parliament and of the Council concerning the uthorisation and Restriction of Chemicals

SADT - Selfn Temperature

SDS - Safety Data Sheet

TCSI - Taiwan tory

TDG - Transportation of Dangerous Goods

TECI s Inventory

TSCA - Toxic Substances Control Act (United ons

UNRTDG - United Nations Recommendations on the oods

vPvB - Very Persistent and Very Bioaccumulative

ous Materials Information System

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

ChemicalBook

Chemical Safety Data Sheet MSDS / SDS

P-XYLENE

Revision Date:2026-04-04 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: P-XYLENE
CBnumber	: CB2136488
CAS	: 106-42-3
EINECS Number	: 203-396-5
Synonyms	: p-Xylene,para-xylene

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Danger

Precautionary statements

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash hands thoroughly after handling.

P264 Wash skin thouroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.

P304+P340 IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing.

P311 Call a POISON CENTER or doctor/physician.

P370+P378 In case of fire: Use … for extinction.

P391 Collect spillage. Hazardous to the aquatic environment

Hazard statements

H226 Flammable liquid and vapour

H304 May be fatal if swallowed and enters airways

H312 Harmful in contact with skin

H315 Causes skin irritation

H319 Causes serious eye irritation

H332 Harmful if inhaled

H336 May cause drowsiness or dizziness

H360 May damage fertility or the unborn child

H370 Causes damage to organs

H371 May cause damage to organs

H411 Toxic to aquatic life with long lasting effects

SECTION 3: Composition/information on ingredients

Substance

Product name	: P-XYLENE
Synonyms	: p-Xylene,para-xylene
CAS	: 106-42-3
EC number	: 203-396-5
MF	: C8H10
MW	: 106.17

SECTION 4: First aid measures

Description of first aid measures

General advice

Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

In case of eye contact

After eye contact: rinse out with plenty of water. Remove contact lenses.

If swallowed

After swallowing: caution if victim vomits. Risk of aspiration! Keep airways free. Pulmonary failure possible after aspiration of vomit. Call a physician immediately.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO2) Foam Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture

Carbon oxides Combustible.

Vapors are heavier than air and may spread along floors.

Risk of dust explosion.

Forms explosive mixtures with air at elevated temperatures.

Development of hazardous combustion gases or vapours possible in the event of fire.

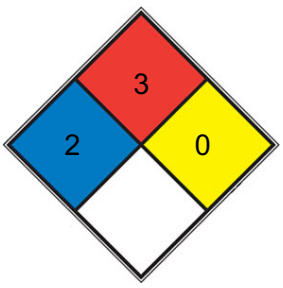
Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

Further information

Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

NFPA 704



HEALTH	2	Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury (e.g. diethyl ether, ammonium phosphate, iodine)

■	FIRE	3	Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions . Liquids having a flash point below 22.8 °C (73 °F) and having a boiling point at or above 37.8 °C (100 °F) or having a flash point between 22.8 and 37.8 °C (73 and 100 °F). (e.g. gasoline, acetone)
■	REACT	0	Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium,N2)
□	SPEC. HAZ.		

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition.

Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

Environmental precautions

Do not let product enter drains. Risk of explosion.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material (e.g.

Chemizorb?). Dispose of properly. Clean up affected area.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Advice on safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition.Take precautionary measures against static discharge.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Storage conditions

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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SECTION 8: Exposure controls/personal protection

control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

Exposure controls

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Full contact Material: Viton?

Minimum layer thickness: 0,7 mm Break through time: 480 min

Material tested:Vitoject? (KCL 890 / Aldrich Z677698, Size M)

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Splash contact Material: Nitrile rubber

Minimum layer thickness: 0,4 mm Break through time: 30 min

Material tested:Camatril? (KCL 730 / Aldrich Z677442, Size M)

Body Protection

Flame retardant antistatic protective clothing.

Respiratory protection

Recommended Filter type: Filter A (acc. to DIN 3181) for vapours of organic compounds

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains. Risk of explosion.

Exposure limits

TLV-TWA100 ppm (～434 mg/m^3) (ACGIH, MSHA, and OSHA); STEL 150 ppm (～651 mg/m^3) (ACGIH); ceiling 200 ppm/ 10 min (NIOSH); IDLH 1000 ppm (NIOSH).

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Appearance	liquid, clear
Odour	No data available
Odour Threshold	0.058ppm
pH	No data available
Melting point/freezing point	Melting point/range: 12 - 13 °C - lit. 138 °C - lit.
Initial boiling point and boiling range	138 °C - lit.
Flash point	27 °C - closed cup
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	Upper explosion limit: 7 %(V) Lower explosion limit: 1,1 %(V)
Vapour pressure	124,1 hPa at 2,6 °C
Vapour density	3.7 (vs air)
Relative density	No data available
Water solubility	146 g/l at 25 °C - partly soluble
Partition coefficient: n-octanol/water	log Pow: 3,15 at 20 °C - Bioaccumulation is not expected.
Autoignition temperature	529,0 °C at 1.013 hPa
Decomposition temperature	No data available
Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: 0,58 mPa.s at 25 °C
Explosive properties	No data available
Oxidizing properties	No data available
Henry's Law Constant	16.1 at 45.00 °C, 18.6 at 50.00 °C, 20.3 at 55.00 °C, 23.4 at 60.00 °C, 30.5 at 70.00 °C (static headspace-GC, Park et al., 2004)
λmax	λ: 294 nm Amax: 1.00 λ: 320 nm Amax: 0.10 λ: 350 nm Amax: 0.05 λ: 380-400 nm Amax: 0.01

Other safety information

Surface tension 28,01 mN/m at 25 °C

28,3 mN/m at 20,0 °C

SECTION 10: Stability and reactivity

Reactivity

Vapor/air-mixtures are explosive at intense warming.

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

Possibility of hazardous reactions

Risk of explosion with: Strong oxidizing agents conc. sulfuric acid

Nitric acid

uranium hexafluoride sulfur

Conditions to avoid

Heating.

Incompatible materials

rubber, various plastics

Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - male - 3.523 mg/kg

(EC Directive 92/69/EEC B.1 Acute Toxicity (Oral))

LC50 Inhalation - Rat - male and female - 4 h - 27,12 mg/l (US-EPA)

Symptoms: Inhalation may lead to the formation of oedemas in the respiratory tract. LD50 Dermal - Rabbit - male - 12.126 mg/kg

Remarks: (ECHA)

Skin corrosion/irritation

Skin - Rabbit

Result: Moderate skin irritation - 4 h (Regulation (EC) No. 440/2008, Annex, B.4)

Drying-out effect resulting in rough and chapped skin. Dermatitis

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

(OECD Test Guideline 429)

Germ cell mutagenicity

Test Type: Ames test

Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471

Result: negative

Remarks: (National Toxicology Program) Test Type: sister chromatid exchange assay Test system: Chinese hamster ovary cells

Metabolic activation: with and without metabolic activation Method: Regulation (EC) No. 440/2008, Annex, B.19 Result: negative

Test Type: Mutagenicity (mammal cell test): chromosome aberration. Test system: Chinese hamster ovary cells

Metabolic activation: with and without metabolic activation Method: Mutagenicity (in vitro mammalian cytogenetic test)

Result: negative

Test Type: Mutagenicity (mammal cell test): micronucleus. Species: Mouse

Cell type: Red blood cells (erythrocytes) Application Route: Intraperitoneal Method: OECD Test Guideline 474 Result: negative

Remarks: (IUCLID)

Test Type: dominant lethal test Species: Mouse

Application Route: Subcutaneous Method: OECD Test Guideline 478 Result: negative

Carcinogenicity

No data available

Reproductive toxicity

May cause reproductive disorders.

Specific target organ toxicity - single exposure

Inhalation - May cause respiratory irritation.

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

May be fatal if swallowed and enters airways.

Toxicity

LD50 orally in Rabbit: 3910 mg/kg

SECTION 12: Ecological information

Toxicity

Toxicity to fish

static test LC50 - Oncorhynchus mykiss (rainbow trout) - 2,60 mg/l

- 96 h

(OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates

EC50 - Daphnia magna (Water flea) - 35,50 - 63,10 mg/l - 48 h Remarks: (ECOTOX Database)

Toxicity to algae

static test EC50 - Pseudokirchneriella subcapitata - 4,36 mg/l - 73 h (OECD Test Guideline 201)

Toxicity to bacteria

static test NOEC - activated sludge - 16,2 mg/l - 28 h Remarks: (ECHA)

Persistence and degradability

Biodegradability aerobic - Exposure time 28 d

Result: 98 % - Readily biodegradable. (OECD Test Guideline 301F)

Bioaccumulative potential

Bioaccumulation Oncorhynchus mykiss (rainbow trout) - 56 d

at 10 °C - 1,3 mg/l(p-xylene)

Bioconcentration factor (BCF): 7,4 - 18,5

Mobility in soil

No data available

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Toxics Screening Level

The Initial Threshold Screening Level (ITSL) for p-xylene is 390 µg/m3 with annual averaging time.

Other adverse effects

No data available

SECTION 13: Disposal considerations

Waste treatment methods

Product

See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

SECTION 14: Transport information

UN number

ADR/RID: 1307 IMDG: 1307

UN proper shipping name

ADR/RID: XYLENES IMDG: XYLENES IATA: Xylenes

Transport hazard class(es)

ADR/RID: 3 IMDG: 3 IATA: 3

Packaging group

ADR/RID: III IMDG: III IATA: III

Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

Special precautions for user

No data available

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Listed. website: https://www.mem.gov.cn/

Measures for Environmental Management of New Chemical Substances

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: https://echa.europa.eu/

Korea Existing Chemicals List (KECL):Listed. website: http://ncis.nier.go.kr

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Listed. website: https://emb.gov.ph/

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Listed. website: https://www.mee.gov.cn/

United States Toxic Substances Control Act (TSCA) Inventory:Listed. website: https://www.epa.gov/

New Zealand Inventory of Chemicals (NZIoC):Listed. website: https://www.epa.govt.nz/

Vietnam National Chemical Inventory:Listed. website: https://chemicaldata.gov.vn/

EC Inventory:Listed.

SECTION 16: Other information

Abbreviations and acronyms

CAS: Chemical Abstracts Service

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

IMDG: International Maritime Dangerous Goods

IATA: International Air Transportation Association

TWA: Time Weighted Average

STEL: Short term exposure limit

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

EC50: Effective Concentration 50%

References

【1】CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

【2】ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

【3】ECHA - European Chemicals Agency, website: https://echa.europa.eu/

【4】eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

【5】ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

【6】Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

【7】HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

【8】IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

【9】IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

【10】Sigma-Aldrich, website: https://www.sigmaaldrich.com/

Other Information

Depending on the degree of exposure, periodic medical examination is indicated.The recommendations on this Card also apply to technical

xylene.See ICSCs 0084 and 0085.

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

ChemicalBook

Chemical Safety Data Sheet MSDS / SDS

Selenium

Revision Date:2026-04-04 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: Selenium
CBnumber	: CB1183849
CAS	: 7782-49-2
EINECS Number	: 231-957-4
Synonyms	: Se,selenium

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Danger

Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P304+P340 IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing.

P311 Call a POISON CENTER or doctor/physician.

P405 Store locked up.

Hazard statements

H301 Toxic if swalloed

H331 Toxic if inhaled

H373 May cause damage to organs through prolonged or repeated exposure

H413 May cause long lasting harmful effects to aquatic life

SECTION 3: Composition/information on ingredients

Substance

Product name	: Selenium
Synonyms	: Se,selenium
CAS	: 7782-49-2
EC number	: 231-957-4
MF	: Se
MW	: 78.96

SECTION 4: First aid measures

Description of first aid measures

General advice

First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

If swallowed

If swallowed: give water to drink (two glasses at most). Seek medical advice immediately. In exceptional cases only, if medical care is not available within one hour, induce vomiting (only in persons who are wide awake and fully conscious), administer activated charcoal (20 - 40 g in a 10% slurry) and consult a doctor as quickly as possible.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture

Selenium/selenium oxides Not combustible.

Ambient fire may liberate hazardous vapours.

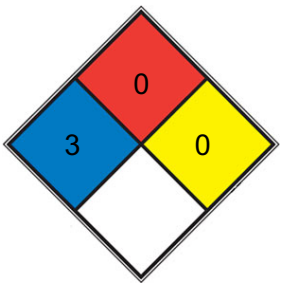
Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

Further information

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

NFPA 704



■	HEALTH	3	Short exposure could cause serious temporary or moderate residual injury (e.g. liquid hydrogen, sulfuric acid, calcium hypochlorite, hexafluorosilicic acid)
■	FIRE	0	Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand. Materials that will not burn in air when exposed to a temperature of 820 °C (1,500 °F) for a period of 5 minutes.(e.g. Carbon tetrachloride)
■	REACT	0	Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium,N2)
□	SPEC. HAZ.		

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid generation and inhalation of dusts in all circumstances. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully. Dispose of properly. Clean up affected area. Avoid generation of dusts.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Advice on safe handling

Work under hood. Do not inhale substance/mixture.

Hygiene measures

Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance.

For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Storage conditions

Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons.

Store under inert gas.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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SECTION 8: Exposure controls/personal protection

control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

Exposure controls

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm Break through time: 480 min

Material tested:KCL 741 Dermatril? L

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Splash contact Material: Nitrile rubber

Minimum layer thickness: 0,11 mm Break through time: 480 min

Material tested:KCL 741 Dermatril? L

Body Protection

protective clothing

Respiratory protection

required when dusts are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type P3

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains.

Exposure limits

TLV-TWA 0.2 mg(Se)/m^3 (ACGIH, MSHA, and OSHA); IDLH 100 mg/m^3.

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Appearance	light gray powder
Odour	No data available
Odour Threshold	No data available
pH	No data available
Melting point/freezing point	Melting point/range: 217 °C - lit.
Initial boiling point and boiling range	684,9 °C - lit.
Flash point	Not applicable
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	No data available
Vapour pressure	>0,001 hPa at 20 °C
Vapour density	No data available
Relative density	4,81 g/cm3 at 25 °C - lit. 4,8 at 25 °C
Water solubility	0,1 g/l at 20,9 °C - insoluble
Partition coefficient: n-octanol/water	log Pow: 5Not applicable for inorganic substances
Autoignition temperature	220 - 250 °C at 1.013,25 hPa - Relative self-ignition temperature for solids
Decomposition temperature	No data available

Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
Explosive properties	No data available
Oxidizing properties	No data available
resistivity	1.2 μΩ-cm, 0°C

Other safety information

No data available

SECTION 10: Stability and reactivity

Reactivity

No data available

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

Possibility of hazardous reactions

Risk of explosion with:

alkali amides Metals Oxygen amides cadmium Potassium sodium

nitrogen oxides Tin

nitrogen trichloride

Risk of ignition or formation of inflammable gases or vapours with: carbides

peroxi compounds

halogen-halogen compounds halogen oxides

Fluorine lithium silicide

barium peroxide Uranium

Generates dangerous gases or fumes in contact with: hydrochloric acid

sulfuric acid

Exothermic reaction with: powdered aluminium Beryllium

bromates chromium(VI) oxide chlorates

Nickel

Oxidizing agents phosphorus platinum

Nitric acid silver oxide Zinc

Alkali metals

Conditions to avoid

no information available

Incompatible materials

No data available

Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Acute toxicity estimate Oral - Expert judgment - 100,1 mg/kg Symptoms: Gastrointestinal disturbance

Acute toxicity estimate Inhalation - Expert judgment - 4 h - 0,51 mg/l Dermal

Skin corrosion/irritation

Skin - reconstructed human epidermis (RhE)

Result: No skin irritation (OECD Test Guideline 431)

Serious eye damage/eye irritation

Eyes - Bovine cornea

Result: No eye irritation - 4 h (OECD Test Guideline 437)

Respiratory or skin sensitization

(OECD Test Guideline 429)

Germ cell mutagenicity

Test Type: Ames test

Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471

Result: negative

Test Type: Chromosome aberration test Species: Mouse

Cell type: Bone marrow Application Route: Intraperitoneal

Result: negative Remarks: (ECHA)

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

May cause damage to organs through prolonged or repeated exposure.

No data available

Toxicity

LD50 orally in Rabbit: 6700 mg/kg

SECTION 12: Ecological information

Toxicity

Toxicity to fish

semi-static test LC50 - Oncorhynchus mykiss (rainbow trout) - > 100 mg/l - 96 h

(OECD Test Guideline 203)

Remarks: (above the solubility limit in the test medium)

Toxicity to daphnia and other aquatic invertebrates

static test EC50 - Daphnia magna (Water flea) - > 100 mg/l - 48 h (OECD Test Guideline 202)

Remarks: (above the solubility limit in the test medium)

Toxicity to algae

static test ErC50 - Pseudokirchneriella subcapitata (algae) - > 100 mg/l - 72 h

(OECD Test Guideline 201)

Remarks: (above the solubility limit in the test medium)

Toxicity to bacteria

static test EC50 - activated sludge - > 3.200 mg/l - 3 h (OECD Test Guideline 209)

Persistence and degradability

The methods for determining the biological degradability are not applicable to inorganic substances.

Bioaccumulative potential

Bioaccumulation Lepomis macrochirus - 60 d

- 640 µg/l(Selenium)

Bioconcentration factor (BCF): 7,7

Mobility in soil

No data available

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Toxics Screening Level

The ITSL for selenium is 2 µg/m3 based on an 8-hour averaging time.

Other adverse effects

Discharge into the environment must be avoided.

SECTION 13: Disposal considerations

Waste treatment methods

Product

See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

Incompatibilities

Reacts violently with strong acids and strong oxidizers, chromium trioxide; potassium bromate;cadmium. Reacts with incandescence on gentle heating with phosphorous and metals, such as nickel, zinc, sodium, potassium, platinum. Reacts with water @ 50 ? C forming flammable

hydrogen and selenious acids.

Waste Disposal

Powdered selenium: dispose in a chemical waste landfill. When possible, recover selenium and return to suppliers

SECTION 14: Transport information

UN number

ADR/RID: 3288 IMDG: 3288 IATA: 3288

UN proper shipping name

ADR/RID: TOXIC SOLID, INORGANIC, N.O.S. (Selenium) IMDG: TOXIC SOLID, INORGANIC, N.O.S. (Selenium)

IATA: Toxic solid, inorganic, n.o.s. (Selenium)

14.3	Transport hazard class(es) ADR/RID: 6.1 IMDG: 6.1	IATA: 6.1
14.4	Packaging group ADR/RID: III IMDG: III	IATA: III
14.5	Environmental hazards ADR/RID: no IMDG Marine pollutant: no	IATA: no
14.6	Special precautions for user No data available	

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Listed. website: https://www.mem.gov.cn/

Measures for Environmental Management of New Chemical Substances

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Listed. website: https://www.mee.gov.cn/

EC Inventory:Listed.

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: https://echa.europa.eu/

Korea Existing Chemicals List (KECL):Listed. website: http://ncis.nier.go.kr

New Zealand Inventory of Chemicals (NZIoC):Listed. website: https://www.epa.govt.nz/

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Listed. website: https://emb.gov.ph/

United States Toxic Substances Control Act (TSCA) Inventory:Listed. website: https://www.epa.gov/

Vietnam National Chemical Inventory:Listed. website: https://chemicaldata.gov.vn/

SECTION 16: Other information

Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CAS: Chemical Abstracts Service

EC50: Effective Concentration 50%

IATA: International Air Transportation Association

IMDG: International Maritime Dangerous Goods

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

STEL: Short term exposure limit

TWA: Time Weighted Average

References

【1】CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

【2】ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

【3】ECHA - European Chemicals Agency, website: https://echa.europa.eu/

【4】eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

【5】ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

【6】Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

【7】HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

【8】IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

【9】IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

【10】Sigma-Aldrich, website: https://www.sigmaaldrich.com/

Other Information

Do NOT take working clothes home.

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

ChemicalBook

Chemical Safety Data Sheet MSDS / SDS

Sodium

Revision Date:2026-04-04 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: Sodium
CBnumber	: CB4854184
CAS	: 7440-23-5
EINECS Number	: 231-132-9
Synonyms	: SODIUM,Sodium metal

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Danger

Precautionary statements

P223 Keep away from any possible contact with water, because of violent reaction and possible flash fire.

P231+P232 Handle under inert gas. Protect from moisture.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continuerinsing.

P331 Do NOT induce vomiting.

P370+P378 In case of fire: Use … for extinction.

P405 Store locked up.

P422 Store contents under …

Hazard statements

H260 In contact with water releases flammable gases which may ignite spontaneously

H304 May be fatal if swallowed and enters airways

H314 Causes severe skin burns and eye damage

H318 Causes serious eye damage

H411 Toxic to aquatic life with long lasting effects

SECTION 3: Composition/information on ingredients

Substance

Product name	: Sodium
Synonyms	: SODIUM,Sodium metal
CAS	: 7440-23-5
EC number	: 231-132-9
MF	: Na
MW	: 22.99

SECTION 4: First aid measures

Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Dry powder Special powder against metal fireDry powder Dry sand

Unsuitable extinguishing media

Do NOT use water jet.

Special hazards arising from the substance or mixture

Sodium oxides

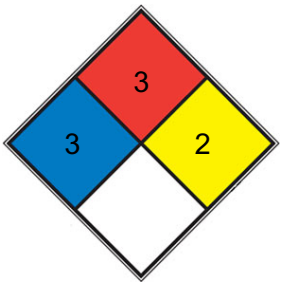
Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

No data available

NFPA 704



■	HEALTH	3	Short exposure could cause serious temporary or moderate residual injury (e.g. liquid hydrogen, sulfuric acid, calcium hypochlorite, hexafluorosilicic acid)
■	FIRE	3	Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions . Liquids having a flash point below 22.8 °C (73 °F) and having a boiling point at or above 37.8 °C (100 °F) or having a flash point between 22.8 and 37.8 °C (73 and 100 °F). (e.g. gasoline, acetone)
■	REACT	2	Undergoes violent chemical change at elevated temperatures and pressures, reacts violently with water, or may form explosive mixtures with water (e.g. white phosphorus, potassium, sodium)
□	SPEC. HAZ.		

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in

container for disposal according to local / national regulations (see section 13). Do not flush with water.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking.

For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store in cool place. Never allow product to get in contact with water during storage.

Handle and store under inert gas. Air sensitive.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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SECTION 8: Exposure controls/personal protection

control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0,4 mm Break through time: 480 min

Material tested:Camatril? (KCL 730 / Aldrich Z677442, Size M)

Splash contact Material: Nitrile rubber

Minimum layer thickness: 0,2 mm Break through time: 30 min

Material tested:Dermatril? P (KCL 743 / Aldrich Z677388, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

Complete suit protecting against chemicals, Flame retardant protective clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full- face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Appearance	grey Pieces
Odour	No data available
Odour Threshold	No data available
pH	No data available
Melting point/freezing point	Melting point/range: 97,8 °C - lit.
Initial boiling point and boiling range	883 °C - lit.
Flash point	128 °F
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	No data available
Vapour pressure	1 mm Hg (440 °C)
Vapour density	No data available
Relative density	0.97
Water solubility	H_2O: soluble
Partition coefficient: n-octanol/water	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available
resistivity	4.69 µΩ-cm, 20°C

Other safety information

No data available

SECTION 10: Stability and reactivity

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions. Contains the following stabiliser(s):

Kerosine (50 %)

Possibility of hazardous reactions

Reacts violently with water.

Conditions to avoid

Exposure to moisture

Incompatible materials

Oxidizing agents

Hazardous decomposition products

Other decomposition products - No data available

Hazardous decomposition products formed under fire conditions. - Sodium oxides In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

May be fatal if swallowed and enters airways.

Additional Information

RTECS: Not available

SECTION 12: Ecological information

Toxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Other adverse effects

Toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Waste material
must be disposed of in accordance with the Directive on waste 2008/98/EC as well as
other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

Incompatibilities

A strong reducing agent. A dangerous fire hazard when exposed to heat and moisture. Violent reaction with water, forming NaOH. Violent reaction with oxidizers (chlorates, nitrates, peroxides, permanganates, perchlorates, chlorine, bromine, fluorine, etc.); contact may cause fires

or explosions. Keep away from alkaline materials, strong bases, strong acids, oxoacids, epoxides and many other chemicals.

Waste Disposal

Incineration with absorption of oxide fumes.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

UN number

ADR/RID: 1428 IMDG: 1428 IATA: 1428

UN proper shipping name

ADR/RID: SODIUM IMDG: SODIUM

IATA: Sodium

Passenger Aircraft: Not permitted for transport

Transport hazard class(es)

ADR/RID: 4.3 IMDG: 4.3 IATA: 4.3

Packaging group

ADR/RID: I IMDG: I IATA: I

Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

Special precautions for user

No data available

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Listed. website: https://www.mem.gov.cn/

Measures for Environmental Management of New Chemical Substances

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Listed. website: https://www.mee.gov.cn/

EC Inventory:Listed.

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: https://echa.europa.eu/

Korea Existing Chemicals List (KECL):Listed. website: http://ncis.nier.go.kr

New Zealand Inventory of Chemicals (NZIoC):Listed. website: https://www.epa.govt.nz/

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Listed. website: https://emb.gov.ph/

United States Toxic Substances Control Act (TSCA) Inventory:Listed. website: https://www.epa.gov/

Vietnam National Chemical Inventory:Listed. website: https://chemicaldata.gov.vn/

SECTION 16: Other information

Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CAS: Chemical Abstracts Service

EC50: Effective Concentration 50%

IATA: International Air Transportation Association

IMDG: International Maritime Dangerous Goods

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

STEL: Short term exposure limit

TWA: Time Weighted Average

References

【1】CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

【2】ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

【3】ECHA - European Chemicals Agency, website: https://echa.europa.eu/

【4】eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

【5】ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

【6】Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

【7】HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

【8】IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

【9】IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

【10】Sigma-Aldrich, website: https://www.sigmaaldrich.com/

Other Information

Sodium is always kept under mineral oil.Reacts violently with fire extinguishing agents such as water and carbon dioxide.

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

ChemicalBook

Chemical Safety Data Sheet MSDS / SDS

Styrene

Revision Date:2026-04-04 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: Styrene
CBnumber	: CB3415111
CAS	: 100-42-5
EINECS Number	: 202-851-5
Synonyms	: Styrene,Sm

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Danger

Precautionary statements

P201 Obtain special instructions before use.

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continuerinsing.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P311 Call a POISON CENTER or doctor/physician.

P405 Store locked up.

Hazard statements

H225 Highly Flammable liquid and vapour

H226 Flammable liquid and vapour

H315 Causes skin irritation

H319 Causes serious eye irritation

H332 Harmful if inhaled

H361 Suspected of damaging fertility or the unborn child

H370 Causes damage to organs

H372 Causes damage to organs through prolonged or repeated exposure

Disposal

WARNING.Cancer - https://oehha.ca.gov/proposition-65/chemicals/styrene

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SECTION 3: Composition/information on ingredients

Substance

Product name	: Styrene
Synonyms	: Styrene,Sm
CAS	: 100-42-5
EC number	: 202-851-5
MF	: C8H8
MW	: 104.15

SECTION 4: First aid measures

Description of first aid measures

General advice

Show this material safety data sheet to the doctor in attendance.

If inhaled

If breathing stops: immediately apply artificial respiration, if necessary also oxygen.After inhalation: fresh air. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

If swallowed

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Foam Carbon dioxide (CO2) Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture

Carbon oxides

Container explosion may occur under fire conditions., Vapors may form explosive mixture with air.

Mixture with combustible ingredients.

Vapors are heavier than air and may spread along floors. Risk of dust explosion.

Forms explosive mixtures with air at elevated temperatures.

Development of hazardous combustion gases or vapours possible in the event of fire.

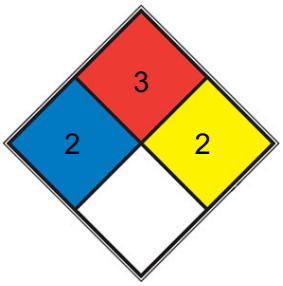
Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

Further information

Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

NFPA 704



HEALTH	2	Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury (e.g. diethyl ether, ammonium phosphate, iodine)
FIRE	3	Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions . Liquids having a flash point below 22.8 °C (73 °F) and having a boiling point at or above 37.8 °C (100 °F) or having a flash point between 22.8 and 37.8 °C (73 and 100 °F). (e.g. gasoline, acetone)
REACT	2	Undergoes violent chemical change at elevated temperatures and pressures, reacts violently with water, or may form explosive mixtures with water (e.g. white phosphorus, potassium, sodium)
SPEC.		

☐ HAZ.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition.

Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

Environmental precautions

Do not let product enter drains. Risk of explosion.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material (e.g.

Chemizorb?). Dispose of properly. Clean up affected area.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Advice on safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition.Take precautionary measures against static discharge.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Storage conditions

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition. Keep locked up or in an area accessible only to qualified or authorized persons.

Storage stability

Recommended storage temperature 2 - 8 °C

Light sensitive.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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SECTION 8: Exposure controls/personal protection

control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

Exposure controls

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Body Protection

Flame retardant antistatic protective clothing.

Respiratory protection

required when vapours/aerosols are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type ABEK

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains. Risk of explosion.

Exposure limits

TLV-TWA 50 ppm (～212 mg/m^3) (ACGIH and NIOSH), 100 ppm (～425 mg/m^3) (OSHA and MSHA); ceiling 200 ppm, peak 600 ppm/5 min/3 h (OSHA); STEL 100 ppm （～425 mg/m^3) (ACGIH).

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Appearance	liquid
Odour	No data available
Odour Threshold	0.035ppm
pH	No data available
Melting point/freezing point	-31 °C (lit.)
Initial boiling point and boiling range	145-146 °C (lit.)
Flash point	32,0 °C - closed cup

Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	1.1-8.9%(V)
Vapour pressure	12.4 mm Hg (37.7 °C)
Vapour density	3.6 (vs air)
Relative density	0.909
Water solubility	0.24g/l
Partition coefficient: n-octanol/water	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available
Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
Explosive properties	No data available
Oxidizing properties	No data available
Henry's Law Constant	(x 10^{-3} atm?m^3/mol): 3.91 at 25 °C (static headspace-GC, Welke et al., 1998)

Other safety information

No data available

SECTION 10: Stability and reactivity

Reactivity

Vapor/air-mixtures are explosive at intense warming.

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

Possibility of hazardous reactions

No data available

Conditions to avoid

Heating.

Incompatible materials

Strong oxidizing agents

Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Oral

Inhalation: No data available Dermal

Skin corrosion/irritation

Mixture causes skin irritation.

Serious eye damage/eye irritation

Mixture causes serious eye irritation.

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

Evidence of harm to the unborn child.

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

Mixture causes damage to organs through prolonged or repeated exposure.

No data available

Toxicity

LD50 in mice (mg/kg): 660 ± 44.3 i.p.; 90 ± 5.2 i.v.

SECTION 12: Ecological information

Toxicity

Mixture

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Toxics Screening Level

The Initial Threshold Screening Level (ITSL) is 1000 µg/m3 with an annual averaging time.

Other adverse effects

No data available

Components styrene

Toxicity to fish flow-through test LC50 - Pimephales promelas (fathead

Toxicity to daphnia and other aquatic invertebrates
minnow) - 10 mg/l - 96 h (OECD Test Guideline 203)
flow-through test EC50 - Daphnia magna (Water flea) - 4,7 mg/l - 48 h
(OECD Test Guideline 202)
Toxicity to algae static test ErC50 - Pseudokirchneriella subcapitata (green algae) - 4,9 mg/l - 72 h
Toxicity to bacteria static test EC50 - activated sludge - 500 mg/l - 30 min (OECD Test Guideline 209)

SECTION 13: Disposal considerations

Waste treatment methods

Incompatibilities

Styrene May form explosive mixture with air. Before entering confined space where this chemical may be present, check to make sure that an explosive concentration does not exist. Store in a cool, dry area away from oxidizers, catalysts for vinyl polymers; peroxides, strong acids; aluminum chloride.

Product

See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

Waste Disposal

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. All federal, state, and local environmental regulations must be observed. In some cases, recovery and recycle of styrene monomer is economic and the technology is available.

SECTION 14: Transport information

UN number

ADR/RID: 2055 IMDG: 2055 IATA: 2055

UN proper shipping name

ADR/RID: STYRENE MONOMER, STABILIZED IMDG: STYRENE MONOMER, STABILIZED

IATA: Styrene monomer, stabilized

14.3	Transport hazard class(es) ADR/RID: 3 IMDG: 3	IATA: 3
14.4	Packaging group ADR/RID: III IMDG: III	IATA: III

14.5	Environmental hazards ADR/RID: no IMDG Marine pollutant: no	IATA: no
14.6	Special precautions for user No data available	

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Listed. website: https://www.mem.gov.cn/

Measures for Environmental Management of New Chemical Substances

EC Inventory:Listed.

Vietnam National Chemical Inventory:Listed. website: https://chemicaldata.gov.vn/

United States Toxic Substances Control Act (TSCA) Inventory:Listed. website: https://www.epa.gov/

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: https://echa.europa.eu/

New Zealand Inventory of Chemicals (NZIoC):Listed. website: https://www.epa.govt.nz/

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Listed. website: https://www.mee.gov.cn/

Korea Existing Chemicals List (KECL):Listed. website: http://ncis.nier.go.kr

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Listed. website: https://emb.gov.ph/

SECTION 16: Other information

Abbreviations and acronyms

CAS: Chemical Abstracts Service

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

IMDG: International Maritime Dangerous Goods

IATA: International Air Transportation Association

TWA: Time Weighted Average

STEL: Short term exposure limit

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

EC50: Effective Concentration 50%

References

【1】CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

【2】ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

【3】ECHA - European Chemicals Agency, website: https://echa.europa.eu/

【4】eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

【5】ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

【6】Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

【7】HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

【8】IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

【9】IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

【10】Sigma-Aldrich, website: https://www.sigmaaldrich.com/

Other Information

Depending on the degree of exposure, periodic medical examination is suggested.Check for peroxides prior to distillation; eliminate if found.Styrene monomer vapours are uninhibited and may form polymers in vents or flame arresters of storage tanks, resulting in blockage of vents.Do NOT take working clothes home.

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

ChemicalBook

Chemical Safety Data Sheet MSDS / SDS

tert-Butanol

Revision Date:2026-04-04 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: tert-Butanol
CBnumber	: CB5206388
CAS	: 75-65-0
EINECS Number	: 200-889-7
Synonyms	: TBA,tert-butanol

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Danger

Precautionary statements

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash hands thoroughly after handling.

P264 Wash skin thouroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continuerinsing.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P311 Call a POISON CENTER or doctor/physician.

P370+P378 In case of fire: Use … for extinction.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P403+P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

P501 Dispose of contents/container to.....

Hazard statements

H225 Highly Flammable liquid and vapour

H301 Toxic if swalloed

H311 Toxic in contact with skin

H319 Causes serious eye irritation

H331 Toxic if inhaled

H332 Harmful if inhaled

H335 May cause respiratory irritation

H336 May cause drowsiness or dizziness

H361 Suspected of damaging fertility or the unborn child

H370 Causes damage to organs

SECTION 3: Composition/information on ingredients

Substance

Product name	: tert-Butanol
Synonyms	: TBA,tert-butanol
CAS	: 75-65-0
EC number	: 200-889-7
MF	: C4H10O
MW	: 74.12

SECTION 4: First aid measures

Description of first aid measures

General advice

Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Call in physician.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

If swallowed

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO2) Foam Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture

Carbon oxides

Flash back possible over considerable distance. Combustible.

Pay attention to flashback.

Vapors are heavier than air and may spread along floors.

Development of hazardous combustion gases or vapours possible in the event of fire. Forms explosive mixtures with air at ambient temperatures.

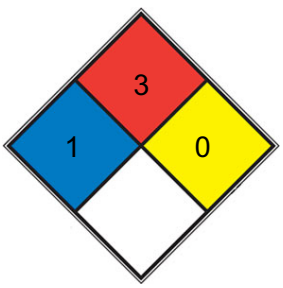
Advice for firefighters

In the event of fire, wear self-contained breathing apparatus.

Further information

In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

NFPA 704



HEALTH 1 Exposure would cause irritation with only minor residual injury (e.g. acetone, sodium bromate, potassium chloride)

■	FIRE	3	Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions . Liquids having a flash point below 22.8 °C (73 °F) and having a boiling point at or above 37.8 °C (100 °F) or having a flash point between 22.8 and 37.8 °C (73 and 100 °F). (e.g. gasoline, acetone)
■	REACT	0	Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium,N2)
□	SPEC. HAZ.		

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition.

Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

Environmental precautions

Do not let product enter drains. Risk of explosion.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb?). Dispose of properly. Clean up affected area.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Advice on safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition.Take precautionary measures against static discharge.

Hygiene measures

Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance.

For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Storage conditions

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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SECTION 8: Exposure controls/personal protection

control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

Exposure controls

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Body Protection

Flame retardant antistatic protective clothing.

Respiratory protection

Recommended Filter type: Filter A (acc. to DIN 3181) for vapours of organic compounds

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains. Risk of explosion.

Exposure limits

TLV-TWA 300 mg/m^3 (100 ppm) (ACGIH); IDLH 8000 ppm.

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Appearance	liquid
Odour	camphor-like
Odour Threshold	ca.71 ppm
pH	at 20 °C neutral
Melting point/freezing point	Melting point/range: 23 - 26 °C
Initial boiling point and boiling range	83 °C
Flash point	15 °C - closed cup
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	Upper explosion limit: 8,0 %(V) Lower explosion limit: 2,3 %(V)
Vapour pressure	40,7 hPa at 20 °C

Vapour density	2,56
Relative density	No data available
Water solubility	at 20 °C soluble
Partition coefficient: n-octanol/water	log Pow: 0,30 - Bioaccumulation is not expected.
Autoignition temperature	470 °C at 1.013 hPa
Decomposition temperature	No data available
Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: 3,3 mPa.s at 30 °C
Explosive properties	No data available
Oxidizing properties	No data available
Henry's Law Constant	1.22 at 25 °C (static headspace-GC, Merk and Riederer, 1997)
λmax	λ: 215 nm Amax: 1.00
	λ: 230 nm Amax: 0.50
	λ: 250 nm Amax: 0.20
	λ: 300-350 nm Amax: 0.01

Other safety information

Dissociation constant 19,2 at 20 °C

Relative vapor density

2,56

SECTION 10: Stability and reactivity

Reactivity

Vapors may form explosive mixture with air.

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

Possibility of hazardous reactions

Violent reactions possible with: Alkali metals

Alkaline earth metals Strong acids Aluminum

Strong oxidizing agents

Conditions to avoid

Warming.

Incompatible materials

rubber, various plastics

Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - male and female - 2.733 mg/kg (US-EPA)

Remarks: (Regulation (EC) No 1272/2008, Annex VI)

Acute toxicity estimate Inhalation - Expert judgment - 4 h - 11,1 mg/l Dermal

Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation - 24 h (Draize Test)

Serious eye damage/eye irritation

Eyes - Rabbit (US-EPA)

Respiratory or skin sensitization

Sensitisation test (Magnusson and Kligman): - Guinea pig Result: negative

(OECD Test Guideline 406)

Germ cell mutagenicity

Test Type: In vitro mammalian cell gene mutation test Test system: Mouse lymphoma test

Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476

Result: negative

Test Type: Micronucleus test Species: Mouse

Cell type: Red blood cells (erythrocytes) Application Route: Oral

Method: OECD Test Guideline 474 Result: negative

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

Inhalation - May cause respiratory irritation. - Respiratory system Inhalation - May cause drowsiness or dizziness. - Nervous system

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Toxicity

LD50 orally in rats: 3.5 g/kg (Schaffarzick, Brown)

SECTION 12: Ecological information

Toxicity

Toxicity to fish

flow-through test LC50 - Pimephales promelas (fathead minnow) - > 961 mg/l - 96 h

(OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates

static test EC50 - Daphnia magna (Water flea) - 933 mg/l - 48 h (Directive 67/548/EEC, Annex V, C.2.)

Toxicity to algae

IC50 - Desmodesmus subspicatus (green algae) - > 1.000 mg/l - 72 h

Remarks: (IUCLID)

Toxicity to bacteria

EC10 - Pseudomonas putida - 6.900 mg/l - 16 h Remarks: (External MSDS)

Persistence and degradability

Biodegradability Result: > 99,9 % - Readily eliminated from water

(OECD Test Guideline 302B)

Bioaccumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Toxics Screening Level

The ITSL for t-butanol is 1890 µg/m3 , with annual averaging time. The initial risk screening level (IRSL) for tert-butyl alcohol is 7 µg/m 3 (annual averaging time) and the secondary screening level (SRSL) is 70 µg/m 3 (annual averaging time).

Other adverse effects

Stability in water

Remarks: No data available

SECTION 13: Disposal considerations

Waste treatment methods

Product

See www.retrologistik.com for processes regarding the return of chemicals and

containers, or contact us there if you have further questions.

Incompatibilities

tert-Butanol is incompatible with strong acids (including mineral acid), including mineral acids; strong oxidizers or caustics, aliphatic amines; isocyanates, alkali metals (i.e., lithium, sodium, potassium, rubidium, cesium, francium).

Waste Disposal

Incineration, or bury absorbed waste in an approved land fill.

SECTION 14: Transport information

UN number

ADR/RID: 1120 IMDG: 1120

UN proper shipping name

ADR/RID: BUTANOLS IMDG: BUTANOLS IATA: Butanols

Transport hazard class(es)

ADR/RID: 3 IMDG: 3 IATA: 3

Packaging group

ADR/RID: II IMDG: II IATA: II

Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

Special precautions for user

No data available

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Listed. website: https://www.mem.gov.cn/

Measures for Environmental Management of New Chemical Substances

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Listed. website: https://www.mee.gov.cn/

EC Inventory:Listed.

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: https://echa.europa.eu/

Korea Existing Chemicals List (KECL):Listed. website: http://ncis.nier.go.kr

New Zealand Inventory of Chemicals (NZIoC):Listed. website: https://www.epa.govt.nz/

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Listed. website: https://emb.gov.ph/

United States Toxic Substances Control Act (TSCA) Inventory:Listed. website: https://www.epa.gov/

Vietnam National Chemical Inventory:Listed. website: https://chemicaldata.gov.vn/

SECTION 16: Other information

Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CAS: Chemical Abstracts Service

EC50: Effective Concentration 50%

IATA: International Air Transportation Association

IMDG: International Maritime Dangerous Goods

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

STEL: Short term exposure limit

TWA: Time Weighted Average

References

【1】CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

【2】ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

【3】ECHA - European Chemicals Agency, website: https://echa.europa.eu/

【4】eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

【5】ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

【6】Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

【7】HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

【8】IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

【9】IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

【10】Sigma-Aldrich, website: https://www.sigmaaldrich.com/

Other Information

The odour warning when the exposure limit value is exceeded is insufficient.

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

ChemicalBook

Chemical Safety Data Sheet MSDS / SDS

Tetrachloroethylene

Revision Date:2026-04-04 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: Tetrachloroethylene
CBnumber	: CB7325193
CAS	: 127-18-4
EINECS Number	: 204-825-9
Synonyms	: Perchloroethylene,TETRACHLOROETHYLENE

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Danger

Precautionary statements

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P281 Use personal protective equipment as required.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continuerinsing.

P308+P313 IF exposed or concerned: Get medical advice/attention.

P311 Call a POISON CENTER or doctor/physician.

P333+P313 IF SKIN irritation or rash occurs: Get medical advice/attention.

P337+P313 IF eye irritation persists: Get medical advice/attention.

P391 Collect spillage. Hazardous to the aquatic environment

P405 Store locked up.

Hazard statements

H225 Highly Flammable liquid and vapour

H315 Causes skin irritation

H317 May cause an allergic skin reaction

H319 Causes serious eye irritation

H336 May cause drowsiness or dizziness

H351 Suspected of causing cancer

H370 Causes damage to organs

H411 Toxic to aquatic life with long lasting effects

Disposal

WARNING.Cancer - https://oehha.ca.gov/proposition-65/chemicals/tetrachloroethylene-perchloroethylene

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SECTION 3: Composition/information on ingredients

Substance

Product name	: Tetrachloroethylene
Synonyms	: Perchloroethylene,TETRACHLOROETHYLENE
CAS	: 127-18-4
EC number	: 204-825-9
MF	: C2Cl4
MW	: 165.83

SECTION 4: First aid measures

Description of first aid measures

General advice

Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Call in physician.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

If swallowed

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Water Foam Carbon dioxide (CO2) Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture

Carbon oxides Hydrogen chloride gas Combustible.

Development of hazardous combustion gases or vapours possible in the event of fire.

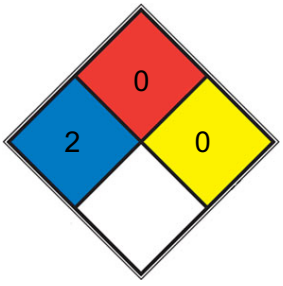
Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

Further information

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

NFPA 704



■	HEALTH	2	Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury (e.g. diethyl ether, ammonium phosphate, iodine)
■	FIRE	0	Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand. Materials that will not burn in air when exposed to a temperature of 820 °C (1,500 °F) for a period of 5 minutes.(e.g. Carbon tetrachloride)
■	REACT	0	Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium,N2)
□	SPEC. HAZ.		

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.
For personal protection see section 8.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemizorb?). Dispose of properly. Clean up affected area.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Advice on safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.
For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Storage conditions

Tightly closed. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

Exposure controls

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Full contact Material: Viton?

Minimum layer thickness: 0,7 mm Break through time: 480 min

Material tested:Vitoject? (KCL 890 / Aldrich Z677698, Size M)

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Splash contact Material: Nitrile rubber

Minimum layer thickness: 0,4 mm Break through time: 240 min

Material tested:Camatril? (KCL 730 / Aldrich Z677442, Size M)

Body Protection

protective clothing

Respiratory protection

Recommended Filter type: Filter A (acc. to DIN 3181) for vapours of organic compounds

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains.

Exposure limits

TLV-TWA 50 ppm (～325 mg/m^3) (ACGIH), 100 ppm (MSHA and OSHA); TLV-STEL 200 ppm (ACGIH); carcinogenicity: Animal Limited Evidence.

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Appearance	colorless liquid, clear
Odour	No data available
Odour Threshold	0.77ppm
pH	No data available
Melting point/freezing point	Melting point/range: -22 °C - lit.
Initial boiling point and boiling range	121 °C - lit.
Flash point	120-121°C
Evaporation rate	No data available

Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	No data available
Vapour pressure	25,3 hPa at 25,0 °C 17,3 hPa at 20,0 °C
Vapour density	5.83 (vs air)
Relative density	1,623 g/cm3 at 25 °C - lit. No data available
Water solubility	0,15 g/l at 25 °C
Partition coefficient: n-octanol/water	log Pow: 2,53 at 23 °C
Autoignition temperature	No data available
Decomposition temperature	No data available
Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: 0,844 mPa.s at 25 °C
Explosive properties	No data available
Oxidizing properties	No data available
Henry's Law Constant	4.97 at 1.8 °C, 15.5 at 21.6 °C, 34.2 at 40.0 °C, 47.0 at 50 °C, 68.9 at 60 °C, 117.0 at 70 °C (EPICS-GC, Shimotori and Arnold, 2003)
λmax	λ: 290 nm Amax: 1.00 λ: 295 nm Amax: 0.30 λ: 300 nm Amax: ≤0.20 λ: 305 nm Amax: 0.10 λ: 350 nm Amax: 0.05 λ: 400 nm Amax: 0.03

Other safety information

Surface tension 32,1 mN/m at 20 °C

SECTION 10: Stability and reactivity

Reactivity

No data available

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

Possibility of hazardous reactions

Risk of explosion with:

Alkali metals Aluminum sodium amide Barium

nitrogen dioxide Oxygen

with

alkali hydroxides Exothermic reaction with:

strong alkalis Alkaline earth metals strong alkalis

Light metals Powdered metals Oxidizing agents Strong acids Strong bases nitrous gases

Risk of ignition or formation of inflammable gases or vapours with: zinc oxide

with Aluminum

Conditions to avoid

no information available

Incompatible materials

various plastics

Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - male and female - 3.420 mg/kg

(OECD Test Guideline 401) Remarks: (ECHA) Inhalation

Skin corrosion/irritation

Skin - Rabbit

Result: Skin irritation - 4 h (OECD Test Guideline 404) Remarks: (ECHA)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Mild eye irritation - 24 h (Draize Test)

Remarks: (RTECS)

Respiratory or skin sensitization

Local lymph node assay (LLNA) - Mouse Result: May cause sensitization by skin contact. (OECD Test Guideline 429)

Remarks: (ECHA)

Germ cell mutagenicity

Test Type: Chromosome aberration test in vitro Test system: Chinese hamster ovary cells

Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 473

Result: negative Remarks: (ECHA) Test Type: Ames test

Test system: Salmonella typhimurium

Metabolic activation: without metabolic activation Method: OECD Test Guideline 471

Result: negative Remarks: (ECHA)

Test Type: Micronucleus test Species: Mouse

Application Route: Intraperitoneal Method: OECD Test Guideline 474 Result: negative

Remarks: (ECHA)

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

May cause drowsiness or dizziness.

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Toxicity

LD50 orally in mice: 8.85 g/kg (Dybing); LC for mice in air: 5925 ppm (Lazarew)

SECTION 12: Ecological information

Toxicity

Toxicity to fish

flow-through test LC50 - Oncorhynchus mykiss (rainbow trout) - 5 mg/l - 96 h

Remarks: (ECHA)

Toxicity to daphnia and other aquatic invertebrates

EC50 - Daphnia magna (Water flea) - 7,50 mg/l - 48 h

Toxicity to algae

ErC50 - Chlamydomonas reinhardtii (green algae) - 3,64 mg/l - 72 h Remarks: (ECHA)

Persistence and degradability

Biodegradability aerobic - Exposure time 28 d

Result: 11 % - Not readily biodegradable. (OECD Test Guideline 301C)

Bioaccumulative potential

Bioaccumulation Lepomis macrochirus (Bluegill) - 21 d

- 0,00343 mg/l(Tetrachlorethylene)

Bioconcentration factor (BCF): 49

Mobility in soil

No data available

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Toxics Screening Level

The acute initial threshold screening level (ITSL) for tetrachloroethylene is 1400 µg/m3 (24-hr averaging time). The averaging time for the chronic ITSL of 40 µg/m3 (based on an EPA RfC) is being changed from 24-hr to annual.

Other adverse effects

No data available

SECTION 13: Disposal considerations

Waste treatment methods

Incompatibilities

Violent reaction with strong oxidizers; powdered, chemically active metals, such as aluminum, lithium, beryllium, and barium; caustic soda; sodium hydroxide; potash. Tetrachloroethylene is quite stable. However, it reacts violently with concentrated nitric acid to give carbon dioxide as a primary product.

Product

See www.retrologistik.com for processes regarding the return of chemicals and
containers, or contact us there if you have further questions.

Waste Disposal

Incineration, preferably after mixing with another combustible fuel. Care must be exercised to assure complete combustion to prevent the formation of phosgene. An acid scrubber is necessary to remove the halo acids produced. Alternatively, PCE may be recovered from waste gases and reused.

SECTION 14: Transport information

UN number

ADR/RID: 1897 IMDG: 1897 IATA: 1897

UN proper shipping name

ADR/RID: TETRACHLOROETHYLENE IMDG: TETRACHLOROETHYLENE

IATA: Tetrachloroethylene

14.3 Transport hazard class(es)

ADR/RID: 6.1 IMDG: 6.1 IATA: 6.1

14.4 Packaging group

ADR/RID: III IMDG: III IATA: III

1.

Environmental hazards

ADR/RID: yes IMDG Marine pollutant: yes IATA: no

Special precautions for user

No data available

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Listed. website: https://www.mem.gov.cn/

Measures for Environmental Management of New Chemical Substances

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Listed. website: https://www.mee.gov.cn/

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Listed. website: https://emb.gov.ph/

Korea Existing Chemicals List (KECL):Listed. website: http://ncis.nier.go.kr

United States Toxic Substances Control Act (TSCA) Inventory:Listed. website: https://www.epa.gov/

EC Inventory:Listed.

New Zealand Inventory of Chemicals (NZIoC):Listed. website: https://www.epa.govt.nz/

Vietnam National Chemical Inventory:Listed. website: https://chemicaldata.gov.vn/

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: https://echa.europa.eu/

SECTION 16: Other information

Abbreviations and acronyms

CAS: Chemical Abstracts Service

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

IMDG: International Maritime Dangerous Goods

IATA: International Air Transportation Association

TWA: Time Weighted Average

STEL: Short term exposure limit

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

EC50: Effective Concentration 50%

References

【1】CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

【2】ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

【3】ECHA - European Chemicals Agency, website: https://echa.europa.eu/

【4】eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

【5】ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

【6】Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

【7】HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

【8】IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

【9】IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

【10】Sigma-Aldrich, website: https://www.sigmaaldrich.com/

Other Information

Depending on the degree of exposure, periodic medical examination is suggested.The odour warning when the exposure limit value is exceeded is insufficient.Do NOT use in the vicinity of a fire or a hot surface, or during welding.Use of alcoholic beverages enhances the harmful effect.

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

ChemicalBook

Chemical Safety Data Sheet MSDS / SDS

Tetrahydrofuran

Revision Date:2026-04-04 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: Tetrahydrofuran
CBnumber	: CB6852795
CAS	: 109-99-9
EINECS Number	: 203-726-8
Synonyms	: Tetrahydrofuran,THF

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Danger

Precautionary statements

P201 Obtain special instructions before use.

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continuerinsing.

P370+P378 In case of fire: Use … for extinction.

P403+P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

Hazard statements

H225 Highly Flammable liquid and vapour

H302 Harmful if swallowed

H319 Causes serious eye irritation

H333 May be harmful if inhaled

H335 May cause respiratory irritation

H351 Suspected of causing cancer

SECTION 3: Composition/information on ingredients

Substance

Product name	: Tetrahydrofuran
Synonyms	: Tetrahydrofuran,THF
CAS	: 109-99-9
EC number	: 203-726-8
MF	: C4H8O
MW	: 72.11

SECTION 4: First aid measures

Description of first aid measures

General advice

Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Call in physician.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

If swallowed

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO2) Foam Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture

Carbon oxides Combustible.

Pay attention to flashback.

Vapors are heavier than air and may spread along floors.

Development of hazardous combustion gases or vapours possible in the event of fire. Forms explosive mixtures with air at ambient temperatures.

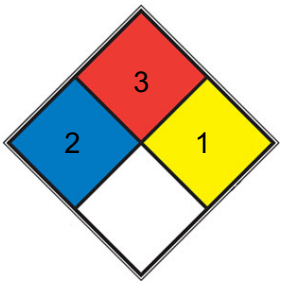
Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

Further information

Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

NFPA 704



■	HEALTH	2	Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury (e.g. diethyl ether, ammonium phosphate, iodine)
■	FIRE	3	Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions . Liquids having a flash point below 22.8 °C (73 °F) and having a boiling point at or above 37.8 °C (100 °F) or having a flash point between 22.8 and 37.8 °C (73 and 100 °F). (e.g. gasoline, acetone)
■	REACT	1	Normally stable, but can become unstable at elevated temperatures and pressures (e.g. propene)
□	SPEC. HAZ.		

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition.

Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

Environmental precautions

Do not let product enter drains. Risk of explosion.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material (e.g.
Chemizorb?). Dispose of properly. Clean up affected area.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Advice on safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition.Take precautionary measures against static discharge.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.
For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Storage conditions

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.
Test for peroxide formation periodically and before distillation.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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SECTION 8: Exposure controls/personal protection

control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

Exposure controls

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Splash contact Material: butyl-rubber

Minimum layer thickness: 0,7 mm Break through time: 10 min

Material tested:Butoject? (KCL 898)

Body Protection

Flame retardant antistatic protective clothing.

Respiratory protection

Recommended Filter type: Filter A (acc. to DIN 3181) for vapours of organic compounds

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains. Risk of explosion.

Exposure limits

TLV-TWA 200 ppm (590 mg/m^3) (ACGIH, MSHA, and OSHA); STEL 250 ppm (ACGIH); IDLH 20,000 ppm (NIOSH).

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Appearance	colorless liquid, clear
Odour	ether-like
Odour Threshold	No data available
pH	ca.7
Melting point/freezing point	Melting point: -108,44 °C at 1.013,25 hPa - (ECHA)
Initial boiling point and boiling range	65 °C at 1.013 hPa
Flash point	-21,2 °C - closed cup - DIN 51755 Part 1
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	Upper explosion limit: 11,8 %(V) - (THF) Lower explosion limit: 1,8 %(V) - (THF)
Vapour pressure	170 hPa at 20,0 °C
Vapour density	ca.2,5 at 25 °C - (Air = 1.0)
Relative density	0.89
Water solubility	miscible
Partition coefficient: n-octanol/water	log Pow: 0,45 at 25 °C - Bioaccumulation is not expected.
Autoignition temperature	215 °C at 1.013 hPa - DIN 51794
Decomposition temperature	No data available

Viscosity	Viscosity, kinematic: 0,518 mm2/s at 25 °C Viscosity, dynamic: 0,456 mPa.s at 25 °C0,359 mPa.s at 50 °C
Explosive properties	No data available
Oxidizing properties	No data available
Henry's Law Constant	1.54 (static headspace-GC, Welke et al., 1998)
λmax	λ: 245 nm Amax: ≤0.26 λ: 275 nm Amax: ≤0.046 λ: 315 µm Amax: ≤0.0044

Other safety information

Surface tension 26,4 mN/m at 25 °C

Relative vapor density

ca.2,5 at 25 °C - (Air = 1.0)

SECTION 10: Stability and reactivity

Reactivity

Formation of peroxides possible.

Vapors may form explosive mixture with air.

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) . Stable under recommended storage conditions.

Possibility of hazardous reactions

No data available

Conditions to avoid

Heat, flames and sparks. Warming.

Moisture.

Incompatible materials

rubber, various plastics, Tin

Hazardous decomposition products

Peroxides

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - male and female - 1.650 mg/kg Remarks: (ECHA)

Symptoms: Irritation of mucous membranes

LC50 Inhalation - Rat - male and female - 4 h - > 16,9 mg/l (US-EPA)

Symptoms: mucosal irritations, Cough, Shortness of breath, Possible damages:, damage of respiratory tract

LD50 Dermal - Rat - male and female - > 2.000 mg/kg (OECD Test Guideline 402)

Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation - 72 h (Draize Test)

Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product.

Serious eye damage/eye irritation

Eyes - Rabbit Result: Eye irritation Remarks: (ECHA)

(Regulation (EC) No 1272/2008, Annex VI)

Respiratory or skin sensitization

(OECD Test Guideline 429)

Germ cell mutagenicity

In vivo tests did not show mutagenic effects

Test Type: In vitro mammalian cell gene mutation test Test system: Chinese hamster ovary cells

Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476

Result: negative

Test Type: Ames test

Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471

Result: negative

Carcinogenicity

No data available

Reproductive toxicity

No toxicity to reproduction

Specific target organ toxicity - single exposure

Inhalation - May cause respiratory irritation. - Respiratory system May cause drowsiness or dizziness. - Nervous system

Specific target organ toxicity - repeated exposure

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

No aspiration toxicity classification

Toxicity

LD50 oral (rat) 2880 mg/kg

LC50 inhal (rat) 21,000 ppm (3 h)

PEL (OSHA) 200 ppm (590 mg/m3)

TLV-TWA (ACGIH) 200 ppm (590 mg/m3)

STEL (ACGIH) 250 ppm (737 mg/m3)

SECTION 12: Ecological information

Toxicity

Toxicity to fish

flow-through test LC50 - Pimephales promelas (fathead minnow) -

2.160 mg/l - 96 h

(OECD Test Guideline 203)

Toxicity to daphnia and other aquatic invertebrates

static test EC50 - Daphnia magna (Water flea) - 3.485 mg/l - 48 h (OECD Test Guideline 202)

Toxicity to bacteria

static test EC20 - activated sludge - ca. 800 mg/l - 0,5 h (OECD Test Guideline 209)

Persistence and degradability

Biodegradability aerobic Biochemical oxygen demand - Exposure time 28 d Result: 39 % - Not readily biodegradable.

(OECD Test Guideline 301D)

Bioaccumulative potential

No bioaccumulation is to be expected (log Pow <= 4).

Mobility in soil

No data available

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Toxics Screening Level

The Initial Threshold Screening Level (ITSL) for tetrahydrofuran (THF) is 8000 µg/m3 with annual averaging time.

Other adverse effects

No data available

SECTION 13: Disposal considerations

Waste treatment methods

Product

See www.retrologistik.com for processes regarding the return of chemicals and

containers, or contact us there if you have further questions.

Incompatibilities

Forms thermally explosive peroxides in air on standing (in absence of inhibitors). Peroxides can be detonated by heating, friction, or impact. Reacts violently with strong oxidizers, strong bases and some metal halides. Attacks some forms of plastics, rubber and coatings.

Waste Disposal

Consult with environmental regulatory agencies for guidance on acceptable disposal practices. Generators of waste containing this contaminant (≥100 kg/mo) must conform with EPA regulations governing storage, transportation, treatment, and waste disposal. Concentrated waste containing peroxides-perforation of a container of the waste from a safe distance followed by open burning.

SECTION 14: Transport information

UN number

ADR/RID: 2056 IMDG: 2056

UN proper shipping name

ADR/RID: TETRAHYDROFURAN IMDG: TETRAHYDROFURAN IATA: Tetrahydrofuran

Transport hazard class(es)

ADR/RID: 3 IMDG: 3 IATA: 3

Packaging group

ADR/RID: II IMDG: II IATA: II

Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

Special precautions for user

No data available

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Listed. website: https://www.mem.gov.cn/

Measures for Environmental Management of New Chemical Substances

Korea Existing Chemicals List (KECL):Listed. website: http://ncis.nier.go.kr

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Listed. website: https://www.mee.gov.cn/

Vietnam National Chemical Inventory:Listed. website: https://chemicaldata.gov.vn/

New Zealand Inventory of Chemicals (NZIoC):Listed. website: https://www.epa.govt.nz/

EC Inventory:Listed.

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: https://echa.europa.eu/

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Listed. website: https://emb.gov.ph/

United States Toxic Substances Control Act (TSCA) Inventory:Listed. website: https://www.epa.gov/

SECTION 16: Other information

Abbreviations and acronyms

CAS: Chemical Abstracts Service

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

IMDG: International Maritime Dangerous Goods

IATA: International Air Transportation Association

TWA: Time Weighted Average

STEL: Short term exposure limit

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

EC50: Effective Concentration 50%

References

【1】CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

【2】ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

【3】ECHA - European Chemicals Agency, website: https://echa.europa.eu/

【4】eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

【5】ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

【6】Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

【7】HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

【8】IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

【9】IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

【10】Sigma-Aldrich, website: https://www.sigmaaldrich.com/

Other Information

P-Cresol or hydroquinone are commonly used stabilizers.Use of alcoholic beverages enhances the harmful effect.An added stabilizer or inhibitor can influence the toxicological properties of this substance, consult an expert.The odour warning when the exposure limit value is exceeded is insufficient.Check for peroxides prior to distillation; eliminate if found.

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

ChemicalBook

Chemical Safety Data Sheet MSDS / SDS

Toluene

Revision Date:2026-04-04 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: Toluene
CBnumber	: CB4233905
CAS	: 108-88-3
EINECS Number	: 203-625-9
Synonyms	: Toluene,tol

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Danger

Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.

P405 Store locked up.

Hazard statements

H225 Highly Flammable liquid and vapour

H302 Harmful if swallowed

H304 May be fatal if swallowed and enters airways

H315 Causes skin irritation

H333 May be harmful if inhaled

H336 May cause drowsiness or dizziness

H361 Suspected of damaging fertility or the unborn child

H373 May cause damage to organs through prolonged or repeated exposure

Disposal

WARNING.Cancer - https://oehha.ca.gov/proposition-65/chemicals/toluene

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SECTION 3: Composition/information on ingredients

Substance

Product name	: Toluene
Synonyms	: Toluene,tol
CAS	: 108-88-3
EC number	: 203-625-9
MF	: C7H8
MW	: 92.14

SECTION 4: First aid measures

Description of first aid measures

General advice

Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Call in physician.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

If swallowed

After swallowing: caution if victim vomits. Risk of aspiration! Keep airways free. Pulmonary failure possible after aspiration of vomit. Call a physician immediately.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO2) Foam Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

Special hazards arising from the substance or mixture

Carbon oxides Combustible.

Pay attention to flashback.

Vapors are heavier than air and may spread along floors.

Development of hazardous combustion gases or vapours possible in the event of fire. Forms explosive mixtures with air at ambient temperatures.

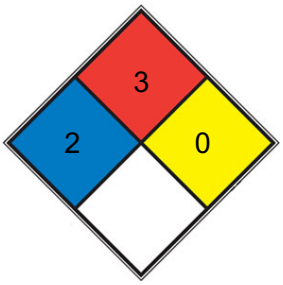
Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

Further information

Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

NFPA 704



HEALTH	2	Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury (e.g. diethyl ether, ammonium phosphate, iodine)
FIRE	3	Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions . Liquids having a flash point below 22.8 °C (73 °F) and having a boiling point at or above 37.8 °C (100 °F) or having a flash point between 22.8 and 37.8 °C (73 and 100 °F). (e.g. gasoline, acetone)
REACT	0	Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium,N2)
SPEC. HAZ.		

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition.

Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

Environmental precautions

Do not let product enter drains. Risk of explosion.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material (e.g.
Chemizorb?). Dispose of properly. Clean up affected area.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Advice on safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition.Take precautionary measures against static discharge.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.
For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Storage conditions

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.
Handle and store under inert gas.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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SECTION 8: Exposure controls/personal protection

control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

Exposure controls

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate

government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Full contact Material: Viton?

Minimum layer thickness: 0,7 mm Break through time: 480 min

Material tested:Vitoject? (KCL 890 / Aldrich Z677698, Size M)

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Splash contact Material: Viton?

Minimum layer thickness: 0,7 mm Break through time: 480 min

Material tested:Vitoject? (KCL 890 / Aldrich Z677698, Size M)

Body Protection

Flame retardant antistatic protective clothing.

Respiratory protection

Recommended Filter type: Filter A (acc. to DIN 3181) for vapours of organic compounds

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains. Risk of explosion.

Exposure limits

TLV-TWA 100 ppm (～375 mg/m^3) (ACGIH, NIOSH, and MSHA), 200 ppm (～750 mg/ m3) OSHA; ceiling 300 ppm, peak 500 ppm/ 15 min (OSHA); STEL 150 ppm (ACGIH).

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Appearance	liquid
Odour	benzene-like
Odour Threshold	0,2 ppm
pH	Not applicable
Melting point/freezing point	Melting point/range: -93 °C
Initial boiling point and boiling range	110 - 111 °C
Flash point	4,0 °C - c.c.
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	Upper explosion limit: 7,1 %(V) Lower explosion limit: 1,2 %(V)

Vapour pressure	30,88 hPa at 21,1 °C
Vapour density	3,18
Relative density	0.865～0.870(20/20℃)(Ph.Eur.)
Water solubility	0,58 g/l at 25 °C - partly soluble
Partition coefficient: n-octanol/water	log Pow: 2,73 at 20 °C - Bioaccumulation is not expected.
Autoignition temperature	535,0 °C
Decomposition temperature	No data available
Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: 0,56 mPa.s at 25 °C
Explosive properties	No data available
Oxidizing properties	No data available
Henry's Law Constant	1.05 at 40 °C, 1.68 at 50 °C, 2.62 at 60 °C, 3.15 at 70 °C, 3.97 at 80 °C (headspace-GC, Vane et al., 2001)

Other safety information

Conductivity < 0,01 µS/cm

Surface tension 27,73 mN/m at 0,516g/l at 25 °C

Relative vapor density

3,18

SECTION 10: Stability and reactivity

Reactivity

Vapors may form explosive mixture with air. Vapors may form explosive mixture with air.

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) . The product is chemically stable under standard ambient conditions (room temperature) .

Possibility of hazardous reactions

Risk of explosion with: fuming sulfuric acid Nitric acid

silver perchlorates nitrogen dioxide

nonmetallic halides acetic acid

halogen-halogen compounds uranium hexafluoride organic nitro compounds

Violent reactions possible with: Strong acids

Strong oxidizing agents sulfur

with Heat.

Conditions to avoid

Warming. Warming.

Incompatible materials

rubber, various plastics

Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - male - 5.580 mg/kg

(Tested according to Directive 92/69/EEC.)

LC50 Inhalation - Rat - male and female - 4 h - 25,7 mg/l (OECD Test Guideline 403)

LD50 Dermal - Rabbit - > 5.000 mg/kg Remarks: (ECHA)

Skin corrosion/irritation

Skin - Rabbit

Result: irritating - 4 h Remarks: (ECHA)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: slight irritation (OECD Test Guideline 405)

Respiratory or skin sensitization

(Regulation (EC) No. 440/2008, Annex, B.6)

Germ cell mutagenicity

Test Type: In vitro mammalian cell gene mutation test Test system: Mouse lymphoma test

Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476

Result: negative

Test Type: Ames test

Test system: S. typhimurium

Metabolic activation: with and without metabolic activation

Method: Mutagenicity (Salmonella typhimurium - reverse mutation assay) Result: negative

Test Type: Chromosome aberration test Species: Rat

Cell type: Bone marrow Application Route: i.p.

Result: negative Remarks: (ECHA)

Carcinogenicity

No data available

Reproductive toxicity

Suspected of damaging the unborn child.

Specific target organ toxicity - single exposure

May cause drowsiness or dizziness. - Central nervous system

Specific target organ toxicity - repeated exposure

May cause damage to organs through prolonged or repeated exposure. - Central nervous system

Aspiration hazard

Aspiration hazard, Aspiration may cause pulmonary edema and pneumonitis.

Toxicity

LD50 orally in rats: 7.53 g/kg (Smyth)

SECTION 12: Ecological information

Toxicity

Toxicity to fish

flow-through test LC50 - Oncorhynchus kisutch (coho salmon) - 5,5 mg/l - 96 h

Remarks: (ECHA)

Toxicity to daphnia and other aquatic invertebrates

EC50 - Ceriodaphnia dubia (water flea) - 3,78 mg/l - 48 h (US-EPA)

Toxicity to bacteria

static test EC50 - Bacteria - 84 mg/l - 24 h

Remarks: (ECHA)

Persistence and degradability

Biodegradability aerobic - Exposure time 20 d

Result: 86 % - Readily biodegradable. Remarks: (IUCLID)

Bioaccumulative potential

Bioaccumulation Leuciscus idus (Golden orfe) - 3 d

- 0,05 mg/l(Toluene)

Bioconcentration factor (BCF): 90

Mobility in soil

No data available

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Toxics Screening Level

The initial threshold screening level (ITSL) for toluene is 5,000 µg/m3 based on a 24-hour averaging time.

Other adverse effects

No data available

SECTION 13: Disposal considerations

Waste treatment methods

Incompatibilities

Incompatible with oxidizers (chlorates, nitrates, peroxides, permanganates, perchlorates, chlorine, bromine, fluorine, etc.); contact may cause fires or explosions. Keep away from alkaline materials, strong bases, strong acids, oxoacids, epoxides. Violent reaction with mixtures of nitric and sulfuric acid.

Waste Disposal

Consult with environmental regulatory agencies for guidance on acceptable disposal practices. Generators of waste containing this contaminant (≥100 kg/mo) must conform with EPA regulations governing storage, transportation, treatment, and waste disposal.

SECTION 14: Transport information

UN number

ADR/RID: 1294 IMDG: 1294

UN proper shipping name

ADR/RID: TOLUENE IMDG: TOLUENE IATA: Toluene

Transport hazard class(es)

ADR/RID: 3 IMDG: 3 IATA: 3

Packaging group

ADR/RID: II IMDG: II IATA: II

Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

Special precautions for user

No data available

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Listed. website: https://www.mem.gov.cn/

Measures for Environmental Management of New Chemical Substances

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Listed. website: https://www.mee.gov.cn/

United States Toxic Substances Control Act (TSCA) Inventory:Listed. website: https://www.epa.gov/

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: https://echa.europa.eu/

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Listed. website: https://emb.gov.ph/

EC Inventory:Listed.

Vietnam National Chemical Inventory:Listed. website: https://chemicaldata.gov.vn/

New Zealand Inventory of Chemicals (NZIoC):Listed. website: https://www.epa.govt.nz/

Korea Existing Chemicals List (KECL):Listed. website: http://ncis.nier.go.kr

SECTION 16: Other information

Abbreviations and acronyms

CAS: Chemical Abstracts Service

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

IMDG: International Maritime Dangerous Goods

IATA: International Air Transportation Association

TWA: Time Weighted Average

STEL: Short term exposure limit

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

EC50: Effective Concentration 50%

References

【1】CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

【2】ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

【3】ECHA - European Chemicals Agency, website: https://echa.europa.eu/

【4】eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

【5】ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

【6】Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

【7】HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

【8】IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

【9】IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

【10】Sigma-Aldrich, website: https://www.sigmaaldrich.com/

Other Information

Depending on the degree of exposure, periodic medical examination is suggested.Use of alcoholic beverages enhances the harmful effect.

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

ChemicalBook

Chemical Safety Data Sheet MSDS / SDS

TRANS-1,2-DICHLOROETHYLENE

Revision Date:2026-04-04 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: TRANS-1,2-DICHLOROETHYLENE
CBnumber	: CB7451926
CAS	: 156-60-5
EINECS Number	: 205-860-2
Synonyms	: TRANS-1,2-DICHLOROETHYLENE,1,2-DICHLOROETHYLENE

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Danger

Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash hands thoroughly after handling.

P264 Wash skin thouroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.

P304+P340 IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing.

P307+P311 IF exposed: call a POISON CENTER or doctor/physician.

P311 Call a POISON CENTER or doctor/physician.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

P501 Dispose of contents/container to.....

Hazard statements

H225 Highly Flammable liquid and vapour

H302 Harmful if swallowed

H315 Causes skin irritation

H319 Causes serious eye irritation

H332 Harmful if inhaled

H336 May cause drowsiness or dizziness

H370 Causes damage to organs

H371 May cause damage to organs

H402 Harmful to aquatic life

H412 Harmful to aquatic life with long lasting effects

SECTION 3: Composition/information on ingredients

Substance

Product name	: TRANS-1,2-DICHLOROETHYLENE
Synonyms	: TRANS-1,2-DICHLOROETHYLENE,1,2-DICHLOROETHYLENE
CAS	: 156-60-5
EC number	: 205-860-2
MF	: C2H2Cl2
MW	: 96.94

SECTION 4: First aid measures

Description of first aid measures

General advice

Consult a physician. Show this material safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

Notes to physician

No data available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Dry powder Dry sand

Unsuitable extinguishing media

Do NOT use water jet.

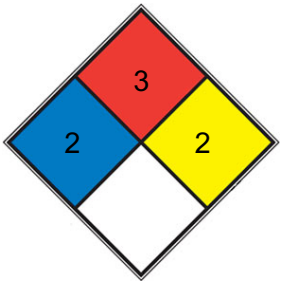
Special hazards arising from the substance or mixture

Carbon oxides Hydrogen chloride gas

Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary. Use water spray to cool unopened containers.

NFPA 704



■	HEALTH	2	Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury (e.g. diethyl ether, ammonium phosphate, iodine)
■	FIRE	3	Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions . Liquids having a flash point below 22.8 °C (73 °F) and having a boiling point at or above 37.8 °C (100 °F) or having a flash point between 22.8 and 37.8 °C (73 and 100 °F). (e.g. gasoline, acetone)
■	REACT	2	Undergoes violent chemical change at elevated temperatures and pressures, reacts violently with water, or may form explosive mixtures with water (e.g. white phosphorus, potassium, sodium)
□	SPEC. HAZ.		

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. For personal protection see section 8.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Advice on safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking.Take measures to prevent the build up of electrostatic charge.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Storage conditions

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Light sensitive. Air and moisture sensitive. Refrigerate before opening.

SECTION 8: Exposure controls/personal protection

control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Body Protection

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full- face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Exposure limits

OSHA PEL: TWA 200 ppm (790 mg/m^3); ACGIH TLV: TWA 200 ppm (adopted).

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Appearance	light yellow liquid, clear
Odour	No data available
Odour Threshold	No data available
pH	No data available
Melting point/freezing point	Melting point/range: -50 °C - lit.
Initial boiling point and boiling range	48 °C - lit.
Flash point	6.0 °C - closed cup
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	Upper explosion limit: 12.8 %(V) Lower explosion limit: 9.7 %(V)

Vapour pressure	5.32 psi (20 °C)
Vapour density	No data available
Relative density	No data available
Water solubility	Miscible with acetone, ethanol, and ether and very soluble in benzene and chloroform (U.S. EPA, 1985)
Partition coefficient: n-octanol/water	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available
Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
Explosive properties	No data available
Oxidizing properties	No data available
Henry's Law Constant	10.12 at 30 °C (headspace-GC, Sanz et al., 1997)

Other safety information

No data available

SECTION 10: Stability and reactivity

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No data available

Conditions to avoid

Heat, flames and sparks.

Incompatible materials

Oxidizing agents, Bases

Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Oral

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Toxicity

LD50 in rats (ml/kg): 1.0 orally; 60 i.p.; in mice (ml/kg): 3.2 i.p. (Freundt)

SECTION 12: Ecological information

Toxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Toxics Screening Level

The Initial Threshold Screening Level (ITSL) for trans-1,2-dichloroethylene is 200 µg/m3 with annual averaging time.

Other adverse effects

Harmful to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Burn in a
chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable.

Incompatibilities

Incompatible with oxidizers (chlorates, nitrates, peroxides, permanganates, perchlorates, chlorine, bromine, fluorine, etc.). Keep away from alkaline materials, strong bases, strong acids, oxoacids, and epoxides.Reacts with strong bases; potassium hydroxide; difluoromethylene, dihypofluoride, nitrogen tetroxide (explosive).

Waste Disposal

Incineration, preferably after mixing with another combustible fuel. Care must be exercised to assure complete combustion to prevent the formation of phosgene. An acid scrubber is necessary to remove the halo acids produced.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

UN number

ADR/RID: 1150 IMDG: 1150 IATA-DGR: 1150

UN proper shipping name

ADR/RID: 1,2-DICHLOROETHYLENE IMDG: 1,2-DICHLOROETHYLENE
IATA-DGR: 1,2-Dichloroethylene

Transport hazard class(es)

ADR/RID: 3 IMDG: 3 IATA-DGR: 3

Packaging group

ADR/RID: II IMDG: II IATA-DGR: II

Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA-DGR: no

Special precautions for user

Based on chemical properties, choose appropriate tools and conditions of transport. Transporting tools shall be equipped with appropriate and sufficient firefighting equipment and emergency leaking installations. If transporting by road, please go along the specified route.

Incompatible materials

Oxidizing agents, Bases

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Not Listed. website: https://www.mem.gov.cn/

Measures for Environmental Management of New Chemical Substances

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Listed. website: https://www.mee.gov.cn/

EC Inventory:Listed.

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: https://echa.europa.eu/

Korea Existing Chemicals List (KECL):Listed. website: http://ncis.nier.go.kr

New Zealand Inventory of Chemicals (NZIoC):Listed. website: https://www.epa.govt.nz/

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Listed. website: https://emb.gov.ph/

United States Toxic Substances Control Act (TSCA) Inventory:Listed. website: https://www.epa.gov/

Vietnam National Chemical Inventory:Listed. website: https://chemicaldata.gov.vn/

SECTION 16: Other information

Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CAS: Chemical Abstracts Service

EC50: Effective Concentration 50%

IATA: International Air Transportation Association

IMDG: International Maritime Dangerous Goods

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

STEL: Short term exposure limit

TWA: Time Weighted Average

References

【1】CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

【2】ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

【3】ECHA - European Chemicals Agency, website: https://echa.europa.eu/

【4】eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

【5】ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

【6】Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

【7】HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

【8】IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

【9】IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

【10】Sigma-Aldrich, website: https://www.sigmaaldrich.com/

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

Chemical Safety Data Sheet MSDS / SDS

Trichloroethylene

Revision Date:2026-04-04 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: Trichloroethylene
CBnumber	: CB5406573
CAS	: 79-01-6
EINECS Number	: 201-167-4
Synonyms	: Trichloroethylene,TCE

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Precautionary statements

P201 Obtain special instructions before use.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continuerinsing.

P405 Store locked up.

Hazard statements

H315 Causes skin irritation

H319 Causes serious eye irritation

H336 May cause drowsiness or dizziness

H341 Suspected of causing genetic defects

H350 May cause cancer

H412 Harmful to aquatic life with long lasting effects

Disposal

WARNING.Cancer - https://oehha.ca.gov/proposition-65/chemicals/trichloroethylene

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SECTION 3: Composition/information on ingredients

Substance

Product name	: Trichloroethylene
Synonyms	: Trichloroethylene,TCE
CAS	: 79-01-6
EC number	: 201-167-4
MF	: C2HCl3
MW	: 131.39

SECTION 4: First aid measures

Description of first aid measures

General advice

Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air. Call in physician.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

In case of eye contact

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

If swallowed

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture

Carbon oxides Hydrogen chloride gas Combustible.

Risk of dust explosion.

Development of hazardous combustion gases or vapours possible in the event of fire.

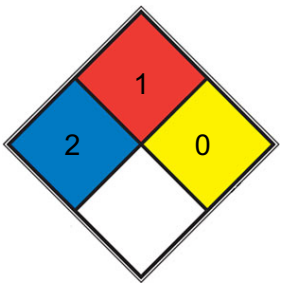
Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

Further information

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

NFPA 704



■	HEALTH	2	Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury (e.g. diethyl ether, ammonium phosphate, iodine)
■	FIRE	1	Materials that require considerable preheating, under all ambient temperature conditions, before ignition and combustion can occur. Includes some finely divided suspended solids that do not require heating before ignition can occur. Flash point at or above 93.3 °C (200 °F). (e.g. mineral oil, ammonia)
■	REACT	0	Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium,N2)
□	SPEC. HAZ.		

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material (e.g.

Chemizorb?). Dispose of properly. Clean up affected area.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Advice on safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Storage conditions

Tightly closed. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons.

Light sensitive. Handle and store under inert gas.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

---

SECTION 8: Exposure controls/personal protection

control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

Exposure controls

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Full contact Material: Viton?

Minimum layer thickness: 0,7 mm Break through time: 480 min

Material tested:Vitoject? (KCL 890 / Aldrich Z677698, Size M)

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Splash contact Material: Nitrile rubber

Minimum layer thickness: 0,4 mm Break through time: 10 min

Material tested:Camatril? (KCL 730 / Aldrich Z677442, Size M)

Body Protection

protective clothing

Respiratory protection

Recommended Filter type: Filter A (acc. to DIN 3181) for vapours of organic compounds

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains.

Exposure limits

TLV-TWA 50 ppm (～270 mg/m^3) (ACGIH), 100 ppm (MSHA and OSHA); TLV-STEL 200 ppm (ACGIH); ceiling 200 ppm (OSHA); carcinogenicity: Animal Lim ited Evidence, Human Inadequate Evidence (IARC).

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Appearance	colorless liquid, clear
Odour	characteristic
Odour Threshold	28 ppm
pH	No data available
Melting point/freezing point	Melting point/range: -84,8 °C - lit.
Initial boiling point and boiling range	86,7 °C - lit.
Flash point	- closed cupdoes not flash
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	Upper explosion limit: >99 %(V) - (Saturation - at high volume fractions, explosion turns into a decomposition reaction) Lower explosion limit: 7,9 %(V)
Vapour pressure	81,3 hPa at 20,0 °C
Vapour density	4.5 (vs air)
Relative density	1,463 g/mL at 25 °C - lit. 1,46 at 20 °C
Water solubility	1,1 g/l at 20 °C
Partition coefficient: n-octanol/water	log Pow: 2,53 at 20 °C - Bioaccumulation is not expected.
Autoignition temperature	410,0 °C
Decomposition temperature	No data available
Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: 0,58 mPa.s at 20 °C
Explosive properties	No data available

Oxidizing properties	No data available
Henry's Law Constant	3.14 at 1.8 °C, 8.47 at 21.6 °C, 19.0 at 40.0 °C, 26.5 at 50 °C, 35.8 at 60 °C, 56.6 at 70 °C (EPICS-GC, Shimotori and Arnold, 2003)

Other safety information

No data available

SECTION 10: Stability and reactivity

Reactivity

No data available

Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

Possibility of hazardous reactions

Violent reactions possible with:

Oxygen

(as liquefied gas) Alkaline earth metals alkali amides

semimetallic hydrogen compounds perchloric acid

Light metals aluminium chloride

Strong oxidizing agents potassium nitrate

Risk of explosion with:

Alkali metals Aluminum Barium

alkali hydroxides Lithium magnesium Powdered metals sodium amide

Strong oxidizing agents nitrogen dioxide Boranes

Oxygen with

alkali hydroxides Oxygen

with Pressure

Risk of ignition or formation of inflammable gases or vapours with: Titanium

Beryllium

Epoxy constituents

Conditions to avoid

no information available

Incompatible materials

various plastics

Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Oral

LC50 Inhalation - Rat - male - 4 h - 67,41 mg/l Remarks: (ECHA)

LD50 Dermal - Rabbit - > 20.000 mg/kg

Skin corrosion/irritation

Skin - Rabbit

Result: Skin irritation (OECD Test Guideline 404)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Eye irritation - 24 h Remarks: (RTECS)

Respiratory or skin sensitization

(OECD Test Guideline 429)

Germ cell mutagenicity

In vitro tests showed mutagenic effects Test Type: Ames test

Test system: S. typhimurium Method: OECD Test Guideline 471 Result: negative

Test Type: In vitro mammalian cell gene mutation test Test system: mouse lymphoma cells

Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476

Result: negative

Test Type: Chromosome aberration test in vitro Test system: Chinese hamster ovary cells

Metabolic activation: with and without metabolic activation Result: negative

Remarks: (ECHA)

Test Type: in vivo assay Species: Mouse

Result: negative Remarks: (ECHA)

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Toxicity

LD50 orally in rats: 4.92 ml/kg; LC (4 hrs) in rats: 8000 ppm (Smyth)

SECTION 12: Ecological information

Toxicity

Toxicity to fish

flow-through test LC50 - Jordanella floridae - 28,3 mg/l - 96 h (US-EPA)

Toxicity to daphnia and other aquatic invertebrates

Remarks: No data available (trichloroethylene)

Toxicity to algae

ErC50 - Chlamydomonas reinhardtii (green algae) - 36,5 mg/l - 72 h Remarks: (ECHA)

(trichloroethylene)

Toxicity to bacteria

Persistence and degradability

Biodegradability aerobic - Exposure time 28 d

Result: 19 % - Not readily biodegradable. (OECD Test Guideline 301D)

Bioaccumulative potential

Bioaccumulation Lepomis macrochirus - 14 d

(trichloroethylene)

Bioconcentration factor (BCF): 17

Mobility in soil

No data available

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Toxics Screening Level

The screening levels for trichloroethylene (TCE) are:

? Initial Threshold Screening Level (ITSL) = 2 micrograms per cubic meter (µg/m3) with 24-hr averaging time

? Initial Secondary Risk Screening Level (IRSL) = 0.2 µg/m3 with annual averaging time

? Secondary Risk Screening Level (SRSL) = 2 µg/m3 with annual averaging time

Other adverse effects

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

SECTION 13: Disposal considerations

Waste treatment methods

Incompatibilities

Contact with strong caustics causes decomposition and the production of highly toxic and flammable dichloroacetylene. Violent reaction with chemically active metals; powders, or shavings, such as aluminum, barium, lithium, sodium, magnesium, and titanium.

Product

See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

Waste Disposal

Incineration, preferably after mixing with another combustible fuel. Care must be exercised to assure complete combustion to prevent the formation of phosgene. An acid scrubber is necessary to remove the halo acids produced. An alternative to disposal for TCE is recovery and recycling.

SECTION 14: Transport information

UN number

ADR/RID: 1710 IMDG: 1710 IATA: 1710

UN proper shipping name

ADR/RID: TRICHLOROETHYLENE IMDG: TRICHLOROETHYLENE

IATA: Trichloroethylene

14.3	Transport hazard class(es)	
	ADR/RID: 6.1 IMDG: 6.1	IATA: 6.1
14.4	Packaging group	
	ADR/RID: III IMDG: III	IATA: III
14.5	Environmental hazards	
	ADR/RID: no IMDG Marine pollutant: no	IATA: no
14.6	Special precautions for user	
	No data available	

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Listed. website: https://www.mem.gov.cn/

Measures for Environmental Management of New Chemical Substances

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Listed. website: https://www.mee.gov.cn/

EC Inventory:Listed.

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: https://echa.europa.eu/

Korea Existing Chemicals List (KECL):Listed. website: http://ncis.nier.go.kr

New Zealand Inventory of Chemicals (NZIoC):Listed. website: https://www.epa.govt.nz/

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Listed. website: https://emb.gov.ph/

United States Toxic Substances Control Act (TSCA) Inventory:Listed. website: https://www.epa.gov/

Vietnam National Chemical Inventory:Listed. website: https://chemicaldata.gov.vn/

SECTION 16: Other information

Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CAS: Chemical Abstracts Service

EC50: Effective Concentration 50%

IATA: International Air Transportation Association

IMDG: International Maritime Dangerous Goods

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

STEL: Short term exposure limit

TWA: Time Weighted Average

References

【1】CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

【2】ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

【3】ECHA - European Chemicals Agency, website: https://echa.europa.eu/

【4】eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

【5】ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

【6】Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

【7】HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

【8】IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

【9】IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

【10】Sigma-Aldrich, website: https://www.sigmaaldrich.com/

Other Information

Combustible vapour/air mixtures difficult to ignite, may be developed under certain conditions.Use of alcoholic beverages enhances the harmful effect.Depending on the degree of exposure, periodic medical examination is suggested.The odour warning when the exposure limit value is exceeded is insufficient.Do NOT use in the vicinity of a fire or a hot surface, or during welding.

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

ChemicalBook

Chemical Safety Data Sheet MSDS / SDS

Trichlorofluoromethane

Revision Date:2026-04-04 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: Trichlorofluoromethane
CBnumber	: CB1127379
CAS	: 75-69-4
EINECS Number	: 200-892-3
Synonyms	: CFCl3,Trichlorofluoromethane

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

Classification of the substance or mixture

Acute toxicity - Category 4, Dermal

Hazardous to the ozone layer, Category 1

Label elements

Pictogram(s)

Signal word Danger

Hazard statement(s)

H225 Highly Flammable liquid and vapour

H312 Harmful in contact with skin

H315 Causes skin irritation

H319 Causes serious eye irritation

H331 Toxic if inhaled

H336 May cause drowsiness or dizziness

H351 Suspected of causing cancer

H370 Causes damage to organs

H372 Causes damage to organs through prolonged or repeated exposure

H420 Harms public health and the environment by destroying ozone in the upper atmosphere

Precautionary statement(s)

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P311 Call a POISON CENTER or doctor/physician.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continuerinsing.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P501 Dispose of contents/container to.....

P502 Refer to manufacturer/supplier for information on recovery/recycling

Prevention

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...

Response

P302+P352 IF ON SKIN: Wash with plenty of water/...

P317 Get medical help.

P321 Specific treatment (see ... on this label).

P362+P364 Take off contaminated clothing and wash it before reuse.

Storage

none

Disposal

P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

P502 Refer to manufacturer or supplier for information on recovery or recycling

Other hazards

no data available

SECTION 3: Composition/information on ingredients

Substance

Product name	: Trichlorofluoromethane
Synonyms	: CFCl3,Trichlorofluoromethane
CAS	: 75-69-4
EC number	: 200-892-3
MF	: CCl3F
MW	: 137.37

SECTION 4: First aid measures

Description of first aid measures

If inhaled

Fresh air, rest. Artificial respiration may be needed. Refer for medical attention.

Following skin contact

ON FROSTBITE: rinse with plenty of water, do NOT remove clothes. Refer for medical attention .

Following eye contact

First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then refer for medical attention.

Following ingestion

Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or Poison Control Center immediately.

Most important symptoms and effects, both acute and delayed

no data available

Indication of any immediate medical attention and special treatment needed

no data available

SECTION 5: Firefighting measures

Extinguishing media

Use dry chemical, carbon dioxide or alcohol-resistant foam.

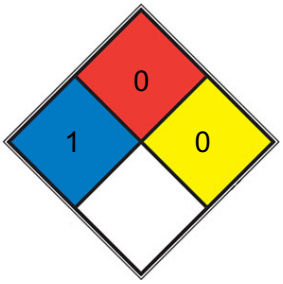
Specific Hazards Arising from the Chemical

Not combustible. Gives off irritating or toxic fumes (or gases) in a fire.

Advice for firefighters

In case of fire in the surroundings, use appropriate extinguishing media. In case of fire: keep drums, etc., cool by spraying with water.

NFPA 704



HEALTH	1	Exposure would cause irritation with only minor residual injury (e.g. acetone, sodium bromate, potassium chloride)
FIRE	0	Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand. Materials that will not burn in air when exposed to a temperature of 820 °C (1,500 °F) for a period of 5 minutes.(e.g. Carbon tetrachloride)

☐ REACT 0 Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium,N2)

☐ SPEC.

HAZ.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Ventilation.

Environmental precautions

Prevent further spillage or leakage if it is safe to do so. Do not let the chemical enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

SECTION 7: Handling and storage

Precautions for safe handling

Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

Conditions for safe storage, including any incompatibilities

Separated from incompatible materials. See Chemical Dangers. Cool.

SECTION 8: Exposure controls/personal protection

Control parameters

Occupational Exposure limit values

TLV: 1000 ppm as STEL; A4 (not classifiable as a human carcinogen).MAK: 5700 mg/m3, 1000 ppm; peak limitation category: II(2); pregnancy risk group: C

Biological limit values

no data available

Exposure controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

Individual protection measures

Eye/face protection

Wear safety goggles.

Skin protection

Cold-insulating gloves.

Respiratory protection

Use ventilation, local exhaust or breathing protection.

Thermal hazards

no data available

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Physical state	neat
Colour	Colorless, odorless liquid
Odour	no data available
Melting point/freezing point	-111°C
Boiling point or initial boiling point and boiling range	23.8°C
Flammability	no data available
Lower and upper explosion limit/flammability limit	no data available
Flash point	2°C
Auto-ignition temperature	no data available
Decomposition temperature	no data available
pH	no data available
Kinematic viscosity	no data available
Solubility	water: soluble1g/L
Partition coefficient n-octanol/water	2.53
Vapour pressure	12.85 psi (20 °C) &_& 39.17 psi (55 °C)
Density and/or relative density	1.494
Relative vapour density	no data available
Particle characteristics	no data available

SECTION 10: Stability and reactivity

Reactivity

no data available

Chemical stability

no data available

Possibility of hazardous reactions

The gas is heavier than air. The vapour is heavier than air and may accumulate in lowered spaces causing a deficiency of

oxygen.Decomposes on contact with hot surfaces or flames. This produces toxic and corrosive gases of hydrogen chloride (see ICSC 0163), phosgene (see ICSC 0007), hydrogen fluoride (see ICSC 0283) and carbonyl fluoride (see ICSC 0633). Reacts with powdered aluminium, powdered zinc, magnesium shavings, lithium shavings and granular barium.

Conditions to avoid

no data available

Incompatible materials

no data available

Hazardous decomposition products

no data available

SECTION 11: Toxicological information

Acute toxicity

- Oral: no data available
- Inhalation: no data available
- Dermal: no data available

Skin corrosion/irritation

no data available

Serious eye damage/irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

no data available

Reproductive toxicity

no data available

STOT-single exposure

The liquid may cause frostbite. The substance may cause effects on the cardiovascular system and central nervous system. This may result in cardiac disorders and central nervous system depression. Exposure could cause lowering of consciousness. See Notes.

STOT-repeated exposure

The substance defats the skin, which may cause dryness or cracking.

Aspiration hazard

On loss of containment this substance can cause suffocation by lowering the oxygen content of the air in confined areas.

SECTION 12: Ecological information

Toxicity

Toxicity to fish: no data available

Toxicity to daphnia and other aquatic invertebrates: no data available

Toxicity to algae: no data available

Toxicity to microorganisms: no data available

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

Toxics Screening Level

The initial threshold screening level (ITSL) for acute exposure to trichlorofluoromethane is 56,200 µg/m3 (1-hour averaging time).

Other adverse effects

no data available

SECTION 13: Disposal considerations

Disposal methods

Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

SECTION 14: Transport information

UN Number

ADR/RID: UN2517 (For reference only, please check.)

IMDG: UN2517 (For reference only, please check.)

IATA: UN2517 (For reference only, please check.)

UN Proper Shipping Name

ADR/RID: 1-CHLORO-1,1- DIFLUOROETHANE (REFRIGERANT GAS R 142b) (For reference only, please check.)

IMDG: 1-CHLORO-1,1- DIFLUOROETHANE (REFRIGERANT GAS R 142b) (For reference only, please check.)

IATA: 1-CHLORO-1,1- DIFLUOROETHANE (REFRIGERANT GAS R 142b) (For reference only, please check.)

Transport hazard class(es)

ADR/RID: 2.1 (For reference only, please check.)

IMDG: 2.1 (For reference only, please check.)

IATA: 2.1 (For reference only, please check.)

Packing group, if applicable

ADR/RID: (For reference only, please check.)

IMDG: (For reference only, please check.)

IATA: (For reference only, please check.)

Environmental hazards

ADR/RID: No

IMDG: No

IATA: No

Special precautions for user

no data available

Transport in bulk according to IMO instruments

no data available

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

European Inventory of Existing Commercial Chemical Substances (EINECS)

Listed.

EC Inventory

Listed.

United States Toxic Substances Control Act (TSCA) Inventory

Listed.

China Catalog of Hazardous chemicals 2015

Listed.

New Zealand Inventory of Chemicals (NZIoC)

Listed.

PICCS

Listed.

Vietnam National Chemical Inventory

Listed.

IECSC

Listed.

Korea Existing Chemicals List (KECL)

Listed.

SECTION 16: Other information

Abbreviations and acronyms

CAS: Chemical Abstracts Service

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

IMDG: International Maritime Dangerous Goods

IATA: International Air Transportation Association

TWA: Time Weighted Average

STEL: Short term exposure limit

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

EC50: Effective Concentration 50%

References

IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

ECHA - European Chemicals Agency, website: https://echa.europa.eu/

Other Information

High concentrations in the air cause a deficiency of oxygen with the risk of unconsciousness or death.Check oxygen content before entering area.The occupational exposure limit value should not be exceeded during any part of the working exposure.The odour warning when the exposure limit value is exceeded is insufficient.Do NOT use in the vicinity of a fire or a hot surface, or during welding.Turn leaking cylinder with the leak up to prevent escape of gas in liquid state.

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

Chemical Safety Data Sheet MSDS / SDS

Vanadium

Revision Date:2026-04-04 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: Vanadium
CBnumber	: CB4758017
CAS	: 7440-62-2
EINECS Number	: 231-171-1
Synonyms	: Vanadium,vanadium powder

Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continuerinsing.

P405 Store locked up.

Hazard statements

H228 Flammable solid

H315 Causes skin irritation

H319 Causes serious eye irritation

H335 May cause respiratory irritation

SECTION 3: Composition/information on ingredients

Substance

Product name	: Vanadium
Synonyms	: Vanadium,vanadium powder
CAS	: 7440-62-2
EC number	: 231-171-1
MF	: V
MW	: 50.94

SECTION 4: First aid measures

Description of first aid measures

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact

Wash off with soap and plenty of water.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water.

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture

Vanadium/vanadium oxides

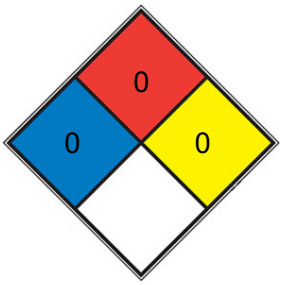
Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

Further information

No data available

NFPA 704



HEALTH	0	Poses no health hazard, no precautions necessary and would offer no hazard beyond that of ordinary combustible materials
FIRE	0	Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand. Materials that will not burn in air when exposed to a temperature of 820 °C (1,500 °F) for a period of 5 minutes.(e.g. Carbon tetrachloride)
REACT	0	Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium,N2)
SPEC. HAZ.		

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing vapours, mist or gas. For personal protection see section 8.

Environmental precautions

No special environmental precautions required.

Methods and materials for containment and cleaning up

Sweep up and shovel. Keep in suitable, closed containers for disposal.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Handle and store under inert gas.

Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

Exposure controls

Appropriate engineering controls

General industrial hygiene practice.

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm Break through time: 480 min

Material tested:Dermatril? (KCL 740 / Aldrich Z677272, Size M)

Splash contact Material: Nitrile rubber

Minimum layer thickness: 0,11 mm Break through time: 480 min

Material tested:Dermatril? (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

No special environmental precautions required.

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Appearance	grey powder
Odour	No data available
Odour Threshold	No data available
pH	No data available
Melting point/freezing point	Melting point/range: 1.890 °C - lit.
Initial boiling point and boiling range	3.380 °C - lit.
Flash point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	No data available
Vapour pressure	10,67 hPa at 20 °C
Vapour density	No data available
Relative density	6,11 g/mL at 25 °C
Water solubility	H_2O: soluble
Partition coefficient: n-octanol/water	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidizing properties	No data available
resistivity	24.8-26.0 μΩ-cm, 20°C

Other safety information

No data available

SECTION 10: Stability and reactivity

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No data available

Conditions to avoid

No data available

Incompatible materials

Strong acids, Strong oxidizing agents

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Vanadium/vanadium oxides

Other decomposition products - No data available In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

No data available

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Additional Information

RTECS: YW1355000

metallic taste, greenish-black discoloration of the tongue, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Toxicity

LD50 orally in Rabbit: > 2000 mg/kg

SECTION 12: Ecological information

Toxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Other adverse effects

No data available

SECTION 13: Disposal considerations

Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Incompatibilities

Incompatible with oxidizers (chlorates, nitrates, peroxides, permanganates, perchlorates, chlorine, bromine, fluorine, etc.). Keep away from alkaline materials, strong bases, strong acids, oxoacids, epoxides, bromine trifluoride, lithium, nitryl fluoride, chlorine trifluoride.

Contaminated packaging

Dispose of as unused product.

SECTION 14: Transport information

UN number

ADR/RID: - IMDG: - IATA: -

UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods IATA: Not dangerous goods

Transport hazard class(es)

ADR/RID: - IMDG: - IATA: -

Packaging group

ADR/RID: - IMDG: - IATA: -

Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

Special precautions for user

No data available

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015:Not Listed. website: https://www.mem.gov.cn/

Measures for Environmental Management of New Chemical Substances

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC):Listed. website: https://www.mee.gov.cn/

EC Inventory:Listed.

European Inventory of Existing Commercial Chemical Substances (EINECS):Listed. website: https://echa.europa.eu/

Korea Existing Chemicals List (KECL):Listed. website: http://ncis.nier.go.kr

New Zealand Inventory of Chemicals (NZIoC):Listed. website: https://www.epa.govt.nz/

Philippines Inventory of Chemicals and Chemical Substances (PICCS):Listed. website: https://emb.gov.ph/

United States Toxic Substances Control Act (TSCA) Inventory:Listed. website: https://www.epa.gov/

Vietnam National Chemical Inventory:Listed. website: https://chemicaldata.gov.vn/

SECTION 16: Other information

Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CAS: Chemical Abstracts Service

EC50: Effective Concentration 50%

IATA: International Air Transportation Association

IMDG: International Maritime Dangerous Goods

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

STEL: Short term exposure limit

TWA: Time Weighted Average

References

【1】CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

【2】ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

【3】ECHA - European Chemicals Agency, website: https://echa.europa.eu/

【4】eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website:

http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

【5】ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg

【6】Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

【7】HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

【8】IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

【9】IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

【10】Sigma-Aldrich, website: https://www.sigmaaldrich.com/

Disclaimer:
The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.

Appendix G:

Quality Assurance Project Plan

SESI
CONSULTING ENGINEERS

Geotechnical
Environmental
Site Civil

959 Route 46E, Fl 3, Ste 300
Parsippany, NJ 07054
973.808.9050
www.sesi.org

Quality Assurance Project Plan

For:
White Plains Chrysler Car Dealership
70 Westchester Avenue
White Plains, Westchester County, NY
BCP No. C360209

SESI Project No:
11444

Prepared for:

Saber-North White Plains LLC
April 2026

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LIST OF ACRONYMS

Acronym	Definition
AAS	Absorption Spectroscopy
ASP	Analytical Service Protocol
BCP	Brownfield Cleanup Program
DUSR	Data Usability Summary Report
ELAP	Environmental Laboratory Accreditation Program
GC/MS	Gas Chromatography/Mass Spectrometry
HAS	Hollow-stem Auger
HDPE	High-Density Polyethylene
IRMWP	Interim Remedial Measures Work Plan
LDPE	Low-density Polyethylene
LFPS	Low Flow Purging Sampling
MDL	Method Detection Limit
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
PCB	Polychlorinated Biphenyls
PFAS	Per- and polyfluoroalkyl substances
PFOA	Perfluorooctanoic Acid
PFOS	Perfluorooctanesulfonic Acid
PPE	Personal Protective Equipment
PTFE	Polytetrafluoroethylene
QAPP	Quality Assurance Project Plan
QA/QC	Quality Assurance/Quality Control
RAWP	Remedial Action Work Plan
SESI	SESI Consulting Engineers, Inc.
TIC	Tentatively Identified Compound
TCL	Target Compound List
VOC	Volatile Organic Compound
USEPA	United States Environmental Protection Agency

1.0 PROJECT DESCRIPTION

This document presents the Quality Assurance Project Plan (QAPP) for the Site Management Plan (SMP) for the proposed development at 180 Main Street, Westchester County, White Plains, New York (the "Site"). The Site is identified as Condominium Tax Lot Section 125.75 Block 4 Lot 4-4.11 and known as the 180 Main Street Oil Storage Site (C360268). The Site contains a portion of the former Macy's store at the closed Galleria Mall and the adjacent City of White Plains parking garage at the closed Galleria Mall.

The Site is located in a commercial/residential/government building area in the downtown of the City of White Plains, New York. The Site is bound to the north by commercial/office/residential, to the south by the 50 Court Street BCP Site (No.C360258), to the east by commercial/office/residential/park, and to the west by the remaining Galleria Mall. The nearest surface water body is the Bronx River located approximately 0.35 miles west of the Site.

SESI Consulting Engineers (SESI) prepared the RIWP for the 180 Main Street Oil Storage Site (C360268) in White Plains, New York, dated October 2025/Revised January 2026/April 2026, which describes the remediation activities to be conducted at the Site, as part of the Site's planned remedial investigation and remediation.

2.0 PROJECT ORGANIZATION

The SMP activities will be conducted by SESI and their qualified subcontractors, on behalf of Saber-North White Plains, LLC. The organization of SESI's key project management and field staff, and respective areas of responsibility, is presented below (**Table 2.1**) along with the names of subcontractors.

Table 2.1—Project Organization and Contacts List

Role	Name	Telephone No.
Principal Engineer	Fuad Dahan, P.E., PhD	973-808-9050 x249
Project Manager (PM)	Christopher Zwingle, P.E.	973-808-9050 x302
Remedial Party	Martin Berger	914-250-0600
Facility Contact	TBD	TBD
Field Team Leader	TBD	TBD
Quality Assurance Officer	Joe Scardino	973-808-9050 x267
Field Personnel	TBD	TBD
Contractor	TBD	TBD
Subcontractor(s)	TBD	TBD
Analytical Laboratory	TBD	TBD
Data Validator	TBD	TBD
NYSDEC Project Manager	Caroline Jalanti, P.E.	518-402-9650
NYSDOH Project Manager	Emelina Rieseler	518-457-0679
NYSDEC Public Participation Specialist	TBD	TBD

2.1 PROJECT PRINCIPAL

Provides technical and administrative oversight and guidance throughout the project, assists in securing company resources, participates in technical review of deliverables, and attends key meetings as needed.

2.2 PRINCIPAL ENGINEER

Provides technical guidance and review of reports and analytical data. Will have key involvement in screening and development of remedial alternatives.

2.3 PROJECT MANAGER

Responsible for maintaining the day-to-day schedule for completing the fieldwork and deliverables according to BCP program requirements and client expectations.

2.5 FIELD TEAM LEADER

Responsible for overseeing field work during the implementation of the SMP, including observing subcontractors, maintaining field notes, and collecting samples of various environmental media.

2.6 QUALITY ASSURANCE OFFICER

Responsible for reviewing sampling procedures and certify that the data was collected and analyzed using the appropriate procedures.

3.0 QA/QC OBJECTIVES FOR MEASUREMENT OF DATA

In cases where New York State Department of Health (NYSDOH) Environmental Laboratory Accreditation Program (ELAP) Certification exists for a specific group or category of parameters, the laboratory performing analysis in connection with this project will have appropriate NYSDOH ELAP Certification. Analytical Service Protocol (ASP, June 2000) Category B deliverables are required for all samples.

Detection limits set by New York State Department of Environmental Conservation (NYSDEC) ASP will be used for all sample analyses unless otherwise noted. If NYSDEC-ASP-dictated detection limits prove insufficient to assess project goals (i.e., comparison to drinking water standards or attainment of Applicable or Relevant and Appropriate Requirements [ARARs]), then ASP Special Analytical Services (SAS) or other appropriate methods will be utilized.

The quality assurance/quality control (QA/QC) objectives for all measurement data include completeness, representativeness, comparability, precision, and accuracy.

3.1 COMPLETENESS

The analyses performed must be appropriate and inclusive. The parameters selected for analysis are chosen to meet the objectives of the study.

Completeness of the analyses will be assessed by comparing the number of parameters intended to be analyzed with the number of parameters successfully determined and validated. Data must meet QC acceptance criteria for 100 percent or more of requested determinations.

3.2 REPRESENTATIVENESS

Samples must be taken of the population and, where appropriate, the population will be characterized statistically to express the degree to which the data accurately and precisely represent a characteristic of a population, parameter variations at a sampling point, a process, or environmental condition.

Non-dedicated sampling devices will be decontaminated between sampling points. Specific cleaning techniques are described in the Field Sampling Procedure. Two types of blank samples will accompany each sample set where Target Compound List (TCL) volatiles are to be analyzed (water matrix only). A trip blank will accompany each sample set where TCL volatiles are to be analyzed. The trip blank, consisting of a 40 ml VOA vial of organic-free water prepared by the laboratory, will accompany each set of sample bottles from the laboratory to the field and back. This bottle will remain sealed throughout the shipment and sampling process. This blank will be analyzed for TCL volatile organic compounds (VOCs) along with the samples to ensure that contamination with TCL VOCs has not occurred during the bottle preparation, shipment, and sampling phase of the project. In order to check for contaminant carryover when non-dedicated sampling equipment is used, a rinsate blank will be submitted to the laboratory. This blank will also be analyzed for TCL VOCs. The TCL compounds are identified in the United States Environmental Protection Agency (USEPA) Contract Laboratory Program dated 10/2016 or as periodically updated.

The analysis results obtained from the determination of identical parameters in field duplicate samples can be used to further assess the representativeness of the sample data.

3.3 COMPARABILITY

Consistency in the acquisition, preparation, handling, and analysis of samples is necessary in order for the results to be compared where appropriate. Additionally, the results obtained from analyses of the samples will be compared with the results obtained in previous studies, if available.

To ensure the comparability of analytical results with those obtained in previous or future testing, all samples will be collected and analyzed by NYSDEC-approved methods. The NYSDEC-ASP mandated holding times for various analyses will be strictly adhered to.

3.4 PRECISION AND ACCURACY

The validity of the data produced will be assessed for precision and accuracy. Analytical methods which will be used include gas chromatography/mass spectrometry (GC/MS),

gas chromatography, colorimetry, atomic spectroscopy, gravimetric, and titrimetric techniques. The following outlines the procedures for evaluating precision and accuracy, routine monitoring procedures, and corrective actions to maintain analytical quality control. All data evaluations will be consistent with current NYSDEC-ASP procedures. Data will be 100 percent compliant with NYSDEC-ASP requirements. Matrix spike and matrix spike duplicates will be collected to confirm accuracy and precision at a rate of one (1) per 20 soil and/or groundwater samples taken.

The number of duplicate, spiked, and blank samples analyzed will be a minimum of one (1) duplicate for every 20 samples per each medium of groundwater and soil. The inclusion and frequency of analysis of field blanks will be on the order of one (1) per every 20 samples (soil) and one (1) per every day of groundwater sampling. Samples to be analyzed for volatile organic compounds (VOCs) will be accompanied by a trip blank for each shipment. An equipment blank for Per- and polyfluoroalkyl substances (PFAS) will be collected, regardless of whether equipment being used is disposable, at a frequency of one (1) per 20 samples taken for both soil and groundwater.

Quality assurance audit samples will be prepared and submitted by the laboratory QA manager for each analytical procedure used. The degree of accuracy and the recovery of analyte to be expected for the analysis of QA samples and spiked samples is dependent upon the matrix, method of analysis, and compound or element being determined. The concentration of the analyte relative to the detection limit is also a major factor in determining the accuracy of the measurement. The lower end of the analytical range for most analyses is generally accepted to be five (5) times the detection limit. At or above this level, the determination and spike recoveries for metals in water samples will be expected to range from 75 to 125 percent. The recovery of organic surrogate compounds and matrix spiking compounds determined by GC/MS will be compared to the guidelines for recovery of individual compounds as established by the United States Environmental Protection Agency Contract Laboratory Program dated 7/85 or as periodically updated.

The quality of results obtained for inorganic ion and demand parameters will be assessed by comparison of QC data with laboratory control charts for each test.

4.0 SAMPLING PROCEDURES

4.1 SAMPLING PROGRAM

The sampling program for this project will include groundwater and soil vapor. Groundwater samples will be collected from groundwater monitoring wells using low flow purging techniques. Soil vapor samples will be collected from vapor points screened in the vadose zone using Summa Canisters. A summary of the sample containers, bottle types, preservatives and holding times is shown on **Table 4.1**. The sampling to be conducted for this project is shown on **Table 4.2**.

4.1.1 GROUNDWATER SAMPLING PROCEDURES

Prior to sampling a monitoring well, the static water level will be recorded. All well data will be recorded on a field sampling record. The wells will be sampled in accordance with the USEPA guidelines for the Low Flow Purging Sampling (LFPS). The purpose of LFPS is to collect groundwater samples from monitoring wells that are representative of ambient groundwater conditions in the aquifer. The LFPS method reduces turbidity which is needed particularly when sampling for metals.

The wells will be sampled using the USEPA LFPS technique. A flow rate of 100 ml to 250 ml per minute is used to purge the wells. Drawdown should not exceed 0.3 feet. Peristaltic or bladder pumps are used for this method. The pump intake is lowered to the mid-point of the water column or as subsurface features such as bedrock fractures or more permeable zones warrant. At the initiation of low flow purging a water level is recorded as well as field parameters. Field parameters are then monitored every five (5) minutes during low flow purging using a flow through cell. When three (3) consecutive measurements of pH differ by 0.1 units or less, with ORP within 10 mv or less, turbidity varies 10 percent or less, conductivity differs by 3 percent or less and dissolved oxygen by 10 percent or less, sampling may begin. Flow through cells are used so continuous real time readings are made. When the parameters stabilize the flow through cell is disconnected and sample bottles are filled directly from the tubing. Low-flow sampling procedures are summarized on **Table 4.1**.

In addition to water samples collected from the monitoring wells, two (2) types of "blanks" will be collected and submitted to the chemical laboratory for analyses. The blanks will consist of 40 ml VOA vials, as follows:

A trip blank will be prepared before the sample bottles are sent by the laboratory. It consists of a sample of distilled, deionized water which accompanies the other sample bottles into the field and back to the laboratory. A trip blank will be included with each shipment of samples where sampling and analysis for TCL VOCs is planned (water matrix only). The trip blank will be analyzed for TCL VOCs as a measure of the internal laboratory procedures and their effect on the results.

4.1.2 SOIL VAPOR SAMPLING PROCEDURES

Soil vapor sampling will be conducted in accordance with NYSDOH Guidance for Evaluating Soil Vapor Intrusion in New York State (October 2006 and the subsequent March 2024 updates to the Soil Vapor/Indoor Air Decision Matrices). Soil vapor samples will be collected in the vadose zone from shallow (5 feet) vapor points. Each vapor point will be installed in a shallow boring drilled either by hand-operated equipment (e.g. hand auger or percussion hammer drill), or by a small truck-mounted drill rig. Drilling equipment used shall be based on soil conditions, and the method that provides the most practical approach.

Each vapor point will consist of an inert sampling tube (polyethylene, stainless steel, or Teflon®) with a (six) 6-inch screened section at the bottom through which soil vapors can be sampled. The screen slot size will be 0.0075 inches. A sampling zone will be created around the screened section by backfilling with one (1) to two (2) feet of porous coarse sand or glass beads, and at least three (3) feet of bentonite will be placed above the porous sampling zone to form a seal from the surface. Native clean soil will be packed around the remaining annulus to the ground surface.

Each designated soil vapor sampling location will be purged of a minimum of three (3) volumes using a low volume pump, and then attached to a regulator, and secured with a clamp. The regulator will be set to collect a soil vapor sample at a flow rate not to exceed 0.2 liters per minute. After the summa canister is filled, the valve will be closed.

Each canister will be listed according to a specific sample I.D. on a chain of custody form. Sample canisters will be delivered to the laboratory within 24 hours and analyzed for VOCs by method TO-15. The detection limit for VOCs will be 1 µg/m3 or less.

The soil vapor sampling effort will include the use inert helium tracer gas to verify that the soil vapor samples are not diluted by ambient air. The atmosphere around the sampling tube will be enriched with the tracer gas, and the soil vapor sample will be collected in the presence of the enriched tracer atmosphere. This will be accomplished by placing an inverted plastic pail over the sampling point and filling the pail with the tracer gas via a small tube penetrating the side of the pail. Refer to NYSDOH Guidance for Evaluating Indoor Air Intrusion in New York State (October 2006).

Weather conditions in the 48 hours prior to the test, and during the test, will be noted, including average wind speed, precipitation, temperature, and barometric pressure.

4.1.3 DECONTAMINATION

All equipment used will either be disposed of properly or rinsed with water and Alconox®. Every effort will be made to minimize the generation of contaminated water. Any contaminated water generated will be drummed. The contaminated groundwater drums will be disposed of at an appropriate facility after approval and sampling in accordance with the specific facility requirements.

4.1.4 PFAS SAMPLING CONSIDERATIONS

This section contains the materials limitations for Per- and polyfluoroalkyl substances (PFAS) sampling in accordance with the Draft NYSDEC Sampling, Analysis, and Assessment of Per- and Polyfluoroalkyl Substances (April 2023).

The groundwater samples will be analyzed for PFAS using USEPA Method 1633A. Reporting limits for PFOA and PFOS in solid samples should not exceed 2 nanograms per liter (ng/L). Category B deliverables and an electronic data deliverable will be completed.

PFAS are very persistent in the environment and in the human body. Due to their presence in a variety of products, persistence in the environment and very low drinking water standards, care must be used when groundwater sampling for PFAS to avoid cross contamination from the sampling equipment and personal protective equipment (PPE).

No fabric softener will be used on clothing to be worn in field. Cosmetics, moisturizers, hand cream, unauthorized sunscreen, insect repellant or other related products will not be used the morning of sampling. The field samplers will wear powder-free nitrile gloves while filling and sealing the sample bottles. The sampling equipment components and sample containers will not come in contact with material that may potentially contain PFAS such as aluminum foil, low density polyethylene (LDPE), glass or polytetrafluoroethylene (PTFE, Teflon™) materials including sample bottle cap liners with a PTFE layer. Clothing that contains PTFE material (including GORE-TEX®) or that have been waterproofed with PFAS materials will be avoided. Food and drink packaging materials will be avoided, as well.

Sampling will be performed using certified PFAS-free sampling materials such as stainless steel, high density polyethylene (HDPE), PVC, silicone, acetate or polypropylene pump and tubing. Rinse water must be laboratory-provided certified PFAS-free distilled or de-ionized water. Standard two (2)-step decontamination using Alconox® detergent and clean certified PFAS-free water rinse will be performed for equipment that does come in contact with PFAS materials.

No waterproof field books, plastic clipboards, binders, or spiral hard cover will be used for PFAS containers. No adhesives (i.e. Post-It® Notes), sharpies, or permanent markers will be used for PFAS containers. The PFAS containers will be labeled with ball point pens. PFAS samples will be stored in separate cooler filled with regular ice only with no chemical (blue) ice packs.

Pre-cleaned sample bottles with closures, coolers, sample labels and a chain of custody form will be provided by the laboratory.

4.2 SAMPLE PRESERVATION AND SHIPMENT

Since all bottles will contain the necessary preservatives as shown in **Table 4.2**, they need only be filled. The 40 ml VOA vials must be filled brim full of no air bubbles. The other bottles should be filled to within about one (1) inch from the top.

The bottles will be sent from the laboratory in coolers which will be organized on a per site basis. Following sample collection, the bottles should be placed on ice in the shipping cooler. The samples will be cooled to 4°C, but not frozen.

Final packing and shipment of coolers will be performed in accordance with guidelines outlined in the ASP.

5.0 SAMPLE CUSTODY

The program for sample custody and sample transfer is in compliance with the NYSDEC-ASP, as periodically updated. If samples may be needed for legal purposes, chain-of-custody procedures, as defined by NEIC Policies and Procedures (USEPA-330/9-78-001-R, Revised June 1988) will be used. Sample chain-of-custody is initiated by the laboratory with selection and preparation of the sample containers. To reduce the chance for error, the number of personnel handling the samples should be minimized.

5.1 FIELD SAMPLE CUSTODY

A chain-of-custody record accompanies the samples from initial sample container selection and preparation at the laboratory, shipment to the field for sample containment and preservation, and return to the laboratory. Two (2) copies of this record follow the samples to the laboratory. The laboratory maintains one (1) file copy and the completed original is returned to the Site inspection team. Individual sample containers provided by the laboratory are used for shipping samples. The shipping containers are insulated and ice is used to maintain samples at approximately 4°C until samples are returned and in the custody of the laboratory. All sample bottles within each shipping container are individually labeled and controlled. Samples are to be shipped to the laboratory within 24-48 hours of the day of collection depending on parameter holding times.

Each sample shipping container is assigned a unique identification number by the laboratory. This number is recorded on the chain-of-custody record and is marked with indelible ink on the outside of the shipping container. The field sampler will indicate the sample designation/location number in the space provided on the appropriate chain-of-custody form for each sample collected. The shipping container is closed and a seal provided by the laboratory is affixed to the latch. This seal must be broken to open the container, and this indicates possible tampering if the seal is broken before receipt at the laboratory. The laboratory will contact the Site investigation team leader, and the sample will not be analyzed if tampering is apparent.

5.2 LABORATORY SAMPLE CUSTODY

The Site interim remedial measure team leader or Project Quality Assurance Officer notifies the laboratory of upcoming field sampling activities and the subsequent transfer

of samples to the laboratory. This notification will include information concerning the number and type of samples to be shipped as well as the anticipated date of arrival.

The laboratory sample program meets the following criteria:

- The laboratory has designated a sample custodian who is responsible for maintaining custody of the samples and for maintaining all associated records documenting that custody.
- Upon receipt of the samples, the custodian will check the original chain-of-custody documents and compare them with the labeled contents of each sample container for correctness and traceability. The sample custodian signs the chain-of-custody record and records the date and time received.
- Care is exercised to annotate any labeling or descriptive errors. In the event of discrepant documentation, the laboratory will immediately contact the Site investigation team leader as part of the corrective action process. A qualitative assessment of each sample container is performed to note any anomalies, such as broken or leaking bottles.

This assessment is recorded as part of the incoming chain-of-custody procedure:

1. The samples are stored in a secured area at a temperature of approximately 4°C until analyses are to commence.
2. A laboratory chain-of-custody record accompanies the sample or sample fraction through final analysis for control.
3. A copy of the chain-of-custody form will accompany the laboratory report and will become a permanent part of the project records.

5.3 FINAL EVIDENCE FILES

Final evidence files include all originals of laboratory reports and are maintained under documented control in a secure area.

A sample or an evidence file is under custody if:

- It is in your possession; it is in your view, after being in your possession.
- It was in your possession, and you placed it in a secure area.
- It is in a designated secure area.

6.0 CALIBRATION PROCEDURES

Instruments and equipment used to gather, generate or measure environmental data will be calibrated with sufficient frequency and in such a manner that accuracy and reproducibility of results are consistent with the appropriate manufacturer's specifications or project specific requirements. The procedures for instrument calibration, calibration verification, and the frequency of calibrations are described in the ASP. The calibration of instruments used for the determination of metals will be as described in the appropriate CLP standard operating procedures.

Calibration of other instruments required for measurements associated with these analyses will be in accordance with the manufacturer's recommendations and the standard operating procedures of the laboratory.

7.0 ANALYTICAL PROCEDURES

Analytical procedures shall conform to the most recent revision of the NYSDEC-ASP (June 2005) and are summarized on **Table 7.1**. In the absence of USEPA or NYSDEC guidelines, appropriate procedures shall be submitted for approval by NYSDEC prior to use.

The procedures for the sample preparation and analysis for organic compounds are as specified in the NYSDEC-ASP. Analytical cleanups are mandatory where matrix interferences are noted. No sample shall be diluted any more than a factor of five. The sample shall be either re-extracted, re-sonicated, re-stream distilled, etc. or be subjected to any one analytical cleanup noted in SW846 or a combination thereof. The analytical laboratory shall expend such effort and discretion to demonstrate good laboratory practice and demonstrate an attempt to best achieve the method detection limit.

7.1 SEMI-VOLATILE ORGANIC COMPOUNDS

The extraction and analytical procedures used for preparation of water samples for the analysis of the TCL semi-volatile organic compounds are described in NYSDEC-ASP Volume I, Section D-III. USEPA Method 8270 will be used, plus TICs.

Instrument calibration, compound identification, and quantitation are performed as described in Section 6 of this document and in the NYSDEC-ASP.

7.2 METALS

Water samples will be analyzed for the metals listed in **Table 7.1**. The detection limits for these metals are as specified in the NYSDEC-ASP, Section D-V. The instrument detection limits will be determined using calibration standards and procedures specified in the NYSDEC-ASP. The detection limits for individual samples may be higher due to the sample matrix. The procedures for these analyses will be as described in the NYSDEC-ASP.

The analyses for metals will be performed by atomic absorption spectroscopy (AAS) or inductively-coupled plasma emission spectroscopy (ICPES), as specified in the ASP with regard to AAS flame analysis.

7.3 PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS)

The NYSDEC has developed a list of 40 PFAS analytes on **Table 7.1** for remedial programs. These are:

- Perfluorobutanesulfonic acid
- Perfluoropentanesulfonic acid
- Perfluorohexanesulfonic acid
- Perfluoroheptanesulfonic acid
- Perfluorooctanesulfonic acid
- Perfluorononanesulfonic acid
- Perfluorodecanesulfonic acid
- Perfluorododecanesulfonic acid
- Perfluorobutanoic acid
- Perfluoropentanoic acid
- Perfluorohexanoic acid
- Perfluoroheptanoic acid
- Perfluorooctanoic acid
- Perfluorononanoic acid
- Perfluorodecanoic acid
- Perfluoroundecanoic acid
- Perfluorododecanoic acid
- Perfluorotridecanoic acid
- Perfluorotetradecanoic acid
- Perfluorohexadecanoic acid
- Hexafluoropropylene oxide dimer acid
- 4,8-Dioxa-3H-perfluorononanoic acid
- Perfluoro-3-methoxypropanoic acid
- Perfluoro-4-methoxybutanoic acid
- Nonafluoro-3,6-dioxaheptanoic acid
- 4:2 Fluorotelomer sulfonic acid
- 6:2 Fluorotelomer sulfonate
- 8:2 Fluorotelomer sulfonate
- 3:3 Fluorotelomer carboxylic acid
- 5:3 Fluorotelomer carboxylic acid
- 7:3 Fluorotelomer carboxylic acid
- Perfluroroctane sulfonamide
- N-methylperfluorooctane sulfonamide
- N-ethylperfluorooctane sulfonamide
- N-methyl perfluorooctanesulfonamidoacetic acid
- N-ethyl perfluorooctanesulfonamidoacetic acid

- N-methylperfluorooctane sulfonamidoethanol
- N-ethylperfluorooctane sulfonamidoethanol
- 9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (F-53B Major)
- 11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (F-53B Minor)
- Perfluoro(2-ethoxyethane) sulfonic acid

Currently, ELAP does not offer certification for PFAS compounds in matrices other than finished drinking water. Per the NYSDEC June 2019 memo on emergent contaminant sampling, the analytical procedure for soil and groundwater sampling of PFAS is Modified EPA Method 1633A. The reporting limit for PFAS in soil samples is 0.5 ug/kg. Reporting limits for perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) in groundwater should not exceed 2 ng/L.

7.6 SITE SPECIFICITY OF ANALYSES

Work plans prepared for remedial actions for Sites contain recommendations for the chemical parameters to be determined for each Site. Thus, some or all of the referenced methods will apply to the analysis of samples collected at the individual waste Sites. Analyses of TCL analytes will be performed on all samples.

To ensure that the field sampling and laboratory analytical practices are acceptable, the data associated with the samples will be validated by a third party (in accordance with requirements of DER-10). The validation approach and results will be presented in a data usability summary report (DUSR) to be included in the Report.

TABLES

TABLE 4.1--SAMPLING PROCEDURE FOR MONITORING WELLS USING LOW-STESS (LOW-FLOW) METHODS

Step	Description	Details
1	Record initial static water level.	**Device:** electric contact probe accurate to the nearest 0.1 foot.
2	Lower sampling device into well. Slowly lower the pump, safety cable, tubing and electrical lines into the well to the depth specified for that well.	Pump intake must be no less than 2 feet from the bottom of the well to prevent disturbance and resuspension of sediments which may be at the bottom of the well.
3	Measure water level again: Before starting the pump, measure the water level again with the pump in the well. Leave the water level measuring device in the well.	
4	Purge Well	Start pumping the well at 200 to 500 milliliters per minute (ml/min). The water level should be monitored approximately every five minutes. Ideally, a steady flow rate should be maintained that results in a stabilized water level (drawdown of 0.3 ft or less). Pumping rates should, if needed, be reduced to the minimum capabilities of the pump to ensure stabilization of the water level. As noted above, care should be taken to maintain pump suction and to avoid entrainment of air in the tubing.
5	Record each adjustment made to the pumping rate and the water level measured immediately after each adjustment.	
6	Monitor Indicator Parameters	1. During purging of the well, monitor and record the field indicator parameters (turbidity, temperature, specific conductance, pH, Eh, and DO) approximately every five minutes. The well is considered stabilized and ready for sample collection when the indicator parameters have stabilized for three consecutive readings as follows (Puls and Barcelona, 1996): a. 0.1 for pH b. 3% for specific conductance (conductivity) c. 10 mv for redox

Step	Description	Details
		potential d. 10% for DO and turbidity
7	The pump must not be removed from the well between purging and sampling.	Dissolved oxygen and turbidity usually require the longest time to achieve stabilization.
8	Collect Samples	Collect samples at a flow rate between 100 and 250 ml/min and such that drawdown of the water level within the well does not exceed the maximum allowable drawdown of 0.3 ft. VOC samples must be collected first and directly into sample containers. All sample containers should be filled with minimal turbulence by allowing the ground water to flow from the tubing gently down the inside of the container.
9	Ground water samples to be analyzed for volatile organic compounds (VOCs) require pH adjustment. The appropriate EPA Program Guidance should be consulted to determine whether pH adjustment is necessary.	If pH adjustment is necessary for VOC sample preservation, the amount of acid to be added to each sample vial prior to sampling should be determined, drop by drop, on a separate and equal volume of water (e.g., 40 ml). Groundwater purged from the well prior to sampling can be used for this purpose.
10	Remove Pump and Tubing	After collection of the samples, the tubing, unless permanently installed, must be properly discarded or dedicated to the well for resampling by hanging the tubing inside the well.
11	Measure and record well depth.	
12	Close and lock the well.	
13	Samples are capped, labeled and placed in laboratory coolers with ice packs or bagged ice.	
14	All equipment is cleaned with successive rinses of pesticide-grade methanol and distilled water.	Dedicated line is disposed of or left at well Site.
15	Equipment/wash blanks are collected when non-dedicated sampling equipment is used.	
16	Chain-of-custody forms are completed in triplicate.	The original and one carbon copy are put into a zip-lock bag and placed into the cooler. The original will be returned following sample analysis. A second carbon copy is kept

Step	Description	Details
		on file.
17	Cooler is sealed with strapping tape and chain-of-custody seals to assure integrity and to prevent tampering of sample.	

TABLE 4.2—SAMPLE CONTAINERIZATION

PARAMETER & ANALYTICAL METHOD	NO.	BOTTLE TYPE	PRESERVATIVE(1)	HOLDING TIME
Aqueous Samples:				
SVOCs (BNAs) and 1,4-Dioxane – USEPA 8270 SIM	2	1-liter amber glass bottle	Ice to 4°C	7 days (until extraction) 40 days (extracted)
Metals(2)	1	1-liter, plastic bottle	Nitric acid to pH <2 NaOH for cyanide Ice to 4°C	180 days Cyanide: 14 days Mercury: 28 days
Cyanide – USEPA 9010C/9012B	1	1-liter, plastic	Sodium Hydroxide to pH >12 Ice to 4°C	14 days
PFAS Compounds – USEPA Modified Method 537	2	500 ml HDPE or Polypropylene with non-Teflon lid	None	14 days
Soil Vapor / Indoor Air Samples:				
VOCs – USEPA TO-15	1	Summa Canister	None	30 days

(1) All samples will be preserved with ice during collection and shipment.

(2) Metals refers to the 24 metals and cyanide in the Target Compound List (NYSDEC-CLP 11/87). Metals will be analyzed by Method 6020B, 7470A for mercury, and 9010C/9012B for cyanide

(3) Metals refers to the 24 metals and cyanide in the Target Compound List (NYSDEC-CLP 11/87). Metals will be analyzed by Method 6010D, 7471B for mercury, and 9010C/9012B for cyanide

(4) A complete list of compounds is provided on **Table 7.1**.

TABLE 7.1–CONTRACT-REQUIRED QUANTITATION LEVELS AND ANALYTICAL METHODS FOR ASP INORGANICS, ASP SEMI-VOLATILES, AND PFAS

Target Analyte List (TAL) and Contract-Required Quantitation Limit

SECTION 1 - ASP INORGANICS Method: NYSDEC-ASP-91-4					
	METAL	CONTRACT-REQUIRED DETECTION LEVEL* (µg/L)		METAL	CONTRACT-REQUIRED DETECTION LEVEL* (µg/L)
1.	Aluminum	200	13.	Magnesium	5,000
2.	Antimony	60	14.	Manganese	15
3.	Arsenic	15	15.	Mercury	0.2
4.	Barium	200	16.	Nickel	40
5.	Beryllium	5	17.	Potassium	5,000
6.	Cadmium	5	18.	Selenium	35
7.	Calcium	5,000	19.	Silver	10
8.	Chromium	10	20.	Sodium	5,000
9.	Cobalt	50	21.	Thallium	25
10.	Copper	25	22.	Vanadium	50
11.	Iron	100	23.	Zinc	60
12.	Lead	10	24.	Cyanide	10

Target Compound List (TCL) and Contract-Required Quantitation Limit

SECTION 3 - ASP ORGANICS (SEMI-VOLATILES) Method: NYSDEC-ASP-91-2					
	SEMI-VOLATILE	CONTRACT-REQUIRED QUANTITATION LIMIT (µg/l)		SEMI-VOLATILE	CONTRACT-REQUIRED QUANTITATION LIMIT (µg/l)
1.	Phenol	5.0	33.	Acenaphthene	5.0
2.	Bis(2-chloroethyl)ether	5.0	34.	2,4-Dinitrophenol	10.0
3.	2-Chlorophenol	5.0	35.	4-Nitrophenol	10.0
4.	1,3-Dichlorobenzene	5.0	36.	Dibenzofuran	5.0
5.	1,4-Dichlorobenzene	5.0	37.	Dinitrotoluene	5.0
6.	1,2-Dichlorobenzene	5.0	38.	Diethylphthalate	5.0
7.	2-Methylphenol	5.0	39.	4-Chlorophenyl phenyl ether	5.0
8.	2,2'oxybis(1-Chloropropane)	5.0	40.	Fluorene	5.0
9.	4-Methylphenol	5.0	41.	4-Nitroanile	10.0
10.	N-Nitroso-dipropylamine	5.0	42.	4,6-Dinitro-2-methylphenol	10.0
11.	Hexachloroethane	5.0	43.	N-nitrosodiphenyl amine	5.0
12.	Nitrobenzene	5.0	44.	4-Bromophenyl phenyl ether	5.0
13.	Isophorone	5.0	45.	Hexachlorobenzene	5.0
14.	2-Nitrophenol	5.0	46.	Pentachlorophenol	10.0
15.	2,4-Dimethylphenol	5.0	47.	Phenanthrene	5.0
16.	Bis(2-Chloroethoxy) methane	5.0	48.	Anthracene	5.0
17.	2,4-Dichlorophenol	5.0	49.	Carbazole	5.0
18.	1,2,4-Trichlorobenzene	5.0	50.	Di-n-butyl phthalate	5.0
19.	Naphthalene	5.0	51.	Fluoranthene	5.0
20.	4-Chloroaniline	5.0	52.	Pyrene	5.0
21.	Hexachlorobutadiene	5.0	53.	Butyl benzyl phthalate	5.0
22.	4-Chloro-3-methylphenol	5.0	54.	3,3'-Dichloro	5.0

				benzidine	
23.	2-Methylnaphthalene	5.0	55.	Benz(a)anthracene	5.0
24.	Hexachlorocyclopentadiene	5.0	56.	Chrysene	5.0
25.	2,4,6-Trichlorophenol	5.0	57.	Bis(2-ethylhexyl) phthalate	5.0
26.	2,4,5-Trichlorophenol	10.0	58.	Di-n-octyl phthalate	5.0
27.	2-Chloronapthalene	5.0	59.	Benzo(b)fluoranthene	5.0
28.	2-Nitroananiline	10.0	60.	Benzo(k)fluoranthene	5.0
29.	Dimethyl phthalate	5.0	61.	Benzo(a)pyrene	5.0
30.	Acenaphthylene	5.0	62.	Indeno(1,2,3-cd) pyrene	5.0
31.	2,6-Dinitrotoluene	5.0	63.	Dibenz(a,h) anthracene	5.0
32.	3-Nitroaniline	10.0	64.	Benzo(g,h,i)perylene	5.0

*Matrix: groundwater. For soil matrix, multiply CRDL by 100.
**Quantitation limit for medium-level soil is 1,200 µg/kg (wet weight basis).

PFAS Compound List and Reporting and Method Detection Limits for Soil and Groundwater

Method: EPA 1633 by LC-MS/MS			
	PFAS	**Reporting Limit — Groundwater (ng/l)**	**Method Detection Limit — Groundwater (ng/l)**
1	Perfluorobutanesulfonic acid (PFBS)	1.6	0.245
2	Perfluoropentanesulfonic acid (PFPeS)	1.6	0.204
3	Perfluorohexanesulfonic acid (PFHxS)	1.6	0.217
4	Perfluoroheptanesulfonic acid (PFHpS)	1.6	0.137
5	Perfluorooctanesulfonic acid (PFOS)	1.6	0.327
6	Perfluorononanesulfonic acid (PFNS)	1.6	0.303
7	Perfluorodecanesulfonic acid (PFDS)	1.6	0.334
8	Perfluorododecanesulfonic acid (PFDoS)	1.6	0.179
9	Perfluorobutanoic acid (PFBA)	6.4	0.330
10	Perfluoropentanoic acid (PFPeA)	3.2	0.196
11	Perfluorohexanoic acid (PFHxA)	1.6	0.318
12	Perfluoroheptanoic acid (PFHpA)	1.6	0.221
13	Perfluorooctanoic acid (PFOA)	1.6	0.302
14	Perfluorononanoic acid (PFNA)	1.6	0.221
15	Perfluorodecanoic acid (PFDA)	1.6	0.333
16	Perfluoroundecanoic acid (PFUnA)	1.6	0.264
17	Perfluorododecanoic acid (PFDoA)	1.6	0.379
18	Perfluorotridecanoic acid (PFTrDA)	1.6	0.238
19	Perfluorotetradecanoic acid (PFTeDA)	1.6	0.264
20	Hexafluoropropylene oxide dimer acid (HFPO-DA)	6.4	0.406
21	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	6.4	0.779
22	Perfluoro-3-methoxypropanoic acid (PFMPA)	3.2	0.177
23	Perfluoro-4-methoxybutanoic acid (PFMBA)	3.2	0.117
24	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	3.2	1.384
25	4:2 Fluorotelomer sulfonic acid (4:2-FTS)	6.4	2.281
26	6:2 Fluorotelomer sulfonic acid (6:2-FTS)	6.4	3.973

Method: EPA 1633 by LC-MS/MS			
27	8:2 Fluorotelomer sulfonic acid (8:2-FTS)	6.4	1.566
28	3:3 Fluorotelomer carboxylic acid (3:3 FTCA)	8.0	0.721
29	5:3 Fluorotelomer carboxylic acid (5:3 FTCA)	40	5.066
30	7:3 Fluorotelomer carboxylic acid (7:3 FTCA)	40	5.942
31	Perfluorooctane sulfonamide (PFOSA)	1.6	0.227
32	N-methylperfluorooctane sulfonamide (NMeFOSA)	1.6	0.196
33	N-ethylperfluorooctane sulfonamide (NEtFOSA)	1.6	0.585
34	N-methylperfluorooctane sulfonamidoacetic acid (N-MeFOSAA)	1.6	0.586
35	N-ethylperfluorooctane sulfonamidoacetic acid (N-EtFOSAA)	1.6	0.324
36	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	16	1.191
37	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	16	1.022
38	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (F-53B Major) (9CL-PF3ONS)	6.4	0.871
39	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (F-53B Minor) (11CL-PF3OUDS)	6.4	0.819
40	Perfluoro(2-ethoxyethane) sulfonic acid (PFEESA)	3.2	0.137
41	Perfluorohexadecanoic acid (PFHxDA)[1]	~	~

Method: EPA 1633 by LC-MS/MS			
	PFAS	**Reporting Limit — Soil (ng/g)**	**Method Detection Limit — Soil (ng/g)**
1	Perfluorobutanesulfonic acid (PFBS)	0.2	0.014
2	Perfluoropentanesulfonic acid (PFPeS)	0.2	0.015
3	Perfluorohexanesulfonic acid (PFHxS)	0.2	0.018
4	Perfluoroheptanesulfonic acid (PFHpS)	0.2	0.057
5	Perfluorooctanesulfonic acid (PFOS)	0.2	0.067
6	Perfluorononanesulfonic acid (PFNS)	0.2	0.046
7	Perfluorodecanesulfonic acid (PFDS)	0.2	0.040
8	Perfluorododecanesulfonic acid (PFDoS)	0.2	0.038
9	Perfluorobutanoic acid (PFBA)	0.8	0.401
10	Perfluoropentanoic acid (PFPeA)	0.4	0.021
11	Perfluorohexanoic acid (PFHxA)	0.2	0.020
12	Perfluoroheptanoic acid (PFHpA)	0.2	0.029
13	Perfluorooctanoic acid (PFOA)	0.2	0.037
14	Perfluorononanoic acid (PFNA)	0.2	0.086
15	Perfluorodecanoic acid (PFDA)	0.2	0.031
16	Perfluoroundecanoic acid (PFUnA)	0.2	0.033
17	Perfluorododecanoic acid (PFDoA)	0.2	0.059
18	Perfluorotridecanoic acid (PFTrDA)	0.2	0.038
19	Perfluorotetradecanoic acid (PFTeDA)	0.2	0.032
20	Hexafluoropropylene oxide dimer acid (HFPO-DA)	0.8	0.136
21	4,8-Dioxa-3H-perfluorononanoic acid (ADONA)	0.8	0.057
22	Perfluoro-3-methoxypropanoic acid (PFMPA)	0.4	0.033
23	Perfluoro-4-methoxybutanoic acid (PFMBA)	0.4	0.029
24	Nonafluoro-3,6-dioxaheptanoic acid (NFDHA)	0.4	0.084

Method: EPA 1633 by LC-MS/MS			
25	4:2 Fluorotelomer sulfonic acid (4:2-FTS)	0.8	0.282
26	6:2 Fluorotelomer sulfonic acid (6:2-FTS)	0.8	0.116
27	8:2 Fluorotelomer sulfonic acid (8:2-FTS)	0.8	0.225
28	3:3 Fluorotelomer carboxylic acid (3:3 FTCA)	1.0	0.060
29	5:3 Fluorotelomer carboxylic acid (5:3 FTCA)	5.0	0.363
30	7:3 Fluorotelomer carboxylic acid (7:3 FTCA)	5.0	0.308
31	Perfluorooctane sulfonamide (PFOSA)	0.2	0.068
32	N-methylperfluorooctane sulfonamide (NMeFOSA)	0.2	0.049
33	N-ethylperfluorooctane sulfonamide (NEtFOSA)	0.2	0.038
34	N-methylperfluorooctane sulfonamidoacetic acid (N-MeFOSAA)	0.2	0.030
35	N-ethylperfluorooctane sulfonamidoacetic acid (N-EtFOSAA)	0.2	0.044
36	N-methylperfluorooctane sulfonamidoethanol (NMeFOSE)	2.0	0.203
37	N-ethylperfluorooctane sulfonamidoethanol (NEtFOSE)	2.0	0.247
38	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonic acid (F-53B Major) (9CL-PF3ONS)	0.8	0.038
39	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonic acid (F-53B Minor) (11CL-PF3OUdS)	0.8	0.071
40	Perfluoro(2-ethoxyethane) sulfonic acid (PFEESA)	0.4	0.018
41	Perfluorohexadecanoic acid (PFHxDA)[1]	~	~

Source: EPA Analysis of Per- and Polyfluoroalkyl Substances (PFAS) in Aqueous, Solid, Biosolids, and Tissue Samples by LC-MS/MS, Second Draft Method 1633A.

Data for this table are derived from the single-laboratory validation study and are only provided as examples for this draft method. The data will be updated to reflect the interlaboratory study results in a subsequent revision. Therefore, these criteria will change after interlaboratory validation.

[1] This compound was not listed in the EPA Method 1633 2nd draft and currently no known values exist

Appendix H:

Site Management Forms

Summary of Green Remediation Metrics for Site Management

Site Name: _____ Site Code: _____
Address: _____ City: _____
State: _____ Zip Code: _____ County: _____

Initial Report Period (Start Date of period covered by the Initial Report submittal)
Start Date: _____

Current Reporting Period
Reporting Period From: _____ To: _____

Contact Information
Preparer's Name: _____ Phone No.: _____
Preparer's Affiliation: _____

I. Energy Usage: Quantify the amount of energy used directly on-site and the portion of that derived from renewable energy sources.

	Current Reporting Period	**Total to Date**
Fuel Type 1 (e.g. natural gas (cf))		
Fuel Type 2 (e.g. fuel oil, propane (gals))		
Electricity (kWh)		
Of that Electric usage, provide quantity:		
Derived from renewable sources (e.g. solar, wind)		
Other energy sources (e.g. geothermal, solar thermal (Btu))		

Provide a description of all energy usage reduction programs for the site in the space provided on Page 3.

II. Solid Waste Generation: Quantify the management of solid waste generated on-site.

	Current Reporting Period (tons)	**Total to Date (tons)**
Total waste generated on-site		
OM&M generated waste		
Of that total amount, provide quantity:		
Transported off-site to landfills		
Transported off-site to other disposal facilities		
Transported off-site for recycling/reuse		
Reused on-site		

Provide a description of any implemented waste reduction programs for the site in the space provided on Page 3.

III. Transportation/Shipping: Quantify the distances travelled for delivery of supplies and lab-supplied bottles, shipping of laboratory samples, and the removal of waste.

	Current Reporting Period (miles)	**Total to Date (miles)**
Standby Engineer/Contractor		
Laboratory Courier/Delivery Service (bottle and sample delivery)		
Waste Removal/Hauling		

Provide a description of all mileage reduction programs for the site in the space provided on Page 3. Include specifically any local vendor/services utilized that are within 50 miles of the site.

IV. Water Usage: Quantify the volume of water used on-site from various sources.

	Current Reporting Period (gallons)	**Total to Date (gallons)**
Total quantity of water used on-site (not including treated water)		
Of that total amount, provide quantity:		
Public potable water supply usage		
Surface water usage		
On-site groundwater usage		
Collected or diverted storm water usage		

Provide a description of any implemented water consumption reduction programs for the site in the space provided on Page 3.

V. Land Use and Ecosystems: Quantify the amount of land and/or ecosystems disturbed and the area of land and/or ecosystems restored to a pre-development condition (i.e. Green Infrastructure).

	Current Reporting Period (acres)	**Total to Date (acres)**
Land disturbed		
Land restored		

Provide a description of any implemented land restoration/green infrastructure programs for the site in the space provided on Page 3.

Description of green remediation programs reported above (Attach additional sheets if needed)
Energy Usage:
Waste Generation:
Transportation/Shipping:
Water usage:
Land Use and Ecosystems:
Recommendations/Other:

CONTRACTOR CERTIFICATION

I, _____ (**Name**) do hereby certify that I am _____ (**Title**) of _____ (**Contractor Name**), which is responsible for the work documented on this form. According to my knowledge and belief, all of the information provided in this form is accurate and the site management program complies with the DER-10, DER-31, and CP-49 policies.

_____

Date **Contractor**

Appendix I:

Field Sampling Plan

SESI
CONSULTING ENGINEERS

Geotechnical
Environmental
Site Civil

959 Route 46E, Fl 3, Ste 300
Parsippany, NJ 07054
973.808.9050
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Field Sampling Plan

For:

White Plains Chrysler Car Dealership Site
NYSDEC BCP No. C360209
White Plains, Westchester County, NY

Prepared for:

Saber-North White Plains

SESI Project No:
11444

Date:
April 2026

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TABLE 2.1 GROUNDWATER POST REMEDIATION SAMPLING REQUIREMENTS AND SCHEDULE

TABLE 2.2 INDOOR AIR POST REMEDIATION SAMPLING REQUIREMENTS AND SCHEDULE

1.0 INTRODUCTION

This document comprises a Field Activities Plan to be conducted at the Site, as part of the Site Management Plan (SMP). It includes a description of the planned field sampling including sampling methods (groundwater and soil vapor), analytical methods (analytical methods and analytes), and quality assurance procedures. The Site is currently in the New York State (NYS) Brownfield Cleanup Program (BCP), Site No. C360209 which is administered by New York State Department of Environmental Conservation (NYSDEC).

This Site Management Plan (SMP) is a required element of the remedial program for the Sun White Plains Chrysler Car Dealership Site located in White Plains, New York (hereinafter referred to as the "Site"). See Figure 1.1 of the SMP. The Site is currently in the New York State (NYS) Brownfield Cleanup Program (BCP), Site No. C360207 (BCA Index # C360209-05-21), which is administered by New York State Department of Environmental Conservation (NYSDEC or Department).

Saber North White Plains entered into a Brownfield Cleanup Agreement (BCA) on May 18, 2021 with the NYSDEC to remediate the Site. A figure showing the Site location and boundaries of this Site is provided in Figure 1.2 of the SMP. The boundaries of the Site are more fully described in the metes and bounds Site description that is part of the Environmental Easement provided in Appendix A of the SMP.

The former structures related to the car dealership operations were demolished following the approval of the Remedial Action Workplan (RAWP) for the Site, dated August 2023. Prior to redevelopment, the Site was vacant with only concrete pad remnants of the former structures. The Site is zoned commercial and currently supports a future residential apartment building currently under construction.

The properties adjoining the Site and in the neighborhood surrounding the Site primarily include residential and commercial properties. The properties immediately south of the Site include commercial buildings; the properties immediately north of the Site include paved parking lots and apartment buildings; the properties immediately east of the Site include a closed car dealership (Ford and Florence Howe Auto Dealership Site [BCP C360228]); and the properties to the west of the Site include commercial buildings.

2.0 GROUNDWATER SAMPLING PLAN

2.1 GROUNDWATER SAMPLE LOCATIONS

SESI will collect groundwater samples from eight (8) groundwater monitoring wells, as shown in **Figure 4.1** of the SMP. The monitoring well locations, required analytical parameters, and the sampling schedule for groundwater sampling are provided in **Table 2.1** below – Groundwater Post Remediation Sampling Requirements and Schedule. All samples will be sent to an ELAP-certified laboratory for analysis of semi-volatile organic compounds (SVOCs), metals, and per- and polyfluoroalkyl substances (PFAS).

Table 2.1: **Groundwater Post Remediation Sampling Requirements and Schedule**

Monitoring Well ID	Well Location	Well Diameter (inches)	Elevation (above MSL)[1]		
			Top of Slab	Screen Top	Screen Bottom
MW-01	North Up-Gradient	2	156.5	153	143
MW-02	North Middle Up-Gradient	2	156.5	153	143
MW-03	South Middle Up-Gradient	2	153.0	151	136
MW-04	South Up-Gradient	2	153.0	151	136
MW-05	North Down-Gradient	2	153.0	151	136
MW-06	North Middle Down-Gradient	2	153.0	151	136

Monitoring Well ID	Well Location	Well Diameter (inches)	Elevation (above MSL)[1]		
			Top of Slab	Screen Top	Screen Bottom
MW-07	South Middle Down-Gradient	2	153.5	151	136
MW-08	South Down-Gradient	2	153.5	151	136

2.2 GROUNDWATER SAMPLING PROTOCOL

Prior to sampling, the monitoring wells will be gauged for depth to water and groundwater elevation data will be calculated from the top of casing elevations. The wells will be sampled via low-flow sampling techniques. A flow rate of 100 to 250 milliliters per minute (mL/min) will be used to purge the wells. Drawdown should not exceed 0.3 feet if possible.

For the low flow method, QED bladder pumps or peristaltic pumps will be used for this method. The pump intake will be lowered to the mid-point of the water column. At the initiation of low flow purging, depth to water will be recorded as well as field parameters. Field parameters and depth to water will then be monitored using a flow through cell and water level indicator every five (5) minutes during low flow purging. When three (3) consecutive measurements of pH differ by 0.1 units or less and ORP within 10 mv or less, turbidity varies 10 percent or less, conductivity differs by 3 percent or less and dissolved oxygen by 10 percent or less, sampling may begin. Flow through cells are used so continuous real time readings are made. When the parameters stabilize the flow through cell is disconnected and sample bottles are filled directly from the tubing.

In addition to the groundwater samples collected from the monitoring wells, two types of "blanks" will be collected and submitted to the chemical laboratory for analyses. The blanks will consist of 40 ml VOA vials, as follows:

A trip blank will be prepared by the laboratory and sent with each sample bottle shipment. The trip blank consists of two (2) 40-milliliter sample bottles filled with distilled, deionized water which

accompany the other sample bottles into the field and back to the laboratory. A trip blank will be included with each shipment of samples where sampling and analysis for target compound list (TCL) VOCs is planned (water matrix only). The trip blank will be analyzed for TCL VOCs to determine whether the volatile sample results could have been affected by external contamination such as exhaust fumes or background conditions at the Site.

In addition to a trip blank, a field blank will also be collected each sampling day. The field blank will contain deionized water and will be run for the full suite of analyses each day of sampling.

In addition to the laboratory analytical data, field measurements will be collected as described above during low flow purging. If using the 3 well volume purge method, parameters will be collected pre-purge, post purge and post sampling.

3.0 INDOOR AIR SAMPLING PLAN

3.1 INDOOR AIR SAMPLE LOCATIONS

To evaluate the potential for future human exposures from vapor intrusion into the proposed buildings, six (6) soil vapor, four (4) indoor air (IA) samples, and one (1) ambient air sample will be collected in the area of the installed sub-slab depressurization system (SSDS). The sample locations are shown on **Figure 4.1** of the SMP. The sample locations, required analytical parameters, and the sampling schedule for indoor air sampling are provided in **Table 2.2** below. All samples will be sent to an ELAP-certified laboratory for analysis of VOCs.

Table 2.2 – Indoor Air Post Remediation Sampling Requirements and Schedule

Sub-Slab Vapor Point ID	Location	Analytical Parameters	Schedule
VP-1	Soil Vapor	VOCs by TO-15	Will be sampled once during the heating season and prior to building occupancy
VP-2	Soil Vapor		
VP-3	Soil Vapor		
VP-4	Soil Vapor		
VP-5	Soil Vapor		
VP-6	Soil Vapor		
IA-1	Indoor Air		
IA-2	Indoor Air		
IA-3	Indoor Air		
IA-4	Indoor Air		
AA-1	Ambient Air		

3.2 INDOOR AIR SAMPLING PROTOCOLS

Soil vapor will be collected from vapor points associated with the SSDS. Indoor air samples will be collocated with soil vapor points and placed at a height of at least three (3) feet above the slab. Samples will be collected in 6-liter summa canisters that are certified clean by the laboratory. Regulators will be set to collect to a flow rate for a sample duration of two (2) hours. Soil vapor sampling will include the use inert helium tracer gas to verify that the soil vapor samples are not diluted by ambient air.