

Attachment 10. Risk Management Plan



February 14, 2022

RISK MANAGEMENT PLAN

Property Identification:

Eastmoor Residential Development
493 Eastmoor Avenue
Daly City, California 94015

AEI Project No. 454373

Prepared for:

Eastmoor Multifamily, LP
470 South Market Street
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APPENDICES

Appendix A	Analytical Reports
Appendix B	Proposed Development Plans (Select Drawings)



February 14, 2022

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Subject: **Risk Management Plan**
Eastmoor Residential Development
493 Eastmoor Avenue
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1.0 INTRODUCTION

AEI Consultants (AEI) has prepared this Risk Management Plan (RMP) for the proposed development of the property at 943 Eastmoor Avenue in Daly City, California ("the Site"). Due to prior environmental conditions of the Site and the requirements of case closure of the historic Leaking Underground Storage Tank (LUST) case at the property, development activities at the Site are subject to review and oversight by the San Mateo County Environmental Health (SMCEH).

The SMCEH has indicated they will require a Risk Management Plan (RMP) document as part of their review and consideration the planned development. This RMP applies to subsurface disturbances at the Site related to the planned redevelopment activities. The purpose of this RMP is to:

- Assess and communicate the presence of contaminants of potential concern (COPCs) that are known or may potentially exist in subsurface media at the Site.
- Provide protocols for appropriate soil management procedures, as it relates to COPCs.
- Provide measures to mitigate environmental risks to those who may encounter COPCs (such as on-site workers) during on-site soil excavation.
- Provide for the proper management of previously unknown environmental conditions if identified during excavation activities at the Site.
- Provide measures to address environmental risks related to the future use of the Site, after the excavation activities and Site redevelopment have been completed.

This RMP is not intended to replace federal, state, or local regulations dictating the handling of contaminated media or regulations addressing worker exposure including Federal and California Occupational Safety and Health Administration (OSHA) training and worker protection rules and regulations, Code of Federal Regulations (CFR) Title 29, Part 1910.120 and California Code of Regulations (CCR) Title 8, § 5192.

2.0 SITE DESCRIPTION

2.1 Current Site Description

The approximately 0.446-acre Site is located at 493 Eastmoor Avenue, in a commercial and residential area of Daly City, California. Although no structures currently occupy the Site, much of the Site is covered by asphalt and concrete pavement. The Site location map is depicted on Figure 1, and a Site map is included herein as Figure 2.

2.2 Geology and Hydrogeology

Subsurface conditions observed during previous subsurface investigations at the Site (Conestoga-Rovers & Associates [CRA], 2008 and AEI, 2021) generally consisted of sandy gravel, sand, and silty sand to the maximum depth encountered of 9.5 feet below ground surface (bgs).

Based on information reviewed as part of the 2020 Phase I Environmental Site Assessment (ESA) by AEI (AEI, 2020), the Site is underlain by marine and continental Pleistocene deposits approximately 200 feet thick consisting of loose or friable, well-sorted, fine to medium-grained sand with subordinate gravel, sandy silt, and clay, underlain by bedrock. Groundwater is greater than 109.5 feet bgs, and the direction of groundwater flow beneath the Site and the vicinity is inferred to be toward the northeast (CRA, 2008).

2.3 Site History

Based on information reviewed (AEI, 2020), the Site was developed as agricultural land by 1946. By 1960, the Site had been developed as a Shell-branded gasoline service station. Gasoline service station operations at the Site largely ceased in 2003, and on-site structures demolished by 2004. The Site has primarily remained vacant since 2004 with the exception of active remediation activities conducted at the Site from approximately 2004 through 2009 (see Section 2.4).

2.4 Regulatory Background and Environmental Conditions

A release of gasoline from an underground storage tank (UST) was discovered at the Site on September 6, 2001. During September and October 2003, approximately 1,224 cubic yards of contaminated soils were excavated from the Site and transported off-site for disposal. On September 25, 2003, three 10,000-gallon gasoline single-walled fiberglass USTs and associated piping were removed from the Site. On November 5, 2004, an additional 1,000-gallon UST that had been filled with concrete was removed from the Site.

The installation of a soil vapor extraction (SVE) system consisting of seven vapor extraction wells was completed at the Site on January 14, 2005. The SVE system operated from March 24, 2005 to December 27, 2006. An estimated 4,733 pounds of total petroleum hydrocarbons as gasoline (TPH-g), 128 pounds of benzene, and 2.69 pounds of methyl-tert-butyl ether (MTBE) were removed during the approximately 8,000 operational hours of the SVE system. Gasoline constituent concentrations in the SVE system influent decreased by up to three orders of magnitude during system operation, and significant rebound was not observed in the influent when the system was shut off between May and August 2006. Additionally, confirmation sampling conducted in May 2007 confirmed significant reductions of gasoline constituents in soil (CRA, 2008). However, residual concentrations remained in soil, including TPH-g; benzene, toluene, ethylbenzene, and xylenes (collectively known as BTEX); MTBE; and tert butyl alcohol (TBA), particularly near former UST areas (CRA, 2008 and SMCEH, 2009).

On November 10, 2009, the SMCEH issued a case closure letter to Shell Oil Products US, which confirmed the completion of investigation and corrective action at the Site and that no further action regarding the petroleum release(s) was required (SMCEH, 2009). The closure letter cited residual soil impacts at the Site

and, as such, indicated a proposed change in land use or proposed soil removal activity at or in close proximity to the Site required submittal to SMCEH for review.

In anticipation of the planned development, AEI performed a focused subsurface investigation of the property in 2020 (AEI, 2021). As part of the investigation, soil and soil vapor samples were collected at several on-site borings (SB-1/SV-1 through SB-7/SV-7; see Figure 2). Groundwater was not collected and analyzed as it is not expected to be encountered as part of the development activities. Borings were advanced at selected locations throughout the Site footprint at the approximate locations as depicted on Figure 2. Tables summarizing the investigation data are included herein as Table 1 through Table 4, and corresponding analytical results are provided in Appendix A. To provide context to the data and considering the planned redevelopment for mixed-use (see Section 4.0), the analytical results were compared to San Francisco Bay Regional Water Quality Control Board (RWQCB) Environmental Screening Levels (ESLs) for the residential, commercial/industrial, and construction worker exposure scenarios, as applicable. A summary of the investigation findings is presented below:

Soil:

- Soil samples were collected from seven boring locations (SB-1 through SB-7; see Figure 2) and analyzed for total petroleum hydrocarbons (TPHs), volatile organic compounds (VOCs), semi volatile organic compounds (SVOCs), and metals.
- Residual concentrations of TPH-g, TPH in the diesel range (TPH-d), TPH in the motor oil range (TPH-mo), BTEX compounds, and naphthalene were detected at concentrations significantly below applicable ESLs. Other VOCs detected, specifically n-propyl benzene, 1,2,4-trimethylbenzene, 1,2,3-trimethylbenzene, and 1,3,5-trimethylbenzene, do not have established ESLs. Remaining VOCs analyzed were not detected above their respective laboratory reported detection limits.
- Several CAM 17 metals were detected above laboratory reporting limits in each of the seven soil samples analyzed. However, with the exception of arsenic detected at location SB-1, the concentrations detected were either below their respective ESLs or consistent with typical background concentrations in the Bay Area (Bradford, G.R., et. al., 1996 and Duvergé, 2011). The concentration of 19.6 mg/kg at boring SB-1 slightly exceeds the estimated maximum background concentration of 11 mg/kg (Duvergé, 2011).
- Benzo(a)pyrene was detected in one of the seven samples collected and analyzed, observed at a concentration of 0.16 mg/kg. The detected concentration slightly exceeds the residential ESL for benzo(a)pyrene of 0.11 mg/kg, but was below the commercial/industrial ESL of 2.1 mg/kg and construction worker ESL of 10 mg/kg. Remaining SVOCs analyzed were either detected at concentrations below applicable ESLs or were not detected above their respective laboratory reported detection limits.

Soil Gas:

- Soil gas samples were collected from seven boring locations (SV-1 through SV-7; see Figure 2) and analyzed for VOCs and the fixed gases oxygen, carbon dioxide, and helium.
- Benzene was detected in three of the seven samples collected and analyzed, observed at concentrations ranging from 0.747 to 626 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). The maximum detected concentration of 626 $\mu\text{g}/\text{m}^3$ detected in sample SV-7 exceeds the residential and commercial/industrial ESLs of 3.2 $\mu\text{g}/\text{m}^3$ and 14 $\mu\text{g}/\text{m}^3$, respectively, as well as Low-Threat Closure Policy (LTCP; 2012a) criteria assuming no bioattenuation zone. However, concentrations detected are significantly below LTCP criteria assuming a bioattenuation zone (85,000 $\mu\text{g}/\text{m}^3$ residential and 280,000 $\mu\text{g}/\text{m}^3$ commercial/industrial).

- Ethylbenzene was detected two of the seven samples collected and analyzed, observed at concentrations of 1.17 and 38.2 $\mu\text{g}/\text{m}^3$ in samples SV-2 and SV-7, respectively. The detected concentration of 38.2 $\mu\text{g}/\text{m}^3$ slightly exceeds the residential ESL of 37 $\mu\text{g}/\text{m}^3$, but is significantly below the commercial/industrial ESL as well as LTCP policy irrespective of the presence of a bioattenuation zone.
- Trichloroethylene (TCE) was detected in one of the seven samples collected and analyzed, observed at a concentration of 64.8 $\mu\text{g}/\text{m}^3$ in sample SV-5. The detected concentration exceeds its residential ESL 16 $\mu\text{g}/\text{m}^3$, but is below its commercial/industrial ESL of 100 $\mu\text{g}/\text{m}^3$.
- Remaining VOCs analyzed were either detected at concentrations below applicable ESLs or were not detected above their respective laboratory reported detection limits.
- Oxygen was observed at concentrations ranging from 12.3% to 22%, indicating that aerobic conditions exist in the subsurface at the Site and the presence of a bioattenuation zone.
- Carbon dioxide was observed at concentrations ranging from 0.718% to 7.98%, with a maximum concentration of carbon dioxide observed in sample SV-7, collected at 9 feet bgs. The relatively elevated concentration of carbon dioxide suggests that petroleum hydrocarbon degradation is occurring at the Site.
- Helium, used for leak detection, was not detected at a detection limit of 0.1% in the samples collected and analyzed. As such, the soil gas sample results are deemed valid.

3.0 CONTAMINANTS AND AREAS OF POTENTIAL CONCERN

3.1 Contaminants of Potential Concern

Based on their detections above ESLs, arsenic and benzo(a)pyrene in soil and benzene, ethylbenzene, and TCE in soil gas are considered the COPCs for the Site. Though below ESLs, TPH and related VOCs will also be retained as COPCs for the Site based on its historic use as a gasoline service station and residual contamination documented in soil at the time of case closure. No other COPCs have been identified at the Site.

3.2 Areas of Potential Concern

Areas of potential concern at the Site include areas of significant historic Site features such as former UST location as well as areas wherein COPCs were detected above applicable ESLs (e.g., SB-1, SB-5, SB-6, and SB-7; see Figure 2). Additionally, it is possible that localized impacted soil above referenced screening levels is present at the Site and as of yet unidentified impacts could be revealed during forthcoming earthwork that could pose a risk to construction workers.

4.0 PROPOSED REDEVELOPMENT

The property is slated for residential development as a 7-story mixed-use apartment building. The proposed structure would be comprised of approximately 1,200 square feet of street level retail/office space on the ground level at the northeast corner of the Site; residential common space (e.g., mail room and lobby) at the northeast corner of the Site with parking areas comprising the remaining footprint of the second level; and a total of 72 dwelling units and residential common areas (e.g., laundry and reading rooms) on the remaining upper levels. The residential common space on the second level will generally overlie the street level retail/office space. Due to varying grades at the Site, the proposed parking areas on the "second level" will be the first building level at those portions of the proposed building. Excavation of the Site will be conducted as needed for an elevator pit and planned foundational elements such as grade beams, utilities, etc., taking into account the varying grade changes at the Site. The estimated depth

to groundwater at the Site is greater than 109.5 feet bgs; therefore, groundwater is not expected to be encountered during development activities. The current development plans are provided in Appendix B.

5.0 RISK MANAGEMENT MEASURES

5.1 RMP Applicability

This RMP presents protocol for the following construction activities that may encounter COPCs, including the following:

- Removal of existing foundations, utility lines, and other surfacing;
- General earthwork such as excavation;
- Installation of utility corridors; and
- Rough grading.

Contractors and their subcontractors shall follow the protocols presented in this RMP while performing the above activities at the Site. Contractors and their subcontractors are responsible for the health and safety of their employees and are required to prepare their own Site-specific Health and Safety Plan (HSP) including, at a minimum, the elements identified in Section 5.3, below.

5.2 Pre-Construction Planning and Notification

Prior to the start of any construction activity that involves below ground work (e.g., foundation removal, subsurface utility removal, or excavating), the Owner shall provide information regarding Site risk management procedures (i.e., a copy of this RMP) to the General Contractor and the General Contractor shall provide this RMP to all relevant subcontractors for their review and acknowledgement, likewise for subsequent tier subcontractors.

5.3 Health and Safety

The General Contractor will prepare a HSP for the development project. At a minimum, the HSP should include:

- A description of proper entry to the Site and all work activities to be conducted at the Site.
- A list of project contacts including the Health and Safety Officer (HSO).
- A list of hazardous materials information.
- Emergency information, including the location of the nearest emergency hospital location.
- Identification of on-site health and safety hazards and hazard analysis.
- Exposure prevention, safety requirements, hazard exposure guidelines, and safe work practices.
- Safety training procedures and guidelines.
- Levels of personal protective equipment (PPE) needed.
- Waste handling procedures.

The purpose of a HSP is to inform all field personnel of proper safety procedures and potential health risks while on-site. All project personnel should familiarize themselves with the HSP and adhere to its established procedures and recommendations. A copy of the HSP should be kept on-site and made available to all personnel. The HSP should be updated if on-site conditions change. The General Contractor will be responsible for preparing and implementing the safety procedures identified in the HSP. Implementing the HSP will minimize potential health risks to on-site construction workers and the general public.

Each contractor shall be responsible for the health and safety of their own workers, as required by Cal-OSHA, including but not limited to preparation of their own HSP and injury and illness prevention plan (IIPP). The purpose of these documents is to provide general guidance relating to the work hazards that may be encountered during each phase of Site construction activities. Contractors are also required to determine the requirements for worker training, based on the level of expected contact to potentially impacted soil and/or groundwater associated with the contractor's activities and locations with respect to COPCs described in Section 3.1. The HASP(s) will contain provisions for limiting and monitoring chemical exposure to construction workers, chemical and non-chemical hazards, emergency procedures, and standard safety protocols.

5.4 Soil Management

5.4.1 Soil Handling Procedures

The proposed construction activities, including grading, will disturb on-site soils and may create soils that will be managed on-site or potentially exported off-site. Based on the available soil sampling data, it is not anticipated that significantly impacted soils will be encountered during the earth moving activities at the Site. Though slight exceedances of arsenic and benzo(a)pyrene were detected above ESLs, the proposed development will cover the entire Site footprint and, as such, the direct contact exposure pathway to the future residents who will occupy the planned building would be considered incomplete. As such, excavated soils can be re-used on-site as needed, provided no additional impacts are identified (see Section 5.4.2 and 5.6). Surplus soil excavated from the Site slated for off-site disposal will be handled as described in Section 5.4.3 below.

5.4.2 Field Screening

Soil may be field screened by the Environmental Consultant in areas of potential environmental impact during demolition and excavation work on an as needed basis to assess whether petroleum hydrocarbon impacted soil may be present. At this time, field screening is not anticipated; however, the Environmental Consultant will be notified if potentially petroleum hydrocarbon impacted soil or other previously unidentified conditions as detailed in Section 5.6 are identified through visual and olfactory observation. Should any field screening or inspections performed by the Environmental Consultant identify potentially petroleum hydrocarbon impacted soil or other previously unidentified conditions, analytical testing will be performed. Significantly impacted soils (i.e., above applicable residential ESLs) identified as such by analytical testing performed by the Environmental Consultant, shall be handled and managed in conformance with and by OSHA Hazardous Waste Operations and Emergency Response (HAZWOPER) trained personnel. Soils identified as impacted shall not be re-used on-site.

5.4.3 Soil Segregation and Stockpile Management

Excavated soils from the Site will either be loaded directly into trucks and removed from the Site for landfill disposal based on existing soil analytical data or stockpiled on-site for further testing if required by the receiving landfill.

If stockpiled on-site, all excavated soils will be stockpiled at the Site in a secure location, segregated as appropriate, maintained to prevent excessive dust and to prevent off-site soil migration due to wind and rain erosion, and placed away from storm drains and surface-water drainage courses to prevent potential runoff. Stockpiles will be moistened or covered with 10-mil polyethylene sheeting as needed for purposes of dust mitigation.

Potentially petroleum hydrocarbon impacted soil or other previously unidentified conditions as detailed in Section 5.6 identified through visual and olfactory observation should be segregated from other stockpiled

soils. Stockpiles of potentially impacted soil will be placed on as well as covered with 10-mil polyethylene sheeting (e.g., in compliance with Bay Area Air Quality Management District [BAAQMD] Regulation 8-40).

5.4.4 Off-site Soil Disposal

Soil to be disposed off-site will be profiled for waste characterization based on samples already collected, further in place testing, or by stockpiling the soil and re-sampling, if required by the receiving landfill or facility. Based on soil sampling conducted to date, it is expected soils excavated from the Site can be disposed as a non-hazardous waste and may be acceptable for use as "clean fill" as may be determined by the accepting facility.

Soil profiled as non-hazardous will be transported and disposed at a licensed Class II/III landfill. Soil classified as California hazardous waste will be transported either out of state to an appropriate licensed facility or to a Class I facility in California. Soil classified as Federal hazardous waste, if any, will be transported to a Class I RCRA facility. Additional segregation of excavated soil may be conducted by the excavation contractor (e.g., "clean" soil), depending upon off-site facility acceptance criteria. Soil transporters and specific disposal locations will be identified prior to construction and summarized in the RMP Implementation Report (see Section 7.0).

5.4.5 Soil Sampling

If soil samples are needed during the work, the Environmental Consultant will collect soil samples utilizing a slide hammer fitted with 2-inch diameter 6-inch stainless steel sleeves to obtain a sample, or alternative industry accepted sampling practices. Soil intervals saved for analysis will be immediately kept in the sampling sleeves, with each end covered with polyethylene sheeting and tight-fitting plastic caps, labeled, placed in re-sealable plastic bags, and placed in a pre-chilled insulated container and prepared for transport and analysis using standard chain of custody protocol. Soil samples collected for analysis will be sealed and cooled as soon as feasible to minimize potential volatilization. All samples will be maintained in a locked vehicle or in direct observation at all times. The Environmental Consultant will generally follow regulatory methods for collecting the soil samples and preparing them for analysis and will submit all soil samples to a California certified laboratory.

If needed, the Environmental Consultant will perform sampling of stockpiled soil as appropriate for acceptance at appropriate off-site "fill sites" or for landfill disposal. Soil samples for waste characterization purposes will be collected and analyzed according to the profiling requirements of the fill site or disposal facility. Soil profiling criteria depends on the proposed landfill location. These procedures should be established by the excavation contractor and coordinated with the proposed landfills prior to initiating soil excavation. Typical soil profiling requirements are one four-point composite sample per 250 cubic yards to be disposed, for the initial 1,000 cubic yards.

The profiling of the waste and surplus soil is typically required by all facilities considering acceptance of "clean" soil and for impacted soil to determine proper disposal methods, verify that the waste meets all acceptance criteria of the facility, and ensure compliance with all federal, state, and local regulations. Characterization information will be documented on profile forms provided by the off-site facility. The General Contractor will coordinate with the Environmental Consultant regarding all off-site soil disposal activities.

5.4.6 Import Criteria

If soils are to be imported to the Site, an evaluation of import materials brought to the Site will be conducted to ensure such fill meets the geotechnical and environmental requirements for the Site. To minimize the potential introduction of impacted fill onto the Site, all selected sources of import fill shall have adequate documentation or certification to verify that the fill source is appropriate for the Site prior to delivery of

such soil to the Site. Acceptable documentation would include detailed information on previous land use of the fill source, any Phase I Environmental Site Assessments performed and the findings, and the results of any analytical testing performed. If no documentation is available, the documentation is inadequate, or if no analytical testing has been performed, samples of the potential fill material will be collected and analyzed prior to delivery of such soil to the Site. The analyses will be based on the fill source and knowledge of the previous land use. The sample frequency for potential fill material be conducted in accordance with that outlined in the *Information Advisory on Clean Imported Fill Material* by the Department of Toxic Substances Control (DTSC) dated October 2001. Sampling will be conducted as described in Section 5.4.5 above. No fill material will be accepted if contaminant levels exceed applicable residential ESLs and/or regional background concentrations.

5.5 Groundwater Management

Groundwater is not anticipated to be encountered during construction activities. However, if groundwater is encountered in quantities that need to be pumped and removed from excavations, such groundwater would need to be profiled for proper off-site disposal or discharged under permit to the local sanitary sewer system and/or storm sewer in accordance with best practices and applicable regulations. A settling tank, or other treatment as necessary, may be used to achieve the necessary discharge requirements. All permitting and regulatory requirements shall be followed prior to discharge or off-site disposal.

5.6 Unknown Conditions

If an UST, UST related piping, former wells, significantly impacted soils (indicative by soil staining and suspicious odors), sumps, or underground vaults are discovered during soil excavation the following work shall be conducted:

- Stop all activities in proximity to the subsurface structure or condition of concern.
- Cover the area with plastic sheeting, and segregate the work area with safety cones or safety tape.
- Notify appropriate Project Contacts for inspection and follow up procedures (see Section 6.0).

5.7 Construction Impact Mitigation Measures

During construction activities, measures will be taken by contractors to minimize construction related impacts. The construction impact mitigation measures are described below.

5.7.1 Site Control

The General Contractor shall implement Site control procedures to prevent unwanted public access and control the flow of personnel, vehicles, and materials in and out of the Site while working with potentially contaminated materials. In addition, Site control measures will help control the spread of COPCs from the Site, if they are present. Site control measures to be implemented by the General Contractor include, but are not limited to:

- Fencing the Site perimeter, including installation of construction fence screen.
- Controlling access and egress at selected locations.
- Posting signs at all Site entrances.
- Instructing visitors to sign in at the project support area.

5.7.2 Equipment Decontamination

The General Contractor shall establish and implement decontamination procedures to reduce the potential for construction equipment and vehicles to release potentially impacted soil onto public roadways or other inadvertent off-site transfer. At a minimum, contractors shall place gravel at all Site access points and remove excess soil from construction equipment using dry methods (e.g., brushing or scraping) prior to moving the equipment to off-site locations.

5.7.3 Personal Protective Equipment

Contractors shall use PPE, including appropriate clothing, to isolate workers from COPCs and physical hazards. The appropriate contractor shall evaluate the level of PPE and modify the level of PPE, if warranted, based upon conditions encountered at the Site and/or type of work activity in accordance with their own HSP (see Section 5.3). The minimum level of protection for workers coming into direct contact with potentially contaminated materials is Level D, as described below:

- Coveralls or similar construction work clothing;
- Reflective safety vests;
- Steel-toed boots;
- Hard hat;
- Work gloves, as necessary;
- Safety glasses, as necessary; and
- Hearing protection, as necessary.

5.7.4 Dust Control

Mitigation measures to minimize the creation and dispersion of dust during soil handing and earthwork will include, but not be limited to, the following measures:

- Exposed on-site soils to be moistened twice a day to prevent visible airborne dust.
- Moistening of all soils during truck loading for disposal or off-haul purposes.
- Application of water while grading, excavating, and loading, as needed.
- If visible dust is present, conducting dust suppression activities such as soil moistening.
- Covering stockpiles with 10-mil polyethylene sheeting (or equivalent).
- Limiting vehicle speeds to five-miles per hour on unpaved portions of the Site.
- Covering all disposal trucks and/or off haul trucks with a tarpaulin and rinsing of truck tires before leaving the Site.
- Minimizing drop heights while loading/unloading soil.
- On-site soil disturbance and/or loading actives will be suspended if winds exceed 20 miles per hour.
- Dust suppression shall not produce excess storm water and runoff.

6.0 NOTIFICATIONS AND REPORTING

6.1 Notifications

The Owner, the General Contractor, Environmental Consultant, and SMCEH shall be notified immediately of the discovery of COPCs (via field screening, observations, or analytical results) or other conditions of potential environmental concern. If analytical testing identifies COPCs above applicable residential screening levels, the Environmental Consultant shall notify the Owner, General Contractor, and SMCEH. If such discovery or conditions require notification to other contractors or subcontractors, the General Contractor shall make such notifications.

6.2 Project Contacts

Relevant project contacts for notifications, including in the case of discovery of COPCs or other conditions of potential environmental concern, include the following:

- **Owner/Developer:**
Eastmoor Multifamily, LP, Attn: Mark Hirth
470 South Market Street
San Jose, California 95113
Phone: 408-292-7841
- **Environmental Consultant:**
AEI Consultants, Attn: Veronica Statham, P.E.
2500 Camino Diablo
Walnut Creek, CA 94597
Phone: 925-746-6085
- **Regulator:**
San Mateo County Local Oversight Program, Attn: Jacob Madden
2000 Alameda De Las Pulgas, Suite 100
San Mateo, CA 94403
Phone: 650-399-5959
- **General Contractor:**
Core General Contractor, Inc. d.b.a. CORE Builders
470 South Market Street
San Jose, CA 95113
Phone: 408-292-7841

7.0 COMPLETION REPORTING

The Environmental Consultant will prepare a RMP Implementation Report upon completion of excavation and earthwork performed per the RMP. The report will include a summary of the work conducted, tables summarizing any analytical data generated as part of the work, and a Site map showing areas of excavation/fill and sample locations, if any. The report will include appendices with copies of permits, including any dewatering permits, manifests or bills of lading for impacted soil and/or groundwater removed, and laboratory reports for soil and water profiling not previously submitted. The report will also include a certification statement that indicates the activities were performed in accordance with this RMP. The report will be submitted to the SMCEH for review and approval.

8.0 VAPOR INTRUSION MITIGATION

The VOC benzene was detected in soil gas at concentrations above its residential and commercial/industrial ESLs, and the VOCs ethylbenzene and TCE were detected in soil gas at concentrations above their residential ESL but below commercial/industrial ESLs. The elevated concentrations of benzene and ethylbenzene were detected at boring location SB-7/SV-7 at eastern portions of the Site, in an area with proposed commercial retail/office space at the ground level as part of the proposed development. The elevated concentrations of TCE was detected at boring location SB-5/SV-5 at central portions of the Site, in the area of the proposed parking garage.

Maximum concentrations of benzene (626 $\mu\text{g}/\text{m}^3$ and ethylbenzene (38.2 $\mu\text{g}/\text{m}^3$) detected in soil gas were significantly less than the State Water Resources Control Board's LTCP soil gas screening criteria for benzene (85,000 $\mu\text{g}/\text{m}^3$ residential and 280,000 $\mu\text{g}/\text{m}^3$ commercial/industrial) and ethylbenzene (1,100,000

$\mu\text{g}/\text{m}^3$ residential and $3,600,000 \mu\text{g}/\text{m}^3$ commercial/industrial) in the presence of a bioattenuation zone. The ESL User Guide acknowledges the applicability of the LTCP to screen contaminants at properties with petroleum-related impacts, deemed petroleum vapor intrusion (PVI). The LTCP soil gas screening criteria for the individual compounds themselves is based on an evaluation of human health risks and the LTCP has deemed that certain conditions, if met, would "...assure that exposure to petroleum vapors in indoor air will not pose unacceptable health risks..." (State Water Resources Control Board [SWRCB], 2012b). For petroleum-related VOCs, risk-based screening levels such as ESLs for evaluating risk from vapor intrusion can be overly conservative by not considering biodegradation in Site screening (SWRCB, 2012c). Models and field studies show that bioattenuation of petroleum hydrocarbons in the subsurface is significant (Abreu et al., 2009; API, 2009; Davis, 2009; Lahvis, 2011). Petroleum hydrocarbon VOC concentrations have been shown to attenuate by several orders of magnitude within short vertical distances (e.g., less than 5 feet) in the unsaturated zone due to biodegradation. The hydrocarbon VOC attenuation generally increases by an additional order of magnitude or more when transport across a building foundation to indoor air is also considered (USEPA, 2008).

In addition to the above, commercial retail/office space is the proposed use for the ground level, and the second floor level would be primarily comprised of parking areas with some residential common space (e.g., mail room and lobby) in the area of the building directly overlying the ground level commercial retail/office space. Active ventilation of the parking garage would significantly mitigate the vapor intrusion risk.

Based on the above, it is AEI's professional opinion that the vapor intrusion risk to the proposed future mixed-use development is low, and the presence of the chemicals identified in soil gas do not pose an unacceptable risk to future residential and commercial/industrial users of the Site. As a conservative prophylactic measure, the potential preferential pathway of VOCs to upper, residential levels of the building will be addressed by installing conduit seals at mechanical and electrical conduits that penetrate through the subsurface and enter through upper level residential units throughout the building footprint. Conduit seals will be specified by the mechanical, electrical, and plumbing engineer (MEP) for the project consistent with Class 1 Division 2 hazardous area classifications. Additionally, existing unused utilities will be abandoned and sealed where appropriate as part of redevelopment activities. Newly installed utilities and utility trenches will be sealed at or near the building perimeter using a controlled density fill (CDF) plug to limit vapor migration within the utility trench.

9.0 REFERENCES

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10.0 LIMITATIONS

The General Contractor and subcontractors are responsible for review of this RMP prior to commencing work at the Site and for the health and safety of their own employees and subcontractors. The Owner is responsible for review of the provisions of this RMP and for incorporating its guidelines into their project planning and specifications. This document was prepared for the sole use and benefit of Eastmoor Multifamily, LP and their contractors and consultants at the Site. Neither this document, nor any of the information contained herein shall be used or relied upon for any purpose by any person or entities. Where information prepared by others has been provided, AEI cannot be responsible for its accuracy or completeness or for the availability of all information that may be relevant to the preparation of this document.

This report presents a summary of work completed by AEI Consultants. The completed work includes observations and descriptions of Site conditions encountered. Where appropriate, it includes analytical results for samples taken during the course of the work. If collected, the number and location of samples were chosen to provide the requested information, subject to scope of work for which AEI was retained and limitations inherent in this type of work, but it cannot be assumed that they are representative of areas not sampled. This report should not be regarded as a guarantee that no further contamination beyond that which could have been detected within the scope of this investigation is present beneath the Site. Undocumented, unauthorized releases of hazardous material, the remains of which are not readily identifiable by visual inspection and are of different chemical constituents, are difficult and often impossible to detect within the scope of a chemical specific investigation.

If there are any questions, please do not hesitate to contact AEI at 925-746-6000.

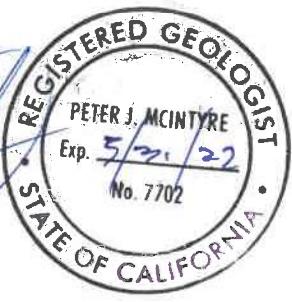
Sincerely,
AEI Consultants



Veronica Statham, P.E.
Senior Engineer



Peter McIntyre, P.G.
Executive Vice President



Figures

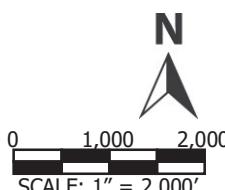


LEGEND

Map: San Francisco South
Date: 2018
Source: USGS

AEI Consultants

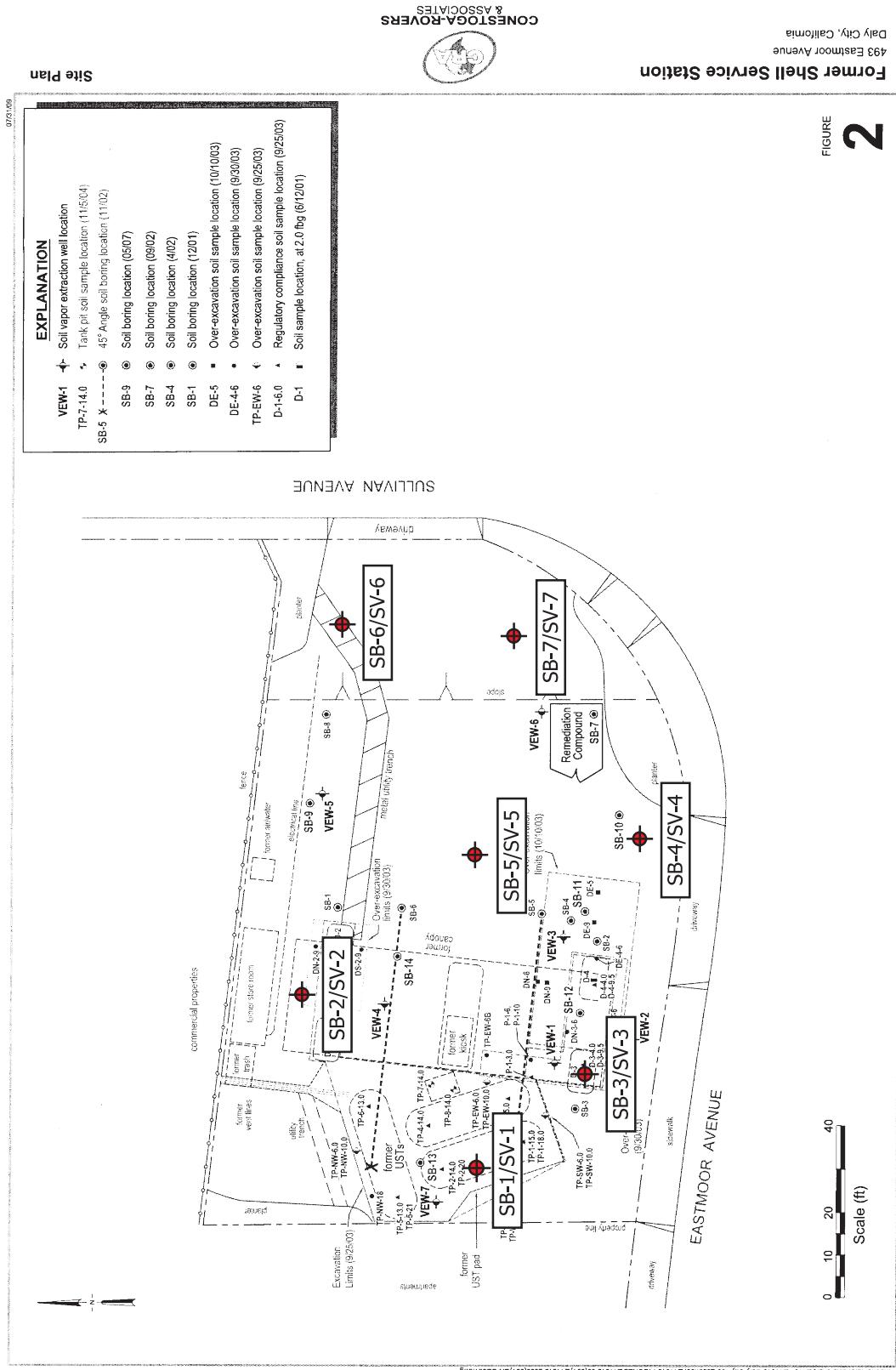
SITE LOCATION MAP



493 Eastmoor Avenue
Daly City, California

FIGURE 1
Project No. 454373

Site Plan



Tables

TABLE 1: SOIL SAMPLE DATA SUMMARY - TPHs and VOCs
493 Eastmoor Avenue
Daly City, California

Location ID	Date	Depth (feet bgs)	TPH-q (mg/kg)	TPH-d (mg/kg)	TPH-mo (C22-C32) (mg/kg)	TPH-mo (C32-C40) (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Naphthalene (mg/kg)	n-Propyl Benzene (mg/kg)	1,2,4-Trimethylbenzene (mg/kg)	1,2,3-Trimethylbenzene (mg/kg)	Remaining VOCs (mg/kg)
SB-1	11/19/2020	2.5	<2.90	1.72 J	13.6	16.6	<0.00116	<0.00581	<0.00290	0.00348 J	<0.00581 J	<0.00581 J	<0.00581 J	<0.00581 J	<RDL
SB-2	11/19/2020	2.5	<3.01	1.41 J	14.1	13.9	<0.00120	<0.00602	<0.00301	<0.00783	<0.0151 J	<0.00602 J	<0.00602 J	<0.00602 J	<RDL
SB-3	11/19/2020	2.5	1.06 B J	16.6 J	225	152	<0.00119	<0.00595	<0.00119	0.000381 J	<0.0149 J	<0.00595 J	<0.0091 J	<0.00338 J	<RDL
SB-4	11/19/2020	2.5	<2.78	<4.22	4.76	4.33	0.00285	0.00178 J	0.00278	0.00281 J	<0.0139 J	<0.00557 J	<0.00557 J	<0.00557 J	<RDL
SB-5	11/19/2020	2.5	<2.79	<4.22	<4.22	<4.22	<0.00112	<0.00559	<0.00279	<0.00279	<0.0140 J	<0.00559 J	<0.00559 J	<0.00559 J	<RDL
SB-6	11/19/2020	2.5	1.03 B J	167 J	1780	1170	<0.00107	<0.00534	<0.00267	<0.00267	<0.00694	<0.0134 J	<0.00534 J	<0.00534 J	<RDL
SB-7	11/19/2020	7	<3.54	9.38 J	42.9	58.7	0.00259	<0.00708	0.00607	0.00214 J	0.0166 J	<0.00708	0.00263 J	<0.00708	<RDL
Comparison Values:															
ESL Direct Contact - R			430	260	12,000	12,000	0.33	1,100	5.9	580	3.8	--	--	--	Various
ESL Direct Contact - C/I			2,000	1,200	180,000	180,000	1.4	5,300	26	2,500	17	--	--	--	Various
ESL Direct Contact - CW			1,800	1,100	54,000	54,000	33	4,700	540	2,400	400	--	--	--	Various
LTCP - R			--	--	--	--	--	1.9(s)/2.8(d)	--	21(s)/32(d)	--	9.7(s)/9.7(d)	--	--	--
LTCP - CW			--	--	--	--	--	14	314	--	219	--	--	--	--

Notes:

mg/kg
<RDL
bgs
less than the reported detection limit
below ground surface

Total Petroleum Hydrocarbons as Gasoline

Carbon range C12-C22 typically associated with total petroleum hydrocarbons as diesel

Carbon range C22-C40 typically associated with total petroleum hydrocarbons as motor oil

Volatile Organic Compounds

No established regulatory screening level

The same analyte is found in the associated blank

J The identification of the analyte is acceptable; the reported value is an estimate

Comparison Values:
ESL Direct Contact
LTCP

Environmental Screening Levels (ESLs) for Direct Exposure for Human Health under Residential (R), Commercial/Industrial (C/I), and Construction/Utility Worker (CW) Exposure Scenarios, from August 2019 ESL Summary Tables, Rev. 2, prepared by the San Francisco Bay Regional Water Quality Control Board.
Concentrations of Petroleum Constituents in Soil That Will Have No Significant Risk of Adversely Affecting Human Health under Residential (R) and Construction/Utility Worker (CW) Exposure Scenarios, from August 2012 Low-Threat Underground Storage Tank Case Closure Policy (LTCP). (s) denotes the value for shallow soils 0 to 5 feet bgs, and (d) denotes the value for deeper soils 5 to 10 feet bgs.

TABLE 2: SOIL SAMPLE DATA SUMMARY - METALS
493 Eastmoor Avenue
Daly City, California

Location ID	Date	Depth (feet bgs)	Sb (mg/kg)	As (mg/kg)	Ba (mg/kg)	Be (mg/kg)	Cd (mg/kg)	Cr (mg/kg)	Co (mg/kg)	Cu (mg/kg)	Pb (mg/kg)	Hg (mg/kg)	Mo (mg/kg)	Ni (mg/kg)	Se (mg/kg)	Ag (mg/kg)	Tl (mg/kg)	V (mg/kg)	Zn (mg/kg)
SB-1	11/19/2020	2.5	2.65	19.6	81.2	1.47	<0.538	35.5	22.3	16.2	6.18	0.041 J	0.776 B	47.7	1.48 J	<1.08	<2.15	57.2	55.4
SB-2	11/19/2020	2.5	0.876 J	2.95	73.2	0.41	<0.549	49.9	9.33	11	8.36	<0.0439	0.378 J	30.1	1.2 J	<1.10	<2.20	51	32.4
SB-3	11/19/2020	2.5	1.33 J	3.29	82.2	0.353	<0.547	73.5	9.51	11.2	6.45	0.024 J	0.224 J	42.6	1.5 J	<1.09	<2.19	60.5	35.3
SB-4	11/19/2020	2.5	0.772 J	0.674 J	24.9	0.275	<0.528	28.7	3.69	3.11	2.03	<0.0422	<0.528	20.2	0.836 J	<1.06	<2.11	32.9	14.8
SB-5	11/19/2020	2.5	<2.11	2.19 B	25.2	0.273	0.051 J	26.7	3.39	2.87	1.33	<0.0422	0.166 B J	18.6	<2.11	<2.11	30.1	14.8	
SB-6	11/19/2020	2.5	0.931 J	2.33 B	55.7	0.338	0.134 J	34.9	8.03	13.1	18.1	0.0234 J	1.04 B	27.4	<2.06	<1.03	<2.06	52.5	38.9
SB-7	11/19/2020	7	1.33 J	1.86 B J	60.9	0.356	<0.588	67.9	10.8	13.1	12.3	<0.0470	0.468 B J	53	1.28 J	<1.18	<2.35	56.5	42.1

Comparison Values:

ESL Direct Contact - R

ESL Direct Contact - C/I

ESL Direct Contact - CW

Maximum Background

Notes:

mg/kg
<RDL
bgs
--

Below ground surface
No established regulatory screening level
Exceeds one or more screening levels

Bold
Sb
Antimony
Beryllium
Cobalt
Mercury
Selenium
Vanadium

As
Arsenic
Cadmium
Copper
Molybdenum
Silver
Zinc

Ba
Barium
Cr
Pb
Total Chromium
Ni
Lead
Nickel
Thallium

Comparison Values:

ESL Direct Contact

Rev. 2, prepared by the San Francisco Bay Regional Water Quality Control Board.

Max. Background:

Typical background concentrations provided here are based on "Establishing Background Arsenic in Soil of the Urbanized San Francisco Bay Region" by Duvergé, D.J., dated December 2011 for arsenic and "Background Concentrations of Trace and Major Elements in California Soils", by Bradford, G.R., et al., dated March 1996 for remaining metals.

TABLE 3: SOIL SAMPLE DATA SUMMARY - SVOCs
493 Eastmoor Avenue
Daly City, California

Location ID	Date	Depth (feet bgs)	Acenaphthene (mg/kg)	Anthracene (mg/kg)	Benzo(a)anthracene (mg/kg)	Benz(b) fluoranthene (mg/kg)	Benz(k) fluoranthene (mg/kg)	Benzo(a) pyrene (mg/kg)	Chrysene (mg/kg)	Fluoranthene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)	Remaining SVOCs (mg/kg)	
SB-1	11/19/2020	2.5	0.0185 J	<0.0358	<0.0258	<0.0358	<0.0358	<0.0358	<0.0358	<0.0358	0.011 J	0.23	0.0305 J	0.00765 J	
SB-2	11/19/2020	2.5	0.0114 J	<0.0366	<0.0366	<0.0366	<0.0366	<0.0366	<0.0366	<0.0366	0.198	<0.0366	<0.0366	<0.0366	
SB-3	11/19/2020	2.5	0.039 J	<0.0704 J	<0.0364	<0.0812 J	<0.0364	<0.0812 J	<0.0364	<0.0812 J	0.0177 J	0.577	0.0255 J	0.008 J	
SB-4	11/19/2020	2.5	<0.0351 J	<0.0351 J	<0.0351 J	<0.0351 J	<0.0351 J	<0.0351 J	<0.0351 J	<0.0351 J	<0.0351 J	0.0624	<0.0351 J	<0.0351 J	
SB-5	11/19/2020	2.5	0.0194 J	<0.0352	<0.0352	<0.0352	<0.0352	<0.0352	<0.0352	<0.0352	0.00787 J	0.331	0.00736 J	<0.0352 J	
SB-6	11/19/2020	2.5	<0.343 J	<0.343 J	<0.134 J	<0.259 J	<0.0797 J	<0.0797 J	<0.0793 J	<0.0793 J	0.154 J	<0.343 J	0.171 J	<0.343 J	
SB-7	11/19/2020	7	<0.0152 J	<0.0152 J	<0.0391 J	<0.0391 J	<0.0391 J	<0.0391 J	<0.0391 J	<0.0391 J	<0.0391 J	0.00674 J	0.225	0.012 J	<0.0391 J

Notes:

mg/kg milligrams per kilogram

<RDL less than the reported detection limit

bgs below ground surface

SVOCs Semi-Volatile Organic Compounds

-- No established regulatory screening level

J The identification of the analyte is acceptable; the reported value is an estimate

Bold Result exceeds a regulatory screening level

Water Quality Control Board.

Comparison Values:

ESL Direct Contact - R

ESL Direct Contact - C/I

ESL Direct Contact - CW

Comparison Values:

ESL Direct Contact

Environmental Screening Levels (ESLs) for Direct Exposure for Human Health under Residential (R), Commercial/Industrial (C/I), and Construction/Utility Worker (CW) Exposure Scenarios, from August 2019 ESL Summary Tables, Rev. 2, prepared by the San Francisco Bay Regional

Water Quality Control Board.

TABLE 4: SOIL GAS SAMPLE DATA SUMMARY
493 Eastmoor Avenue, Daly City, California

Location ID	Date	Depth (feet bgs)	Benzene ($\mu\text{g}/\text{m}^3$)	Toluene ($\mu\text{g}/\text{m}^3$)	Ethylbenzene ($\mu\text{g}/\text{m}^3$)	m&p-Xylene ($\mu\text{g}/\text{m}^3$)	o-Xylene ($\mu\text{g}/\text{m}^3$)	PCE ($\mu\text{g}/\text{m}^3$)	TCE ($\mu\text{g}/\text{m}^3$)	Acetone ($\mu\text{g}/\text{m}^3$)	Carbon Disulfide ($\mu\text{g}/\text{m}^3$)	Chloromethane ($\mu\text{g}/\text{m}^3$)	Cyddhexane ($\mu\text{g}/\text{m}^3$)	1,4-Dichloroethene ($\mu\text{g}/\text{m}^3$)	1,4-ds-1,2-Dichloroethene ($\mu\text{g}/\text{m}^3$)	Dioxane ($\mu\text{g}/\text{m}^3$)
SV-1	12/8/2020	5	<0.639	<1.98	<0.867	<1.73	<0.867	<1.36	<1.07	3.78	2.85	<0.413	<0.689	<1.20	<0.793	<0.721
SV-2	12/8/2020	5	<0.639	6.29	1.17	6.29	2.74	6.25	<1.07	106	<0.622	<0.413	<0.689	<1.20	<0.793	0.926
SV-3	12/8/2020	5	0.747	2.8	<0.867	<1.73	<0.867	<1.36	<1.07	14.2	5.73	0.686	0.919	<1.20	<0.793	<0.721
SV-4	12/8/2020	5	1.65	<1.88	<0.867	<1.73	<0.867	<1.36	<1.07	9.98	9.34	1.08	2.64	<1.20	<0.793	<0.721
SV-5	12/8/2020	5	<0.639	<1.88	<0.867	<1.73	<0.867	5.01	64.8	17.8	<0.622	7.21	0.851	<1.20	3.17	2.75
SV-6	12/8/2020	6.5	<0.639	<1.88	<0.867	<1.73	<0.867	2.55	<1.07	13.1	0.691	1.07	<0.689	<1.20	<0.793	<0.721
SV-7	12/8/2020	9	626	27	38.2	141	58.5	1.93	<1.07	35.4	<0.622	<0.413	1,080	4.84	<0.793	<0.721

Comparison Values:

ESL Vapor Intrusion-R	3.2	10,000	37	3,500*	15,000*	15	1,100,000	--	3,100	--	--	--	--	--	280	12
ESL Vapor Intrusion-C/I	14	44,000	160	--	--	67	100	4,500,000	--	13,000	--	--	--	--	1,200	53
LTCP-No Bioattenuation Zone-R	85	--	1,100	--	--	--	--	--	--	--	--	--	--	--	--	--
LTCP-No Bioattenuation Zone-C/I	280	--	3,600	--	--	--	--	--	--	--	--	--	--	--	--	--
LTCP-With Bioattenuation Zone-R	85,000	--	1,100,000	--	--	--	--	--	--	--	--	--	--	--	--	--
LTCP-With Bioattenuation Zone-C/I	280,000	--	3,600,000	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

$\mu\text{g}/\text{m}^3$
<RD
bgs
MEK
MTBE
PCE
TCE
Trichloroethene
VOCs

Micrograms per cubic meter
less than the reported detection limit
below ground surface
No established regulatory screening level

Value provided is for total Xylenes
No established regulatory screening level
The same analyte is found in the associated blank.

The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICA).
Bold
Exceeds one or more screening levels

Comparison Values:
ESL Vapor Intrusion Human Health Risk Levels under Residential (R) and Commercial/Industrial (C/I) Exposure Scenarios, from August 2019 ESL Summary Tables, Rev. 2, prepared by the San Francisco Bay Regional Water Quality Control Board.

TABLE 4: SOIL GAS SAMPLE DATA SUMMARY
493 Eastmoor Avenue, Daly City, California

Location ID	Date	Depth (feet bgs)	Ethanol ($\mu\text{g}/\text{m}^3$)	Ethylioluene ($\mu\text{g}/\text{m}^3$)	4-Chlorofluoromethane ($\mu\text{g}/\text{m}^3$)	Dichlorodifluoromethane ($\mu\text{g}/\text{m}^3$)	Heptane ($\mu\text{g}/\text{m}^3$)	n-Hexane ($\mu\text{g}/\text{m}^3$)	Methylene Chloride ($\mu\text{g}/\text{m}^3$)	2-Butanone (MEK) ($\mu\text{g}/\text{m}^3$)	MTBE ($\mu\text{g}/\text{m}^3$)	2-Propanol ($\mu\text{g}/\text{m}^3$)	Propane ($\mu\text{g}/\text{m}^3$)	Tetrahydrofuran ($\mu\text{g}/\text{m}^3$)
SV-1	12/8/2020	5	23	<0.982	2.18	<0.989	<0.818	<2.22	<0.694	<3.69	<0.721	6.22	<0.689	<0.590
SV-2	12/8/2020	5	601 E	1.82	1.36	2.73	<0.818	<2.22	0.788	26.5	0.771	73.5	<0.689	2.49
SV-3	12/8/2020	5	100	<0.982	1.38	2.74	<0.818	<2.22	2.77	<3.69	<0.721	8.04	<0.689	1.06
SV-4	12/8/2020	5	22.8	<0.982	<1.12	2.40	<0.818	<2.22	<0.694	<3.69	<0.721	6.34	3.94	<0.590
SV-5	12/8/2020	5	53.9	<0.982	1.38	2.79	<0.818	<2.22	1.38	<3.69	<0.721	8.6	1.1 B	1.93
SV-6	12/8/2020	6.5	64.5	<0.982	<1.12	2.28	<0.818	<2.22	1.31	<3.69	<0.721	8.68	<0.689	<0.590
SV-7	12/8/2020	9	81.5	6.04	<1.12	1.00	337	1,030	<0.694	<3.69	<0.721	4.08	<0.689	<0.590

Comparison Values:

ESL-Vapor Intrusion-R	-	--	--	--	--	--	--	--	34	170,000	360	--	--
ESL-Vapor Intrusion-C/I	-	--	--	--	--	--	--	--	410	730,000	1,600	--	--
LTCP-No Bioattenuation Zone	-	--	--	--	--	--	--	--	--	--	--	--	--
LTCP-No Bioattenuation Zone	-	--	--	--	--	--	--	--	--	--	--	--	--
LTCP-With Bioattenuation Zone	-	--	--	--	--	--	--	--	--	--	--	--	--
LTCP-With Bioattenuation Zone	-	--	--	--	--	--	--	--	--	--	--	--	--

Notes:
μg/m³
>RDL
bgs
MEK
MTBE
PCE
TCE
VOCs

Micrograms per cubic meter
less than the reported detection limit
below ground surface
Methyl Ethyl Ketone
Methyl Tertiary Butyl Ether
Tetrachloroethene
Trichloroethene
Volatile Organic Compounds

--
-- The same analyte is found in the associated blank.
E The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
Bold Exceeds one or more screening levels

Comparison Values:
ESL Vapor
Intrusion
San Francisco Bay Regional Water Quality Control Board

No established regulatory screening level

Environmental Screening Levels (ESLs) for Vapor Intrusion Human Health Risk Levels under Residential (R) and Commercial/Industrial (C/I) Exposure Scenarios, from August 2019 ESL Summary Tables, Rev. 2, prepared by the San Francisco Bay Regional Water Quality Control Board.

TABLE 4: SOIL GAS SAMPLE DATA SUMMARY
493 Eastmoor Avenue, Daly City, California

Location ID	Date	Depth (feet bgs)	1,1,1-Trichloroethane ($\mu\text{g}/\text{m}^3$)	1,2,4-Trimethylbenzene ($\mu\text{g}/\text{m}^3$)	1,3,5-Trimethylbenzene ($\mu\text{g}/\text{m}^3$)	2,2,4-Trimethylpentane ($\mu\text{g}/\text{m}^3$)	1,1-Difluoroethane ($\mu\text{g}/\text{m}^3$)	Remaining VOCs ($\mu\text{g}/\text{m}^3$)	Carbon Dioxide (%)	Helium Detected in Sample (%)	Field Helium Shroud (%)	Maximum Allowable Helium Detection in Sample (%)
SV-1	12/8/2020	5	<1.09	<0.982	<0.982	<0.934	<2.70	<RDL	20.9	<0.500	<0.100	26.2
SV-2	12/8/2020	5	<1.09	3.56	1.48	1.97	4.65	<RDL	21.9	<0.500	<0.100	21.5
SV-3	12/8/2020	5	<1.09	<0.982	<0.982	<0.934	42.4	<RDL	19.7	1.26	<0.100	30.1
SV-4	12/8/2020	5	<1.09	<0.982	<0.982	<0.934	2.86 B	<RDL	21.2	0.718	<0.100	34.8
SV-5	12/8/2020	5	1.32	<0.982	<0.982	<0.934	14.2	<RDL	22.0	<0.500	<0.100	27.7
SV-6	12/8/2020	6.5	<1.09	<0.982	<0.982	<0.934	9.02	<RDL	18.3	2.98	<0.100	24.4
SV-7	12/8/2020	9	<1.09	4.12	3.31	5,560	19.1	<RDL	12.3	7.98	<0.100	32.1
Comparison Values:												
ESL-Vapor Intrusion-R	--	--	--	--	--	--	--	Various	--	--	--	--
ESL-Vapor Intrusion-C/I	--	--	--	--	--	--	--	Various	--	--	--	--
LTCP-No Bioattenuation Zone	--	--	--	--	--	--	--	--	--	--	--	--
LTCP-No Bioattenuation Zone	--	--	--	--	--	--	--	--	--	--	--	--
LTCP-With Bioattenuation Zone	--	--	--	--	--	--	--	--	--	--	--	--
LTCP-With Bioattenuation Zone	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

$\mu\text{g}/\text{m}^3$
<RDL
bgs
MEK
MTBE
PCE
TCE
VOCS

Micrograms per cubic meter
less than the reported detection limit
below ground surface
Methyl Ethyl Ketone
Methyl Tertiary Butyl Ether
Tetrachloroethene
Trichloroethene
Volatile Organic Compounds

No established regulatory screening level
The same analyte is found in the associated blank.
The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
Exceeds one or more screening levels
Bold

Comparison Values:
ESL Vapor Intrusion
Environmental Screening Levels (ESLs) for Vapor Intrusion Human Health Risk Levels under Residential (R) and Commercial/Industrial (C/I) Exposure Scenarios, from August 2019 ESL Summary Tables, Rev. 2, prepared by the San Francisco Bay Regional Water Quality Control Board.

Appendix A

Analytical Reports

ANALYTICAL REPORT

December 04, 2020

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ GI

⁸ AI

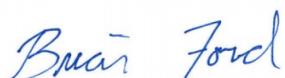
⁹ SC

AEI Consultants - CA

Sample Delivery Group: L1289379
Samples Received: 11/20/2020
Project Number: 430044
Description: Eastmoor Avenue

Report To: Natasha Budimirovic
2500 Camino Diablo
Walnut Creek, CA 94597

Entire Report Reviewed By:



Brian Ford
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



Cp: Cover Page	1	1 Cp
Tc: Table of Contents	2	2 Tc
Ss: Sample Summary	3	3 Ss
Cn: Case Narrative	5	4 Cn
Sr: Sample Results	6	5 Sr
SB-1-2.5 L1289379-01	6	
SB-2-2.5 L1289379-02	10	
SB-3-2.5 L1289379-03	14	
SB-4-2.5 L1289379-04	18	
SB-5-2.5 L1289379-05	22	
SB-6-2.5 L1289379-06	26	
SB-7-7 L1289379-07	30	
Qc: Quality Control Summary	34	6 Qc
Total Solids by Method 2540 G-2011	34	
Mercury by Method 7471A	36	
Metals (ICP) by Method 6010B	38	
Volatile Organic Compounds (GC) by Method 8015	42	
Volatile Organic Compounds (GC/MS) by Method 8260B	44	
Semi-Volatile Organic Compounds (GC) by Method 8015	50	
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	52	
Gl: Glossary of Terms	58	7 Gl
Al: Accreditations & Locations	59	8 Al
Sc: Sample Chain of Custody	60	9 Sc



SB-1-2.5 L1289379-01 Solid

Collected by
Natasha Budimirovic 11/19/20 09:21Collected date/time
11/19/20 09:21Received date/time
11/20/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1584115	1	12/01/20 08:35	12/01/20 08:45	KBC	Mt. Juliet, TN
Mercury by Method 7471A	WG1584540	1	12/01/20 09:07	12/02/20 08:13	BMF	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1583319	1	11/29/20 12:57	11/30/20 23:57	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015	WG1584921	25	11/19/20 09:21	12/02/20 21:22	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1584153	1	11/19/20 09:21	12/01/20 21:11	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1583815	1	11/30/20 07:52	12/01/20 09:19	CAG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC/MS) by Method 8270C	WG1583806	1	12/01/20 08:28	12/01/20 23:33	JNJ	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

SB-2-2.5 L1289379-02 Solid

Collected by
Natasha Budimirovic 11/19/20 11:28Collected date/time
11/19/20 11:28Received date/time
11/20/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1584115	1	12/01/20 08:35	12/01/20 08:45	KBC	Mt. Juliet, TN
Mercury by Method 7471A	WG1583991	1	11/30/20 08:19	12/01/20 08:46	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1583760	1	11/29/20 13:03	12/01/20 08:39	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015	WG1584921	25	11/19/20 11:28	12/03/20 00:44	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1584153	1	11/19/20 11:28	12/01/20 21:30	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1583815	1	11/30/20 07:52	12/01/20 09:34	CAG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC/MS) by Method 8270C	WG1583806	1	12/01/20 08:28	12/02/20 00:13	JNJ	Mt. Juliet, TN

SB-3-2.5 L1289379-03 Solid

Collected by
Natasha Budimirovic 11/19/20 09:36Collected date/time
11/19/20 09:36Received date/time
11/20/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1584115	1	12/01/20 08:35	12/01/20 08:45	KBC	Mt. Juliet, TN
Mercury by Method 7471A	WG1583991	1	11/30/20 08:19	12/01/20 08:49	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1583760	1	11/29/20 13:03	12/01/20 08:41	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015	WG1584921	25	11/19/20 09:36	12/03/20 01:07	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1584153	1	11/19/20 09:36	12/01/20 21:49	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1583815	10	11/30/20 07:52	12/01/20 12:25	CAG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC/MS) by Method 8270C	WG1583806	1	12/01/20 08:28	12/02/20 00:53	JNJ	Mt. Juliet, TN

SB-4-2.5 L1289379-04 Solid

Collected by
Natasha Budimirovic 11/19/20 09:48Collected date/time
11/19/20 09:48Received date/time
11/20/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1584115	1	12/01/20 08:35	12/01/20 08:45	KBC	Mt. Juliet, TN
Mercury by Method 7471A	WG1583991	1	11/30/20 08:19	12/01/20 08:51	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1583760	1	11/29/20 13:03	12/01/20 08:44	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015	WG1584921	25	11/19/20 09:48	12/03/20 01:30	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1584153	1	11/19/20 09:48	12/01/20 22:08	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1583815	1	11/30/20 07:52	12/01/20 09:05	CAG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC/MS) by Method 8270C	WG1583806	1	12/01/20 08:28	12/01/20 23:13	JNJ	Mt. Juliet, TN

SB-5-2.5 L1289379-05 Solid

Collected by
Natasha Budimirovic 11/19/20 10:13Collected date/time
11/19/20 10:13Received date/time
11/20/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1584117	1	12/01/20 08:21	12/01/20 08:31	KBC	Mt. Juliet, TN
Mercury by Method 7471A	WG1583991	1	11/30/20 08:19	12/01/20 09:02	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1583319	1	11/29/20 12:57	11/30/20 23:59	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015	WG1585567	25	11/19/20 10:13	12/03/20 08:13	TPR	Mt. Juliet, TN



SB-5-2.5 L1289379-05 Solid

Collected by
Natasha Budimirovic 11/19/20 10:13

Collected date/time
11/19/20 10:13

Received date/time
11/20/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1584153	1	11/19/20 10:13	12/01/20 22:27	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1583815	1	11/30/20 07:52	11/30/20 22:36	JN	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1583806	1	12/01/20 08:28	12/01/20 19:32	JNJ	Mt. Juliet, TN

SB-6-2.5 L1289379-06 Solid

Collected by
Natasha Budimirovic 11/19/20 11:12

Collected date/time
11/19/20 11:12

Received date/time
11/20/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1584117	1	12/01/20 08:21	12/01/20 08:31	KBC	Mt. Juliet, TN
Mercury by Method 7471A	WG1583991	1	11/30/20 08:19	12/01/20 09:05	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1583319	1	11/29/20 12:57	12/01/20 00:02	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015	WG1585567	25	11/19/20 11:12	12/03/20 08:36	TPR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1584153	1	11/19/20 11:12	12/01/20 22:46	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1585052	200	12/02/20 06:33	12/03/20 17:39	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1583806	10	12/01/20 08:28	12/02/20 02:13	JNJ	Mt. Juliet, TN

SB-7-7 L1289379-07 Solid

Collected by
Natasha Budimirovic 11/19/20 10:34

Collected date/time
11/19/20 10:34

Received date/time
11/20/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1584117	1	12/01/20 08:21	12/01/20 08:31	KBC	Mt. Juliet, TN
Mercury by Method 7471A	WG1583991	1	11/30/20 08:19	12/01/20 09:07	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1583319	1	11/29/20 12:57	12/01/20 00:05	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015	WG1585567	25	11/19/20 10:34	12/03/20 08:59	TPR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1584153	1	11/19/20 10:34	12/01/20 23:05	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1585052	5	12/02/20 06:33	12/02/20 21:28	JN	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1583806	1	12/01/20 08:28	12/01/20 23:53	JNJ	Mt. Juliet, TN

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Project Manager

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	92.9	%	1	12/01/2020 08:45	WG1584115

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Mercury	0.0410	J	0.0194	0.0431	1	12/02/2020 08:13	WG1584540

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Antimony	2.65		0.586	2.15	1	11/30/2020 23:57	WG1583319
Arsenic	19.6		0.558	2.15	1	11/30/2020 23:57	WG1583319
Barium	81.2		0.0917	0.538	1	11/30/2020 23:57	WG1583319
Beryllium	1.47		0.0339	0.215	1	11/30/2020 23:57	WG1583319
Cadmium	U		0.0507	0.538	1	11/30/2020 23:57	WG1583319
Chromium	35.5		0.143	1.08	1	11/30/2020 23:57	WG1583319
Cobalt	22.3		0.0873	1.08	1	11/30/2020 23:57	WG1583319
Copper	16.2		0.431	2.15	1	11/30/2020 23:57	WG1583319
Lead	6.18		0.224	0.538	1	11/30/2020 23:57	WG1583319
Molybdenum	0.776	B	0.117	0.538	1	11/30/2020 23:57	WG1583319
Nickel	47.7		0.142	2.15	1	11/30/2020 23:57	WG1583319
Selenium	1.48	J	0.822	2.15	1	11/30/2020 23:57	WG1583319
Silver	U		0.137	1.08	1	11/30/2020 23:57	WG1583319
Thallium	U		0.424	2.15	1	11/30/2020 23:57	WG1583319
Vanadium	57.2		0.545	2.15	1	11/30/2020 23:57	WG1583319
Zinc	55.4		0.896	5.38	1	11/30/2020 23:57	WG1583319

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
TPHG C5 - C12	U		0.964	2.90	25	12/02/2020 21:22	WG1584921
(S) a,a,a-Trifluorotoluene(FID)	96.1			77.0-120		12/02/2020 21:22	WG1584921

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.0424	0.0581	1	12/01/2020 21:11	WG1584153
Acrylonitrile	U		0.00419	0.0145	1	12/01/2020 21:11	WG1584153
Benzene	U		0.000542	0.00116	1	12/01/2020 21:11	WG1584153
Bromobenzene	U		0.00105	0.0145	1	12/01/2020 21:11	WG1584153
Bromodichloromethane	U		0.000842	0.00290	1	12/01/2020 21:11	WG1584153
Bromoform	U	J4	0.00136	0.0290	1	12/01/2020 21:11	WG1584153
Bromomethane	U		0.00229	0.0145	1	12/01/2020 21:11	WG1584153
n-Butylbenzene	U		0.00610	0.0145	1	12/01/2020 21:11	WG1584153
sec-Butylbenzene	U		0.00334	0.0145	1	12/01/2020 21:11	WG1584153
tert-Butylbenzene	U		0.00226	0.00581	1	12/01/2020 21:11	WG1584153
Carbon tetrachloride	U		0.00104	0.00581	1	12/01/2020 21:11	WG1584153
Chlorobenzene	U		0.000244	0.00290	1	12/01/2020 21:11	WG1584153
Chlorodibromomethane	U	J4	0.000711	0.00290	1	12/01/2020 21:11	WG1584153
Chloroethane	U		0.00197	0.00581	1	12/01/2020 21:11	WG1584153
Chloroform	U		0.00120	0.00290	1	12/01/2020 21:11	WG1584153
Chloromethane	U		0.00505	0.0145	1	12/01/2020 21:11	WG1584153
2-Chlorotoluene	U		0.00100	0.00290	1	12/01/2020 21:11	WG1584153
4-Chlorotoluene	U		0.000523	0.00581	1	12/01/2020 21:11	WG1584153



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyst	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch	1 Cp
	mg/kg		mg/kg	mg/kg				
1,2-Dibromo-3-Chloropropane	U		0.00453	0.0290	1	12/01/2020 21:11	WG1584153	
1,2-Dibromoethane	U		0.000753	0.00290	1	12/01/2020 21:11	WG1584153	
Dibromomethane	U		0.000871	0.00581	1	12/01/2020 21:11	WG1584153	
1,2-Dichlorobenzene	U		0.000494	0.00581	1	12/01/2020 21:11	WG1584153	
1,3-Dichlorobenzene	U		0.000697	0.00581	1	12/01/2020 21:11	WG1584153	
1,4-Dichlorobenzene	U		0.000813	0.00581	1	12/01/2020 21:11	WG1584153	
Dichlorodifluoromethane	U		0.00187	0.00290	1	12/01/2020 21:11	WG1584153	
1,1-Dichloroethane	U		0.000570	0.00290	1	12/01/2020 21:11	WG1584153	
1,2-Dichloroethane	U		0.000754	0.00290	1	12/01/2020 21:11	WG1584153	
1,1-Dichloroethene	U		0.000704	0.00290	1	12/01/2020 21:11	WG1584153	
cis-1,2-Dichloroethene	U		0.000852	0.00290	1	12/01/2020 21:11	WG1584153	
trans-1,2-Dichloroethene	U		0.00121	0.00581	1	12/01/2020 21:11	WG1584153	
1,2-Dichloropropane	U		0.00165	0.00581	1	12/01/2020 21:11	WG1584153	
1,1-Dichloropropene	U		0.000940	0.00290	1	12/01/2020 21:11	WG1584153	
1,3-Dichloropropane	U		0.000582	0.00581	1	12/01/2020 21:11	WG1584153	
cis-1,3-Dichloropropene	U		0.000879	0.00290	1	12/01/2020 21:11	WG1584153	
trans-1,3-Dichloropropene	U		0.00132	0.00581	1	12/01/2020 21:11	WG1584153	
2,2-Dichloropropane	U	J4	0.00160	0.00290	1	12/01/2020 21:11	WG1584153	
Di-isopropyl ether	U		0.000476	0.00116	1	12/01/2020 21:11	WG1584153	
Ethylbenzene	U		0.000856	0.00290	1	12/01/2020 21:11	WG1584153	
Hexachloro-1,3-butadiene	U		0.00697	0.0290	1	12/01/2020 21:11	WG1584153	
Isopropylbenzene	U		0.000494	0.00290	1	12/01/2020 21:11	WG1584153	
p-Isopropyltoluene	U		0.00296	0.00581	1	12/01/2020 21:11	WG1584153	
2-Butanone (MEK)	U		0.0737	0.116	1	12/01/2020 21:11	WG1584153	
Methylene Chloride	U		0.00771	0.0290	1	12/01/2020 21:11	WG1584153	
4-Methyl-2-pentanone (MBK)	U		0.00265	0.0290	1	12/01/2020 21:11	WG1584153	
Methyl tert-butyl ether	U	J4	0.000406	0.00116	1	12/01/2020 21:11	WG1584153	
Naphthalene	0.00692	J	0.00567	0.0145	1	12/01/2020 21:11	WG1584153	
n-Propylbenzene	U		0.00110	0.00581	1	12/01/2020 21:11	WG1584153	
Styrene	U		0.000266	0.0145	1	12/01/2020 21:11	WG1584153	
1,1,2-Tetrachloroethane	U		0.00110	0.00290	1	12/01/2020 21:11	WG1584153	
1,1,2,2-Tetrachloroethane	U		0.000807	0.00290	1	12/01/2020 21:11	WG1584153	
1,1,2-Trichlorotrifluoroethane	U		0.000876	0.00290	1	12/01/2020 21:11	WG1584153	
Tetrachloroethene	U		0.00104	0.00290	1	12/01/2020 21:11	WG1584153	
Toluene	U		0.00151	0.00581	1	12/01/2020 21:11	WG1584153	
1,2,3-Trichlorobenzene	U		0.00851	0.0145	1	12/01/2020 21:11	WG1584153	
1,2,4-Trichlorobenzene	U		0.00511	0.0145	1	12/01/2020 21:11	WG1584153	
1,1,1-Trichloroethane	U		0.00107	0.00290	1	12/01/2020 21:11	WG1584153	
1,1,2-Trichloroethane	U		0.000693	0.00290	1	12/01/2020 21:11	WG1584153	
Trichloroethene	U		0.000678	0.00116	1	12/01/2020 21:11	WG1584153	
Trichlorofluoromethane	U		0.000960	0.00290	1	12/01/2020 21:11	WG1584153	
1,2,3-Trichloropropane	U		0.00188	0.0145	1	12/01/2020 21:11	WG1584153	
1,2,4-Trimethylbenzene	U		0.00183	0.00581	1	12/01/2020 21:11	WG1584153	
1,2,3-Trimethylbenzene	U		0.00183	0.00581	1	12/01/2020 21:11	WG1584153	
1,3,5-Trimethylbenzene	U		0.00232	0.00581	1	12/01/2020 21:11	WG1584153	
Vinyl chloride	U		0.00135	0.00290	1	12/01/2020 21:11	WG1584153	
Xylenes, Total	0.00348	J	0.00102	0.00755	1	12/01/2020 21:11	WG1584153	
(S) Toluene-d8	104			75.0-131		12/01/2020 21:11	WG1584153	
(S) 4-Bromofluorobenzene	98.9			67.0-138		12/01/2020 21:11	WG1584153	
(S) 1,2-Dichloroethane-d4	97.6			70.0-130		12/01/2020 21:11	WG1584153	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc



Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
C12-C22 Hydrocarbons	1.72	J	0.789	4.31	1	12/01/2020 09:19	WG1583815
C22-C32 Hydrocarbons	13.6		1.43	4.31	1	12/01/2020 09:19	WG1583815
C32-C40 Hydrocarbons	16.6		1.43	4.31	1	12/01/2020 09:19	WG1583815
(S) o-Terphenyl	67.4			18.0-148		12/01/2020 09:19	WG1583815

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

8 AI

9 Sc

Semi-Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Acenaphthene	0.0185	J	0.00580	0.0358	1	12/01/2020 23:33	WG1583806
Acenaphthylene	U		0.00505	0.0358	1	12/01/2020 23:33	WG1583806
Anthracene	U		0.00638	0.0358	1	12/01/2020 23:33	WG1583806
Benzo(a)anthracene	U		0.00632	0.0358	1	12/01/2020 23:33	WG1583806
Benzo(b)fluoranthene	U		0.00668	0.0358	1	12/01/2020 23:33	WG1583806
Benzo(k)fluoranthene	U		0.00637	0.0358	1	12/01/2020 23:33	WG1583806
Benzo(g,h,i)perylene	U		0.00656	0.0358	1	12/01/2020 23:33	WG1583806
Benzo(a)pyrene	U		0.00666	0.0358	1	12/01/2020 23:33	WG1583806
Bis(2-chlorethoxy)methane	U		0.0108	0.358	1	12/01/2020 23:33	WG1583806
Bis(2-chloroethyl)ether	U		0.0118	0.358	1	12/01/2020 23:33	WG1583806
2,2-Oxybis(1-Chloropropane)	U		0.0155	0.358	1	12/01/2020 23:33	WG1583806
4-Bromophenyl-phenylether	U		0.0126	0.358	1	12/01/2020 23:33	WG1583806
2-Chloronaphthalene	U		0.00630	0.0358	1	12/01/2020 23:33	WG1583806
4-Chlorophenyl-phenylether	U		0.0125	0.358	1	12/01/2020 23:33	WG1583806
Chrysene	U		0.00713	0.0358	1	12/01/2020 23:33	WG1583806
Dibenz(a,h)anthracene	U		0.00994	0.0358	1	12/01/2020 23:33	WG1583806
3,3-Dichlorobenzidine	U		0.0132	0.358	1	12/01/2020 23:33	WG1583806
2,4-Dinitrotoluene	U		0.0103	0.358	1	12/01/2020 23:33	WG1583806
2,6-Dinitrotoluene	U		0.0117	0.358	1	12/01/2020 23:33	WG1583806
Fluoranthene	0.00983	J	0.00647	0.0358	1	12/01/2020 23:33	WG1583806
Fluorene	0.0110	J	0.00583	0.0358	1	12/01/2020 23:33	WG1583806
Hexachlorobenzene	U		0.0127	0.358	1	12/01/2020 23:33	WG1583806
Hexachloro-1,3-butadiene	U		0.0121	0.358	1	12/01/2020 23:33	WG1583806
Hexachlorocyclopentadiene	U		0.0188	0.358	1	12/01/2020 23:33	WG1583806
Hexachloroethane	U		0.0141	0.358	1	12/01/2020 23:33	WG1583806
Indeno(1,2,3-cd)pyrene	U		0.0101	0.0358	1	12/01/2020 23:33	WG1583806
Isophorone	U		0.0110	0.358	1	12/01/2020 23:33	WG1583806
Naphthalene	0.293		0.00900	0.0358	1	12/01/2020 23:33	WG1583806
Nitrobenzene	U		0.0125	0.358	1	12/01/2020 23:33	WG1583806
n-Nitrosodimethylamine	U		0.0532	0.358	1	12/01/2020 23:33	WG1583806
n-Nitrosodiphenylamine	U		0.0271	0.358	1	12/01/2020 23:33	WG1583806
n-Nitrosodi-n-propylamine	U		0.0119	0.358	1	12/01/2020 23:33	WG1583806
Phenanthrene	0.0305	J	0.00712	0.0358	1	12/01/2020 23:33	WG1583806
Pyridine	U		0.0237	0.358	1	12/01/2020 23:33	WG1583806
Benzylbutyl phthalate	U		0.0112	0.358	1	12/01/2020 23:33	WG1583806
Bis(2-ethylhexyl)phthalate	U		0.0454	0.358	1	12/01/2020 23:33	WG1583806
Di-n-butyl phthalate	U		0.0123	0.358	1	12/01/2020 23:33	WG1583806
Diethyl phthalate	U		0.0118	0.358	1	12/01/2020 23:33	WG1583806
Dimethyl phthalate	U		0.0760	0.358	1	12/01/2020 23:33	WG1583806
Di-n-octyl phthalate	U		0.0242	0.358	1	12/01/2020 23:33	WG1583806
Pyrene	0.00765	J	0.00698	0.0358	1	12/01/2020 23:33	WG1583806
1,2,4-Trichlorobenzene	U		0.0112	0.358	1	12/01/2020 23:33	WG1583806
4-Chloro-3-methylphenol	U		0.0116	0.358	1	12/01/2020 23:33	WG1583806
2-Chlorophenol	U		0.0118	0.358	1	12/01/2020 23:33	WG1583806
2,4-Dichlorophenol	U		0.0104	0.358	1	12/01/2020 23:33	WG1583806
2,4-Dimethylphenol	U		0.00936	0.358	1	12/01/2020 23:33	WG1583806
4,6-Dinitro-2-methylphenol	U		0.0813	0.358	1	12/01/2020 23:33	WG1583806
2,4-Dinitrophenol	U		0.0839	0.358	1	12/01/2020 23:33	WG1583806



Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
2-Methylphenol	U		0.0108	0.358	1	12/01/2020 23:33	WG1583806
3&4-Methyl Phenol	U		0.0112	0.358	1	12/01/2020 23:33	WG1583806
2-Nitrophenol	U		0.0128	0.358	1	12/01/2020 23:33	WG1583806
4-Nitrophenol	U		0.0112	0.358	1	12/01/2020 23:33	WG1583806
Pentachlorophenol	U		0.00964	0.358	1	12/01/2020 23:33	WG1583806
Phenol	U		0.0144	0.358	1	12/01/2020 23:33	WG1583806
2,4,6-Trichlorophenol	U		0.0115	0.358	1	12/01/2020 23:33	WG1583806
2,4,5-Trichlorophenol	U		0.0122	0.358	1	12/01/2020 23:33	WG1583806
(S) 2-Fluorophenol	80.4			12.0-120		12/01/2020 23:33	WG1583806
(S) Phenol-d5	75.5			10.0-120		12/01/2020 23:33	WG1583806
(S) Nitrobenzene-d5	55.3			10.0-122		12/01/2020 23:33	WG1583806
(S) 2-Fluorobiphenyl	72.3			15.0-120		12/01/2020 23:33	WG1583806
(S) 2,4,6-Tribromophenol	99.1			10.0-127		12/01/2020 23:33	WG1583806
(S) p-Terphenyl-d14	74.5			10.0-120		12/01/2020 23:33	WG1583806

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	91.1	%	1	12/01/2020 08:45	WG1584115

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Mercury	U	mg/kg	0.0198	0.0439	1	12/01/2020 08:46	WG1583991

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Antimony	0.876	J	0.597	2.20	1	12/01/2020 08:39	WG1583760
Arsenic	2.95		0.569	2.20	1	12/01/2020 08:39	WG1583760
Barium	73.2		0.0935	0.549	1	12/01/2020 08:39	WG1583760
Beryllium	0.410		0.0346	0.220	1	12/01/2020 08:39	WG1583760
Cadmium	U		0.0517	0.549	1	12/01/2020 08:39	WG1583760
Chromium	49.9		0.146	1.10	1	12/01/2020 08:39	WG1583760
Cobalt	9.33		0.0890	1.10	1	12/01/2020 08:39	WG1583760
Copper	11.0		0.439	2.20	1	12/01/2020 08:39	WG1583760
Lead	8.36		0.228	0.549	1	12/01/2020 08:39	WG1583760
Molybdenum	0.378	J	0.120	0.549	1	12/01/2020 08:39	WG1583760
Nickel	30.1		0.145	2.20	1	12/01/2020 08:39	WG1583760
Selenium	1.20	J	0.839	2.20	1	12/01/2020 08:39	WG1583760
Silver	U		0.139	1.10	1	12/01/2020 08:39	WG1583760
Thallium	U		0.433	2.20	1	12/01/2020 08:39	WG1583760
Vanadium	51.0		0.556	2.20	1	12/01/2020 08:39	WG1583760
Zinc	32.4		0.914	5.49	1	12/01/2020 08:39	WG1583760

10 Sc

Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
TPHG C5 - C12	U		mg/kg	mg/kg			WG1584921
(S) a,a,a-Trifluorotoluene(FID)	95.7		1.00	3.01	25	12/03/2020 00:44	WG1584921
				77.0-120		12/03/2020 00:44	WG1584921

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		mg/kg	mg/kg			WG1584153
Acrylonitrile	U		0.0440	0.0602	1	12/01/2020 21:30	WG1584153
Benzene	U		0.00435	0.0151	1	12/01/2020 21:30	WG1584153
Bromobenzene	U		0.000563	0.00120	1	12/01/2020 21:30	WG1584153
Bromodichloromethane	U		0.00108	0.0151	1	12/01/2020 21:30	WG1584153
Bromoform	U	J4	0.000874	0.00301	1	12/01/2020 21:30	WG1584153
Bromomethane	U		0.00141	0.0301	1	12/01/2020 21:30	WG1584153
n-Butylbenzene	U		0.00237	0.0151	1	12/01/2020 21:30	WG1584153
sec-Butylbenzene	U		0.00633	0.0151	1	12/01/2020 21:30	WG1584153
tert-Butylbenzene	U		0.00347	0.0151	1	12/01/2020 21:30	WG1584153
Carbon tetrachloride	U		0.00235	0.00602	1	12/01/2020 21:30	WG1584153
Chlorobenzene	U		0.00108	0.00602	1	12/01/2020 21:30	WG1584153
Chlorobenzene	U		0.000253	0.00301	1	12/01/2020 21:30	WG1584153
Chlorodibromomethane	U	J4	0.000737	0.00301	1	12/01/2020 21:30	WG1584153
Chloroethane	U		0.00205	0.00602	1	12/01/2020 21:30	WG1584153
Chloroform	U		0.00124	0.00301	1	12/01/2020 21:30	WG1584153
Chloromethane	U		0.00524	0.0151	1	12/01/2020 21:30	WG1584153
2-Chlorotoluene	U		0.00104	0.00301	1	12/01/2020 21:30	WG1584153
4-Chlorotoluene	U		0.000542	0.00602	1	12/01/2020 21:30	WG1584153



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyst	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch	1 Cp
	mg/kg		mg/kg	mg/kg				
1,2-Dibromo-3-Chloropropane	U		0.00470	0.0301	1	12/01/2020 21:30	WG1584153	
1,2-Dibromoethane	U		0.000781	0.00301	1	12/01/2020 21:30	WG1584153	
Dibromomethane	U		0.000904	0.00602	1	12/01/2020 21:30	WG1584153	
1,2-Dichlorobenzene	U		0.000512	0.00602	1	12/01/2020 21:30	WG1584153	
1,3-Dichlorobenzene	U		0.000723	0.00602	1	12/01/2020 21:30	WG1584153	
1,4-Dichlorobenzene	U		0.000843	0.00602	1	12/01/2020 21:30	WG1584153	
Dichlorodifluoromethane	U		0.00194	0.00301	1	12/01/2020 21:30	WG1584153	
1,1-Dichloroethane	U		0.000592	0.00301	1	12/01/2020 21:30	WG1584153	
1,2-Dichloroethane	U		0.000782	0.00301	1	12/01/2020 21:30	WG1584153	
1,1-Dichloroethene	U		0.000730	0.00301	1	12/01/2020 21:30	WG1584153	
cis-1,2-Dichloroethene	U		0.000884	0.00301	1	12/01/2020 21:30	WG1584153	
trans-1,2-Dichloroethene	U		0.00125	0.00602	1	12/01/2020 21:30	WG1584153	
1,2-Dichloropropane	U		0.00171	0.00602	1	12/01/2020 21:30	WG1584153	
1,1-Dichloropropene	U		0.000975	0.00301	1	12/01/2020 21:30	WG1584153	
1,3-Dichloropropane	U		0.000604	0.00602	1	12/01/2020 21:30	WG1584153	
cis-1,3-Dichloropropene	U		0.000912	0.00301	1	12/01/2020 21:30	WG1584153	
trans-1,3-Dichloropropene	U		0.00137	0.00602	1	12/01/2020 21:30	WG1584153	
2,2-Dichloropropane	U	J4	0.00166	0.00301	1	12/01/2020 21:30	WG1584153	
Di-isopropyl ether	U		0.000494	0.00120	1	12/01/2020 21:30	WG1584153	
Ethylbenzene	U		0.000888	0.00301	1	12/01/2020 21:30	WG1584153	
Hexachloro-1,3-butadiene	U		0.00723	0.0301	1	12/01/2020 21:30	WG1584153	
Isopropylbenzene	U		0.000512	0.00301	1	12/01/2020 21:30	WG1584153	
p-Isopropyltoluene	U		0.00307	0.00602	1	12/01/2020 21:30	WG1584153	
2-Butanone (MEK)	U		0.0765	0.120	1	12/01/2020 21:30	WG1584153	
Methylene Chloride	U		0.00800	0.0301	1	12/01/2020 21:30	WG1584153	
4-Methyl-2-pentanone (MBK)	U		0.00275	0.0301	1	12/01/2020 21:30	WG1584153	
Methyl tert-butyl ether	U	J4	0.000422	0.00120	1	12/01/2020 21:30	WG1584153	
Naphthalene	U		0.00588	0.0151	1	12/01/2020 21:30	WG1584153	
n-Propylbenzene	U		0.00114	0.00602	1	12/01/2020 21:30	WG1584153	
Styrene	U		0.000276	0.0151	1	12/01/2020 21:30	WG1584153	
1,1,2-Tetrachloroethane	U		0.00114	0.00301	1	12/01/2020 21:30	WG1584153	
1,1,2,2-Tetrachloroethane	U		0.000837	0.00301	1	12/01/2020 21:30	WG1584153	
1,1,2-Trichlorotrifluoroethane	U		0.000909	0.00301	1	12/01/2020 21:30	WG1584153	
Tetrachloroethene	U		0.00108	0.00301	1	12/01/2020 21:30	WG1584153	
Toluene	U		0.00157	0.00602	1	12/01/2020 21:30	WG1584153	
1,2,3-Trichlorobenzene	U		0.00883	0.0151	1	12/01/2020 21:30	WG1584153	
1,2,4-Trichlorobenzene	U		0.00530	0.0151	1	12/01/2020 21:30	WG1584153	
1,1,1-Trichloroethane	U		0.00111	0.00301	1	12/01/2020 21:30	WG1584153	
1,1,2-Trichloroethane	U		0.000719	0.00301	1	12/01/2020 21:30	WG1584153	
Trichloroethene	U		0.000704	0.00120	1	12/01/2020 21:30	WG1584153	
Trichlorofluoromethane	U		0.000996	0.00301	1	12/01/2020 21:30	WG1584153	
1,2,3-Trichloropropane	U		0.00195	0.0151	1	12/01/2020 21:30	WG1584153	
1,2,4-Trimethylbenzene	U		0.00190	0.00602	1	12/01/2020 21:30	WG1584153	
1,2,3-Trimethylbenzene	U		0.00190	0.00602	1	12/01/2020 21:30	WG1584153	
1,3,5-Trimethylbenzene	U		0.00241	0.00602	1	12/01/2020 21:30	WG1584153	
Vinyl chloride	U		0.00140	0.00301	1	12/01/2020 21:30	WG1584153	
Xylenes, Total	U		0.00106	0.00783	1	12/01/2020 21:30	WG1584153	
(S) Toluene-d8	104			75.0-131		12/01/2020 21:30	WG1584153	
(S) 4-Bromofluorobenzene	101			67.0-138		12/01/2020 21:30	WG1584153	
(S) 1,2-Dichloroethane-d4	99.9			70.0-130		12/01/2020 21:30	WG1584153	



Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
C12-C22 Hydrocarbons	1.41	J	0.805	4.39	1	12/01/2020 09:34	WG1583815
C22-C32 Hydrocarbons	14.1		1.46	4.39	1	12/01/2020 09:34	WG1583815
C32-C40 Hydrocarbons	13.9		1.46	4.39	1	12/01/2020 09:34	WG1583815
(S) o-Terphenyl	63.3			18.0-148		12/01/2020 09:34	WG1583815

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

8 AI

9 Sc

Semi-Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Acenaphthene	0.0114	J	0.00592	0.0366	1	12/02/2020 00:13	WG1583806
Acenaphthylene	U		0.00515	0.0366	1	12/02/2020 00:13	WG1583806
Anthracene	U		0.00651	0.0366	1	12/02/2020 00:13	WG1583806
Benzo(a)anthracene	U		0.00645	0.0366	1	12/02/2020 00:13	WG1583806
Benzo(b)fluoranthene	U		0.00682	0.0366	1	12/02/2020 00:13	WG1583806
Benzo(k)fluoranthene	U		0.00650	0.0366	1	12/02/2020 00:13	WG1583806
Benzo(g,h,i)perylene	U		0.00669	0.0366	1	12/02/2020 00:13	WG1583806
Benzo(a)pyrene	U		0.00680	0.0366	1	12/02/2020 00:13	WG1583806
Bis(2-chlorethoxy)methane	U		0.0110	0.366	1	12/02/2020 00:13	WG1583806
Bis(2-chloroethyl)ether	U		0.0121	0.366	1	12/02/2020 00:13	WG1583806
2,2-Oxybis(1-Chloropropane)	U		0.0158	0.366	1	12/02/2020 00:13	WG1583806
4-Bromophenyl-phenylether	U		0.0128	0.366	1	12/02/2020 00:13	WG1583806
2-Chloronaphthalene	U		0.00642	0.0366	1	12/02/2020 00:13	WG1583806
4-Chlorophenyl-phenylether	U		0.0127	0.366	1	12/02/2020 00:13	WG1583806
Chrysene	U		0.00727	0.0366	1	12/02/2020 00:13	WG1583806
Dibenz(a,h)anthracene	U		0.0101	0.0366	1	12/02/2020 00:13	WG1583806
3,3-Dichlorobenzidine	U		0.0135	0.366	1	12/02/2020 00:13	WG1583806
2,4-Dinitrotoluene	U		0.0105	0.366	1	12/02/2020 00:13	WG1583806
2,6-Dinitrotoluene	U		0.0120	0.366	1	12/02/2020 00:13	WG1583806
Fluoranthene	U		0.00660	0.0366	1	12/02/2020 00:13	WG1583806
Fluorene	U		0.00595	0.0366	1	12/02/2020 00:13	WG1583806
Hexachlorobenzene	U		0.0130	0.366	1	12/02/2020 00:13	WG1583806
Hexachloro-1,3-butadiene	U		0.0123	0.366	1	12/02/2020 00:13	WG1583806
Hexachlorocyclopentadiene	U		0.0192	0.366	1	12/02/2020 00:13	WG1583806
Hexachloroethane	U		0.0144	0.366	1	12/02/2020 00:13	WG1583806
Indeno(1,2,3-cd)pyrene	U		0.0103	0.0366	1	12/02/2020 00:13	WG1583806
Isophorone	U		0.0112	0.366	1	12/02/2020 00:13	WG1583806
Naphthalene	0.198		0.00918	0.0366	1	12/02/2020 00:13	WG1583806
Nitrobenzene	U		0.0127	0.366	1	12/02/2020 00:13	WG1583806
n-Nitrosodimethylamine	U		0.0542	0.366	1	12/02/2020 00:13	WG1583806
n-Nitrosodiphenylamine	U		0.0277	0.366	1	12/02/2020 00:13	WG1583806
n-Nitrosodi-n-propylamine	U		0.0122	0.366	1	12/02/2020 00:13	WG1583806
Phenanthrene	U		0.00726	0.0366	1	12/02/2020 00:13	WG1583806
Pyridine	U		0.0242	0.366	1	12/02/2020 00:13	WG1583806
Benzylbutyl phthalate	U		0.0114	0.366	1	12/02/2020 00:13	WG1583806
Bis(2-ethylhexyl)phthalate	U		0.0463	0.366	1	12/02/2020 00:13	WG1583806
Di-n-butyl phthalate	U		0.0125	0.366	1	12/02/2020 00:13	WG1583806
Diethyl phthalate	U		0.0121	0.366	1	12/02/2020 00:13	WG1583806
Dimethyl phthalate	U		0.0775	0.366	1	12/02/2020 00:13	WG1583806
Di-n-octyl phthalate	U		0.0247	0.366	1	12/02/2020 00:13	WG1583806
Pyrene	U		0.00711	0.0366	1	12/02/2020 00:13	WG1583806
1,2,4-Trichlorobenzene	U		0.0114	0.366	1	12/02/2020 00:13	WG1583806
4-Chloro-3-methylphenol	U		0.0119	0.366	1	12/02/2020 00:13	WG1583806
2-Chlorophenol	U		0.0121	0.366	1	12/02/2020 00:13	WG1583806
2,4-Dichlorophenol	U		0.0107	0.366	1	12/02/2020 00:13	WG1583806
2,4-Dimethylphenol	U		0.00955	0.366	1	12/02/2020 00:13	WG1583806
4,6-Dinitro-2-methylphenol	U		0.0829	0.366	1	12/02/2020 00:13	WG1583806
2,4-Dinitrophenol	U		0.0855	0.366	1	12/02/2020 00:13	WG1583806



Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
2-Methylphenol	U		0.0110	0.366	1	12/02/2020 00:13	WG1583806
3&4-Methyl Phenol	U		0.0114	0.366	1	12/02/2020 00:13	WG1583806
2-Nitrophenol	U		0.0131	0.366	1	12/02/2020 00:13	WG1583806
4-Nitrophenol	U		0.0114	0.366	1	12/02/2020 00:13	WG1583806
Pentachlorophenol	U		0.00984	0.366	1	12/02/2020 00:13	WG1583806
Phenol	U		0.0147	0.366	1	12/02/2020 00:13	WG1583806
2,4,6-Trichlorophenol	U		0.0117	0.366	1	12/02/2020 00:13	WG1583806
2,4,5-Trichlorophenol	U		0.0124	0.366	1	12/02/2020 00:13	WG1583806
(S) 2-Fluorophenol	86.1			12.0-120		12/02/2020 00:13	WG1583806
(S) Phenol-d5	81.1			10.0-120		12/02/2020 00:13	WG1583806
(S) Nitrobenzene-d5	61.9			10.0-122		12/02/2020 00:13	WG1583806
(S) 2-Fluorobiphenyl	77.6			15.0-120		12/02/2020 00:13	WG1583806
(S) 2,4,6-Tribromophenol	106			10.0-127		12/02/2020 00:13	WG1583806
(S) p-Terphenyl-d14	78.5			10.0-120		12/02/2020 00:13	WG1583806

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	91.5	%	1	12/01/2020 08:45	WG1584115

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

8 AI

9 Sc

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Mercury	0.0240	U	0.0197	0.0437	1	12/01/2020 08:49	WG1583991

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Antimony	1.33	U	0.595	2.19	1	12/01/2020 08:41	WG1583760
Arsenic	3.29		0.566	2.19	1	12/01/2020 08:41	WG1583760
Barium	82.2		0.0932	0.547	1	12/01/2020 08:41	WG1583760
Beryllium	0.353		0.0344	0.219	1	12/01/2020 08:41	WG1583760
Cadmium	U		0.0515	0.547	1	12/01/2020 08:41	WG1583760
Chromium	73.5		0.145	1.09	1	12/01/2020 08:41	WG1583760
Cobalt	9.51		0.0887	1.09	1	12/01/2020 08:41	WG1583760
Copper	11.2		0.437	2.19	1	12/01/2020 08:41	WG1583760
Lead	6.45		0.227	0.547	1	12/01/2020 08:41	WG1583760
Molybdenum	0.224	U	0.119	0.547	1	12/01/2020 08:41	WG1583760
Nickel	42.6		0.144	2.19	1	12/01/2020 08:41	WG1583760
Selenium	1.50	U	0.835	2.19	1	12/01/2020 08:41	WG1583760
Silver	U		0.139	1.09	1	12/01/2020 08:41	WG1583760
Thallium	U		0.431	2.19	1	12/01/2020 08:41	WG1583760
Vanadium	60.5		0.553	2.19	1	12/01/2020 08:41	WG1583760
Zinc	35.3		0.910	5.47	1	12/01/2020 08:41	WG1583760

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Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
TPHG C5 - C12	1.06	B, J	0.987	2.97	25	12/03/2020 01:07	WG1584921
(S) a,a,a-Trifluorotoluene(FID)	95.7			77.0-120		12/03/2020 01:07	WG1584921

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Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.0434	0.0595	1	12/01/2020 21:49	WG1584153
Acrylonitrile	U		0.00429	0.0149	1	12/01/2020 21:49	WG1584153
Benzene	U		0.000556	0.00119	1	12/01/2020 21:49	WG1584153
Bromobenzene	U		0.00107	0.0149	1	12/01/2020 21:49	WG1584153
Bromodichloromethane	U		0.000862	0.00297	1	12/01/2020 21:49	WG1584153
Bromoform	U	J4	0.00139	0.0297	1	12/01/2020 21:49	WG1584153
Bromomethane	U		0.00234	0.0149	1	12/01/2020 21:49	WG1584153
n-Butylbenzene	U		0.00625	0.0149	1	12/01/2020 21:49	WG1584153
sec-Butylbenzene	U		0.00343	0.0149	1	12/01/2020 21:49	WG1584153
tert-Butylbenzene	U		0.00232	0.00595	1	12/01/2020 21:49	WG1584153
Carbon tetrachloride	U		0.00107	0.00595	1	12/01/2020 21:49	WG1584153
Chlorobenzene	U		0.000250	0.00297	1	12/01/2020 21:49	WG1584153
Chlorodibromomethane	U	J4	0.000728	0.00297	1	12/01/2020 21:49	WG1584153
Chloroethane	U		0.00202	0.00595	1	12/01/2020 21:49	WG1584153
Chloroform	U		0.00123	0.00297	1	12/01/2020 21:49	WG1584153
Chloromethane	U		0.00517	0.0149	1	12/01/2020 21:49	WG1584153
2-Chlorotoluene	U		0.00103	0.00297	1	12/01/2020 21:49	WG1584153
4-Chlorotoluene	U		0.000535	0.00595	1	12/01/2020 21:49	WG1584153

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Volatile Organic Compounds (GC/MS) by Method 8260B

Analyst	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch	1 Cp
	mg/kg		mg/kg	mg/kg				
1,2-Dibromo-3-Chloropropane	U		0.00464	0.0297	1	12/01/2020 21:49	WG1584153	
1,2-Dibromoethane	U		0.000771	0.00297	1	12/01/2020 21:49	WG1584153	
Dibromomethane	U		0.000892	0.00595	1	12/01/2020 21:49	WG1584153	
1,2-Dichlorobenzene	U		0.000506	0.00595	1	12/01/2020 21:49	WG1584153	
1,3-Dichlorobenzene	U		0.000714	0.00595	1	12/01/2020 21:49	WG1584153	
1,4-Dichlorobenzene	U		0.000833	0.00595	1	12/01/2020 21:49	WG1584153	
Dichlorodifluoromethane	U		0.00192	0.00297	1	12/01/2020 21:49	WG1584153	
1,1-Dichloroethane	U		0.000584	0.00297	1	12/01/2020 21:49	WG1584153	
1,2-Dichloroethane	U		0.000772	0.00297	1	12/01/2020 21:49	WG1584153	
1,1-Dichloroethene	U		0.000721	0.00297	1	12/01/2020 21:49	WG1584153	
cis-1,2-Dichloroethene	U		0.000873	0.00297	1	12/01/2020 21:49	WG1584153	
trans-1,2-Dichloroethene	U		0.00124	0.00595	1	12/01/2020 21:49	WG1584153	
1,2-Dichloropropane	U		0.00169	0.00595	1	12/01/2020 21:49	WG1584153	
1,1-Dichloropropene	U		0.000962	0.00297	1	12/01/2020 21:49	WG1584153	
1,3-Dichloropropane	U		0.000596	0.00595	1	12/01/2020 21:49	WG1584153	
cis-1,3-Dichloropropene	U		0.000901	0.00297	1	12/01/2020 21:49	WG1584153	
trans-1,3-Dichloropropene	U		0.00136	0.00595	1	12/01/2020 21:49	WG1584153	
2,2-Dichloropropane	U	J4	0.00164	0.00297	1	12/01/2020 21:49	WG1584153	
Di-isopropyl ether	U		0.000488	0.00119	1	12/01/2020 21:49	WG1584153	
Ethylbenzene	0.000981	J	0.000877	0.00297	1	12/01/2020 21:49	WG1584153	
Hexachloro-1,3-butadiene	U		0.00714	0.0297	1	12/01/2020 21:49	WG1584153	
Isopropylbenzene	U		0.000506	0.00297	1	12/01/2020 21:49	WG1584153	
p-Isopropyltoluene	U		0.00303	0.00595	1	12/01/2020 21:49	WG1584153	
2-Butanone (MEK)	U		0.0755	0.119	1	12/01/2020 21:49	WG1584153	
Methylene Chloride	U		0.00790	0.0297	1	12/01/2020 21:49	WG1584153	
4-Methyl-2-pentanone (MBK)	U		0.00271	0.0297	1	12/01/2020 21:49	WG1584153	
Methyl tert-butyl ether	U	J4	0.000416	0.00119	1	12/01/2020 21:49	WG1584153	
Naphthalene	U		0.00581	0.0149	1	12/01/2020 21:49	WG1584153	
n-Propylbenzene	U		0.00113	0.00595	1	12/01/2020 21:49	WG1584153	
Styrene	U		0.000272	0.0149	1	12/01/2020 21:49	WG1584153	
1,1,2-Tetrachloroethane	U		0.00113	0.00297	1	12/01/2020 21:49	WG1584153	
1,1,2,2-Tetrachloroethane	U		0.000827	0.00297	1	12/01/2020 21:49	WG1584153	
1,1,2-Trichlorotrifluoroethane	U		0.000897	0.00297	1	12/01/2020 21:49	WG1584153	
Tetrachloroethene	U		0.00107	0.00297	1	12/01/2020 21:49	WG1584153	
Toluene	U		0.00155	0.00595	1	12/01/2020 21:49	WG1584153	
1,2,3-Trichlorobenzene	U		0.00872	0.0149	1	12/01/2020 21:49	WG1584153	
1,2,4-Trichlorobenzene	U		0.00523	0.0149	1	12/01/2020 21:49	WG1584153	
1,1,1-Trichloroethane	U		0.00110	0.00297	1	12/01/2020 21:49	WG1584153	
1,1,2-Trichloroethane	U		0.000710	0.00297	1	12/01/2020 21:49	WG1584153	
Trichloroethene	U		0.000695	0.00119	1	12/01/2020 21:49	WG1584153	
Trichlorofluoromethane	U		0.000984	0.00297	1	12/01/2020 21:49	WG1584153	
1,2,3-Trichloropropane	U		0.00193	0.0149	1	12/01/2020 21:49	WG1584153	
1,2,4-Trimethylbenzene	0.00490	J	0.00188	0.00595	1	12/01/2020 21:49	WG1584153	
1,2,3-Trimethylbenzene	0.00338	J	0.00188	0.00595	1	12/01/2020 21:49	WG1584153	
1,3,5-Trimethylbenzene	0.00369	J	0.00238	0.00595	1	12/01/2020 21:49	WG1584153	
Vinyl chloride	U		0.00138	0.00297	1	12/01/2020 21:49	WG1584153	
Xylenes, Total	0.00797		0.00105	0.00773	1	12/01/2020 21:49	WG1584153	
(S) Toluene-d8	105			75.0-131		12/01/2020 21:49	WG1584153	
(S) 4-Bromofluorobenzene	98.4			67.0-138		12/01/2020 21:49	WG1584153	
(S) 1,2-Dichloroethane-d4	96.1			70.0-130		12/01/2020 21:49	WG1584153	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

8 AI

9 SC



Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
C12-C22 Hydrocarbons	16.6	J	8.01	43.7	10	12/01/2020 12:25	WG1583815
C22-C32 Hydrocarbons	225		14.5	43.7	10	12/01/2020 12:25	WG1583815
C32-C40 Hydrocarbons	152		14.5	43.7	10	12/01/2020 12:25	WG1583815
(S) o-Terphenyl	178	J1		18.0-148		12/01/2020 12:25	WG1583815

Sample Narrative:

L1289379-03 WG1583815: Surrogate failure due to matrix interference

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Acenaphthene	0.0390		0.00589	0.0364	1	12/02/2020 00:53	WG1583806
Acenaphthylene	U		0.00513	0.0364	1	12/02/2020 00:53	WG1583806
Anthracene	0.00704	J	0.00648	0.0364	1	12/02/2020 00:53	WG1583806
Benzo(a)anthracene	U		0.00642	0.0364	1	12/02/2020 00:53	WG1583806
Benzo(b)fluoranthene	0.00812	J	0.00679	0.0364	1	12/02/2020 00:53	WG1583806
Benzo(k)fluoranthene	U		0.00647	0.0364	1	12/02/2020 00:53	WG1583806
Benzo(g,h,i)perylene	0.00667	J	0.00666	0.0364	1	12/02/2020 00:53	WG1583806
Benzo(a)pyrene	U		0.00677	0.0364	1	12/02/2020 00:53	WG1583806
Bis(2-chlorethoxy)methane	U		0.0109	0.364	1	12/02/2020 00:53	WG1583806
Bis(2-chloroethyl)ether	U		0.0120	0.364	1	12/02/2020 00:53	WG1583806
2,2-Oxybis(1-Chloropropane)	U		0.0157	0.364	1	12/02/2020 00:53	WG1583806
4-Bromophenyl-phenylether	U		0.0128	0.364	1	12/02/2020 00:53	WG1583806
2-Chloronaphthalene	U		0.00640	0.0364	1	12/02/2020 00:53	WG1583806
4-Chlorophenyl-phenylether	U		0.0127	0.364	1	12/02/2020 00:53	WG1583806
Chrysene	U		0.00724	0.0364	1	12/02/2020 00:53	WG1583806
Dibenz(a,h)anthracene	U		0.0101	0.0364	1	12/02/2020 00:53	WG1583806
3,3-Dichlorobenzidine	U		0.0134	0.364	1	12/02/2020 00:53	WG1583806
2,4-Dinitrotoluene	U		0.0104	0.364	1	12/02/2020 00:53	WG1583806
2,6-Dinitrotoluene	U		0.0119	0.364	1	12/02/2020 00:53	WG1583806
Fluoranthene	0.0122	J	0.00657	0.0364	1	12/02/2020 00:53	WG1583806
Fluorene	0.0177	J	0.00593	0.0364	1	12/02/2020 00:53	WG1583806
Hexachlorobenzene	U		0.0129	0.364	1	12/02/2020 00:53	WG1583806
Hexachloro-1,3-butadiene	U		0.0122	0.364	1	12/02/2020 00:53	WG1583806
Hexachlorocyclopentadiene	U		0.0191	0.364	1	12/02/2020 00:53	WG1583806
Hexachloroethane	U		0.0143	0.364	1	12/02/2020 00:53	WG1583806
Indeno(1,2,3-cd)pyrene	U		0.0103	0.0364	1	12/02/2020 00:53	WG1583806
Isophorone	U		0.0112	0.364	1	12/02/2020 00:53	WG1583806
Naphthalene	0.577		0.00914	0.0364	1	12/02/2020 00:53	WG1583806
Nitrobenzene	U		0.0127	0.364	1	12/02/2020 00:53	WG1583806
n-Nitrosodimethylamine	U		0.0540	0.364	1	12/02/2020 00:53	WG1583806
n-Nitrosodiphenylamine	U		0.0276	0.364	1	12/02/2020 00:53	WG1583806
n-Nitrosodi-n-propylamine	U		0.0121	0.364	1	12/02/2020 00:53	WG1583806
Phenanthrene	0.0255	J	0.00723	0.0364	1	12/02/2020 00:53	WG1583806
Pyridine	U		0.0241	0.364	1	12/02/2020 00:53	WG1583806
Benzylbutyl phthalate	U		0.0114	0.364	1	12/02/2020 00:53	WG1583806
Bis(2-ethylhexyl)phthalate	U		0.0461	0.364	1	12/02/2020 00:53	WG1583806
Di-n-butyl phthalate	U		0.0125	0.364	1	12/02/2020 00:53	WG1583806
Diethyl phthalate	U		0.0120	0.364	1	12/02/2020 00:53	WG1583806
Dimethyl phthalate	U		0.0772	0.364	1	12/02/2020 00:53	WG1583806
Di-n-octyl phthalate	U		0.0246	0.364	1	12/02/2020 00:53	WG1583806
Pyrene	0.00800	J	0.00708	0.0364	1	12/02/2020 00:53	WG1583806
1,2,4-Trichlorobenzene	U		0.0114	0.364	1	12/02/2020 00:53	WG1583806
4-Chloro-3-methylphenol	U		0.0118	0.364	1	12/02/2020 00:53	WG1583806
2-Chlorophenol	U		0.0120	0.364	1	12/02/2020 00:53	WG1583806
2,4-Dichlorophenol	U		0.0106	0.364	1	12/02/2020 00:53	WG1583806

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

8 AI

9 Sc



Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
2,4-Dimethylphenol	U		0.00951	0.364	1	12/02/2020 00:53	WG1583806
4,6-Dinitro-2-methylphenol	U		0.0825	0.364	1	12/02/2020 00:53	WG1583806
2,4-Dinitrophenol	U		0.0852	0.364	1	12/02/2020 00:53	WG1583806
2-Methylphenol	U		0.0109	0.364	1	12/02/2020 00:53	WG1583806
3&4-Methyl Phenol	U		0.0114	0.364	1	12/02/2020 00:53	WG1583806
2-Nitrophenol	U		0.0130	0.364	1	12/02/2020 00:53	WG1583806
4-Nitrophenol	U		0.0114	0.364	1	12/02/2020 00:53	WG1583806
Pentachlorophenol	U		0.00980	0.364	1	12/02/2020 00:53	WG1583806
Phenol	U		0.0147	0.364	1	12/02/2020 00:53	WG1583806
2,4,6-Trichlorophenol	U		0.0117	0.364	1	12/02/2020 00:53	WG1583806
2,4,5-Trichlorophenol	U		0.0124	0.364	1	12/02/2020 00:53	WG1583806
(S) 2-Fluorophenol	87.3			12.0-120		12/02/2020 00:53	WG1583806
(S) Phenol-d5	80.8			10.0-120		12/02/2020 00:53	WG1583806
(S) Nitrobenzene-d5	62.5			10.0-122		12/02/2020 00:53	WG1583806
(S) 2-Fluorobiphenyl	76.2			15.0-120		12/02/2020 00:53	WG1583806
(S) 2,4,6-Tribromophenol	105			10.0-127		12/02/2020 00:53	WG1583806
(S) p-Terphenyl-d14	77.4			10.0-120		12/02/2020 00:53	WG1583806

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	94.8	%	1	12/01/2020 08:45	WG1584115

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Mercury	U	mg/kg	0.0190	0.0422	1	12/01/2020 08:51	WG1583991

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Antimony	0.772	J	0.574	2.11	1	12/01/2020 08:44	WG1583760
Arsenic	0.674	J	0.547	2.11	1	12/01/2020 08:44	WG1583760
Barium	24.9		0.0899	0.528	1	12/01/2020 08:44	WG1583760
Beryllium	0.275		0.0332	0.211	1	12/01/2020 08:44	WG1583760
Cadmium	U		0.0497	0.528	1	12/01/2020 08:44	WG1583760
Chromium	28.7		0.140	1.06	1	12/01/2020 08:44	WG1583760
Cobalt	3.69		0.0856	1.06	1	12/01/2020 08:44	WG1583760
Copper	3.11		0.422	2.11	1	12/01/2020 08:44	WG1583760
Lead	2.03		0.219	0.528	1	12/01/2020 08:44	WG1583760
Molybdenum	U		0.115	0.528	1	12/01/2020 08:44	WG1583760
Nickel	20.2		0.139	2.11	1	12/01/2020 08:44	WG1583760
Selenium	0.836	J	0.806	2.11	1	12/01/2020 08:44	WG1583760
Silver	U		0.134	1.06	1	12/01/2020 08:44	WG1583760
Thallium	U		0.416	2.11	1	12/01/2020 08:44	WG1583760
Vanadium	32.9		0.534	2.11	1	12/01/2020 08:44	WG1583760
Zinc	14.8		0.878	5.28	1	12/01/2020 08:44	WG1583760

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
TPHG C5 - C12	U	mg/kg	0.924	2.78	25	12/03/2020 01:30	WG1584921
(S) a,a,a-Trifluorotoluene(FID)	95.7			77.0-120		12/03/2020 01:30	WG1584921

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.0406	0.0557	1	12/01/2020 22:08	WG1584153
Acrylonitrile	U		0.00402	0.0139	1	12/01/2020 22:08	WG1584153
Benzene	0.00285		0.000520	0.00111	1	12/01/2020 22:08	WG1584153
Bromobenzene	U		0.00100	0.0139	1	12/01/2020 22:08	WG1584153
Bromodichloromethane	U		0.000807	0.00278	1	12/01/2020 22:08	WG1584153
Bromoform	U	J4	0.00130	0.0278	1	12/01/2020 22:08	WG1584153
Bromomethane	U		0.00219	0.0139	1	12/01/2020 22:08	WG1584153
n-Butylbenzene	U		0.00585	0.0139	1	12/01/2020 22:08	WG1584153
sec-Butylbenzene	U		0.00321	0.0139	1	12/01/2020 22:08	WG1584153
tert-Butylbenzene	U		0.00217	0.00557	1	12/01/2020 22:08	WG1584153
Carbon tetrachloride	U		0.00100	0.00557	1	12/01/2020 22:08	WG1584153
Chlorobenzene	U		0.000234	0.00278	1	12/01/2020 22:08	WG1584153
Chlorodibromomethane	U	J4	0.000682	0.00278	1	12/01/2020 22:08	WG1584153
Chloroethane	U		0.00189	0.00557	1	12/01/2020 22:08	WG1584153
Chloroform	U		0.00115	0.00278	1	12/01/2020 22:08	WG1584153
Chloromethane	U		0.00484	0.0139	1	12/01/2020 22:08	WG1584153
2-Chlorotoluene	U		0.000963	0.00278	1	12/01/2020 22:08	WG1584153
4-Chlorotoluene	U		0.000501	0.00557	1	12/01/2020 22:08	WG1584153



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyst	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
1,2-Dibromo-3-Chloropropane	U		0.00434	0.0278	1	12/01/2020 22:08	WG1584153
1,2-Dibromoethane	U		0.000722	0.00278	1	12/01/2020 22:08	WG1584153
Dibromomethane	U		0.000835	0.00557	1	12/01/2020 22:08	WG1584153
1,2-Dichlorobenzene	U		0.000473	0.00557	1	12/01/2020 22:08	WG1584153
1,3-Dichlorobenzene	U		0.000668	0.00557	1	12/01/2020 22:08	WG1584153
1,4-Dichlorobenzene	U		0.000780	0.00557	1	12/01/2020 22:08	WG1584153
Dichlorodifluoromethane	U		0.00179	0.00278	1	12/01/2020 22:08	WG1584153
1,1-Dichloroethane	U		0.000547	0.00278	1	12/01/2020 22:08	WG1584153
1,2-Dichloroethane	U		0.000723	0.00278	1	12/01/2020 22:08	WG1584153
1,1-Dichloroethene	U		0.000675	0.00278	1	12/01/2020 22:08	WG1584153
cis-1,2-Dichloroethene	U		0.000817	0.00278	1	12/01/2020 22:08	WG1584153
trans-1,2-Dichloroethene	U		0.00116	0.00557	1	12/01/2020 22:08	WG1584153
1,2-Dichloropropane	U		0.00158	0.00557	1	12/01/2020 22:08	WG1584153
1,1-Dichloropropene	U		0.000901	0.00278	1	12/01/2020 22:08	WG1584153
1,3-Dichloropropane	U		0.000558	0.00557	1	12/01/2020 22:08	WG1584153
cis-1,3-Dichloropropene	U		0.000843	0.00278	1	12/01/2020 22:08	WG1584153
trans-1,3-Dichloropropene	U		0.00127	0.00557	1	12/01/2020 22:08	WG1584153
2,2-Dichloropropane	U	J4	0.00154	0.00278	1	12/01/2020 22:08	WG1584153
Di-isopropyl ether	U		0.000457	0.00111	1	12/01/2020 22:08	WG1584153
Ethylbenzene	U		0.000821	0.00278	1	12/01/2020 22:08	WG1584153
Hexachloro-1,3-butadiene	U		0.00668	0.0278	1	12/01/2020 22:08	WG1584153
Isopropylbenzene	U		0.000473	0.00278	1	12/01/2020 22:08	WG1584153
p-Isopropyltoluene	U		0.00284	0.00557	1	12/01/2020 22:08	WG1584153
2-Butanone (MEK)	U		0.0707	0.111	1	12/01/2020 22:08	WG1584153
Methylene Chloride	U		0.00739	0.0278	1	12/01/2020 22:08	WG1584153
4-Methyl-2-pentanone (MBK)	U		0.00254	0.0278	1	12/01/2020 22:08	WG1584153
Methyl tert-butyl ether	U	J4	0.000390	0.00111	1	12/01/2020 22:08	WG1584153
Naphthalene	U		0.00543	0.0139	1	12/01/2020 22:08	WG1584153
n-Propylbenzene	U		0.00106	0.00557	1	12/01/2020 22:08	WG1584153
Styrene	U		0.000255	0.0139	1	12/01/2020 22:08	WG1584153
1,1,2-Tetrachloroethane	U		0.00106	0.00278	1	12/01/2020 22:08	WG1584153
1,1,2,2-Tetrachloroethane	U		0.000774	0.00278	1	12/01/2020 22:08	WG1584153
1,1,2-Trichlorotrifluoroethane	U		0.000840	0.00278	1	12/01/2020 22:08	WG1584153
Tetrachloroethene	U		0.000998	0.00278	1	12/01/2020 22:08	WG1584153
Toluene	0.00178	J	0.00145	0.00557	1	12/01/2020 22:08	WG1584153
1,2,3-Trichlorobenzene	U		0.00816	0.0139	1	12/01/2020 22:08	WG1584153
1,2,4-Trichlorobenzene	U		0.00490	0.0139	1	12/01/2020 22:08	WG1584153
1,1,1-Trichloroethane	U		0.00103	0.00278	1	12/01/2020 22:08	WG1584153
1,1,2-Trichloroethane	U		0.000665	0.00278	1	12/01/2020 22:08	WG1584153
Trichloroethene	U		0.000650	0.00111	1	12/01/2020 22:08	WG1584153
Trichlorofluoromethane	U		0.000921	0.00278	1	12/01/2020 22:08	WG1584153
1,2,3-Trichloropropane	U		0.00180	0.0139	1	12/01/2020 22:08	WG1584153
1,2,4-Trimethylbenzene	U		0.00176	0.00557	1	12/01/2020 22:08	WG1584153
1,2,3-Trimethylbenzene	U		0.00176	0.00557	1	12/01/2020 22:08	WG1584153
1,3,5-Trimethylbenzene	U		0.00223	0.00557	1	12/01/2020 22:08	WG1584153
Vinyl chloride	U		0.00129	0.00278	1	12/01/2020 22:08	WG1584153
Xylenes, Total	0.00281	J	0.000980	0.00724	1	12/01/2020 22:08	WG1584153
(S) Toluene-d8	105			75.0-131		12/01/2020 22:08	WG1584153
(S) 4-Bromofluorobenzene	99.1			67.0-138		12/01/2020 22:08	WG1584153
(S) 1,2-Dichloroethane-d4	96.8			70.0-130		12/01/2020 22:08	WG1584153

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

8 AI

9 SC



Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
C12-C22 Hydrocarbons	U		0.773	4.22	1	12/01/2020 09:05	WG1583815
C22-C32 Hydrocarbons	4.76		1.40	4.22	1	12/01/2020 09:05	WG1583815
C32-C40 Hydrocarbons	4.33		1.40	4.22	1	12/01/2020 09:05	WG1583815
(S) o-Terphenyl	74.8			18.0-148		12/01/2020 09:05	WG1583815

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Acenaphthene	U		0.00569	0.0351	1	12/01/2020 23:13	WG1583806
Acenaphthylene	U		0.00495	0.0351	1	12/01/2020 23:13	WG1583806
Anthracene	U		0.00626	0.0351	1	12/01/2020 23:13	WG1583806
Benzo(a)anthracene	U		0.00619	0.0351	1	12/01/2020 23:13	WG1583806
Benzo(b)fluoranthene	U		0.00655	0.0351	1	12/01/2020 23:13	WG1583806
Benzo(k)fluoranthene	U		0.00625	0.0351	1	12/01/2020 23:13	WG1583806
Benzo(g,h,i)perylene	U		0.00643	0.0351	1	12/01/2020 23:13	WG1583806
Benzo(a)pyrene	U		0.00653	0.0351	1	12/01/2020 23:13	WG1583806
Bis(2-chlorethoxy)methane	U		0.0106	0.351	1	12/01/2020 23:13	WG1583806
Bis(2-chloroethyl)ether	U		0.0116	0.351	1	12/01/2020 23:13	WG1583806
2,2-Oxybis(1-Chloropropane)	U		0.0152	0.351	1	12/01/2020 23:13	WG1583806
4-Bromophenyl-phenylether	U		0.0123	0.351	1	12/01/2020 23:13	WG1583806
2-Chloronaphthalene	U		0.00617	0.0351	1	12/01/2020 23:13	WG1583806
4-Chlorophenyl-phenylether	U		0.0122	0.351	1	12/01/2020 23:13	WG1583806
Chrysene	U		0.00698	0.0351	1	12/01/2020 23:13	WG1583806
Dibenz(a,h)anthracene	U		0.00974	0.0351	1	12/01/2020 23:13	WG1583806
3,3-Dichlorobenzidine	U		0.0130	0.351	1	12/01/2020 23:13	WG1583806
2,4-Dinitrotoluene	U		0.0101	0.351	1	12/01/2020 23:13	WG1583806
2,6-Dinitrotoluene	U		0.0115	0.351	1	12/01/2020 23:13	WG1583806
Fluoranthene	U		0.00634	0.0351	1	12/01/2020 23:13	WG1583806
Fluorene	U		0.00572	0.0351	1	12/01/2020 23:13	WG1583806
Hexachlorobenzene	U		0.0124	0.351	1	12/01/2020 23:13	WG1583806
Hexachloro-1,3-butadiene	U		0.0118	0.351	1	12/01/2020 23:13	WG1583806
Hexachlorocyclopentadiene	U		0.0185	0.351	1	12/01/2020 23:13	WG1583806
Hexachloroethane	U		0.0138	0.351	1	12/01/2020 23:13	WG1583806
Indeno(1,2,3-cd)pyrene	U		0.00993	0.0351	1	12/01/2020 23:13	WG1583806
Isophorone	U		0.0108	0.351	1	12/01/2020 23:13	WG1583806
Naphthalene	0.0624		0.00882	0.0351	1	12/01/2020 23:13	WG1583806
Nitrobenzene	U		0.0122	0.351	1	12/01/2020 23:13	WG1583806
n-Nitrosodimethylamine	U		0.0521	0.351	1	12/01/2020 23:13	WG1583806
n-Nitrosodiphenylamine	U		0.0266	0.351	1	12/01/2020 23:13	WG1583806
n-Nitrosodi-n-propylamine	U		0.0117	0.351	1	12/01/2020 23:13	WG1583806
Phenanthrene	U		0.00697	0.0351	1	12/01/2020 23:13	WG1583806
Pyridine	U		0.0232	0.351	1	12/01/2020 23:13	WG1583806
Benzylbutyl phthalate	U		0.0110	0.351	1	12/01/2020 23:13	WG1583806
Bis(2-ethylhexyl)phthalate	U		0.0445	0.351	1	12/01/2020 23:13	WG1583806
Di-n-butyl phthalate	U		0.0120	0.351	1	12/01/2020 23:13	WG1583806
Diethyl phthalate	U		0.0116	0.351	1	12/01/2020 23:13	WG1583806
Dimethyl phthalate	U		0.0745	0.351	1	12/01/2020 23:13	WG1583806
Di-n-octyl phthalate	U		0.0237	0.351	1	12/01/2020 23:13	WG1583806
Pyrene	U		0.00684	0.0351	1	12/01/2020 23:13	WG1583806
1,2,4-Trichlorobenzene	U		0.0110	0.351	1	12/01/2020 23:13	WG1583806
4-Chloro-3-methylphenol	U		0.0114	0.351	1	12/01/2020 23:13	WG1583806
2-Chlorophenol	U		0.0116	0.351	1	12/01/2020 23:13	WG1583806
2,4-Dichlorophenol	U		0.0102	0.351	1	12/01/2020 23:13	WG1583806
2,4-Dimethylphenol	U		0.00918	0.351	1	12/01/2020 23:13	WG1583806
4,6-Dinitro-2-methylphenol	U		0.0797	0.351	1	12/01/2020 23:13	WG1583806
2,4-Dinitrophenol	U		0.0822	0.351	1	12/01/2020 23:13	WG1583806

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

8 AI

9 Sc



Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch	1 Cp
2-Methylphenol	U		0.0106	0.351	1	12/01/2020 23:13	WG1583806	2 Tc
3&4-Methyl Phenol	U		0.0110	0.351	1	12/01/2020 23:13	WG1583806	3 Ss
2-Nitrophenol	U		0.0126	0.351	1	12/01/2020 23:13	WG1583806	4 Cn
4-Nitrophenol	U		0.0110	0.351	1	12/01/2020 23:13	WG1583806	5 Sr
Pentachlorophenol	U		0.00945	0.351	1	12/01/2020 23:13	WG1583806	6 Qc
Phenol	U		0.0141	0.351	1	12/01/2020 23:13	WG1583806	7 Gl
2,4,6-Trichlorophenol	U		0.0113	0.351	1	12/01/2020 23:13	WG1583806	8 Al
2,4,5-Trichlorophenol	U		0.0119	0.351	1	12/01/2020 23:13	WG1583806	9 Sc
(S) 2-Fluorophenol	76.0			12.0-120		12/01/2020 23:13	WG1583806	
(S) Phenol-d5	69.6			10.0-120		12/01/2020 23:13	WG1583806	
(S) Nitrobenzene-d5	53.5			10.0-122		12/01/2020 23:13	WG1583806	
(S) 2-Fluorobiphenyl	68.9			15.0-120		12/01/2020 23:13	WG1583806	
(S) 2,4,6-Tribromophenol	92.7			10.0-127		12/01/2020 23:13	WG1583806	
(S) p-Terphenyl-d14	71.0			10.0-120		12/01/2020 23:13	WG1583806	



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	94.7	%	1	12/01/2020 08:31	WG1584117

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Mercury	U	mg/kg	0.0190	0.0422	1	12/01/2020 09:02	WG1583991

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Antimony	U	mg/kg	0.575	2.11	1	11/30/2020 23:59	WG1583319
Arsenic	2.19	B	0.547	2.11	1	11/30/2020 23:59	WG1583319
Barium	25.2		0.0900	0.528	1	11/30/2020 23:59	WG1583319
Beryllium	0.273		0.0333	0.211	1	11/30/2020 23:59	WG1583319
Cadmium	0.0510	J	0.0497	0.528	1	11/30/2020 23:59	WG1583319
Chromium	26.7		0.140	1.06	1	11/30/2020 23:59	WG1583319
Cobalt	3.39		0.0856	1.06	1	11/30/2020 23:59	WG1583319
Copper	2.87		0.422	2.11	1	11/30/2020 23:59	WG1583319
Lead	1.33		0.220	0.528	1	11/30/2020 23:59	WG1583319
Molybdenum	0.166	B, J	0.115	0.528	1	11/30/2020 23:59	WG1583319
Nickel	18.6		0.139	2.11	1	11/30/2020 23:59	WG1583319
Selenium	U		0.807	2.11	1	11/30/2020 23:59	WG1583319
Silver	U		0.134	1.06	1	11/30/2020 23:59	WG1583319
Thallium	U		0.416	2.11	1	11/30/2020 23:59	WG1583319
Vanadium	30.1		0.534	2.11	1	11/30/2020 23:59	WG1583319
Zinc	14.8		0.879	5.28	1	11/30/2020 23:59	WG1583319

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
TPHG C5 - C12	U	mg/kg	0.928	2.79	25	12/03/2020 08:13	WG1585567
(S) a,a,a-Trifluorotoluene(FID)	96.1			77.0-120		12/03/2020 08:13	WG1585567

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U	mg/kg	0.0408	0.0559	1	12/01/2020 22:27	WG1584153
Acrylonitrile	U		0.00404	0.0140	1	12/01/2020 22:27	WG1584153
Benzene	U		0.000522	0.00112	1	12/01/2020 22:27	WG1584153
Bromobenzene	U		0.00101	0.0140	1	12/01/2020 22:27	WG1584153
Bromodichloromethane	U		0.000810	0.00279	1	12/01/2020 22:27	WG1584153
Bromoform	U	J4	0.00131	0.0279	1	12/01/2020 22:27	WG1584153
Bromomethane	U		0.00220	0.0140	1	12/01/2020 22:27	WG1584153
n-Butylbenzene	U		0.00587	0.0140	1	12/01/2020 22:27	WG1584153
sec-Butylbenzene	U		0.00322	0.0140	1	12/01/2020 22:27	WG1584153
tert-Butylbenzene	U		0.00218	0.00559	1	12/01/2020 22:27	WG1584153
Carbon tetrachloride	U		0.00100	0.00559	1	12/01/2020 22:27	WG1584153
Chlorobenzene	U		0.000235	0.00279	1	12/01/2020 22:27	WG1584153
Chlorodibromomethane	U	J4	0.000684	0.00279	1	12/01/2020 22:27	WG1584153
Chloroethane	U		0.00190	0.00559	1	12/01/2020 22:27	WG1584153
Chloroform	U		0.00115	0.00279	1	12/01/2020 22:27	WG1584153
Chloromethane	U		0.00486	0.0140	1	12/01/2020 22:27	WG1584153
2-Chlorotoluene	U		0.000967	0.00279	1	12/01/2020 22:27	WG1584153
4-Chlorotoluene	U		0.000503	0.00559	1	12/01/2020 22:27	WG1584153



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyst	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch	1 Cp
	mg/kg		mg/kg	mg/kg				
1,2-Dibromo-3-Chloropropane	U		0.00436	0.0279	1	12/01/2020 22:27	WG1584153	
1,2-Dibromoethane	U		0.000724	0.00279	1	12/01/2020 22:27	WG1584153	
Dibromomethane	U		0.000838	0.00559	1	12/01/2020 22:27	WG1584153	
1,2-Dichlorobenzene	U		0.000475	0.00559	1	12/01/2020 22:27	WG1584153	
1,3-Dichlorobenzene	U		0.000671	0.00559	1	12/01/2020 22:27	WG1584153	
1,4-Dichlorobenzene	U		0.000782	0.00559	1	12/01/2020 22:27	WG1584153	
Dichlorodifluoromethane	U		0.00180	0.00279	1	12/01/2020 22:27	WG1584153	
1,1-Dichloroethane	U		0.000549	0.00279	1	12/01/2020 22:27	WG1584153	
1,2-Dichloroethane	U		0.000725	0.00279	1	12/01/2020 22:27	WG1584153	
1,1-Dichloroethene	U		0.000677	0.00279	1	12/01/2020 22:27	WG1584153	
cis-1,2-Dichloroethene	U		0.000820	0.00279	1	12/01/2020 22:27	WG1584153	
trans-1,2-Dichloroethene	U		0.00116	0.00559	1	12/01/2020 22:27	WG1584153	
1,2-Dichloropropane	U		0.00159	0.00559	1	12/01/2020 22:27	WG1584153	
1,1-Dichloropropene	U		0.000904	0.00279	1	12/01/2020 22:27	WG1584153	
1,3-Dichloropropane	U		0.000560	0.00559	1	12/01/2020 22:27	WG1584153	
cis-1,3-Dichloropropene	U		0.000846	0.00279	1	12/01/2020 22:27	WG1584153	
trans-1,3-Dichloropropene	U		0.00127	0.00559	1	12/01/2020 22:27	WG1584153	
2,2-Dichloropropane	U	J4	0.00154	0.00279	1	12/01/2020 22:27	WG1584153	
Di-isopropyl ether	U		0.000458	0.00112	1	12/01/2020 22:27	WG1584153	
Ethylbenzene	U		0.000824	0.00279	1	12/01/2020 22:27	WG1584153	
Hexachloro-1,3-butadiene	U		0.00671	0.0279	1	12/01/2020 22:27	WG1584153	
Isopropylbenzene	U		0.000475	0.00279	1	12/01/2020 22:27	WG1584153	
p-Isopropyltoluene	U		0.00285	0.00559	1	12/01/2020 22:27	WG1584153	
2-Butanone (MEK)	U		0.0710	0.112	1	12/01/2020 22:27	WG1584153	
Methylene Chloride	U		0.00742	0.0279	1	12/01/2020 22:27	WG1584153	
4-Methyl-2-pentanone (MIBK)	U		0.00255	0.0279	1	12/01/2020 22:27	WG1584153	
Methyl tert-butyl ether	U	J4	0.000391	0.00112	1	12/01/2020 22:27	WG1584153	
Naphthalene	U		0.00545	0.0140	1	12/01/2020 22:27	WG1584153	
n-Propylbenzene	U		0.00106	0.00559	1	12/01/2020 22:27	WG1584153	
Styrene	U		0.000256	0.0140	1	12/01/2020 22:27	WG1584153	
1,1,2-Tetrachloroethane	U		0.00106	0.00279	1	12/01/2020 22:27	WG1584153	
1,1,2,2-Tetrachloroethane	U		0.000777	0.00279	1	12/01/2020 22:27	WG1584153	
1,1,2-Trichlorotrifluoroethane	U		0.000843	0.00279	1	12/01/2020 22:27	WG1584153	
Tetrachloroethene	U		0.00100	0.00279	1	12/01/2020 22:27	WG1584153	
Toluene	U		0.00145	0.00559	1	12/01/2020 22:27	WG1584153	
1,2,3-Trichlorobenzene	U		0.00819	0.0140	1	12/01/2020 22:27	WG1584153	
1,2,4-Trichlorobenzene	U		0.00492	0.0140	1	12/01/2020 22:27	WG1584153	
1,1,1-Trichloroethane	U		0.00103	0.00279	1	12/01/2020 22:27	WG1584153	
1,1,2-Trichloroethane	U		0.000667	0.00279	1	12/01/2020 22:27	WG1584153	
Trichloroethene	U		0.000653	0.00112	1	12/01/2020 22:27	WG1584153	
Trichlorofluoromethane	U		0.000924	0.00279	1	12/01/2020 22:27	WG1584153	
1,2,3-Trichloropropane	U		0.00181	0.0140	1	12/01/2020 22:27	WG1584153	
1,2,4-Trimethylbenzene	U		0.00177	0.00559	1	12/01/2020 22:27	WG1584153	
1,2,3-Trimethylbenzene	U		0.00177	0.00559	1	12/01/2020 22:27	WG1584153	
1,3,5-Trimethylbenzene	U		0.00224	0.00559	1	12/01/2020 22:27	WG1584153	
Vinyl chloride	U		0.00130	0.00279	1	12/01/2020 22:27	WG1584153	
Xylenes, Total	U		0.000984	0.00727	1	12/01/2020 22:27	WG1584153	
(S) Toluene-d8	106			75.0-131		12/01/2020 22:27	WG1584153	
(S) 4-Bromofluorobenzene	97.3			67.0-138		12/01/2020 22:27	WG1584153	
(S) 1,2-Dichloroethane-d4	92.4			70.0-130		12/01/2020 22:27	WG1584153	



Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
C12-C22 Hydrocarbons	U		0.774	4.22	1	11/30/2020 22:36	WG1583815
C22-C32 Hydrocarbons	U		1.40	4.22	1	11/30/2020 22:36	WG1583815
C32-C40 Hydrocarbons	U		1.40	4.22	1	11/30/2020 22:36	WG1583815
(S) o-Terphenyl	82.8			18.0-148		11/30/2020 22:36	WG1583815

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

8 AI

9 Sc

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Acenaphthene	0.0194	<u>J</u>	0.00569	0.0352	1	12/01/2020 19:32	WG1583806
Acenaphthylene	U		0.00495	0.0352	1	12/01/2020 19:32	WG1583806
Anthracene	U		0.00626	0.0352	1	12/01/2020 19:32	WG1583806
Benzo(a)anthracene	U		0.00620	0.0352	1	12/01/2020 19:32	WG1583806
Benzo(b)fluoranthene	U		0.00656	0.0352	1	12/01/2020 19:32	WG1583806
Benzo(k)fluoranthene	U		0.00625	0.0352	1	12/01/2020 19:32	WG1583806
Benzo(g,h,i)perylene	U		0.00643	0.0352	1	12/01/2020 19:32	WG1583806
Benzo(a)pyrene	U		0.00654	0.0352	1	12/01/2020 19:32	WG1583806
Bis(2-chlorethoxy)methane	U		0.0106	0.352	1	12/01/2020 19:32	WG1583806
Bis(2-chloroethyl)ether	U		0.0116	0.352	1	12/01/2020 19:32	WG1583806
2,2-Oxybis(1-Chloropropane)	U		0.0152	0.352	1	12/01/2020 19:32	WG1583806
4-Bromophenyl-phenylether	U		0.0124	0.352	1	12/01/2020 19:32	WG1583806
2-Chloronaphthalene	U		0.00618	0.0352	1	12/01/2020 19:32	WG1583806
4-Chlorophenyl-phenylether	U		0.0123	0.352	1	12/01/2020 19:32	WG1583806
Chrysene	U		0.00699	0.0352	1	12/01/2020 19:32	WG1583806
Dibenz(a,h)anthracene	U		0.00975	0.0352	1	12/01/2020 19:32	WG1583806
3,3-Dichlorobenzidine	U		0.0130	0.352	1	12/01/2020 19:32	WG1583806
2,4-Dinitrotoluene	U		0.0101	0.352	1	12/01/2020 19:32	WG1583806
2,6-Dinitrotoluene	U		0.0115	0.352	1	12/01/2020 19:32	WG1583806
Fluoranthene	U		0.00635	0.0352	1	12/01/2020 19:32	WG1583806
Fluorene	0.00787	<u>J</u>	0.00572	0.0352	1	12/01/2020 19:32	WG1583806
Hexachlorobenzene	U		0.0125	0.352	1	12/01/2020 19:32	WG1583806
Hexachloro-1,3-butadiene	U		0.0118	0.352	1	12/01/2020 19:32	WG1583806
Hexachlorocyclopentadiene	U		0.0185	0.352	1	12/01/2020 19:32	WG1583806
Hexachloroethane	U		0.0138	0.352	1	12/01/2020 19:32	WG1583806
Indeno(1,2,3-cd)pyrene	U		0.00994	0.0352	1	12/01/2020 19:32	WG1583806
Isophorone	U		0.0108	0.352	1	12/01/2020 19:32	WG1583806
Naphthalene	0.331		0.00883	0.0352	1	12/01/2020 19:32	WG1583806
Nitrobenzene	U		0.0123	0.352	1	12/01/2020 19:32	WG1583806
n-Nitrosodimethylamine	U		0.0522	0.352	1	12/01/2020 19:32	WG1583806
n-Nitrosodiphenylamine	U		0.0266	0.352	1	12/01/2020 19:32	WG1583806
n-Nitrosodi-n-propylamine	U		0.0117	0.352	1	12/01/2020 19:32	WG1583806
Phenanthrene	0.00736	<u>J</u>	0.00698	0.0352	1	12/01/2020 19:32	WG1583806
Pyridine	U		0.0232	0.352	1	12/01/2020 19:32	WG1583806
Benzylbutyl phthalate	U		0.0110	0.352	1	12/01/2020 19:32	WG1583806
Bis(2-ethylhexyl)phthalate	U		0.0446	0.352	1	12/01/2020 19:32	WG1583806
Di-n-butyl phthalate	U		0.0120	0.352	1	12/01/2020 19:32	WG1583806
Diethyl phthalate	U		0.0116	0.352	1	12/01/2020 19:32	WG1583806
Dimethyl phthalate	U		0.0746	0.352	1	12/01/2020 19:32	WG1583806
Di-n-octyl phthalate	U		0.0238	0.352	1	12/01/2020 19:32	WG1583806
Pyrene	U		0.00684	0.0352	1	12/01/2020 19:32	WG1583806
1,2,4-Trichlorobenzene	U		0.0110	0.352	1	12/01/2020 19:32	WG1583806
4-Chloro-3-methylphenol	U		0.0114	0.352	1	12/01/2020 19:32	WG1583806
2-Chlorophenol	U		0.0116	0.352	1	12/01/2020 19:32	WG1583806
2,4-Dichlorophenol	U		0.0102	0.352	1	12/01/2020 19:32	WG1583806
2,4-Dimethylphenol	U		0.00919	0.352	1	12/01/2020 19:32	WG1583806
4,6-Dinitro-2-methylphenol	U		0.0797	0.352	1	12/01/2020 19:32	WG1583806
2,4-Dinitrophenol	U		0.0823	0.352	1	12/01/2020 19:32	WG1583806



Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
2-Methylphenol	U		0.0106	0.352	1	12/01/2020 19:32	WG1583806
3&4-Methyl Phenol	U		0.0110	0.352	1	12/01/2020 19:32	WG1583806
2-Nitrophenol	U		0.0126	0.352	1	12/01/2020 19:32	WG1583806
4-Nitrophenol	U		0.0110	0.352	1	12/01/2020 19:32	WG1583806
Pentachlorophenol	U		0.00946	0.352	1	12/01/2020 19:32	WG1583806
Phenol	U		0.0142	0.352	1	12/01/2020 19:32	WG1583806
2,4,6-Trichlorophenol	U		0.0113	0.352	1	12/01/2020 19:32	WG1583806
2,4,5-Trichlorophenol	U		0.0119	0.352	1	12/01/2020 19:32	WG1583806
(S) 2-Fluorophenol	82.8			12.0-120		12/01/2020 19:32	WG1583806
(S) Phenol-d5	74.8			10.0-120		12/01/2020 19:32	WG1583806
(S) Nitrobenzene-d5	57.7			10.0-122		12/01/2020 19:32	WG1583806
(S) 2-Fluorobiphenyl	73.9			15.0-120		12/01/2020 19:32	WG1583806
(S) 2,4,6-Tribromophenol	99.1			10.0-127		12/01/2020 19:32	WG1583806
(S) p-Terphenyl-d14	80.4			10.0-120		12/01/2020 19:32	WG1583806

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	97.0		1	12/01/2020 08:31	WG1584117

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Mercury	0.0234	J	0.0186	0.0412	1	12/01/2020 09:05	WG1583991

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Antimony	0.931	J	0.561	2.06	1	12/01/2020 00:02	WG1583319
Arsenic	2.33	B	0.534	2.06	1	12/01/2020 00:02	WG1583319
Barium	55.7		0.0879	0.516	1	12/01/2020 00:02	WG1583319
Beryllium	0.338		0.0325	0.206	1	12/01/2020 00:02	WG1583319
Cadmium	0.134	J	0.0486	0.516	1	12/01/2020 00:02	WG1583319
Chromium	34.9		0.137	1.03	1	12/01/2020 00:02	WG1583319
Cobalt	8.03		0.0836	1.03	1	12/01/2020 00:02	WG1583319
Copper	13.1		0.412	2.06	1	12/01/2020 00:02	WG1583319
Lead	18.1		0.214	0.516	1	12/01/2020 00:02	WG1583319
Molybdenum	1.04	B	0.112	0.516	1	12/01/2020 00:02	WG1583319
Nickel	27.4		0.136	2.06	1	12/01/2020 00:02	WG1583319
Selenium	U		0.788	2.06	1	12/01/2020 00:02	WG1583319
Silver	U		0.131	1.03	1	12/01/2020 00:02	WG1583319
Thallium	U		0.406	2.06	1	12/01/2020 00:02	WG1583319
Vanadium	52.5		0.522	2.06	1	12/01/2020 00:02	WG1583319
Zinc	38.9		0.858	5.16	1	12/01/2020 00:02	WG1583319

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
TPHG C5 - C12	1.03	B, J	0.886	2.67	25	12/03/2020 08:36	WG1585567
(S) a,a,a-Trifluorotoluene(FID)	97.1			77.0-120		12/03/2020 08:36	WG1585567

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.0390	0.0534	1	12/01/2020 22:46	WG1584153
Acrylonitrile	U		0.00386	0.0134	1	12/01/2020 22:46	WG1584153
Benzene	U		0.000499	0.00107	1	12/01/2020 22:46	WG1584153
Bromobenzene	U		0.000961	0.0134	1	12/01/2020 22:46	WG1584153
Bromodichloromethane	U		0.000774	0.00267	1	12/01/2020 22:46	WG1584153
Bromoform	U	J4	0.00125	0.0267	1	12/01/2020 22:46	WG1584153
Bromomethane	U		0.00210	0.0134	1	12/01/2020 22:46	WG1584153
n-Butylbenzene	U		0.00561	0.0134	1	12/01/2020 22:46	WG1584153
sec-Butylbenzene	U		0.00308	0.0134	1	12/01/2020 22:46	WG1584153
tert-Butylbenzene	U		0.00208	0.00534	1	12/01/2020 22:46	WG1584153
Carbon tetrachloride	U		0.000959	0.00534	1	12/01/2020 22:46	WG1584153
Chlorobenzene	U		0.000224	0.00267	1	12/01/2020 22:46	WG1584153
Chlorodibromomethane	U	J4	0.000654	0.00267	1	12/01/2020 22:46	WG1584153
Chloroethane	U		0.00182	0.00534	1	12/01/2020 22:46	WG1584153
Chloroform	U		0.00110	0.00267	1	12/01/2020 22:46	WG1584153
Chloromethane	U		0.00465	0.0134	1	12/01/2020 22:46	WG1584153
2-Chlorotoluene	U		0.000924	0.00267	1	12/01/2020 22:46	WG1584153
4-Chlorotoluene	U		0.000481	0.00534	1	12/01/2020 22:46	WG1584153



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyst	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch	1 Cp
	mg/kg		mg/kg	mg/kg				
1,2-Dibromo-3-Chloropropane	U		0.00417	0.0267	1	12/01/2020 22:46	WG1584153	
1,2-Dibromoethane	U		0.000692	0.00267	1	12/01/2020 22:46	WG1584153	
Dibromomethane	U		0.000801	0.00534	1	12/01/2020 22:46	WG1584153	
1,2-Dichlorobenzene	U		0.000454	0.00534	1	12/01/2020 22:46	WG1584153	
1,3-Dichlorobenzene	U		0.000641	0.00534	1	12/01/2020 22:46	WG1584153	
1,4-Dichlorobenzene	U		0.000748	0.00534	1	12/01/2020 22:46	WG1584153	
Dichlorodifluoromethane	U		0.00172	0.00267	1	12/01/2020 22:46	WG1584153	
1,1-Dichloroethane	U		0.000524	0.00267	1	12/01/2020 22:46	WG1584153	
1,2-Dichloroethane	U		0.000693	0.00267	1	12/01/2020 22:46	WG1584153	
1,1-Dichloroethene	U		0.000647	0.00267	1	12/01/2020 22:46	WG1584153	
cis-1,2-Dichloroethene	U		0.000784	0.00267	1	12/01/2020 22:46	WG1584153	
trans-1,2-Dichloroethene	U		0.00111	0.00534	1	12/01/2020 22:46	WG1584153	
1,2-Dichloropropane	U		0.00152	0.00534	1	12/01/2020 22:46	WG1584153	
1,1-Dichloropropene	U		0.000864	0.00267	1	12/01/2020 22:46	WG1584153	
1,3-Dichloropropane	U		0.000535	0.00534	1	12/01/2020 22:46	WG1584153	
cis-1,3-Dichloropropene	U		0.000809	0.00267	1	12/01/2020 22:46	WG1584153	
trans-1,3-Dichloropropene	U		0.00122	0.00534	1	12/01/2020 22:46	WG1584153	
2,2-Dichloropropane	U	J4	0.00147	0.00267	1	12/01/2020 22:46	WG1584153	
Di-isopropyl ether	U		0.000438	0.00107	1	12/01/2020 22:46	WG1584153	
Ethylbenzene	U		0.000787	0.00267	1	12/01/2020 22:46	WG1584153	
Hexachloro-1,3-butadiene	U		0.00641	0.0267	1	12/01/2020 22:46	WG1584153	
Isopropylbenzene	U		0.000454	0.00267	1	12/01/2020 22:46	WG1584153	
p-Isopropyltoluene	U		0.00272	0.00534	1	12/01/2020 22:46	WG1584153	
2-Butanone (MEK)	U		0.0678	0.107	1	12/01/2020 22:46	WG1584153	
Methylene Chloride	U		0.00709	0.0267	1	12/01/2020 22:46	WG1584153	
4-Methyl-2-pentanone (MIBK)	U		0.00244	0.0267	1	12/01/2020 22:46	WG1584153	
Methyl tert-butyl ether	U	J4	0.000374	0.00107	1	12/01/2020 22:46	WG1584153	
Naphthalene	U		0.00521	0.0134	1	12/01/2020 22:46	WG1584153	
n-Propylbenzene	U		0.00101	0.00534	1	12/01/2020 22:46	WG1584153	
Styrene	U		0.000245	0.0134	1	12/01/2020 22:46	WG1584153	
1,1,2-Tetrachloroethane	U		0.00101	0.00267	1	12/01/2020 22:46	WG1584153	
1,1,2,2-Tetrachloroethane	U		0.000742	0.00267	1	12/01/2020 22:46	WG1584153	
1,1,2-Trichlorotrifluoroethane	U		0.000805	0.00267	1	12/01/2020 22:46	WG1584153	
Tetrachloroethene	U		0.000957	0.00267	1	12/01/2020 22:46	WG1584153	
Toluene	U		0.00139	0.00534	1	12/01/2020 22:46	WG1584153	
1,2,3-Trichlorobenzene	U		0.00783	0.0134	1	12/01/2020 22:46	WG1584153	
1,2,4-Trichlorobenzene	U		0.00470	0.0134	1	12/01/2020 22:46	WG1584153	
1,1,1-Trichloroethane	U		0.000986	0.00267	1	12/01/2020 22:46	WG1584153	
1,1,2-Trichloroethane	U		0.000638	0.00267	1	12/01/2020 22:46	WG1584153	
Trichloroethene	U		0.000624	0.00107	1	12/01/2020 22:46	WG1584153	
Trichlorofluoromethane	U		0.000883	0.00267	1	12/01/2020 22:46	WG1584153	
1,2,3-Trichloropropane	U		0.00173	0.0134	1	12/01/2020 22:46	WG1584153	
1,2,4-Trimethylbenzene	U		0.00169	0.00534	1	12/01/2020 22:46	WG1584153	
1,2,3-Trimethylbenzene	U		0.00169	0.00534	1	12/01/2020 22:46	WG1584153	
1,3,5-Trimethylbenzene	U		0.00214	0.00534	1	12/01/2020 22:46	WG1584153	
Vinyl chloride	U		0.00124	0.00267	1	12/01/2020 22:46	WG1584153	
Xylenes, Total	U		0.000940	0.00694	1	12/01/2020 22:46	WG1584153	
(S) Toluene-d8	104			75.0-131		12/01/2020 22:46	WG1584153	
(S) 4-Bromofluorobenzene	99.5			67.0-138		12/01/2020 22:46	WG1584153	
(S) 1,2-Dichloroethane-d4	98.2			70.0-130		12/01/2020 22:46	WG1584153	



Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
C12-C22 Hydrocarbons	167	J	152	825	200	12/03/2020 17:39	WG1585052
C22-C32 Hydrocarbons	1780		274	825	200	12/03/2020 17:39	WG1585052
C32-C40 Hydrocarbons	1170		274	825	200	12/03/2020 17:39	WG1585052
(S) o-Terphenyl	0.000	J7		18.0-148		12/03/2020 17:39	WG1585052

Sample Narrative:

L1289379-06 WG1585052: Cannot run at lower dilution due to viscosity of extract

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Acenaphthene	U		0.0556	0.343	10	12/02/2020 02:13	WG1583806
Acenaphthylene	U		0.0484	0.343	10	12/02/2020 02:13	WG1583806
Anthracene	U		0.0612	0.343	10	12/02/2020 02:13	WG1583806
Benzo(a)anthracene	0.134	J	0.0605	0.343	10	12/02/2020 02:13	WG1583806
Benzo(b)fluoranthene	0.259	J	0.0640	0.343	10	12/02/2020 02:13	WG1583806
Benzo(k)fluoranthene	0.0797	J	0.0610	0.343	10	12/02/2020 02:13	WG1583806
Benzo(g,h,i)perylene	0.0793	J	0.0628	0.343	10	12/02/2020 02:13	WG1583806
Benzo(a)pyrene	0.160	J	0.0638	0.343	10	12/02/2020 02:13	WG1583806
Bis(2-chlorethoxy)methane	U		0.103	3.43	10	12/02/2020 02:13	WG1583806
Bis(2-chloroethyl)ether	U		0.113	3.43	10	12/02/2020 02:13	WG1583806
2,2-Oxybis(1-Chloropropane)	U		0.148	3.43	10	12/02/2020 02:13	WG1583806
4-Bromophenyl-phenylether	U		0.121	3.43	10	12/02/2020 02:13	WG1583806
2-Chloronaphthalene	U		0.0603	0.343	10	12/02/2020 02:13	WG1583806
4-Chlorophenyl-phenylether	U		0.120	3.43	10	12/02/2020 02:13	WG1583806
Chrysene	0.154	J	0.0683	0.343	10	12/02/2020 02:13	WG1583806
Dibenz(a,h)anthracene	U		0.0952	0.343	10	12/02/2020 02:13	WG1583806
3,3-Dichlorobenzidine	U		0.127	3.43	10	12/02/2020 02:13	WG1583806
2,4-Dinitrotoluene	U		0.0985	3.43	10	12/02/2020 02:13	WG1583806
2,6-Dinitrotoluene	U		0.112	3.43	10	12/02/2020 02:13	WG1583806
Fluoranthene	0.457		0.0620	0.343	10	12/02/2020 02:13	WG1583806
Fluorene	U		0.0559	0.343	10	12/02/2020 02:13	WG1583806
Hexachlorobenzene	U		0.122	3.43	10	12/02/2020 02:13	WG1583806
Hexachloro-1,3-butadiene	U		0.115	3.43	10	12/02/2020 02:13	WG1583806
Hexachlorocyclopentadiene	U		0.180	3.43	10	12/02/2020 02:13	WG1583806
Hexachloroethane	U		0.135	3.43	10	12/02/2020 02:13	WG1583806
Indeno(1,2,3-cd)pyrene	U		0.0970	0.343	10	12/02/2020 02:13	WG1583806
Isophorone	U		0.105	3.43	10	12/02/2020 02:13	WG1583806
Naphthalene	0.171	J	0.0862	0.343	10	12/02/2020 02:13	WG1583806
Nitrobenzene	U		0.120	3.43	10	12/02/2020 02:13	WG1583806
n-Nitrosodimethylamine	U		0.509	3.43	10	12/02/2020 02:13	WG1583806
n-Nitrosodiphenylamine	U		0.260	3.43	10	12/02/2020 02:13	WG1583806
n-Nitrosodi-n-propylamine	U		0.114	3.43	10	12/02/2020 02:13	WG1583806
Phenanthrene	0.247	J	0.0682	0.343	10	12/02/2020 02:13	WG1583806
Pyridine	U		0.227	3.43	10	12/02/2020 02:13	WG1583806
Benzylbutyl phthalate	U		0.107	3.43	10	12/02/2020 02:13	WG1583806
Bis(2-ethylhexyl)phthalate	U		0.435	3.43	10	12/02/2020 02:13	WG1583806
Di-n-butyl phthalate	U		0.118	3.43	10	12/02/2020 02:13	WG1583806
Diethyl phthalate	U		0.113	3.43	10	12/02/2020 02:13	WG1583806
Dimethyl phthalate	U		0.728	3.43	10	12/02/2020 02:13	WG1583806
Di-n-octyl phthalate	U		0.232	3.43	10	12/02/2020 02:13	WG1583806
Pyrene	0.385		0.0668	0.343	10	12/02/2020 02:13	WG1583806
1,2,4-Trichlorobenzene	U		0.107	3.43	10	12/02/2020 02:13	WG1583806
4-Chloro-3-methylphenol	U		0.111	3.43	10	12/02/2020 02:13	WG1583806
2-Chlorophenol	U		0.113	3.43	10	12/02/2020 02:13	WG1583806
2,4-Dichlorophenol	U		0.100	3.43	10	12/02/2020 02:13	WG1583806

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

8 AI

9 Sc



Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
2,4-Dimethylphenol	U		0.0897	3.43	10	12/02/2020 02:13	WG1583806
4,6-Dinitro-2-methylphenol	U		0.779	3.43	10	12/02/2020 02:13	WG1583806
2,4-Dinitrophenol	U		0.803	3.43	10	12/02/2020 02:13	WG1583806
2-Methylphenol	U		0.103	3.43	10	12/02/2020 02:13	WG1583806
3&4-Methyl Phenol	U		0.107	3.43	10	12/02/2020 02:13	WG1583806
2-Nitrophenol	U		0.123	3.43	10	12/02/2020 02:13	WG1583806
4-Nitrophenol	U		0.107	3.43	10	12/02/2020 02:13	WG1583806
Pentachlorophenol	U		0.0924	3.43	10	12/02/2020 02:13	WG1583806
Phenol	U		0.138	3.43	10	12/02/2020 02:13	WG1583806
2,4,6-Trichlorophenol	U		0.110	3.43	10	12/02/2020 02:13	WG1583806
2,4,5-Trichlorophenol	U		0.117	3.43	10	12/02/2020 02:13	WG1583806
(S) 2-Fluorophenol	68.3			12.0-120		12/02/2020 02:13	WG1583806
(S) Phenol-d5	61.4			10.0-120		12/02/2020 02:13	WG1583806
(S) Nitrobenzene-d5	46.9			10.0-122		12/02/2020 02:13	WG1583806
(S) 2-Fluorobiphenyl	54.4			15.0-120		12/02/2020 02:13	WG1583806
(S) 2,4,6-Tribromophenol	82.7			10.0-127		12/02/2020 02:13	WG1583806
(S) p-Terphenyl-d14	59.4			10.0-120		12/02/2020 02:13	WG1583806

Sample Narrative:

L1289379-06 WG1583806: Cannot run at lower dilution due to viscosity of extract

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	85.1	%	1	12/01/2020 08:31	WG1584117

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch	
Mercury	U	mg/kg		0.0212	0.0470	1	12/01/2020 09:07	WG1583991

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Antimony	1.33	J	0.640	2.35	1	12/01/2020 00:05	WG1583319
Arsenic	1.86	B J	0.609	2.35	1	12/01/2020 00:05	WG1583319
Barium	60.9		0.100	0.588	1	12/01/2020 00:05	WG1583319
Beryllium	0.358		0.0370	0.235	1	12/01/2020 00:05	WG1583319
Cadmium	U		0.0554	0.588	1	12/01/2020 00:05	WG1583319
Chromium	67.9		0.156	1.18	1	12/01/2020 00:05	WG1583319
Cobalt	10.8		0.0953	1.18	1	12/01/2020 00:05	WG1583319
Copper	13.1		0.470	2.35	1	12/01/2020 00:05	WG1583319
Lead	12.3		0.245	0.588	1	12/01/2020 00:05	WG1583319
Molybdenum	0.468	B J	0.128	0.588	1	12/01/2020 00:05	WG1583319
Nickel	53.0		0.155	2.35	1	12/01/2020 00:05	WG1583319
Selenium	1.28	J	0.898	2.35	1	12/01/2020 00:05	WG1583319
Silver	U		0.149	1.18	1	12/01/2020 00:05	WG1583319
Thallium	U		0.463	2.35	1	12/01/2020 00:05	WG1583319
Vanadium	56.5		0.595	2.35	1	12/01/2020 00:05	WG1583319
Zinc	42.1		0.978	5.88	1	12/01/2020 00:05	WG1583319

6 Qc

7 Gl

8 Al

9 Sc

Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
TPHG C5 - C12	U	mg/kg	1.18	3.54	25	12/03/2020 08:59	WG1585567
(S) a,a,a-Trifluorotoluene(FID)	101			77.0-120		12/03/2020 08:59	WG1585567

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.0517	0.0708	1	12/01/2020 23:05	WG1584153
Acrylonitrile	U		0.00511	0.0177	1	12/01/2020 23:05	WG1584153
Benzene	0.00259		0.000661	0.00142	1	12/01/2020 23:05	WG1584153
Bromobenzene	U		0.00127	0.0177	1	12/01/2020 23:05	WG1584153
Bromodichloromethane	U		0.00103	0.00354	1	12/01/2020 23:05	WG1584153
Bromoform	U	J4	0.00166	0.0354	1	12/01/2020 23:05	WG1584153
Bromomethane	U	J3	0.00279	0.0177	1	12/01/2020 23:05	WG1584153
n-Butylbenzene	U		0.00743	0.0177	1	12/01/2020 23:05	WG1584153
sec-Butylbenzene	U		0.00408	0.0177	1	12/01/2020 23:05	WG1584153
tert-Butylbenzene	U		0.00276	0.00708	1	12/01/2020 23:05	WG1584153
Carbon tetrachloride	U		0.00127	0.00708	1	12/01/2020 23:05	WG1584153
Chlorobenzene	U		0.000297	0.00354	1	12/01/2020 23:05	WG1584153
Chlorodibromomethane	U	J4	0.000867	0.00354	1	12/01/2020 23:05	WG1584153
Chloroethane	U	J3	0.00241	0.00708	1	12/01/2020 23:05	WG1584153
Chloroform	U		0.00146	0.00354	1	12/01/2020 23:05	WG1584153
Chloromethane	U		0.00616	0.0177	1	12/01/2020 23:05	WG1584153
2-Chlorotoluene	U		0.00122	0.00354	1	12/01/2020 23:05	WG1584153
4-Chlorotoluene	U		0.000637	0.00708	1	12/01/2020 23:05	WG1584153



Volatile Organic Compounds (GC/MS) by Method 8260B

Analyst	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch	1 Cp
	mg/kg		mg/kg	mg/kg				
1,2-Dibromo-3-Chloropropane	U		0.00552	0.0354	1	12/01/2020 23:05	WG1584153	
1,2-Dibromoethane	U		0.000918	0.00354	1	12/01/2020 23:05	WG1584153	
Dibromomethane	U		0.00106	0.00708	1	12/01/2020 23:05	WG1584153	
1,2-Dichlorobenzene	U		0.000602	0.00708	1	12/01/2020 23:05	WG1584153	
1,3-Dichlorobenzene	U		0.000850	0.00708	1	12/01/2020 23:05	WG1584153	
1,4-Dichlorobenzene	U		0.000991	0.00708	1	12/01/2020 23:05	WG1584153	
Dichlorodifluoromethane	U		0.00228	0.00354	1	12/01/2020 23:05	WG1584153	
cis-1,2-Dichloroethane	U		0.000695	0.00354	1	12/01/2020 23:05	WG1584153	
1,2-Dichloroethane	U		0.000919	0.00354	1	12/01/2020 23:05	WG1584153	
1,1-Dichloroethene	U	J3	0.000858	0.00354	1	12/01/2020 23:05	WG1584153	
cis-1,2-Dichloroethene	U		0.00104	0.00354	1	12/01/2020 23:05	WG1584153	
trans-1,2-Dichloroethene	U		0.00147	0.00708	1	12/01/2020 23:05	WG1584153	
1,2-Dichloropropane	U		0.00201	0.00708	1	12/01/2020 23:05	WG1584153	
1,1-Dichloropropene	U		0.00115	0.00354	1	12/01/2020 23:05	WG1584153	
1,3-Dichloropropane	U		0.000709	0.00708	1	12/01/2020 23:05	WG1584153	
cis-1,3-Dichloropropene	U		0.00107	0.00354	1	12/01/2020 23:05	WG1584153	
trans-1,3-Dichloropropene	U		0.00161	0.00708	1	12/01/2020 23:05	WG1584153	
2,2-Dichloropropane	U	J3 J4	0.00195	0.00354	1	12/01/2020 23:05	WG1584153	
Di-isopropyl ether	U		0.000581	0.00142	1	12/01/2020 23:05	WG1584153	
Ethylbenzene	0.00607		0.00104	0.00354	1	12/01/2020 23:05	WG1584153	
Hexachloro-1,3-butadiene	U		0.00850	0.0354	1	12/01/2020 23:05	WG1584153	
Isopropylbenzene	U		0.000602	0.00354	1	12/01/2020 23:05	WG1584153	
p-Isopropyltoluene	U		0.00361	0.00708	1	12/01/2020 23:05	WG1584153	
2-Butanone (MEK)	U		0.0899	0.142	1	12/01/2020 23:05	WG1584153	
Methylene Chloride	U		0.00940	0.0354	1	12/01/2020 23:05	WG1584153	
4-Methyl-2-pentanone (MBK)	U		0.00323	0.0354	1	12/01/2020 23:05	WG1584153	
Methyl tert-butyl ether	U	J3 J4	0.000496	0.00142	1	12/01/2020 23:05	WG1584153	
Naphthalene	0.0166	J	0.00691	0.0177	1	12/01/2020 23:05	WG1584153	
n-Propylbenzene	0.00263	J	0.00135	0.00708	1	12/01/2020 23:05	WG1584153	
Styrene	U		0.000324	0.0177	1	12/01/2020 23:05	WG1584153	
1,1,2-Tetrachloroethane	U		0.00134	0.00354	1	12/01/2020 23:05	WG1584153	
1,1,2,2-Tetrachloroethane	U		0.000984	0.00354	1	12/01/2020 23:05	WG1584153	
1,1,2-Trichlorotrifluoroethane	U	J3	0.00107	0.00354	1	12/01/2020 23:05	WG1584153	
Tetrachloroethene	U		0.00127	0.00354	1	12/01/2020 23:05	WG1584153	
Toluene	U		0.00184	0.00708	1	12/01/2020 23:05	WG1584153	
1,2,3-Trichlorobenzene	U		0.0104	0.0177	1	12/01/2020 23:05	WG1584153	
1,2,4-Trichlorobenzene	U		0.00623	0.0177	1	12/01/2020 23:05	WG1584153	
1,1,1-Trichloroethane	U	J3	0.00131	0.00354	1	12/01/2020 23:05	WG1584153	
1,1,2-Trichloroethane	U		0.000845	0.00354	1	12/01/2020 23:05	WG1584153	
Trichloroethene	U		0.000827	0.00142	1	12/01/2020 23:05	WG1584153	
Trichlorofluoromethane	U	J3	0.00117	0.00354	1	12/01/2020 23:05	WG1584153	
1,2,3-Trichloropropane	U		0.00229	0.0177	1	12/01/2020 23:05	WG1584153	
1,2,4-Trimethylbenzene	U		0.00224	0.00708	1	12/01/2020 23:05	WG1584153	
1,2,3-Trimethylbenzene	0.00804		0.00224	0.00708	1	12/01/2020 23:05	WG1584153	
1,3,5-Trimethylbenzene	U		0.00283	0.00708	1	12/01/2020 23:05	WG1584153	
Vinyl chloride	U		0.00164	0.00354	1	12/01/2020 23:05	WG1584153	
Xylenes, Total	0.00214	J	0.00125	0.00920	1	12/01/2020 23:05	WG1584153	
(S) Toluene-d8	105			75.0-131		12/01/2020 23:05	WG1584153	
(S) 4-Bromofluorobenzene	101			67.0-138		12/01/2020 23:05	WG1584153	
(S) 1,2-Dichloroethane-d4	99.2			70.0-130		12/01/2020 23:05	WG1584153	



Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
C12-C22 Hydrocarbons	9.38	J	4.31	23.5	5	12/02/2020 21:28	WG1585052
C22-C32 Hydrocarbons	42.9		7.82	23.5	5	12/02/2020 21:28	WG1585052
C32-C40 Hydrocarbons	58.7		7.82	23.5	5	12/02/2020 21:28	WG1585052
(S) o-Terphenyl	82.4			18.0-148		12/02/2020 21:28	WG1585052

Sample Narrative:

L1289379-07 WG1585052: Dilution due to matrix.

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
	mg/kg		mg/kg	mg/kg			
Acenaphthene	0.0152	J	0.00634	0.0391	1	12/01/2020 23:53	WG1583806
Acenaphthylene	U		0.00551	0.0391	1	12/01/2020 23:53	WG1583806
Anthracene	U		0.00697	0.0391	1	12/01/2020 23:53	WG1583806
Benzo(a)anthracene	U		0.00690	0.0391	1	12/01/2020 23:53	WG1583806
Benzo(b)fluoranthene	U		0.00730	0.0391	1	12/01/2020 23:53	WG1583806
Benzo(k)fluoranthene	U		0.00696	0.0391	1	12/01/2020 23:53	WG1583806
Benzo(g,h,i)perylene	U		0.00716	0.0391	1	12/01/2020 23:53	WG1583806
Benzo(a)pyrene	U		0.00728	0.0391	1	12/01/2020 23:53	WG1583806
Bis(2-chlorethoxy)methane	U		0.0118	0.391	1	12/01/2020 23:53	WG1583806
Bis(2-chloroethyl)ether	U		0.0129	0.391	1	12/01/2020 23:53	WG1583806
2,2-Oxybis(1-Chloropropane)	U		0.0169	0.391	1	12/01/2020 23:53	WG1583806
4-Bromophenyl-phenylether	U		0.0138	0.391	1	12/01/2020 23:53	WG1583806
2-Chloronaphthalene	U		0.00688	0.0391	1	12/01/2020 23:53	WG1583806
4-Chlorophenyl-phenylether	U		0.0136	0.391	1	12/01/2020 23:53	WG1583806
Chrysene	U		0.00778	0.0391	1	12/01/2020 23:53	WG1583806
Dibenz(a,h)anthracene	U		0.0109	0.0391	1	12/01/2020 23:53	WG1583806
3,3-Dichlorobenzidine	U		0.0145	0.391	1	12/01/2020 23:53	WG1583806
2,4-Dinitrotoluene	U		0.0112	0.391	1	12/01/2020 23:53	WG1583806
2,6-Dinitrotoluene	U		0.0128	0.391	1	12/01/2020 23:53	WG1583806
Fluoranthene	U		0.00707	0.0391	1	12/01/2020 23:53	WG1583806
Fluorene	0.00674	J	0.00637	0.0391	1	12/01/2020 23:53	WG1583806
Hexachlorobenzene	U		0.0139	0.391	1	12/01/2020 23:53	WG1583806
Hexachloro-1,3-butadiene	U		0.0132	0.391	1	12/01/2020 23:53	WG1583806
Hexachlorocyclopentadiene	U		0.0206	0.391	1	12/01/2020 23:53	WG1583806
Hexachloroethane	U		0.0154	0.391	1	12/01/2020 23:53	WG1583806
Indeno(1,2,3-cd)pyrene	U		0.0111	0.0391	1	12/01/2020 23:53	WG1583806
Isophorone	U		0.0120	0.391	1	12/01/2020 23:53	WG1583806
Naphthalene	0.225		0.00983	0.0391	1	12/01/2020 23:53	WG1583806
Nitrobenzene	U		0.0136	0.391	1	12/01/2020 23:53	WG1583806
n-Nitrosodimethylamine	U		0.0581	0.391	1	12/01/2020 23:53	WG1583806
n-Nitrosodiphenylamine	U		0.0296	0.391	1	12/01/2020 23:53	WG1583806
n-Nitrosodi-n-propylamine	U		0.0130	0.391	1	12/01/2020 23:53	WG1583806
Phenanthrene	0.0120	J	0.00777	0.0391	1	12/01/2020 23:53	WG1583806
Pyridine	U		0.0259	0.391	1	12/01/2020 23:53	WG1583806
Benzylbutyl phthalate	U		0.0122	0.391	1	12/01/2020 23:53	WG1583806
Bis(2-ethylhexyl)phthalate	U		0.0496	0.391	1	12/01/2020 23:53	WG1583806
Di-n-butyl phthalate	U		0.0134	0.391	1	12/01/2020 23:53	WG1583806
Diethyl phthalate	U		0.0129	0.391	1	12/01/2020 23:53	WG1583806
Dimethyl phthalate	U		0.0830	0.391	1	12/01/2020 23:53	WG1583806
Di-n-octyl phthalate	U		0.0265	0.391	1	12/01/2020 23:53	WG1583806
Pyrene	U		0.00762	0.0391	1	12/01/2020 23:53	WG1583806
1,2,4-Trichlorobenzene	U		0.0122	0.391	1	12/01/2020 23:53	WG1583806
4-Chloro-3-methylphenol	U		0.0127	0.391	1	12/01/2020 23:53	WG1583806
2-Chlorophenol	U		0.0129	0.391	1	12/01/2020 23:53	WG1583806
2,4-Dichlorophenol	U		0.0114	0.391	1	12/01/2020 23:53	WG1583806

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

8 AI

9 Sc



Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
2,4-Dimethylphenol	U		0.0102	0.391	1	12/01/2020 23:53	WG1583806
4,6-Dinitro-2-methylphenol	U		0.0888	0.391	1	12/01/2020 23:53	WG1583806
2,4-Dinitrophenol	U		0.0916	0.391	1	12/01/2020 23:53	WG1583806
2-Methylphenol	U		0.0118	0.391	1	12/01/2020 23:53	WG1583806
3&4-Methyl Phenol	U		0.0122	0.391	1	12/01/2020 23:53	WG1583806
2-Nitrophenol	U		0.0140	0.391	1	12/01/2020 23:53	WG1583806
4-Nitrophenol	U		0.0122	0.391	1	12/01/2020 23:53	WG1583806
Pentachlorophenol	U		0.0105	0.391	1	12/01/2020 23:53	WG1583806
Phenol	U		0.0158	0.391	1	12/01/2020 23:53	WG1583806
2,4,6-Trichlorophenol	U		0.0126	0.391	1	12/01/2020 23:53	WG1583806
2,4,5-Trichlorophenol	U		0.0133	0.391	1	12/01/2020 23:53	WG1583806
(S) 2-Fluorophenol	77.2		12.0-120		12/01/2020 23:53		WG1583806
(S) Phenol-d5	74.1		10.0-120		12/01/2020 23:53		WG1583806
(S) Nitrobenzene-d5	56.9		10.0-122		12/01/2020 23:53		WG1583806
(S) 2-Fluorobiphenyl	73.7		15.0-120		12/01/2020 23:53		WG1583806
(S) 2,4,6-Tribromophenol	108		10.0-127		12/01/2020 23:53		WG1583806
(S) p-Terphenyl-d14	76.6		10.0-120		12/01/2020 23:53		WG1583806

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

WG1584115
Total Solids by Method 2540 G-2011

QUALITY CONTROL SUMMARY

L1289379-01,02,03,04

ONE LAB. NATIONWIDE.

Method Blank (MB)

(MB) R3599144-1	12/01/20 08:45			
Analyte	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
	%	%	%	%
Total Solids	0.00100			

L1289379-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1289379-04	12/01/20 08:45	(DUP) R3599144-3	12/01/20 08:45	
Analyte	Original Result	DUP Result	Dilution	DUP RPD
	%	%	%	<u>DUP Qualifier</u>
Total Solids	94.8	93.1	1	1.80

Laboratory Control Sample (LCS)

(LCS) R3599144-2	12/01/20 08:45			
Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits
	%	%	%	%
Total Solids	50.0	50.0	100	85.0-115

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 QC

7 Gl

8 Al

9 Sc

WG1584117
Total Solids by Method 2540 G-2011

QUALITY CONTROL SUMMARY

L1289379-05.06.07

ONE LAB. NATIONWIDE.

Method Blank (MB)

(MB) R3599141-1	12/01/20 08:31			
Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1289476-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1289476-07	12/01/20 08:31	• (DUP) R3599141-3	12/01/20 08:31	
Analyte	Original Result %	DUP Result %	Dilution %	DUP RPD DUP Qualifier Limits %
Total Solids	83.4	85.2	1	2.04
				10

Laboratory Control Sample (LCS)

(LCS) R3599141-2	12/01/20 08:31			
Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits % LCS Qualifier
Total Solids	50.0	50.0	100	85.0-15

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 QC

7 Gl

8 Al

9 Sc

WG1584540
Mercury by Method 7471A

QUALITY CONTROL SUMMARY
L1289379-01

ONE LAB. NATIONWIDE.



Method Blank (MB)

(MB) R3599433-1	12/02/20 07:20
Analyte	MB Result
Mercury	mg/kg

Method Blank (MB)

(MB) R3599433-2	12/02/20 07:22
Analyte	Spike Amount
Mercury	mg/kg

Method Blank (MB)

(MB) R3599433-3	12/02/20 07:26
Analyte	MB Qualifier
Mercury	mg/kg

Method Blank (MB)

(MB) R3599433-4	12/02/20 07:28
Analyte	MB RDL
Mercury	mg/kg

Method Blank (MB)

(OS) L1288982-01	12/02/20 07:24
Analyte	Original Result
Mercury	mg/kg

Method Blank (MB)

(OS) L1288982-01	12/02/20 07:26
Analyte	MS Result (dry)
Mercury	mg/kg

Method Blank (MB)

(OS) L1288982-01	12/02/20 07:28
Analyte	MS Rec.
Mercury	mg/kg

Method Blank (MB)

(OS) L1288982-01	12/02/20 07:28
Project:	430044
ACCOOUNT:	AEI Consultants - CA

1 Cp

2 TC

3 SS

4 Cn

5 Sr

6 QC

7 Gl

8 Al

9 SC



Method Blank (MB)

(MB) R3598814-7 12/01/20 03:13

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Antimony	U		0.544	2.00
Arsenic	0.519	U	0.518	2.00
Barium	U		0.0852	0.500
Beryllium	U		0.0315	0.200
Cadmium	U		0.0471	0.500
Chromium	U		0.133	1.00
Cobalt	U		0.0811	1.00
Copper	U		0.400	2.00
Lead	U		0.208	0.500
Molybdenum	0.134	U	0.109	0.500
Nickel	U		0.132	2.00
Selenium	U		0.764	2.00
Silver	U		0.127	1.00
Thallium	U		0.394	2.00
Vanadium	U		0.506	2.00
Zinc	U		0.832	5.00

Laboratory Control Sample (LCS)

(LCS) R3598814-2 11/30/20 22:50

Analyte	Spke Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Antimony	100	106	106	80.0-120	
Arsenic	100	96.9	96.9	80.0-120	
Barium	100	109	109	80.0-120	
Beryllium	100	110	110	80.0-120	
Cadmium	100	104	104	80.0-120	
Chromium	100	105	105	80.0-120	
Cobalt	100	108	108	80.0-120	
Copper	100	109	109	80.0-120	
Lead	100	105	105	80.0-120	
Molybdenum	100	110	110	80.0-120	
Nickel	100	106	106	80.0-120	
Selenium	100	106	106	80.0-120	
Silver	20.0	19.3	96.3	80.0-120	
Thallium	100	101	101	80.0-120	
Vanadium	100	107	107	80.0-120	
Zinc	100	103	103	80.0-120	

¹ Cp	² Tc	³ Ss	⁴ Cn	⁵ Sr	⁶ QC	⁷ GI	⁸ AI	⁹ SC
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L1288377-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

1 Cp

(OS) L1288377-07 11/30/20 22:53 • (MS) R3598814-5 11/30/20 23:01 • (MSD) R3598814-6 11/30/20 23:04

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Analyst	Spike Amount	Original Result	MS Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	%	%	%	%			%	%
Antimony	100	1.34	59.7	59.2	58.4	57.8	1	75.0-125	<u>J6</u>	0.902	20
Arsenic	100	9.85	117	113	107	104	1	75.0-125	<u>V</u>	2.77	20
Barium	100	446	462	481	15.8	35.3	1	75.0-125	<u>V</u>	4.12	20
Beryllium	100	0.469	110	110	110	110	1	75.0-125		0.333	20
Cadmium	100	0.0856	112	111	112	111	1	75.0-125		0.703	20
Chromium	100	12.0	114	113	102	101	1	75.0-125		0.541	20
Cobalt	100	5.18	118	118	113	113	1	75.0-125		0.153	20
Copper	100	15.1	123	123	108	108	1	75.0-125		0.291	20
Lead	100	37.2	115	113	77.7	76.1	1	75.0-125		1.40	20
Molybdenum	100	0.651	107	107	107	106	1	75.0-125		0.495	20
Nickel	100	15.3	124	124	109	109	1	75.0-125		0.102	20
Selenium	100	U	114	112	114	112	1	75.0-125		1.58	20
Silver	20.0	U	20.9	20.8	104	104	1	75.0-125		0.549	20
Thallium	100	U	103	102	103	102	1	75.0-125		1.59	20
Vanadium	100	31.8	136	136	105	104	1	75.0-125		0.338	20
Zinc	100	189	117	118	0.000	0.000	1	75.0-125	<u>J6</u>	0.747	20



Method Blank (MB)

(MB) R3599032-1 12/01/20 07:25

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Antimony	U		0.544	2.00
Arsenic	U		0.518	2.00
Barium	U		0.0852	0.500
Beryllium	U		0.0315	0.200
Cadmium	U		0.0471	0.500
Chromium	U		0.133	1.00
Cobalt	U		0.0811	1.00
Copper	U		0.400	2.00
Lead	U		0.208	0.500
Molybdenum	U		0.109	0.500
Nickel	U		0.132	2.00
Selenium	U		0.764	2.00
Silver	U		0.127	1.00
Thallium	U		0.394	2.00
Vanadium	U		0.506	2.00
Zinc	U		0.832	5.00

Laboratory Control Sample (LCS)

(LCS) R3599032-2 12/01/20 07:28

Analyte	Spke Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Antimony	100	112	112	80.0-120	
Arsenic	100	109	109	80.0-120	
Barium	100	117	117	80.0-120	
Beryllium	100	116	116	80.0-120	
Cadmium	100	111	111	80.0-120	
Chromium	100	113	113	80.0-120	
Cobalt	100	114	114	80.0-120	
Copper	100	114	114	80.0-120	
Lead	100	113	113	80.0-120	
Molybdenum	100	117	117	80.0-120	
Nickel	100	113	113	80.0-120	
Selenium	100	112	112	80.0-120	
Silver	20.0	20.6	103	80.0-120	
Thallium	100	108	108	80.0-120	
Vanadium	100	115	115	80.0-120	
Zinc	100	111	111	80.0-120	



WG1583760

Metals (ICP) by Method 6010B

QUALITY CONTROL SUMMARY

[L1288705-02](#)

[Original Sample \(OS\) • Matrix Spike \(MS\) • Matrix Spike Duplicate \(MSD\)](#)

ONE LAB. NATIONWIDE.

L1289379-02.03.04

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ QC

⁷ Gl

⁸ Al

⁹ Sc

(OS) L1288705-02 12/01/20 07:30 • (MS) R3599032-5 12/01/20 07:38 • (MSD) R3599032-6 12/01/20 07:40

Analyst	Spike Amount	Original Result	MS Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	%	%	%	%			%	%
Antimony	100	1.22	52.7	53.8	51.5	52.6	1	75.0-125	<u>J6</u>	2.12	20
Arsenic	100	8.51	105	107	96.4	98.9	1	75.0-125		2.39	20
Barium	100	45.0	169	163	124	118	1	75.0-125		3.61	20
Beryllium	100	0.490	109	106	108	105	1	75.0-125		2.56	20
Cadmium	100	U	103	100	103	100	1	75.0-125		3.04	20
Chromium	100	13.5	119	116	105	102	1	75.0-125		2.87	20
Cobalt	100	7.33	123	121	115	113	1	75.0-125		1.85	20
Copper	100	20.6	125	120	104	99.0	1	75.0-125		4.47	20
Lead	100	13.0	120	121	107	108	1	75.0-125		0.966	20
Molybdenum	100	8.84	108	106	99.2	96.7	1	75.0-125		2.38	20
Nickel	100	12.8	124	122	111	109	1	75.0-125		1.92	20
Selenium	100	1.26	104	99.9	103	98.6	1	75.0-125		4.08	20
Silver	20.0	U	18.6	18.1	93.2	90.3	1	75.0-125		3.15	20
Thallium	100	U	101	97.5	101	97.5	1	75.0-125		3.05	20
Vanadium	100	25.6	136	136	110	110	1	75.0-125		0.245	20
Zinc	100	23.3	132	129	108	106	1	75.0-125		2.11	20

WG1584921

Volatile Organic Compounds (GC) by Method 8015

QUALITY CONTROL SUMMARY

Method Blank (MB)

(MB) R3599597-2	12/02/2012:55
Analyte	MB Result
TPH6 C5 - C12	0.0600
<i>(S)</i> <i>a,a,a-Trifluorotoluene(FID)</i>	97.3

Laboratory Control Sample (LCS)

(LCS) R3599597-1	12/02/2010:23
Analyte	Spike Amount
TPH6 C5 - C12	5.50
<i>(S)</i> <i>a,a,a-Trifluorotoluene(FID)</i>	107

MB Result	MB Qualifier	MB MDL	MB RDL
mg/kg		mg/kg	mg/kg
0.0600	<u>J</u>	0.0332	0.100
<i>(S)</i> <i>a,a,a-Trifluorotoluene(FID)</i>		77.0-120	

LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
mg/kg	%	%	
6.41	117	72.0-125	
<i>(S)</i> <i>a,a,a-Trifluorotoluene(FID)</i>	107	77.0-120	

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

WG1585567

Volatile Organic Compounds (GC) by Method 8015

QUALITY CONTROL SUMMARY

L1289379-05.06.07

ONE LAB. NATIONWIDE.



Method Blank (MB)

(MB) R3599912-2	12/03/20 06:03
Analyte	MB Result
TPH6 C5 - C12	0.0344
<i>(S)</i> <i>a,a,a-Trifluorotoluene(FID)</i>	101

Laboratory Control Sample (LCS)

(LCS) R3599912-1	12/03/20 04:07
Analyte	Spike Amount
TPH6 C5 - C12	5.50
<i>(S)</i> <i>a,a,a-Trifluorotoluene(FID)</i>	105

LCS Result

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
TPH6 C5 - C12	5.50	6.06	110	72.0-125	
<i>(S)</i> <i>a,a,a-Trifluorotoluene(FID)</i>	105	105	77.0-120		

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

WG1584153

Volatile Organic Compounds (GC/MS) by Method 8260B

QUALITY CONTROL SUMMARY

L1289379-01,02,03,04,05,06,07

ONE LAB. NATIONWIDE.



Method Blank (MB)

Analyst	(MB) R3599308-2	12/01/2012:34	MB Result	MB Qualifier	MB MDL	MB RDL
			mg/kg		mg/kg	mg/kg
Acetone	U		0.0365		0.0500	
Acrylonitrile	U		0.00361		0.0125	
Benzene	U		0.000467		0.00100	
Bromobenzene	U		0.000900		0.0125	
Bromodichloromethane	U		0.000725		0.00250	
Bromoform	U		0.00117		0.0250	
Bromomethane	U		0.00197		0.0125	
n-Butylbenzene	U		0.00525		0.0125	
sec-Butylbenzene	U		0.00288		0.0125	
tert-Butylbenzene	U		0.00195		0.00500	
Carbon tetrachloride	U		0.000898		0.00500	
Chlorobenzene	U		0.000210		0.00250	
Chlorodibromomethane	U		0.000612		0.00250	
Chloroethane	U		0.00170		0.00500	
Chloroform	U		0.00103		0.00250	
Chloromethane	U		0.00435		0.0125	
2-Chlorotoluene	U		0.000865		0.00250	
4-Chlorotoluene	U		0.000450		0.00500	
1,2-Dibromo-3-Chloropropane	U		0.00390		0.0250	
1,2-Dibromoethane	U		0.000648		0.00250	
Dibromomethane	U		0.000750		0.00500	
1,2-Dichlorobenzene	U		0.000425		0.00500	
1,3-Dichlorobenzene	U		0.000600		0.00500	
1,4-Dichlorobenzene	U		0.000700		0.00500	
Dichlorodifluoromethane	U		0.00161		0.00250	
1,1-Dichloroethane	U		0.000491		0.00250	
1,2-Dichloroethane	U		0.000649		0.00250	
1,1-Dichloroethene	U		0.000606		0.00250	
cis-1,2-Dichloroethene	U		0.000734		0.00250	
trans-1,2-Dichloroethene	U		0.00104		0.00500	
12-Dichloropropene	U		0.00142		0.00500	
1,1-Dichloropropene	U		0.000809		0.00250	
1,3-Dichloropropene	U		0.000501		0.00500	
cis-1,3-Dichloropropene	U		0.000757		0.00250	
trans-1,3-Dichloropropene	U		0.00114		0.00500	
2,2-Dichloropropane	U		0.00138		0.00250	
Di-isopropyl ether	U		0.000410		0.00100	
Ethylbenzene	U		0.000737		0.00250	
Hexachloro-1,3-butadiene	U		0.00600		0.0250	
Isopropylbenzene	U		0.000425		0.00250	

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1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

WG1584153

Volatile Organic Compounds (GC/MS) by Method 8260B

QUALITY CONTROL SUMMARY

L1289379-01,02,03,04,05,06,07

ONE LAB. NATIONWIDE.



Method Blank (MB)

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ QC

⁷ Gl

⁸ Al

⁹ Sc

(MB) R3599308-2 12/01/2012:34

MB Result mg/kg

MB Qualifier

MB MDL mg/kg

MB RDL mg/kg

Analyte

p-Isopropyltoluene U

0.00255

0.00500

2-Butanone (MEK) U

0.0635

0.100

Methylene Chloride U

0.00664

0.0250

4-Methyl-2-pentanone (MBK) U

0.00228

0.0250

Methyl-Tert-butyl ether U

0.000350

0.00100

Naphthalene U

0.00488

0.0125

n-Propylbenzene U

0.000950

0.00500

Styrene U

0.000229

0.0125

11,11,2-Tetrachloroethane U

0.000948

0.00250

11,12,2-Tetrachloroethane U

0.000695

0.00250

Tetrachloroethene U

0.000896

0.00250

Toluene U

0.00130

0.00500

11,12,2-Trichlorotrifluoroethane U

0.000754

0.00250

1,2,3-Trichlorobenzene U

0.00733

0.0125

1,2,4-Trichlorobenzene U

0.00440

0.0125

11,11-Trichloroethane U

0.000923

0.00250

11,12-Trichloroethane U

0.000597

0.00250

Trichloroethene U

0.000584

0.00100

0.000827

0.00250

0.00162

0.0125

0.00158

0.00500

0.00158

0.00500

0.00200

0.00500

0.00116

0.00250

0.000880

0.00650

75.0-131

67.0-138

97.8

70.0-130

Laboratory Control Sample (LCS)

(LCS) R3599308-1 12/01/2012:38

Spike Amount mg/kg

LCS Result mg/kg

LCS Rec. %

Rec. Limits %

LCS Qualifier

Analyte

Acetone 0.625

0.477

76.3

10.0-160

Acrylonitrile 0.625

0.600

96.0

45.0-153

ACCOUNT:

AEI Consultants - CA

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WG1584153

Volatile Organic Compounds (GC/MS) by Method 8260B

QUALITY CONTROL SUMMARY

L1289379-01,02,03,04,05,06,07

ONE LAB. NATIONWIDE.



Laboratory Control Sample (LCS)

(LCS) R359308-1 12/01/2011:38

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Bromoform	0.125	0.0751	60.1	64.0-132	<u>J4</u>
Bromomethane	0.125	0.131	105	56.0-147	
n-Butylbenzene	0.125	0.126	101	68.0-135	
sec-Butylbenzene	0.125	0.132	106	74.0-130	
tert-Butylbenzene	0.125	0.131	105	75.0-127	
Carbon tetrachloride	0.125	0.122	97.6	66.0-128	
Chlorobenzene	0.125	0.136	109	76.0-128	
Chlorodibromomethane	0.125	0.0920	73.6	74.0-127	<u>J4</u>
Chloroethane	0.125	0.131	105	61.0-134	
Chloroform	0.125	0.133	106	72.0-123	
Chloromethane	0.125	0.135	108	51.0-138	
2-Chlorotoluene	0.125	0.134	107	75.0-124	
4-Chlorotoluene	0.125	0.129	103	75.0-124	
1,2-Dibromo-3-Chloropropane	0.125	0.0790	63.2	59.0-130	
1,2-Dibromoethane	0.125	0.128	102	74.0-128	
Dibromomethane	0.125	0.131	105	75.0-122	
1,2-Dichlorobenzene	0.125	0.129	103	76.0-124	
1,3-Dichlorobenzene	0.125	0.132	106	76.0-125	
1,4-Dichlorobenzene	0.125	0.121	96.8	77.0-121	
Dichlorodifluoromethane	0.125	0.123	98.4	43.0-456	
1,1-Dichloroethane	0.125	0.133	106	70.0-127	
1,2-Dichloroethane	0.125	0.127	102	65.0-131	
1,1-Dichloroethene	0.125	0.147	118	65.0-131	
cis-1,2-Dichloroethene	0.125	0.131	105	73.0-125	
trans-1,2-Dichloroethene	0.125	0.135	108	71.0-125	
1,2-Dichloropropane	0.125	0.144	115	74.0-125	
1,1-Dichloropropane	0.125	0.135	108	73.0-125	
1,3-Dichloropropane	0.125	0.133	106	80.0-125	
cis-1,3-Dichloropropene	0.125	0.106	84.8	76.0-127	
trans-1,3-Dichloropropene	0.125	0.103	82.4	73.0-127	
2,2-Dichloropropane	0.125	0.174	139	59.0-135	<u>J4</u>
Di-isopropyl ether	0.125	0.142	114	60.0-136	
Ethylbenzene	0.125	0.141	113	74.0-126	
Hexachloro-1,3-butadiene	0.125	0.125	100	57.0-150	
Isopropylbenzene	0.125	0.144	115	72.0-127	
p-Isopropyltoluene	0.125	0.130	104	72.0-133	
2-Butanone (MEK)	0.625	0.703	112	30.0-160	
Methylene Chloride	0.125	0.130	104	68.0-123	
4-Methyl-2-pentanone (MBK)	0.625	0.707	113	56.0-143	
Methyl tert-butyl ether	0.125	0.179	143	66.0-132	<u>J4</u>

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¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ QC

⁷ Gl

⁸ Al

⁹ Sc

WG1584153

Volatile Organic Compounds (GC/MS) by Method 8260B

QUALITY CONTROL SUMMARY

L1289379-01,02,03,04,05,06,07

ONE LAB. NATIONWIDE.



Laboratory Control Sample (LCS)

(LCS) R359308-1 12/01/20 11:38

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Naphthalene	0.125	0.124	99.2	59.0-130	
n-Propylbenzene	0.125	0.133	106	74.0-126	
Styrene	0.125	0.144	115	72.0-127	
1,1,2-Tetrachloroethane	0.125	0.104	83.2	74.0-129	
1,1,2,2-Tetrachloroethane	0.125	0.125	100	68.0-128	
Tetrachloroethene	0.125	0.156	125	70.0-136	
Toluene	0.125	0.142	114	75.0-121	
1,1,2-Trichlorofluoroethane	0.125	0.140	112	61.0-139	
1,2,3-Trichlorobenzene	0.125	0.126	101	59.0-139	
1,2,4-Trichlorobenzene	0.125	0.122	97.6	62.0-137	
1,1,1-Trichloroethane	0.125	0.139	111	69.0-126	
1,1,2-Trichloroethane	0.125	0.138	110	78.0-123	
Trichloroethene	0.125	0.150	120	76.0-126	
Trichlorofluoromethane	0.125	0.137	110	61.0-142	
1,2,3-Trichloropropane	0.125	0.123	98.4	67.0-129	
12,3-Trimethylbenzene	0.125	0.127	102	74.0-124	
1,2,4-Trimethylbenzene	0.125	0.124	99.2	70.0-126	
1,3,5-Trimethylbenzene	0.125	0.126	101	73.0-127	
Vinyl chloride	0.125	0.124	99.2	63.0-134	
Xylenes, Total	0.375	0.436	116	72.0-127	
(S) Toluene-d8			103	75.0-131	
(S) 4-Bromofluorobenzene			108	67.0-138	
(S) 1,2-Dichloroethane-d4			101	70.0-130	

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ QC

⁷ Gl

⁸ Al

⁹ Sc

L1289379-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1289379-07 12/01/20 23:05 • (MS) R3599308-3 12/01/20 23:24 • (MSD) R3599308-4 12/01/20 23:43

Analyte	Spike Amount (dry)	Original Result mg/kg	MS Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD	RPD	RPD Limits
Acetone	0.649	U	0.884	0.925	136	143	1	10.0-160		4.54	40	
Acrylonitrile	0.649	U	0.633	0.77	97.6	110	1	10.0-160		12.4	40	
Benzene	0.130	0.00259	0.105	0.133	78.9	100	1	10.0-149		23.4	37	
Bromobenzene	0.130	U	0.0987	0.116	76.2	89.7	1	10.0-156		16.3	38	
Bromodichloromethane	0.130	U	0.0517	0.0658	39.9	50.8	1	10.0-143		24.1	37	
Bromoform	0.130	U	0.0389	0.0464	30.1	35.8	1	10.0-146		17.6	36	
Bromomethane	0.130	U	0.0630	0.0983	48.6	75.8	1	10.0-149		43.7	38	
n-Butylbenzene	0.130	U	0.100	0.127	77.5	97.8	1	10.0-160		23.2	40	
sec-Butylbenzene	0.130	U	0.105	0.128	81.2	99.0	1	10.0-159		19.8	39	
tert-Butylbenzene	0.130	U	0.105	0.127	81.3	98.4	1	10.0-156		19.0	39	

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Volatile Organic Compounds (GC/MS) by Method 8260B

QUALITY CONTROL SUMMARY

L1289379-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

ONE LAB. NATIONWIDE.

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 QC

7 Gl

8 Al

9 Sc

(OS) L1289379-07 12/01/20 23:05 • (MS) R3599308-3 12/01/20 23:24 • (MSD) R3599308-4 12/01/20 23:43

Analyte	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	Dilution	Rec. Limits	MSD Qualifier	RPD	RPD Limits	
Carbon tetrachloride	0.130	U	0.0588	0.0844	45.4	65.1	1	10-145	35.8	37	
Chlorobenzene	0.130	U	0.111	0.129	85.4	99.6	1	10-152	15.4	39	
Chlorodibromomethane	0.130	U	0.0447	0.0527	34.5	40.7	1	10-146	16.3	37	
Chloroethane	0.130	U	0.102	0.186	79.0	143	1	10-146	57.7	40	
Chloroform	0.130	U	0.0902	0.120	69.6	92.9	1	10-146	28.6	37	
Chloromethane	0.130	U	0.124	0.143	96.0	110	1	10-159	14.0	37	
2-Chlorotoluene	0.130	U	0.107	0.129	82.7	99.9	1	10-159	18.8	38	
4-Chlorotoluene	0.130	U	0.107	0.126	82.6	96.9	1	10-155	15.9	39	
1,2-Dibromo-3-Chloropropane	0.130	U	0.0385	0.0436	29.7	33.7	1	10-151	12.4	39	
1,2-Dibromoethane	0.130	U	0.0814	0.0977	62.8	75.4	1	10-148	18.2	34	
Dibromomethane	0.130	U	0.0892	0.114	68.9	87.7	1	10-147	24.0	35	
1,2-Dichlorobenzene	0.130	U	0.111	0.127	85.6	98.4	1	10-155	13.9	37	
1,3-Dichlorobenzene	0.130	U	0.109	0.128	84.5	98.6	1	10-153	15.4	38	
14-Dichlorobenzene	0.130	U	0.104	0.121	80.3	93.2	1	10-151	14.9	38	
Dichlorodifluoromethane	0.130	U	0.112	0.133	86.3	103	1	10-160	17.2	35	
1,1-Dichloroethane	0.130	U	0.0966	0.128	74.5	98.6	1	10-147	27.8	37	
1,2-Dichloroethane	0.130	U	0.105	0.127	80.7	97.8	1	10-148	19.2	35	
11-Dichloroethene	0.130	U	0.0769	0.132	59.3	102	1	10-155	52.9	37	
cis-1,2-Dichloroethene	0.130	U	0.0949	0.121	73.2	93.4	1	10-149	24.3	37	
trans-1,2-Dichloroethene	0.130	U	0.0827	0.120	63.8	92.3	1	10-150	36.5	37	
1,2-Dichloropropane	0.130	U	0.112	0.135	86.2	104	1	10-148	18.5	37	
1,1-Dichloropropene	0.130	U	0.103	0.135	79.5	104	1	10-153	27.1	35	
1,3-Dichloropropane	0.130	U	0.115	0.131	89.1	101	1	10-154	12.3	35	
cis-1,3-Dichloropropene	0.130	U	0.0589	0.0782	45.5	60.3	1	10-151	28.1	37	
trans-1,3-Dichloropropene	0.130	U	0.0595	0.0736	45.9	56.8	1	10-148	21.3	37	
2,2-Dichloropropane	0.130	U	0.0816	0.125	63.0	96.7	1	10-138	52.3	36	
Di-isopropyl ether	0.130	U	0.112	0.138	86.1	107	1	10-147	21.2	36	
Ethylbenzene	0.130	U	0.00607	0.120	0.139	87.7	102	1	10-160	14.8	38
Isopropylbenzene	0.130	U	0.113	0.140	87.5	108	1	10-155	21.1	38	
p-Isopropyltoluene	0.130	U	0.101	0.126	77.9	97.5	1	10-160	22.3	40	
2-Butanone (MEK)	0.649	U	0.675	0.797	104	123	1	10-160	16.5	40	
Methylene Chloride	0.130	U	0.0960	0.129	74.1	99.5	1	10-141	29.2	37	
4-Methyl-2-pentanone (MBK)	0.649	U	0.639	0.663	98.5	102	1	10-160	3.70	35	
Methyl tert-butyl ether	0.130	U	0.126	0.180	97.3	139	1	10-147	35.2	35	
Naphthalene	0.130	U	0.0166	0.115	0.126	76.2	84.8	1	10-160	9.26	36
n-Propylbenzene	0.130	U	0.00263	0.111	0.135	83.4	102	1	10-158	19.8	38
Styrene	0.130	U	0.111	0.133	85.9	103	1	10-160	17.7	40	
1,1,2-Tetrachloroethane	0.130	U	0.0564	0.0704	43.5	54.3	1	10-149	22.1	39	

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Volatile Organic Compounds (GC/MS) by Method 8260B

QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.

L1289379-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

L1289379-01,02,03,04,05,06,07

L1289379-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1289379-07 12/01/20 23:05 • (MS) R3599308-3 12/01/20 23:24 • (MSD) R3599308-4 12/01/20 23:43

Analyte	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	%	%	%	%
1,1,2,2-Tetrachloroethane	0.130	U	0.0790	0.0981	61.0	75.7	1	10-160		21.6	35	
Tetrachloroethene	0.130	U	0.119	0.152	92.0	117	1	10-156		23.8	39	
Toluene	0.130	U	0.114	0.137	87.8	106	1	10-156		18.9	38	
1,1,2-Trichlorotrifluoroethane	0.130	U	0.0942	0.156	72.7	120	1	10-160	<u>J3</u>	49.3	36	
1,2,2,3-Tetrachlorobenzene	0.130	U	0.0984	0.117	76.0	90.5	1	10-160		17.5	40	
1,2,4-Trichlorobenzene	0.130	U	0.0983	0.117	75.8	90.6	1	10-160		17.7	40	
1,1,1-Trichloroethane	0.130	U	0.0593	0.0976	45.8	75.3	1	10-144	<u>J3</u>	48.7	35	
1,1,2-Trichloroethane	0.130	U	0.112	0.130	86.8	100	1	10-160		14.3	35	
Trichloroethene	0.130	U	0.121	0.147	93.6	114	1	10-156		19.4	38	
Trichlorofluoromethane	0.130	U	0.0868	0.140	67.0	108	1	10-160	<u>J3</u>	47.2	40	
1,2,3-Trichloropropane	0.130	U	0.106	0.112	81.5	86.8	1	10-156		6.23	35	
1,2,3-Trimethylbenzene	0.130	0.00804	0.107	0.129	76.2	93.4	1	10-160		18.9	36	
1,2,4-Trimethylbenzene	0.130	U	0.101	0.118	78.0	91.3	1	10-160		15.6	36	
1,3,5-Trimethylbenzene	0.130	U	0.103	0.122	79.8	94.4	1	10-160		16.8	38	
Vinyl chloride	0.130	U	0.0514	0.0588	39.7	45.4	1	10-160		13.4	37	
Xylenes, Total	0.389	0.00214	0.358	0.432	91.5	110	1	10-160		18.6	38	
(S) Toluene-d8					105	103			<u>75.0-131</u>			
(S) 4-Bromofluorobenzene					105	105			<u>67.0-138</u>			
(S) 1,2-Dichloroethane-d4					99.5	104			<u>70.0-130</u>			

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ QC

⁷ Gl

⁸ Al

⁹ Sc

WG1585052

Semi-Volatile Organic Compounds (GC) by Method 8015

QUALITY CONTROL SUMMARY

L1289379-06.07

ONE LAB. NATIONWIDE.



Method Blank (MB)

(MB) R3599797-1 12/02/20 17:23	
Analyte	MB Result mg/kg
C12-C22 Hydrocarbons	U
C22-C32 Hydrocarbons	U
C32-C40 Hydrocarbons	U
(S)-o-Terphenyl	82.6

Laboratory Control Sample (LCS)

(LCS) R3599797-2 12/02/20 17:38	
Analyte	Spike Amount mg/kg
C22-C32 Hydrocarbons	25.0
C12-C22 Hydrocarbons	25.0
(S)-o-Terphenyl	69.7

L1289125-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)									
(OS) L1289125-04 12/02/20 17:52 • (MS) R3599797-3 12/02/20 18:07 • (MSD) R3599797-4 12/02/20 18:21		Spike Amount		Original Result		MS Result		MSD Rec.	
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	MS Rec.	MSD Rec.	Dilution	Rec. Limits
C22-C32 Hydrocarbons	24.4	U	19.7	19.0	80.7	77.6	1	50.0-150	%
C12-C22 Hydrocarbons	24.4	U	20.8	19.6	85.2	80.0	1	50.0-150	%
(S)-o-Terphenyl					70.8	69.6		18.0-148	

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ QC

⁷ Gl

⁸ Al

⁹ Sc

WG1583806

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

QUALITY CONTROL SUMMARY

L1289379-01,02,03,04,05,06,07

ONE LAB. NATIONWIDE.



Method Blank (MB)

(MB) R3599366-2 12/01/2018:52		MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/kg		mg/kg	mg/kg	mg/kg
Acenaphthene	U		0.00539	0.0333	
Acenaphthylene	U		0.00469	0.0333	
Anthracene	U		0.00593	0.0333	
Benzo(a)anthracene	U		0.00587	0.0333	
Benzol(b)fluoranthene	U		0.00621	0.0333	
Benzol(k)fluoranthene	U		0.00592	0.0333	
Benzol(g,h)perylene	U		0.00609	0.0333	
Benzol(a)pyrene	U		0.00659	0.0333	
Bis(2-chloroethoxy)methane	U		0.0100	0.333	
Bis(2-chloroethyl)ether	U		0.0110	0.333	
2,2-Oxybis(1-Chloropropane)	U		0.0144	0.333	
4-Bromophenyl-phenylether	U		0.0117	0.333	
2-Chloronaphthalene	U		0.00585	0.0333	
4-Chlorophenyl-phenylether	U		0.0116	0.333	
Chrysene	U		0.00662	0.0333	
Dibenz(a)anthracene	U		0.00923	0.0333	
3,3-Dichlorobenzidine	U		0.0123	0.333	
2,4-Dinitrotoluene	U		0.00955	0.333	
2,6-Dinitrotoluene	U		0.0109	0.333	
Fluoranthene	U		0.00601	0.0333	
Fluorene	U		0.00542	0.0333	
Hexachlorobenzene	U		0.0118	0.333	
Hexachloro-1,3-butadiene	U		0.0112	0.333	
Hexachlorocyclopentadiene	U		0.0175	0.333	
Hexachloroethane	U		0.0131	0.333	
Indenol(2,3-c)pyrene	U		0.00941	0.0333	
Isophorone	U		0.0102	0.333	
Naphthalene	U		0.00836	0.0333	
Nitrobenzene	U		0.0116	0.333	
n-Nitrosodimethylamine	U		0.0494	0.333	
n-Nitrosodiphenylamine	U		0.0252	0.333	
n-Nitrosod-n-propylamine	U		0.0111	0.333	
Phenanthrene	U		0.00661	0.0333	
Benzylbutyl phthalate	U		0.0104	0.333	
Bis(2-ethylhexyl)phthalate	U		0.0422	0.333	
Di-n-butyl phthalate	U		0.0114	0.333	
Diethyl phthalate	U		0.0110	0.333	
Dimethyl phthalate	U		0.0106	0.333	
Di-n-octyl phthalate	U		0.0225	0.333	
Pyrene	U		0.00648	0.0333	

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WG1583806

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

QUALITY CONTROL SUMMARY

L1289379-01,02,03,04,05,06,07

ONE LAB. NATIONWIDE.



Method Blank (MB)

Analyst	MB Result	MB Qualifier	MB MDL	MB RDL
	mg/kg		mg/kg	mg/kg
Pyridine	U		0.0220	0.333
1,2,4-Trichlorobenzene	U		0.0104	0.333
4-Chloro-3-methylphenol	U		0.0108	0.333
2-Chlorophenol	U		0.0110	0.333
2-Methylphenol	U		0.0100	0.333
3&4-Methyl Phenol	U		0.0104	0.333
2,4-Dichlorophenol	U		0.00970	0.333
2,4-Dimethylphenol	U		0.00870	0.333
4,6-Dinitro-2-methylphenol	U		0.0755	0.333
2,4-Dinitrophenol	U		0.0779	0.333
2-Nitrophenol	U		0.0119	0.333
4-Nitrophenol	U		0.0104	0.333
Pentachlorophenol	U		0.00896	0.333
Phenol	U		0.0134	0.333
2,4,5-Trichlorophenol	U		0.0113	0.333
2,4,6-Trichlorophenol	U		0.0107	0.333
(S) Nitrobenzene-d5	61.0		10.0-122	
(S) 2-Fluorobiphenyl	77.8		15.0-120	
(S) <i>p</i> -Terphenyl-d4	81.1		10.0-120	
(S) Phenol-d5	78.7		10.0-120	
(S) 2-Fluorophenol	83.8		12.0-120	
(S) 2,4,6-Tribromophenol	91.6		10.0-127	

Laboratory Control Sample (LCS)

Analyst	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	mg/kg	mg/kg	%	%	
Acenaphthene	0.666	0.499	74.9	38.0-120	
Acenaphthylene	0.666	0.522	78.4	40.0-120	
Anthracene	0.666	0.592	88.9	42.0-120	
Benz[a]anthracene	0.666	0.573	86.0	44.0-120	
Benz[b]fluoranthene	0.666	0.605	90.8	43.0-120	
Benz[k]fluoranthene	0.666	0.599	89.9	44.0-120	
Benz[g,h]perylene	0.666	0.518	77.8	43.0-120	
Benz[a]pyrene	0.666	0.639	95.9	45.0-120	
Bis[2-chlorothoxy]methane	0.666	0.353	53.0	20.0-120	
Bis[2-chloroethyl]ether	0.666	0.544	81.7	16.0-120	
2,2-Oxybis(1-Chloropropane)	0.666	0.508	76.3	23.0-120	

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Semi Volatile Organic Compounds (GC/MS) by Method 8270C

QUALITY CONTROL SUMMARYL1289379-01,02,03,04,05,06,07**Laboratory Control Sample (LCS)**

(LCS) R359366-1 12/01/20 18:32

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
4-Bromophenyl-phenylether	0.666	0.611	91.7	40.0-120	
2-Chloronaphthalene	0.666	0.495	74.3	35.0-120	
4-Chlorophenyl-phenylether	0.666	0.540	81.1	40.0-120	
Chrysene	0.666	0.537	80.6	43.0-120	
Dibenz(a,h)anthracene	0.666	0.511	76.7	44.0-120	
3,3-Dichlorobenzidine	1.33	0.878	66.0	28.0-120	
2,4-Dinitrotoluene	0.666	0.604	90.7	45.0-120	
2,6-Dinitrotoluene	0.666	0.561	84.2	42.0-120	
Fluoranthene	0.666	0.628	94.3	44.0-120	
Fluorene	0.666	0.533	80.0	41.0-120	
Hexachlorobenzene	0.666	0.600	90.1	39.0-120	
Hexachloro-1,3-butadiene	0.666	0.388	58.3	15.0-120	
Hexachlorocyclopentadiene	0.666	0.415	62.3	15.0-120	
Hexachloroethane	0.666	0.486	73.0	17.0-120	
Indeno[1,2,3-cd]pyrene	0.666	0.545	81.8	45.0-120	
Isophorone	0.666	0.347	52.1	23.0-120	
Naphthalene	0.666	0.394	59.2	18.0-120	
Nitrobenzene	0.666	0.351	52.7	17.0-120	
n-Nitrosodimethylamine	0.666	0.394	59.2	10.0-125	
n-Nitrosodiphenylamine	0.666	0.581	87.2	40.0-120	
n-Nitrosodi-n-propylamine	0.666	0.457	68.6	26.0-120	
Phenanthrene	0.666	0.587	88.1	42.0-120	
Benzylbutyl phthalate	0.666	0.577	86.6	40.0-120	
Bis[2-ethylhexyl]phthalate	0.666	0.566	85.0	41.0-120	
Di-n-butyl phthalate	0.666	0.606	91.0	43.0-120	
Diethyl phthalate	0.666	0.551	82.7	43.0-120	
Dimethyl phthalate	0.666	0.573	86.0	43.0-120	
Di- <i>n</i> -octyl phthalate	0.666	0.591	88.7	40.0-120	
Pyrene	0.666	0.537	80.6	41.0-120	
Pyridine	0.666	0.266	39.9	10.0-120	
12,4-Trichlorobenzene	0.666	0.376	56.5	17.0-120	
4-Chloro-3-methylphenol	0.666	0.438	65.8	28.0-120	
2-Chlorophenol	0.666	0.526	79.0	28.0-120	
2-Methylphenol	0.666	0.538	80.8	35.0-120	
3&4-Methyl Phenol	0.666	0.637	95.6	42.0-120	
2,4-Dichlorophenol	0.666	0.416	62.5	25.0-120	
2,4-Dimethylphenol	0.666	0.416	62.5	15.0-120	
4,6-Dinitro-2-methylphenol	0.666	0.617	92.6	16.0-120	
2,4-Dinitrophenol	0.666	0.359	53.9	10.0-120	
2-Nitrophenol	0.666	0.453	68.0	20.0-120	

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ONE LAB. NATIONWIDE.

1 Cp**2 Tc****3 Ss****4 Cn****5 Sr****6 QC****7 Gl****8 Al****9 Sc**

WG1583806

Semi Volatile Organic Compounds (GC/MS) by Method 8270C

QUALITY CONTROL SUMMARY

L1289379-01,02,03,04,05,06,07

ONE LAB. NATIONWIDE.



Laboratory Control Sample (LCS)

(LCS) R359366-1 12/01/20 18:32

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
4-Nitrophenol	0.666	0.531	79.7	27.0-120	
Peritachlorophenol	0.666	0.530	79.6	29.0-120	
Phenol	0.666	0.475	71.3	28.0-120	
2,4,5-Trichlorophenol	0.666	0.492	73.9	38.0-120	
2,4,6-Trichlorophenol	0.666	0.504	75.7	37.0-120	
(S) Nitrobenzene-d5		46.2	10.0-122		
(S) 2-Fluorobiphenyl		73.6	15.0-120		
(S) p-Terphenyl-d14		75.7	10.0-120		
(S) Phenol-d5		77.2	10.0-120		
(S) 2-Fluorophenol		83.2	12.0-120		
(S) 2,4,6-Tribromophenol		97.0	10.0-127		

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 QC

7 Gl

8 Al

9 Sc

L1288390-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1288390-01 12/01/20 21:12 • (MS) R3599366-3 12/01/20 21:32 • (MSD) R3599366-4 12/01/20 21:52

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD	RPD Limits
Acenaphthene	0.842	U	0.562	0.537	66.7	63.6	1	18.0-120			4.47	32	
Acenaphthylene	0.842	U	0.582	0.549	69.2	65.0	1	25.0-120			5.94	32	
Anthracene	0.842	U	0.686	0.669	81.4	79.2	1	22.0-120			2.48	29	
Benzol(α)anthracene	0.842	U	0.683	0.682	81.1	80.7	1	25.0-120			0.189	29	
Benzol(b)fluoranthene	0.842	U	0.693	0.690	82.4	81.7	1	19.0-122			0.560	31	
Benzol(k)fluoranthene	0.842	U	0.695	0.692	82.5	82.0	1	23.0-120			0.372	30	
Benzol(g,h)perylene	0.842	U	0.585	0.594	69.5	70.3	1	10.0-120			1.53	33	
Benzol(α)pyrene	0.842	U	0.730	0.741	86.7	87.8	1	24.0-120			1.58	30	
Bis[2-chloroethoxy]methane	0.842	U	0.381	0.350	45.2	41.4	1	10.0-120			8.48	34	
Bis[2-chloroethyl]ether	0.842	U	0.536	0.369	63.7	43.7	1	10.0-120			36.8	40	
2,2-Oxybis(1-Chloropropane)	0.842	U	0.504	0.431	59.8	51.1	1	10.0-120			15.5	40	
4-Bromophenyl-phenylether	0.842	U	0.681	0.682	80.8	80.7	1	27.0-120			0.190	30	
2-Chloronaphthalene	0.842	U	0.545	0.495	64.7	58.6	1	20.0-120			9.69	32	
4-Chlorophenyl-phenylether	0.842	U	0.607	0.603	72.1	71.4	1	24.0-120			0.640	29	
Chrysene	0.842	U	0.630	0.643	74.8	76.1	1	21.0-120			2.03	29	
Dibenz(ah)anthracene	0.842	U	0.590	0.599	70.1	70.9	1	10.0-120			1.52	32	
3,3-Dichlorobenzidine	168	U	0.860	0.874	51.2	51.7	1	10.0-120			1.64	34	
2,4-Dinitrotoluene	0.842	U	0.699	0.701	83.0	83.0	1	30.0-120			0.369	31	
2,6-Dinitrotoluene	0.842	U	0.655	0.652	77.8	77.2	1	25.0-120			0.395	31	
Fluoranthene	0.842	0.0136	0.752	0.758	87.7	88.1	1	18.0-126			0.855	32	
Fluorene	0.842	U	0.606	0.593	71.9	70.2	1	25.0-120			2.16	30	
Hexachlorobenzene	0.842	U	0.686	0.681	81.4	80.6	1	27.0-120			0.756	28	

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Semi Volatile Organic Compounds (GC/MS) by Method 8270C

QUALITY CONTROL SUMMARYL1288390-01**L1288390-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)**

(OS) L1288390-01 12/01/20 21:12 • (MS) R3599366-3 12/01/20 21:32 • (MSD) R3599366-4 12/01/20 21:52

Analyte	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	Dilution	Rec. Limits	MSD Qualifier	RPD	RPD Limits
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	%	%
(S)-2,4,6-Tribromophenol				91.6	93.4		10.0-127			

ONE LAB. NATIONWIDE.

**1 Cp****2 Tc****3 Ss****4 Cn****5 Sr****6 QC****7 Gl****8 Al****9 Sc**



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
MDL	Method Detection Limit.
MDL (dry)	Method Detection Limit.
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.
V	The sample concentration is too high to evaluate accurate spike recoveries.

- 1 Cp
- 2 Tc
- 3 Ss
- 4 Cn
- 5 Sr
- 6 Qc
- 7 Gl
- 8 Al
- 9 Sc



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

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Arizona	AZ0612
Arkansas	88-0469
California	2932
Colorado	TN00003
Connecticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia ¹	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
Iowa	364
Kansas	E-10277
Kentucky ^{1,6}	90010
Kentucky ²	16
Louisiana	AI30792
Louisiana ¹	LA180010
Maine	TN0002
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086

Nebraska	NE-05-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey—NELAP	TN002
New Mexico ¹	n/a
New York	11742
North Carolina	Env375
North Carolina ¹	DW21704
North Carolina ³	41
North Dakota	R-140
Ohio—VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	LA000356
South Carolina	84004
South Dakota	n/a
Tennessee ^{1,4}	2006
Texas	T104704245-18-15
Texas ⁵	LAB0152
Utah	TN00003
Vermont	VT2006
Virginia	460132
Washington	C847
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

Third Party Federal Accreditations

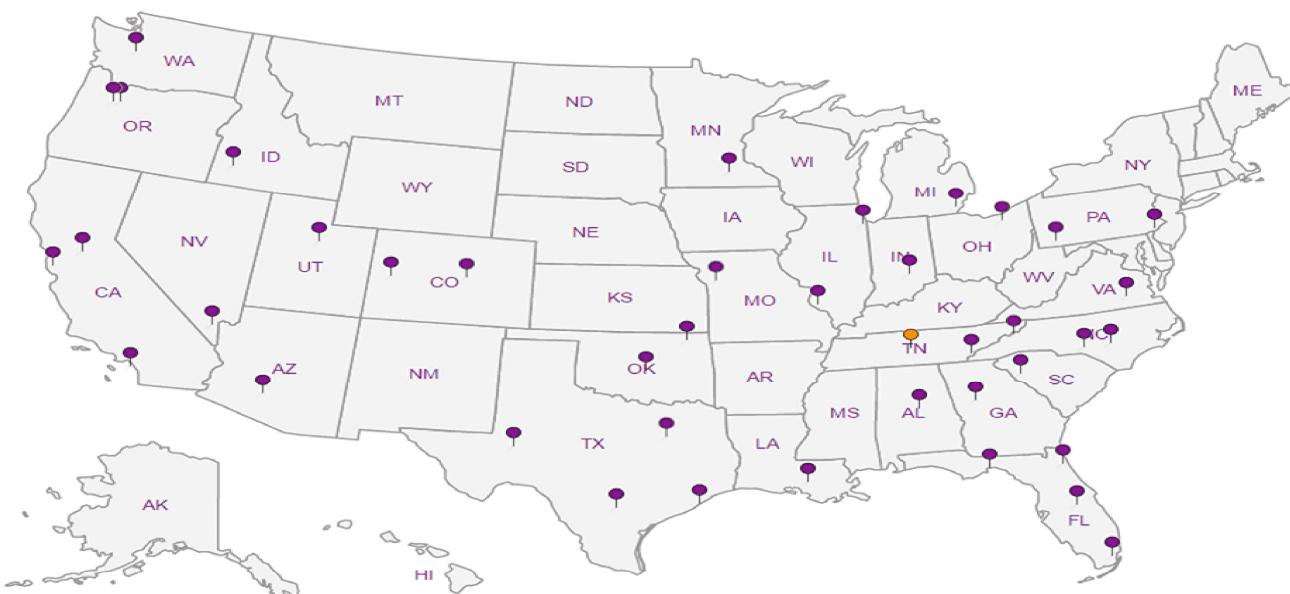
A2LA – ISO 17025	1461.01
A2LA – ISO 17025 ⁵	1461.02
Canada	1461.01
EPA-Crypto	TN00003

AIHA-LAP,LLC EMLAP	100789
DOD	1461.01
USDA	P330-15-00234

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Project Information		Analysis / Collection / Preparation		Results																																																																																	
AEI Consultants - CA 2500 Camino Diablo Walnut Creek, CA 94597		Accounts Payable: Jeremy Smith Pres. On		Date of Collection: _____ Page: _____																																																																																	
Report to: Natasha Budimirovic Phone: 925-746-6000	Project Description: ED-2017-0015 Project	Client Project #: 480044	On-Site Collected: Daily C. 8/14	Prepared On-Site: P1 HAT CT E1	Prepared by: AEICONWCCA																																																																																
Collected by (print): <i>N. BUDIMIROVIC</i>	Sample ID: Y	Specimen ID:	Lab Project #: AEICONWCCA-BUDIMIROVIC	P.O. #: 24/511	Instrument #: 1177601																																																																																
Collection Frequency: <i>1/2</i>	Sample ID:	Batch #: Batch 1	Batch? (With MUST Be Checked): <input checked="" type="checkbox"/> Five Day <input type="checkbox"/> Next Day <input type="checkbox"/> Two Day <input type="checkbox"/> Three Day	Quartet #: 1	Phone: P809224 Fax: 1104 Brian Ford E-mail: Brian.Ford@AEICONWCCA.com																																																																																
Immediately Preceded on Site: N	Sample ID:	Conc/Kinds:	Depth:	Date:	Time:																																																																																
<table border="1"> <thead> <tr> <th>SD-1-2.5</th> <th>SD-1.5.5</th> <th>SD-2-2.5</th> <th>SD-2-5.5</th> <th>SD-3-2.5</th> <th>SD-3-5.5</th> <th>SD-4-2.5</th> <th>SD-4-6.5</th> <th>SD-5-2.5</th> <th>SD-5-5.5</th> </tr> </thead> <tbody> <tr> <td>55</td> </tr> <tr> <td>11-19-20</td> <td>91/3</td> <td>11-28</td> <td>11-20</td> <td>93/6</td> <td>93/0</td> <td>94/6</td> <td>94/3</td> <td>10/3</td> <td>10/4</td> </tr> <tr> <td>924</td> <td>9</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> </tr> <tr> <td></td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td></td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td></td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> </tr> <tr> <td></td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> </tr> </tbody> </table>						SD-1-2.5	SD-1.5.5	SD-2-2.5	SD-2-5.5	SD-3-2.5	SD-3-5.5	SD-4-2.5	SD-4-6.5	SD-5-2.5	SD-5-5.5	55	55	55	55	55	55	55	55	55	55	11-19-20	91/3	11-28	11-20	93/6	93/0	94/6	94/3	10/3	10/4	924	9	3	3	3	3	3	3	3	3		X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X
SD-1-2.5	SD-1.5.5	SD-2-2.5	SD-2-5.5	SD-3-2.5	SD-3-5.5	SD-4-2.5	SD-4-6.5	SD-5-2.5	SD-5-5.5																																																																												
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Sampled by (Signature): <i>John Q. Public</i>	Date: 11-19-20	Time: 1255	Received by: Signature 11-19-2018	2018	11-170																																																																																
Prepared by: Signature	Date:	Time:	10/21/2018	10/21/2018	10/21/2018																																																																																

AEI Consultants - CA		Analysis / Contaminants / Fractions		Chair of Committee	
2500 Camino Diablo Walnut Creek, CA 94597		File #		Page — of —	
Report to: Natasha Budimirovic	Phone: 925-746-6000	Email To: natasha.budimirovic@aeiconwccainc.com		Page 1 of 1	
Project Description: <i>Element Avenue</i>	City/State/Collected: Daly City, CA	Please Circle: PT MR CT ET		12065 Lebanon Rd Nashville, TN 37212 Phone: 615-274-4334 Fax: 800-367-3253 Ext: 615-274-5435	
Site/Facility ID #: N202141801C		Lab Project #: AEICONWCCA-BUDIRES		Job # L1289379	
Sample ID: <i>Element Avenue</i>		Site/Facility ID #: 4200044		Lab Project #: 241571	
Collected by (Initials): <i>LB</i>		Rush? (Lab MUST Be Notified) Same Day <input checked="" type="checkbox"/> <input type="checkbox"/> Next Day <input type="checkbox"/> Next Day <input checked="" type="checkbox"/> <input type="checkbox"/> 10 Day (if and Only) <input type="checkbox"/> Two Day <input type="checkbox"/> Three Day		Quote #:	
Collected by (Signature): <i>LB</i>		Sample ID: Element Avenue		Date Results Needed No. of Days	
Immediately Packed on Ice N <input checked="" type="checkbox"/>		Comm/Grab		Matrix #	
Remarks: <i>Element Avenue</i>		Depth		Date	
Matrix: SS - Soil GW - Groundwater WW - Wastewater DW - Drinking Water OT - Other		Time		Time	
Sample received via: Urgent <input type="checkbox"/> Filter <input type="checkbox"/> Other		Urgent <input type="checkbox"/> Filter <input type="checkbox"/> Other		Urgent <input type="checkbox"/> Filter <input type="checkbox"/> Other	
Received by: (Signature): <i>LB</i>		Received by: (Signature): <i>LB</i>		Received by: (Signature): <i>LB</i>	
Requisitioned by: (Signature): <i>LB</i>		Date: 11-19-20 Time: 12:55		Date: 12-1-21 Time: 4:30	
Requisitioned by: (Signature): <i>LB</i>		Date: 11-19-20 Time: 12:55		Date: 12-1-21 Time: 4:30	

R3/R4/RX/EX

AEICONWCCA log off hold

log off hold using the attached revised COC. hold # 11-170. EX 12/01.

Time estimate: oh

Time spent: oh

Members

Brian Ford

ANALYTICAL REPORT

December 18, 2020

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ GI

⁸ AI

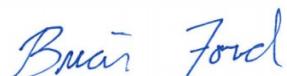
⁹ SC

AEI Consultants - CA

Sample Delivery Group: L1294446
Samples Received: 12/09/2020
Project Number: 430044
Description: Eastmoor Avenue

Report To: Natasha Budimirovic
2500 Camino Diablo
Walnut Creek, CA 94597

Entire Report Reviewed By:



Brian Ford
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



SV-1 L1294446-01 Air

Collected by
NB
Collected date/time
12/08/20 12:04
Received date/time
12/09/20 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1590900	1	12/12/20 10:30	12/12/20 10:30	CEP	Mt. Juliet, TN
Organic Compounds (GC) by Method ASTM 1946	WG1589561	1	12/10/20 10:58	12/10/20 10:58	DAH	Mt. Juliet, TN
Organic Compounds (GC) by Method D1946	WG1589564	1	12/10/20 13:17	12/10/20 13:17	DAH	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

SV-2 L1294446-02 Air

Collected by
NB
Collected date/time
12/08/20 15:37
Received date/time
12/09/20 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1590878	1	12/12/20 15:30	12/12/20 15:30	MBF	Mt. Juliet, TN
Organic Compounds (GC) by Method ASTM 1946	WG1589561	1	12/10/20 11:01	12/10/20 11:01	DAH	Mt. Juliet, TN
Organic Compounds (GC) by Method D1946	WG1589564	1	12/10/20 13:26	12/10/20 13:26	DAH	Mt. Juliet, TN

SV-3 L1294446-03 Air

Collected by
NB
Collected date/time
12/08/20 12:38
Received date/time
12/09/20 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1590878	1	12/12/20 16:07	12/12/20 16:07	MBF	Mt. Juliet, TN
Organic Compounds (GC) by Method ASTM 1946	WG1589561	1	12/10/20 11:04	12/10/20 11:04	DAH	Mt. Juliet, TN
Organic Compounds (GC) by Method D1946	WG1589564	1	12/10/20 13:32	12/10/20 13:32	DAH	Mt. Juliet, TN

SV-4 L1294446-04 Air

Collected by
NB
Collected date/time
12/08/20 13:09
Received date/time
12/09/20 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1590878	1	12/12/20 16:46	12/12/20 16:46	MBF	Mt. Juliet, TN
Organic Compounds (GC) by Method ASTM 1946	WG1589561	1	12/10/20 11:07	12/10/20 11:07	DAH	Mt. Juliet, TN
Organic Compounds (GC) by Method D1946	WG1589564	1	12/10/20 13:40	12/10/20 13:40	DAH	Mt. Juliet, TN

SV-5 L1294446-05 Air

Collected by
NB
Collected date/time
12/08/20 13:44
Received date/time
12/09/20 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1590878	1	12/12/20 17:24	12/12/20 17:24	MBF	Mt. Juliet, TN
Organic Compounds (GC) by Method ASTM 1946	WG1589561	1	12/10/20 11:11	12/10/20 11:11	DAH	Mt. Juliet, TN
Organic Compounds (GC) by Method D1946	WG1589564	1	12/10/20 13:46	12/10/20 13:46	DAH	Mt. Juliet, TN

SV-6 L1294446-06 Air

Collected by
NB
Collected date/time
12/08/20 14:54
Received date/time
12/09/20 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method TO-15	WG1590878	1	12/12/20 18:04	12/12/20 18:04	MBF	Mt. Juliet, TN
Organic Compounds (GC) by Method ASTM 1946	WG1589561	1	12/10/20 11:21	12/10/20 11:21	DAH	Mt. Juliet, TN
Organic Compounds (GC) by Method D1946	WG1589564	1	12/10/20 13:57	12/10/20 13:57	DAH	Mt. Juliet, TN

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



SV-7 L1294446-07 Air

Method	Batch	Dilution	Collected by	Collected date/time	Received date/time
			NB	12/08/20 14:20	12/09/20 10:00
Volatile Organic Compounds (MS) by Method TO-15	WG1590878	1	12/12/20 18:42	12/12/20 18:42	MBF Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method TO-15	WG1592182	100	12/15/20 19:19	12/15/20 19:19	CAW Mt. Juliet, TN
Organic Compounds (GC) by Method ASTM 1946	WG1589561	1	12/10/20 11:24	12/10/20 11:24	DAH Mt. Juliet, TN
Organic Compounds (GC) by Method D1946	WG1589564	1	12/10/20 14:10	12/10/20 14:10	DAH Mt. Juliet, TN
Organic Compounds (GC) by Method D1946	WG1590026	5	12/10/20 14:59	12/10/20 14:59	DAH Mt. Juliet, TN

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Brian Ford
Project Manager

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	1.59	3.78		1	WG1590900
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1590900
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG1590900
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1590900
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1590900
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1590900
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1590900
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1590900
Carbon disulfide	75-15-0	76.10	0.200	0.622	0.916	2.85		1	WG1590900
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1590900
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1590900
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1590900
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1590900
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG1590900
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1590900
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG1590900
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1590900
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1590900
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1590900
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1590900
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1590900
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1590900
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1590900
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1590900
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1590900
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1590900
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1590900
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1590900
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1590900
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1590900
Ethanol	64-17-5	46.10	0.630	1.19	12.2	23.0		1	WG1590900
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	WG1590900
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG1590900
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.388	2.18		1	WG1590900
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	ND	ND		1	WG1590900
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1590900
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1590900
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG1590900
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1590900
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND		1	WG1590900
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1590900
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1590900
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1590900
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG1590900
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1590900
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1590900
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1590900
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1590900
2-Propanol	67-63-0	60.10	1.25	3.07	2.53	6.22		1	WG1590900
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1590900
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1590900
1,1,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1590900
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1590900
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1590900
Toluene	108-88-3	92.10	0.500	1.88	ND	ND		1	WG1590900
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1590900

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

8 AI

9 Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	<u>Qualifier</u>	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1590900
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1590900
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1590900
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	WG1590900
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG1590900
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG1590900
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1590900
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1590900
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1590900
m&p-Xylene	1330-20-7	106	0.400	1.73	ND	ND		1	WG1590900
o-Xylene	95-47-6	106	0.200	0.867	ND	ND		1	WG1590900
1,1-Difluoroethane	75-37-6	66.05	1.00	2.70	ND	ND		1	WG1590900
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		99.2				WG1590900

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ AI⁹ Sc

Organic Compounds (GC) by Method ASTM 1946

Analyte	CAS #	Mol. Wt.	RDL	Result	<u>Qualifier</u>	Dilution	Batch
Helium	7440-59-7		0.100	ND		1	WG1589561

Organic Compounds (GC) by Method D1946

Analyte	CAS #	Mol. Wt.	RDL	Result	<u>Qualifier</u>	Dilution	Batch
Oxygen	7782-44-7	32	5.00	20.9		1	WG1589564
Carbon Dioxide	124-38-9	44.01	0.500	ND		1	WG1589564



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	44.5	106		1	WG1590878
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1590878
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG1590878
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1590878
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1590878
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1590878
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1590878
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1590878
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1590878
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1590878
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1590878
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1590878
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1590878
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG1590878
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1590878
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG1590878
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1590878
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1590878
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1590878
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1590878
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1590878
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1590878
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1590878
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1590878
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1590878
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1590878
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1590878
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1590878
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1590878
1,4-Dioxane	123-91-1	88.10	0.200	0.721	0.257	0.926		1	WG1590878
Ethanol	64-17-5	46.10	0.630	1.19	319	601	E	1	WG1590878
Ethylbenzene	100-41-4	106	0.200	0.867	0.271	1.17		1	WG1590878
4-Ethyltoluene	622-96-8	120	0.200	0.982	0.370	1.82		1	WG1590878
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.242	1.36		1	WG1590878
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.551	2.73		1	WG1590878
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1590878
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1590878
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG1590878
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1590878
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND		1	WG1590878
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1590878
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.227	0.788		1	WG1590878
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1590878
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	9.00	26.5		1	WG1590878
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1590878
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1590878
MTBE	1634-04-4	88.10	0.200	0.721	0.214	0.771		1	WG1590878
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1590878
2-Propanol	67-63-0	60.10	1.25	3.07	29.9	73.5		1	WG1590878
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1590878
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1590878
1,1,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1590878
Tetrachloroethylene	127-18-4	166	0.200	1.36	0.920	6.25		1	WG1590878
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	0.845	2.49		1	WG1590878
Toluene	108-88-3	92.10	0.500	1.88	1.67	6.29		1	WG1590878
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1590878

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

8 AI

9 Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	<u>Qualifier</u>	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1590878
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1590878
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1590878
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.725	3.56		1	WG1590878
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.301	1.48		1	WG1590878
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	0.421	1.97		1	WG1590878
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1590878
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1590878
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1590878
m&p-Xylene	1330-20-7	106	0.400	1.73	1.45	6.29		1	WG1590878
o-Xylene	95-47-6	106	0.200	0.867	0.633	2.74		1	WG1590878
1,1-Difluoroethane	75-37-6	66.05	1.00	2.70	1.72	4.65		1	WG1590878
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		103				WG1590878

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ AI⁹ Sc

Organic Compounds (GC) by Method ASTM 1946

Analyte	CAS #	Mol. Wt.	RDL	Result	<u>Qualifier</u>	Dilution	Batch
Helium	7440-59-7		0.100	ND		1	WG1589561

Organic Compounds (GC) by Method D1946

Analyte	CAS #	Mol. Wt.	RDL	Result	<u>Qualifier</u>	Dilution	Batch
Oxygen	7782-44-7	32	5.00	21.9		1	WG1589564
Carbon Dioxide	124-38-9	44.01	0.500	ND		1	WG1589564



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	5.99	14.2		1	WG1590878
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1590878
Benzene	71-43-2	78.10	0.200	0.639	0.234	0.747		1	WG1590878
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1590878
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1590878
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1590878
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1590878
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1590878
Carbon disulfide	75-15-0	76.10	0.200	0.622	1.84	5.73		1	WG1590878
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1590878
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1590878
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1590878
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1590878
Chloromethane	74-87-3	50.50	0.200	0.413	0.332	0.686		1	WG1590878
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1590878
Cyclohexane	110-82-7	84.20	0.200	0.689	0.267	0.919		1	WG1590878
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1590878
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1590878
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1590878
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1590878
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1590878
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1590878
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1590878
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1590878
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1590878
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1590878
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1590878
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1590878
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1590878
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1590878
Ethanol	64-17-5	46.10	0.630	1.19	53.1	100		1	WG1590878
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	WG1590878
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG1590878
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.245	1.38		1	WG1590878
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.554	2.74		1	WG1590878
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1590878
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1590878
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG1590878
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1590878
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND		1	WG1590878
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1590878
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.799	2.77		1	WG1590878
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1590878
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG1590878
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1590878
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1590878
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1590878
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1590878
2-Propanol	67-63-0	60.10	1.25	3.07	3.27	8.04		1	WG1590878
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1590878
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1590878
1,1,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1590878
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1590878
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	0.360	1.06		1	WG1590878
Toluene	108-88-3	92.10	0.500	1.88	0.744	2.80		1	WG1590878
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1590878

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

8 AI

9 Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	<u>Qualifier</u>	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1590878
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1590878
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1590878
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	WG1590878
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG1590878
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG1590878
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1590878
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1590878
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1590878
m&p-Xylene	1330-20-7	106	0.400	1.73	ND	ND		1	WG1590878
o-Xylene	95-47-6	106	0.200	0.867	ND	ND		1	WG1590878
1,1-Difluoroethane	75-37-6	66.05	1.00	2.70	15.7	42.4		1	WG1590878
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		101				WG1590878

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ AI⁹ Sc

Organic Compounds (GC) by Method ASTM 1946

Analyte	CAS #	Mol. Wt.	RDL	Result	<u>Qualifier</u>	Dilution	Batch
Helium	7440-59-7		0.100	ND		1	WG1589561

Organic Compounds (GC) by Method D1946

Analyte	CAS #	Mol. Wt.	RDL	Result	<u>Qualifier</u>	Dilution	Batch
Oxygen	7782-44-7	32	5.00	19.7		1	WG1589564
Carbon Dioxide	124-38-9	44.01	0.500	1.26		1	WG1589564



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	4.20	9.98		1	WG1590878
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1590878
Benzene	71-43-2	78.10	0.200	0.639	0.517	1.65		1	WG1590878
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1590878
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1590878
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1590878
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1590878
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1590878
Carbon disulfide	75-15-0	76.10	0.200	0.622	3.00	9.34		1	WG1590878
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1590878
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1590878
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1590878
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1590878
Chloromethane	74-87-3	50.50	0.200	0.413	0.522	1.08		1	WG1590878
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1590878
Cyclohexane	110-82-7	84.20	0.200	0.689	0.768	2.64		1	WG1590878
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1590878
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1590878
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1590878
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1590878
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1590878
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1590878
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1590878
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1590878
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1590878
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1590878
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1590878
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1590878
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1590878
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1590878
Ethanol	64-17-5	46.10	0.630	1.19	12.1	22.8		1	WG1590878
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	WG1590878
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG1590878
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	ND	ND		1	WG1590878
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.486	2.40		1	WG1590878
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1590878
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1590878
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG1590878
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1590878
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND		1	WG1590878
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1590878
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1590878
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1590878
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG1590878
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1590878
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1590878
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1590878
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1590878
2-Propanol	67-63-0	60.10	1.25	3.07	2.58	6.34		1	WG1590878
Propene	115-07-1	42.10	0.400	0.689	2.29	3.94		1	WG1590878
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1590878
1,1,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1590878
Tetrachloroethylene	127-18-4	166	0.200	1.36	ND	ND		1	WG1590878
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1590878
Toluene	108-88-3	92.10	0.500	1.88	ND	ND		1	WG1590878
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1590878

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

8 AI

9 Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	<u>Qualifier</u>	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1590878
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1590878
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1590878
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	WG1590878
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG1590878
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG1590878
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1590878
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1590878
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1590878
m&p-Xylene	1330-20-7	106	0.400	1.73	ND	ND		1	WG1590878
o-Xylene	95-47-6	106	0.200	0.867	ND	ND		1	WG1590878
1,1-Difluoroethane	75-37-6	66.05	1.00	2.70	1.06	2.86	B	1	WG1590878
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		98.1				WG1590878

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ AI⁹ Sc

Organic Compounds (GC) by Method ASTM 1946

Analyte	CAS #	Mol. Wt.	RDL	Result	<u>Qualifier</u>	Dilution	Batch
Helium	7440-59-7		0.100	ND		1	WG1589561

Organic Compounds (GC) by Method D1946

Analyte	CAS #	Mol. Wt.	RDL	Result	<u>Qualifier</u>	Dilution	Batch
Oxygen	7782-44-7	32	5.00	21.2		1	WG1589564
Carbon Dioxide	124-38-9	44.01	0.500	0.718		1	WG1589564



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	7.47	17.8		1	WG1590878
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1590878
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG1590878
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1590878
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1590878
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1590878
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1590878
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1590878
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1590878
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1590878
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1590878
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1590878
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1590878
Chloromethane	74-87-3	50.50	0.200	0.413	3.49	7.21		1	WG1590878
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1590878
Cyclohexane	110-82-7	84.20	0.200	0.689	0.247	0.851		1	WG1590878
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1590878
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1590878
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1590878
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1590878
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1590878
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1590878
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1590878
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1590878
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	0.800	3.17		1	WG1590878
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1590878
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1590878
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1590878
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1590878
1,4-Dioxane	123-91-1	88.10	0.200	0.721	0.762	2.75		1	WG1590878
Ethanol	64-17-5	46.10	0.630	1.19	28.6	53.9		1	WG1590878
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	WG1590878
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG1590878
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	0.245	1.38		1	WG1590878
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.564	2.79		1	WG1590878
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1590878
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1590878
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG1590878
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1590878
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND		1	WG1590878
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1590878
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.396	1.38		1	WG1590878
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1590878
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG1590878
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1590878
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1590878
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1590878
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1590878
2-Propanol	67-63-0	60.10	1.25	3.07	3.50	8.60		1	WG1590878
Propene	115-07-1	42.10	0.400	0.689	0.639	1.10	B	1	WG1590878
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1590878
1,1,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1590878
Tetrachloroethylene	127-18-4	166	0.200	1.36	0.738	5.01		1	WG1590878
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	0.656	1.93		1	WG1590878
Toluene	108-88-3	92.10	0.500	1.88	ND	ND		1	WG1590878
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1590878

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

8 AI

9 Sc



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	<u>Qualifier</u>	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	0.242	1.32		1	WG1590878
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1590878
Trichloroethylene	79-01-6	131	0.200	1.07	12.1	64.8		1	WG1590878
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	WG1590878
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG1590878
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG1590878
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1590878
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1590878
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1590878
m&p-Xylene	1330-20-7	106	0.400	1.73	ND	ND		1	WG1590878
o-Xylene	95-47-6	106	0.200	0.867	ND	ND		1	WG1590878
1,1-Difluoroethane	75-37-6	66.05	1.00	2.70	5.26	14.2		1	WG1590878
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		99.4				WG1590878

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ AI⁹ Sc

Organic Compounds (GC) by Method ASTM 1946

Analyte	CAS #	Mol. Wt.	RDL	Result	<u>Qualifier</u>	Dilution	Batch
Helium	7440-59-7		0.100	ND		1	WG1589561

Organic Compounds (GC) by Method D1946

Analyte	CAS #	Mol. Wt.	RDL	Result	<u>Qualifier</u>	Dilution	Batch
Oxygen	7782-44-7	32	5.00	22.0		1	WG1589564
Carbon Dioxide	124-38-9	44.01	0.500	ND		1	WG1589564



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	5.50	13.1		1	WG1590878
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1590878
Benzene	71-43-2	78.10	0.200	0.639	ND	ND		1	WG1590878
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1590878
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1590878
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1590878
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1590878
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1590878
Carbon disulfide	75-15-0	76.10	0.200	0.622	0.222	0.691		1	WG1590878
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1590878
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1590878
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1590878
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1590878
Chloromethane	74-87-3	50.50	0.200	0.413	0.519	1.07		1	WG1590878
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1590878
Cyclohexane	110-82-7	84.20	0.200	0.689	ND	ND		1	WG1590878
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1590878
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1590878
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1590878
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1590878
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	ND	ND		1	WG1590878
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1590878
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1590878
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1590878
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1590878
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1590878
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1590878
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1590878
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1590878
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1590878
Ethanol	64-17-5	46.10	0.630	1.19	34.2	64.5		1	WG1590878
Ethylbenzene	100-41-4	106	0.200	0.867	ND	ND		1	WG1590878
4-Ethyltoluene	622-96-8	120	0.200	0.982	ND	ND		1	WG1590878
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	ND	ND		1	WG1590878
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.461	2.28		1	WG1590878
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1590878
1,2-Dichlorotetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1590878
Heptane	142-82-5	100	0.200	0.818	ND	ND		1	WG1590878
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1590878
n-Hexane	110-54-3	86.20	0.630	2.22	ND	ND		1	WG1590878
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1590878
Methylene Chloride	75-09-2	84.90	0.200	0.694	0.377	1.31		1	WG1590878
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1590878
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG1590878
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1590878
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1590878
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1590878
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1590878
2-Propanol	67-63-0	60.10	1.25	3.07	3.53	8.68		1	WG1590878
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1590878
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1590878
1,1,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1590878
Tetrachloroethylene	127-18-4	166	0.200	1.36	0.376	2.55		1	WG1590878
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1590878
Toluene	108-88-3	92.10	0.500	1.88	ND	ND		1	WG1590878
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1590878



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	<u>Qualifier</u>	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1590878
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1590878
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1590878
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	ND	ND		1	WG1590878
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	ND	ND		1	WG1590878
2,2,4-Trimethylpentane	540-84-1	114.22	0.200	0.934	ND	ND		1	WG1590878
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1590878
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1590878
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1590878
m&p-Xylene	1330-20-7	106	0.400	1.73	ND	ND		1	WG1590878
o-Xylene	95-47-6	106	0.200	0.867	ND	ND		1	WG1590878
1,1-Difluoroethane	75-37-6	66.05	1.00	2.70	3.34	9.02		1	WG1590878
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		100				WG1590878

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ AI⁹ Sc

Organic Compounds (GC) by Method ASTM 1946

Analyte	CAS #	Mol. Wt.	RDL	Result	<u>Qualifier</u>	Dilution	Batch
Helium	7440-59-7		0.100	ND		1	WG1589561

Organic Compounds (GC) by Method D1946

Analyte	CAS #	Mol. Wt.	RDL	Result	<u>Qualifier</u>	Dilution	Batch
Oxygen	7782-44-7	32	5.00	18.3		1	WG1589564
Carbon Dioxide	124-38-9	44.01	0.500	2.98		1	WG1589564



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	Qualifier	Dilution	Batch
Acetone	67-64-1	58.10	1.25	2.97	14.9	35.4		1	WG1590878
Allyl chloride	107-05-1	76.53	0.200	0.626	ND	ND		1	WG1590878
Benzene	71-43-2	78.10	20.0	63.9	196	626		100	WG1592182
Benzyl Chloride	100-44-7	127	0.200	1.04	ND	ND		1	WG1590878
Bromodichloromethane	75-27-4	164	0.200	1.34	ND	ND		1	WG1590878
Bromoform	75-25-2	253	0.600	6.21	ND	ND		1	WG1590878
Bromomethane	74-83-9	94.90	0.200	0.776	ND	ND		1	WG1590878
1,3-Butadiene	106-99-0	54.10	2.00	4.43	ND	ND		1	WG1590878
Carbon disulfide	75-15-0	76.10	0.200	0.622	ND	ND		1	WG1590878
Carbon tetrachloride	56-23-5	154	0.200	1.26	ND	ND		1	WG1590878
Chlorobenzene	108-90-7	113	0.200	0.924	ND	ND		1	WG1590878
Chloroethane	75-00-3	64.50	0.200	0.528	ND	ND		1	WG1590878
Chloroform	67-66-3	119	0.200	0.973	ND	ND		1	WG1590878
Chloromethane	74-87-3	50.50	0.200	0.413	ND	ND		1	WG1590878
2-Chlorotoluene	95-49-8	126	0.200	1.03	ND	ND		1	WG1590878
Cyclohexane	110-82-7	84.20	20.0	68.9	315	1080		100	WG1592182
Dibromochloromethane	124-48-1	208	0.200	1.70	ND	ND		1	WG1590878
1,2-Dibromoethane	106-93-4	188	0.200	1.54	ND	ND		1	WG1590878
1,2-Dichlorobenzene	95-50-1	147	0.200	1.20	ND	ND		1	WG1590878
1,3-Dichlorobenzene	541-73-1	147	0.200	1.20	ND	ND		1	WG1590878
1,4-Dichlorobenzene	106-46-7	147	0.200	1.20	0.805	4.84		1	WG1590878
1,2-Dichloroethane	107-06-2	99	0.200	0.810	ND	ND		1	WG1590878
1,1-Dichloroethane	75-34-3	98	0.200	0.802	ND	ND		1	WG1590878
1,1-Dichloroethene	75-35-4	96.90	0.200	0.793	ND	ND		1	WG1590878
cis-1,2-Dichloroethene	156-59-2	96.90	0.200	0.793	ND	ND		1	WG1590878
trans-1,2-Dichloroethene	156-60-5	96.90	0.200	0.793	ND	ND		1	WG1590878
1,2-Dichloropropane	78-87-5	113	0.200	0.924	ND	ND		1	WG1590878
cis-1,3-Dichloropropene	10061-01-5	111	0.200	0.908	ND	ND		1	WG1590878
trans-1,3-Dichloropropene	10061-02-6	111	0.200	0.908	ND	ND		1	WG1590878
1,4-Dioxane	123-91-1	88.10	0.200	0.721	ND	ND		1	WG1590878
Ethanol	64-17-5	46.10	0.630	1.19	43.2	81.5		1	WG1590878
Ethylbenzene	100-41-4	106	0.200	0.867	8.82	38.2		1	WG1590878
4-Ethyltoluene	622-96-8	120	0.200	0.982	1.23	6.04		1	WG1590878
Trichlorofluoromethane	75-69-4	137.40	0.200	1.12	ND	ND		1	WG1590878
Dichlorodifluoromethane	75-71-8	120.92	0.200	0.989	0.203	1.00		1	WG1590878
1,1,2-Trichlorotrifluoroethane	76-13-1	187.40	0.200	1.53	ND	ND		1	WG1590878
1,2-Dichlortetrafluoroethane	76-14-2	171	0.200	1.40	ND	ND		1	WG1590878
Heptane	142-82-5	100	0.200	0.818	82.3	337		1	WG1590878
Hexachloro-1,3-butadiene	87-68-3	261	0.630	6.73	ND	ND		1	WG1590878
n-Hexane	110-54-3	86.20	63.0	222	293	1030		100	WG1592182
Isopropylbenzene	98-82-8	120.20	0.200	0.983	ND	ND		1	WG1590878
Methylene Chloride	75-09-2	84.90	0.200	0.694	ND	ND		1	WG1590878
Methyl Butyl Ketone	591-78-6	100	1.25	5.11	ND	ND		1	WG1590878
2-Butanone (MEK)	78-93-3	72.10	1.25	3.69	ND	ND		1	WG1590878
4-Methyl-2-pentanone (MIBK)	108-10-1	100.10	1.25	5.12	ND	ND		1	WG1590878
Methyl methacrylate	80-62-6	100.12	0.200	0.819	ND	ND		1	WG1590878
MTBE	1634-04-4	88.10	0.200	0.721	ND	ND		1	WG1590878
Naphthalene	91-20-3	128	0.630	3.30	ND	ND		1	WG1590878
2-Propanol	67-63-0	60.10	1.25	3.07	1.66	4.08		1	WG1590878
Propene	115-07-1	42.10	0.400	0.689	ND	ND		1	WG1590878
Styrene	100-42-5	104	0.200	0.851	ND	ND		1	WG1590878
1,1,2-Tetrachloroethane	79-34-5	168	0.200	1.37	ND	ND		1	WG1590878
Tetrachloroethylene	127-18-4	166	0.200	1.36	0.285	1.93		1	WG1590878
Tetrahydrofuran	109-99-9	72.10	0.200	0.590	ND	ND		1	WG1590878
Toluene	108-88-3	92.10	0.500	1.88	7.18	27.0		1	WG1590878
1,2,4-Trichlorobenzene	120-82-1	181	0.630	4.66	ND	ND		1	WG1590878



Volatile Organic Compounds (MS) by Method TO-15

Analyte	CAS #	Mol. Wt.	RDL1	RDL2	Result	Result	<u>Qualifier</u>	Dilution	Batch
1,1,1-Trichloroethane	71-55-6	133	0.200	1.09	ND	ND		1	WG1590878
1,1,2-Trichloroethane	79-00-5	133	0.200	1.09	ND	ND		1	WG1590878
Trichloroethylene	79-01-6	131	0.200	1.07	ND	ND		1	WG1590878
1,2,4-Trimethylbenzene	95-63-6	120	0.200	0.982	0.840	4.12		1	WG1590878
1,3,5-Trimethylbenzene	108-67-8	120	0.200	0.982	0.674	3.31		1	WG1590878
2,2,4-Trimethylpentane	540-84-1	114.22	20.0	93.4	1190	5560		100	WG1592182
Vinyl chloride	75-01-4	62.50	0.200	0.511	ND	ND		1	WG1590878
Vinyl Bromide	593-60-2	106.95	0.200	0.875	ND	ND		1	WG1590878
Vinyl acetate	108-05-4	86.10	0.200	0.704	ND	ND		1	WG1590878
m&p-Xylene	1330-20-7	106	0.400	1.73	32.6	141		1	WG1590878
o-Xylene	95-47-6	106	0.200	0.867	13.5	58.5		1	WG1590878
1,1-Difluoroethane	75-37-6	66.05	1.00	2.70	7.08	19.1		1	WG1590878
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		109				WG1590878
(S) 1,4-Bromofluorobenzene	460-00-4	175	60.0-140		94.0				WG1592182

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ GI⁸ AI⁹ Sc

Organic Compounds (GC) by Method ASTM 1946

Analyte	CAS #	Mol. Wt.	RDL	Result	<u>Qualifier</u>	Dilution	Batch
Helium	7440-59-7		0.100	ND		1	WG1589561

Organic Compounds (GC) by Method D1946

Analyte	CAS #	Mol. Wt.	RDL	Result	<u>Qualifier</u>	Dilution	Batch
Oxygen	7782-44-7	32	5.00	12.3		1	WG1589564
Carbon Dioxide	124-38-9	44.01	2.50	7.98		5	WG1590026

WG1590878

Volatile Organic Compounds (MS) by Method TO-15

QUALITY CONTROL SUMMARY

Method Blank (MB)

(MB) R3602826-3 12/12/2010:59

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Acetone	U		0.584	1.25
Allyl Chloride	U		0.114	0.200
Benzene	U		0.0715	0.200
Benzyl Chloride	0.0913	J	0.0598	0.200
Bromodichloromethane	U		0.0702	0.200
Bromoform	U		0.0732	0.600
Bromomethane	U		0.0982	0.200
1,3-Butadiene	U		0.104	2.00
Carbon disulfide	U		0.102	0.200
Carbon tetrachloride	U		0.0732	0.200
Chlorobenzene	U		0.0832	0.200
Chloroethane	U		0.0996	0.200
Chloroform	U		0.0717	0.200
Chloromethane	U		0.103	0.200
2-Chlorotoluene	U		0.0828	0.200
Cyclohexane	U		0.0753	0.200
Dibromochloromethane	U		0.0727	0.200
1,2-Dibromoethane	U		0.0721	0.200
1,2-Dichlorobenzene	U		0.128	0.200
1,3-Dichlorobenzene	U		0.182	0.200
1,4-Dichlorobenzene	0.0559	J	0.0557	0.200
1,2-Dichloroethane	U		0.0700	0.200
1,1-Dichloroethane	U		0.0723	0.200
1,1-Dichloroethene	U		0.0762	0.200
cis-1,2-Dichloroethene	U		0.0784	0.200
trans-1,2-Dichloroethene	U		0.0673	0.200
1,2-Dichloropropane	U		0.0760	0.200
cis-1,3-Dichloropropene	U		0.0689	0.200
trans-1,3-Dichloropropene	U		0.0728	0.200
1,4-Dioxane	U		0.0833	0.200
Ethylbenzene	U		0.0835	0.200
4-Ethyltoluene	U		0.0783	0.200
Trichlorofluoromethane	U		0.0819	0.200
Dichlorofluoromethane	U		0.137	0.200
11,12-Trichlorofluoroethane	U		0.0793	0.200
1,2-Dichlorotetrafluoroethane	U		0.0890	0.200
Heptane	U		0.104	0.200
Hexachloro-1,3-butadiene	U		0.105	0.630
n-Hexane	U		0.206	0.630
Isopropylbenzene	U		0.0777	0.200

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ QC

⁷ Gl

⁸ Al

⁹ Sc

WG1590878

Volatile Organic Compounds (MS) by Method TO-15

QUALITY CONTROL SUMMARY

Method Blank (MB)

(MB) R3602826-3 12/12/2010:59

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Methylene Chloride	U		0.0979	0.200
Methyl Butyl Ketone	U		0.133	1.25
2-Butanone (MEK)	U		0.0814	1.25
4-Methyl-2-pentanone (MBK)	U		0.0765	1.25
Methyl Methacrylate	U		0.0876	0.200
MTBE	U		0.0647	0.200
Naphthalene	U		0.350	0.630
2-Propanol	U		0.264	1.25
Propene	0.132	↓	0.0932	0.400
Styrene	U		0.0788	0.200
1,1,2,2-Tetrachloroethane	U		0.0743	0.200
Tetrachloroethylene	U		0.0814	0.200
Tetrahydrofuran	U		0.0734	0.200
Toluene	U		0.0870	0.500
1,2,4-Trichlorobenzene	0.161	↓	0.148	0.630
11,11-Trichloroethane	U		0.0736	0.200
11,2-Trichloroethane	U		0.0775	0.200
Trichloroethylene	U		0.0680	0.200
1,2,4-Trimethylbenzene	U		0.0764	0.200
1,3,5-Trimethylbenzene	U		0.0779	0.200
2,2,4-Trimethylpentane	U		0.133	0.200
Vinyl chloride	U		0.0949	0.200
Vinyl Bromide	U		0.0852	0.200
Vinyl acetate	U		0.116	0.200
m&p-Xylene	U		0.135	0.400
o-Xylene	U		0.0828	0.200
Ethanol	0.299	↓	0.265	0.630
1,1-Difluoroethane	0.131	↓	0.129	1.00
(S)-1,4-Bromofluorobenzene	96.3		60.0-140	

QUALITY CONTROL SUMMARY

L1294446-02,03,04,05,06,07

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 QC

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3602826-1 12/12/2009:37 • (LCSD) R3602826-2 12/12/2010:15						
Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCSD Qualifier
ppbv	ppbv	ppbv	%	%	%	%
Ethanol	3.75	3.68	3.43	98.1	91.5	55.0-148
Propene	3.75	4.07	3.95	109	105	64.0-144
Dichlorodifluoromethane	3.75	4.40	4.32	117	115	64.0-139
1,2-Dichlorotetrafluoroethane	3.75	4.32	4.35	115	116	70.0-130

ACCOUNT:
AEI Consultants - CA

PROJECT:
4300444

SDG:
L1294446



WG1590878

Volatile Organic Compounds (MS) by Method TO-15

QUALITY CONTROL SUMMARY

L1294446-02, 03, 04, 05, 06, 07

ONE LAB. NATIONWIDE.



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3602826-1 12/12/20 09:37 • (LCSD) R3602826-2 12/12/20 10:15

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ QC

⁷ Gl

⁸ Al

⁹ Sc

Analyst	Spike Amount	LCS Result	LCS Rec.	LCS Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
	ppbv	ppbv	%	%	%				
Chloromethane	3.75	4.47	4.26	119	114	70.0-130		4.81	25
Vinyl chloride	3.75	3.88	3.74	103	99.7	70.0-130		3.67	25
1,3-Butadiene	3.75	3.91	3.92	104	105	70.0-130		0.255	25
Bromomethane	3.75	4.16	4.02	111	107	70.0-130		3.42	25
Chloroethane	3.75	4.51	4.16	120	111	70.0-130		8.07	25
Trichlorofluoromethane	3.75	4.10	4.08	109	109	70.0-130		0.489	25
1,1,2-Trichlorofluoroethane	3.75	3.55	3.82	94.7	102	70.0-130		7.33	25
1,1-Dichloroethene	3.75	3.67	4.16	97.9	111	70.0-130		12.5	25
1,1-Dichloroethane	3.75	4.12	4.13	110	110	70.0-130		0.242	25
Acetone	3.75	3.90	3.76	104	100	70.0-130		3.66	25
2-Propanol	3.75	3.94	3.89	105	104	70.0-139		1.28	25
Carbon disulfide	3.75	4.18	4.16	111	111	70.0-130		0.480	25
Methylene Chloride	3.75	3.96	3.96	106	106	70.0-130		0.000	25
MTBE	3.75	4.05	3.94	108	105	70.0-130		2.75	25
trans-1,2-Dichloroethene	3.75	4.25	4.16	113	111	70.0-130		2.14	25
n-Hexane	3.75	4.26	4.19	114	112	70.0-130		1.66	25
Vinyl acetate	3.75	4.05	4.04	108	108	70.0-130		0.247	25
Methyl Ethyl Ketone	3.75	3.89	3.98	104	106	70.0-130		2.29	25
cis-1,2-Dichloroethene	3.75	3.80	3.77	101	101	70.0-130		0.793	25
Chloroform	3.75	4.06	4.10	108	109	70.0-130		0.980	25
Cyclohexane	3.75	4.31	4.22	115	113	70.0-130		2.11	25
1,1,1-Trichloroethane	3.75	4.14	4.07	110	109	70.0-130		1.71	25
Carbon tetrachloride	3.75	4.26	4.15	114	111	70.0-130		2.62	25
Benzene	3.75	4.17	4.10	111	109	70.0-130		1.69	25
1,2-Dichloroethane	3.75	4.05	4.10	108	109	70.0-130		1.23	25
Heptane	3.75	4.23	4.25	113	113	70.0-130		0.472	25
Trichloroethylene	3.75	4.07	4.14	109	110	70.0-130		1.71	25
1,2-Dichloropropane	3.75	4.22	4.18	113	111	70.0-130		0.952	25
1,4-Dioxane	3.75	3.93	3.83	105	102	70.0-140		2.58	25
Bromodichloromethane	3.75	4.14	4.10	110	109	70.0-130		0.971	25
cis-1,3-Dichloropropene	3.75	4.14	4.10	110	109	70.0-130		0.971	25
11,12-Trichloroethane	3.75	4.18	3.99	111	106	70.0-130		4.65	25
Tetrachloroethylene	3.75	4.13	4.17	110	111	70.0-130		0.964	25
Methyl Butyl Ketone	3.75	4.50	4.30	120	115	70.0-149		4.55	25
Dibromochloromethane	3.75	4.05	4.08	108	109	70.0-130		0.738	25
1,2-Dibromoethane	3.75	4.07	4.04	109	108	70.0-130		0.740	25
Chlorobenzene	3.75	4.21	4.18	112	111	70.0-130		0.715	25

ACCOUNT: AEI Consultants - CA
PROJECT: 4300444

SDG: L1294446-02, 03, 04, 05, 06, 07

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DATE/TIME: 12/18/20 13:46

WG1590878

Volatile Organic Compounds (MS) by Method TO-15

QUALITY CONTROL SUMMARYL1294446-02, 03, 04, 05, 06, 07**Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)**

(LCS) R3602826-1 12/12/20 09:37 • (LCSD) R3602826-2 12/12/20 10:15

Analyst	Spike Amount	LCS Result	LCS Result	LCS Rec.	LCS Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
	ppbv	ppbv	ppbv	%	%	%			%	%
Ethylbenzene	3.75	4.21	4.21	112	112	70.0-130		0.000	25	
m&p-Xylene	7.50	8.47	8.43	113	112	70.0-130		0.473	25	
o-Xylene	3.75	4.18	4.12	111	110	70.0-130		1.45	25	
Styrene	3.75	4.18	4.18	111	111	70.0-130		0.000	25	
Bromoform	3.75	4.07	4.08	109	109	70.0-130		0.245	25	
1,1,2,2-Tetrachloroethane	3.75	4.05	4.11	108	110	70.0-130		1.47	25	
4-Ethyltoluene	3.75	4.16	4.12	111	110	70.0-130		0.966	25	
1,3,5-Trimethylbenzene	3.75	4.17	4.19	111	112	70.0-130		0.478	25	
1,2,4-Trimethylbenzene	3.75	4.15	4.12	111	110	70.0-130		0.726	25	
1,3-Dichlorobenzene	3.75	4.19	4.16	112	111	70.0-130		0.719	25	
1,4-Dichlorobenzene	3.75	4.18	4.03	111	107	70.0-130		3.65	25	
Benzyl Chloride	3.75	3.92	3.88	105	103	70.0-152		1.03	25	
1,2-Dichlorobenzene	3.75	4.18	4.15	111	111	70.0-130		0.720	25	
1,2,4-Trichlorobenzene	3.75	3.97	3.87	106	103	70.0-160		2.55	25	
Hexachloro-1,3-butadiene	3.75	4.29	4.20	114	112	70.0-151		2.12	25	
Naphthalene	3.75	3.99	4.02	106	107	70.0-159		0.749	25	
Allyl Chloride	3.75	4.10	4.19	109	112	70.0-130		2.17	25	
2-Chlorotoluene	3.75	4.19	4.20	112	112	70.0-130		0.238	25	
Methyl Methacrylate	3.75	4.05	3.94	108	105	70.0-130		2.75	25	
Tetrahydrofuran	3.75	4.12	3.97	110	106	70.0-137		3.71	25	
2,2,4-Trimethylpentane	3.75	4.39	4.26	117	114	70.0-130		3.01	25	
Vinyl Bromide	3.75	4.20	4.21	112	112	70.0-130		0.238	25	
Isopropylbenzene	3.75	4.13	4.18	110	111	70.0-130		1.20	25	
1,1-Difluoroethane	3.75	4.17	4.27	111	114	70.0-130		2.37	25	
(S) 1,4-Bromofluorobenzene				98.6	99.6	60.0-140				

1 Cp**2 TC****3 SS****4 Cn****5 Sr****6 QC****7 Gl****8 Al****9 Sc**

ONE LAB. NATIONWIDE.

Method Blank (MB)

(MB) R3602824-3 12/12/20 07:59

L1294446-01

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Acetone	U		0.584	1.25
Allyl Chloride	U		0.114	0.200
Benzene	U		0.0715	0.200
Benzyl Chloride	U		0.0598	0.200
Bromodichloromethane	U		0.0702	0.200
Bromoform	U		0.0732	0.600
Bromomethane	U		0.0982	0.200
1,3-Butadiene	U		0.104	2.00
Carbon disulfide	U		0.102	0.200
Carbon tetrachloride	U		0.0732	0.200
Chlorobenzene	U		0.0832	0.200
Chloroethane	U		0.0996	0.200
Chloroform	U		0.0717	0.200
Chloromethane	U		0.103	0.200
2-Chlorotoluene	U		0.0828	0.200
Cyclohexane	U		0.0753	0.200
Dibromochloromethane	U		0.0727	0.200
1,2-Dibromoethane	U		0.0721	0.200
1,2-Dichlorobenzene	U		0.128	0.200
1,3-Dichlorobenzene	U		0.182	0.200
1,4-Dichlorobenzene	U		0.0557	0.200
1,2-Dichloroethane	U		0.0700	0.200
1,1-Dichloroethane	U		0.0723	0.200
1,1-Dichloroethene	U		0.0762	0.200
cis-1,2-Dichloroethene	U		0.0784	0.200
trans-1,2-Dichloroethene	U		0.0673	0.200
1,2-Dichloropropane	U		0.0760	0.200
cis-1,3-Dichloropropene	U		0.0689	0.200
trans-1,3-Dichloropropene	U		0.0728	0.200
1,4-Dioxane	U		0.0833	0.200
Ethylbenzene	U		0.0835	0.200
4-Ethyltoluene	U		0.0783	0.200
Trichlorofluoromethane	U		0.0819	0.200
Dichlorofluoromethane	U		0.137	0.200
11,12-Trichlorofluoroethane	U		0.0793	0.200
1,2-Dichlorotetrafluoroethane	U		0.0890	0.200
Heptane	U		0.104	0.200
Hexachloro-1,3-butadiene	U		0.105	0.630
n-Hexane	U		0.206	0.630
Isopropylbenzene	U		0.0777	0.200

ACCOUNT:
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Volatile Organic Compounds (MS) by Method TO-15

QUALITY CONTROL SUMMARY

Method Blank (MB)

(MB) R3602824-3	12/12/20 07:59	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte		ppbv	ppbv	ppbv	ppbv
Methylene Chloride	U	0.0979	0.200		
Methyl Butyl Ketone	U	0.133	1.25		
2-Butanone (MEK)	U	0.0814	1.25		
4-Methyl-2-pentanone (MBK)	U	0.0765	1.25		
Methyl Methacrylate	U	0.0876	0.200		
MTBE	U	0.0647	0.200		
Naphthalene	U	0.350	0.630		
2-Propanol	U	0.264	1.25		
Propene	U	0.0932	0.400		
Styrene	U	0.0788	0.200		
1,1,2,2-Tetrachloroethane	U	0.0743	0.200		
Tetrachloroethylene	U	0.0814	0.200		
Tetrahydrofuran	U	0.0734	0.200		
Toluene	U	0.0870	0.500		
1,2,4-Trichlorobenzene	U	0.148	0.630		
11,11-Trichloroethane	U	0.0736	0.200		
11,2-Trichloroethane	U	0.0775	0.200		
Trichloroethylene	U	0.0680	0.200		
1,2,4-Trimethylbenzene	U	0.0764	0.200		
1,3,5-Trimethylbenzene	U	0.0779	0.200		
2,2,4-Trimethylpentane	U	0.133	0.200		
Vinyl chloride	U	0.0949	0.200		
Vinyl Bromide	U	0.0852	0.200		
Vinyl acetate	U	0.116	0.200		
m&p-Xylene	U	0.135	0.400		
o-Xylene	U	0.0828	0.200		
Ethanol	U	0.265	0.630		
1,1-Difluoroethane	U	0.129	1.00		
(S)-1,4-Bromofluorobenzene	99.7	60.0-140			

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3602824-1	12/12/20 06:37	(LCS) R3602824-2	12/12/20 07:19	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte				ppbv	ppbv	%	%			%	%
Ethanol	3.75	3.09	3.18	82.4	84.8	55.0-148				2.87	25
Propene	3.75	4.00	4.30	107	115	64.0-144				7.23	25
Dichlorodifluoromethane	3.75	4.21	4.14	112	110	64.0-139				1.68	25
1,2-Dichlorotetrafluoroethane	3.75	4.24	4.01	113	107	70.0-130				5.58	25

ACCOUNT:
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1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 QC

7 Gl

8 Al

9 Sc





Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3602824-1 12/12/20 06:37 • (LCSD) R3602824-2 12/12/20 07:19

Analyte	Spike Amount ppbv	LCS Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %					
						1 Cp	2 Tc	3 Ss	4 Cn	5 Sr	6 Qc	7 Gl	8 Al	9 Sc
Chloromethane	3.75	3.78	4.15	101	111	70.0-130		9.33	25					
Vinyl chloride	3.75	3.95	4.09	105	109	70.0-130		3.48	25					
1,3-Butadiene	3.75	3.87	3.90	103	104	70.0-130		0.772	25					
Bromomethane	3.75	3.90	4.00	104	107	70.0-130		2.53	25					
Chloroethane	3.75	3.80	3.80	101	101	70.0-130		0.000	25					
Trichlorofluoromethane	3.75	4.13	4.09	110	109	70.0-130		0.973	25					
1,1,2-Trichlorofluoroethane	3.75	4.06	4.06	108	108	70.0-130		0.000	25					
1,1-Dichloroethene	3.75	4.14	4.16	110	111	70.0-130		0.482	25					
1,1-Dichloroethane	3.75	4.05	4.01	108	107	70.0-130		0.993	25					
Acetone	3.75	3.42	3.58	91.2	95.5	70.0-130		4.57	25					
2-Propanol	3.75	3.56	3.79	94.9	101	70.0-139		6.26	25					
Carbon disulfide	3.75	3.99	3.97	106	106	70.0-130		0.503	25					
Methylene Chloride	3.75	3.97	3.92	106	105	70.0-130		1.27	25					
MTBE	3.75	4.17	4.23	111	113	70.0-130		1.43	25					
trans-1,2-Dichloroethene	3.75	4.27	4.15	114	111	70.0-130		2.85	25					
n-Hexane	3.75	4.29	4.23	114	113	70.0-130		1.41	25					
Vinyl acetate	3.75	3.45	3.50	92.0	93.3	70.0-130		1.44	25					
Methyl Ethyl Ketone	3.75	4.01	3.90	107	104	70.0-130		2.78	25					
cis-1,2-Dichloroethene	3.75	4.08	4.15	109	111	70.0-130		1.70	25					
Chloroform	3.75	4.10	3.97	109	106	70.0-130		3.22	25					
Cyclohexane	3.75	4.36	4.31	116	115	70.0-130		1.15	25					
1,1,1-Trichloroethane	3.75	4.01	4.04	107	108	70.0-130		0.745	25					
Carbon tetrachloride	3.75	4.02	4.02	107	107	70.0-130		0.000	25					
Benzene	3.75	3.97	4.07	106	109	70.0-130		2.49	25					
1,2-Dichloroethane	3.75	3.86	3.93	103	105	70.0-130		1.80	25					
Heptane	3.75	4.34	4.32	116	115	70.0-130		0.462	25					
Trichloroethylene	3.75	4.07	4.14	109	110	70.0-130		1.71	25					
1,2-Dichloropropane	3.75	4.13	4.01	110	107	70.0-130		2.95	25					
1,4-Dioxane	3.75	3.41	3.61	90.9	96.3	70.0-140		5.70	25					
Bromodichloromethane	3.75	3.99	3.97	106	106	70.0-130		0.503	25					
cis-1,3-Dichloropropene	3.75	3.97	4.00	106	107	70.0-130		0.753	25					
11,12-Trichloroethane	3.75	3.78	4.00	101	107	70.0-130		5.66	25					
Tetrachloroethylene	3.75	4.13	4.18	110	111	70.0-130		1.20	25					
Methyl Butyl Ketone	3.75	4.06	3.92	108	105	70.0-149		3.51	25					
Dibromochloromethane	3.75	3.99	3.95	106	105	70.0-130		1.01	25					
1,2-Dibromoethane	3.75	4.03	4.10	107	109	70.0-130		1.72	25					
Chlorobenzene	3.75	3.96	3.99	106	106	70.0-130		0.755	25					

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PROJECT: L1294446-01

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WG1590900

Volatile Organic Compounds (MS) by Method TO-15

QUALITY CONTROL SUMMARY

L1294446-01

ONE LAB. NATIONWIDE.



Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3602824-1 12/12/20 06:37 • (LCSD) R3602824-2 12/12/20 07:19

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
							<u>LCS</u>	<u>LCSD</u>		
Ethylbenzene	3.75	4.02	3.96	107	106	70.0-130			1.50	25
m&p-Xylene	7.50	8.43	8.31	112	111	70.0-130			1.43	25
o-Xylene	3.75	4.31	4.33	115	115	70.0-130			0.463	25
Styrene	3.75	4.23	4.12	113	110	70.0-130			2.63	25
Bromoform	3.75	3.95	3.92	105	105	70.0-130			0.762	25
1,1,2,2-Tetrachloroethane	3.75	3.93	3.78	105	101	70.0-130			3.89	25
4-Ethyltoluene	3.75	4.22	4.20	113	112	70.0-130			0.475	25
1,3,5-Trimethylbenzene	3.75	4.25	4.18	113	111	70.0-130			1.66	25
1,2,4-Trimethylbenzene	3.75	4.30	4.37	115	117	70.0-130			1.61	25
1,3-Dichlorobenzene	3.75	3.98	3.95	106	105	70.0-130			0.757	25
1,4-Dichlorobenzene	3.75	4.11	4.06	110	108	70.0-130			1.22	25
Benzyl Chloride	3.75	3.17	3.29	84.5	87.7	70.0-152			3.72	25
1,2-Dichlorobenzene	3.75	3.98	4.02	106	107	70.0-130			1.00	25
1,2,4-Trichlorobenzene	3.75	3.88	4.22	103	113	70.0-160			8.40	25
Hexachloro-1,3-butadiene	3.75	4.05	3.99	108	106	70.0-151			1.49	25
Naphthalene	3.75	4.18	4.22	111	113	70.0-159			0.952	25
Allyl Chloride	3.75	4.39	4.33	117	115	70.0-130			1.38	25
2-Chlorotoluene	3.75	4.19	4.14	112	110	70.0-130			1.20	25
Methyl Methacrylate	3.75	4.19	4.03	112	107	70.0-130			3.89	25
Tetrahydrofuran	3.75	3.89	3.82	104	102	70.0-137			1.82	25
2,2,4-Trimethylpentane	3.75	4.34	4.32	116	115	70.0-130			0.462	25
Vinyl Bromide	3.75	3.94	4.06	105	108	70.0-130			3.00	25
Isopropylbenzene	3.75	4.31	4.31	115	115	70.0-130			0.000	25
1,1-Difluoroethane	3.75	3.98	3.75	106	100	70.0-130			5.95	25
(S) 1,4-Bromofluorobenzene			102	99.7	102	60.0-140				

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ QC

⁷ Gl

⁸ Al

⁹ Sc

WG1592182

Volatile Organic Compounds (MS) by Method TO-15

QUALITY CONTROL SUMMARY

L1294446-07

ONE LAB. NATIONWIDE.

Method Blank (MB)

MB	R3603767-3	12/15/20	12:53	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte		ppbv		ppbv	ppbv	ppbv	ppbv
Benzene	U			0.0715	0.200		
Cyclohexane	U			0.0753	0.200		
n-Hexane	U			0.206	0.630		
2,2,4-Trimethylpentane	U			0.133	0.200		
(S)-1,4-Bromofluorobenzene	95.5					60.0-140	

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

LCS	R3603767-1	12/15/20	11:33	• (LCS)	R3603767-2	12/15/20	12:14	LCS Amount	LCS Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte		ppbv		ppbv	ppbv	%	%	%	%	%	%	%	%	%	%	%
n-Hexane	3.75	4.16	4.07	111	109	70.0-130						2.19		25		
Cyclohexane	3.75	4.14	4.08	110	109	70.0-130						1.46		25		
Benzene	3.75	4.30	4.09	115	109	70.0-130						5.01		25		
2,2,4-Trimethylpentane	3.75	4.33	4.22	115	113	70.0-130						2.57		25		
(S)-1,4-Bromofluorobenzene				98.1	97.9	60.0-140										

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

WG1589561

Organic Compounds (GC) by Method ASTM 1946

QUALITY CONTROL SUMMARYL1294446-01,02,03,04,05,06,07**Method Blank (MB)**

(MB)	R3602115-3	12/10/20 09:17	
Analyte		MB Result	<u>MB Qualifier</u>
Helium	U	0.0259	%

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3602115-1 12/10/20 08:55 • (LCSD) R3602115-2 12/10/20 09:12

Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD	RPD Limits
	%	%	%	%	%	%			%	%	%
Helium	2.50	2.41	2.40	96.4	96.0	70.0-130			0.416	25	



ONE LAB. NATIONWIDE.

1 Cp**2 Tc****3 Ss****4 Cn****5 Sr****6 Qc****7 Gl****8 Al****9 Sc**

WG1589564

Organic Compounds (GC) by Method D1946

QUALITY CONTROL SUMMARYL1294446-01,02,03,04,05,06,07

ONE LAB. NATIONWIDE.

ACCOUNT:
AEI Consultants - CAPROJECT:
430044SDG:
L1294446**Method Blank (MB)**

(MB) R3602254-3	12/10/20 11:57	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
Analyte	%		%	%	%
Oxygen	0.917		0.225	5.00	
Carbon Dioxide	U		0.121	0.500	

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3602254-1	12/10/20 11:44	• (LCSD) R3602254-2	12/10/20 11:51	LCS Amount	LCS Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	RPD	RPD Limits
Analyte	%	%	%	%	%	%	%	%	%	%	%	%
Oxygen	20.0	20.6	20.3	103	102	102	102	70.0-130		1.47	20	
Carbon Dioxide	2.50	2.48	2.44	99.2	97.6	97.6	97.6	70.0-130		1.63	20	

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

WG1590026

Organic Compounds (GC) by Method D1946

QUALITY CONTROL SUMMARY**Method Blank (MB)**

(MB)	R3602259-3	12/10/20 11:57	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
Analyte		%		%	%	%
Carbon Dioxide	U		0.121		0.500	

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS)	R3602259-1	12/10/20 11:44	• (LCSD)	R3602259-2	12/10/20 11:51	
Analyte	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits
Carbon Dioxide	2.50	2.48	2.44	99.2	97.6	70.0-130



ONE LAB. NATIONWIDE.

L129446-07



Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.	¹ Cp
ND	Not detected at the Reporting Limit (or MDL where applicable).	² Tc
RDL	Reported Detection Limit.	³ Ss
Rec.	Recovery.	⁴ Cn
RPD	Relative Percent Difference.	⁵ Sr
SDG	Sample Delivery Group.	⁶ Qc
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.	⁷ GI
U	Not detected at the Reporting Limit (or MDL where applicable).	⁸ AI
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.	⁹ Sc
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.	
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.	
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.	
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.	
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.	
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.	
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.	
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.	
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.	
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.	

Qualifier Description

B	The same analyte is found in the associated blank.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.



Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660
Alaska	17-026
Arizona	AZ0612
Arkansas	88-0469
California	2932
Colorado	TN00003
Connecticut	PH-0197
Florida	E87487
Georgia	NELAP
Georgia ¹	923
Idaho	TN00003
Illinois	200008
Indiana	C-TN-01
Iowa	364
Kansas	E-10277
Kentucky ¹⁶	KY90010
Kentucky ²	16
Louisiana	AI30792
Louisiana ¹	LA180010
Maine	TN00003
Maryland	324
Massachusetts	M-TN003
Michigan	9958
Minnesota	047-999-395
Mississippi	TN00003
Missouri	340
Montana	CERT0086

Nebraska	NE-05-15-05
Nevada	TN000032021-1
New Hampshire	2975
New Jersey—NELAP	TN002
New Mexico ¹	TN00003
New York	11742
North Carolina	Env375
North Carolina ¹	DW21704
North Carolina ³	41
North Dakota	R-140
Ohio—VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	LA000356
South Carolina	84004
South Dakota	n/a
Tennessee ¹⁴	2006
Texas	T104704245-20-18
Texas ⁵	LAB0152
Utah	TN00003
Vermont	VT2006
Virginia	460132
Washington	C847
West Virginia	233
Wisconsin	998093910
Wyoming	A2LA

Third Party Federal Accreditations

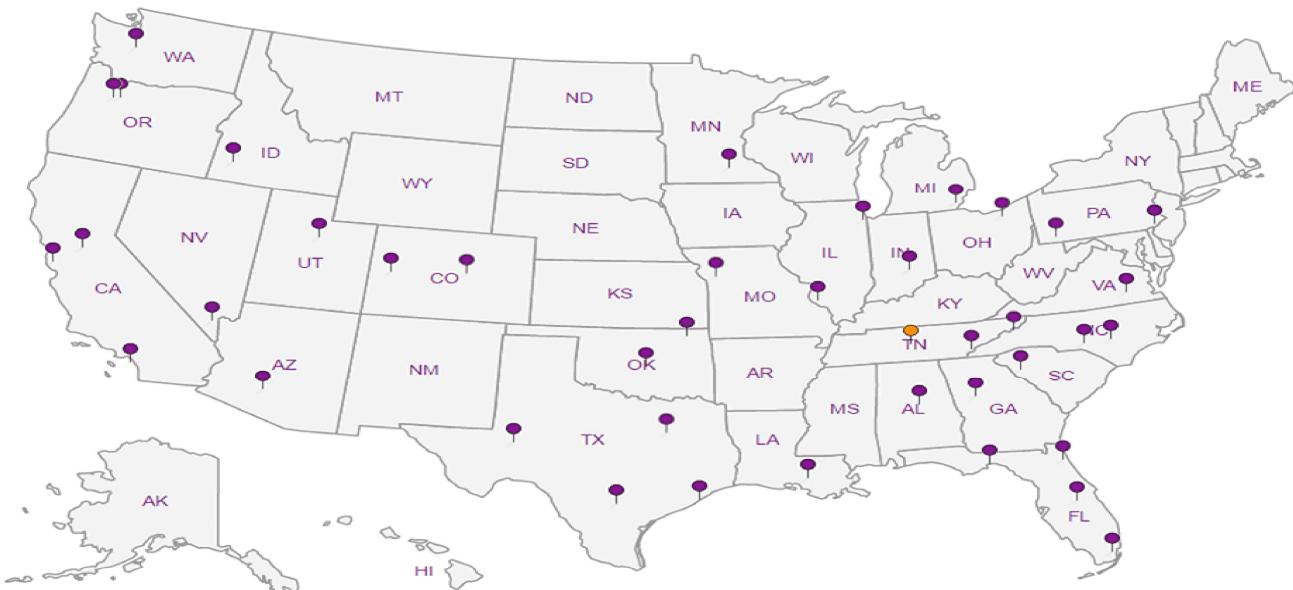
A2LA – ISO 17025	1461.01
A2LA – ISO 17025 ⁵	1461.02
Canada	1461.01
EPA-Crypto	TN00003

AIHA-LAP,LLC EMLAP	100789
DOD	1461.01
USDA	P330-15-00234

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.

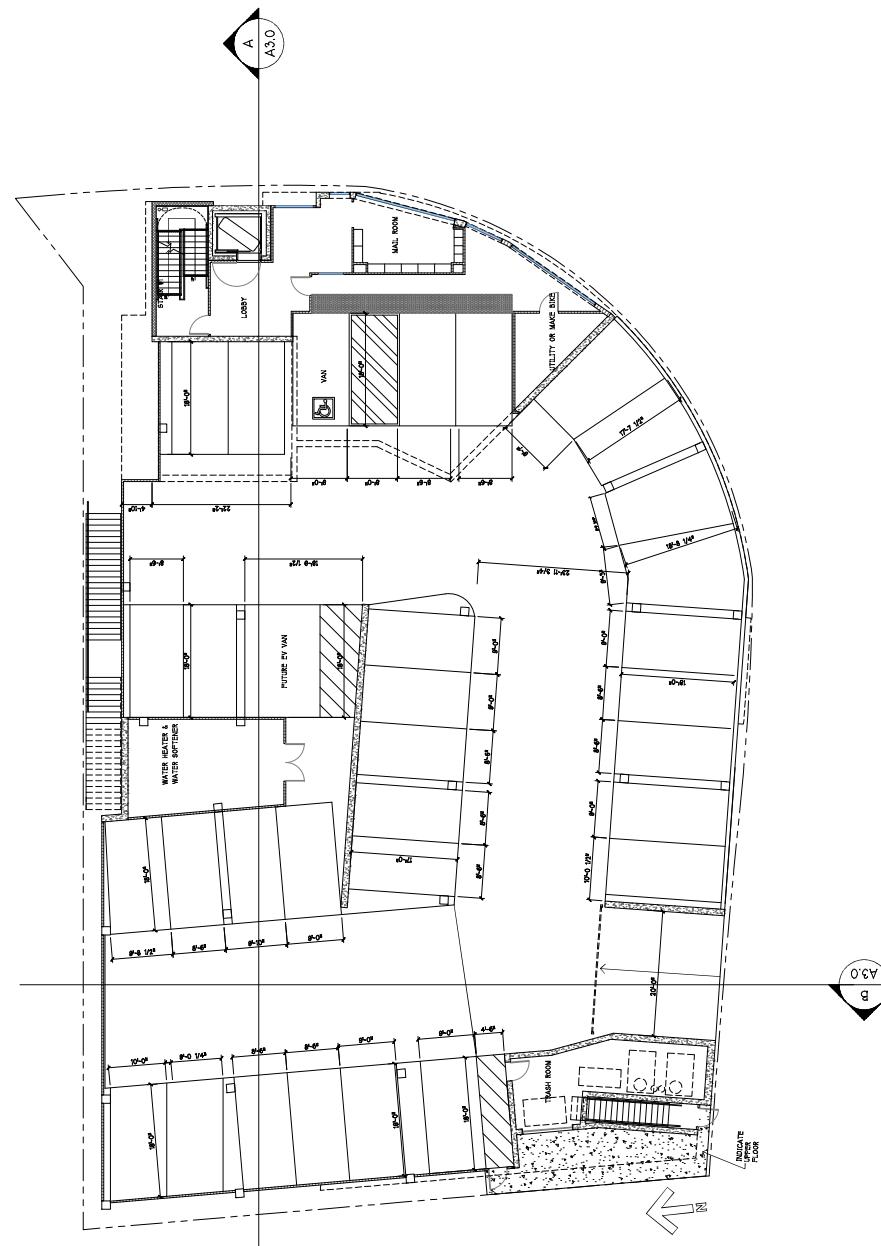
¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Appendix B

Proposed Development Plans

(Select Drawings)

KEYNOTES - BUILDING



EASTMOOR RESIDENTIAL

DEVELOPMENT
498 EASTMOOR AVENUE
DALEY CITY, CALIFORNIA

2ND

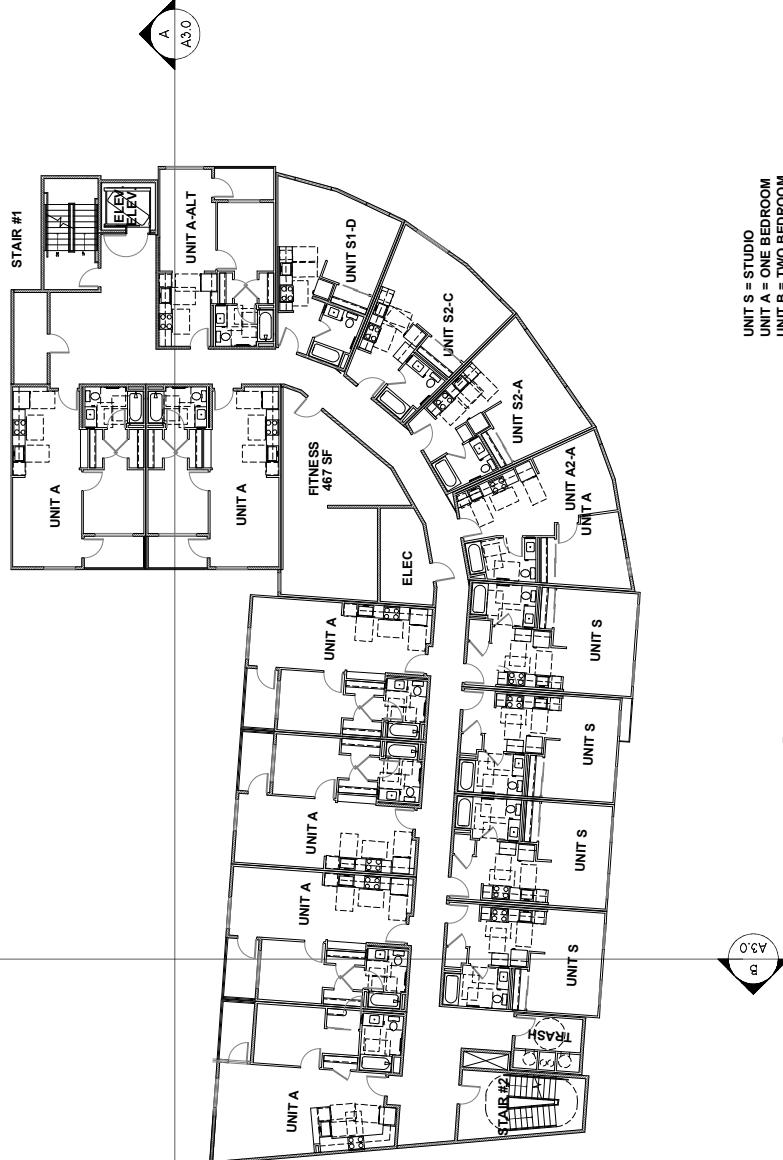
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Hancock & Jave

KEYNOTES - BUILDING



- 10 -

ELECTRICAL RULES

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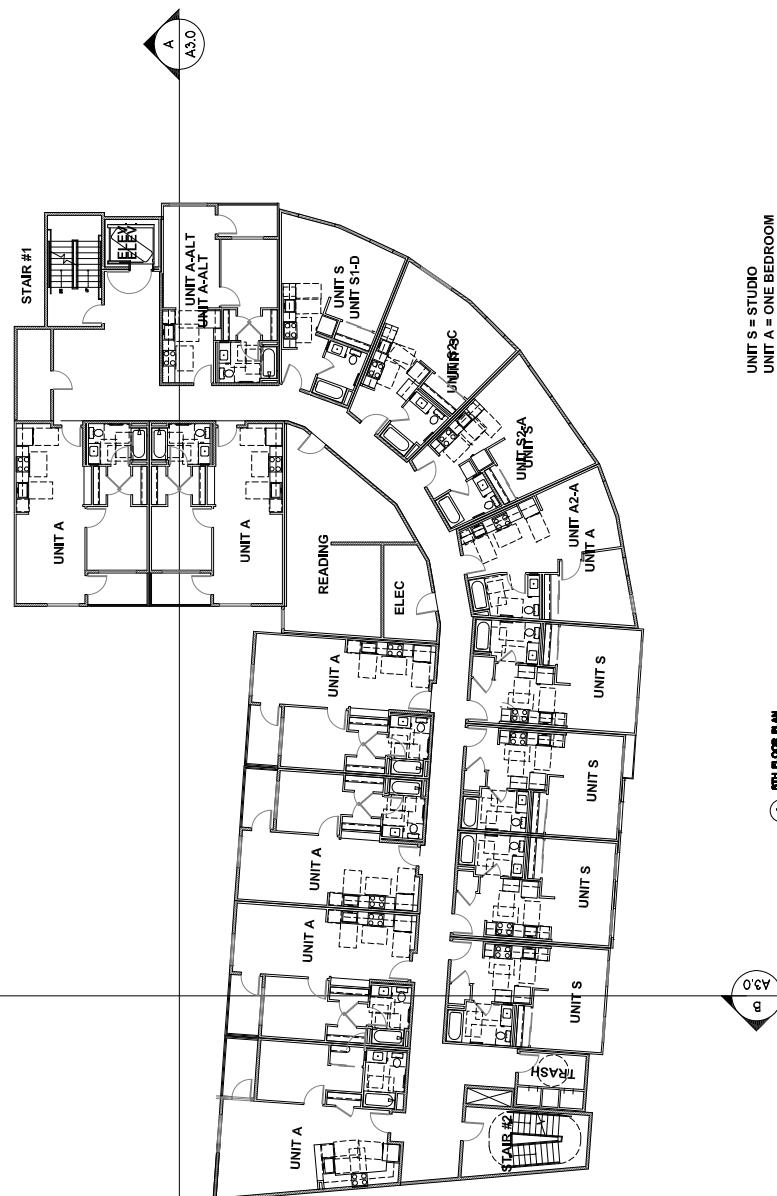
EASTMOOR RESIDENT

DEVELOPMENT
400 EASTMAN AVENUE

FLOOR PLAN

Editor by: DH
Page No:

KEYNOTES - BUILDING



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GENERAL NOTES

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DEVEL CEMENT

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הFINESTRA מודולו

6TH GRADE

FLOOR PLAN



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KEYNOTES - BUILDING

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SEE UNI PLANS SHEET A4. SEE ALSO DETAILED INFORMATION ON ALL UNI

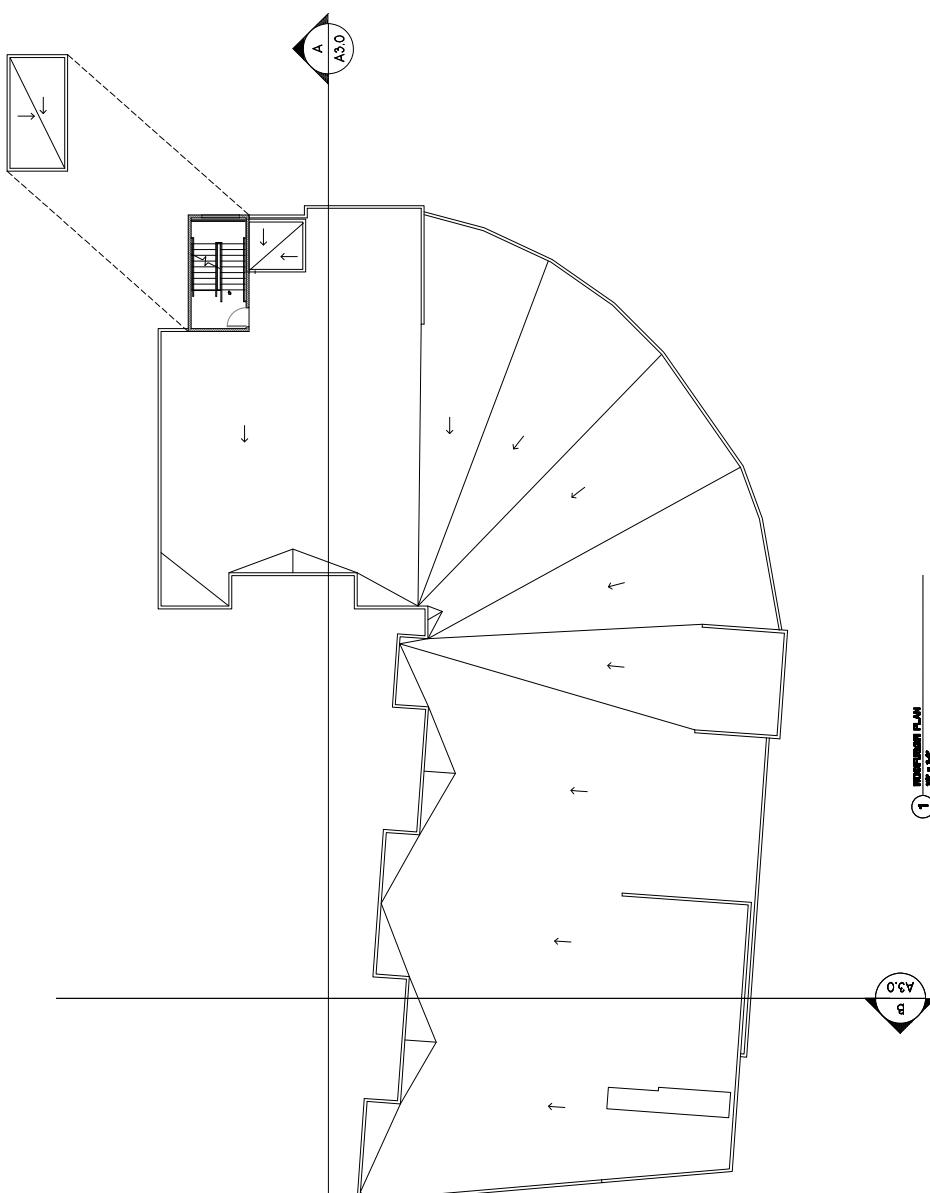
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EASTMOOR RESIDENTIAL

7TH
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A2



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GENERAL NOTES

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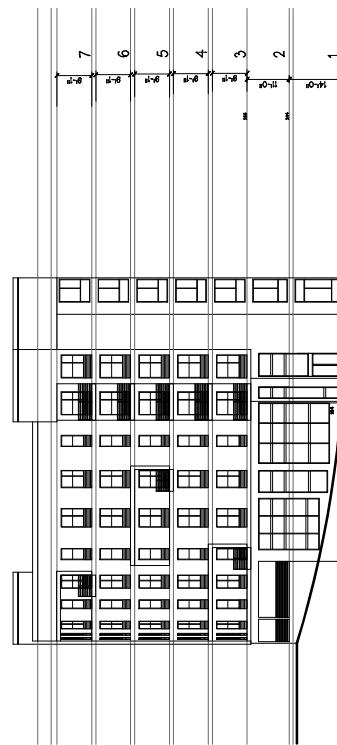
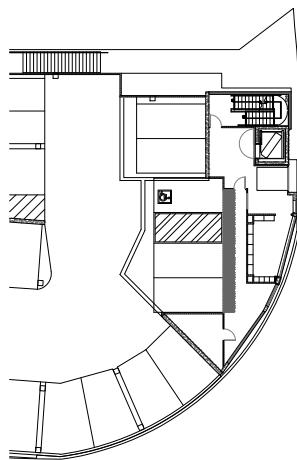
EASTMOOR RESIDENTIAL

DEVELOPMENT
469 EASTWOOD AVENUE
SUITE 207, SUITE 208

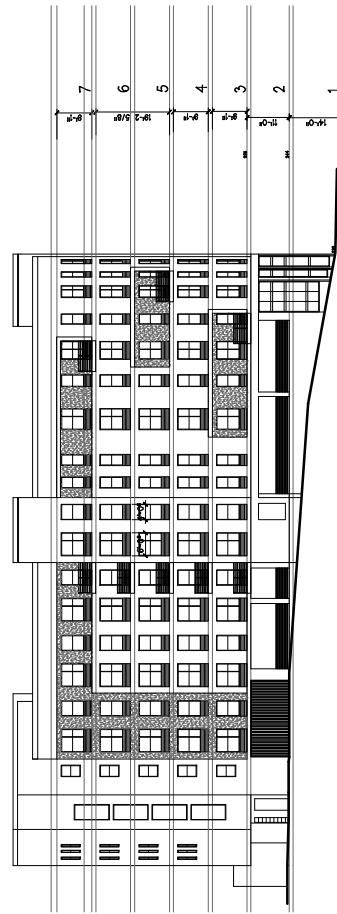
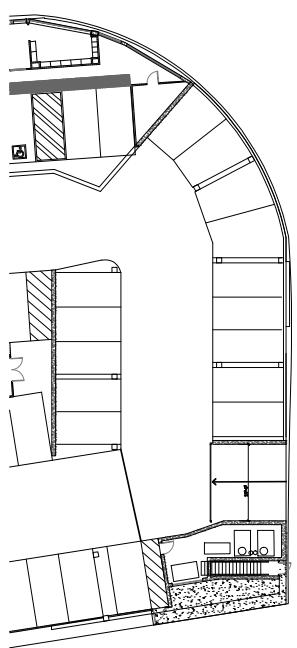
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EAST ELEY - SULLIVAN AVE



SOUTH ELEY - EASTMOOR AVE