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April 23, 2021

Maureen Hatfield
VCP-CA Section, Team 1, Remediation Division
Texas Commission on Environmental Quality
P.O. Box 13087, MC-127
Austin, Texas 78711-3087

Re: Notification of Planned Construction Activities
Union Pacific Railroad Company –
Houston Wood Preserving Works Houston, Harris County, Texas
Hazardous Waste Permit/Compliance Plan No.: 50343, ISWR No. 31547

Dear Ms. Hatfield,

Please find attached with this cover letter information regarding the planned railroad capacity improvement construction activities (North By-Pass Project (the Project)) that will be conducted at the Union Pacific Railroad (UPRR) Houston Wood Preserving Works site (the Site). Initial notification of the construction activities was provided to the Texas Commission on Environmental Quality (TCEQ) in the Response Action Plan (RAP) Revision 7 dated January 15, 2021. Details of the conceptual design of the planned construction activities, schedule of planned construction activities, and plans required to be submitted to the TCEQ per the RAP as part of the construction notification are discussed below.

Construction Conceptual Design

UPRR Engineering developed the design for the Project that will result in minor disturbances to the capped areas at the Site. The Project will include proposed improvements to the railroad signal system, electrical infrastructure, and mainline rail extension that will disturb portions of the soil cap, asphalt cap, and railroad ballast cap. Details of the soil cap and asphalt cap construction were provided in the Response Action Completion Report (RACR) dated July 18, 2016. The approximate areas of the caps that will be disturbed are shown on Figure 1. The disturbed areas of the caps will be repaired and/or improved to function consistent with the response action objectives detailed in the RAP as follows:

- Soil Cap – Three areas (one area approximately 200 feet long by 20 feet wide and two smaller areas approximately 140 feet long by 10 feet wide) of the soil cap adjacent to the asphalt cap will be disturbed to allow the asphalt cap to be expanded to these areas to serve as a roadway or access road for railroad personnel to access signal boxes. The expansion of the asphalt cap is to accommodate the proposed new signal house and two signal bridge supports that will be installed in this area. The soil cap (approximately 1.5 feet thick) and underlying soils (approximately 1 foot thick) in these areas will be excavated, and replaced with an asphalt cap. The expanded asphalt cap in this area will be constructed to the same specifications as the original asphalt cap (as-builts provided in the Response Action Completion Report (RACR) dated July 18, 2016). The

concrete barriers currently in place to separate the soil cap area from the asphalt cap will be reinstalled at the new boundary of the soil cap and asphalt cap in these areas disturbed.

- Asphalt Cap – The existing asphalt cap will be disturbed during the installation of the new signal house pad, underground signal cabling, and signal bridge foundations. The asphalt cap will be replaced by the signal cabin, a 25-foot by 25-foot subballast pad, and bollards to protect the signal cabin, or replaced to match the current asphalt cap near the signal bridge foundations.
- Railroad Ballast Cap – The railroad ballast cap will be disturbed by the removal and installation of power poles, maintenance of the northern most tracks, construction of a shallow trench for the installation of the new signal cables, and excavations for the footings for three signal bridges. Following construction, additional ballast will be placed in areas of disturbance as needed.

The repaired caps will continue to achieve Remedy Standard B response objectives through physical controls to prevent exposure to concentrations of chemical of concern (COCs) in the environmental media greater than commercial/industrial critical human health protective concentration limits (PCLs), as indicated in the 2016 RACR.

Project Schedule

The Project is currently in the bidding process and UPRR Engineering plans to start the construction on the Project in late May 2021. The overall Project also includes construction activities outside of the HWPW Site boundary, and the overall project is expected to take five to six months to complete. Currently, the estimated dates of when the capped areas within the Site will be disturbed are not known. The portion of the Project that will result in disturbance to the cap areas is estimated to take eight weeks to complete. The schedule is approximate and subject to change. UPRR will submit monthly schedule updates to the TCEQ until the construction activities within the Site are completed.

Plans

As required in the RAP (Rev 7) for the Site, the following plans have been developed in support of the construction Project:

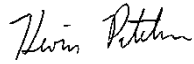
- A dust control and air monitoring plan to be implemented during the construction and excavation activities when impacted soil may be encountered is provided in Attachment 1;
- A soil management plan detailing the pre-construction soil evaluation, excavation, characterization, profiling, management and disposal procedures to be used when handling disturbed soils with COC concentrations above applicable PCLs pursuant to state and federal regulations is provided in Attachment 2; and
- A stormwater control plan will be prepared by the UPRR Contractor selected to conduct the proposed construction activities. The overall Project (including areas outside the HWPW Site boundary) will result in over one acre of ground disturbance; therefore, compliance with the Texas Discharge Elimination System (TPDES) stormwater Construction General Permit (TXR 150000) is required. The selected UPRR Contractor will finalize and maintain a Stormwater Pollution Plan (SWP3), submit a Notice of Intent (NOI) to the TCEQ Stormwater Processing Center, post site notice, and submit a copy of site notice to municipal separate storm sewer system if applicable for compliance with the TPDES permit. In addition, for the activities planned in the capped areas of the Site, efforts will be made to minimize stormwater runoff into the excavations in the capped areas. In the event stormwater comes into contact with contaminated soils in the capped areas,

the storm water will be containerized, sampled, profiled, and disposed of in accordance with state and federal laws.

A Response Action Completion Report (RACR) Addendum will be submitted to the TCEQ within 60 days after completion of construction activities.

Following submittal of this letter to the TCEQ, these documents will be made available for public viewing on the Site webpage (www.hwpwinfo.com) under Community Outreach – Construction – May 2021. If you have any questions or need additional information, please feel free to call me at 414-267-4164.

Sincerely,

A handwritten signature in black ink, appearing to read "Kevin Peterburs".

Kevin Peterburs
Manager, Environmental Site Remediation

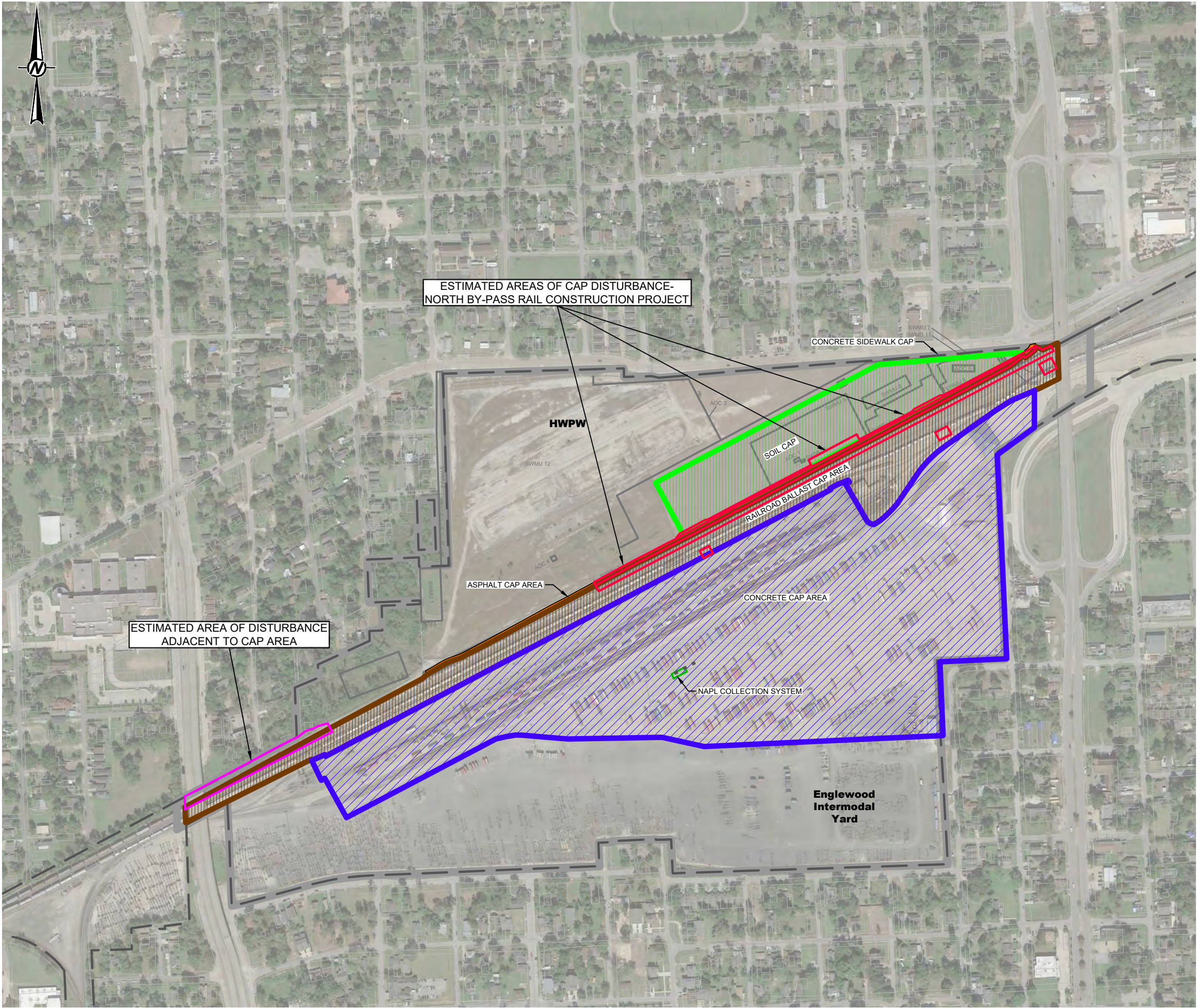
Attachments

Attachment 1: Dust Control and Air Monitoring Plan

Attachment 2: Soil Management Plan

Figure

Path: \\TexasRailData\Projects - Round Rock_ 2020\20144747 - UPRR Englewood Yard North Bypass\PRODUCT\04\2021\31 - File Name: FIG 1 - Soil Cap Disturbance Areas.dwg | Last Edited By: adamsonk | Date: 2021-04-15 | Time: 4:23:50 PM | Printed By: adamsonk | Date: 2021-04-15 | Time: 4:24:15 PM



LEGEND

UPRR PROPERTY BOUNDARY

ROAD, PARKING LOT, SIDEWALK

FENCE

RAILROAD

HISTORIC STRUCTURE AND FEATURE

RAILROAD BALLAST CAP AREA

ASPHALT CAP AREA

SOIL CAP

CONCRETE CAP AREA

NAPL COLLECTION SYSTEM SUMP

EXISTING NAPL COLLECTION SYSTEM
(CONSTRUCTED FEB. 2019)

ESTIMATED AREA OF CAP DISTURBANCE

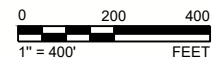
ESTIMATED AREA OF DISTURBANCE ADJACENT TO CAP AREA

NOTE(S)

1. THE CAP DISTURBANCE AREAS IDENTIFIED ON THIS FIGURE ARE PRELIMINARY AND WILL BE REFINED DURING THE DESIGN OF THE UPRR ENGINEERING NORTH BY-PASS RAIL PROJECT.

REFERENCE(S)

BASE MAP FROM ERM-SOUTHEAST, INC APAR ADDENDUM, FIG 3-1, DATED JUNE 2004.



CLIENT

UNION PACIFIC RAILROAD CO.

PROJECT

ENGLEWOOD NORTH BY-PASS
HOUSTON, TEXAS

TITLE

APPROXIMATE AREAS OF DISTURBANCE TO CAPS

GOLDER MEMBER OF WSP TEXAS ENGINEERING FIRM NO. 2578	CONSULTANT	YYYY-MM-DD	2021-04-15
		DESIGNED	AJD
		PREPARED	AJD
		REVIEWED	ECM
		APPROVED	ECM

PROJECT NO.
20144747

REV.
0

FIGURE
1

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSI B

Attachment 1: Dust Control and Air Monitoring Plan

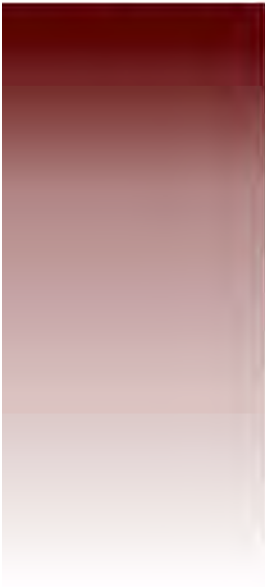


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Dust Control and Air Monitoring Plan

**Englewood North Bypass
Rail Construction Project**

**Houston Wood Preserving Works
Houston, Texas**

Prepared for:

Union Pacific Railroad

Author: Derrick K. Johnson

Date: 3/31/2021

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Purpose and Scope

This document describes the dust control and air monitoring procedures to be employed by Union Pacific Railroad (UPRR) and its contractors during the North Bypass Rail Construction Project, at the Houston Wood Preserving Works (the Site). The purpose of this plan is to help control migration of airborne dust emissions from the rail construction areas to non-railroad properties near the construction area.

The North Bypass Rail Construction Project will take place along UPRR rail lines west of UPRR Englewood Yard, at the Site, approximately located between Lockwood Drive and Waco Street in Houston, Texas. Construction activities will be focused primarily on upgrades to signal and telecom systems for rail in the designated area. Figure 1 provides an overview of the approximate geographic area.

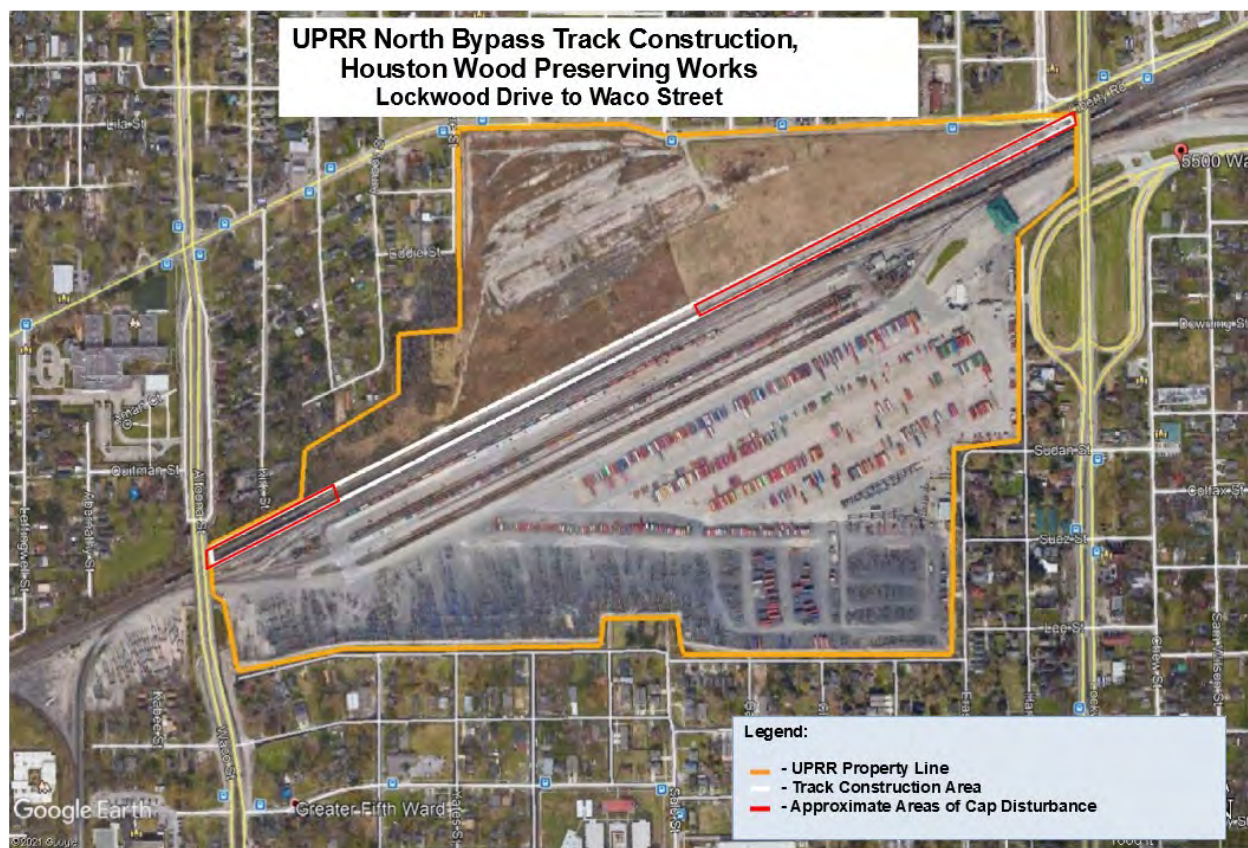


Figure 1. Site Plan for UPRR North Bypass Track Construction Project, Houston Wood Preserving Works (Lockwood Drive to Waco Street)

Section 1. Dust Control Plan

General Description of Construction Site

The North Bypass Rail Construction Project will take place along UPRR rail lines running west-southwest of UPRR Englewood Yard, approximately located between Lockwood Drive and Waco Street in Houston, Texas. Construction activities will be focused primarily on upgrades to signal and telecom systems for rail in the designated area. The affected track area is approximately 0.75 miles in length. Figure 1 provides an overview of the geographic area.

The construction area is bordered on the north side by an asphalt service road approximately 15 feet from the northernmost track. This service road will be the access route for non-track equipment and vehicles associated with construction activities. The Houston Wood Preserving Works site is north of the service road, bordered to the north by Liberty Road, which is in turn bordered to the north primarily by residential properties. Distances from the service road to residential properties north of the construction area varies from approximately 50 – 300 yards.

To the south, the construction area is entirely bordered by the Englewood Intermodal Yard and associated lots for trailers and containers. The south end of the yard is bordered in turn by residential properties. Distance to residential properties on the south side of the construction area varies from approximately 180 – 550 yards.

General Description of Construction Activities

Construction activities associated with this project are anticipated to generally include travel of vehicles and equipment along the north service road, some soil and asphalt removal on portions of the service road, digging/removal of ballast and soils on the railbeds, installation / upgrade of signal and telecom systems, track bed resurfacing (including ballast deposition), tie panel installation and rail replacement. Some soil stabilization and asphalt resurfacing may also be required.

Work crews are anticipated to be active at multiple locations throughout the construction area for the duration of the project. Specific locations and work activities will be determined by the Project Construction Manager on a daily basis, depending on job goals, site conditions and other relevant factors. The rail lines in and around the construction area will remain active for much of the project, so train movements will be frequent during the project, and some idling of locomotives in the construction area is reasonable to anticipate.

Some temporary staging of raw materials, including soil, aggregate, old asphalt, aggregate, track ballast, rail ties, rail and track panels will take place within the construction area.

Target Dust Control Levels

Control Levels for Measured Airborne Dusts

Air monitoring will be performed during all site construction activities (see Section 2, Air Monitoring Plan, for details on air monitoring methods). Real-time measurements for PM 2.5 and PM 10 particulates will be conducted, and the following control levels will apply:

- **Notice Level** – Background-corrected 30-minute average of PM 2.5 particulate levels > 15 ug/m³ and/or PM 10 particulate levels > 50 ug/m³
 - o The Notice Level is intended as an early warning of potential elevations in airborne dust levels. When the notice level is exceeded the Air Monitoring Specialist will investigate the area(s) where the initial elevations in dust levels are indicated, and inform the Construction Manager, Environmental Manager and other designated personnel of the known or most likely source(s) of the elevated levels, and advise what actions, if any, appear warranted to limit airborne dust generation. The Construction Manager and Environmental Manager will determine how to best implement the recommendations of the Air Monitoring Specialist.
- **Action Level** – Background-corrected 30-minute average of PM 2.5 particulate levels > 30 ug/m³ and/or PM 10 particulate levels > 100 ug/m³
 - o The Action Level is intended as an indication that control measures should be implemented in a timely manner to mitigate generation of airborne dusts. When the Action Level is exceeded, the Air Monitoring Specialist will investigate the area(s) where the elevations in dust levels are indicated, and inform the Construction Manager, Environmental Manager and other designated personnel of the known or most likely source(s) of the elevated levels, and advise what actions, if any, appear warranted to limit airborne dust generation. The Construction Manager and Environmental Manager will determine how to best implement the recommendations of the Air Monitoring Specialist.
- **Stop-Work Level** – Background-corrected 30-minute average of PM 2.5 particulate levels > 60 ug/m³ and/or PM 10 particulate levels > 150 ug/m³
 - o The Stop-Work Level is intended as an indication that continued generation of airborne dusts at or above the specified levels are likely to result in overall daily averages or short-term elevations in airborne dust levels that could be greater than the parameters established for the project. When the Stop-Work Level is exceeded, work in the affected area(s) should be stopped until additional controls are implemented. The Air Monitoring Specialist will investigate the area(s) where the elevations in dust levels are indicated, reporting his findings and recommendations to the Construction Manager, Environmental Manager and other designated personnel. This team will work together to determine what control measures will be effective in reducing dust levels and how to best implement those measures and resume construction activities.

Visible Airborne Dust Emissions

For the purposes of this Dust Control and Air Monitoring Plan, *significant visible emissions of airborne dusts* are defined as follows:

- Visible emissions of airborne dust from construction-related activities (including, but not limited to, excavation, track work, grading, loading and unloading of aggregates and soils and vehicular traffic) that meet any or all the following criteria:
 - o Generates a visible dust cloud that extends more than 10 feet vertically and/or more than 25 feet horizontally in any direction beyond the point of generation and:
 - Persists for more than five (5) minutes at a time; and/or -
 - Recurs more than twice every thirty (30) minutes.
 - o Generates a visible dust cloud that is migrating or appears likely to migrate to non-railroad properties.

This plan includes control measures for specific operations that may generate significant visible airborne dust emissions. However, all project supervisory personnel should remain alert for sources of significant visible airborne dust emissions and take appropriate action to minimize such emissions to the extent practical whenever and wherever they may occur. The Air Monitoring Specialist, Construction Manager and Environmental Manager will work as a team to monitor and minimize significant visible airborne dust emissions.

Roles and Responsibilities

Air Monitoring Specialist

The Air Monitoring Specialist will have primary responsibility for maintaining and monitoring results from air monitoring stations, informing the Construction Manager and Environmental Manager when control levels are triggered, identifying activities and conditions contributing to elevated dust levels and making initial recommendations for corrective action. Specific responsibilities include:

- Maintenance and monitoring of air monitoring stations, as described in the Air Monitoring Plan section of this document.
- Making routine observations of worksite activities, with specific focus on potential dust-generating activities.
- Communicate instances of control level triggering and/or generation of significant visible airborne dust emissions to the Construction Manager and Environmental Manager, along with explanations of the sources of dust emissions and recommendations for appropriate control measures.
- Communicate results of integrated air sample analyses to designated UPRR management personnel, the Environmental Manager and Construction Manager.

- Maintain a daily log of site activities, including photographs, observations, air monitoring station inspections, integrated air sample collection, control level triggering events, notifications made to the Construction Manager and Environmental Manager, and responsive actions.
- Assist the Construction Manager and Environmental Manager in developing effective and practical dust control measures for atypical and/or as-needed situations involving dust emissions.

Construction Manager

The Construction Manager will have primary responsibility for ensuring the requirements of this Dust Control and Air Monitoring Plan are effectively and consistently implemented, and for determining and implementing as-needed controls on a case-specific basis. Specific responsibilities include:

- Informing the Air Monitoring Specialist and Environmental Manager of daily work plans and activities.
- Assigning personnel and resources adequate to ensure that dust control measures specified in this plan are effectively and consistently implemented.
- Implementing prompt and appropriate control measures when informed by the Air Monitoring Specialist of instances of significant visible airborne dust emissions or triggering of PM 2.5 or PM 10 control levels.
- Working with the Air Monitoring Specialist and Environmental Manager to develop practical and effective measures for atypical and/or as-needed dust control measures.
- Assigning personnel and resources for atypical and/or as-needed dust control measures.

The Construction Manager may delegate some or all of these responsibilities to qualified persons but remains ultimately responsible.

Environmental Manager

The Environmental Manager will have primary responsibility for working directly with the Air Monitoring Specialist, informing UPRR managers of day-to-day control measures and responses. Specific responsibilities include:

- Providing support and guidance to the Air Monitoring Specialist in communicating with project managers and UPRR personnel.
- Inform UPRR management personnel of relevant day-to-day dust control activities and atypical events.
- Work with the Air Monitoring Specialist and the Construction Manager to develop practical and effective measures for atypical and/or as-needed dust control measures.
- Effectively communicate dust control measures and requirements to UPRR managers and jobsite supervisory personnel.

The Environmental Manager may delegate some or all of these responsibilities to qualified persons but remains ultimately responsible.

Site Supervisory Personnel

Site supervisory personnel are responsible for ensuring duties and responsibilities for dust control measures assigned to them are effectively and consistently implemented. They are also responsible for monitoring and reporting to the Air Monitoring Specialist, Construction Manager and/or Environmental Manager instances of generation of significant visible airborne dusts.

Documentation and Reporting

Daily Log

The Air Monitoring Specialist will maintain a daily log of site activities, including, but not limited to:

- Descriptions of site work activities.
- Site photographs and relevant observations.
- Periodic observations of environmental conditions (windspeed, temperature, humidity, rainfall, etc.)
- Air monitoring station inspections
- Integrated air sample collection record, including sample data sheets, chain of custody records and lab reports.
- Descriptions of control level triggering events, notifications made to the Construction Manager and Environmental Manager, and responsive actions.
- Descriptions of any problems encountered and responsive actions taken.

Weekly Summary Reports

The Air Monitoring Organization will issue weekly summary reports to the designated UPRR manager(s). Weekly summaries will include, but not be limited to, the following items:

- Summary results of the week's air monitoring data.
- Summary of any control level triggering events and response actions taken.
- Summary of any problems or atypical situations encountered, and the actions taken for resolution.
- Compilation of the Air Monitoring Specialist's daily logs for the preceding week, including notes and photographs.

Closeout Report

The Air Monitoring Organization will issue a final closeout report summarizing the overall results of air monitoring and dust control efforts for the entire project.

Primary Dust Sources and Control Measures

This section specifies the primary sources of potential dust generation, and the control options to be employed to minimize dust emissions from those sources. The sources identified here are anticipated to be the most significant and/or frequent dust sources associated with the proposed work.

Vehicular Traffic Along Service Road

Significant and routine vehicular traffic is anticipated along the server road paralleling the rail tracks on the north side of the construction area. Mud and loose soils from the tires of vehicles and work equipment will deposit on the road surfaces. Environmental drying and pulverization of deposited soils along the roadway will form finer dusts which can be disturbed by vehicles and equipment traveling over the site. Heavy vehicle and equipment traffic during construction may also degrade the asphalt road surface, exposing soils and aggregates that may be disturbed by passing traffic.

The following controls are to be used to minimize dust formation from vehicular traffic along the service road:

- ***Proactive cleaning of road surface***
 - o Asphalt road surface and road shoulders should be routinely cleaned of soil accumulation by street sweepers, using wet methods (i.e., street sweeper equipped with water spray bars, or water truck wetting of road surface, immediately followed by street sweeper).
 - Dry sweeping of road surfaces and shoulder is prohibited.
 - o Wet sweeping should be performed:
 - Approximately every two (2) hours whenever:
 - Rain is not present and visible accumulation of mud or loose soils are present on asphalt road surfaces and shoulders.
 - No more than two (2) hours before the end of each work day whenever rain is not present, in order to help ensure the roadway is reasonably free of loose soils prior to beginning of the following day.
 - As necessary if significant visible airborne dust emissions are observed and/or PM 2.5 o4 PM 10 control levels are triggered.
 - Wet sweeping may be suspended during periods of rain and as long as the roadway is visibly wet and visible dust is not being generated by vehicular and equipment traffic.

- Dusts may begin to be generated as deposited mud and wet soils dry out and become pulverized. The normal wet sweeping schedule should be resumed when this begins to occur.

If the previously specified controls are not effective in reducing visible and/or measured roadway dust emissions, the following secondary controls will be implemented:

- ***Reduce speed of vehicular traffic on service road to 5 mph until visible and/or measured dust levels appear to be adequately controlled.***
 - o Reduced speed will apply to all traffic on the service road, including crew vehicles, UPRR vehicles, haulers and any construction equipment traveling on the service road.

Vehicular and Equipment Traffic in Parking and Staging Areas

Pulverization of deposited mud and soils, as well as pulverization of paving aggregates, may result in generation of airborne dusts from staging and parking areas. The significance of the dust generation will vary with the intensity and frequency of traffic in those areas. Generally, mornings and late afternoons at the end of the workday will have the highest potential for dust generation resulting from arrival and departure of worker vehicles.

The following controls will be employed to limit dust from traffic in parking and staging areas:

Wetting of surfaces in parking and staging areas

- A water truck will wet parking and staging areas whenever rain is not present and surfaces are not visibly wet or damp, as follows:
 - o Daily:
 - At least once each workday, between 10:00 am and noon.
 - At least once each workday, in the late afternoon, no more than two (2) hours before the end of each work day.
 - o As necessary if significant visible airborne dust emissions are observed and/or PM 2.5 or PM 10 control levels are triggered.

Note: *If parking and staging areas are unpaved, or paved with aggregate materials, application of a commercial magnesium chloride solution can be effective in reducing dust emissions and the need for as-frequent wetting. Commercially available magnesium chloride solutions are readily available and easily applied. They can remain effective for 2 – 6 months or more, depending on traffic and environmental conditions.*

Soil Stabilization Using Lime / Fly Ash Mixtures

Deposition of dry lime/fly ash mixtures can produce short periods of highly visible dust and increase measured levels of visible dust within a few hundred yards of the deposition site. The following controls will be used to control dust emissions from deposition of lime / fly ash mixtures:

- Where feasible, employ lime / fly ash slurry instead of dry lime / fly ash.
- Where use of a slurry is not feasible, to the extent practical attempt to select optimal environmental conditions for deposition activities, as follows:
 - o Schedule deposition when winds are primarily from the north or east-northeast, so that any dusts are directed away from the nearest non-railroad properties.
 - o Delay deposition activities if winds would carry dusts onto nearby non-railroad properties.
 - o Schedule deposition as early in the day as practical when humidity is highest and will help reduce the suspension time of dusts.
 - o Schedule deposition activities to be completed in the minimum amount of time possible.
 - o If high winds are present, wet deposited lime / fly ash mixtures as soon as practical to limit secondary dust generation from wind action on the deposited materials.

Ballast Deposition by Belt Train

Belt trains are specially designed rail engines and ballast cars that use a series of conveyor belts to feed ballast from loaded ballast cars to a distribution conveyor that can typically be oriented to deposit ballast in front of or to the side of the controlling engine. As the ballast falls from the final distribution conveyor, ballast dust can be released. The following controls will be used to minimize dust production from ballast deposition by belt trains:

- Only washed ballast will be used for The Site construction activities.
- Ballast delivery and deposition will be scheduled to allow washed ballast to be deposited as soon as practical after initial loading, preferably while the ballast is still wet or damp from washing.
- To the extent practical, belt train operations will be scheduled to occur when prevailing winds are from the north, north-northeast or north-northwest, in order to minimize dust migration onto non-railroad properties.

Ballast Regulation

Ballast regulation involves the use of track equipment known as a ballast regulator to distribute deposited ballast on the track bed. The ballast regulator uses plows aligned on the front of the machine to move the deposited ballast, and rotating brooms to clean loose ballast and debris from the tracks. When used on dry ballast, ballast regulators can produce significant levels of airborne dust. The following controls will be used to minimize dust from ballast regulation activities:

- If rain is not present and ballast is not wet or damp:
 - o The track bed to be regulated will be wet with water, using a spray boom, side-spray water truck or other water delivery system capable of delivering sufficient water to wet the track bed surface.
 - o Wetting must occur no more than two (2) hours prior to regulation.

Loose Aggregate and Soil Loading, Hauling and Unloading

Loading and unloading of loose aggregate and soils, whether excavated materials to be transported offsite or fresh fill material intended for onsite use, can produce airborne dusts if the materials are dry. Hauling of these materials in uncovered or leaking transports can allow materials to blow off the tops of the transport and/or fall to roadways and other traffic routes, where they can dry and become pulverized, potentially contributing to airborne dust levels. The following controls will be employed to minimize airborne dusts potentially generated by loading, hauling and unloading loose aggregates and soils:

- Transport:
 - o Truck beds and containers used for hauling loose aggregate and soils will be covered on top during transport, to prevent blowing off of materials while onsite and during travel.

- o Unloading gates on truck beds and containers used for hauling loose aggregate and soils will be kept functional and closed at all times while traveling to, from and within the construction site. Loose soils and aggregates must not be allowed to spill onto onsite or offsite traffic paths.
- Loading and Unloading:
 - o Loading and unloading of loose aggregates and soils should be monitored closely to ensure that airborne dust generation is minimized.
 - o Where loading or unloading appears to generate significant visible airborne dust emissions and / or triggers PM 2.5 or PM 10 control levels, the following controls will apply:
 - Loading or unloading should be completed in the shortest amount of time possible.
 - If wind conditions appear to create a potential for migration of visible airborne dusts to non-railroad properties, any or all of the following will be employed, as most practical for the situation:
 - Loading or unloading will be paused until conditions are more favorable.
 - Materials will be loaded or unloaded in an alternate location, further from non-railroad properties.
 - Water will be used to wet the materials being loaded or unloaded, reducing generated dusts.
 - o Important! No wetting of potentially hazardous materials during loading should be performed without prior approval from the Site Environmental Manager.

Secondary Dust Sources and Control Measures

This section specifies secondary sources of potential dust generation, and the control options to be employed to minimize dust emissions from those sources. The sources identified here are anticipated to be infrequent and/or to generate limited elevations in dust levels. Specified controls are to be implemented on an as-needed basis and are not required when the specified sources are not present or active or have little potential to generate airborne dust.

Excavation Activities

Excavation activities include digging with backhoes, trackhoes and trenchers, as well as moving and relocation of excavated soils and aggregates with the same equipment, as well as dozers and front-end loaders. Excavated soils and aggregates on this project are anticipated to typically have a relatively high moisture content, and to not routinely produce significantly elevated dust levels unless the excavated materials are allowed to dry. In the event that excavation activities produce significant visible airborne

dust emissions and/or trigger PM 2.5 or PM 10 control levels, the following dust control measures will be used:

- Where practical, use water to wet the excavation and/or excavated materials.
- Wetting need not be extreme, only enough to suppress significant visible dust emissions for the duration of the operation.

Grading

Grading involves the use of grader or other heavy equipment equipped with a blade or plow to level surface soils and aggregates. Because grading typically affects primarily upper surface depositions, if those substrates are dry, significant dust generation may occur. If grading activities result in significant visible airborne dust emissions and/or trigger PM 2.5 or PM 10 control levels, or if observations indicate that surface layers to be graded are visibly dry, the following dust control measures will be used:

- Use water to wet the surfaces to be graded.
- Wetting should occur no more than two (2) hours prior to grading.

Ballast Tamping

Ballast tamping involves use of a track-mounted machine that inserts heavy steel tines below the surface of the ballast and vibrates those tines to help compact the ballast. Ballast tamping frequently generates only light, localized visible dust that is unlikely to migrate far from the operation itself. However, if ballast is very dry and dirty, tamping may occasionally generate higher levels of visible and/or measured dust. Should tamping be observed to generate significant visible airborne dust emissions and/or trigger PM 2.5 or PM 10 control levels, the following controls will be used:

- Use water to wet the track bed area(s) to be tamped.
- Wetting should occur no more than two (2) hours prior to tamping.

Concrete Cutting, Breaking or Drilling

Concrete cutting or drilling involves the use of saws, drills, hammers and other power tools to cut, break or drill concrete. These operations can produce high levels of airborne dust. The following controls will be used for such activities:

- Saws, hammers, drills and other power tools must be equipped with dust capture and collection systems, or wet methods must be used for any cutting, breaking or drilling operations.

Soil Scarifying Activities

Soil scarifying involves the use of heavy equipment fitted with steel tines to till the upper surfaces of a soil or aggregate bed. The potential for dust generation from this activity is highly dependent on the moisture

content of the substrate being scarified. Scarification of wet or damp soils may generate little or no airborne dust, while drier substrates may produce more. Should scarifying operations be observed to generate significant visible airborne dust emissions and/or trigger PM 2.5 or PM 10 control levels, the following controls will be used:

- Use water to wet the substrate to be scarified.
- Wetting should occur no more than two (2) hours prior to scarification.

Asphalt Removal and Loading

Asphalt removal and loading typically involves the breaking up of asphalt using backhoes or trackhoes and then loading the broken asphalt and associated aggregates and soils onto to transport truck for disposal. The potential for dust generation from this activity is highly dependent on the moisture content of the aggregates and soils beneath the asphalt itself. Wet or damp soils and aggregates may generate little or no airborne dust, while drier substrates may produce more. Loading is more likely to generate dust emissions than the actual removal. Should asphalt removal and loading operations be observed to generate significant visible airborne dust emissions and/or trigger PM 2.5 or PM 10 control levels, the following controls will be used:

- Use water to wet the soils and aggregates being disturbed and/or loaded.

Thermite Welding

Thermite welding involves encasing rail ends in a ceramic mold and igniting a thermite charge to heat the rail in the mold, welding the two rail ends together. This process can create brief (< 1 minute) emissions of dense smoke as the thermite burns. The following control measures will be used for thermite welding:

- To the extent practical, thermite welding will be scheduled when winds are from the north, north-northwest or north-northeast to minimize migration of smoke to non-railroad properties.

Other Sources of Dust Emissions not Specifically Identified

During the course of the project, other sources of dust emissions may be observed. If these sources generate significant visible airborne dust emissions and/or trigger PM 2.5 or PM 10 control levels, the Air Monitoring Specialist, Construction Manager and Environmental Manager will work as a team to develop and implement appropriate controls.

Section 2. Air Monitoring Plan

Purpose and Scope

This air monitoring plan has been developed to ensure that dust control measures implemented for the project are effective in controlling migration of airborne dusts from railroad construction activities to non-railroad properties. Air quality monitoring under the scope of this plan will consist of fence-line ambient air monitoring to measure airborne dust concentrations. Air monitoring will be conducted by IHST, Inc.

The primary objectives of the perimeter air monitoring are to:

- Monitor and record the ambient airborne dust concentrations at the Site property lines immediately adjacent to residential properties.
- Help ensure that background-adjusted dusts levels at the UPRR property lines do not exceed the current EPA NAAQS for particulate matter.
- Ensure that engineering controls and work practices help minimize potential off-site drift of airborne dusts.

General

The USEPA's 2012 National Ambient Air Quality Standards (NAAQS) standard for PM_{2.5} and PM₁₀ particulate matter have been used to develop the air monitoring plan for this project. PM_{2.5} particulates are fine particulates which can penetrate deeper into the respiratory system. PM₁₀ are coarser particles. Of interest in this project are the 24-hour levels established for these particulates. The 24-hour levels represent airborne concentrations averaged over a 24-hour period. The respective particulate NAAQS levels are presented below:

- PM_{2.5} (24-hr average): 35 ug/m³
- PM₁₀ (24-hr average): 150 ug/m³

The goal of the Action Levels established for this project is to help ensure that rail construction activities do not contribute significantly to airborne particulate concentrations at off-property locations. Background particulate concentrations vary throughout the Houston area, and, in some locations, can sometimes reach short-term concentrations that approach or exceed the NAAQS for PM_{2.5} particulates. Concentrations are typically higher in the daytime hours than at night. Because background concentrations vary, the control levels established in the Dust Control Plan (Section 1 of this document) are relative to the background particulate levels. Control levels are chosen to minimize the contribution of fugitive dust emissions from the rail construction activities to the overall particulate matter concentrations.

Methods of Monitoring

Data-logging Particulate Monitors and Weather Station

Real-time particulate air monitors equipped with PM_{2.5} and PM₁₀ size-selective laser particle counters will be used at the Site to monitor dust levels at or near the property boundaries during track construction activities. Each monitor will be equipped with paired, manufacturer-calibrated PlanTower aspirated aerosol sensors. Data from both sensors will be captured and averaged to provide single PM_{2.5} and PM₁₀ concentrations at each monitoring station. The dual-sensor configuration provides redundancy, as well as rapid detection of potential intra-sensor sensor inconsistencies and/or sensor failure. The sensors collect internal measurements at 10 second intervals and report 2-minute average concentrations of both PM_{2.5} and PM₁₀ particulate matter.

One monitoring station (located immediately adjacent to the PlanTower sensor set at the background station) will be equipped with a portable environmental beta-attenuation mass monitor (E-BAM). The E-BAM is a Federal Equivalent Method (FEM) for particulate measurement which uses beta radiation attenuation¹ to measure deposited particulate and is unaffected by temperature and relative humidity. The E-BAM and background laser particle station will be used as continuous onsite control references for the laser particle counters at the other monitoring stations². Perimeter monitors will be equipped with omnidirectional sampling heads and mounted on tripods, fenceposts or other suitable support at an approximate height of 5-6 feet.

A weather station will also be placed at a background sampling location to measure wind direction, wind speed, temperature, humidity and precipitation. Air monitors and weather station will log data at 2 -minute intervals. All stations will be powered by deep-cycle marine batteries coupled with solar panels.

Instruments will be connected to the internet through cellular modems, and all data will be uploaded to a website that will allow real-time and historic review of the data by onsite IHST personnel as well as remotely located IHST, UPRR and other designated management personnel.

Real-time data from the downwind particulate monitors will be evaluated in 30-minute averaged blocks to provide comparison to Control Level criteria specified in the Dust Control Plan (Section 1 of this document).

Integrated Air Samples

Soil sampling in areas of the site were found to have concentrations of polynuclear aromatic hydrocarbons (PAH's) and some metals.

¹ The E-BAM does not pose a radiologic hazard. The E-BAM units contain an exempt quantity of less than 100 µCi of Carbon 14 as defined in 10 CFR 30.71- Schedule B. As such, the purchaser/user is exempt from any regulatory requirements in the USA. This is a similar arrangement to that used for common household smoke alarms, which also usually contain a very small amount of radioactive material. Per regulation, an engraved metal tag identifying the source type and activity is permanently attached to each BAM instrument, but no radioactive hazard symbols are to be attached to the unit due to the exempt quantity.

² Field and laboratory evaluation of the PlanTower sensors (used in PurpleAir aerosol monitors) by California's South Coast Air Quality Management Division showed the sensors to have high precision, low intra-model variability, and very strong correlation with Federal Equivalent Method (FEM) instruments. These results indicate the PlanTower sensors, paired with the onsite E-BAM reference instrument, will provide reliable results and enable high-density deployment of particulate monitoring stations along the site perimeter.

Using the maximum contaminant concentration detected in any location for soil samples, IHST performed screening calculations to develop highly conservative screening estimates of airborne concentrations of contaminants identified in the soil samples. IHST's screening methodology assumed a 24-hour average airborne dust concentration of 3 mg/m³ (far higher dust levels than realistically expected for the project) and a very high breathing rate (50 cubic meters per air over 24 hours). Contaminants were assumed to be present in generated dust at the same mass ratios as those detected in the soil samples. These airborne concentrations were further extrapolated to 24-hour dose (mg/kg of body weight) using a conservative value body weight of 30 kg (~ 66 lbs). Extrapolated values were compared to such NAAQS, oral and inhalation RfD/RfC and ACIH TLVs as have been established for the specified metals. Where only an ACGIH TLV value (an occupational exposure limit) was available, a safety factor of 100x less than the occupational limit was used as the screening value.

The conservative screening estimates indicated that potential for significant airborne exposures to any of the soil contaminants is exceptionally low. However, due to the close proximity of the work site to non-railroad properties and from an abundance of caution, IHST selected a limited number of contaminants for which integrated air sampling will be performed, in order to help ensure that potential airborne contaminants from the jobsite do not migrate to neighboring properties. Contaminants selected for monitoring were based on a combination of estimated airborne concentration and potential health effects, including cancer. Integrated air samples will be collected for the selected compounds to verify that dust control measures are effectively limiting potential migration of these agents to non-railroad properties.

The agents to be sampled and the sample collection and analysis methods are specified in the following table.

Table 1. Integrated Air Sampling Agents and Analysis Methods

Agent	Collection Media	Air Flow Rate	Analysis Method
Particulate-phase PAHs	Teflon filter	1.8 lpm	NIOSH 5506
Arsenic	PVC filter	1.8 lpm	NIOSH 7303-MS
Lead	PVC filter	1.8 lpm	NIOSH 7303/7300 ICP-MS

Dates of collection of integrated air samples and number of samples collected will vary, based on site activities, locations affected and environmental conditions. A total of up to 60 air samples for each agent are initially planned.

Control Levels for metals and PAHs will be as follows:

- Arsenic:
 - o No ambient air standards have been established for arsenic. Occupational standards are not appropriate for evaluation of ambient environmental levels.

- o Sample analysis results will be compared to measured background concentrations. Where arsenic is detected in air samples, concentrations should be 10%³ or less above background levels to indicate effective dust control measures.
 - o Where arsenic is not detected in air samples, dust control measures will be considered effective.
- Lead:
 - o The USEPA has established a National Ambient Air Quality Standard (NAAQS) for lead of 0.15 ug/m³, as a three-month average.
 - o Background-adjusted sample results will be compared to the NAAQS of 0.15 ug/m³ to determine effectiveness of dust control measures.
- PAHs:
 - o No ambient air standards have been established for PAHs. Occupational standards for these compounds are limited, and not appropriate for evaluation of ambient environmental levels.
 - o Sample analysis results will be compared to measured background concentrations. Where PAHs are detected in air samples, concentrations should be 10%¹ or less above background levels to indicate effective dust control measures.
 - o Where PAHs are not detected in air samples, dust control measures will be considered effective.

After sample collection, samples will be properly packaged and secured and shipped overnight to an AIHA accredited laboratory for rush analysis. Sample results will be available in 3-4 business of receipt by the laboratory.

If sample results indicate concentrations above specified control levels, IHST and UPRR will determine appropriate responses necessary to further reduce dust emissions from the sampled operations/areas.

Monitoring Station Locations

Eleven (11) PM 2.5 / PM 10 monitoring stations will be active each day construction activities are to be performed. Three (3) PAH / metals integrated air sampling stations will be active on selected days when cap-disturbing activities are conducted. See Figure 2 for illustration of air sampling station locations.

One (1) PM 2.5 / PM 10 monitoring station, one (1) E-BAM station and one (1) PAH / metals monitoring station will be set up on the southeast corner of the Englewood Yard Office lot, off Grand Street. A weather station will also be set up at this location. These stations will provide background reference levels. The lot behind the Yard Office is isolated and protected, and sufficiently distant from the construction area and locations where work equipment and locomotives may be idling. It is also

³ The value of 10% is based on the analysis method's sampling and analytical error (SAE), i.e., sample analysis results should not differ significantly from background levels.

sufficiently distant from public roads and other operations that could create confounding localized variations in particulate levels.

Determination of PM 2.5 / PM 10 Particulate Levels for Control Purposes

Configuration of the worksite poses some unique challenges in that some locations on the site are in close proximity to non-railroad properties, and the site is essentially a 0.75 mile narrow strip, where different types of work may be performed concurrently at any given location time and location. Effective monitoring of dust emissions therefore requires a relative high density of air monitoring stations.

Air quality in the Houston area is variable, and the Site is located in a mixed industrial / residential area. Construction activities are not the sole source of variations in particulate levels which are used to determine whether dust concentrations are within acceptable control limits. The following paragraphs describe how IHST will process and interpret air sampling data for this project.

- Particulate concentrations at PM 2.5 / PM 10 air monitoring stations will be background-corrected by subtracting the concentrations measured at the background station from the concentrations measured at the other air monitoring stations.
- Only background-corrected readings from PM 2.5 / PM 10 stations which are downwind or parallel to construction activities or are located in areas visibly impacted by construction dust will be used for comparison to the dust Control Levels.
- Observations of visual dust emissions from construction activities and traffics levels in the Intermodal Yard will be considered in determining whether potential elevations in dust levels on the southern perimeter are attributable to construction activities.
- If IHST identifies other site or environmental conditions that clearly may confound particulate level measurements for control purposes, IHST may apply additional reasonable corrections or exclusions to monitoring station data. Any such corrections or exclusions will be documented and communicated to UPRR managers and the project Environmental Manager.

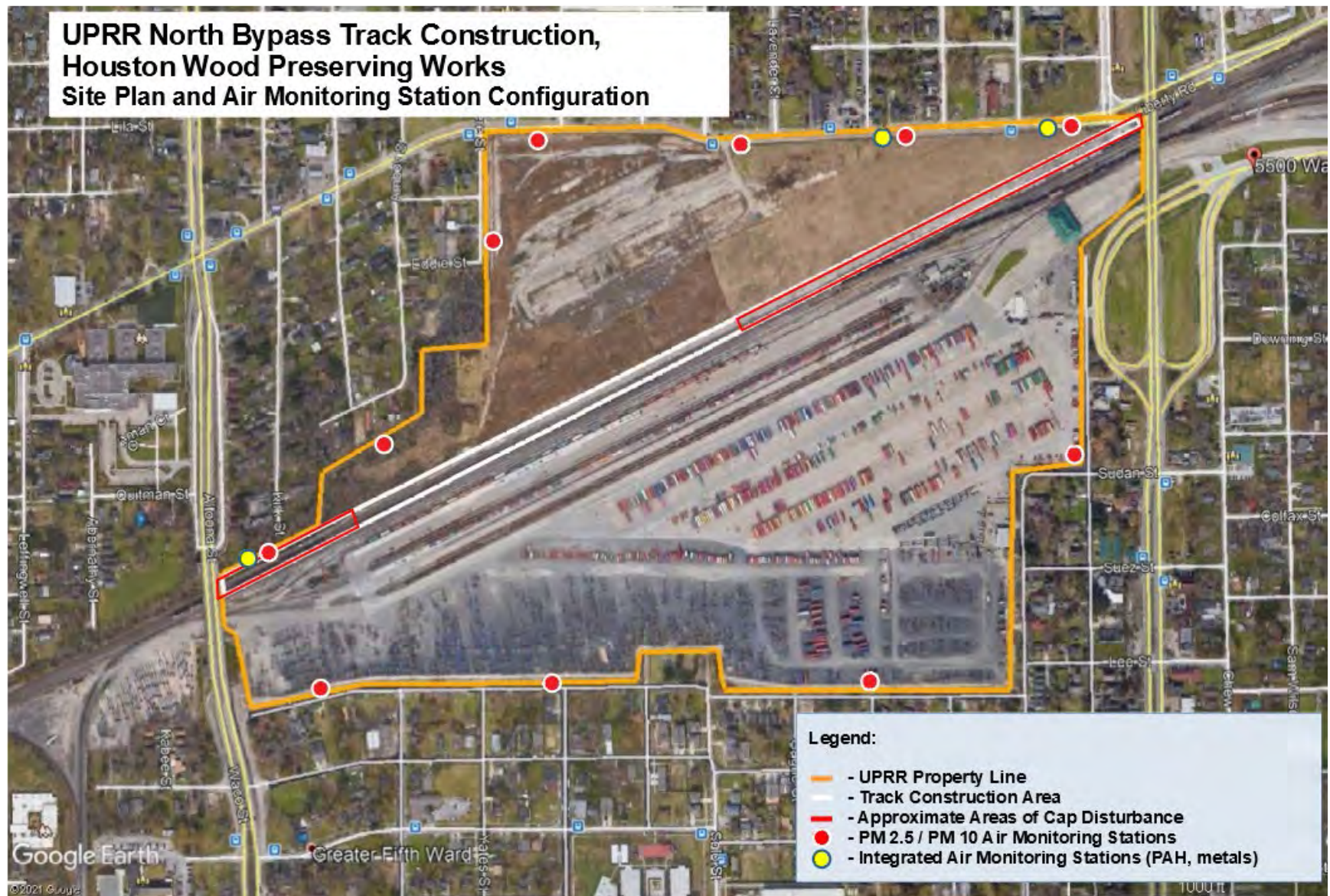


Figure 2. Air Monitoring Station Configuration for North Bypass Track Construction Project, Houston Wood Preserving Works

Notifications

Notifications of exceedances of the particulate Control Levels will be sent via text message to IHST onsite personnel and designated site managers.

The IHST onsite Air Monitoring Specialist will be the primary individual responsible for monitoring the notifications and recommending additional dust mitigation procedures.

Procedures for Air Monitoring Station and/or Weather Station Failure

In the event of failure of one or more monitoring stations and/or the Weather Station, the IHST onsite industrial hygienist will immediately contact the IHST project manager.

The IHST project manager will arrange for timely correction of the problem, including, if necessary, replacement of the affected instrumentation within 24 hours.

Attachment 2: Soil Management Plan

f TECHNICAL MEMORANDUM

DATE April 12, 2021

Project No. 20144747

TO Mr. Chad Williamson - Union Pacific Railroad
Mr. Kevin Peterburs - Union Pacific Railroad

FROM Patrick Marty - Golder Associates Inc.
Eric Matzner, P.G. – Golder Associates Inc.

HOUSTON, TX – ENGLEWOOD YARD – NORTH BYPASS SOIL MANAGEMENT PLAN

Golder Associates Inc. (Golder) prepared this summary of the soil management plan for the Union Pacific Railroad (UPRR) Engineering Englewood Yard - North Bypass Project (the Project Area) (**Figure 1**) located in Houston, Texas. The Project Area includes a portion of the UPRR Houston Wood Preserving Works (HWPW) affected property (SWR# 31547 and TCEQ Hazardous Waste Permit No. 50343). The HWPW site had been historically used for wood preserving operations. The planned construction activities for the Project Area within the HWPW affected property will include excavation of soils from the following areas (**Figure 1**):

- HWPW Soil and Railroad Ballast Cap – estimated 2,761 cubic yards (in-place);
- Soils Adjacent to the Railroad Ballast Cap (east of Waco Street) – estimated 508 cubic yards (in-place); and
- Railroad Ballast Cap at the Englewood Intermodal Yard – estimated 45 cubic yards (in-place).

Based on the historical operations at the HWPW site in conjunction with environmental sampling that had been conducted in these areas, the planned construction activities will likely encounter soils previously impacted from the historical operations (e.g., wood preserving operations). As a result, soils generated from this area will require special handling and will be restricted to off-site disposal at an UPRR authorized TCEQ permitted landfill. Details and recommendations of the soil management plan are provided below.

Field Activities

Golder conducted the soil sampling at the Project Area on January and March 2021 within the HWPW area to refine the waste characterization of the soils planned to be excavated as part of the UPRR Engineering project. Golder oversaw the sampling of 14 shallow soil borings (SE-14 through SE-21 adjacent to HWPW Railroad Ballast Cap and CA-01 through CA-06 within the Soil and Railroad Ballast Cap Areas) within the areas proposed to be excavated within the Project Area. Soil borings SE-14 through SE-21 were advanced to total depths of up to 1.5 feet below ground surface (bgs) and soil borings CA-01 through CA-06 were advanced to total depths up to 8 feet bgs, corresponding to the planned excavation depths, using hand auger tool sampling techniques. The approximate sample locations are shown on **Figure 1**.

The soil samples were collected from the soil borings and screened in the field for organic vapors using a photoionization detector (PID). A total of 18 soil samples were collected during the investigation. Below is a summary of sample intervals and the quantity of samples collected:

- Soil Borings SE-14 through SE-21:
 - Adjacent to HWPW Railroad Ballast Cap:
 - 0 to 1.5 feet bgs – 8 soil boring locations (8 samples).
- Soil Borings CA-01 through CA-06:
 - Soil Cap Area (CA-03 and CA-04):
 - Soil Cap:
 - 0 to 1.5 feet bgs - 2 soil boring locations (2 samples).
 - Below Soil Cap:
 - 1.5 to 1.67 feet bgs – 2 soil boring locations (2 samples).
 - Railroad Ballast Cap Area:
 - 0 to 5 feet bgs – 4 soil boring locations (4 samples); and
 - 5 to 8 feet bgs – 2 soil boring locations (2 samples).

Soil samples collected from SE-14 through SE-21 were shipped under proper chain-of-custody protocol to Pace National in Mt. Juliet, Tennessee and analyzed for the following constituents:

- Volatile Organic Compounds (VOCs) by SW-846 Method 8260;
- Semi-Volatile Organic Compounds (SVOCs) by SW-846 Method 8270;
- Total Petroleum Hydrocarbons (TPH) by Texas Method 1005;
- RCRA Metals by SW-846 Methods 6000/7000 series; and
- pH by EPA Method 9045.

Soil samples collected from CA-01 through CA-06 were shipped under proper chain-of-custody protocol to Pace National in Mt. Juliet, Tennessee and analyzed for the following constituents:

- Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) SW-846 Method 8260;
- SVOCs by SW-846 Method 8270;
- TPH by Texas Method 1005;
- Total arsenic, chromium, and lead by SW-846 Methods 6000/7000 series; and
- RCRA Metals by SW-846 Methods 6000/7000 series by Toxicity Characteristic Leaching Procedure (TCLP).

A summary of the analytical results for constituents that were detected is provided on **Table 1**. Analytical data reports are provided in **Attachment A**.

Due to relatively small volume (approximately 45 cubic yards (in-place)) of soil anticipated to be generated from the excavations at the Railroad Ballast Cap in the Englewood Intermodal Yard area, in-situ soil samples for waste classification samples were not collected. Therefore, soils excavated from the Railroad Ballast Cap Area will be placed in lined roll-off boxes and waste classification soil samples will be collected once the soil is generated.

Data Evaluation

The soil analytical results were compared to the following criteria:

- HWPW Soil and Railroad Ballast Cap Area Samples (CA-01 through CA-06):

- o TCEQ Texas Risk Reduction Program (TRRP) Residential Protective Concentration Levels (PCLs);
 - o TCEQ Texas-Specific Soil Background Concentrations (TSBCs); and
 - o EPA Alternative Land Disposal Restriction (LDR) Treatment Standards for Contaminated Soil (ten times (10x) Universal Treatment Standards (UTS)) following 40 CFR §268.48 and 40 CFR §268.49.
- Soil Samples collected adjacent to HWPW Railroad Ballast Cap (SE-14 through SE-21) in the southwest portion of the HWPW area:
 - o TCEQ TRRP Residential PCLs;
 - o TCEQ TSBCs; and
 - o TCEQ Guidance for the Classification and Coding of Industrial and Hazardous Wastes (RG-022, 02/05).

Analytical data were compared to the above standards to preliminarily evaluate for potential chemicals of concern (COCs) in soils within the Project Area. Soil data were conservatively compared to TCEQ TRRP Residential Assessment Levels (RALs) based on the lowest applicable human health Tier 1 Residential PCL and Class 1 groundwater (initially based on the conservative 30-acre source area values and then further evaluated using 0.5-acre PCLs if the 30-acre PCL was exceeded). Where a TSBC was applicable (i.e., arsenic, barium, lead, mercury, and selenium) and the published background concentration was higher than the applicable Residential PCL, the TSBC was used as the RAL for comparison to the analytical data. If soil sample data indicated concentrations above RALs, then recommendations for a soil management plan would be developed. Details of the soil evaluation using RALs and TSBCs for the two areas listed above are provided below.

HWPW Soil and Railroad Ballast Cap Area

The HWPW site, which is a TCEQ registered RCRA Permitted (Post-Closure Care) Facility, had been historically used for wood preserving operations. The planned construction activities in this area will likely encounter soils previously impacted from the wood preserving operations based on environmental sampling that had been conducted in this area. As a result, soils generated from this area where either solid waste management units (SWMUs) or areas of concern (AOCs) have been previously identified as used to manage wastes¹ will need to be classified as containing listed hazardous waste (F034/K001) (unless otherwise demonstrated with TCEQ approval) and will be restricted to off-site disposal only. Soil borings installed at locations CA-01 and CA-06 encountered heavily stained soils along with non-aqueous phase liquid (NAPL) observed within the soils. Analytical results from the soil samples collected from the HWPW Cap Area (CA-01 through CA-06) were compared to the TCEQ TRRP Residential PCLs and EPA Alternative Land Disposal Restriction (LDR) Treatment Standards for Contaminated Soil (ten times (10x) Universal Treatment Standards (UTS)) following 40 CFR §268.48 and 40 CFR §268.49 to further evaluate waste characterization and potential treatment requirements for disposal of soils once generated.

BTEX

BTEX was detected above the SDLs in nine samples collected from the Project Area. However, none of the reported BTEX concentrations exceeded their respective TRRP RALs, based on TRRP 30-acre Residential ^{GW}Soil_{ing} PCLs.

SVOCs

Of the SVOCs analyzed, 21 SVOCs were detected above their respective sample detection limits (SDLs). However, none of the concentrations were reported above their respective TRRP 30-acre Residential PCLs. In addition, 19

¹ PRC Environmental Management, Inc. (PRC), 1993. *RCRA Facility Assessment Report, Southern Pacific Transportation Company, Houston, Texas, TXD 000820266*. October.

SVOCs from the 10 soil samples collected in the Cap Area had adjusted SDLs above the TRRP Tier 1 Residential PCLs, however, none of these SVOCs were detected above their adjusted SDLs.

In addition, none of the reported concentrations of SVOCs were detected above the 10x UTSs for F034/K001. Based on these results, soils to be generated from Cap Areas appear to meet the LDR alternative soil treatment standards (40 CFR 268.49(c)(1)) and will likely not require treatment prior to disposal at a UPRR approved TCEQ permitted disposal facility.

TPH

TPH was detected above the SDLs in the C₆-C₁₂, >C₁₂-C₂₈ and >C₂₈-C₃₅ ranges in eight samples collected from the Project Area. Soil samples with TPH concentrations above TRRP RALs, based on TRRP 30-acre Residential ^{GW}Soil_{ing} PCLs, are summarized below:

Sample Location	TPH C ₆ -C ₁₂ (mg/kg)	TPH >C ₁₂ -C ₂₈ (mg/kg)	TPH >C ₂₈ -C ₃₅ (mg/kg)	Total TPH (mg/kg)
TRRP RALs (30 ac/0.5 ac)	33/65	99/200	99/200	1,500*
CA-01 (5-8)	<18.7	125	25.6	150
CA-02 (0-2)	122	1,770	629	2,520
CA-06 (5-8)	24	267	26	317

Note: 30 ac = TRRP 30-acre Residential ^{GW}Soil_{ing} PCL; 0.5 ac = TRRP 0.5-acre Residential ^{GW}Soil_{ing} PCL

* = Total TPH was compared to TCEQ Guidance for the Classification and Coding of Industrial and Hazardous Wastes (RG-022, 02/05)

Each of the highlighted TPH range concentrations listed above exceeded both the TRRP 30-acre Residential ^{GW}Soil_{ing} PCL and the TRRP 0.5-acre Residential ^{GW}Soil_{ing} PCL. However, none of the TPH detections listed in the table above exceeded their respective Residential ^{Tot}Soil_{Comb} PCL.

Metals

Arsenic and lead were detected at concentrations that exceeded the higher of their respective TRRP RALs or TSBCs: arsenic (5.9 mg/kg) and lead (15 mg/kg), as detailed below:

- Arsenic was detected in nine samples collected from the Project Area at concentrations ranging from 1.51 mg/kg to 9.81 mg/kg. Two samples had reported concentrations above the TRRP RAL (based on TSBC) of 5.9 mg/kg, however, none of the reported concentration exceeded the TRRP Residential ^{Tot}Soil_{Comb} PCL of 24 mg/kg.
- Lead was detected in 10 samples collected from the Project Area at concentrations ranging from 7.63 mg/kg to 77.9 mg/kg. Six samples had reported concentrations above the TRRP RAL (based on TSBC) of 15 mg/kg, however, none of the reported concentration exceeded the TRRP Residential ^{Tot}Soil_{Comb} PCL of 500 mg/kg.

TCLP Metals

Barium was the only metal with TCLP results detected above the method quantitation limit (MQL) in the 10 samples collected from the Cap Area. TCLP barium was reported at concentrations ranging from 0.839 mg/L to 2.53 mg/L.

None of the TCLP barium results exceeded EPA Maximum Concentration of Contaminant for the Toxicity Characteristics of 100.0 mg/L, the TCEQ Class 1 Toxic Constituents' MCL of 100.0 mg/L, or the 10x UTS of 210.0 mg/L for barium.

Soils Adjacent to the Railroad Ballast Cap

VOCs

Of the VOCs analyzed, 8 VOCs were detected above the SDLs in the 8 soil samples collected from the Project Area. However, none of those VOCs were detected with reported concentrations above their respective TRRP RALs (based on TRRP Residential 30-acre ^{GW}Soil_{Ing} PCL).

SVOCs

Of the SVOCs analyzed, 17 SVOCs were detected above the SDLs in 8 soil samples collected from the Project Area. However, none of those SVOCs were not detected with reported concentrations above their respective TRRP RALs (based on TRRP Residential 30-acre ^{GW}Soil_{Ing} PCL).

TPH

TPH was detected above the SDLs in the >C₁₂-C₂₈ and >C₂₈-C₃₅ ranges in two samples collected from the Project Area. However, as with the VOCs and SVOCs, none of the reported TPH concentrations exceeded their respective TRRP RALs, based on TRRP 30-acre Residential ^{GW}Soil_{Ing} PCLs.

Metals

Six metals were detected at concentrations that exceeded the higher of their respective TRRP RALs or TSBCs: arsenic (5.9 mg/kg), barium (300 mg/kg), cadmium (0.75 mg/kg), lead (15 mg/kg), selenium (1.1 mg/kg), and silver (0.24 mg/kg), as detailed below:

- Arsenic was detected in eight samples collected from the Project Area at concentrations ranging from 3.33 mg/kg to 47.1 mg/kg. Seven samples had reported concentrations above the TRRP RAL (based on TSBC) of 5.9 mg/kg and three samples had reported arsenic concentrations above the TRRP Residential ^{Tot}Soil_{Comb} PCL of 24 mg/kg. However, none of the reported arsenic concentrations in the soil samples exceeded the TRRP Commercial/Industrial (C/I) ^{Tot}Soil_{Comb} PCL of 200 mg/kg.

Soil samples SE-15 (0-0.5), SE-16 (0-0.5), and SE-20 (0-0.5) had arsenic concentrations reported above the TSBC of 5.9 mg/kg but below the TRRP Residential ^{Tot}Soil_{Comb} PCL and were therefore selected to be analyzed by SPLP for arsenic. Soil sample SE-21 (0-0.5) was selected for SPLP based on the preliminary analytical result of 22.7 mg/kg, however, the final reported concentration of 25.5 mg/kg exceeded the TRRP Residential ^{Tot}Soil_{Comb} PCL. The SPLP arsenic results are summarized below:

Sample Location	Total Arsenic (mg/kg)	SPLP Arsenic (mg/L)
SE-15 (0-0.5)	22.4	0.0368
SE-16 (0-0.5)	14	0.025
SE-20 (0-0.5)	14.3	0.0221
SE-21 (0-0.5)	25.5	0.0371

The SPLP arsenic results highlighted above exceeded the TRRP Tier 1 ^{GW}GW_{ING} PCL of 0.01 mg/L and indicate that these arsenic concentrations from the top 0.5-foot of surface soils are potentially not protective of groundwater if the soils represented by these samples were located within a saturated zone.

The arsenic concentrations from SE-17 (0-0.5) and SE-19 (0-1) were reported above 36 mg/kg (equating to twenty times (20x) the TCEQ Class 1 Toxic Constituents' MLC of 1.8 mg/L). Therefore, the samples were selected to be analyzed for arsenic by Toxicity Characteristic Leaching Procedure (TCLP). The TCLP arsenic result is summarized below.

Sample Location	Total Arsenic (mg/kg)	TCLP Arsenic (mg/L)
SE-17 (0-0.5)	45.8	<0.100
SE-19 (0-1)	47.1	<0.100

The TCLP arsenic results did not exceed the EPA Maximum Concentration of Contaminant for the Toxicity Characteristics of 5.0 mg/L or the TCEQ Class 1 Toxic Constituents' MCL of 1.8 mg/L for arsenic. Based on the arsenic results from the samples analyzed for TCLP soils from the area represented by the aforementioned samples would likely be classified as Class 2 nonhazardous industrial waste (once generated)

- Barium was detected above the TRRP RAL (based on TSBC) of 300 mg/kg and the TRRP 0.5-acre Residential ^{GW}Soil_{ING} PCL of 440 mg/kg in four samples collected from the Project Area at reported concentrations ranging from 491 mg/kg (SE-16 (0-0.5)) to 1,030 mg/kg (SE-17 (0-0.5)). However, none of the reported concentrations exceeded the TRRP 0.5-acre Residential ^{Tot}Soil_{Comb} PCL of 8,100 mg/kg.

The barium concentrations from SE-15 (0-0.5), and SE-16 (0-0.5) were reported above the TRRP Residential PCL of 440 mg/kg and were therefore selected to be analyzed by SPLP for barium. The SPLP barium results are summarized below:

Sample Location	Total Barium (mg/kg)	SPLP Barium (mg/L)
SE-15 (0-0.5)	563	0.247
SE-16 (0-0.5)	491	0.199

The SPLP barium results did not exceed the TRRP Tier 1 ^{GW}GW_{ING} PCL of 2.0 mg/L and indicate that the barium concentrations reported from the Project Area are protective of groundwater.

- Cadmium was detected above the TRRP RAL (30-acre Residential ^{GW}Soil_{ING} PCL) of 0.75 mg/kg in six samples at reported concentrations ranging from 0.869 mg/kg (SE-15 (0-0.5)) to 2.93 mg/kg (SE-17 (0-0.5)). Only two of those samples (SE-17 (0-0.5) and SE-19 (0-1)) had reported cadmium concentrations that exceeded the TRRP Residential 0.5-acre ^{GW}Soil_{ING} PCL of 1.5 mg/kg. None of the reported concentrations of cadmium exceeded the TRRP 0.5-acre Residential ^{Tot}Soil_{Comb} PCL of 52 mg/kg. The soil samples from SE-17 and SE-19 were not selected to be analyzed for cadmium by SPLP because the soil from these areas will be restricted to off-site disposal due to reported concentrations of other constituents (arsenic).

- Lead was detected above the TRRP RAL (based on TSBC) of 15 mg/kg in seven samples collected from the Project Area. Samples with detected concentrations of lead above the TSBC of 15 mg/kg ranged from 35.8 mg/kg (SE-18 (0-1.25)) to 633 mg/kg (SE-17 (0-0.5)). Additionally, sample SE-17 (0-0.5) was detected at a concentration that exceeded the TRRP Residential 30-acre $TotSoil_{Comb}$ PCL of 500 mg/kg. However, none of the detected lead concentrations exceeded the C/I $TotSoil_{Comb}$ PCL of 1,600 mg/kg.

Soil sample SE-15 (0-0.5) had reported lead concentrations above the TRRP RAL (based on TSBC) of 15 mg/kg and was therefore selected to be analyzed by SPLP for lead. The SPLP lead results are summarized below:

Sample Location	Total Lead (mg/kg)	SPLP Lead (mg/L)
SE-15 (0-0.5)	80.2	0.1

The SPLP lead results highlighted above exceeded the TRRP Tier 1 $^{GW}GW_{ING}$ PCL of 0.015 mg/L and indicate that these lead concentrations from the top 0.5-foot of surface soils are potentially not protective of groundwater if the soils represented by these samples were located within a saturated zone.

Soil samples with lead concentrations reported above 30 mg/kg (equating to twenty times (20x) the TCEQ Class 1 Toxic Constituents' MLC of 1.5 mg/L) were selected to be analyzed for lead by TCLP. The TCLP results are summarized below:

Sample Location	Total Lead (mg/kg)	TCLP Lead (mg/L)
SE-15 (0-0.5)	80.2	<0.100
SE-16 (0-0.5)	76.6	<0.100
SE-17 (0-0.5)	633	<0.100
SE-18 (0-1.25)	35.8	<0.100
SE-19 (0-1)	112	<0.100
SE-20 (0-0.5)	44.5	<0.100
SE-21 (0-0.5)	60.2	<0.100

The TCLP lead results from soil samples listed above did not exceed the EPA Maximum Concentration of Contaminant for the Toxicity Characteristics of 5.0 mg/L or the TCEQ Class 1 Toxic Constituents' MCL of 1.5 mg/L for lead. Based on the TCLP lead results from samples collected from the aforementioned soil sample locations, the soils from those areas would likely be classified as Class 2 nonhazardous industrial waste (once generated).

- Selenium was detected above the TRRP RAL (30-acre Residential $^{GW}Soil_{ING}$ PCL) of 1.1 mg/kg in eight samples at reported concentrations ranging from 1.39 mg/kg (SE-18 (0-1.25)) to 3.07 mg/kg (SE-17 (0-0.5)). Samples SE-17 (0-0.5), SE-19 (0-1), and SE-21 (0-0.5) also had a reported selenium concentration that exceeded the TRRP Residential 0.5-acre $^{GW}Soil_{ING}$ PCL of 2.3 mg/kg. However, none of the reported concentrations of selenium exceeded the TRRP 0.5-acre Residential $TotSoil_{Comb}$ PCL of 308 mg/kg.

The selenium concentration from SE-21 (0-0.5) was reported above the TRRP Residential PCL of 2.3 mg/kg and was therefore selected to be analyzed by SPLP for selenium. The SPLP selenium result is summarized below:

Sample Location	Total Selenium (mg/kg)	SPLP Selenium (mg/L)
SE-21 (0-0.5)	2.66	<0.00735

The SPLP selenium result did not exceed the TRRP Tier 1 ^{GW}GW_{ING} PCL of 0.05 mg/L and indicate that the selenium concentrations reported from the Project Area are protective of groundwater.

- Silver was detected above the TRRP RAL (30-acre Residential ^{GW}Soil_{ING} PCL) of 0.24 mg/kg in one sample collected from the Project Area at reported concentration of 0.4 J mg/kg (SE-17 (0-0.5)). However, the reported concentration from SE-17 (0-0.5) did not exceed the TRRP 0.5-acre ^{GW}Soil_{ING} PCL of 2.3 mg/kg.

Conclusions

Based on this preliminary soil evaluation, the following conclusions were developed:

HWPW Soil and Railroad Ballast Cap Areas

SVOCs and Metals

Soils generated in the HWPW Soil and Railroad Ballast Cap Areas will be classified as listed hazardous waste (F034/K001) (unless otherwise demonstrated with TCEQ approval). None of the SVOCs, total metals, or TCLP metals results were detected above their respective UTSS for the samples collected in this area. Therefore, based on these results, soils generated from the HWPW Soil and Railroad Ballast Cap Areas will likely not require treatment prior to disposal at a UPRR approved TCEQ permitted disposal facility.

TPH

The TPH concentration reported in the >C₆-C₁₂ range from soil sample CA-02 was detected above the TRRP 0.5-acre Residential ^{GW}Soil_{ING} PCL of 65 mg/kg. The reported concentrations of the >C₁₂-C₂₈ range from soil samples CA-02 and CA-06 were detected above the TRRP 0.5-acre Residential ^{GW}Soil_{ING} PCL of 200 mg/kg. In addition, the reported concentration of the >C₂₈-C₃₅ range from soil samples CA-02 was detected above the TRRP 0.5-acre Residential ^{GW}Soil_{ING} PCL of 200 mg/kg. However, based on the elevated TPH concentrations from CA-02 and the visual observations in the field, heavy contamination is anticipated to be encountered during excavation in the HWPW Cap Area.

Soils Adjacent to the Railroad Ballast Cap

VOCs and SVOCs

None of the reported VOCs and SVOCs concentrations in the soil samples collected within the Project Area exceeded their respective TRRP 30-acre RALs.

Metals

Of the six metals (arsenic, barium, cadmium, lead, selenium, and silver) that were detected at concentrations that exceeded the higher of their respective TRRP RALs or TSBCs, none were reported at concentrations exceeding their respective TRRP Residential ^{Tot}Soil_{Comb} PCLs.

Arsenic and lead detections equating to twenty times (20x) the TCEQ Class 1 Toxic Constituents' MCLs were selected for TCLP analysis. None of the soil sample TCLP metals results exceeded the EPA Maximum Concentrations of Contaminants for the Toxicity Characteristics or the TCEQ Class 1 Toxic Constituents' MLCs respectively. Based on the TCLP metals results, if the soils from the Project Area would likely be classified as non-hazardous Class 2 industrial waste (once generated).

Soil Management Plan

Based on these conclusions, soil disturbed as part of the Engineering North Bypass Project will managed as follows:

HWPW Soil and Railroad Ballast Cap Area

Soils generated within the Project Area located in the HWPW Soil and Railroad Ballast Cap Areas will be restricted to off-site disposal and classified as containing listed hazardous waste (F034/K001) (unless otherwise demonstrated with TCEQ approval). The soils generated from this area must either be direct-loaded or placed into lined roll-off boxes for off-site disposal at a UPRR approved TCEQ permitted landfill facility.

Soils Adjacent to the Railroad Ballast Cap

Soils adjacent to the Railroad Ballast Cap generated as part of the Project Area will likely be classified as non-hazardous Class 2 industrial waste. The soils generated from this area will be disposed of off-site at a UPRR approved TCEQ permitted landfill facility.

Railroad Ballast Cap at the Englewood Intermodal Yard

Soils generated from the construction activities from the Railroad Ballast Cap at the Englewood Intermodal Yard will be placed into lined roll-off boxes pending disposal at a UPRR approved TCEQ permitted landfill facility. Soil samples for waste classification will be collected once the soils are generated.

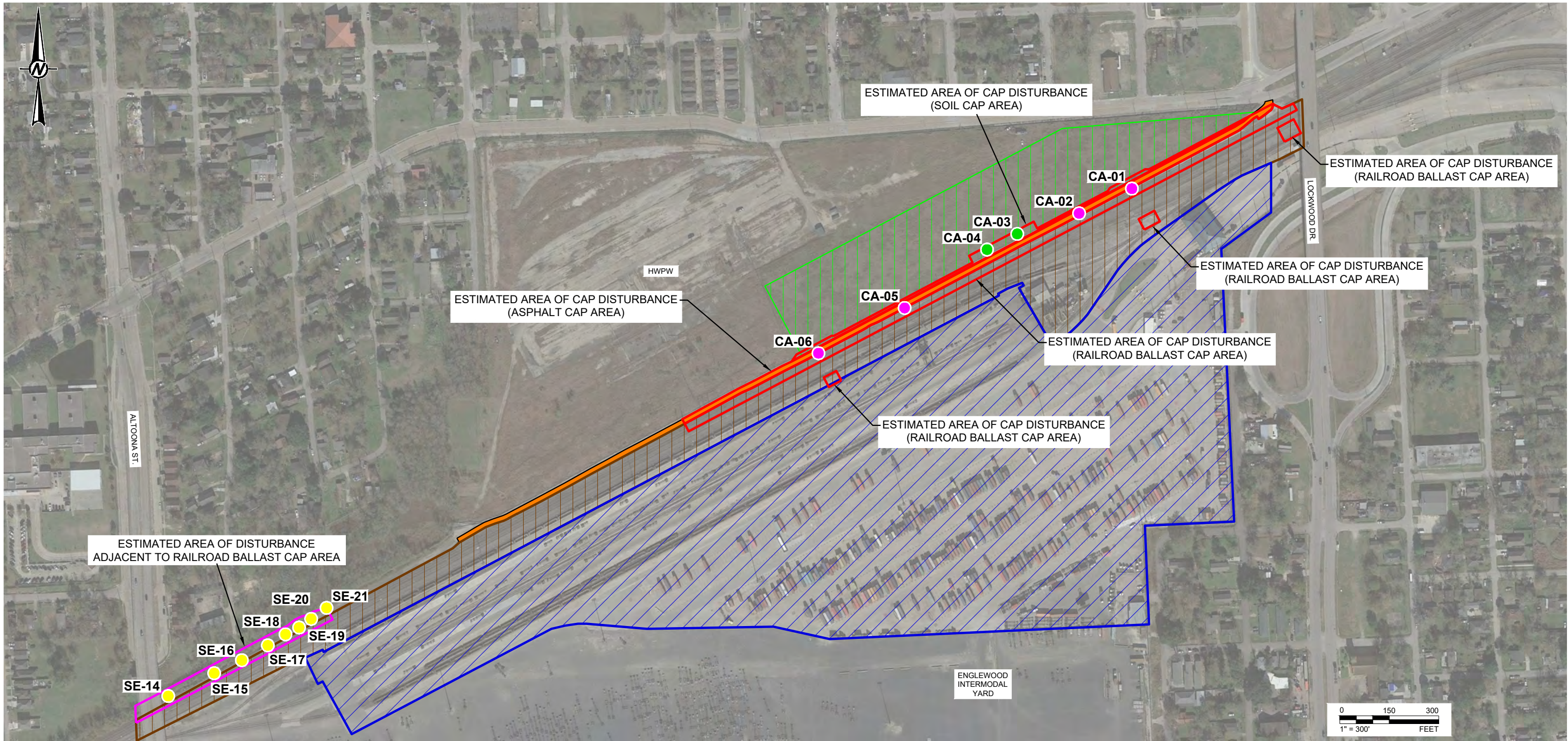
Table

Table 1
Summary of Soil Analytical Results
UPRR Houston, TX - Englewood Yard - North Bypass
Houston, Texas

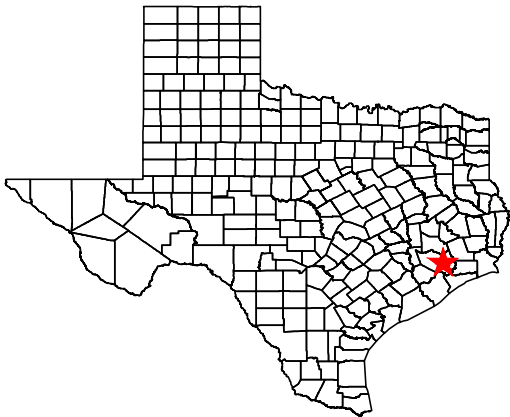
Sample Location	TRRP Tier 1 Residential Assessment Level (mg/kg)	TRRP Tier1 Residential 0.5-acre PCL (mg/kg)	Texas Specific Background Concentrations (mg/kg)	Universal Treatment Standard (10x)	SE-14	SE-15	SE-16	SE-17	SE-18	SE-19	SE-20	SE-21	CA-01	CA-01	CA-02	CA-03	CA-03	CA-04	CA-04	CA-05	CA-06	CA-06
Sample Depth (ft BGS)					0-0.5	0-0.5	0-0.5	0-0.5	0-1.25	0-1	0-0.5	0-0.5	0-5	5-8	0-2	0-1.5	1.5-1.67	0-1.5	1.5-1.62	0-2	0-5	5-8
Station Number					1073+75	1075+25	1076+00	1077+00	1077+50	1078+00	1078+50	1079+00	1106+90	1106+90	1105+00	1103+20	1103+20	1102+05	1102+05	1099+00	1096+00	1096+00
Sample Date					1/27/2021	1/27/2021	1/27/2021	1/27/2021	1/27/2021	1/27/2021	1/27/2021	1/27/2021	3/12/2021	3/12/2021	3/12/2021	3/12/2021	3/12/2021	3/12/2021	3/12/2021	3/12/2021	3/12/2021	3/12/2021
RCRA Metals																						
ARSENIC	2.5	5	5.9	--	3.33	22.4	14	45.8	8.25	47.1	14.3	25.5	1.53 J	6.36	9.81	1.51 J	4.38	4.21	<0.576	1.64 J	2.51 J	1.75 J
	SPLP ARSENIC (mg/L)	0.01	--	--	--	0.0368	0.025	--	--	--	0.0221	0.0371	--	--	--	--	--	--	--	--	--	--
	TCLP ARSENIC (mg/L)	1.80	5.0	--	50.0	--	--	<0.100	--	<0.100	--	--	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
BARIUM	220	440	300	--	165	563	491	1030	199	514	197	296	--	--	--	--	--	--	--	--	--	--
	SPLP BARIUM (mg/L)	2.0	--	--	--	0.247	0.199	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	TCLP BARIUM (mg/L)	100.0	100.0	--	210.0	100.0	--	--	--	--	--	--	2.51	2.53	1.44	1.4	1.5	2.02	0.958	0.839	1.18	2.26
CADMIUM	0.75	1.5	--	--	0.312 J	0.869	1.31	2.93	0.456 J	2.24	0.873	1.26	--	--	--	--	--	--	--	--	--	--
	TCLP CADMIUM (mg/L)	0.5	1.0	--	11.0	--	--	--	--	--	--	--	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
CHROMIUM	1200	2400	30	--	15.5	20.8	76.1	55.9	19.1	31.8	23.6	73.6	14.3	15.7	17.6	8.96	14.8	8.55	14.4	10.1	14.1	18.4
	TCLP CHROMIUM (mg/L)	5	5.0	--	60.0	--	--	--	--	--	--	--	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
LEAD	1.5	3	15	--	7.8	80.2	76.6	633	35.8	112	44.5	60.2	21.1	37.6	77.9	7.63	26.3	10.7	41.7	10.2	23.1	8.8
	SPLP LEAD (mg/L)	0.015	--	--	--	0.1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	TCLP LEAD (mg/L)	1.5	5.0	--	75.0	--	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
SELENIUM	1.1	2.3	0.3	--	1.91 J	1.88 J	2.3	3.07	1.39 J	2.8	1.85 J	2.66	--	--	--	--	--	--	--	--	--	--
	SPLP SELENIUM (mg/L)	0.05	--	--	--	--	--	--	--	--	--	<0.00735	--	--	--	--	--	--	--	--	--	--
	TCLP SELENIUM (mg/L)	1.0	1.0	--	57.0	--	--	--	--	--	--	--	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
SILVER	0.24	0.48	--	--	<0.160	<0.135	<0.141	0.4 J	<0.151	0.184 J	<0.139	<0.143	--	--	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
	TCLP SILVER (mg/L)	1	1.0	--	14.0	--	--	--	--	--	--	--	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
MERCURY	1	2.1	0.04	--	<0.0226	0.0334 J	0.0588	0.22	0.023 J	0.135	0.0444	0.0458	--	--	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
	TCLP MERCURY (mg/L)	0.2	0.2	--	2.5	--	--	--	--	--	--	--	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
TPH																						
TPH C6 - C12	33	65	--	--	<19.2	<16.0	<16.7	<16.3	<17.8	<16.5	<16.4	<16.9	<19.3	<18.7	122	<17.8	<17.1	<18.3	<16.7	<17.9	<19.6	24
TPH C12 - C28	99	200	--	--	<19.2	<16.0	<16.7	<16.3	<17.8	67.7	<16.4	36.9 J	22.8	125	1770	92.5	46.9	<18.3	50.6	<17.9	50.3	267
TPH C28 - C35	99	200	--	--	<19.2	<16.0	<16.7	<16.3	<17.8	88.3	<16.4	65.7	<19.3	25.6	629	46.5	42.1	<18.3	49.7	<17.9	<19.6	26
TPH C6 - C35	1500	--	--	--	<19.2	<16.0	<16.7	<16.3	<17.8	156	<16.4	103	22.8 J	150	2520	139	89.1	<18.3	100	<17.9	50.3 J	317
VOCs																						
BENZENE	0.013	0.026	--	--	<0.000723	<0.000538	<0.000775	<0.000575	<0.000673	<0.000585	<0.000585	<0.000599	<0.000667	<0.000699	<0.000607	<0.000641	0.000767 J	<0.000671	<0.000571	<0.000624	0.000786 J	<0.000738
ETHYLBENZENE	3.8	7.6	--	--	<0.00114	<0.000849	0.00166 J	<0.000907	<0.00106	<0.000923	<0.000923	<0.000946	0.00125 J	0.00326 J	0.0333	<0.00101	0.0111	<0.00106	0.00591	0.00187 J	0.0913	0.00632
ISOPROPYLBENZENE	170	350	--	--	<0.000658	<0.000489	0.00689	<0.000523	<0.000613	0.000663 J	0.000626 J	0.000573 J	--	--	--	--	--	--	--	--	--	--
P-ISOPROPYLTOLUENE	120	230	--	--	<0.00395	<0.00294	<0.00423	<0.00314	<0.00368	<0.00319	<0.00319	<0.00327	--	--	--	--	--	--	--	--	--	--
2-BUTANONE (MEK)	15	29	--	--	0.0986 J	<0.0731	<0.105	<0.0782	<0.0915	<0.0795	<0.0795	<0.0815	--	--	--	--	--	--	--	--	--	--
METHYLENE CHLORIDE	0.0065	0.013	--	--	<0.0103	<0.00765	<0.0110	<0.00817	<0.00957	<0.00832	<0.00831	<0.00852	--	--	--	--	--	--	--	--	--	--
NAPHTHALENE	16	31	--	--	<0.00755	<0.00562	0.0183 J	<0.00601	<0.00703	0.0197	0.00666 J	<0.00626	--	--	--	--	--	--	--	--	--	--
N-PROPYLBENZENE	22	45	--	--	<0.00147	<0.00109	<0.00158	<0.00117	<0.00137	<0.00119	<0.00119	<0.00122	--	--	--	--	--	--	--	--	--	--
STYRENE	1.6	3.3	--	--	<0.00354	0.000302 J	0.00124 J	<0.00282	0.000369 J	0.00137 J	0.001 J	0.000365 J	--	--	--	--	--	--	--	--	--	--
TOLUENE	4.1	8.2	--	--	<0.00201	<0.00150	<0.00216	<0.00187	<0.00163	<0.00163	<0.00167	0.00279 J	0.00446 J	0.0277	0.00638 J	0.0167	<0.00187	0.0157	0.00338 J	0.00915	0.0036 J	--
1,2,4-TRIMETHYLBENZENE	16	33	--	--	<0.00245	<0.00182	0.00377 J	<0.00194	<0.00228	<0.00198	<0.00198	0.00266	--	--	--	--	--	--	--	--	--	--
XYLENES, TOTAL	61	120	--	--	<0.00136	0.00217 J	0.00984 J	0.00426 J	0.00441 J	0.00346 J	0.00159 J	0.00338 J	0.00837 J	0.00985	0.152	0.00124 J	0.0281	<0.00126	0.0333	0.0125	0.881	0.0869
SVOCs																						
ACENAPHTHENE	120	240	--	34.0	<0.00678	0.0153 J	<0.00600	<0.00586	<0.00639	<0.237	<0.0589	<0.0607	0.0254 J	4.62	0.321	0.0068 J	<0.00614	<0.00656	<0.00599	<0.00630	11	7.75
ACENAPHTHYLENE	200	410	--	34.0	<0.00590	0.107	0.177 J	0.112 J	0.9885	0.769 J	0.396	0.313 J	0.0139 J	0.0759	0.0592 J	<0.00586	0.0497	<0.00571	0.0071	<0.00548	0.281 J	0.137
ANTHRACENE	3400.0	6900.0	--	34.0	<0.00746	0.132	0.197 J	0.189 J	0.222	1.26 J	0.612	1.14	0.9373 J	3.37	0.282	0.0105 J	0.234	<0.00722	0.173	<0.00693	6.95	4.4
BENZO(A)ANTHRACENE	65.0	130.0	--	34.0	<0.00738	0.235	0.43	0.195 J	0.13	0.865 J	0.385	0.628	0.0862	3.75	0.344	0.0273 J	0.0816	0.00756 J	0.08	<0.00686	4.1	2.5
BENZO(B)FLUORANTHENE	220	440	--	68.0	<0.00781	0.616	1.57	0.712 J	0.43	5.6	1.68	1.36	0.142	1.56	0.601	0.0552	0.781	0.0199 J	0.496	<0.00726	2.02	1.11
BENZO(K)FLUORANTHENE	2200	4500	--	68.0	<0.00744	0.156	0.424	0.227 J	0.126	1.26 J	0.483	0.427	0.0437	0.468	0.186	0.0159 J	0.23	<0.00721	0.118	<0.00692	0.665	0.428
BENZO(G,H,I)PERYLENE	23000	46000	--	18.0	<0.00766	0.274	0.355 J	0.241 J	0.277	1.6	0.824	1.58	0.0444	0.105	0.0621 J	0.0148 J	0.0756	0.0296 J	0.068	<0.00712	0.0892	0.0542
BENZO(A)PYRENE	3.8	7.6	--	34.0	<0.00778	0.298	0.662	0.32 J	0.193	2.52	0.784	0.701	0.067	0.785	0.229	0.0217 J	0.205	0.00989 J	0.167	<0.00723	0.971	0.579
CARBAZOLE	2.3	4.6	--	--	<0.0130	0.0784 J	<0.115	<0.112	0.0827 J	0.757 J	0.23 J	0.188 J	0.0155 J	0.113 J	0.101 J	<0.0122	0.0245 J	<0.0125	0.0209 J	<0.0120	<0.135	2.64 J
CHRYSENE	5600	11000	--	34.0	<0.00832	0.317	0.483	0.307 J	0.14	0.756 J	0.461	0.535	0.113	3.42	0.391	0.0281 J	0.174	<0.00806	0.0387	<0.00773	3.5	2.11
DIBENZ(A,H)ANTHRACENE	7.6	15	--	82.0	<0.0116	0.0416 J	<0.103	<0.201	0.0234 J	<0.407	0.119 J	0.158 J	<0.0112	0.0445	<0.0213	<0.0109	0.0229 J	<0.0112	0.018 J	<0.0108	0.04 J	

Figure

Path: \\TexasRailData\\Projects - Round Rock - 20200144747 - UPRR Englewood Yard North Bypass\\PRODUCT\\042021-03 - HWPW Cap Areas.dwg | Last Edited By: adiamond | Date: 2021-04-15 Time: 4:21:25 PM | Printed By: adiamond | Date: 2021-04-15 Time: 4:22:21 PM



KEY MAP



LEGEND

- SOIL CAP BORING LOCATION
- RAILROAD BALLAST CAP BORING LOCATION
- ADJACENT TO RAILROAD BALLAST CAP BORING LOCATION
- RAILROAD BALLAST CAP AREA
- ASPHALT CAP AREA
- SOIL CAP
- CONCRETE CAP AREA
- ESTIMATED AREA OF CAP DISTURBANCE
- ESTIMATED AREA OF DISTURBANCE ADJACENT TO RAILROAD BALLAST CAP AREA

REFERENCE(S)

BASE MAP TAKEN FROM GOOGLE EARTH, IMAGERY DATED 12/1/19.

CLIENT
UNION PACIFIC RAILROAD CO.

PROJECT
ENGLEWOOD YARD - NORTH BYPASS
HOUSTON, TEXAS

TITLE
HWPW SOIL AND RAILROAD BALLAST CAP AREA AND
SOIL ADJACENT TO THE RAILROAD BALLAST CAP

CONSULTANT	YYYY-MM-DD	2021-04-15
DESIGNED	AJD	
PREPARED	AJD	
REVIEWED	AR	
APPROVED	PM	



PROJECT NO.
20144747

CONTROL

REV.
0

FIGURE
1

1 in IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSI B

ATTACHMENT A

Laboratory Analytical Reports

UPRR - Golder Associates

Sample Delivery Group: L1311179
Samples Received: 01/28/2021
Project Number: 1712
Description: Houston TX-Houston Subd. MP358.2-360.3
Englewood Yard North
Site: SOIL EVALUATION
Report To: Patrick Marty
2201 Double Creek Dr., Ste 4004
Round Rock, TX 78664

Entire Report Reviewed By:



Mark W. Beasley
Project Manager

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Pace Analytical National

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¹ Cp
² Tc
³ Ss
⁴ Cn
⁵ Tr
⁶ Sr
⁷ Qc
⁸ Gl
⁹ Al
¹⁰ Sc

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



SO-1712-SE06(0-1.25)-20210126 L1311179-01 Solid

Collected by
JE/WC

Collected date/time
01/26/21 16:40

Received date/time
01/28/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1614562	1	02/02/21 16:05	02/02/21 16:16	KDW	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1614206	1	02/03/21 00:16	02/03/21 11:35	KPS	Mt. Juliet, TN
Mercury by Method 7471A	WG1614236	1	02/02/21 10:12	02/03/21 09:19	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1613801	1	01/30/21 08:33	02/03/21 00:48	EL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613619	1.34	01/26/21 16:40	01/30/21 06:14	DWR	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1614595	1.37	02/02/21 04:29	02/02/21 23:03	CAG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1614392	1	02/01/21 10:07	02/01/21 19:03	AMG	Mt. Juliet, TN



SO-1712-SE02(0-3)-20210126 L1311179-02 Solid

Collected by
JE/WC

Collected date/time
01/26/21 14:15

Received date/time
01/28/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1614562	1	02/02/21 16:05	02/02/21 16:16	KDW	Mt. Juliet, TN
Mercury by Method 7471A	WG1614236	1	02/02/21 10:12	02/03/21 09:26	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1613801	1	01/30/21 08:33	02/03/21 00:51	EL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613619	1	01/26/21 14:15	01/30/21 06:33	DWR	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1614595	1	02/02/21 04:29	02/02/21 23:19	CAG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1614392	1	02/01/21 10:07	02/01/21 18:39	AMG	Mt. Juliet, TN

SO-1712-SE03(0-2-20210126 L1311179-03 Solid

Collected by
JE/WC

Collected date/time
01/26/21 14:35

Received date/time
01/28/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1614562	1	02/02/21 16:05	02/02/21 16:16	KDW	Mt. Juliet, TN
Mercury by Method 7471A	WG1614236	1	02/02/21 10:12	02/03/21 09:12	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1613801	1	01/30/21 08:33	02/03/21 00:54	EL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613619	1	01/26/21 14:35	01/30/21 06:53	DWR	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1614595	1	02/02/21 04:29	02/02/21 23:35	CAG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1614392	2	02/01/21 10:07	02/01/21 22:52	AMG	Mt. Juliet, TN

SO-1712-SE01(0-3)-20210126 L1311179-04 Solid

Collected by
JE/WC

Collected date/time
01/26/21 13:45

Received date/time
01/28/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1614562	1	02/02/21 16:05	02/02/21 16:16	KDW	Mt. Juliet, TN
Mercury by Method 7471A	WG1614236	1	02/02/21 10:12	02/03/21 09:29	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1613801	1	01/30/21 08:33	02/03/21 00:56	EL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613619	1.19	01/26/21 13:45	01/30/21 07:12	DWR	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1614595	1	02/02/21 04:29	02/02/21 23:50	CAG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1614392	1	02/01/21 10:07	02/01/21 19:28	AMG	Mt. Juliet, TN

SO-1712-SE13(0-0.5)-20210126 L1311179-05 Solid

Collected by
JE/WC

Collected date/time
01/26/21 10:15

Received date/time
01/28/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1614562	1	02/02/21 16:05	02/02/21 16:16	KDW	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1614203	1	02/01/21 18:26	02/02/21 00:57	WOS	Mt. Juliet, TN
Mercury by Method 7471A	WG1614236	1	02/02/21 10:12	02/03/21 09:31	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1613801	1	01/30/21 08:33	02/03/21 01:05	EL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613619	1	01/26/21 10:15	01/30/21 07:31	DWR	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1614595	1	02/02/21 04:29	02/03/21 00:04	CAG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1614392	1	02/01/21 10:07	02/01/21 19:52	AMG	Mt. Juliet, TN

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



SO-1712-SE07(0-4)-20210126 L1311179-06 Solid

				Collected by JE/WC	Collected date/time 01/26/21 12:05	Received date/time 01/28/21 08:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1614562	1	02/02/21 16:05	02/02/21 16:16	KDW	Mt. Juliet, TN
Mercury by Method 7471A	WG1614236	1	02/02/21 10:12	02/03/21 09:34	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1613801	1	01/30/21 08:33	02/03/21 01:07	EL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613619	1	01/26/21 12:05	01/30/21 07:50	DWR	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1614595	1	02/02/21 04:29	02/03/21 00:20	CAG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1614392	2	02/01/21 10:07	02/02/21 18:42	JNJ	Mt. Juliet, TN

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

SO-1712-SE11(0-1)-20210126 L1311179-07 Solid

				Collected by JE/WC	Collected date/time 01/26/21 09:50	Received date/time 01/28/21 08:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1614563	1	02/03/21 14:36	02/03/21 14:57	KDW	Mt. Juliet, TN
Mercury by Method 7471A	WG1614236	1	02/02/21 10:12	02/03/21 09:36	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1613801	1	01/30/21 08:33	02/03/21 01:10	EL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613619	1.53	01/26/21 09:50	01/30/21 08:09	DWR	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1614595	1.36	02/02/21 04:29	02/03/21 00:34	CAG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1614392	1	02/01/21 10:07	02/01/21 20:17	AMG	Mt. Juliet, TN

SO-1712-SE05(0-1)-20210126 L1311179-08 Solid

				Collected by JE/WC	Collected date/time 01/26/21 15:45	Received date/time 01/28/21 08:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1614563	1	02/03/21 14:36	02/03/21 14:57	KDW	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1614203	1	02/01/21 18:26	02/02/21 00:57	WOS	Mt. Juliet, TN
Mercury by Method 7471A	WG1614236	1	02/02/21 10:12	02/03/21 09:38	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1613801	1	01/30/21 08:33	02/03/21 01:13	EL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613622	1	01/26/21 15:45	01/30/21 05:32	JHH	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1614595	1	02/02/21 04:29	02/03/21 00:48	CAG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1614392	1	02/01/21 10:07	02/01/21 20:41	AMG	Mt. Juliet, TN

SO-1712-SE08(0-2)-20210126 L1311179-09 Solid

				Collected by JE/WC	Collected date/time 01/26/21 11:35	Received date/time 01/28/21 08:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1614563	1	02/03/21 14:36	02/03/21 14:57	KDW	Mt. Juliet, TN
Mercury by Method 7471A	WG1614236	1	02/02/21 10:12	02/03/21 09:41	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1613801	1	01/30/21 08:33	02/03/21 01:16	EL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613622	1.46	01/26/21 11:35	01/30/21 05:51	JHH	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1614595	1.52	02/02/21 04:29	02/03/21 01:03	CAG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1614392	2	02/01/21 10:07	02/02/21 19:03	JNJ	Mt. Juliet, TN

SO-1712-SE12(0-0.5)-20210126 L1311179-10 Solid

				Collected by JE/WC	Collected date/time 01/26/21 10:00	Received date/time 01/28/21 08:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1614563	1	02/03/21 14:36	02/03/21 14:57	KDW	Mt. Juliet, TN
Mercury by Method 7471A	WG1614236	1	02/02/21 10:12	02/03/21 09:43	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1613801	1	01/30/21 08:33	02/03/21 01:19	EL	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613622	1	01/26/21 10:00	01/30/21 06:10	JHH	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1614595	1	02/02/21 04:29	02/03/21 01:18	CAG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1614577	5	02/02/21 08:13	02/03/21 01:02	AMG	Mt. Juliet, TN

ACCOUNT:

UPRR - Golder Associates

PROJECT:

1712

SDG:

L1311179

DATE/TIME:

02/08/21 14:56

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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



SO-1712-SE10(0-0.5)-20210126 L1311179-11 Solid

Collected by
JE/WC

Collected date/time
01/26/21 10:35

Received date/time
01/28/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1614563	1	02/03/21 14:36	02/03/21 14:57	KDW	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1614203	1	02/01/21 18:26	02/02/21 00:57	WOS	Mt. Juliet, TN
Mercury by Method 7471A	WG1614236	1	02/02/21 10:12	02/03/21 09:46	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1613802	1	01/30/21 00:55	01/30/21 19:24	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613622	1	01/26/21 10:35	01/30/21 06:29	JHH	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1615114	1	02/03/21 04:42	02/03/21 17:49	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1614577	1	02/02/21 08:13	02/02/21 23:59	AMG	Mt. Juliet, TN

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Tr

SO-1712-SE09(0-0.5)-20210126 L1311179-12 Solid

Collected by
JE/WC

Collected date/time
01/26/21 11:10

Received date/time
01/28/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1614563	1	02/03/21 14:36	02/03/21 14:57	KDW	Mt. Juliet, TN
Mercury by Method 7471A	WG1614236	1	02/02/21 10:12	02/03/21 09:48	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1613802	1	01/30/21 00:55	01/30/21 19:27	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613622	1.56	01/26/21 11:10	01/30/21 06:48	JHH	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1615114	1.65	02/03/21 04:42	02/03/21 18:05	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1614577	1	02/02/21 08:13	02/02/21 22:55	AMG	Mt. Juliet, TN

⁶ Sr

⁷ Qc

⁸ Gl

⁹ Al

SO-1712-SE04(0-0.5)-20210126 L1311179-13 Solid

Collected by
JE/WC

Collected date/time
01/26/21 15:15

Received date/time
01/28/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1614563	1	02/03/21 14:36	02/03/21 14:57	KDW	Mt. Juliet, TN
Mercury by Method 7471A	WG1614236	1	02/02/21 10:12	02/03/21 09:55	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1613802	1	01/30/21 00:55	01/30/21 19:35	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613622	1	01/26/21 15:15	01/30/21 07:07	JHH	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1615114	1	02/03/21 04:42	02/03/21 18:20	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1614577	1	02/02/21 08:13	02/02/21 23:38	AMG	Mt. Juliet, TN

¹⁰ Sc

SO-1712-SE24(0-1)-20210127 L1311179-14 Solid

Collected by
JE/WC

Collected date/time
01/27/21 13:20

Received date/time
01/28/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1614563	1	02/03/21 14:36	02/03/21 14:57	KDW	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1614203	1	02/01/21 18:26	02/02/21 00:57	WOS	Mt. Juliet, TN
Mercury by Method 7471A	WG1614236	1	02/02/21 10:12	02/03/21 09:57	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1613802	1	01/30/21 00:55	01/30/21 19:38	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613622	1	01/27/21 13:20	01/30/21 07:26	JHH	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1615114	1	02/03/21 04:42	02/03/21 18:36	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1614577	5	02/02/21 08:13	02/03/21 02:06	AMG	Mt. Juliet, TN

SO-1712-SE22(0-2)-20210127 L1311179-15 Solid

Collected by
JE/WC

Collected date/time
01/27/21 12:30

Received date/time
01/28/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1614563	1	02/03/21 14:36	02/03/21 14:57	KDW	Mt. Juliet, TN
Mercury by Method 7471A	WG1614236	1	02/02/21 10:12	02/03/21 10:00	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1613802	1	01/30/21 00:55	01/30/21 19:41	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613622	1	01/27/21 12:30	01/30/21 07:46	JHH	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1615114	1	02/03/21 04:42	02/03/21 21:11	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1614577	5	02/02/21 08:13	02/03/21 01:45	AMG	Mt. Juliet, TN

ACCOUNT:

UPRR - Golder Associates

PROJECT:

1712

SDG:

L1311179

DATE/TIME:

02/08/21 14:56

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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



SO-1712-SE20(0-0.5)-20210127 L1311179-16 Solid

Collected by JE/WC
Collected date/time 01/27/21 11:00
Received date/time 01/28/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1614563	1	02/03/21 14:36	02/03/21 14:57	KDW	Mt. Juliet, TN
Mercury by Method 7471A	WG1614236	1	02/02/21 10:12	02/03/21 10:02	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1613802	1	01/30/21 00:55	01/30/21 19:43	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613622	1.06	01/27/21 11:00	01/30/21 08:05	JHH	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1615114	1	02/03/21 04:42	02/03/21 18:52	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1614577	10	02/02/21 08:13	02/03/21 02:27	ADF	Mt. Juliet, TN

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Tr

⁶ Sr

⁷ Qc

⁸ Gl

⁹ Al

¹⁰ Sc

SO-1712-SE21(0-0.5)-20210127 L1311179-17 Solid

Collected by JE/WC
Collected date/time 01/27/21 11:10
Received date/time 01/28/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1614564	1	02/03/21 14:58	02/03/21 15:44	KDW	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1614203	1	02/01/21 18:26	02/02/21 00:57	WOS	Mt. Juliet, TN
Mercury by Method 7471A	WG1614236	1	02/02/21 10:12	02/03/21 10:04	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1613802	1	01/30/21 00:55	01/30/21 19:08	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613622	1	01/27/21 11:10	01/30/21 08:24	JHH	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1615114	1	02/03/21 04:42	02/03/21 21:42	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1614577	10	02/02/21 08:13	02/03/21 02:48	ADF	Mt. Juliet, TN

SO-1712-SE15(0-0.5)-20210127 L1311179-18 Solid

Collected by JE/WC
Collected date/time 01/27/21 08:55
Received date/time 01/28/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1614564	1	02/03/21 14:58	02/03/21 15:44	KDW	Mt. Juliet, TN
Mercury by Method 7471A	WG1614236	1	02/02/21 10:12	02/03/21 10:07	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1613802	1	01/30/21 00:55	01/30/21 19:46	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613623	1	01/27/21 08:55	01/30/21 17:37	JHH	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1615114	1	02/03/21 04:42	02/03/21 19:07	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1616776	2	02/05/21 00:34	02/05/21 17:52	KME	Mt. Juliet, TN

SO-1712-SE19(0-1)-20210127 L1311179-19 Solid

Collected by JE/WC
Collected date/time 01/27/21 09:55
Received date/time 01/28/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1614564	1	02/03/21 14:58	02/03/21 15:44	KDW	Mt. Juliet, TN
Mercury by Method 7471A	WG1614236	1	02/02/21 10:12	02/03/21 10:09	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1613802	1	01/30/21 00:55	01/30/21 19:49	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613623	1	01/27/21 09:55	01/30/21 17:56	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1615753	1	01/27/21 09:55	02/03/21 20:08	DWR	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1615114	1	02/03/21 04:42	02/03/21 21:58	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1616776	40	02/05/21 00:34	02/05/21 20:24	KME	Mt. Juliet, TN

SO-1712-SE23(0-0.5)-20210127 L1311179-20 Solid

Collected by JE/WC
Collected date/time 01/27/21 12:40
Received date/time 01/28/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1614564	1	02/03/21 14:58	02/03/21 15:44	KDW	Mt. Juliet, TN
Mercury by Method 7471A	WG1614236	1	02/02/21 10:12	02/03/21 10:12	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1613802	1	01/30/21 00:55	01/30/21 19:52	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613623	1	01/27/21 12:40	01/30/21 18:14	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1615753	1	01/27/21 12:40	02/03/21 20:27	DWR	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1615114	1	02/03/21 04:42	02/03/21 19:23	TJD	Mt. Juliet, TN

ACCOUNT:

UPRR - Golder Associates

PROJECT:

1712

SDG:

L1311179

DATE/TIME:

02/08/21 14:56

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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



SO-1712-SE23(0-0.5)-20210127 L1311179-20 Solid

Collected by
JE/WC

Collected date/time
01/27/21 12:40

Received date/time
01/28/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1616776	2	02/05/21 00:34	02/05/21 18:16	KME	Mt. Juliet, TN

¹ Cp

² Tc

³ Ss

SO-1712-SE14(0-0.5)-20210127 L1311179-21 Solid

Collected by
JE/WC

Collected date/time
01/27/21 08:45

Received date/time
01/28/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1614564	1	02/03/21 14:58	02/03/21 15:44	KDW	Mt. Juliet, TN
Mercury by Method 7471A	WG1614237	1	02/01/21 17:29	02/02/21 12:11	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1613802	1	01/30/21 00:55	01/30/21 19:54	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613623	1	01/27/21 08:45	01/30/21 18:33	JHH	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1615114	1.02	02/03/21 04:42	02/03/21 19:38	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1616776	1	02/05/21 00:34	02/05/21 15:51	KME	Mt. Juliet, TN

⁴ Cn

⁵ Tr

⁶ Sr

⁷ Qc

SO-1712-SE16(0-0.5)-20210127 L1311179-22 Solid

Collected by
JE/WC

Collected date/time
01/27/21 09:05

Received date/time
01/28/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1614564	1	02/03/21 14:58	02/03/21 15:44	KDW	Mt. Juliet, TN
Mercury by Method 7471A	WG1614237	1	02/01/21 17:29	02/02/21 12:18	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1613802	1	01/30/21 00:55	01/30/21 19:57	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613623	1.39	01/27/21 09:05	01/30/21 18:52	JHH	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1615114	1	02/03/21 04:42	02/03/21 19:54	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1616776	10	02/05/21 00:34	02/05/21 19:05	KME	Mt. Juliet, TN

⁸ Gl

⁹ Al

¹⁰ Sc

SO-1712-SE18(0-1.25)-20210127 L1311179-23 Solid

Collected by
JE/WC

Collected date/time
01/27/21 09:40

Received date/time
01/28/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1614564	1	02/03/21 14:58	02/03/21 15:44	KDW	Mt. Juliet, TN
Wet Chemistry by Method 9045D	WG1614203	1	02/01/21 18:26	02/02/21 00:57	WOS	Mt. Juliet, TN
Mercury by Method 7471A	WG1614237	1	02/01/21 17:29	02/02/21 12:21	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1613802	1	01/30/21 00:55	01/30/21 20:00	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613623	1	01/27/21 09:40	01/30/21 19:11	JHH	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1615114	1	02/03/21 04:42	02/03/21 20:08	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1616776	1	02/05/21 00:34	02/05/21 17:28	KME	Mt. Juliet, TN

SO-1712-SE17(0-0.5)-20210127 L1311179-24 Solid

Collected by
JE/WC

Collected date/time
01/27/21 09:10

Received date/time
01/28/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1614564	1	02/03/21 14:58	02/03/21 15:44	KDW	Mt. Juliet, TN
Mercury by Method 7471A	WG1614237	1	02/01/21 17:29	02/02/21 12:23	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1613802	1	01/30/21 00:55	01/30/21 20:08	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613623	1	01/27/21 09:10	01/30/21 19:30	JHH	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1615114	1	02/03/21 04:42	02/03/21 21:26	TJD	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1616776	10	02/05/21 00:34	02/05/21 18:41	KME	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1616776	20	02/05/21 00:34	02/05/21 20:50	KME	Mt. Juliet, TN

ACCOUNT:

UPRR - Golder Associates

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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



TB01-20210127 L1311179-25 GW

Collected by
JE/WCCollected date/time
01/27/21 00:00Received date/time
01/28/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613518	1	01/29/21 15:04	01/29/21 15:04	JAH	Mt. Juliet, TN

¹Cp²Tc³Ss

TB01-20210126 L1311179-26 GW

Collected by
JE/WCCollected date/time
01/26/21 00:00Received date/time
01/28/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1613518	1	01/29/21 15:25	01/29/21 15:25	JAH	Mt. Juliet, TN

⁴Cn⁵Tr⁶Sr⁷Qc⁸Gl⁹Al¹⁰Sc

ACCOUNT:

UPRR - Golder Associates

PROJECT:

1712

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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.

Mark W. Beasley
Project Manager

¹ Cp² Tc³ Ss⁴ Cn⁵ Tr⁶ Sr⁷ Qc⁸ Gl⁹ Al¹⁰ Sc



This data package consists of this signature page, the laboratory review checklist, and the following reportable data as applicable:

- R1 - Field chain-of-custody documentation;
- R2 - Sample identification cross-reference;
- R3 - Test reports (analytical data sheets) for each environmental sample that includes:
 - a. Items consistent with NELAC Chapter 5,
 - b. dilution factors,
 - c. preparation methods,
 - d. cleanup methods, and
 - e. if required for the project, tentatively identified compounds (TICs).
- R4 - Surrogate recovery data including:
 - a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- R5 - Test reports/summary forms for blank samples;
- R6 - Test reports/summary forms for laboratory control samples (LCSs) including:
 - a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences (RPDs), and
 - e. The laboratory's MS/MSD QC limits
- R8 - Laboratory analytical duplicate (if applicable) recovery and precision:
 - a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and
 - c. The laboratory's QC limits for analytical duplicates.
- R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 - Other problems or anomalies.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Mark W. Beasley
Project Manager

Laboratory Review Checklist: Reportable Data



Laboratory Name: Pace Analytical National			LRC Date: 02/08/2021 14:56				
Project Name: Houston TX-Houston Subd. MP358.2-360.3 Englewood Yard North			Laboratory Job Number: L1311179-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25 and 26				
Reviewer Name: Mark W. Beasley			Prep Batch Number(s): WG1613622, WG1613802, WG1614203, WG1614392, WG1614237, WG1613619, WG1613518, WG1613801, WG1614562, WG1614595, WG1614236, WG1614206, WG1613623, WG1614577, WG1615114, WG1615753, WG1614563, WG1614564 and WG1616776				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?		X			1
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?	X				
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?	X				
		If required for the project, are TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			2
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?		X			3
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?		X			4
		Were MS/MSD RPDs within laboratory QC limits?		X			5
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

Laboratory Review Checklist: Reportable Data



Laboratory Name: Pace Analytical National			LRC Date: 02/08/2021 14:56				
Project Name: Houston TX-Houston Subd. MP358.2-360.3 Englewood Yard North			Laboratory Job Number: L1311179-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25 and 26				
Reviewer Name: Mark W. Beasley			Prep Batch Number(s): WG1613622, WG1613802, WG1614203, WG1614392, WG1614237, WG1613619, WG1613518, WG1613801, WG1614562, WG1614595, WG1614236, WG1614206, WG1613623, WG1614577, WG1615114, WG1615753, WG1614563, WG1614564 and WG1616776				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. 2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable); 3. NA = Not applicable; 4. NR = Not reviewed; 5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).							

Laboratory Review Checklist: Supporting Data



Laboratory Name: Pace Analytical National	LRC Date: 02/08/2021 14:56
Project Name: Houston TX-Houston Subd. MP358.2-360.3 Englewood Yard North	Laboratory Job Number: L1311179-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25 and 26
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1613622, WG1613802, WG1614203, WG1614392, WG1614237, WG1613619, WG1613518, WG1613801, WG1614562, WG1614595, WG1614236, WG1614206, WG1613623, WG1614577, WG1615114, WG1615753, WG1614563, WG1614564 and WG1616776

# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?		X			6
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?	X				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	X				
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed	X				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Exception Reports



Laboratory Name: Pace Analytical National		LRC Date: 02/08/2021 14:56
Project Name: Houston TX-Houston Subd. MP358.2-360.3 Englewood Yard North		Laboratory Job Number: L1311179-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25 and 26
Reviewer Name: Mark W. Beasley		Prep Batch Number(s): WG1613622, WG1613802, WG1614203, WG1614392, WG1614237, WG1613619, WG1613518, WG1613801, WG1614562, WG1614595, WG1614236, WG1614206, WG1613623, WG1614577, WG1615114, WG1615753, WG1614563, WG1614564 and WG1616776
ER # ¹	Description	
1	9045D WG1614203 L1311179-05, 08, 11, 14, 17 and 23: Prepared and/or analyzed past holding time as defined in the method. Concentrations should be considered minimum values. 9045D WG1614206 L1311179-01: Prepared and/or analyzed past holding time as defined in the method. Concentrations should be considered minimum values.	
2	8270C WG1616776 2,4,6-Tribromophenol, 2-Fluorobiphenyl, 2-Fluorophenol, Nitrobenzene-d5, p-Terphenyl-d14, Phenol-d5 L1311179-19 and 24: Percent Recovery is outside of established control limits.	
3	8260B WG1613619 1,3-Dichloropropane, 1,1,2,2-Tetrachloroethane: Percent Recovery is outside of established control limits. 8260B WG1613622 trans-1,2-Dichloroethene, 1,1,1-Trichloroethane, Trichloroethene: Percent Recovery is outside of established control limits. 8260B WG1613623 Acetone, Bromochloromethane: Percent Recovery is outside of established control limits. 8260B WG1613518 Acrolein, 1,2,3-Trimethylbenzene: Percent Recovery is outside of established control limits.	
4	8260B WG1613622 Chloroethane, 1,1-Dichloroethene, Toluene: Percent Recovery is outside of established control limits. 8270C WG1614392 Pyridine: Percent Recovery is outside of established control limits. 8270C WG1616776 Hexachlorocyclopentadiene, n-Nitrosodimethylamine, Dimethyl phthalate, Pyridine, Benzoic Acid, 4,6-Dinitro-2-methylphenol, 2,4-Dinitrophenol: Percent Recovery is outside of established control limits. 6010B WG1613801 Barium: Percent Recovery is outside of established control limits. 6010B WG1613802 Barium, Lead: Percent Recovery is outside of established control limits.	
5	8260B WG1613619 Benzene, Bromobenzene, Bromodichloromethane, Bromochloromethane, Bromoform, Bromomethane, n-Butylbenzene, sec-Butylbenzene, tert-Butylbenzene, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chlorodibromomethane, Chloroethane, Chloroform, Chloromethane, 2-Chlorotoluene, 4-Chlorotoluene, 1,2-Dibromo-3-Chloropropane, 1,2-Dibromoethane, Dibromomethane, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Dichlorodifluoromethane, 1,1-Dichloroethane, 1,2-Dichloroethane, 1,1-Dichloroethene, cis-1,2-Dichloroethene, trans-1,2-Dichloroethene, 1,2-Dichloropropane, 1,1-Dichloropropene, 1,3-Dichloropropane, cis-1,3-Dichloropropene, trans-1,3-Dichloropropene, 2,2-Dichloropropane, Ethylbenzene, Hexachloro-1,3-butadiene, 2-Hexanone, Isopropylbenzene, p-Isopropyltoluene, Methylene Chloride, 4-Methyl-2-pentanone (MIBK), Methyl tert-butyl ether, Naphthalene, n-Propylbenzene, Styrene, 1,1,1,2-Tetrachloroethane, 1,1,2,2-Tetrachloroethane, Tetrachloroethene, Toluene, 1,2,3-Trichlorobenzene, 1,2,4-Trichlorobenzene, 1,1,1-Trichloroethane, 1,1,2-Trichloroethane, Trichloroethene, Trichlorofluoromethane, 1,2,3-Trichloropropane, 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, Vinyl chloride, Xylenes, Total: Relative Percent Difference is outside of established control limits. 8260B WG1613622 Bromomethane, n-Butylbenzene, sec-Butylbenzene, tert-Butylbenzene, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chloroethane, Chloroform, Chloromethane, 2-Chlorotoluene, 4-Chlorotoluene, Dichlorodifluoromethane, 1,1-Dichloroethane, 1,1-Dichloroethene, cis-1,2-Dichloroethene, trans-1,2-Dichloroethene, 1,2-Dichloropropane, 1,1-Dichloropropene, 2,2-Dichloropropane, Ethylbenzene, Hexachloro-1,3-butadiene, Isopropylbenzene, p-Isopropyltoluene, Methylene Chloride, n-Propylbenzene, 1,1,2,2-Tetrachloroethane, Tetrachloroethene, Toluene, 1,1,1-Trichloroethane, Trichloroethene, Trichlorofluoromethane, 1,2,4-Trimethylbenzene, 1,3,5-Trimethylbenzene, Vinyl chloride, Xylenes, Total: Relative Percent Difference is outside of established control limits. 8270C WG1614392 Pyridine: Relative Percent Difference is outside of established control limits. 8270C WG1616776 2,4-Dinitrophenol: Relative Percent Difference is outside of established control limits.	
6	8270C WG1616776 Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(g,h,i)perylene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene: Area counts were outside of method-required criteria.	
1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. 2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable); 3. NA = Not applicable; 4. NR = Not reviewed; 5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).		



Collected date/time: 01/26/21 16:40

L1311179

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	92.1		1	02/02/2021 16:16	WG1614562

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	8.41	T8	1	02/03/2021 11:35	WG1614206

Sample Narrative:

L1311179-01 WG1614206: 8.41 at 20.8C

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis date / time	Batch
Mercury	0.488		0.0195	0.0400	0.0434	1	02/03/2021 09:19	WG1614236

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis date / time	Batch
Arsenic	55.3		0.563	2.00	2.17	1	02/03/2021 00:48	WG1613801
Barium	830		0.0925	0.500	0.543	1	02/03/2021 00:48	WG1613801
Cadmium	4.88		0.0511	0.500	0.543	1	02/03/2021 00:48	WG1613801
Chromium	61.3		0.144	1.00	1.09	1	02/03/2021 00:48	WG1613801
Lead	511		0.226	0.500	0.543	1	02/03/2021 00:48	WG1613801
Selenium	10.0		0.830	2.00	2.17	1	02/03/2021 00:48	WG1613801
Silver	1.19		0.138	1.00	1.09	1	02/03/2021 00:48	WG1613801

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.0563	0.0500	0.0771	1.34	01/30/2021 06:14	WG1613619
Benzene	0.00120	J	0.000720	0.00100	0.00154	1.34	01/30/2021 06:14	WG1613619
Bromobenzene	U		0.00139	0.0125	0.0193	1.34	01/30/2021 06:14	WG1613619
Bromochloromethane	U		0.000869	0.00500	0.00771	1.34	01/30/2021 06:14	WG1613619
Bromodichloromethane	U		0.00112	0.00250	0.00385	1.34	01/30/2021 06:14	WG1613619
Bromoform	U		0.00180	0.0250	0.0385	1.34	01/30/2021 06:14	WG1613619
Bromomethane	U		0.00304	0.0125	0.0193	1.34	01/30/2021 06:14	WG1613619
n-Butylbenzene	U		0.00809	0.0125	0.0193	1.34	01/30/2021 06:14	WG1613619
sec-Butylbenzene	U		0.00444	0.0125	0.0193	1.34	01/30/2021 06:14	WG1613619
tert-Butylbenzene	U		0.00301	0.00500	0.00771	1.34	01/30/2021 06:14	WG1613619
Carbon disulfide	U		0.00108	0.0125	0.0193	1.34	01/30/2021 06:14	WG1613619
Carbon tetrachloride	U		0.00138	0.00500	0.00771	1.34	01/30/2021 06:14	WG1613619
Chlorobenzene	U		0.000324	0.00250	0.00385	1.34	01/30/2021 06:14	WG1613619
Chlorodibromomethane	U		0.000943	0.00250	0.00385	1.34	01/30/2021 06:14	WG1613619
Chloroethane	U		0.00262	0.00500	0.00771	1.34	01/30/2021 06:14	WG1613619
Chloroform	U		0.00159	0.00250	0.00385	1.34	01/30/2021 06:14	WG1613619
Chloromethane	U		0.00670	0.0125	0.0193	1.34	01/30/2021 06:14	WG1613619
2-Chlorotoluene	U		0.00133	0.00250	0.00385	1.34	01/30/2021 06:14	WG1613619
4-Chlorotoluene	U		0.000693	0.00500	0.00771	1.34	01/30/2021 06:14	WG1613619
1,2-Dibromo-3-Chloropropane	U		0.00601	0.0250	0.0385	1.34	01/30/2021 06:14	WG1613619
1,2-Dibromoethane	U		0.000999	0.00250	0.00385	1.34	01/30/2021 06:14	WG1613619
Dibromomethane	U		0.00116	0.00500	0.00771	1.34	01/30/2021 06:14	WG1613619
1,2-Dichlorobenzene	U		0.000655	0.00500	0.00771	1.34	01/30/2021 06:14	WG1613619
1,3-Dichlorobenzene	U		0.000925	0.00500	0.00771	1.34	01/30/2021 06:14	WG1613619
1,4-Dichlorobenzene	U		0.00108	0.00500	0.00771	1.34	01/30/2021 06:14	WG1613619



Collected date/time: 01/26/21 16:40

L1311179

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	U		0.00248	0.00250	0.00385	1.34	01/30/2021 06:14	WG1613619
1,1-Dichloroethane	U		0.000757	0.00250	0.00385	1.34	01/30/2021 06:14	WG1613619
1,2-Dichloroethane	U		0.00100	0.00250	0.00385	1.34	01/30/2021 06:14	WG1613619
1,1-Dichloroethene	U		0.000934	0.00250	0.00385	1.34	01/30/2021 06:14	WG1613619
cis-1,2-Dichloroethene	U		0.00113	0.00250	0.00385	1.34	01/30/2021 06:14	WG1613619
trans-1,2-Dichloroethene	U		0.00160	0.00500	0.00771	1.34	01/30/2021 06:14	WG1613619
1,2-Dichloropropane	U		0.00219	0.00500	0.00771	1.34	01/30/2021 06:14	WG1613619
1,1-Dichloropropene	U		0.00125	0.00250	0.00385	1.34	01/30/2021 06:14	WG1613619
1,3-Dichloropropane	U	J4	0.000772	0.00500	0.00771	1.34	01/30/2021 06:14	WG1613619
cis-1,3-Dichloropropene	U		0.00117	0.00250	0.00385	1.34	01/30/2021 06:14	WG1613619
trans-1,3-Dichloropropene	U		0.00176	0.00500	0.00771	1.34	01/30/2021 06:14	WG1613619
2,2-Dichloropropane	U		0.00213	0.00250	0.00385	1.34	01/30/2021 06:14	WG1613619
Ethylbenzene	U		0.00114	0.00250	0.00385	1.34	01/30/2021 06:14	WG1613619
Hexachloro-1,3-butadiene	U		0.00925	0.0250	0.0385	1.34	01/30/2021 06:14	WG1613619
2-Hexanone	U		0.00518	0.0250	0.0385	1.34	01/30/2021 06:14	WG1613619
Isopropylbenzene	U		0.000655	0.00250	0.00385	1.34	01/30/2021 06:14	WG1613619
p-Isopropyltoluene	U		0.00393	0.00500	0.00771	1.34	01/30/2021 06:14	WG1613619
2-Butanone (MEK)	U		0.0979	0.100	0.154	1.34	01/30/2021 06:14	WG1613619
Methylene Chloride	0.0113	LJ	0.0102	0.0250	0.0385	1.34	01/30/2021 06:14	WG1613619
4-Methyl-2-pentanone (MIBK)	U		0.00351	0.0250	0.0385	1.34	01/30/2021 06:14	WG1613619
Methyl tert-butyl ether	U		0.000539	0.00100	0.00154	1.34	01/30/2021 06:14	WG1613619
Naphthalene	U		0.00752	0.0125	0.0193	1.34	01/30/2021 06:14	WG1613619
n-Propylbenzene	U		0.00146	0.00500	0.00771	1.34	01/30/2021 06:14	WG1613619
Styrene	0.000810	LJ	0.000353	0.0125	0.0193	1.34	01/30/2021 06:14	WG1613619
1,1,1,2-Tetrachloroethane	U		0.00146	0.00250	0.00385	1.34	01/30/2021 06:14	WG1613619
1,1,2,2-Tetrachloroethane	U	J4	0.00107	0.00250	0.00385	1.34	01/30/2021 06:14	WG1613619
Tetrachloroethene	U		0.00138	0.00250	0.00385	1.34	01/30/2021 06:14	WG1613619
Toluene	0.00562	LJ	0.00200	0.00500	0.00771	1.34	01/30/2021 06:14	WG1613619
1,2,3-Trichlorobenzene	U		0.0113	0.0125	0.0193	1.34	01/30/2021 06:14	WG1613619
1,2,4-Trichlorobenzene	U		0.00678	0.0125	0.0193	1.34	01/30/2021 06:14	WG1613619
1,1,1-Trichloroethane	U		0.00142	0.00250	0.00385	1.34	01/30/2021 06:14	WG1613619
1,1,2-Trichloroethane	U		0.000920	0.00250	0.00385	1.34	01/30/2021 06:14	WG1613619
Trichloroethene	U		0.000900	0.00100	0.00154	1.34	01/30/2021 06:14	WG1613619
Trichlorofluoromethane	U		0.00127	0.00250	0.00385	1.34	01/30/2021 06:14	WG1613619
1,2,3-Trichloropropane	U		0.00250	0.0125	0.0193	1.34	01/30/2021 06:14	WG1613619
1,2,4-Trimethylbenzene	U		0.00243	0.00500	0.00771	1.34	01/30/2021 06:14	WG1613619
1,3,5-Trimethylbenzene	U		0.00308	0.00500	0.00771	1.34	01/30/2021 06:14	WG1613619
Vinyl chloride	U		0.00179	0.00250	0.00385	1.34	01/30/2021 06:14	WG1613619
Xylenes, Total	0.00918	LJ	0.00136	0.00650	0.0100	1.34	01/30/2021 06:14	WG1613619
(S) Toluene-d8	98.4				75.0-131		01/30/2021 06:14	WG1613619
(S) 4-Bromofluorobenzene	99.0				67.0-138		01/30/2021 06:14	WG1613619
(S) 1,2-Dichloroethane-d4	92.3				70.0-130		01/30/2021 06:14	WG1613619

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

TPH by TCEQ Method 1005

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		22.3	50.0	74.4	1.37	02/02/2021 23:03	WG1614595
TPH C12 - C28	U		22.3	50.0	74.4	1.37	02/02/2021 23:03	WG1614595
TPH C28 - C35	U		22.3	50.0	74.4	1.37	02/02/2021 23:03	WG1614595
TPH C6 - C35	U		22.3	50.0	74.4	1.37	02/02/2021 23:03	WG1614595
(S) o-Terphenyl	108				70.0-130		02/02/2021 23:03	WG1614595



Collected date/time: 01/26/21 16:40

L1311179

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.00585	0.0333	0.0362	1	02/01/2021 19:03	WG1614392
Acenaphthylene	0.0218	LC	0.00509	0.0333	0.0362	1	02/01/2021 19:03	WG1614392
Anthracene	0.0359	LC	0.00644	0.0333	0.0362	1	02/01/2021 19:03	WG1614392
Benzo(a)anthracene	0.0415		0.00637	0.0333	0.0362	1	02/01/2021 19:03	WG1614392
Benzo(b)fluoranthene	0.122		0.00674	0.0333	0.0362	1	02/01/2021 19:03	WG1614392
Benzo(k)fluoranthene	0.0292	LC	0.00643	0.0333	0.0362	1	02/01/2021 19:03	WG1614392
Benzo(g,h,i)perylene	0.0566		0.00661	0.0333	0.0362	1	02/01/2021 19:03	WG1614392
Benzo(a)pyrene	0.0526		0.00672	0.0333	0.0362	1	02/01/2021 19:03	WG1614392
Benzoic acid	U		0.128	1.67	1.81	1	02/01/2021 19:03	WG1614392
Benzyl alcohol	U		0.0134	0.333	0.362	1	02/01/2021 19:03	WG1614392
Bis(2-chlorethoxy)methane	U		0.0109	0.333	0.362	1	02/01/2021 19:03	WG1614392
Bis(2-chloroethyl)ether	U		0.0119	0.333	0.362	1	02/01/2021 19:03	WG1614392
2,2-Oxybis(1-Chloropropane)	U		0.0156	0.333	0.362	1	02/01/2021 19:03	WG1614392
4-Bromophenyl-phenylether	U		0.0127	0.333	0.362	1	02/01/2021 19:03	WG1614392
Carbazole	0.0219	LC	0.0112	0.333	0.362	1	02/01/2021 19:03	WG1614392
2-Chloronaphthalene	U		0.00635	0.0333	0.0362	1	02/01/2021 19:03	WG1614392
4-Chloroaniline	U		0.0130	0.333	0.362	1	02/01/2021 19:03	WG1614392
4-Chlorophenyl-phenylether	U		0.0126	0.333	0.362	1	02/01/2021 19:03	WG1614392
Chrysene	0.0757		0.00719	0.0333	0.0362	1	02/01/2021 19:03	WG1614392
Dibenz(a,h)anthracene	U		0.0100	0.0333	0.0362	1	02/01/2021 19:03	WG1614392
Dibenzofuran	U		0.0118	0.333	0.362	1	02/01/2021 19:03	WG1614392
3,3-Dichlorobenzidine	U		0.0134	0.333	0.362	1	02/01/2021 19:03	WG1614392
2,4-Dinitrotoluene	U		0.0104	0.333	0.362	1	02/01/2021 19:03	WG1614392
2,6-Dinitrotoluene	U		0.0118	0.333	0.362	1	02/01/2021 19:03	WG1614392
Fluoranthene	0.0698		0.00653	0.0333	0.0362	1	02/01/2021 19:03	WG1614392
Fluorene	U		0.00589	0.0333	0.0362	1	02/01/2021 19:03	WG1614392
Hexachlorobenzene	U		0.0128	0.333	0.362	1	02/01/2021 19:03	WG1614392
Hexachloro-1,3-butadiene	U		0.0122	0.333	0.362	1	02/01/2021 19:03	WG1614392
Hexachlorocyclopentadiene	U		0.0190	0.333	0.362	1	02/01/2021 19:03	WG1614392
Hexachloroethane	U		0.0142	0.333	0.362	1	02/01/2021 19:03	WG1614392
Indeno(1,2,3-cd)pyrene	0.0451		0.0102	0.0333	0.0362	1	02/01/2021 19:03	WG1614392
Isophorone	U		0.0111	0.333	0.362	1	02/01/2021 19:03	WG1614392
2-Methylnaphthalene	0.00551	LC	0.00469	0.0333	0.0362	1	02/01/2021 19:03	WG1614392
Naphthalene	U		0.00908	0.0333	0.0362	1	02/01/2021 19:03	WG1614392
2-Nitroaniline	U		0.0116	0.333	0.362	1	02/01/2021 19:03	WG1614392
3-Nitroaniline	U		0.0115	0.333	0.362	1	02/01/2021 19:03	WG1614392
4-Nitroaniline	U		0.0105	0.333	0.362	1	02/01/2021 19:03	WG1614392
Nitrobenzene	U		0.0126	0.333	0.362	1	02/01/2021 19:03	WG1614392
n-Nitrosodimethylamine	U		0.0536	0.333	0.362	1	02/01/2021 19:03	WG1614392
n-Nitrosodiphenylamine	U		0.0274	0.333	0.362	1	02/01/2021 19:03	WG1614392
n-Nitrosodi-n-propylamine	U		0.0121	0.333	0.362	1	02/01/2021 19:03	WG1614392
Phenanthrene	0.0287	LC	0.00718	0.0333	0.0362	1	02/01/2021 19:03	WG1614392
Benzylbutyl phthalate	0.0479	LC	0.0113	0.333	0.362	1	02/01/2021 19:03	WG1614392
Bis(2-ethylhexyl)phthalate	U		0.0458	0.333	0.362	1	02/01/2021 19:03	WG1614392
Di-n-butyl phthalate	U		0.0124	0.333	0.362	1	02/01/2021 19:03	WG1614392
Diethyl phthalate	U		0.0119	0.333	0.362	1	02/01/2021 19:03	WG1614392
Dimethyl phthalate	U		0.0767	0.333	0.362	1	02/01/2021 19:03	WG1614392
Di-n-octyl phthalate	U		0.0244	0.333	0.362	1	02/01/2021 19:03	WG1614392
Pyrene	0.0801		0.00704	0.0333	0.0362	1	02/01/2021 19:03	WG1614392
Pyridine	U		0.0239	0.333	0.362	1	02/01/2021 19:03	WG1614392
1,2,4-Trichlorobenzene	U		0.0113	0.333	0.362	1	02/01/2021 19:03	WG1614392
4-Chloro-3-methylphenol	U		0.0117	0.333	0.362	1	02/01/2021 19:03	WG1614392
2-Chlorophenol	U		0.0119	0.333	0.362	1	02/01/2021 19:03	WG1614392
2,4-Dichlorophenol	U		0.0105	0.333	0.362	1	02/01/2021 19:03	WG1614392
2,4-Dimethylphenol	U		0.00945	0.333	0.362	1	02/01/2021 19:03	WG1614392
4,6-Dinitro-2-methylphenol	U		0.0820	0.333	0.362	1	02/01/2021 19:03	WG1614392

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc



Collected date/time: 01/26/21 16:40

L1311179

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
2,4-Dinitrophenol	U		0.0846	0.333	0.362	1	02/01/2021 19:03	WG1614392
2-Methylphenol	U		0.0109	0.333	0.362	1	02/01/2021 19:03	WG1614392
3&4-Methyl Phenol	U		0.0113	0.333	0.362	1	02/01/2021 19:03	WG1614392
2-Nitrophenol	U		0.0129	0.333	0.362	1	02/01/2021 19:03	WG1614392
4-Nitrophenol	U		0.0113	0.333	0.362	1	02/01/2021 19:03	WG1614392
Pentachlorophenol	U		0.00973	0.333	0.362	1	02/01/2021 19:03	WG1614392
Phenol	U		0.0146	0.333	0.362	1	02/01/2021 19:03	WG1614392
2,4,5-Trichlorophenol	U		0.0123	0.333	0.362	1	02/01/2021 19:03	WG1614392
2,4,6-Trichlorophenol	U		0.0116	0.333	0.362	1	02/01/2021 19:03	WG1614392
(S) 2-Fluorophenol	52.0				12.0-120		02/01/2021 19:03	WG1614392
(S) Phenol-d5	47.7				10.0-120		02/01/2021 19:03	WG1614392
(S) Nitrobenzene-d5	45.9				10.0-122		02/01/2021 19:03	WG1614392
(S) 2-Fluorobiphenyl	48.6				15.0-120		02/01/2021 19:03	WG1614392
(S) 2,4,6-Tribromophenol	51.7				10.0-127		02/01/2021 19:03	WG1614392
(S) p-Terphenyl-d14	55.9				10.0-120		02/01/2021 19:03	WG1614392

¹ Cp² Tc³ Ss⁴ Cn⁵ Tr⁶ Sr⁷ Qc⁸ Gl⁹ Al¹⁰ Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.3		1	02/02/2021 16:16	WG1614562

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Mercury	U		0.0227	0.0400	0.0505	1	02/03/2021 09:26	WG1614236

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Arsenic	0.667	J	0.653	2.00	2.52	1	02/03/2021 00:51	WG1613801
Barium	236		0.107	0.500	0.631	1	02/03/2021 00:51	WG1613801
Cadmium	U		0.0594	0.500	0.631	1	02/03/2021 00:51	WG1613801
Chromium	20.5		0.168	1.00	1.26	1	02/03/2021 00:51	WG1613801
Lead	22.0		0.262	0.500	0.631	1	02/03/2021 00:51	WG1613801
Selenium	1.61	J	0.964	2.00	2.52	1	02/03/2021 00:51	WG1613801
Silver	U		0.160	1.00	1.26	1	02/03/2021 00:51	WG1613801

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Acetone	U		0.0592	0.0500	0.0811	1	01/30/2021 06:33	WG1613619
Benzene	U		0.000758	0.00100	0.00162	1	01/30/2021 06:33	WG1613619
Bromobenzene	U		0.00146	0.0125	0.0203	1	01/30/2021 06:33	WG1613619
Bromochloromethane	U		0.000915	0.00500	0.00811	1	01/30/2021 06:33	WG1613619
Bromodichloromethane	U		0.00118	0.00250	0.00406	1	01/30/2021 06:33	WG1613619
Bromoform	U		0.00190	0.0250	0.0406	1	01/30/2021 06:33	WG1613619
Bromomethane	U		0.00320	0.0125	0.0203	1	01/30/2021 06:33	WG1613619
n-Butylbenzene	U		0.00852	0.0125	0.0203	1	01/30/2021 06:33	WG1613619
sec-Butylbenzene	U		0.00467	0.0125	0.0203	1	01/30/2021 06:33	WG1613619
tert-Butylbenzene	U		0.00316	0.00500	0.00811	1	01/30/2021 06:33	WG1613619
Carbon disulfide	U		0.00114	0.0125	0.0203	1	01/30/2021 06:33	WG1613619
Carbon tetrachloride	U		0.00146	0.00500	0.00811	1	01/30/2021 06:33	WG1613619
Chlorobenzene	U		0.000341	0.00250	0.00406	1	01/30/2021 06:33	WG1613619
Chlorodibromomethane	U		0.000993	0.00250	0.00406	1	01/30/2021 06:33	WG1613619
Chloroethane	U		0.00276	0.00500	0.00811	1	01/30/2021 06:33	WG1613619
Chloroform	U		0.00167	0.00250	0.00406	1	01/30/2021 06:33	WG1613619
Chloromethane	U		0.00706	0.0125	0.0203	1	01/30/2021 06:33	WG1613619
2-Chlorotoluene	U		0.00140	0.00250	0.00406	1	01/30/2021 06:33	WG1613619
4-Chlorotoluene	U		0.000730	0.00500	0.00811	1	01/30/2021 06:33	WG1613619
1,2-Dibromo-3-Chloropropane	U		0.00633	0.0250	0.0406	1	01/30/2021 06:33	WG1613619
1,2-Dibromoethane	U		0.00105	0.00250	0.00406	1	01/30/2021 06:33	WG1613619
Dibromomethane	U		0.00122	0.00500	0.00811	1	01/30/2021 06:33	WG1613619
1,2-Dichlorobenzene	U		0.000690	0.00500	0.00811	1	01/30/2021 06:33	WG1613619
1,3-Dichlorobenzene	U		0.000974	0.00500	0.00811	1	01/30/2021 06:33	WG1613619
1,4-Dichlorobenzene	U		0.00114	0.00500	0.00811	1	01/30/2021 06:33	WG1613619
Dichlorodifluoromethane	U		0.00261	0.00250	0.00406	1	01/30/2021 06:33	WG1613619
1,1-Dichloroethane	U		0.000797	0.00250	0.00406	1	01/30/2021 06:33	WG1613619
1,2-Dichloroethane	U		0.00105	0.00250	0.00406	1	01/30/2021 06:33	WG1613619
1,1-Dichloroethene	U		0.000983	0.00250	0.00406	1	01/30/2021 06:33	WG1613619
cis-1,2-Dichloroethene	U		0.00119	0.00250	0.00406	1	01/30/2021 06:33	WG1613619
trans-1,2-Dichloroethene	U		0.00169	0.00500	0.00811	1	01/30/2021 06:33	WG1613619
1,2-Dichloropropane	U		0.00230	0.00500	0.00811	1	01/30/2021 06:33	WG1613619
1,1-Dichloropropene	U		0.00131	0.00250	0.00406	1	01/30/2021 06:33	WG1613619





Collected date/time: 01/26/21 14:15

L1311179

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,3-Dichloropropane	U	J4	0.000813	0.00500	0.00811	1	01/30/2021 06:33	WG1613619
cis-1,3-Dichloropropene	U		0.00123	0.00250	0.00406	1	01/30/2021 06:33	WG1613619
trans-1,3-Dichloropropene	U		0.00185	0.00500	0.00811	1	01/30/2021 06:33	WG1613619
2,2-Dichloropropane	U		0.00224	0.00250	0.00406	1	01/30/2021 06:33	WG1613619
Ethylbenzene	U		0.00120	0.00250	0.00406	1	01/30/2021 06:33	WG1613619
Hexachloro-1,3-butadiene	U		0.00974	0.0250	0.0406	1	01/30/2021 06:33	WG1613619
2-Hexanone	U		0.00545	0.0250	0.0406	1	01/30/2021 06:33	WG1613619
Isopropylbenzene	U		0.000690	0.00250	0.00406	1	01/30/2021 06:33	WG1613619
p-Isopropyltoluene	U		0.00414	0.00500	0.00811	1	01/30/2021 06:33	WG1613619
2-Butanone (MEK)	U		0.103	0.100	0.162	1	01/30/2021 06:33	WG1613619
Methylene Chloride	U		0.0108	0.0250	0.0406	1	01/30/2021 06:33	WG1613619
4-Methyl-2-pentanone (MIBK)	U		0.00370	0.0250	0.0406	1	01/30/2021 06:33	WG1613619
Methyl tert-butyl ether	U		0.000568	0.00100	0.00162	1	01/30/2021 06:33	WG1613619
Naphthalene	U		0.00792	0.0125	0.0203	1	01/30/2021 06:33	WG1613619
n-Propylbenzene	U		0.00154	0.00500	0.00811	1	01/30/2021 06:33	WG1613619
Styrene	U		0.000372	0.0125	0.0203	1	01/30/2021 06:33	WG1613619
1,1,1,2-Tetrachloroethane	U		0.00154	0.00250	0.00406	1	01/30/2021 06:33	WG1613619
1,1,2,2-Tetrachloroethane	U	J4	0.00113	0.00250	0.00406	1	01/30/2021 06:33	WG1613619
Tetrachloroethene	U		0.00145	0.00250	0.00406	1	01/30/2021 06:33	WG1613619
Toluene	0.00226	J	0.00211	0.00500	0.00811	1	01/30/2021 06:33	WG1613619
1,2,3-Trichlorobenzene	U		0.0119	0.0125	0.0203	1	01/30/2021 06:33	WG1613619
1,2,4-Trichlorobenzene	U		0.00714	0.0125	0.0203	1	01/30/2021 06:33	WG1613619
1,1,1-Trichloroethane	U		0.00150	0.00250	0.00406	1	01/30/2021 06:33	WG1613619
1,1,2-Trichloroethane	U		0.000969	0.00250	0.00406	1	01/30/2021 06:33	WG1613619
Trichloroethene	U		0.000948	0.00100	0.00162	1	01/30/2021 06:33	WG1613619
Trichlorofluoromethane	U		0.00134	0.00250	0.00406	1	01/30/2021 06:33	WG1613619
1,2,3-Trichloropropane	U		0.00263	0.0125	0.0203	1	01/30/2021 06:33	WG1613619
1,2,4-Trimethylbenzene	U		0.00256	0.00500	0.00811	1	01/30/2021 06:33	WG1613619
1,3,5-Trimethylbenzene	U		0.00325	0.00500	0.00811	1	01/30/2021 06:33	WG1613619
Vinyl chloride	U		0.00188	0.00250	0.00406	1	01/30/2021 06:33	WG1613619
Xylenes, Total	U		0.00143	0.00650	0.0105	1	01/30/2021 06:33	WG1613619
(S) Toluene-d8	97.9				75.0-131		01/30/2021 06:33	WG1613619
(S) 4-Bromofluorobenzene	97.6				67.0-138		01/30/2021 06:33	WG1613619
(S) 1,2-Dichloroethane-d4	92.8				70.0-130		01/30/2021 06:33	WG1613619

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

TPH by TCEQ Method 1005

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		18.9	50.0	63.1	1	02/02/2021 23:19	WG1614595
TPH C12 - C28	U		18.9	50.0	63.1	1	02/02/2021 23:19	WG1614595
TPH C28 - C35	U		18.9	50.0	63.1	1	02/02/2021 23:19	WG1614595
TPH C6 - C35	U		18.9	50.0	63.1	1	02/02/2021 23:19	WG1614595
(S) o-Terphenyl	104				70.0-130		02/02/2021 23:19	WG1614595

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.00680	0.0333	0.0420	1	02/01/2021 18:39	WG1614392
Acenaphthylene	U		0.00592	0.0333	0.0420	1	02/01/2021 18:39	WG1614392
Anthracene	U		0.00748	0.0333	0.0420	1	02/01/2021 18:39	WG1614392
Benzo(a)anthracene	U		0.00740	0.0333	0.0420	1	02/01/2021 18:39	WG1614392
Benzo(b)fluoranthene	U		0.00783	0.0333	0.0420	1	02/01/2021 18:39	WG1614392
Benzo(k)fluoranthene	U		0.00747	0.0333	0.0420	1	02/01/2021 18:39	WG1614392
Benzo(g,h,i)perylene	U		0.00768	0.0333	0.0420	1	02/01/2021 18:39	WG1614392
Benzo(a)pyrene	U		0.00781	0.0333	0.0420	1	02/01/2021 18:39	WG1614392



Collected date/time: 01/26/21 14:15

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzoic acid	U		0.149	1.67	2.11	1	02/01/2021 18:39	WG1614392
Benzyl alcohol	U		0.0155	0.333	0.420	1	02/01/2021 18:39	WG1614392
Bis(2-chlorethoxy)methane	U		0.0126	0.333	0.420	1	02/01/2021 18:39	WG1614392
Bis(2-chloroethyl)ether	U		0.0139	0.333	0.420	1	02/01/2021 18:39	WG1614392
2,2-Oxybis(1-Chloropropane)	U		0.0182	0.333	0.420	1	02/01/2021 18:39	WG1614392
4-Bromophenyl-phenylether	U		0.0148	0.333	0.420	1	02/01/2021 18:39	WG1614392
Carbazole	U		0.0130	0.333	0.420	1	02/01/2021 18:39	WG1614392
2-Chloronaphthalene	U		0.00738	0.0333	0.0420	1	02/01/2021 18:39	WG1614392
4-Chloroaniline	U		0.0151	0.333	0.420	1	02/01/2021 18:39	WG1614392
4-Chlorophenyl-phenylether	U		0.0146	0.333	0.420	1	02/01/2021 18:39	WG1614392
Chrysene	U		0.00835	0.0333	0.0420	1	02/01/2021 18:39	WG1614392
Dibenz(a,h)anthracene	U		0.0116	0.0333	0.0420	1	02/01/2021 18:39	WG1614392
Dibenzofuran	U		0.0137	0.333	0.420	1	02/01/2021 18:39	WG1614392
3,3-Dichlorobenzidine	U		0.0155	0.333	0.420	1	02/01/2021 18:39	WG1614392
2,4-Dinitrotoluene	U		0.0120	0.333	0.420	1	02/01/2021 18:39	WG1614392
2,6-Dinitrotoluene	U		0.0137	0.333	0.420	1	02/01/2021 18:39	WG1614392
Fluoranthene	U		0.00758	0.0333	0.0420	1	02/01/2021 18:39	WG1614392
Fluorene	U		0.00684	0.0333	0.0420	1	02/01/2021 18:39	WG1614392
Hexachlorobenzene	U		0.0149	0.333	0.420	1	02/01/2021 18:39	WG1614392
Hexachloro-1,3-butadiene	U		0.0141	0.333	0.420	1	02/01/2021 18:39	WG1614392
Hexachlorocyclopentadiene	U		0.0221	0.333	0.420	1	02/01/2021 18:39	WG1614392
Hexachloroethane	U		0.0165	0.333	0.420	1	02/01/2021 18:39	WG1614392
Indeno(1,2,3-cd)pyrene	U		0.0119	0.0333	0.0420	1	02/01/2021 18:39	WG1614392
Isophorone	U		0.0129	0.333	0.420	1	02/01/2021 18:39	WG1614392
2-Methylnaphthalene	U		0.00545	0.0333	0.0420	1	02/01/2021 18:39	WG1614392
Naphthalene	U		0.0105	0.0333	0.0420	1	02/01/2021 18:39	WG1614392
2-Nitroaniline	U		0.0135	0.333	0.420	1	02/01/2021 18:39	WG1614392
3-Nitroaniline	U		0.0134	0.333	0.420	1	02/01/2021 18:39	WG1614392
4-Nitroaniline	U		0.0122	0.333	0.420	1	02/01/2021 18:39	WG1614392
Nitrobenzene	U		0.0146	0.333	0.420	1	02/01/2021 18:39	WG1614392
n-Nitrosodimethylamine	U		0.0623	0.333	0.420	1	02/01/2021 18:39	WG1614392
n-Nitrosodiphenylamine	U		0.0318	0.333	0.420	1	02/01/2021 18:39	WG1614392
n-Nitrosodi-n-propylamine	U		0.0140	0.333	0.420	1	02/01/2021 18:39	WG1614392
Phenanthrene	U		0.00834	0.0333	0.0420	1	02/01/2021 18:39	WG1614392
Benzylbutyl phthalate	U		0.0131	0.333	0.420	1	02/01/2021 18:39	WG1614392
Bis(2-ethylhexyl)phthalate	U		0.0532	0.333	0.420	1	02/01/2021 18:39	WG1614392
Di-n-butyl phthalate	U		0.0144	0.333	0.420	1	02/01/2021 18:39	WG1614392
Diethyl phthalate	U		0.0139	0.333	0.420	1	02/01/2021 18:39	WG1614392
Dimethyl phthalate	U		0.0891	0.333	0.420	1	02/01/2021 18:39	WG1614392
Di-n-octyl phthalate	U		0.0284	0.333	0.420	1	02/01/2021 18:39	WG1614392
Pyrene	U		0.00817	0.0333	0.0420	1	02/01/2021 18:39	WG1614392
Pyridine	U		0.0278	0.333	0.420	1	02/01/2021 18:39	WG1614392
1,2,4-Trichlorobenzene	U		0.0131	0.333	0.420	1	02/01/2021 18:39	WG1614392
4-Chloro-3-methylphenol	U		0.0136	0.333	0.420	1	02/01/2021 18:39	WG1614392
2-Chlorophenol	U		0.0139	0.333	0.420	1	02/01/2021 18:39	WG1614392
2,4-Dichlorophenol	U		0.0122	0.333	0.420	1	02/01/2021 18:39	WG1614392
2,4-Dimethylphenol	U		0.0110	0.333	0.420	1	02/01/2021 18:39	WG1614392
4,6-Dinitro-2-methylphenol	U		0.0952	0.333	0.420	1	02/01/2021 18:39	WG1614392
2,4-Dinitrophenol	U		0.0983	0.333	0.420	1	02/01/2021 18:39	WG1614392
2-Methylphenol	U		0.0126	0.333	0.420	1	02/01/2021 18:39	WG1614392
3&4-Methyl Phenol	U		0.0131	0.333	0.420	1	02/01/2021 18:39	WG1614392
2-Nitrophenol	U		0.0150	0.333	0.420	1	02/01/2021 18:39	WG1614392
4-Nitrophenol	U		0.0131	0.333	0.420	1	02/01/2021 18:39	WG1614392
Pentachlorophenol	U		0.0113	0.333	0.420	1	02/01/2021 18:39	WG1614392
Phenol	U		0.0169	0.333	0.420	1	02/01/2021 18:39	WG1614392
2,4,5-Trichlorophenol	U		0.0143	0.333	0.420	1	02/01/2021 18:39	WG1614392

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
2,4,6-Trichlorophenol	U		0.0135	0.333	0.420	1	02/01/2021 18:39	WG1614392
(S) 2-Fluorophenol	64.6				12.0-120		02/01/2021 18:39	WG1614392
(S) Phenol-d5	59.1				10.0-120		02/01/2021 18:39	WG1614392
(S) Nitrobenzene-d5	57.1				10.0-122		02/01/2021 18:39	WG1614392
(S) 2-Fluorobiphenyl	58.7				15.0-120		02/01/2021 18:39	WG1614392
(S) 2,4,6-Tribromophenol	62.6				10.0-127		02/01/2021 18:39	WG1614392
(S) p-Terphenyl-d14	67.2				10.0-120		02/01/2021 18:39	WG1614392

1

Cp

2

Tc

3

Ss

4

Cn

5

Tr

6

Sr

7

Qc

8

Gl

9

Al

10

Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.9		1	02/02/2021 16:16	WG1614562

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Mercury	0.104		0.0215	0.0400	0.0477	1	02/03/2021 09:12	WG1614236

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Arsenic	5.13		0.618	2.00	2.38	1	02/03/2021 00:54	WG1613801
Barium	133		0.102	0.500	0.596	1	02/03/2021 00:54	WG1613801
Cadmium	0.375	J	0.0562	0.500	0.596	1	02/03/2021 00:54	WG1613801
Chromium	27.3		0.159	1.00	1.19	1	02/03/2021 00:54	WG1613801
Lead	98.5		0.248	0.500	0.596	1	02/03/2021 00:54	WG1613801
Selenium	U		0.911	2.00	2.38	1	02/03/2021 00:54	WG1613801
Silver	0.843	J	0.151	1.00	1.19	1	02/03/2021 00:54	WG1613801

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Acetone	U		0.0521	0.0500	0.0714	1	01/30/2021 06:53	WG1613619
Benzene	U		0.000666	0.00100	0.00143	1	01/30/2021 06:53	WG1613619
Bromobenzene	U		0.00128	0.0125	0.0178	1	01/30/2021 06:53	WG1613619
Bromochloromethane	U		0.000805	0.00500	0.00714	1	01/30/2021 06:53	WG1613619
Bromodichloromethane	U		0.00103	0.00250	0.00357	1	01/30/2021 06:53	WG1613619
Bromoform	U		0.00167	0.0250	0.0357	1	01/30/2021 06:53	WG1613619
Bromomethane	U		0.00281	0.0125	0.0178	1	01/30/2021 06:53	WG1613619
n-Butylbenzene	U		0.00749	0.0125	0.0178	1	01/30/2021 06:53	WG1613619
sec-Butylbenzene	U		0.00411	0.0125	0.0178	1	01/30/2021 06:53	WG1613619
tert-Butylbenzene	U		0.00278	0.00500	0.00714	1	01/30/2021 06:53	WG1613619
Carbon disulfide	U		0.000999	0.0125	0.0178	1	01/30/2021 06:53	WG1613619
Carbon tetrachloride	U		0.00128	0.00500	0.00714	1	01/30/2021 06:53	WG1613619
Chlorobenzene	U		0.000300	0.00250	0.00357	1	01/30/2021 06:53	WG1613619
Chlorodibromomethane	U		0.000873	0.00250	0.00357	1	01/30/2021 06:53	WG1613619
Chloroethane	U		0.00243	0.00500	0.00714	1	01/30/2021 06:53	WG1613619
Chloroform	U		0.00147	0.00250	0.00357	1	01/30/2021 06:53	WG1613619
Chloromethane	U		0.00621	0.0125	0.0178	1	01/30/2021 06:53	WG1613619
2-Chlorotoluene	U		0.00123	0.00250	0.00357	1	01/30/2021 06:53	WG1613619
4-Chlorotoluene	U		0.000642	0.00500	0.00714	1	01/30/2021 06:53	WG1613619
1,2-Dibromo-3-Chloropropane	U		0.00557	0.0250	0.0357	1	01/30/2021 06:53	WG1613619
1,2-Dibromoethane	U		0.000925	0.00250	0.00357	1	01/30/2021 06:53	WG1613619
Dibromomethane	U		0.00107	0.00500	0.00714	1	01/30/2021 06:53	WG1613619
1,2-Dichlorobenzene	U		0.000607	0.00500	0.00714	1	01/30/2021 06:53	WG1613619
1,3-Dichlorobenzene	U		0.000856	0.00500	0.00714	1	01/30/2021 06:53	WG1613619
1,4-Dichlorobenzene	U		0.000999	0.00500	0.00714	1	01/30/2021 06:53	WG1613619
Dichlorodifluoromethane	U		0.00230	0.00250	0.00357	1	01/30/2021 06:53	WG1613619
1,1-Dichloroethane	U		0.000701	0.00250	0.00357	1	01/30/2021 06:53	WG1613619
1,2-Dichloroethane	U		0.000926	0.00250	0.00357	1	01/30/2021 06:53	WG1613619
1,1-Dichloroethene	U		0.000865	0.00250	0.00357	1	01/30/2021 06:53	WG1613619
cis-1,2-Dichloroethene	U		0.00105	0.00250	0.00357	1	01/30/2021 06:53	WG1613619
trans-1,2-Dichloroethene	U		0.00148	0.00500	0.00714	1	01/30/2021 06:53	WG1613619
1,2-Dichloropropane	U		0.00203	0.00500	0.00714	1	01/30/2021 06:53	WG1613619
1,1-Dichloropropene	U		0.00115	0.00250	0.00357	1	01/30/2021 06:53	WG1613619



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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,3-Dichloropropane	U	J4	0.000715	0.00500	0.00714	1	01/30/2021 06:53	WG1613619
cis-1,3-Dichloropropene	U		0.00108	0.00250	0.00357	1	01/30/2021 06:53	WG1613619
trans-1,3-Dichloropropene	U		0.00163	0.00500	0.00714	1	01/30/2021 06:53	WG1613619
2,2-Dichloropropane	U		0.00197	0.00250	0.00357	1	01/30/2021 06:53	WG1613619
Ethylbenzene	U		0.00105	0.00250	0.00357	1	01/30/2021 06:53	WG1613619
Hexachloro-1,3-butadiene	U		0.00856	0.0250	0.0357	1	01/30/2021 06:53	WG1613619
2-Hexanone	U		0.00480	0.0250	0.0357	1	01/30/2021 06:53	WG1613619
Isopropylbenzene	U		0.000607	0.00250	0.00357	1	01/30/2021 06:53	WG1613619
p-Isopropyltoluene	U		0.00364	0.00500	0.00714	1	01/30/2021 06:53	WG1613619
2-Butanone (MEK)	U		0.0906	0.100	0.143	1	01/30/2021 06:53	WG1613619
Methylene Chloride	U		0.00948	0.0250	0.0357	1	01/30/2021 06:53	WG1613619
4-Methyl-2-pentanone (MIBK)	U		0.00325	0.0250	0.0357	1	01/30/2021 06:53	WG1613619
Methyl tert-butyl ether	U		0.000500	0.00100	0.00143	1	01/30/2021 06:53	WG1613619
Naphthalene	0.0178	LJ	0.00696	0.0125	0.0178	1	01/30/2021 06:53	WG1613619
n-Propylbenzene	U		0.00136	0.00500	0.00714	1	01/30/2021 06:53	WG1613619
Styrene	U		0.000327	0.0125	0.0178	1	01/30/2021 06:53	WG1613619
1,1,1,2-Tetrachloroethane	U		0.00135	0.00250	0.00357	1	01/30/2021 06:53	WG1613619
1,1,2,2-Tetrachloroethane	U	J4	0.000992	0.00250	0.00357	1	01/30/2021 06:53	WG1613619
Tetrachloroethene	U		0.00128	0.00250	0.00357	1	01/30/2021 06:53	WG1613619
Toluene	0.00264	LJ	0.00186	0.00500	0.00714	1	01/30/2021 06:53	WG1613619
1,2,3-Trichlorobenzene	U		0.0105	0.0125	0.0178	1	01/30/2021 06:53	WG1613619
1,2,4-Trichlorobenzene	U		0.00628	0.0125	0.0178	1	01/30/2021 06:53	WG1613619
1,1,1-Trichloroethane	U		0.00132	0.00250	0.00357	1	01/30/2021 06:53	WG1613619
1,1,2-Trichloroethane	U		0.000852	0.00250	0.00357	1	01/30/2021 06:53	WG1613619
Trichloroethene	U		0.000833	0.00100	0.00143	1	01/30/2021 06:53	WG1613619
Trichlorofluoromethane	U		0.00118	0.00250	0.00357	1	01/30/2021 06:53	WG1613619
1,2,3-Trichloropropane	U		0.00231	0.0125	0.0178	1	01/30/2021 06:53	WG1613619
1,2,4-Trimethylbenzene	U		0.00225	0.00500	0.00714	1	01/30/2021 06:53	WG1613619
1,3,5-Trimethylbenzene	U		0.00285	0.00500	0.00714	1	01/30/2021 06:53	WG1613619
Vinyl chloride	U		0.00166	0.00250	0.00357	1	01/30/2021 06:53	WG1613619
Xylenes, Total	0.00135	LJ	0.00126	0.00650	0.00928	1	01/30/2021 06:53	WG1613619
(S) Toluene-d8	97.9				75.0-131		01/30/2021 06:53	WG1613619
(S) 4-Bromofluorobenzene	101				67.0-138		01/30/2021 06:53	WG1613619
(S) 1,2-Dichloroethane-d4	96.3				70.0-130		01/30/2021 06:53	WG1613619

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

TPH by TCEQ Method 1005

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		17.9	50.0	59.6	1	02/02/2021 23:35	WG1614595
TPH C12 - C28	U		17.9	50.0	59.6	1	02/02/2021 23:35	WG1614595
TPH C28 - C35	U		17.9	50.0	59.6	1	02/02/2021 23:35	WG1614595
TPH C6 - C35	U		17.9	50.0	59.6	1	02/02/2021 23:35	WG1614595
(S) o-Terphenyl	115				70.0-130		02/02/2021 23:35	WG1614595

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	0.0340	LJ	0.0129	0.0333	0.0794	2	02/01/2021 22:52	WG1614392
Acenaphthylene	0.0123	LJ	0.0112	0.0333	0.0794	2	02/01/2021 22:52	WG1614392
Anthracene	0.0723	LJ	0.0141	0.0333	0.0794	2	02/01/2021 22:52	WG1614392
Benzo(a)anthracene	0.184		0.0140	0.0333	0.0794	2	02/01/2021 22:52	WG1614392
Benzo(b)fluoranthene	0.234		0.0148	0.0333	0.0794	2	02/01/2021 22:52	WG1614392
Benzo(k)fluoranthene	0.0795		0.0141	0.0333	0.0794	2	02/01/2021 22:52	WG1614392
Benzo(g,h,i)perylene	0.0687	LJ	0.0145	0.0333	0.0794	2	02/01/2021 22:52	WG1614392
Benzo(a)pyrene	0.162		0.0148	0.0333	0.0794	2	02/01/2021 22:52	WG1614392



Collected date/time: 01/26/21 14:35

L1311179

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzoic acid	U		0.281	1.67	3.98	2	02/01/2021 22:52	WG1614392
Benzyl alcohol	U		0.0293	0.333	0.794	2	02/01/2021 22:52	WG1614392
Bis(2-chlorethoxy)methane	U		0.0238	0.333	0.794	2	02/01/2021 22:52	WG1614392
Bis(2-chloroethyl)ether	U		0.0262	0.333	0.794	2	02/01/2021 22:52	WG1614392
2,2-Oxybis(1-Chloropropane)	U		0.0343	0.333	0.794	2	02/01/2021 22:52	WG1614392
4-Bromophenyl-phenylether	U		0.0279	0.333	0.794	2	02/01/2021 22:52	WG1614392
Carbazole	0.0256	L	0.0246	0.333	0.794	2	02/01/2021 22:52	WG1614392
2-Chloronaphthalene	U		0.0140	0.0333	0.0794	2	02/01/2021 22:52	WG1614392
4-Chloroaniline	U		0.0286	0.333	0.794	2	02/01/2021 22:52	WG1614392
4-Chlorophenyl-phenylether	U		0.0277	0.333	0.794	2	02/01/2021 22:52	WG1614392
Chrysene	0.168		0.0158	0.0333	0.0794	2	02/01/2021 22:52	WG1614392
Dibenz(a,h)anthracene	U		0.0220	0.0333	0.0794	2	02/01/2021 22:52	WG1614392
Dibenzofuran	0.0304	L	0.0260	0.333	0.794	2	02/01/2021 22:52	WG1614392
3,3-Dichlorobenzidine	U		0.0293	0.333	0.794	2	02/01/2021 22:52	WG1614392
2,4-Dinitrotoluene	U		0.0228	0.333	0.794	2	02/01/2021 22:52	WG1614392
2,6-Dinitrotoluene	U		0.0260	0.333	0.794	2	02/01/2021 22:52	WG1614392
Fluoranthene	0.352		0.0143	0.0333	0.0794	2	02/01/2021 22:52	WG1614392
Fluorene	0.0428	L	0.0129	0.0333	0.0794	2	02/01/2021 22:52	WG1614392
Hexachlorobenzene	U		0.0281	0.333	0.794	2	02/01/2021 22:52	WG1614392
Hexachloro-1,3-butadiene	U		0.0267	0.333	0.794	2	02/01/2021 22:52	WG1614392
Hexachlorocyclopentadiene	U		0.0417	0.333	0.794	2	02/01/2021 22:52	WG1614392
Hexachloroethane	U		0.0312	0.333	0.794	2	02/01/2021 22:52	WG1614392
Indeno(1,2,3-cd)pyrene	0.0788	L	0.0224	0.0333	0.0794	2	02/01/2021 22:52	WG1614392
Isophorone	U		0.0243	0.333	0.794	2	02/01/2021 22:52	WG1614392
2-Methylnaphthalene	0.0203	L	0.0103	0.0333	0.0794	2	02/01/2021 22:52	WG1614392
Naphthalene	0.0281	L	0.0199	0.0333	0.0794	2	02/01/2021 22:52	WG1614392
2-Nitroaniline	U		0.0255	0.333	0.794	2	02/01/2021 22:52	WG1614392
3-Nitroaniline	U		0.0253	0.333	0.794	2	02/01/2021 22:52	WG1614392
4-Nitroaniline	U		0.0232	0.333	0.794	2	02/01/2021 22:52	WG1614392
Nitrobenzene	U		0.0277	0.333	0.794	2	02/01/2021 22:52	WG1614392
n-Nitrosodimethylamine	U		0.118	0.333	0.794	2	02/01/2021 22:52	WG1614392
n-Nitrosodiphenylamine	U		0.0601	0.333	0.794	2	02/01/2021 22:52	WG1614392
n-Nitrosodi-n-propylamine	U		0.0265	0.333	0.794	2	02/01/2021 22:52	WG1614392
Phenanthrene	0.266		0.0158	0.0333	0.0794	2	02/01/2021 22:52	WG1614392
Benzylbutyl phthalate	U		0.0248	0.333	0.794	2	02/01/2021 22:52	WG1614392
Bis(2-ethylhexyl)phthalate	U		0.101	0.333	0.794	2	02/01/2021 22:52	WG1614392
Di-n-butyl phthalate	U		0.0272	0.333	0.794	2	02/01/2021 22:52	WG1614392
Diethyl phthalate	U		0.0262	0.333	0.794	2	02/01/2021 22:52	WG1614392
Dimethyl phthalate	U		0.168	0.333	0.794	2	02/01/2021 22:52	WG1614392
Di-n-octyl phthalate	U		0.0537	0.333	0.794	2	02/01/2021 22:52	WG1614392
Pyrene	0.320		0.0155	0.0333	0.0794	2	02/01/2021 22:52	WG1614392
Pyridine	U		0.0525	0.333	0.794	2	02/01/2021 22:52	WG1614392
1,2,4-Trichlorobenzene	U		0.0248	0.333	0.794	2	02/01/2021 22:52	WG1614392
4-Chloro-3-methylphenol	U		0.0258	0.333	0.794	2	02/01/2021 22:52	WG1614392
2-Chlorophenol	U		0.0262	0.333	0.794	2	02/01/2021 22:52	WG1614392
2,4-Dichlorophenol	U		0.0231	0.333	0.794	2	02/01/2021 22:52	WG1614392
2,4-Dimethylphenol	U		0.0207	0.333	0.794	2	02/01/2021 22:52	WG1614392
4,6-Dinitro-2-methylphenol	U		0.180	0.333	0.794	2	02/01/2021 22:52	WG1614392
2,4-Dinitrophenol	U		0.186	0.333	0.794	2	02/01/2021 22:52	WG1614392
2-Methylphenol	U		0.0238	0.333	0.794	2	02/01/2021 22:52	WG1614392
3&4-Methyl Phenol	U		0.0248	0.333	0.794	2	02/01/2021 22:52	WG1614392
2-Nitrophenol	U		0.0284	0.333	0.794	2	02/01/2021 22:52	WG1614392
4-Nitrophenol	U		0.0248	0.333	0.794	2	02/01/2021 22:52	WG1614392
Pentachlorophenol	U		0.0214	0.333	0.794	2	02/01/2021 22:52	WG1614392
Phenol	U		0.0320	0.333	0.794	2	02/01/2021 22:52	WG1614392
2,4,5-Trichlorophenol	U		0.0269	0.333	0.794	2	02/01/2021 22:52	WG1614392

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc



Collected date/time: 01/26/21 14:35

L1311179

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
2,4,6-Trichlorophenol	U		0.0255	0.333	0.794	2	02/01/2021 22:52	WG1614392
(S) 2-Fluorophenol	64.6				12.0-120		02/01/2021 22:52	WG1614392
(S) Phenol-d5	59.3				10.0-120		02/01/2021 22:52	WG1614392
(S) Nitrobenzene-d5	56.1				10.0-122		02/01/2021 22:52	WG1614392
(S) 2-Fluorobiphenyl	61.6				15.0-120		02/01/2021 22:52	WG1614392
(S) 2,4,6-Tribromophenol	61.9				10.0-127		02/01/2021 22:52	WG1614392
(S) p-Terphenyl-d14	65.9				10.0-120		02/01/2021 22:52	WG1614392

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Tr

⁶ Sr

⁷ Qc

⁸ Gl

⁹ Al

¹⁰ Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	74.9		1	02/02/2021 16:16	WG1614562

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Mercury	U		0.0240	0.0400	0.0534	1	02/03/2021 09:29	WG1614236

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Arsenic	1.37	J	0.691	2.00	2.67	1	02/03/2021 00:56	WG1613801
Barium	88.6		0.114	0.500	0.667	1	02/03/2021 00:56	WG1613801
Cadmium	U		0.0629	0.500	0.667	1	02/03/2021 00:56	WG1613801
Chromium	14.1		0.178	1.00	1.33	1	02/03/2021 00:56	WG1613801
Lead	16.3		0.278	0.500	0.667	1	02/03/2021 00:56	WG1613801
Selenium	1.11	J	1.02	2.00	2.67	1	02/03/2021 00:56	WG1613801
Silver	U		0.170	1.00	1.33	1	02/03/2021 00:56	WG1613801

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Acetone	U		0.0702	0.0500	0.0962	1.19	01/30/2021 07:12	WG1613619
Benzene	U		0.000899	0.00100	0.00192	1.19	01/30/2021 07:12	WG1613619
Bromobenzene	U		0.00173	0.0125	0.0241	1.19	01/30/2021 07:12	WG1613619
Bromochloromethane	U		0.00109	0.00500	0.00962	1.19	01/30/2021 07:12	WG1613619
Bromodichloromethane	U		0.00140	0.00250	0.00480	1.19	01/30/2021 07:12	WG1613619
Bromoform	U		0.00225	0.0250	0.0480	1.19	01/30/2021 07:12	WG1613619
Bromomethane	U		0.00379	0.0125	0.0241	1.19	01/30/2021 07:12	WG1613619
n-Butylbenzene	U		0.0101	0.0125	0.0241	1.19	01/30/2021 07:12	WG1613619
sec-Butylbenzene	U		0.00554	0.0125	0.0241	1.19	01/30/2021 07:12	WG1613619
tert-Butylbenzene	U		0.00375	0.00500	0.00962	1.19	01/30/2021 07:12	WG1613619
Carbon disulfide	U		0.00135	0.0125	0.0241	1.19	01/30/2021 07:12	WG1613619
Carbon tetrachloride	U		0.00173	0.00500	0.00962	1.19	01/30/2021 07:12	WG1613619
Chlorobenzene	U		0.000404	0.00250	0.00480	1.19	01/30/2021 07:12	WG1613619
Chlorodibromomethane	U		0.00118	0.00250	0.00480	1.19	01/30/2021 07:12	WG1613619
Chloroethane	U		0.00327	0.00500	0.00962	1.19	01/30/2021 07:12	WG1613619
Chloroform	U		0.00198	0.00250	0.00480	1.19	01/30/2021 07:12	WG1613619
Chloromethane	U		0.00837	0.0125	0.0241	1.19	01/30/2021 07:12	WG1613619
2-Chlorotoluene	U		0.00166	0.00250	0.00480	1.19	01/30/2021 07:12	WG1613619
4-Chlorotoluene	U		0.000866	0.00500	0.00962	1.19	01/30/2021 07:12	WG1613619
1,2-Dibromo-3-Chloropropane	U		0.00750	0.0250	0.0480	1.19	01/30/2021 07:12	WG1613619
1,2-Dibromoethane	U		0.00125	0.00250	0.00480	1.19	01/30/2021 07:12	WG1613619
Dibromomethane	U		0.00144	0.00500	0.00962	1.19	01/30/2021 07:12	WG1613619
1,2-Dichlorobenzene	U		0.000818	0.00500	0.00962	1.19	01/30/2021 07:12	WG1613619
1,3-Dichlorobenzene	U		0.00115	0.00500	0.00962	1.19	01/30/2021 07:12	WG1613619
1,4-Dichlorobenzene	U		0.00135	0.00500	0.00962	1.19	01/30/2021 07:12	WG1613619
Dichlorodifluoromethane	U		0.00310	0.00250	0.00480	1.19	01/30/2021 07:12	WG1613619
1,1-Dichloroethane	U		0.000945	0.00250	0.00480	1.19	01/30/2021 07:12	WG1613619
1,2-Dichloroethane	U		0.00125	0.00250	0.00480	1.19	01/30/2021 07:12	WG1613619
1,1-Dichloroethene	U		0.00117	0.00250	0.00480	1.19	01/30/2021 07:12	WG1613619
cis-1,2-Dichloroethene	U		0.00141	0.00250	0.00480	1.19	01/30/2021 07:12	WG1613619
trans-1,2-Dichloroethene	U		0.00200	0.00500	0.00962	1.19	01/30/2021 07:12	WG1613619
1,2-Dichloropropane	U		0.00273	0.00500	0.00962	1.19	01/30/2021 07:12	WG1613619
1,1-Dichloropropene	U		0.00156	0.00250	0.00480	1.19	01/30/2021 07:12	WG1613619





Collected date/time: 01/26/21 13:45

L1311179

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,3-Dichloropropane	U	J4	0.000964	0.00500	0.00962	1.19	01/30/2021 07:12	WG1613619
cis-1,3-Dichloropropene	U		0.00146	0.00250	0.00480	1.19	01/30/2021 07:12	WG1613619
trans-1,3-Dichloropropene	U		0.00219	0.00500	0.00962	1.19	01/30/2021 07:12	WG1613619
2,2-Dichloropropane	U		0.00266	0.00250	0.00480	1.19	01/30/2021 07:12	WG1613619
Ethylbenzene	U		0.00142	0.00250	0.00480	1.19	01/30/2021 07:12	WG1613619
Hexachloro-1,3-butadiene	U		0.0115	0.0250	0.0480	1.19	01/30/2021 07:12	WG1613619
2-Hexanone	U		0.00647	0.0250	0.0480	1.19	01/30/2021 07:12	WG1613619
Isopropylbenzene	0.00111	J	0.000818	0.00250	0.00480	1.19	01/30/2021 07:12	WG1613619
p-Isopropyltoluene	U		0.00491	0.00500	0.00962	1.19	01/30/2021 07:12	WG1613619
2-Butanone (MEK)	U		0.122	0.100	0.192	1.19	01/30/2021 07:12	WG1613619
Methylene Chloride	U		0.0128	0.0250	0.0480	1.19	01/30/2021 07:12	WG1613619
4-Methyl-2-pentanone (MIBK)	U		0.00439	0.0250	0.0480	1.19	01/30/2021 07:12	WG1613619
Methyl tert-butyl ether	U		0.000674	0.00100	0.00192	1.19	01/30/2021 07:12	WG1613619
Naphthalene	U		0.00939	0.0125	0.0241	1.19	01/30/2021 07:12	WG1613619
n-Propylbenzene	U		0.00183	0.00500	0.00962	1.19	01/30/2021 07:12	WG1613619
Styrene	U		0.000441	0.0125	0.0241	1.19	01/30/2021 07:12	WG1613619
1,1,1,2-Tetrachloroethane	U		0.00182	0.00250	0.00480	1.19	01/30/2021 07:12	WG1613619
1,1,2,2-Tetrachloroethane	U	J4	0.00134	0.00250	0.00480	1.19	01/30/2021 07:12	WG1613619
Tetrachloroethene	U		0.00172	0.00250	0.00480	1.19	01/30/2021 07:12	WG1613619
Toluene	U		0.00250	0.00500	0.00962	1.19	01/30/2021 07:12	WG1613619
1,2,3-Trichlorobenzene	U		0.0141	0.0125	0.0241	1.19	01/30/2021 07:12	WG1613619
1,2,4-Trichlorobenzene	U		0.00847	0.0125	0.0241	1.19	01/30/2021 07:12	WG1613619
1,1,1-Trichloroethane	U		0.00178	0.00250	0.00480	1.19	01/30/2021 07:12	WG1613619
1,1,2-Trichloroethane	U		0.00115	0.00250	0.00480	1.19	01/30/2021 07:12	WG1613619
Trichloroethene	U		0.00112	0.00100	0.00192	1.19	01/30/2021 07:12	WG1613619
Trichlorofluoromethane	U		0.00159	0.00250	0.00480	1.19	01/30/2021 07:12	WG1613619
1,2,3-Trichloropropane	U		0.00312	0.0125	0.0241	1.19	01/30/2021 07:12	WG1613619
1,2,4-Trimethylbenzene	U		0.00304	0.00500	0.00962	1.19	01/30/2021 07:12	WG1613619
1,3,5-Trimethylbenzene	U		0.00385	0.00500	0.00962	1.19	01/30/2021 07:12	WG1613619
Vinyl chloride	U		0.00223	0.00250	0.00480	1.19	01/30/2021 07:12	WG1613619
Xylenes, Total	U		0.00169	0.00650	0.0125	1.19	01/30/2021 07:12	WG1613619
(S) Toluene-d8	99.7				75.0-131		01/30/2021 07:12	WG1613619
(S) 4-Bromofluorobenzene	102				67.0-138		01/30/2021 07:12	WG1613619
(S) 1,2-Dichloroethane-d4	92.6				70.0-130		01/30/2021 07:12	WG1613619

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

TPH by TCEQ Method 1005

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		20.0	50.0	66.7	1	02/02/2021 23:50	WG1614595
TPH C12 - C28	U		20.0	50.0	66.7	1	02/02/2021 23:50	WG1614595
TPH C28 - C35	U		20.0	50.0	66.7	1	02/02/2021 23:50	WG1614595
TPH C6 - C35	U		20.0	50.0	66.7	1	02/02/2021 23:50	WG1614595
(S) o-Terphenyl	106				70.0-130		02/02/2021 23:50	WG1614595

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.00719	0.0333	0.0444	1	02/01/2021 19:28	WG1614392
Acenaphthylene	U		0.00626	0.0333	0.0444	1	02/01/2021 19:28	WG1614392
Anthracene	U		0.00792	0.0333	0.0444	1	02/01/2021 19:28	WG1614392
Benzo(a)anthracene	U		0.00784	0.0333	0.0444	1	02/01/2021 19:28	WG1614392
Benzo(b)fluoranthene	U		0.00829	0.0333	0.0444	1	02/01/2021 19:28	WG1614392
Benzo(k)fluoranthene	U		0.00790	0.0333	0.0444	1	02/01/2021 19:28	WG1614392
Benzo(g,h,i)perylene	U		0.00813	0.0333	0.0444	1	02/01/2021 19:28	WG1614392
Benzo(a)pyrene	U		0.00826	0.0333	0.0444	1	02/01/2021 19:28	WG1614392



Collected date/time: 01/26/21 13:45

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzoic acid	U		0.158	1.67	2.23	1	02/01/2021 19:28	WG1614392
Benzyl alcohol	U		0.0164	0.333	0.444	1	02/01/2021 19:28	WG1614392
Bis(2-chlorethoxy)methane	U		0.0133	0.333	0.444	1	02/01/2021 19:28	WG1614392
Bis(2-chloroethyl)ether	U		0.0147	0.333	0.444	1	02/01/2021 19:28	WG1614392
2,2-Oxybis(1-Chloropropane)	U		0.0192	0.333	0.444	1	02/01/2021 19:28	WG1614392
4-Bromophenyl-phenylether	U		0.0156	0.333	0.444	1	02/01/2021 19:28	WG1614392
Carbazole	U		0.0137	0.333	0.444	1	02/01/2021 19:28	WG1614392
2-Chloronaphthalene	U		0.00781	0.0333	0.0444	1	02/01/2021 19:28	WG1614392
4-Chloroaniline	U		0.0160	0.333	0.444	1	02/01/2021 19:28	WG1614392
4-Chlorophenyl-phenylether	U		0.0155	0.333	0.444	1	02/01/2021 19:28	WG1614392
Chrysene	U		0.00884	0.0333	0.0444	1	02/01/2021 19:28	WG1614392
Dibenz(a,h)anthracene	U		0.0123	0.0333	0.0444	1	02/01/2021 19:28	WG1614392
Dibenzofuran	U		0.0145	0.333	0.444	1	02/01/2021 19:28	WG1614392
3,3-Dichlorobenzidine	U		0.0164	0.333	0.444	1	02/01/2021 19:28	WG1614392
2,4-Dinitrotoluene	U		0.0127	0.333	0.444	1	02/01/2021 19:28	WG1614392
2,6-Dinitrotoluene	U		0.0145	0.333	0.444	1	02/01/2021 19:28	WG1614392
Fluoranthene	U		0.00802	0.0333	0.0444	1	02/01/2021 19:28	WG1614392
Fluorene	U		0.00723	0.0333	0.0444	1	02/01/2021 19:28	WG1614392
Hexachlorobenzene	U		0.0158	0.333	0.444	1	02/01/2021 19:28	WG1614392
Hexachloro-1,3-butadiene	U		0.0149	0.333	0.444	1	02/01/2021 19:28	WG1614392
Hexachlorocyclopentadiene	U		0.0234	0.333	0.444	1	02/01/2021 19:28	WG1614392
Hexachloroethane	U		0.0175	0.333	0.444	1	02/01/2021 19:28	WG1614392
Indeno(1,2,3-cd)pyrene	U		0.0126	0.0333	0.0444	1	02/01/2021 19:28	WG1614392
Isophorone	U		0.0136	0.333	0.444	1	02/01/2021 19:28	WG1614392
2-Methylnaphthalene	U		0.00577	0.0333	0.0444	1	02/01/2021 19:28	WG1614392
Naphthalene	U		0.0112	0.0333	0.0444	1	02/01/2021 19:28	WG1614392
2-Nitroaniline	U		0.0143	0.333	0.444	1	02/01/2021 19:28	WG1614392
3-Nitroaniline	U		0.0141	0.333	0.444	1	02/01/2021 19:28	WG1614392
4-Nitroaniline	U		0.0130	0.333	0.444	1	02/01/2021 19:28	WG1614392
Nitrobenzene	U		0.0155	0.333	0.444	1	02/01/2021 19:28	WG1614392
n-Nitrosodimethylamine	U		0.0659	0.333	0.444	1	02/01/2021 19:28	WG1614392
n-Nitrosodiphenylamine	U		0.0336	0.333	0.444	1	02/01/2021 19:28	WG1614392
n-Nitrosodi-n-propylamine	U		0.0148	0.333	0.444	1	02/01/2021 19:28	WG1614392
Phenanthrene	U		0.00882	0.0333	0.0444	1	02/01/2021 19:28	WG1614392
Benzylbutyl phthalate	U		0.0139	0.333	0.444	1	02/01/2021 19:28	WG1614392
Bis(2-ethylhexyl)phthalate	U		0.0563	0.333	0.444	1	02/01/2021 19:28	WG1614392
Di-n-butyl phthalate	U		0.0152	0.333	0.444	1	02/01/2021 19:28	WG1614392
Diethyl phthalate	U		0.0147	0.333	0.444	1	02/01/2021 19:28	WG1614392
Dimethyl phthalate	U		0.0942	0.333	0.444	1	02/01/2021 19:28	WG1614392
Di-n-octyl phthalate	U		0.0300	0.333	0.444	1	02/01/2021 19:28	WG1614392
Pyrene	U		0.00865	0.0333	0.0444	1	02/01/2021 19:28	WG1614392
Pyridine	U		0.0294	0.333	0.444	1	02/01/2021 19:28	WG1614392
1,2,4-Trichlorobenzene	U		0.0139	0.333	0.444	1	02/01/2021 19:28	WG1614392
4-Chloro-3-methylphenol	U		0.0144	0.333	0.444	1	02/01/2021 19:28	WG1614392
2-Chlorophenol	U		0.0147	0.333	0.444	1	02/01/2021 19:28	WG1614392
2,4-Dichlorophenol	U		0.0129	0.333	0.444	1	02/01/2021 19:28	WG1614392
2,4-Dimethylphenol	U		0.0116	0.333	0.444	1	02/01/2021 19:28	WG1614392
4,6-Dinitro-2-methylphenol	U		0.101	0.333	0.444	1	02/01/2021 19:28	WG1614392
2,4-Dinitrophenol	U		0.104	0.333	0.444	1	02/01/2021 19:28	WG1614392
2-Methylphenol	U		0.0133	0.333	0.444	1	02/01/2021 19:28	WG1614392
3&4-Methyl Phenol	U		0.0139	0.333	0.444	1	02/01/2021 19:28	WG1614392
2-Nitrophenol	U		0.0159	0.333	0.444	1	02/01/2021 19:28	WG1614392
4-Nitrophenol	U		0.0139	0.333	0.444	1	02/01/2021 19:28	WG1614392
Pentachlorophenol	U		0.0120	0.333	0.444	1	02/01/2021 19:28	WG1614392
Phenol	U		0.0179	0.333	0.444	1	02/01/2021 19:28	WG1614392
2,4,5-Trichlorophenol	U		0.0151	0.333	0.444	1	02/01/2021 19:28	WG1614392





Collected date/time: 01/26/21 13:45

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
2,4,6-Trichlorophenol	U		0.0143	0.333	0.444	1	02/01/2021 19:28	WG1614392
(S) 2-Fluorophenol	64.3				12.0-120		02/01/2021 19:28	WG1614392
(S) Phenol-d5	56.5				10.0-120		02/01/2021 19:28	WG1614392
(S) Nitrobenzene-d5	52.6				10.0-122		02/01/2021 19:28	WG1614392
(S) 2-Fluorobiphenyl	59.0				15.0-120		02/01/2021 19:28	WG1614392
(S) 2,4,6-Tribromophenol	58.7				10.0-127		02/01/2021 19:28	WG1614392
(S) p-Terphenyl-d14	62.6				10.0-120		02/01/2021 19:28	WG1614392

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Tr

⁶ Sr

⁷ Qc

⁸ Gl

⁹ Al

¹⁰ Sc



Collected date/time: 01/26/21 10:15

L1311179

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	60.4		1	02/02/2021 16:16	WG1614562

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	7.99	<u>T8</u>	1	02/02/2021 00:57	WG1614203

Sample Narrative:

L1311179-05 WG1614203: 7.99 at 20.9C

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis date / time	Batch
Mercury	0.117		0.0298	0.0400	0.0662	1	02/03/2021 09:31	WG1614236

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis date / time	Batch
Arsenic	38.3		0.857	2.00	3.31	1	02/03/2021 01:05	WG1613801
Barium	461		0.141	0.500	0.828	1	02/03/2021 01:05	WG1613801
Cadmium	1.92		0.0780	0.500	0.828	1	02/03/2021 01:05	WG1613801
Chromium	27.4		0.220	1.00	1.66	1	02/03/2021 01:05	WG1613801
Lead	243		0.344	0.500	0.828	1	02/03/2021 01:05	WG1613801
Selenium	2.13	<u>J</u>	1.26	2.00	3.31	1	02/03/2021 01:05	WG1613801
Silver	0.302	<u>J</u>	0.210	1.00	1.66	1	02/03/2021 01:05	WG1613801

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.0866	0.0500	0.119	1	01/30/2021 07:31	WG1613619
Benzene	U		0.00111	0.00100	0.00237	1	01/30/2021 07:31	WG1613619
Bromobenzene	U		0.00213	0.0125	0.0296	1	01/30/2021 07:31	WG1613619
Bromochloromethane	U		0.00134	0.00500	0.0119	1	01/30/2021 07:31	WG1613619
Bromodichloromethane	U		0.00172	0.00250	0.00593	1	01/30/2021 07:31	WG1613619
Bromoform	U		0.00277	0.0250	0.0593	1	01/30/2021 07:31	WG1613619
Bromomethane	U		0.00467	0.0125	0.0296	1	01/30/2021 07:31	WG1613619
n-Butylbenzene	U		0.0124	0.0125	0.0296	1	01/30/2021 07:31	WG1613619
sec-Butylbenzene	U		0.00683	0.0125	0.0296	1	01/30/2021 07:31	WG1613619
tert-Butylbenzene	U		0.00462	0.00500	0.0119	1	01/30/2021 07:31	WG1613619
Carbon disulfide	U		0.00166	0.0125	0.0296	1	01/30/2021 07:31	WG1613619
Carbon tetrachloride	U		0.00213	0.00500	0.0119	1	01/30/2021 07:31	WG1613619
Chlorobenzene	U		0.000498	0.00250	0.00593	1	01/30/2021 07:31	WG1613619
Chlorodibromomethane	U		0.00145	0.00250	0.00593	1	01/30/2021 07:31	WG1613619
Chloroethane	U		0.00403	0.00500	0.0119	1	01/30/2021 07:31	WG1613619
Chloroform	U		0.00244	0.00250	0.00593	1	01/30/2021 07:31	WG1613619
Chloromethane	U		0.0103	0.0125	0.0296	1	01/30/2021 07:31	WG1613619
2-Chlorotoluene	U		0.00205	0.00250	0.00593	1	01/30/2021 07:31	WG1613619
4-Chlorotoluene	U		0.00107	0.00500	0.0119	1	01/30/2021 07:31	WG1613619
1,2-Dibromo-3-Chloropropane	U		0.00925	0.0250	0.0593	1	01/30/2021 07:31	WG1613619
1,2-Dibromoethane	U		0.00154	0.00250	0.00593	1	01/30/2021 07:31	WG1613619
Dibromomethane	U		0.00178	0.00500	0.0119	1	01/30/2021 07:31	WG1613619
1,2-Dichlorobenzene	U		0.00101	0.00500	0.0119	1	01/30/2021 07:31	WG1613619
1,3-Dichlorobenzene	U		0.00142	0.00500	0.0119	1	01/30/2021 07:31	WG1613619
1,4-Dichlorobenzene	U		0.00166	0.00500	0.0119	1	01/30/2021 07:31	WG1613619



Collected date/time: 01/26/21 10:15

L1311179

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	U		0.00382	0.00250	0.00593	1	01/30/2021 07:31	WG1613619
1,1-Dichloroethane	U		0.00116	0.00250	0.00593	1	01/30/2021 07:31	WG1613619
1,2-Dichloroethane	U		0.00154	0.00250	0.00593	1	01/30/2021 07:31	WG1613619
1,1-Dichloroethene	U		0.00144	0.00250	0.00593	1	01/30/2021 07:31	WG1613619
cis-1,2-Dichloroethene	U		0.00174	0.00250	0.00593	1	01/30/2021 07:31	WG1613619
trans-1,2-Dichloroethene	U		0.00247	0.00500	0.0119	1	01/30/2021 07:31	WG1613619
1,2-Dichloropropane	U		0.00337	0.00500	0.0119	1	01/30/2021 07:31	WG1613619
1,1-Dichloropropene	U		0.00192	0.00250	0.00593	1	01/30/2021 07:31	WG1613619
1,3-Dichloropropane	U	J4	0.00119	0.00500	0.0119	1	01/30/2021 07:31	WG1613619
cis-1,3-Dichloropropene	U		0.00180	0.00250	0.00593	1	01/30/2021 07:31	WG1613619
trans-1,3-Dichloropropene	U		0.00270	0.00500	0.0119	1	01/30/2021 07:31	WG1613619
2,2-Dichloropropane	U		0.00327	0.00250	0.00593	1	01/30/2021 07:31	WG1613619
Ethylbenzene	0.00486	J	0.00175	0.00250	0.00593	1	01/30/2021 07:31	WG1613619
Hexachloro-1,3-butadiene	U		0.0142	0.0250	0.0593	1	01/30/2021 07:31	WG1613619
2-Hexanone	U		0.00797	0.0250	0.0593	1	01/30/2021 07:31	WG1613619
Isopropylbenzene	U		0.00101	0.00250	0.00593	1	01/30/2021 07:31	WG1613619
p-Isopropyltoluene	U		0.00605	0.00500	0.0119	1	01/30/2021 07:31	WG1613619
2-Butanone (MEK)	U		0.151	0.100	0.237	1	01/30/2021 07:31	WG1613619
Methylene Chloride	U		0.0157	0.0250	0.0593	1	01/30/2021 07:31	WG1613619
4-Methyl-2-pentanone (MIBK)	U		0.00541	0.0250	0.0593	1	01/30/2021 07:31	WG1613619
Methyl tert-butyl ether	U		0.000830	0.00100	0.00237	1	01/30/2021 07:31	WG1613619
Naphthalene	U		0.0116	0.0125	0.0296	1	01/30/2021 07:31	WG1613619
n-Propylbenzene	U		0.00225	0.00500	0.0119	1	01/30/2021 07:31	WG1613619
Styrene	U		0.000543	0.0125	0.0296	1	01/30/2021 07:31	WG1613619
1,1,1,2-Tetrachloroethane	U		0.00225	0.00250	0.00593	1	01/30/2021 07:31	WG1613619
1,1,2,2-Tetrachloroethane	U	J4	0.00165	0.00250	0.00593	1	01/30/2021 07:31	WG1613619
Tetrachloroethene	U		0.00212	0.00250	0.00593	1	01/30/2021 07:31	WG1613619
Toluene	0.00448	J	0.00308	0.00500	0.0119	1	01/30/2021 07:31	WG1613619
1,2,3-Trichlorobenzene	U		0.0174	0.0125	0.0296	1	01/30/2021 07:31	WG1613619
1,2,4-Trichlorobenzene	U		0.0104	0.0125	0.0296	1	01/30/2021 07:31	WG1613619
1,1,1-Trichloroethane	U		0.00219	0.00250	0.00593	1	01/30/2021 07:31	WG1613619
1,1,2-Trichloroethane	U		0.00142	0.00250	0.00593	1	01/30/2021 07:31	WG1613619
Trichloroethene	U		0.00138	0.00100	0.00237	1	01/30/2021 07:31	WG1613619
Trichlorofluoromethane	U		0.00196	0.00250	0.00593	1	01/30/2021 07:31	WG1613619
1,2,3-Trichloropropane	U		0.00384	0.0125	0.0296	1	01/30/2021 07:31	WG1613619
1,2,4-Trimethylbenzene	U		0.00375	0.00500	0.0119	1	01/30/2021 07:31	WG1613619
1,3,5-Trimethylbenzene	U		0.00474	0.00500	0.0119	1	01/30/2021 07:31	WG1613619
Vinyl chloride	U		0.00275	0.00250	0.00593	1	01/30/2021 07:31	WG1613619
Xylenes, Total	0.0337		0.00209	0.00650	0.0154	1	01/30/2021 07:31	WG1613619
(S) Toluene-d8	97.2				75.0-131		01/30/2021 07:31	WG1613619
(S) 4-Bromofluorobenzene	98.4				67.0-138		01/30/2021 07:31	WG1613619
(S) 1,2-Dichloroethane-d4	94.0				70.0-130		01/30/2021 07:31	WG1613619

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

TPH by TCEQ Method 1005

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		24.8	50.0	82.8	1	02/03/2021 00:04	WG1614595
TPH C12 - C28	U		24.8	50.0	82.8	1	02/03/2021 00:04	WG1614595
TPH C28 - C35	U		24.8	50.0	82.8	1	02/03/2021 00:04	WG1614595
TPH C6 - C35	U		24.8	50.0	82.8	1	02/03/2021 00:04	WG1614595
(S) o-Terphenyl	106				70.0-130		02/03/2021 00:04	WG1614595



Collected date/time: 01/26/21 10:15

L1311179

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.00892	0.0333	0.0551	1	02/01/2021 19:52	WG1614392
Acenaphthylene	0.0200	UL	0.00776	0.0333	0.0551	1	02/01/2021 19:52	WG1614392
Anthracene	0.0394	UL	0.00982	0.0333	0.0551	1	02/01/2021 19:52	WG1614392
Benzo(a)anthracene	0.0508	UL	0.00972	0.0333	0.0551	1	02/01/2021 19:52	WG1614392
Benzo(b)fluoranthene	0.0849		0.0103	0.0333	0.0551	1	02/01/2021 19:52	WG1614392
Benzo(k)fluoranthene	0.0263	UL	0.00980	0.0333	0.0551	1	02/01/2021 19:52	WG1614392
Benzo(g,h,i)perylene	0.0396	UL	0.0101	0.0333	0.0551	1	02/01/2021 19:52	WG1614392
Benzo(a)pyrene	0.0566		0.0102	0.0333	0.0551	1	02/01/2021 19:52	WG1614392
Benzoic acid	U		0.195	1.67	2.76	1	02/01/2021 19:52	WG1614392
Benzyl alcohol	U		0.0204	0.333	0.551	1	02/01/2021 19:52	WG1614392
Bis(2-chlorethoxy)methane	U		0.0166	0.333	0.551	1	02/01/2021 19:52	WG1614392
Bis(2-chloroethyl)ether	U		0.0182	0.333	0.551	1	02/01/2021 19:52	WG1614392
2,2-Oxybis(1-Chloropropane)	U		0.0238	0.333	0.551	1	02/01/2021 19:52	WG1614392
4-Bromophenyl-phenylether	U		0.0194	0.333	0.551	1	02/01/2021 19:52	WG1614392
Carbazole	U		0.0170	0.333	0.551	1	02/01/2021 19:52	WG1614392
2-Chloronaphthalene	U		0.00968	0.0333	0.0551	1	02/01/2021 19:52	WG1614392
4-Chloroaniline	U		0.0199	0.333	0.551	1	02/01/2021 19:52	WG1614392
4-Chlorophenyl-phenylether	U		0.0192	0.333	0.551	1	02/01/2021 19:52	WG1614392
Chrysene	0.0473	UL	0.0110	0.0333	0.0551	1	02/01/2021 19:52	WG1614392
Dibenz(a,h)anthracene	U		0.0153	0.0333	0.0551	1	02/01/2021 19:52	WG1614392
Dibenzofuran	U		0.0180	0.333	0.551	1	02/01/2021 19:52	WG1614392
3,3-Dichlorobenzidine	U		0.0204	0.333	0.551	1	02/01/2021 19:52	WG1614392
2,4-Dinitrotoluene	U		0.0158	0.333	0.551	1	02/01/2021 19:52	WG1614392
2,6-Dinitrotoluene	U		0.0180	0.333	0.551	1	02/01/2021 19:52	WG1614392
Fluoranthene	0.0786		0.00995	0.0333	0.0551	1	02/01/2021 19:52	WG1614392
Fluorene	U		0.00897	0.0333	0.0551	1	02/01/2021 19:52	WG1614392
Hexachlorobenzene	U		0.0195	0.333	0.551	1	02/01/2021 19:52	WG1614392
Hexachloro-1,3-butadiene	U		0.0185	0.333	0.551	1	02/01/2021 19:52	WG1614392
Hexachlorocyclopentadiene	U		0.0290	0.333	0.551	1	02/01/2021 19:52	WG1614392
Hexachloroethane	U		0.0217	0.333	0.551	1	02/01/2021 19:52	WG1614392
Indeno(1,2,3-cd)pyrene	U		0.0156	0.0333	0.0551	1	02/01/2021 19:52	WG1614392
Isophorone	U		0.0169	0.333	0.551	1	02/01/2021 19:52	WG1614392
2-Methylnaphthalene	U		0.00715	0.0333	0.0551	1	02/01/2021 19:52	WG1614392
Naphthalene	U		0.0138	0.0333	0.0551	1	02/01/2021 19:52	WG1614392
2-Nitroaniline	U		0.0177	0.333	0.551	1	02/01/2021 19:52	WG1614392
3-Nitroaniline	U		0.0175	0.333	0.551	1	02/01/2021 19:52	WG1614392
4-Nitroaniline	U		0.0161	0.333	0.551	1	02/01/2021 19:52	WG1614392
Nitrobenzene	U		0.0192	0.333	0.551	1	02/01/2021 19:52	WG1614392
n-Nitrosodimethylamine	U		0.0818	0.333	0.551	1	02/01/2021 19:52	WG1614392
n-Nitrosodiphenylamine	U		0.0417	0.333	0.551	1	02/01/2021 19:52	WG1614392
n-Nitrosodi-n-propylamine	U		0.0184	0.333	0.551	1	02/01/2021 19:52	WG1614392
Phenanthrene	0.0273	UL	0.0109	0.0333	0.0551	1	02/01/2021 19:52	WG1614392
Benzylbutyl phthalate	U		0.0172	0.333	0.551	1	02/01/2021 19:52	WG1614392
Bis(2-ethylhexyl)phthalate	U		0.0699	0.333	0.551	1	02/01/2021 19:52	WG1614392
Di-n-butyl phthalate	U		0.0189	0.333	0.551	1	02/01/2021 19:52	WG1614392
Diethyl phthalate	U		0.0182	0.333	0.551	1	02/01/2021 19:52	WG1614392
Dimethyl phthalate	U		0.117	0.333	0.551	1	02/01/2021 19:52	WG1614392
Di-n-octyl phthalate	U		0.0372	0.333	0.551	1	02/01/2021 19:52	WG1614392
Pyrene	0.0760		0.0107	0.0333	0.0551	1	02/01/2021 19:52	WG1614392
Pyridine	U		0.0364	0.333	0.551	1	02/01/2021 19:52	WG1614392
1,2,4-Trichlorobenzene	U		0.0172	0.333	0.551	1	02/01/2021 19:52	WG1614392
4-Chloro-3-methylphenol	U		0.0179	0.333	0.551	1	02/01/2021 19:52	WG1614392
2-Chlorophenol	U		0.0182	0.333	0.551	1	02/01/2021 19:52	WG1614392
2,4-Dichlorophenol	U		0.0161	0.333	0.551	1	02/01/2021 19:52	WG1614392
2,4-Dimethylphenol	U		0.0144	0.333	0.551	1	02/01/2021 19:52	WG1614392
4,6-Dinitro-2-methylphenol	U		0.125	0.333	0.551	1	02/01/2021 19:52	WG1614392

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc



Collected date/time: 01/26/21 10:15

L1311179

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
2,4-Dinitrophenol	U		0.129	0.333	0.551	1	02/01/2021 19:52	WG1614392
2-Methylphenol	U		0.0166	0.333	0.551	1	02/01/2021 19:52	WG1614392
3&4-Methyl Phenol	U		0.0172	0.333	0.551	1	02/01/2021 19:52	WG1614392
2-Nitrophenol	U		0.0197	0.333	0.551	1	02/01/2021 19:52	WG1614392
4-Nitrophenol	U		0.0172	0.333	0.551	1	02/01/2021 19:52	WG1614392
Pentachlorophenol	U		0.0148	0.333	0.551	1	02/01/2021 19:52	WG1614392
Phenol	U		0.0222	0.333	0.551	1	02/01/2021 19:52	WG1614392
2,4,5-Trichlorophenol	U		0.0187	0.333	0.551	1	02/01/2021 19:52	WG1614392
2,4,6-Trichlorophenol	U		0.0177	0.333	0.551	1	02/01/2021 19:52	WG1614392
(S) 2-Fluorophenol	58.9				12.0-120		02/01/2021 19:52	WG1614392
(S) Phenol-d5	54.2				10.0-120		02/01/2021 19:52	WG1614392
(S) Nitrobenzene-d5	51.2				10.0-122		02/01/2021 19:52	WG1614392
(S) 2-Fluorobiphenyl	55.5				15.0-120		02/01/2021 19:52	WG1614392
(S) 2,4,6-Tribromophenol	58.9				10.0-127		02/01/2021 19:52	WG1614392
(S) p-Terphenyl-d14	61.8				10.0-120		02/01/2021 19:52	WG1614392

¹ Cp² Tc³ Ss⁴ Cn⁵ Tr⁶ Sr⁷ Qc⁸ Gl⁹ Al¹⁰ Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.3		1	02/02/2021 16:16	WG1614562

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Mercury	0.0270	J	0.0199	0.0400	0.0443	1	02/03/2021 09:34	WG1614236

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Arsenic	1.70	J	0.574	2.00	2.22	1	02/03/2021 01:07	WG1613801
Barium	283		0.0944	0.500	0.554	1	02/03/2021 01:07	WG1613801
Cadmium	U		0.0522	0.500	0.554	1	02/03/2021 01:07	WG1613801
Chromium	23.4		0.147	1.00	1.11	1	02/03/2021 01:07	WG1613801
Lead	16.2		0.230	0.500	0.554	1	02/03/2021 01:07	WG1613801
Selenium	1.25	J	0.846	2.00	2.22	1	02/03/2021 01:07	WG1613801
Silver	U		0.141	1.00	1.11	1	02/03/2021 01:07	WG1613801

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Acetone	U		0.0451	0.0500	0.0618	1	01/30/2021 07:50	WG1613619
Benzene	U		0.000578	0.00100	0.00124	1	01/30/2021 07:50	WG1613619
Bromobenzene	U		0.00111	0.0125	0.0155	1	01/30/2021 07:50	WG1613619
Bromochloromethane	U		0.000698	0.00500	0.00618	1	01/30/2021 07:50	WG1613619
Bromodichloromethane	U		0.000897	0.00250	0.00309	1	01/30/2021 07:50	WG1613619
Bromoform	U		0.00145	0.0250	0.0309	1	01/30/2021 07:50	WG1613619
Bromomethane	U		0.00244	0.0125	0.0155	1	01/30/2021 07:50	WG1613619
n-Butylbenzene	U		0.00649	0.0125	0.0155	1	01/30/2021 07:50	WG1613619
sec-Butylbenzene	U		0.00356	0.0125	0.0155	1	01/30/2021 07:50	WG1613619
tert-Butylbenzene	U		0.00241	0.00500	0.00618	1	01/30/2021 07:50	WG1613619
Carbon disulfide	U		0.000866	0.0125	0.0155	1	01/30/2021 07:50	WG1613619
Carbon tetrachloride	U		0.00111	0.00500	0.00618	1	01/30/2021 07:50	WG1613619
Chlorobenzene	U		0.000260	0.00250	0.00309	1	01/30/2021 07:50	WG1613619
Chlorodibromomethane	U		0.000757	0.00250	0.00309	1	01/30/2021 07:50	WG1613619
Chloroethane	U		0.00210	0.00500	0.00618	1	01/30/2021 07:50	WG1613619
Chloroform	U		0.00127	0.00250	0.00309	1	01/30/2021 07:50	WG1613619
Chloromethane	U		0.00538	0.0125	0.0155	1	01/30/2021 07:50	WG1613619
2-Chlorotoluene	U		0.00107	0.00250	0.00309	1	01/30/2021 07:50	WG1613619
4-Chlorotoluene	U		0.000557	0.00500	0.00618	1	01/30/2021 07:50	WG1613619
1,2-Dibromo-3-Chloropropane	U		0.00482	0.0250	0.0309	1	01/30/2021 07:50	WG1613619
1,2-Dibromoethane	U		0.000801	0.00250	0.00309	1	01/30/2021 07:50	WG1613619
Dibromomethane	U		0.000928	0.00500	0.00618	1	01/30/2021 07:50	WG1613619
1,2-Dichlorobenzene	U		0.000526	0.00500	0.00618	1	01/30/2021 07:50	WG1613619
1,3-Dichlorobenzene	U		0.000742	0.00500	0.00618	1	01/30/2021 07:50	WG1613619
1,4-Dichlorobenzene	U		0.000866	0.00500	0.00618	1	01/30/2021 07:50	WG1613619
Dichlorodifluoromethane	U		0.00199	0.00250	0.00309	1	01/30/2021 07:50	WG1613619
1,1-Dichloroethane	U		0.000607	0.00250	0.00309	1	01/30/2021 07:50	WG1613619
1,2-Dichloroethane	U		0.000803	0.00250	0.00309	1	01/30/2021 07:50	WG1613619
1,1-Dichloroethene	U		0.000750	0.00250	0.00309	1	01/30/2021 07:50	WG1613619
cis-1,2-Dichloroethene	U		0.000908	0.00250	0.00309	1	01/30/2021 07:50	WG1613619
trans-1,2-Dichloroethene	U		0.00129	0.00500	0.00618	1	01/30/2021 07:50	WG1613619
1,2-Dichloropropane	U		0.00176	0.00500	0.00618	1	01/30/2021 07:50	WG1613619
1,1-Dichloropropene	U		0.00100	0.00250	0.00309	1	01/30/2021 07:50	WG1613619





Collected date/time: 01/26/21 12:05

L1311179

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,3-Dichloropropane	U	J4	0.000620	0.00500	0.00618	1	01/30/2021 07:50	WG1613619
cis-1,3-Dichloropropene	U		0.000936	0.00250	0.00309	1	01/30/2021 07:50	WG1613619
trans-1,3-Dichloropropene	U		0.00141	0.00500	0.00618	1	01/30/2021 07:50	WG1613619
2,2-Dichloropropane	U		0.00171	0.00250	0.00309	1	01/30/2021 07:50	WG1613619
Ethylbenzene	U		0.000912	0.00250	0.00309	1	01/30/2021 07:50	WG1613619
Hexachloro-1,3-butadiene	U		0.00742	0.0250	0.0309	1	01/30/2021 07:50	WG1613619
2-Hexanone	U		0.00416	0.0250	0.0309	1	01/30/2021 07:50	WG1613619
Isopropylbenzene	U		0.000526	0.00250	0.00309	1	01/30/2021 07:50	WG1613619
p-Isopropyltoluene	U		0.00315	0.00500	0.00618	1	01/30/2021 07:50	WG1613619
2-Butanone (MEK)	U		0.0785	0.100	0.124	1	01/30/2021 07:50	WG1613619
Methylene Chloride	U		0.00821	0.0250	0.0309	1	01/30/2021 07:50	WG1613619
4-Methyl-2-pentanone (MIBK)	U		0.00282	0.0250	0.0309	1	01/30/2021 07:50	WG1613619
Methyl tert-butyl ether	U		0.000433	0.00100	0.00124	1	01/30/2021 07:50	WG1613619
Naphthalene	U		0.00604	0.0125	0.0155	1	01/30/2021 07:50	WG1613619
n-Propylbenzene	U		0.00117	0.00500	0.00618	1	01/30/2021 07:50	WG1613619
Styrene	U		0.000283	0.0125	0.0155	1	01/30/2021 07:50	WG1613619
1,1,1,2-Tetrachloroethane	U		0.00117	0.00250	0.00309	1	01/30/2021 07:50	WG1613619
1,1,2,2-Tetrachloroethane	U	J4	0.000860	0.00250	0.00309	1	01/30/2021 07:50	WG1613619
Tetrachloroethene	U		0.00111	0.00250	0.00309	1	01/30/2021 07:50	WG1613619
Toluene	0.00184	J	0.00161	0.00500	0.00618	1	01/30/2021 07:50	WG1613619
1,2,3-Trichlorobenzene	U		0.00907	0.0125	0.0155	1	01/30/2021 07:50	WG1613619
1,2,4-Trichlorobenzene	U		0.00544	0.0125	0.0155	1	01/30/2021 07:50	WG1613619
1,1,1-Trichloroethane	U		0.00114	0.00250	0.00309	1	01/30/2021 07:50	WG1613619
1,1,2-Trichloroethane	U		0.000738	0.00250	0.00309	1	01/30/2021 07:50	WG1613619
Trichloroethene	U		0.000722	0.00100	0.00124	1	01/30/2021 07:50	WG1613619
Trichlorofluoromethane	U		0.00102	0.00250	0.00309	1	01/30/2021 07:50	WG1613619
1,2,3-Trichloropropane	U		0.00200	0.0125	0.0155	1	01/30/2021 07:50	WG1613619
1,2,4-Trimethylbenzene	U		0.00195	0.00500	0.00618	1	01/30/2021 07:50	WG1613619
1,3,5-Trimethylbenzene	U		0.00247	0.00500	0.00618	1	01/30/2021 07:50	WG1613619
Vinyl chloride	U		0.00143	0.00250	0.00309	1	01/30/2021 07:50	WG1613619
Xylenes, Total	U		0.00109	0.00650	0.00804	1	01/30/2021 07:50	WG1613619
(S) Toluene-d8	98.9				75.0-131		01/30/2021 07:50	WG1613619
(S) 4-Bromofluorobenzene	99.0				67.0-138		01/30/2021 07:50	WG1613619
(S) 1,2-Dichloroethane-d4	93.9				70.0-130		01/30/2021 07:50	WG1613619

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

TPH by TCEQ Method 1005

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		16.6	50.0	55.4	1	02/03/2021 00:20	WG1614595
TPH C12 - C28	U		16.6	50.0	55.4	1	02/03/2021 00:20	WG1614595
TPH C28 - C35	U		16.6	50.0	55.4	1	02/03/2021 00:20	WG1614595
TPH C6 - C35	U		16.6	50.0	55.4	1	02/03/2021 00:20	WG1614595
(S) o-Terphenyl	109				70.0-130		02/03/2021 00:20	WG1614595

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0119	0.0333	0.0738	2	02/02/2021 18:42	WG1614392
Acenaphthylene	U		0.0104	0.0333	0.0738	2	02/02/2021 18:42	WG1614392
Anthracene	U		0.0131	0.0333	0.0738	2	02/02/2021 18:42	WG1614392
Benzo(a)anthracene	U		0.0130	0.0333	0.0738	2	02/02/2021 18:42	WG1614392
Benzo(b)fluoranthene	U		0.0138	0.0333	0.0738	2	02/02/2021 18:42	WG1614392
Benzo(k)fluoranthene	U		0.0131	0.0333	0.0738	2	02/02/2021 18:42	WG1614392
Benzo(g,h,i)perylene	U		0.0135	0.0333	0.0738	2	02/02/2021 18:42	WG1614392
Benzo(a)pyrene	U		0.0137	0.0333	0.0738	2	02/02/2021 18:42	WG1614392



Collected date/time: 01/26/21 12:05

L1311179

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzoic acid	U		0.261	1.67	3.70	2	02/02/2021 18:42	WG1614392
Benzyl alcohol	U		0.0273	0.333	0.738	2	02/02/2021 18:42	WG1614392
Bis(2-chlorethoxy)methane	U		0.0222	0.333	0.738	2	02/02/2021 18:42	WG1614392
Bis(2-chloroethyl)ether	U		0.0244	0.333	0.738	2	02/02/2021 18:42	WG1614392
2,2-Oxybis(1-Chloropropane)	U		0.0319	0.333	0.738	2	02/02/2021 18:42	WG1614392
4-Bromophenyl-phenylether	U		0.0259	0.333	0.738	2	02/02/2021 18:42	WG1614392
Carbazole	U		0.0228	0.333	0.738	2	02/02/2021 18:42	WG1614392
2-Chloronaphthalene	U		0.0130	0.0333	0.0738	2	02/02/2021 18:42	WG1614392
4-Chloroaniline	U		0.0266	0.333	0.738	2	02/02/2021 18:42	WG1614392
4-Chlorophenyl-phenylether	U		0.0257	0.333	0.738	2	02/02/2021 18:42	WG1614392
Chrysene	U		0.0147	0.0333	0.0738	2	02/02/2021 18:42	WG1614392
Dibenz(a,h)anthracene	U		0.0205	0.0333	0.0738	2	02/02/2021 18:42	WG1614392
Dibenzofuran	U		0.0242	0.333	0.738	2	02/02/2021 18:42	WG1614392
3,3-Dichlorobenzidine	U		0.0273	0.333	0.738	2	02/02/2021 18:42	WG1614392
2,4-Dinitrotoluene	U		0.0212	0.333	0.738	2	02/02/2021 18:42	WG1614392
2,6-Dinitrotoluene	U		0.0242	0.333	0.738	2	02/02/2021 18:42	WG1614392
Fluoranthene	U		0.0133	0.0333	0.0738	2	02/02/2021 18:42	WG1614392
Fluorene	U		0.0120	0.0333	0.0738	2	02/02/2021 18:42	WG1614392
Hexachlorobenzene	U		0.0261	0.333	0.738	2	02/02/2021 18:42	WG1614392
Hexachloro-1,3-butadiene	U		0.0248	0.333	0.738	2	02/02/2021 18:42	WG1614392
Hexachlorocyclopentadiene	U		0.0388	0.333	0.738	2	02/02/2021 18:42	WG1614392
Hexachloroethane	U		0.0290	0.333	0.738	2	02/02/2021 18:42	WG1614392
Indeno(1,2,3-cd)pyrene	U		0.0209	0.0333	0.0738	2	02/02/2021 18:42	WG1614392
Isophorone	U		0.0226	0.333	0.738	2	02/02/2021 18:42	WG1614392
2-Methylnaphthalene	U		0.00957	0.0333	0.0738	2	02/02/2021 18:42	WG1614392
Naphthalene	U		0.0185	0.0333	0.0738	2	02/02/2021 18:42	WG1614392
2-Nitroaniline	U		0.0237	0.333	0.738	2	02/02/2021 18:42	WG1614392
3-Nitroaniline	U		0.0235	0.333	0.738	2	02/02/2021 18:42	WG1614392
4-Nitroaniline	U		0.0215	0.333	0.738	2	02/02/2021 18:42	WG1614392
Nitrobenzene	U		0.0257	0.333	0.738	2	02/02/2021 18:42	WG1614392
n-Nitrosodimethylamine	U		0.109	0.333	0.738	2	02/02/2021 18:42	WG1614392
n-Nitrosodiphenylamine	U		0.0558	0.333	0.738	2	02/02/2021 18:42	WG1614392
n-Nitrosodi-n-propylamine	U		0.0246	0.333	0.738	2	02/02/2021 18:42	WG1614392
Phenanthrene	U		0.0146	0.0333	0.0738	2	02/02/2021 18:42	WG1614392
Benzylbutyl phthalate	U		0.0230	0.333	0.738	2	02/02/2021 18:42	WG1614392
Bis(2-ethylhexyl)phthalate	U		0.0935	0.333	0.738	2	02/02/2021 18:42	WG1614392
Di-n-butyl phthalate	U		0.0253	0.333	0.738	2	02/02/2021 18:42	WG1614392
Diethyl phthalate	U		0.0244	0.333	0.738	2	02/02/2021 18:42	WG1614392
Dimethyl phthalate	U		0.156	0.333	0.738	2	02/02/2021 18:42	WG1614392
Di-n-octyl phthalate	U		0.0499	0.333	0.738	2	02/02/2021 18:42	WG1614392
Pyrene	U		0.0144	0.0333	0.0738	2	02/02/2021 18:42	WG1614392
Pyridine	U		0.0487	0.333	0.738	2	02/02/2021 18:42	WG1614392
1,2,4-Trichlorobenzene	U		0.0230	0.333	0.738	2	02/02/2021 18:42	WG1614392
4-Chloro-3-methylphenol	U		0.0239	0.333	0.738	2	02/02/2021 18:42	WG1614392
2-Chlorophenol	U		0.0244	0.333	0.738	2	02/02/2021 18:42	WG1614392
2,4-Dichlorophenol	U		0.0215	0.333	0.738	2	02/02/2021 18:42	WG1614392
2,4-Dimethylphenol	U		0.0193	0.333	0.738	2	02/02/2021 18:42	WG1614392
4,6-Dinitro-2-methylphenol	U		0.167	0.333	0.738	2	02/02/2021 18:42	WG1614392
2,4-Dinitrophenol	U		0.173	0.333	0.738	2	02/02/2021 18:42	WG1614392
2-Methylphenol	U		0.0222	0.333	0.738	2	02/02/2021 18:42	WG1614392
3&4-Methyl Phenol	U		0.0230	0.333	0.738	2	02/02/2021 18:42	WG1614392
2-Nitrophenol	U		0.0264	0.333	0.738	2	02/02/2021 18:42	WG1614392
4-Nitrophenol	U		0.0230	0.333	0.738	2	02/02/2021 18:42	WG1614392
Pentachlorophenol	U		0.0199	0.333	0.738	2	02/02/2021 18:42	WG1614392
Phenol	U		0.0297	0.333	0.738	2	02/02/2021 18:42	WG1614392
2,4,5-Trichlorophenol	U		0.0250	0.333	0.738	2	02/02/2021 18:42	WG1614392

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

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
2,4,6-Trichlorophenol	U		0.0237	0.333	0.738	2	02/02/2021 18:42	WG1614392
(S) 2-Fluorophenol	70.6				12.0-120		02/02/2021 18:42	WG1614392
(S) Phenol-d5	63.0				10.0-120		02/02/2021 18:42	WG1614392
(S) Nitrobenzene-d5	59.7				10.0-122		02/02/2021 18:42	WG1614392
(S) 2-Fluorobiphenyl	66.1				15.0-120		02/02/2021 18:42	WG1614392
(S) 2,4,6-Tribromophenol	78.6				10.0-127		02/02/2021 18:42	WG1614392
(S) p-Terphenyl-d14	73.6				10.0-120		02/02/2021 18:42	WG1614392

Sample Narrative:

L1311179-06 WG1614392: Dilution due to matrix impact during extraction procedure

1Cp

2Tc

3Ss

4Cn

5Tr

6Sr

7Qc

8Gl

9Al

10Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.7		1	02/03/2021 14:57	WG1614563

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Mercury	0.0409	J	0.0205	0.0400	0.0456	1	02/03/2021 09:36	WG1614236

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Arsenic	4.49		0.590	2.00	2.28	1	02/03/2021 01:10	WG1613801
Barium	127		0.0971	0.500	0.570	1	02/03/2021 01:10	WG1613801
Cadmium	0.732		0.0537	0.500	0.570	1	02/03/2021 01:10	WG1613801
Chromium	16.0		0.152	1.00	1.14	1	02/03/2021 01:10	WG1613801
Lead	114		0.237	0.500	0.570	1	02/03/2021 01:10	WG1613801
Selenium	1.39	J	0.871	2.00	2.28	1	02/03/2021 01:10	WG1613801
Silver	U		0.145	1.00	1.14	1	02/03/2021 01:10	WG1613801

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Acetone	U		0.0687	0.0500	0.0942	1.53	01/30/2021 08:09	WG1613619
Benzene	U		0.000880	0.00100	0.00188	1.53	01/30/2021 08:09	WG1613619
Bromobenzene	U		0.00170	0.0125	0.0235	1.53	01/30/2021 08:09	WG1613619
Bromochloromethane	U		0.00106	0.00500	0.00942	1.53	01/30/2021 08:09	WG1613619
Bromodichloromethane	U		0.00137	0.00250	0.00471	1.53	01/30/2021 08:09	WG1613619
Bromoform	U		0.00220	0.0250	0.0471	1.53	01/30/2021 08:09	WG1613619
Bromomethane	U		0.00371	0.0125	0.0235	1.53	01/30/2021 08:09	WG1613619
n-Butylbenzene	U		0.00989	0.0125	0.0235	1.53	01/30/2021 08:09	WG1613619
sec-Butylbenzene	U		0.00542	0.0125	0.0235	1.53	01/30/2021 08:09	WG1613619
tert-Butylbenzene	U		0.00367	0.00500	0.00942	1.53	01/30/2021 08:09	WG1613619
Carbon disulfide	U		0.00132	0.0125	0.0235	1.53	01/30/2021 08:09	WG1613619
Carbon tetrachloride	U		0.00169	0.00500	0.00942	1.53	01/30/2021 08:09	WG1613619
Chlorobenzene	U		0.000396	0.00250	0.00471	1.53	01/30/2021 08:09	WG1613619
Chlorodibromomethane	U		0.00115	0.00250	0.00471	1.53	01/30/2021 08:09	WG1613619
Chloroethane	U		0.00320	0.00500	0.00942	1.53	01/30/2021 08:09	WG1613619
Chloroform	U		0.00194	0.00250	0.00471	1.53	01/30/2021 08:09	WG1613619
Chloromethane	U		0.00819	0.0125	0.0235	1.53	01/30/2021 08:09	WG1613619
2-Chlorotoluene	U		0.00163	0.00250	0.00471	1.53	01/30/2021 08:09	WG1613619
4-Chlorotoluene	U		0.000848	0.00500	0.00942	1.53	01/30/2021 08:09	WG1613619
1,2-Dibromo-3-Chloropropane	U		0.00735	0.0250	0.0471	1.53	01/30/2021 08:09	WG1613619
1,2-Dibromoethane	U		0.00122	0.00250	0.00471	1.53	01/30/2021 08:09	WG1613619
Dibromomethane	U		0.00141	0.00500	0.00942	1.53	01/30/2021 08:09	WG1613619
1,2-Dichlorobenzene	U		0.000800	0.00500	0.00942	1.53	01/30/2021 08:09	WG1613619
1,3-Dichlorobenzene	U		0.00113	0.00500	0.00942	1.53	01/30/2021 08:09	WG1613619
1,4-Dichlorobenzene	U		0.00132	0.00500	0.00942	1.53	01/30/2021 08:09	WG1613619
Dichlorodifluoromethane	U		0.00303	0.00250	0.00471	1.53	01/30/2021 08:09	WG1613619
1,1-Dichloroethane	U		0.000925	0.00250	0.00471	1.53	01/30/2021 08:09	WG1613619
1,2-Dichloroethane	U		0.00122	0.00250	0.00471	1.53	01/30/2021 08:09	WG1613619
1,1-Dichloroethene	U		0.00114	0.00250	0.00471	1.53	01/30/2021 08:09	WG1613619
cis-1,2-Dichloroethene	U		0.00138	0.00250	0.00471	1.53	01/30/2021 08:09	WG1613619
trans-1,2-Dichloroethene	U		0.00196	0.00500	0.00942	1.53	01/30/2021 08:09	WG1613619
1,2-Dichloropropane	U		0.00267	0.00500	0.00942	1.53	01/30/2021 08:09	WG1613619
1,1-Dichloropropene	U		0.00152	0.00250	0.00471	1.53	01/30/2021 08:09	WG1613619





Collected date/time: 01/26/21 09:50

L1311179

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,3-Dichloropropane	U	J4	0.000944	0.00500	0.00942	1.53	01/30/2021 08:09	WG1613619
cis-1,3-Dichloropropene	U		0.00143	0.00250	0.00471	1.53	01/30/2021 08:09	WG1613619
trans-1,3-Dichloropropene	U		0.00215	0.00500	0.00942	1.53	01/30/2021 08:09	WG1613619
2,2-Dichloropropane	U		0.00260	0.00250	0.00471	1.53	01/30/2021 08:09	WG1613619
Ethylbenzene	0.00183	J	0.00139	0.00250	0.00471	1.53	01/30/2021 08:09	WG1613619
Hexachloro-1,3-butadiene	U		0.0113	0.0250	0.0471	1.53	01/30/2021 08:09	WG1613619
2-Hexanone	U		0.00633	0.0250	0.0471	1.53	01/30/2021 08:09	WG1613619
Isopropylbenzene	U		0.000800	0.00250	0.00471	1.53	01/30/2021 08:09	WG1613619
p-Isopropyltoluene	U		0.00480	0.00500	0.00942	1.53	01/30/2021 08:09	WG1613619
2-Butanone (MEK)	U		0.120	0.100	0.188	1.53	01/30/2021 08:09	WG1613619
Methylene Chloride	U		0.0125	0.0250	0.0471	1.53	01/30/2021 08:09	WG1613619
4-Methyl-2-pentanone (MIBK)	U		0.00429	0.0250	0.0471	1.53	01/30/2021 08:09	WG1613619
Methyl tert-butyl ether	U		0.000659	0.00100	0.00188	1.53	01/30/2021 08:09	WG1613619
Naphthalene	U		0.00919	0.0125	0.0235	1.53	01/30/2021 08:09	WG1613619
n-Propylbenzene	U		0.00179	0.00500	0.00942	1.53	01/30/2021 08:09	WG1613619
Styrene	U		0.000431	0.0125	0.0235	1.53	01/30/2021 08:09	WG1613619
1,1,1,2-Tetrachloroethane	U		0.00179	0.00250	0.00471	1.53	01/30/2021 08:09	WG1613619
1,1,2,2-Tetrachloroethane	U	J4	0.00131	0.00250	0.00471	1.53	01/30/2021 08:09	WG1613619
Tetrachloroethene	U		0.00169	0.00250	0.00471	1.53	01/30/2021 08:09	WG1613619
Toluene	0.00343	J	0.00245	0.00500	0.00942	1.53	01/30/2021 08:09	WG1613619
1,2,3-Trichlorobenzene	U		0.0138	0.0125	0.0235	1.53	01/30/2021 08:09	WG1613619
1,2,4-Trichlorobenzene	U		0.00829	0.0125	0.0235	1.53	01/30/2021 08:09	WG1613619
1,1,1-Trichloroethane	U		0.00174	0.00250	0.00471	1.53	01/30/2021 08:09	WG1613619
1,1,2-Trichloroethane	U		0.00112	0.00250	0.00471	1.53	01/30/2021 08:09	WG1613619
Trichloroethene	U		0.00110	0.00100	0.00188	1.53	01/30/2021 08:09	WG1613619
Trichlorofluoromethane	U		0.00156	0.00250	0.00471	1.53	01/30/2021 08:09	WG1613619
1,2,3-Trichloropropane	U		0.00305	0.0125	0.0235	1.53	01/30/2021 08:09	WG1613619
1,2,4-Trimethylbenzene	U		0.00298	0.00500	0.00942	1.53	01/30/2021 08:09	WG1613619
1,3,5-Trimethylbenzene	U		0.00377	0.00500	0.00942	1.53	01/30/2021 08:09	WG1613619
Vinyl chloride	U		0.00218	0.00250	0.00471	1.53	01/30/2021 08:09	WG1613619
Xylenes, Total	0.0151		0.00166	0.00650	0.0122	1.53	01/30/2021 08:09	WG1613619
(S) Toluene-d8	95.9				75.0-131		01/30/2021 08:09	WG1613619
(S) 4-Bromofluorobenzene	99.1				67.0-138		01/30/2021 08:09	WG1613619
(S) 1,2-Dichloroethane-d4	93.1				70.0-130		01/30/2021 08:09	WG1613619



TPH by TCEQ Method 1005

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		23.2	50.0	77.5	1.36	02/03/2021 00:34	WG1614595
TPH C12 - C28	U		23.2	50.0	77.5	1.36	02/03/2021 00:34	WG1614595
TPH C28 - C35	U		23.2	50.0	77.5	1.36	02/03/2021 00:34	WG1614595
TPH C6 - C35	U		23.2	50.0	77.5	1.36	02/03/2021 00:34	WG1614595
(S) o-Terphenyl	109				70.0-130		02/03/2021 00:34	WG1614595

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.00614	0.0333	0.0380	1	02/01/2021 20:17	WG1614392
Acenaphthylene	0.00707	J	0.00534	0.0333	0.0380	1	02/01/2021 20:17	WG1614392
Anthracene	U		0.00676	0.0333	0.0380	1	02/01/2021 20:17	WG1614392
Benzo(a)anthracene	0.0140	J	0.00669	0.0333	0.0380	1	02/01/2021 20:17	WG1614392
Benzo(b)fluoranthene	0.0285	J	0.00708	0.0333	0.0380	1	02/01/2021 20:17	WG1614392
Benzo(k)fluoranthene	U		0.00675	0.0333	0.0380	1	02/01/2021 20:17	WG1614392
Benzo(g,h,i)perylene	0.0161	J	0.00694	0.0333	0.0380	1	02/01/2021 20:17	WG1614392
Benzo(a)pyrene	0.0155	J	0.00705	0.0333	0.0380	1	02/01/2021 20:17	WG1614392



Collected date/time: 01/26/21 09:50

L1311179

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzoic acid	U		0.134	1.67	1.90	1	02/01/2021 20:17	WG1614392
Benzyl alcohol	U		0.0140	0.333	0.380	1	02/01/2021 20:17	WG1614392
Bis(2-chlorethoxy)methane	U		0.0114	0.333	0.380	1	02/01/2021 20:17	WG1614392
Bis(2-chloroethyl)ether	U		0.0125	0.333	0.380	1	02/01/2021 20:17	WG1614392
2,2-Oxybis(1-Chloropropane)	U		0.0164	0.333	0.380	1	02/01/2021 20:17	WG1614392
4-Bromophenyl-phenylether	U		0.0133	0.333	0.380	1	02/01/2021 20:17	WG1614392
Carbazole	U		0.0117	0.333	0.380	1	02/01/2021 20:17	WG1614392
2-Chloronaphthalene	U		0.00667	0.0333	0.0380	1	02/01/2021 20:17	WG1614392
4-Chloroaniline	U		0.0137	0.333	0.380	1	02/01/2021 20:17	WG1614392
4-Chlorophenyl-phenylether	U		0.0132	0.333	0.380	1	02/01/2021 20:17	WG1614392
Chrysene	0.0106	L	0.00754	0.0333	0.0380	1	02/01/2021 20:17	WG1614392
Dibenz(a,h)anthracene	U		0.0105	0.0333	0.0380	1	02/01/2021 20:17	WG1614392
Dibenzofuran	U		0.0124	0.333	0.380	1	02/01/2021 20:17	WG1614392
3,3-Dichlorobenzidine	U		0.0140	0.333	0.380	1	02/01/2021 20:17	WG1614392
2,4-Dinitrotoluene	U		0.0109	0.333	0.380	1	02/01/2021 20:17	WG1614392
2,6-Dinitrotoluene	U		0.0124	0.333	0.380	1	02/01/2021 20:17	WG1614392
Fluoranthene	0.0168	L	0.00685	0.0333	0.0380	1	02/01/2021 20:17	WG1614392
Fluorene	U		0.00618	0.0333	0.0380	1	02/01/2021 20:17	WG1614392
Hexachlorobenzene	U		0.0134	0.333	0.380	1	02/01/2021 20:17	WG1614392
Hexachloro-1,3-butadiene	U		0.0128	0.333	0.380	1	02/01/2021 20:17	WG1614392
Hexachlorocyclopentadiene	U		0.0199	0.333	0.380	1	02/01/2021 20:17	WG1614392
Hexachloroethane	U		0.0149	0.333	0.380	1	02/01/2021 20:17	WG1614392
Indeno(1,2,3-cd)pyrene	U		0.0107	0.0333	0.0380	1	02/01/2021 20:17	WG1614392
Isophorone	U		0.0116	0.333	0.380	1	02/01/2021 20:17	WG1614392
2-Methylnaphthalene	U		0.00492	0.0333	0.0380	1	02/01/2021 20:17	WG1614392
Naphthalene	U		0.00953	0.0333	0.0380	1	02/01/2021 20:17	WG1614392
2-Nitroaniline	U		0.0122	0.333	0.380	1	02/01/2021 20:17	WG1614392
3-Nitroaniline	U		0.0121	0.333	0.380	1	02/01/2021 20:17	WG1614392
4-Nitroaniline	U		0.0111	0.333	0.380	1	02/01/2021 20:17	WG1614392
Nitrobenzene	U		0.0132	0.333	0.380	1	02/01/2021 20:17	WG1614392
n-Nitrosodimethylamine	U		0.0563	0.333	0.380	1	02/01/2021 20:17	WG1614392
n-Nitrosodiphenylamine	U		0.0287	0.333	0.380	1	02/01/2021 20:17	WG1614392
n-Nitrosodi-n-propylamine	U		0.0127	0.333	0.380	1	02/01/2021 20:17	WG1614392
Phenanthrene	0.00881	L	0.00753	0.0333	0.0380	1	02/01/2021 20:17	WG1614392
Benzylbutyl phthalate	U		0.0119	0.333	0.380	1	02/01/2021 20:17	WG1614392
Bis(2-ethylhexyl)phthalate	U		0.0481	0.333	0.380	1	02/01/2021 20:17	WG1614392
Di-n-butyl phthalate	U		0.0130	0.333	0.380	1	02/01/2021 20:17	WG1614392
Diethyl phthalate	U		0.0125	0.333	0.380	1	02/01/2021 20:17	WG1614392
Dimethyl phthalate	U		0.0805	0.333	0.380	1	02/01/2021 20:17	WG1614392
Di-n-octyl phthalate	U		0.0256	0.333	0.380	1	02/01/2021 20:17	WG1614392
Pyrene	0.0199	L	0.00738	0.0333	0.0380	1	02/01/2021 20:17	WG1614392
Pyridine	U		0.0251	0.333	0.380	1	02/01/2021 20:17	WG1614392
1,2,4-Trichlorobenzene	U		0.0119	0.333	0.380	1	02/01/2021 20:17	WG1614392
4-Chloro-3-methylphenol	U		0.0123	0.333	0.380	1	02/01/2021 20:17	WG1614392
2-Chlorophenol	U		0.0125	0.333	0.380	1	02/01/2021 20:17	WG1614392
2,4-Dichlorophenol	U		0.0111	0.333	0.380	1	02/01/2021 20:17	WG1614392
2,4-Dimethylphenol	U		0.00991	0.333	0.380	1	02/01/2021 20:17	WG1614392
4,6-Dinitro-2-methylphenol	U		0.0860	0.333	0.380	1	02/01/2021 20:17	WG1614392
2,4-Dinitrophenol	U		0.0888	0.333	0.380	1	02/01/2021 20:17	WG1614392
2-Methylphenol	U		0.0114	0.333	0.380	1	02/01/2021 20:17	WG1614392
3&4-Methyl Phenol	U		0.0119	0.333	0.380	1	02/01/2021 20:17	WG1614392
2-Nitrophenol	U		0.0136	0.333	0.380	1	02/01/2021 20:17	WG1614392
4-Nitrophenol	U		0.0119	0.333	0.380	1	02/01/2021 20:17	WG1614392
Pentachlorophenol	U		0.0102	0.333	0.380	1	02/01/2021 20:17	WG1614392
Phenol	U		0.0153	0.333	0.380	1	02/01/2021 20:17	WG1614392
2,4,5-Trichlorophenol	U		0.0129	0.333	0.380	1	02/01/2021 20:17	WG1614392

¹ Cp
² Tc
³ Ss
⁴ Cn
⁵ Tr
⁶ Sr
⁷ Qc
⁸ Gl
⁹ Al
¹⁰ Sc

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
2,4,6-Trichlorophenol	U		0.0122	0.333	0.380	1	02/01/2021 20:17	WG1614392
(S) 2-Fluorophenol	63.9				12.0-120		02/01/2021 20:17	WG1614392
(S) Phenol-d5	58.8				10.0-120		02/01/2021 20:17	WG1614392
(S) Nitrobenzene-d5	55.9				10.0-122		02/01/2021 20:17	WG1614392
(S) 2-Fluorobiphenyl	60.7				15.0-120		02/01/2021 20:17	WG1614392
(S) 2,4,6-Tribromophenol	64.4				10.0-127		02/01/2021 20:17	WG1614392
(S) p-Terphenyl-d14	65.6				10.0-120		02/01/2021 20:17	WG1614392

1

Cp

2

Tc

3

Ss

4

Cn

5

Tr

6

Sr

7

Qc

8

Gl

9

Al

10

Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	88.0		1	02/03/2021 14:57	WG1614563

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	8.35	T8	1	02/02/2021 00:57	WG1614203

Sample Narrative:

L1311179-08 WG1614203: 8.35 at 20.6C

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis date / time	Batch
Mercury	0.0683		0.0205	0.0400	0.0455	1	02/03/2021 09:38	WG1614236

7 Qc

8 Gl

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis date / time	Batch
Arsenic	4.34		0.589	2.00	2.27	1	02/03/2021 01:13	WG1613801
Barium	67.2		0.0969	0.500	0.568	1	02/03/2021 01:13	WG1613801
Cadmium	0.118	J	0.0536	0.500	0.568	1	02/03/2021 01:13	WG1613801
Chromium	8.39		0.151	1.00	1.14	1	02/03/2021 01:13	WG1613801
Lead	66.8		0.236	0.500	0.568	1	02/03/2021 01:13	WG1613801
Selenium	1.06	J	0.869	2.00	2.27	1	02/03/2021 01:13	WG1613801
Silver	U		0.144	1.00	1.14	1	02/03/2021 01:13	WG1613801

9 Al

10 Sc

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.0511	0.0500	0.0699	1	01/30/2021 05:32	WG1613622
Benzene	U		0.000653	0.00100	0.00140	1	01/30/2021 05:32	WG1613622
Bromobenzene	U		0.00126	0.0125	0.0175	1	01/30/2021 05:32	WG1613622
Bromochloromethane	U		0.000789	0.00500	0.00699	1	01/30/2021 05:32	WG1613622
Bromodichloromethane	U		0.00101	0.00250	0.00350	1	01/30/2021 05:32	WG1613622
Bromoform	U		0.00164	0.0250	0.0350	1	01/30/2021 05:32	WG1613622
Bromomethane	U		0.00276	0.0125	0.0175	1	01/30/2021 05:32	WG1613622
n-Butylbenzene	U		0.00734	0.0125	0.0175	1	01/30/2021 05:32	WG1613622
sec-Butylbenzene	U		0.00403	0.0125	0.0175	1	01/30/2021 05:32	WG1613622
tert-Butylbenzene	U		0.00273	0.00500	0.00699	1	01/30/2021 05:32	WG1613622
Carbon disulfide	U		0.000979	0.0125	0.0175	1	01/30/2021 05:32	WG1613622
Carbon tetrachloride	U		0.00126	0.00500	0.00699	1	01/30/2021 05:32	WG1613622
Chlorobenzene	U		0.000294	0.00250	0.00350	1	01/30/2021 05:32	WG1613622
Chlorodibromomethane	U		0.000856	0.00250	0.00350	1	01/30/2021 05:32	WG1613622
Chloroethane	U		0.00238	0.00500	0.00699	1	01/30/2021 05:32	WG1613622
Chloroform	U		0.00144	0.00250	0.00350	1	01/30/2021 05:32	WG1613622
Chloromethane	U		0.00609	0.0125	0.0175	1	01/30/2021 05:32	WG1613622
2-Chlorotoluene	U		0.00121	0.00250	0.00350	1	01/30/2021 05:32	WG1613622
4-Chlorotoluene	U		0.000630	0.00500	0.00699	1	01/30/2021 05:32	WG1613622
1,2-Dibromo-3-Chloropropane	U		0.00546	0.0250	0.0350	1	01/30/2021 05:32	WG1613622
1,2-Dibromoethane	U		0.000907	0.00250	0.00350	1	01/30/2021 05:32	WG1613622
Dibromomethane	U		0.00105	0.00500	0.00699	1	01/30/2021 05:32	WG1613622
1,2-Dichlorobenzene	U		0.000595	0.00500	0.00699	1	01/30/2021 05:32	WG1613622
1,3-Dichlorobenzene	U		0.000839	0.00500	0.00699	1	01/30/2021 05:32	WG1613622
1,4-Dichlorobenzene	U		0.000979	0.00500	0.00699	1	01/30/2021 05:32	WG1613622



Collected date/time: 01/26/21 15:45

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	U		0.00225	0.00250	0.00350	1	01/30/2021 05:32	WG1613622
1,1-Dichloroethane	U		0.000687	0.00250	0.00350	1	01/30/2021 05:32	WG1613622
1,2-Dichloroethane	U		0.000908	0.00250	0.00350	1	01/30/2021 05:32	WG1613622
1,1-Dichloroethene	U		0.000848	0.00250	0.00350	1	01/30/2021 05:32	WG1613622
cis-1,2-Dichloroethene	U		0.00103	0.00250	0.00350	1	01/30/2021 05:32	WG1613622
trans-1,2-Dichloroethene	U	J4	0.00145	0.00500	0.00699	1	01/30/2021 05:32	WG1613622
1,2-Dichloropropane	U		0.00199	0.00500	0.00699	1	01/30/2021 05:32	WG1613622
1,1-Dichloropropene	U		0.00113	0.00250	0.00350	1	01/30/2021 05:32	WG1613622
1,3-Dichloropropane	U		0.000701	0.00500	0.00699	1	01/30/2021 05:32	WG1613622
cis-1,3-Dichloropropene	U		0.00106	0.00250	0.00350	1	01/30/2021 05:32	WG1613622
trans-1,3-Dichloropropene	U		0.00159	0.00500	0.00699	1	01/30/2021 05:32	WG1613622
2,2-Dichloropropane	U		0.00193	0.00250	0.00350	1	01/30/2021 05:32	WG1613622
Ethylbenzene	U		0.00103	0.00250	0.00350	1	01/30/2021 05:32	WG1613622
Hexachloro-1,3-butadiene	U		0.00839	0.0250	0.0350	1	01/30/2021 05:32	WG1613622
2-Hexanone	U		0.00470	0.0250	0.0350	1	01/30/2021 05:32	WG1613622
Isopropylbenzene	U		0.000595	0.00250	0.00350	1	01/30/2021 05:32	WG1613622
p-Isopropyltoluene	U		0.00357	0.00500	0.00699	1	01/30/2021 05:32	WG1613622
2-Butanone (MEK)	U		0.0888	0.100	0.140	1	01/30/2021 05:32	WG1613622
Methylene Chloride	U		0.00929	0.0250	0.0350	1	01/30/2021 05:32	WG1613622
4-Methyl-2-pentanone (MIBK)	U		0.00319	0.0250	0.0350	1	01/30/2021 05:32	WG1613622
Methyl tert-butyl ether	U		0.000490	0.00100	0.00140	1	01/30/2021 05:32	WG1613622
Naphthalene	U		0.00683	0.0125	0.0175	1	01/30/2021 05:32	WG1613622
n-Propylbenzene	U		0.00133	0.00500	0.00699	1	01/30/2021 05:32	WG1613622
Styrene	U		0.000320	0.0125	0.0175	1	01/30/2021 05:32	WG1613622
1,1,1,2-Tetrachloroethane	U		0.00133	0.00250	0.00350	1	01/30/2021 05:32	WG1613622
1,1,2,2-Tetrachloroethane	U		0.000972	0.00250	0.00350	1	01/30/2021 05:32	WG1613622
Tetrachloroethene	U		0.00125	0.00250	0.00350	1	01/30/2021 05:32	WG1613622
Toluene	U		0.00182	0.00500	0.00699	1	01/30/2021 05:32	WG1613622
1,2,3-Trichlorobenzene	U		0.0103	0.0125	0.0175	1	01/30/2021 05:32	WG1613622
1,2,4-Trichlorobenzene	U		0.00616	0.0125	0.0175	1	01/30/2021 05:32	WG1613622
1,1,1-Trichloroethane	U	J4	0.00129	0.00250	0.00350	1	01/30/2021 05:32	WG1613622
1,1,2-Trichloroethane	U		0.000835	0.00250	0.00350	1	01/30/2021 05:32	WG1613622
Trichloroethene	U	J4	0.000817	0.00100	0.00140	1	01/30/2021 05:32	WG1613622
Trichlorofluoromethane	U		0.00116	0.00250	0.00350	1	01/30/2021 05:32	WG1613622
1,2,3-Trichloropropane	U		0.00227	0.0125	0.0175	1	01/30/2021 05:32	WG1613622
1,2,4-Trimethylbenzene	U		0.00221	0.00500	0.00699	1	01/30/2021 05:32	WG1613622
1,3,5-Trimethylbenzene	U		0.00280	0.00500	0.00699	1	01/30/2021 05:32	WG1613622
Vinyl chloride	U		0.00162	0.00250	0.00350	1	01/30/2021 05:32	WG1613622
Xylenes, Total	0.00326	J	0.00123	0.00650	0.00909	1	01/30/2021 05:32	WG1613622
(S) Toluene-d8	103				75.0-131		01/30/2021 05:32	WG1613622
(S) 4-Bromofluorobenzene	99.4				67.0-138		01/30/2021 05:32	WG1613622
(S) 1,2-Dichloroethane-d4	92.5				70.0-130		01/30/2021 05:32	WG1613622

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

TPH by TCEQ Method 1005

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		17.1	50.0	56.8	1	02/03/2021 00:48	WG1614595
TPH C12 - C28	U		17.1	50.0	56.8	1	02/03/2021 00:48	WG1614595
TPH C28 - C35	U		17.1	50.0	56.8	1	02/03/2021 00:48	WG1614595
TPH C6 - C35	U		17.1	50.0	56.8	1	02/03/2021 00:48	WG1614595
(S) o-Terphenyl	110				70.0-130		02/03/2021 00:48	WG1614595



Collected date/time: 01/26/21 15:45

L1311179

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.00613	0.0333	0.0379	1	02/01/2021 20:41	WG1614392
Acenaphthylene	0.0244	L	0.00533	0.0333	0.0379	1	02/01/2021 20:41	WG1614392
Anthracene	0.0409		0.00674	0.0333	0.0379	1	02/01/2021 20:41	WG1614392
Benzo(a)anthracene	0.0537		0.00667	0.0333	0.0379	1	02/01/2021 20:41	WG1614392
Benzo(b)fluoranthene	0.146		0.00706	0.0333	0.0379	1	02/01/2021 20:41	WG1614392
Benzo(k)fluoranthene	0.0390		0.00673	0.0333	0.0379	1	02/01/2021 20:41	WG1614392
Benzo(g,h,i)perylene	U		0.00692	0.0333	0.0379	1	02/01/2021 20:41	WG1614392
Benzo(a)pyrene	0.0716		0.00704	0.0333	0.0379	1	02/01/2021 20:41	WG1614392
Benzoic acid	U		0.134	1.67	1.90	1	02/01/2021 20:41	WG1614392
Benzyl alcohol	U		0.0140	0.333	0.379	1	02/01/2021 20:41	WG1614392
Bis(2-chlorethoxy)methane	U		0.0114	0.333	0.379	1	02/01/2021 20:41	WG1614392
Bis(2-chloroethyl)ether	U		0.0125	0.333	0.379	1	02/01/2021 20:41	WG1614392
2,2-Oxybis(1-Chloropropane)	U		0.0164	0.333	0.379	1	02/01/2021 20:41	WG1614392
4-Bromophenyl-phenylether	U		0.0133	0.333	0.379	1	02/01/2021 20:41	WG1614392
Carbazole	0.0288	L	0.0117	0.333	0.379	1	02/01/2021 20:41	WG1614392
2-Chloronaphthalene	U		0.00665	0.0333	0.0379	1	02/01/2021 20:41	WG1614392
4-Chloroaniline	U		0.0136	0.333	0.379	1	02/01/2021 20:41	WG1614392
4-Chlorophenyl-phenylether	U		0.0132	0.333	0.379	1	02/01/2021 20:41	WG1614392
Chrysene	0.0647		0.00753	0.0333	0.0379	1	02/01/2021 20:41	WG1614392
Dibenz(a,h)anthracene	U		0.0105	0.0333	0.0379	1	02/01/2021 20:41	WG1614392
Dibenzofuran	U		0.0124	0.333	0.379	1	02/01/2021 20:41	WG1614392
3,3-Dichlorobenzidine	U		0.0140	0.333	0.379	1	02/01/2021 20:41	WG1614392
2,4-Dinitrotoluene	U		0.0109	0.333	0.379	1	02/01/2021 20:41	WG1614392
2,6-Dinitrotoluene	U		0.0124	0.333	0.379	1	02/01/2021 20:41	WG1614392
Fluoranthene	0.101		0.00683	0.0333	0.0379	1	02/01/2021 20:41	WG1614392
Fluorene	U		0.00616	0.0333	0.0379	1	02/01/2021 20:41	WG1614392
Hexachlorobenzene	U		0.0134	0.333	0.379	1	02/01/2021 20:41	WG1614392
Hexachloro-1,3-butadiene	U		0.0127	0.333	0.379	1	02/01/2021 20:41	WG1614392
Hexachlorocyclopentadiene	U		0.0199	0.333	0.379	1	02/01/2021 20:41	WG1614392
Hexachloroethane	U		0.0149	0.333	0.379	1	02/01/2021 20:41	WG1614392
Indeno(1,2,3-cd)pyrene	0.0523		0.0107	0.0333	0.0379	1	02/01/2021 20:41	WG1614392
Isophorone	U		0.0116	0.333	0.379	1	02/01/2021 20:41	WG1614392
2-Methylnaphthalene	0.00930	L	0.00491	0.0333	0.0379	1	02/01/2021 20:41	WG1614392
Naphthalene	0.0121	L	0.00951	0.0333	0.0379	1	02/01/2021 20:41	WG1614392
2-Nitroaniline	U		0.0122	0.333	0.379	1	02/01/2021 20:41	WG1614392
3-Nitroaniline	U		0.0121	0.333	0.379	1	02/01/2021 20:41	WG1614392
4-Nitroaniline	U		0.0110	0.333	0.379	1	02/01/2021 20:41	WG1614392
Nitrobenzene	U		0.0132	0.333	0.379	1	02/01/2021 20:41	WG1614392
n-Nitrosodimethylamine	U		0.0562	0.333	0.379	1	02/01/2021 20:41	WG1614392
n-Nitrosodiphenylamine	U		0.0287	0.333	0.379	1	02/01/2021 20:41	WG1614392
n-Nitrosodi-n-propylamine	U		0.0126	0.333	0.379	1	02/01/2021 20:41	WG1614392
Phenanthrene	0.0484		0.00752	0.0333	0.0379	1	02/01/2021 20:41	WG1614392
Benzylbutyl phthalate	U		0.0118	0.333	0.379	1	02/01/2021 20:41	WG1614392
Bis(2-ethylhexyl)phthalate	U		0.0480	0.333	0.379	1	02/01/2021 20:41	WG1614392
Di-n-butyl phthalate	U		0.0130	0.333	0.379	1	02/01/2021 20:41	WG1614392
Diethyl phthalate	U		0.0125	0.333	0.379	1	02/01/2021 20:41	WG1614392
Dimethyl phthalate	U		0.0803	0.333	0.379	1	02/01/2021 20:41	WG1614392
Di-n-octyl phthalate	U		0.0256	0.333	0.379	1	02/01/2021 20:41	WG1614392
Pyrene	0.117		0.00737	0.0333	0.0379	1	02/01/2021 20:41	WG1614392
Pyridine	U		0.0250	0.333	0.379	1	02/01/2021 20:41	WG1614392
1,2,4-Trichlorobenzene	U		0.0118	0.333	0.379	1	02/01/2021 20:41	WG1614392
4-Chloro-3-methylphenol	U		0.0123	0.333	0.379	1	02/01/2021 20:41	WG1614392
2-Chlorophenol	U		0.0125	0.333	0.379	1	02/01/2021 20:41	WG1614392
2,4-Dichlorophenol	U		0.0110	0.333	0.379	1	02/01/2021 20:41	WG1614392
2,4-Dimethylphenol	U		0.00989	0.333	0.379	1	02/01/2021 20:41	WG1614392
4,6-Dinitro-2-methylphenol	U		0.0858	0.333	0.379	1	02/01/2021 20:41	WG1614392

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc



Collected date/time: 01/26/21 15:45

L1311179

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
2,4-Dinitrophenol	U		0.0886	0.333	0.379	1	02/01/2021 20:41	WG1614392
2-Methylphenol	U		0.0114	0.333	0.379	1	02/01/2021 20:41	WG1614392
3&4-Methyl Phenol	U		0.0118	0.333	0.379	1	02/01/2021 20:41	WG1614392
2-Nitrophenol	U		0.0135	0.333	0.379	1	02/01/2021 20:41	WG1614392
4-Nitrophenol	U		0.0118	0.333	0.379	1	02/01/2021 20:41	WG1614392
Pentachlorophenol	U		0.0102	0.333	0.379	1	02/01/2021 20:41	WG1614392
Phenol	U		0.0152	0.333	0.379	1	02/01/2021 20:41	WG1614392
2,4,5-Trichlorophenol	U		0.0128	0.333	0.379	1	02/01/2021 20:41	WG1614392
2,4,6-Trichlorophenol	U		0.0122	0.333	0.379	1	02/01/2021 20:41	WG1614392
(S) 2-Fluorophenol	57.2				12.0-120		02/01/2021 20:41	WG1614392
(S) Phenol-d5	52.4				10.0-120		02/01/2021 20:41	WG1614392
(S) Nitrobenzene-d5	50.6				10.0-122		02/01/2021 20:41	WG1614392
(S) 2-Fluorobiphenyl	53.3				15.0-120		02/01/2021 20:41	WG1614392
(S) 2,4,6-Tribromophenol	58.9				10.0-127		02/01/2021 20:41	WG1614392
(S) p-Terphenyl-d14	65.4				10.0-120		02/01/2021 20:41	WG1614392

¹ Cp² Tc³ Ss⁴ Cn⁵ Tr⁶ Sr⁷ Qc⁸ Gl⁹ Al¹⁰ Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.4		1	02/03/2021 14:57	WG1614563

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Mercury	0.0827		0.0197	0.0400	0.0438	1	02/03/2021 09:41	WG1614236

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Arsenic	U		0.567	2.00	2.19	1	02/03/2021 01:16	WG1613801
Barium	71.8		0.0932	0.500	0.547	1	02/03/2021 01:16	WG1613801
Cadmium	0.193	J	0.0515	0.500	0.547	1	02/03/2021 01:16	WG1613801
Chromium	10.9		0.146	1.00	1.09	1	02/03/2021 01:16	WG1613801
Lead	43.2		0.228	0.500	0.547	1	02/03/2021 01:16	WG1613801
Selenium	U		0.836	2.00	2.19	1	02/03/2021 01:16	WG1613801
Silver	U		0.139	1.00	1.09	1	02/03/2021 01:16	WG1613801

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Acetone	U		0.0618	0.0500	0.0846	1.46	01/30/2021 05:51	WG1613622
Benzene	U		0.000790	0.00100	0.00169	1.46	01/30/2021 05:51	WG1613622
Bromobenzene	U		0.00152	0.0125	0.0212	1.46	01/30/2021 05:51	WG1613622
Bromochloromethane	U		0.000954	0.00500	0.00846	1.46	01/30/2021 05:51	WG1613622
Bromodichloromethane	U		0.00123	0.00250	0.00423	1.46	01/30/2021 05:51	WG1613622
Bromoform	U		0.00198	0.0250	0.0423	1.46	01/30/2021 05:51	WG1613622
Bromomethane	U		0.00333	0.0125	0.0212	1.46	01/30/2021 05:51	WG1613622
n-Butylbenzene	U		0.00888	0.0125	0.0212	1.46	01/30/2021 05:51	WG1613622
sec-Butylbenzene	U		0.00487	0.0125	0.0212	1.46	01/30/2021 05:51	WG1613622
tert-Butylbenzene	U		0.00330	0.00500	0.00846	1.46	01/30/2021 05:51	WG1613622
Carbon disulfide	U		0.00118	0.0125	0.0212	1.46	01/30/2021 05:51	WG1613622
Carbon tetrachloride	U		0.00152	0.00500	0.00846	1.46	01/30/2021 05:51	WG1613622
Chlorobenzene	U		0.000355	0.00250	0.00423	1.46	01/30/2021 05:51	WG1613622
Chlorodibromomethane	U		0.00104	0.00250	0.00423	1.46	01/30/2021 05:51	WG1613622
Chloroethane	U		0.00288	0.00500	0.00846	1.46	01/30/2021 05:51	WG1613622
Chloroform	U		0.00174	0.00250	0.00423	1.46	01/30/2021 05:51	WG1613622
Chloromethane	U		0.00736	0.0125	0.0212	1.46	01/30/2021 05:51	WG1613622
2-Chlorotoluene	U		0.00146	0.00250	0.00423	1.46	01/30/2021 05:51	WG1613622
4-Chlorotoluene	U		0.000762	0.00500	0.00846	1.46	01/30/2021 05:51	WG1613622
1,2-Dibromo-3-Chloropropane	U		0.00660	0.0250	0.0423	1.46	01/30/2021 05:51	WG1613622
1,2-Dibromoethane	U		0.00110	0.00250	0.00423	1.46	01/30/2021 05:51	WG1613622
Dibromomethane	U		0.00127	0.00500	0.00846	1.46	01/30/2021 05:51	WG1613622
1,2-Dichlorobenzene	U		0.000719	0.00500	0.00846	1.46	01/30/2021 05:51	WG1613622
1,3-Dichlorobenzene	U		0.00102	0.00500	0.00846	1.46	01/30/2021 05:51	WG1613622
1,4-Dichlorobenzene	U		0.00118	0.00500	0.00846	1.46	01/30/2021 05:51	WG1613622
Dichlorodifluoromethane	U		0.00272	0.00250	0.00423	1.46	01/30/2021 05:51	WG1613622
1,1-Dichloroethane	U		0.000831	0.00250	0.00423	1.46	01/30/2021 05:51	WG1613622
1,2-Dichloroethane	U		0.00110	0.00250	0.00423	1.46	01/30/2021 05:51	WG1613622
1,1-Dichloroethene	U		0.00103	0.00250	0.00423	1.46	01/30/2021 05:51	WG1613622
cis-1,2-Dichloroethene	U		0.00124	0.00250	0.00423	1.46	01/30/2021 05:51	WG1613622
trans-1,2-Dichloroethene	U	J4	0.00176	0.00500	0.00846	1.46	01/30/2021 05:51	WG1613622
1,2-Dichloropropane	U		0.00240	0.00500	0.00846	1.46	01/30/2021 05:51	WG1613622
1,1-Dichloropropene	U		0.00137	0.00250	0.00423	1.46	01/30/2021 05:51	WG1613622





Collected date/time: 01/26/21 11:35

L1311179

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,3-Dichloropropane	U		0.000848	0.00500	0.00846	1.46	01/30/2021 05:51	WG1613622
cis-1,3-Dichloropropene	U		0.00128	0.00250	0.00423	1.46	01/30/2021 05:51	WG1613622
trans-1,3-Dichloropropene	U		0.00193	0.00500	0.00846	1.46	01/30/2021 05:51	WG1613622
2,2-Dichloropropane	U		0.00234	0.00250	0.00423	1.46	01/30/2021 05:51	WG1613622
Ethylbenzene	U		0.00125	0.00250	0.00423	1.46	01/30/2021 05:51	WG1613622
Hexachloro-1,3-butadiene	U		0.0102	0.0250	0.0423	1.46	01/30/2021 05:51	WG1613622
2-Hexanone	U		0.00569	0.0250	0.0423	1.46	01/30/2021 05:51	WG1613622
Isopropylbenzene	U		0.000719	0.00250	0.00423	1.46	01/30/2021 05:51	WG1613622
p-Isopropyltoluene	U		0.00432	0.00500	0.00846	1.46	01/30/2021 05:51	WG1613622
2-Butanone (MEK)	U		0.107	0.100	0.169	1.46	01/30/2021 05:51	WG1613622
Methylene Chloride	U		0.0112	0.0250	0.0423	1.46	01/30/2021 05:51	WG1613622
4-Methyl-2-pentanone (MIBK)	U		0.00386	0.0250	0.0423	1.46	01/30/2021 05:51	WG1613622
Methyl tert-butyl ether	U		0.000592	0.00100	0.00169	1.46	01/30/2021 05:51	WG1613622
Naphthalene	U		0.00826	0.0125	0.0212	1.46	01/30/2021 05:51	WG1613622
n-Propylbenzene	U		0.00161	0.00500	0.00846	1.46	01/30/2021 05:51	WG1613622
Styrene	U		0.000388	0.0125	0.0212	1.46	01/30/2021 05:51	WG1613622
1,1,1,2-Tetrachloroethane	U		0.00160	0.00250	0.00423	1.46	01/30/2021 05:51	WG1613622
1,1,2,2-Tetrachloroethane	U		0.00118	0.00250	0.00423	1.46	01/30/2021 05:51	WG1613622
Tetrachloroethene	U		0.00152	0.00250	0.00423	1.46	01/30/2021 05:51	WG1613622
Toluene	0.00571	B J	0.00220	0.00500	0.00846	1.46	01/30/2021 05:51	WG1613622
1,2,3-Trichlorobenzene	U		0.0124	0.0125	0.0212	1.46	01/30/2021 05:51	WG1613622
1,2,4-Trichlorobenzene	U		0.00745	0.0125	0.0212	1.46	01/30/2021 05:51	WG1613622
1,1,1-Trichloroethane	U	J4	0.00156	0.00250	0.00423	1.46	01/30/2021 05:51	WG1613622
1,1,2-Trichloroethane	U		0.00101	0.00250	0.00423	1.46	01/30/2021 05:51	WG1613622
Trichloroethene	U	J4	0.000988	0.00100	0.00169	1.46	01/30/2021 05:51	WG1613622
Trichlorofluoromethane	U		0.00140	0.00250	0.00423	1.46	01/30/2021 05:51	WG1613622
1,2,3-Trichloropropane	U		0.00274	0.0125	0.0212	1.46	01/30/2021 05:51	WG1613622
1,2,4-Trimethylbenzene	U		0.00267	0.00500	0.00846	1.46	01/30/2021 05:51	WG1613622
1,3,5-Trimethylbenzene	U		0.00338	0.00500	0.00846	1.46	01/30/2021 05:51	WG1613622
Vinyl chloride	U		0.00196	0.00250	0.00423	1.46	01/30/2021 05:51	WG1613622
Xylenes, Total	0.00567	J	0.00149	0.00650	0.0110	1.46	01/30/2021 05:51	WG1613622
(S) Toluene-d8	102				75.0-131		01/30/2021 05:51	WG1613622
(S) 4-Bromofluorobenzene	101				67.0-138		01/30/2021 05:51	WG1613622
(S) 1,2-Dichloroethane-d4	92.4				70.0-130		01/30/2021 05:51	WG1613622



TPH by TCEQ Method 1005

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		25.0	50.0	83.2	1.52	02/03/2021 01:03	WG1614595
TPH C12 - C28	U		25.0	50.0	83.2	1.52	02/03/2021 01:03	WG1614595
TPH C28 - C35	U		25.0	50.0	83.2	1.52	02/03/2021 01:03	WG1614595
TPH C6 - C35	U		25.0	50.0	83.2	1.52	02/03/2021 01:03	WG1614595
(S) o-Terphenyl	107				70.0-130		02/03/2021 01:03	WG1614595

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0118	0.0333	0.0729	2	02/02/2021 19:03	WG1614392
Acenaphthylene	U		0.0103	0.0333	0.0729	2	02/02/2021 19:03	WG1614392
Anthracene	U		0.0130	0.0333	0.0729	2	02/02/2021 19:03	WG1614392
Benzo(a)anthracene	0.0461	J	0.0128	0.0333	0.0729	2	02/02/2021 19:03	WG1614392
Benzo(b)fluoranthene	0.0749		0.0136	0.0333	0.0729	2	02/02/2021 19:03	WG1614392
Benzo(k)fluoranthene	0.0219	J	0.0130	0.0333	0.0729	2	02/02/2021 19:03	WG1614392
Benzo(g,h,i)perylene	0.0506	J	0.0133	0.0333	0.0729	2	02/02/2021 19:03	WG1614392
Benzo(a)pyrene	0.0490	J	0.0135	0.0333	0.0729	2	02/02/2021 19:03	WG1614392



Collected date/time: 01/26/21 11:35

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzoic acid	U		0.258	1.67	3.66	2	02/02/2021 19:03	WG1614392
Benzyl alcohol	U		0.0269	0.333	0.729	2	02/02/2021 19:03	WG1614392
Bis(2-chlorethoxy)methane	U		0.0219	0.333	0.729	2	02/02/2021 19:03	WG1614392
Bis(2-chloroethyl)ether	U		0.0241	0.333	0.729	2	02/02/2021 19:03	WG1614392
2,2-Oxybis(1-Chloropropane)	U		0.0315	0.333	0.729	2	02/02/2021 19:03	WG1614392
4-Bromophenyl-phenylether	U		0.0256	0.333	0.729	2	02/02/2021 19:03	WG1614392
Carbazole	U		0.0225	0.333	0.729	2	02/02/2021 19:03	WG1614392
2-Chloronaphthalene	U		0.0128	0.0333	0.0729	2	02/02/2021 19:03	WG1614392
4-Chloroaniline	U		0.0263	0.333	0.729	2	02/02/2021 19:03	WG1614392
4-Chlorophenyl-phenylether	U		0.0254	0.333	0.729	2	02/02/2021 19:03	WG1614392
Chrysene	0.0436	L	0.0145	0.0333	0.0729	2	02/02/2021 19:03	WG1614392
Dibenz(a,h)anthracene	U		0.0202	0.0333	0.0729	2	02/02/2021 19:03	WG1614392
Dibenzofuran	U		0.0239	0.333	0.729	2	02/02/2021 19:03	WG1614392
3,3-Dichlorobenzidine	U		0.0269	0.333	0.729	2	02/02/2021 19:03	WG1614392
2,4-Dinitrotoluene	U		0.0209	0.333	0.729	2	02/02/2021 19:03	WG1614392
2,6-Dinitrotoluene	U		0.0239	0.333	0.729	2	02/02/2021 19:03	WG1614392
Fluoranthene	0.0695	L	0.0132	0.0333	0.0729	2	02/02/2021 19:03	WG1614392
Fluorene	U		0.0119	0.0333	0.0729	2	02/02/2021 19:03	WG1614392
Hexachlorobenzene	U		0.0258	0.333	0.729	2	02/02/2021 19:03	WG1614392
Hexachloro-1,3-butadiene	U		0.0245	0.333	0.729	2	02/02/2021 19:03	WG1614392
Hexachlorocyclopentadiene	U		0.0383	0.333	0.729	2	02/02/2021 19:03	WG1614392
Hexachloroethane	U		0.0287	0.333	0.729	2	02/02/2021 19:03	WG1614392
Indeno(1,2,3-cd)pyrene	0.0395	L	0.0206	0.0333	0.0729	2	02/02/2021 19:03	WG1614392
Isophorone	U		0.0223	0.333	0.729	2	02/02/2021 19:03	WG1614392
2-Methylnaphthalene	U		0.00946	0.0333	0.0729	2	02/02/2021 19:03	WG1614392
Naphthalene	U		0.0183	0.0333	0.0729	2	02/02/2021 19:03	WG1614392
2-Nitroaniline	U		0.0234	0.333	0.729	2	02/02/2021 19:03	WG1614392
3-Nitroaniline	U		0.0232	0.333	0.729	2	02/02/2021 19:03	WG1614392
4-Nitroaniline	U		0.0213	0.333	0.729	2	02/02/2021 19:03	WG1614392
Nitrobenzene	U		0.0254	0.333	0.729	2	02/02/2021 19:03	WG1614392
n-Nitrosodimethylamine	U		0.108	0.333	0.729	2	02/02/2021 19:03	WG1614392
n-Nitrosodiphenylamine	U		0.0552	0.333	0.729	2	02/02/2021 19:03	WG1614392
n-Nitrosodi-n-propylamine	U		0.0243	0.333	0.729	2	02/02/2021 19:03	WG1614392
Phenanthrene	0.0289	L	0.0145	0.0333	0.0729	2	02/02/2021 19:03	WG1614392
Benzylbutyl phthalate	U		0.0228	0.333	0.729	2	02/02/2021 19:03	WG1614392
Bis(2-ethylhexyl)phthalate	U		0.0924	0.333	0.729	2	02/02/2021 19:03	WG1614392
Di-n-butyl phthalate	U		0.0250	0.333	0.729	2	02/02/2021 19:03	WG1614392
Diethyl phthalate	U		0.0241	0.333	0.729	2	02/02/2021 19:03	WG1614392
Dimethyl phthalate	U		0.155	0.333	0.729	2	02/02/2021 19:03	WG1614392
Di-n-octyl phthalate	U		0.0492	0.333	0.729	2	02/02/2021 19:03	WG1614392
Pyrene	0.0686	L	0.0142	0.0333	0.0729	2	02/02/2021 19:03	WG1614392
Pyridine	U		0.0482	0.333	0.729	2	02/02/2021 19:03	WG1614392
1,2,4-Trichlorobenzene	U		0.0228	0.333	0.729	2	02/02/2021 19:03	WG1614392
4-Chloro-3-methylphenol	U		0.0236	0.333	0.729	2	02/02/2021 19:03	WG1614392
2-Chlorophenol	U		0.0241	0.333	0.729	2	02/02/2021 19:03	WG1614392
2,4-Dichlorophenol	U		0.0212	0.333	0.729	2	02/02/2021 19:03	WG1614392
2,4-Dimethylphenol	U		0.0190	0.333	0.729	2	02/02/2021 19:03	WG1614392
4,6-Dinitro-2-methylphenol	U		0.165	0.333	0.729	2	02/02/2021 19:03	WG1614392
2,4-Dinitrophenol	U		0.171	0.333	0.729	2	02/02/2021 19:03	WG1614392
2-Methylphenol	U		0.0219	0.333	0.729	2	02/02/2021 19:03	WG1614392
3&4-Methyl Phenol	U		0.0228	0.333	0.729	2	02/02/2021 19:03	WG1614392
2-Nitrophenol	U		0.0260	0.333	0.729	2	02/02/2021 19:03	WG1614392
4-Nitrophenol	U		0.0228	0.333	0.729	2	02/02/2021 19:03	WG1614392
Pentachlorophenol	U		0.0196	0.333	0.729	2	02/02/2021 19:03	WG1614392
Phenol	U		0.0293	0.333	0.729	2	02/02/2021 19:03	WG1614392
2,4,5-Trichlorophenol	U		0.0247	0.333	0.729	2	02/02/2021 19:03	WG1614392

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
2,4,6-Trichlorophenol	U		0.0234	0.333	0.729	2	02/02/2021 19:03	WG1614392
(S) 2-Fluorophenol	66.9				12.0-120		02/02/2021 19:03	WG1614392
(S) Phenol-d5	61.7				10.0-120		02/02/2021 19:03	WG1614392
(S) Nitrobenzene-d5	58.0				10.0-122		02/02/2021 19:03	WG1614392
(S) 2-Fluorobiphenyl	62.2				15.0-120		02/02/2021 19:03	WG1614392
(S) 2,4,6-Tribromophenol	77.3				10.0-127		02/02/2021 19:03	WG1614392
(S) p-Terphenyl-d14	73.4				10.0-120		02/02/2021 19:03	WG1614392

Sample Narrative:

L1311179-09 WG1614392: Dilution due to matrix impact during extraction procedure

1Cp

2Tc

3Ss

4Cn

5Tr

6Sr

7Qc

8Gl

9Al

10Sc



Collected date/time: 01/26/21 10:00

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Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.7		1	02/03/2021 14:57	WG1614563

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Mercury	0.153		0.0205	0.0400	0.0456	1	02/03/2021 09:43	WG1614236

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Arsenic	35.6		0.591	2.00	2.28	1	02/03/2021 01:19	WG1613801
Barium	304		0.0972	0.500	0.570	1	02/03/2021 01:19	WG1613801
Cadmium	1.66		0.0537	0.500	0.570	1	02/03/2021 01:19	WG1613801
Chromium	32.3		0.152	1.00	1.14	1	02/03/2021 01:19	WG1613801
Lead	219		0.237	0.500	0.570	1	02/03/2021 01:19	WG1613801
Selenium	1.45	J	0.871	2.00	2.28	1	02/03/2021 01:19	WG1613801
Silver	0.193	J	0.145	1.00	1.14	1	02/03/2021 01:19	WG1613801

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Acetone	U		0.0476	0.0500	0.0652	1	01/30/2021 06:10	WG1613622
Benzene	U		0.000609	0.00100	0.00130	1	01/30/2021 06:10	WG1613622
Bromobenzene	U		0.00117	0.0125	0.0163	1	01/30/2021 06:10	WG1613622
Bromochloromethane	U		0.000735	0.00500	0.00652	1	01/30/2021 06:10	WG1613622
Bromodichloromethane	U		0.000945	0.00250	0.00326	1	01/30/2021 06:10	WG1613622
Bromoform	U		0.00153	0.0250	0.0326	1	01/30/2021 06:10	WG1613622
Bromomethane	U		0.00257	0.0125	0.0163	1	01/30/2021 06:10	WG1613622
n-Butylbenzene	U		0.00684	0.0125	0.0163	1	01/30/2021 06:10	WG1613622
sec-Butylbenzene	U		0.00375	0.0125	0.0163	1	01/30/2021 06:10	WG1613622
tert-Butylbenzene	U		0.00254	0.00500	0.00652	1	01/30/2021 06:10	WG1613622
Carbon disulfide	U		0.000913	0.0125	0.0163	1	01/30/2021 06:10	WG1613622
Carbon tetrachloride	U		0.00117	0.00500	0.00652	1	01/30/2021 06:10	WG1613622
Chlorobenzene	U		0.000274	0.00250	0.00326	1	01/30/2021 06:10	WG1613622
Chlorodibromomethane	U		0.000798	0.00250	0.00326	1	01/30/2021 06:10	WG1613622
Chloroethane	U		0.00222	0.00500	0.00652	1	01/30/2021 06:10	WG1613622
Chloroform	U		0.00134	0.00250	0.00326	1	01/30/2021 06:10	WG1613622
Chloromethane	U		0.00567	0.0125	0.0163	1	01/30/2021 06:10	WG1613622
2-Chlorotoluene	U		0.00113	0.00250	0.00326	1	01/30/2021 06:10	WG1613622
4-Chlorotoluene	U		0.000587	0.00500	0.00652	1	01/30/2021 06:10	WG1613622
1,2-Dibromo-3-Chloropropane	U		0.00508	0.0250	0.0326	1	01/30/2021 06:10	WG1613622
1,2-Dibromoethane	U		0.000845	0.00250	0.00326	1	01/30/2021 06:10	WG1613622
Dibromomethane	U		0.000978	0.00500	0.00652	1	01/30/2021 06:10	WG1613622
1,2-Dichlorobenzene	U		0.000554	0.00500	0.00652	1	01/30/2021 06:10	WG1613622
1,3-Dichlorobenzene	U		0.000782	0.00500	0.00652	1	01/30/2021 06:10	WG1613622
1,4-Dichlorobenzene	U		0.000913	0.00500	0.00652	1	01/30/2021 06:10	WG1613622
Dichlorodifluoromethane	U		0.00210	0.00250	0.00326	1	01/30/2021 06:10	WG1613622
1,1-Dichloroethane	U		0.000640	0.00250	0.00326	1	01/30/2021 06:10	WG1613622
1,2-Dichloroethane	U		0.000846	0.00250	0.00326	1	01/30/2021 06:10	WG1613622
1,1-Dichloroethene	U		0.000790	0.00250	0.00326	1	01/30/2021 06:10	WG1613622
cis-1,2-Dichloroethene	U		0.000957	0.00250	0.00326	1	01/30/2021 06:10	WG1613622
trans-1,2-Dichloroethene	U	J4	0.00136	0.00500	0.00652	1	01/30/2021 06:10	WG1613622
1,2-Dichloropropane	U		0.00185	0.00500	0.00652	1	01/30/2021 06:10	WG1613622
1,1-Dichloropropene	U		0.00105	0.00250	0.00326	1	01/30/2021 06:10	WG1613622

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc



Collected date/time: 01/26/21 10:00

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,3-Dichloropropane	U		0.000653	0.00500	0.00652	1	01/30/2021 06:10	WG1613622
cis-1,3-Dichloropropene	U		0.000987	0.00250	0.00326	1	01/30/2021 06:10	WG1613622
trans-1,3-Dichloropropene	U		0.00149	0.00500	0.00652	1	01/30/2021 06:10	WG1613622
2,2-Dichloropropane	U		0.00180	0.00250	0.00326	1	01/30/2021 06:10	WG1613622
Ethylbenzene	0.00553		0.000961	0.00250	0.00326	1	01/30/2021 06:10	WG1613622
Hexachloro-1,3-butadiene	U		0.00782	0.0250	0.0326	1	01/30/2021 06:10	WG1613622
2-Hexanone	U		0.00438	0.0250	0.0326	1	01/30/2021 06:10	WG1613622
Isopropylbenzene	0.000897	J	0.000554	0.00250	0.00326	1	01/30/2021 06:10	WG1613622
p-Isopropyltoluene	U		0.00332	0.00500	0.00652	1	01/30/2021 06:10	WG1613622
2-Butanone (MEK)	U		0.0828	0.100	0.130	1	01/30/2021 06:10	WG1613622
Methylene Chloride	U		0.00866	0.0250	0.0326	1	01/30/2021 06:10	WG1613622
4-Methyl-2-pentanone (MIBK)	U		0.00297	0.0250	0.0326	1	01/30/2021 06:10	WG1613622
Methyl tert-butyl ether	U		0.000456	0.00100	0.00130	1	01/30/2021 06:10	WG1613622
Naphthalene	0.00787	J	0.00636	0.0125	0.0163	1	01/30/2021 06:10	WG1613622
n-Propylbenzene	U		0.00124	0.00500	0.00652	1	01/30/2021 06:10	WG1613622
Styrene	0.000365	J	0.000299	0.0125	0.0163	1	01/30/2021 06:10	WG1613622
1,1,1,2-Tetrachloroethane	U		0.00124	0.00250	0.00326	1	01/30/2021 06:10	WG1613622
1,1,2,2-Tetrachloroethane	U		0.000906	0.00250	0.00326	1	01/30/2021 06:10	WG1613622
Tetrachloroethene	U		0.00117	0.00250	0.00326	1	01/30/2021 06:10	WG1613622
Toluene	0.00420	B J	0.00169	0.00500	0.00652	1	01/30/2021 06:10	WG1613622
1,2,3-Trichlorobenzene	U		0.00956	0.0125	0.0163	1	01/30/2021 06:10	WG1613622
1,2,4-Trichlorobenzene	U		0.00574	0.0125	0.0163	1	01/30/2021 06:10	WG1613622
1,1,1-Trichloroethane	U	J4	0.00120	0.00250	0.00326	1	01/30/2021 06:10	WG1613622
1,1,2-Trichloroethane	U		0.000778	0.00250	0.00326	1	01/30/2021 06:10	WG1613622
Trichloroethene	U	J4	0.000761	0.00100	0.00130	1	01/30/2021 06:10	WG1613622
Trichlorofluoromethane	U		0.00108	0.00250	0.00326	1	01/30/2021 06:10	WG1613622
1,2,3-Trichloropropane	U		0.00211	0.0125	0.0163	1	01/30/2021 06:10	WG1613622
1,2,4-Trimethylbenzene	0.00272	B J	0.00206	0.00500	0.00652	1	01/30/2021 06:10	WG1613622
1,3,5-Trimethylbenzene	U		0.00261	0.00500	0.00652	1	01/30/2021 06:10	WG1613622
Vinyl chloride	U		0.00151	0.00250	0.00326	1	01/30/2021 06:10	WG1613622
Xylenes, Total	0.0386		0.00115	0.00650	0.00847	1	01/30/2021 06:10	WG1613622
(S) Toluene-d8	101				75.0-131		01/30/2021 06:10	WG1613622
(S) 4-Bromofluorobenzene	100				67.0-138		01/30/2021 06:10	WG1613622
(S) 1,2-Dichloroethane-d4	92.1				70.0-130		01/30/2021 06:10	WG1613622

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

TPH by TCEQ Method 1005

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		17.1	50.0	57.0	1	02/03/2021 01:18	WG1614595
TPH C12 - C28	U		17.1	50.0	57.0	1	02/03/2021 01:18	WG1614595
TPH C28 - C35	U		17.1	50.0	57.0	1	02/03/2021 01:18	WG1614595
TPH C6 - C35	U		17.1	50.0	57.0	1	02/03/2021 01:18	WG1614595
(S) o-Terphenyl	108				70.0-130		02/03/2021 01:18	WG1614595

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0307	0.0333	0.190	5	02/03/2021 01:02	WG1614577
Acenaphthylene	0.222		0.0267	0.0333	0.190	5	02/03/2021 01:02	WG1614577
Anthracene	0.301		0.0338	0.0333	0.190	5	02/03/2021 01:02	WG1614577
Benzo(a)anthracene	0.252		0.0335	0.0333	0.190	5	02/03/2021 01:02	WG1614577
Benzo(b)fluoranthene	0.836		0.0354	0.0333	0.190	5	02/03/2021 01:02	WG1614577
Benzo(k)fluoranthene	0.247		0.0338	0.0333	0.190	5	02/03/2021 01:02	WG1614577
Benzo(g,h,i)perylene	0.326		0.0347	0.0333	0.190	5	02/03/2021 01:02	WG1614577
Benzo(a)pyrene	0.243		0.0353	0.0333	0.190	5	02/03/2021 01:02	WG1614577



Collected date/time: 01/26/21 10:00

L1311179

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzoic acid	U		0.673	1.67	9.52	5	02/03/2021 01:02	WG1614577
Benzyl alcohol	U		0.0701	0.333	1.90	5	02/03/2021 01:02	WG1614577
Bis(2-chlorethoxy)methane	U		0.0570	0.333	1.90	5	02/03/2021 01:02	WG1614577
Bis(2-chloroethyl)ether	U		0.0627	0.333	1.90	5	02/03/2021 01:02	WG1614577
2,2-Oxybis(1-Chloropropane)	U		0.0821	0.333	1.90	5	02/03/2021 01:02	WG1614577
4-Bromophenyl-phenylether	U		0.0667	0.333	1.90	5	02/03/2021 01:02	WG1614577
Carbazole	0.0930	L	0.0587	0.333	1.90	5	02/03/2021 01:02	WG1614577
2-Chloronaphthalene	U		0.0334	0.0333	0.190	5	02/03/2021 01:02	WG1614577
4-Chloroaniline	U		0.0684	0.333	1.90	5	02/03/2021 01:02	WG1614577
4-Chlorophenyl-phenylether	U		0.0662	0.333	1.90	5	02/03/2021 01:02	WG1614577
Chrysene	0.336		0.0378	0.0333	0.190	5	02/03/2021 01:02	WG1614577
Dibenz(a,h)anthracene	U		0.0526	0.0333	0.190	5	02/03/2021 01:02	WG1614577
Dibenzofuran	U		0.0622	0.333	1.90	5	02/03/2021 01:02	WG1614577
3,3-Dichlorobenzidine	U		0.0701	0.333	1.90	5	02/03/2021 01:02	WG1614577
2,4-Dinitrotoluene	U		0.0545	0.333	1.90	5	02/03/2021 01:02	WG1614577
2,6-Dinitrotoluene	U		0.0622	0.333	1.90	5	02/03/2021 01:02	WG1614577
Fluoranthene	0.526		0.0343	0.0333	0.190	5	02/03/2021 01:02	WG1614577
Fluorene	U		0.0309	0.0333	0.190	5	02/03/2021 01:02	WG1614577
Hexachlorobenzene	U		0.0673	0.333	1.90	5	02/03/2021 01:02	WG1614577
Hexachloro-1,3-butadiene	U		0.0639	0.333	1.90	5	02/03/2021 01:02	WG1614577
Hexachlorocyclopentadiene	U		0.0998	0.333	1.90	5	02/03/2021 01:02	WG1614577
Hexachloroethane	U		0.0747	0.333	1.90	5	02/03/2021 01:02	WG1614577
Indeno(1,2,3-cd)pyrene	0.278		0.0537	0.0333	0.190	5	02/03/2021 01:02	WG1614577
Isophorone	U		0.0582	0.333	1.90	5	02/03/2021 01:02	WG1614577
2-Methylnaphthalene	U		0.0246	0.0333	0.190	5	02/03/2021 01:02	WG1614577
Naphthalene	U		0.0477	0.0333	0.190	5	02/03/2021 01:02	WG1614577
2-Nitroaniline	U		0.0610	0.333	1.90	5	02/03/2021 01:02	WG1614577
3-Nitroaniline	U		0.0604	0.333	1.90	5	02/03/2021 01:02	WG1614577
4-Nitroaniline	U		0.0554	0.333	1.90	5	02/03/2021 01:02	WG1614577
Nitrobenzene	U		0.0662	0.333	1.90	5	02/03/2021 01:02	WG1614577
n-Nitrosodimethylamine	U		0.282	0.333	1.90	5	02/03/2021 01:02	WG1614577
n-Nitrosodiphenylamine	U		0.144	0.333	1.90	5	02/03/2021 01:02	WG1614577
n-Nitrosodi-n-propylamine	U		0.0633	0.333	1.90	5	02/03/2021 01:02	WG1614577
Phenanthrene	0.0898	L	0.0377	0.0333	0.190	5	02/03/2021 01:02	WG1614577
Benzylbutyl phthalate	0.0763	L	0.0593	0.333	1.90	5	02/03/2021 01:02	WG1614577
Bis(2-ethylhexyl)phthalate	U		0.241	0.333	1.90	5	02/03/2021 01:02	WG1614577
Di-n-butyl phthalate	U		0.0650	0.333	1.90	5	02/03/2021 01:02	WG1614577
Diethyl phthalate	U		0.0627	0.333	1.90	5	02/03/2021 01:02	WG1614577
Dimethyl phthalate	U		0.403	0.333	1.90	5	02/03/2021 01:02	WG1614577
Di-n-octyl phthalate	U		0.128	0.333	1.90	5	02/03/2021 01:02	WG1614577
Pyrene	0.618		0.0370	0.0333	0.190	5	02/03/2021 01:02	WG1614577
Pyridine	U		0.125	0.333	1.90	5	02/03/2021 01:02	WG1614577
1,2,4-Trichlorobenzene	U		0.0593	0.333	1.90	5	02/03/2021 01:02	WG1614577
4-Chloro-3-methylphenol	U		0.0616	0.333	1.90	5	02/03/2021 01:02	WG1614577
2-Chlorophenol	U		0.0627	0.333	1.90	5	02/03/2021 01:02	WG1614577
2,4-Dichlorophenol	U		0.0553	0.333	1.90	5	02/03/2021 01:02	WG1614577
2,4-Dimethylphenol	U		0.0496	0.333	1.90	5	02/03/2021 01:02	WG1614577
4,6-Dinitro-2-methylphenol	U		0.431	0.333	1.90	5	02/03/2021 01:02	WG1614577
2,4-Dinitrophenol	U		0.444	0.333	1.90	5	02/03/2021 01:02	WG1614577
2-Methylphenol	U		0.0570	0.333	1.90	5	02/03/2021 01:02	WG1614577
3&4-Methyl Phenol	U		0.0593	0.333	1.90	5	02/03/2021 01:02	WG1614577
2-Nitrophenol	U		0.0679	0.333	1.90	5	02/03/2021 01:02	WG1614577
4-Nitrophenol	U		0.0593	0.333	1.90	5	02/03/2021 01:02	WG1614577
Pentachlorophenol	U		0.0511	0.333	1.90	5	02/03/2021 01:02	WG1614577
Phenol	U		0.0764	0.333	1.90	5	02/03/2021 01:02	WG1614577
2,4,5-Trichlorophenol	U		0.0644	0.333	1.90	5	02/03/2021 01:02	WG1614577

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

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
2,4,6-Trichlorophenol	U		0.0610	0.333	1.90	5	02/03/2021 01:02	WG1614577
(S) 2-Fluorophenol	51.7				12.0-120		02/03/2021 01:02	WG1614577
(S) Phenol-d5	48.3				10.0-120		02/03/2021 01:02	WG1614577
(S) Nitrobenzene-d5	43.3				10.0-122		02/03/2021 01:02	WG1614577
(S) 2-Fluorobiphenyl	46.3				15.0-120		02/03/2021 01:02	WG1614577
(S) 2,4,6-Tribromophenol	45.9				10.0-127		02/03/2021 01:02	WG1614577
(S) p-Terphenyl-d14	50.6				10.0-120		02/03/2021 01:02	WG1614577

1

Cp

2

Tc

3

Ss

4

Cn

5

Tr

6

Sr

7

Qc

8

Gl

9

Al

10

Sc



Collected date/time: 01/26/21 10:35

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Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	74.9		1	02/03/2021 14:57	WG1614563

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	8.09	T8	1	02/02/2021 00:57	WG1614203

Sample Narrative:

L1311179-11 WG1614203: 8.09 at 19.8C

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis date / time	Batch
Mercury	0.125		0.0240	0.0400	0.0534	1	02/03/2021 09:46	WG1614236

7 Qc

8 Gl

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis date / time	Batch
Arsenic	7.92		0.692	2.00	2.67	1	01/30/2021 19:24	WG1613802
Barium	310		0.114	0.500	0.668	1	01/30/2021 19:24	WG1613802
Cadmium	2.31		0.0629	0.500	0.668	1	01/30/2021 19:24	WG1613802
Chromium	28.1		0.178	1.00	1.34	1	01/30/2021 19:24	WG1613802
Lead	207		0.278	0.500	0.668	1	01/30/2021 19:24	WG1613802
Selenium	1.39	J	1.02	2.00	2.67	1	01/30/2021 19:24	WG1613802
Silver	0.181	J	0.170	1.00	1.34	1	01/30/2021 19:24	WG1613802

9 Al

10 Sc

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.0677	0.0500	0.0928	1	01/30/2021 06:29	WG1613622
Benzene	U		0.000867	0.00100	0.00186	1	01/30/2021 06:29	WG1613622
Bromobenzene	U		0.00167	0.0125	0.0232	1	01/30/2021 06:29	WG1613622
Bromochloromethane	U		0.00105	0.00500	0.00928	1	01/30/2021 06:29	WG1613622
Bromodichloromethane	U		0.00135	0.00250	0.00464	1	01/30/2021 06:29	WG1613622
Bromoform	U		0.00217	0.0250	0.0464	1	01/30/2021 06:29	WG1613622
Bromomethane	U		0.00366	0.0125	0.0232	1	01/30/2021 06:29	WG1613622
n-Butylbenzene	U		0.00974	0.0125	0.0232	1	01/30/2021 06:29	WG1613622
sec-Butylbenzene	U		0.00535	0.0125	0.0232	1	01/30/2021 06:29	WG1613622
tert-Butylbenzene	U		0.00362	0.00500	0.00928	1	01/30/2021 06:29	WG1613622
Carbon disulfide	U		0.00130	0.0125	0.0232	1	01/30/2021 06:29	WG1613622
Carbon tetrachloride	U		0.00167	0.00500	0.00928	1	01/30/2021 06:29	WG1613622
Chlorobenzene	U		0.000390	0.00250	0.00464	1	01/30/2021 06:29	WG1613622
Chlorodibromomethane	U		0.00114	0.00250	0.00464	1	01/30/2021 06:29	WG1613622
Chloroethane	U		0.00316	0.00500	0.00928	1	01/30/2021 06:29	WG1613622
Chloroform	U		0.00191	0.00250	0.00464	1	01/30/2021 06:29	WG1613622
Chloromethane	U		0.00807	0.0125	0.0232	1	01/30/2021 06:29	WG1613622
2-Chlorotoluene	U		0.00161	0.00250	0.00464	1	01/30/2021 06:29	WG1613622
4-Chlorotoluene	U		0.000835	0.00500	0.00928	1	01/30/2021 06:29	WG1613622
1,2-Dibromo-3-Chloropropane	U		0.00724	0.0250	0.0464	1	01/30/2021 06:29	WG1613622
1,2-Dibromoethane	U		0.00120	0.00250	0.00464	1	01/30/2021 06:29	WG1613622
Dibromomethane	U		0.00139	0.00500	0.00928	1	01/30/2021 06:29	WG1613622
1,2-Dichlorobenzene	U		0.000789	0.00500	0.00928	1	01/30/2021 06:29	WG1613622
1,3-Dichlorobenzene	U		0.00111	0.00500	0.00928	1	01/30/2021 06:29	WG1613622
1,4-Dichlorobenzene	U		0.00130	0.00500	0.00928	1	01/30/2021 06:29	WG1613622



Collected date/time: 01/26/21 10:35

L1311179

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	U		0.00299	0.00250	0.00464	1	01/30/2021 06:29	WG1613622
1,1-Dichloroethane	U		0.000911	0.00250	0.00464	1	01/30/2021 06:29	WG1613622
1,2-Dichloroethane	U		0.00120	0.00250	0.00464	1	01/30/2021 06:29	WG1613622
1,1-Dichloroethene	U		0.00112	0.00250	0.00464	1	01/30/2021 06:29	WG1613622
cis-1,2-Dichloroethene	U		0.00136	0.00250	0.00464	1	01/30/2021 06:29	WG1613622
trans-1,2-Dichloroethene	U	J4	0.00193	0.00500	0.00928	1	01/30/2021 06:29	WG1613622
1,2-Dichloropropane	U		0.00264	0.00500	0.00928	1	01/30/2021 06:29	WG1613622
1,1-Dichloropropene	U		0.00150	0.00250	0.00464	1	01/30/2021 06:29	WG1613622
1,3-Dichloropropane	U		0.000930	0.00500	0.00928	1	01/30/2021 06:29	WG1613622
cis-1,3-Dichloropropene	U		0.00140	0.00250	0.00464	1	01/30/2021 06:29	WG1613622
trans-1,3-Dichloropropene	U		0.00212	0.00500	0.00928	1	01/30/2021 06:29	WG1613622
2,2-Dichloropropane	U		0.00256	0.00250	0.00464	1	01/30/2021 06:29	WG1613622
Ethylbenzene	U		0.00137	0.00250	0.00464	1	01/30/2021 06:29	WG1613622
Hexachloro-1,3-butadiene	U		0.0111	0.0250	0.0464	1	01/30/2021 06:29	WG1613622
2-Hexanone	U		0.00624	0.0250	0.0464	1	01/30/2021 06:29	WG1613622
Isopropylbenzene	U		0.000789	0.00250	0.00464	1	01/30/2021 06:29	WG1613622
p-Isopropyltoluene	U		0.00473	0.00500	0.00928	1	01/30/2021 06:29	WG1613622
2-Butanone (MEK)	U		0.118	0.100	0.186	1	01/30/2021 06:29	WG1613622
Methylene Chloride	U		0.0123	0.0250	0.0464	1	01/30/2021 06:29	WG1613622
4-Methyl-2-pentanone (MIBK)	U		0.00423	0.0250	0.0464	1	01/30/2021 06:29	WG1613622
Methyl tert-butyl ether	U		0.000650	0.00100	0.00186	1	01/30/2021 06:29	WG1613622
Naphthalene	U		0.00906	0.0125	0.0232	1	01/30/2021 06:29	WG1613622
n-Propylbenzene	U		0.00176	0.00500	0.00928	1	01/30/2021 06:29	WG1613622
Styrene	U		0.000425	0.0125	0.0232	1	01/30/2021 06:29	WG1613622
1,1,1,2-Tetrachloroethane	U		0.00176	0.00250	0.00464	1	01/30/2021 06:29	WG1613622
1,1,2,2-Tetrachloroethane	U		0.00129	0.00250	0.00464	1	01/30/2021 06:29	WG1613622
Tetrachloroethene	U		0.00166	0.00250	0.00464	1	01/30/2021 06:29	WG1613622
Toluene	U		0.00241	0.00500	0.00928	1	01/30/2021 06:29	WG1613622
1,2,3-Trichlorobenzene	U		0.0136	0.0125	0.0232	1	01/30/2021 06:29	WG1613622
1,2,4-Trichlorobenzene	U		0.00817	0.0125	0.0232	1	01/30/2021 06:29	WG1613622
1,1,1-Trichloroethane	U	J4	0.00171	0.00250	0.00464	1	01/30/2021 06:29	WG1613622
1,1,2-Trichloroethane	U		0.00111	0.00250	0.00464	1	01/30/2021 06:29	WG1613622
Trichloroethene	U	J4	0.00108	0.00100	0.00186	1	01/30/2021 06:29	WG1613622
Trichlorofluoromethane	U		0.00153	0.00250	0.00464	1	01/30/2021 06:29	WG1613622
1,2,3-Trichloropropane	U		0.00301	0.0125	0.0232	1	01/30/2021 06:29	WG1613622
1,2,4-Trimethylbenzene	U		0.00293	0.00500	0.00928	1	01/30/2021 06:29	WG1613622
1,3,5-Trimethylbenzene	U		0.00371	0.00500	0.00928	1	01/30/2021 06:29	WG1613622
Vinyl chloride	U		0.00215	0.00250	0.00464	1	01/30/2021 06:29	WG1613622
Xylenes, Total	0.00538	J	0.00163	0.00650	0.0121	1	01/30/2021 06:29	WG1613622
(S) Toluene-d8	101				75.0-131		01/30/2021 06:29	WG1613622
(S) 4-Bromofluorobenzene	104				67.0-138		01/30/2021 06:29	WG1613622
(S) 1,2-Dichloroethane-d4	94.9				70.0-130		01/30/2021 06:29	WG1613622

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

TPH by TCEQ Method 1005

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		20.0	50.0	66.8	1	02/03/2021 17:49	WG1615114
TPH C12 - C28	U		20.0	50.0	66.8	1	02/03/2021 17:49	WG1615114
TPH C28 - C35	U		20.0	50.0	66.8	1	02/03/2021 17:49	WG1615114
TPH C6 - C35	U		20.0	50.0	66.8	1	02/03/2021 17:49	WG1615114
(S) o-Terphenyl	80.2				70.0-130		02/03/2021 17:49	WG1615114



Collected date/time: 01/26/21 10:35

L1311179

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.00720	0.0333	0.0445	1	02/02/2021 23:59	WG1614577
Acenaphthylene	0.0204	UL	0.00626	0.0333	0.0445	1	02/02/2021 23:59	WG1614577
Anthracene	0.0319	UL	0.00792	0.0333	0.0445	1	02/02/2021 23:59	WG1614577
Benzo(a)anthracene	0.0705		0.00784	0.0333	0.0445	1	02/02/2021 23:59	WG1614577
Benzo(b)fluoranthene	0.0996		0.00829	0.0333	0.0445	1	02/02/2021 23:59	WG1614577
Benzo(k)fluoranthene	0.0323	UL	0.00791	0.0333	0.0445	1	02/02/2021 23:59	WG1614577
Benzo(g,h,i)perylene	0.0479		0.00813	0.0333	0.0445	1	02/02/2021 23:59	WG1614577
Benzo(a)pyrene	0.0556		0.00827	0.0333	0.0445	1	02/02/2021 23:59	WG1614577
Benzoic acid	U		0.158	1.67	2.23	1	02/02/2021 23:59	WG1614577
Benzyl alcohol	U		0.0164	0.333	0.445	1	02/02/2021 23:59	WG1614577
Bis(2-chlorethoxy)methane	U		0.0134	0.333	0.445	1	02/02/2021 23:59	WG1614577
Bis(2-chloroethyl)ether	U		0.0147	0.333	0.445	1	02/02/2021 23:59	WG1614577
2,2-Oxybis(1-Chloropropane)	U		0.0192	0.333	0.445	1	02/02/2021 23:59	WG1614577
4-Bromophenyl-phenylether	U		0.0156	0.333	0.445	1	02/02/2021 23:59	WG1614577
Carbazole	0.0166	UL	0.0138	0.333	0.445	1	02/02/2021 23:59	WG1614577
2-Chloronaphthalene	U		0.00781	0.0333	0.0445	1	02/02/2021 23:59	WG1614577
4-Chloroaniline	U		0.0160	0.333	0.445	1	02/02/2021 23:59	WG1614577
4-Chlorophenyl-phenylether	U		0.0155	0.333	0.445	1	02/02/2021 23:59	WG1614577
Chrysene	0.0769		0.00884	0.0333	0.0445	1	02/02/2021 23:59	WG1614577
Dibenz(a,h)anthracene	U		0.0123	0.0333	0.0445	1	02/02/2021 23:59	WG1614577
Dibenzofuran	U		0.0146	0.333	0.445	1	02/02/2021 23:59	WG1614577
3,3-Dichlorobenzidine	U		0.0164	0.333	0.445	1	02/02/2021 23:59	WG1614577
2,4-Dinitrotoluene	U		0.0128	0.333	0.445	1	02/02/2021 23:59	WG1614577
2,6-Dinitrotoluene	U		0.0146	0.333	0.445	1	02/02/2021 23:59	WG1614577
Fluoranthene	0.152		0.00803	0.0333	0.0445	1	02/02/2021 23:59	WG1614577
Fluorene	U		0.00724	0.0333	0.0445	1	02/02/2021 23:59	WG1614577
Hexachlorobenzene	U		0.0158	0.333	0.445	1	02/02/2021 23:59	WG1614577
Hexachloro-1,3-butadiene	U		0.0150	0.333	0.445	1	02/02/2021 23:59	WG1614577
Hexachlorocyclopentadiene	U		0.0234	0.333	0.445	1	02/02/2021 23:59	WG1614577
Hexachloroethane	U		0.0175	0.333	0.445	1	02/02/2021 23:59	WG1614577
Indeno(1,2,3-cd)pyrene	0.0370	UL	0.0126	0.0333	0.0445	1	02/02/2021 23:59	WG1614577
Isophorone	U		0.0136	0.333	0.445	1	02/02/2021 23:59	WG1614577
2-Methylnaphthalene	U		0.00577	0.0333	0.0445	1	02/02/2021 23:59	WG1614577
Naphthalene	U		0.0112	0.0333	0.0445	1	02/02/2021 23:59	WG1614577
2-Nitroaniline	U		0.0143	0.333	0.445	1	02/02/2021 23:59	WG1614577
3-Nitroaniline	U		0.0142	0.333	0.445	1	02/02/2021 23:59	WG1614577
4-Nitroaniline	U		0.0130	0.333	0.445	1	02/02/2021 23:59	WG1614577
Nitrobenzene	U		0.0155	0.333	0.445	1	02/02/2021 23:59	WG1614577
n-Nitrosodimethylamine	U		0.0660	0.333	0.445	1	02/02/2021 23:59	WG1614577
n-Nitrosodiphenylamine	U		0.0337	0.333	0.445	1	02/02/2021 23:59	WG1614577
n-Nitrosodi-n-propylamine	U		0.0148	0.333	0.445	1	02/02/2021 23:59	WG1614577
Phenanthrene	0.0338	UL	0.00883	0.0333	0.0445	1	02/02/2021 23:59	WG1614577
Benzylbutyl phthalate	U		0.0139	0.333	0.445	1	02/02/2021 23:59	WG1614577
Bis(2-ethylhexyl)phthalate	0.0820	UL	0.0564	0.333	0.445	1	02/02/2021 23:59	WG1614577
Di-n-butyl phthalate	0.0180	UL	0.0152	0.333	0.445	1	02/02/2021 23:59	WG1614577
Diethyl phthalate	U		0.0147	0.333	0.445	1	02/02/2021 23:59	WG1614577
Dimethyl phthalate	U		0.0943	0.333	0.445	1	02/02/2021 23:59	WG1614577
Di-n-octyl phthalate	U		0.0300	0.333	0.445	1	02/02/2021 23:59	WG1614577
Pyrene	0.176		0.00865	0.0333	0.0445	1	02/02/2021 23:59	WG1614577
Pyridine	U		0.0294	0.333	0.445	1	02/02/2021 23:59	WG1614577
1,2,4-Trichlorobenzene	U		0.0139	0.333	0.445	1	02/02/2021 23:59	WG1614577
4-Chloro-3-methylphenol	U		0.0144	0.333	0.445	1	02/02/2021 23:59	WG1614577
2-Chlorophenol	U		0.0147	0.333	0.445	1	02/02/2021 23:59	WG1614577
2,4-Dichlorophenol	U		0.0130	0.333	0.445	1	02/02/2021 23:59	WG1614577
2,4-Dimethylphenol	U		0.0116	0.333	0.445	1	02/02/2021 23:59	WG1614577
4,6-Dinitro-2-methylphenol	U		0.101	0.333	0.445	1	02/02/2021 23:59	WG1614577

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc



Collected date/time: 01/26/21 10:35

L1311179

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
2,4-Dinitrophenol	U		0.104	0.333	0.445	1	02/02/2021 23:59	WG1614577
2-Methylphenol	U		0.0134	0.333	0.445	1	02/02/2021 23:59	WG1614577
3&4-Methyl Phenol	U		0.0139	0.333	0.445	1	02/02/2021 23:59	WG1614577
2-Nitrophenol	U		0.0159	0.333	0.445	1	02/02/2021 23:59	WG1614577
4-Nitrophenol	U		0.0139	0.333	0.445	1	02/02/2021 23:59	WG1614577
Pentachlorophenol	U		0.0120	0.333	0.445	1	02/02/2021 23:59	WG1614577
Phenol	U		0.0179	0.333	0.445	1	02/02/2021 23:59	WG1614577
2,4,5-Trichlorophenol	U		0.0151	0.333	0.445	1	02/02/2021 23:59	WG1614577
2,4,6-Trichlorophenol	U		0.0143	0.333	0.445	1	02/02/2021 23:59	WG1614577
(S) 2-Fluorophenol	78.7				12.0-120		02/02/2021 23:59	WG1614577
(S) Phenol-d5	76.1				10.0-120		02/02/2021 23:59	WG1614577
(S) Nitrobenzene-d5	63.2				10.0-122		02/02/2021 23:59	WG1614577
(S) 2-Fluorobiphenyl	72.7				15.0-120		02/02/2021 23:59	WG1614577
(S) 2,4,6-Tribromophenol	77.9				10.0-127		02/02/2021 23:59	WG1614577
(S) p-Terphenyl-d14	85.3				10.0-120		02/02/2021 23:59	WG1614577

¹ Cp² Tc³ Ss⁴ Cn⁵ Tr⁶ Sr⁷ Qc⁸ Gl⁹ Al¹⁰ Sc



Collected date/time: 01/26/21 11:10

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Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.7		1	02/03/2021 14:57	WG1614563

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Mercury	0.214		0.0210	0.0400	0.0467	1	02/03/2021 09:48	WG1614236

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Arsenic	13.0		0.604	2.00	2.33	1	01/30/2021 19:27	WG1613802
Barium	227		0.0994	0.500	0.583	1	01/30/2021 19:27	WG1613802
Cadmium	1.31		0.0550	0.500	0.583	1	01/30/2021 19:27	WG1613802
Chromium	22.5		0.155	1.00	1.17	1	01/30/2021 19:27	WG1613802
Lead	202		0.243	0.500	0.583	1	01/30/2021 19:27	WG1613802
Selenium	2.56		0.891	2.00	2.33	1	01/30/2021 19:27	WG1613802
Silver	U		0.148	1.00	1.17	1	01/30/2021 19:27	WG1613802

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Acetone	U		0.0725	0.0500	0.0994	1.56	01/30/2021 06:48	WG1613622
Benzene	U		0.000928	0.00100	0.00199	1.56	01/30/2021 06:48	WG1613622
Bromobenzene	U		0.00179	0.0125	0.0248	1.56	01/30/2021 06:48	WG1613622
Bromochloromethane	U		0.00112	0.00500	0.00994	1.56	01/30/2021 06:48	WG1613622
Bromodichloromethane	U		0.00144	0.00250	0.00497	1.56	01/30/2021 06:48	WG1613622
Bromoform	U		0.00233	0.0250	0.0497	1.56	01/30/2021 06:48	WG1613622
Bromomethane	U		0.00392	0.0125	0.0248	1.56	01/30/2021 06:48	WG1613622
n-Butylbenzene	U		0.0104	0.0125	0.0248	1.56	01/30/2021 06:48	WG1613622
sec-Butylbenzene	U		0.00572	0.0125	0.0248	1.56	01/30/2021 06:48	WG1613622
tert-Butylbenzene	U		0.00388	0.00500	0.00994	1.56	01/30/2021 06:48	WG1613622
Carbon disulfide	U		0.00139	0.0125	0.0248	1.56	01/30/2021 06:48	WG1613622
Carbon tetrachloride	U		0.00178	0.00500	0.00994	1.56	01/30/2021 06:48	WG1613622
Chlorobenzene	U		0.000417	0.00250	0.00497	1.56	01/30/2021 06:48	WG1613622
Chlorodibromomethane	U		0.00122	0.00250	0.00497	1.56	01/30/2021 06:48	WG1613622
Chloroethane	U		0.00338	0.00500	0.00994	1.56	01/30/2021 06:48	WG1613622
Chloroform	U		0.00205	0.00250	0.00497	1.56	01/30/2021 06:48	WG1613622
Chloromethane	U		0.00864	0.0125	0.0248	1.56	01/30/2021 06:48	WG1613622
2-Chlorotoluene	U		0.00172	0.00250	0.00497	1.56	01/30/2021 06:48	WG1613622
4-Chlorotoluene	U		0.000894	0.00500	0.00994	1.56	01/30/2021 06:48	WG1613622
1,2-Dibromo-3-Chloropropane	U		0.00775	0.0250	0.0497	1.56	01/30/2021 06:48	WG1613622
1,2-Dibromoethane	U		0.00129	0.00250	0.00497	1.56	01/30/2021 06:48	WG1613622
Dibromomethane	U		0.00149	0.00500	0.00994	1.56	01/30/2021 06:48	WG1613622
1,2-Dichlorobenzene	U		0.000845	0.00500	0.00994	1.56	01/30/2021 06:48	WG1613622
1,3-Dichlorobenzene	U		0.00119	0.00500	0.00994	1.56	01/30/2021 06:48	WG1613622
1,4-Dichlorobenzene	U		0.00139	0.00500	0.00994	1.56	01/30/2021 06:48	WG1613622
Dichlorodifluoromethane	U		0.00320	0.00250	0.00497	1.56	01/30/2021 06:48	WG1613622
1,1-Dichloroethane	U		0.000976	0.00250	0.00497	1.56	01/30/2021 06:48	WG1613622
1,2-Dichloroethane	U		0.00129	0.00250	0.00497	1.56	01/30/2021 06:48	WG1613622
1,1-Dichloroethene	U		0.00120	0.00250	0.00497	1.56	01/30/2021 06:48	WG1613622
cis-1,2-Dichloroethene	U		0.00146	0.00250	0.00497	1.56	01/30/2021 06:48	WG1613622
trans-1,2-Dichloroethene	U	J4	0.00207	0.00500	0.00994	1.56	01/30/2021 06:48	WG1613622
1,2-Dichloropropane	U		0.00282	0.00500	0.00994	1.56	01/30/2021 06:48	WG1613622
1,1-Dichloropropene	U		0.00161	0.00250	0.00497	1.56	01/30/2021 06:48	WG1613622





Collected date/time: 01/26/21 11:10

L1311179

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,3-Dichloropropane	U		0.000996	0.00500	0.00994	1.56	01/30/2021 06:48	WG1613622
cis-1,3-Dichloropropene	U		0.00150	0.00250	0.00497	1.56	01/30/2021 06:48	WG1613622
trans-1,3-Dichloropropene	U		0.00227	0.00500	0.00994	1.56	01/30/2021 06:48	WG1613622
2,2-Dichloropropane	U		0.00274	0.00250	0.00497	1.56	01/30/2021 06:48	WG1613622
Ethylbenzene	U		0.00146	0.00250	0.00497	1.56	01/30/2021 06:48	WG1613622
Hexachloro-1,3-butadiene	U		0.0119	0.0250	0.0497	1.56	01/30/2021 06:48	WG1613622
2-Hexanone	U		0.00668	0.0250	0.0497	1.56	01/30/2021 06:48	WG1613622
Isopropylbenzene	U		0.000845	0.00250	0.00497	1.56	01/30/2021 06:48	WG1613622
p-Isopropyltoluene	U		0.00507	0.00500	0.00994	1.56	01/30/2021 06:48	WG1613622
2-Butanone (MEK)	U		0.126	0.100	0.199	1.56	01/30/2021 06:48	WG1613622
Methylene Chloride	U		0.0132	0.0250	0.0497	1.56	01/30/2021 06:48	WG1613622
4-Methyl-2-pentanone (MIBK)	U		0.00453	0.0250	0.0497	1.56	01/30/2021 06:48	WG1613622
Methyl tert-butyl ether	U		0.000696	0.00100	0.00199	1.56	01/30/2021 06:48	WG1613622
Naphthalene	U		0.00970	0.0125	0.0248	1.56	01/30/2021 06:48	WG1613622
n-Propylbenzene	U		0.00189	0.00500	0.00994	1.56	01/30/2021 06:48	WG1613622
Styrene	U		0.000455	0.0125	0.0248	1.56	01/30/2021 06:48	WG1613622
1,1,1,2-Tetrachloroethane	U		0.00188	0.00250	0.00497	1.56	01/30/2021 06:48	WG1613622
1,1,2,2-Tetrachloroethane	U		0.00138	0.00250	0.00497	1.56	01/30/2021 06:48	WG1613622
Tetrachloroethene	U		0.00178	0.00250	0.00497	1.56	01/30/2021 06:48	WG1613622
Toluene	0.00581	BJ	0.00258	0.00500	0.00994	1.56	01/30/2021 06:48	WG1613622
1,2,3-Trichlorobenzene	U		0.0146	0.0125	0.0248	1.56	01/30/2021 06:48	WG1613622
1,2,4-Trichlorobenzene	U		0.00874	0.0125	0.0248	1.56	01/30/2021 06:48	WG1613622
1,1,1-Trichloroethane	U	J4	0.00183	0.00250	0.00497	1.56	01/30/2021 06:48	WG1613622
1,1,2-Trichloroethane	U		0.00119	0.00250	0.00497	1.56	01/30/2021 06:48	WG1613622
Trichloroethene	U	J4	0.00116	0.00100	0.00199	1.56	01/30/2021 06:48	WG1613622
Trichlorofluoromethane	U		0.00164	0.00250	0.00497	1.56	01/30/2021 06:48	WG1613622
1,2,3-Trichloropropane	U		0.00322	0.0125	0.0248	1.56	01/30/2021 06:48	WG1613622
1,2,4-Trimethylbenzene	U		0.00314	0.00500	0.00994	1.56	01/30/2021 06:48	WG1613622
1,3,5-Trimethylbenzene	U		0.00397	0.00500	0.00994	1.56	01/30/2021 06:48	WG1613622
Vinyl chloride	U		0.00231	0.00250	0.00497	1.56	01/30/2021 06:48	WG1613622
Xylenes, Total	0.00750	J	0.00175	0.00650	0.0129	1.56	01/30/2021 06:48	WG1613622
(S) Toluene-d8	101				75.0-131		01/30/2021 06:48	WG1613622
(S) 4-Bromofluorobenzene	101				67.0-138		01/30/2021 06:48	WG1613622
(S) 1,2-Dichloroethane-d4	87.4				70.0-130		01/30/2021 06:48	WG1613622

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

TPH by TCEQ Method 1005

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		28.9	50.0	96.3	1.65	02/03/2021 18:05	WG1615114
TPH C12 - C28	U		28.9	50.0	96.3	1.65	02/03/2021 18:05	WG1615114
TPH C28 - C35	U		28.9	50.0	96.3	1.65	02/03/2021 18:05	WG1615114
TPH C6 - C35	U		28.9	50.0	96.3	1.65	02/03/2021 18:05	WG1615114
(S) o-Terphenyl	81.4				70.0-130		02/03/2021 18:05	WG1615114

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.00629	0.0333	0.0389	1	02/02/2021 22:55	WG1614577
Acenaphthylene	0.00649	J	0.00547	0.0333	0.0389	1	02/02/2021 22:55	WG1614577
Anthracene	0.0117	J	0.00692	0.0333	0.0389	1	02/02/2021 22:55	WG1614577
Benzo(a)anthracene	0.0354	J	0.00685	0.0333	0.0389	1	02/02/2021 22:55	WG1614577
Benzo(b)fluoranthene	0.0523		0.00725	0.0333	0.0389	1	02/02/2021 22:55	WG1614577
Benzo(k)fluoranthene	0.0186	J	0.00691	0.0333	0.0389	1	02/02/2021 22:55	WG1614577
Benzo(g,h,i)perylene	0.0295	J	0.00711	0.0333	0.0389	1	02/02/2021 22:55	WG1614577
Benzo(a)pyrene	0.0351	J	0.00722	0.0333	0.0389	1	02/02/2021 22:55	WG1614577



Collected date/time: 01/26/21 11:10

L1311179

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzoic acid	U		0.138	1.67	1.95	1	02/02/2021 22:55	WG1614577
Benzyl alcohol	U		0.0144	0.333	0.389	1	02/02/2021 22:55	WG1614577
Bis(2-chlorethoxy)methane	U		0.0117	0.333	0.389	1	02/02/2021 22:55	WG1614577
Bis(2-chloroethyl)ether	U		0.0128	0.333	0.389	1	02/02/2021 22:55	WG1614577
2,2-Oxybis(1-Chloropropane)	U		0.0168	0.333	0.389	1	02/02/2021 22:55	WG1614577
4-Bromophenyl-phenylether	U		0.0137	0.333	0.389	1	02/02/2021 22:55	WG1614577
Carbazole	U		0.0120	0.333	0.389	1	02/02/2021 22:55	WG1614577
2-Chloronaphthalene	U		0.00683	0.0333	0.0389	1	02/02/2021 22:55	WG1614577
4-Chloroaniline	U		0.0140	0.333	0.389	1	02/02/2021 22:55	WG1614577
4-Chlorophenyl-phenylether	U		0.0135	0.333	0.389	1	02/02/2021 22:55	WG1614577
Chrysene	0.0355	L	0.00772	0.0333	0.0389	1	02/02/2021 22:55	WG1614577
Dibenz(a,h)anthracene	U		0.0108	0.0333	0.0389	1	02/02/2021 22:55	WG1614577
Dibenzofuran	U		0.0127	0.333	0.389	1	02/02/2021 22:55	WG1614577
3,3-Dichlorobenzidine	U		0.0144	0.333	0.389	1	02/02/2021 22:55	WG1614577
2,4-Dinitrotoluene	U		0.0111	0.333	0.389	1	02/02/2021 22:55	WG1614577
2,6-Dinitrotoluene	U		0.0127	0.333	0.389	1	02/02/2021 22:55	WG1614577
Fluoranthene	0.0749		0.00701	0.0333	0.0389	1	02/02/2021 22:55	WG1614577
Fluorene	U		0.00632	0.0333	0.0389	1	02/02/2021 22:55	WG1614577
Hexachlorobenzene	U		0.0138	0.333	0.389	1	02/02/2021 22:55	WG1614577
Hexachloro-1,3-butadiene	U		0.0131	0.333	0.389	1	02/02/2021 22:55	WG1614577
Hexachlorocyclopentadiene	U		0.0204	0.333	0.389	1	02/02/2021 22:55	WG1614577
Hexachloroethane	U		0.0153	0.333	0.389	1	02/02/2021 22:55	WG1614577
Indeno(1,2,3-cd)pyrene	0.0240	L	0.0110	0.0333	0.0389	1	02/02/2021 22:55	WG1614577
Isophorone	U		0.0119	0.333	0.389	1	02/02/2021 22:55	WG1614577
2-Methylnaphthalene	U		0.00504	0.0333	0.0389	1	02/02/2021 22:55	WG1614577
Naphthalene	U		0.00975	0.0333	0.0389	1	02/02/2021 22:55	WG1614577
2-Nitroaniline	U		0.0125	0.333	0.389	1	02/02/2021 22:55	WG1614577
3-Nitroaniline	U		0.0124	0.333	0.389	1	02/02/2021 22:55	WG1614577
4-Nitroaniline	U		0.0113	0.333	0.389	1	02/02/2021 22:55	WG1614577
Nitrobenzene	U		0.0135	0.333	0.389	1	02/02/2021 22:55	WG1614577
n-Nitrosodimethylamine	U		0.0576	0.333	0.389	1	02/02/2021 22:55	WG1614577
n-Nitrosodiphenylamine	U		0.0294	0.333	0.389	1	02/02/2021 22:55	WG1614577
n-Nitrosodi-n-propylamine	U		0.0130	0.333	0.389	1	02/02/2021 22:55	WG1614577
Phenanthrene	0.0348	L	0.00771	0.0333	0.0389	1	02/02/2021 22:55	WG1614577
Benzylbutyl phthalate	U		0.0121	0.333	0.389	1	02/02/2021 22:55	WG1614577
Bis(2-ethylhexyl)phthalate	U		0.0492	0.333	0.389	1	02/02/2021 22:55	WG1614577
Di-n-butyl phthalate	U		0.0133	0.333	0.389	1	02/02/2021 22:55	WG1614577
Diethyl phthalate	U		0.0128	0.333	0.389	1	02/02/2021 22:55	WG1614577
Dimethyl phthalate	U		0.0824	0.333	0.389	1	02/02/2021 22:55	WG1614577
Di-n-octyl phthalate	U		0.0263	0.333	0.389	1	02/02/2021 22:55	WG1614577
Pyrene	0.0762		0.00756	0.0333	0.0389	1	02/02/2021 22:55	WG1614577
Pyridine	U		0.0257	0.333	0.389	1	02/02/2021 22:55	WG1614577
1,2,4-Trichlorobenzene	U		0.0121	0.333	0.389	1	02/02/2021 22:55	WG1614577
4-Chloro-3-methylphenol	U		0.0126	0.333	0.389	1	02/02/2021 22:55	WG1614577
2-Chlorophenol	U		0.0128	0.333	0.389	1	02/02/2021 22:55	WG1614577
2,4-Dichlorophenol	U		0.0113	0.333	0.389	1	02/02/2021 22:55	WG1614577
2,4-Dimethylphenol	U		0.0102	0.333	0.389	1	02/02/2021 22:55	WG1614577
4,6-Dinitro-2-methylphenol	U		0.0881	0.333	0.389	1	02/02/2021 22:55	WG1614577
2,4-Dinitrophenol	U		0.0909	0.333	0.389	1	02/02/2021 22:55	WG1614577
2-Methylphenol	U		0.0117	0.333	0.389	1	02/02/2021 22:55	WG1614577
3&4-Methyl Phenol	U		0.0121	0.333	0.389	1	02/02/2021 22:55	WG1614577
2-Nitrophenol	U		0.0139	0.333	0.389	1	02/02/2021 22:55	WG1614577
4-Nitrophenol	U		0.0121	0.333	0.389	1	02/02/2021 22:55	WG1614577
Pentachlorophenol	U		0.0105	0.333	0.389	1	02/02/2021 22:55	WG1614577
Phenol	U		0.0156	0.333	0.389	1	02/02/2021 22:55	WG1614577
2,4,5-Trichlorophenol	U		0.0132	0.333	0.389	1	02/02/2021 22:55	WG1614577

¹ Cp
² Tc
³ Ss
⁴ Cn
⁵ Tr
⁶ Sr
⁷ Qc
⁸ Gl
⁹ Al
¹⁰ Sc

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
2,4,6-Trichlorophenol	U		0.0125	0.333	0.389	1	02/02/2021 22:55	WG1614577
(S) 2-Fluorophenol	68.1				12.0-120		02/02/2021 22:55	WG1614577
(S) Phenol-d5	63.5				10.0-120		02/02/2021 22:55	WG1614577
(S) Nitrobenzene-d5	55.6				10.0-122		02/02/2021 22:55	WG1614577
(S) 2-Fluorobiphenyl	60.2				15.0-120		02/02/2021 22:55	WG1614577
(S) 2,4,6-Tribromophenol	60.0				10.0-127		02/02/2021 22:55	WG1614577
(S) p-Terphenyl-d14	65.7				10.0-120		02/02/2021 22:55	WG1614577

1

Cp

2

Tc

3

Ss

4

Cn

5

Tr

6

Sr

7

Qc

8

Gl

9

Al

10

Sc



Collected date/time: 01/26/21 15:15

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Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.4		1	02/03/2021 14:57	WG1614563

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Mercury	0.0657		0.0193	0.0400	0.0428	1	02/03/2021 09:55	WG1614236

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Arsenic	8.56		0.555	2.00	2.14	1	01/30/2021 19:35	WG1613802
Barium	102		0.0912	0.500	0.535	1	01/30/2021 19:35	WG1613802
Cadmium	1.24		0.0504	0.500	0.535	1	01/30/2021 19:35	WG1613802
Chromium	23.1		0.142	1.00	1.07	1	01/30/2021 19:35	WG1613802
Lead	64.4		0.223	0.500	0.535	1	01/30/2021 19:35	WG1613802
Selenium	1.32	J	0.818	2.00	2.14	1	01/30/2021 19:35	WG1613802
Silver	0.832	J	0.136	1.00	1.07	1	01/30/2021 19:35	WG1613802

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Acetone	U		0.0417	0.0500	0.0571	1	01/30/2021 07:07	WG1613622
Benzene	U		0.000533	0.00100	0.00114	1	01/30/2021 07:07	WG1613622
Bromobenzene	U		0.00103	0.0125	0.0143	1	01/30/2021 07:07	WG1613622
Bromochloromethane	U		0.000644	0.00500	0.00571	1	01/30/2021 07:07	WG1613622
Bromodichloromethane	U		0.000828	0.00250	0.00285	1	01/30/2021 07:07	WG1613622
Bromoform	U		0.00134	0.0250	0.0285	1	01/30/2021 07:07	WG1613622
Bromomethane	U		0.00225	0.0125	0.0143	1	01/30/2021 07:07	WG1613622
n-Butylbenzene	U		0.00599	0.0125	0.0143	1	01/30/2021 07:07	WG1613622
sec-Butylbenzene	U		0.00329	0.0125	0.0143	1	01/30/2021 07:07	WG1613622
tert-Butylbenzene	U		0.00223	0.00500	0.00571	1	01/30/2021 07:07	WG1613622
Carbon disulfide	U		0.000799	0.0125	0.0143	1	01/30/2021 07:07	WG1613622
Carbon tetrachloride	U		0.00103	0.00500	0.00571	1	01/30/2021 07:07	WG1613622
Chlorobenzene	U		0.000240	0.00250	0.00285	1	01/30/2021 07:07	WG1613622
Chlorodibromomethane	U		0.000699	0.00250	0.00285	1	01/30/2021 07:07	WG1613622
Chloroethane	U		0.00194	0.00500	0.00571	1	01/30/2021 07:07	WG1613622
Chloroform	U		0.00118	0.00250	0.00285	1	01/30/2021 07:07	WG1613622
Chloromethane	U		0.00497	0.0125	0.0143	1	01/30/2021 07:07	WG1613622
2-Chlorotoluene	U		0.000988	0.00250	0.00285	1	01/30/2021 07:07	WG1613622
4-Chlorotoluene	U		0.000514	0.00500	0.00571	1	01/30/2021 07:07	WG1613622
1,2-Dibromo-3-Chloropropane	U		0.00445	0.0250	0.0285	1	01/30/2021 07:07	WG1613622
1,2-Dibromoethane	U		0.000740	0.00250	0.00285	1	01/30/2021 07:07	WG1613622
Dibromomethane	U		0.000856	0.00500	0.00571	1	01/30/2021 07:07	WG1613622
1,2-Dichlorobenzene	U		0.000485	0.00500	0.00571	1	01/30/2021 07:07	WG1613622
1,3-Dichlorobenzene	U		0.000685	0.00500	0.00571	1	01/30/2021 07:07	WG1613622
1,4-Dichlorobenzene	U		0.000799	0.00500	0.00571	1	01/30/2021 07:07	WG1613622
Dichlorodifluoromethane	U		0.00184	0.00250	0.00285	1	01/30/2021 07:07	WG1613622
1,1-Dichloroethane	U		0.000561	0.00250	0.00285	1	01/30/2021 07:07	WG1613622
1,2-Dichloroethane	U		0.000741	0.00250	0.00285	1	01/30/2021 07:07	WG1613622
1,1-Dichloroethene	U		0.000692	0.00250	0.00285	1	01/30/2021 07:07	WG1613622
cis-1,2-Dichloroethene	U		0.000838	0.00250	0.00285	1	01/30/2021 07:07	WG1613622
trans-1,2-Dichloroethene	U	J4	0.00119	0.00500	0.00571	1	01/30/2021 07:07	WG1613622
1,2-Dichloropropane	U		0.00162	0.00500	0.00571	1	01/30/2021 07:07	WG1613622
1,1-Dichloropropene	U		0.000924	0.00250	0.00285	1	01/30/2021 07:07	WG1613622





Collected date/time: 01/26/21 15:15

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,3-Dichloropropane	U		0.000572	0.00500	0.00571	1	01/30/2021 07:07	WG1613622
cis-1,3-Dichloropropene	U		0.000864	0.00250	0.00285	1	01/30/2021 07:07	WG1613622
trans-1,3-Dichloropropene	U		0.00130	0.00500	0.00571	1	01/30/2021 07:07	WG1613622
2,2-Dichloropropane	U		0.00158	0.00250	0.00285	1	01/30/2021 07:07	WG1613622
Ethylbenzene	U		0.000841	0.00250	0.00285	1	01/30/2021 07:07	WG1613622
Hexachloro-1,3-butadiene	U		0.00685	0.0250	0.0285	1	01/30/2021 07:07	WG1613622
2-Hexanone	U		0.00384	0.0250	0.0285	1	01/30/2021 07:07	WG1613622
Isopropylbenzene	U		0.000485	0.00250	0.00285	1	01/30/2021 07:07	WG1613622
p-Isopropyltoluene	U		0.00291	0.00500	0.00571	1	01/30/2021 07:07	WG1613622
2-Butanone (MEK)	U		0.0725	0.100	0.114	1	01/30/2021 07:07	WG1613622
Methylene Chloride	U		0.00758	0.0250	0.0285	1	01/30/2021 07:07	WG1613622
4-Methyl-2-pentanone (MIBK)	U		0.00260	0.0250	0.0285	1	01/30/2021 07:07	WG1613622
Methyl tert-butyl ether	U		0.000400	0.00100	0.00114	1	01/30/2021 07:07	WG1613622
Naphthalene	U		0.00557	0.0125	0.0143	1	01/30/2021 07:07	WG1613622
n-Propylbenzene	U		0.00108	0.00500	0.00571	1	01/30/2021 07:07	WG1613622
Styrene	U		0.000261	0.0125	0.0143	1	01/30/2021 07:07	WG1613622
1,1,1,2-Tetrachloroethane	U		0.00108	0.00250	0.00285	1	01/30/2021 07:07	WG1613622
1,1,2,2-Tetrachloroethane	U		0.000793	0.00250	0.00285	1	01/30/2021 07:07	WG1613622
Tetrachloroethene	U		0.00102	0.00250	0.00285	1	01/30/2021 07:07	WG1613622
Toluene	0.00374	B J	0.00148	0.00500	0.00571	1	01/30/2021 07:07	WG1613622
1,2,3-Trichlorobenzene	U		0.00837	0.0125	0.0143	1	01/30/2021 07:07	WG1613622
1,2,4-Trichlorobenzene	U		0.00502	0.0125	0.0143	1	01/30/2021 07:07	WG1613622
1,1,1-Trichloroethane	U	J4	0.00105	0.00250	0.00285	1	01/30/2021 07:07	WG1613622
1,1,2-Trichloroethane	U		0.000682	0.00250	0.00285	1	01/30/2021 07:07	WG1613622
Trichloroethene	U	J4	0.000667	0.00100	0.00114	1	01/30/2021 07:07	WG1613622
Trichlorofluoromethane	U		0.000944	0.00250	0.00285	1	01/30/2021 07:07	WG1613622
1,2,3-Trichloropropane	U		0.00185	0.0125	0.0143	1	01/30/2021 07:07	WG1613622
1,2,4-Trimethylbenzene	U		0.00180	0.00500	0.00571	1	01/30/2021 07:07	WG1613622
1,3,5-Trimethylbenzene	U		0.00228	0.00500	0.00571	1	01/30/2021 07:07	WG1613622
Vinyl chloride	U		0.00132	0.00250	0.00285	1	01/30/2021 07:07	WG1613622
Xylenes, Total	0.00537	J	0.00100	0.00650	0.00742	1	01/30/2021 07:07	WG1613622
(S) Toluene-d8	103				75.0-131		01/30/2021 07:07	WG1613622
(S) 4-Bromofluorobenzene	97.9				67.0-138		01/30/2021 07:07	WG1613622
(S) 1,2-Dichloroethane-d4	90.9				70.0-130		01/30/2021 07:07	WG1613622

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

TPH by TCEQ Method 1005

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		16.1	50.0	53.5	1	02/03/2021 18:20	WG1615114
TPH C12 - C28	U		16.1	50.0	53.5	1	02/03/2021 18:20	WG1615114
TPH C28 - C35	U		16.1	50.0	53.5	1	02/03/2021 18:20	WG1615114
TPH C6 - C35	U		16.1	50.0	53.5	1	02/03/2021 18:20	WG1615114
(S) o-Terphenyl	81.2				70.0-130		02/03/2021 18:20	WG1615114

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	0.00614	J	0.00577	0.0333	0.0357	1	02/02/2021 23:38	WG1614577
Acenaphthylene	0.00929	J	0.00502	0.0333	0.0357	1	02/02/2021 23:38	WG1614577
Anthracene	0.0228	J	0.00635	0.0333	0.0357	1	02/02/2021 23:38	WG1614577
Benzo(a)anthracene	0.130		0.00629	0.0333	0.0357	1	02/02/2021 23:38	WG1614577
Benzo(b)fluoranthene	0.180		0.00665	0.0333	0.0357	1	02/02/2021 23:38	WG1614577
Benzo(k)fluoranthene	0.0622		0.00634	0.0333	0.0357	1	02/02/2021 23:38	WG1614577
Benzo(g,h,i)perylene	0.0708		0.00652	0.0333	0.0357	1	02/02/2021 23:38	WG1614577
Benzo(a)pyrene	0.119		0.00663	0.0333	0.0357	1	02/02/2021 23:38	WG1614577



Collected date/time: 01/26/21 15:15

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzoic acid	U		0.126	1.67	1.79	1	02/02/2021 23:38	WG1614577
Benzyl alcohol	U		0.0132	0.333	0.357	1	02/02/2021 23:38	WG1614577
Bis(2-chlorethoxy)methane	U		0.0107	0.333	0.357	1	02/02/2021 23:38	WG1614577
Bis(2-chloroethyl)ether	U		0.0118	0.333	0.357	1	02/02/2021 23:38	WG1614577
2,2-Oxybis(1-Chloropropane)	U		0.0154	0.333	0.357	1	02/02/2021 23:38	WG1614577
4-Bromophenyl-phenylether	U		0.0125	0.333	0.357	1	02/02/2021 23:38	WG1614577
Carbazole	0.0110	L	0.0110	0.333	0.357	1	02/02/2021 23:38	WG1614577
2-Chloronaphthalene	U		0.00626	0.0333	0.0357	1	02/02/2021 23:38	WG1614577
4-Chloroaniline	U		0.0128	0.333	0.357	1	02/02/2021 23:38	WG1614577
4-Chlorophenyl-phenylether	U		0.0124	0.333	0.357	1	02/02/2021 23:38	WG1614577
Chrysene	0.125		0.00709	0.0333	0.0357	1	02/02/2021 23:38	WG1614577
Dibenz(a,h)anthracene	0.0161	L	0.00988	0.0333	0.0357	1	02/02/2021 23:38	WG1614577
Dibenzofuran	U		0.0117	0.333	0.357	1	02/02/2021 23:38	WG1614577
3,3-Dichlorobenzidine	U		0.0132	0.333	0.357	1	02/02/2021 23:38	WG1614577
2,4-Dinitrotoluene	U		0.0102	0.333	0.357	1	02/02/2021 23:38	WG1614577
2,6-Dinitrotoluene	U		0.0117	0.333	0.357	1	02/02/2021 23:38	WG1614577
Fluoranthene	0.202		0.00644	0.0333	0.0357	1	02/02/2021 23:38	WG1614577
Fluorene	U		0.00580	0.0333	0.0357	1	02/02/2021 23:38	WG1614577
Hexachlorobenzene	U		0.0126	0.333	0.357	1	02/02/2021 23:38	WG1614577
Hexachloro-1,3-butadiene	U		0.0120	0.333	0.357	1	02/02/2021 23:38	WG1614577
Hexachlorocyclopentadiene	U		0.0187	0.333	0.357	1	02/02/2021 23:38	WG1614577
Hexachloroethane	U		0.0140	0.333	0.357	1	02/02/2021 23:38	WG1614577
Indeno(1,2,3-cd)pyrene	0.0708		0.0101	0.0333	0.0357	1	02/02/2021 23:38	WG1614577
Isophorone	U		0.0109	0.333	0.357	1	02/02/2021 23:38	WG1614577
2-Methylnaphthalene	0.00543	L	0.00463	0.0333	0.0357	1	02/02/2021 23:38	WG1614577
Naphthalene	U		0.00895	0.0333	0.0357	1	02/02/2021 23:38	WG1614577
2-Nitroaniline	U		0.0115	0.333	0.357	1	02/02/2021 23:38	WG1614577
3-Nitroaniline	U		0.0114	0.333	0.357	1	02/02/2021 23:38	WG1614577
4-Nitroaniline	U		0.0104	0.333	0.357	1	02/02/2021 23:38	WG1614577
Nitrobenzene	U		0.0124	0.333	0.357	1	02/02/2021 23:38	WG1614577
n-Nitrosodimethylamine	U		0.0529	0.333	0.357	1	02/02/2021 23:38	WG1614577
n-Nitrosodiphenylamine	U		0.0270	0.333	0.357	1	02/02/2021 23:38	WG1614577
n-Nitrosodi-n-propylamine	U		0.0119	0.333	0.357	1	02/02/2021 23:38	WG1614577
Phenanthrene	0.0784		0.00708	0.0333	0.0357	1	02/02/2021 23:38	WG1614577
Benzylbutyl phthalate	U		0.0111	0.333	0.357	1	02/02/2021 23:38	WG1614577
Bis(2-ethylhexyl)phthalate	0.0557	L	0.0452	0.333	0.357	1	02/02/2021 23:38	WG1614577
Di-n-butyl phthalate	U		0.0122	0.333	0.357	1	02/02/2021 23:38	WG1614577
Diethyl phthalate	U		0.0118	0.333	0.357	1	02/02/2021 23:38	WG1614577
Dimethyl phthalate	U		0.0756	0.333	0.357	1	02/02/2021 23:38	WG1614577
Di-n-octyl phthalate	U		0.0241	0.333	0.357	1	02/02/2021 23:38	WG1614577
Pyrene	0.200		0.00694	0.0333	0.0357	1	02/02/2021 23:38	WG1614577
Pyridine	U		0.0236	0.333	0.357	1	02/02/2021 23:38	WG1614577
1,2,4-Trichlorobenzene	U		0.0111	0.333	0.357	1	02/02/2021 23:38	WG1614577
4-Chloro-3-methylphenol	U		0.0116	0.333	0.357	1	02/02/2021 23:38	WG1614577
2-Chlorophenol	U		0.0118	0.333	0.357	1	02/02/2021 23:38	WG1614577
2,4-Dichlorophenol	U		0.0104	0.333	0.357	1	02/02/2021 23:38	WG1614577
2,4-Dimethylphenol	U		0.00932	0.333	0.357	1	02/02/2021 23:38	WG1614577
4,6-Dinitro-2-methylphenol	U		0.0808	0.333	0.357	1	02/02/2021 23:38	WG1614577
2,4-Dinitrophenol	U		0.0834	0.333	0.357	1	02/02/2021 23:38	WG1614577
2-Methylphenol	U		0.0107	0.333	0.357	1	02/02/2021 23:38	WG1614577
3&4-Methyl Phenol	U		0.0111	0.333	0.357	1	02/02/2021 23:38	WG1614577
2-Nitrophenol	U		0.0127	0.333	0.357	1	02/02/2021 23:38	WG1614577
4-Nitrophenol	U		0.0111	0.333	0.357	1	02/02/2021 23:38	WG1614577
Pentachlorophenol	U		0.00959	0.333	0.357	1	02/02/2021 23:38	WG1614577
Phenol	U		0.0143	0.333	0.357	1	02/02/2021 23:38	WG1614577
2,4,5-Trichlorophenol	U		0.0121	0.333	0.357	1	02/02/2021 23:38	WG1614577

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
2,4,6-Trichlorophenol	U		0.0115	0.333	0.357	1	02/02/2021 23:38	WG1614577
(S) 2-Fluorophenol	75.0				12.0-120		02/02/2021 23:38	WG1614577
(S) Phenol-d5	70.1				10.0-120		02/02/2021 23:38	WG1614577
(S) Nitrobenzene-d5	64.3				10.0-122		02/02/2021 23:38	WG1614577
(S) 2-Fluorobiphenyl	67.1				15.0-120		02/02/2021 23:38	WG1614577
(S) 2,4,6-Tribromophenol	62.8				10.0-127		02/02/2021 23:38	WG1614577
(S) p-Terphenyl-d14	71.6				10.0-120		02/02/2021 23:38	WG1614577

1

Cp

2

Tc

3

Ss

4

Cn

5

Tr

6

Sr

7

Qc

8

Gl

9

Al

10

Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	90.6		1	02/03/2021 14:57	WG1614563

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	8.57	T8	1	02/02/2021 00:57	WG1614203

Sample Narrative:

L1311179-14 WG1614203: 8.57 at 20.3C

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis date / time	Batch
Mercury	0.0739		0.0199	0.0400	0.0442	1	02/03/2021 09:57	WG1614236

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis date / time	Batch
Arsenic	27.1		0.572	2.00	2.21	1	01/30/2021 19:38	WG1613802
Barium	335		0.0941	0.500	0.552	1	01/30/2021 19:38	WG1613802
Cadmium	1.19		0.0520	0.500	0.552	1	01/30/2021 19:38	WG1613802
Chromium	12.6		0.147	1.00	1.10	1	01/30/2021 19:38	WG1613802
Lead	186		0.230	0.500	0.552	1	01/30/2021 19:38	WG1613802
Selenium	1.19	J	0.843	2.00	2.21	1	01/30/2021 19:38	WG1613802
Silver	U		0.140	1.00	1.10	1	01/30/2021 19:38	WG1613802

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.0450	0.0500	0.0616	1	01/30/2021 07:26	WG1613622
Benzene	U		0.000575	0.00100	0.00123	1	01/30/2021 07:26	WG1613622
Bromobenzene	U		0.00111	0.0125	0.0154	1	01/30/2021 07:26	WG1613622
Bromochloromethane	U		0.000695	0.00500	0.00616	1	01/30/2021 07:26	WG1613622
Bromodichloromethane	U		0.000893	0.00250	0.00308	1	01/30/2021 07:26	WG1613622
Bromoform	U		0.00144	0.0250	0.0308	1	01/30/2021 07:26	WG1613622
Bromomethane	U		0.00243	0.0125	0.0154	1	01/30/2021 07:26	WG1613622
n-Butylbenzene	U		0.00647	0.0125	0.0154	1	01/30/2021 07:26	WG1613622
sec-Butylbenzene	U		0.00355	0.0125	0.0154	1	01/30/2021 07:26	WG1613622
tert-Butylbenzene	U		0.00240	0.00500	0.00616	1	01/30/2021 07:26	WG1613622
Carbon disulfide	U		0.000862	0.0125	0.0154	1	01/30/2021 07:26	WG1613622
Carbon tetrachloride	U		0.00111	0.00500	0.00616	1	01/30/2021 07:26	WG1613622
Chlorobenzene	U		0.000259	0.00250	0.00308	1	01/30/2021 07:26	WG1613622
Chlorodibromomethane	U		0.000754	0.00250	0.00308	1	01/30/2021 07:26	WG1613622
Chloroethane	U		0.00209	0.00500	0.00616	1	01/30/2021 07:26	WG1613622
Chloroform	U		0.00127	0.00250	0.00308	1	01/30/2021 07:26	WG1613622
Chloromethane	U		0.00536	0.0125	0.0154	1	01/30/2021 07:26	WG1613622
2-Chlorotoluene	U		0.00107	0.00250	0.00308	1	01/30/2021 07:26	WG1613622
4-Chlorotoluene	U		0.000554	0.00500	0.00616	1	01/30/2021 07:26	WG1613622
1,2-Dibromo-3-Chloropropane	U		0.00481	0.0250	0.0308	1	01/30/2021 07:26	WG1613622
1,2-Dibromoethane	U		0.000798	0.00250	0.00308	1	01/30/2021 07:26	WG1613622
Dibromomethane	U		0.000924	0.00500	0.00616	1	01/30/2021 07:26	WG1613622
1,2-Dichlorobenzene	U		0.000524	0.00500	0.00616	1	01/30/2021 07:26	WG1613622
1,3-Dichlorobenzene	U		0.000739	0.00500	0.00616	1	01/30/2021 07:26	WG1613622
1,4-Dichlorobenzene	U		0.000862	0.00500	0.00616	1	01/30/2021 07:26	WG1613622



Collected date/time: 01/27/21 13:20

L1311179

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	U		0.00198	0.00250	0.00308	1	01/30/2021 07:26	WG1613622
1,1-Dichloroethane	U		0.000605	0.00250	0.00308	1	01/30/2021 07:26	WG1613622
1,2-Dichloroethane	U		0.000800	0.00250	0.00308	1	01/30/2021 07:26	WG1613622
1,1-Dichloroethene	U		0.000747	0.00250	0.00308	1	01/30/2021 07:26	WG1613622
cis-1,2-Dichloroethene	U		0.000904	0.00250	0.00308	1	01/30/2021 07:26	WG1613622
trans-1,2-Dichloroethene	U	J4	0.00128	0.00500	0.00616	1	01/30/2021 07:26	WG1613622
1,2-Dichloropropane	U		0.00175	0.00500	0.00616	1	01/30/2021 07:26	WG1613622
1,1-Dichloropropene	U		0.000997	0.00250	0.00308	1	01/30/2021 07:26	WG1613622
1,3-Dichloropropane	U		0.000617	0.00500	0.00616	1	01/30/2021 07:26	WG1613622
cis-1,3-Dichloropropene	U		0.000933	0.00250	0.00308	1	01/30/2021 07:26	WG1613622
trans-1,3-Dichloropropene	U		0.00140	0.00500	0.00616	1	01/30/2021 07:26	WG1613622
2,2-Dichloropropane	U		0.00170	0.00250	0.00308	1	01/30/2021 07:26	WG1613622
Ethylbenzene	U		0.000908	0.00250	0.00308	1	01/30/2021 07:26	WG1613622
Hexachloro-1,3-butadiene	U		0.00739	0.0250	0.0308	1	01/30/2021 07:26	WG1613622
2-Hexanone	U		0.00414	0.0250	0.0308	1	01/30/2021 07:26	WG1613622
Isopropylbenzene	U		0.000524	0.00250	0.00308	1	01/30/2021 07:26	WG1613622
p-Isopropyltoluene	0.00367	J	0.00314	0.00500	0.00616	1	01/30/2021 07:26	WG1613622
2-Butanone (MEK)	U		0.0782	0.100	0.123	1	01/30/2021 07:26	WG1613622
Methylene Chloride	U		0.00818	0.0250	0.0308	1	01/30/2021 07:26	WG1613622
4-Methyl-2-pentanone (MIBK)	U		0.00281	0.0250	0.0308	1	01/30/2021 07:26	WG1613622
Methyl tert-butyl ether	U		0.000431	0.00100	0.00123	1	01/30/2021 07:26	WG1613622
Naphthalene	0.00676	J	0.00601	0.0125	0.0154	1	01/30/2021 07:26	WG1613622
n-Propylbenzene	U		0.00117	0.00500	0.00616	1	01/30/2021 07:26	WG1613622
Styrene	U		0.000282	0.0125	0.0154	1	01/30/2021 07:26	WG1613622
1,1,1,2-Tetrachloroethane	U		0.00117	0.00250	0.00308	1	01/30/2021 07:26	WG1613622
1,1,2,2-Tetrachloroethane	U		0.000856	0.00250	0.00308	1	01/30/2021 07:26	WG1613622
Tetrachloroethene	U		0.00110	0.00250	0.00308	1	01/30/2021 07:26	WG1613622
Toluene	U		0.00160	0.00500	0.00616	1	01/30/2021 07:26	WG1613622
1,2,3-Trichlorobenzene	U		0.00903	0.0125	0.0154	1	01/30/2021 07:26	WG1613622
1,2,4-Trichlorobenzene	U		0.00542	0.0125	0.0154	1	01/30/2021 07:26	WG1613622
1,1,1-Trichloroethane	U	J4	0.00114	0.00250	0.00308	1	01/30/2021 07:26	WG1613622
1,1,2-Trichloroethane	U		0.000736	0.00250	0.00308	1	01/30/2021 07:26	WG1613622
Trichloroethene	U	J4	0.000720	0.00100	0.00123	1	01/30/2021 07:26	WG1613622
Trichlorofluoromethane	U		0.00102	0.00250	0.00308	1	01/30/2021 07:26	WG1613622
1,2,3-Trichloropropane	U		0.00200	0.0125	0.0154	1	01/30/2021 07:26	WG1613622
1,2,4-Trimethylbenzene	0.00212	B J	0.00195	0.00500	0.00616	1	01/30/2021 07:26	WG1613622
1,3,5-Trimethylbenzene	U		0.00246	0.00500	0.00616	1	01/30/2021 07:26	WG1613622
Vinyl chloride	U		0.00143	0.00250	0.00308	1	01/30/2021 07:26	WG1613622
Xylenes, Total	0.00290	J	0.00108	0.00650	0.00801	1	01/30/2021 07:26	WG1613622
(S) Toluene-d8	101				75.0-131		01/30/2021 07:26	WG1613622
(S) 4-Bromofluorobenzene	104				67.0-138		01/30/2021 07:26	WG1613622
(S) 1,2-Dichloroethane-d4	93.8				70.0-130		01/30/2021 07:26	WG1613622

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

TPH by TCEQ Method 1005

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		16.6	50.0	55.2	1	02/03/2021 18:36	WG1615114
TPH C12 - C28	U		16.6	50.0	55.2	1	02/03/2021 18:36	WG1615114
TPH C28 - C35	U		16.6	50.0	55.2	1	02/03/2021 18:36	WG1615114
TPH C6 - C35	U		16.6	50.0	55.2	1	02/03/2021 18:36	WG1615114
(S) o-Terphenyl	79.1				70.0-130		02/03/2021 18:36	WG1615114



Collected date/time: 01/27/21 13:20

L1311179

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0298	0.0333	0.184	5	02/03/2021 02:06	WG1614577
Acenaphthylene	0.0502	LC	0.0259	0.0333	0.184	5	02/03/2021 02:06	WG1614577
Anthracene	0.117	LC	0.0327	0.0333	0.184	5	02/03/2021 02:06	WG1614577
Benzo(a)anthracene	0.113	LC	0.0324	0.0333	0.184	5	02/03/2021 02:06	WG1614577
Benzo(b)fluoranthene	0.253		0.0343	0.0333	0.184	5	02/03/2021 02:06	WG1614577
Benzo(k)fluoranthene	0.0774	LC	0.0327	0.0333	0.184	5	02/03/2021 02:06	WG1614577
Benzo(g,h,i)perylene	0.109	LC	0.0336	0.0333	0.184	5	02/03/2021 02:06	WG1614577
Benzo(a)pyrene	0.138	LC	0.0342	0.0333	0.184	5	02/03/2021 02:06	WG1614577
Benzoic acid	U		0.651	1.67	9.22	5	02/03/2021 02:06	WG1614577
Benzyl alcohol	U		0.0679	0.333	1.84	5	02/03/2021 02:06	WG1614577
Bis(2-chlorethoxy)methane	U		0.0552	0.333	1.84	5	02/03/2021 02:06	WG1614577
Bis(2-chloroethyl)ether	U		0.0607	0.333	1.84	5	02/03/2021 02:06	WG1614577
2,2-Oxybis(1-Chloropropane)	U		0.0795	0.333	1.84	5	02/03/2021 02:06	WG1614577
4-Bromophenyl-phenylether	U		0.0646	0.333	1.84	5	02/03/2021 02:06	WG1614577
Carbazole	U		0.0569	0.333	1.84	5	02/03/2021 02:06	WG1614577
2-Chloronaphthalene	U		0.0323	0.0333	0.184	5	02/03/2021 02:06	WG1614577
4-Chloroaniline	U		0.0662	0.333	1.84	5	02/03/2021 02:06	WG1614577
4-Chlorophenyl-phenylether	U		0.0640	0.333	1.84	5	02/03/2021 02:06	WG1614577
Chrysene	0.103	LC	0.0365	0.0333	0.184	5	02/03/2021 02:06	WG1614577
Dibenz(a,h)anthracene	U		0.0509	0.0333	0.184	5	02/03/2021 02:06	WG1614577
Dibenzofuran	U		0.0602	0.333	1.84	5	02/03/2021 02:06	WG1614577
3,3-Dichlorobenzidine	U		0.0679	0.333	1.84	5	02/03/2021 02:06	WG1614577
2,4-Dinitrotoluene	U		0.0527	0.333	1.84	5	02/03/2021 02:06	WG1614577
2,6-Dinitrotoluene	U		0.0602	0.333	1.84	5	02/03/2021 02:06	WG1614577
Fluoranthene	0.170	LC	0.0332	0.0333	0.184	5	02/03/2021 02:06	WG1614577
Fluorene	U		0.0299	0.0333	0.184	5	02/03/2021 02:06	WG1614577
Hexachlorobenzene	U		0.0651	0.333	1.84	5	02/03/2021 02:06	WG1614577
Hexachloro-1,3-butadiene	U		0.0618	0.333	1.84	5	02/03/2021 02:06	WG1614577
Hexachlorocyclopentadiene	U		0.0966	0.333	1.84	5	02/03/2021 02:06	WG1614577
Hexachloroethane	U		0.0723	0.333	1.84	5	02/03/2021 02:06	WG1614577
Indeno(1,2,3-cd)pyrene	0.0922	LC	0.0519	0.0333	0.184	5	02/03/2021 02:06	WG1614577
Isophorone	U		0.0563	0.333	1.84	5	02/03/2021 02:06	WG1614577
2-Methylnaphthalene	U		0.0238	0.0333	0.184	5	02/03/2021 02:06	WG1614577
Naphthalene	U		0.0461	0.0333	0.184	5	02/03/2021 02:06	WG1614577
2-Nitroaniline	U		0.0591	0.333	1.84	5	02/03/2021 02:06	WG1614577
3-Nitroaniline	U		0.0585	0.333	1.84	5	02/03/2021 02:06	WG1614577
4-Nitroaniline	U		0.0536	0.333	1.84	5	02/03/2021 02:06	WG1614577
Nitrobenzene	U		0.0640	0.333	1.84	5	02/03/2021 02:06	WG1614577
n-Nitrosodimethylamine	U		0.273	0.333	1.84	5	02/03/2021 02:06	WG1614577
n-Nitrosodiphenylamine	U		0.139	0.333	1.84	5	02/03/2021 02:06	WG1614577
n-Nitrosodi-n-propylamine	U		0.0613	0.333	1.84	5	02/03/2021 02:06	WG1614577
Phenanthrene	0.0682	LC	0.0365	0.0333	0.184	5	02/03/2021 02:06	WG1614577
Benzylbutyl phthalate	U		0.0574	0.333	1.84	5	02/03/2021 02:06	WG1614577
Bis(2-ethylhexyl)phthalate	U		0.233	0.333	1.84	5	02/03/2021 02:06	WG1614577
Di-n-butyl phthalate	U		0.0629	0.333	1.84	5	02/03/2021 02:06	WG1614577
Diethyl phthalate	U		0.0607	0.333	1.84	5	02/03/2021 02:06	WG1614577
Dimethyl phthalate	U		0.390	0.333	1.84	5	02/03/2021 02:06	WG1614577
Di-n-octyl phthalate	U		0.124	0.333	1.84	5	02/03/2021 02:06	WG1614577
Pyrene	0.181	LC	0.0358	0.0333	0.184	5	02/03/2021 02:06	WG1614577
Pyridine	U		0.121	0.333	1.84	5	02/03/2021 02:06	WG1614577
1,2,4-Trichlorobenzene	U		0.0574	0.333	1.84	5	02/03/2021 02:06	WG1614577
4-Chloro-3-methylphenol	U		0.0596	0.333	1.84	5	02/03/2021 02:06	WG1614577
2-Chlorophenol	U		0.0607	0.333	1.84	5	02/03/2021 02:06	WG1614577
2,4-Dichlorophenol	U		0.0535	0.333	1.84	5	02/03/2021 02:06	WG1614577
2,4-Dimethylphenol	U		0.0480	0.333	1.84	5	02/03/2021 02:06	WG1614577
4,6-Dinitro-2-methylphenol	U		0.417	0.333	1.84	5	02/03/2021 02:06	WG1614577

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



Collected date/time: 01/27/21 13:20

L1311179

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
2,4-Dinitrophenol	U		0.430	0.333	1.84	5	02/03/2021 02:06	WG1614577
2-Methylphenol	U		0.0552	0.333	1.84	5	02/03/2021 02:06	WG1614577
3&4-Methyl Phenol	U		0.0574	0.333	1.84	5	02/03/2021 02:06	WG1614577
2-Nitrophenol	U		0.0657	0.333	1.84	5	02/03/2021 02:06	WG1614577
4-Nitrophenol	U		0.0574	0.333	1.84	5	02/03/2021 02:06	WG1614577
Pentachlorophenol	U		0.0495	0.333	1.84	5	02/03/2021 02:06	WG1614577
Phenol	U		0.0740	0.333	1.84	5	02/03/2021 02:06	WG1614577
2,4,5-Trichlorophenol	U		0.0624	0.333	1.84	5	02/03/2021 02:06	WG1614577
2,4,6-Trichlorophenol	U		0.0591	0.333	1.84	5	02/03/2021 02:06	WG1614577
(S) 2-Fluorophenol	55.6				12.0-120		02/03/2021 02:06	WG1614577
(S) Phenol-d5	53.5				10.0-120		02/03/2021 02:06	WG1614577
(S) Nitrobenzene-d5	47.1				10.0-122		02/03/2021 02:06	WG1614577
(S) 2-Fluorobiphenyl	52.6				15.0-120		02/03/2021 02:06	WG1614577
(S) 2,4,6-Tribromophenol	52.3				10.0-127		02/03/2021 02:06	WG1614577
(S) p-Terphenyl-d14	57.4				10.0-120		02/03/2021 02:06	WG1614577

Sample Narrative:

L1311179-14 WG1614577: Dilution due to matrix.

1Cp

2Tc

3Ss

4Cn

5Tr

6Sr

7Qc

8Gl

9Al

10Sc



Collected date/time: 01/27/21 12:30

L1311179

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.8		1	02/03/2021 14:57	WG1614563

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Mercury	0.0939		0.0203	0.0400	0.0450	1	02/03/2021 10:00	WG1614236

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Arsenic	32.0		0.583	2.00	2.25	1	01/30/2021 19:41	WG1613802
Barium	603		0.0959	0.500	0.563	1	01/30/2021 19:41	WG1613802
Cadmium	1.42		0.0530	0.500	0.563	1	01/30/2021 19:41	WG1613802
Chromium	20.8		0.150	1.00	1.13	1	01/30/2021 19:41	WG1613802
Lead	288		0.234	0.500	0.563	1	01/30/2021 19:41	WG1613802
Selenium	1.62	J	0.860	2.00	2.25	1	01/30/2021 19:41	WG1613802
Silver	U		0.143	1.00	1.13	1	01/30/2021 19:41	WG1613802

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Acetone	U		0.0461	0.0500	0.0631	1	01/30/2021 07:46	WG1613622
Benzene	U		0.000589	0.00100	0.00126	1	01/30/2021 07:46	WG1613622
Bromobenzene	U		0.00114	0.0125	0.0158	1	01/30/2021 07:46	WG1613622
Bromochloromethane	U		0.000712	0.00500	0.00631	1	01/30/2021 07:46	WG1613622
Bromodichloromethane	U		0.000915	0.00250	0.00315	1	01/30/2021 07:46	WG1613622
Bromoform	U		0.00148	0.0250	0.0315	1	01/30/2021 07:46	WG1613622
Bromomethane	U		0.00249	0.0125	0.0158	1	01/30/2021 07:46	WG1613622
n-Butylbenzene	U		0.00662	0.0125	0.0158	1	01/30/2021 07:46	WG1613622
sec-Butylbenzene	U		0.00363	0.0125	0.0158	1	01/30/2021 07:46	WG1613622
tert-Butylbenzene	U		0.00246	0.00500	0.00631	1	01/30/2021 07:46	WG1613622
Carbon disulfide	U		0.000883	0.0125	0.0158	1	01/30/2021 07:46	WG1613622
Carbon tetrachloride	U		0.00113	0.00500	0.00631	1	01/30/2021 07:46	WG1613622
Chlorobenzene	U		0.000265	0.00250	0.00315	1	01/30/2021 07:46	WG1613622
Chlorodibromomethane	U		0.000772	0.00250	0.00315	1	01/30/2021 07:46	WG1613622
Chloroethane	U		0.00215	0.00500	0.00631	1	01/30/2021 07:46	WG1613622
Chloroform	U		0.00130	0.00250	0.00315	1	01/30/2021 07:46	WG1613622
Chloromethane	U		0.00549	0.0125	0.0158	1	01/30/2021 07:46	WG1613622
2-Chlorotoluene	U		0.00109	0.00250	0.00315	1	01/30/2021 07:46	WG1613622
4-Chlorotoluene	U		0.000568	0.00500	0.00631	1	01/30/2021 07:46	WG1613622
1,2-Dibromo-3-Chloropropane	U		0.00492	0.0250	0.0315	1	01/30/2021 07:46	WG1613622
1,2-Dibromoethane	U		0.000818	0.00250	0.00315	1	01/30/2021 07:46	WG1613622
Dibromomethane	U		0.000946	0.00500	0.00631	1	01/30/2021 07:46	WG1613622
1,2-Dichlorobenzene	U		0.000536	0.00500	0.00631	1	01/30/2021 07:46	WG1613622
1,3-Dichlorobenzene	U		0.000757	0.00500	0.00631	1	01/30/2021 07:46	WG1613622
1,4-Dichlorobenzene	U		0.000883	0.00500	0.00631	1	01/30/2021 07:46	WG1613622
Dichlorodifluoromethane	U		0.00203	0.00250	0.00315	1	01/30/2021 07:46	WG1613622
1,1-Dichloroethane	U		0.000620	0.00250	0.00315	1	01/30/2021 07:46	WG1613622
1,2-Dichloroethane	U		0.000819	0.00250	0.00315	1	01/30/2021 07:46	WG1613622
1,1-Dichloroethene	U		0.000765	0.00250	0.00315	1	01/30/2021 07:46	WG1613622
cis-1,2-Dichloroethene	U		0.000926	0.00250	0.00315	1	01/30/2021 07:46	WG1613622
trans-1,2-Dichloroethene	U	J4	0.00131	0.00500	0.00631	1	01/30/2021 07:46	WG1613622
1,2-Dichloropropane	U		0.00179	0.00500	0.00631	1	01/30/2021 07:46	WG1613622
1,1-Dichloropropene	U		0.00102	0.00250	0.00315	1	01/30/2021 07:46	WG1613622

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc



Collected date/time: 01/27/21 12:30

L1311179

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,3-Dichloropropane	U		0.000632	0.00500	0.00631	1	01/30/2021 07:46	WG1613622
cis-1,3-Dichloropropene	U		0.000955	0.00250	0.00315	1	01/30/2021 07:46	WG1613622
trans-1,3-Dichloropropene	U		0.00144	0.00500	0.00631	1	01/30/2021 07:46	WG1613622
2,2-Dichloropropane	U		0.00174	0.00250	0.00315	1	01/30/2021 07:46	WG1613622
Ethylbenzene	U		0.000930	0.00250	0.00315	1	01/30/2021 07:46	WG1613622
Hexachloro-1,3-butadiene	U		0.00757	0.0250	0.0315	1	01/30/2021 07:46	WG1613622
2-Hexanone	U		0.00424	0.0250	0.0315	1	01/30/2021 07:46	WG1613622
Isopropylbenzene	0.00230	J	0.000536	0.00250	0.00315	1	01/30/2021 07:46	WG1613622
p-Isopropyltoluene	U		0.00322	0.00500	0.00631	1	01/30/2021 07:46	WG1613622
2-Butanone (MEK)	U		0.0801	0.100	0.126	1	01/30/2021 07:46	WG1613622
Methylene Chloride	U		0.00838	0.0250	0.0315	1	01/30/2021 07:46	WG1613622
4-Methyl-2-pentanone (MIBK)	U		0.00288	0.0250	0.0315	1	01/30/2021 07:46	WG1613622
Methyl tert-butyl ether	U		0.000442	0.00100	0.00126	1	01/30/2021 07:46	WG1613622
Naphthalene	0.0447		0.00616	0.0125	0.0158	1	01/30/2021 07:46	WG1613622
n-Propylbenzene	0.00154	J	0.00120	0.00500	0.00631	1	01/30/2021 07:46	WG1613622
Styrene	U		0.000289	0.0125	0.0158	1	01/30/2021 07:46	WG1613622
1,1,1,2-Tetrachloroethane	U		0.00120	0.00250	0.00315	1	01/30/2021 07:46	WG1613622
1,1,2,2-Tetrachloroethane	U		0.000877	0.00250	0.00315	1	01/30/2021 07:46	WG1613622
Tetrachloroethene	U		0.00113	0.00250	0.00315	1	01/30/2021 07:46	WG1613622
Toluene	U		0.00164	0.00500	0.00631	1	01/30/2021 07:46	WG1613622
1,2,3-Trichlorobenzene	U		0.00925	0.0125	0.0158	1	01/30/2021 07:46	WG1613622
1,2,4-Trichlorobenzene	U		0.00555	0.0125	0.0158	1	01/30/2021 07:46	WG1613622
1,1,1-Trichloroethane	U	J4	0.00116	0.00250	0.00315	1	01/30/2021 07:46	WG1613622
1,1,2-Trichloroethane	U		0.000753	0.00250	0.00315	1	01/30/2021 07:46	WG1613622
Trichloroethene	U	J4	0.000737	0.00100	0.00126	1	01/30/2021 07:46	WG1613622
Trichlorofluoromethane	U		0.00104	0.00250	0.00315	1	01/30/2021 07:46	WG1613622
1,2,3-Trichloropropane	U		0.00204	0.0125	0.0158	1	01/30/2021 07:46	WG1613622
1,2,4-Trimethylbenzene	0.00299	B J	0.00199	0.00500	0.00631	1	01/30/2021 07:46	WG1613622
1,3,5-Trimethylbenzene	U		0.00252	0.00500	0.00631	1	01/30/2021 07:46	WG1613622
Vinyl chloride	U		0.00146	0.00250	0.00315	1	01/30/2021 07:46	WG1613622
Xylenes, Total	0.00464	J	0.00111	0.00650	0.00820	1	01/30/2021 07:46	WG1613622
(S) Toluene-d8	103				75.0-131		01/30/2021 07:46	WG1613622
(S) 4-Bromofluorobenzene	96.8				67.0-138		01/30/2021 07:46	WG1613622
(S) 1,2-Dichloroethane-d4	92.0				70.0-130		01/30/2021 07:46	WG1613622

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

TPH by TCEQ Method 1005

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		16.9	50.0	56.3	1	02/03/2021 21:11	WG1615114
TPH C12 - C28	U		16.9	50.0	56.3	1	02/03/2021 21:11	WG1615114
TPH C28 - C35	U		16.9	50.0	56.3	1	02/03/2021 21:11	WG1615114
TPH C6 - C35	U		16.9	50.0	56.3	1	02/03/2021 21:11	WG1615114
(S) o-Terphenyl	78.0				70.0-130		02/03/2021 21:11	WG1615114

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	0.0535	J	0.0303	0.0333	0.188	5	02/03/2021 01:45	WG1614577
Acenaphthylene	0.0849	J	0.0264	0.0333	0.188	5	02/03/2021 01:45	WG1614577
Anthracene	0.549		0.0334	0.0333	0.188	5	02/03/2021 01:45	WG1614577
Benzo(a)anthracene	0.376		0.0330	0.0333	0.188	5	02/03/2021 01:45	WG1614577
Benzo(b)fluoranthene	0.701		0.0349	0.0333	0.188	5	02/03/2021 01:45	WG1614577
Benzo(k)fluoranthene	0.213		0.0333	0.0333	0.188	5	02/03/2021 01:45	WG1614577
Benzo(g,h,i)perylene	0.201		0.0343	0.0333	0.188	5	02/03/2021 01:45	WG1614577
Benzo(a)pyrene	0.374		0.0348	0.0333	0.188	5	02/03/2021 01:45	WG1614577



Collected date/time: 01/27/21 12:30

L1311179

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzoic acid	U		0.664	1.67	9.40	5	02/03/2021 01:45	WG1614577
Benzyl alcohol	U		0.0692	0.333	1.88	5	02/03/2021 01:45	WG1614577
Bis(2-chlorethoxy)methane	U		0.0563	0.333	1.88	5	02/03/2021 01:45	WG1614577
Bis(2-chloroethyl)ether	U		0.0619	0.333	1.88	5	02/03/2021 01:45	WG1614577
2,2-Oxybis(1-Chloropropane)	U		0.0810	0.333	1.88	5	02/03/2021 01:45	WG1614577
4-Bromophenyl-phenylether	U		0.0658	0.333	1.88	5	02/03/2021 01:45	WG1614577
Carbazole	0.107	L	0.0580	0.333	1.88	5	02/03/2021 01:45	WG1614577
2-Chloronaphthalene	U		0.0329	0.0333	0.188	5	02/03/2021 01:45	WG1614577
4-Chloroaniline	U		0.0675	0.333	1.88	5	02/03/2021 01:45	WG1614577
4-Chlorophenyl-phenylether	U		0.0653	0.333	1.88	5	02/03/2021 01:45	WG1614577
Chrysene	0.314		0.0373	0.0333	0.188	5	02/03/2021 01:45	WG1614577
Dibenz(a,h)anthracene	U		0.0519	0.0333	0.188	5	02/03/2021 01:45	WG1614577
Dibenzofuran	U		0.0613	0.333	1.88	5	02/03/2021 01:45	WG1614577
3,3-Dichlorobenzidine	U		0.0692	0.333	1.88	5	02/03/2021 01:45	WG1614577
2,4-Dinitrotoluene	U		0.0537	0.333	1.88	5	02/03/2021 01:45	WG1614577
2,6-Dinitrotoluene	U		0.0613	0.333	1.88	5	02/03/2021 01:45	WG1614577
Fluoranthene	0.617		0.0338	0.0333	0.188	5	02/03/2021 01:45	WG1614577
Fluorene	0.0389	L	0.0305	0.0333	0.188	5	02/03/2021 01:45	WG1614577
Hexachlorobenzene	U		0.0664	0.333	1.88	5	02/03/2021 01:45	WG1614577
Hexachloro-1,3-butadiene	U		0.0630	0.333	1.88	5	02/03/2021 01:45	WG1614577
Hexachlorocyclopentadiene	U		0.0985	0.333	1.88	5	02/03/2021 01:45	WG1614577
Hexachloroethane	U		0.0737	0.333	1.88	5	02/03/2021 01:45	WG1614577
Indeno(1,2,3-cd)pyrene	0.214		0.0530	0.0333	0.188	5	02/03/2021 01:45	WG1614577
Isophorone	U		0.0574	0.333	1.88	5	02/03/2021 01:45	WG1614577
2-Methylnaphthalene	0.0267	L	0.0243	0.0333	0.188	5	02/03/2021 01:45	WG1614577
Naphthalene	0.0825	L	0.0470	0.0333	0.188	5	02/03/2021 01:45	WG1614577
2-Nitroaniline	U		0.0602	0.333	1.88	5	02/03/2021 01:45	WG1614577
3-Nitroaniline	U		0.0597	0.333	1.88	5	02/03/2021 01:45	WG1614577
4-Nitroaniline	U		0.0546	0.333	1.88	5	02/03/2021 01:45	WG1614577
Nitrobenzene	U		0.0653	0.333	1.88	5	02/03/2021 01:45	WG1614577
n-Nitrosodimethylamine	U		0.278	0.333	1.88	5	02/03/2021 01:45	WG1614577
n-Nitrosodiphenylamine	U		0.142	0.333	1.88	5	02/03/2021 01:45	WG1614577
n-Nitrosodi-n-propylamine	U		0.0625	0.333	1.88	5	02/03/2021 01:45	WG1614577
Phenanthrene	0.344		0.0372	0.0333	0.188	5	02/03/2021 01:45	WG1614577
Benzylbutyl phthalate	0.0844	L	0.0585	0.333	1.88	5	02/03/2021 01:45	WG1614577
Bis(2-ethylhexyl)phthalate	U		0.237	0.333	1.88	5	02/03/2021 01:45	WG1614577
Di-n-butyl phthalate	U		0.0642	0.333	1.88	5	02/03/2021 01:45	WG1614577
Diethyl phthalate	U		0.0619	0.333	1.88	5	02/03/2021 01:45	WG1614577
Dimethyl phthalate	U		0.397	0.333	1.88	5	02/03/2021 01:45	WG1614577
Di-n-octyl phthalate	U		0.127	0.333	1.88	5	02/03/2021 01:45	WG1614577
Pyrene	0.736		0.0365	0.0333	0.188	5	02/03/2021 01:45	WG1614577
Pyridine	U		0.124	0.333	1.88	5	02/03/2021 01:45	WG1614577
1,2,4-Trichlorobenzene	U		0.0585	0.333	1.88	5	02/03/2021 01:45	WG1614577
4-Chloro-3-methylphenol	U		0.0608	0.333	1.88	5	02/03/2021 01:45	WG1614577
2-Chlorophenol	U		0.0619	0.333	1.88	5	02/03/2021 01:45	WG1614577
2,4-Dichlorophenol	U		0.0546	0.333	1.88	5	02/03/2021 01:45	WG1614577
2,4-Dimethylphenol	U		0.0490	0.333	1.88	5	02/03/2021 01:45	WG1614577
4,6-Dinitro-2-methylphenol	U		0.425	0.333	1.88	5	02/03/2021 01:45	WG1614577
2,4-Dinitrophenol	U		0.438	0.333	1.88	5	02/03/2021 01:45	WG1614577
2-Methylphenol	U		0.0563	0.333	1.88	5	02/03/2021 01:45	WG1614577
3&4-Methyl Phenol	U		0.0585	0.333	1.88	5	02/03/2021 01:45	WG1614577
2-Nitrophenol	U		0.0670	0.333	1.88	5	02/03/2021 01:45	WG1614577
4-Nitrophenol	U		0.0585	0.333	1.88	5	02/03/2021 01:45	WG1614577
Pentachlorophenol	U		0.0504	0.333	1.88	5	02/03/2021 01:45	WG1614577
Phenol	U		0.0754	0.333	1.88	5	02/03/2021 01:45	WG1614577
2,4,5-Trichlorophenol	U		0.0636	0.333	1.88	5	02/03/2021 01:45	WG1614577

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



Collected date/time: 01/27/21 12:30

L1311179

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
2,4,6-Trichlorophenol	U		0.0602	0.333	1.88	5	02/03/2021 01:45	WG1614577
(S) 2-Fluorophenol	54.3				12.0-120		02/03/2021 01:45	WG1614577
(S) Phenol-d5	52.0				10.0-120		02/03/2021 01:45	WG1614577
(S) Nitrobenzene-d5	45.5				10.0-122		02/03/2021 01:45	WG1614577
(S) 2-Fluorobiphenyl	49.8				15.0-120		02/03/2021 01:45	WG1614577
(S) 2,4,6-Tribromophenol	49.4				10.0-127		02/03/2021 01:45	WG1614577
(S) p-Terphenyl-d14	57.2				10.0-120		02/03/2021 01:45	WG1614577

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Tr

⁶ Sr

⁷ Qc

⁸ Gl

⁹ Al

¹⁰ Sc



Collected date/time: 01/27/21 11:00

L1311179

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.5		1	02/03/2021 14:57	WG1614563

¹ Cp² Tc³ Ss⁴ Cn⁵ Tr⁶ Sr⁷ Qc⁸ Gl⁹ Al¹⁰ Sc

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Mercury	0.0444		0.0197	0.0400	0.0437	1	02/03/2021 10:02	WG1614236

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Arsenic	14.3		0.566	2.00	2.19	1	01/30/2021 19:43	WG1613802
Barium	197		0.0931	0.500	0.547	1	01/30/2021 19:43	WG1613802
Cadmium	0.873		0.0515	0.500	0.547	1	01/30/2021 19:43	WG1613802
Chromium	23.6		0.145	1.00	1.09	1	01/30/2021 19:43	WG1613802
Lead	44.5		0.227	0.500	0.547	1	01/30/2021 19:43	WG1613802
Selenium	1.85	J	0.835	2.00	2.19	1	01/30/2021 19:43	WG1613802
Silver	U		0.139	1.00	1.09	1	01/30/2021 19:43	WG1613802

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Acetone	U		0.0457	0.0500	0.0626	1.06	01/30/2021 08:05	WG1613622
Benzene	U		0.000585	0.00100	0.00125	1.06	01/30/2021 08:05	WG1613622
Bromobenzene	U		0.00113	0.0125	0.0157	1.06	01/30/2021 08:05	WG1613622
Bromochloromethane	U		0.000706	0.00500	0.00626	1.06	01/30/2021 08:05	WG1613622
Bromodichloromethane	U		0.000908	0.00250	0.00313	1.06	01/30/2021 08:05	WG1613622
Bromoform	U		0.00146	0.0250	0.0313	1.06	01/30/2021 08:05	WG1613622
Bromomethane	U		0.00247	0.0125	0.0157	1.06	01/30/2021 08:05	WG1613622
n-Butylbenzene	U		0.00657	0.0125	0.0157	1.06	01/30/2021 08:05	WG1613622
sec-Butylbenzene	U		0.00361	0.0125	0.0157	1.06	01/30/2021 08:05	WG1613622
tert-Butylbenzene	U		0.00244	0.00500	0.00626	1.06	01/30/2021 08:05	WG1613622
Carbon disulfide	U		0.000876	0.0125	0.0157	1.06	01/30/2021 08:05	WG1613622
Carbon tetrachloride	U		0.00112	0.00500	0.00626	1.06	01/30/2021 08:05	WG1613622
Chlorobenzene	U		0.000263	0.00250	0.00313	1.06	01/30/2021 08:05	WG1613622
Chlorodibromomethane	U		0.000766	0.00250	0.00313	1.06	01/30/2021 08:05	WG1613622
Chloroethane	U		0.00213	0.00500	0.00626	1.06	01/30/2021 08:05	WG1613622
Chloroform	U		0.00129	0.00250	0.00313	1.06	01/30/2021 08:05	WG1613622
Chloromethane	U		0.00545	0.0125	0.0157	1.06	01/30/2021 08:05	WG1613622
2-Chlorotoluene	U		0.00108	0.00250	0.00313	1.06	01/30/2021 08:05	WG1613622
4-Chlorotoluene	U		0.000563	0.00500	0.00626	1.06	01/30/2021 08:05	WG1613622
1,2-Dibromo-3-Chloropropane	U		0.00488	0.0250	0.0313	1.06	01/30/2021 08:05	WG1613622
1,2-Dibromoethane	U		0.000811	0.00250	0.00313	1.06	01/30/2021 08:05	WG1613622
Dibromomethane	U		0.000939	0.00500	0.00626	1.06	01/30/2021 08:05	WG1613622
1,2-Dichlorobenzene	U		0.000532	0.00500	0.00626	1.06	01/30/2021 08:05	WG1613622
1,3-Dichlorobenzene	U		0.000751	0.00500	0.00626	1.06	01/30/2021 08:05	WG1613622
1,4-Dichlorobenzene	U		0.000876	0.00500	0.00626	1.06	01/30/2021 08:05	WG1613622
Dichlorodifluoromethane	U		0.00202	0.00250	0.00313	1.06	01/30/2021 08:05	WG1613622
1,1-Dichloroethane	U		0.000615	0.00250	0.00313	1.06	01/30/2021 08:05	WG1613622
1,2-Dichloroethane	U		0.000812	0.00250	0.00313	1.06	01/30/2021 08:05	WG1613622
1,1-Dichloroethene	U		0.000759	0.00250	0.00313	1.06	01/30/2021 08:05	WG1613622
cis-1,2-Dichloroethene	U		0.000919	0.00250	0.00313	1.06	01/30/2021 08:05	WG1613622
trans-1,2-Dichloroethene	U	J4	0.00130	0.00500	0.00626	1.06	01/30/2021 08:05	WG1613622
1,2-Dichloropropane	U		0.00178	0.00500	0.00626	1.06	01/30/2021 08:05	WG1613622
1,1-Dichloropropene	U		0.00101	0.00250	0.00313	1.06	01/30/2021 08:05	WG1613622



Collected date/time: 01/27/21 11:00

L1311179

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,3-Dichloropropane	U		0.000627	0.00500	0.00626	1.06	01/30/2021 08:05	WG1613622
cis-1,3-Dichloropropene	U		0.000948	0.00250	0.00313	1.06	01/30/2021 08:05	WG1613622
trans-1,3-Dichloropropene	U		0.00143	0.00500	0.00626	1.06	01/30/2021 08:05	WG1613622
2,2-Dichloropropane	U		0.00173	0.00250	0.00313	1.06	01/30/2021 08:05	WG1613622
Ethylbenzene	U		0.000923	0.00250	0.00313	1.06	01/30/2021 08:05	WG1613622
Hexachloro-1,3-butadiene	U		0.00751	0.0250	0.0313	1.06	01/30/2021 08:05	WG1613622
2-Hexanone	U		0.00421	0.0250	0.0313	1.06	01/30/2021 08:05	WG1613622
Isopropylbenzene	0.000626	J	0.000532	0.00250	0.00313	1.06	01/30/2021 08:05	WG1613622
p-Isopropyltoluene	U		0.00319	0.00500	0.00626	1.06	01/30/2021 08:05	WG1613622
2-Butanone (MEK)	U		0.0795	0.100	0.125	1.06	01/30/2021 08:05	WG1613622
Methylene Chloride	U		0.00831	0.0250	0.0313	1.06	01/30/2021 08:05	WG1613622
4-Methyl-2-pentanone (MIBK)	U		0.00285	0.0250	0.0313	1.06	01/30/2021 08:05	WG1613622
Methyl tert-butyl ether	U		0.000438	0.00100	0.00125	1.06	01/30/2021 08:05	WG1613622
Naphthalene	0.00666	J	0.00611	0.0125	0.0157	1.06	01/30/2021 08:05	WG1613622
n-Propylbenzene	U		0.00119	0.00500	0.00626	1.06	01/30/2021 08:05	WG1613622
Styrene	0.00100	J	0.000287	0.0125	0.0157	1.06	01/30/2021 08:05	WG1613622
1,1,1,2-Tetrachloroethane	U		0.00119	0.00250	0.00313	1.06	01/30/2021 08:05	WG1613622
1,1,2,2-Tetrachloroethane	U		0.000870	0.00250	0.00313	1.06	01/30/2021 08:05	WG1613622
Tetrachloroethene	U		0.00112	0.00250	0.00313	1.06	01/30/2021 08:05	WG1613622
Toluene	U		0.00163	0.00500	0.00626	1.06	01/30/2021 08:05	WG1613622
1,2,3-Trichlorobenzene	U		0.00918	0.0125	0.0157	1.06	01/30/2021 08:05	WG1613622
1,2,4-Trichlorobenzene	U		0.00551	0.0125	0.0157	1.06	01/30/2021 08:05	WG1613622
1,1,1-Trichloroethane	U	J4	0.00116	0.00250	0.00313	1.06	01/30/2021 08:05	WG1613622
1,1,2-Trichloroethane	U		0.000747	0.00250	0.00313	1.06	01/30/2021 08:05	WG1613622
Trichloroethene	U	J4	0.000731	0.00100	0.00125	1.06	01/30/2021 08:05	WG1613622
Trichlorofluoromethane	U		0.00104	0.00250	0.00313	1.06	01/30/2021 08:05	WG1613622
1,2,3-Trichloropropane	U		0.00203	0.0125	0.0157	1.06	01/30/2021 08:05	WG1613622
1,2,4-Trimethylbenzene	U		0.00198	0.00500	0.00626	1.06	01/30/2021 08:05	WG1613622
1,3,5-Trimethylbenzene	U		0.00250	0.00500	0.00626	1.06	01/30/2021 08:05	WG1613622
Vinyl chloride	U		0.00145	0.00250	0.00313	1.06	01/30/2021 08:05	WG1613622
Xylenes, Total	0.00159	J	0.00110	0.00650	0.00814	1.06	01/30/2021 08:05	WG1613622
(S) Toluene-d8	99.4				75.0-131		01/30/2021 08:05	WG1613622
(S) 4-Bromofluorobenzene	107				67.0-138		01/30/2021 08:05	WG1613622
(S) 1,2-Dichloroethane-d4	87.1				70.0-130		01/30/2021 08:05	WG1613622

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

TPH by TCEQ Method 1005

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		16.4	50.0	54.7	1	02/03/2021 18:52	WG1615114
TPH C12 - C28	U		16.4	50.0	54.7	1	02/03/2021 18:52	WG1615114
TPH C28 - C35	U		16.4	50.0	54.7	1	02/03/2021 18:52	WG1615114
TPH C6 - C35	U		16.4	50.0	54.7	1	02/03/2021 18:52	WG1615114
(S) o-Terphenyl	79.5				70.0-130		02/03/2021 18:52	WG1615114

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0589	0.0333	0.364	10	02/03/2021 02:27	WG1614577
Acenaphthylene	0.396		0.0513	0.0333	0.364	10	02/03/2021 02:27	WG1614577
Anthracene	0.612		0.0648	0.0333	0.364	10	02/03/2021 02:27	WG1614577
Benzo(a)anthracene	0.385		0.0642	0.0333	0.364	10	02/03/2021 02:27	WG1614577
Benzo(b)fluoranthene	1.68		0.0679	0.0333	0.364	10	02/03/2021 02:27	WG1614577
Benzo(k)fluoranthene	0.483		0.0647	0.0333	0.364	10	02/03/2021 02:27	WG1614577
Benzo(g,h,i)perylene	0.624		0.0666	0.0333	0.364	10	02/03/2021 02:27	WG1614577
Benzo(a)pyrene	0.784		0.0677	0.0333	0.364	10	02/03/2021 02:27	WG1614577



Collected date/time: 01/27/21 11:00

L1311179

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzoic acid	U		1.29	1.67	18.3	10	02/03/2021 02:27	WG1614577
Benzyl alcohol	U		0.134	0.333	3.64	10	02/03/2021 02:27	WG1614577
Bis(2-chlorethoxy)methane	U		0.109	0.333	3.64	10	02/03/2021 02:27	WG1614577
Bis(2-chloroethyl)ether	U		0.120	0.333	3.64	10	02/03/2021 02:27	WG1614577
2,2-Oxybis(1-Chloropropane)	U		0.157	0.333	3.64	10	02/03/2021 02:27	WG1614577
4-Bromophenyl-phenylether	U		0.128	0.333	3.64	10	02/03/2021 02:27	WG1614577
Carbazole	0.230	L	0.113	0.333	3.64	10	02/03/2021 02:27	WG1614577
2-Chloronaphthalene	U		0.0640	0.0333	0.364	10	02/03/2021 02:27	WG1614577
4-Chloroaniline	U		0.131	0.333	3.64	10	02/03/2021 02:27	WG1614577
4-Chlorophenyl-phenylether	U		0.127	0.333	3.64	10	02/03/2021 02:27	WG1614577
Chrysene	0.461		0.0724	0.0333	0.364	10	02/03/2021 02:27	WG1614577
Dibenz(a,h)anthracene	0.119	L	0.101	0.0333	0.364	10	02/03/2021 02:27	WG1614577
Dibenzofuran	U		0.119	0.333	3.64	10	02/03/2021 02:27	WG1614577
3,3-Dichlorobenzidine	U		0.134	0.333	3.64	10	02/03/2021 02:27	WG1614577
2,4-Dinitrotoluene	U		0.104	0.333	3.64	10	02/03/2021 02:27	WG1614577
2,6-Dinitrotoluene	U		0.119	0.333	3.64	10	02/03/2021 02:27	WG1614577
Fluoranthene	0.449		0.0657	0.0333	0.364	10	02/03/2021 02:27	WG1614577
Fluorene	U		0.0593	0.0333	0.364	10	02/03/2021 02:27	WG1614577
Hexachlorobenzene	U		0.129	0.333	3.64	10	02/03/2021 02:27	WG1614577
Hexachloro-1,3-butadiene	U		0.122	0.333	3.64	10	02/03/2021 02:27	WG1614577
Hexachlorocyclopentadiene	U		0.191	0.333	3.64	10	02/03/2021 02:27	WG1614577
Hexachloroethane	U		0.143	0.333	3.64	10	02/03/2021 02:27	WG1614577
Indeno(1,2,3-cd)pyrene	0.529		0.103	0.0333	0.364	10	02/03/2021 02:27	WG1614577
Isophorone	U		0.112	0.333	3.64	10	02/03/2021 02:27	WG1614577
2-Methylnaphthalene	U		0.0472	0.0333	0.364	10	02/03/2021 02:27	WG1614577
Naphthalene	U		0.0914	0.0333	0.364	10	02/03/2021 02:27	WG1614577
2-Nitroaniline	U		0.117	0.333	3.64	10	02/03/2021 02:27	WG1614577
3-Nitroaniline	U		0.116	0.333	3.64	10	02/03/2021 02:27	WG1614577
4-Nitroaniline	U		0.106	0.333	3.64	10	02/03/2021 02:27	WG1614577
Nitrobenzene	U		0.127	0.333	3.64	10	02/03/2021 02:27	WG1614577
n-Nitrosodimethylamine	U		0.540	0.333	3.64	10	02/03/2021 02:27	WG1614577
n-Nitrosodiphenylamine	U		0.275	0.333	3.64	10	02/03/2021 02:27	WG1614577
n-Nitrosodi-n-propylamine	U		0.121	0.333	3.64	10	02/03/2021 02:27	WG1614577
Phenanthrene	U		0.0723	0.0333	0.364	10	02/03/2021 02:27	WG1614577
Benzylbutyl phthalate	U		0.114	0.333	3.64	10	02/03/2021 02:27	WG1614577
Bis(2-ethylhexyl)phthalate	U		0.461	0.333	3.64	10	02/03/2021 02:27	WG1614577
Di-n-butyl phthalate	U		0.125	0.333	3.64	10	02/03/2021 02:27	WG1614577
Diethyl phthalate	U		0.120	0.333	3.64	10	02/03/2021 02:27	WG1614577
Dimethyl phthalate	U		0.772	0.333	3.64	10	02/03/2021 02:27	WG1614577
Di-n-octyl phthalate	U		0.246	0.333	3.64	10	02/03/2021 02:27	WG1614577
Pyrene	0.669		0.0708	0.0333	0.364	10	02/03/2021 02:27	WG1614577
Pyridine	U		0.241	0.333	3.64	10	02/03/2021 02:27	WG1614577
1,2,4-Trichlorobenzene	U		0.114	0.333	3.64	10	02/03/2021 02:27	WG1614577
4-Chloro-3-methylphenol	U		0.118	0.333	3.64	10	02/03/2021 02:27	WG1614577
2-Chlorophenol	U		0.120	0.333	3.64	10	02/03/2021 02:27	WG1614577
2,4-Dichlorophenol	U		0.106	0.333	3.64	10	02/03/2021 02:27	WG1614577
2,4-Dimethylphenol	U		0.0951	0.333	3.64	10	02/03/2021 02:27	WG1614577
4,6-Dinitro-2-methylphenol	U		0.825	0.333	3.64	10	02/03/2021 02:27	WG1614577
2,4-Dinitrophenol	U		0.852	0.333	3.64	10	02/03/2021 02:27	WG1614577
2-Methylphenol	U		0.109	0.333	3.64	10	02/03/2021 02:27	WG1614577
3&4-Methyl Phenol	U		0.114	0.333	3.64	10	02/03/2021 02:27	WG1614577
2-Nitrophenol	U		0.130	0.333	3.64	10	02/03/2021 02:27	WG1614577
4-Nitrophenol	U		0.114	0.333	3.64	10	02/03/2021 02:27	WG1614577
Pentachlorophenol	U		0.0980	0.333	3.64	10	02/03/2021 02:27	WG1614577
Phenol	U		0.146	0.333	3.64	10	02/03/2021 02:27	WG1614577
2,4,5-Trichlorophenol	U		0.124	0.333	3.64	10	02/03/2021 02:27	WG1614577

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
2,4,6-Trichlorophenol	U		0.117	0.333	3.64	10	02/03/2021 02:27	WG1614577
(S) 2-Fluorophenol	56.8				12.0-120		02/03/2021 02:27	WG1614577
(S) Phenol-d5	51.1				10.0-120		02/03/2021 02:27	WG1614577
(S) Nitrobenzene-d5	46.3				10.0-122		02/03/2021 02:27	WG1614577
(S) 2-Fluorobiphenyl	50.2				15.0-120		02/03/2021 02:27	WG1614577
(S) 2,4,6-Tribromophenol	46.5				10.0-127		02/03/2021 02:27	WG1614577
(S) p-Terphenyl-d14	52.7				10.0-120		02/03/2021 02:27	WG1614577

1

Cp

2

Tc

3

Ss

4

Cn

5

Tr

6

Sr

7

Qc

8

Gl

9

Al

10

Sc



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Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	88.7		1	02/03/2021 15:44	WG1614564

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	8.90	T8	1	02/02/2021 00:57	WG1614203

Sample Narrative:

L1311179-17 WG1614203: 8.9 at 20.8C

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis date / time	Batch
Mercury	0.0458		0.0203	0.0400	0.0451	1	02/03/2021 10:04	WG1614236

7 Qc

8 Gl

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis date / time	Batch
Arsenic	25.5		0.584	2.00	2.25	1	01/30/2021 19:08	WG1613802
Barium	296	J6	0.0960	0.500	0.563	1	01/30/2021 19:08	WG1613802
Cadmium	1.26		0.0531	0.500	0.563	1	01/30/2021 19:08	WG1613802
Chromium	73.6		0.150	1.00	1.13	1	01/30/2021 19:08	WG1613802
Lead	60.2	J5	0.234	0.500	0.563	1	01/30/2021 19:08	WG1613802
Selenium	2.66		0.861	2.00	2.25	1	01/30/2021 19:08	WG1613802
Silver	U		0.143	1.00	1.13	1	01/30/2021 19:08	WG1613802

9 Al

10 Sc

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis date / time	Batch
Acetone	U		0.0469	0.0500	0.0642	1	01/30/2021 08:24	WG1613622
Benzene	U		0.000599	0.00100	0.00128	1	01/30/2021 08:24	WG1613622
Bromobenzene	U		0.00116	0.0125	0.0160	1	01/30/2021 08:24	WG1613622
Bromochloromethane	U		0.000724	0.00500	0.00642	1	01/30/2021 08:24	WG1613622
Bromodichloromethane	U		0.000931	0.00250	0.00321	1	01/30/2021 08:24	WG1613622
Bromoform	U		0.00150	0.0250	0.0321	1	01/30/2021 08:24	WG1613622
Bromomethane	U		0.00253	0.0125	0.0160	1	01/30/2021 08:24	WG1613622
n-Butylbenzene	U		0.00674	0.0125	0.0160	1	01/30/2021 08:24	WG1613622
sec-Butylbenzene	U		0.00370	0.0125	0.0160	1	01/30/2021 08:24	WG1613622
tert-Butylbenzene	U		0.00250	0.00500	0.00642	1	01/30/2021 08:24	WG1613622
Carbon disulfide	U		0.000899	0.0125	0.0160	1	01/30/2021 08:24	WG1613622
Carbon tetrachloride	U		0.00115	0.00500	0.00642	1	01/30/2021 08:24	WG1613622
Chlorobenzene	U		0.000270	0.00250	0.00321	1	01/30/2021 08:24	WG1613622
Chlorodibromomethane	U		0.000786	0.00250	0.00321	1	01/30/2021 08:24	WG1613622
Chloroethane	U		0.00218	0.00500	0.00642	1	01/30/2021 08:24	WG1613622
Chloroform	U		0.00132	0.00250	0.00321	1	01/30/2021 08:24	WG1613622
Chloromethane	U		0.00558	0.0125	0.0160	1	01/30/2021 08:24	WG1613622
2-Chlorotoluene	U		0.00111	0.00250	0.00321	1	01/30/2021 08:24	WG1613622
4-Chlorotoluene	U		0.000578	0.00500	0.00642	1	01/30/2021 08:24	WG1613622
1,2-Dibromo-3-Chloropropane	U		0.00501	0.0250	0.0321	1	01/30/2021 08:24	WG1613622
1,2-Dibromoethane	U		0.000832	0.00250	0.00321	1	01/30/2021 08:24	WG1613622
Dibromomethane	U		0.000963	0.00500	0.00642	1	01/30/2021 08:24	WG1613622
1,2-Dichlorobenzene	U		0.000546	0.00500	0.00642	1	01/30/2021 08:24	WG1613622
1,3-Dichlorobenzene	U		0.000770	0.00500	0.00642	1	01/30/2021 08:24	WG1613622
1,4-Dichlorobenzene	U		0.000899	0.00500	0.00642	1	01/30/2021 08:24	WG1613622



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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	U		0.00207	0.00250	0.00321	1	01/30/2021 08:24	WG1613622
1,1-Dichloroethane	U		0.000630	0.00250	0.00321	1	01/30/2021 08:24	WG1613622
1,2-Dichloroethane	U		0.000833	0.00250	0.00321	1	01/30/2021 08:24	WG1613622
1,1-Dichloroethene	U		0.000778	0.00250	0.00321	1	01/30/2021 08:24	WG1613622
cis-1,2-Dichloroethene	U		0.000942	0.00250	0.00321	1	01/30/2021 08:24	WG1613622
trans-1,2-Dichloroethene	U	J4	0.00133	0.00500	0.00642	1	01/30/2021 08:24	WG1613622
1,2-Dichloropropane	U		0.00182	0.00500	0.00642	1	01/30/2021 08:24	WG1613622
1,1-Dichloropropene	U		0.00104	0.00250	0.00321	1	01/30/2021 08:24	WG1613622
1,3-Dichloropropane	U		0.000643	0.00500	0.00642	1	01/30/2021 08:24	WG1613622
cis-1,3-Dichloropropene	U		0.000972	0.00250	0.00321	1	01/30/2021 08:24	WG1613622
trans-1,3-Dichloropropene	U		0.00146	0.00500	0.00642	1	01/30/2021 08:24	WG1613622
2,2-Dichloropropane	U		0.00177	0.00250	0.00321	1	01/30/2021 08:24	WG1613622
Ethylbenzene	U		0.000946	0.00250	0.00321	1	01/30/2021 08:24	WG1613622
Hexachloro-1,3-butadiene	U		0.00770	0.0250	0.0321	1	01/30/2021 08:24	WG1613622
2-Hexanone	U		0.00431	0.0250	0.0321	1	01/30/2021 08:24	WG1613622
Isopropylbenzene	0.000573	J	0.000546	0.00250	0.00321	1	01/30/2021 08:24	WG1613622
p-Isopropyltoluene	U		0.00327	0.00500	0.00642	1	01/30/2021 08:24	WG1613622
2-Butanone (MEK)	U		0.0815	0.100	0.128	1	01/30/2021 08:24	WG1613622
Methylene Chloride	U		0.00852	0.0250	0.0321	1	01/30/2021 08:24	WG1613622
4-Methyl-2-pentanone (MIBK)	U		0.00293	0.0250	0.0321	1	01/30/2021 08:24	WG1613622
Methyl tert-butyl ether	U		0.000449	0.00100	0.00128	1	01/30/2021 08:24	WG1613622
Naphthalene	U		0.00626	0.0125	0.0160	1	01/30/2021 08:24	WG1613622
n-Propylbenzene	U		0.00122	0.00500	0.00642	1	01/30/2021 08:24	WG1613622
Styrene	0.000365	J	0.000294	0.0125	0.0160	1	01/30/2021 08:24	WG1613622
1,1,1,2-Tetrachloroethane	U		0.00122	0.00250	0.00321	1	01/30/2021 08:24	WG1613622
1,1,2,2-Tetrachloroethane	U		0.000892	0.00250	0.00321	1	01/30/2021 08:24	WG1613622
Tetrachloroethene	U		0.00115	0.00250	0.00321	1	01/30/2021 08:24	WG1613622
Toluene	U		0.00167	0.00500	0.00642	1	01/30/2021 08:24	WG1613622
1,2,3-Trichlorobenzene	U		0.00941	0.0125	0.0160	1	01/30/2021 08:24	WG1613622
1,2,4-Trichlorobenzene	U		0.00565	0.0125	0.0160	1	01/30/2021 08:24	WG1613622
1,1,1-Trichloroethane	U	J4	0.00118	0.00250	0.00321	1	01/30/2021 08:24	WG1613622
1,1,2-Trichloroethane	U		0.000766	0.00250	0.00321	1	01/30/2021 08:24	WG1613622
Trichloroethene	U	J4	0.000750	0.00100	0.00128	1	01/30/2021 08:24	WG1613622
Trichlorofluoromethane	U		0.00106	0.00250	0.00321	1	01/30/2021 08:24	WG1613622
1,2,3-Trichloropropane	U		0.00208	0.0125	0.0160	1	01/30/2021 08:24	WG1613622
1,2,4-Trimethylbenzene	0.00266	B J	0.00203	0.00500	0.00642	1	01/30/2021 08:24	WG1613622
1,3,5-Trimethylbenzene	U		0.00257	0.00500	0.00642	1	01/30/2021 08:24	WG1613622
Vinyl chloride	U		0.00149	0.00250	0.00321	1	01/30/2021 08:24	WG1613622
Xylenes, Total	0.00338	J	0.00113	0.00650	0.00834	1	01/30/2021 08:24	WG1613622
(S) Toluene-d8	104				75.0-131		01/30/2021 08:24	WG1613622
(S) 4-Bromofluorobenzene	97.7				67.0-138		01/30/2021 08:24	WG1613622
(S) 1,2-Dichloroethane-d4	91.1				70.0-130		01/30/2021 08:24	WG1613622

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

TPH by TCEQ Method 1005

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		16.9	50.0	56.3	1	02/03/2021 21:42	WG1615114
TPH C12 - C28	36.9	J	16.9	50.0	56.3	1	02/03/2021 21:42	WG1615114
TPH C28 - C35	65.7		16.9	50.0	56.3	1	02/03/2021 21:42	WG1615114
TPH C6 - C35	103		16.9	50.0	56.3	1	02/03/2021 21:42	WG1615114
(S) o-Terphenyl	78.8				70.0-130		02/03/2021 21:42	WG1615114



Collected date/time: 01/27/21 11:10

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0607	0.0333	0.375	10	02/03/2021 02:48	WG1614577
Acenaphthylene	0.313	U	0.0529	0.0333	0.375	10	02/03/2021 02:48	WG1614577
Anthracene	1.14		0.0668	0.0333	0.375	10	02/03/2021 02:48	WG1614577
Benzo(a)anthracene	0.628		0.0662	0.0333	0.375	10	02/03/2021 02:48	WG1614577
Benzo(b)fluoranthene	1.36		0.0700	0.0333	0.375	10	02/03/2021 02:48	WG1614577
Benzo(k)fluoranthene	0.427		0.0667	0.0333	0.375	10	02/03/2021 02:48	WG1614577
Benzo(g,h,i)perylene	1.58		0.0686	0.0333	0.375	10	02/03/2021 02:48	WG1614577
Benzo(a)pyrene	0.701		0.0698	0.0333	0.375	10	02/03/2021 02:48	WG1614577
Benzoic acid	U		1.33	1.67	18.8	10	02/03/2021 02:48	WG1614577
Benzyl alcohol	U		0.139	0.333	3.75	10	02/03/2021 02:48	WG1614577
Bis(2-chlorethoxy)methane	U		0.113	0.333	3.75	10	02/03/2021 02:48	WG1614577
Bis(2-chloroethyl)ether	U		0.124	0.333	3.75	10	02/03/2021 02:48	WG1614577
2,2-Oxybis(1-Chloropropane)	U		0.162	0.333	3.75	10	02/03/2021 02:48	WG1614577
4-Bromophenyl-phenylether	U		0.132	0.333	3.75	10	02/03/2021 02:48	WG1614577
Carbazole	0.188	U	0.116	0.333	3.75	10	02/03/2021 02:48	WG1614577
2-Chloronaphthalene	U		0.0659	0.0333	0.375	10	02/03/2021 02:48	WG1614577
4-Chloroaniline	U		0.135	0.333	3.75	10	02/03/2021 02:48	WG1614577
4-Chlorophenyl-phenylether	U		0.131	0.333	3.75	10	02/03/2021 02:48	WG1614577
Chrysene	0.535		0.0746	0.0333	0.375	10	02/03/2021 02:48	WG1614577
Dibenz(a,h)anthracene	0.158	U	0.104	0.0333	0.375	10	02/03/2021 02:48	WG1614577
Dibenzofuran	U		0.123	0.333	3.75	10	02/03/2021 02:48	WG1614577
3,3-Dichlorobenzidine	U		0.139	0.333	3.75	10	02/03/2021 02:48	WG1614577
2,4-Dinitrotoluene	U		0.108	0.333	3.75	10	02/03/2021 02:48	WG1614577
2,6-Dinitrotoluene	U		0.123	0.333	3.75	10	02/03/2021 02:48	WG1614577
Fluoranthene	0.834		0.0677	0.0333	0.375	10	02/03/2021 02:48	WG1614577
Fluorene	U		0.0611	0.0333	0.375	10	02/03/2021 02:48	WG1614577
Hexachlorobenzene	U		0.133	0.333	3.75	10	02/03/2021 02:48	WG1614577
Hexachloro-1,3-butadiene	U		0.126	0.333	3.75	10	02/03/2021 02:48	WG1614577
Hexachlorocyclopentadiene	U		0.197	0.333	3.75	10	02/03/2021 02:48	WG1614577
Hexachloroethane	U		0.148	0.333	3.75	10	02/03/2021 02:48	WG1614577
Indeno(1,2,3-cd)pyrene	0.657		0.106	0.0333	0.375	10	02/03/2021 02:48	WG1614577
Isophorone	U		0.115	0.333	3.75	10	02/03/2021 02:48	WG1614577
2-Methylnaphthalene	U		0.0487	0.0333	0.375	10	02/03/2021 02:48	WG1614577
Naphthalene	U		0.0942	0.0333	0.375	10	02/03/2021 02:48	WG1614577
2-Nitroaniline	U		0.121	0.333	3.75	10	02/03/2021 02:48	WG1614577
3-Nitroaniline	U		0.119	0.333	3.75	10	02/03/2021 02:48	WG1614577
4-Nitroaniline	U		0.109	0.333	3.75	10	02/03/2021 02:48	WG1614577
Nitrobenzene	U		0.131	0.333	3.75	10	02/03/2021 02:48	WG1614577
n-Nitrosodimethylamine	U		0.557	0.333	3.75	10	02/03/2021 02:48	WG1614577
n-Nitrosodiphenylamine	U		0.284	0.333	3.75	10	02/03/2021 02:48	WG1614577
n-Nitrosodi-n-propylamine	U		0.125	0.333	3.75	10	02/03/2021 02:48	WG1614577
Phenanthrene	0.179	U	0.0745	0.0333	0.375	10	02/03/2021 02:48	WG1614577
Benzylbutyl phthalate	U		0.117	0.333	3.75	10	02/03/2021 02:48	WG1614577
Bis(2-ethylhexyl)phthalate	U		0.476	0.333	3.75	10	02/03/2021 02:48	WG1614577
Di-n-butyl phthalate	U		0.128	0.333	3.75	10	02/03/2021 02:48	WG1614577
Diethyl phthalate	U		0.124	0.333	3.75	10	02/03/2021 02:48	WG1614577
Dimethyl phthalate	U		0.796	0.333	3.75	10	02/03/2021 02:48	WG1614577
Di-n-octyl phthalate	U		0.254	0.333	3.75	10	02/03/2021 02:48	WG1614577
Pyrene	0.894		0.0730	0.0333	0.375	10	02/03/2021 02:48	WG1614577
Pyridine	U		0.248	0.333	3.75	10	02/03/2021 02:48	WG1614577
1,2,4-Trichlorobenzene	U		0.117	0.333	3.75	10	02/03/2021 02:48	WG1614577
4-Chloro-3-methylphenol	U		0.122	0.333	3.75	10	02/03/2021 02:48	WG1614577
2-Chlorophenol	U		0.124	0.333	3.75	10	02/03/2021 02:48	WG1614577
2,4-Dichlorophenol	U		0.109	0.333	3.75	10	02/03/2021 02:48	WG1614577
2,4-Dimethylphenol	U		0.0980	0.333	3.75	10	02/03/2021 02:48	WG1614577
4,6-Dinitro-2-methylphenol	U		0.851	0.333	3.75	10	02/03/2021 02:48	WG1614577

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc



Collected date/time: 01/27/21 11:10

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
2,4-Dinitrophenol	U		0.878	0.333	3.75	10	02/03/2021 02:48	WG1614577
2-Methylphenol	U		0.113	0.333	3.75	10	02/03/2021 02:48	WG1614577
3&4-Methyl Phenol	U		0.117	0.333	3.75	10	02/03/2021 02:48	WG1614577
2-Nitrophenol	U		0.134	0.333	3.75	10	02/03/2021 02:48	WG1614577
4-Nitrophenol	U		0.117	0.333	3.75	10	02/03/2021 02:48	WG1614577
Pentachlorophenol	U		0.101	0.333	3.75	10	02/03/2021 02:48	WG1614577
Phenol	U		0.151	0.333	3.75	10	02/03/2021 02:48	WG1614577
2,4,5-Trichlorophenol	U		0.127	0.333	3.75	10	02/03/2021 02:48	WG1614577
2,4,6-Trichlorophenol	U		0.121	0.333	3.75	10	02/03/2021 02:48	WG1614577
(S) 2-Fluorophenol	68.3				12.0-120		02/03/2021 02:48	WG1614577
(S) Phenol-d5	61.2				10.0-120		02/03/2021 02:48	WG1614577
(S) Nitrobenzene-d5	50.2				10.0-122		02/03/2021 02:48	WG1614577
(S) 2-Fluorobiphenyl	60.6				15.0-120		02/03/2021 02:48	WG1614577
(S) 2,4,6-Tribromophenol	55.5				10.0-127		02/03/2021 02:48	WG1614577
(S) p-Terphenyl-d14	63.6				10.0-120		02/03/2021 02:48	WG1614577

¹ Cp² Tc³ Ss⁴ Cn⁵ Tr⁶ Sr⁷ Qc⁸ Gl⁹ Al¹⁰ Sc



Collected date/time: 01/27/21 08:55

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Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.9		1	02/03/2021 15:44	WG1614564

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Mercury	0.0334	<u>J</u>	0.0192	0.0400	0.0426	1	02/03/2021 10:07	WG1614236

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Arsenic	22.4		0.552	2.00	2.13	1	01/30/2021 19:46	WG1613802
Barium	563		0.0908	0.500	0.533	1	01/30/2021 19:46	WG1613802
Cadmium	0.869		0.0502	0.500	0.533	1	01/30/2021 19:46	WG1613802
Chromium	20.8		0.142	1.00	1.07	1	01/30/2021 19:46	WG1613802
Lead	80.2		0.222	0.500	0.533	1	01/30/2021 19:46	WG1613802
Selenium	1.88	<u>J</u>	0.814	2.00	2.13	1	01/30/2021 19:46	WG1613802
Silver	U		0.135	1.00	1.07	1	01/30/2021 19:46	WG1613802

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Acetone	U	<u>J4</u>	0.0420	0.0500	0.0576	1	01/30/2021 17:37	WG1613623
Benzene	U		0.000538	0.00100	0.00115	1	01/30/2021 17:37	WG1613623
Bromobenzene	U		0.00104	0.0125	0.0144	1	01/30/2021 17:37	WG1613623
Bromochloromethane	U	<u>J4</u>	0.000650	0.00500	0.00576	1	01/30/2021 17:37	WG1613623
Bromodichloromethane	U		0.000835	0.00250	0.00288	1	01/30/2021 17:37	WG1613623
Bromoform	U		0.00135	0.0250	0.0288	1	01/30/2021 17:37	WG1613623
Bromomethane	U		0.00227	0.0125	0.0144	1	01/30/2021 17:37	WG1613623
n-Butylbenzene	U		0.00605	0.0125	0.0144	1	01/30/2021 17:37	WG1613623
sec-Butylbenzene	U		0.00332	0.0125	0.0144	1	01/30/2021 17:37	WG1613623
tert-Butylbenzene	U		0.00225	0.00500	0.00576	1	01/30/2021 17:37	WG1613623
Carbon disulfide	U		0.000806	0.0125	0.0144	1	01/30/2021 17:37	WG1613623
Carbon tetrachloride	U		0.00103	0.00500	0.00576	1	01/30/2021 17:37	WG1613623
Chlorobenzene	U		0.000242	0.00250	0.00288	1	01/30/2021 17:37	WG1613623
Chlorodibromomethane	U		0.000705	0.00250	0.00288	1	01/30/2021 17:37	WG1613623
Chloroethane	U		0.00196	0.00500	0.00576	1	01/30/2021 17:37	WG1613623
Chloroform	U		0.00119	0.00250	0.00288	1	01/30/2021 17:37	WG1613623
Chloromethane	U		0.00501	0.0125	0.0144	1	01/30/2021 17:37	WG1613623
2-Chlorotoluene	U		0.000996	0.00250	0.00288	1	01/30/2021 17:37	WG1613623
4-Chlorotoluene	U		0.000518	0.00500	0.00576	1	01/30/2021 17:37	WG1613623
1,2-Dibromo-3-Chloropropane	U		0.00449	0.0250	0.0288	1	01/30/2021 17:37	WG1613623
1,2-Dibromoethane	U		0.000746	0.00250	0.00288	1	01/30/2021 17:37	WG1613623
Dibromomethane	U		0.000864	0.00500	0.00576	1	01/30/2021 17:37	WG1613623
1,2-Dichlorobenzene	U		0.000489	0.00500	0.00576	1	01/30/2021 17:37	WG1613623
1,3-Dichlorobenzene	U		0.000691	0.00500	0.00576	1	01/30/2021 17:37	WG1613623
1,4-Dichlorobenzene	U		0.000806	0.00500	0.00576	1	01/30/2021 17:37	WG1613623
Dichlorodifluoromethane	U		0.00185	0.00250	0.00288	1	01/30/2021 17:37	WG1613623
1,1-Dichloroethane	U		0.000565	0.00250	0.00288	1	01/30/2021 17:37	WG1613623
1,2-Dichloroethane	U		0.000747	0.00250	0.00288	1	01/30/2021 17:37	WG1613623
1,1-Dichloroethene	U		0.000698	0.00250	0.00288	1	01/30/2021 17:37	WG1613623
cis-1,2-Dichloroethene	U		0.000845	0.00250	0.00288	1	01/30/2021 17:37	WG1613623
trans-1,2-Dichloroethene	U		0.00120	0.00500	0.00576	1	01/30/2021 17:37	WG1613623
1,2-Dichloropropane	U		0.00164	0.00500	0.00576	1	01/30/2021 17:37	WG1613623
1,1-Dichloropropene	U		0.000932	0.00250	0.00288	1	01/30/2021 17:37	WG1613623





Collected date/time: 01/27/21 08:55

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,3-Dichloropropane	U		0.000577	0.00500	0.00576	1	01/30/2021 17:37	WG1613623
cis-1,3-Dichloropropene	U		0.000872	0.00250	0.00288	1	01/30/2021 17:37	WG1613623
trans-1,3-Dichloropropene	U		0.00131	0.00500	0.00576	1	01/30/2021 17:37	WG1613623
2,2-Dichloropropane	U		0.00159	0.00250	0.00288	1	01/30/2021 17:37	WG1613623
Ethylbenzene	U		0.000849	0.00250	0.00288	1	01/30/2021 17:37	WG1613623
Hexachloro-1,3-butadiene	U		0.00691	0.0250	0.0288	1	01/30/2021 17:37	WG1613623
2-Hexanone	U		0.00387	0.0250	0.0288	1	01/30/2021 17:37	WG1613623
Isopropylbenzene	U		0.000489	0.00250	0.00288	1	01/30/2021 17:37	WG1613623
p-Isopropyltoluene	U		0.00294	0.00500	0.00576	1	01/30/2021 17:37	WG1613623
2-Butanone (MEK)	U		0.0731	0.100	0.115	1	01/30/2021 17:37	WG1613623
Methylene Chloride	U		0.00765	0.0250	0.0288	1	01/30/2021 17:37	WG1613623
4-Methyl-2-pentanone (MIBK)	U		0.00263	0.0250	0.0288	1	01/30/2021 17:37	WG1613623
Methyl tert-butyl ether	U		0.000403	0.00100	0.00115	1	01/30/2021 17:37	WG1613623
Naphthalene	U		0.00562	0.0125	0.0144	1	01/30/2021 17:37	WG1613623
n-Propylbenzene	U		0.00109	0.00500	0.00576	1	01/30/2021 17:37	WG1613623
Styrene	0.000302	J	0.000264	0.0125	0.0144	1	01/30/2021 17:37	WG1613623
1,1,1,2-Tetrachloroethane	U		0.00109	0.00250	0.00288	1	01/30/2021 17:37	WG1613623
1,1,2,2-Tetrachloroethane	U		0.000800	0.00250	0.00288	1	01/30/2021 17:37	WG1613623
Tetrachloroethene	U		0.00103	0.00250	0.00288	1	01/30/2021 17:37	WG1613623
Toluene	U		0.00150	0.00500	0.00576	1	01/30/2021 17:37	WG1613623
1,2,3-Trichlorobenzene	U		0.00844	0.0125	0.0144	1	01/30/2021 17:37	WG1613623
1,2,4-Trichlorobenzene	U		0.00507	0.0125	0.0144	1	01/30/2021 17:37	WG1613623
1,1,1-Trichloroethane	U		0.00106	0.00250	0.00288	1	01/30/2021 17:37	WG1613623
1,1,2-Trichloroethane	U		0.000688	0.00250	0.00288	1	01/30/2021 17:37	WG1613623
Trichloroethene	U		0.000673	0.00100	0.00115	1	01/30/2021 17:37	WG1613623
Trichlorofluoromethane	U		0.000952	0.00250	0.00288	1	01/30/2021 17:37	WG1613623
1,2,3-Trichloropropane	U		0.00187	0.0125	0.0144	1	01/30/2021 17:37	WG1613623
1,2,4-Trimethylbenzene	U		0.00182	0.00500	0.00576	1	01/30/2021 17:37	WG1613623
1,3,5-Trimethylbenzene	U		0.00230	0.00500	0.00576	1	01/30/2021 17:37	WG1613623
Vinyl chloride	U		0.00134	0.00250	0.00288	1	01/30/2021 17:37	WG1613623
Xylenes, Total	0.00217	J	0.00101	0.00650	0.00749	1	01/30/2021 17:37	WG1613623
(S) Toluene-d8	97.9				75.0-131		01/30/2021 17:37	WG1613623
(S) 4-Bromofluorobenzene	98.1				67.0-138		01/30/2021 17:37	WG1613623
(S) 1,2-Dichloroethane-d4	86.5				70.0-130		01/30/2021 17:37	WG1613623

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

TPH by TCEQ Method 1005

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		16.0	50.0	53.3	1	02/03/2021 19:07	WG1615114
TPH C12 - C28	U		16.0	50.0	53.3	1	02/03/2021 19:07	WG1615114
TPH C28 - C35	U		16.0	50.0	53.3	1	02/03/2021 19:07	WG1615114
TPH C6 - C35	U		16.0	50.0	53.3	1	02/03/2021 19:07	WG1615114
(S) o-Terphenyl	82.5				70.0-130		02/03/2021 19:07	WG1615114

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	0.0153	J	0.0115	0.0333	0.0709	2	02/05/2021 17:52	WG1616776
Acenaphthylene	0.107		0.00999	0.0333	0.0709	2	02/05/2021 17:52	WG1616776
Anthracene	0.132		0.0126	0.0333	0.0709	2	02/05/2021 17:52	WG1616776
Benzo(a)anthracene	0.235		0.0125	0.0333	0.0709	2	02/05/2021 17:52	WG1616776
Benzo(b)fluoranthene	0.616		0.0132	0.0333	0.0709	2	02/05/2021 17:52	WG1616776
Benzo(k)fluoranthene	0.156		0.0126	0.0333	0.0709	2	02/05/2021 17:52	WG1616776
Benzo(g,h,i)perylene	0.274		0.0130	0.0333	0.0709	2	02/05/2021 17:52	WG1616776
Benzo(a)pyrene	0.298		0.0132	0.0333	0.0709	2	02/05/2021 17:52	WG1616776



Collected date/time: 01/27/21 08:55

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzoic acid	U		0.251	1.67	3.56	2	02/05/2021 17:52	WG1616776
Benzyl alcohol	U		0.0262	0.333	0.709	2	02/05/2021 17:52	WG1616776
Bis(2-chlorethoxy)methane	U		0.0213	0.333	0.709	2	02/05/2021 17:52	WG1616776
Bis(2-chloroethyl)ether	U		0.0234	0.333	0.709	2	02/05/2021 17:52	WG1616776
2,2-Oxybis(1-Chloropropane)	U		0.0307	0.333	0.709	2	02/05/2021 17:52	WG1616776
4-Bromophenyl-phenylether	U		0.0249	0.333	0.709	2	02/05/2021 17:52	WG1616776
Carbazole	0.0764	L	0.0219	0.333	0.709	2	02/05/2021 17:52	WG1616776
2-Chloronaphthalene	U		0.0125	0.0333	0.0709	2	02/05/2021 17:52	WG1616776
4-Chloroaniline	U		0.0256	0.333	0.709	2	02/05/2021 17:52	WG1616776
4-Chlorophenyl-phenylether	U		0.0247	0.333	0.709	2	02/05/2021 17:52	WG1616776
Chrysene	0.317		0.0141	0.0333	0.0709	2	02/05/2021 17:52	WG1616776
Dibenz(a,h)anthracene	0.0416	L	0.0197	0.0333	0.0709	2	02/05/2021 17:52	WG1616776
Dibenzofuran	U		0.0232	0.333	0.709	2	02/05/2021 17:52	WG1616776
3,3-Dichlorobenzidine	U		0.0262	0.333	0.709	2	02/05/2021 17:52	WG1616776
2,4-Dinitrotoluene	U		0.0203	0.333	0.709	2	02/05/2021 17:52	WG1616776
2,6-Dinitrotoluene	U		0.0232	0.333	0.709	2	02/05/2021 17:52	WG1616776
Fluoranthene	0.410		0.0128	0.0333	0.0709	2	02/05/2021 17:52	WG1616776
Fluorene	U		0.0115	0.0333	0.0709	2	02/05/2021 17:52	WG1616776
Hexachlorobenzene	U		0.0251	0.333	0.709	2	02/05/2021 17:52	WG1616776
Hexachloro-1,3-butadiene	U		0.0239	0.333	0.709	2	02/05/2021 17:52	WG1616776
Hexachlorocyclopentadiene	U		0.0373	0.333	0.709	2	02/05/2021 17:52	WG1616776
Hexachloroethane	U		0.0279	0.333	0.709	2	02/05/2021 17:52	WG1616776
Indeno(1,2,3-cd)pyrene	0.196		0.0200	0.0333	0.0709	2	02/05/2021 17:52	WG1616776
Isophorone	U		0.0217	0.333	0.709	2	02/05/2021 17:52	WG1616776
2-Methylnaphthalene	0.0115	L	0.00920	0.0333	0.0709	2	02/05/2021 17:52	WG1616776
Naphthalene	U		0.0178	0.0333	0.0709	2	02/05/2021 17:52	WG1616776
2-Nitroaniline	U		0.0228	0.333	0.709	2	02/05/2021 17:52	WG1616776
3-Nitroaniline	U		0.0226	0.333	0.709	2	02/05/2021 17:52	WG1616776
4-Nitroaniline	U		0.0207	0.333	0.709	2	02/05/2021 17:52	WG1616776
Nitrobenzene	U		0.0247	0.333	0.709	2	02/05/2021 17:52	WG1616776
n-Nitrosodimethylamine	U		0.105	0.333	0.709	2	02/05/2021 17:52	WG1616776
n-Nitrosodiphenylamine	U		0.0537	0.333	0.709	2	02/05/2021 17:52	WG1616776
n-Nitrosodi-n-propylamine	U		0.0236	0.333	0.709	2	02/05/2021 17:52	WG1616776
Phenanthrene	0.171		0.0141	0.0333	0.0709	2	02/05/2021 17:52	WG1616776
Benzylbutyl phthalate	U		0.0222	0.333	0.709	2	02/05/2021 17:52	WG1616776
Bis(2-ethylhexyl)phthalate	U		0.0899	0.333	0.709	2	02/05/2021 17:52	WG1616776
Di-n-butyl phthalate	U		0.0243	0.333	0.709	2	02/05/2021 17:52	WG1616776
Diethyl phthalate	U		0.0234	0.333	0.709	2	02/05/2021 17:52	WG1616776
Dimethyl phthalate	U		0.150	0.333	0.709	2	02/05/2021 17:52	WG1616776
Di-n-octyl phthalate	U		0.0479	0.333	0.709	2	02/05/2021 17:52	WG1616776
Pyrene	0.509		0.0138	0.0333	0.0709	2	02/05/2021 17:52	WG1616776
Pyridine	U		0.0469	0.333	0.709	2	02/05/2021 17:52	WG1616776
1,2,4-Trichlorobenzene	U		0.0222	0.333	0.709	2	02/05/2021 17:52	WG1616776
4-Chloro-3-methylphenol	U		0.0230	0.333	0.709	2	02/05/2021 17:52	WG1616776
2-Chlorophenol	U		0.0234	0.333	0.709	2	02/05/2021 17:52	WG1616776
2,4-Dichlorophenol	U		0.0207	0.333	0.709	2	02/05/2021 17:52	WG1616776
2,4-Dimethylphenol	U		0.0185	0.333	0.709	2	02/05/2021 17:52	WG1616776
4,6-Dinitro-2-methylphenol	U		0.161	0.333	0.709	2	02/05/2021 17:52	WG1616776
2,4-Dinitrophenol	U		0.166	0.333	0.709	2	02/05/2021 17:52	WG1616776
2-Methylphenol	U		0.0213	0.333	0.709	2	02/05/2021 17:52	WG1616776
3&4-Methyl Phenol	U		0.0222	0.333	0.709	2	02/05/2021 17:52	WG1616776
2-Nitrophenol	U		0.0254	0.333	0.709	2	02/05/2021 17:52	WG1616776
4-Nitrophenol	U		0.0222	0.333	0.709	2	02/05/2021 17:52	WG1616776
Pentachlorophenol	U		0.0191	0.333	0.709	2	02/05/2021 17:52	WG1616776
Phenol	U		0.0285	0.333	0.709	2	02/05/2021 17:52	WG1616776
2,4,5-Trichlorophenol	U		0.0241	0.333	0.709	2	02/05/2021 17:52	WG1616776

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc



Collected date/time: 01/27/21 08:55

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
2,4,6-Trichlorophenol	U		0.0228	0.333	0.709	2	02/05/2021 17:52	WG1616776
(S) 2-Fluorophenol	84.4				12.0-120		02/05/2021 17:52	WG1616776
(S) Phenol-d5	76.4				10.0-120		02/05/2021 17:52	WG1616776
(S) Nitrobenzene-d5	74.3				10.0-122		02/05/2021 17:52	WG1616776
(S) 2-Fluorobiphenyl	82.0				15.0-120		02/05/2021 17:52	WG1616776
(S) 2,4,6-Tribromophenol	82.2				10.0-127		02/05/2021 17:52	WG1616776
(S) p-Terphenyl-d14	97.5				10.0-120		02/05/2021 17:52	WG1616776

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Tr

⁶ Sr

⁷ Qc

⁸ Gl

⁹ Al

¹⁰ Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.8		1	02/03/2021 15:44	WG1614564

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Mercury	0.135		0.0198	0.0400	0.0441	1	02/03/2021 10:09	WG1614236

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Arsenic	47.1		0.571	2.00	2.20	1	01/30/2021 19:49	WG1613802
Barium	514		0.0939	0.500	0.551	1	01/30/2021 19:49	WG1613802
Cadmium	2.24		0.0519	0.500	0.551	1	01/30/2021 19:49	WG1613802
Chromium	31.8		0.147	1.00	1.10	1	01/30/2021 19:49	WG1613802
Lead	112		0.229	0.500	0.551	1	01/30/2021 19:49	WG1613802
Selenium	2.80		0.842	2.00	2.20	1	01/30/2021 19:49	WG1613802
Silver	0.184	J	0.140	1.00	1.10	1	01/30/2021 19:49	WG1613802

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Acetone	U		0.0457	0.0500	0.0626	1	02/03/2021 20:08	WG1615753
Benzene	U		0.000585	0.00100	0.00125	1	01/30/2021 17:56	WG1613623
Bromobenzene	U		0.00113	0.0125	0.0157	1	01/30/2021 17:56	WG1613623
Bromochloromethane	U	J4	0.000707	0.00500	0.00626	1	01/30/2021 17:56	WG1613623
Bromodichloromethane	U		0.000908	0.00250	0.00313	1	01/30/2021 17:56	WG1613623
Bromoform	U		0.00147	0.0250	0.0313	1	01/30/2021 17:56	WG1613623
Bromomethane	U		0.00247	0.0125	0.0157	1	01/30/2021 17:56	WG1613623
n-Butylbenzene	U		0.00658	0.0125	0.0157	1	01/30/2021 17:56	WG1613623
sec-Butylbenzene	U		0.00361	0.0125	0.0157	1	01/30/2021 17:56	WG1613623
tert-Butylbenzene	U		0.00244	0.00500	0.00626	1	01/30/2021 17:56	WG1613623
Carbon disulfide	U		0.000877	0.0125	0.0157	1	01/30/2021 17:56	WG1613623
Carbon tetrachloride	U		0.00112	0.00500	0.00626	1	01/30/2021 17:56	WG1613623
Chlorobenzene	U		0.000263	0.00250	0.00313	1	01/30/2021 17:56	WG1613623
Chlorodibromomethane	U		0.000767	0.00250	0.00313	1	01/30/2021 17:56	WG1613623
Chloroethane	U		0.00213	0.00500	0.00626	1	01/30/2021 17:56	WG1613623
Chloroform	U		0.00129	0.00250	0.00313	1	01/30/2021 17:56	WG1613623
Chloromethane	U		0.00545	0.0125	0.0157	1	01/30/2021 17:56	WG1613623
2-Chlorotoluene	U		0.00108	0.00250	0.00313	1	01/30/2021 17:56	WG1613623
4-Chlorotoluene	U		0.000564	0.00500	0.00626	1	01/30/2021 17:56	WG1613623
1,2-Dibromo-3-Chloropropane	U		0.00489	0.0250	0.0313	1	01/30/2021 17:56	WG1613623
1,2-Dibromoethane	U		0.000812	0.00250	0.00313	1	01/30/2021 17:56	WG1613623
Dibromomethane	U		0.000939	0.00500	0.00626	1	01/30/2021 17:56	WG1613623
1,2-Dichlorobenzene	U		0.000532	0.00500	0.00626	1	01/30/2021 17:56	WG1613623
1,3-Dichlorobenzene	U		0.000752	0.00500	0.00626	1	01/30/2021 17:56	WG1613623
1,4-Dichlorobenzene	U		0.000877	0.00500	0.00626	1	01/30/2021 17:56	WG1613623
Dichlorodifluoromethane	U		0.00202	0.00250	0.00313	1	01/30/2021 17:56	WG1613623
1,1-Dichloroethane	U		0.000615	0.00250	0.00313	1	01/30/2021 17:56	WG1613623
1,2-Dichloroethane	U		0.000813	0.00250	0.00313	1	01/30/2021 17:56	WG1613623
1,1-Dichloroethene	U		0.000759	0.00250	0.00313	1	01/30/2021 17:56	WG1613623
cis-1,2-Dichloroethene	U		0.000919	0.00250	0.00313	1	01/30/2021 17:56	WG1613623
trans-1,2-Dichloroethene	U		0.00130	0.00500	0.00626	1	01/30/2021 17:56	WG1613623
1,2-Dichloropropane	U		0.00178	0.00500	0.00626	1	01/30/2021 17:56	WG1613623
1,1-Dichloropropene	U		0.00101	0.00250	0.00313	1	01/30/2021 17:56	WG1613623

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



Collected date/time: 01/27/21 09:55

L1311179

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,3-Dichloropropane	U		0.000628	0.00500	0.00626	1	01/30/2021 17:56	WG1613623
cis-1,3-Dichloropropene	U		0.000948	0.00250	0.00313	1	01/30/2021 17:56	WG1613623
trans-1,3-Dichloropropene	U		0.00143	0.00500	0.00626	1	01/30/2021 17:56	WG1613623
2,2-Dichloropropane	U		0.00173	0.00250	0.00313	1	01/30/2021 17:56	WG1613623
Ethylbenzene	U		0.000923	0.00250	0.00313	1	01/30/2021 17:56	WG1613623
Hexachloro-1,3-butadiene	U		0.00752	0.0250	0.0313	1	01/30/2021 17:56	WG1613623
2-Hexanone	U		0.00421	0.0250	0.0313	1	01/30/2021 17:56	WG1613623
Isopropylbenzene	0.000630	L	0.000532	0.00250	0.00313	1	01/30/2021 17:56	WG1613623
p-Isopropyltoluene	U		0.00319	0.00500	0.00626	1	01/30/2021 17:56	WG1613623
2-Butanone (MEK)	U		0.0795	0.100	0.125	1	01/30/2021 17:56	WG1613623
Methylene Chloride	U		0.00832	0.0250	0.0313	1	01/30/2021 17:56	WG1613623
4-Methyl-2-pentanone (MIBK)	U		0.00286	0.0250	0.0313	1	01/30/2021 17:56	WG1613623
Methyl tert-butyl ether	U		0.000438	0.00100	0.00125	1	01/30/2021 17:56	WG1613623
Naphthalene	0.0197		0.00611	0.0125	0.0157	1	01/30/2021 17:56	WG1613623
n-Propylbenzene	U		0.00119	0.00500	0.00626	1	01/30/2021 17:56	WG1613623
Styrene	0.00137	L	0.000287	0.0125	0.0157	1	01/30/2021 17:56	WG1613623
1,1,1,2-Tetrachloroethane	U		0.00119	0.00250	0.00313	1	01/30/2021 17:56	WG1613623
1,1,2,2-Tetrachloroethane	U		0.000871	0.00250	0.00313	1	01/30/2021 17:56	WG1613623
Tetrachloroethene	U		0.00112	0.00250	0.00313	1	01/30/2021 17:56	WG1613623
Toluene	U		0.00163	0.00500	0.00626	1	01/30/2021 17:56	WG1613623
1,2,3-Trichlorobenzene	U		0.00918	0.0125	0.0157	1	01/30/2021 17:56	WG1613623
1,2,4-Trichlorobenzene	U		0.00551	0.0125	0.0157	1	01/30/2021 17:56	WG1613623
1,1,1-Trichloroethane	U		0.00116	0.00250	0.00313	1	01/30/2021 17:56	WG1613623
1,1,2-Trichloroethane	U		0.000748	0.00250	0.00313	1	01/30/2021 17:56	WG1613623
Trichloroethene	U		0.000732	0.00100	0.00125	1	01/30/2021 17:56	WG1613623
Trichlorofluoromethane	U		0.00104	0.00250	0.00313	1	01/30/2021 17:56	WG1613623
1,2,3-Trichloropropane	U		0.00203	0.0125	0.0157	1	01/30/2021 17:56	WG1613623
1,2,4-Trimethylbenzene	U		0.00198	0.00500	0.00626	1	01/30/2021 17:56	WG1613623
1,3,5-Trimethylbenzene	U		0.00251	0.00500	0.00626	1	01/30/2021 17:56	WG1613623
Vinyl chloride	U		0.00145	0.00250	0.00313	1	01/30/2021 17:56	WG1613623
Xylenes, Total	0.00346	L	0.00110	0.00650	0.00814	1	01/30/2021 17:56	WG1613623
(S) Toluene-d8	99.3				75.0-131		01/30/2021 17:56	WG1613623
(S) Toluene-d8	107				75.0-131		02/03/2021 20:08	WG1615753
(S) 4-Bromofluorobenzene	100				67.0-138		01/30/2021 17:56	WG1613623
(S) 4-Bromofluorobenzene	95.7				67.0-138		02/03/2021 20:08	WG1615753
(S) 1,2-Dichloroethane-d4	89.8				70.0-130		01/30/2021 17:56	WG1613623
(S) 1,2-Dichloroethane-d4	75.1				70.0-130		02/03/2021 20:08	WG1615753

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

TPH by TCEQ Method 1005

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		16.5	50.0	55.1	1	02/03/2021 21:58	WG1615114
TPH C12 - C28	67.7		16.5	50.0	55.1	1	02/03/2021 21:58	WG1615114
TPH C28 - C35	88.3		16.5	50.0	55.1	1	02/03/2021 21:58	WG1615114
TPH C6 - C35	156		16.5	50.0	55.1	1	02/03/2021 21:58	WG1615114
(S) o-Terphenyl	78.8				70.0-130		02/03/2021 21:58	WG1615114

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.237	0.0333	1.47	40	02/05/2021 20:24	WG1616776
Acenaphthylene	0.769	L	0.207	0.0333	1.47	40	02/05/2021 20:24	WG1616776
Anthracene	1.26	L	0.261	0.0333	1.47	40	02/05/2021 20:24	WG1616776
Benzo(a)anthracene	0.865	L	0.259	0.0333	1.47	40	02/05/2021 20:24	WG1616776
Benzo(b)fluoranthene	5.60		0.274	0.0333	1.47	40	02/05/2021 20:24	WG1616776



Collected date/time: 01/27/21 09:55

L1311179

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzo(k)fluoranthene	1.26	U	0.261	0.0333	1.47	40	02/05/2021 20:24	WG1616776
Benzo(g,h,i)perylene	1.60		0.268	0.0333	1.47	40	02/05/2021 20:24	WG1616776
Benzo(a)pyrene	2.52		0.273	0.0333	1.47	40	02/05/2021 20:24	WG1616776
Benzoic acid	U		5.20	1.67	73.6	40	02/05/2021 20:24	WG1616776
Benzyl alcohol	U		0.542	0.333	14.7	40	02/05/2021 20:24	WG1616776
Bis(2-chloroethoxy)methane	U		0.441	0.333	14.7	40	02/05/2021 20:24	WG1616776
Bis(2-chloroethyl)ether	U		0.485	0.333	14.7	40	02/05/2021 20:24	WG1616776
2,2-Oxybis(1-Chloropropane)	U		0.634	0.333	14.7	40	02/05/2021 20:24	WG1616776
4-Bromophenyl-phenylether	U		0.516	0.333	14.7	40	02/05/2021 20:24	WG1616776
Carbazole	0.757	U	0.454	0.333	14.7	40	02/05/2021 20:24	WG1616776
2-Chloronaphthalene	U		0.258	0.0333	1.47	40	02/05/2021 20:24	WG1616776
4-Chloroaniline	U		0.529	0.333	14.7	40	02/05/2021 20:24	WG1616776
4-Chlorophenyl-phenylether	U		0.511	0.333	14.7	40	02/05/2021 20:24	WG1616776
Chrysene	0.756	U	0.292	0.0333	1.47	40	02/05/2021 20:24	WG1616776
Dibenz(a,h)anthracene	U		0.407	0.0333	1.47	40	02/05/2021 20:24	WG1616776
Dibenzofuran	U		0.480	0.333	14.7	40	02/05/2021 20:24	WG1616776
3,3-Dichlorobenzidine	U		0.542	0.333	14.7	40	02/05/2021 20:24	WG1616776
2,4-Dinitrotoluene	U		0.421	0.333	14.7	40	02/05/2021 20:24	WG1616776
2,6-Dinitrotoluene	U		0.480	0.333	14.7	40	02/05/2021 20:24	WG1616776
Fluoranthene	1.10	U	0.265	0.0333	1.47	40	02/05/2021 20:24	WG1616776
Fluorene	U		0.239	0.0333	1.47	40	02/05/2021 20:24	WG1616776
Hexachlorobenzene	U		0.520	0.333	14.7	40	02/05/2021 20:24	WG1616776
Hexachloro-1,3-butadiene	U		0.493	0.333	14.7	40	02/05/2021 20:24	WG1616776
Hexachlorocyclopentadiene	U		0.771	0.333	14.7	40	02/05/2021 20:24	WG1616776
Hexachloroethane	U		0.577	0.333	14.7	40	02/05/2021 20:24	WG1616776
Indeno(1,2,3-cd)pyrene	1.24	U	0.415	0.0333	1.47	40	02/05/2021 20:24	WG1616776
Isophorone	U		0.449	0.333	14.7	40	02/05/2021 20:24	WG1616776
2-Methylnaphthalene	U		0.190	0.0333	1.47	40	02/05/2021 20:24	WG1616776
Naphthalene	U		0.368	0.0333	1.47	40	02/05/2021 20:24	WG1616776
2-Nitroaniline	U		0.471	0.333	14.7	40	02/05/2021 20:24	WG1616776
3-Nitroaniline	U		0.467	0.333	14.7	40	02/05/2021 20:24	WG1616776
4-Nitroaniline	U		0.428	0.333	14.7	40	02/05/2021 20:24	WG1616776
Nitrobenzene	U		0.511	0.333	14.7	40	02/05/2021 20:24	WG1616776
n-Nitrosodimethylamine	U		2.18	0.333	14.7	40	02/05/2021 20:24	WG1616776
n-Nitrosodiphenylamine	U		1.11	0.333	14.7	40	02/05/2021 20:24	WG1616776
n-Nitrosodi-n-propylamine	U		0.489	0.333	14.7	40	02/05/2021 20:24	WG1616776
Phenanthrene	U		0.291	0.0333	1.47	40	02/05/2021 20:24	WG1616776
Benzylbutyl phthalate	U		0.458	0.333	14.7	40	02/05/2021 20:24	WG1616776
Bis(2-ethylhexyl)phthalate	U		1.86	0.333	14.7	40	02/05/2021 20:24	WG1616776
Di-n-butyl phthalate	U		0.502	0.333	14.7	40	02/05/2021 20:24	WG1616776
Diethyl phthalate	U		0.485	0.333	14.7	40	02/05/2021 20:24	WG1616776
Dimethyl phthalate	U		3.11	0.333	14.7	40	02/05/2021 20:24	WG1616776
Di-n-octyl phthalate	U		0.991	0.333	14.7	40	02/05/2021 20:24	WG1616776
Pyrene	1.54		0.286	0.0333	1.47	40	02/05/2021 20:24	WG1616776
Pyridine	U		0.969	0.333	14.7	40	02/05/2021 20:24	WG1616776
1,2,4-Trichlorobenzene	U		0.458	0.333	14.7	40	02/05/2021 20:24	WG1616776
4-Chloro-3-methylphenol	U		0.476	0.333	14.7	40	02/05/2021 20:24	WG1616776
2-Chlorophenol	U		0.485	0.333	14.7	40	02/05/2021 20:24	WG1616776
2,4-Dichlorophenol	U		0.427	0.333	14.7	40	02/05/2021 20:24	WG1616776
2,4-Dimethylphenol	U		0.383	0.333	14.7	40	02/05/2021 20:24	WG1616776
4,6-Dinitro-2-methylphenol	U		3.33	0.333	14.7	40	02/05/2021 20:24	WG1616776
2,4-Dinitrophenol	U		3.43	0.333	14.7	40	02/05/2021 20:24	WG1616776
2-Methylphenol	U		0.441	0.333	14.7	40	02/05/2021 20:24	WG1616776
3&4-Methyl Phenol	U		0.458	0.333	14.7	40	02/05/2021 20:24	WG1616776
2-Nitrophenol	U		0.524	0.333	14.7	40	02/05/2021 20:24	WG1616776
4-Nitrophenol	U		0.458	0.333	14.7	40	02/05/2021 20:24	WG1616776

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc



Collected date/time: 01/27/21 09:55

L1311179

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Pentachlorophenol	U		0.395	0.333	14.7	40	02/05/2021 20:24	WG1616776
Phenol	U		0.590	0.333	14.7	40	02/05/2021 20:24	WG1616776
2,4,5-Trichlorophenol	U		0.498	0.333	14.7	40	02/05/2021 20:24	WG1616776
2,4,6-Trichlorophenol	U		0.471	0.333	14.7	40	02/05/2021 20:24	WG1616776
(S) 2-Fluorophenol	79.8	J7			12.0-120		02/05/2021 20:24	WG1616776
(S) Phenol-d5	78.6	J7			10.0-120		02/05/2021 20:24	WG1616776
(S) Nitrobenzene-d5	77.2	J7			10.0-122		02/05/2021 20:24	WG1616776
(S) 2-Fluorobiphenyl	79.4	J7			15.0-120		02/05/2021 20:24	WG1616776
(S) 2,4,6-Tribromophenol	71.0	J7			10.0-127		02/05/2021 20:24	WG1616776
(S) p-Terphenyl-d14	87.8	J7			10.0-120		02/05/2021 20:24	WG1616776

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Tr

⁶ Sr

⁷ Qc

⁸ Gl

⁹ Al

¹⁰ Sc



Collected date/time: 01/27/21 12:40

L1311179

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.0		1	02/03/2021 15:44	WG1614564

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Mercury	0.103		0.0194	0.0400	0.0430	1	02/03/2021 10:12	WG1614236

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Arsenic	37.1		0.557	2.00	2.15	1	01/30/2021 19:52	WG1613802
Barium	551		0.0916	0.500	0.538	1	01/30/2021 19:52	WG1613802
Cadmium	1.25		0.0506	0.500	0.538	1	01/30/2021 19:52	WG1613802
Chromium	32.9		0.143	1.00	1.08	1	01/30/2021 19:52	WG1613802
Lead	116		0.224	0.500	0.538	1	01/30/2021 19:52	WG1613802
Selenium	2.56		0.822	2.00	2.15	1	01/30/2021 19:52	WG1613802
Silver	U		0.137	1.00	1.08	1	01/30/2021 19:52	WG1613802

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Acetone	U		0.0431	0.0500	0.0590	1	02/03/2021 20:27	WG1615753
Benzene	U		0.000551	0.00100	0.00118	1	01/30/2021 18:14	WG1613623
Bromobenzene	U		0.00106	0.0125	0.0148	1	01/30/2021 18:14	WG1613623
Bromochloromethane	U	J4	0.000666	0.00500	0.00590	1	01/30/2021 18:14	WG1613623
Bromodichloromethane	U		0.000856	0.00250	0.00295	1	01/30/2021 18:14	WG1613623
Bromoform	U		0.00138	0.0250	0.0295	1	01/30/2021 18:14	WG1613623
Bromomethane	U		0.00233	0.0125	0.0148	1	01/30/2021 18:14	WG1613623
n-Butylbenzene	U		0.00620	0.0125	0.0148	1	01/30/2021 18:14	WG1613623
sec-Butylbenzene	U		0.00340	0.0125	0.0148	1	01/30/2021 18:14	WG1613623
tert-Butylbenzene	U		0.00230	0.00500	0.00590	1	01/30/2021 18:14	WG1613623
Carbon disulfide	U		0.000827	0.0125	0.0148	1	01/30/2021 18:14	WG1613623
Carbon tetrachloride	U		0.00106	0.00500	0.00590	1	01/30/2021 18:14	WG1613623
Chlorobenzene	U		0.000248	0.00250	0.00295	1	01/30/2021 18:14	WG1613623
Chlorodibromomethane	U		0.000723	0.00250	0.00295	1	01/30/2021 18:14	WG1613623
Chloroethane	U		0.00201	0.00500	0.00590	1	01/30/2021 18:14	WG1613623
Chloroform	U		0.00122	0.00250	0.00295	1	01/30/2021 18:14	WG1613623
Chloromethane	U		0.00514	0.0125	0.0148	1	01/30/2021 18:14	WG1613623
2-Chlorotoluene	U		0.00102	0.00250	0.00295	1	01/30/2021 18:14	WG1613623
4-Chlorotoluene	U		0.000531	0.00500	0.00590	1	01/30/2021 18:14	WG1613623
1,2-Dibromo-3-Chloropropane	U		0.00461	0.0250	0.0295	1	01/30/2021 18:14	WG1613623
1,2-Dibromoethane	U		0.000765	0.00250	0.00295	1	01/30/2021 18:14	WG1613623
Dibromomethane	U		0.000886	0.00500	0.00590	1	01/30/2021 18:14	WG1613623
1,2-Dichlorobenzene	U		0.000502	0.00500	0.00590	1	01/30/2021 18:14	WG1613623
1,3-Dichlorobenzene	U		0.000709	0.00500	0.00590	1	01/30/2021 18:14	WG1613623
1,4-Dichlorobenzene	U		0.000827	0.00500	0.00590	1	01/30/2021 18:14	WG1613623
Dichlorodifluoromethane	U		0.00190	0.00250	0.00295	1	01/30/2021 18:14	WG1613623
1,1-Dichloroethane	U		0.000580	0.00250	0.00295	1	01/30/2021 18:14	WG1613623
1,2-Dichloroethane	U		0.000766	0.00250	0.00295	1	01/30/2021 18:14	WG1613623
1,1-Dichloroethene	U		0.000716	0.00250	0.00295	1	01/30/2021 18:14	WG1613623
cis-1,2-Dichloroethene	U		0.000867	0.00250	0.00295	1	01/30/2021 18:14	WG1613623
trans-1,2-Dichloroethene	U		0.00123	0.00500	0.00590	1	01/30/2021 18:14	WG1613623
1,2-Dichloropropane	U		0.00168	0.00500	0.00590	1	01/30/2021 18:14	WG1613623
1,1-Dichloropropene	U		0.000955	0.00250	0.00295	1	01/30/2021 18:14	WG1613623





Collected date/time: 01/27/21 12:40

L1311179

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,3-Dichloropropane	U		0.000592	0.00500	0.00590	1	01/30/2021 18:14	WG1613623
cis-1,3-Dichloropropene	U		0.000894	0.00250	0.00295	1	01/30/2021 18:14	WG1613623
trans-1,3-Dichloropropene	U		0.00135	0.00500	0.00590	1	01/30/2021 18:14	WG1613623
2,2-Dichloropropane	U		0.00163	0.00250	0.00295	1	01/30/2021 18:14	WG1613623
Ethylbenzene	0.00294	U	0.000870	0.00250	0.00295	1	01/30/2021 18:14	WG1613623
Hexachloro-1,3-butadiene	U		0.00709	0.0250	0.0295	1	01/30/2021 18:14	WG1613623
2-Hexanone	U		0.00397	0.0250	0.0295	1	01/30/2021 18:14	WG1613623
Isopropylbenzene	U		0.000502	0.00250	0.00295	1	01/30/2021 18:14	WG1613623
p-Isopropyltoluene	U		0.00301	0.00500	0.00590	1	01/30/2021 18:14	WG1613623
2-Butanone (MEK)	U		0.0750	0.100	0.118	1	01/30/2021 18:14	WG1613623
Methylene Chloride	0.00824	U	0.00784	0.0250	0.0295	1	01/30/2021 18:14	WG1613623
4-Methyl-2-pentanone (MIBK)	U		0.00269	0.0250	0.0295	1	01/30/2021 18:14	WG1613623
Methyl tert-butyl ether	U		0.000413	0.00100	0.00118	1	01/30/2021 18:14	WG1613623
Naphthalene	0.00962	U	0.00576	0.0125	0.0148	1	01/30/2021 18:14	WG1613623
n-Propylbenzene	U		0.00112	0.00500	0.00590	1	01/30/2021 18:14	WG1613623
Styrene	U		0.000270	0.0125	0.0148	1	01/30/2021 18:14	WG1613623
1,1,1,2-Tetrachloroethane	U		0.00112	0.00250	0.00295	1	01/30/2021 18:14	WG1613623
1,1,2,2-Tetrachloroethane	U		0.000821	0.00250	0.00295	1	01/30/2021 18:14	WG1613623
Tetrachloroethene	U		0.00106	0.00250	0.00295	1	01/30/2021 18:14	WG1613623
Toluene	U		0.00154	0.00500	0.00590	1	01/30/2021 18:14	WG1613623
1,2,3-Trichlorobenzene	U		0.00866	0.0125	0.0148	1	01/30/2021 18:14	WG1613623
1,2,4-Trichlorobenzene	U		0.00520	0.0125	0.0148	1	01/30/2021 18:14	WG1613623
1,1,1-Trichloroethane	U		0.00109	0.00250	0.00295	1	01/30/2021 18:14	WG1613623
1,1,2-Trichloroethane	U		0.000705	0.00250	0.00295	1	01/30/2021 18:14	WG1613623
Trichloroethene	U		0.000690	0.00100	0.00118	1	01/30/2021 18:14	WG1613623
Trichlorofluoromethane	U		0.000977	0.00250	0.00295	1	01/30/2021 18:14	WG1613623
1,2,3-Trichloropropane	U		0.00191	0.0125	0.0148	1	01/30/2021 18:14	WG1613623
1,2,4-Trimethylbenzene	U		0.00187	0.00500	0.00590	1	01/30/2021 18:14	WG1613623
1,3,5-Trimethylbenzene	U		0.00236	0.00500	0.00590	1	01/30/2021 18:14	WG1613623
Vinyl chloride	U		0.00137	0.00250	0.00295	1	01/30/2021 18:14	WG1613623
Xylenes, Total	0.0162		0.00104	0.00650	0.00768	1	01/30/2021 18:14	WG1613623
(S) Toluene-d8	98.5				75.0-131		01/30/2021 18:14	WG1613623
(S) Toluene-d8	107				75.0-131		02/03/2021 20:27	WG1615753
(S) 4-Bromofluorobenzene	101				67.0-138		01/30/2021 18:14	WG1613623
(S) 4-Bromofluorobenzene	99.3				67.0-138		02/03/2021 20:27	WG1615753
(S) 1,2-Dichloroethane-d4	93.1				70.0-130		01/30/2021 18:14	WG1613623
(S) 1,2-Dichloroethane-d4	80.6				70.0-130		02/03/2021 20:27	WG1615753

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

TPH by TCEQ Method 1005

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		16.1	50.0	53.8	1	02/03/2021 19:23	WG1615114
TPH C12 - C28	U		16.1	50.0	53.8	1	02/03/2021 19:23	WG1615114
TPH C28 - C35	U		16.1	50.0	53.8	1	02/03/2021 19:23	WG1615114
TPH C6 - C35	U		16.1	50.0	53.8	1	02/03/2021 19:23	WG1615114
(S) o-Terphenyl	82.1				70.0-130		02/03/2021 19:23	WG1615114

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0116	0.0333	0.0716	2	02/05/2021 18:16	WG1616776
Acenaphthylene	0.0570	U	0.0101	0.0333	0.0716	2	02/05/2021 18:16	WG1616776
Anthracene	0.298		0.0128	0.0333	0.0716	2	02/05/2021 18:16	WG1616776
Benzo(a)anthracene	0.138		0.0126	0.0333	0.0716	2	02/05/2021 18:16	WG1616776
Benzo(b)fluoranthene	0.436		0.0134	0.0333	0.0716	2	02/05/2021 18:16	WG1616776



Collected date/time: 01/27/21 12:40

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzo(k)fluoranthene	0.117		0.0127	0.0333	0.0716	2	02/05/2021 18:16	WG1616776
Benzo(g,h,i)perylene	0.0899		0.0131	0.0333	0.0716	2	02/05/2021 18:16	WG1616776
Benzo(a)pyrene	0.139		0.0133	0.0333	0.0716	2	02/05/2021 18:16	WG1616776
Benzoic acid	U		0.254	1.67	3.59	2	02/05/2021 18:16	WG1616776
Benzyl alcohol	U		0.0265	0.333	0.716	2	02/05/2021 18:16	WG1616776
Bis(2-chlorethoxy)methane	U		0.0215	0.333	0.716	2	02/05/2021 18:16	WG1616776
Bis(2-chloroethyl)ether	U		0.0237	0.333	0.716	2	02/05/2021 18:16	WG1616776
2,2-Oxybis(1-Chloropropane)	U		0.0310	0.333	0.716	2	02/05/2021 18:16	WG1616776
4-Bromophenyl-phenylether	U		0.0252	0.333	0.716	2	02/05/2021 18:16	WG1616776
Carbazole	0.0739	L	0.0222	0.333	0.716	2	02/05/2021 18:16	WG1616776
2-Chloronaphthalene	U		0.0126	0.0333	0.0716	2	02/05/2021 18:16	WG1616776
4-Chloroaniline	U		0.0258	0.333	0.716	2	02/05/2021 18:16	WG1616776
4-Chlorophenyl-phenylether	U		0.0249	0.333	0.716	2	02/05/2021 18:16	WG1616776
Chrysene	0.122		0.0142	0.0333	0.0716	2	02/05/2021 18:16	WG1616776
Dibenz(a,h)anthracene	0.0200	L	0.0199	0.0333	0.0716	2	02/05/2021 18:16	WG1616776
Dibenzofuran	U		0.0234	0.333	0.716	2	02/05/2021 18:16	WG1616776
3,3-Dichlorobenzidine	U		0.0265	0.333	0.716	2	02/05/2021 18:16	WG1616776
2,4-Dinitrotoluene	U		0.0205	0.333	0.716	2	02/05/2021 18:16	WG1616776
2,6-Dinitrotoluene	U		0.0234	0.333	0.716	2	02/05/2021 18:16	WG1616776
Fluoranthene	0.208		0.0129	0.0333	0.0716	2	02/05/2021 18:16	WG1616776
Fluorene	U		0.0117	0.0333	0.0716	2	02/05/2021 18:16	WG1616776
Hexachlorobenzene	U		0.0254	0.333	0.716	2	02/05/2021 18:16	WG1616776
Hexachloro-1,3-butadiene	U		0.0241	0.333	0.716	2	02/05/2021 18:16	WG1616776
Hexachlorocyclopentadiene	U		0.0376	0.333	0.716	2	02/05/2021 18:16	WG1616776
Hexachloroethane	U		0.0282	0.333	0.716	2	02/05/2021 18:16	WG1616776
Indeno(1,2,3-cd)pyrene	0.0901		0.0202	0.0333	0.0716	2	02/05/2021 18:16	WG1616776
Isophorone	U		0.0219	0.333	0.716	2	02/05/2021 18:16	WG1616776
2-Methylnaphthalene	0.0269	L	0.00929	0.0333	0.0716	2	02/05/2021 18:16	WG1616776
Naphthalene	0.0299	L	0.0180	0.0333	0.0716	2	02/05/2021 18:16	WG1616776
2-Nitroaniline	U		0.0230	0.333	0.716	2	02/05/2021 18:16	WG1616776
3-Nitroaniline	U		0.0228	0.333	0.716	2	02/05/2021 18:16	WG1616776
4-Nitroaniline	U		0.0209	0.333	0.716	2	02/05/2021 18:16	WG1616776
Nitrobenzene	U		0.0249	0.333	0.716	2	02/05/2021 18:16	WG1616776
n-Nitrosodimethylamine	U		0.106	0.333	0.716	2	02/05/2021 18:16	WG1616776
n-Nitrosodiphenylamine	U		0.0542	0.333	0.716	2	02/05/2021 18:16	WG1616776
n-Nitrosodi-n-propylamine	U		0.0239	0.333	0.716	2	02/05/2021 18:16	WG1616776
Phenanthrene	0.0776		0.0142	0.0333	0.0716	2	02/05/2021 18:16	WG1616776
Benzylbutyl phthalate	U		0.0224	0.333	0.716	2	02/05/2021 18:16	WG1616776
Bis(2-ethylhexyl)phthalate	U		0.0908	0.333	0.716	2	02/05/2021 18:16	WG1616776
Di-n-butyl phthalate	U		0.0245	0.333	0.716	2	02/05/2021 18:16	WG1616776
Diethyl phthalate	U		0.0237	0.333	0.716	2	02/05/2021 18:16	WG1616776
Dimethyl phthalate	U		0.152	0.333	0.716	2	02/05/2021 18:16	WG1616776
Di-n-octyl phthalate	U		0.0484	0.333	0.716	2	02/05/2021 18:16	WG1616776
Pyrene	0.277		0.0139	0.0333	0.0716	2	02/05/2021 18:16	WG1616776
Pyridine	U		0.0473	0.333	0.716	2	02/05/2021 18:16	WG1616776
1,2,4-Trichlorobenzene	U		0.0224	0.333	0.716	2	02/05/2021 18:16	WG1616776
4-Chloro-3-methylphenol	U		0.0232	0.333	0.716	2	02/05/2021 18:16	WG1616776
2-Chlorophenol	U		0.0237	0.333	0.716	2	02/05/2021 18:16	WG1616776
2,4-Dichlorophenol	U		0.0209	0.333	0.716	2	02/05/2021 18:16	WG1616776
2,4-Dimethylphenol	U		0.0187	0.333	0.716	2	02/05/2021 18:16	WG1616776
4,6-Dinitro-2-methylphenol	U		0.162	0.333	0.716	2	02/05/2021 18:16	WG1616776
2,4-Dinitrophenol	U		0.168	0.333	0.716	2	02/05/2021 18:16	WG1616776
2-Methylphenol	U		0.0215	0.333	0.716	2	02/05/2021 18:16	WG1616776
3&4-Methyl Phenol	U		0.0224	0.333	0.716	2	02/05/2021 18:16	WG1616776
2-Nitrophenol	U		0.0256	0.333	0.716	2	02/05/2021 18:16	WG1616776
4-Nitrophenol	U		0.0224	0.333	0.716	2	02/05/2021 18:16	WG1616776

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



Collected date/time: 01/27/21 12:40

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Pentachlorophenol	U		0.0193	0.333	0.716	2	02/05/2021 18:16	WG1616776
Phenol	U		0.0288	0.333	0.716	2	02/05/2021 18:16	WG1616776
2,4,5-Trichlorophenol	U		0.0243	0.333	0.716	2	02/05/2021 18:16	WG1616776
2,4,6-Trichlorophenol	U		0.0230	0.333	0.716	2	02/05/2021 18:16	WG1616776
(S) 2-Fluorophenol	79.6				12.0-120		02/05/2021 18:16	WG1616776
(S) Phenol-d5	74.6				10.0-120		02/05/2021 18:16	WG1616776
(S) Nitrobenzene-d5	74.1				10.0-122		02/05/2021 18:16	WG1616776
(S) 2-Fluorobiphenyl	80.2				15.0-120		02/05/2021 18:16	WG1616776
(S) 2,4,6-Tribromophenol	88.9				10.0-127		02/05/2021 18:16	WG1616776
(S) p-Terphenyl-d14	89.3				10.0-120		02/05/2021 18:16	WG1616776

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Tr

⁶ Sr

⁷ Qc

⁸ Gl

⁹ Al

¹⁰ Sc



Collected date/time: 01/27/21 08:45

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Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	79.5		1	02/03/2021 15:44	WG1614564

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Mercury	U		0.0226	0.0400	0.0503	1	02/02/2021 12:11	WG1614237

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Arsenic	3.33		0.651	2.00	2.51	1	01/30/2021 19:54	WG1613802
Barium	165		0.107	0.500	0.629	1	01/30/2021 19:54	WG1613802
Cadmium	0.312	J	0.0592	0.500	0.629	1	01/30/2021 19:54	WG1613802
Chromium	15.5		0.167	1.00	1.26	1	01/30/2021 19:54	WG1613802
Lead	7.80		0.262	0.500	0.629	1	01/30/2021 19:54	WG1613802
Selenium	1.91	J	0.961	2.00	2.51	1	01/30/2021 19:54	WG1613802
Silver	U		0.160	1.00	1.26	1	01/30/2021 19:54	WG1613802

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Acetone	U	J4	0.0565	0.0500	0.0774	1	01/30/2021 18:33	WG1613623
Benzene	U		0.000723	0.00100	0.00155	1	01/30/2021 18:33	WG1613623
Bromobenzene	U		0.00139	0.0125	0.0193	1	01/30/2021 18:33	WG1613623
Bromochloromethane	U	J4	0.000873	0.00500	0.00774	1	01/30/2021 18:33	WG1613623
Bromodichloromethane	U		0.00112	0.00250	0.00387	1	01/30/2021 18:33	WG1613623
Bromoform	U		0.00181	0.0250	0.0387	1	01/30/2021 18:33	WG1613623
Bromomethane	U		0.00305	0.0125	0.0193	1	01/30/2021 18:33	WG1613623
n-Butylbenzene	U		0.00812	0.0125	0.0193	1	01/30/2021 18:33	WG1613623
sec-Butylbenzene	U		0.00446	0.0125	0.0193	1	01/30/2021 18:33	WG1613623
tert-Butylbenzene	U		0.00302	0.00500	0.00774	1	01/30/2021 18:33	WG1613623
Carbon disulfide	U		0.00108	0.0125	0.0193	1	01/30/2021 18:33	WG1613623
Carbon tetrachloride	U		0.00139	0.00500	0.00774	1	01/30/2021 18:33	WG1613623
Chlorobenzene	U		0.000325	0.00250	0.00387	1	01/30/2021 18:33	WG1613623
Chlorodibromomethane	U		0.000947	0.00250	0.00387	1	01/30/2021 18:33	WG1613623
Chloroethane	U		0.00263	0.00500	0.00774	1	01/30/2021 18:33	WG1613623
Chloroform	U		0.00159	0.00250	0.00387	1	01/30/2021 18:33	WG1613623
Chloromethane	U		0.00673	0.0125	0.0193	1	01/30/2021 18:33	WG1613623
2-Chlorotoluene	U		0.00134	0.00250	0.00387	1	01/30/2021 18:33	WG1613623
4-Chlorotoluene	U		0.000696	0.00500	0.00774	1	01/30/2021 18:33	WG1613623
1,2-Dibromo-3-Chloropropane	U		0.00604	0.0250	0.0387	1	01/30/2021 18:33	WG1613623
1,2-Dibromoethane	U		0.00100	0.00250	0.00387	1	01/30/2021 18:33	WG1613623
Dibromomethane	U		0.00116	0.00500	0.00774	1	01/30/2021 18:33	WG1613623
1,2-Dichlorobenzene	U		0.000658	0.00500	0.00774	1	01/30/2021 18:33	WG1613623
1,3-Dichlorobenzene	U		0.000929	0.00500	0.00774	1	01/30/2021 18:33	WG1613623
1,4-Dichlorobenzene	U		0.00108	0.00500	0.00774	1	01/30/2021 18:33	WG1613623
Dichlorodifluoromethane	U		0.00249	0.00250	0.00387	1	01/30/2021 18:33	WG1613623
1,1-Dichloroethane	U		0.000760	0.00250	0.00387	1	01/30/2021 18:33	WG1613623
1,2-Dichloroethane	U		0.00100	0.00250	0.00387	1	01/30/2021 18:33	WG1613623
1,1-Dichloroethene	U		0.000938	0.00250	0.00387	1	01/30/2021 18:33	WG1613623
cis-1,2-Dichloroethene	U		0.00114	0.00250	0.00387	1	01/30/2021 18:33	WG1613623
trans-1,2-Dichloroethene	U		0.00161	0.00500	0.00774	1	01/30/2021 18:33	WG1613623
1,2-Dichloropropane	U		0.00220	0.00500	0.00774	1	01/30/2021 18:33	WG1613623
1,1-Dichloropropene	U		0.00125	0.00250	0.00387	1	01/30/2021 18:33	WG1613623



Collected date/time: 01/27/21 08:45

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,3-Dichloropropane	U		0.000775	0.00500	0.00774	1	01/30/2021 18:33	WG1613623
cis-1,3-Dichloropropene	U		0.00117	0.00250	0.00387	1	01/30/2021 18:33	WG1613623
trans-1,3-Dichloropropene	U		0.00176	0.00500	0.00774	1	01/30/2021 18:33	WG1613623
2,2-Dichloropropane	U		0.00214	0.00250	0.00387	1	01/30/2021 18:33	WG1613623
Ethylbenzene	U		0.00114	0.00250	0.00387	1	01/30/2021 18:33	WG1613623
Hexachloro-1,3-butadiene	U		0.00929	0.0250	0.0387	1	01/30/2021 18:33	WG1613623
2-Hexanone	U		0.00520	0.0250	0.0387	1	01/30/2021 18:33	WG1613623
Isopropylbenzene	U		0.000658	0.00250	0.00387	1	01/30/2021 18:33	WG1613623
p-Isopropyltoluene	U		0.00395	0.00500	0.00774	1	01/30/2021 18:33	WG1613623
2-Butanone (MEK)	0.0986	J	0.0983	0.100	0.155	1	01/30/2021 18:33	WG1613623
Methylene Chloride	U		0.0103	0.0250	0.0387	1	01/30/2021 18:33	WG1613623
4-Methyl-2-pentanone (MIBK)	U		0.00353	0.0250	0.0387	1	01/30/2021 18:33	WG1613623
Methyl tert-butyl ether	U		0.000542	0.00100	0.00155	1	01/30/2021 18:33	WG1613623
Naphthalene	U		0.00755	0.0125	0.0193	1	01/30/2021 18:33	WG1613623
n-Propylbenzene	U		0.00147	0.00500	0.00774	1	01/30/2021 18:33	WG1613623
Styrene	U		0.000354	0.0125	0.0193	1	01/30/2021 18:33	WG1613623
1,1,1,2-Tetrachloroethane	U		0.00147	0.00250	0.00387	1	01/30/2021 18:33	WG1613623
1,1,2,2-Tetrachloroethane	U		0.00108	0.00250	0.00387	1	01/30/2021 18:33	WG1613623
Tetrachloroethene	U		0.00139	0.00250	0.00387	1	01/30/2021 18:33	WG1613623
Toluene	U		0.00201	0.00500	0.00774	1	01/30/2021 18:33	WG1613623
1,2,3-Trichlorobenzene	U		0.0113	0.0125	0.0193	1	01/30/2021 18:33	WG1613623
1,2,4-Trichlorobenzene	U		0.00681	0.0125	0.0193	1	01/30/2021 18:33	WG1613623
1,1,1-Trichloroethane	U		0.00143	0.00250	0.00387	1	01/30/2021 18:33	WG1613623
1,1,2-Trichloroethane	U		0.000924	0.00250	0.00387	1	01/30/2021 18:33	WG1613623
Trichloroethene	U		0.000904	0.00100	0.00155	1	01/30/2021 18:33	WG1613623
Trichlorofluoromethane	U		0.00128	0.00250	0.00387	1	01/30/2021 18:33	WG1613623
1,2,3-Trichloropropane	U		0.00251	0.0125	0.0193	1	01/30/2021 18:33	WG1613623
1,2,4-Trimethylbenzene	U		0.00245	0.00500	0.00774	1	01/30/2021 18:33	WG1613623
1,3,5-Trimethylbenzene	U		0.00310	0.00500	0.00774	1	01/30/2021 18:33	WG1613623
Vinyl chloride	U		0.00180	0.00250	0.00387	1	01/30/2021 18:33	WG1613623
Xylenes, Total	U		0.00136	0.00650	0.0101	1	01/30/2021 18:33	WG1613623
(S) Toluene-d8	97.7				75.0-131		01/30/2021 18:33	WG1613623
(S) 4-Bromofluorobenzene	99.7				67.0-138		01/30/2021 18:33	WG1613623
(S) 1,2-Dichloroethane-d4	93.1				70.0-130		01/30/2021 18:33	WG1613623

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

TPH by TCEQ Method 1005

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		19.2	50.0	64.1	1.02	02/03/2021 19:38	WG1615114
TPH C12 - C28	U		19.2	50.0	64.1	1.02	02/03/2021 19:38	WG1615114
TPH C28 - C35	U		19.2	50.0	64.1	1.02	02/03/2021 19:38	WG1615114
TPH C6 - C35	U		19.2	50.0	64.1	1.02	02/03/2021 19:38	WG1615114
(S) o-Terphenyl	81.6				70.0-130		02/03/2021 19:38	WG1615114

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.00678	0.0333	0.0419	1	02/05/2021 15:51	WG1616776
Acenaphthylene	U		0.00590	0.0333	0.0419	1	02/05/2021 15:51	WG1616776
Anthracene	U		0.00746	0.0333	0.0419	1	02/05/2021 15:51	WG1616776
Benzo(a)anthracene	U		0.00738	0.0333	0.0419	1	02/05/2021 15:51	WG1616776
Benzo(b)fluoranthene	U		0.00781	0.0333	0.0419	1	02/05/2021 15:51	WG1616776
Benzo(k)fluoranthene	U		0.00744	0.0333	0.0419	1	02/05/2021 15:51	WG1616776
Benzo(g,h,i)perylene	U		0.00766	0.0333	0.0419	1	02/05/2021 15:51	WG1616776
Benzo(a)pyrene	U		0.00778	0.0333	0.0419	1	02/05/2021 15:51	WG1616776



Collected date/time: 01/27/21 08:45

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzoic acid	U		0.148	1.67	2.10	1	02/05/2021 15:51	WG1616776
Benzyl alcohol	U		0.0155	0.333	0.419	1	02/05/2021 15:51	WG1616776
Bis(2-chlorethoxy)methane	U		0.0126	0.333	0.419	1	02/05/2021 15:51	WG1616776
Bis(2-chloroethyl)ether	U		0.0138	0.333	0.419	1	02/05/2021 15:51	WG1616776
2,2-Oxybis(1-Chloropropane)	U		0.0181	0.333	0.419	1	02/05/2021 15:51	WG1616776
4-Bromophenyl-phenylether	U		0.0147	0.333	0.419	1	02/05/2021 15:51	WG1616776
Carbazole	U		0.0130	0.333	0.419	1	02/05/2021 15:51	WG1616776
2-Chloronaphthalene	U		0.00736	0.0333	0.0419	1	02/05/2021 15:51	WG1616776
4-Chloroaniline	U		0.0151	0.333	0.419	1	02/05/2021 15:51	WG1616776
4-Chlorophenyl-phenylether	U		0.0146	0.333	0.419	1	02/05/2021 15:51	WG1616776
Chrysene	U		0.00832	0.0333	0.0419	1	02/05/2021 15:51	WG1616776
Dibenz(a,h)anthracene	U		0.0116	0.0333	0.0419	1	02/05/2021 15:51	WG1616776
Dibenzofuran	U		0.0137	0.333	0.419	1	02/05/2021 15:51	WG1616776
3,3-Dichlorobenzidine	U		0.0155	0.333	0.419	1	02/05/2021 15:51	WG1616776
2,4-Dinitrotoluene	U		0.0120	0.333	0.419	1	02/05/2021 15:51	WG1616776
2,6-Dinitrotoluene	U		0.0137	0.333	0.419	1	02/05/2021 15:51	WG1616776
Fluoranthene	U		0.00756	0.0333	0.0419	1	02/05/2021 15:51	WG1616776
Fluorene	U		0.00682	0.0333	0.0419	1	02/05/2021 15:51	WG1616776
Hexachlorobenzene	U		0.0148	0.333	0.419	1	02/05/2021 15:51	WG1616776
Hexachloro-1,3-butadiene	U		0.0141	0.333	0.419	1	02/05/2021 15:51	WG1616776
Hexachlorocyclopentadiene	U		0.0220	0.333	0.419	1	02/05/2021 15:51	WG1616776
Hexachloroethane	U		0.0165	0.333	0.419	1	02/05/2021 15:51	WG1616776
Indeno(1,2,3-cd)pyrene	U		0.0118	0.0333	0.0419	1	02/05/2021 15:51	WG1616776
Isophorone	U		0.0128	0.333	0.419	1	02/05/2021 15:51	WG1616776
2-Methylnaphthalene	U		0.00543	0.0333	0.0419	1	02/05/2021 15:51	WG1616776
Naphthalene	U		0.0105	0.0333	0.0419	1	02/05/2021 15:51	WG1616776
2-Nitroaniline	U		0.0135	0.333	0.419	1	02/05/2021 15:51	WG1616776
3-Nitroaniline	U		0.0133	0.333	0.419	1	02/05/2021 15:51	WG1616776
4-Nitroaniline	U		0.0122	0.333	0.419	1	02/05/2021 15:51	WG1616776
Nitrobenzene	U		0.0146	0.333	0.419	1	02/05/2021 15:51	WG1616776
n-Nitrosodimethylamine	U		0.0621	0.333	0.419	1	02/05/2021 15:51	WG1616776
n-Nitrosodiphenylamine	U		0.0317	0.333	0.419	1	02/05/2021 15:51	WG1616776
n-Nitrosodi-n-propylamine	U		0.0140	0.333	0.419	1	02/05/2021 15:51	WG1616776
Phenanthrene	U		0.00831	0.0333	0.0419	1	02/05/2021 15:51	WG1616776
Benzylbutyl phthalate	U		0.0131	0.333	0.419	1	02/05/2021 15:51	WG1616776
Bis(2-ethylhexyl)phthalate	U		0.0531	0.333	0.419	1	02/05/2021 15:51	WG1616776
Di-n-butyl phthalate	U		0.0143	0.333	0.419	1	02/05/2021 15:51	WG1616776
Diethyl phthalate	U		0.0138	0.333	0.419	1	02/05/2021 15:51	WG1616776
Dimethyl phthalate	U		0.0888	0.333	0.419	1	02/05/2021 15:51	WG1616776
Di-n-octyl phthalate	U		0.0283	0.333	0.419	1	02/05/2021 15:51	WG1616776
Pyrene	U		0.00815	0.0333	0.0419	1	02/05/2021 15:51	WG1616776
Pyridine	U		0.0277	0.333	0.419	1	02/05/2021 15:51	WG1616776
1,2,4-Trichlorobenzene	U		0.0131	0.333	0.419	1	02/05/2021 15:51	WG1616776
4-Chloro-3-methylphenol	U		0.0136	0.333	0.419	1	02/05/2021 15:51	WG1616776
2-Chlorophenol	U		0.0138	0.333	0.419	1	02/05/2021 15:51	WG1616776
2,4-Dichlorophenol	U		0.0122	0.333	0.419	1	02/05/2021 15:51	WG1616776
2,4-Dimethylphenol	U		0.0109	0.333	0.419	1	02/05/2021 15:51	WG1616776
4,6-Dinitro-2-methylphenol	U		0.0949	0.333	0.419	1	02/05/2021 15:51	WG1616776
2,4-Dinitrophenol	U		0.0980	0.333	0.419	1	02/05/2021 15:51	WG1616776
2-Methylphenol	U		0.0126	0.333	0.419	1	02/05/2021 15:51	WG1616776
3&4-Methyl Phenol	U		0.0131	0.333	0.419	1	02/05/2021 15:51	WG1616776
2-Nitrophenol	U		0.0150	0.333	0.419	1	02/05/2021 15:51	WG1616776
4-Nitrophenol	U		0.0131	0.333	0.419	1	02/05/2021 15:51	WG1616776
Pentachlorophenol	U		0.0113	0.333	0.419	1	02/05/2021 15:51	WG1616776
Phenol	U		0.0168	0.333	0.419	1	02/05/2021 15:51	WG1616776
2,4,5-Trichlorophenol	U		0.0142	0.333	0.419	1	02/05/2021 15:51	WG1616776

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc



Collected date/time: 01/27/21 08:45

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
2,4,6-Trichlorophenol	U		0.0135	0.333	0.419	1	02/05/2021 15:51	WG1616776
(S) 2-Fluorophenol	65.6				12.0-120		02/05/2021 15:51	WG1616776
(S) Phenol-d5	57.8				10.0-120		02/05/2021 15:51	WG1616776
(S) Nitrobenzene-d5	58.7				10.0-122		02/05/2021 15:51	WG1616776
(S) 2-Fluorobiphenyl	66.3				15.0-120		02/05/2021 15:51	WG1616776
(S) 2,4,6-Tribromophenol	67.9				10.0-127		02/05/2021 15:51	WG1616776
(S) p-Terphenyl-d14	70.8				10.0-120		02/05/2021 15:51	WG1616776

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Tr

⁶ Sr

⁷ Qc

⁸ Gl

⁹ Al

¹⁰ Sc



Collected date/time: 01/27/21 09:05

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Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.9		1	02/03/2021 15:44	WG1614564

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Mercury	0.0588		0.0200	0.0400	0.0445	1	02/02/2021 12:18	WG1614237

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Arsenic	14.0		0.577	2.00	2.23	1	01/30/2021 19:57	WG1613802
Barium	491		0.0948	0.500	0.556	1	01/30/2021 19:57	WG1613802
Cadmium	1.31		0.0524	0.500	0.556	1	01/30/2021 19:57	WG1613802
Chromium	76.1		0.148	1.00	1.11	1	01/30/2021 19:57	WG1613802
Lead	76.6		0.231	0.500	0.556	1	01/30/2021 19:57	WG1613802
Selenium	2.00	J	0.850	2.00	2.23	1	01/30/2021 19:57	WG1613802
Silver	U		0.141	1.00	1.11	1	01/30/2021 19:57	WG1613802

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Acetone	U	J4	0.0606	0.0500	0.0830	1.39	01/30/2021 18:52	WG1613623
Benzene	U		0.000775	0.00100	0.00166	1.39	01/30/2021 18:52	WG1613623
Bromobenzene	U		0.00149	0.0125	0.0208	1.39	01/30/2021 18:52	WG1613623
Bromochloromethane	U	J4	0.000936	0.00500	0.00830	1.39	01/30/2021 18:52	WG1613623
Bromodichloromethane	U		0.00120	0.00250	0.00416	1.39	01/30/2021 18:52	WG1613623
Bromoform	U		0.00194	0.0250	0.0416	1.39	01/30/2021 18:52	WG1613623
Bromomethane	U		0.00327	0.0125	0.0208	1.39	01/30/2021 18:52	WG1613623
n-Butylbenzene	U		0.00872	0.0125	0.0208	1.39	01/30/2021 18:52	WG1613623
sec-Butylbenzene	U		0.00478	0.0125	0.0208	1.39	01/30/2021 18:52	WG1613623
tert-Butylbenzene	U		0.00324	0.00500	0.00830	1.39	01/30/2021 18:52	WG1613623
Carbon disulfide	U		0.00116	0.0125	0.0208	1.39	01/30/2021 18:52	WG1613623
Carbon tetrachloride	U		0.00149	0.00500	0.00830	1.39	01/30/2021 18:52	WG1613623
Chlorobenzene	U		0.000349	0.00250	0.00416	1.39	01/30/2021 18:52	WG1613623
Chlorodibromomethane	U		0.00102	0.00250	0.00416	1.39	01/30/2021 18:52	WG1613623
Chloroethane	U		0.00282	0.00500	0.00830	1.39	01/30/2021 18:52	WG1613623
Chloroform	U		0.00171	0.00250	0.00416	1.39	01/30/2021 18:52	WG1613623
Chloromethane	U		0.00722	0.0125	0.0208	1.39	01/30/2021 18:52	WG1613623
2-Chlorotoluene	U		0.00144	0.00250	0.00416	1.39	01/30/2021 18:52	WG1613623
4-Chlorotoluene	U		0.000747	0.00500	0.00830	1.39	01/30/2021 18:52	WG1613623
1,2-Dibromo-3-Chloropropane	U		0.00647	0.0250	0.0416	1.39	01/30/2021 18:52	WG1613623
1,2-Dibromoethane	U		0.00108	0.00250	0.00416	1.39	01/30/2021 18:52	WG1613623
Dibromomethane	U		0.00125	0.00500	0.00830	1.39	01/30/2021 18:52	WG1613623
1,2-Dichlorobenzene	U		0.000706	0.00500	0.00830	1.39	01/30/2021 18:52	WG1613623
1,3-Dichlorobenzene	U		0.000996	0.00500	0.00830	1.39	01/30/2021 18:52	WG1613623
1,4-Dichlorobenzene	U		0.00116	0.00500	0.00830	1.39	01/30/2021 18:52	WG1613623
Dichlorodifluoromethane	U		0.00267	0.00250	0.00416	1.39	01/30/2021 18:52	WG1613623
1,1-Dichloroethane	U		0.000815	0.00250	0.00416	1.39	01/30/2021 18:52	WG1613623
1,2-Dichloroethane	U		0.00108	0.00250	0.00416	1.39	01/30/2021 18:52	WG1613623
1,1-Dichloroethene	U		0.00101	0.00250	0.00416	1.39	01/30/2021 18:52	WG1613623
cis-1,2-Dichloroethene	U		0.00122	0.00250	0.00416	1.39	01/30/2021 18:52	WG1613623
trans-1,2-Dichloroethene	U		0.00173	0.00500	0.00830	1.39	01/30/2021 18:52	WG1613623
1,2-Dichloropropane	U		0.00236	0.00500	0.00830	1.39	01/30/2021 18:52	WG1613623
1,1-Dichloropropene	U		0.00134	0.00250	0.00416	1.39	01/30/2021 18:52	WG1613623

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc



Collected date/time: 01/27/21 09:05

L1311179

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,3-Dichloropropane	U		0.000832	0.00500	0.00830	1.39	01/30/2021 18:52	WG1613623
cis-1,3-Dichloropropene	U		0.00126	0.00250	0.00416	1.39	01/30/2021 18:52	WG1613623
trans-1,3-Dichloropropene	U		0.00189	0.00500	0.00830	1.39	01/30/2021 18:52	WG1613623
2,2-Dichloropropane	U		0.00229	0.00250	0.00416	1.39	01/30/2021 18:52	WG1613623
Ethylbenzene	0.00166	L	0.00122	0.00250	0.00416	1.39	01/30/2021 18:52	WG1613623
Hexachloro-1,3-butadiene	U		0.00996	0.0250	0.0416	1.39	01/30/2021 18:52	WG1613623
2-Hexanone	U		0.00558	0.0250	0.0416	1.39	01/30/2021 18:52	WG1613623
Isopropylbenzene	0.00689		0.000706	0.00250	0.00416	1.39	01/30/2021 18:52	WG1613623
p-Isopropyltoluene	U		0.00423	0.00500	0.00830	1.39	01/30/2021 18:52	WG1613623
2-Butanone (MEK)	U		0.105	0.100	0.166	1.39	01/30/2021 18:52	WG1613623
Methylene Chloride	U		0.0110	0.0250	0.0416	1.39	01/30/2021 18:52	WG1613623
4-Methyl-2-pentanone (MIBK)	U		0.00379	0.0250	0.0416	1.39	01/30/2021 18:52	WG1613623
Methyl tert-butyl ether	U		0.000581	0.00100	0.00166	1.39	01/30/2021 18:52	WG1613623
Naphthalene	0.0183	L	0.00810	0.0125	0.0208	1.39	01/30/2021 18:52	WG1613623
n-Propylbenzene	U		0.00158	0.00500	0.00830	1.39	01/30/2021 18:52	WG1613623
Styrene	0.00124	L	0.000380	0.0125	0.0208	1.39	01/30/2021 18:52	WG1613623
1,1,1,2-Tetrachloroethane	U		0.00157	0.00250	0.00416	1.39	01/30/2021 18:52	WG1613623
1,1,2,2-Tetrachloroethane	U		0.00115	0.00250	0.00416	1.39	01/30/2021 18:52	WG1613623
Tetrachloroethene	U		0.00149	0.00250	0.00416	1.39	01/30/2021 18:52	WG1613623
Toluene	U		0.00216	0.00500	0.00830	1.39	01/30/2021 18:52	WG1613623
1,2,3-Trichlorobenzene	U		0.0122	0.0125	0.0208	1.39	01/30/2021 18:52	WG1613623
1,2,4-Trichlorobenzene	U		0.00731	0.0125	0.0208	1.39	01/30/2021 18:52	WG1613623
1,1,1-Trichloroethane	U		0.00153	0.00250	0.00416	1.39	01/30/2021 18:52	WG1613623
1,1,2-Trichloroethane	U		0.000991	0.00250	0.00416	1.39	01/30/2021 18:52	WG1613623
Trichloroethene	U		0.000970	0.00100	0.00166	1.39	01/30/2021 18:52	WG1613623
Trichlorofluoromethane	U		0.00137	0.00250	0.00416	1.39	01/30/2021 18:52	WG1613623
1,2,3-Trichloropropane	U		0.00269	0.0125	0.0208	1.39	01/30/2021 18:52	WG1613623
1,2,4-Trimethylbenzene	0.00377	L	0.00262	0.00500	0.00830	1.39	01/30/2021 18:52	WG1613623
1,3,5-Trimethylbenzene	U		0.00332	0.00500	0.00830	1.39	01/30/2021 18:52	WG1613623
Vinyl chloride	U		0.00193	0.00250	0.00416	1.39	01/30/2021 18:52	WG1613623
Xylenes, Total	0.00984	L	0.00146	0.00650	0.0108	1.39	01/30/2021 18:52	WG1613623
(S) Toluene-d8	97.8				75.0-131		01/30/2021 18:52	WG1613623
(S) 4-Bromofluorobenzene	97.4				67.0-138		01/30/2021 18:52	WG1613623
(S) 1,2-Dichloroethane-d4	84.8				70.0-130		01/30/2021 18:52	WG1613623

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

TPH by TCEQ Method 1005

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		16.7	50.0	55.6	1	02/03/2021 19:54	WG1615114
TPH C12 - C28	U		16.7	50.0	55.6	1	02/03/2021 19:54	WG1615114
TPH C28 - C35	U		16.7	50.0	55.6	1	02/03/2021 19:54	WG1615114
TPH C6 - C35	U		16.7	50.0	55.6	1	02/03/2021 19:54	WG1615114
(S) o-Terphenyl	81.2				70.0-130		02/03/2021 19:54	WG1615114

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0600	0.0333	0.371	10	02/05/2021 19:05	WG1616776
Acenaphthylene	0.177	L	0.0522	0.0333	0.371	10	02/05/2021 19:05	WG1616776
Anthracene	0.197	L	0.0660	0.0333	0.371	10	02/05/2021 19:05	WG1616776
Benzo(a)anthracene	0.430		0.0653	0.0333	0.371	10	02/05/2021 19:05	WG1616776
Benzo(b)fluoranthene	1.57		0.0691	0.0333	0.371	10	02/05/2021 19:05	WG1616776
Benzo(k)fluoranthene	0.424		0.0659	0.0333	0.371	10	02/05/2021 19:05	WG1616776
Benzo(g,h,i)perylene	0.355	L	0.0678	0.0333	0.371	10	02/05/2021 19:05	WG1616776
Benzo(a)pyrene	0.662		0.0689	0.0333	0.371	10	02/05/2021 19:05	WG1616776



Collected date/time: 01/27/21 09:05

L1311179

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzoic acid	U	J6	1.31	1.67	18.6	10	02/05/2021 19:05	WG1616776
Benzyl alcohol	U		0.137	0.333	3.71	10	02/05/2021 19:05	WG1616776
Bis(2-chlorethoxy)methane	U		0.111	0.333	3.71	10	02/05/2021 19:05	WG1616776
Bis(2-chloroethyl)ether	U		0.122	0.333	3.71	10	02/05/2021 19:05	WG1616776
2,2-Oxybis(1-Chloropropane)	U		0.160	0.333	3.71	10	02/05/2021 19:05	WG1616776
4-Bromophenyl-phenylether	U		0.130	0.333	3.71	10	02/05/2021 19:05	WG1616776
Carbazole	U		0.115	0.333	3.71	10	02/05/2021 19:05	WG1616776
2-Chloronaphthalene	U		0.0651	0.0333	0.371	10	02/05/2021 19:05	WG1616776
4-Chloroaniline	U		0.134	0.333	3.71	10	02/05/2021 19:05	WG1616776
4-Chlorophenyl-phenylether	U		0.129	0.333	3.71	10	02/05/2021 19:05	WG1616776
Chrysene	0.483		0.0737	0.0333	0.371	10	02/05/2021 19:05	WG1616776
Dibenz(a,h)anthracene	U		0.103	0.0333	0.371	10	02/05/2021 19:05	WG1616776
Dibenzofuran	U		0.121	0.333	3.71	10	02/05/2021 19:05	WG1616776
3,3-Dichlorobenzidine	U		0.137	0.333	3.71	10	02/05/2021 19:05	WG1616776
2,4-Dinitrotoluene	U		0.106	0.333	3.71	10	02/05/2021 19:05	WG1616776
2,6-Dinitrotoluene	U		0.121	0.333	3.71	10	02/05/2021 19:05	WG1616776
Fluoranthene	0.521		0.0669	0.0333	0.371	10	02/05/2021 19:05	WG1616776
Fluorene	U		0.0603	0.0333	0.371	10	02/05/2021 19:05	WG1616776
Hexachlorobenzene	U		0.131	0.333	3.71	10	02/05/2021 19:05	WG1616776
Hexachloro-1,3-butadiene	U		0.125	0.333	3.71	10	02/05/2021 19:05	WG1616776
Hexachlorocyclopentadiene	U	J6	0.195	0.333	3.71	10	02/05/2021 19:05	WG1616776
Hexachloroethane	U		0.146	0.333	3.71	10	02/05/2021 19:05	WG1616776
Indeno(1,2,3-cd)pyrene	0.322	J	0.105	0.0333	0.371	10	02/05/2021 19:05	WG1616776
Isophorone	U		0.114	0.333	3.71	10	02/05/2021 19:05	WG1616776
2-Methylnaphthalene	U		0.0481	0.0333	0.371	10	02/05/2021 19:05	WG1616776
Naphthalene	U		0.0930	0.0333	0.371	10	02/05/2021 19:05	WG1616776
2-Nitroaniline	U		0.119	0.333	3.71	10	02/05/2021 19:05	WG1616776
3-Nitroaniline	U		0.118	0.333	3.71	10	02/05/2021 19:05	WG1616776
4-Nitroaniline	U		0.108	0.333	3.71	10	02/05/2021 19:05	WG1616776
Nitrobenzene	U		0.129	0.333	3.71	10	02/05/2021 19:05	WG1616776
n-Nitrosodimethylamine	U	J6	0.550	0.333	3.71	10	02/05/2021 19:05	WG1616776
n-Nitrosodiphenylamine	U		0.280	0.333	3.71	10	02/05/2021 19:05	WG1616776
n-Nitrosodi-n-propylamine	U		0.124	0.333	3.71	10	02/05/2021 19:05	WG1616776
Phenanthrene	0.105	J	0.0736	0.0333	0.371	10	02/05/2021 19:05	WG1616776
Benzylbutyl phthalate	U		0.116	0.333	3.71	10	02/05/2021 19:05	WG1616776
Bis(2-ethylhexyl)phthalate	U		0.470	0.333	3.71	10	02/05/2021 19:05	WG1616776
Di-n-butyl phthalate	U		0.127	0.333	3.71	10	02/05/2021 19:05	WG1616776
Diethyl phthalate	U		0.122	0.333	3.71	10	02/05/2021 19:05	WG1616776
Dimethyl phthalate	U	J6	0.786	0.333	3.71	10	02/05/2021 19:05	WG1616776
Di-n-octyl phthalate	U		0.250	0.333	3.71	10	02/05/2021 19:05	WG1616776
Pyrene	0.755		0.0721	0.0333	0.371	10	02/05/2021 19:05	WG1616776
Pyridine	U	J6	0.245	0.333	3.71	10	02/05/2021 19:05	WG1616776
1,2,4-Trichlorobenzene	U		0.116	0.333	3.71	10	02/05/2021 19:05	WG1616776
4-Chloro-3-methylphenol	U		0.120	0.333	3.71	10	02/05/2021 19:05	WG1616776
2-Chlorophenol	U		0.122	0.333	3.71	10	02/05/2021 19:05	WG1616776
2,4-Dichlorophenol	U		0.108	0.333	3.71	10	02/05/2021 19:05	WG1616776
2,4-Dimethylphenol	U		0.0968	0.333	3.71	10	02/05/2021 19:05	WG1616776
4,6-Dinitro-2-methylphenol	U	J5	0.840	0.333	3.71	10	02/05/2021 19:05	WG1616776
2,4-Dinitrophenol	U	J3 J5 J6	0.867	0.333	3.71	10	02/05/2021 19:05	WG1616776
2-Methylphenol	U		0.111	0.333	3.71	10	02/05/2021 19:05	WG1616776
3&4-Methyl Phenol	U		0.116	0.333	3.71	10	02/05/2021 19:05	WG1616776
2-Nitrophenol	U		0.132	0.333	3.71	10	02/05/2021 19:05	WG1616776
4-Nitrophenol	U		0.116	0.333	3.71	10	02/05/2021 19:05	WG1616776
Pentachlorophenol	U		0.0997	0.333	3.71	10	02/05/2021 19:05	WG1616776
Phenol	U		0.149	0.333	3.71	10	02/05/2021 19:05	WG1616776
2,4,5-Trichlorophenol	U		0.126	0.333	3.71	10	02/05/2021 19:05	WG1616776

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
2,4,6-Trichlorophenol	U		0.119	0.333	3.71	10	02/05/2021 19:05	WG1616776
(S) 2-Fluorophenol	84.0				12.0-120		02/05/2021 19:05	WG1616776
(S) Phenol-d5	72.7				10.0-120		02/05/2021 19:05	WG1616776
(S) Nitrobenzene-d5	72.3				10.0-122		02/05/2021 19:05	WG1616776
(S) 2-Fluorobiphenyl	82.8				15.0-120		02/05/2021 19:05	WG1616776
(S) 2,4,6-Tribromophenol	80.4				10.0-127		02/05/2021 19:05	WG1616776
(S) p-Terphenyl-d14	97.5				10.0-120		02/05/2021 19:05	WG1616776

Sample Narrative:

L1311179-22 WG1616776: Diluted due to matrix impact

1Cp

2Tc

3Ss

4Cn

5Tr

6Sr

7Qc

8Gl

9Al

10Sc



Collected date/time: 01/27/21 09:40

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Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	84.3		1	02/03/2021 15:44	WG1614564

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

Wet Chemistry by Method 9045D

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
pH	8.45	T8	1	02/02/2021 00:57	WG1614203

Sample Narrative:

L1311179-23 WG1614203: 8.45 at 21.1C

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis date / time	Batch
Mercury	0.0230	J	0.0213	0.0400	0.0474	1	02/02/2021 12:21	WG1614237

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis date / time	Batch
Arsenic	8.25		0.614	2.00	2.37	1	01/30/2021 20:00	WG1613802
Barium	199		0.101	0.500	0.593	1	01/30/2021 20:00	WG1613802
Cadmium	0.456	J	0.0559	0.500	0.593	1	01/30/2021 20:00	WG1613802
Chromium	19.1		0.158	1.00	1.19	1	01/30/2021 20:00	WG1613802
Lead	35.8		0.247	0.500	0.593	1	01/30/2021 20:00	WG1613802
Selenium	1.39	J	0.906	2.00	2.37	1	01/30/2021 20:00	WG1613802
Silver	U		0.151	1.00	1.19	1	01/30/2021 20:00	WG1613802

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis date / time	Batch
Acetone	U	J4	0.0526	0.0500	0.0721	1	01/30/2021 19:11	WG1613623
Benzene	U		0.000673	0.00100	0.00144	1	01/30/2021 19:11	WG1613623
Bromobenzene	U		0.00130	0.0125	0.0180	1	01/30/2021 19:11	WG1613623
Bromochloromethane	U	J4	0.000813	0.00500	0.00721	1	01/30/2021 19:11	WG1613623
Bromodichloromethane	U		0.00105	0.00250	0.00360	1	01/30/2021 19:11	WG1613623
Bromoform	U		0.00169	0.0250	0.0360	1	01/30/2021 19:11	WG1613623
Bromomethane	U		0.00284	0.0125	0.0180	1	01/30/2021 19:11	WG1613623
n-Butylbenzene	U		0.00757	0.0125	0.0180	1	01/30/2021 19:11	WG1613623
sec-Butylbenzene	U		0.00415	0.0125	0.0180	1	01/30/2021 19:11	WG1613623
tert-Butylbenzene	U		0.00281	0.00500	0.00721	1	01/30/2021 19:11	WG1613623
Carbon disulfide	U		0.00101	0.0125	0.0180	1	01/30/2021 19:11	WG1613623
Carbon tetrachloride	U		0.00129	0.00500	0.00721	1	01/30/2021 19:11	WG1613623
Chlorobenzene	U		0.000303	0.00250	0.00360	1	01/30/2021 19:11	WG1613623
Chlorodibromomethane	U		0.000882	0.00250	0.00360	1	01/30/2021 19:11	WG1613623
Chloroethane	U		0.00245	0.00500	0.00721	1	01/30/2021 19:11	WG1613623
Chloroform	U		0.00148	0.00250	0.00360	1	01/30/2021 19:11	WG1613623
Chloromethane	U		0.00627	0.0125	0.0180	1	01/30/2021 19:11	WG1613623
2-Chlorotoluene	U		0.00125	0.00250	0.00360	1	01/30/2021 19:11	WG1613623
4-Chlorotoluene	U		0.000649	0.00500	0.00721	1	01/30/2021 19:11	WG1613623
1,2-Dibromo-3-Chloropropane	U		0.00562	0.0250	0.0360	1	01/30/2021 19:11	WG1613623
1,2-Dibromoethane	U		0.000934	0.00250	0.00360	1	01/30/2021 19:11	WG1613623
Dibromomethane	U		0.00108	0.00500	0.00721	1	01/30/2021 19:11	WG1613623
1,2-Dichlorobenzene	U		0.000613	0.00500	0.00721	1	01/30/2021 19:11	WG1613623
1,3-Dichlorobenzene	U		0.000865	0.00500	0.00721	1	01/30/2021 19:11	WG1613623
1,4-Dichlorobenzene	U		0.00101	0.00500	0.00721	1	01/30/2021 19:11	WG1613623



Collected date/time: 01/27/21 09:40

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Dichlorodifluoromethane	U		0.00232	0.00250	0.00360	1	01/30/2021 19:11	WG1613623
1,1-Dichloroethane	U		0.000708	0.00250	0.00360	1	01/30/2021 19:11	WG1613623
1,2-Dichloroethane	U		0.000936	0.00250	0.00360	1	01/30/2021 19:11	WG1613623
1,1-Dichloroethene	U		0.000874	0.00250	0.00360	1	01/30/2021 19:11	WG1613623
cis-1,2-Dichloroethene	U		0.00106	0.00250	0.00360	1	01/30/2021 19:11	WG1613623
trans-1,2-Dichloroethene	U		0.00150	0.00500	0.00721	1	01/30/2021 19:11	WG1613623
1,2-Dichloropropane	U		0.00205	0.00500	0.00721	1	01/30/2021 19:11	WG1613623
1,1-Dichloropropene	U		0.00117	0.00250	0.00360	1	01/30/2021 19:11	WG1613623
1,3-Dichloropropane	U		0.000722	0.00500	0.00721	1	01/30/2021 19:11	WG1613623
cis-1,3-Dichloropropene	U		0.00109	0.00250	0.00360	1	01/30/2021 19:11	WG1613623
trans-1,3-Dichloropropene	U		0.00164	0.00500	0.00721	1	01/30/2021 19:11	WG1613623
2,2-Dichloropropane	U		0.00199	0.00250	0.00360	1	01/30/2021 19:11	WG1613623
Ethylbenzene	U		0.00106	0.00250	0.00360	1	01/30/2021 19:11	WG1613623
Hexachloro-1,3-butadiene	U		0.00865	0.0250	0.0360	1	01/30/2021 19:11	WG1613623
2-Hexanone	U		0.00484	0.0250	0.0360	1	01/30/2021 19:11	WG1613623
Isopropylbenzene	U		0.000613	0.00250	0.00360	1	01/30/2021 19:11	WG1613623
p-Isopropyltoluene	U		0.00368	0.00500	0.00721	1	01/30/2021 19:11	WG1613623
2-Butanone (MEK)	U		0.0915	0.100	0.144	1	01/30/2021 19:11	WG1613623
Methylene Chloride	U		0.00957	0.0250	0.0360	1	01/30/2021 19:11	WG1613623
4-Methyl-2-pentanone (MIBK)	U		0.00329	0.0250	0.0360	1	01/30/2021 19:11	WG1613623
Methyl tert-butyl ether	U		0.000505	0.00100	0.00144	1	01/30/2021 19:11	WG1613623
Naphthalene	U		0.00703	0.0125	0.0180	1	01/30/2021 19:11	WG1613623
n-Propylbenzene	U		0.00137	0.00500	0.00721	1	01/30/2021 19:11	WG1613623
Styrene	0.000369	J	0.000330	0.0125	0.0180	1	01/30/2021 19:11	WG1613623
1,1,1,2-Tetrachloroethane	U		0.00137	0.00250	0.00360	1	01/30/2021 19:11	WG1613623
1,1,2,2-Tetrachloroethane	U		0.00100	0.00250	0.00360	1	01/30/2021 19:11	WG1613623
Tetrachloroethene	U		0.00129	0.00250	0.00360	1	01/30/2021 19:11	WG1613623
Toluene	U		0.00187	0.00500	0.00721	1	01/30/2021 19:11	WG1613623
1,2,3-Trichlorobenzene	U		0.0106	0.0125	0.0180	1	01/30/2021 19:11	WG1613623
1,2,4-Trichlorobenzene	U		0.00634	0.0125	0.0180	1	01/30/2021 19:11	WG1613623
1,1,1-Trichloroethane	U		0.00133	0.00250	0.00360	1	01/30/2021 19:11	WG1613623
1,1,2-Trichloroethane	U		0.000861	0.00250	0.00360	1	01/30/2021 19:11	WG1613623
Trichloroethene	U		0.000842	0.00100	0.00144	1	01/30/2021 19:11	WG1613623
Trichlorofluoromethane	U		0.00119	0.00250	0.00360	1	01/30/2021 19:11	WG1613623
1,2,3-Trichloropropane	U		0.00234	0.0125	0.0180	1	01/30/2021 19:11	WG1613623
1,2,4-Trimethylbenzene	U		0.00228	0.00500	0.00721	1	01/30/2021 19:11	WG1613623
1,3,5-Trimethylbenzene	U		0.00288	0.00500	0.00721	1	01/30/2021 19:11	WG1613623
Vinyl chloride	U		0.00167	0.00250	0.00360	1	01/30/2021 19:11	WG1613623
Xylenes, Total	0.00441	J	0.00127	0.00650	0.00937	1	01/30/2021 19:11	WG1613623
(S) Toluene-d8	98.8				75.0-131		01/30/2021 19:11	WG1613623
(S) 4-Bromofluorobenzene	99.4				67.0-138		01/30/2021 19:11	WG1613623
(S) 1,2-Dichloroethane-d4	87.6				70.0-130		01/30/2021 19:11	WG1613623

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

TPH by TCEQ Method 1005

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		17.8	50.0	59.3	1	02/03/2021 20:08	WG1615114
TPH C12 - C28	U		17.8	50.0	59.3	1	02/03/2021 20:08	WG1615114
TPH C28 - C35	U		17.8	50.0	59.3	1	02/03/2021 20:08	WG1615114
TPH C6 - C35	U		17.8	50.0	59.3	1	02/03/2021 20:08	WG1615114
(S) o-Terphenyl	79.7				70.0-130		02/03/2021 20:08	WG1615114



Collected date/time: 01/27/21 09:40

L1311179

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.00639	0.0333	0.0395	1	02/05/2021 17:28	WG1616776
Acenaphthylene	0.0685		0.00556	0.0333	0.0395	1	02/05/2021 17:28	WG1616776
Anthracene	0.222		0.00703	0.0333	0.0395	1	02/05/2021 17:28	WG1616776
Benzo(a)anthracene	0.130		0.00696	0.0333	0.0395	1	02/05/2021 17:28	WG1616776
Benzo(b)fluoranthene	0.430		0.00736	0.0333	0.0395	1	02/05/2021 17:28	WG1616776
Benzo(k)fluoranthene	0.126		0.00702	0.0333	0.0395	1	02/05/2021 17:28	WG1616776
Benzo(g,h,i)perylene	0.277		0.00722	0.0333	0.0395	1	02/05/2021 17:28	WG1616776
Benzo(a)pyrene	0.193		0.00734	0.0333	0.0395	1	02/05/2021 17:28	WG1616776
Benzoic acid	U		0.140	1.67	1.98	1	02/05/2021 17:28	WG1616776
Benzyl alcohol	U		0.0146	0.333	0.395	1	02/05/2021 17:28	WG1616776
Bis(2-chlorethoxy)methane	U		0.0119	0.333	0.395	1	02/05/2021 17:28	WG1616776
Bis(2-chloroethyl)ether	U		0.0130	0.333	0.395	1	02/05/2021 17:28	WG1616776
2,2-Oxybis(1-Chloropropane)	U		0.0171	0.333	0.395	1	02/05/2021 17:28	WG1616776
4-Bromophenyl-phenylether	U		0.0139	0.333	0.395	1	02/05/2021 17:28	WG1616776
Carbazole	0.0827	L	0.0122	0.333	0.395	1	02/05/2021 17:28	WG1616776
2-Chloronaphthalene	U		0.00694	0.0333	0.0395	1	02/05/2021 17:28	WG1616776
4-Chloroaniline	U		0.0142	0.333	0.395	1	02/05/2021 17:28	WG1616776
4-Chlorophenyl-phenylether	U		0.0138	0.333	0.395	1	02/05/2021 17:28	WG1616776
Chrysene	0.140		0.00785	0.0333	0.0395	1	02/05/2021 17:28	WG1616776
Dibenz(a,h)anthracene	0.0234	L	0.0109	0.0333	0.0395	1	02/05/2021 17:28	WG1616776
Dibenzofuran	U		0.0129	0.333	0.395	1	02/05/2021 17:28	WG1616776
3,3-Dichlorobenzidine	U		0.0146	0.333	0.395	1	02/05/2021 17:28	WG1616776
2,4-Dinitrotoluene	U		0.0113	0.333	0.395	1	02/05/2021 17:28	WG1616776
2,6-Dinitrotoluene	U		0.0129	0.333	0.395	1	02/05/2021 17:28	WG1616776
Fluoranthene	0.192		0.00713	0.0333	0.0395	1	02/05/2021 17:28	WG1616776
Fluorene	0.00828	L	0.00643	0.0333	0.0395	1	02/05/2021 17:28	WG1616776
Hexachlorobenzene	U		0.0140	0.333	0.395	1	02/05/2021 17:28	WG1616776
Hexachloro-1,3-butadiene	U		0.0133	0.333	0.395	1	02/05/2021 17:28	WG1616776
Hexachlorocyclopentadiene	U		0.0208	0.333	0.395	1	02/05/2021 17:28	WG1616776
Hexachloroethane	U		0.0155	0.333	0.395	1	02/05/2021 17:28	WG1616776
Indeno(1,2,3-cd)pyrene	0.125		0.0112	0.0333	0.0395	1	02/05/2021 17:28	WG1616776
Isophorone	U		0.0121	0.333	0.395	1	02/05/2021 17:28	WG1616776
2-Methylnaphthalene	0.00611	L	0.00512	0.0333	0.0395	1	02/05/2021 17:28	WG1616776
Naphthalene	U		0.00991	0.0333	0.0395	1	02/05/2021 17:28	WG1616776
2-Nitroaniline	U		0.0127	0.333	0.395	1	02/05/2021 17:28	WG1616776
3-Nitroaniline	U		0.0126	0.333	0.395	1	02/05/2021 17:28	WG1616776
4-Nitroaniline	U		0.0115	0.333	0.395	1	02/05/2021 17:28	WG1616776
Nitrobenzene	U		0.0138	0.333	0.395	1	02/05/2021 17:28	WG1616776
n-Nitrosodimethylamine	U		0.0586	0.333	0.395	1	02/05/2021 17:28	WG1616776
n-Nitrosodiphenylamine	U		0.0299	0.333	0.395	1	02/05/2021 17:28	WG1616776
n-Nitrosodi-n-propylamine	U		0.0132	0.333	0.395	1	02/05/2021 17:28	WG1616776
Phenanthrene	0.0370	L	0.00784	0.0333	0.0395	1	02/05/2021 17:28	WG1616776
Benzylbutyl phthalate	U		0.0123	0.333	0.395	1	02/05/2021 17:28	WG1616776
Bis(2-ethylhexyl)phthalate	U		0.0500	0.333	0.395	1	02/05/2021 17:28	WG1616776
Di-n-butyl phthalate	U		0.0135	0.333	0.395	1	02/05/2021 17:28	WG1616776
Diethyl phthalate	U		0.0130	0.333	0.395	1	02/05/2021 17:28	WG1616776
Dimethyl phthalate	U		0.0837	0.333	0.395	1	02/05/2021 17:28	WG1616776
Di-n-octyl phthalate	U		0.0267	0.333	0.395	1	02/05/2021 17:28	WG1616776
Pyrene	0.222		0.00768	0.0333	0.0395	1	02/05/2021 17:28	WG1616776
Pyridine	U		0.0261	0.333	0.395	1	02/05/2021 17:28	WG1616776
1,2,4-Trichlorobenzene	U		0.0123	0.333	0.395	1	02/05/2021 17:28	WG1616776
4-Chloro-3-methylphenol	U		0.0128	0.333	0.395	1	02/05/2021 17:28	WG1616776
2-Chlorophenol	U		0.0130	0.333	0.395	1	02/05/2021 17:28	WG1616776
2,4-Dichlorophenol	U		0.0115	0.333	0.395	1	02/05/2021 17:28	WG1616776
2,4-Dimethylphenol	U		0.0103	0.333	0.395	1	02/05/2021 17:28	WG1616776
4,6-Dinitro-2-methylphenol	U		0.0895	0.333	0.395	1	02/05/2021 17:28	WG1616776

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc



Collected date/time: 01/27/21 09:40

L1311179

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
2,4-Dinitrophenol	U		0.0924	0.333	0.395	1	02/05/2021 17:28	WG1616776
2-Methylphenol	U		0.0119	0.333	0.395	1	02/05/2021 17:28	WG1616776
3&4-Methyl Phenol	U		0.0123	0.333	0.395	1	02/05/2021 17:28	WG1616776
2-Nitrophenol	U		0.0141	0.333	0.395	1	02/05/2021 17:28	WG1616776
4-Nitrophenol	U		0.0123	0.333	0.395	1	02/05/2021 17:28	WG1616776
Pentachlorophenol	U		0.0106	0.333	0.395	1	02/05/2021 17:28	WG1616776
Phenol	U		0.0159	0.333	0.395	1	02/05/2021 17:28	WG1616776
2,4,5-Trichlorophenol	U		0.0134	0.333	0.395	1	02/05/2021 17:28	WG1616776
2,4,6-Trichlorophenol	U		0.0127	0.333	0.395	1	02/05/2021 17:28	WG1616776
(S) 2-Fluorophenol	80.0				12.0-120		02/05/2021 17:28	WG1616776
(S) Phenol-d5	70.5				10.0-120		02/05/2021 17:28	WG1616776
(S) Nitrobenzene-d5	67.9				10.0-122		02/05/2021 17:28	WG1616776
(S) 2-Fluorobiphenyl	79.4				15.0-120		02/05/2021 17:28	WG1616776
(S) 2,4,6-Tribromophenol	86.4				10.0-127		02/05/2021 17:28	WG1616776
(S) p-Terphenyl-d14	79.4				10.0-120		02/05/2021 17:28	WG1616776

¹ Cp² Tc³ Ss⁴ Cn⁵ Tr⁶ Sr⁷ Qc⁸ Gl⁹ Al¹⁰ Sc



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.0		1	02/03/2021 15:44	WG1614564

Mercury by Method 7471A

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Mercury	0.220		0.0196	0.0400	0.0435	1	02/02/2021 12:23	WG1614237

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Arsenic	45.8		0.563	2.00	2.17	1	01/30/2021 20:08	WG1613802
Barium	1030		0.0926	0.500	0.544	1	01/30/2021 20:08	WG1613802
Cadmium	2.93		0.0512	0.500	0.544	1	01/30/2021 20:08	WG1613802
Chromium	55.9		0.145	1.00	1.09	1	01/30/2021 20:08	WG1613802
Lead	633		0.226	0.500	0.544	1	01/30/2021 20:08	WG1613802
Selenium	3.07		0.831	2.00	2.17	1	01/30/2021 20:08	WG1613802
Silver	0.400	J	0.138	1.00	1.09	1	01/30/2021 20:08	WG1613802

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Acetone	U	J4	0.0449	0.0500	0.0615	1	01/30/2021 19:30	WG1613623
Benzene	U		0.000575	0.00100	0.00123	1	01/30/2021 19:30	WG1613623
Bromobenzene	U		0.00111	0.0125	0.0154	1	01/30/2021 19:30	WG1613623
Bromochloromethane	U	J4	0.000694	0.00500	0.00615	1	01/30/2021 19:30	WG1613623
Bromodichloromethane	U		0.000892	0.00250	0.00308	1	01/30/2021 19:30	WG1613623
Bromoform	U		0.00144	0.0250	0.0308	1	01/30/2021 19:30	WG1613623
Bromomethane	U		0.00242	0.0125	0.0154	1	01/30/2021 19:30	WG1613623
n-Butylbenzene	U		0.00646	0.0125	0.0154	1	01/30/2021 19:30	WG1613623
sec-Butylbenzene	U		0.00354	0.0125	0.0154	1	01/30/2021 19:30	WG1613623
tert-Butylbenzene	U		0.00240	0.00500	0.00615	1	01/30/2021 19:30	WG1613623
Carbon disulfide	U		0.000862	0.0125	0.0154	1	01/30/2021 19:30	WG1613623
Carbon tetrachloride	U		0.00111	0.00500	0.00615	1	01/30/2021 19:30	WG1613623
Chlorobenzene	U		0.000258	0.00250	0.00308	1	01/30/2021 19:30	WG1613623
Chlorodibromomethane	U		0.000753	0.00250	0.00308	1	01/30/2021 19:30	WG1613623
Chloroethane	U		0.00209	0.00500	0.00615	1	01/30/2021 19:30	WG1613623
Chloroform	U		0.00127	0.00250	0.00308	1	01/30/2021 19:30	WG1613623
Chloromethane	U		0.00535	0.0125	0.0154	1	01/30/2021 19:30	WG1613623
2-Chlorotoluene	U		0.00106	0.00250	0.00308	1	01/30/2021 19:30	WG1613623
4-Chlorotoluene	U		0.000554	0.00500	0.00615	1	01/30/2021 19:30	WG1613623
1,2-Dibromo-3-Chloropropane	U		0.00480	0.0250	0.0308	1	01/30/2021 19:30	WG1613623
1,2-Dibromoethane	U		0.000798	0.00250	0.00308	1	01/30/2021 19:30	WG1613623
Dibromomethane	U		0.000923	0.00500	0.00615	1	01/30/2021 19:30	WG1613623
1,2-Dichlorobenzene	U		0.000523	0.00500	0.00615	1	01/30/2021 19:30	WG1613623
1,3-Dichlorobenzene	U		0.000738	0.00500	0.00615	1	01/30/2021 19:30	WG1613623
1,4-Dichlorobenzene	U		0.000862	0.00500	0.00615	1	01/30/2021 19:30	WG1613623
Dichlorodifluoromethane	U		0.00198	0.00250	0.00308	1	01/30/2021 19:30	WG1613623
1,1-Dichloroethane	U		0.000604	0.00250	0.00308	1	01/30/2021 19:30	WG1613623
1,2-Dichloroethane	U		0.000799	0.00250	0.00308	1	01/30/2021 19:30	WG1613623
1,1-Dichloroethene	U		0.000746	0.00250	0.00308	1	01/30/2021 19:30	WG1613623
cis-1,2-Dichloroethene	U		0.000903	0.00250	0.00308	1	01/30/2021 19:30	WG1613623
trans-1,2-Dichloroethene	U		0.00128	0.00500	0.00615	1	01/30/2021 19:30	WG1613623
1,2-Dichloropropane	U		0.00175	0.00500	0.00615	1	01/30/2021 19:30	WG1613623
1,1-Dichloropropene	U		0.000996	0.00250	0.00308	1	01/30/2021 19:30	WG1613623





Collected date/time: 01/27/21 09:10

L1311179

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,3-Dichloropropane	U		0.000617	0.00500	0.00615	1	01/30/2021 19:30	WG1613623
cis-1,3-Dichloropropene	U		0.000932	0.00250	0.00308	1	01/30/2021 19:30	WG1613623
trans-1,3-Dichloropropene	U		0.00140	0.00500	0.00615	1	01/30/2021 19:30	WG1613623
2,2-Dichloropropane	U		0.00170	0.00250	0.00308	1	01/30/2021 19:30	WG1613623
Ethylbenzene	U		0.000907	0.00250	0.00308	1	01/30/2021 19:30	WG1613623
Hexachloro-1,3-butadiene	U		0.00738	0.0250	0.0308	1	01/30/2021 19:30	WG1613623
2-Hexanone	U		0.00414	0.0250	0.0308	1	01/30/2021 19:30	WG1613623
Isopropylbenzene	U		0.000523	0.00250	0.00308	1	01/30/2021 19:30	WG1613623
p-Isopropyltoluene	U		0.00314	0.00500	0.00615	1	01/30/2021 19:30	WG1613623
2-Butanone (MEK)	U		0.0782	0.100	0.123	1	01/30/2021 19:30	WG1613623
Methylene Chloride	U		0.00817	0.0250	0.0308	1	01/30/2021 19:30	WG1613623
4-Methyl-2-pentanone (MIBK)	U		0.00281	0.0250	0.0308	1	01/30/2021 19:30	WG1613623
Methyl tert-butyl ether	U		0.000431	0.00100	0.00123	1	01/30/2021 19:30	WG1613623
Naphthalene	U		0.00601	0.0125	0.0154	1	01/30/2021 19:30	WG1613623
n-Propylbenzene	U		0.00117	0.00500	0.00615	1	01/30/2021 19:30	WG1613623
Styrene	U		0.000282	0.0125	0.0154	1	01/30/2021 19:30	WG1613623
1,1,1,2-Tetrachloroethane	U		0.00117	0.00250	0.00308	1	01/30/2021 19:30	WG1613623
1,1,2,2-Tetrachloroethane	U		0.000855	0.00250	0.00308	1	01/30/2021 19:30	WG1613623
Tetrachloroethene	U		0.00110	0.00250	0.00308	1	01/30/2021 19:30	WG1613623
Toluene	U		0.00160	0.00500	0.00615	1	01/30/2021 19:30	WG1613623
1,2,3-Trichlorobenzene	U		0.00902	0.0125	0.0154	1	01/30/2021 19:30	WG1613623
1,2,4-Trichlorobenzene	U		0.00542	0.0125	0.0154	1	01/30/2021 19:30	WG1613623
1,1,1-Trichloroethane	U		0.00114	0.00250	0.00308	1	01/30/2021 19:30	WG1613623
1,1,2-Trichloroethane	U		0.000735	0.00250	0.00308	1	01/30/2021 19:30	WG1613623
Trichloroethene	U		0.000719	0.00100	0.00123	1	01/30/2021 19:30	WG1613623
Trichlorofluoromethane	U		0.00102	0.00250	0.00308	1	01/30/2021 19:30	WG1613623
1,2,3-Trichloropropane	U		0.00199	0.0125	0.0154	1	01/30/2021 19:30	WG1613623
1,2,4-Trimethylbenzene	U		0.00194	0.00500	0.00615	1	01/30/2021 19:30	WG1613623
1,3,5-Trimethylbenzene	U		0.00246	0.00500	0.00615	1	01/30/2021 19:30	WG1613623
Vinyl chloride	U		0.00143	0.00250	0.00308	1	01/30/2021 19:30	WG1613623
Xylenes, Total	0.00426	U	0.00108	0.00650	0.00800	1	01/30/2021 19:30	WG1613623
(S) Toluene-d8	97.1				75.0-131		01/30/2021 19:30	WG1613623
(S) 4-Bromofluorobenzene	101				67.0-138		01/30/2021 19:30	WG1613623
(S) 1,2-Dichloroethane-d4	92.3				70.0-130		01/30/2021 19:30	WG1613623

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

TPH by TCEQ Method 1005

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH C6 - C12	U		16.3	50.0	54.4	1	02/03/2021 21:26	WG1615114
TPH C12 - C28	U		16.3	50.0	54.4	1	02/03/2021 21:26	WG1615114
TPH C28 - C35	U		16.3	50.0	54.4	1	02/03/2021 21:26	WG1615114
TPH C6 - C35	U		16.3	50.0	54.4	1	02/03/2021 21:26	WG1615114
(S) o-Terphenyl	80.4				70.0-130		02/03/2021 21:26	WG1615114

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acenaphthene	U		0.0586	0.0333	0.362	10	02/05/2021 18:41	WG1616776
Acenaphthylene	0.112	U	0.0510	0.0333	0.362	10	02/05/2021 18:41	WG1616776
Anthracene	0.189	U	0.0645	0.0333	0.362	10	02/05/2021 18:41	WG1616776
Benzo(a)anthracene	0.195	U	0.0638	0.0333	0.362	10	02/05/2021 18:41	WG1616776
Benzo(b)fluoranthene	0.712	U	0.135	0.0333	0.724	20	02/05/2021 20:50	WG1616776
Benzo(k)fluoranthene	0.227	U	0.129	0.0333	0.724	20	02/05/2021 20:50	WG1616776
Benzo(g,h,i)perylene	0.241	U	0.132	0.0333	0.724	20	02/05/2021 20:50	WG1616776
Benzo(a)pyrene	0.320	U	0.135	0.0333	0.724	20	02/05/2021 20:50	WG1616776



Collected date/time: 01/27/21 09:10

L1311179

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Benzoic acid	U		1.28	1.67	18.2	10	02/05/2021 18:41	WG1616776
Benzyl alcohol	U		0.134	0.333	3.62	10	02/05/2021 18:41	WG1616776
Bis(2-chlorethoxy)methane	U		0.109	0.333	3.62	10	02/05/2021 18:41	WG1616776
Bis(2-chloroethyl)ether	U		0.120	0.333	3.62	10	02/05/2021 18:41	WG1616776
2,2-Oxybis(1-Chloropropane)	U		0.157	0.333	3.62	10	02/05/2021 18:41	WG1616776
4-Bromophenyl-phenylether	U		0.127	0.333	3.62	10	02/05/2021 18:41	WG1616776
Carbazole	U		0.112	0.333	3.62	10	02/05/2021 18:41	WG1616776
2-Chloronaphthalene	U		0.0636	0.0333	0.362	10	02/05/2021 18:41	WG1616776
4-Chloroaniline	U		0.130	0.333	3.62	10	02/05/2021 18:41	WG1616776
4-Chlorophenyl-phenylether	U		0.126	0.333	3.62	10	02/05/2021 18:41	WG1616776
Chrysene	0.307	L	0.0720	0.0333	0.362	10	02/05/2021 18:41	WG1616776
Dibenz(a,h)anthracene	U		0.201	0.0333	0.724	20	02/05/2021 20:50	WG1616776
Dibenzofuran	U		0.118	0.333	3.62	10	02/05/2021 18:41	WG1616776
3,3-Dichlorobenzidine	U		0.134	0.333	3.62	10	02/05/2021 18:41	WG1616776
2,4-Dinitrotoluene	U		0.104	0.333	3.62	10	02/05/2021 18:41	WG1616776
2,6-Dinitrotoluene	U		0.118	0.333	3.62	10	02/05/2021 18:41	WG1616776
Fluoranthene	0.312	L	0.0653	0.0333	0.362	10	02/05/2021 18:41	WG1616776
Fluorene	U		0.0589	0.0333	0.362	10	02/05/2021 18:41	WG1616776
Hexachlorobenzene	U		0.128	0.333	3.62	10	02/05/2021 18:41	WG1616776
Hexachloro-1,3-butadiene	U		0.122	0.333	3.62	10	02/05/2021 18:41	WG1616776
Hexachlorocyclopentadiene	U		0.190	0.333	3.62	10	02/05/2021 18:41	WG1616776
Hexachloroethane	U		0.142	0.333	3.62	10	02/05/2021 18:41	WG1616776
Indeno(1,2,3-cd)pyrene	U		0.205	0.0333	0.724	20	02/05/2021 20:50	WG1616776
Isophorone	U		0.111	0.333	3.62	10	02/05/2021 18:41	WG1616776
2-Methylnaphthalene	U		0.0470	0.0333	0.362	10	02/05/2021 18:41	WG1616776
Naphthalene	U		0.0909	0.0333	0.362	10	02/05/2021 18:41	WG1616776
2-Nitroaniline	U		0.116	0.333	3.62	10	02/05/2021 18:41	WG1616776
3-Nitroaniline	U		0.115	0.333	3.62	10	02/05/2021 18:41	WG1616776
4-Nitroaniline	U		0.106	0.333	3.62	10	02/05/2021 18:41	WG1616776
Nitrobenzene	U		0.126	0.333	3.62	10	02/05/2021 18:41	WG1616776
n-Nitrosodimethylamine	U		0.537	0.333	3.62	10	02/05/2021 18:41	WG1616776
n-Nitrosodiphenylamine	U		0.274	0.333	3.62	10	02/05/2021 18:41	WG1616776
n-Nitrosodi-n-propylamine	U		0.121	0.333	3.62	10	02/05/2021 18:41	WG1616776
Phenanthrene	U		0.0719	0.0333	0.362	10	02/05/2021 18:41	WG1616776
Benzylbutyl phthalate	U		0.113	0.333	3.62	10	02/05/2021 18:41	WG1616776
Bis(2-ethylhexyl)phthalate	U		0.459	0.333	3.62	10	02/05/2021 18:41	WG1616776
Di-n-butyl phthalate	U		0.124	0.333	3.62	10	02/05/2021 18:41	WG1616776
Diethyl phthalate	U		0.120	0.333	3.62	10	02/05/2021 18:41	WG1616776
Dimethyl phthalate	U		0.768	0.333	3.62	10	02/05/2021 18:41	WG1616776
Di-n-octyl phthalate	U		0.245	0.333	3.62	10	02/05/2021 18:41	WG1616776
Pyrene	0.381		0.0704	0.0333	0.362	10	02/05/2021 18:41	WG1616776
Pyridine	U		0.239	0.333	3.62	10	02/05/2021 18:41	WG1616776
1,2,4-Trichlorobenzene	U		0.113	0.333	3.62	10	02/05/2021 18:41	WG1616776
4-Chloro-3-methylphenol	U		0.117	0.333	3.62	10	02/05/2021 18:41	WG1616776
2-Chlorophenol	U		0.120	0.333	3.62	10	02/05/2021 18:41	WG1616776
2,4-Dichlorophenol	U		0.105	0.333	3.62	10	02/05/2021 18:41	WG1616776
2,4-Dimethylphenol	U		0.0946	0.333	3.62	10	02/05/2021 18:41	WG1616776
4,6-Dinitro-2-methylphenol	U		0.821	0.333	3.62	10	02/05/2021 18:41	WG1616776
2,4-Dinitrophenol	U		0.847	0.333	3.62	10	02/05/2021 18:41	WG1616776
2-Methylphenol	U		0.109	0.333	3.62	10	02/05/2021 18:41	WG1616776
3&4-Methyl Phenol	U		0.113	0.333	3.62	10	02/05/2021 18:41	WG1616776
2-Nitrophenol	U		0.129	0.333	3.62	10	02/05/2021 18:41	WG1616776
4-Nitrophenol	U		0.113	0.333	3.62	10	02/05/2021 18:41	WG1616776
Pentachlorophenol	U		0.0974	0.333	3.62	10	02/05/2021 18:41	WG1616776
Phenol	U		0.146	0.333	3.62	10	02/05/2021 18:41	WG1616776
2,4,5-Trichlorophenol	U		0.123	0.333	3.62	10	02/05/2021 18:41	WG1616776

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



Collected date/time: 01/27/21 09:10

L1311179

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

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
2,4,6-Trichlorophenol	U		0.116	0.333	3.62	10	02/05/2021 18:41	WG1616776
(S) 2-Fluorophenol	74.8				12.0-120		02/05/2021 18:41	WG1616776
(S) 2-Fluorophenol	75.3	J7			12.0-120		02/05/2021 20:50	WG1616776
(S) Phenol-d5	61.1				10.0-120		02/05/2021 18:41	WG1616776
(S) Phenol-d5	72.3	J7			10.0-120		02/05/2021 20:50	WG1616776
(S) Nitrobenzene-d5	73.9				10.0-122		02/05/2021 18:41	WG1616776
(S) Nitrobenzene-d5	68.9	J7			10.0-122		02/05/2021 20:50	WG1616776
(S) 2-Fluorobiphenyl	78.0	J7			15.0-120		02/05/2021 20:50	WG1616776
(S) 2-Fluorobiphenyl	74.8				15.0-120		02/05/2021 18:41	WG1616776
(S) 2,4,6-Tribromophenol	75.4				10.0-127		02/05/2021 18:41	WG1616776
(S) 2,4,6-Tribromophenol	65.0	J7			10.0-127		02/05/2021 20:50	WG1616776
(S) p-Terphenyl-d14	81.1	J7			10.0-120		02/05/2021 20:50	WG1616776
(S) p-Terphenyl-d14	84.9				10.0-120		02/05/2021 18:41	WG1616776

Sample Narrative:

L1311179-24 WG1616776: IS/SURR failed on lower dilution.

¹Cp

²Tc

³Ss

⁴Cn

⁵Tr

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc



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

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Acetone	U		0.0113	0.0500	0.0500	1	01/29/2021 15:04	WG1613518
Acrolein	U	J4	0.00254	0.0500	0.0500	1	01/29/2021 15:04	WG1613518
Acrylonitrile	U		0.000671	0.0100	0.0100	1	01/29/2021 15:04	WG1613518
Benzene	U		0.0000941	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
Bromobenzene	U		0.000118	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
Bromochloromethane	U		0.000128	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
Bromodichloromethane	U		0.000136	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
Bromoform	U		0.000129	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
Bromomethane	U		0.000605	0.00500	0.00500	1	01/29/2021 15:04	WG1613518
n-Butylbenzene	U		0.000157	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
sec-Butylbenzene	U		0.000125	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
tert-Butylbenzene	U		0.000127	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
Carbon disulfide	U		0.0000962	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
Carbon tetrachloride	U		0.000128	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
Chlorobenzene	U		0.000116	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
Chlorodibromomethane	U		0.000140	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
Chloroethane	U		0.000192	0.00500	0.00500	1	01/29/2021 15:04	WG1613518
Chloroform	U		0.000111	0.00500	0.00500	1	01/29/2021 15:04	WG1613518
Chloromethane	U		0.000960	0.00250	0.00250	1	01/29/2021 15:04	WG1613518
2-Chlorotoluene	U		0.000106	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
4-Chlorotoluene	U		0.000114	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
1,2-Dibromo-3-Chloropropane	U		0.000276	0.00500	0.00500	1	01/29/2021 15:04	WG1613518
1,2-Dibromoethane	U		0.000126	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
Dibromomethane	U		0.000122	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
1,2-Dichlorobenzene	U		0.000107	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
1,3-Dichlorobenzene	U		0.000110	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
1,4-Dichlorobenzene	U		0.000120	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
Dichlorodifluoromethane	U		0.000374	0.00500	0.00500	1	01/29/2021 15:04	WG1613518
1,1-Dichloroethane	U		0.000100	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
1,2-Dichloroethane	U		0.0000819	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
1,1-Dichloroethene	U		0.000188	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
cis-1,2-Dichloroethene	U		0.000126	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
trans-1,2-Dichloroethene	U		0.000149	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
1,2-Dichloropropane	U		0.000149	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
1,1-Dichloropropene	U		0.000142	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
1,3-Dichloropropane	U		0.000110	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
cis-1,3-Dichloropropene	U		0.000111	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
trans-1,3-Dichloropropene	U		0.000118	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
2,2-Dichloropropane	U		0.000161	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
Di-isopropyl ether	U		0.000105	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
Ethylbenzene	U		0.000137	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
Hexachloro-1,3-butadiene	U		0.000337	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
2-Hexanone	U		0.000787	0.0100	0.0100	1	01/29/2021 15:04	WG1613518
Isopropylbenzene	U		0.000105	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
p-Isopropyltoluene	U		0.000120	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
2-Butanone (MEK)	U		0.00119	0.0100	0.0100	1	01/29/2021 15:04	WG1613518
Methylene Chloride	U		0.000430	0.00500	0.00500	1	01/29/2021 15:04	WG1613518
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	0.0100	1	01/29/2021 15:04	WG1613518
Methyl tert-butyl ether	U		0.000101	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
Naphthalene	U		0.00100	0.00500	0.00500	1	01/29/2021 15:04	WG1613518
n-Propylbenzene	U		0.0000993	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
Styrene	U		0.000118	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
1,1,2-Trichlorotrifluoroethane	U		0.000180	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
Tetrachloroethene	U		0.000300	0.00100	0.00100	1	01/29/2021 15:04	WG1613518

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc



Collected date/time: 01/27/21 00:00

L1311179

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

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Toluene	U		0.000278	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
1,2,3-Trichlorobenzene	U		0.000230	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
1,2,4-Trichlorobenzene	U		0.000481	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
1,1,1-Trichloroethane	U		0.000149	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
1,1,2-Trichloroethane	U		0.000158	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
Trichloroethene	U		0.000190	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
Trichlorofluoromethane	U		0.000160	0.00500	0.00500	1	01/29/2021 15:04	WG1613518
1,2,3-Trichloropropane	U		0.000237	0.00250	0.00250	1	01/29/2021 15:04	WG1613518
1,2,4-Trimethylbenzene	U		0.000322	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
1,2,3-Trimethylbenzene	U	J4	0.000104	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
1,3,5-Trimethylbenzene	U		0.000104	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
Vinyl chloride	U		0.000234	0.00100	0.00100	1	01/29/2021 15:04	WG1613518
Xylenes, Total	U		0.000174	0.00300	0.00300	1	01/29/2021 15:04	WG1613518
(S) Toluene-d8	103				80.0-120		01/29/2021 15:04	WG1613518
(S) 4-Bromofluorobenzene	91.5				77.0-126		01/29/2021 15:04	WG1613518
(S) 1,2-Dichloroethane-d4	91.9				70.0-130		01/29/2021 15:04	WG1613518

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc



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

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Acetone	U		0.0113	0.0500	0.0500	1	01/29/2021 15:25	WG1613518
Acrolein	U	J4	0.00254	0.0500	0.0500	1	01/29/2021 15:25	WG1613518
Acrylonitrile	U		0.000671	0.0100	0.0100	1	01/29/2021 15:25	WG1613518
Benzene	U		0.0000941	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
Bromobenzene	U		0.000118	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
Bromochloromethane	U		0.000128	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
Bromodichloromethane	U		0.000136	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
Bromoform	U		0.000129	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
Bromomethane	U		0.000605	0.00500	0.00500	1	01/29/2021 15:25	WG1613518
n-Butylbenzene	U		0.000157	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
sec-Butylbenzene	U		0.000125	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
tert-Butylbenzene	U		0.000127	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
Carbon disulfide	U		0.0000962	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
Carbon tetrachloride	U		0.000128	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
Chlorobenzene	U		0.000116	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
Chlorodibromomethane	U		0.000140	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
Chloroethane	U		0.000192	0.00500	0.00500	1	01/29/2021 15:25	WG1613518
Chloroform	U		0.000111	0.00500	0.00500	1	01/29/2021 15:25	WG1613518
Chloromethane	U		0.000960	0.00250	0.00250	1	01/29/2021 15:25	WG1613518
2-Chlorotoluene	U		0.000106	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
4-Chlorotoluene	U		0.000114	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
1,2-Dibromo-3-Chloropropane	U		0.000276	0.00500	0.00500	1	01/29/2021 15:25	WG1613518
1,2-Dibromoethane	U		0.000126	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
Dibromomethane	U		0.000122	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
1,2-Dichlorobenzene	U		0.000107	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
1,3-Dichlorobenzene	U		0.000110	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
1,4-Dichlorobenzene	U		0.000120	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
Dichlorodifluoromethane	U		0.000374	0.00500	0.00500	1	01/29/2021 15:25	WG1613518
1,1-Dichloroethane	U		0.000100	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
1,2-Dichloroethane	U		0.0000819	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
1,1-Dichloroethene	U		0.000188	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
cis-1,2-Dichloroethene	U		0.000126	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
trans-1,2-Dichloroethene	U		0.000149	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
1,2-Dichloropropane	U		0.000149	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
1,1-Dichloropropene	U		0.000142	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
1,3-Dichloropropane	U		0.000110	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
cis-1,3-Dichloropropene	U		0.000111	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
trans-1,3-Dichloropropene	U		0.000118	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
2,2-Dichloropropane	U		0.000161	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
Di-isopropyl ether	U		0.000105	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
Ethylbenzene	U		0.000137	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
Hexachloro-1,3-butadiene	U		0.000337	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
2-Hexanone	U		0.000787	0.0100	0.0100	1	01/29/2021 15:25	WG1613518
Isopropylbenzene	U		0.000105	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
p-Isopropyltoluene	U		0.000120	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
2-Butanone (MEK)	U		0.00119	0.0100	0.0100	1	01/29/2021 15:25	WG1613518
Methylene Chloride	U		0.000430	0.00500	0.00500	1	01/29/2021 15:25	WG1613518
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100	0.0100	1	01/29/2021 15:25	WG1613518
Methyl tert-butyl ether	U		0.000101	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
Naphthalene	U		0.00100	0.00500	0.00500	1	01/29/2021 15:25	WG1613518
n-Propylbenzene	U		0.0000993	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
Styrene	U		0.000118	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
1,1,2-Trichlorotrifluoroethane	U		0.000180	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
Tetrachloroethene	U		0.000300	0.00100	0.00100	1	01/29/2021 15:25	WG1613518

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc



Collected date/time: 01/26/21 00:00

L1311179

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

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Toluene	U		0.000278	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
1,2,3-Trichlorobenzene	U		0.000230	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
1,2,4-Trichlorobenzene	U		0.000481	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
1,1,1-Trichloroethane	U		0.000149	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
1,1,2-Trichloroethane	U		0.000158	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
Trichloroethene	U		0.000190	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
Trichlorofluoromethane	U		0.000160	0.00500	0.00500	1	01/29/2021 15:25	WG1613518
1,2,3-Trichloropropane	U		0.000237	0.00250	0.00250	1	01/29/2021 15:25	WG1613518
1,2,4-Trimethylbenzene	U		0.000322	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
1,2,3-Trimethylbenzene	U	J4	0.000104	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
1,3,5-Trimethylbenzene	U		0.000104	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
Vinyl chloride	U		0.000234	0.00100	0.00100	1	01/29/2021 15:25	WG1613518
Xylenes, Total	U		0.000174	0.00300	0.00300	1	01/29/2021 15:25	WG1613518
(S) Toluene-d8	102				80.0-120		01/29/2021 15:25	WG1613518
(S) 4-Bromofluorobenzene	90.8				77.0-126		01/29/2021 15:25	WG1613518
(S) 1,2-Dichloroethane-d4	91.7				70.0-130		01/29/2021 15:25	WG1613518

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

Cp

$$T_C$$

Ss

$$C_n$$
$$\overline{\text{Tr}}^5$$
⁸⁸Sr

Qc

³GIAl ${}^0\text{Sc}$

Total Solids by Method 2540 G-2011

[L1311179-07,08,09,10,11,12,13,14,15,16](#)

Method Blank (MB)

(MB) R3619300-1 02/03/21 14:57

	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
Analyte	%		%	%
Total Solids	0.00100			

1

Cp

2

Tc

3

Ss

4

Cn

5

Tr

6

Sr

7

Qc

8

Gl

9

Al

10

Sc

L1311179-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1311179-07 02/03/21 14:57 • (DUP) R3619300-3 02/03/21 14:57

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	%	%		%		%
Total Solids	87.7	85.5	1	2.57		10

Laboratory Control Sample (LCS)

(LCS) R3619300-2 02/03/21 14:57

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
Analyte	%	%	%	%	
Total Solids	50.0	50.0	100	85.0-115	

Method Blank (MB)

(MB) R3619302-1 02/03/21 15:44

	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
Analyte	%		%	%
Total Solids	0.000			

L1311179-17 Original Sample (OS) • Duplicate (DUP)

(OS) L1311179-17 02/03/21 15:44 • (DUP) R3619302-3 02/03/21 15:44

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	%	%		%		%
Total Solids	88.7	90.7	1	2.19		10

Laboratory Control Sample (LCS)

(LCS) R3619302-2 02/03/21 15:44

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
Analyte	%	%	%	%	
Total Solids	50.0	50.0	100	85.0-115	

1

Cp

2

Tc

3

Ss

4

Cn

5

Tr

6

Sr

7

Qc

8

Gl

9

Al

10

Sc

L1311179-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1311179-08 02/02/21 00:57 • (DUP) R3618347-2 02/02/21 00:57

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	su	su		%		%
pH	8.35	8.38	1	0.359		1

Sample Narrative:
OS: 8.35 at 20.6C
DUP: 8.38 at 20.2C

L1311655-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1311655-11 02/02/21 00:57 • (DUP) R3618347-3 02/02/21 00:57

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	su	su		%		%
pH	8.02	8.03	1	0.125		1

Sample Narrative:
OS: 8.02 at 20.6C
DUP: 8.03 at 19.4C

Laboratory Control Sample (LCS)

(LCS) R3618347-1 02/02/21 00:57

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	su	su	%	%	
pH	10.0	10.0	100	99.0-101	

Sample Narrative:
LCS: 10.03 at 19.3C

1

Cp

2

Tc

3

Ss

4

Cn

5

Tr

6

Sr

7

Qc

8

Gl

9

Al

10

Sc

L1311750-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1311750-01 02/03/21 11:35 • (DUP) R3618928-2 02/03/21 11:35

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	su	su		%		%
pH	9.29	9.37	1	0.857		1

Sample Narrative:

OS: 9.29 at 19C

DUP: 9.37 at 22C

L1312461-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1312461-01 02/03/21 11:35 • (DUP) R3618928-3 02/03/21 11:35

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	su	su		%		%
pH	7.92	7.95	1	0.378		1

Sample Narrative:

OS: 7.92 at 18.5C

DUP: 7.95 at 21.4C

Laboratory Control Sample (LCS)

(LCS) R3618928-1 02/03/21 11:35

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	su	su	%	%	
pH	10.0	10.1	101	99.0-101	

Sample Narrative:

LCS: 10.05 at 21.5C

1

Cp

2

Tc

3

Ss

4

Cn

5

Tr

6

Sr

7

Qc

8

Gl

9

Al

10

Sc

Method Blank (MB)

(MB) R3618926-1 02/03/21 09:08				
	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
Analyte	mg/kg		mg/kg	mg/kg
Mercury	U		0.0180	0.0400

Laboratory Control Sample (LCS)

(LCS) R3618926-2 02/03/21 09:10					
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
Analyte	mg/kg	mg/kg	%	%	
Mercury	0.500	0.500	99.9	80.0-120	

L1311179-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1311179-03 02/03/21 09:12 • (MS) R3618926-3 02/03/21 09:15 • (MSD) R3618926-4 02/03/21 09:17												
	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Mercury	0.596	0.104	0.637	0.738	89.5	106	1	75.0-125			14.6	20

1

Cp

2

Tc

3

Ss

4

Cn

5

Tr

6

Sr

7

Qc

8

Gl

9

Al

10

Sc



Method Blank (MB)

(MB) R3618558-1 02/02/21 11:58

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/kg		mg/kg	mg/kg
Mercury	U		0.0180	0.0400

Laboratory Control Sample (LCS)

(LCS) R3618558-2 02/02/21 12:00

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/kg	mg/kg	%	%	
Mercury	0.500	0.508	102	80.0-120	

L1311270-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1311270-02 02/02/21 12:03 • (MS) R3618558-3 02/02/21 12:06 • (MSD) R3618558-4 02/02/21 12:08

	Spike Amount (dry)	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/kg	mg/kg	mg/kg	mg/kg	%	%		%			%	%
Mercury	0.625	U	0.721	0.674	115	108	1	75.0-125			6.72	20

1Cp

2Tc

3Ss

4Cn

5Tr

6Sr

7Qc

8Gl

9Al

10Sc



Method Blank (MB)

(MB) R3618776-1 02/02/21 23:57

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.518	2.00
Barium	U		0.0852	0.500
Cadmium	U		0.0471	0.500
Chromium	U		0.133	1.00
Lead	U		0.208	0.500
Selenium	U		0.764	2.00
Silver	U		0.127	1.00

1
Cp

2
Tc

3
Ss

4
Cn

5
Tr

6
Sr

7
Qc

8
Gl

9
Al

10
Sc

Laboratory Control Sample (LCS)

(LCS) R3618776-2 02/03/21 00:00

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	92.2	92.2	80.0-120	
Barium	100	97.8	97.8	80.0-120	
Cadmium	100	93.1	93.1	80.0-120	
Chromium	100	96.3	96.3	80.0-120	
Lead	100	96.5	96.5	80.0-120	
Selenium	100	93.2	93.2	80.0-120	
Silver	20.0	18.9	94.4	80.0-120	

L1310748-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1310748-03 02/03/21 00:03 • (MS) R3618776-5 02/03/21 00:11 • (MSD) R3618776-6 02/03/21 00:14

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 Limits %
Arsenic	124	4.65	114	108	88.2	83.2	1	75.0-125			5.53	20
Barium	124	260	361	346	81.3	69.4	1	75.0-125		J6	4.19	20
Cadmium	124	0.209	113	106	90.5	84.8	1	75.0-125			6.52	20
Chromium	124	20.1	136	129	93.0	87.4	1	75.0-125			5.31	20
Lead	124	13.1	137	128	99.5	92.1	1	75.0-125			7.01	20
Selenium	124	1.72	113	107	89.4	84.8	1	75.0-125			5.14	20
Silver	24.9	U	22.5	21.1	90.6	84.8	1	75.0-125			6.60	20



Method Blank (MB)

(MB) R3618009-1 01/30/21 19:02

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.518	2.00
Barium	U		0.0852	0.500
Cadmium	U		0.0471	0.500
Chromium	U		0.133	1.00
Lead	U		0.208	0.500
Selenium	U		0.764	2.00
Silver	U		0.127	1.00

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Tr

⁶ Sr

⁷ Qc

⁸ Gl

⁹ Al

¹⁰ Sc

Laboratory Control Sample (LCS)

(LCS) R3618009-2 01/30/21 19:05

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	93.5	93.5	80.0-120	
Barium	100	100	100	80.0-120	
Cadmium	100	93.2	93.2	80.0-120	
Chromium	100	94.7	94.7	80.0-120	
Lead	100	101	101	80.0-120	
Selenium	100	91.1	91.1	80.0-120	
Silver	20.0	18.3	91.3	80.0-120	

L1311179-17 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1311179-17 01/30/21 19:08 • (MS) R3618009-5 01/30/21 19:16 • (MSD) R3618009-6 01/30/21 19:19

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 Limits %
Arsenic	113	25.5	156	145	116	106	1	75.0-125			7.11	20
Barium	113	296	402	371	93.6	66.3	1	75.0-125		J6	7.97	20
Cadmium	113	1.26	110	111	96.3	97.5	1	75.0-125			1.18	20
Chromium	113	73.6	161	172	77.3	87.3	1	75.0-125			6.74	20
Lead	113	60.2	229	187	150	113	1	75.0-125	J5		20.0	20
Selenium	113	2.66	107	106	92.5	91.9	1	75.0-125			0.564	20
Silver	22.5	U	22.1	22.5	98.2	99.8	1	75.0-125			1.59	20

Method Blank (MB)

(MB) R3618633-4 01/29/21 11:07

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Acrolein	U		0.00254	0.0500
Acrylonitrile	U		0.000671	0.0100
Benzene	U		0.0000941	0.00100
Bromobenzene	U		0.000118	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromochloromethane	U		0.000128	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	U		0.000157	0.00100
sec-Butylbenzene	U		0.000125	0.00100
tert-Butylbenzene	U		0.000127	0.00100
Carbon disulfide	U		0.0000962	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Chlorobenzene	U		0.000116	0.00100
Chlorodibromomethane	U		0.000140	0.00100
Chloroethane	U		0.000192	0.00500
Chloroform	U		0.000111	0.00500
Chloromethane	U		0.000960	0.00250
2-Chlorotoluene	U		0.000106	0.00100
4-Chlorotoluene	U		0.000114	0.00100
1,2-Dibromo-3-Chloropropane	U		0.000276	0.00500
1,2-Dibromoethane	U		0.000126	0.00100
Dibromomethane	U		0.000122	0.00100
1,2-Dichlorobenzene	U		0.000107	0.00100
1,3-Dichlorobenzene	U		0.000110	0.00100
1,4-Dichlorobenzene	U		0.000120	0.00100
Dichlorodifluoromethane	U		0.000374	0.00500
1,1-Dichloroethane	U		0.000100	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
cis-1,2-Dichloroethene	U		0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
1,1-Dichloropropene	U		0.000142	0.00100
1,3-Dichloropropane	U		0.000110	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
2,2-Dichloropropane	U		0.000161	0.00100
Di-isopropyl ether	U		0.000105	0.00100

1

Cp

2

Tc

3

Ss

4

Cn

5

Tr

6

Sr

7

Qc

8

Gl

9

Al

10

Sc



Method Blank (MB)

(MB) R3618633-4 01/29/21 11:07

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ethylbenzene	U		0.000137	0.00100
Hexachloro-1,3-butadiene	U		0.000337	0.00100
2-Hexanone	U		0.000787	0.0100
Isopropylbenzene	U		0.000105	0.00100
p-Isopropyltoluene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
Methylene Chloride	U		0.000430	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.0000993	0.00100
Styrene	U		0.000118	0.00100
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
1,1,2-Trichlorotrifluoroethane	U		0.000180	0.00100
1,2,3-Trichlorobenzene	U		0.000230	0.00100
1,2,4-Trichlorobenzene	U		0.000481	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100
Trichloroethene	U		0.000190	0.00100
Trichlorofluoromethane	U		0.000160	0.00500
1,2,3-Trichloropropane	U		0.000237	0.00250
1,2,3-Trimethylbenzene	U		0.000104	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
(S) Toluene-d8	102			80.0-120
(S) 4-Bromofluorobenzene	92.0			77.0-126
(S) 1,2-Dichloroethane-d4	91.9			70.0-130

¹Cp

²Tc

³Ss

⁴Cn

⁵Tr

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc



Laboratory Control Sample (LCS)

(LCS) R3618633-1 01/29/21 09:42

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Acetone	0.0250	0.0215	86.0	19.0-160	
Acrolein	0.0250	0.0430	172	10.0-160	J4
Acrylonitrile	0.0250	0.0231	92.4	55.0-149	
Benzene	0.00500	0.00465	93.0	70.0-123	
Bromobenzene	0.00500	0.00471	94.2	73.0-121	
Bromodichloromethane	0.00500	0.00449	89.8	75.0-120	
Bromochloromethane	0.00500	0.00489	97.8	76.0-122	
Bromoform	0.00500	0.00472	94.4	68.0-132	
Bromomethane	0.00500	0.00535	107	10.0-160	
n-Butylbenzene	0.00500	0.00496	99.2	73.0-125	
sec-Butylbenzene	0.00500	0.00516	103	75.0-125	
tert-Butylbenzene	0.00500	0.00488	97.6	76.0-124	
Carbon disulfide	0.00500	0.00544	109	61.0-128	
Carbon tetrachloride	0.00500	0.00478	95.6	68.0-126	
Chlorobenzene	0.00500	0.00471	94.2	80.0-121	
Chlorodibromomethane	0.00500	0.00500	100	77.0-125	
Chloroethane	0.00500	0.00525	105	47.0-150	
Chloroform	0.00500	0.00504	101	73.0-120	
Chloromethane	0.00500	0.00513	103	41.0-142	
2-Chlorotoluene	0.00500	0.00491	98.2	76.0-123	
4-Chlorotoluene	0.00500	0.00480	96.0	75.0-122	
1,2-Dibromo-3-Chloropropane	0.00500	0.00432	86.4	58.0-134	
1,2-Dibromoethane	0.00500	0.00479	95.8	80.0-122	
Dibromomethane	0.00500	0.00496	99.2	80.0-120	
1,2-Dichlorobenzene	0.00500	0.00517	103	79.0-121	
1,3-Dichlorobenzene	0.00500	0.00495	99.0	79.0-120	
1,4-Dichlorobenzene	0.00500	0.00494	98.8	79.0-120	
Dichlorodifluoromethane	0.00500	0.00526	105	51.0-149	
1,1-Dichloroethane	0.00500	0.00437	87.4	70.0-126	
1,2-Dichloroethane	0.00500	0.00477	95.4	70.0-128	
1,1-Dichloroethene	0.00500	0.00499	99.8	71.0-124	
cis-1,2-Dichloroethene	0.00500	0.00464	92.8	73.0-120	
trans-1,2-Dichloroethene	0.00500	0.00526	105	73.0-120	
1,2-Dichloropropane	0.00500	0.00480	96.0	77.0-125	
1,1-Dichloropropene	0.00500	0.00506	101	74.0-126	
1,3-Dichloropropane	0.00500	0.00480	96.0	80.0-120	
cis-1,3-Dichloropropene	0.00500	0.00477	95.4	80.0-123	
trans-1,3-Dichloropropene	0.00500	0.00472	94.4	78.0-124	
2,2-Dichloropropane	0.00500	0.00553	111	58.0-130	
Di-isopropyl ether	0.00500	0.00406	81.2	58.0-138	

¹Cp

²Tc

³Ss

⁴Cn

⁵Tr

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc

Laboratory Control Sample (LCS)

(LCS) R3618633-1 01/29/21 09:42

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Ethylbenzene	0.00500	0.00474	94.8	79.0-123	
Hexachloro-1,3-butadiene	0.00500	0.00501	100	54.0-138	
2-Hexanone	0.0250	0.0215	86.0	67.0-149	
Isopropylbenzene	0.00500	0.00473	94.6	76.0-127	
p-Isopropyltoluene	0.00500	0.00492	98.4	76.0-125	
2-Butanone (MEK)	0.0250	0.0204	81.6	44.0-160	
Methylene Chloride	0.00500	0.00541	108	67.0-120	
4-Methyl-2-pentanone (MIBK)	0.0250	0.0214	85.6	68.0-142	
Methyl tert-butyl ether	0.00500	0.00465	93.0	68.0-125	
Naphthalene	0.00500	0.00509	102	54.0-135	
n-Propylbenzene	0.00500	0.00489	97.8	77.0-124	
Styrene	0.00500	0.00488	97.6	73.0-130	
1,1,1,2-Tetrachloroethane	0.00500	0.00462	92.4	75.0-125	
1,1,2,2-Tetrachloroethane	0.00500	0.00521	104	65.0-130	
Tetrachloroethene	0.00500	0.00522	104	72.0-132	
Toluene	0.00500	0.00498	99.6	79.0-120	
1,1,2-Trichlorotrifluoroethane	0.00500	0.00492	98.4	69.0-132	
1,2,3-Trichlorobenzene	0.00500	0.00529	106	50.0-138	
1,2,4-Trichlorobenzene	0.00500	0.00483	96.6	57.0-137	
1,1,1-Trichloroethane	0.00500	0.00490	98.0	73.0-124	
1,1,2-Trichloroethane	0.00500	0.00496	99.2	80.0-120	
Trichloroethene	0.00500	0.00449	89.8	78.0-124	
Trichlorofluoromethane	0.00500	0.00499	99.8	59.0-147	
1,2,3-Trichloropropane	0.00500	0.00529	106	73.0-130	
1,2,3-Trimethylbenzene	0.00500	0.00623	125	77.0-120	J4
1,2,4-Trimethylbenzene	0.00500	0.00506	101	76.0-121	
1,3,5-Trimethylbenzene	0.00500	0.00494	98.8	76.0-122	
Vinyl chloride	0.00500	0.00516	103	67.0-131	
Xylenes, Total	0.0150	0.0139	92.7	79.0-123	
(S) Toluene-d8			97.5	80.0-120	
(S) 4-Bromofluorobenzene			89.6	77.0-126	
(S) 1,2-Dichloroethane-d4			97.9	70.0-130	

1Cp

2Tc

3Ss

4Cn

5Tr

6Sr

7Qc

8Gl

9Al

10Sc

Method Blank (MB)

(MB) R3618631-3 01/30/21 02:45

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0365	0.0500
Benzene	U		0.000467	0.00100
Bromobenzene	U		0.000900	0.0125
Bromodichloromethane	U		0.000725	0.00250
Bromochloromethane	U		0.000564	0.00500
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 disulfide	U		0.000700	0.0125
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
1,2-Dichloropropane	U		0.00142	0.00500
1,1-Dichloropropene	U		0.000809	0.00250
1,3-Dichloropropane	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
Ethylbenzene	U		0.000737	0.00250
Hexachloro-1,3-butadiene	U		0.00600	0.0250
2-Hexanone	U		0.00336	0.0250

¹Cp

²Tc

³Ss

⁴Cn

⁵Tr

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc

Method Blank (MB)

(MB) R3618631-3 01/30/21 02:45

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Isopropylbenzene	U		0.000425	0.00250
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 (MIBK)	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
1,1,1,2-Tetrachloroethane	U		0.000948	0.00250
1,1,2,2-Tetrachloroethane	U		0.000695	0.00250
Tetrachloroethene	U		0.000896	0.00250
Toluene	U		0.00130	0.00500
1,2,3-Trichlorobenzene	U		0.00733	0.0125
1,2,4-Trichlorobenzene	U		0.00440	0.0125
1,1,1-Trichloroethane	U		0.000923	0.00250
1,1,2-Trichloroethane	U		0.000597	0.00250
Trichloroethene	U		0.000584	0.00100
Trichlorofluoromethane	U		0.000827	0.00250
1,2,3-Trichloropropane	U		0.00162	0.0125
1,2,4-Trimethylbenzene	U		0.00158	0.00500
1,3,5-Trimethylbenzene	U		0.00200	0.00500
Vinyl chloride	U		0.00116	0.00250
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	99.1			75.0-131
(S) 4-Bromofluorobenzene	98.9			67.0-138
(S) 1,2-Dichloroethane-d4	91.1			70.0-130

¹Cp

²Tc

³Ss

⁴Cn

⁵Tr

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc

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

(LCS) R3618631-1 01/30/21 01:29 • (LCSD) R3618631-2 01/30/21 01:48

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.625	0.588	0.556	94.1	89.0	10.0-160			5.59	31
Benzene	0.125	0.112	0.114	89.6	91.2	70.0-123			1.77	20
Bromobenzene	0.125	0.111	0.110	88.8	88.0	73.0-121			0.905	20
Bromodichloromethane	0.125	0.114	0.117	91.2	93.6	73.0-121			2.60	20
Bromochloromethane	0.125	0.129	0.126	103	101	77.0-128			2.35	20
Bromoform	0.125	0.121	0.121	96.8	96.8	64.0-132			0.000	20

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

(LCS) R3618631-1 01/30/21 01:29 • (LCSD) R3618631-2 01/30/21 01:48

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromomethane	0.125	0.118	0.119	94.4	95.2	56.0-147			0.844	20
n-Butylbenzene	0.125	0.0998	0.0994	79.8	79.5	68.0-135			0.402	20
sec-Butylbenzene	0.125	0.104	0.102	83.2	81.6	74.0-130			1.94	20
tert-Butylbenzene	0.125	0.111	0.108	88.8	86.4	75.0-127			2.74	20
Carbon disulfide	0.125	0.104	0.103	83.2	82.4	56.0-133			0.966	20
Carbon tetrachloride	0.125	0.130	0.134	104	107	66.0-128			3.03	20
Chlorobenzene	0.125	0.110	0.110	88.0	88.0	76.0-128			0.000	20
Chlorodibromomethane	0.125	0.112	0.116	89.6	92.8	74.0-127			3.51	20
Chloroethane	0.125	0.130	0.122	104	97.6	61.0-134			6.35	20
Chloroform	0.125	0.120	0.122	96.0	97.6	72.0-123			1.65	20
Chloromethane	0.125	0.112	0.111	89.6	88.8	51.0-138			0.897	20
2-Chlorotoluene	0.125	0.102	0.0976	81.6	78.1	75.0-124			4.41	20
4-Chlorotoluene	0.125	0.110	0.107	88.0	85.6	75.0-124			2.76	20
1,2-Dibromo-3-Chloropropane	0.125	0.104	0.101	83.2	80.8	59.0-130			2.93	20
1,2-Dibromoethane	0.125	0.106	0.103	84.8	82.4	74.0-128			2.87	20
Dibromomethane	0.125	0.115	0.113	92.0	90.4	75.0-122			1.75	20
1,2-Dichlorobenzene	0.125	0.103	0.102	82.4	81.6	76.0-124			0.976	20
1,3-Dichlorobenzene	0.125	0.105	0.104	84.0	83.2	76.0-125			0.957	20
1,4-Dichlorobenzene	0.125	0.101	0.100	80.8	80.0	77.0-121			0.995	20
Dichlorodifluoromethane	0.125	0.127	0.129	102	103	43.0-156			1.56	20
1,1-Dichloroethane	0.125	0.111	0.114	88.8	91.2	70.0-127			2.67	20
1,2-Dichloroethane	0.125	0.116	0.117	92.8	93.6	65.0-131			0.858	20
1,1-Dichloroethene	0.125	0.119	0.119	95.2	95.2	65.0-131			0.000	20
cis-1,2-Dichloroethene	0.125	0.111	0.109	88.8	87.2	73.0-125			1.82	20
trans-1,2-Dichloroethene	0.125	0.111	0.112	88.8	89.6	71.0-125			0.897	20
1,2-Dichloropropane	0.125	0.105	0.109	84.0	87.2	74.0-125			3.74	20
1,1-Dichloropropene	0.125	0.118	0.118	94.4	94.4	73.0-125			0.000	20
1,3-Dichloropropane	0.125	0.101	0.0996	80.8	79.7	80.0-125		J4	1.40	20
cis-1,3-Dichloropropene	0.125	0.118	0.118	94.4	94.4	76.0-127			0.000	20
trans-1,3-Dichloropropene	0.125	0.113	0.112	90.4	89.6	73.0-127			0.889	20
2,2-Dichloropropane	0.125	0.102	0.104	81.6	83.2	59.0-135			1.94	20
Ethylbenzene	0.125	0.107	0.105	85.6	84.0	74.0-126			1.89	20
Hexachloro-1,3-butadiene	0.125	0.116	0.116	92.8	92.8	57.0-150			0.000	20
2-Hexanone	0.625	0.449	0.443	71.8	70.9	54.0-147			1.35	20
Isopropylbenzene	0.125	0.111	0.110	88.8	88.0	72.0-127			0.905	20
p-Isopropyltoluene	0.125	0.110	0.106	88.0	84.8	72.0-133			3.70	20
2-Butanone (MEK)	0.625	0.498	0.482	79.7	77.1	30.0-160			3.27	24
Methylene Chloride	0.125	0.109	0.110	87.2	88.0	68.0-123			0.913	20
4-Methyl-2-pentanone (MIBK)	0.625	0.468	0.465	74.9	74.4	56.0-143			0.643	20
Methyl tert-butyl ether	0.125	0.114	0.114	91.2	91.2	66.0-132			0.000	20

1Cp

2Tc

3Ss

4Cn

5Tr

6Sr

7Qc

8Gl

9Al

10Sc

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

(LCS) R3618631-1 01/30/21 01:29 • (LCSD) R3618631-2 01/30/21 01:48

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Naphthalene	0.125	0.0989	0.0988	79.1	79.0	59.0-130			0.101	20
n-Propylbenzene	0.125	0.104	0.102	83.2	81.6	74.0-126			1.94	20
Styrene	0.125	0.105	0.105	84.0	84.0	72.0-127			0.000	20
1,1,1,2-Tetrachloroethane	0.125	0.117	0.111	93.6	88.8	74.0-129			5.26	20
1,1,2,2-Tetrachloroethane	0.125	0.0850	0.0849	68.0	67.9	68.0-128		J4	0.118	20
Tetrachloroethene	0.125	0.118	0.116	94.4	92.8	70.0-136			1.71	20
Toluene	0.125	0.112	0.111	89.6	88.8	75.0-121			0.897	20
1,2,3-Trichlorobenzene	0.125	0.101	0.105	80.8	84.0	59.0-139			3.88	20
1,2,4-Trichlorobenzene	0.125	0.110	0.107	88.0	85.6	62.0-137			2.76	20
1,1,1-Trichloroethane	0.125	0.121	0.123	96.8	98.4	69.0-126			1.64	20
1,1,2-Trichloroethane	0.125	0.106	0.104	84.8	83.2	78.0-123			1.90	20
Trichloroethene	0.125	0.140	0.133	112	106	76.0-126			5.13	20
Trichlorofluoromethane	0.125	0.131	0.132	105	106	61.0-142			0.760	20
1,2,3-Trichloropropane	0.125	0.0985	0.0956	78.8	76.5	67.0-129			2.99	20
1,2,4-Trimethylbenzene	0.125	0.105	0.103	84.0	82.4	70.0-126			1.92	20
1,3,5-Trimethylbenzene	0.125	0.107	0.107	85.6	85.6	73.0-127			0.000	20
Vinyl chloride	0.125	0.117	0.124	93.6	99.2	63.0-134			5.81	20
Xylenes, Total	0.375	0.323	0.327	86.1	87.2	72.0-127			1.23	20
(S) Toluene-d8				97.2	95.7	75.0-131				
(S) 4-Bromofluorobenzene				103	101	67.0-138				
(S) 1,2-Dichloroethane-d4				105	106	70.0-130				

1Cp

2Tc

3Ss

4Cn

5Tr

6Sr

7Qc

8Gl

9Al

10Sc

L1311246-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1311246-01 01/30/21 08:28 • (MS) R3618631-4 01/30/21 10:04 • (MSD) R3618631-5 01/30/21 10:23

Analyte	Spike Amount (dry) mg/kg	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.483	U	0.554	0.373	80.7	54.5	1	10.0-160			38.9	40
Benzene	0.0965	U	0.159	0.0948	116	69.2	1	10.0-149		J3	50.6	37
Bromobenzene	0.0965	U	0.172	0.105	125	77.0	1	10.0-156		J3	47.8	38
Bromodichloromethane	0.0965	U	0.172	0.104	125	75.9	1	10.0-143		J3	49.2	37
Bromochloromethane	0.0965	U	0.177	0.104	130	75.9	1	10.0-155		J3	52.3	33
Bromoform	0.0965	U	0.170	0.107	124	78.4	1	10.0-146		J3	45.3	36
Bromomethane	0.0965	U	0.0971	0.0626	70.9	45.7	1	10.0-149		J3	43.2	38
n-Butylbenzene	0.0965	U	0.132	0.0803	96.7	58.7	1	10.0-160		J3	49.0	40
sec-Butylbenzene	0.0965	U	0.139	0.0856	102	62.5	1	10.0-159		J3	47.6	39
tert-Butylbenzene	0.0965	U	0.149	0.0935	109	68.3	1	10.0-156		J3	45.8	39
Carbon disulfide	0.0965	U	0.114	0.0686	83.0	50.1	1	10.0-145		J3	49.5	39
Carbon tetrachloride	0.0965	U	0.152	0.0883	111	64.5	1	10.0-145		J3	53.0	37

L1311246-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1311246-01 01/30/21 08:28 • (MS) R3618631-4 01/30/21 10:04 • (MSD) R3618631-5 01/30/21 10:23

Analyte	Spike Amount (dry) mg/kg	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chlorobenzene	0.0965	U	0.165	0.0996	120	72.7	1	10.0-152		J3	49.2	39
Chlorodibromomethane	0.0965	U	0.176	0.108	128	79.0	1	10.0-146		J3	47.8	37
Chloroethane	0.0965	U	0.0747	0.0466	54.5	34.0	1	10.0-146		J3	46.4	40
Chloroform	0.0965	U	0.162	0.0979	118	71.5	1	10.0-146		J3	49.2	37
Chloromethane	0.0965	U	0.133	0.0771	96.8	56.3	1	10.0-159		J3	52.9	37
2-Chlorotoluene	0.0965	U	0.148	0.0914	108	66.7	1	10.0-159		J3	47.0	38
4-Chlorotoluene	0.0965	U	0.162	0.0984	118	71.8	1	10.0-155		J3	48.8	39
1,2-Dibromo-3-Chloropropane	0.0965	U	0.127	0.0819	92.4	59.8	1	10.0-151		J3	42.9	39
1,2-Dibromoethane	0.0965	U	0.167	0.107	122	78.1	1	10.0-148		J3	44.1	34
Dibromomethane	0.0965	U	0.173	0.106	126	77.1	1	10.0-147		J3	48.5	35
1,2-Dichlorobenzene	0.0965	U	0.145	0.0931	106	68.0	1	10.0-155		J3	43.4	37
1,3-Dichlorobenzene	0.0965	U	0.150	0.0952	110	69.5	1	10.0-153		J3	44.9	38
1,4-Dichlorobenzene	0.0965	U	0.152	0.0931	111	68.0	1	10.0-151		J3	48.0	38
Dichlorodifluoromethane	0.0965	U	0.122	0.0669	89.2	48.8	1	10.0-160		J3	58.6	35
1,1-Dichloroethane	0.0965	U	0.156	0.0950	114	69.3	1	10.0-147		J3	48.7	37
1,2-Dichloroethane	0.0965	U	0.177	0.109	130	79.7	1	10.0-148		J3	47.6	35
1,1-Dichloroethene	0.0965	U	0.150	0.0893	110	65.2	1	10.0-155		J3	51.0	37
cis-1,2-Dichloroethene	0.0965	U	0.153	0.0879	112	64.1	1	10.0-149		J3	54.3	37
trans-1,2-Dichloroethene	0.0965	U	0.133	0.0813	97.0	59.4	1	10.0-150		J3	48.1	37
1,2-Dichloropropane	0.0965	U	0.177	0.107	130	78.4	1	10.0-148		J3	49.1	37
1,1-Dichloropropene	0.0965	U	0.148	0.0877	108	64.0	1	10.0-153		J3	50.9	35
1,3-Dichloropropane	0.0965	U	0.173	0.113	126	82.4	1	10.0-154		J3	42.2	35
cis-1,3-Dichloropropene	0.0965	U	0.177	0.113	130	82.3	1	10.0-151		J3	44.6	37
trans-1,3-Dichloropropene	0.0965	U	0.180	0.113	132	82.4	1	10.0-148		J3	46.0	37
2,2-Dichloropropane	0.0965	U	0.0894	0.0527	65.3	38.4	1	10.0-138		J3	51.7	36
Ethylbenzene	0.0965	U	0.148	0.0867	108	63.3	1	10.0-160		J3	52.0	38
Hexachloro-1,3-butadiene	0.0965	U	0.125	0.0809	91.2	59.1	1	10.0-160		J3	42.8	40
2-Hexanone	0.483	U	0.792	0.508	116	74.1	1	10.0-160		J3	43.7	36
Isopropylbenzene	0.0965	U	0.142	0.0854	104	62.4	1	10.0-155		J3	49.7	38
p-Isopropyltoluene	0.0965	U	0.146	0.0881	107	64.4	1	10.0-160		J3	49.5	40
2-Butanone (MEK)	0.483	U	0.907	0.626	132	91.3	1	10.0-160			36.7	40
Methylene Chloride	0.0965	U	0.156	0.0616	114	45.0	1	10.0-141		J3	86.8	37
4-Methyl-2-pentanone (MIBK)	0.483	U	0.825	0.539	120	78.7	1	10.0-160		J3	41.8	35
Methyl tert-butyl ether	0.0965	U	0.150	0.0911	110	66.5	1	11.0-147		J3	49.1	35
Naphthalene	0.0965	U	0.114	0.0752	83.5	54.9	1	10.0-160		J3	41.3	36
n-Propylbenzene	0.0965	U	0.148	0.0884	108	64.6	1	10.0-158		J3	50.2	38
Styrene	0.0965	U	0.156	0.0952	114	69.5	1	10.0-160		J3	48.4	40
1,1,1,2-Tetrachloroethane	0.0965	U	0.149	0.0931	109	68.0	1	10.0-149		J3	46.2	39
1,1,2,2-Tetrachloroethane	0.0965	U	0.123	0.0803	89.6	58.7	1	10.0-160		J3	41.8	35

1Cp

2Tc

3Ss

4Cn

5Tr

6Sr

7Qc

8Gl

9Al

10Sc

L1311246-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1311246-01 01/30/21 08:28 • (MS) R3618631-4 01/30/21 10:04 • (MSD) R3618631-5 01/30/21 10:23

Analyte	Spike Amount (dry) mg/kg	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Tetrachloroethene	0.0965	U	0.145	0.0866	106	63.2	1	10.0-156		J3	50.3	39
Toluene	0.0965	0.00552	0.159	0.0950	112	65.3	1	10.0-156		J3	50.4	38
1,2,3-Trichlorobenzene	0.0965	U	0.120	0.0761	87.4	55.5	1	10.0-160		J3	44.5	40
1,2,4-Trichlorobenzene	0.0965	U	0.130	0.0802	94.9	58.5	1	10.0-160		J3	47.4	40
1,1,1-Trichloroethane	0.0965	U	0.148	0.0832	108	60.7	1	10.0-144		J3	55.8	35
1,1,2-Trichloroethane	0.0965	U	0.177	0.113	130	82.8	1	10.0-160		J3	44.0	35
Trichloroethene	0.0965	U	0.196	0.119	143	86.6	1	10.0-156		J3	49.1	38
Trichlorofluoromethane	0.0965	U	0.0747	0.0488	54.5	35.6	1	10.0-160		J3	41.8	40
1,2,3-Trichloropropane	0.0965	U	0.162	0.102	118	74.3	1	10.0-156		J3	45.6	35
1,2,4-Trimethylbenzene	0.0965	U	0.146	0.0870	107	63.5	1	10.0-160		J3	50.8	36
1,3,5-Trimethylbenzene	0.0965	U	0.146	0.0903	107	65.9	1	10.0-160		J3	47.3	38
Vinyl chloride	0.0965	U	0.127	0.0728	92.6	53.2	1	10.0-160		J3	54.2	37
Xylenes, Total	0.289	0.00200	0.447	0.273	109	65.9	1	10.0-160		J3	48.5	38
(S) Toluene-d8					98.3	98.5		75.0-131				
(S) 4-Bromofluorobenzene					99.1	99.1		67.0-138				
(S) 1,2-Dichloroethane-d4					97.2	94.6		70.0-130				

1Cp

2Tc

3Ss

4Cn

5Tr

6Sr

7Qc

8Gl

9Al

10Sc

Method Blank (MB)

(MB) R3617765-2 01/30/21 03:00

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0365	0.0500
Benzene	U		0.000467	0.00100
Bromobenzene	U		0.000900	0.0125
Bromodichloromethane	U		0.000725	0.00250
Bromochloromethane	U		0.000564	0.00500
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 disulfide	U		0.000700	0.0125
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
1,2-Dichloropropane	U		0.00142	0.00500
1,1-Dichloropropene	U		0.000809	0.00250
1,3-Dichloropropane	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
Ethylbenzene	U		0.000737	0.00250
Hexachloro-1,3-butadiene	U		0.00600	0.0250
2-Hexanone	U		0.00336	0.0250

1Cp

2Tc

3Ss

4Cn

5Tr

6Sr

7Qc

8Gl

9Al

10Sc

Method Blank (MB)

(MB) R3617765-2 01/30/21 03:00

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Isopropylbenzene	U		0.000425	0.00250
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 (MIBK)	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
1,1,1,2-Tetrachloroethane	U		0.000948	0.00250
1,1,2,2-Tetrachloroethane	U		0.000695	0.00250
Tetrachloroethene	U		0.000896	0.00250
Toluene	0.00135	U	0.00130	0.00500
1,2,3-Trichlorobenzene	U		0.00733	0.0125
1,2,4-Trichlorobenzene	U		0.00440	0.0125
1,1,1-Trichloroethane	U		0.000923	0.00250
1,1,2-Trichloroethane	U		0.000597	0.00250
Trichloroethene	U		0.000584	0.00100
Trichlorofluoromethane	U		0.000827	0.00250
1,2,3-Trichloropropane	U		0.00162	0.0125
1,2,4-Trimethylbenzene	0.00280	U	0.00158	0.00500
1,3,5-Trimethylbenzene	U		0.00200	0.00500
Vinyl chloride	U		0.00116	0.00250
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	99.1			75.0-131
(S) 4-Bromofluorobenzene	105			67.0-138
(S) 1,2-Dichloroethane-d4	91.8			70.0-130

1

Cp

2

Tc

3

Ss

4

Cn

5

Tr

6

Sr

7

Qc

8

Gl

9

Al

10

Sc

Laboratory Control Sample (LCS)

(LCS) R3617765-1 01/30/21 02:03

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.625	0.422	67.5	10.0-160	
Benzene	0.125	0.140	112	70.0-123	
Bromobenzene	0.125	0.142	114	73.0-121	
Bromodichloromethane	0.125	0.135	108	73.0-121	
Bromochloromethane	0.125	0.140	112	77.0-128	
Bromoform	0.125	0.135	108	64.0-132	



Laboratory Control Sample (LCS)

(LCS) R3617765-1 01/30/21 02:03

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Bromomethane	0.125	0.144	115	56.0-147	
n-Butylbenzene	0.125	0.123	98.4	68.0-135	
sec-Butylbenzene	0.125	0.138	110	74.0-130	
tert-Butylbenzene	0.125	0.144	115	75.0-127	
Carbon disulfide	0.125	0.159	127	56.0-133	
Carbon tetrachloride	0.125	0.154	123	66.0-128	
Chlorobenzene	0.125	0.144	115	76.0-128	
Chlorodibromomethane	0.125	0.144	115	74.0-127	
Chloroethane	0.125	0.161	129	61.0-134	
Chloroform	0.125	0.142	114	72.0-123	
Chloromethane	0.125	0.136	109	51.0-138	
2-Chlorotoluene	0.125	0.145	116	75.0-124	
4-Chlorotoluene	0.125	0.138	110	75.0-124	
1,2-Dibromo-3-Chloropropane	0.125	0.114	91.2	59.0-130	
1,2-Dibromoethane	0.125	0.139	111	74.0-128	
Dibromomethane	0.125	0.126	101	75.0-122	
1,2-Dichlorobenzene	0.125	0.135	108	76.0-124	
1,3-Dichlorobenzene	0.125	0.136	109	76.0-125	
1,4-Dichlorobenzene	0.125	0.134	107	77.0-121	
Dichlorodifluoromethane	0.125	0.162	130	43.0-156	
1,1-Dichloroethane	0.125	0.141	113	70.0-127	
1,2-Dichloroethane	0.125	0.121	96.8	65.0-131	
1,1-Dichloroethene	0.125	0.159	127	65.0-131	
cis-1,2-Dichloroethene	0.125	0.146	117	73.0-125	
trans-1,2-Dichloroethene	0.125	0.166	133	71.0-125	J4
1,2-Dichloropropane	0.125	0.148	118	74.0-125	
1,1-Dichloropropene	0.125	0.153	122	73.0-125	
1,3-Dichloropropane	0.125	0.136	109	80.0-125	
cis-1,3-Dichloropropene	0.125	0.145	116	76.0-127	
trans-1,3-Dichloropropene	0.125	0.142	114	73.0-127	
2,2-Dichloropropane	0.125	0.142	114	59.0-135	
Ethylbenzene	0.125	0.151	121	74.0-126	
Hexachloro-1,3-butadiene	0.125	0.143	114	57.0-150	
2-Hexanone	0.625	0.645	103	54.0-147	
Isopropylbenzene	0.125	0.148	118	72.0-127	
p-Isopropyltoluene	0.125	0.137	110	72.0-133	
2-Butanone (MEK)	0.625	0.559	89.4	30.0-160	
Methylene Chloride	0.125	0.0916	73.3	68.0-123	
4-Methyl-2-pentanone (MIBK)	0.625	0.594	95.0	56.0-143	
Methyl tert-butyl ether	0.125	0.129	103	66.0-132	

¹Cp

²Tc

³Ss

⁴Cn

⁵Tr

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc

Laboratory Control Sample (LCS)

(LCS) R3617765-1 01/30/21 02:03

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Naphthalene	0.125	0.135	108	59.0-130	
n-Propylbenzene	0.125	0.139	111	74.0-126	
Styrene	0.125	0.142	114	72.0-127	
1,1,1,2-Tetrachloroethane	0.125	0.139	111	74.0-129	
1,1,2,2-Tetrachloroethane	0.125	0.109	87.2	68.0-128	
Tetrachloroethene	0.125	0.164	131	70.0-136	
Toluene	0.125	0.150	120	75.0-121	
1,2,3-Trichlorobenzene	0.125	0.145	116	59.0-139	
1,2,4-Trichlorobenzene	0.125	0.142	114	62.0-137	
1,1,1-Trichloroethane	0.125	0.159	127	69.0-126	J4
1,1,2-Trichloroethane	0.125	0.149	119	78.0-123	
Trichloroethene	0.125	0.174	139	76.0-126	J4
Trichlorofluoromethane	0.125	0.145	116	61.0-142	
1,2,3-Trichloropropane	0.125	0.129	103	67.0-129	
1,2,4-Trimethylbenzene	0.125	0.142	114	70.0-126	
1,3,5-Trimethylbenzene	0.125	0.142	114	73.0-127	
Vinyl chloride	0.125	0.139	111	63.0-134	
Xylenes, Total	0.375	0.432	115	72.0-127	
(S) Toluene-d8			102	75.0-131	
(S) 4-Bromofluorobenzene			98.7	67.0-138	
(S) 1,2-Dichloroethane-d4			90.4	70.0-130	

1Cp

2Tc

3Ss

4Cn

5Tr

6Sr

7Qc

8Gl

9Al

10Sc

L1310897-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1310897-12 01/30/21 03:19 • (MS) R3617765-3 01/30/21 09:40 • (MSD) R3617765-4 01/30/21 09:59

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.625	U	0.378	0.340	60.5	54.4	1	10.0-160			10.6	40
Benzene	0.125	0.00943	0.0970	0.114	70.1	83.7	1	10.0-149			16.1	37
Bromobenzene	0.125	U	0.0740	0.104	59.2	83.2	1	10.0-156			33.7	38
Bromodichloromethane	0.125	U	0.0787	0.0937	63.0	75.0	1	10.0-143			17.4	37
Bromochloromethane	0.125	U	0.0877	0.109	70.2	87.2	1	10.0-155			21.7	33
Bromoform	0.125	U	0.106	0.122	84.8	97.6	1	10.0-146			14.0	36
Bromomethane	0.125	U	0.0244	0.0455	19.5	36.4	1	10.0-149		J3	60.4	38
n-Butylbenzene	0.125	U	0.0616	0.0717	49.3	57.4	1	10.0-160			15.2	40
sec-Butylbenzene	0.125	U	0.0582	0.0781	46.6	62.5	1	10.0-159			29.2	39
tert-Butylbenzene	0.125	U	0.0582	0.0804	46.6	64.3	1	10.0-156			32.0	39
Carbon disulfide	0.125	U	0.0460	0.0585	36.8	46.8	1	10.0-145			23.9	39
Carbon tetrachloride	0.125	U	0.0526	0.0622	42.1	49.8	1	10.0-145			16.7	37

L1310897-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1310897-12 01/30/21 03:19 • (MS) R3617765-3 01/30/21 09:40 • (MSD) R3617765-4 01/30/21 09:59

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chlorobenzene	0.125	U	0.0754	0.0901	60.3	72.1	1	10.0-152			17.8	39
Chlorodibromomethane	0.125	U	0.0944	0.117	75.5	93.6	1	10.0-146			21.4	37
Chloroethane	0.125	U	0.0111	0.0254	8.88	20.3	1	10.0-146	J6	J3	78.4	40
Chloroform	0.125	U	0.0703	0.0885	56.2	70.8	1	10.0-146			22.9	37
Chloromethane	0.125	U	0.0548	0.0598	43.8	47.8	1	10.0-159			8.73	37
2-Chlorotoluene	0.125	U	0.0650	0.0904	52.0	72.3	1	10.0-159			32.7	38
4-Chlorotoluene	0.125	U	0.0652	0.0863	52.2	69.0	1	10.0-155			27.9	39
1,2-Dibromo-3-Chloropropane	0.125	U	0.0868	0.111	69.4	88.8	1	10.0-151			24.5	39
1,2-Dibromoethane	0.125	U	0.0988	0.123	79.0	98.4	1	10.0-148			21.8	34
Dibromomethane	0.125	U	0.0969	0.104	77.5	83.2	1	10.0-147			7.07	35
1,2-Dichlorobenzene	0.125	U	0.0907	0.108	72.6	86.4	1	10.0-155			17.4	37
1,3-Dichlorobenzene	0.125	U	0.0779	0.0949	62.3	75.9	1	10.0-153			19.7	38
1,4-Dichlorobenzene	0.125	U	0.0802	0.0962	64.2	77.0	1	10.0-151			18.1	38
Dichlorodifluoromethane	0.125	U	0.0577	0.0646	46.2	51.7	1	10.0-160			11.3	35
1,1-Dichloroethane	0.125	U	0.0627	0.0785	50.2	62.8	1	10.0-147			22.4	37
1,2-Dichloroethane	0.125	U	0.0802	0.0930	64.2	74.4	1	10.0-148			14.8	35
1,1-Dichloroethene	0.125	U	0.0486	0.0123	38.9	9.84	1	10.0-155		J3 J6	119	37
cis-1,2-Dichloroethene	0.125	U	0.0667	0.0864	53.4	69.1	1	10.0-149			25.7	37
trans-1,2-Dichloroethene	0.125	U	0.0626	0.0758	50.1	60.6	1	10.0-150			19.1	37
1,2-Dichloropropane	0.125	0.0261	0.0812	0.0950	44.1	55.1	1	10.0-148			15.7	37
1,1-Dichloropropene	0.125	U	0.0582	0.0666	46.6	53.3	1	10.0-153			13.5	35
1,3-Dichloropropane	0.125	U	0.0914	0.117	73.1	93.6	1	10.0-154			24.6	35
cis-1,3-Dichloropropene	0.125	U	0.0821	0.103	65.7	82.4	1	10.0-151			22.6	37
trans-1,3-Dichloropropene	0.125	U	0.0872	0.110	69.8	88.0	1	10.0-148			23.1	37
2,2-Dichloropropane	0.125	U	0.0347	0.0456	27.8	36.5	1	10.0-138			27.1	36
Ethylbenzene	0.125	0.0112	0.116	0.126	83.8	91.8	1	10.0-160			8.26	38
Hexachloro-1,3-butadiene	0.125	U	0.0861	0.0837	68.9	67.0	1	10.0-160			2.83	40
2-Hexanone	0.625	U	0.570	0.652	91.2	104	1	10.0-160			13.4	36
Isopropylbenzene	0.125	0.000750	0.0715	0.0794	56.6	62.9	1	10.0-155			10.5	38
p-Isopropyltoluene	0.125	U	0.0638	0.0796	51.0	63.7	1	10.0-160			22.0	40
2-Butanone (MEK)	0.625	0.0680	0.513	0.565	71.2	79.5	1	10.0-160			9.65	40
Methylene Chloride	0.125	U	0.0216	0.0276	17.3	22.1	1	10.0-141			24.4	37
4-Methyl-2-pentanone (MIBK)	0.625	U	0.522	0.599	83.5	95.8	1	10.0-160			13.7	35
Methyl tert-butyl ether	0.125	U	0.0814	0.107	65.1	85.6	1	11.0-147			27.2	35
Naphthalene	0.125	U	0.105	0.128	84.0	102	1	10.0-160			19.7	36
n-Propylbenzene	0.125	0.00250	0.0688	0.0835	53.0	64.8	1	10.0-158			19.3	38
Styrene	0.125	0.000475	0.0837	0.0952	66.6	75.8	1	10.0-160			12.9	40
1,1,1,2-Tetrachloroethane	0.125	U	0.0758	0.0933	60.6	74.6	1	10.0-149			20.7	39
1,1,2,2-Tetrachloroethane	0.125	U	0.0789	0.116	63.1	92.8	1	10.0-160		J3	38.1	35
Tetrachloroethene	0.125	U	0.0627	0.0731	50.2	58.5	1	10.0-156			15.3	39

1Cp

2Tc

3Ss

4Cn

5Tr

6Sr

7Qc

8Gl

9Al

10Sc

L1310897-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1310897-12 01/30/21 03:19 • (MS) R3617765-3 01/30/21 09:40 • (MSD) R3617765-4 01/30/21 09:59

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Toluene	0.125	0.0615	0.271	0.298	168	189	1	10.0-156	J5	J5	9.49	38
1,2,3-Trichlorobenzene	0.125	U	0.0902	0.126	72.2	101	1	10.0-160			33.1	40
1,2,4-Trichlorobenzene	0.125	U	0.0973	0.112	77.8	89.6	1	10.0-160			14.0	40
1,1,1-Trichloroethane	0.125	U	0.0589	0.0675	47.1	54.0	1	10.0-144			13.6	35
1,1,2-Trichloroethane	0.125	U	0.107	0.127	85.6	102	1	10.0-160			17.1	35
Trichloroethene	0.125	U	0.0749	0.0798	59.9	63.8	1	10.0-156			6.33	38
Trichlorofluoromethane	0.125	U	0.0166	0.0343	13.3	27.4	1	10.0-160		J3	69.5	40
1,2,3-Trichloropropane	0.125	U	0.0930	0.129	74.4	103	1	10.0-156			32.4	35
1,2,4-Trimethylbenzene	0.125	0.0137	0.139	0.132	100	94.6	1	10.0-160			5.17	36
1,3,5-Trimethylbenzene	0.125	0.00400	0.0801	0.0925	60.9	70.8	1	10.0-160			14.4	38
Vinyl chloride	0.125	U	0.0513	0.0591	41.0	47.3	1	10.0-160			14.1	37
Xylenes, Total	0.375	0.0488	0.437	0.447	104	106	1	10.0-160			2.26	38
(S) Toluene-d8					96.2	103	75.0-131					
(S) 4-Bromofluorobenzene					108	99.6	67.0-138					
(S) 1,2-Dichloroethane-d4					92.6	91.7	70.0-130					

L1311237-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1311237-03 01/30/21 09:02 • (MS) R3617765-5 01/30/21 10:18 • (MSD) R3617765-6 01/30/21 10:37

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 Limits %
Acetone	0.725	U	0.372	0.419	51.3	57.8	1	10.0-160			11.9	40
Benzene	0.145	0.100	0.174	0.234	51.1	92.5	1	10.0-149			29.4	37
Bromobenzene	0.145	U	0.109	0.149	75.1	103	1	10.0-156			31.4	38
Bromodichloromethane	0.145	0.00107	0.0987	0.137	67.3	93.8	1	10.0-143			32.5	37
Bromochloromethane	0.145	U	0.108	0.149	74.7	103	1	10.0-155			31.8	33
Bromoform	0.145	U	0.129	0.143	89.2	98.7	1	10.0-146			10.1	36
Bromomethane	0.145	U	0.0517	0.0923	35.7	63.6	1	10.0-149		J3	56.4	38
n-Butylbenzene	0.145	U	0.0738	0.123	50.9	84.6	1	10.0-160		J3	49.8	40
sec-Butylbenzene	0.145	U	0.0822	0.141	56.7	97.6	1	10.0-159		J3	53.0	39
tert-Butylbenzene	0.145	U	0.0835	0.148	57.6	102	1	10.0-156		J3	55.7	39
Carbon disulfide	0.145	0.00121	0.0275	0.134	18.2	91.4	1	10.0-145		J3	132	39
Carbon tetrachloride	0.145	U	0.0587	0.149	40.5	103	1	10.0-145		J3	87.1	37
Chlorobenzene	0.145	U	0.0930	0.144	64.1	99.6	1	10.0-152		J3	43.3	39
Chlorodibromomethane	0.145	U	0.125	0.152	86.3	105	1	10.0-146			19.6	37
Chloroethane	0.145	U	0.0315	0.0671	21.7	46.3	1	10.0-146		J3	72.2	40
Chloroform	0.145	U	0.0847	0.145	58.4	99.9	1	10.0-146		J3	52.5	37
Chloromethane	0.145	U	0.0614	0.128	42.3	88.1	1	10.0-159		J3	70.2	37
2-Chlorotoluene	0.145	U	0.0917	0.145	63.2	100	1	10.0-159		J3	45.3	38

1Cp

2Tc

3Ss

4Cn

5Tr

6Sr

7Qc

8Gl

9Al

10Sc

L1311237-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1311237-03 01/30/21 09:02 • (MS) R3617765-5 01/30/21 10:18 • (MSD) R3617765-6 01/30/21 10:37

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 Limits %
4-Chlorotoluene	0.145	U	0.0889	0.141	61.3	97.2	1	10.0-155		J3	45.3	39
1,2-Dibromo-3-Chloropropane	0.145	U	0.129	0.118	88.8	81.3	1	10.0-151			8.79	39
1,2-Dibromoethane	0.145	U	0.135	0.151	92.8	104	1	10.0-148			11.4	34
Dibromomethane	0.145	U	0.120	0.124	82.9	85.8	1	10.0-147			3.35	35
1,2-Dichlorobenzene	0.145	U	0.114	0.146	78.8	101	1	10.0-155			24.2	37
1,3-Dichlorobenzene	0.145	U	0.0990	0.136	68.3	93.8	1	10.0-153			31.5	38
1,4-Dichlorobenzene	0.145	U	0.101	0.137	70.0	94.3	1	10.0-151			29.6	38
Dichlorodifluoromethane	0.145	U	0.0721	0.163	49.7	112	1	10.0-160		J3	77.2	35
1,1-Dichloroethane	0.145	U	0.0779	0.140	53.7	96.5	1	10.0-147		J3	56.9	37
1,2-Dichloroethane	0.145	0.00121	0.0981	0.126	66.8	86.1	1	10.0-148			25.0	35
1,1-Dichloroethene	0.145	U	0.0119	0.157	8.20	108	1	10.0-155	J6	J3	172	37
cis-1,2-Dichloroethene	0.145	U	0.0877	0.141	60.5	97.3	1	10.0-149		J3	46.6	37
trans-1,2-Dichloroethene	0.145	U	0.0778	0.151	53.6	104	1	10.0-150		J3	63.9	37
1,2-Dichloropropane	0.145	0.0287	0.100	0.152	49.5	85.3	1	10.0-148		J3	41.0	37
1,1-Dichloropropene	0.145	U	0.0694	0.154	47.9	106	1	10.0-153		J3	75.6	35
1,3-Dichloropropane	0.145	U	0.124	0.148	85.7	102	1	10.0-154			17.4	35
cis-1,3-Dichloropropene	0.145	U	0.105	0.144	72.2	99.6	1	10.0-151			31.9	37
trans-1,3-Dichloropropene	0.145	U	0.118	0.148	81.2	102	1	10.0-148			22.7	37
2,2-Dichloropropane	0.145	U	0.0488	0.105	33.6	72.5	1	10.0-138		J3	73.3	36
Ethylbenzene	0.145	0.0116	0.0890	0.151	53.4	96.1	1	10.0-160		J3	51.5	38
Hexachloro-1,3-butadiene	0.145	U	0.0810	0.146	55.9	101	1	10.0-160		J3	57.3	40
2-Hexanone	0.725	U	0.740	0.726	102	100	1	10.0-160			1.80	36
Isopropylbenzene	0.145	0.00264	0.0798	0.141	53.2	95.5	1	10.0-155		J3	55.4	38
p-Isopropyltoluene	0.145	U	0.0798	0.136	55.1	93.7	1	10.0-160		J3	52.0	40
2-Butanone (MEK)	0.725	0.0959	0.568	0.606	65.2	70.4	1	10.0-160			6.48	40
Methylene Chloride	0.145	U	0.0272	0.0423	18.8	29.2	1	10.0-141		J3	43.4	37
4-Methyl-2-pentanone (MIBK)	0.725	0.00356	0.683	0.659	93.7	90.4	1	10.0-160			3.49	35
Methyl tert-butyl ether	0.145	U	0.122	0.144	84.1	99.5	1	11.0-147			16.7	35
Naphthalene	0.145	0.0158	0.148	0.146	91.1	90.1	1	10.0-160			0.995	36
n-Propylbenzene	0.145	0.0107	0.0800	0.141	47.8	89.9	1	10.0-158		J3	55.3	38
Styrene	0.145	U	0.0951	0.140	65.6	96.4	1	10.0-160			38.1	40
1,1,1,2-Tetrachloroethane	0.145	U	0.103	0.138	70.9	95.1	1	10.0-149			29.1	39
1,1,2,2-Tetrachloroethane	0.145	U	0.134	0.139	92.6	96.1	1	10.0-160			3.64	35
Tetrachloroethene	0.145	U	0.0763	0.154	52.6	106	1	10.0-156		J3	67.3	39
Toluene	0.145	0.0319	0.105	0.167	50.3	93.1	1	10.0-156		J3	45.7	38
1,2,3-Trichlorobenzene	0.145	U	0.139	0.167	96.0	115	1	10.0-160			18.2	40
1,2,4-Trichlorobenzene	0.145	U	0.125	0.161	86.1	111	1	10.0-160			25.4	40
1,1,1-Trichloroethane	0.145	U	0.0722	0.164	49.8	113	1	10.0-144		J3	77.7	35
1,1,2-Trichloroethane	0.145	0.00110	0.137	0.163	93.6	111	1	10.0-160			17.2	35

1Cp

2Tc

3Ss

4Cn

5Tr

6Sr

7Qc

8Gl

9Al

10Sc



L1311237-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1311237-03 01/30/21 09:02 • (MS) R3617765-5 01/30/21 10:18 • (MSD) R3617765-6 01/30/21 10:37

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 Limits %
Trichloroethene	0.145	U	0.0835	0.155	57.6	107	1	10.0-156		J3	60.1	38
Trichlorofluoromethane	0.145	0.00190	0.0407	0.0930	26.8	62.8	1	10.0-160		J3	78.2	40
1,2,3-Trichloropropane	0.145	U	0.151	0.155	104	107	1	10.0-156			2.87	35
1,2,4-Trimethylbenzene	0.145	0.0612	0.0908	0.141	20.4	54.7	1	10.0-160		J3	43.0	36
1,3,5-Trimethylbenzene	0.145	0.0186	0.0863	0.141	46.7	84.5	1	10.0-160		J3	48.3	38
Vinyl chloride	0.145	U	0.0618	0.138	42.6	95.4	1	10.0-160		J3	76.4	37
Xylenes, Total	0.435	0.0460	0.278	0.445	53.4	91.8	1	10.0-160		J3	46.2	38
(S) Toluene-d8					102	102		75.0-131				
(S) 4-Bromofluorobenzene					99.4	96.8		67.0-138				
(S) 1,2-Dichloroethane-d4					93.6	92.3		70.0-130				

1Cp

2Tc

3Ss

4Cn

5Tr

6Sr

7Qc

8Gl

9Al

10Sc

[L1311179-18,19,20,21,22,23,24](#)

Method Blank (MB)

(MB) R3618950-3 01/30/21 17:18

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0365	0.0500
Benzene	U		0.000467	0.00100
Bromobenzene	U		0.000900	0.0125
Bromodichloromethane	U		0.000725	0.00250
Bromochloromethane	U		0.000564	0.00500
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 disulfide	U		0.000700	0.0125
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
1,2-Dichloropropane	U		0.00142	0.00500
1,1-Dichloropropene	U		0.000809	0.00250
1,3-Dichloropropane	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
Ethylbenzene	U		0.000737	0.00250
Hexachloro-1,3-butadiene	U		0.00600	0.0250
2-Hexanone	U		0.00336	0.0250

¹Cp

²Tc

³Ss

⁴Cn

⁵Tr

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc

[L1311179-18,19,20,21,22,23,24](#)

Method Blank (MB)

(MB) R3618950-3 01/30/21 17:18

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Isopropylbenzene	U		0.000425	0.00250
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 (MIBK)	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
1,1,1,2-Tetrachloroethane	U		0.000948	0.00250
1,1,2,2-Tetrachloroethane	U		0.000695	0.00250
Tetrachloroethene	U		0.000896	0.00250
Toluene	U		0.00130	0.00500
1,2,3-Trichlorobenzene	U		0.00733	0.0125
1,2,4-Trichlorobenzene	U		0.00440	0.0125
1,1,1-Trichloroethane	U		0.000923	0.00250
1,1,2-Trichloroethane	U		0.000597	0.00250
Trichloroethene	U		0.000584	0.00100
Trichlorofluoromethane	U		0.000827	0.00250
1,2,3-Trichloropropane	U		0.00162	0.0125
1,2,4-Trimethylbenzene	U		0.00158	0.00500
1,3,5-Trimethylbenzene	U		0.00200	0.00500
Vinyl chloride	U		0.00116	0.00250
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	99.8			75.0-131
(S) 4-Bromofluorobenzene	99.1			67.0-138
(S) 1,2-Dichloroethane-d4	91.6			70.0-130

¹Cp

²Tc

³Ss

⁴Cn

⁵Tr

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc

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

(LCS) R3618950-1 01/30/21 16:02 • (LCSD) R3618950-2 01/30/21 16:21

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.625	1.47	1.43	235	229	10.0-160	J4	J4	2.76	31
Benzene	0.125	0.132	0.127	106	102	70.0-123			3.86	20
Bromobenzene	0.125	0.111	0.111	88.8	88.8	73.0-121			0.000	20
Bromodichloromethane	0.125	0.117	0.118	93.6	94.4	73.0-121			0.851	20
Bromochloromethane	0.125	0.165	0.159	132	127	77.0-128	J4		3.70	20
Bromoform	0.125	0.116	0.120	92.8	96.0	64.0-132			3.39	20



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

(LCS) R3618950-1 01/30/21 16:02 • (LCSD) R3618950-2 01/30/21 16:21

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromomethane	0.125	0.118	0.122	94.4	97.6	56.0-147			3.33	20
n-Butylbenzene	0.125	0.0902	0.0909	72.2	72.7	68.0-135			0.773	20
sec-Butylbenzene	0.125	0.100	0.102	80.0	81.6	74.0-130			1.98	20
tert-Butylbenzene	0.125	0.107	0.110	85.6	88.0	75.0-127			2.76	20
Carbon disulfide	0.125	0.150	0.143	120	114	56.0-133			4.78	20
Carbon tetrachloride	0.125	0.111	0.108	88.8	86.4	66.0-128			2.74	20
Chlorobenzene	0.125	0.120	0.120	96.0	96.0	76.0-128			0.000	20
Chlorodibromomethane	0.125	0.114	0.117	91.2	93.6	74.0-127			2.60	20
Chloroethane	0.125	0.140	0.133	112	106	61.0-134			5.13	20
Chloroform	0.125	0.135	0.134	108	107	72.0-123			0.743	20
Chloromethane	0.125	0.128	0.127	102	102	51.0-138			0.784	20
2-Chlorotoluene	0.125	0.0978	0.110	78.2	88.0	75.0-124			11.7	20
4-Chlorotoluene	0.125	0.110	0.110	88.0	88.0	75.0-124			0.000	20
1,2-Dibromo-3-Chloropropane	0.125	0.112	0.112	89.6	89.6	59.0-130			0.000	20
1,2-Dibromoethane	0.125	0.111	0.109	88.8	87.2	74.0-128			1.82	20
Dibromomethane	0.125	0.141	0.135	113	108	75.0-122			4.35	20
1,2-Dichlorobenzene	0.125	0.103	0.104	82.4	83.2	76.0-124			0.966	20
1,3-Dichlorobenzene	0.125	0.108	0.108	86.4	86.4	76.0-125			0.000	20
1,4-Dichlorobenzene	0.125	0.113	0.114	90.4	91.2	77.0-121			0.881	20
Dichlorodifluoromethane	0.125	0.0934	0.0869	74.7	69.5	43.0-156			7.21	20
1,1-Dichloroethane	0.125	0.129	0.126	103	101	70.0-127			2.35	20
1,2-Dichloroethane	0.125	0.120	0.129	96.0	103	65.0-131			7.23	20
1,1-Dichloroethene	0.125	0.140	0.135	112	108	65.0-131			3.64	20
cis-1,2-Dichloroethene	0.125	0.145	0.141	116	113	73.0-125			2.80	20
trans-1,2-Dichloroethene	0.125	0.144	0.140	115	112	71.0-125			2.82	20
1,2-Dichloropropane	0.125	0.141	0.141	113	113	74.0-125			0.000	20
1,1-Dichloropropene	0.125	0.131	0.132	105	106	73.0-125			0.760	20
1,3-Dichloropropane	0.125	0.107	0.110	85.6	88.0	80.0-125			2.76	20
cis-1,3-Dichloropropene	0.125	0.124	0.127	99.2	102	76.0-127			2.39	20
trans-1,3-Dichloropropene	0.125	0.106	0.108	84.8	86.4	73.0-127			1.87	20
2,2-Dichloropropane	0.125	0.155	0.153	124	122	59.0-135			1.30	20
Ethylbenzene	0.125	0.117	0.118	93.6	94.4	74.0-126			0.851	20
Hexachloro-1,3-butadiene	0.125	0.0809	0.0853	64.7	68.2	57.0-150			5.29	20
2-Hexanone	0.625	0.615	0.636	98.4	102	54.0-147			3.36	20
Isopropylbenzene	0.125	0.123	0.121	98.4	96.8	72.0-127			1.64	20
p-Isopropyltoluene	0.125	0.0970	0.0980	77.6	78.4	72.0-133			1.03	20
2-Butanone (MEK)	0.625	0.854	0.865	137	138	30.0-160			1.28	24
Methylene Chloride	0.125	0.153	0.151	122	121	68.0-123			1.32	20
4-Methyl-2-pentanone (MIBK)	0.625	0.624	0.636	99.8	102	56.0-143			1.90	20
Methyl tert-butyl ether	0.125	0.153	0.155	122	124	66.0-132			1.30	20

1Cp

2Tc

3Ss

4Cn

5Tr

6Sr

7Qc

8Gl

9Al

10Sc

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

(LCS) R3618950-1 01/30/21 16:02 • (LCSD) R3618950-2 01/30/21 16:21

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	<u>LCS Qualifier</u>	<u>LCSD Qualifier</u>	RPD %	RPD Limits %
Naphthalene	0.125	0.101	0.104	80.8	83.2	59.0-130			2.93	20
n-Propylbenzene	0.125	0.110	0.108	88.0	86.4	74.0-126			1.83	20
Styrene	0.125	0.117	0.119	93.6	95.2	72.0-127			1.69	20
1,1,1,2-Tetrachloroethane	0.125	0.115	0.110	92.0	88.0	74.0-129			4.44	20
1,1,2,2-Tetrachloroethane	0.125	0.109	0.108	87.2	86.4	68.0-128			0.922	20
Tetrachloroethene	0.125	0.128	0.130	102	104	70.0-136			1.55	20
Toluene	0.125	0.116	0.118	92.8	94.4	75.0-121			1.71	20
1,2,3-Trichlorobenzene	0.125	0.0814	0.0848	65.1	67.8	59.0-139			4.09	20
1,2,4-Trichlorobenzene	0.125	0.0832	0.0873	66.6	69.8	62.0-137			4.81	20
1,1,1-Trichloroethane	0.125	0.127	0.124	102	99.2	69.0-126			2.39	20
1,1,2-Trichloroethane	0.125	0.115	0.117	92.0	93.6	78.0-123			1.72	20
Trichloroethene	0.125	0.141	0.135	113	108	76.0-126			4.35	20
Trichlorofluoromethane	0.125	0.0958	0.100	76.6	80.0	61.0-142			4.29	20
1,2,3-Trichloropropane	0.125	0.115	0.116	92.0	92.8	67.0-129			0.866	20
1,2,4-Trimethylbenzene	0.125	0.111	0.111	88.8	88.8	70.0-126			0.000	20
1,3,5-Trimethylbenzene	0.125	0.111	0.111	88.8	88.8	73.0-127			0.000	20
Vinyl chloride	0.125	0.123	0.134	98.4	107	63.0-134			8.56	20
Xylenes, Total	0.375	0.351	0.352	93.6	93.9	72.0-127			0.284	20
(S) Toluene-d8				96.6	96.1	75.0-131				
(S) 4-Bromofluorobenzene				100	100	67.0-138				
(S) 1,2-Dichloroethane-d4				96.0	96.0	70.0-130				

1Cp

2Tc

3Ss

4Cn

5Tr

6Sr

7Qc

8Gl

9Al

10Sc

Method Blank (MB)

(MB) R3619277-2 02/03/21 14:10

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0365	0.0500
(S) Toluene-d8	106			75.0-131
(S) 4-Bromofluorobenzene	100			67.0-138
(S) 1,2-Dichloroethane-d4	85.5			70.0-130

Laboratory Control Sample (LCS)

(LCS) R3619277-1 02/03/21 11:10

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.625	0.621	99.4	10.0-160	
(S) Toluene-d8			104	75.0-131	
(S) 4-Bromofluorobenzene			99.7	67.0-138	
(S) 1,2-Dichloroethane-d4			95.9	70.0-130	

1

Cp

2

Tc

3

Ss

4

Cn

5

Tr

6

Sr

7

Qc

8

Gl

9

Al

10

Sc



Method Blank (MB)

(MB) R3618888-1 02/02/21 19:23

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH C6 - C12	U		15.0	50.0
TPH C12 - C28	U		15.0	50.0
TPH C28 - C35	U		15.0	50.0
TPH C6 - C35	U		15.0	50.0
(S) o-Terphenyl	116			70.0-130

1Cp

2Tc

3Ss

4Cn

5Tr

6Sr

7Qc

8Gl

9Al

10Sc

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

(LCS) R3618888-2 02/02/21 19:38 • (LCSD) R3618888-3 02/02/21 19:54

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH C6 - C12	245	232	220	94.7	93.6	75.0-125			5.31	20
TPH C12 - C28	245	213	201	86.9	85.5	75.0-125			5.80	20
TPH C6 - C35	490	445	421	90.8	89.6	75.0-125			5.54	20
(S) o-Terphenyl				110	110	70.0-130				



Method Blank (MB)

(MB) R3619187-1 02/03/21 15:29

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH C6 - C12	U		15.0	50.0
TPH C12 - C28	U		15.0	50.0
TPH C28 - C35	U		15.0	50.0
TPH C6 - C35	U		15.0	50.0
(S) o-Terphenyl	80.4			70.0-130

1Cp
2Tc
3Ss
4Cn
5Tr
6Sr
7Qc
8Gl
9Al
10Sc

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

(LCS) R3619187-2 02/03/21 15:45 • (LCSD) R3619187-3 02/03/21 16:00

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH C6 - C12	250	246	242	98.4	96.8	75.0-125			1.64	20
TPH C12 - C28	250	236	230	94.4	92.0	75.0-125			2.58	20
TPH C6 - C35	500	482	472	96.4	94.4	75.0-125			2.10	20
(S) o-Terphenyl				82.8	81.2	70.0-130				

L1311289-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1311289-03 02/03/21 16:31 • (MS) R3619187-4 02/03/21 16:47 • (MSD) R3619187-5 02/03/21 17:02

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 Limits %
TPH C6 - C12	306	U	297	312	97.2	98.8	1	75.0-125			4.82	20
TPH C12 - C28	306	U	289	302	94.4	95.7	1	75.0-125			4.55	20
TPH C6 - C35	612	U	586	614	95.8	97.5	1	75.0-125			4.69	20
(S) o-Terphenyl					81.2	82.9		70.0-130				

Method Blank (MB)

(MB) R3618550-2 02/01/21 14:36

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL 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
Benzo(b)fluoranthene	U		0.00621	0.0333
Benzo(k)fluoranthene	U		0.00592	0.0333
Benzo(g,h,i)perylene	U		0.00609	0.0333
Benzo(a)pyrene	U		0.00619	0.0333
Bis(2-chlorethoxy)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
Carbazole	U		0.0103	0.333
4-Chloroaniline	U		0.0120	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,h)anthracene	U		0.00923	0.0333
Dibenzofuran	U		0.0109	0.333
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
Indeno(1,2,3-cd)pyrene	U		0.00941	0.0333
Isophorone	U		0.0102	0.333
2-Methylnaphthalene	U		0.00432	0.0333
Naphthalene	U		0.00836	0.0333
2-Nitroaniline	U		0.0107	0.333
3-Nitroaniline	U		0.0106	0.333
4-Nitroaniline	U		0.00971	0.333
Nitrobenzene	U		0.0116	0.333
n-Nitrosodimethylamine	U		0.0494	0.333
n-Nitrosodiphenylamine	U		0.0252	0.333
n-Nitrosodi-n-propylamine	U		0.0111	0.333
Phenanthrene	U		0.00661	0.0333

1Cp

2Tc

3Ss

4Cn

5Tr

6Sr

7Qc

8Gl

9Al

10Sc

Method Blank (MB)

(MB) R3618550-2 02/01/21 14:36

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
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		0.0706	0.333
Di-n-octyl phthalate	U		0.0225	0.333
Pyrene	U		0.00648	0.0333
Pyridine	U		0.0220	0.333
1,2,4-Trichlorobenzene	U		0.0104	0.333
Benzoic Acid	U		0.118	1.67
Benzyl Alcohol	U		0.0123	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	49.8			10.0-122
(S) 2-Fluorobiphenyl	53.8			15.0-120
(S) p-Terphenyl-d14	70.9			10.0-120
(S) Phenol-d5	52.0			10.0-120
(S) 2-Fluorophenol	56.3			12.0-120
(S) 2,4,6-Tribromophenol	51.5			10.0-127

¹Cp

²Tc

³Ss

⁴Cn

⁵Tr

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc

Laboratory Control Sample (LCS)

(LCS) R3618550-1 02/01/21 13:55

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	0.666	0.371	55.7	38.0-120	
Acenaphthylene	0.666	0.367	55.1	40.0-120	

Laboratory Control Sample (LCS)

(LCS) R3618550-1 02/01/21 13:55

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Anthracene	0.666	0.375	56.3	42.0-120	
Benzo(a)anthracene	0.666	0.446	67.0	44.0-120	
Benzo(b)fluoranthene	0.666	0.438	65.8	43.0-120	
Benzo(k)fluoranthene	0.666	0.447	67.1	44.0-120	
Benzo(g,h,i)perylene	0.666	0.422	63.4	43.0-120	
Benzo(a)pyrene	0.666	0.468	70.3	45.0-120	
Bis(2-chlorethoxy)methane	0.666	0.323	48.5	20.0-120	
Bis(2-chloroethyl)ether	0.666	0.410	61.6	16.0-120	
2,2-Oxybis(1-Chloropropane)	0.666	0.354	53.2	23.0-120	
4-Bromophenyl-phenylether	0.666	0.370	55.6	40.0-120	
Carbazole	0.666	0.390	58.6	48.0-120	
4-Chloroaniline	0.666	0.319	47.9	18.0-120	
2-Chloronaphthalene	0.666	0.363	54.5	35.0-120	
4-Chlorophenyl-phenylether	0.666	0.376	56.5	40.0-120	
Chrysene	0.666	0.437	65.6	43.0-120	
Dibenz(a,h)anthracene	0.666	0.408	61.3	44.0-120	
Dibenzofuran	0.666	0.391	58.7	44.0-120	
3,3-Dichlorobenzidine	1.33	0.721	54.2	28.0-120	
2,4-Dinitrotoluene	0.666	0.412	61.9	45.0-120	
2,6-Dinitrotoluene	0.666	0.405	60.8	42.0-120	
Fluoranthene	0.666	0.387	58.1	44.0-120	
Fluorene	0.666	0.381	57.2	41.0-120	
Hexachlorobenzene	0.666	0.373	56.0	39.0-120	
Hexachloro-1,3-butadiene	0.666	0.309	46.4	15.0-120	
Hexachlorocyclopentadiene	0.666	0.347	52.1	15.0-120	
Hexachloroethane	0.666	0.344	51.7	17.0-120	
Indeno(1,2,3-cd)pyrene	0.666	0.417	62.6	45.0-120	
Isophorone	0.666	0.326	48.9	23.0-120	
2-Methylnaphthalene	0.666	0.303	45.5	34.0-120	
Naphthalene	0.666	0.315	47.3	18.0-120	
2-Nitroaniline	0.666	0.449	67.4	46.0-120	
3-Nitroaniline	0.666	0.389	58.4	36.0-120	
4-Nitroaniline	0.666	0.461	69.2	36.0-120	
Nitrobenzene	0.666	0.337	50.6	17.0-120	
n-Nitrosodimethylamine	0.666	0.437	65.6	10.0-125	
n-Nitrosodiphenylamine	0.666	0.381	57.2	40.0-120	
n-Nitrosodi-n-propylamine	0.666	0.379	56.9	26.0-120	
Phenanthrene	0.666	0.387	58.1	42.0-120	
Benzylbutyl phthalate	0.666	0.437	65.6	40.0-120	
Bis(2-ethylhexyl)phthalate	0.666	0.432	64.9	41.0-120	

1

Cp

2

Tc

3

Ss

4

Cn

5

Tr

6

Sr

7

Qc

8

Gl

9

Al

10

Sc

Laboratory Control Sample (LCS)

(LCS) R3618550-1 02/01/21 13:55

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Di-n-butyl phthalate	0.666	0.386	58.0	43.0-120	
Diethyl phthalate	0.666	0.395	59.3	43.0-120	
Dimethyl phthalate	0.666	0.411	61.7	43.0-120	
Di-n-octyl phthalate	0.666	0.422	63.4	40.0-120	
Pyrene	0.666	0.430	64.6	41.0-120	
Pyridine	0.666	0.219	32.9	10.0-120	
1,2,4-Trichlorobenzene	0.666	0.321	48.2	17.0-120	
Benzoic Acid	1.33	0.329	24.7	10.0-120	
Benzyl Alcohol	0.666	0.362	54.4	10.0-120	
4-Chloro-3-methylphenol	0.666	0.335	50.3	28.0-120	
2-Chlorophenol	0.666	0.376	56.5	28.0-120	
2-Methylphenol	0.666	0.370	55.6	35.0-120	
3&4-Methyl Phenol	0.666	0.426	64.0	42.0-120	
2,4-Dichlorophenol	0.666	0.331	49.7	25.0-120	
2,4-Dimethylphenol	0.666	0.353	53.0	15.0-120	
4,6-Dinitro-2-methylphenol	0.666	0.414	62.2	16.0-120	
2,4-Dinitrophenol	0.666	0.277	41.6	10.0-120	
2-Nitrophenol	0.666	0.332	49.8	20.0-120	
4-Nitrophenol	0.666	0.392	58.9	27.0-120	
Pentachlorophenol	0.666	0.358	53.8	29.0-120	
Phenol	0.666	0.369	55.4	28.0-120	
2,4,5-Trichlorophenol	0.666	0.355	53.3	38.0-120	
2,4,6-Trichlorophenol	0.666	0.378	56.8	37.0-120	
(S) Nitrobenzene-d5			53.5	10.0-122	
(S) 2-Fluorobiphenyl			57.1	15.0-120	
(S) p-Terphenyl-d14			68.8	10.0-120	
(S) Phenol-d5			56.5	10.0-120	
(S) 2-Fluorophenol			62.9	12.0-120	
(S) 2,4,6-Tribromophenol			59.9	10.0-127	

1Cp

2Tc

3Ss

4Cn

5Tr

6Sr

7Qc

8Gl

9Al

10Sc

L1311037-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1311037-05 02/01/21 17:02 • (MS) R3618550-3 02/01/21 17:26 • (MSD) R3618550-4 02/01/21 17:50

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 Limits %
Acenaphthene	0.823	U	0.426	0.445	51.8	54.4	1	18.0-120			4.26	32
Acenaphthylene	0.823	U	0.429	0.439	52.1	53.6	1	25.0-120			2.28	32
Anthracene	0.823	U	0.445	0.455	54.1	55.6	1	22.0-120			2.20	29
Benzo(a)anthracene	0.823	0.0104	0.498	0.546	59.2	65.5	1	25.0-120			9.23	29

L1311037-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1311037-05 02/01/21 17:02 • (MS) R3618550-3 02/01/21 17:26 • (MSD) R3618550-4 02/01/21 17:50

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 Limits %
Benzo(b)fluoranthene	0.823	U	0.503	0.540	61.1	66.0	1	19.0-122			7.11	31
Benzo(k)fluoranthene	0.823	U	0.512	0.525	62.2	64.2	1	23.0-120			2.62	30
Benzo(g,h,i)perylene	0.823	U	0.447	0.472	54.4	57.7	1	10.0-120			5.38	33
Benzo(a)pyrene	0.823	U	0.528	0.562	64.1	68.7	1	24.0-120			6.35	30
Bis(2-chlorethoxy)methane	0.823	U	0.386	0.379	46.8	46.4	1	10.0-120			1.62	34
Bis(2-chloroethyl)ether	0.823	U	0.508	0.531	61.7	65.0	1	10.0-120			4.52	40
2,2-Oxybis(1-Chloropropane)	0.823	U	0.436	0.420	53.0	51.4	1	10.0-120			3.75	40
4-Bromophenyl-phenylether	0.823	U	0.461	0.470	56.0	57.4	1	27.0-120			1.86	30
2-Chloronaphthalene	0.823	U	0.435	0.441	52.9	53.9	1	20.0-120			1.41	32
4-Chlorophenyl-phenylether	0.823	U	0.467	0.466	56.8	56.9	1	24.0-120			0.265	29
Chrysene	0.823	0.0114	0.484	0.542	57.5	64.9	1	21.0-120			11.3	29
Dibenz(a,h)anthracene	0.823	U	0.453	0.466	55.1	56.9	1	10.0-120			2.69	32
3,3-Dichlorobenzidine	1.64	U	0.572	0.620	34.8	38.0	1	10.0-120			8.08	34
Carbazole	0.823	U	0.444	0.466	53.9	56.9	1	31.0-120			4.89	24
2,4-Dinitrotoluene	0.823	U	0.486	0.516	59.0	63.1	1	30.0-120			6.17	31
4-Chloroaniline	0.823	U	0.340	0.334	41.3	40.8	1	10.0-120			1.83	36
2,6-Dinitrotoluene	0.823	U	0.463	0.470	56.3	57.4	1	25.0-120			1.32	31
Fluoranthene	0.823	0.0167	0.468	0.507	54.9	59.9	1	18.0-126			7.86	32
Fluorene	0.823	U	0.450	0.460	54.7	56.2	1	25.0-120			2.17	30
Hexachlorobenzene	0.823	U	0.446	0.458	54.2	56.0	1	27.0-120			2.73	28
Dibenzofuran	0.823	U	0.466	0.474	56.6	58.0	1	24.0-120			1.84	30
Hexachloro-1,3-butadiene	0.823	U	0.366	0.358	44.4	43.8	1	10.0-120			2.05	38
Hexachlorocyclopentadiene	0.823	U	0.399	0.407	48.5	49.7	1	10.0-120			1.84	40
Hexachloroethane	0.823	U	0.404	0.397	49.1	48.5	1	10.0-120			1.85	40
Indeno(1,2,3-cd)pyrene	0.823	U	0.466	0.489	56.6	59.8	1	10.0-120			4.92	32
Isophorone	0.823	U	0.382	0.372	46.4	45.5	1	13.0-120			2.62	34
Naphthalene	0.823	U	0.376	0.362	45.6	44.3	1	10.0-120			3.69	35
Nitrobenzene	0.823	U	0.398	0.378	48.3	46.2	1	10.0-120			5.10	36
n-Nitrosodimethylamine	0.823	U	0.535	0.474	65.0	58.0	1	10.0-127			12.0	40
n-Nitrosodiphenylamine	0.823	U	0.436	0.450	53.0	55.0	1	17.0-120			3.07	29
n-Nitrosodi-n-propylamine	0.823	U	0.440	0.424	53.5	51.8	1	10.0-120			3.72	37
Phenanthrene	0.823	0.0102	0.453	0.491	53.9	58.7	1	17.0-120			7.85	31
2-Methylnaphthalene	0.823	0.00542	0.374	0.363	44.8	43.7	1	10.0-120			3.02	37
Benzylbutyl phthalate	0.823	U	0.355	0.461	43.1	56.3	1	23.0-120			26.1	30
Bis(2-ethylhexyl)phthalate	0.823	U	0.468	0.516	56.9	63.1	1	17.0-126			9.79	30
2-Nitroaniline	0.823	U	0.523	0.538	63.5	65.7	1	24.0-120			2.80	30
Di-n-butyl phthalate	0.823	U	0.445	0.465	54.1	56.8	1	30.0-120			4.35	29
3-Nitroaniline	0.823	U	0.431	0.415	52.4	50.8	1	11.0-120			3.80	32
Diethyl phthalate	0.823	U	0.468	0.468	56.9	57.3	1	26.0-120			0.000	28

1Cp

2Tc

3Ss

4Cn

5Tr

6Sr

7Qc

8Gl

9Al

10Sc

L1311037-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1311037-05 02/01/21 17:02 • (MS) R3618550-3 02/01/21 17:26 • (MSD) R3618550-4 02/01/21 17:50

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 Limits %
4-Nitroaniline	0.823	U	0.461	0.458	56.0	56.0	1	15.0-120			0.538	31
Dimethyl phthalate	0.823	U	0.457	0.478	55.6	58.5	1	25.0-120			4.49	29
Di-n-octyl phthalate	0.823	U	0.478	0.518	58.1	63.3	1	21.0-123			7.94	29
Pyrene	0.823	0.0174	0.487	0.559	57.0	66.1	1	16.0-121			13.7	32
1,2,4-Trichlorobenzene	0.823	U	0.390	0.379	47.4	46.4	1	12.0-120			2.89	37
4-Chloro-3-methylphenol	0.823	U	0.394	0.399	47.9	48.8	1	15.0-120			1.25	30
2-Chlorophenol	0.823	U	0.449	0.439	54.5	53.6	1	15.0-120			2.23	37
2,4-Dichlorophenol	0.823	U	0.405	0.403	49.2	49.2	1	20.0-120			0.612	31
2,4-Dimethylphenol	0.823	U	0.388	0.386	47.1	47.1	1	10.0-120			0.639	33
4,6-Dinitro-2-methylphenol	0.823	U	0.441	0.497	53.6	60.7	1	10.0-120			11.9	39
Pyridine	0.823	U	0.208	0.0297	25.2	3.63	1	10.0-120		J3 J6	150	40
2,4-Dinitrophenol	0.823	U	0.330	0.405	40.1	49.5	1	10.0-121			20.5	40
2-Nitrophenol	0.823	U	0.393	0.403	47.7	49.2	1	12.0-120			2.48	39
Benzoic Acid	1.64	U	0.337	0.226	20.5	13.9	1	10.0-152			39.5	40
4-Nitrophenol	0.823	U	0.424	0.466	51.5	56.9	1	10.0-137			9.44	32
Benzyl Alcohol	0.823	U	0.420	0.386	51.1	47.1	1	10.0-136			8.59	40
Pentachlorophenol	0.823	U	0.510	0.518	62.0	63.3	1	10.0-160			1.44	31
Phenol	0.823	U	0.440	0.437	53.5	53.5	1	12.0-120			0.563	38
2-Methylphenol	0.823	U	0.453	0.452	55.1	55.3	1	11.0-120			0.273	40
3&4-Methyl Phenol	0.823	U	0.483	0.497	58.7	60.7	1	12.0-123			2.77	38
2,4,6-Trichlorophenol	0.823	U	0.440	0.449	53.5	54.8	1	19.0-120			1.95	32
2,4,5-Trichlorophenol	0.823	U	0.449	0.458	54.5	56.0	1	20.0-120			2.18	30
(S) Nitrobenzene-d5					50.2	50.5		10.0-122				
(S) 2-Fluorobiphenyl					54.1	52.3		15.0-120				
(S) p-Terphenyl-d14					62.2	55.9		10.0-120				
(S) Phenol-d5					52.7	52.4		10.0-120				
(S) 2-Fluorophenol					59.0	56.8		12.0-120				
(S) 2,4,6-Tribromophenol					56.2	57.6		10.0-127				

1Cp

2Tc

3Ss

4Cn

5Tr

6Sr

7Qc

8Gl

9Al

10Sc

Method Blank (MB)

(MB) R3618953-2 02/02/21 19:02

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL 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
Benzo(b)fluoranthene	U		0.00621	0.0333
Benzo(k)fluoranthene	U		0.00592	0.0333
Benzo(g,h,i)perylene	U		0.00609	0.0333
Benzo(a)pyrene	U		0.00619	0.0333
Bis(2-chlorethoxy)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
Carbazole	U		0.0103	0.333
4-Chloroaniline	U		0.0120	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,h)anthracene	U		0.00923	0.0333
Dibenzofuran	U		0.0109	0.333
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
Indeno(1,2,3-cd)pyrene	U		0.00941	0.0333
Isophorone	U		0.0102	0.333
2-Methylnaphthalene	U		0.00432	0.0333
Naphthalene	U		0.00836	0.0333
2-Nitroaniline	U		0.0107	0.333
3-Nitroaniline	U		0.0106	0.333
4-Nitroaniline	U		0.00971	0.333
Nitrobenzene	U		0.0116	0.333
n-Nitrosodimethylamine	U		0.0494	0.333
n-Nitrosodiphenylamine	U		0.0252	0.333
n-Nitrosodi-n-propylamine	U		0.0111	0.333
Phenanthrene	U		0.00661	0.0333

1Cp

2Tc

3Ss

4Cn

5Tr

6Sr

7Qc

8Gl

9Al

10Sc

Method Blank (MB)

(MB) R3618953-2 02/02/21 19:02

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
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		0.0706	0.333
Di-n-octyl phthalate	U		0.0225	0.333
Pyrene	U		0.00648	0.0333
Pyridine	U		0.0220	0.333
1,2,4-Trichlorobenzene	U		0.0104	0.333
Benzoic Acid	U		0.118	1.67
Benzyl Alcohol	U		0.0123	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	64.3			10.0-122
(S) 2-Fluorobiphenyl	73.0			15.0-120
(S) p-Terphenyl-d14	79.9			10.0-120
(S) Phenol-d5	71.5			10.0-120
(S) 2-Fluorophenol	76.3			12.0-120
(S) 2,4,6-Tribromophenol	59.8			10.0-127

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Cp

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Tc

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Tr

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Qc

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Al

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Sc

Laboratory Control Sample (LCS)

(LCS) R3618953-1 02/02/21 18:41

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	0.666	0.463	69.5	38.0-120	
Acenaphthylene	0.666	0.489	73.4	40.0-120	

Laboratory Control Sample (LCS)

(LCS) R3618953-1 02/02/21 18:41

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Anthracene	0.666	0.463	69.5	42.0-120	
Benzo(a)anthracene	0.666	0.524	78.7	44.0-120	
Benzo(b)fluoranthene	0.666	0.509	76.4	43.0-120	
Benzo(k)fluoranthene	0.666	0.540	81.1	44.0-120	
Benzo(g,h,i)perylene	0.666	0.499	74.9	43.0-120	
Benzo(a)pyrene	0.666	0.544	81.7	45.0-120	
Bis(2-chlorethoxy)methane	0.666	0.416	62.5	20.0-120	
Bis(2-chloroethyl)ether	0.666	0.579	86.9	16.0-120	
2,2-Oxybis(1-Chloropropane)	0.666	0.464	69.7	23.0-120	
4-Bromophenyl-phenylether	0.666	0.456	68.5	40.0-120	
Carbazole	0.666	0.484	72.7	48.0-120	
4-Chloroaniline	0.666	0.376	56.5	18.0-120	
2-Chloronaphthalene	0.666	0.466	70.0	35.0-120	
4-Chlorophenyl-phenylether	0.666	0.485	72.8	40.0-120	
Chrysene	0.666	0.513	77.0	43.0-120	
Dibenz(a,h)anthracene	0.666	0.496	74.5	44.0-120	
Dibenzofuran	0.666	0.489	73.4	44.0-120	
3,3-Dichlorobenzidine	1.33	0.906	68.1	28.0-120	
2,4-Dinitrotoluene	0.666	0.509	76.4	45.0-120	
2,6-Dinitrotoluene	0.666	0.494	74.2	42.0-120	
Fluoranthene	0.666	0.473	71.0	44.0-120	
Fluorene	0.666	0.493	74.0	41.0-120	
Hexachlorobenzene	0.666	0.449	67.4	39.0-120	
Hexachloro-1,3-butadiene	0.666	0.373	56.0	15.0-120	
Hexachlorocyclopentadiene	0.666	0.415	62.3	15.0-120	
Hexachloroethane	0.666	0.456	68.5	17.0-120	
Indeno(1,2,3-cd)pyrene	0.666	0.482	72.4	45.0-120	
Isophorone	0.666	0.398	59.8	23.0-120	
2-Methylnaphthalene	0.666	0.386	58.0	34.0-120	
Naphthalene	0.666	0.397	59.6	18.0-120	
2-Nitroaniline	0.666	0.571	85.7	46.0-120	
3-Nitroaniline	0.666	0.520	78.1	36.0-120	
4-Nitroaniline	0.666	0.637	95.6	36.0-120	
Nitrobenzene	0.666	0.396	59.5	17.0-120	
n-Nitrosodimethylamine	0.666	0.463	69.5	10.0-125	
n-Nitrosodiphenylamine	0.666	0.479	71.9	40.0-120	
n-Nitrosodi-n-propylamine	0.666	0.471	70.7	26.0-120	
Phenanthrene	0.666	0.478	71.8	42.0-120	
Benzylbutyl phthalate	0.666	0.528	79.3	40.0-120	
Bis(2-ethylhexyl)phthalate	0.666	0.519	77.9	41.0-120	

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Cp

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Tc

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Ss

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Cn

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Tr

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Sr

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Qc

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Gl

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Al

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Sc

Laboratory Control Sample (LCS)

(LCS) R3618953-1 02/02/21 18:41

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Di-n-butyl phthalate	0.666	0.478	71.8	43.0-120	
Diethyl phthalate	0.666	0.491	73.7	43.0-120	
Dimethyl phthalate	0.666	0.488	73.3	43.0-120	
Di-n-octyl phthalate	0.666	0.495	74.3	40.0-120	
Pyrene	0.666	0.542	81.4	41.0-120	
Pyridine	0.666	0.301	45.2	10.0-120	
1,2,4-Trichlorobenzene	0.666	0.387	58.1	17.0-120	
Benzoic Acid	1.33	0.608	45.7	10.0-120	
Benzyl Alcohol	0.666	0.457	68.6	10.0-120	
4-Chloro-3-methylphenol	0.666	0.433	65.0	28.0-120	
2-Chlorophenol	0.666	0.497	74.6	28.0-120	
2-Methylphenol	0.666	0.505	75.8	35.0-120	
3&4-Methyl Phenol	0.666	0.565	84.8	42.0-120	
2,4-Dichlorophenol	0.666	0.420	63.1	25.0-120	
2,4-Dimethylphenol	0.666	0.431	64.7	15.0-120	
4,6-Dinitro-2-methylphenol	0.666	0.503	75.5	16.0-120	
2,4-Dinitrophenol	0.666	0.430	64.6	10.0-120	
2-Nitrophenol	0.666	0.420	63.1	20.0-120	
4-Nitrophenol	0.666	0.529	79.4	27.0-120	
Pentachlorophenol	0.666	0.499	74.9	29.0-120	
Phenol	0.666	0.490	73.6	28.0-120	
2,4,5-Trichlorophenol	0.666	0.510	76.6	38.0-120	
2,4,6-Trichlorophenol	0.666	0.494	74.2	37.0-120	
(S) Nitrobenzene-d5			62.5	10.0-122	
(S) 2-Fluorobiphenyl			71.2	15.0-120	
(S) p-Terphenyl-d14			76.0	10.0-120	
(S) Phenol-d5			73.6	10.0-120	
(S) 2-Fluorophenol			77.8	12.0-120	
(S) 2,4,6-Tribromophenol			67.9	10.0-127	

1Cp

2Tc

3Ss

4Cn

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6Sr

7Qc

8Gl

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10Sc

Method Blank (MB)

(MB) R3619962-2 02/05/21 11:17

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL 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
Benzo(b)fluoranthene	U		0.00621	0.0333
Benzo(k)fluoranthene	U		0.00592	0.0333
Benzo(g,h,i)perylene	U		0.00609	0.0333
Benzo(a)pyrene	U		0.00619	0.0333
Bis(2-chlorethoxy)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
Carbazole	U		0.0103	0.333
4-Chloroaniline	U		0.0120	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,h)anthracene	U		0.00923	0.0333
Dibenzofuran	U		0.0109	0.333
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
Indeno(1,2,3-cd)pyrene	U		0.00941	0.0333
Isophorone	U		0.0102	0.333
2-Methylnaphthalene	U		0.00432	0.0333
Naphthalene	U		0.00836	0.0333
2-Nitroaniline	U		0.0107	0.333
3-Nitroaniline	U		0.0106	0.333
4-Nitroaniline	U		0.00971	0.333
Nitrobenzene	U		0.0116	0.333
n-Nitrosodimethylamine	U		0.0494	0.333
n-Nitrosodiphenylamine	U		0.0252	0.333
n-Nitrosodi-n-propylamine	U		0.0111	0.333
Phenanthrene	U		0.00661	0.0333

1Cp

2Tc

3Ss

4Cn

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7Qc

8Gl

9Al

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Method Blank (MB)

(MB) R3619962-2 02/05/21 11:17

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
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		0.0706	0.333
Di-n-octyl phthalate	U		0.0225	0.333
Pyrene	U		0.00648	0.0333
Pyridine	U		0.0220	0.333
1,2,4-Trichlorobenzene	U		0.0104	0.333
Benzoic Acid	U		0.118	1.67
Benzyl Alcohol	U		0.0123	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	68.5			10.0-122
(S) 2-Fluorobiphenyl	76.6			15.0-120
(S) p-Terphenyl-d14	89.5			10.0-120
(S) Phenol-d5	70.6			10.0-120
(S) 2-Fluorophenol	75.1			12.0-120
(S) 2,4,6-Tribromophenol	71.0			10.0-127

1Cp

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3Ss

4Cn

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6Sr

7Qc

8Gl

9Al

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Laboratory Control Sample (LCS)

(LCS) R3619962-1 02/05/21 10:53

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	0.666	0.502	75.4	38.0-120	
Acenaphthylene	0.666	0.505	75.8	40.0-120	

Laboratory Control Sample (LCS)

(LCS) R3619962-1 02/05/21 10:53

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Anthracene	0.666	0.492	73.9	42.0-120	
Benzo(a)anthracene	0.666	0.567	85.1	44.0-120	
Benzo(b)fluoranthene	0.666	0.560	84.1	43.0-120	
Benzo(k)fluoranthene	0.666	0.571	85.7	44.0-120	
Benzo(g,h,i)perylene	0.666	0.562	84.4	43.0-120	
Benzo(a)pyrene	0.666	0.601	90.2	45.0-120	
Bis(2-chlorethoxy)methane	0.666	0.391	58.7	20.0-120	
Bis(2-chloroethyl)ether	0.666	0.470	70.6	16.0-120	
2,2-Oxybis(1-Chloropropane)	0.666	0.456	68.5	23.0-120	
4-Bromophenyl-phenylether	0.666	0.509	76.4	40.0-120	
Carbazole	0.666	0.505	75.8	48.0-120	
4-Chloroaniline	0.666	0.321	48.2	18.0-120	
2-Chloronaphthalene	0.666	0.500	75.1	35.0-120	
4-Chlorophenyl-phenylether	0.666	0.545	81.8	40.0-120	
Chrysene	0.666	0.545	81.8	43.0-120	
Dibenz(a,h)anthracene	0.666	0.558	83.8	44.0-120	
Dibenzofuran	0.666	0.543	81.5	44.0-120	
3,3-Dichlorobenzidine	1.33	0.807	60.7	28.0-120	
2,4-Dinitrotoluene	0.666	0.587	88.1	45.0-120	
2,6-Dinitrotoluene	0.666	0.550	82.6	42.0-120	
Fluoranthene	0.666	0.514	77.2	44.0-120	
Fluorene	0.666	0.520	78.1	41.0-120	
Hexachlorobenzene	0.666	0.507	76.1	39.0-120	
Hexachloro-1,3-butadiene	0.666	0.387	58.1	15.0-120	
Hexachlorocyclopentadiene	0.666	0.479	71.9	15.0-120	
Hexachloroethane	0.666	0.455	68.3	17.0-120	
Indeno(1,2,3-cd)pyrene	0.666	0.557	83.6	45.0-120	
Isophorone	0.666	0.401	60.2	23.0-120	
2-Methylnaphthalene	0.666	0.382	57.4	34.0-120	
Naphthalene	0.666	0.380	57.1	18.0-120	
2-Nitroaniline	0.666	0.606	91.0	46.0-120	
3-Nitroaniline	0.666	0.474	71.2	36.0-120	
4-Nitroaniline	0.666	0.608	91.3	36.0-120	
Nitrobenzene	0.666	0.407	61.1	17.0-120	
n-Nitrosodimethylamine	0.666	0.514	77.2	10.0-125	
n-Nitrosodiphenylamine	0.666	0.499	74.9	40.0-120	
n-Nitrosodi-n-propylamine	0.666	0.479	71.9	26.0-120	
Phenanthrene	0.666	0.506	76.0	42.0-120	
Benzylbutyl phthalate	0.666	0.547	82.1	40.0-120	
Bis(2-ethylhexyl)phthalate	0.666	0.548	82.3	41.0-120	

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Laboratory Control Sample (LCS)

(LCS) R3619962-1 02/05/21 10:53

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Di-n-butyl phthalate	0.666	0.504	75.7	43.0-120	
Diethyl phthalate	0.666	0.549	82.4	43.0-120	
Dimethyl phthalate	0.666	0.532	79.9	43.0-120	
Di-n-octyl phthalate	0.666	0.559	83.9	40.0-120	
Pyrene	0.666	0.545	81.8	41.0-120	
Pyridine	0.666	0.263	39.5	10.0-120	
1,2,4-Trichlorobenzene	0.666	0.411	61.7	17.0-120	
Benzoic Acid	1.33	0.442	33.2	10.0-120	
Benzyl Alcohol	0.666	0.442	66.4	10.0-120	
4-Chloro-3-methylphenol	0.666	0.421	63.2	28.0-120	
2-Chlorophenol	0.666	0.498	74.8	28.0-120	
2-Methylphenol	0.666	0.479	71.9	35.0-120	
3&4-Methyl Phenol	0.666	0.512	76.9	42.0-120	
2,4-Dichlorophenol	0.666	0.434	65.2	25.0-120	
2,4-Dimethylphenol	0.666	0.422	63.4	15.0-120	
4,6-Dinitro-2-methylphenol	0.666	0.569	85.4	16.0-120	
2,4-Dinitrophenol	0.666	0.510	76.6	10.0-120	
2-Nitrophenol	0.666	0.438	65.8	20.0-120	
4-Nitrophenol	0.666	0.559	83.9	27.0-120	
Pentachlorophenol	0.666	0.555	83.3	29.0-120	
Phenol	0.666	0.469	70.4	28.0-120	
2,4,5-Trichlorophenol	0.666	0.487	73.1	38.0-120	
2,4,6-Trichlorophenol	0.666	0.533	80.0	37.0-120	
(S) Nitrobenzene-d5			65.8	10.0-122	
(S) 2-Fluorobiphenyl			77.5	15.0-120	
(S) p-Terphenyl-d14			75.1	10.0-120	
(S) Phenol-d5			71.9	10.0-120	
(S) 2-Fluorophenol			78.5	12.0-120	
(S) 2,4,6-Tribromophenol			83.0	10.0-127	

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Cp

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Tc

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Qc

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Gl

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Al

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Sc

L1311179-22 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1311179-22 02/05/21 19:05 • (MS) R3619962-3 02/05/21 19:31 • (MSD) R3619962-4 02/05/21 19:57

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 %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Acenaphthene	0.717	U	0.504	0.594	70.3	82.9	10	18.0-120			16.4	32
Acenaphthylene	0.717	0.177	0.634	0.686	63.8	71.0	10	25.0-120			7.76	32
Anthracene	0.717	0.197	0.691	0.707	68.9	71.1	10	22.0-120			2.23	29
Benzo(a)anthracene	0.717	0.430	0.839	1.09	57.1	92.2	10	25.0-120			26.1	29

L1311179-22 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1311179-22 02/05/21 19:05 • (MS) R3619962-3 02/05/21 19:31 • (MSD) R3619962-4 02/05/21 19:57

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 Limits %
Benzo(b)fluoranthene	0.717	1.57	1.73	2.24	21.7	93.2	10	19.0-122	V3		25.8	31
Benzo(k)fluoranthene	0.717	0.424	1.06	1.26	89.1	116	10	23.0-120	V3		16.8	30
Benzo(g,h,i)perylene	0.717	0.355	0.528	0.562	24.1	28.9	10	10.0-120	V3		6.33	33
Benzo(a)pyrene	0.717	0.662	1.10	1.32	60.6	92.4	10	24.0-120	V3		18.9	30
Bis(2-chlorethoxy)methane	0.717	U	0.505	0.552	70.5	77.0	10	10.0-120			8.84	34
Bis(2-chloroethyl)ether	0.717	U	0.521	0.601	72.7	83.9	10	10.0-120			14.3	40
2,2-Oxybis(1-Chloropropane)	0.717	U	0.483	0.519	67.4	72.4	10	10.0-120			7.11	40
4-Bromophenyl-phenylether	0.717	U	0.545	0.573	76.1	80.0	10	27.0-120			4.98	30
Carbazole	0.717	U	0.604	0.641	84.3	89.4	10	31.0-120			5.90	24
4-Chloroaniline	0.717	U	0.364	0.461	50.8	64.3	10	10.0-120			23.5	36
2-Chloronaphthalene	0.717	U	0.485	0.559	67.7	78.0	10	20.0-120			14.1	32
4-Chlorophenyl-phenylether	0.717	U	0.559	0.653	78.0	91.1	10	24.0-120			15.6	29
Chrysene	0.717	0.483	1.04	1.28	77.8	111	10	21.0-120			20.6	29
Dibenz(a,h)anthracene	0.717	U	0.345	0.421	48.1	58.7	10	10.0-120			19.8	32
Dibenzofuran	0.717	U	0.572	0.619	79.8	86.3	10	24.0-120			7.85	30
3,3-Dichlorobenzidine	1.44	U	1.01	1.15	70.2	79.8	10	10.0-120			12.9	34
2,4-Dinitrotoluene	0.717	U	0.554	0.581	77.3	81.1	10	30.0-120			4.71	31
2,6-Dinitrotoluene	0.717	U	0.621	0.533	86.6	74.4	10	25.0-120			15.2	31
Fluoranthene	0.717	0.521	0.954	0.958	60.4	61.0	10	18.0-126			0.466	32
Fluorene	0.717	U	0.556	0.615	77.6	85.9	10	25.0-120			10.1	30
Hexachlorobenzene	0.717	U	0.497	0.560	69.4	78.1	10	27.0-120			11.8	28
Hexachloro-1,3-butadiene	0.717	U	0.427	0.580	59.6	80.9	10	10.0-120			30.3	38
Hexachlorocyclopentadiene	0.717	U	U	U	0.000	0.000	10	10.0-120	J6	J6	0.000	40
Hexachloroethane	0.717	U	0.440	0.558	61.3	77.8	10	10.0-120			23.7	40
Indeno(1,2,3-cd)pyrene	0.717	0.322	0.508	0.620	25.9	41.6	10	10.0-120	V3		19.9	32
Isophorone	0.717	U	0.484	0.522	67.5	72.8	10	13.0-120			7.52	34
2-Methylnaphthalene	0.717	U	0.510	0.536	71.1	74.8	10	10.0-120			5.11	37
Naphthalene	0.717	U	0.500	0.544	69.7	75.9	10	10.0-120			8.53	35
2-Nitroaniline	0.717	U	0.628	0.684	87.6	95.5	10	24.0-120			8.65	30
3-Nitroaniline	0.717	U	0.530	0.555	73.9	77.5	10	11.0-120			4.72	32
4-Nitroaniline	0.717	U	0.674	0.633	94.1	88.4	10	15.0-120			6.30	31
Nitrobenzene	0.717	U	0.513	0.553	71.6	77.2	10	10.0-120			7.52	36
n-Nitrosodimethylamine	0.717	U	U	U	0.000	0.000	10	10.0-127	J6	J6	0.000	40
n-Nitrosodiphenylamine	0.717	U	0.495	0.582	69.1	81.2	10	17.0-120			16.1	29
n-Nitrosodi-n-propylamine	0.717	U	0.491	0.549	68.5	76.6	10	10.0-120			11.1	37
Phenanthrene	0.717	0.105	0.597	0.622	68.6	72.2	10	17.0-120			4.20	31
Benzylbutyl phthalate	0.717	U	0.610	0.711	85.1	99.2	10	23.0-120			15.3	30
Bis(2-ethylhexyl)phthalate	0.717	U	0.607	0.690	84.6	96.3	10	17.0-126			12.9	30
Di-n-butyl phthalate	0.717	U	0.506	0.549	70.7	76.6	10	30.0-120			8.02	29

1Cp

2Tc

3Ss

4Cn

5Tr

6Sr

7Qc

8Gl

9Al

10Sc

L1311179-22 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1311179-22 02/05/21 19:05 • (MS) R3619962-3 02/05/21 19:31 • (MSD) R3619962-4 02/05/21 19:57

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 Limits %
Diethyl phthalate	0.717	U	0.534	0.642	74.5	89.6	10	26.0-120			18.4	28
Dimethyl phthalate	0.717	U	U	U	0.000	0.000	10	25.0-120	J6	J6	0.000	29
Di-n-octyl phthalate	0.717	U	0.587	0.673	81.8	93.9	10	21.0-123			13.8	29
Pyrene	0.717	0.755	1.14	1.36	53.1	84.2	10	16.0-121			17.9	32
Pyridine	0.717	U	U	U	0.000	0.000	10	10.0-120	J6	J6	0.000	40
1,2,4-Trichlorobenzene	0.717	U	0.538	0.573	75.0	80.0	10	12.0-120			6.41	37
Benzoic Acid	1.44	U	U	U	0.000	0.000	10	10.0-152	J6	J6	0.000	40
Benzyl Alcohol	0.717	U	0.351	0.377	48.9	52.6	10	10.0-136			7.34	40
4-Chloro-3-methylphenol	0.717	U	0.465	0.578	64.9	80.6	10	15.0-120			21.6	30
2-Chlorophenol	0.717	U	0.503	0.554	70.2	77.3	10	15.0-120			9.68	37
2-Methylphenol	0.717	U	0.442	0.590	61.6	82.3	10	11.0-120			28.7	40
3&4-Methyl Phenol	0.717	U	0.560	0.638	78.1	89.0	10	12.0-123			13.0	38
2,4-Dichlorophenol	0.717	U	0.502	0.593	70.0	82.8	10	20.0-120			16.7	31
2,4-Dimethylphenol	0.717	U	0.501	0.619	69.9	86.3	10	10.0-120			21.1	33
4,6-Dinitro-2-methylphenol	0.717	U	0.975	1.04	136	145	10	10.0-120	J5	J5	6.30	39
2,4-Dinitrophenol	0.717	U	U	0.884	0.000	123	10	10.0-121	J6	J3 J5	200	40
2-Nitrophenol	0.717	U	0.570	0.597	79.5	83.2	10	12.0-120			4.58	39
4-Nitrophenol	0.717	U	0.480	0.575	66.9	80.3	10	10.0-137			18.1	32
Pentachlorophenol	0.717	U	0.522	0.536	72.8	74.8	10	10.0-160			2.73	31
Phenol	0.717	U	0.504	0.534	70.3	74.5	10	12.0-120			5.79	38
2,4,5-Trichlorophenol	0.717	U	0.565	0.637	78.9	88.8	10	20.0-120			11.9	30
2,4,6-Trichlorophenol	0.717	U	0.559	0.642	78.0	89.6	10	19.0-120			13.9	32
(S) Nitrobenzene-d5					83.2	85.1		10.0-122				
(S) 2-Fluorobiphenyl					85.4	83.2		15.0-120				
(S) p-Terphenyl-d14					91.0	98.1		10.0-120				
(S) Phenol-d5					65.8	76.9		10.0-120				
(S) 2-Fluorophenol					78.0	84.0		12.0-120				
(S) 2,4,6-Tribromophenol					71.1	74.8		10.0-127				

Sample Narrative:
OS: Diluted due to matrix impact

1Cp

2Tc

3Ss

4Cn

5Tr

6Sr

7Qc

8Gl

9Al

10Sc



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.
MQL (dry)	Method Quantitation Limit.
MQL	Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
SDL	Sample Detection Limit.
SDL (dry)	Sample Detection Limit.
(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 Sample Detection Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.
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.
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.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.





Qualifier	Description
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.
T8	Sample(s) received past/too close to holding time expiration.
V3	The internal standard exhibited poor recovery due to sample matrix interference. The analytical results will be biased high. BDL results will be unaffected.

¹Cp

²Tc

³Ss

⁴Cn

⁵Tr

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc



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.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN, 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky ^{1 6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP, LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

Pace Analytical National 1313 Point Mallard Parkway SE Suite B Decatur, AL, 35601

Alabama	40160
ANSI National Accreditation Board	L2239

Pace Analytical National 660 Bercut Dr. Ste. C Sacramento, CA, 95811

California	2961	Oregon	CA300002
Minnesota	006-999-465	Washington	C926
North Dakota	R-214		

Pace Analytical National 6000 South Eastern Avenue Ste 9A Las Vegas, NV, 89119

Nevada	NV009412021-1
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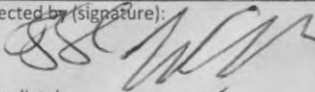
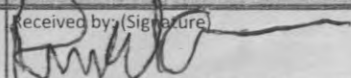
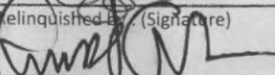
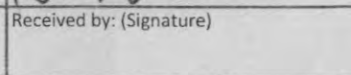
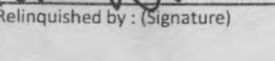
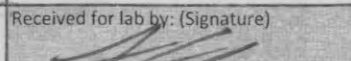
Pace Analytical National 1606 E. Brazos Street Suite D Victoria, TX, 77901

Texas	T104704328-20-18
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¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable



UPRR - Golder Associates 2201 Double Creek Dr., Ste 4004 Round Rock, TX 78664						Billing Information:						Pres Chk		Analysis / Container / Preservative						Chain of Custody		Page 1 of 3	
						Jim Brannen 4823 N 119th Street Milwaukee, WI 53225														 Pace Analytical® National Center for Testing & Innovation			
Report to: Patrick Marty						Email To: Patrick_marty@golder.com; Jacqueline_Engel@golder.com												12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859					
Project Description: Houston TX-Houston Subd. MP358.2-360.3 Englewood						City/State Collected: HOUSTON, TX		Please Circle: PT MT <u>C</u> ET															
Phone: 512-671-3434				Client Project # 1712		Lab Project # UPRRGOLD-1712																	
Collected by (print): JACQUELINE ENGEL + WILL CARTER				Site/Facility ID # SOIL EVALUATION		P.O. # 4300066026																	
Collected by (signature): 				Rush? (Lab MUST Be Notified) ___ Same Day ___ Five Day ___ Next Day ___ 5 Day (Rad Only) ___ Two Day ___ 10 Day (Rad Only) ___ Three Day		Quote #																	
Immediately Packed on Ice N ___ Y <u>✓</u>						Date Results Needed																	
Sample ID				Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	MRCRA8 8ozClr-NoPres	PH 8ozClr-NoPres	SV8270 8ozClr-NoPres	TPHTX 40mlTW/SyringeNoPres	V8260 40mlAmb/MeOH10ml/Syr									
SD-1712-SE06(0-1.25)-2021-0126				G	SS	1.25	1/26/21	1640	4	✓	✓	✓	✓	✓				-01					
SD-1712-SE02(0-3)-2021-0126				G	SS	3		1415	4	✓		✓	✓	✓				-02					
SD-1712-SE03(0-2)-2021-0126				G	SS	2		1435	4	✓		✓	✓	✓				-03					
SD-1712-SE01(0-3)-2021-0126				G	SS	3		1345	4	✓		✓	✓	✓				-04					
SD-1712-SE13(0-0.5)-2021-0126				G	SS	0.5		1015	4	✓	✓	✓	✓	✓				-05					
SD-1712-SE07(0-4)-2021-0126				G	SS	4		1205	4	✓		✓	✓	✓				-06					
SD-1712-SE11(0-1)-2021-0126				G	SS	1		0950	4	✓		✓	✓	✓				-07					
SD-1712-SE05(0-1)-2021-0126				G	SS	1		1545	4	✓	✓	✓	✓	✓				-08					
SD-1712-SE08(0-2)-2021-0126				G	SS	2		1135	4	✓		✓	✓	✓				-09					
SD-1712-SE12(0-0.5)-2021-0126				G	SS	0.5		1000	4	✓		✓	✓	✓				-10					
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater DW - Drinking Water OT - Other _____				Remarks: WO52247 STANDARD TAT UPRR ENG Dept.										pH _____ Temp _____ Flow _____ Other _____		Sample Receipt Checklist COC Seal Present/Intact: <u>X</u> Y N COC Signed/Accurate: <u>Y</u> Y N Bottles arrive intact: <u>Y</u> Y N Correct bottles used: <u>Y</u> Y N Sufficient volume sent: <u>Y</u> Y N IF Applicable VOA Zero Headspace: <u>Y</u> Y N Preservation Correct/Checked: <u>Y</u> Y N RAD Screen <0.5 mR/hr: <u>X</u> Y N							
Samples returned via: ___ UPS ___ FedEx ___ Courier _____				Tracking #																			
Relinquished by: (Signature)				Date: 1/27/21		Time: 16:42		Received by: (Signature)				Trip Blank Received: Yes/No HCL/MeOH TBR											
Relinquished by: (Signature)				Date: 1/27/21		Time: 18:00		Received by: (Signature)				Temp: 1.3°C Bottles Received: 96				If preservation required by Login: Date/Time							
Relinquished by: (Signature)				Date:		Time:		Received for lab by: (Signature)				Date: 1/28/21				Time: 8:00		Hold: Condition: NCF / 00					

UPRR - Golder Associates				Billing Information:				Chain of Custody				Page 2 of 3			
2201 Double Creek Dr., Ste 4004 Round Rock, TX 78664				Jim Brannen 4823 N 119th Street Milwaukee, WI 53225				Pres Chk							
Report to: Patrick Marty				Email To: Patrick_marty@golder.com; Jacqueline_Engel@golder.com				12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859							
Project Description: Houston TX-Houston Subd. MP358.2-360.3 Englewood				City/State Collected: HOUSTON, TX				Please Circle: PT MT <u>CT</u> ET							
Phone: 512-671-3434				Client Project # 1712				Lab Project # UPRRGOLD-1712							
Collected by (print): JACQUELINE ENGEL & WILL CARTER				Site/Facility ID # SOIL EVALUATION				P.O. # 4300066026							
Collected by (signature): 				Rush? (Lab MUST Be Notified) Same Day Five Day Next Day 5 Day (Rad Only) Two Day 10 Day (Rad Only) Three Day				Quote #							
Immediately Packed on Ice N Y				Date Results Needed				No. of Cnts							
Sample ID				Comp/Grab		Matrix *		Depth		Date		Time			
SO-1712-SE10(0-0.5)-2021 0126				G		SS		0.5		1/26/21		1035		4	
SO-1712-SE09(0-0.5)-2021 0126				G		SS		0.5		1		1110		4	
SO-1712-SE04(0-0.5)-2021 0126				G		SS		0.5		1515		4		4	
SO-1712-SE24(0-1)-2021 0127				G		SS		1		1/27/21		1320		4	
SO-1712-SE22(0-2)-2021 0127				G		SS		2		1		1230		4	
SO-1712-SE20(0-0.5)-2021 0127				G		SS		0.5		1		1100		4	
SO-1712-SE21(0-0.5)-2021 0127				G		SS		0.5		1		1110		4	
SO-1712-SE15(0-0.5)-2021 0127				G		SS		0.5		0855		4		4	
SO-1712-SE19(0-1)-2021 0127				G		SS		1		0955		4		4	
SO-1712-SE23(0-0.5)-2021 0127				G		SS		0.5		1240		4		4	
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater DW - Drinking Water OT - Other				Remarks: W052247 UPRR ENG DEPT. STANDARD TAT				pH Temp Flow Other				Sample Receipt Checklist COC Seal Present/Intact: X NP Y N COC Signed/Accurate: X Y N Bottles arrive intact: X Y N Correct bottles used: X Y N Sufficient volume sent: X Y N If Applicable VOA Zero Headspace: X Y N Preservation Correct/Checked: X Y N RAD Screen <0.5 mR/hr: X Y N			
Relinquished by: (Signature) 				Date: 1/27/21		Time: 16:42		Received by: (Signature) 				Trip Blank Received: Yes/No HDL/MeOH TBR			
Relinquished by: (Signature) 				Date: 1/27/21		Time: 18:00		Received by: (Signature) 				Temp: 17.3°C 1.3 1.5 Bottles Received: 96			
Relinquished by: (Signature) 				Date: 1/28/21		Time: 8:00		Received for lab by: (Signature) 				Date: 1/28/21 Time: 8:00			

UPRR - Golder Associates 2201 Double Creek Dr., Ste 4004 Round Rock, TX 78664						Billing Information: Jim Brannen 4823 N 119th Street Milwaukee, WI 53225						Pres Chk		Chain of Custody Page 3 of 3 Pace Analytical[®] National Center for Testing & Innovation 12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859									
						Report to: Patrick Marty						Email To: Patrick_marty@golder.com; Jacqueline_Engel@golder.com											
Project Description: Houston TX-Houston Subd. MP358.2-360.3 Englewood						City/State Collected: HOUSTON, TX						Please Circle: PT MT C ET											
Phone: 512-671-3434						Client Project # 1712						Lab Project # UPRRGOLD-1712											
Collected by (print): JACQUELINE ENGEL & WILL CARTER						Site/Facility ID # SOIL EVALUATION						P.O. # 4300066026											
Collected by (signature): 						Rush? (Lab MUST Be Notified) ☐ Same Day ☐ Five Day ☐ Next Day ☐ 5 Day (Rad Only) ☐ Two Day ☐ 10 Day (Rad Only) ☐ Three Day						Quote # 											
Immediately Packed on Ice N ☐ Y ☒						Date Results Needed						No. of Cntrs											
Sample ID						Comp/Grab	Matrix *	Depth	Date	Time													
50-1712-SE14 (0-0.5) - 20210127						G	SS	0.5	1/27/21	0845	4	✓		✓	✓	✓				-21			
50-1712-SE16 (0-0.5) - 20210127						G	SS	0.5		0905	4	✓		✓	✓	✓			-22				
50-1712-SE18 (0-1.25) - 20210127						G	SS	1.25		0940	4	✓	✓	✓	✓	✓			-23				
50-1712-SE17 (0-0.5) - 20210127						G	SS	0.5		0910	4	✓		✓	✓	✓			-24				
TRIP BLANK 01/28							SS																
TBO1 - 20210127						G	SS OT	-	1/27/21	-	1					✓			-25				
TBO2 - 20210126						G	OT	-	1/26/21	-	1					✓			-26				
* Matrix:						Remarks: WO52247 UPRR ENG. DEPT. STANDARD TAT																	
SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - Waste Water DW - Drinking Water OT - Other _____						pH _____ Temp _____ Flow _____ Other _____																	
Samples returned via: UPS FedEx Courier _____						Tracking # _____																	
Relinquished by: (Signature)						Date:	Time:	Received by: (Signature)						Trip Blank Received: YES / No HCL / MeOH TBR									
Relinquished by: (Signature)						Date:	Time:	Received by: (Signature)						Temp: +2.2 °C Bottles Received: 96 1.3 1.5									
Relinquished by: (Signature)						Date:	Time:	Received for lab by: (Signature)						Date: 1/28/21 Time: 8:00									
												Hold:						Condition: NCF / OK					

UPRR - Golder Associates

Sample Delivery Group: L1331861
Samples Received: 03/13/2021
Project Number: 1712
Description: Houston TX-Houston Subd. MP358.2-360.3
Englewood Yard North
Site: SOIL EVALUATION
Report To: Patrick Marty
2201 Double Creek Dr., Ste 4004
Round Rock, TX 78664

Entire Report Reviewed By:



Mark W. Beasley
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.

Pace Analytical National12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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¹ Cp
² Tc
³ Ss
⁴ Cn
⁵ Tr
⁶ Sr
⁷ Qc
⁸ Gl
⁹ Al
¹⁰ Sc

SAMPLE SUMMARY

SO-1712-CA06(0-5)-20210312 L1331861-01 Solid

Collected by
WC/BS

Collected date/time
03/12/21 10:50

Received date/time
03/13/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1636030	1	03/18/21 08:25	03/18/21 08:41	JAV	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1642984	1	03/31/21 02:26	03/31/21 06:40	CCE	Mt. Juliet, TN

¹ Cp

² Tc

³ Ss

SO-1712-CA01(0-5)-20210312 L1331861-02 Solid

Collected by
WC/BS

Collected date/time
03/12/21 10:30

Received date/time
03/13/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1636034	1	03/18/21 08:45	03/18/21 08:59	JAV	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1642984	1	03/31/21 02:26	03/31/21 06:43	CCE	Mt. Juliet, TN

⁴ Cn

⁵ Tr

⁶ Sr

SO-1712-CA06(5-8)-20210312 L1331861-03 Solid

Collected by
WC/BS

Collected date/time
03/12/21 10:55

Received date/time
03/13/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1636034	1	03/18/21 08:45	03/18/21 08:59	JAV	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1642984	1	03/31/21 02:26	03/31/21 06:45	CCE	Mt. Juliet, TN

⁷ Qc

⁸ Gl

⁹ Al

SO-1712-CA01(5-8)-20210312 L1331861-04 Solid

Collected by
WC/BS

Collected date/time
03/12/21 12:35

Received date/time
03/13/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1636034	1	03/18/21 08:45	03/18/21 08:59	JAV	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1642984	1	03/31/21 02:26	03/31/21 06:54	CCE	Mt. Juliet, TN

¹⁰ Sc

SO-1712-CA03(0-1.5)-20210312 L1331861-05 Solid

Collected by
WC/BS

Collected date/time
03/12/21 14:30

Received date/time
03/13/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1636034	1	03/18/21 08:45	03/18/21 08:59	JAV	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1642984	1	03/31/21 02:26	03/31/21 06:57	CCE	Mt. Juliet, TN

SO-1712-CA03(1.5-1.67)-20210312 L1331861-06 Solid

Collected by
WC/BS

Collected date/time
03/12/21 14:35

Received date/time
03/13/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1636034	1	03/18/21 08:45	03/18/21 08:59	JAV	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1642984	1	03/31/21 02:26	03/31/21 07:00	CCE	Mt. Juliet, TN

SO-1712-CA02(0-2.0)-20210312 L1331861-07 Solid

Collected by
WC/BS

Collected date/time
03/12/21 10:05

Received date/time
03/13/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1636034	1	03/18/21 08:45	03/18/21 08:59	JAV	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1642984	1	03/31/21 02:26	03/31/21 07:03	CCE	Mt. Juliet, TN

SAMPLE SUMMARY

SO-1712-CA04(1.5-1.62)-20210312 L1331861-08 Solid

Collected by
WC/BS

Collected date/time
03/12/21 15:05

Received date/time
03/13/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1636034	1	03/18/21 08:45	03/18/21 08:59	JAV	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1642984	1	03/31/21 02:26	03/31/21 07:06	CCE	Mt. Juliet, TN

¹Cp

²Tc

³Ss

SO-1712-CA05(0-2)-20210312 L1331861-09 Solid

Collected by
WC/BS

Collected date/time
03/12/21 10:40

Received date/time
03/13/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1636034	1	03/18/21 08:45	03/18/21 08:59	JAV	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1642984	1	03/31/21 02:26	03/31/21 07:09	CCE	Mt. Juliet, TN

⁴Cn

⁵Tr

⁶Sr

SO-1712-CA04(0-1.5)-20210312 L1331861-10 Solid

Collected by
WC/BS

Collected date/time
03/12/21 15:00

Received date/time
03/13/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1636034	1	03/18/21 08:45	03/18/21 08:59	JAV	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1642984	1	03/31/21 02:26	03/31/21 07:12	CCE	Mt. Juliet, TN

⁷Qc

⁸Gl

⁹Al

¹⁰Sc

CASE NARRATIVE

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.



Mark W. Beasley
Project Manager

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Tr

⁶ Sr

⁷ Qc

⁸ Gl

⁹ Al

¹⁰ Sc

Laboratory Data Package Cover Page

This data package consists of this signature page, the laboratory review checklist, and the following reportable data as applicable:

- R1 - Field chain-of-custody documentation;
- R2 - Sample identification cross-reference;
- R3 - Test reports (analytical data sheets) for each environmental sample that includes:
 - a. Items consistent with NELAC Chapter 5,
 - b. dilution factors,
 - c. preparation methods,
 - d. cleanup methods, and
 - e. if required for the project, tentatively identified compounds (TICs).
- R4 - Surrogate recovery data including:
 - a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- R5 - Test reports/summary forms for blank samples;
- R6 - Test reports/summary forms for laboratory control samples (LCSs) including:
 - a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences (RPDs), and
 - e. The laboratory's MS/MSD QC limits
- R8 - Laboratory analytical duplicate (if applicable) recovery and precision:
 - a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and
 - c. The laboratory's QC limits for analytical duplicates.
- R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 - Other problems or anomalies.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.



Mark W. Beasley
Project Manager

Laboratory Review Checklist: Reportable Data

Laboratory Name: Pace Analytical National			LRC Date: 03/31/2021 13:32				
Project Name: Houston TX-Houston Subd. MP358.2-360.3 Englewood Yard North			Laboratory Job Number: L1331861-01, 02, 03, 04, 05, 06, 07, 08, 09 and 10				
Reviewer Name: Mark W. Beasley			Prep Batch Number(s): WG1636030, WG1636034 and WG1642984				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?	X				
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?	X				
		If required for the project, are TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?			X		
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Supporting Data

Laboratory Name: Pace Analytical National		LRC Date: 03/31/2021 13:32					
Project Name: Houston TX-Houston Subd. MP358.2-360.3 Englewood Yard North		Laboratory Job Number: L1331861-01, 02, 03, 04, 05, 06, 07, 08, 09 and 10					
Reviewer Name: Mark W. Beasley		Prep Batch Number(s): WG1636030, WG1636034 and WG1642984					
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?			X		
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?			X		
		Were ion abundance data within the method-required QC limits?			X		
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?			X		
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?	X				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	X				
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed	X				
1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. 2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable); 3. NA = Not applicable; 4. NR = Not reviewed; 5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).							

Laboratory Review Checklist: Exception Reports

Laboratory Name: Pace Analytical National		LRC Date: 03/31/2021 13:32	
Project Name: Houston TX-Houston Subd. MP358.2-360.3 Englewood Yard North		Laboratory Job Number: L1331861-01, 02, 03, 04, 05, 06, 07, 08, 09 and 10	
Reviewer Name: Mark W. Beasley		Prep Batch Number(s): WG1636030, WG1636034 and WG1642984	
ER #¹	Description		
The Exception Report intentionally left blank, there are no exceptions applied to this SDG.			
1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. 2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable); 3. NA = Not applicable; 4. NR = Not reviewed; 5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).			

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	76.6		1	03/18/2021 08:41	WG1636030

Metals (ICP) by Method 6010B

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.51	J	0.677	2.00	2.61	1	03/31/2021 06:40	WG1642984
Chromium	14.1		0.174	1.00	1.31	1	03/31/2021 06:40	WG1642984
Lead	23.1		0.272	0.500	0.653	1	03/31/2021 06:40	WG1642984

¹ Cp² Tc³ Ss⁴ Cn⁵ Tr⁶ Sr⁷ Qc⁸ Gl⁹ Al¹⁰ Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	82.4		1	03/18/2021 08:59	WG1636034

Metals (ICP) by Method 6010B

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Arsenic	1.53	<u>J</u>	0.629	2.00	2.43	1	03/31/2021 06:43	WG1642984
Chromium	14.3		0.161	1.00	1.21	1	03/31/2021 06:43	WG1642984
Lead	21.1		0.253	0.500	0.607	1	03/31/2021 06:43	WG1642984

¹ Cp² Tc³ Ss⁴ Cn⁵ Tr⁶ Sr⁷ Qc⁸ Gl⁹ Al¹⁰ Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	77.6		1	03/18/2021 08:59	WG1636034

Metals (ICP) by Method 6010B

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Arsenic	1.75	J	0.668	2.00	2.58	1	03/31/2021 06:45	WG1642984
Chromium	18.4		0.171	1.00	1.29	1	03/31/2021 06:45	WG1642984
Lead	8.80		0.268	0.500	0.645	1	03/31/2021 06:45	WG1642984

1Cp

2Tc

3Ss

4Cn

5Tr

6Sr

7Qc

8Gl

9Al

10Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	80.1		1	03/18/2021 08:59	WG1636034

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis date / time	Batch
Arsenic	6.36		0.647	2.00	2.50	1	03/31/2021 06:54	WG1642984
Chromium	15.7		0.166	1.00	1.25	1	03/31/2021 06:54	WG1642984
Lead	37.6		0.260	0.500	0.624	1	03/31/2021 06:54	WG1642984

¹ Cp² Tc³ Ss⁴ Cn⁵ Tr⁶ Sr⁷ Qc⁸ Gl⁹ Al¹⁰ Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	84.3		1	03/18/2021 08:59	WG1636034

Metals (ICP) by Method 6010B

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Arsenic	1.51	J	0.614	2.00	2.37	1	03/31/2021 06:57	WG1642984
Chromium	8.96		0.158	1.00	1.19	1	03/31/2021 06:57	WG1642984
Lead	7.63		0.247	0.500	0.593	1	03/31/2021 06:57	WG1642984

¹ Cp² Tc³ Ss⁴ Cn⁵ Tr⁶ Sr⁷ Qc⁸ Gl⁹ Al¹⁰ Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	87.8		1	03/18/2021 08:59	WG1636034

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis date / time	Batch
Arsenic	4.38		0.590	2.00	2.28	1	03/31/2021 07:00	WG1642984
Chromium	14.8		0.152	1.00	1.14	1	03/31/2021 07:00	WG1642984
Lead	26.3		0.237	0.500	0.570	1	03/31/2021 07:00	WG1642984

¹ Cp² Tc³ Ss⁴ Cn⁵ Tr⁶ Sr⁷ Qc⁸ Gl⁹ Al¹⁰ Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	87.0		1	03/18/2021 08:59	WG1636034

Metals (ICP) by Method 6010B

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Arsenic	9.81		0.596	2.00	2.30	1	03/31/2021 07:03	WG1642984
Chromium	17.6		0.153	1.00	1.15	1	03/31/2021 07:03	WG1642984
Lead	77.9		0.239	0.500	0.575	1	03/31/2021 07:03	WG1642984

1Cp

2Tc

3Ss

4Cn

5Tr

6Sr

7Qc

8Gl

9Al

10Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	90.0		1	03/18/2021 08:59	WG1636034

Metals (ICP) by Method 6010B

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Arsenic	U		0.576	2.00	2.22	1	03/31/2021 07:06	WG1642984
Chromium	14.4		0.148	1.00	1.11	1	03/31/2021 07:06	WG1642984
Lead	41.7		0.231	0.500	0.556	1	03/31/2021 07:06	WG1642984

1Cp

2Tc

3Ss

4Cn

5Tr

6Sr

7Qc

8Gl

9Al

10Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	85.6		1	03/18/2021 08:59	WG1636034

Metals (ICP) by Method 6010B

Analyte	Result (dry) mg/kg	Qualifier	SDL (dry) mg/kg	Unadj. MQL mg/kg	MQL (dry) mg/kg	Dilution	Analysis date / time	Batch
Arsenic	1.64	J	0.605	2.00	2.34	1	03/31/2021 07:09	WG1642984
Chromium	10.1		0.155	1.00	1.17	1	03/31/2021 07:09	WG1642984
Lead	10.2		0.243	0.500	0.584	1	03/31/2021 07:09	WG1642984

1Cp

2Tc

3Ss

4Cn

5Tr

6Sr

7Qc

8Gl

9Al

10Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	82.1		1	03/18/2021 08:59	WG1636034

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis date / time	Batch
Arsenic	4.21		0.631	2.00	2.44	1	03/31/2021 07:12	WG1642984
Chromium	8.55		0.162	1.00	1.22	1	03/31/2021 07:12	WG1642984
Lead	10.7		0.253	0.500	0.609	1	03/31/2021 07:12	WG1642984

¹ Cp² Tc³ Ss⁴ Cn⁵ Tr⁶ Sr⁷ Qc⁸ Gl⁹ Al¹⁰ Sc

Method Blank (MB)

(MB) R3632615-1 03/18/21 08:41

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	%		%	%
Total Solids	0.000			

L1326825-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1326825-09 03/18/21 08:41 • (DUP) R3632615-3 03/18/21 08:41

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	%	%		%		%
Total Solids	79.3	78.2	1	1.43		10

Laboratory Control Sample (LCS)

(LCS) R3632615-2 03/18/21 08:41

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	%	%	%	%	
Total Solids	50.0	50.0	100	85.0-115	

¹Cp

²Tc

³Ss

⁴Cn

⁵Tr

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc

Method Blank (MB)

(MB) R3632616-1 03/18/21 08:59

	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
Analyte	%		%	%
Total Solids	0.000			

1

Cp

2

Tc

3

Ss

4

Cn

5

Tr

6

Sr

7

Qc

8

Gl

9

Al

10

Sc

L1326831-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1326831-09 03/18/21 08:59 • (DUP) R3632616-3 03/18/21 08:59

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	%	%		%		%
Total Solids	84.3	83.3	1	1.25		10

Laboratory Control Sample (LCS)

(LCS) R3632616-2 03/18/21 08:59

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
Analyte	%	%	%	%	
Total Solids	50.0	50.0	99.9	85.0-115	

Method Blank (MB)

(MB) R3636579-1 03/31/21 06:21

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.518	2.00
Chromium	U		0.133	1.00
Lead	U		0.208	0.500

Laboratory Control Sample (LCS)

(LCS) R3636579-2 03/31/21 06:23

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	94.8	94.8	80.0-120	
Chromium	100	97.7	97.7	80.0-120	
Lead	100	97.8	97.8	80.0-120	

L1332127-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1332127-01 03/31/21 06:26 • (MS) R3636579-5 03/31/21 06:34 • (MSD) R3636579-6 03/31/21 06:37

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	100	3.27	102	94.7	98.5	91.5	1	75.0-125			7.15	20
Chromium	100	17.1	118	112	101	95.0	1	75.0-125			5.52	20
Lead	100	14.7	116	110	102	95.6	1	75.0-125			5.28	20

¹Cp

²Tc

³Ss

⁴Cn

⁵Tr

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc

GLOSSARY OF TERMS

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.
MQL (dry)	Method Quantitation Limit.
MQL	Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
SDL	Sample Detection Limit.
SDL (dry)	Sample Detection Limit.
U	Not detected at the Sample Detection Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.
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

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



ACCREDITATIONS & LOCATIONS

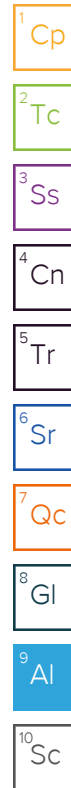
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey--NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio--VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA -- ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA -- ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA--Crypto	TN00003		

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

* 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 Analytical.



Company Name/Address: UPRR - Golder Associates 2201 Double Creek Dr., Ste 4004 Round Rock, TX 78664		Billing Information: Jim Brannen 4823 N 119th Street Milwaukee, WI 53225		Pres Chk		Analysis / Container / Preservation										Chain of Custody Page 1 of 1							
Report to: Patrick Marty		Email To: Patrick_marty@golder.com, Blake_Sokora@golder.com														 L1331861 13000 Veterans Road NW, Suite 100, TX 75127 Phone: 415-758-5450 FAX: 415-758-5450 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: www.paceanalytical.com/public/pac-standards							
Project Description: Houston TX-Houston Subd, MP358.2-360.3 Englewood		City/State Collected: 		Please Circle: PT MT CT ET												SDGR D139 L1331156 Acctnum: UPRRGOLD Template: T183275 Prelogin: P833433 PM: 134 - Mark W. Beasley PB: Shipped Via:							
Phone: 512-671-3434		Client Project # 1712		Lab Project # UPRRGOLD-1712												L1326837 L1331156							
Collected by (print): WL, BS		Site/Facility ID # SOIL EVALUATION		P.O. # 4300066026												Acctnum: UPRRGOLD Template: T183275 Prelogin: P833433 PM: 134 - Mark W. Beasley PB:							
Collected by (signature): <i>[Signature]</i>		Rush? (Lab MUST Be Notified) ☐ Same Day ☐ Five Day ☐ Next Day ☐ 5 Day (Rad Only) ☐ Two Day ☐ 10 Day (Rad Only) ☐ Three Day		Quote #												Acctnum: UPRRGOLD Template: T183275 Prelogin: P833433 PM: 134 - Mark W. Beasley PB:							
Packed on Ice N ☒ X				Date Results Needed												Shipped Via:							
Sample ID		Comp/Grab		Matrix *		Depth		Date		Time		No. of Cntrs											
50-1712-CA06(0-5)-20210312		SS		0-5		3/12/21		1050		1		X		MIRCRAB 8oz Clr-NoPres - 1050 1050 1050 SV8270 8oz Clr-NoPres TCEL P Metals									
50-1712-CA01(0-5)-20210312		SS		0-5		3/12/21		1230		1		X		MIRCRAB 8oz Clr-NoPres - 1230 1230 1230 SV8270 8oz Clr-NoPres TCEL P Metals									
50-1712-CA06(5-9)-20210312		SS		5-8		3/12/21		1055		1		X		MIRCRAB 8oz Clr-NoPres - 1055 1055 1055 SV8270 8oz Clr-NoPres TCEL P Metals									
50-1712-CA01(5-9)-20210312		SS		5-8		3/12/21		1235		1		X		MIRCRAB 8oz Clr-NoPres - 1235 1235 1235 SV8270 8oz Clr-NoPres TCEL P Metals									
50-1712-CA03(0-1.5)-20210312		SS		0-1.5		3/12/21		1430		1		X		MIRCRAB 8oz Clr-NoPres - 1430 1430 1430 SV8270 8oz Clr-NoPres TCEL P Metals									
50-1712-CA03(1.5-1.67)-20210312		SS		1.5-1.67		3/12/21		1455		1		X		MIRCRAB 8oz Clr-NoPres - 1455 1455 1455 SV8270 8oz Clr-NoPres TCEL P Metals									
50-1712-CA02(0-2.0)-20210312		SS		0-2.0		3/12/21		1005		1		X		MIRCRAB 8oz Clr-NoPres - 1005 1005 1005 SV8270 8oz Clr-NoPres TCEL P Metals									
50-1712-CA04(1.5-1.62)-20210312		SS		1.5-1.62		3/12/21		1505		1		X		MIRCRAB 8oz Clr-NoPres - 1505 1505 1505 SV8270 8oz Clr-NoPres TCEL P Metals									
50-1712-CA05(0-2)-20210312		SS		0-2		3/12/21		1040		1		X		MIRCRAB 8oz Clr-NoPres - 1040 1040 1040 SV8270 8oz Clr-NoPres TCEL P Metals									
50-1712-CA04(0-1.5)-20210312		SS		0-1.5		3/12/21		1500		1		X		MIRCRAB 8oz Clr-NoPres - 1500 1500 1500 SV8270 8oz Clr-NoPres TCEL P Metals									
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - Waste Water DW - Drinking Water OT - Other		Remarks:		pH _____ Temp _____ Flow _____ Other _____												Sample Receipt Checklist ☒ Seal Intact ☒ Vial Closed/Uncontaminated ☒ Bottles arrive intact ☒ Correct bottles used ☒ Sufficient volume sent ☒ Vial caps replaced ☒ Preservation correct ☒ RAD Screen - All 3/12/21							
Samples returned via: UPS FedEx Carrier		Tracking #		7846 9464 9854												Trip Blank Received: Yes ☒ No ☐ HCL/Meth TBR							
Relinquished by: (Signature) <i>[Signature]</i>		Date: 3/12/21		Time: 1700		Received by: (Signature) <i>[Signature]</i>		Trip Blank Received: Yes ☒ No ☐ HCL/Meth TBR												If preservation required by Login, Date/Time			
Relinquished by: (Signature) <i>[Signature]</i>		Date:		Time:		Received by: (Signature) <i>[Signature]</i>		Temp <i>16°C</i> Bottles Received: <i>10</i>												If preservation required by Login, Date/Time			
Relinquished by: (Signature) <i>[Signature]</i>		Date:		Time:		Received by: (Signature) <i>[Signature]</i>		Date <i>3/13/21</i> Time <i>9:00</i>												Hold: Condition: NCE 104			

L1331156 *UPRRGOLD* relog**R3/R4/RX/EX**

Relog L1331156-01 thru -10 for ASICP, CRICP, PBICP. Transfer TS. Log as R4 due 4/1.

From: Reid, Anthony <Anthony_Reid@golder.com>

Sent: Monday, March 29, 2021 3:07 PM

To: Mark Beasley <Mark.Beasley@pacelabs.com>

Cc: Marty, Patrick <Patrick_Marty@golder.com>

Subject: RE: Pace Analytical National Level II Report for 1712 Houston TX-Houston Subd. MP358.2-360.3 Englewood Yard North L1331156

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NOTE: This email chain appears to contain email from outside Golder

Mark,

Can you run total arsenic, total lead, and total chromium on these samples with a RUSH 72-hour TAT.

Thank you,

Anthony Reid**

****Project Hydrogeologist_**

_

****<!--[if gte vml 1]>**

<![endif]--><![if vml]><![endif]>Golder Associates Inc.

2201 Double Creek Dr, Suite 4004, Round Rock, Texas, USA 78664

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***512-217-1665 |**

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P Please consider the environment before printing this email

Time estimate: oh	Time spent: oh
-------------------	----------------

Members

 MIB Mark Beasley (responsible)

UPRR - Golder Associates

Sample Delivery Group: L1331156
Samples Received: 03/13/2021
Project Number: 1712
Description: Houston TX-Houston Subd. MP358.2-360.3
Englewood Yard North
Site: SOIL EVALUATION
Report To: Patrick Marty
2201 Double Creek Dr., Ste 4004
Round Rock, TX 78664

Entire Report Reviewed By:



Mark W. Beasley
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.

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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¹ Cp
² Tc
³ Ss
⁴ Cn
⁵ Tr
⁶ Sr
⁷ Qc
⁸ Gl
⁹ Al
¹⁰ Sc

SAMPLE SUMMARY

SO-1712-CA06(0-5)-20210312 L1331156-01 Solid

Collected by
WC/BS

Collected date/time
03/12/21 10:50

Received date/time
03/13/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1636030	1	03/18/21 08:25	03/18/21 08:41	JAV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1641237	1	03/26/21 16:21	03/26/21 17:14	TPR	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1641385	1	03/27/21 00:10	03/27/21 16:52	CAG	Mt. Juliet, TN

SO-1712-CA01(0-5)-20210312 L1331156-02 Solid

Collected by
WC/BS

Collected date/time
03/12/21 12:30

Received date/time
03/13/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1636034	1	03/18/21 08:45	03/18/21 08:59	JAV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1641237	1	03/26/21 16:21	03/26/21 17:33	TPR	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1641386	1.06	03/27/21 03:31	03/27/21 15:49	CAG	Mt. Juliet, TN

SO-1712-CA06(5-8)-20210312 L1331156-03 Solid

Collected by
WC/BS

Collected date/time
03/12/21 10:55

Received date/time
03/13/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1636034	1	03/18/21 08:45	03/18/21 08:59	JAV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1641237	1	03/26/21 16:21	03/26/21 17:52	TPR	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1641386	1	03/27/21 03:31	03/27/21 16:05	CAG	Mt. Juliet, TN

SO-1712-CA01(5-8)-20210312 L1331156-04 Solid

Collected by
WC/BS

Collected date/time
03/12/21 12:35

Received date/time
03/13/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1636034	1	03/18/21 08:45	03/18/21 08:59	JAV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1641237	1	03/26/21 16:21	03/26/21 18:11	TPR	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1641386	1	03/27/21 03:31	03/27/21 16:20	CAG	Mt. Juliet, TN

SO-1712-CA03(0-1.5)-20210312 L1331156-05 Solid

Collected by
WC/BS

Collected date/time
03/12/21 14:30

Received date/time
03/13/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1636034	1	03/18/21 08:45	03/18/21 08:59	JAV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1641237	1	03/26/21 16:21	03/26/21 18:30	TPR	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1641386	1	03/27/21 03:31	03/27/21 16:36	CAG	Mt. Juliet, TN

SO-1712-CA03(1.5-1.67)-20210312 L1331156-06 Solid

Collected by
WC/BS

Collected date/time
03/12/21 14:35

Received date/time
03/13/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1636034	1	03/18/21 08:45	03/18/21 08:59	JAV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1641237	1	03/26/21 16:21	03/26/21 18:49	TPR	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1641386	1	03/27/21 03:31	03/27/21 16:52	CAG	Mt. Juliet, TN



SAMPLE SUMMARY

SO-1712-CA02(0-2.0)-20210312 L1331156-07 Solid

Collected by
WC/BS

Collected date/time
03/12/21 10:05

Received date/time
03/13/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1636034	1	03/18/21 08:45	03/18/21 08:59	JAV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1641237	1	03/26/21 16:21	03/26/21 19:08	TPR	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1641386	5	03/27/21 03:31	03/27/21 18:42	CAG	Mt. Juliet, TN

¹Cp

²Tc

³Ss

⁴Cn

⁵Tr

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc

SO-1712-CA04(1.5-1.62)-20210312 L1331156-08 Solid

Collected by
WC/BS

Collected date/time
03/12/21 15:05

Received date/time
03/13/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1636034	1	03/18/21 08:45	03/18/21 08:59	JAV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1641237	1	03/26/21 16:21	03/26/21 19:27	TPR	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1641386	1	03/27/21 03:31	03/27/21 17:08	CAG	Mt. Juliet, TN

SO-1712-CA05(0-2)-20210312 L1331156-09 Solid

Collected by
WC/BS

Collected date/time
03/12/21 10:40

Received date/time
03/13/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1636034	1	03/18/21 08:45	03/18/21 08:59	JAV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1641237	1	03/26/21 16:21	03/26/21 19:45	TPR	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1641386	1.02	03/27/21 03:31	03/27/21 17:23	CAG	Mt. Juliet, TN

SO-1712-CA04(0-1.5)-20210312 L1331156-10 Solid

Collected by
WC/BS

Collected date/time
03/12/21 15:00

Received date/time
03/13/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1636034	1	03/18/21 08:45	03/18/21 08:59	JAV	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1641237	1	03/26/21 16:21	03/26/21 20:04	TPR	Mt. Juliet, TN
TPH by TCEQ Method 1005	WG1641386	1	03/27/21 03:31	03/27/21 17:39	CAG	Mt. Juliet, TN

CASE NARRATIVE

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.



Mark W. Beasley
Project Manager

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Tr

⁶ Sr

⁷ Qc

⁸ Gl

⁹ Al

¹⁰ Sc

Laboratory Data Package Cover Page

This data package consists of this signature page, the laboratory review checklist, and the following reportable data as applicable:

- R1 - Field chain-of-custody documentation;
- R2 - Sample identification cross-reference;
- R3 - Test reports (analytical data sheets) for each environmental sample that includes:
 - a. Items consistent with NELAC Chapter 5,
 - b. dilution factors,
 - c. preparation methods,
 - d. cleanup methods, and
 - e. if required for the project, tentatively identified compounds (TICs).
- R4 - Surrogate recovery data including:
 - a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- R5 - Test reports/summary forms for blank samples;
- R6 - Test reports/summary forms for laboratory control samples (LCSs) including:
 - a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences (RPDs), and
 - e. The laboratory's MS/MSD QC limits
- R8 - Laboratory analytical duplicate (if applicable) recovery and precision:
 - a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and
 - c. The laboratory's QC limits for analytical duplicates.
- R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 - Other problems or anomalies.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.



Mark W. Beasley
Project Manager

Laboratory Review Checklist: Reportable Data

Laboratory Name: Pace Analytical National			LRC Date: 03/29/2021 14:33				
Project Name: Houston TX-Houston Subd. MP358.2-360.3 Englewood Yard North			Laboratory Job Number: L1331156-01, 02, 03, 04, 05, 06, 07, 08, 09 and 10				
Reviewer Name: Mark W. Beasley			Prep Batch Number(s): WG1636030, WG1636034, WG1641237, WG1641385 and WG1641386				
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?		X			1
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?	X				
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?	X				
		If required for the project, are TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?		X			2
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?	X				
		Were analytical duplicates analyzed at the appropriate frequency?	X				
		Were RPDs or relative standard deviations within the laboratory QC limits?	X				
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				
1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. 2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable); 3. NA = Not applicable; 4. NR = Not reviewed; 5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).							

Laboratory Review Checklist: Supporting Data

Laboratory Name: Pace Analytical National		LRC Date: 03/29/2021 14:33					
Project Name: Houston TX-Houston Subd. MP358.2-360.3 Englewood Yard North		Laboratory Job Number: L1331156-01, 02, 03, 04, 05, 06, 07, 08, 09 and 10					
Reviewer Name: Mark W. Beasley		Prep Batch Number(s): WG1636030, WG1636034, WG1641237, WG1641385 and WG1641386					
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed	X				
1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. 2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable); 3. NA = Not applicable; 4. NR = Not reviewed; 5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).							

Laboratory Review Checklist: Exception Reports

Laboratory Name: Pace Analytical National		LRC Date: 03/29/2021 14:33	
Project Name: Houston TX-Houston Subd. MP358.2-360.3 Englewood Yard North		Laboratory Job Number: L1331156-01, 02, 03, 04, 05, 06, 07, 08, 09 and 10	
Reviewer Name: Mark W. Beasley		Prep Batch Number(s): WG1636030, WG1636034, WG1641237, WG1641385 and WG1641386	
ER #¹	Description		
1	TCEQ Method 1005 WG1641385 L1331156-01: Prepared and/or analyzed past holding time as defined in the method. Concentrations should be considered minimum values. TCEQ Method 1005 WG1641386 L1331156-02, 03, 04, 05, 06, 07, 08, 09 and 10: Prepared and/or analyzed past holding time as defined in the method. Concentrations should be considered minimum values.		
2	8260B WG1641237 Benzene, Ethylbenzene, Toluene, Xylenes, Total: Relative Percent Difference is outside of established control limits.		
1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. 2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable); 3. NA = Not applicable; 4. NR = Not reviewed; 5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).			

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	76.6		1	03/18/2021 08:41	WG1636030

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	0.000766	<u>J</u>	0.000753	0.00100	0.00161	1	03/26/2021 17:14	WG1641237
Toluene	0.00915		0.00210	0.00500	0.00806	1	03/26/2021 17:14	WG1641237
Ethylbenzene	0.0913		0.00119	0.00250	0.00403	1	03/26/2021 17:14	WG1641237
Total Xylenes	0.881		0.00142	0.00650	0.0105	1	03/26/2021 17:14	WG1641237
(S) Toluene-d8	104				75.0-131		03/26/2021 17:14	WG1641237
(S) 4-Bromofluorobenzene	107				67.0-138		03/26/2021 17:14	WG1641237
(S) 1,2-Dichloroethane-d4	116				70.0-130		03/26/2021 17:14	WG1641237

TPH by TCEQ Method 1005

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH C6 - C12	U	<u>T8</u>	19.6	50.0	65.3	1	03/27/2021 16:52	WG1641385
TPH C12 - C28	50.3	<u>J T8</u>	19.6	50.0	65.3	1	03/27/2021 16:52	WG1641385
TPH C28 - C35	U	<u>T8</u>	19.6	50.0	65.3	1	03/27/2021 16:52	WG1641385
TPH C6 - C35	50.3	<u>J</u>	19.6	50.0	65.3	1	03/27/2021 16:52	WG1641385
(S) o-Terphenyl	92.4				70.0-130		03/27/2021 16:52	WG1641385

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.4		1	03/18/2021 08:59	WG1636034

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	U		0.000667	0.00100	0.00143	1	03/26/2021 17:33	WG1641237
Toluene	0.00279	J	0.00186	0.00500	0.00714	1	03/26/2021 17:33	WG1641237
Ethylbenzene	0.00125	J	0.00105	0.00250	0.00357	1	03/26/2021 17:33	WG1641237
Total Xylenes	0.00837	J	0.00126	0.00650	0.00929	1	03/26/2021 17:33	WG1641237
(S) Toluene-d8	106				75.0-131		03/26/2021 17:33	WG1641237
(S) 4-Bromofluorobenzene	106				67.0-138		03/26/2021 17:33	WG1641237
(S) 1,2-Dichloroethane-d4	100				70.0-130		03/26/2021 17:33	WG1641237

TPH by TCEQ Method 1005

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH C6 - C12	U	T8	19.3	50.0	64.4	1.06	03/27/2021 15:49	WG1641386
TPH C12 - C28	22.8	J T8	19.3	50.0	64.4	1.06	03/27/2021 15:49	WG1641386
TPH C28 - C35	U	T8	19.3	50.0	64.4	1.06	03/27/2021 15:49	WG1641386
TPH C6 - C35	22.8	J	19.3	50.0	64.4	1.06	03/27/2021 15:49	WG1641386
(S) o-Terphenyl	97.0				70.0-130		03/27/2021 15:49	WG1641386

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	77.6		1	03/18/2021 08:59	WG1636034

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	U		0.000738	0.00100	0.00158	1	03/26/2021 17:52	WG1641237
Toluene	0.00360	<u>J</u>	0.00205	0.00500	0.00790	1	03/26/2021 17:52	WG1641237
Ethylbenzene	0.00632		0.00116	0.00250	0.00395	1	03/26/2021 17:52	WG1641237
Total Xylenes	0.0869		0.00139	0.00650	0.0103	1	03/26/2021 17:52	WG1641237
(S) Toluene-d8	109				75.0-131		03/26/2021 17:52	WG1641237
(S) 4-Bromofluorobenzene	108				67.0-138		03/26/2021 17:52	WG1641237
(S) 1,2-Dichloroethane-d4	109				70.0-130		03/26/2021 17:52	WG1641237

TPH by TCEQ Method 1005

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH C6 - C12	24.0	<u>J T8</u>	19.3	50.0	64.5	1	03/27/2021 16:05	WG1641386
TPH C12 - C28	267	<u>T8</u>	19.3	50.0	64.5	1	03/27/2021 16:05	WG1641386
TPH C28 - C35	26.0	<u>J T8</u>	19.3	50.0	64.5	1	03/27/2021 16:05	WG1641386
TPH C6 - C35	317		19.3	50.0	64.5	1	03/27/2021 16:05	WG1641386
(S) o-Terphenyl	98.7				70.0-130		03/27/2021 16:05	WG1641386

¹ Cp² Tc³ Ss⁴ Cn⁵ Tr⁶ Sr⁷ Qc⁸ Gl⁹ Al¹⁰ Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	80.1		1	03/18/2021 08:59	WG1636034

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	U		0.000699	0.00100	0.00150	1	03/26/2021 18:11	WG1641237
Toluene	0.00446	J	0.00195	0.00500	0.00748	1	03/26/2021 18:11	WG1641237
Ethylbenzene	0.00326	J	0.00110	0.00250	0.00374	1	03/26/2021 18:11	WG1641237
Total Xylenes	0.00985		0.00132	0.00650	0.00973	1	03/26/2021 18:11	WG1641237
(S) Toluene-d8	108				75.0-131		03/26/2021 18:11	WG1641237
(S) 4-Bromofluorobenzene	104				67.0-138		03/26/2021 18:11	WG1641237
(S) 1,2-Dichloroethane-d4	106				70.0-130		03/26/2021 18:11	WG1641237

TPH by TCEQ Method 1005

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH C6 - C12	U	T8	18.7	50.0	62.4	1	03/27/2021 16:20	WG1641386
TPH C12 - C28	125	T8	18.7	50.0	62.4	1	03/27/2021 16:20	WG1641386
TPH C28 - C35	25.6	J T8	18.7	50.0	62.4	1	03/27/2021 16:20	WG1641386
TPH C6 - C35	150		18.7	50.0	62.4	1	03/27/2021 16:20	WG1641386
(S) o-Terphenyl	102				70.0-130		03/27/2021 16:20	WG1641386

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.3		1	03/18/2021 08:59	WG1636034

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	U		0.000641	0.00100	0.00137	1	03/26/2021 18:30	WG1641237
Toluene	0.00638	<u>J</u>	0.00178	0.00500	0.00686	1	03/26/2021 18:30	WG1641237
Ethylbenzene	U		0.00101	0.00250	0.00343	1	03/26/2021 18:30	WG1641237
Total Xylenes	0.00124	<u>J</u>	0.00121	0.00650	0.00892	1	03/26/2021 18:30	WG1641237
(S) Toluene-d8	108				75.0-131		03/26/2021 18:30	WG1641237
(S) 4-Bromofluorobenzene	106				67.0-138		03/26/2021 18:30	WG1641237
(S) 1,2-Dichloroethane-d4	95.6				70.0-130		03/26/2021 18:30	WG1641237

TPH by TCEQ Method 1005

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH C6 - C12	U	<u>T8</u>	17.8	50.0	59.3	1	03/27/2021 16:36	WG1641386
TPH C12 - C28	92.5	<u>T8</u>	17.8	50.0	59.3	1	03/27/2021 16:36	WG1641386
TPH C28 - C35	46.5	<u>J T8</u>	17.8	50.0	59.3	1	03/27/2021 16:36	WG1641386
TPH C6 - C35	139		17.8	50.0	59.3	1	03/27/2021 16:36	WG1641386
(S) o-Terphenyl	99.6				70.0-130		03/27/2021 16:36	WG1641386

¹ Cp² Tc³ Ss⁴ Cn⁵ Tr⁶ Sr⁷ Qc⁸ Gl⁹ Al¹⁰ Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	87.8		1	03/18/2021 08:59	WG1636034

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis date / time	Batch
Benzene	0.000767	J	0.000597	0.00100	0.00128	1	03/26/2021 18:49	WG1641237
Toluene	0.0167		0.00166	0.00500	0.00639	1	03/26/2021 18:49	WG1641237
Ethylbenzene	0.0111		0.000942	0.00250	0.00319	1	03/26/2021 18:49	WG1641237
Total Xylenes	0.0281		0.00112	0.00650	0.00831	1	03/26/2021 18:49	WG1641237
(S) Toluene-d8	109				75.0-131		03/26/2021 18:49	WG1641237
(S) 4-Bromofluorobenzene	111				67.0-138		03/26/2021 18:49	WG1641237
(S) 1,2-Dichloroethane-d4	105				70.0-130		03/26/2021 18:49	WG1641237

TPH by TCEQ Method 1005

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis date / time	Batch
TPH C6 - C12	U	T8	17.1	50.0	57.0	1	03/27/2021 16:52	WG1641386
TPH C12 - C28	46.9	J T8	17.1	50.0	57.0	1	03/27/2021 16:52	WG1641386
TPH C28 - C35	42.1	J T8	17.1	50.0	57.0	1	03/27/2021 16:52	WG1641386
TPH C6 - C35	89.1		17.1	50.0	57.0	1	03/27/2021 16:52	WG1641386
(S) o-Terphenyl	97.2				70.0-130		03/27/2021 16:52	WG1641386

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	87.0		1	03/18/2021 08:59	WG1636034

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis date / time	Batch
Benzene	U		0.000607	0.00100	0.00130	1	03/26/2021 19:08	WG1641237
Toluene	0.0277		0.00169	0.00500	0.00650	1	03/26/2021 19:08	WG1641237
Ethylbenzene	0.0333		0.000958	0.00250	0.00325	1	03/26/2021 19:08	WG1641237
Total Xylenes	0.152		0.00114	0.00650	0.00845	1	03/26/2021 19:08	WG1641237
(S) Toluene-d8	107				75.0-131		03/26/2021 19:08	WG1641237
(S) 4-Bromofluorobenzene	105				67.0-138		03/26/2021 19:08	WG1641237
(S) 1,2-Dichloroethane-d4	105				70.0-130		03/26/2021 19:08	WG1641237

TPH by TCEQ Method 1005

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis date / time	Batch
TPH C6 - C12	122	J T8	86.3	50.0	288	5	03/27/2021 18:42	WG1641386
TPH C12 - C28	1770	T8	86.3	50.0	288	5	03/27/2021 18:42	WG1641386
TPH C28 - C35	629	T8	86.3	50.0	288	5	03/27/2021 18:42	WG1641386
TPH C6 - C35	2520		86.3	50.0	288	5	03/27/2021 18:42	WG1641386
(S) o-Terphenyl	86.3				70.0-130		03/27/2021 18:42	WG1641386

Sample Narrative:

L1331156-07 WG1641386: Dilution due to matrix.

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	90.0		1	03/18/2021 08:59	WG1636034

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis date / time	Batch
Benzene	U		0.000571	0.00100	0.00122	1	03/26/2021 19:27	WG1641237
Toluene	0.0157		0.00159	0.00500	0.00612	1	03/26/2021 19:27	WG1641237
Ethylbenzene	0.00591		0.000902	0.00250	0.00306	1	03/26/2021 19:27	WG1641237
Total Xylenes	0.0333		0.00108	0.00650	0.00795	1	03/26/2021 19:27	WG1641237
(S) Toluene-d8	108				75.0-131		03/26/2021 19:27	WG1641237
(S) 4-Bromofluorobenzene	107				67.0-138		03/26/2021 19:27	WG1641237
(S) 1,2-Dichloroethane-d4	106				70.0-130		03/26/2021 19:27	WG1641237

TPH by TCEQ Method 1005

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis date / time	Batch
TPH C6 - C12	U	T8	16.7	50.0	55.6	1	03/27/2021 17:08	WG1641386
TPH C12 - C28	50.6	J T8	16.7	50.0	55.6	1	03/27/2021 17:08	WG1641386
TPH C28 - C35	49.7	J T8	16.7	50.0	55.6	1	03/27/2021 17:08	WG1641386
TPH C6 - C35	100		16.7	50.0	55.6	1	03/27/2021 17:08	WG1641386
(S) o-Terphenyl	101				70.0-130		03/27/2021 17:08	WG1641386

¹ Cp² Tc³ Ss⁴ Cn⁵ Tr⁶ Sr⁷ Qc⁸ Gl⁹ Al¹⁰ Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	85.6		1	03/18/2021 08:59	WG1636034

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis date / time	Batch
Benzene	U		0.000624	0.00100	0.00134	1	03/26/2021 19:45	WG1641237
Toluene	0.00338	J	0.00174	0.00500	0.00668	1	03/26/2021 19:45	WG1641237
Ethylbenzene	0.00187	J	0.000985	0.00250	0.00334	1	03/26/2021 19:45	WG1641237
Total Xylenes	0.0125		0.00118	0.00650	0.00869	1	03/26/2021 19:45	WG1641237
(S) Toluene-d8	108				75.0-131		03/26/2021 19:45	WG1641237
(S) 4-Bromofluorobenzene	108				67.0-138		03/26/2021 19:45	WG1641237
(S) 1,2-Dichloroethane-d4	109				70.0-130		03/26/2021 19:45	WG1641237

TPH by TCEQ Method 1005

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis date / time	Batch
TPH C6 - C12	U	T8	17.9	50.0	59.6	1.02	03/27/2021 17:23	WG1641386
TPH C12 - C28	U	T8	17.9	50.0	59.6	1.02	03/27/2021 17:23	WG1641386
TPH C28 - C35	U	T8	17.9	50.0	59.6	1.02	03/27/2021 17:23	WG1641386
TPH C6 - C35	U		17.9	50.0	59.6	1.02	03/27/2021 17:23	WG1641386
(S) o-Terphenyl	99.2				70.0-130		03/27/2021 17:23	WG1641386

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	82.1		1	03/18/2021 08:59	WG1636034

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis date / time	Batch
Benzene	U		0.000671	0.00100	0.00144	1	03/26/2021 20:04	WG1641237
Toluene	U		0.00187	0.00500	0.00718	1	03/26/2021 20:04	WG1641237
Ethylbenzene	U		0.00106	0.00250	0.00359	1	03/26/2021 20:04	WG1641237
Total Xylenes	U		0.00126	0.00650	0.00933	1	03/26/2021 20:04	WG1641237
(S) Toluene-d8	106				75.0-131		03/26/2021 20:04	WG1641237
(S) 4-Bromofluorobenzene	106				67.0-138		03/26/2021 20:04	WG1641237
(S) 1,2-Dichloroethane-d4	93.8				70.0-130		03/26/2021 20:04	WG1641237

TPH by TCEQ Method 1005

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis date / time	Batch
TPH C6 - C12	U	T8	18.3	50.0	60.9	1	03/27/2021 17:39	WG1641386
TPH C12 - C28	U	T8	18.3	50.0	60.9	1	03/27/2021 17:39	WG1641386
TPH C28 - C35	U	T8	18.3	50.0	60.9	1	03/27/2021 17:39	WG1641386
TPH C6 - C35	U		18.3	50.0	60.9	1	03/27/2021 17:39	WG1641386
(S) o-Terphenyl	111				70.0-130		03/27/2021 17:39	WG1641386

¹ Cp² Tc³ Ss⁴ Cn⁵ Tr⁶ Sr⁷ Qc⁸ Gl⁹ Al¹⁰ Sc

Method Blank (MB)

(MB) R3632615-1 03/18/21 08:41

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	%		%	%
Total Solids	0.000			

L1326825-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1326825-09 03/18/21 08:41 • (DUP) R3632615-3 03/18/21 08:41

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	%	%		%		%
Total Solids	79.3	78.2	1	1.43		10

Laboratory Control Sample (LCS)

(LCS) R3632615-2 03/18/21 08:41

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	%	%	%	%	
Total Solids	50.0	50.0	100	85.0-115	

¹Cp

²Tc

³Ss

⁴Cn

⁵Tr

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc

Method Blank (MB)

(MB) R3632616-1 03/18/21 08:59

	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
Analyte	%		%	%
Total Solids	0.000			

L1326831-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1326831-09 03/18/21 08:59 • (DUP) R3632616-3 03/18/21 08:59

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	%	%		%		%
Total Solids	84.3	83.3	1	1.25		10

Laboratory Control Sample (LCS)

(LCS) R3632616-2 03/18/21 08:59

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
Analyte	%	%	%	%	
Total Solids	50.0	50.0	99.9	85.0-115	

¹Cp

²Tc

³Ss

⁴Cn

⁵Tr

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc

Method Blank (MB)

(MB) R3635391-3 03/26/21 14:20

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Ethylbenzene	U		0.000737	0.00250
Toluene	U		0.00130	0.00500
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	106			75.0-131
(S) 4-Bromofluorobenzene	104			67.0-138
(S) 1,2-Dichloroethane-d4	109			70.0-130

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

(LCS) R3635391-1 03/26/21 13:04 • (LCSD) R3635391-2 03/26/21 13:23

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.125	0.123	0.110	98.4	88.0	70.0-123			11.2	20
Ethylbenzene	0.125	0.122	0.116	97.6	92.8	74.0-126			5.04	20
Toluene	0.125	0.126	0.119	101	95.2	75.0-121			5.71	20
Xylenes, Total	0.375	0.369	0.365	98.4	97.3	72.0-127			1.09	20
(S) Toluene-d8				106	107	75.0-131				
(S) 4-Bromofluorobenzene				110	109	67.0-138				
(S) 1,2-Dichloroethane-d4				119	112	70.0-130				

L1329489-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1329489-01 03/26/21 22:41 • (MS) R3635391-4 03/27/21 00:34 • (MSD) R3635391-5 03/27/21 00:52

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.109	U	0.0767	0.0525	70.4	48.2	1	10.0-149		J3	37.5	37
Ethylbenzene	0.109	U	0.0873	0.0497	80.1	45.6	1	10.0-160		J3	54.9	38
Toluene	0.109	U	0.0884	0.0535	81.1	49.1	1	10.0-156		J3	49.2	38
Xylenes, Total	0.327	U	0.258	0.168	78.9	51.4	1	10.0-160		J3	42.3	38
(S) Toluene-d8					108	105		75.0-131				
(S) 4-Bromofluorobenzene					105	104		67.0-138				
(S) 1,2-Dichloroethane-d4					94.3	107		70.0-130				

1Cp

2Tc

3Ss

4Cn

5Tr

6Sr

7Qc

8Gl

9Al

10Sc

Method Blank (MB)

(MB) R3635570-1 03/27/21 12:50

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH C6 - C12	U		15.0	50.0
TPH C12 - C28	U		15.0	50.0
TPH C28 - C35	U		15.0	50.0
TPH C6 - C35	U		15.0	50.0
(S) o-Terphenyl	84.0			70.0-130

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

(LCS) R3635570-2 03/27/21 13:05 • (LCSD) R3635570-3 03/27/21 13:21

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH C6 - C12	250	259	264	104	106	75.0-125			1.91	20
TPH C12 - C28	250	257	260	103	104	75.0-125			1.16	20
TPH C6 - C35	500	516	524	103	105	75.0-125			1.54	20
(S) o-Terphenyl				90.4	93.2	70.0-130				

L1331156-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1331156-01 03/27/21 16:52 • (MS) R3635570-4 03/27/21 17:08 • (MSD) R3635570-5 03/27/21 17:23

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 Limits %
TPH C6 - C12	277	U	316	310	114	112	1	75.0-125			2.09	20
TPH C12 - C28	277	50.3	388	374	122	117	1	75.0-125			3.77	20
TPH C6 - C35	554	50.3	704	683	118	115	1	75.0-125			3.01	20
(S) o-Terphenyl					96.2	91.5		70.0-130				

1Cp

2Tc

3Ss

4Cn

5Tr

6Sr

7Qc

8Gl

9Al

10Sc

Method Blank (MB)

(MB) R3635574-1 03/27/21 12:50

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH C6 - C12	U		15.0	50.0
TPH C12 - C28	U		15.0	50.0
TPH C28 - C35	U		15.0	50.0
TPH C6 - C35	U		15.0	50.0
(S) o-Terphenyl	100			70.0-130

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

(LCS) R3635574-2 03/27/21 13:05 • (LCSD) R3635574-3 03/27/21 13:21

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH C6 - C12	250	300	288	120	115	75.0-125			4.08	20
TPH C12 - C28	250	304	290	122	116	75.0-125			4.71	20
TPH C6 - C35	500	604	578	121	116	75.0-125			4.40	20
(S) o-Terphenyl				107	104	70.0-130				

L1331156-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1331156-10 03/27/21 17:39 • (MS) R3635574-4 03/27/21 17:55 • (MSD) R3635574-5 03/27/21 18:10

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 Limits %
TPH C6 - C12	265	U	298	297	112	108	1	75.0-125			0.409	20
TPH C12 - C28	265	U	303	301	114	110	1	75.0-125			0.806	20
TPH C6 - C35	532	U	602	598	113	109	1	75.0-125			0.609	20
(S) o-Terphenyl					109	106		70.0-130				

1Cp

2Tc

3Ss

4Cn

5Tr

6Sr

7Qc

8Gl

9Al

10Sc

GLOSSARY OF TERMS

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.
MQL (dry)	Method Quantitation Limit.
MQL	Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
SDL	Sample Detection Limit.
SDL (dry)	Sample Detection Limit.
(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 Sample Detection Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.
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

J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
T8	Sample(s) received past/too close to holding time expiration.



ACCREDITATIONS & LOCATIONS

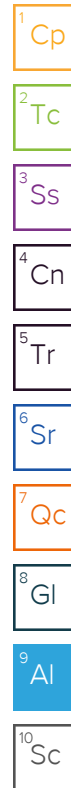
Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey--NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio--VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA -- ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA -- ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA--Crypto	TN00003		

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

* 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 Analytical.



L1326831 *UPRRGOLD* rush relog

R1/R2

Relog L1326831-01 thru -20 (odd #'s only) for V826oBTEX, TPHTX. Transfer TS. Log as R2 due 3/29.
Samples go OOH tonight

Thanks

Mark Beasley
Supervisor - Client Operations / National
12065 Lebanon Road | Mt. Juliet, TN 37122
Office: 615.773.9672 | Cell: 615.330.1602
mark.beasley@pacelabs.com <mailto:mark.beasley@pacelabs.com>

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P Please consider the environment before printing this email

Time estimate:	0h	Time spent:	0h
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Members

MB Mark Beasley (responsible)

UPRR - Golder Associates

Sample Delivery Group: L1326831
Samples Received: 03/13/2021
Project Number: 1712
Description: Houston TX-Houston Subd. MP358.2-360.3
Englewood Yard North
Site: SOIL EVALUATION
Report To: Patrick Marty
2201 Double Creek Dr., Ste 4004
Round Rock, TX 78664

Entire Report Reviewed By:



Mark W. Beasley
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.

Pace Analytical National12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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

SAMPLE SUMMARY

SO-1712-CA06(0-5)-20210312 L1326831-01 Solid

Collected by
WC/BS

Collected date/time
03/12/21 10:50

Received date/time
03/13/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1636030	1	03/18/21 08:25	03/18/21 08:41	KDW	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1637495	1	03/21/21 10:32	03/22/21 19:55	SHG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1637495	10	03/21/21 10:32	03/23/21 16:10	TMM	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1637495	100	03/21/21 10:32	03/23/21 21:47	TMM	Mt. Juliet, TN

SO-1712-CA06(0-5)-20210312 L1326831-02 Waste

Collected by
WC/BS

Collected date/time
03/12/21 10:50

Received date/time
03/13/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1635849	1	03/17/21 08:28	03/17/21 08:28	APH	Mt. Juliet, TN
Mercury by Method 7470A	WG1636673	1	03/18/21 10:26	03/18/21 17:21	BMF	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1636709	1	03/18/21 11:12	03/18/21 17:03	KMG	Mt. Juliet, TN

SO-1712-CA01(0-5)-20210312 L1326831-03 Solid

Collected by
WC/BS

Collected date/time
03/12/21 12:30

Received date/time
03/13/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1636034	1	03/18/21 08:45	03/18/21 08:59	KDW	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1637495	1	03/21/21 10:32	03/22/21 15:06	SHG	Mt. Juliet, TN

SO-1712-CA01(0-5)-20210312 L1326831-04 Waste

Collected by
WC/BS

Collected date/time
03/12/21 12:30

Received date/time
03/13/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1635849	1	03/17/21 08:28	03/17/21 08:28	APH	Mt. Juliet, TN
Mercury by Method 7470A	WG1636673	1	03/18/21 10:26	03/18/21 17:22	BMF	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1636709	1	03/18/21 11:12	03/18/21 17:12	KMG	Mt. Juliet, TN

SO-1712-CA06(5-8)-20210312 L1326831-05 Solid

Collected by
WC/BS

Collected date/time
03/12/21 10:55

Received date/time
03/13/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1636034	1	03/18/21 08:45	03/18/21 08:59	KDW	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1637495	1	03/21/21 10:32	03/22/21 19:35	SHG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1637495	10	03/21/21 10:32	03/23/21 15:49	TMM	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1637495	100	03/21/21 10:32	03/23/21 21:25	TMM	Mt. Juliet, TN

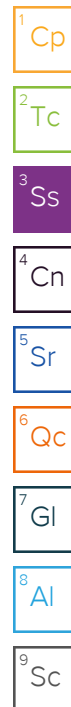
SO-1712-CA06(5-8)-20210312 L1326831-06 Waste

Collected by
WC/BS

Collected date/time
03/12/21 10:55

Received date/time
03/13/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1635849	1	03/17/21 08:28	03/17/21 08:28	APH	Mt. Juliet, TN
Mercury by Method 7470A	WG1636673	1	03/18/21 10:26	03/18/21 17:37	BMF	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1636709	1	03/18/21 11:12	03/18/21 17:15	KMG	Mt. Juliet, TN



SAMPLE SUMMARY

SO-1712-CA01(5-8)-20210312 L1326831-07 Solid

Collected by
WC/BS

Collected date/time
03/12/21 12:35

Received date/time
03/13/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1636034	1	03/18/21 08:45	03/18/21 08:59	KDW	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1637495	1	03/21/21 10:32	03/22/21 16:29	SHG	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1637495	10	03/21/21 10:32	03/23/21 15:27	TMM	Mt. Juliet, TN

SO-1712-CA01(5-8)-20210312 L1326831-08 Waste

Collected by
WC/BS

Collected date/time
03/12/21 12:35

Received date/time
03/13/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1635849	1	03/17/21 08:28	03/17/21 08:28	APH	Mt. Juliet, TN
Mercury by Method 7470A	WG1636673	1	03/18/21 10:26	03/18/21 17:39	BMF	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1636709	1	03/18/21 11:12	03/18/21 17:18	KMG	Mt. Juliet, TN

SO-1712-CA03(0-1.5)-20210312 L1326831-09 Solid

Collected by
WC/BS

Collected date/time
03/12/21 14:30

Received date/time
03/13/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1636034	1	03/18/21 08:45	03/18/21 08:59	KDW	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1637495	1	03/21/21 10:32	03/22/21 13:24	SHG	Mt. Juliet, TN

SO-1712-CA03(0-1.5)-20210312 L1326831-10 Waste

Collected by
WC/BS

Collected date/time
03/12/21 14:30

Received date/time
03/13/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1635849	1	03/17/21 08:28	03/17/21 08:28	APH	Mt. Juliet, TN
Mercury by Method 7470A	WG1636681	1	03/18/21 10:28	03/19/21 08:23	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1637059	1	03/18/21 19:35	03/18/21 23:35	CCE	Mt. Juliet, TN

SO-1712-CA03(1.5-1.67)-20210312 L1326831-11 Solid

Collected by
WC/BS

Collected date/time
03/12/21 14:35

Received date/time
03/13/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1636034	1	03/18/21 08:45	03/18/21 08:59	KDW	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1637495	1	03/21/21 10:32	03/22/21 20:16	SHG	Mt. Juliet, TN

SO-1712-CA03(1.5-1.67)-20210312 L1326831-12 Waste

Collected by
WC/BS

Collected date/time
03/12/21 14:35

Received date/time
03/13/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1635849	1	03/17/21 08:28	03/17/21 08:28	APH	Mt. Juliet, TN
Mercury by Method 7470A	WG1636681	1	03/18/21 10:29	03/19/21 08:29	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1637059	1	03/18/21 19:36	03/18/21 23:46	CCE	Mt. Juliet, TN

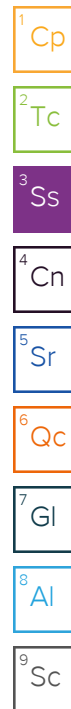
SO-1712-CA02(0-2.0)-20210312 L1326831-13 Solid

Collected by
WC/BS

Collected date/time
03/12/21 10:05

Received date/time
03/13/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1636034	1	03/18/21 08:45	03/18/21 08:59	KDW	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1637495	2	03/21/21 10:32	03/22/21 20:57	SHG	Mt. Juliet, TN



SAMPLE SUMMARY

SO-1712-CA02(0-2.0)-20210312 L1326831-14 Waste

Collected by
WC/BS

Collected date/time
03/12/21 10:05

Received date/time
03/13/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1635849	1	03/17/21 08:28	03/17/21 08:28	APH	Mt. Juliet, TN
Mercury by Method 7470A	WG1636673	1	03/18/21 10:26	03/18/21 17:41	BMF	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1636709	1	03/18/21 11:12	03/18/21 17:21	KMG	Mt. Juliet, TN

SO-1712-CA04(1.5-1.62)-20210312 L1326831-15 Solid

Collected by
WC/BS

Collected date/time
03/12/21 15:05

Received date/time
03/13/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1636034	1	03/18/21 08:45	03/18/21 08:59	KDW	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1637495	1	03/21/21 10:32	03/22/21 20:37	SHG	Mt. Juliet, TN

SO-1712-CA04(1.5-1.62)-20210312 L1326831-16 Waste

Collected by
WC/BS

Collected date/time
03/12/21 15:05

Received date/time
03/13/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1635849	1	03/17/21 08:28	03/17/21 08:28	APH	Mt. Juliet, TN
Mercury by Method 7470A	WG1636681	1	03/18/21 10:29	03/19/21 08:35	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1637059	1	03/18/21 19:36	03/18/21 23:48	CCE	Mt. Juliet, TN

SO-1712-CA05(0-2)-20210312 L1326831-17 Solid

Collected by
WC/BS

Collected date/time
03/12/21 10:40

Received date/time
03/13/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1636034	1	03/18/21 08:45	03/18/21 08:59	KDW	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1637495	1	03/21/21 10:32	03/22/21 14:06	SHG	Mt. Juliet, TN

SO-1712-CA05(0-2)-20210312 L1326831-18 Waste

Collected by
WC/BS

Collected date/time
03/12/21 10:40

Received date/time
03/13/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1635849	1	03/17/21 08:28	03/17/21 08:28	APH	Mt. Juliet, TN
Mercury by Method 7470A	WG1636681	1	03/18/21 10:29	03/19/21 08:37	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1637059	1	03/18/21 19:36	03/18/21 23:51	CCE	Mt. Juliet, TN

SO-1712-CA04(0-1.5)-20210312 L1326831-19 Solid

Collected by
WC/BS

Collected date/time
03/12/21 15:00

Received date/time
03/13/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1636034	1	03/18/21 08:45	03/18/21 08:59	KDW	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C	WG1637495	1	03/21/21 10:32	03/22/21 13:45	SHG	Mt. Juliet, TN

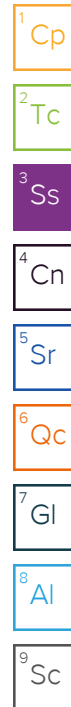
SO-1712-CA04(0-1.5)-20210312 L1326831-20 Waste

Collected by
WC/BS

Collected date/time
03/12/21 15:00

Received date/time
03/13/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1635849	1	03/17/21 08:28	03/17/21 08:28	APH	Mt. Juliet, TN
Mercury by Method 7470A	WG1636673	1	03/18/21 10:26	03/18/21 17:43	BMF	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1636709	1	03/18/21 11:12	03/18/21 17:24	KMG	Mt. Juliet, TN

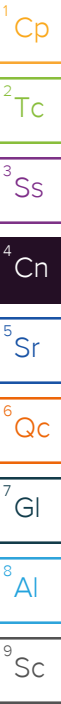


CASE NARRATIVE

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.



Mark W. Beasley
Project Manager



Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	76.6		1	03/18/2021 08:41	WG1636030

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acenaphthene	11.0		0.0704	0.435	10	03/23/2021 16:10	WG1637495
Acenaphthylene	0.281	J	0.0613	0.435	10	03/23/2021 16:10	WG1637495
Anthracene	6.95		0.0775	0.435	10	03/23/2021 16:10	WG1637495
Benzo(a)anthracene	4.10		0.0767	0.435	10	03/23/2021 16:10	WG1637495
Benzo(b)fluoranthene	2.02		0.00811	0.0435	1	03/22/2021 19:55	WG1637495
Benzo(k)fluoranthene	0.665		0.00773	0.0435	1	03/22/2021 19:55	WG1637495
Benzo(g,h,i)perylene	0.0892		0.00796	0.0435	1	03/22/2021 19:55	WG1637495
Benzo(a)pyrene	0.971		0.00809	0.0435	1	03/22/2021 19:55	WG1637495
Benzoic acid	U		0.154	2.18	1	03/22/2021 19:55	WG1637495
Benzyl alcohol	U		0.0161	0.435	1	03/22/2021 19:55	WG1637495
Bis(2-chlorethoxy)methane	U		0.0131	0.435	1	03/22/2021 19:55	WG1637495
Bis(2-chloroethyl)ether	U		0.0144	0.435	1	03/22/2021 19:55	WG1637495
2,2-Oxybis(1-Chloropropane)	U		0.0188	0.435	1	03/22/2021 19:55	WG1637495
4-Bromophenyl-phenylether	U		0.153	4.35	10	03/23/2021 16:10	WG1637495
Carbazole	U		0.135	4.35	10	03/23/2021 16:10	WG1637495
2-Chloronaphthalene	U		0.0764	0.435	10	03/23/2021 16:10	WG1637495
4-Chloroaniline	U		0.0157	0.435	1	03/22/2021 19:55	WG1637495
4-Chlorophenyl-phenylether	U		0.152	4.35	10	03/23/2021 16:10	WG1637495
Chrysene	3.50		0.0865	0.435	10	03/23/2021 16:10	WG1637495
Dibenz(a,h)anthracene	0.0400	J	0.0121	0.0435	1	03/22/2021 19:55	WG1637495
Dibenzofuran	8.54		0.142	4.35	10	03/23/2021 16:10	WG1637495
3,3-Dichlorobenzidine	U		0.0161	0.435	1	03/22/2021 19:55	WG1637495
2,4-Dinitrotoluene	U		0.125	4.35	10	03/23/2021 16:10	WG1637495
2,6-Dinitrotoluene	U		0.142	4.35	10	03/23/2021 16:10	WG1637495
Fluoranthene	25.5		0.785	4.35	100	03/23/2021 21:47	WG1637495
Fluorene	12.5		0.0708	0.435	10	03/23/2021 16:10	WG1637495
Hexachlorobenzene	U		0.154	4.35	10	03/23/2021 16:10	WG1637495
Hexachloro-1,3-butadiene	U		0.0146	0.435	1	03/22/2021 19:55	WG1637495
Hexachlorocyclopentadiene	U		0.229	4.35	10	03/23/2021 16:10	WG1637495
Hexachloroethane	U		0.0171	0.435	1	03/22/2021 19:55	WG1637495
Indeno(1,2,3-cd)pyrene	0.131		0.0123	0.0435	1	03/22/2021 19:55	WG1637495
Isophorone	U		0.0133	0.435	1	03/22/2021 19:55	WG1637495
2-Methylnaphthalene	8.23		0.0564	0.435	10	03/23/2021 16:10	WG1637495
Naphthalene	7.93		0.109	0.435	10	03/23/2021 16:10	WG1637495
2-Nitroaniline	U		0.140	4.35	10	03/23/2021 16:10	WG1637495
3-Nitroaniline	U		0.138	4.35	10	03/23/2021 16:10	WG1637495
4-Nitroaniline	U		0.127	4.35	10	03/23/2021 16:10	WG1637495
Nitrobenzene	U		0.0152	0.435	1	03/22/2021 19:55	WG1637495
n-Nitrosodimethylamine	U		0.0645	0.435	1	03/22/2021 19:55	WG1637495
n-Nitrosodiphenylamine	U		0.329	4.35	10	03/23/2021 16:10	WG1637495
n-Nitrosodi-n-propylamine	U		0.0145	0.435	1	03/22/2021 19:55	WG1637495
Phenanthrene	48.6		0.863	4.35	100	03/23/2021 21:47	WG1637495
Benzylbutyl phthalate	U		0.0136	0.435	1	03/22/2021 19:55	WG1637495
Bis(2-ethylhexyl)phthalate	U		0.0551	0.435	1	03/22/2021 19:55	WG1637495
Di-n-butyl phthalate	U		0.149	4.35	10	03/23/2021 16:10	WG1637495
Diethyl phthalate	U		0.144	4.35	10	03/23/2021 16:10	WG1637495
Dimethyl phthalate	U		0.922	4.35	10	03/23/2021 16:10	WG1637495
Di-n-octyl phthalate	U		0.0294	0.435	1	03/22/2021 19:55	WG1637495
Pyrene	15.9		0.0846	0.435	10	03/23/2021 16:10	WG1637495
Pyridine	U		0.0287	0.435	1	03/22/2021 19:55	WG1637495

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

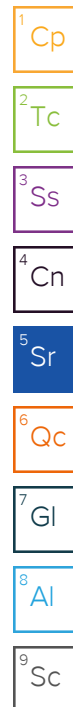
Semi Volatile Organic Compounds (GC/MS) by Method 8270C

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,2,4-Trichlorobenzene	U		0.0136	0.435	1	03/22/2021 19:55	WG1637495
4-Chloro-3-methylphenol	U		0.0141	0.435	1	03/22/2021 19:55	WG1637495
2-Chlorophenol	U		0.0144	0.435	1	03/22/2021 19:55	WG1637495
2,4-Dichlorophenol	U		0.0127	0.435	1	03/22/2021 19:55	WG1637495
2,4-Dimethylphenol	U		0.0114	0.435	1	03/22/2021 19:55	WG1637495
4,6-Dinitro-2-methylphenol	U		0.986	4.35	10	03/23/2021 16:10	WG1637495
2,4-Dinitrophenol	U		1.02	4.35	10	03/23/2021 16:10	WG1637495
2-Methylphenol	U		0.0131	0.435	1	03/22/2021 19:55	WG1637495
3&4-Methyl Phenol	U		0.0136	0.435	1	03/22/2021 19:55	WG1637495
2-Nitrophenol	U		0.0155	0.435	1	03/22/2021 19:55	WG1637495
4-Nitrophenol	U		0.136	4.35	10	03/23/2021 16:10	WG1637495
Pentachlorophenol	U		0.117	4.35	10	03/23/2021 16:10	WG1637495
Phenol	U		0.0175	0.435	1	03/22/2021 19:55	WG1637495
2,4,5-Trichlorophenol	U		0.148	4.35	10	03/23/2021 16:10	WG1637495
2,4,6-Trichlorophenol	U		0.140	4.35	10	03/23/2021 16:10	WG1637495
(S) 2-Fluorophenol	0.000	J7		12.0-120		03/23/2021 21:47	WG1637495
(S) 2-Fluorophenol	59.1			12.0-120		03/23/2021 16:10	WG1637495
(S) 2-Fluorophenol	44.8			12.0-120		03/22/2021 19:55	WG1637495
(S) Phenol-d5	41.5			10.0-120		03/22/2021 19:55	WG1637495
(S) Phenol-d5	0.000	J7		10.0-120		03/23/2021 21:47	WG1637495
(S) Phenol-d5	51.1			10.0-120		03/23/2021 16:10	WG1637495
(S) Nitrobenzene-d5	0.000	J7		10.0-122		03/23/2021 21:47	WG1637495
(S) Nitrobenzene-d5	34.8			10.0-122		03/22/2021 19:55	WG1637495
(S) Nitrobenzene-d5	45.7			10.0-122		03/23/2021 16:10	WG1637495
(S) 2-Fluorobiphenyl	30.8			15.0-120		03/22/2021 19:55	WG1637495
(S) 2-Fluorobiphenyl	0.000	J7		15.0-120		03/23/2021 21:47	WG1637495
(S) 2-Fluorobiphenyl	59.8			15.0-120		03/23/2021 16:10	WG1637495
(S) 2,4,6-Tribromophenol	64.5			10.0-127		03/23/2021 16:10	WG1637495
(S) 2,4,6-Tribromophenol	0.000	J7		10.0-127		03/23/2021 21:47	WG1637495
(S) 2,4,6-Tribromophenol	0.000	J2		10.0-127		03/22/2021 19:55	WG1637495
(S) p-Terphenyl-d14	84.8			10.0-120		03/23/2021 16:10	WG1637495
(S) p-Terphenyl-d14	0.000	J7		10.0-120		03/23/2021 21:47	WG1637495
(S) p-Terphenyl-d14	67.1			10.0-120		03/22/2021 19:55	WG1637495

Sample Narrative:

L1326831-01 WG1637495: IS/SURR failed on lower dilution.

L1326831-01 WG1637495: Surrogate failure due to matrix interference



Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		3/17/2021 8:28:31 AM	WG1635849
Fluid	1		3/17/2021 8:28:31 AM	WG1635849
Initial pH	7.49		3/17/2021 8:28:31 AM	WG1635849
Final pH	5.07		3/17/2021 8:28:31 AM	WG1635849

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Mercury	ND		0.0100	0.20	1	03/18/2021 17:21	WG1636673

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Arsenic	ND		0.100	5	1	03/18/2021 17:03	WG1636709
Barium	1.18		0.100	100	1	03/18/2021 17:03	WG1636709
Cadmium	ND		0.100	1	1	03/18/2021 17:03	WG1636709
Chromium	ND		0.100	5	1	03/18/2021 17:03	WG1636709
Lead	ND		0.100	5	1	03/18/2021 17:03	WG1636709
Selenium	ND		0.100	1	1	03/18/2021 17:03	WG1636709
Silver	ND		0.100	5	1	03/18/2021 17:03	WG1636709

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.4		1	03/18/2021 08:59	WG1636034

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acenaphthene	0.0254	J	0.00654	0.0404	1	03/22/2021 15:06	WG1637495
Acenaphthylene	0.0138	J	0.00569	0.0404	1	03/22/2021 15:06	WG1637495
Anthracene	0.0373	J	0.00720	0.0404	1	03/22/2021 15:06	WG1637495
Benzo(a)anthracene	0.0862		0.00713	0.0404	1	03/22/2021 15:06	WG1637495
Benzo(b)fluoranthene	0.142		0.00754	0.0404	1	03/22/2021 15:06	WG1637495
Benzo(k)fluoranthene	0.0437		0.00719	0.0404	1	03/22/2021 15:06	WG1637495
Benzo(g,h,i)perylene	0.0444		0.00739	0.0404	1	03/22/2021 15:06	WG1637495
Benzo(a)pyrene	0.0670		0.00752	0.0404	1	03/22/2021 15:06	WG1637495
Benzoic acid	U		0.143	2.03	1	03/22/2021 15:06	WG1637495
Benzyl alcohol	U		0.0149	0.404	1	03/22/2021 15:06	WG1637495
Bis(2-chloroethoxy)methane	U		0.0121	0.404	1	03/22/2021 15:06	WG1637495
Bis(2-chloroethyl)ether	U		0.0134	0.404	1	03/22/2021 15:06	WG1637495
2,2-Oxybis(1-Chloropropane)	U		0.0175	0.404	1	03/22/2021 15:06	WG1637495
4-Bromophenyl-phenylether	U		0.0142	0.404	1	03/22/2021 15:06	WG1637495
Carbazole	0.0155	J	0.0125	0.404	1	03/22/2021 15:06	WG1637495
2-Chloronaphthalene	U		0.00710	0.0404	1	03/22/2021 15:06	WG1637495
4-Chloroaniline	U		0.0146	0.404	1	03/22/2021 15:06	WG1637495
4-Chlorophenyl-phenylether	U		0.0141	0.404	1	03/22/2021 15:06	WG1637495
Chrysene	0.113		0.00804	0.0404	1	03/22/2021 15:06	WG1637495
Dibenz(a,h)anthracene	U		0.0112	0.0404	1	03/22/2021 15:06	WG1637495
Dibenzofuran	U		0.0132	0.404	1	03/22/2021 15:06	WG1637495
3,3-Dichlorobenzidine	U		0.0149	0.404	1	03/22/2021 15:06	WG1637495
2,4-Dinitrotoluene	U		0.0116	0.404	1	03/22/2021 15:06	WG1637495
2,6-Dinitrotoluene	U		0.0132	0.404	1	03/22/2021 15:06	WG1637495
Fluoranthene	0.254		0.00730	0.0404	1	03/22/2021 15:06	WG1637495
Fluorene	0.0194	J	0.00658	0.0404	1	03/22/2021 15:06	WG1637495
Hexachlorobenzene	U		0.0143	0.404	1	03/22/2021 15:06	WG1637495
Hexachloro-1,3-butadiene	U		0.0136	0.404	1	03/22/2021 15:06	WG1637495
Hexachlorocyclopentadiene	U		0.0212	0.404	1	03/22/2021 15:06	WG1637495
Hexachloroethane	U		0.0159	0.404	1	03/22/2021 15:06	WG1637495
Indeno(1,2,3-cd)pyrene	0.0464		0.0114	0.0404	1	03/22/2021 15:06	WG1637495
Isophorone	U		0.0124	0.404	1	03/22/2021 15:06	WG1637495
2-Methylnaphthalene	0.00647	J	0.00525	0.0404	1	03/22/2021 15:06	WG1637495
Naphthalene	0.0166	J	0.0102	0.0404	1	03/22/2021 15:06	WG1637495
2-Nitroaniline	U		0.0130	0.404	1	03/22/2021 15:06	WG1637495
3-Nitroaniline	U		0.0129	0.404	1	03/22/2021 15:06	WG1637495
4-Nitroaniline	U		0.0118	0.404	1	03/22/2021 15:06	WG1637495
Nitrobenzene	U		0.0141	0.404	1	03/22/2021 15:06	WG1637495
n-Nitrosodimethylamine	U		0.0600	0.404	1	03/22/2021 15:06	WG1637495
n-Nitrosodiphenylamine	U		0.0306	0.404	1	03/22/2021 15:06	WG1637495
n-Nitrosodi-n-propylamine	U		0.0135	0.404	1	03/22/2021 15:06	WG1637495
Phenanthrene	0.121		0.00803	0.0404	1	03/22/2021 15:06	WG1637495
Benzylbutyl phthalate	U		0.0126	0.404	1	03/22/2021 15:06	WG1637495
Bis(2-ethylhexyl)phthalate	U		0.0512	0.404	1	03/22/2021 15:06	WG1637495
Di-n-butyl phthalate	U		0.0138	0.404	1	03/22/2021 15:06	WG1637495
Diethyl phthalate	U		0.0134	0.404	1	03/22/2021 15:06	WG1637495
Dimethyl phthalate	U		0.0857	0.404	1	03/22/2021 15:06	WG1637495
Di-n-octyl phthalate	U		0.0273	0.404	1	03/22/2021 15:06	WG1637495
Pyrene	0.333		0.00787	0.0404	1	03/22/2021 15:06	WG1637495
Pyridine	U		0.0267	0.404	1	03/22/2021 15:06	WG1637495

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

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
1,2,4-Trichlorobenzene	U		0.0126	0.404	1	03/22/2021 15:06	WG1637495
4-Chloro-3-methylphenol	U		0.0131	0.404	1	03/22/2021 15:06	WG1637495
2-Chlorophenol	U		0.0134	0.404	1	03/22/2021 15:06	WG1637495
2,4-Dichlorophenol	U		0.0118	0.404	1	03/22/2021 15:06	WG1637495
2,4-Dimethylphenol	U		0.0106	0.404	1	03/22/2021 15:06	WG1637495
4,6-Dinitro-2-methylphenol	U		0.0917	0.404	1	03/22/2021 15:06	WG1637495
2,4-Dinitrophenol	U		0.0946	0.404	1	03/22/2021 15:06	WG1637495
2-Methylphenol	U		0.0121	0.404	1	03/22/2021 15:06	WG1637495
3&4-Methyl Phenol	U		0.0126	0.404	1	03/22/2021 15:06	WG1637495
2-Nitrophenol	U		0.0144	0.404	1	03/22/2021 15:06	WG1637495
4-Nitrophenol	U		0.0126	0.404	1	03/22/2021 15:06	WG1637495
Pentachlorophenol	U		0.0109	0.404	1	03/22/2021 15:06	WG1637495
Phenol	U		0.0163	0.404	1	03/22/2021 15:06	WG1637495
2,4,5-Trichlorophenol	U		0.0137	0.404	1	03/22/2021 15:06	WG1637495
2,4,6-Trichlorophenol	U		0.0130	0.404	1	03/22/2021 15:06	WG1637495
(S) 2-Fluorophenol	68.3			12.0-120		03/22/2021 15:06	WG1637495
(S) Phenol-d5	53.4			10.0-120		03/22/2021 15:06	WG1637495
(S) Nitrobenzene-d5	44.9			10.0-122		03/22/2021 15:06	WG1637495
(S) 2-Fluorobiphenyl	56.9			15.0-120		03/22/2021 15:06	WG1637495
(S) 2,4,6-Tribromophenol	54.0			10.0-127		03/22/2021 15:06	WG1637495
(S) p-Terphenyl-d14	66.5			10.0-120		03/22/2021 15:06	WG1637495

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		3/17/2021 8:28:31 AM	WG1635849
Fluid	1		3/17/2021 8:28:31 AM	WG1635849
Initial pH	8.57		3/17/2021 8:28:31 AM	WG1635849
Final pH	6.24		3/17/2021 8:28:31 AM	WG1635849

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Mercury	ND		0.0100	0.20	1	03/18/2021 17:22	WG1636673

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Arsenic	ND		0.100	5	1	03/18/2021 17:12	WG1636709
Barium	2.51		0.100	100	1	03/18/2021 17:12	WG1636709
Cadmium	ND		0.100	1	1	03/18/2021 17:12	WG1636709
Chromium	ND		0.100	5	1	03/18/2021 17:12	WG1636709
Lead	ND		0.100	5	1	03/18/2021 17:12	WG1636709
Selenium	ND		0.100	1	1	03/18/2021 17:12	WG1636709
Silver	ND		0.100	5	1	03/18/2021 17:12	WG1636709

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	77.6		1	03/18/2021 08:59	WG1636034

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acenaphthene	7.75		0.0695	0.429	10	03/23/2021 15:49	WG1637495
Acenaphthylene	0.137		0.00605	0.0429	1	03/22/2021 19:35	WG1637495
Anthracene	4.40		0.0765	0.429	10	03/23/2021 15:49	WG1637495
Benzo(a)anthracene	2.50		0.0757	0.429	10	03/23/2021 15:49	WG1637495
Benzo(b)fluoranthene	1.11		0.00801	0.0429	1	03/22/2021 19:35	WG1637495
Benzo(k)fluoranthene	0.428		0.00763	0.0429	1	03/22/2021 19:35	WG1637495
Benzo(g,h,i)perylene	0.0542		0.00785	0.0429	1	03/22/2021 19:35	WG1637495
Benzo(a)pyrene	0.579		0.00798	0.0429	1	03/22/2021 19:35	WG1637495
Benzoic acid	U		0.152	2.15	1	03/22/2021 19:35	WG1637495
Benzyl alcohol	U		0.0159	0.429	1	03/22/2021 19:35	WG1637495
Bis(2-chlorethoxy)methane	U		0.0129	0.429	1	03/22/2021 19:35	WG1637495
Bis(2-chloroethyl)ether	U		0.0142	0.429	1	03/22/2021 19:35	WG1637495
2,2-Oxybis(1-Chloropropane)	U		0.0186	0.429	1	03/22/2021 19:35	WG1637495
4-Bromophenyl-phenylether	U		0.0151	0.429	1	03/22/2021 19:35	WG1637495
Carbazole	2.64	J	0.133	4.29	10	03/23/2021 15:49	WG1637495
2-Chloronaphthalene	U		0.00754	0.0429	1	03/22/2021 19:35	WG1637495
4-Chloroaniline	U		0.0155	0.429	1	03/22/2021 19:35	WG1637495
4-Chlorophenyl-phenylether	U		0.0150	0.429	1	03/22/2021 19:35	WG1637495
Chrysene	2.11		0.0854	0.429	10	03/23/2021 15:49	WG1637495
Dibenz(a,h)anthracene	0.0277	J	0.0119	0.0429	1	03/22/2021 19:35	WG1637495
Dibenzofuran	6.01		0.141	4.29	10	03/23/2021 15:49	WG1637495
3,3-Dichlorobenzidine	U		0.0159	0.429	1	03/22/2021 19:35	WG1637495
2,4-Dinitrotoluene	U		0.0123	0.429	1	03/22/2021 19:35	WG1637495
2,6-Dinitrotoluene	U		0.0141	0.429	1	03/22/2021 19:35	WG1637495
Fluoranthene	14.1		0.0775	0.429	10	03/23/2021 15:49	WG1637495
Fluorene	8.68		0.0699	0.429	10	03/23/2021 15:49	WG1637495
Hexachlorobenzene	U		0.0152	0.429	1	03/22/2021 19:35	WG1637495
Hexachloro-1,3-butadiene	U		0.0144	0.429	1	03/22/2021 19:35	WG1637495
Hexachlorocyclopentadiene	U		0.0226	0.429	1	03/22/2021 19:35	WG1637495
Hexachloroethane	U		0.0169	0.429	1	03/22/2021 19:35	WG1637495
Indeno(1,2,3-cd)pyrene	0.0851		0.0121	0.0429	1	03/22/2021 19:35	WG1637495
Isophorone	U		0.0132	0.429	1	03/22/2021 19:35	WG1637495
2-Methylnaphthalene	5.74		0.0557	0.429	10	03/23/2021 15:49	WG1637495
Naphthalene	11.4		0.108	0.429	10	03/23/2021 15:49	WG1637495
2-Nitroaniline	U		0.0138	0.429	1	03/22/2021 19:35	WG1637495
3-Nitroaniline	U		0.0137	0.429	1	03/22/2021 19:35	WG1637495
4-Nitroaniline	U		0.0125	0.429	1	03/22/2021 19:35	WG1637495
Nitrobenzene	U		0.0150	0.429	1	03/22/2021 19:35	WG1637495
n-Nitrosodimethylamine	U		0.0637	0.429	1	03/22/2021 19:35	WG1637495
n-Nitrosodiphenylamine	U		0.0325	0.429	1	03/22/2021 19:35	WG1637495
n-Nitrosodi-n-propylamine	U		0.0143	0.429	1	03/22/2021 19:35	WG1637495
Phenanthrene	32.4		0.852	4.29	100	03/23/2021 21:25	WG1637495
Benzylbutyl phthalate	U		0.0134	0.429	1	03/22/2021 19:35	WG1637495
Bis(2-ethylhexyl)phthalate	U		0.0544	0.429	1	03/22/2021 19:35	WG1637495
Di-n-butyl phthalate	U		0.0147	0.429	1	03/22/2021 19:35	WG1637495
Diethyl phthalate	U		0.0142	0.429	1	03/22/2021 19:35	WG1637495
Dimethyl phthalate	U		0.0910	0.429	1	03/22/2021 19:35	WG1637495
Di-n-octyl phthalate	U		0.0290	0.429	1	03/22/2021 19:35	WG1637495
Pyrene	9.95		0.0835	0.429	10	03/23/2021 15:49	WG1637495
Pyridine	U		0.0284	0.429	1	03/22/2021 19:35	WG1637495

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

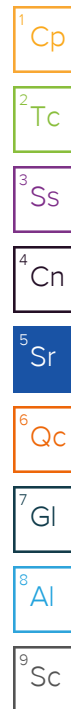
7 Gl

8 Al

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
1,2,4-Trichlorobenzene	U		0.0134	0.429	1	03/22/2021 19:35	WG1637495
4-Chloro-3-methylphenol	U		0.0139	0.429	1	03/22/2021 19:35	WG1637495
2-Chlorophenol	U		0.0142	0.429	1	03/22/2021 19:35	WG1637495
2,4-Dichlorophenol	U		0.0125	0.429	1	03/22/2021 19:35	WG1637495
2,4-Dimethylphenol	U		0.0112	0.429	1	03/22/2021 19:35	WG1637495
4,6-Dinitro-2-methylphenol	U		0.0973	0.429	1	03/22/2021 19:35	WG1637495
2,4-Dinitrophenol	U		0.100	0.429	1	03/22/2021 19:35	WG1637495
2-Methylphenol	U		0.0129	0.429	1	03/22/2021 19:35	WG1637495
3&4-Methyl Phenol	U		0.0134	0.429	1	03/22/2021 19:35	WG1637495
2-Nitrophenol	U		0.0153	0.429	1	03/22/2021 19:35	WG1637495
4-Nitrophenol	U		0.0134	0.429	1	03/22/2021 19:35	WG1637495
Pentachlorophenol	U		0.0116	0.429	1	03/22/2021 19:35	WG1637495
Phenol	U		0.0173	0.429	1	03/22/2021 19:35	WG1637495
2,4,5-Trichlorophenol	U		0.0146	0.429	1	03/22/2021 19:35	WG1637495
2,4,6-Trichlorophenol	U		0.0138	0.429	1	03/22/2021 19:35	WG1637495
(S) 2-Fluorophenol	0.000	J7		12.0-120		03/23/2021 21:25	WG1637495
(S) 2-Fluorophenol	54.8			12.0-120		03/22/2021 19:35	WG1637495
(S) 2-Fluorophenol	60.2			12.0-120		03/23/2021 15:49	WG1637495
(S) Phenol-d5	0.000	J7		10.0-120		03/23/2021 21:25	WG1637495
(S) Phenol-d5	50.9			10.0-120		03/23/2021 15:49	WG1637495
(S) Phenol-d5	50.5			10.0-120		03/22/2021 19:35	WG1637495
(S) Nitrobenzene-d5	0.000	J7		10.0-122		03/23/2021 21:25	WG1637495
(S) Nitrobenzene-d5	39.4			10.0-122		03/22/2021 19:35	WG1637495
(S) Nitrobenzene-d5	49.7			10.0-122		03/23/2021 15:49	WG1637495
(S) 2-Fluorobiphenyl	57.2			15.0-120		03/23/2021 15:49	WG1637495
(S) 2-Fluorobiphenyl	42.2			15.0-120		03/22/2021 19:35	WG1637495
(S) 2-Fluorobiphenyl	0.000	J7		15.0-120		03/23/2021 21:25	WG1637495
(S) 2,4,6-Tribromophenol	50.6			10.0-127		03/22/2021 19:35	WG1637495
(S) 2,4,6-Tribromophenol	0.000	J7		10.0-127		03/23/2021 21:25	WG1637495
(S) 2,4,6-Tribromophenol	60.9			10.0-127		03/23/2021 15:49	WG1637495
(S) p-Terphenyl-d14	70.9			10.0-120		03/22/2021 19:35	WG1637495
(S) p-Terphenyl-d14	73.1			10.0-120		03/23/2021 15:49	WG1637495
(S) p-Terphenyl-d14	0.000	J7		10.0-120		03/23/2021 21:25	WG1637495



Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		3/17/2021 8:28:31 AM	WG1635849
Fluid	1		3/17/2021 8:28:31 AM	WG1635849
Initial pH	7.89		3/17/2021 8:28:31 AM	WG1635849
Final pH	5.12		3/17/2021 8:28:31 AM	WG1635849

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Mercury	ND		0.0100	0.20	1	03/18/2021 17:37	WG1636673

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Arsenic	ND		0.100	5	1	03/18/2021 17:15	WG1636709
Barium	2.26		0.100	100	1	03/18/2021 17:15	WG1636709
Cadmium	ND		0.100	1	1	03/18/2021 17:15	WG1636709
Chromium	ND		0.100	5	1	03/18/2021 17:15	WG1636709
Lead	ND		0.100	5	1	03/18/2021 17:15	WG1636709
Selenium	ND		0.100	1	1	03/18/2021 17:15	WG1636709
Silver	ND		0.100	5	1	03/18/2021 17:15	WG1636709

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	80.1		1	03/18/2021 08:59	WG1636034

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acenaphthene	4.62		0.0673	0.416	10	03/23/2021 15:27	WG1637495
Acenaphthylene	0.0759		0.00586	0.0416	1	03/22/2021 16:29	WG1637495
Anthracene	3.37		0.0740	0.416	10	03/23/2021 15:27	WG1637495
Benzo(a)anthracene	3.75		0.0733	0.416	10	03/23/2021 15:27	WG1637495
Benzo(b)fluoranthene	1.56		0.00775	0.0416	1	03/22/2021 16:29	WG1637495
Benzo(k)fluoranthene	0.468		0.00739	0.0416	1	03/22/2021 16:29	WG1637495
Benzo(g,h,i)perylene	0.105		0.00760	0.0416	1	03/22/2021 16:29	WG1637495
Benzo(a)pyrene	0.785		0.00773	0.0416	1	03/22/2021 16:29	WG1637495
Benzoic acid	U		0.147	2.09	1	03/22/2021 16:29	WG1637495
Benzyl alcohol	U		0.0154	0.416	1	03/22/2021 16:29	WG1637495
Bis(2-chlorethoxy)methane	U		0.0125	0.416	1	03/22/2021 16:29	WG1637495
Bis(2-chloroethyl)ether	U		0.0137	0.416	1	03/22/2021 16:29	WG1637495
2,2-Oxybis(1-Chloropropane)	U		0.0180	0.416	1	03/22/2021 16:29	WG1637495
4-Bromophenyl-phenylether	U		0.0146	0.416	1	03/22/2021 16:29	WG1637495
Carbazole	0.113	J	0.0129	0.416	1	03/22/2021 16:29	WG1637495
2-Chloronaphthalene	U		0.00730	0.0416	1	03/22/2021 16:29	WG1637495
4-Chloroaniline	U		0.0150	0.416	1	03/22/2021 16:29	WG1637495
4-Chlorophenyl-phenylether	U		0.0145	0.416	1	03/22/2021 16:29	WG1637495
Chrysene	3.42		0.0827	0.416	10	03/23/2021 15:27	WG1637495
Dibenz(a,h)anthracene	0.0445		0.0115	0.0416	1	03/22/2021 16:29	WG1637495
Dibenzofuran	1.77		0.0136	0.416	1	03/22/2021 16:29	WG1637495
3,3-Dichlorobenzidine	U		0.0154	0.416	1	03/22/2021 16:29	WG1637495
2,4-Dinitrotoluene	U		0.0119	0.416	1	03/22/2021 16:29	WG1637495
2,6-Dinitrotoluene	U		0.0136	0.416	1	03/22/2021 16:29	WG1637495
Fluoranthene	17.9		0.0750	0.416	10	03/23/2021 15:27	WG1637495
Fluorene	5.16		0.0677	0.416	10	03/23/2021 15:27	WG1637495
Hexachlorobenzene	U		0.0147	0.416	1	03/22/2021 16:29	WG1637495
Hexachloro-1,3-butadiene	U		0.0140	0.416	1	03/22/2021 16:29	WG1637495
Hexachlorocyclopentadiene	U		0.0219	0.416	1	03/22/2021 16:29	WG1637495
Hexachloroethane	U		0.0164	0.416	1	03/22/2021 16:29	WG1637495
Indeno(1,2,3-cd)pyrene	0.159		0.0117	0.0416	1	03/22/2021 16:29	WG1637495
Isophorone	U		0.0127	0.416	1	03/22/2021 16:29	WG1637495
2-Methylnaphthalene	0.397		0.00539	0.0416	1	03/22/2021 16:29	WG1637495
Naphthalene	0.0367	J	0.0104	0.0416	1	03/22/2021 16:29	WG1637495
2-Nitroaniline	U		0.0134	0.416	1	03/22/2021 16:29	WG1637495
3-Nitroaniline	U		0.0132	0.416	1	03/22/2021 16:29	WG1637495
4-Nitroaniline	U		0.0121	0.416	1	03/22/2021 16:29	WG1637495
Nitrobenzene	U		0.0145	0.416	1	03/22/2021 16:29	WG1637495
n-Nitrosodimethylamine	U		0.0617	0.416	1	03/22/2021 16:29	WG1637495
n-Nitrosodiphenylamine	U		0.0315	0.416	1	03/22/2021 16:29	WG1637495
n-Nitrosodi-n-propylamine	U		0.0139	0.416	1	03/22/2021 16:29	WG1637495
Phenanthrene	19.9		0.0825	0.416	10	03/23/2021 15:27	WG1637495
Benzylbutyl phthalate	U		0.0130	0.416	1	03/22/2021 16:29	WG1637495
Bis(2-ethylhexyl)phthalate	0.0687	J	0.0527	0.416	1	03/22/2021 16:29	WG1637495
Di-n-butyl phthalate	U		0.0142	0.416	1	03/22/2021 16:29	WG1637495
Diethyl phthalate	U		0.0137	0.416	1	03/22/2021 16:29	WG1637495
Dimethyl phthalate	U		0.0882	0.416	1	03/22/2021 16:29	WG1637495
Di-n-octyl phthalate	U		0.0281	0.416	1	03/22/2021 16:29	WG1637495
Pyrene	14.4		0.0809	0.416	10	03/23/2021 15:27	WG1637495
Pyridine	U		0.0275	0.416	1	03/22/2021 16:29	WG1637495

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

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
1,2,4-Trichlorobenzene	U		0.0130	0.416	1	03/22/2021 16:29	WG1637495
4-Chloro-3-methylphenol	U		0.0135	0.416	1	03/22/2021 16:29	WG1637495
2-Chlorophenol	U		0.0137	0.416	1	03/22/2021 16:29	WG1637495
2,4-Dichlorophenol	U		0.0121	0.416	1	03/22/2021 16:29	WG1637495
2,4-Dimethylphenol	U		0.0109	0.416	1	03/22/2021 16:29	WG1637495
4,6-Dinitro-2-methylphenol	U		0.0943	0.416	1	03/22/2021 16:29	WG1637495
2,4-Dinitrophenol	U		0.0973	0.416	1	03/22/2021 16:29	WG1637495
2-Methylphenol	U		0.0125	0.416	1	03/22/2021 16:29	WG1637495
3&4-Methyl Phenol	U		0.0130	0.416	1	03/22/2021 16:29	WG1637495
2-Nitrophenol	U		0.0149	0.416	1	03/22/2021 16:29	WG1637495
4-Nitrophenol	U		0.0130	0.416	1	03/22/2021 16:29	WG1637495
Pentachlorophenol	U		0.0112	0.416	1	03/22/2021 16:29	WG1637495
Phenol	U		0.0167	0.416	1	03/22/2021 16:29	WG1637495
2,4,5-Trichlorophenol	U		0.0141	0.416	1	03/22/2021 16:29	WG1637495
2,4,6-Trichlorophenol	U		0.0134	0.416	1	03/22/2021 16:29	WG1637495
(S) 2-Fluorophenol	52.0			12.0-120		03/22/2021 16:29	WG1637495
(S) 2-Fluorophenol	70.4			12.0-120		03/23/2021 15:27	WG1637495
(S) Phenol-d5	61.2			10.0-120		03/23/2021 15:27	WG1637495
(S) Phenol-d5	45.8			10.0-120		03/22/2021 16:29	WG1637495
(S) Nitrobenzene-d5	41.1			10.0-122		03/22/2021 16:29	WG1637495
(S) Nitrobenzene-d5	56.5			10.0-122		03/23/2021 15:27	WG1637495
(S) 2-Fluorobiphenyl	49.2			15.0-120		03/22/2021 16:29	WG1637495
(S) 2-Fluorobiphenyl	71.3			15.0-120		03/23/2021 15:27	WG1637495
(S) 2,4,6-Tribromophenol	53.8			10.0-127		03/22/2021 16:29	WG1637495
(S) 2,4,6-Tribromophenol	65.3			10.0-127		03/23/2021 15:27	WG1637495
(S) p-Terphenyl-d14	88.2			10.0-120		03/23/2021 15:27	WG1637495
(S) p-Terphenyl-d14	53.8			10.0-120		03/22/2021 16:29	WG1637495

¹Cp²Tc³Ss⁴Cn⁵Sr⁶Qc⁷Gl⁸Al⁹Sc

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		3/17/2021 8:28:31 AM	WG1635849
Fluid	1		3/17/2021 8:28:31 AM	WG1635849
Initial pH	8.53		3/17/2021 8:28:31 AM	WG1635849
Final pH	6.18		3/17/2021 8:28:31 AM	WG1635849

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Mercury	ND		0.0100	0.20	1	03/18/2021 17:39	WG1636673

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Arsenic	ND		0.100	5	1	03/18/2021 17:18	WG1636709
Barium	2.53		0.100	100	1	03/18/2021 17:18	WG1636709
Cadmium	ND		0.100	1	1	03/18/2021 17:18	WG1636709
Chromium	ND		0.100	5	1	03/18/2021 17:18	WG1636709
Lead	ND		0.100	5	1	03/18/2021 17:18	WG1636709
Selenium	ND		0.100	1	1	03/18/2021 17:18	WG1636709
Silver	ND		0.100	5	1	03/18/2021 17:18	WG1636709

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.3		1	03/18/2021 08:59	WG1636034

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acenaphthene	0.00680	J	0.00639	0.0395	1	03/22/2021 13:24	WG1637495
Acenaphthylene	U		0.00556	0.0395	1	03/22/2021 13:24	WG1637495
Anthracene	0.0105	J	0.00703	0.0395	1	03/22/2021 13:24	WG1637495
Benzo(a)anthracene	0.0273	J	0.00696	0.0395	1	03/22/2021 13:24	WG1637495
Benzo(b)fluoranthene	0.0552		0.00737	0.0395	1	03/22/2021 13:24	WG1637495
Benzo(k)fluoranthene	0.0159	J	0.00702	0.0395	1	03/22/2021 13:24	WG1637495
Benzo(g,h,i)perylene	0.0148	J	0.00722	0.0395	1	03/22/2021 13:24	WG1637495
Benzo(a)pyrene	0.0217	J	0.00734	0.0395	1	03/22/2021 13:24	WG1637495
Benzoic acid	U		0.140	1.98	1	03/22/2021 13:24	WG1637495
Benzyl alcohol	U		0.0146	0.395	1	03/22/2021 13:24	WG1637495
Bis(2-chloroethoxy)methane	U		0.0119	0.395	1	03/22/2021 13:24	WG1637495
Bis(2-chloroethyl)ether	U		0.0130	0.395	1	03/22/2021 13:24	WG1637495
2,2-Oxybis(1-Chloropropane)	U		0.0171	0.395	1	03/22/2021 13:24	WG1637495
4-Bromophenyl-phenylether	U		0.0139	0.395	1	03/22/2021 13:24	WG1637495
Carbazole	U		0.0122	0.395	1	03/22/2021 13:24	WG1637495
2-Chloronaphthalene	U		0.00694	0.0395	1	03/22/2021 13:24	WG1637495
4-Chloroaniline	U		0.0142	0.395	1	03/22/2021 13:24	WG1637495
4-Chlorophenyl-phenylether	U		0.0138	0.395	1	03/22/2021 13:24	WG1637495
Chrysene	0.0281	J	0.00785	0.0395	1	03/22/2021 13:24	WG1637495
Dibenz(a,h)anthracene	U		0.0109	0.0395	1	03/22/2021 13:24	WG1637495
Dibenzofuran	U		0.0129	0.395	1	03/22/2021 13:24	WG1637495
3,3-Dichlorobenzidine	U		0.0146	0.395	1	03/22/2021 13:24	WG1637495
2,4-Dinitrotoluene	U		0.0113	0.395	1	03/22/2021 13:24	WG1637495
2,6-Dinitrotoluene	U		0.0129	0.395	1	03/22/2021 13:24	WG1637495
Fluoranthene	0.126		0.00713	0.0395	1	03/22/2021 13:24	WG1637495
Fluorene	0.00658	J	0.00643	0.0395	1	03/22/2021 13:24	WG1637495
Hexachlorobenzene	U		0.0140	0.395	1	03/22/2021 13:24	WG1637495
Hexachloro-1,3-butadiene	U		0.0133	0.395	1	03/22/2021 13:24	WG1637495
Hexachlorocyclopentadiene	U		0.0208	0.395	1	03/22/2021 13:24	WG1637495
Hexachloroethane	U		0.0155	0.395	1	03/22/2021 13:24	WG1637495
Indeno(1,2,3-cd)pyrene	0.0148	J	0.0112	0.0395	1	03/22/2021 13:24	WG1637495
Isophorone	U		0.0121	0.395	1	03/22/2021 13:24	WG1637495
2-Methylnaphthalene	0.00536	J	0.00512	0.0395	1	03/22/2021 13:24	WG1637495
Naphthalene	U		0.00992	0.0395	1	03/22/2021 13:24	WG1637495
2-Nitroaniline	U		0.0127	0.395	1	03/22/2021 13:24	WG1637495
3-Nitroaniline	U		0.0126	0.395	1	03/22/2021 13:24	WG1637495
4-Nitroaniline	U		0.0115	0.395	1	03/22/2021 13:24	WG1637495
Nitrobenzene	U		0.0138	0.395	1	03/22/2021 13:24	WG1637495
n-Nitrosodimethylamine	U		0.0586	0.395	1	03/22/2021 13:24	WG1637495
n-Nitrosodiphenylamine	U		0.0299	0.395	1	03/22/2021 13:24	WG1637495
n-Nitrosodi-n-propylamine	U		0.0132	0.395	1	03/22/2021 13:24	WG1637495
Phenanthrene	0.0587		0.00784	0.0395	1	03/22/2021 13:24	WG1637495
Benzylbutyl phthalate	U		0.0123	0.395	1	03/22/2021 13:24	WG1637495
Bis(2-ethylhexyl)phthalate	U		0.0501	0.395	1	03/22/2021 13:24	WG1637495
Di-n-butyl phthalate	U		0.0135	0.395	1	03/22/2021 13:24	WG1637495
Diethyl phthalate	U		0.0130	0.395	1	03/22/2021 13:24	WG1637495
Dimethyl phthalate	U		0.0837	0.395	1	03/22/2021 13:24	WG1637495
Di-n-octyl phthalate	U		0.0267	0.395	1	03/22/2021 13:24	WG1637495
Pyrene	0.117		0.00769	0.0395	1	03/22/2021 13:24	WG1637495
Pyridine	U		0.0261	0.395	1	03/22/2021 13:24	WG1637495

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

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
1,2,4-Trichlorobenzene	U		0.0123	0.395	1	03/22/2021 13:24	WG1637495
4-Chloro-3-methylphenol	U		0.0128	0.395	1	03/22/2021 13:24	WG1637495
2-Chlorophenol	U		0.0130	0.395	1	03/22/2021 13:24	WG1637495
2,4-Dichlorophenol	U		0.0115	0.395	1	03/22/2021 13:24	WG1637495
2,4-Dimethylphenol	U		0.0103	0.395	1	03/22/2021 13:24	WG1637495
4,6-Dinitro-2-methylphenol	U		0.0896	0.395	1	03/22/2021 13:24	WG1637495
2,4-Dinitrophenol	U		0.0924	0.395	1	03/22/2021 13:24	WG1637495
2-Methylphenol	U		0.0119	0.395	1	03/22/2021 13:24	WG1637495
3&4-Methyl Phenol	U		0.0123	0.395	1	03/22/2021 13:24	WG1637495
2-Nitrophenol	U		0.0141	0.395	1	03/22/2021 13:24	WG1637495
4-Nitrophenol	U		0.0123	0.395	1	03/22/2021 13:24	WG1637495
Pentachlorophenol	U		0.0106	0.395	1	03/22/2021 13:24	WG1637495
Phenol	U		0.0159	0.395	1	03/22/2021 13:24	WG1637495
2,4,5-Trichlorophenol	U		0.0134	0.395	1	03/22/2021 13:24	WG1637495
2,4,6-Trichlorophenol	U		0.0127	0.395	1	03/22/2021 13:24	WG1637495
(S) 2-Fluorophenol	55.4			12.0-120		03/22/2021 13:24	WG1637495
(S) Phenol-d5	48.9			10.0-120		03/22/2021 13:24	WG1637495
(S) Nitrobenzene-d5	41.0			10.0-122		03/22/2021 13:24	WG1637495
(S) 2-Fluorobiphenyl	52.8			15.0-120		03/22/2021 13:24	WG1637495
(S) 2,4,6-Tribromophenol	58.1			10.0-127		03/22/2021 13:24	WG1637495
(S) p-Terphenyl-d14	58.7			10.0-120		03/22/2021 13:24	WG1637495

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		3/17/2021 8:28:31 AM	WG1635849
Fluid	2		3/17/2021 8:28:31 AM	WG1635849
Initial pH	8.66		3/17/2021 8:28:31 AM	WG1635849
Final pH	3.59		3/17/2021 8:28:31 AM	WG1635849

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Limit	Dilution	Analysis date / time	Batch
Mercury	ND		0.0100	0.20	1	03/19/2021 08:23	WG1636681

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Limit	Dilution	Analysis date / time	Batch
	mg/l		mg/l	mg/l			
Arsenic	ND		0.100	5	1	03/18/2021 23:35	WG1637059
Barium	1.40		0.100	100	1	03/18/2021 23:35	WG1637059
Cadmium	ND		0.100	1	1	03/18/2021 23:35	WG1637059
Chromium	ND		0.100	5	1	03/18/2021 23:35	WG1637059
Lead	ND		0.100	5	1	03/18/2021 23:35	WG1637059
Selenium	ND		0.100	1	1	03/18/2021 23:35	WG1637059
Silver	ND		0.100	5	1	03/18/2021 23:35	WG1637059

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.8		1	03/18/2021 08:59	WG1636034

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acenaphthene	U		0.00614	0.0379	1	03/22/2021 20:16	WG1637495
Acenaphthylene	0.0497		0.00534	0.0379	1	03/22/2021 20:16	WG1637495
Anthracene	0.234		0.00676	0.0379	1	03/22/2021 20:16	WG1637495
Benzo(a)anthracene	0.0616		0.00669	0.0379	1	03/22/2021 20:16	WG1637495
Benzo(b)fluoranthene	0.781		0.00707	0.0379	1	03/22/2021 20:16	WG1637495
Benzo(k)fluoranthene	0.230		0.00674	0.0379	1	03/22/2021 20:16	WG1637495
Benzo(g,h,i)perylene	0.0756		0.00694	0.0379	1	03/22/2021 20:16	WG1637495
Benzo(a)pyrene	0.205		0.00705	0.0379	1	03/22/2021 20:16	WG1637495
Benzoic acid	U		0.134	1.90	1	03/22/2021 20:16	WG1637495
Benzyl alcohol	U		0.0140	0.379	1	03/22/2021 20:16	WG1637495
Bis(2-chlorethoxy)methane	U		0.0114	0.379	1	03/22/2021 20:16	WG1637495
Bis(2-chloroethyl)ether	U		0.0125	0.379	1	03/22/2021 20:16	WG1637495
2,2-Oxybis(1-Chloropropane)	U		0.0164	0.379	1	03/22/2021 20:16	WG1637495
4-Bromophenyl-phenylether	U		0.0133	0.379	1	03/22/2021 20:16	WG1637495
Carbazole	0.0245	J	0.0117	0.379	1	03/22/2021 20:16	WG1637495
2-Chloronaphthalene	U		0.00666	0.0379	1	03/22/2021 20:16	WG1637495
4-Chloroaniline	U		0.0137	0.379	1	03/22/2021 20:16	WG1637495
4-Chlorophenyl-phenylether	U		0.0132	0.379	1	03/22/2021 20:16	WG1637495
Chrysene	0.174		0.00754	0.0379	1	03/22/2021 20:16	WG1637495
Dibenz(a,h)anthracene	0.0229	J	0.0105	0.0379	1	03/22/2021 20:16	WG1637495
Dibenzofuran	U		0.0124	0.379	1	03/22/2021 20:16	WG1637495
3,3-Dichlorobenzidine	U		0.0140	0.379	1	03/22/2021 20:16	WG1637495
2,4-Dinitrotoluene	U		0.0109	0.379	1	03/22/2021 20:16	WG1637495
2,6-Dinitrotoluene	U		0.0124	0.379	1	03/22/2021 20:16	WG1637495
Fluoranthene	0.252		0.00685	0.0379	1	03/22/2021 20:16	WG1637495
Fluorene	0.00686	J	0.00617	0.0379	1	03/22/2021 20:16	WG1637495
Hexachlorobenzene	U		0.0134	0.379	1	03/22/2021 20:16	WG1637495
Hexachloro-1,3-butadiene	U		0.0128	0.379	1	03/22/2021 20:16	WG1637495
Hexachlorocyclopentadiene	U		0.0199	0.379	1	03/22/2021 20:16	WG1637495
Hexachloroethane	U		0.0149	0.379	1	03/22/2021 20:16	WG1637495
Indeno(1,2,3-cd)pyrene	0.0907		0.0107	0.0379	1	03/22/2021 20:16	WG1637495
Isophorone	U		0.0116	0.379	1	03/22/2021 20:16	WG1637495
2-Methylnaphthalene	U		0.00492	0.0379	1	03/22/2021 20:16	WG1637495
Naphthalene	U		0.00952	0.0379	1	03/22/2021 20:16	WG1637495
2-Nitroaniline	U		0.0122	0.379	1	03/22/2021 20:16	WG1637495
3-Nitroaniline	U		0.0121	0.379	1	03/22/2021 20:16	WG1637495
4-Nitroaniline	U		0.0111	0.379	1	03/22/2021 20:16	WG1637495
Nitrobenzene	U		0.0132	0.379	1	03/22/2021 20:16	WG1637495
n-Nitrosodimethylamine	U		0.0563	0.379	1	03/22/2021 20:16	WG1637495
n-Nitrosodiphenylamine	U		0.0287	0.379	1	03/22/2021 20:16	WG1637495
n-Nitrosodi-n-propylamine	U		0.0126	0.379	1	03/22/2021 20:16	WG1637495
Phenanthrene	0.0171	J	0.00753	0.0379	1	03/22/2021 20:16	WG1637495
Benzylbutyl phthalate	U		0.0118	0.379	1	03/22/2021 20:16	WG1637495
Bis(2-ethylhexyl)phthalate	U		0.0481	0.379	1	03/22/2021 20:16	WG1637495
Di-n-butyl phthalate	U		0.0130	0.379	1	03/22/2021 20:16	WG1637495
Diethyl phthalate	U		0.0125	0.379	1	03/22/2021 20:16	WG1637495
Dimethyl phthalate	U		0.0804	0.379	1	03/22/2021 20:16	WG1637495
Di-n-octyl phthalate	U		0.0256	0.379	1	03/22/2021 20:16	WG1637495
Pyrene	0.276		0.00738	0.0379	1	03/22/2021 20:16	WG1637495
Pyridine	U		0.0251	0.379	1	03/22/2021 20:16	WG1637495

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

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
1,2,4-Trichlorobenzene	U		0.0118	0.379	1	03/22/2021 20:16	WG1637495
4-Chloro-3-methylphenol	U		0.0123	0.379	1	03/22/2021 20:16	WG1637495
2-Chlorophenol	U		0.0125	0.379	1	03/22/2021 20:16	WG1637495
2,4-Dichlorophenol	U		0.0110	0.379	1	03/22/2021 20:16	WG1637495
2,4-Dimethylphenol	U		0.00991	0.379	1	03/22/2021 20:16	WG1637495
4,6-Dinitro-2-methylphenol	U		0.0860	0.379	1	03/22/2021 20:16	WG1637495
2,4-Dinitrophenol	U		0.0887	0.379	1	03/22/2021 20:16	WG1637495
2-Methylphenol	U		0.0114	0.379	1	03/22/2021 20:16	WG1637495
3&4-Methyl Phenol	U		0.0118	0.379	1	03/22/2021 20:16	WG1637495
2-Nitrophenol	U		0.0136	0.379	1	03/22/2021 20:16	WG1637495
4-Nitrophenol	U		0.0118	0.379	1	03/22/2021 20:16	WG1637495
Pentachlorophenol	U		0.0102	0.379	1	03/22/2021 20:16	WG1637495
Phenol	U		0.0153	0.379	1	03/22/2021 20:16	WG1637495
2,4,5-Trichlorophenol	U		0.0129	0.379	1	03/22/2021 20:16	WG1637495
2,4,6-Trichlorophenol	U		0.0122	0.379	1	03/22/2021 20:16	WG1637495
(S) 2-Fluorophenol	7.65	J2		12.0-120		03/22/2021 20:16	WG1637495
(S) Phenol-d5	7.25	J2		10.0-120		03/22/2021 20:16	WG1637495
(S) Nitrobenzene-d5	6.36	J2		10.0-122		03/22/2021 20:16	WG1637495
(S) 2-Fluorobiphenyl	7.47	J2		15.0-120		03/22/2021 20:16	WG1637495
(S) 2,4,6-Tribromophenol	7.28	J2		10.0-127		03/22/2021 20:16	WG1637495
(S) p-Terphenyl-d14	10.2			10.0-120		03/22/2021 20:16	WG1637495

Sample Narrative:

L1326831-11 WG1637495: Surrogate failure due to matrix interference

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		3/17/2021 8:28:31 AM	WG1635849
Fluid	2		3/17/2021 8:28:31 AM	WG1635849
Initial pH	8.85		3/17/2021 8:28:31 AM	WG1635849
Final pH	5.66		3/17/2021 8:28:31 AM	WG1635849

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Limit	Dilution	Analysis date / time	Batch
Mercury	ND		0.0100	0.20	1	03/19/2021 08:29	WG1636681

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Limit	Dilution	Analysis date / time	Batch
Arsenic	ND		0.100	5	1	03/18/2021 23:46	WG1637059
Barium	1.50		0.100	100	1	03/18/2021 23:46	WG1637059
Cadmium	ND		0.100	1	1	03/18/2021 23:46	WG1637059
Chromium	ND		0.100	5	1	03/18/2021 23:46	WG1637059
Lead	ND		0.100	5	1	03/18/2021 23:46	WG1637059
Selenium	ND		0.100	1	1	03/18/2021 23:46	WG1637059
Silver	ND		0.100	5	1	03/18/2021 23:46	WG1637059

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.0		1	03/18/2021 08:59	WG1636034

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acenaphthene	0.321		0.0124	0.0766	2	03/22/2021 20:57	WG1637495
Acenaphthylene	0.0592	J	0.0108	0.0766	2	03/22/2021 20:57	WG1637495
Anthracene	0.282		0.0137	0.0766	2	03/22/2021 20:57	WG1637495
Benzo(a)anthracene	0.344		0.0135	0.0766	2	03/22/2021 20:57	WG1637495
Benzo(b)fluoranthene	0.601		0.0143	0.0766	2	03/22/2021 20:57	WG1637495
Benzo(k)fluoranthene	0.186		0.0136	0.0766	2	03/22/2021 20:57	WG1637495
Benzo(g,h,i)perylene	0.0621	J	0.0140	0.0766	2	03/22/2021 20:57	WG1637495
Benzo(a)pyrene	0.229		0.0143	0.0766	2	03/22/2021 20:57	WG1637495
Benzoic acid	U		0.271	3.84	2	03/22/2021 20:57	WG1637495
Benzyl alcohol	U		0.0283	0.766	2	03/22/2021 20:57	WG1637495
Bis(2-chlorethoxy)methane	U		0.0230	0.766	2	03/22/2021 20:57	WG1637495
Bis(2-chloroethyl)ether	U		0.0253	0.766	2	03/22/2021 20:57	WG1637495
2,2-Oxybis(1-Chloropropane)	U		0.0331	0.766	2	03/22/2021 20:57	WG1637495
4-Bromophenyl-phenylether	U		0.0269	0.766	2	03/22/2021 20:57	WG1637495
Carbazole	0.101	J	0.0237	0.766	2	03/22/2021 20:57	WG1637495
2-Chloronaphthalene	U		0.0135	0.0766	2	03/22/2021 20:57	WG1637495
4-Chloroaniline	U		0.0276	0.766	2	03/22/2021 20:57	WG1637495
4-Chlorophenyl-phenylether	U		0.0267	0.766	2	03/22/2021 20:57	WG1637495
Chrysene	0.391		0.0152	0.0766	2	03/22/2021 20:57	WG1637495
Dibenz(a,h)anthracene	U		0.0213	0.0766	2	03/22/2021 20:57	WG1637495
Dibenzofuran	0.171	J	0.0251	0.766	2	03/22/2021 20:57	WG1637495
3,3-Dichlorobenzidine	U		0.0283	0.766	2	03/22/2021 20:57	WG1637495
2,4-Dinitrotoluene	U		0.0220	0.766	2	03/22/2021 20:57	WG1637495
2,6-Dinitrotoluene	U		0.0251	0.766	2	03/22/2021 20:57	WG1637495
Fluoranthene	2.25		0.0138	0.0766	2	03/22/2021 20:57	WG1637495
Fluorene	0.339		0.0124	0.0766	2	03/22/2021 20:57	WG1637495
Hexachlorobenzene	U		0.0271	0.766	2	03/22/2021 20:57	WG1637495
Hexachloro-1,3-butadiene	U		0.0258	0.766	2	03/22/2021 20:57	WG1637495
Hexachlorocyclopentadiene	U		0.0403	0.766	2	03/22/2021 20:57	WG1637495
Hexachloroethane	U		0.0301	0.766	2	03/22/2021 20:57	WG1637495
Indeno(1,2,3-cd)pyrene	0.0733	J	0.0216	0.0766	2	03/22/2021 20:57	WG1637495
Isophorone	U		0.0235	0.766	2	03/22/2021 20:57	WG1637495
2-Methylnaphthalene	0.0619	J	0.00994	0.0766	2	03/22/2021 20:57	WG1637495
Naphthalene	0.105		0.0192	0.0766	2	03/22/2021 20:57	WG1637495
2-Nitroaniline	U		0.0246	0.766	2	03/22/2021 20:57	WG1637495
3-Nitroaniline	U		0.0244	0.766	2	03/22/2021 20:57	WG1637495
4-Nitroaniline	U		0.0223	0.766	2	03/22/2021 20:57	WG1637495
Nitrobenzene	U		0.0267	0.766	2	03/22/2021 20:57	WG1637495
n-Nitrosodimethylamine	U		0.114	0.766	2	03/22/2021 20:57	WG1637495
n-Nitrosodiphenylamine	U		0.0580	0.766	2	03/22/2021 20:57	WG1637495
n-Nitrosodi-n-propylamine	U		0.0255	0.766	2	03/22/2021 20:57	WG1637495
Phenanthrene	1.90		0.0152	0.0766	2	03/22/2021 20:57	WG1637495
Benzylbutyl phthalate	U		0.0239	0.766	2	03/22/2021 20:57	WG1637495
Bis(2-ethylhexyl)phthalate	U		0.0971	0.766	2	03/22/2021 20:57	WG1637495
Di-n-butyl phthalate	U		0.0262	0.766	2	03/22/2021 20:57	WG1637495
Diethyl phthalate	U		0.0253	0.766	2	03/22/2021 20:57	WG1637495
Dimethyl phthalate	U		0.162	0.766	2	03/22/2021 20:57	WG1637495
Di-n-octyl phthalate	U		0.0518	0.766	2	03/22/2021 20:57	WG1637495
Pyrene	1.94		0.0150	0.0766	2	03/22/2021 20:57	WG1637495
Pyridine	U		0.0506	0.766	2	03/22/2021 20:57	WG1637495

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

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
1,2,4-Trichlorobenzene	U		0.0239	0.766	2	03/22/2021 20:57	WG1637495
4-Chloro-3-methylphenol	U		0.0248	0.766	2	03/22/2021 20:57	WG1637495
2-Chlorophenol	U		0.0253	0.766	2	03/22/2021 20:57	WG1637495
2,4-Dichlorophenol	U		0.0223	0.766	2	03/22/2021 20:57	WG1637495
2,4-Dimethylphenol	U		0.0200	0.766	2	03/22/2021 20:57	WG1637495
4,6-Dinitro-2-methylphenol	U		0.174	0.766	2	03/22/2021 20:57	WG1637495
2,4-Dinitrophenol	U		0.179	0.766	2	03/22/2021 20:57	WG1637495
2-Methylphenol	U		0.0230	0.766	2	03/22/2021 20:57	WG1637495
3&4-Methyl Phenol	U		0.0239	0.766	2	03/22/2021 20:57	WG1637495
2-Nitrophenol	U		0.0274	0.766	2	03/22/2021 20:57	WG1637495
4-Nitrophenol	U		0.0239	0.766	2	03/22/2021 20:57	WG1637495
Pentachlorophenol	U		0.0206	0.766	2	03/22/2021 20:57	WG1637495
Phenol	U		0.0308	0.766	2	03/22/2021 20:57	WG1637495
2,4,5-Trichlorophenol	U		0.0260	0.766	2	03/22/2021 20:57	WG1637495
2,4,6-Trichlorophenol	U		0.0246	0.766	2	03/22/2021 20:57	WG1637495
(S) 2-Fluorophenol	3.26	J2		12.0-120		03/22/2021 20:57	WG1637495
(S) Phenol-d5	2.93	J2		10.0-120		03/22/2021 20:57	WG1637495
(S) Nitrobenzene-d5	2.88	J2		10.0-122		03/22/2021 20:57	WG1637495
(S) 2-Fluorobiphenyl	3.23	J2		15.0-120		03/22/2021 20:57	WG1637495
(S) 2,4,6-Tribromophenol	2.60	J2		10.0-127		03/22/2021 20:57	WG1637495
(S) p-Terphenyl-d14	6.65	J2		10.0-120		03/22/2021 20:57	WG1637495

Sample Narrative:

L1326831-13 WG1637495: Surrogate failure due to matrix interference

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		3/17/2021 8:28:31 AM	WG1635849
Fluid	1		3/17/2021 8:28:31 AM	WG1635849
Initial pH	9.03		3/17/2021 8:28:31 AM	WG1635849
Final pH	6.30		3/17/2021 8:28:31 AM	WG1635849

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Mercury	ND		0.0100	0.20	1	03/18/2021 17:41	WG1636673

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Arsenic	ND		0.100	5	1	03/18/2021 17:21	WG1636709
Barium	1.44		0.100	100	1	03/18/2021 17:21	WG1636709
Cadmium	ND		0.100	1	1	03/18/2021 17:21	WG1636709
Chromium	ND		0.100	5	1	03/18/2021 17:21	WG1636709
Lead	ND		0.100	5	1	03/18/2021 17:21	WG1636709
Selenium	ND		0.100	1	1	03/18/2021 17:21	WG1636709
Silver	ND		0.100	5	1	03/18/2021 17:21	WG1636709

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.0		1	03/18/2021 08:59	WG1636034

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acenaphthene	U		0.00599	0.0370	1	03/22/2021 20:37	WG1637495
Acenaphthylene	0.0671		0.00521	0.0370	1	03/22/2021 20:37	WG1637495
Anthracene	0.173		0.00659	0.0370	1	03/22/2021 20:37	WG1637495
Benzo(a)anthracene	0.0800		0.00653	0.0370	1	03/22/2021 20:37	WG1637495
Benzo(b)fluoranthene	0.496		0.00690	0.0370	1	03/22/2021 20:37	WG1637495
Benzo(k)fluoranthene	0.118		0.00658	0.0370	1	03/22/2021 20:37	WG1637495
Benzo(g,h,i)perylene	0.0680		0.00677	0.0370	1	03/22/2021 20:37	WG1637495
Benzo(a)pyrene	0.167		0.00688	0.0370	1	03/22/2021 20:37	WG1637495
Benzoic acid	U		0.131	1.86	1	03/22/2021 20:37	WG1637495
Benzyl alcohol	U		0.0137	0.370	1	03/22/2021 20:37	WG1637495
Bis(2-chlorethoxy)methane	U		0.0111	0.370	1	03/22/2021 20:37	WG1637495
Bis(2-chloroethyl)ether	U		0.0122	0.370	1	03/22/2021 20:37	WG1637495
2,2-Oxybis(1-Chloropropane)	U		0.0160	0.370	1	03/22/2021 20:37	WG1637495
4-Bromophenyl-phenylether	U		0.0130	0.370	1	03/22/2021 20:37	WG1637495
Carbazole	0.0209	J	0.0115	0.370	1	03/22/2021 20:37	WG1637495
2-Chloronaphthalene	U		0.00650	0.0370	1	03/22/2021 20:37	WG1637495
4-Chloroaniline	U		0.0133	0.370	1	03/22/2021 20:37	WG1637495
4-Chlorophenyl-phenylether	U		0.0129	0.370	1	03/22/2021 20:37	WG1637495
Chrysene	0.0387		0.00736	0.0370	1	03/22/2021 20:37	WG1637495
Dibenz(a,h)anthracene	0.0180	J	0.0103	0.0370	1	03/22/2021 20:37	WG1637495
Dibenzofuran	U		0.0121	0.370	1	03/22/2021 20:37	WG1637495
3,3-Dichlorobenzidine	U		0.0137	0.370	1	03/22/2021 20:37	WG1637495
2,4-Dinitrotoluene	U		0.0106	0.370	1	03/22/2021 20:37	WG1637495
2,6-Dinitrotoluene	U		0.0121	0.370	1	03/22/2021 20:37	WG1637495
Fluoranthene	0.119		0.00668	0.0370	1	03/22/2021 20:37	WG1637495
Fluorene	U		0.00603	0.0370	1	03/22/2021 20:37	WG1637495
Hexachlorobenzene	U		0.0131	0.370	1	03/22/2021 20:37	WG1637495
Hexachloro-1,3-butadiene	U		0.0125	0.370	1	03/22/2021 20:37	WG1637495
Hexachlorocyclopentadiene	U		0.0195	0.370	1	03/22/2021 20:37	WG1637495
Hexachloroethane	U		0.0146	0.370	1	03/22/2021 20:37	WG1637495
Indeno(1,2,3-cd)pyrene	0.0937		0.0105	0.0370	1	03/22/2021 20:37	WG1637495
Isophorone	U		0.0113	0.370	1	03/22/2021 20:37	WG1637495
2-Methylnaphthalene	U		0.00480	0.0370	1	03/22/2021 20:37	WG1637495
Naphthalene	U		0.00929	0.0370	1	03/22/2021 20:37	WG1637495
2-Nitroaniline	U		0.0119	0.370	1	03/22/2021 20:37	WG1637495
3-Nitroaniline	U		0.0118	0.370	1	03/22/2021 20:37	WG1637495
4-Nitroaniline	U		0.0108	0.370	1	03/22/2021 20:37	WG1637495
Nitrobenzene	U		0.0129	0.370	1	03/22/2021 20:37	WG1637495
n-Nitrosodimethylamine	U		0.0549	0.370	1	03/22/2021 20:37	WG1637495
n-Nitrosodiphenylamine	U		0.0280	0.370	1	03/22/2021 20:37	WG1637495
n-Nitrosodi-n-propylamine	U		0.0123	0.370	1	03/22/2021 20:37	WG1637495
Phenanthrene	0.0208	J	0.00735	0.0370	1	03/22/2021 20:37	WG1637495
Benzylbutyl phthalate	U		0.0116	0.370	1	03/22/2021 20:37	WG1637495
Bis(2-ethylhexyl)phthalate	U		0.0469	0.370	1	03/22/2021 20:37	WG1637495
Di-n-butyl phthalate	U		0.0127	0.370	1	03/22/2021 20:37	WG1637495
Diethyl phthalate	U		0.0122	0.370	1	03/22/2021 20:37	WG1637495
Dimethyl phthalate	U		0.0785	0.370	1	03/22/2021 20:37	WG1637495
Di-n-octyl phthalate	U		0.0250	0.370	1	03/22/2021 20:37	WG1637495
Pyrene	0.179		0.00720	0.0370	1	03/22/2021 20:37	WG1637495
Pyridine	U		0.0245	0.370	1	03/22/2021 20:37	WG1637495

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

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
1,2,4-Trichlorobenzene	U		0.0116	0.370	1	03/22/2021 20:37	WG1637495
4-Chloro-3-methylphenol	U		0.0120	0.370	1	03/22/2021 20:37	WG1637495
2-Chlorophenol	U		0.0122	0.370	1	03/22/2021 20:37	WG1637495
2,4-Dichlorophenol	U		0.0108	0.370	1	03/22/2021 20:37	WG1637495
2,4-Dimethylphenol	U		0.00967	0.370	1	03/22/2021 20:37	WG1637495
4,6-Dinitro-2-methylphenol	U		0.0839	0.370	1	03/22/2021 20:37	WG1637495
2,4-Dinitrophenol	U		0.0866	0.370	1	03/22/2021 20:37	WG1637495
2-Methylphenol	U		0.0111	0.370	1	03/22/2021 20:37	WG1637495
3&4-Methyl Phenol	U		0.0116	0.370	1	03/22/2021 20:37	WG1637495
2-Nitrophenol	U		0.0132	0.370	1	03/22/2021 20:37	WG1637495
4-Nitrophenol	U		0.0116	0.370	1	03/22/2021 20:37	WG1637495
Pentachlorophenol	U		0.00996	0.370	1	03/22/2021 20:37	WG1637495
Phenol	U		0.0149	0.370	1	03/22/2021 20:37	WG1637495
2,4,5-Trichlorophenol	U		0.0126	0.370	1	03/22/2021 20:37	WG1637495
2,4,6-Trichlorophenol	U		0.0119	0.370	1	03/22/2021 20:37	WG1637495
(S) 2-Fluorophenol	9.03	J2		12.0-120		03/22/2021 20:37	WG1637495
(S) Phenol-d5	8.65	J2		10.0-120		03/22/2021 20:37	WG1637495
(S) Nitrobenzene-d5	7.43	J2		10.0-122		03/22/2021 20:37	WG1637495
(S) 2-Fluorobiphenyl	9.47	J2		15.0-120		03/22/2021 20:37	WG1637495
(S) 2,4,6-Tribromophenol	8.76	J2		10.0-127		03/22/2021 20:37	WG1637495
(S) p-Terphenyl-d14	11.6			10.0-120		03/22/2021 20:37	WG1637495

Sample Narrative:

L1326831-15 WG1637495: Surrogate failure due to matrix interference

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		3/17/2021 8:28:31 AM	WG1635849
Fluid	2		3/17/2021 8:28:31 AM	WG1635849
Initial pH	9.04		3/17/2021 8:28:31 AM	WG1635849
Final pH	5.68		3/17/2021 8:28:31 AM	WG1635849

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Mercury	ND		0.0100	0.20	1	03/19/2021 08:35	WG1636681

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Arsenic	ND		0.100	5	1	03/18/2021 23:48	WG1637059
Barium	0.958		0.100	100	1	03/18/2021 23:48	WG1637059
Cadmium	ND		0.100	1	1	03/18/2021 23:48	WG1637059
Chromium	ND		0.100	5	1	03/18/2021 23:48	WG1637059
Lead	ND		0.100	5	1	03/18/2021 23:48	WG1637059
Selenium	ND		0.100	1	1	03/18/2021 23:48	WG1637059
Silver	ND		0.100	5	1	03/18/2021 23:48	WG1637059

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.6		1	03/18/2021 08:59	WG1636034

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acenaphthene	U		0.00630	0.0389	1	03/22/2021 14:06	WG1637495
Acenaphthylene	U		0.00548	0.0389	1	03/22/2021 14:06	WG1637495
Anthracene	U		0.00693	0.0389	1	03/22/2021 14:06	WG1637495
Benzo(a)anthracene	U		0.00686	0.0389	1	03/22/2021 14:06	WG1637495
Benzo(b)fluoranthene	U		0.00726	0.0389	1	03/22/2021 14:06	WG1637495
Benzo(k)fluoranthene	U		0.00692	0.0389	1	03/22/2021 14:06	WG1637495
Benzo(g,h,i)perylene	U		0.00712	0.0389	1	03/22/2021 14:06	WG1637495
Benzo(a)pyrene	U		0.00723	0.0389	1	03/22/2021 14:06	WG1637495
Benzoic acid	U		0.138	1.95	1	03/22/2021 14:06	WG1637495
Benzyl alcohol	U		0.0144	0.389	1	03/22/2021 14:06	WG1637495
Bis(2-chlorethoxy)methane	U		0.0117	0.389	1	03/22/2021 14:06	WG1637495
Bis(2-chloroethyl)ether	U		0.0129	0.389	1	03/22/2021 14:06	WG1637495
2,2-Oxybis(1-Chloropropane)	U		0.0168	0.389	1	03/22/2021 14:06	WG1637495
4-Bromophenyl-phenylether	U		0.0137	0.389	1	03/22/2021 14:06	WG1637495
Carbazole	U		0.0120	0.389	1	03/22/2021 14:06	WG1637495
2-Chloronaphthalene	U		0.00684	0.0389	1	03/22/2021 14:06	WG1637495
4-Chloroaniline	U		0.0140	0.389	1	03/22/2021 14:06	WG1637495
4-Chlorophenyl-phenylether	U		0.0136	0.389	1	03/22/2021 14:06	WG1637495
Chrysene	U		0.00773	0.0389	1	03/22/2021 14:06	WG1637495
Dibenz(a,h)anthracene	U		0.0108	0.0389	1	03/22/2021 14:06	WG1637495
Dibenzofuran	U		0.0127	0.389	1	03/22/2021 14:06	WG1637495
3,3-Dichlorobenzidine	U		0.0144	0.389	1	03/22/2021 14:06	WG1637495
2,4-Dinitrotoluene	U		0.0112	0.389	1	03/22/2021 14:06	WG1637495
2,6-Dinitrotoluene	U		0.0127	0.389	1	03/22/2021 14:06	WG1637495
Fluoranthene	U		0.00702	0.0389	1	03/22/2021 14:06	WG1637495
Fluorene	U		0.00633	0.0389	1	03/22/2021 14:06	WG1637495
Hexachlorobenzene	U		0.0138	0.389	1	03/22/2021 14:06	WG1637495
Hexachloro-1,3-butadiene	U		0.0131	0.389	1	03/22/2021 14:06	WG1637495
Hexachlorocyclopentadiene	U		0.0204	0.389	1	03/22/2021 14:06	WG1637495
Hexachloroethane	U		0.0153	0.389	1	03/22/2021 14:06	WG1637495
Indeno(1,2,3-cd)pyrene	U		0.0110	0.0389	1	03/22/2021 14:06	WG1637495
Isophorone	U		0.0119	0.389	1	03/22/2021 14:06	WG1637495
2-Methylnaphthalene	U		0.00505	0.0389	1	03/22/2021 14:06	WG1637495
Naphthalene	U		0.00977	0.0389	1	03/22/2021 14:06	WG1637495
2-Nitroaniline	U		0.0125	0.389	1	03/22/2021 14:06	WG1637495
3-Nitroaniline	U		0.0124	0.389	1	03/22/2021 14:06	WG1637495
4-Nitroaniline	U		0.0113	0.389	1	03/22/2021 14:06	WG1637495
Nitrobenzene	U		0.0136	0.389	1	03/22/2021 14:06	WG1637495
n-Nitrosodimethylamine	U		0.0577	0.389	1	03/22/2021 14:06	WG1637495
n-Nitrosodiphenylamine	U		0.0294	0.389	1	03/22/2021 14:06	WG1637495
n-Nitrosodi-n-propylamine	U		0.0130	0.389	1	03/22/2021 14:06	WG1637495
Phenanthrene	U		0.00772	0.0389	1	03/22/2021 14:06	WG1637495
Benzylbutyl phthalate	U		0.0122	0.389	1	03/22/2021 14:06	WG1637495
Bis(2-ethylhexyl)phthalate	U		0.0493	0.389	1	03/22/2021 14:06	WG1637495
Di-n-butyl phthalate	U		0.0133	0.389	1	03/22/2021 14:06	WG1637495
Diethyl phthalate	U		0.0129	0.389	1	03/22/2021 14:06	WG1637495
Dimethyl phthalate	U		0.0825	0.389	1	03/22/2021 14:06	WG1637495
Di-n-octyl phthalate	U		0.0263	0.389	1	03/22/2021 14:06	WG1637495
Pyrene	U		0.00757	0.0389	1	03/22/2021 14:06	WG1637495
Pyridine	U		0.0257	0.389	1	03/22/2021 14:06	WG1637495

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

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
1,2,4-Trichlorobenzene	U		0.0122	0.389	1	03/22/2021 14:06	WG1637495
4-Chloro-3-methylphenol	U		0.0126	0.389	1	03/22/2021 14:06	WG1637495
2-Chlorophenol	U		0.0129	0.389	1	03/22/2021 14:06	WG1637495
2,4-Dichlorophenol	U		0.0113	0.389	1	03/22/2021 14:06	WG1637495
2,4-Dimethylphenol	U		0.0102	0.389	1	03/22/2021 14:06	WG1637495
4,6-Dinitro-2-methylphenol	U		0.0882	0.389	1	03/22/2021 14:06	WG1637495
2,4-Dinitrophenol	U		0.0910	0.389	1	03/22/2021 14:06	WG1637495
2-Methylphenol	U		0.0117	0.389	1	03/22/2021 14:06	WG1637495
3&4-Methyl Phenol	U		0.0122	0.389	1	03/22/2021 14:06	WG1637495
2-Nitrophenol	U		0.0139	0.389	1	03/22/2021 14:06	WG1637495
4-Nitrophenol	U		0.0122	0.389	1	03/22/2021 14:06	WG1637495
Pentachlorophenol	U		0.0105	0.389	1	03/22/2021 14:06	WG1637495
Phenol	U		0.0157	0.389	1	03/22/2021 14:06	WG1637495
2,4,5-Trichlorophenol	U		0.0132	0.389	1	03/22/2021 14:06	WG1637495
2,4,6-Trichlorophenol	U		0.0125	0.389	1	03/22/2021 14:06	WG1637495
(S) 2-Fluorophenol	49.4			12.0-120		03/22/2021 14:06	WG1637495
(S) Phenol-d5	45.2			10.0-120		03/22/2021 14:06	WG1637495
(S) Nitrobenzene-d5	38.6			10.0-122		03/22/2021 14:06	WG1637495
(S) 2-Fluorobiphenyl	48.1			15.0-120		03/22/2021 14:06	WG1637495
(S) 2,4,6-Tribromophenol	46.8			10.0-127		03/22/2021 14:06	WG1637495
(S) p-Terphenyl-d14	49.7			10.0-120		03/22/2021 14:06	WG1637495

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		3/17/2021 8:28:31 AM	WG1635849
Fluid	2		3/17/2021 8:28:31 AM	WG1635849
Initial pH	9.50		3/17/2021 8:28:31 AM	WG1635849
Final pH	6.04		3/17/2021 8:28:31 AM	WG1635849

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Mercury	ND		0.0100	0.20	1	03/19/2021 08:37	WG1636681

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Arsenic	ND		0.100	5	1	03/18/2021 23:51	WG1637059
Barium	0.839		0.100	100	1	03/18/2021 23:51	WG1637059
Cadmium	ND		0.100	1	1	03/18/2021 23:51	WG1637059
Chromium	ND		0.100	5	1	03/18/2021 23:51	WG1637059
Lead	ND		0.100	5	1	03/18/2021 23:51	WG1637059
Selenium	ND		0.100	1	1	03/18/2021 23:51	WG1637059
Silver	ND		0.100	5	1	03/18/2021 23:51	WG1637059

⁷ Gl⁸ Al⁹ Sc

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	82.1		1	03/18/2021 08:59	WG1636034

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acenaphthene	U		0.00656	0.0406	1	03/22/2021 13:45	WG1637495
Acenaphthylene	U		0.00571	0.0406	1	03/22/2021 13:45	WG1637495
Anthracene	U		0.00722	0.0406	1	03/22/2021 13:45	WG1637495
Benzo(a)anthracene	0.00756	J	0.00715	0.0406	1	03/22/2021 13:45	WG1637495
Benzo(b)fluoranthene	0.0199	J	0.00756	0.0406	1	03/22/2021 13:45	WG1637495
Benzo(k)fluoranthene	U		0.00721	0.0406	1	03/22/2021 13:45	WG1637495
Benzo(g,h,i)perylene	0.0206	J	0.00742	0.0406	1	03/22/2021 13:45	WG1637495
Benzo(a)pyrene	0.00989	J	0.00754	0.0406	1	03/22/2021 13:45	WG1637495
Benzoic acid	U		0.144	2.03	1	03/22/2021 13:45	WG1637495
Benzyl alcohol	U		0.0150	0.406	1	03/22/2021 13:45	WG1637495
Bis(2-chlorethoxy)methane	U		0.0122	0.406	1	03/22/2021 13:45	WG1637495
Bis(2-chloroethyl)ether	U		0.0134	0.406	1	03/22/2021 13:45	WG1637495
2,2-Oxybis(1-Chloropropane)	U		0.0175	0.406	1	03/22/2021 13:45	WG1637495
4-Bromophenyl-phenylether	U		0.0142	0.406	1	03/22/2021 13:45	WG1637495
Carbazole	U		0.0125	0.406	1	03/22/2021 13:45	WG1637495
2-Chloronaphthalene	U		0.00712	0.0406	1	03/22/2021 13:45	WG1637495
4-Chloroaniline	U		0.0146	0.406	1	03/22/2021 13:45	WG1637495
4-Chlorophenyl-phenylether	U		0.0141	0.406	1	03/22/2021 13:45	WG1637495
Chrysene	U		0.00806	0.0406	1	03/22/2021 13:45	WG1637495
Dibenz(a,h)anthracene	U		0.0112	0.0406	1	03/22/2021 13:45	WG1637495
Dibenzofuran	U		0.0133	0.406	1	03/22/2021 13:45	WG1637495
3,3-Dichlorobenzidine	U		0.0150	0.406	1	03/22/2021 13:45	WG1637495
2,4-Dinitrotoluene	U		0.0116	0.406	1	03/22/2021 13:45	WG1637495
2,6-Dinitrotoluene	U		0.0133	0.406	1	03/22/2021 13:45	WG1637495
Fluoranthene	0.0114	J	0.00732	0.0406	1	03/22/2021 13:45	WG1637495
Fluorene	U		0.00660	0.0406	1	03/22/2021 13:45	WG1637495
Hexachlorobenzene	U		0.0144	0.406	1	03/22/2021 13:45	WG1637495
Hexachloro-1,3-butadiene	U		0.0136	0.406	1	03/22/2021 13:45	WG1637495
Hexachlorocyclopentadiene	U		0.0213	0.406	1	03/22/2021 13:45	WG1637495
Hexachloroethane	U		0.0160	0.406	1	03/22/2021 13:45	WG1637495
Indeno(1,2,3-cd)pyrene	0.0151	J	0.0115	0.0406	1	03/22/2021 13:45	WG1637495
Isophorone	U		0.0124	0.406	1	03/22/2021 13:45	WG1637495
2-Methylnaphthalene	U		0.00526	0.0406	1	03/22/2021 13:45	WG1637495
Naphthalene	U		0.0102	0.0406	1	03/22/2021 13:45	WG1637495
2-Nitroaniline	U		0.0130	0.406	1	03/22/2021 13:45	WG1637495
3-Nitroaniline	U		0.0129	0.406	1	03/22/2021 13:45	WG1637495
4-Nitroaniline	U		0.0118	0.406	1	03/22/2021 13:45	WG1637495
Nitrobenzene	U		0.0141	0.406	1	03/22/2021 13:45	WG1637495
n-Nitrosodimethylamine	U		0.0602	0.406	1	03/22/2021 13:45	WG1637495
n-Nitrosodiphenylamine	U		0.0307	0.406	1	03/22/2021 13:45	WG1637495
n-Nitrosodi-n-propylamine	U		0.0135	0.406	1	03/22/2021 13:45	WG1637495
Phenanthrene	U		0.00805	0.0406	1	03/22/2021 13:45	WG1637495
Benzylbutyl phthalate	U		0.0127	0.406	1	03/22/2021 13:45	WG1637495
Bis(2-ethylhexyl)phthalate	U		0.0514	0.406	1	03/22/2021 13:45	WG1637495
Di-n-butyl phthalate	U		0.0139	0.406	1	03/22/2021 13:45	WG1637495
Diethyl phthalate	U		0.0134	0.406	1	03/22/2021 13:45	WG1637495
Dimethyl phthalate	U		0.0860	0.406	1	03/22/2021 13:45	WG1637495
Di-n-octyl phthalate	U		0.0274	0.406	1	03/22/2021 13:45	WG1637495
Pyrene	0.0128	J	0.00789	0.0406	1	03/22/2021 13:45	WG1637495
Pyridine	U		0.0268	0.406	1	03/22/2021 13:45	WG1637495

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

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
1,2,4-Trichlorobenzene	U		0.0127	0.406	1	03/22/2021 13:45	WG1637495
4-Chloro-3-methylphenol	U		0.0132	0.406	1	03/22/2021 13:45	WG1637495
2-Chlorophenol	U		0.0134	0.406	1	03/22/2021 13:45	WG1637495
2,4-Dichlorophenol	U		0.0118	0.406	1	03/22/2021 13:45	WG1637495
2,4-Dimethylphenol	U		0.0106	0.406	1	03/22/2021 13:45	WG1637495
4,6-Dinitro-2-methylphenol	U		0.0919	0.406	1	03/22/2021 13:45	WG1637495
2,4-Dinitrophenol	U		0.0949	0.406	1	03/22/2021 13:45	WG1637495
2-Methylphenol	U		0.0122	0.406	1	03/22/2021 13:45	WG1637495
3&4-Methyl Phenol	U		0.0127	0.406	1	03/22/2021 13:45	WG1637495
2-Nitrophenol	U		0.0145	0.406	1	03/22/2021 13:45	WG1637495
4-Nitrophenol	U		0.0127	0.406	1	03/22/2021 13:45	WG1637495
Pentachlorophenol	U		0.0109	0.406	1	03/22/2021 13:45	WG1637495
Phenol	U		0.0163	0.406	1	03/22/2021 13:45	WG1637495
2,4,5-Trichlorophenol	U		0.0138	0.406	1	03/22/2021 13:45	WG1637495
2,4,6-Trichlorophenol	U		0.0130	0.406	1	03/22/2021 13:45	WG1637495
(S) 2-Fluorophenol	54.1			12.0-120		03/22/2021 13:45	WG1637495
(S) Phenol-d5	48.1			10.0-120		03/22/2021 13:45	WG1637495
(S) Nitrobenzene-d5	40.3			10.0-122		03/22/2021 13:45	WG1637495
(S) 2-Fluorobiphenyl	52.5			15.0-120		03/22/2021 13:45	WG1637495
(S) 2,4,6-Tribromophenol	57.5			10.0-127		03/22/2021 13:45	WG1637495
(S) p-Terphenyl-d14	58.4			10.0-120		03/22/2021 13:45	WG1637495

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		3/17/2021 8:28:31 AM	WG1635849
Fluid	1		3/17/2021 8:28:31 AM	WG1635849
Initial pH	9.10		3/17/2021 8:28:31 AM	WG1635849
Final pH	5.51		3/17/2021 8:28:31 AM	WG1635849

Mercury by Method 7470A

Analyte	Result	Qualifier	RDL	Limit	Dilution	Analysis date / time	Batch
Mercury	ND		0.0100	0.20	1	03/18/2021 17:43	WG1636673

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Limit	Dilution	Analysis date / time	Batch
	mg/l		mg/l	mg/l			
Arsenic	ND		0.100	5	1	03/18/2021 17:24	WG1636709
Barium	2.02		0.100	100	1	03/18/2021 17:24	WG1636709
Cadmium	ND		0.100	1	1	03/18/2021 17:24	WG1636709
Chromium	ND		0.100	5	1	03/18/2021 17:24	WG1636709
Lead	ND		0.100	5	1	03/18/2021 17:24	WG1636709
Selenium	ND		0.100	1	1	03/18/2021 17:24	WG1636709
Silver	ND		0.100	5	1	03/18/2021 17:24	WG1636709

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

Method Blank (MB)

(MB) R3632615-1 03/18/21 08:41

	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
Analyte	%		%	%
Total Solids	0.000			

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

L1326825-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1326825-09 03/18/21 08:41 • (DUP) R3632615-3 03/18/21 08:41

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	%	%		%		%
Total Solids	79.3	78.2	1	1.43		10

⁷Gl

⁸Al

Laboratory Control Sample (LCS)

(LCS) R3632615-2 03/18/21 08:41

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
Analyte	%	%	%	%	
Total Solids	50.0	50.0	100	85.0-115	

⁹Sc

Method Blank (MB)

(MB) R3632616-1 03/18/21 08:59

	MB Result	<u>MB Qualifier</u>	MB MDL	MB RDL
Analyte	%		%	%
Total Solids	0.000			

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

L1326831-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1326831-09 03/18/21 08:59 • (DUP) R3632616-3 03/18/21 08:59

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	%	%		%		%
Total Solids	84.3	83.3	1	1.25		10

Laboratory Control Sample (LCS)

(LCS) R3632616-2 03/18/21 08:59

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	<u>LCS Qualifier</u>
Analyte	%	%	%	%	
Total Solids	50.0	50.0	99.9	85.0-115	

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3632393-1 03/18/21 16:59

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Mercury	U		0.00330	0.0100

Laboratory Control Sample (LCS)

(LCS) R3632393-2 03/18/21 17:05

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Mercury	0.0300	0.0288	95.9	80.0-120	

L1326496-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1326496-01 03/18/21 17:07 • (MS) R3632393-3 03/18/21 17:09 • (MSD) R3632393-4 03/18/21 17:11

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Mercury	0.0300	ND	0.0299	0.0297	99.8	99.1	1	75.0-125			0.738	20

L1327024-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1327024-01 03/18/21 17:13 • (MS) R3632393-5 03/18/21 17:15 • (MSD) R3632393-6 03/18/21 17:17

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Mercury	0.0300	ND	0.0306	0.0312	102	104	1	75.0-125			1.98	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3632649-1 03/19/21 08:19

	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Mercury	U		0.00330	0.0100

Laboratory Control Sample (LCS)

(LCS) R3632649-2 03/19/21 08:21

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Mercury	0.0300	0.0307	102	80.0-120	

L1326831-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1326831-10 03/19/21 08:23 • (MS) R3632649-3 03/19/21 08:25 • (MSD) R3632649-4 03/19/21 08:27

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Mercury	0.0300	ND	0.0312	0.0321	104	107	1	75.0-125			2.61	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3632447-1 03/18/21 16:38

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic	U		0.0330	0.100
Barium	U		0.0330	0.100
Cadmium	U		0.0330	0.100
Chromium	U		0.0330	0.100
Lead	U		0.0330	0.100
Selenium	U		0.0330	0.100
Silver	U		0.0330	0.100

Laboratory Control Sample (LCS)

(LCS) R3632447-2 03/18/21 16:40

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	10.0	9.59	95.9	80.0-120	
Barium	10.0	9.87	98.7	80.0-120	
Cadmium	10.0	9.82	98.2	80.0-120	
Chromium	10.0	9.85	98.5	80.0-120	
Lead	10.0	9.87	98.7	80.0-120	
Selenium	10.0	9.85	98.5	80.0-120	
Silver	2.00	1.87	93.4	80.0-120	

L1326432-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1326432-02 03/18/21 16:43 • (MS) R3632447-4 03/18/21 16:49 • (MSD) R3632447-5 03/18/21 16:52

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	10.0	ND	9.76	9.66	97.6	96.6	1	75.0-125			1.02	20
Barium	10.0	0.751	10.5	10.4	97.4	96.7	1	75.0-125			0.651	20
Cadmium	10.0	ND	9.89	9.86	98.9	98.6	1	75.0-125			0.337	20
Chromium	10.0	ND	9.89	9.70	98.9	97.0	1	75.0-125			1.90	20
Lead	10.0	ND	9.85	9.81	98.5	98.1	1	75.0-125			0.484	20
Selenium	10.0	ND	10.1	9.97	100	98.9	1	75.0-125			1.12	20
Silver	2.00	ND	1.91	1.88	95.3	93.9	1	75.0-125			1.50	20

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Cp

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Tc

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Ss

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Cn

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Sr

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Qc

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Gl

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Al

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Sc

L1326496-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1326496-01 03/18/21 16:55 • (MS) R3632447-6 03/18/21 16:57 • (MSD) R3632447-7 03/18/21 17:00

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	<u>MS Qualifier</u>	<u>MSD Qualifier</u>	RPD %	RPD Limits %
Arsenic	10.0	ND	9.14	9.23	91.4	92.3	1	75.0-125			0.943	20
Barium	10.0	0.136	9.98	10.0	98.4	98.6	1	75.0-125			0.173	20
Cadmium	10.0	ND	9.59	9.63	95.9	96.3	1	75.0-125			0.405	20
Chromium	10.0	ND	9.65	9.81	96.5	98.1	1	75.0-125			1.67	20
Lead	10.0	ND	9.64	9.70	96.0	96.5	1	75.0-125			0.605	20
Selenium	10.0	ND	9.53	9.51	95.3	95.1	1	75.0-125			0.127	20
Silver	2.00	ND	1.83	1.85	91.3	92.3	1	75.0-125			1.08	20

¹Cp

²Tc

³Ss

⁴Cn

⁵Sr

⁶Qc

⁷Gl

⁸Al

⁹Sc

Method Blank (MB)

(MB) R3632507-1 03/18/21 23:30

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic	U		0.0330	0.100
Barium	U		0.0330	0.100
Cadmium	U		0.0330	0.100
Chromium	U		0.0330	0.100
Lead	U		0.0330	0.100
Selenium	U		0.0330	0.100
Silver	U		0.0330	0.100

Laboratory Control Sample (LCS)

(LCS) R3632507-2 03/18/21 23:32

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	10.0	9.49	94.9	80.0-120	
Barium	10.0	9.83	98.3	80.0-120	
Cadmium	10.0	9.33	93.3	80.0-120	
Chromium	10.0	9.63	96.3	80.0-120	
Lead	10.0	9.68	96.8	80.0-120	
Selenium	10.0	9.98	99.8	80.0-120	
Silver	2.00	1.90	94.9	80.0-120	

L1326831-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1326831-10 03/18/21 23:35 • (MS) R3632507-4 03/18/21 23:40 • (MSD) R3632507-5 03/18/21 23:43

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	10.0	ND	9.61	9.48	96.1	94.8	1	75.0-125			1.38	20
Barium	10.0	1.40	11.2	10.8	98.3	94.4	1	75.0-125			3.51	20
Cadmium	10.0	ND	9.41	9.32	94.1	93.2	1	75.0-125			0.971	20
Chromium	10.0	ND	9.62	9.60	96.2	96.0	1	75.0-125			0.214	20
Lead	10.0	ND	9.76	9.64	97.6	96.4	1	75.0-125			1.19	20
Selenium	10.0	ND	10.1	9.91	101	99.1	1	75.0-125			1.59	20
Silver	2.00	ND	1.90	1.91	95.0	95.3	1	75.0-125			0.299	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3633531-2 03/22/21 13:04

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL 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
Benzo(b)fluoranthene	U		0.00621	0.0333
Benzo(k)fluoranthene	U		0.00592	0.0333
Benzo(g,h,i)perylene	U		0.00609	0.0333
Benzo(a)pyrene	U		0.00619	0.0333
Bis(2-chlorethoxy)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
Carbazole	U		0.0103	0.333
4-Chloroaniline	U		0.0120	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,h)anthracene	U		0.00923	0.0333
Dibenzofuran	U		0.0109	0.333
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
Indeno(1,2,3-cd)pyrene	U		0.00941	0.0333
Isophorone	U		0.0102	0.333
2-Methylnaphthalene	U		0.00432	0.0333
Naphthalene	U		0.00836	0.0333
2-Nitroaniline	U		0.0107	0.333
3-Nitroaniline	U		0.0106	0.333
4-Nitroaniline	U		0.00971	0.333
Nitrobenzene	U		0.0116	0.333
n-Nitrosodimethylamine	U		0.0494	0.333
n-Nitrosodiphenylamine	U		0.0252	0.333
n-Nitrosodi-n-propylamine	U		0.0111	0.333
Phenanthrene	U		0.00661	0.0333

¹Cp

²Tc

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Method Blank (MB)

(MB) R3633531-2 03/22/21 13:04

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
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		0.0706	0.333
Di-n-octyl phthalate	U		0.0225	0.333
Pyrene	U		0.00648	0.0333
Pyridine	U		0.0220	0.333
1,2,4-Trichlorobenzene	U		0.0104	0.333
Benzoic Acid	U		0.118	1.67
Benzyl Alcohol	U		0.0123	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	41.1			10.0-122
(S) 2-Fluorobiphenyl	55.3			15.0-120
(S) p-Terphenyl-d14	70.3			10.0-120
(S) Phenol-d5	49.5			10.0-120
(S) 2-Fluorophenol	55.4			12.0-120
(S) 2,4,6-Tribromophenol	54.2			10.0-127

Laboratory Control Sample (LCS)

(LCS) R3633531-1 03/22/21 12:43

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acenaphthene	0.666	0.377	56.6	38.0-120	
Acenaphthylene	0.666	0.399	59.9	40.0-120	

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Cp

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Laboratory Control Sample (LCS)

(LCS) R3633531-1 03/22/21 12:43

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Anthracene	0.666	0.416	62.5	42.0-120	
Benzo(a)anthracene	0.666	0.470	70.6	44.0-120	
Benzo(b)fluoranthene	0.666	0.421	63.2	43.0-120	
Benzo(k)fluoranthene	0.666	0.446	67.0	44.0-120	
Benzo(g,h,i)perylene	0.666	0.487	73.1	43.0-120	
Benzo(a)pyrene	0.666	0.471	70.7	45.0-120	
Bis(2-chlorethoxy)methane	0.666	0.269	40.4	20.0-120	
Bis(2-chloroethyl)ether	0.666	0.403	60.5	16.0-120	
2,2-Oxybis(1-Chloropropane)	0.666	0.346	52.0	23.0-120	
4-Bromophenyl-phenylether	0.666	0.418	62.8	40.0-120	
Carbazole	0.666	0.408	61.3	48.0-120	
4-Chloroaniline	0.666	0.238	35.7	18.0-120	
2-Chloronaphthalene	0.666	0.379	56.9	35.0-120	
4-Chlorophenyl-phenylether	0.666	0.425	63.8	40.0-120	
Chrysene	0.666	0.448	67.3	43.0-120	
Dibenz(a,h)anthracene	0.666	0.480	72.1	44.0-120	
Dibenzofuran	0.666	0.412	61.9	44.0-120	
3,3-Dichlorobenzidine	1.33	0.865	65.0	28.0-120	
2,4-Dinitrotoluene	0.666	0.456	68.5	45.0-120	
2,6-Dinitrotoluene	0.666	0.445	66.8	42.0-120	
Fluoranthene	0.666	0.414	62.2	44.0-120	
Fluorene	0.666	0.410	61.6	41.0-120	
Hexachlorobenzene	0.666	0.397	59.6	39.0-120	
Hexachloro-1,3-butadiene	0.666	0.340	51.1	15.0-120	
Hexachlorocyclopentadiene	0.666	0.325	48.8	15.0-120	
Hexachloroethane	0.666	0.334	50.2	17.0-120	
Indeno(1,2,3-cd)pyrene	0.666	0.475	71.3	45.0-120	
Isophorone	0.666	0.273	41.0	23.0-120	
2-Methylnaphthalene	0.666	0.315	47.3	34.0-120	
Naphthalene	0.666	0.317	47.6	18.0-120	
2-Nitroaniline	0.666	0.495	74.3	46.0-120	
3-Nitroaniline	0.666	0.450	67.6	36.0-120	
4-Nitroaniline	0.666	0.492	73.9	36.0-120	
Nitrobenzene	0.666	0.266	39.9	17.0-120	
n-Nitrosodimethylamine	0.666	0.314	47.1	10.0-125	
n-Nitrosodiphenylamine	0.666	0.379	56.9	40.0-120	
n-Nitrosodi-n-propylamine	0.666	0.320	48.0	26.0-120	
Phenanthrene	0.666	0.421	63.2	42.0-120	
Benzylbutyl phthalate	0.666	0.476	71.5	40.0-120	
Bis(2-ethylhexyl)phthalate	0.666	0.460	69.1	41.0-120	

¹Cp

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Laboratory Control Sample (LCS)

(LCS) R3633531-1 03/22/21 12:43

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Di-n-butyl phthalate	0.666	0.418	62.8	43.0-120	
Diethyl phthalate	0.666	0.452	67.9	43.0-120	
Dimethyl phthalate	0.666	0.423	63.5	43.0-120	
Di-n-octyl phthalate	0.666	0.481	72.2	40.0-120	
Pyrene	0.666	0.438	65.8	41.0-120	
Pyridine	0.666	0.139	20.9	10.0-120	
1,2,4-Trichlorobenzene	0.666	0.335	50.3	17.0-120	
Benzoic Acid	1.33	0.136	10.2	10.0-120	
Benzyl Alcohol	0.666	0.280	42.0	10.0-120	
4-Chloro-3-methylphenol	0.666	0.317	47.6	28.0-120	
2-Chlorophenol	0.666	0.391	58.7	28.0-120	
2-Methylphenol	0.666	0.363	54.5	35.0-120	
3&4-Methyl Phenol	0.666	0.423	63.5	42.0-120	
2,4-Dichlorophenol	0.666	0.336	50.5	25.0-120	
2,4-Dimethylphenol	0.666	0.311	46.7	15.0-120	
4,6-Dinitro-2-methylphenol	0.666	0.350	52.6	16.0-120	
2,4-Dinitrophenol	0.666	0.216	32.4	10.0-120	
2-Nitrophenol	0.666	0.336	50.5	20.0-120	
4-Nitrophenol	0.666	0.422	63.4	27.0-120	
Pentachlorophenol	0.666	0.326	48.9	29.0-120	
Phenol	0.666	0.336	50.5	28.0-120	
2,4,5-Trichlorophenol	0.666	0.398	59.8	38.0-120	
2,4,6-Trichlorophenol	0.666	0.404	60.7	37.0-120	
(S) Nitrobenzene-d5			37.8	10.0-122	
(S) 2-Fluorobiphenyl			58.3	15.0-120	
(S) p-Terphenyl-d14			65.8	10.0-120	
(S) Phenol-d5			54.1	10.0-120	
(S) 2-Fluorophenol			58.4	12.0-120	
(S) 2,4,6-Tribromophenol			66.1	10.0-127	

¹Cp

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GLOSSARY OF TERMS

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.

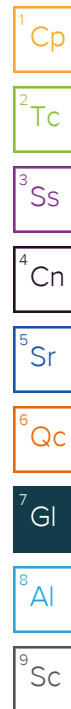
Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. 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.
ND	Not detected at the Reporting Limit (or MDL where applicable).
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

J	The identification of the analyte is acceptable; the reported value is an estimate.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.



ACCREDITATIONS & LOCATIONS

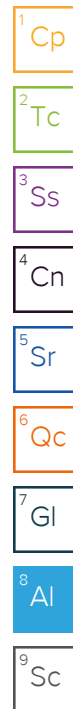
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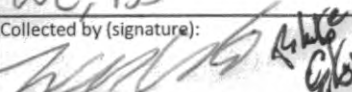
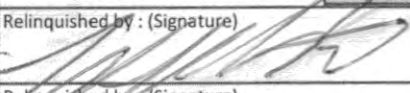
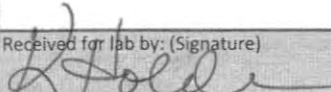
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Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey--NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio--VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky ^{1,6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1,4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA -- ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA -- ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA--Crypto	TN00003		

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

* 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 Analytical.



Company Name/Address: UPRR - Golder Associates 2201 Double Creek Dr., Ste 4004 Round Rock, TX 78664		Billing Information: Jim Brannen 4823 N 119th Street Milwaukee, WI 53225		Pres Chk		Analysis / Container / Preservative										Chain of Custody Page 1 of 1			
Report to: Patrick Marty		Email To: Patrick_marty@golder.com;Blake_Sokora@golder.com														 12065 Lebanon Road Mt Juliet, TN 37122 Phone: 615-758-5858 Alt: 800-767-5859 Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubs/pas-standard-terms.pdf			
Project Description: Houston TX-Houston Subd. MP358.2-360.3 Englewood		City/State Collected:		Please Circle: PT MT CT ET												SDG # U326831 D139			
Phone: 512-671-3434		Client Project # 1712		Lab Project # UPRRGOLD-1712												Acctnum: UPRRGOLD Template: T183275 Prelogin: P833433 PM: 134 - Mark W. Beasley PB:			
Collected by (print): WL, BS		Site/Facility ID # SOIL EVALUATION		P.O. # 4300066026												Shipped Via:			
Collected by (signature): 		Rush? (Lab MUST Be Notified) Same Day Five Day Next Day 5 Day (Rad Only) Two Day 10 Day (Rad Only) Three Day		Quote #												Remarks			
Immediately Packed on Ice N ☐ Y ☒				Date Results Needed												Sample # (lab only)			
Sample ID		Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs												
50-1712-CA06(0-5)-20210312			SS	0-5	3/12/21	1050	1	X	X	X							H60	-01/02	
50-1712-CA01(0-5)-20210312			SS	0-5	3/12/21	1230	1	X	X	X							Totals	-03/04	
50-1712-CA06(5-8)-20210312			SS	5-8	3/12/21	1055	1	X	X	X							Metals	-05/06	
50-1712-CA01(5-8)-20210312			SS	5-8	3/12/21	1235	1	X	X	X								-07/08	
50-1712-CA03(0-1.5)-20210312			SS	0-1.5	3/12/21	1430	1	X	X	X								-09/10	
50-1712-CA03(1.5-1.67)-20210312			SS	1.5-1.67	3/12/21	1435	1	X	X	X								-11/12	
50-1712-CA02(0-2.0)-20210312			SS	0-2.0	3/12/21	1005	1	X	X	X								-13/14	
50-1712-CA04(1.5-1.62)-20210312			SS	1.5-1.62	3/12/21	1505	1	X	X	X								-15/16	
50-1712-CA05(0-2)-20210312			SS	0-2	3/12/21	1040	1	X	X	X								-17/18	
50-1712-CA04(0-1.5)-20210312			SS	0-1.5	3/12/21	1500	1	X	X	X								-19/20	
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater DW - Drinking Water OT - Other		Remarks:		pH _____ Temp _____ Flow _____ Other _____										Sample Receipt Checklist COC Seal Present/Intact: ☒ Y ☐ N COC Signed/Accurate: ☒ Y ☐ N Bottles arrive intact: ☒ Y ☐ N Correct bottles used: ☒ Y ☐ N Sufficient volume sent: ☒ Y ☐ N If Applicable VOA Zero Headspace: ☒ Y ☐ N Preservation Correct/Checked: ☒ Y ☐ N RAD Screen <0.5 mR/hr: ☒ Y ☐ N					
Samples returned via: UPS FedEx Courier		Tracking # 7846 9464 9854																	
Relinquished by: (Signature) 		Date: 3/12/21	Time: 1700	Received by: (Signature)		Trip Blank Received: Yes ☒ No ☐ HCL / MeOH TBR													
Relinquished by: (Signature)		Date:	Time:	Received by: (Signature)		Temp: 46°C 03102023		Bottles Received: 10		If preservation required by Login: Date/Time									
Relinquished by: (Signature)		Date:	Time:	Received for lab by: (Signature) 		Date: 3/13/24 Time: 9:00		Hold:		Condition: NCF ☒ OK ☐									

ANALYTICAL REPORT

February 17, 2021

Revised Report

UPRR - Golder Associates

Sample Delivery Group: L1313723
Samples Received: 01/28/2021
Project Number: 1712
Description: Houston TX-Houston Subd. MP358.2-360.3
Englewood Yard North
Site: SOIL EVALUATION
Report To: Patrick Marty
2201 Double Creek Dr., Ste 4004
Round Rock, TX 78664

Entire Report Reviewed By:



Mark W. Beasley
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.



Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com



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Qc: Quality Control Summary
 Metals (ICP) by Method 6010B
Gl: Glossary of Terms
Al: Accreditations & Locations
Sc: Sample Chain of Custody

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45
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48
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¹Cp
²Tc
³Ss
⁴Cn
⁵Tr
⁶Sr
⁷Qc
⁸Gl
⁹Al
¹⁰Sc

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



SO-1712-SE06(0-1.25)-20210126 L1313723-01 Waste

				Collected by JE/WC	Collected date/time 01/26/21 16:40	Received date/time 01/28/21 08:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1616839	1	02/05/21 08:50	02/05/21 08:50	TM	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1617789	1	02/07/21 21:49	02/08/21 17:54	EL	Mt. Juliet, TN

¹ Cp

² Tc

³ Ss

SO-1712-SE03(0-2-20210 L1313723-02 Waste

				Collected by JE/WC	Collected date/time 01/26/21 14:35	Received date/time 01/28/21 08:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1616839	1	02/05/21 08:50	02/05/21 08:50	TM	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1617789	1	02/07/21 21:49	02/08/21 18:05	EL	Mt. Juliet, TN

⁴ Cn

⁵ Tr

⁶ Sr

SO-1712-SE03(0-2-20210 L1313723-03 GW

				Collected by JE/WC	Collected date/time 01/26/21 14:35	Received date/time 01/28/21 08:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1312	WG1617031	1	02/05/21 12:07	02/05/21 12:07	TM	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1618056	1	02/08/21 11:53	02/08/21 13:44	EL	Mt. Juliet, TN

⁷ Qc

⁸ Gl

⁹ Al

SO-1712-SE13(0-0.5)-20210126 L1313723-04 Waste

				Collected by JE/WC	Collected date/time 01/26/21 10:15	Received date/time 01/28/21 08:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1616839	1	02/05/21 08:50	02/05/21 08:50	TM	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1617789	1	02/07/21 21:49	02/08/21 18:08	EL	Mt. Juliet, TN

¹⁰ Sc

SO-1712-SE11(0-1)-20210126 L1313723-05 Waste

				Collected by JE/WC	Collected date/time 01/26/21 09:50	Received date/time 01/28/21 08:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1616839	1	02/05/21 08:50	02/05/21 08:50	TM	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1617789	1	02/07/21 21:49	02/08/21 18:11	EL	Mt. Juliet, TN

SO-1712-SE11(0-1)-20210126 L1313723-06 GW

				Collected by JE/WC	Collected date/time 01/26/21 09:50	Received date/time 01/28/21 08:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1312	WG1617031	1	02/05/21 12:07	02/05/21 12:07	TM	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1618056	1	02/08/21 11:53	02/08/21 13:47	EL	Mt. Juliet, TN

SO-1712-SE05(0-1)-20210126 L1313723-07 Waste

				Collected by JE/WC	Collected date/time 01/26/21 15:45	Received date/time 01/28/21 08:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1616839	1	02/05/21 08:50	02/05/21 08:50	TM	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1617789	1	02/07/21 21:49	02/08/21 18:13	EL	Mt. Juliet, TN

ACCOUNT:

UPRR - Golder Associates

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1712

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L1313723

DATE/TIME:

02/17/21 16:48

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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



SO-1712-SE08(0-2)-20210126 L1313723-08 Waste				Collected by JE/WC	Collected date/time 01/26/21 11:35	Received date/time 01/28/21 08:00	1Cp
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location	
Preparation by Method 1311	WG1616839	1	02/05/21 08:50	02/05/21 08:50	TM	Mt. Juliet, TN	2Tc
Metals (ICP) by Method 6010B	WG1617789	1	02/07/21 21:49	02/08/21 18:22	EL	Mt. Juliet, TN	3Ss
SO-1712-SE12(0-0.5)-20210126 L1313723-09 Waste				Collected by JE/WC	Collected date/time 01/26/21 10:00	Received date/time 01/28/21 08:00	4Cn
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location	
Preparation by Method 1311	WG1616839	1	02/05/21 08:50	02/05/21 08:50	TM	Mt. Juliet, TN	5Tr
Metals (ICP) by Method 6010B	WG1617789	1	02/07/21 21:49	02/08/21 18:24	EL	Mt. Juliet, TN	6Sr
SO-1712-SE12(0-0.5)-20210126 L1313723-10 GW				Collected by JE/WC	Collected date/time 01/26/21 10:00	Received date/time 01/28/21 08:00	7Qc
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location	
Preparation by Method 1312	WG1617031	1	02/05/21 12:07	02/05/21 12:07	TM	Mt. Juliet, TN	8Gl
Metals (ICP) by Method 6010B	WG1618056	5	02/08/21 11:53	02/08/21 14:30	EL	Mt. Juliet, TN	9Al
SO-1712-SE10(0-0.5)-20210126 L1313723-11 Waste				Collected by JE/WC	Collected date/time 01/26/21 10:35	Received date/time 01/28/21 08:00	10Sc
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location	
Preparation by Method 1311	WG1616839	1	02/05/21 08:50	02/05/21 08:50	TM	Mt. Juliet, TN	
Metals (ICP) by Method 6010B	WG1617789	1	02/07/21 21:49	02/08/21 18:27	EL	Mt. Juliet, TN	
SO-1712-SE10(0-0.5)-20210126 L1313723-12 GW				Collected by JE/WC	Collected date/time 01/26/21 10:35	Received date/time 01/28/21 08:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location	
Preparation by Method 1312	WG1617031	1	02/05/21 12:07	02/05/21 12:07	TM	Mt. Juliet, TN	
Metals (ICP) by Method 6010B	WG1618056	1	02/08/21 11:53	02/08/21 13:58	EL	Mt. Juliet, TN	
SO-1712-SE09(0-0.5)-20210126 L1313723-13 Waste				Collected by JE/WC	Collected date/time 01/26/21 11:10	Received date/time 01/28/21 08:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location	
Preparation by Method 1311	WG1616839	1	02/05/21 08:50	02/05/21 08:50	TM	Mt. Juliet, TN	
Metals (ICP) by Method 6010B	WG1617789	1	02/07/21 21:49	02/08/21 18:30	EL	Mt. Juliet, TN	
SO-1712-SE09(0-0.5)-20210126 L1313723-14 GW				Collected by JE/WC	Collected date/time 01/26/21 11:10	Received date/time 01/28/21 08:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location	
Preparation by Method 1312	WG1617031	1	02/05/21 12:07	02/05/21 12:07	TM	Mt. Juliet, TN	
Metals (ICP) by Method 6010B	WG1618056	1	02/08/21 11:53	02/08/21 14:01	EL	Mt. Juliet, TN	

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



SO-1712-SE04(0-0.5)-20210126 L1313723-15 Waste

Collected by
JE/WC

Collected date/time
01/26/21 15:15

Received date/time
01/28/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1616839	1	02/05/21 08:50	02/05/21 08:50	TM	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1617789	1	02/07/21 21:49	02/08/21 18:33	EL	Mt. Juliet, TN

¹Cp

²Tc

³Ss

SO-1712-SE04(0-0.5)-20210126 L1313723-16 GW

Collected by
JE/WC

Collected date/time
01/26/21 15:15

Received date/time
01/28/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1312	WG1617031	1	02/05/21 12:07	02/05/21 12:07	TM	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1618056	1	02/08/21 11:53	02/08/21 13:28	EL	Mt. Juliet, TN

⁴Cn

⁵Tr

⁶Sr

SO-1712-SE24(0-1)-20210127 L1313723-17 Waste

Collected by
JE/WC

Collected date/time
01/27/21 13:20

Received date/time
01/28/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1616839	1	02/05/21 08:50	02/05/21 08:50	TM	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1617789	1	02/07/21 21:49	02/08/21 18:36	EL	Mt. Juliet, TN

⁷Qc

⁸Gl

⁹Al

SO-1712-SE24(0-1)-20210127 L1313723-18 GW

Collected by
JE/WC

Collected date/time
01/27/21 13:20

Received date/time
01/28/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1312	WG1617031	1	02/05/21 12:07	02/05/21 12:07	TM	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1618056	1	02/08/21 11:53	02/08/21 14:04	EL	Mt. Juliet, TN

¹⁰Sc

SO-1712-SE22(0-2)-20210127 L1313723-19 Waste

Collected by
JE/WC

Collected date/time
01/27/21 12:30

Received date/time
01/28/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1616839	1	02/05/21 08:50	02/05/21 08:50	TM	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1617789	1	02/07/21 21:49	02/08/21 18:39	EL	Mt. Juliet, TN

SO-1712-SE20(0-0.5)-20210127 L1313723-20 Waste

Collected by
JE/WC

Collected date/time
01/27/21 11:00

Received date/time
01/28/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1616839	1	02/05/21 08:50	02/05/21 08:50	TM	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1617789	1	02/07/21 21:49	02/08/21 18:41	EL	Mt. Juliet, TN

SO-1712-SE20(0-0.5)-20210127 L1313723-21 GW

Collected by
JE/WC

Collected date/time
01/27/21 11:00

Received date/time
01/28/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1312	WG1617031	1	02/05/21 12:07	02/05/21 12:07	TM	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1618056	1	02/08/21 11:53	02/08/21 14:07	EL	Mt. Juliet, TN

ACCOUNT:

UPRR - Golder Associates

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02/17/21 16:48

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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



SO-1712-SE21(0-0.5)-20210127 L1313723-22 Waste				Collected by JE/WC	Collected date/time 01/27/21 11:10	Received date/time 01/28/21 08:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1616839	1	02/05/21 08:50	02/05/21 08:50	TM	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1617789	1	02/07/21 21:49	02/08/21 18:44	EL	Mt. Juliet, TN
SO-1712-SE21(0-0.5)-20210127 L1313723-23 GW				Collected by JE/WC	Collected date/time 01/27/21 11:10	Received date/time 01/28/21 08:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1312	WG1617031	1	02/05/21 12:07	02/05/21 12:07	TM	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1618056	1	02/08/21 11:53	02/08/21 14:09	EL	Mt. Juliet, TN
SO-1712-SE15(0-0.5)-20210127 L1313723-24 Waste				Collected by JE/WC	Collected date/time 01/27/21 08:55	Received date/time 01/28/21 08:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1616839	1	02/05/21 08:50	02/05/21 08:50	TM	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1617789	1	02/07/21 21:49	02/08/21 18:47	EL	Mt. Juliet, TN
SO-1712-SE15(0-0.5)-20210127 L1313723-25 GW				Collected by JE/WC	Collected date/time 01/27/21 08:55	Received date/time 01/28/21 08:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1312	WG1617031	1	02/05/21 12:07	02/05/21 12:07	TM	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1618056	1	02/08/21 11:53	02/08/21 14:12	EL	Mt. Juliet, TN
SO-1712-SE19(0-1)-20210127 L1313723-26 Waste				Collected by JE/WC	Collected date/time 01/27/21 09:55	Received date/time 01/28/21 08:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1616839	1	02/05/21 08:50	02/05/21 08:50	TM	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1617789	1	02/07/21 21:49	02/08/21 18:55	EL	Mt. Juliet, TN
SO-1712-SE23(0-0.5)-20210127 L1313723-27 Waste				Collected by JE/WC	Collected date/time 01/27/21 12:40	Received date/time 01/28/21 08:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1616839	1	02/05/21 08:50	02/05/21 08:50	TM	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1617789	1	02/07/21 21:49	02/08/21 18:58	JDG	Mt. Juliet, TN
SO-1712-SE16(0-0.5)-20210127 L1313723-28 Waste				Collected by JE/WC	Collected date/time 01/27/21 09:05	Received date/time 01/28/21 08:00
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1616839	1	02/05/21 08:50	02/05/21 08:50	TM	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1617789	1	02/07/21 21:49	02/08/21 19:01	EL	Mt. Juliet, TN

¹ Cp
² Tc
³ Ss
⁴ Cn
⁵ Tr
⁶ Sr
⁷ Qc
⁸ Gl
⁹ Al
¹⁰ Sc

ACCOUNT:

UPRR - Golder Associates

PROJECT:

1712

SDG:

L1313723

DATE/TIME:

02/17/21 16:48

PAGE:

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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



SO-1712-SE16(0-0.5)-20210127 L1313723-29 GW

Collected by
JE/WC

Collected date/time
01/27/21 09:05

Received date/time
01/28/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1312	WG1617031	1	02/05/21 12:07	02/05/21 12:07	TM	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1618056	1	02/08/21 11:53	02/08/21 14:15	EL	Mt. Juliet, TN

¹Cp

²Tc

³Ss

SO-1712-SE18(0-1.25)-20210127 L1313723-30 Waste

Collected by
JE/WC

Collected date/time
01/27/21 09:40

Received date/time
01/28/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1616839	1	02/05/21 08:50	02/05/21 08:50	TM	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1617789	1	02/07/21 21:49	02/08/21 19:04	EL	Mt. Juliet, TN

⁴Cn

⁵Tr

⁶Sr

SO-1712-SE17(0-0.5)-20210127 L1313723-31 Waste

Collected by
JE/WC

Collected date/time
01/27/21 09:10

Received date/time
01/28/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1616839	1	02/05/21 08:50	02/05/21 08:50	TM	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1617789	1	02/07/21 21:49	02/08/21 19:07	EL	Mt. Juliet, TN

⁷Qc

⁸Gl

⁹Al

¹⁰Sc

ACCOUNT:

UPRR - Golder Associates

PROJECT:

1712

SDG:

L1313723

DATE/TIME:

02/17/21 16:48

PAGE:

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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.

Mark W. Beasley
Project Manager

Report Revision History

Level II Report - Version 1: 02/09/21 10:45

Level II Report - Version 2: 02/12/21 13:01

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Tr

⁶ Sr

⁷ Qc

⁸ Gl

⁹ Al

¹⁰ Sc



This data package consists of this signature page, the laboratory review checklist, and the following reportable data as applicable:

- R1 - Field chain-of-custody documentation;
- R2 - Sample identification cross-reference;
- R3 - Test reports (analytical data sheets) for each environmental sample that includes:
 - a. Items consistent with NELAC Chapter 5,
 - b. dilution factors,
 - c. preparation methods,
 - d. cleanup methods, and
 - e. if required for the project, tentatively identified compounds (TICs).
- R4 - Surrogate recovery data including:
 - a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- R5 - Test reports/summary forms for blank samples;
- R6 - Test reports/summary forms for laboratory control samples (LCSs) including:
 - a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences (RPDs), and
 - e. The laboratory's MS/MSD QC limits
- R8 - Laboratory analytical duplicate (if applicable) recovery and precision:
 - a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and
 - c. The laboratory's QC limits for analytical duplicates.
- R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 - Other problems or anomalies.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Mark W. Beasley
Project Manager

Laboratory Review Checklist: Reportable Data



Laboratory Name: Pace Analytical National		LRC Date: 02/17/2021 16:48					
Project Name: Houston TX-Houston Subd. MP358.2-360.3 Englewood Yard North		Laboratory Job Number: L1313723-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30 and 31					
Reviewer Name: Mark W. Beasley		Prep Batch Number(s): WG1618056, WG1617789, WG1616839 and WG1617031					
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		Were calculations checked by a peer or supervisor?	X				
		Were all analyte identifications checked by a peer or supervisor?	X				
		Were sample detection limits reported for all analytes not detected?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, are TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?			X		
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?	X				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?			X		
		Were analytical duplicates analyzed at the appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	X				

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
3. NA = Not applicable;
4. NR = Not reviewed;
5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Review Checklist: Supporting Data



Laboratory Name: Pace Analytical National		LRC Date: 02/17/2021 16:48					
Project Name: Houston TX-Houston Subd. MP358.2-360.3 Englewood Yard North		Laboratory Job Number: L1313723-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30 and 31					
Reviewer Name: Mark W. Beasley		Prep Batch Number(s): WG1618056, WG1617789, WG1616839 and WG1617031					
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?			X		
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?	X				
		Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?			X		
		Were ion abundance data within the method-required QC limits?			X		
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?			X		
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?	X				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	X				
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed	X				
1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. 2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable); 3. NA = Not applicable; 4. NR = Not reviewed; 5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).							



Laboratory Name: Pace Analytical National		LRC Date: 02/17/2021 16:48	
Project Name: Houston TX-Houston Subd. MP358.2-360.3 Englewood Yard North		Laboratory Job Number: L1313723-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30 and 31	
Reviewer Name: Mark W. Beasley		Prep Batch Number(s): WG1618056, WG1617789, WG1616839 and WG1617031	
ER #¹	Description		
The Exception Report intentionally left blank, there are no exceptions applied to this SDG.			
1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period. 2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable); 3. NA = Not applicable; 4. NR = Not reviewed; 5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).			



Collected date/time: 01/26/21 16:40

L1313723

Preparation by Method 1311/1312

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		2/5/2021 8:50:35 AM	WG1616839
Fluid	1		2/5/2021 8:50:35 AM	WG1616839
Initial pH	8.21		2/5/2021 8:50:35 AM	WG1616839
Final pH	5.77		2/5/2021 8:50:35 AM	WG1616839

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MQL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Arsenic	ND		0.100	5	1	02/08/2021 17:54	WG1617789
Lead	ND		0.100	5	1	02/08/2021 17:54	WG1617789

¹Cp

²Tc

³Ss

⁴Cn

⁵Tr

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc



Preparation by Method 1311/1312

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		2/5/2021 8:50:35 AM	WG1616839
Fluid	1		2/5/2021 8:50:35 AM	WG1616839
Initial pH	8.77		2/5/2021 8:50:35 AM	WG1616839
Final pH	5.95		2/5/2021 8:50:35 AM	WG1616839

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MQL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	ND		0.100	5	1	02/08/2021 18:05	WG1617789

¹Cp

²Tc

³Ss

⁴Cn

⁵Tr

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc



Preparation by Method 1311/1312

Analyte	Result	Qualifier	Prep date / time	Batch
SPLP Extraction	-		2/5/2021 12:07:18 PM	WG1617031
Fluid	2		2/5/2021 12:07:18 PM	WG1617031
Final pH	7.99		2/5/2021 12:07:18 PM	WG1617031

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Lead	0.0571		0.00299	0.00600	0.00600	1	02/08/2021 13:44	WG1618056
Silver	U		0.00154	0.00500	0.00500	1	02/08/2021 13:44	WG1618056

1Cp

2Tc

3Ss

4Cn

5Tr

6Sr

7Qc

8Gl

9Al

10Sc



Preparation by Method 1311/1312

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		2/5/2021 8:50:35 AM	WG1616839
Fluid	1		2/5/2021 8:50:35 AM	WG1616839
Initial pH	7.66		2/5/2021 8:50:35 AM	WG1616839
Final pH	5.51		2/5/2021 8:50:35 AM	WG1616839

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MQL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Arsenic	ND		0.100	5	1	02/08/2021 18:08	WG1617789
Lead	ND		0.100	5	1	02/08/2021 18:08	WG1617789

¹Cp

²Tc

³Ss

⁴Cn

⁵Tr

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc



Preparation by Method 1311/1312

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		2/5/2021 8:50:35 AM	WG1616839
Fluid	1		2/5/2021 8:50:35 AM	WG1616839
Initial pH	9.02		2/5/2021 8:50:35 AM	WG1616839
Final pH	6.17		2/5/2021 8:50:35 AM	WG1616839

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MQL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	ND		0.100	5	1	02/08/2021 18:11	WG1617789

1Cp

2Tc

3Ss

4Cn

5Tr

6Sr

7Qc

8Gl

9Al

10Sc



Preparation by Method 1311/1312

Analyte	Result	Qualifier	Prep date / time	Batch
SPLP Extraction	-		2/5/2021 12:07:18 PM	WG1617031
Fluid	2		2/5/2021 12:07:18 PM	WG1617031
Final pH	8.13		2/5/2021 12:07:18 PM	WG1617031

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Lead	0.219		0.00299	0.00600	0.00600	1	02/08/2021 13:47	WG1618056

¹Cp

²Tc

³Ss

⁴Cn

⁵Tr

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc



Preparation by Method 1311/1312

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		2/5/2021 8:50:35 AM	WG1616839
Fluid	1		2/5/2021 8:50:35 AM	WG1616839
Initial pH	8.67		2/5/2021 8:50:35 AM	WG1616839
Final pH	5.82		2/5/2021 8:50:35 AM	WG1616839

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MQL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	ND		0.100	5	1	02/08/2021 18:13	WG1617789

¹Cp

²Tc

³Ss

⁴Cn

⁵Tr

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc



Preparation by Method 1311/1312

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		2/5/2021 8:50:35 AM	WG1616839
Fluid	1		2/5/2021 8:50:35 AM	WG1616839
Initial pH	8.31		2/5/2021 8:50:35 AM	WG1616839
Final pH	6.00		2/5/2021 8:50:35 AM	WG1616839

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MQL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	ND		0.100	5	1	02/08/2021 18:22	WG1617789

¹Cp

²Tc

³Ss

⁴Cn

⁵Tr

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc



Preparation by Method 1311/1312

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		2/5/2021 8:50:35 AM	WG1616839
Fluid	1		2/5/2021 8:50:35 AM	WG1616839
Initial pH	8.55		2/5/2021 8:50:35 AM	WG1616839
Final pH	5.78		2/5/2021 8:50:35 AM	WG1616839

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MQL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	ND		0.100	5	1	02/08/2021 18:24	WG1617789

¹Cp

²Tc

³Ss

⁴Cn

⁵Tr

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc



Collected date/time: 01/26/21 10:00

L1313723

Preparation by Method 1311/1312

Analyte	Result	Qualifier	Prep date / time	Batch
SPLP Extraction	-		2/5/2021 12:07:18 PM	WG1617031
Fluid	2		2/5/2021 12:07:18 PM	WG1617031
Final pH	8.39		2/5/2021 12:07:18 PM	WG1617031

¹ Cp

² Tc

³ Ss

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Lead	0.888		0.0150	0.00600	0.0300	5	02/08/2021 14:30	WG1618056

⁴ Cn

⁵ Tr

⁶ Sr

⁷ Qc

⁸ Gl

⁹ Al

¹⁰ Sc

Preparation by Method 1311/1312

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		2/5/2021 8:50:35 AM	WG1616839
Fluid	1		2/5/2021 8:50:35 AM	WG1616839
Initial pH	8.06		2/5/2021 8:50:35 AM	WG1616839
Final pH	5.62		2/5/2021 8:50:35 AM	WG1616839

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MQL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	ND		0.100	5	1	02/08/2021 18:27	WG1617789

1

Cp

2

Tc

3

Ss

4

Cn

5

Tr

6

Sr

7

Qc

8

Gl

9

Al

10

Sc



Collected date/time: 01/26/21 10:35

L1313723

Preparation by Method 1311/1312

Analyte	Result	Qualifier	Prep date / time	Batch
SPLP Extraction	-		2/5/2021 12:07:18 PM	WG1617031
Fluid	2		2/5/2021 12:07:18 PM	WG1617031
Final pH	7.93		2/5/2021 12:07:18 PM	WG1617031

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Cadmium	0.00128	J	0.000479	0.00200	0.00200	1	02/08/2021 13:58	WG1618056
Lead	0.135		0.00299	0.00600	0.00600	1	02/08/2021 13:58	WG1618056

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Tr

⁶ Sr

⁷ Qc

⁸ Gl

⁹ Al

¹⁰ Sc



Collected date/time: 01/26/21 11:10

L1313723

Preparation by Method 1311/1312

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		2/5/2021 8:50:35 AM	WG1616839
Fluid	1		2/5/2021 8:50:35 AM	WG1616839
Initial pH	8.29		2/5/2021 8:50:35 AM	WG1616839
Final pH	5.62		2/5/2021 8:50:35 AM	WG1616839

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MQL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	ND		0.100	5	1	02/08/2021 18:30	WG1617789

¹Cp

²Tc

³Ss

⁴Cn

⁵Tr

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc



Collected date/time: 01/26/21 11:10

L1313723

Preparation by Method 1311/1312

Analyte	Result	Qualifier	Prep date / time	Batch
SPLP Extraction	-		2/5/2021 12:07:18 PM	WG1617031
Fluid	2		2/5/2021 12:07:18 PM	WG1617031
Final pH	7.85		2/5/2021 12:07:18 PM	WG1617031

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0186		0.00440	0.0100	0.0100	1	02/08/2021 14:01	WG1618056
Lead	0.140		0.00299	0.00600	0.00600	1	02/08/2021 14:01	WG1618056

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Tr

⁶ Sr

⁷ Qc

⁸ Gl

⁹ Al

¹⁰ Sc



Collected date/time: 01/26/21 15:15

L1313723

Preparation by Method 1311/1312

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		2/5/2021 8:50:35 AM	WG1616839
Fluid	1		2/5/2021 8:50:35 AM	WG1616839
Initial pH	8.93		2/5/2021 8:50:35 AM	WG1616839
Final pH	6.06		2/5/2021 8:50:35 AM	WG1616839

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MQL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	ND		0.100	5	1	02/08/2021 18:33	WG1617789

¹Cp

²Tc

³Ss

⁴Cn

⁵Tr

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc



Preparation by Method 1311/1312

Analyte	Result	Qualifier	Prep date / time	Batch
SPLP Extraction	-		2/5/2021 12:07:18 PM	WG1617031
Fluid	2		2/5/2021 12:07:18 PM	WG1617031
Final pH	8.38		2/5/2021 12:07:18 PM	WG1617031

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Silver	U		0.00154	0.00500	0.00500	1	02/08/2021 13:28	WG1618056

¹ Cp² Tc³ Ss⁴ Cn⁵ Tr⁶ Sr⁷ Qc⁸ Gl⁹ Al¹⁰ Sc



Collected date/time: 01/27/21 13:20

L1313723

Preparation by Method 1311/1312

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		2/5/2021 8:50:35 AM	WG1616839
Fluid	1		2/5/2021 8:50:35 AM	WG1616839
Initial pH	8.86		2/5/2021 8:50:35 AM	WG1616839
Final pH	6.19		2/5/2021 8:50:35 AM	WG1616839

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MQL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	ND		0.100	5	1	02/08/2021 18:36	WG1617789

¹Cp

²Tc

³Ss

⁴Cn

⁵Tr

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc



Preparation by Method 1311/1312

Analyte	Result	Qualifier	Prep date / time	Batch
SPLP Extraction	-		2/5/2021 12:07:18 PM	WG1617031
Fluid	2		2/5/2021 12:07:18 PM	WG1617031
Final pH	8.42		2/5/2021 12:07:18 PM	WG1617031

¹ Cp

² Tc

³ Ss

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Lead	0.0976		0.00299	0.00600	0.00600	1	02/08/2021 14:04	WG1618056

⁴ Cn

⁵ Tr

⁶ Sr

⁷ Qc

⁸ Gl

⁹ Al

¹⁰ Sc

Preparation by Method 1311/1312

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		2/5/2021 8:50:35 AM	WG1616839
Fluid	1		2/5/2021 8:50:35 AM	WG1616839
Initial pH	8.74		2/5/2021 8:50:35 AM	WG1616839
Final pH	6.07		2/5/2021 8:50:35 AM	WG1616839

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MQL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	ND		0.100	5	1	02/08/2021 18:39	WG1617789

¹Cp

²Tc

³Ss

⁴Cn

⁵Tr

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc



Preparation by Method 1311/1312

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		2/5/2021 8:50:35 AM	WG1616839
Fluid	1		2/5/2021 8:50:35 AM	WG1616839
Initial pH	8.35		2/5/2021 8:50:35 AM	WG1616839
Final pH	6.04		2/5/2021 8:50:35 AM	WG1616839

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MQL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	ND		0.100	5	1	02/08/2021 18:41	WG1617789

¹Cp

²Tc

³Ss

⁴Cn

⁵Tr

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc



Collected date/time: 01/27/21 11:00

L1313723

Preparation by Method 1311/1312

Analyte	Result	Qualifier	Prep date / time	Batch
SPLP Extraction	-		2/5/2021 12:07:18 PM	WG1617031
Fluid	2		2/5/2021 12:07:18 PM	WG1617031
Final pH	8.08		2/5/2021 12:07:18 PM	WG1617031

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0221		0.00440	0.0100	0.0100	1	02/08/2021 14:07	WG1618056

¹ Cp² Tc³ Ss⁴ Cn⁵ Tr⁶ Sr⁷ Qc⁸ Gl⁹ Al¹⁰ Sc



Collected date/time: 01/27/21 11:10

L1313723

Preparation by Method 1311/1312

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		2/5/2021 8:50:35 AM	WG1616839
Fluid	1		2/5/2021 8:50:35 AM	WG1616839
Initial pH	8.87		2/5/2021 8:50:35 AM	WG1616839
Final pH	6.07		2/5/2021 8:50:35 AM	WG1616839

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MQL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	ND		0.100	5	1	02/08/2021 18:44	WG1617789

¹Cp

²Tc

³Ss

⁴Cn

⁵Tr

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc



Collected date/time: 01/27/21 11:10

L1313723

Preparation by Method 1311/1312

Analyte	Result	Qualifier	Prep date / time	Batch
SPLP Extraction	-		2/5/2021 12:07:18 PM	WG1617031
Fluid	2		2/5/2021 12:07:18 PM	WG1617031
Final pH	8.28		2/5/2021 12:07:18 PM	WG1617031

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0371		0.00440	0.0100	0.0100	1	02/08/2021 14:09	WG1618056
Selenium	U		0.00735	0.0100	0.0100	1	02/08/2021 14:09	WG1618056

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Tr

⁶ Sr

⁷ Qc

⁸ Gl

⁹ Al

¹⁰ Sc



Collected date/time: 01/27/21 08:55

L1313723

Preparation by Method 1311/1312

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		2/5/2021 8:50:35 AM	WG1616839
Fluid	1		2/5/2021 8:50:35 AM	WG1616839
Initial pH	8.76		2/5/2021 8:50:35 AM	WG1616839
Final pH	6.09		2/5/2021 8:50:35 AM	WG1616839

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MQL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	ND		0.100	5	1	02/08/2021 18:47	WG1617789

1Cp

2Tc

3Ss

4Cn

5Tr

6Sr

7Qc

8Gl

9Al

10Sc



Preparation by Method 1311/1312

Analyte	Result	Qualifier	Prep date / time	Batch
SPLP Extraction	-		2/5/2021 12:07:18 PM	WG1617031
Fluid	2		2/5/2021 12:07:18 PM	WG1617031
Final pH	8.12		2/5/2021 12:07:18 PM	WG1617031

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0368		0.00440	0.0100	0.0100	1	02/08/2021 14:12	WG1618056
Barium	0.247		0.000736	0.00500	0.00500	1	02/08/2021 14:12	WG1618056
Lead	0.100		0.00299	0.00600	0.00600	1	02/08/2021 14:12	WG1618056

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Tr

⁶ Sr

⁷ Qc

⁸ Gl

⁹ Al

¹⁰ Sc



Preparation by Method 1311/1312

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		2/5/2021 8:50:35 AM	WG1616839
Fluid	1		2/5/2021 8:50:35 AM	WG1616839
Initial pH	8.53		2/5/2021 8:50:35 AM	WG1616839
Final pH	6.04		2/5/2021 8:50:35 AM	WG1616839

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MQL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Arsenic	ND		0.100	5	1	02/08/2021 18:55	WG1617789
Lead	ND		0.100	5	1	02/08/2021 18:55	WG1617789

¹Cp

²Tc

³Ss

⁴Cn

⁵Tr

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc



Collected date/time: 01/27/21 12:40

L1313723

Preparation by Method 1311/1312

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		2/5/2021 8:50:35 AM	WG1616839
Fluid	1		2/5/2021 8:50:35 AM	WG1616839
Initial pH	8.69		2/5/2021 8:50:35 AM	WG1616839
Final pH	6.11		2/5/2021 8:50:35 AM	WG1616839

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MQL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Arsenic	ND		0.100	5	1	02/08/2021 18:58	WG1617789
Lead	ND		0.100	5	1	02/08/2021 18:58	WG1617789

¹Cp

²Tc

³Ss

⁴Cn

⁵Tr

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc



Preparation by Method 1311/1312

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		2/5/2021 8:50:35 AM	WG1616839
Fluid	1		2/5/2021 8:50:35 AM	WG1616839
Initial pH	8.58		2/5/2021 8:50:35 AM	WG1616839
Final pH	6.03		2/5/2021 8:50:35 AM	WG1616839

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MQL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	ND		0.100	5	1	02/08/2021 19:01	WG1617789

1Cp

2Tc

3Ss

4Cn

5Tr

6Sr

7Qc

8Gl

9Al

10Sc



Preparation by Method 1311/1312

Analyte	Result	Qualifier	Prep date / time	Batch
SPLP Extraction	-		2/5/2021 12:07:18 PM	WG1617031
Fluid	2		2/5/2021 12:07:18 PM	WG1617031
Final pH	8.70		2/5/2021 12:07:18 PM	WG1617031

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Arsenic	0.0250		0.00440	0.0100	0.0100	1	02/08/2021 14:15	WG1618056
Barium	0.199		0.000736	0.00500	0.00500	1	02/08/2021 14:15	WG1618056

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Tr

⁶ Sr

⁷ Qc

⁸ Gl

⁹ Al

¹⁰ Sc



Collected date/time: 01/27/21 09:40

L1313723

Preparation by Method 1311/1312

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		2/5/2021 8:50:35 AM	WG1616839
Fluid	1		2/5/2021 8:50:35 AM	WG1616839
Initial pH	8.49		2/5/2021 8:50:35 AM	WG1616839
Final pH	5.48		2/5/2021 8:50:35 AM	WG1616839

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MQL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	ND		0.100	5	1	02/08/2021 19:04	WG1617789

¹Cp

²Tc

³Ss

⁴Cn

⁵Tr

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc



Collected date/time: 01/27/21 09:10

L1313723

Preparation by Method 1311/1312

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		2/5/2021 8:50:35 AM	WG1616839
Fluid	1		2/5/2021 8:50:35 AM	WG1616839
Initial pH	8.62		2/5/2021 8:50:35 AM	WG1616839
Final pH	5.93		2/5/2021 8:50:35 AM	WG1616839

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	MQL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Arsenic	ND		0.100	5	1	02/08/2021 19:07	WG1617789
Lead	ND		0.100	5	1	02/08/2021 19:07	WG1617789

¹Cp

²Tc

³Ss

⁴Cn

⁵Tr

⁶Sr

⁷Qc

⁸Gl

⁹Al

¹⁰Sc

[L1313723-01,02,04,05,07,08,09,11,13,15,17,19,20,22,24,26,27,28,30,31](#)

Method Blank (MB)

(MB) R3620572-1 02/08/21 17:49

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic	U		0.0330	0.100
Lead	U		0.0330	0.100

Laboratory Control Sample (LCS)

(LCS) R3620572-2 02/08/21 17:51

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	10.0	9.69	96.9	80.0-120	
Lead	10.0	9.94	99.4	80.0-120	

L1313723-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1313723-01 02/08/21 17:54 • (MS) R3620572-4 02/08/21 17:59 • (MSD) R3620572-5 02/08/21 18:02

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	10.0	ND	9.77	9.76	97.7	97.6	1	75.0-125			0.152	20
Lead	10.0	ND	9.90	9.94	98.6	99.0	1	75.0-125			0.408	20

1

Cp

2

Tc

3

Ss

4

Cn

5

Tr

6

Sr

7

Qc

8

Gl

9

Al

10

Sc

[L1313723-03,06,10,12,14,16,18,21,23,25,29](#)

Method Blank (MB)

(MB) R3620458-1 02/08/21 13:23

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic	U		0.00440	0.0100
Barium	U		0.000736	0.00500
Cadmium	U		0.000479	0.00200
Lead	U		0.00299	0.00600
Selenium	U		0.00735	0.0100
Silver	U		0.00154	0.00500

Laboratory Control Sample (LCS)

(LCS) R3620458-2 02/08/21 13:25

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	1.00	0.979	97.9	80.0-120	
Barium	1.00	0.993	99.3	80.0-120	
Cadmium	1.00	0.967	96.7	80.0-120	
Lead	1.00	0.995	99.5	80.0-120	
Selenium	1.00	0.962	96.2	80.0-120	
Silver	0.200	0.171	85.3	80.0-120	

L1313723-16 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1313723-16 02/08/21 13:28 • (MS) R3620458-4 02/08/21 13:34 • (MSD) R3620458-5 02/08/21 13:36

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	1.00	U	0.973	0.965	97.3	96.5	1	75.0-125			0.820	20
Barium	1.00	0.0853	1.07	1.05	98.1	96.2	1	75.0-125			1.85	20
Cadmium	1.00	0.000726	0.968	0.955	96.7	95.4	1	75.0-125			1.39	20
Lead	1.00	0.0281	1.03	1.02	100	99.3	1	75.0-125			0.977	20
Selenium	1.00	U	0.973	0.960	97.3	96.0	1	75.0-125			1.34	20
Silver	0.200	U	0.170	0.168	85.0	84.0	1	75.0-125			1.25	20

1

Cp

2

Tc

3

Ss

4

Cn

5

Tr

6

Sr

7

Qc

8

Gl

9

Al

10

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

MDL	Method Detection Limit.
MQL	Method Quantitation Limit.
ND	Not detected at the Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
SDL	Sample Detection Limit.
U	Not detected at the Sample Detection Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.
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

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

1 Cp

2 Tc

3 Ss

4 Cn

5 Tr

6 Sr

7 Qc

8 Gl

9 Al

10 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.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN, 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico ¹	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina ¹	DW21704
Georgia	NELAP	North Carolina ³	41
Georgia ¹	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky ^{1 6}	KY90010	South Carolina	84004002
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP, LLC EMLAP	100789
A2LA – ISO 17025 ⁵	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

Pace Analytical National 1313 Point Mallard Parkway SE Suite B Decatur, AL, 35601

Alabama	40160
ANSI National Accreditation Board	L2239

Pace Analytical National 660 Bercut Dr. Ste. C Sacramento, CA, 95811

California	2961	Oregon	CA300002
Minnesota	006-999-465	Washington	C926
North Dakota	R-214		

Pace Analytical National 6000 South Eastern Avenue Ste 9A Las Vegas, NV, 89119

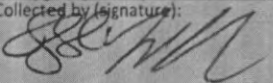
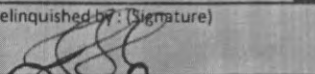
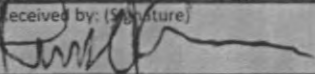
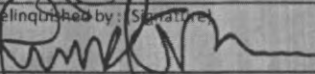
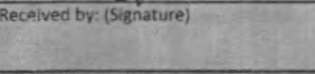
Nevada	NV009412021-1
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Pace Analytical National 1606 E. Brazos Street Suite D Victoria, TX, 77901

Texas	T104704328-20-18
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¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable



UPRR - Golder Associates 2201 Double Creek Dr., Ste 4004 Round Rock, TX 78664				Billing Information: Jim Brannen 4823 N 119th Street Milwaukee, WI 53225				Pres Chk		Analysis / Container / Preservative ✓				Chain of Custody Page <u>1</u> of <u>3</u>				
				Report to: Patrick Marty				Email To: Patrick_marty@golder.com; Jacqueline_Engel@golder.com				 Pace Analytical National Center for Testing & Innovation 12065 Lebanon Rd Mount Juliet, TN 37122 Phone: 615-758-5858 Phone: 800-767-5859 Fax: 615-758-5859						
Project Description: Houston TX-Houston Subd. MP358.2-360.3 Englewood				City/State Collected: HOUSTON, TX		Please Circle: PT MT <u>Q</u> ET						SDG # C203						
Phone: 512-671-3434		Client Project # 1712		Lab Project # UPRRGOLD-1712						Acctnum: UPRRGOLD Template: T180684 Prelogin: P822407 PM: 134 - Mark W. Beasley PB:								
Collected by (print): JACQUELINE ENGEL WILL CARTER		Site/Facility ID # SOIL EVALUATION		P.O. # 4300066026						Shipped Via:								
Collected by (signature): 		Rush? (Lab MUST Be Notified) ☐ Same Day ☐ Five Day ☐ Next Day ☐ 5 Day (Rad Only) ☐ Two Day ☐ 10 Day (Rad Only) ☐ Three Day		Quote #						Remarks Sample # (lab only)								
Immediately Packed on Ice N ☐ Y ☒				Date Results Needed														
Sample ID		Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	MRCRA8 8ozClr-NoPres	PH 8ozClr-NoPres	SV8270 8ozClr-NoPres	TPHTX 40mITW/SyringeNoPres	V8260 40mIAmb/MeOH10ml/Syr						
SU-1712-SE06(0-1.25)- ²⁰²¹ _{01/26}		G	SS	1.25	1/26/21	1640	4	✓	✓	✓	✓	✓					01	-01
SU-1712-SE02(0-3)- ²⁰²¹ _{01/26}		G	SS	3		1415	4	✓		✓	✓	✓						-02
SU-1712-SE03(0-2)- ²⁰²¹ _{01/26}		G	SS	2		1435	4	✓		✓	✓	✓					02/03	-03
SU-1712-SE01(0-3)- ²⁰²¹ _{01/26}		G	SS	3		1345	4	✓		✓	✓	✓						-04
SU-1712-SE13(0-0.5)- ²⁰²¹ _{01/26}		G	SS	0.5		1015	4	✓	✓	✓	✓	✓					04	-05
SU-1712-SE07(0-4)- ²⁰²¹ _{01/26}		G	SS	4		1205	4	✓		✓	✓	✓						-06
SU-1712-SE11(0-1)- ²⁰²¹ _{01/26}		G	SS	1		0950	4	✓		✓	✓	✓					05/08	-07
SU-1712-SE05(0-1)- ²⁰²¹ _{01/26}		G	SS	1		1545	4	✓	✓	✓	✓	✓					07	-08
SU-1712-SE08(0-2)- ²⁰²¹ _{01/26}		G	SS	2		1135	4	✓		✓	✓	✓					08	-09
SU-1712-SE12(0-0.5)- ²⁰²¹ _{01/26}		G	SS	0.5		1000	4	✓		✓	✓	✓					09/10	-10
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater DW - Drinking Water OT - Other		Remarks: W052247 STANDARD TAT UPRR ENG Dept.				pH _____ Temp _____ Flow _____ Other _____				Sample Receipt Checklist COC Seal Present/Intact: ☒ Y ☐ N COC Signed/Accurate: ☒ Y ☐ N Bottles arrive intact: ☒ Y ☐ N Correct bottles used: ☒ Y ☐ N Sufficient volume sent: ☒ Y ☐ N If Applicable VOA Zero Headspace: ☒ Y ☐ N Preservation Correct/Checked: ☒ Y ☐ N RAD Screen <0.5 mR/hr: ☒ Y ☐ N								
Relinquished by: (Signature) 		Date: 1/27/21		Time: 16:42		Received by: (Signature) 		Trip Blank Received: Yes / No Yes ☐ No ☒		Temp: 1.3 °C Humidity: 1.5 % TBR: 96		If preservation required by Login: Date/Time						
Relinquished by: (Signature) 		Date: 1/27/21		Time: 18:00		Received for lab by: (Signature) 		Date: 1/28/21		Time: 8:00		Hold:		Condition: NCF / 00				

UPRR - Golder Associates

2201 Double Creek Dr., Ste 4004
Round Rock, TX 78664

Billing Information:

Jim Brannen
4823 N 119th Street
Milwaukee, WI 53225

Pres
Chk

Analysis / Container / Preservative

Chain of Custody Page 2 of 3



12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859



Report to:

Patrick Marty

Email To:

Patrick_marty@golder.com; Jacqueline_Engel@g

Project Description:

Houston TX-Houston Subd. MP358.2-360.3 Englewood

City/State

Collected: HOUSTON, TX

Please Circle:

PT MT ☒ ET

Phone: 512-671-3434

Client Project #

1712

Lab Project #

UPRRGOLD-1712

Collected by (print):

JACQUELINE ENGEL &
WILL CARTER

Site/Facility ID #

SOIL EVALUATION

P.O. #

4300066026

Collected by (signature):

[Signature]
Immediately
Packed on ice N ☒ Y ☒

Rush? (Lab MUST Be Notified)

Same Day ☐ Five Day ☐
Next Day ☐ 5 Day (Rad Only) ☐
Two Day ☐ 10 Day (Rad Only) ☐
Three Day ☐

Quote

Date Results Needed

No.
of
Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cntrs	MRCR48 8ozClr-NoPres	PH 8ozClr-NoPres	SV8270 8ozClr-NoPres	TPHTX 40mITW/SyringeNoPres	V8260 40mIAmb/MeOH10ml/Syr								
50-1712-SE10(0-0.5)- 2021 0126	G	SS	0.5	1/26/21	1035	4	✓	✓	✓	✓	✓							11/12	-11
50-1712-SE09(0-0.5)- 2021 0126	G	SS	0.5	1	1110	4	✓		✓	✓	✓							13/14	-12
50-1712-SE04(0-0.5)- 2021 0126	G	SS	0.5	↓	1515	4	✓		✓	✓	✓							15/16	-13
50-1712-SE24(0-1)- 2021 0127	G	SS	1	1/27/21	1320	4	✓	✓	✓	✓	✓							17/18	-14
50-1712-SE22(0-2)- 2021 0127	G	SS	2	1	1230	4	✓		✓	✓	✓							19	-15
50-1712-SE20(0-0.5)- 2021 0127	G	SS	0.5	1	1100	4	✓		✓	✓	✓							20/21	-16
50-1712-SE21(0-0.5)- 2021 0127	G	SS	0.5	1	1110	4	✓	✓	✓	✓	✓							22/23	-17
50-1712-SE15(0-0.5)- 2021 0127	G	SS	0.5	1	0855	4	✓		✓	✓	✓							24/25	-18
50-1712-SE19(0-1)- 2021 0127	G	SS	1	1	0955	4	✓		✓	✓	✓							26	-19
50-1712-SE23(0-0.5)- 2021 0127	G	SS	0.5	↓	1240	4	✓		✓	✓	✓							27	-20

* Matrix:

SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - Wastewater
DW - Drinking Water
OT - Other

Remarks: W052247

UPRR ENG DEPT.
STANDARD TAT

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:

UPS ☐ FedEx ☐ Courier ☐

Tracking #

Relinquished by: (Signature)

Date:

1/27/21 16:42

Time:

Received by: (Signature)

Trip Blank Received: Yes/No

17/130
Temp: 1.3 ± 0.2 °C
1.5 96
BTL / MeOH
TBR

Relinquished by: (Signature)

Date:

1/27/21 18:00

Time:

Received by: (Signature)

Bottles Received:

Relinquished by: (Signature)

Date:

Time:

Received for lab by: (Signature)

Date:

1/28/21 8:00

Time:

Hold:

Condition:

NCF / ☒ OK

Sample Receipt Checklist

COC Seal Present/Intact: ☒ NP ☐ Y ☐ N
COC Signed/Accurate: ☒ Y ☐ N
Bottles arrive intact: ☒ Y ☐ N
Correct bottles used: ☒ Y ☐ N
Sufficient volume sent: ☒ Y ☐ N
If Applicable
VOA Zero Headspace: ☒ Y ☐ N
Preservation Correct/Checked: ☒ Y ☐ N
RAD Screen <0.5 mR/hr: ☒ Y ☐ N

If preservation required by Login: Date/Time

UPRR - Golder Associates

2201 Double Creek Dr., Ste 4004
Round Rock, TX 78664Report to:
Patrick MartyProject Description:
Houston TX-Houston Subd. MP358.2-360.3 EnglewoodCity/State
Collected: HOUSTON, TXPlease Circle:
PT MT CT ET

Phone: 512-671-3434

Client Project #
1712Lab Project #
UPRRGOLD-1712Collected by (print):
JACQUELINE ENGEL +
MILY CARTERSite/Facility ID #
SOIL EVALUATIONP.O. #
4300066026

Collected by (signature):

Rush? (Lab MUST Be Notified)

Quote #

Immediately
Packed on Ice N Y ✓

☐ Same Day ☐ Five Day
☐ Next Day ☐ 5 Day (Rad Only)
☐ Two Day ☐ 10 Day (Rad Only)
☐ Three Day

Date Results Needed

No.
of
Cntrs

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cntrs
50-1712-SE14 (0-0.5) - 2021/0127	G	SS	0.5	1/27/21	0845	4
50-1712-SE16 (0-0.5) - 2021/0127	G	SS	0.5		0905	4
50-1712-SE18 (0-1.25) - 2021/0127	G	SS	1.25		0940	4
50-1712-SE17 (0-0.5) - 2021/0127	G	SS	0.5		0910	4
TRIP BLANK 0127		SS				
TB01 - 2021/0127	G	SS OT	-	1/27/21	-	1
TB02 - 2021/0126	G	OT	-	1/26/21	-	1

* Matrix:
 SS - Soil AIR - Air F - Filter
 GW - Groundwater B - Bioassay
 WW - WasteWater
 DW - Drinking Water
 OT - Other

Remarks: W052247
 UPRR ENG. DEPT.
 STANDARD TAT

Samples returned via:
 UPS FedEx Courier

Tracking #

Relinquished by (Signature)

Date: 1/27/21

Time: 16:42

Received by (Signature)

Trip Blank Received: YES / No
 2 Y / N
 TBR

Relinquished by (Signature)

Date: 1/27/21

Time: 18:00

Received by (Signature)

Temp: +2 °C
 1.3 1.5 96
 Bottles Received:

Relinquished by (Signature)

Date:

Time:

Received for lab by (Signature)

Date: 1/28/21
 Time: 8:00

Hold:

Condition:
 NCF / OK

Analysis / Container / Preservative

Chain of Custody Page 3 of 3

Pres
Chk

12065 Lebanon Rd
 Mount Juliet, TN 37122
 Phone: 615-758-5858
 Phone: 800-767-5859
 Fax: 615-758-5859



SDG # 6231179 11214

Table # 1313723

Acctnum: UPRRGOLD

Template: T180684

Prelogin: P822407

PM: 134 - Mark W. Beasley

PB:

Shipped Via:

Remarks Sample # (lab only)

Sample Receipt Checklist

COC Seal Present/Intact: X Y N
 COC Signed/Accurate: Y N
 Bottles arrive intact: Y N
 Correct bottles used: Y N
 Sufficient volume sent: Y N
 If Applicable
 VOA Zero Headspace: Y N
 Preservation Correct/Checked: Y N
 RAD Screen <0.5 mR/hr: X Y N

If preservation required by Login: Date/Time

L1311179 *UPRRGOLD* rush R4 relog**R3/R4/RX/EX**

Relog the following as R4 due 2/9:

L1311179-01 TCLP ASICP, PBICP
L1311179-03 TCLP PBICP / SPLP AGICP, PBICP
L1311179-05 TCLP ASICP, PBICP
L1311179-07 TCLP PBICP / SPLP PBICP
L1311179-08 TCLP PBICP
L1311179-09 TCLP PBICP
L1311179-10 TCLP PBICP / SPLP PBICP
L1311179-11 TCLP PBICP / SPLP CDICP, PBICP
L1311179-12 TCLP PBICP / SPLP ASICP, PBICP
L1311179-13 TCLP PBICP / SPLP AGICP
L1311179-14 TCLP PBICP / SPLP PBICP
L1311179-15 TCLP PBICP
L1311179-16 TCLP PBICP / SPLP ASICP
L1311179-17 TCLP PBICP / SPLP ASICP, SEICP
L1311179-18 TCLP PBICP / SPLP ASICP, BAICP, PBICP
L1311179-19 TCLP ASICP, PBICP
L1311179-20 TCLP PBICP
L1311179-22 TCLP PBICP / SPLP ASICP, BAICP
L1311179-23 TCLP PBICP
L1311179-24 TCLP ASICP, PBICP

Thanks

Mark

From: Reid, Anthony <Anthony_Reid@golder.com>

Sent: Thursday, February 04, 2021 10:25 AM

To: Mark Beasley <MBeasley@pacenational.com>

Cc: Marty, Patrick <Patrick_Marty@golder.com>

Subject: Englewood Yard NB - Additional Analysis

CAUTION: This email originated from outside Pace Analytical. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Mark,