SFPP, LP

Remedial Action Plan

Silvercroft Wash Release Site
Voluntary Remediation Program Site 506251-00
Tucson, Arizona

May 2023

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May 5, 2023

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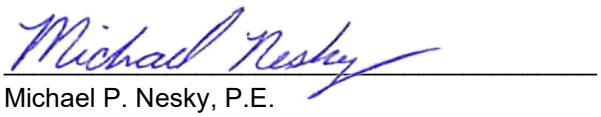

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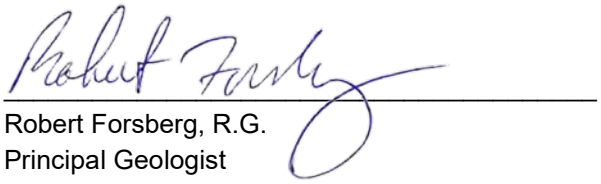

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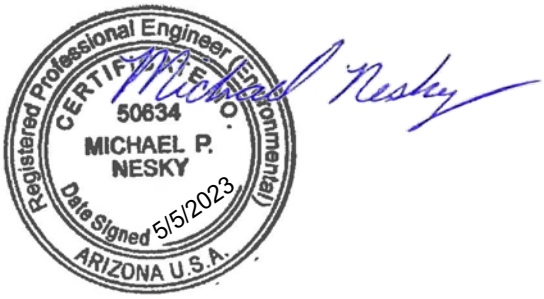
Certification

All information, conclusions, and recommendations in this document have been prepared under the supervision of and reviewed by an Arcadis Arizona Professional Engineer.



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Acronyms and Abbreviations

%	percent
µg/L	micrograms per liter
A.A.C	Arizona Administrative Code
ADEQ	Arizona Department of Environmental Quality
ADWR	Arizona Department of Water Resources
AMA	Active Management Area
amsl	above mean sea level
A.R.S.	Arizona Revised Statutes
Arcadis	Arcadis U.S., Inc.
AWQS	Aquifer Water Quality Standards
bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene, total xylenes
COC	contaminant of concern
COT	City of Tucson
CSM	Conceptual Site Model
CVOC	chlorinated volatile organic compound
DO	dissolved oxygen
ERA	early response action
EVS	Earth Volumetric Studio
Final RI	Final Remedial Investigation Report
free product	phase-separated hydrocarbons
FS	Feasibility Study
GPL	Groundwater Protection Level
Impacted Area	surface and near-surface area impacted by the release
Interim Policy	Arizona Department of Environmental Quality Underground Storage Tank Program Interim Policy for Methyl Tertiary-Butyl Ether
kg	kilogram
KM	Kinder Morgan, Inc.
MCL	Maximum Contaminant Level
ml/min	milliliters per minute

MNA	monitored natural attenuation
MTBE	methyl tertiary-butyl ether
NFA	No Further Action
ORP	oxidation-reduction potential
Pace	Pace Analytical National
PAH	polycyclic aromatic hydrocarbon
PCE	tetrachloroethylene
PSH	phase-separated hydrocarbon
PVC	polyvinyl chloride
RAP	Remedial Action Plan
RI	Remedial Investigation
RO	Remedial Objective
RSRL	Residential Soil Remediation Level
Safe Site	Safe Site Utility Services, LLC
Site	SFPP Silvercroft Wash Release Site
SFPP	Santa Fe Pacific Pipeline, L.P.
SRF	Sweetwater Recharge Facility
SRL	Soil Remediation Level
SVE	soil vapor extraction
SVETS	Soil Vapor Extraction Treatment System
TBA	tert-butyl alcohol
TCE	trichloroethene
TDS	total dissolved solids
TPH	total petroleum hydrocarbon
USEPA	United States Environmental Protection Agency
UST	underground storage tank
VOC	volatile organic compound
VRP	Voluntary Remediation Program
WQARF	Water Quality Assurance Revolving Fund

1 Introduction

Arcadis U.S., Inc. (Arcadis), on behalf of Santa Fe Pacific Pipeline, L.P. (SFPP), an indirect subsidiary of Kinder Morgan, Inc. (KM), has prepared this Remedial Action Plan (RAP) for the SFPP Silvercroft Wash Release Site (Site) in Tucson, Arizona. The location of the Site is shown on Figure 1. The Site is located adjacent, south, of the City of Tucson (COT) Silverbell Landfill Water Quality Assurance Revolving Fund (WQARF) Site in Tucson, Arizona (Figure 2). The Silverbell Landfill WQARF Site was placed on the WQARF Registry in 1999 and has been identified as a source of groundwater contamination by volatile organic compounds (VOCs), primarily tetrachloroethene (PCE) and trichloroethene (TCE). The Silvercroft Wash Release Site has been operating under the Arizona Department of Environmental Quality (ADEQ) Voluntary Remediation Program (VRP) and has been identified as a benzene, toluene, ethylbenzene, total xylenes (BTEX), and methyl tertiary-butyl ether (MTBE) contaminant source in groundwater, resultant from a fuel pipeline release.

The RAP is based on information contained in the *Final Remedial Investigation Report, Silvercroft Wash Release Site, Tucson, Arizona* dated May 18, 2017 (Final RI; Arcadis 2017). This RAP presents a summary of the pilot test activities and implementation details for groundwater remediation associated with the fuel pipeline release.

2 Site Background

2.1 Site Description

The site is located approximately west of the I-10 Freeway, north of Grant Road, along Silvercroft Wash, in the City of Tucson, Pima County, Arizona (Figure 1). The Site lies in the NW 1/4 of the SW 1/4 of the NW 1/4 of Section 34, Township 13 South, Range 13 East, as shown on the Jaynes, Arizona 7.5 Minute United States Geological Survey Topographic Quadrangle. The Site lies at an elevation of approximately 2,290 feet above mean sea level (amsl).

The Site is located on the western side of the Silver Creek II Subdivision (Figure 2). The Site is bounded on the west by Silvercroft Wash, which was impacted by the release. The pipeline release location is in the utility easement on the western side of the Silver Creek II Subdivision, a residential development which was under construction when the release occurred. The surface and near-surface area impacted by the release (Impacted Area) included portions of the Silver Creek II Subdivision (lots 321, 328, 352, 353, 354, 355, and 356; portions of the utility easement west of these lots; the storm drain channel between lots 352 and 353; and limited areas of soil beneath Silver Island Way and Silverbell Tree Drive) and portions of Silvercroft Wash. The remaining lots and streets in the Silver Creek II Subdivision were not impacted by the release based on visual observations during emergency response activities, analysis results for surface and near-surface soil samples collected at the margins of the impacted area and on nearby lots, and analysis results of soil samples collected from groundwater monitoring well borings located in streets.

Land use in the area around the Site generally consists of residential. The fuel pipeline, where the release occurred, is located within a utility easement adjacent (east) to the Silvercroft Wash and west of the Silver Creek housing community. The areas encompassing the Site, Silver Creek and Silver Creek II subdivisions, are zoned for low- to medium-density mobile homes (MH-1). Currently, SFPP owns lots 352 through 356, where the land was impacted by the release. A treatment system with building structures occupies the area of those lots. Downgradient (northwest) of the Site is an area zoned for low-density residential (R-1).

2.2 Site History

2.2.1 Initial Response and Emergency Actions

2.2.1.1 Initial Response

On July 30, 2003, at approximately 1:00 p.m., a rupture occurred in a portion of the SFPP pipeline that was transporting gasoline between Tucson and Phoenix, Arizona (Figure 2). This rupture was detected by a series of pressure monitoring sensors within the pipeline system. By 1:11 p.m., the pumps at the SFPP Tucson Terminal were shut down. Evidence identifying the source of petroleum hydrocarbons included: SFPP's operational data, metallurgy analysis of the affected portion of the pipeline, soil sample analyses, analyses of phase-separated hydrocarbons (PSH or free product) samples from groundwater wells, and groundwater sample analyses. All of these data indicated that the source of petroleum hydrocarbons was the July 30, 2003 rupture of the SFPP pipeline at the Site. There was no evidence of leakage prior to the July 30, 2003 rupture.

Immediately following the discovery of the pipeline rupture, SFPP dispatched emergency response crews to the Site, contacted the COT Fire Department, and shut off valves along the pipeline to cease flow of gasoline through the pipeline. Emergency response activities including use of fire suppression foam, vacuum trucks, and soil excavation were conducted to contain and minimize further impact of the release. Between August and November 2003, soil borings and groundwater monitor wells were drilled in the area of the release to evaluate subsurface conditions and impacts to groundwater. A Dual-Phase Mobile Treatment Unit was mobilized to the Site to begin vapor extraction from several of the monitor wells in October 2003.

2.2.1.2 Soil Removal

Immediately following the pipeline release, soils containing petroleum hydrocarbons from the release were excavated in surface areas affected by the pipeline release. Soil excavation and removal identified impacted areas including the Silvercroft Wash, pipeline release area, storm-water channel, Southwest Gas pipeline right-of-way, along the access road on the eastern side of Silvercroft Wash, along the curbs at the intersection directly east of the storm-water channel, the water line junction valve, Lots 352 through 356, and portions of Lots 350, 351, 321, and 328. The excavated soils were removed from the Site and disposed of at an approved facility. Approximately 4,046 tons of soil were excavated. Confirmation soil samples were collected from soil borings and following excavation and removal of affected soils within the impacted area. In total, 446 soil samples were collected to assess the extent of petroleum hydrocarbon impacts to soil associated with the SFPP pipeline release, and to confirm the effectiveness of remedial excavation.

2.2.2 Early Response Actions and Voluntary Remedial Activities

The following sections provide a brief summary of early response actions and voluntary remedial activities conducted following the pipeline release. Further discussion is included in the Final RI (Arcadis 2017).

2.2.2.1 Free Product Extraction

Free product extraction was first initiated on October 29, 2003 and was performed by either a hammerhead submersible pump or Blackhawk pumps. Product extraction was halted after the second week in July 2006.

Product recovery rates had decreased to 10 gallons per week for the week ending July 14, 2006, from a maximum of 1,640 gallons during the week ending December 12, 2003. The cumulative total product extracted by the end of the third quarter of 2006 was approximately 48,112 gallons. In an email dated February 13, 2007, ADEQ approved discontinuation of free product extraction. No free product has been detected in monitoring wells at the Site since the second quarter of 2014.

2.2.2.2 Soil Vapor Extraction

An early response soil vapor extraction treatment system (SVETS) was operated from April 15, 2004 through June 10, 2004 and recovered approximately 23,900 pounds of petroleum hydrocarbons. The system was shut down due to the presence of chlorinated volatile organic compounds (CVOCs) in the influent vapor stream. The presence of these CVOCs in the subsurface at the Site required modifications to the previously proposed soil vapor extraction (SVE) portion of the remedial effort to avoid migration of higher concentrations of vapor-phase CVOCs to the Site. A new SVETS was constructed and began operation in July 2007 and removed approximately 318,667 pounds (51,900 gallons) of hydrocarbons through February 2017 when the system was shut down.

2.2.2.3 Groundwater

Groundwater monitoring and sampling was conducted at the Site monthly from late 2003 through January 2007 and quarterly from January 2007 to date. Monitoring wells MW-1 through MW-16 were installed in October and November 2003; monitoring wells MW-17 through MW-26 were installed in January, February, and March 2004; and monitoring wells MW-27 through MW-30 were installed by mid-December 2013 (Figure 3). The existing groundwater monitoring well network has been supplemented with monitoring wells associated with the Silverbell Landfill WQARF Site to the north. Data has been collected from the expanded groundwater monitoring network quarterly by the COT. Analytical results for the first quarter 2022 sampling event are plotted on Figure 3. The plume of dissolved-phase BTEX, and MTBE above aquifer water quality standards (AWQS) remains delineated.

2.2.3 No Further Action (NFA) Determinations

2.2.3.1 No Further Action Determination for Soils Excluding the Source Area Column

Arcadis submitted an updated *Request for No Further Action for Soils Excluding the Source Area Column at the Release Location at the SFPP Silvercroft Wash Release Site, Tucson, Arizona* dated May 1, 2018 (Arcadis 2018) for the remaining portions of impacted areas as identified within the 2016 No Further Action (NFA) Request. This request for NFA determination was specific to soils that remain in areas of the Site that have been successfully remediated via excavation, excluding the source area column of soil from the ground surface to 140 feet below ground surface (bgs). These areas include the following: portions of Lots 321, 328, 350, 351, 352, and 353; Lots 354, 355, and 356; beneath Silver Island Way; a portion beneath Silverbell Tree Drive; a portion of the Common Area easement between Silvercroft Wash and the residences to the east; a portion of the drainage swale between Lots 352 and 353; a portion of the utility easement; and a portion of the Silvercroft Wash. ADEQ granted a *No Further Action Determination for Soil; Non-Source Area Soils SFPP Silvercroft Wash Release Site, Tucson, Arizona, Site Code: 506251-00* on October 9, 2018 (ADEQ 2018).

2.2.3.2 No Further Action Determination for Soils in the Source Area Column

Arcadis submitted a *Request for No Further Action for Soils Inside the Source Area Column at the Release Location at the SFPP Silvercroft Wash Release Site, Tucson, Arizona* dated May 23, 2019 (Arcadis 2019) for soils that remained in the source area column of soil from the ground surface to 140 feet bgs. Seventeen (17) soil vapor samples were collected from existing nested SVE wells and groundwater monitor wells located within or immediately adjacent to the source area column. The soil vapor concentrations for BTEX and MTBE were used to calculate total soil concentrations using the soil phase partitioning calculation worksheet in the Spreadsheet Groundwater Protection Levels (GPL) model (updated January 2013) and in accordance with ADEQ's *Soil Vapor Sampling Guidance* dated July 10, 2008 and revised on May 19, 2011 and April 21, 2017 (ADEQ 2017a). Total soil concentrations were calculated using the soil vapor data and the default values in the spreadsheet and compared to the 2007 Residential Soil Remediation Levels (RSRLs) and 2013 GPLs. Of these 17 soil vapor samples, no exceedances of the 2007 RSRLs or 2013 GPLs for BTEX and MTBE were identified. ADEQ granted a *No Further Action Determination for Soil for Source Area Soils, SFPP Silvercroft Wash Release Site, Tucson, Arizona, Site Code: 506251-00* on November 12, 2019 (ADEQ 2019).

2.3 Conceptual Site Model

A Conceptual Site Model (CSM) has been developed based on the information from the Site Remedial Investigation (RI). This CSM includes site-specific geology and hydrogeology, groundwater quality, groundwater transport at the Site, potential receptors and exposure pathways, and contaminants of concern and applicable standards.

2.3.1 Geologic and Hydrogeologic Conditions

Geologic and hydrogeologic conditions associated with the Site area, correlations with local Tucson area groundwater conditions, and specific conditions beneath the Site are described in this section. The initial groundwater monitoring well network consisted of wells located within the Silver Creek I and Silver Creek Subdivisions, with some wells located in the buffers between the subdivisions and Silvercroft Wash. Over time the groundwater monitoring well network has expanded to include additional wells located within the Silverbell Landfill WQARF Site in order to maintain delineation of dissolved-phase contaminants of concern (COCs).

2.3.1.1 Regional Geology

The Site is located along the northeastern margin of the Tucson Basin, a broad northwest-trending alluvial valley encompassing approximately 1,000 square miles. The Tucson Basin is defined as the portion of the upper Santa Cruz drainage system bounded on the north and northeast by the Tortolita and Santa Catalina Mountains; on the east by the Rincon and Empire Mountains; and on the west by the Black, Tucson, and Sierrita Mountains (Tucson Water 1988). The central portion of the Tucson area is filled by a large fluvial/alluvial deposit representing two coalescing deposits originating from the Santa Cruz River, located approximately 600 feet east of the Site, and the Rillito Creek located approximately 3 miles north of the Site (Davidson 1973). Both of these streams are ephemeral and only contain water during heavy rainfall. The total thickness of the alluvial deposits is estimated to be more than 20,000 feet (Tucson Water 1988).

Quaternary alluvium deposits originating from the coalescing streams underlie the Site to an approximate depth of 35 to 50 feet bgs. The Fort Lowell formation is composed of gravel near the basin margins and grades to silt near

the center. The formation ranges in thickness from 300 to 400 feet, thinning toward the basin margins (Davidson 1973). The Fort Lowell Formation is estimated to be 35 feet thick in the vicinity of the Site (Tucson Water 1988). The tertiary Tinaja beds rest unconformably (deposited over a weathered surface, or after a period of non-deposition) below the Fort Lowell Formation and are composed of gravel and sand grading to a very thick sequence of gypsiferous clayey silt and mudstone toward the center of the basin (Davidson 1973). These beds were deposited in an internally draining basin and are estimated to be several thousand feet thick near the center (Davidson 1973). The Upper Tinaja Subunit of the Tinaja Formation underlies the Fort Lowell Formation and is believed to be 300 to 400 feet thick in the Site vicinity (Tucson Water 1988). The Upper Tinaja beds are composed of moderate to well consolidated sandy, gravelly silt and clays, and overly volcanic bedrock (Davidson 1973).

2.3.1.2 Local Geology

Lithology encountered during drilling of all wells associated with the SFPP release have consisted of coarse sands and gravels to 175 feet bgs. Groundwater was initially encountered at approximately 140 feet bgs in borings that were installed in 2003. No perched groundwater was detected in the borings. Silt or clay lenses were not encountered between the surface and the groundwater table, with soil samples logged at 5-foot intervals in wells at and near the release point, and at 10-foot intervals in wells away from the release point (Arcadis 2017).

2.3.1.3 Hydrogeology

The Regional Aquifer underlying the Tucson Basin consists of three primary water-bearing units. These units, in descending stratigraphic order, are the Quaternary age Fort Lowell Formation, the Tertiary Tinaja beds, and the Tertiary Pantano Formation. The Fort Lowell Formation is the most productive part of the aquifer. Recent Quaternary surficial deposits overlie these formations. These surficial deposits are typically gravel and gravelly sand with local sand and sandy silt, and range in thickness from a thin veneer to tens of feet (Davidson 1973).

Based upon observations during initial drilling activities conducted at the Site in 2003, the depth to groundwater in the vicinity of the Site was approximately 140 feet bgs. More recent measurements indicate that the depth to groundwater has increased to approximately 155 feet bgs at the Site release area. The regional groundwater flow direction is toward the north to northwest (Tucson Water 1996). Groundwater elevation in the regional aquifer in the Site vicinity has declined nearly 90 feet since the 1940s. The local groundwater flow is towards the north-northwest in the immediate vicinity of the Site release area. Groundwater flow on the west side of Silvercroft Wash has consistently been towards the northwest (Figure 3).

The Silvercroft Wash Release Site lies within the Tucson Active Management Area (AMA). The Tucson AMA occupies approximately 3,869 square miles in the Upper Santa Cruz and Avra Basin. The potential receptors most likely to be influenced by further downgradient progress of releases from the facility are believed to be the Sweetwater Recharge Facility (SRF). The COT indicated they are under permitted mandate to meet potable water standards in ground water beneath the SRF.

2.3.1.4 Surface Water

Surface waters within the vicinity of the Site include Silvercroft Wash, Painted Hills Wash, and the Santa Cruz River (Figure 2). Both of the washes are unlined, and the Painted Hills Wash merges with the Silvercroft Wash at the west fork approximately 700 feet north of the release location. The Silvercroft Wash connects with the Santa

Cruz River approximately 1,500 feet north of the release location. The Santa Cruz River is ephemeral and only flows during precipitation events of sufficient areal extent, magnitude, and duration.

2.3.2 Source Area Delineation

Multiple investigations and early response actions (ERAs) have been implemented at the Site to target the source area soil contamination and are described in the Final RI.

2.3.2.1 Shallow Soils

Approximately 4,046 tons of surface and near surface petroleum-impacted soils from the release were excavated, transported, and disposed of offsite. A total of 274 soil samples were collected and analyzed within 10 feet of the surface to confirm that the excavations were successful in removing the petroleum-impacted soil to below applicable ADEQ Soil Remediation Levels (SRLs) and GPLs. Of the 274 samples representative of soil remaining in place, all 274 samples indicated either no detectable concentrations of BTEX, MTBE, and TPH (total petroleum hydrocarbon; C_{10}-C_{32}), or detections that are one to four orders of magnitude lower than the SRLs and GPLs. One soil sample collected during excavation activities in the subdivision that exceeded the SRL and GPL for benzene was from an area that was subsequently excavated and backfilled with clean fill.

2.3.2.2 Deep Soils – East of Silvercroft Wash

A total of 172 soil samples were collected at depths greater than 10 feet bgs from the 25 deep soil borings drilled at the Site. Analytical results indicated that concentrations exceeding the SRLs and GPLs were present in soil samples collected below the release point excavation from 15 feet bgs to groundwater. These results indicated that the lateral radius of the vertical cylindrical “column” of impacted soil below the release point excavation was limited to approximately 40 to 50 feet from the release point. BTEX and MTBE concentrations from all 140 soil samples collected from below 10 feet bgs from borings located away from the impacted column of soil beneath the release point were lower than their respective laboratory reporting limits or their respective SRLs and GPLs.

2.3.2.3 Deep Soils – West of Silvercroft Wash

Ten groundwater monitoring wells (MW-17 through MW-26) were drilled and installed on the west side of Silvercroft Wash (Figure 2). Soil samples were collected at 20-foot intervals during installation of each well. Analytical results indicated no detectable concentration of BTEX and MTBE for any of the collected soil samples.

2.3.3 Groundwater Contamination Delineation

Groundwater surrounding the release area and Site has been extensively investigated as part of the VRP. Data collected from the monitoring well network (monthly and quarterly) have been used to characterize the groundwater quality at the Site. The Silvercroft groundwater monitoring well network has been supplemented with wells associated with the Silverbell Landfill WQARF Site. The groundwater contaminant distribution discussion is focused on the second quarter 2022 data (Figure 3).

2.3.3.1 Shallow Wells

Analytical results for the sampled SFPP wells were either non-detect or below AWQS for BTEX except for benzene which was detected above its AWQS of 5 micrograms per liter [µg/L] in MW-18 (10.6 µg/L) and MW-26 (150 µg/L). BTEX was either non-detect below the laboratory reporting limit or below AWQS in the SFPP-sampled COT wells (Arcadis 2022). The plume of dissolved-phase BTEX above AWQS remains delineated.

There is no AWQS or Maximum Contaminant Level (MCL) for MTBE. The ADEQ Underground Storage Tank (UST) Program Interim Policy for MTBE (Interim Policy) in groundwater set forth a threshold for delineation of dissolved-phase MTBE of 20 µg/L. During the second quarter of 2022, MTBE was detected above the 20 µg/L level in SFPP wells MW-17 (24.3 µg/L), MW-29S (9,700 µg/L), and MW-32S (74,000 µg/L). MTBE was detected above the 20 µg/L level in COT wells R-067A (1,230 µg/L), WR-359A (251 µg/L), WR-430A (1,720 µg/L), and WR-464A (37.6 µg/L). The plume of dissolved-phase MTBE remains delineated.

Tert-butyl alcohol (TBA) was detected above laboratory reporting limits in SFPP wells MW-02 (104 µg/L), MW-04 (11.6 µg/L), MW-16 (8.03 µg/L), MW-17 (457 µg/L), MW-18 (255 µg/L), MW-19 (37.3 µg/L), MW-21 (278 µg/L), MW-24 (10.5 µg/L), MW-26 (17,700 µg/L), and MW-30 (355 µg/L). TBA was detected above laboratory reporting limits in COT wells R-067A (15,800 µg/L), WR-359A (36,300 µg/L), WR-430A (1,020 µg/L), WR-464A (147 µg/L), and WR-467A (23.7 µg/L). There is no AWQS established for TBA.

2.3.3.2 Intermediate and Deep Wells

BTEX, MTBE, and TBA were not detected in the intermediate (MW-29M, MW-31M, MW-32M) or deep (MW-29D, MW-31D, MW-32D) wells above laboratory reporting limits except for MTBE in wells MW-29M (128 µg/L), MW-31M (1.03 µg/L), MW-32M (825 µg/L), and MW-32D (80.2 µg/L).

2.3.4 Fate and Transport

This section describes the mechanisms involved in the fate and transport of groundwater contaminants at the Silvercroft Wash Release Site. The COCs at the Site are VOCs, primarily benzene and MTBE. Transport of VOCs is controlled by several different mechanisms, including the type of subsurface medium and geochemical conditions in the material through which the compounds are migrating. Physical and chemical transformations of the contaminants can also affect their fate and transport. The following sections discuss the fate and transport of MTBE and benzene in groundwater.

2.3.4.1 MTBE

The evolution of the MTBE plume is illustrated on Figure 4. Each successive picture presents the fourth quarter plume footprint and concentration contours from 2003 through 2021. Each color band indicates an order of magnitude increase in concentration. It is apparent that the plume increased in size progressively from 2003 through 2009, when the largest area of concentrations above 100,000 micrograms per kilogram (shown in red) was observed. From 2009 through 2015, the plume migrated slightly downgradient, with lower concentration color bands becoming predominant as attenuation continued to progress. Note the disappearance of the area depicted in red after 2012, which represents concentrations higher than 100,000 µg/L. From 2015 through 2021, the plume mass continued to attenuate as illustrated by the decreasing plume footprint, and the disappearance of the plume in the release vicinity as a result of remediation efforts.

Figure 5 is a combination plot of the MTBE mass vs. time, and the distance from the release point of the MTBE center of mass. The MTBE mass was calculated using the monthly and quarterly MTBE groundwater monitoring results, then kriging mass values of the plume at 2-week intervals using the Earth Volumetric Studio (EVS) software by C TECH Development Corporation. The mass was calculated at 2-week intervals between the monitoring events from 2003 through 2015, then at quarterly intervals from the first quarter 2016 through the third quarter 2021. The mass was calculated by multiplying the two-dimensional plume generated from the well data times a thickness of 10 feet. The mass should be considered relative rather than absolute, as the actual thickness of the dissolved-phase plume is not well constrained. The estimated thickness of 10 feet was selected as follows: using the horizontal to vertical anisotropy ratios of 1/100 from the COT RI would yield an impacted thickness of approximately 16 feet. Because the 16-foot depth would reflect the depth at which concentrations would approach 0, using the concentration observed in the well to a depth of 10 feet is a valid figure. The mass calculations also generate the center of mass coordinates, which is useful for evaluating the downgradient migration of the plume. For well cluster MW-29S, MW-29M, and MW-29D, the MTBE concentrations from all wells were added and modeled at the MW-29S location to give the maximum possible mass estimate in this vicinity. This approach was also taken for the MW-32S, MW-32M, and MW-32D cluster.

In Figure 5, the blue line represents the MTBE mass. The X axis for this line is shown by the dates on the bottom of the graph. The Y axis for this line is shown by the MTBE mass (kilogram [kg]) on the left side of the graph. The trend of MTBE mass vs. time increased until it reached a calculated peak mass of 2,169 kg in March 2008. The plume as attenuated significantly since then, with a calculated mass of 55.9 kg in April 2022 using the second quarter 2022 monitoring event data. This represents a mass reduction of approximately 97 percent. The top axis of the plot shows the days since the peak MTBE mass occurred, which is 4996 days, or 13.7 years, from the peak mass to the latest plume calculated in April 2022.

The red line on Figure 5 represents the distance from the release point of the MTBE center of mass. The center of mass coordinate is calculated by EVS as it calculates the MTBE plume and mass for each monthly time interval. The top axis of days since the MTBE mass occurred also applies to this line. As discussed for the quarterly MTBE plume footprints shown in Figure 4, this plot is an additional line of evidence showing the stability of the plume footprint. Note that the distance of the center of mass from the release point increased at a relatively constant rate until early 2015. From 2015 to late 2020, the slope decreased slightly, with the distance of the center of mass from the release point remaining constant around 1,300 feet. From late 2020 through the second quarter 2022, the center of mass shifted at a rapid rate to the northwest. This does not reflect a quickly migrating plume, as noted by the substantial decrease in mass over this same time period. Rather, the center of mass shifted quickly to the northwest resulting from reduction of mass in the source area due to remediation efforts over this time period.

Figure 6 shows the MTBE mass degradation through time since the peak mass using a logarithmic scale on the Y axis. Plots using a logarithmic scale are useful due to the natural attenuation processes approximating a first order decay equation, which results in the slope of the mass line appearing straight. The straight line is the calculated best-fit exponential decay line.

Figure 7 illustrates the center of mass of MTBE in groundwater from 2003 through the second quarter 2022. These coordinates are the center of mass calculated by EVS. This shows in plan-view the distance of the center of mass from the release point. From the release in 2003 to early 2015, the center of mass was progressing to the northwest at its most rapid rate, as indicated by the larger spacing between dates. The segments between dates became generally shorter in 2015, and from 2017 through 2020 the center of mass was localized in a relatively small area, with no net northwestern migration. These observations are consistent with the general principle that

plumes migrate downgradient until they reach a point where the mass loading is approximately equal to the rate of attenuation on the front edge of the plume. The dissolved-phase mass loading has been decreased by the removal of the free product (see Section 2.2.2.1) and the operation of the SVE system (see Section 2.2.2.2). The free product removal effort removed approximately 48,112 gallons of fuel, and the SVE system had removed approximately 50,755 gallons of fuel as of the end of the fourth quarter 2014. Since 2020, the center of mass shifted downgradient relatively quickly due to the reduction of mass in the source area, as explained previously.

Evaluation of Figures 4, 5, 6, and 7 clearly illustrates: 1) the significant natural attenuation of the MTBE plume; 2) the stability of the plume footprint, with the attenuation rate on the leading edge becoming approximately equal to the mass loading upgradient from approximately 2015 through 2020, and 3) the ongoing attenuation of the plume since 2020 coupled with the apparent movement of the center of mass downgradient, which is primarily due to completion of mass removal in the upgradient source area.

2.3.4.2 Benzene

Figure 8 shows the dissolved-phase benzene mass through time. Each data point represents the mass calculated at 2-week intervals within the 10-foot impacted aquifer thickness, consistent with the methodology used for the MTBE mass analysis. Thus, the mass shown on Figure 9 is approximate, as the thickness of the dissolved-phase benzene plume is not perfectly constrained. Use of a different thickness of the aquifer in the calculation would change the mass number; however, the shape of the curve would remain the same, as the difference would be a constant.

The monthly and quarterly sampling events are represented on Figure 9, with kriged 2-week intervals included to assist with trend analysis. The benzene mass began increasing rapidly in the second quarter of 2007 and increased until approximately the fourth quarter of 2008. This is shown also by the plumes on Figure 8. The benzene mass continued increasing even after the free product removal had ceased in February 2007, as the mass reflected benzene concentrations that had dissolved in groundwater years before and migrated downgradient from the source area. The benzene concentrations then decreased dramatically and continued decreasing through fourth quarter of 2014. The benzene mass has continued to be negligible from 2014 through the second quarter of 2022. Monitoring at Silvercroft has shown that benzene (and toluene, ethylbenzene, and xylene) have attenuated at a significantly higher rate than MTBE, thus MTBE is the driver with regard to duration of remedy and focus of remedial efforts. All of the remedial alternatives being evaluated will result in full remediation of benzene long before full remediation of MTBE.

2.3.4.3 Summary of Contaminant Fate and Transport

In summary, the aerial footprint and mass analyses of the dissolved-phase MTBE and benzene plumes indicate the following:

- The dissolved-phase MTBE plume mass has continued to decrease since 2008. The calculations of mass indicate a 97 percent decrease of MTBE mass from the peak in 2008 to the second quarter of 2022.
- The plots of center of mass of the MTBE plume suggest that the attenuation rate on the leading edge of the plume was approximately equal to the mass loading on the downgradient side of the plume from approximately 2015 through 2020. Since 2020, the center of mass shifted to the northwest as a result of rapid attenuation of the plume in the upgradient source area. Thus, the shift of the center of mass to the northwest is associated with a significant reduction in mass of the MTBE plume in this time period, rather than significantly migrating downgradient.

- From the peak mass of MTBE in August 2008, through the MTBE mass in the second quarter 2022, the calculated half-life of MTBE mass degradation is approximately 2.6 years.
- Benzene attenuation is known to take place more rapidly than MTBE attenuation, and the evaluation of the dissolved-phase benzene mass through time indicates that the majority of the benzene mass has already attenuated.

2.3.5 Mann-Kendall Analyses

In the letter dated November 4, 2022, Re: Review of Remedial Action Plan, from Nichole Osuch of ADEQ, to Alan Van Antwerp of KMEP, ADEQ included the following recommendations:

> The VRP recommends SFPP consider the following in regard to the VRP's request for metrics:
>
> 1. A Mann-Kendal analysis to identify specific well trends. The VRP recommends using Monitoring and Remediation Optimization System (MAROS) software for the Mann-Kendal analysis. The analysis should look at both trends in the entire data set and in a rolling data window (e.g., 2-3 years) to determine if declining trends are present and if they are changing over time. After each round the rolling trends should be updated to reduce the effect of earlier data on the current trend. Conduct and provide Mann-Kendal analysis in the second semi-annual report. For more information, please see: https://www.gsi-net.com/en/software/free-software/gsi-mann-kendalltoolkit.html.
> 2. An evaluation of the trends to confirm the remediation is proceeding as expected. When completing the evaluations, all associated worksheets and/or toolkit printouts should be included as an appendix to the report. The trend evaluation should be included in the second semi-annual report.
> 3. Use trends to support the modification (optimizing) of the monitoring program by reducing monitoring at low priority or stable wells, or increasing monitoring at key wells where trends are changing.

In response to these recommendations, Arcadis has performed baseline Mann-Kendall analyses for MTBE in wells MW-26, MW-29S, R-067A, WR-359A, and WR-430A. These wells were selected as they showed the greatest MTBE concentration increases as the plume migrated downgradient. As such, they will also yield the most useful information for Mann-Kendall analyses in the future as natural attenuation and air sparging proceeds. As suggested by ADEQ, Mann-Kendall analyses have been performed on both the entire dataset and the last 3 years for each of these wells. The analyses are included in Appendix A. Future Mann-Kendall analyses in second semiannual monitoring reports will include discussions comparing updated trends against these baseline trend analyses.

ADEQ had suggested MAROS for performing Mann-Kendall analyses. Arcadis has also used EPA's ProUCL statistical analysis software for Mann-Kendall analysis. After evaluating MAROS and ProUCL, Arcadis has elected to use EPA's ProUCL software as it is actively developed and maintained, with the latest release v5.2 dated 6/14/22. ProUCL 5.2 is compatible with Microsoft Office 10.0 and 11. For comparison, the most recent MAROS version is MAROS v3.0 BETA R352, which was released in September 2012. This version of MAROS is compatible with the extremely outdated Windows XP, Windows Vista, and Windows 7 operating systems. Arcadis has had issues running programs for those operating systems on current Windows 11 machines. As Mann-Kendall analyses will be part of Arcadis' reporting moving forward, it is important that we utilize software which will continue to work with our current and future operating systems. Information on ProUCL, links to download the software, and user guides are available from https://www.epa.gov/land-research/proucl-software.

2.3.6 Potential Receptors and Exposure Pathways

The COT remedy for the Silverbell Landfill includes discharging treated groundwater to the SRF. The COT indicated they are under permitted mandate to meet potable water standards in groundwater beneath the SRF. Therefore, the SRF is considered a downgradient potable receptor. The locations of the COT extraction wells are shown on Figure 2.

2.3.7 Contaminants of Concern and Applicable Standards

In ADEQ's *Final Remedial Objectives Report, SFPP Silvercroft Wash Release, VRP Site Code: 506251-00, Tucson, Arizona* dated September 2016 (ADEQ 2016), the specific COCs for the Site are "the petroleum-related volatile organic compounds (VOCs) known as benzene, toluene, ethylbenzene, total xylenes (collectively referred to as BTEX), methyl tertiary butyl ether (MTBE), and may also include polynuclear aromatic hydrocarbons (PAHs) if evidence shows PAHs originated from the release at the Site."

As documented in the *First Quarter 2016 Groundwater Monitoring Report, Silvercroft Wash Release Site, Tucson, Arizona, Site Code: 501251*-00 dated May 13, 2016 (Arcadis 2016), results from samples collected in January 2016 from groundwater monitoring wells MW-01, MW-05, and MW-17 as requested by ADEQ indicated that PAHs were not present in the dissolved phase within the source area and immediately downgradient. Additionally, as documented in the Final RI Report, PAHs were not detected in groundwater samples collected prior to 2016 in select wells.

ADEQ submitted an approval letter for the *Final Remedial Investigation Report* dated May 30, 2017 (ADEQ 2017b). In that letter, ADEQ noted that "these analytical results, supported by the fact the historic release was from a pipeline conveying gasoline at the time of the release, meet the VRP's conditions to remove PAHs as a COC for groundwater at the Site. The remaining groundwater COCs for the Site include: BTEX and MTBE."

The relevant groundwater standards are shown in Table 1. The Interim Policy notes that a Tier 1 remedial level of 94 µg/L should be used when an existing drinking water receptor is not affected or is not potentially affected by MTBE. A Tier 1 remedial level of 20 µg/L should be used when a drinking water well has been affected or has the potential to be affected by MTBE. This remedial guidance level will ensure that the existing or reasonably foreseeable use of an aquifer as drinking water is protected from being "impaired" by MTBE.

The Interim Policy set forth a threshold for delineation of dissolved-phase MTBE of 20 µg/L. This level is based on the lower value of the range established by the United States Environmental Protection Agency for aesthetic taste and odor threshold that is likely to protect sensitive individuals within the general population. As noted in the Final Consolidated and Update Proposal Remediation Work Plan (LFR 2005), groundwater will continue to be delineated to 20 µg/L.

3 Remedial Action Objectives

This section presents the regulatory requirements presented in statute and rule and presents the ROs identified in the RI.

3.1 Regulatory Requirements

The FS is part of a process to evaluate and cleanup contamination at the Site in order to meet the requirements of Arizona Administrative Code (A.A.C.) R18-16-407. The Feasibility Study (FS) process identifies a reference remedy and alternative remedies that appear to be capable of achieving the remedial objectives and to evaluates them based on the comparison criteria to select a remedy that complies with Arizona Revised Statutes (A.R.S.) §49-282.06.

3.2 Remedial Objectives

The following Remedial Objectives (ROs) were developed by ADEQ for the Site and were described in the Final RI Report (Arcadis 2017):

The current and future use of the land at the Site will likely remain zoned MH-1 for residential use. As such, the ROs for land use are:

- ***To restore soil conditions in the Silver Creek II housing community to the remediation standards for residential use specified in A.A.C. R18-7-203 (specifically background remediation standards prescribed in R18-204, pre-determined remediation standards prescribed in R18-7-205, or site-specific remediation standards prescribed in R18-7-206) that are applicable to petroleum-related substances identified as contaminants of concern for the Site. This action will be needed for as long as the need for the land exists, the resource remains available, and the contamination associated with the Site impacts, prohibits, or limits land use.***
- ***To restore soil conditions in the Silvercroft Wash to the remediation standards for residential use specified in A.A.C. R18-7-203 that are applicable to petroleum-related substances identified as contaminants of concern for the Site. This action will be needed for as long as the Silvercroft Wash exists and contamination associated with the Site impacts, prohibits, or otherwise effects the wash.***

The current and future regional aquifer groundwater uses are reasonably foreseeable. As such, the ROs for the current and future use of the groundwater supply are:

- ***To protect, restore, or otherwise provide water for the Tucson Water Reclaimed System that could have been supplied by the Sweetwater Recharge Facility extraction wells or the Silverbell Landfill WQARF Site extraction wells, in the event the current use of groundwater is impaired or lost such that it cannot be delivered to reclaimed customers solely due to dissolved petroleum-related contaminants of concern emanating from the Site. This action will be needed for as long as the need for the water exists, the resource remains available, and the contamination associated with the Site impacts, prohibits, or limits groundwater use.***

ROs concerning soil restoration have been fully satisfied at the site as specified in Section 2.2.3. Therefore, soil ROs are not considered in this RAP. Only ROs for dissolved-phase COCs in groundwater are considered.

4 Pilot Test Field Activities

4.1 Access, Permitting, Notification

SFPP met all access and permitting requirements for the activities described herein. The following sections describe the access and permitting activities required.

4.1.1 Drilling Permits

Groundwater monitoring well installation permits (MW-31M, MW-31D, MW-32S, MW-32M, and MW-32D) were obtained from the Arizona Department of Water Resources (ADWR). During the permitting process a different well designation was included on the applications. The following well designations will be used for these wells:

Initial Well Designation	New Well Designation
MW-1M	MW-31M
MW-1D	MW-31D
MW-2S	MW-32S
MW-2M	MW-32M
MW-2D	MW-32D

Copies of the ADWR permits are included in Appendix B.

4.1.2 Utility Clearance

Arizona BlueStake was notified at least 48-hours prior to the start of intrusive activities to allow for member utility companies to mark underground lines that may conflict with the proposed areas. Each proposed marked location was also cleared by a private underground utility locating company, Safe Site Utility Services, LLC (Safe Site). Safe Site performed electromagnetic and ground penetrating radar surveys around each location to determine if the location was clear of underground utilities.

Each boring location was then cleared by a final step of air-knifing. All five boring locations were excavated with an air-knife. A 10- to 12-inch-diameter hole, down to approximately 8 feet bgs was completed.

4.1.3 Public Notification

COT was notified prior to drilling and construction. Engineering department approved the pad and infrastructure.

4.2 Monitoring Well Drilling

From October 26, 2020 through November 8, 2020, Cascade Drilling, LP drilled and installed five air sparge monitoring wells (MW-31M, MW-31D, MW-32S, MW-32M, and MW-32D) using a sonic drill rig at the Site under the supervision of Arcadis. Figure 2 shows the locations of the newly installed groundwater monitoring wells. Soil grab samples were collected from the drill core for field screening using a photo-ionization device and lithologic logging. Each borehole was logged by a geologist under the supervision of an Arizona Registered Geologist. Soil samples were classified in accordance with ASTM Designation D 2488-00, (Standard Practice for Description and Identification of Soils) and logged in accordance with the Unified Soil Classification System. Soil encountered during drilling of the groundwater monitoring wells was described on soil boring logs (Appendix C).

4.3 Monitoring Well Installation

Each borehole was converted to a groundwater monitoring well following drilling activities. Well construction as-built details are provided in Appendix C. Well completion information for each monitoring well installed is presented in Table 2.

4.4 Decontamination

Prior to mobilization, the drilling rig and associated equipment was thoroughly cleaned to remove oil, grease, mud, and other foreign matter. In addition, before initiating drilling at a subsequent location, the drill cutting bits, samplers, drill steel, and associated equipment (equipment that would come in contact with soil or groundwater down the hole) were thoroughly cleaned by the contractor at a decontamination area to prevent potential cross-contamination from the previous drilling location. Field personnel visually inspected the equipment after cleaning and prior to initiation of drilling activities

4.5 Monitoring Well Development

Well development activities were conducted from November 16, 2020, through November 20, 2020. Well development consisted of surging, bailing, and pumping groundwater with a pump rig. Each well screen was surged in 10-foot sections from the top of the screened interval to the bottom. A bailer was used to remove settled solids that entered the casing during surging. Once the sediment was removed from the well, a submersible pump was lowered to within 5-feet of the bottom of the well. The submersible pump was used to remove the finer grained materials from the filter pack and clarify the water to less than approximately 50 nephelometric turbidity units. Pumped water was monitored with a YSI 650 Multi-Parameter System with a flow through cell and recorded on log sheets. All purged water was containerized temporarily in a trailer-mounted tank. Well development logs are provided in Appendix D.

4.6 Investigation-Derived Waste Management

During the field activities, three types of investigation-derived wastes were produced: drill cuttings, purge water, and refuse. Each waste was characterized, handled, and disposed of in accordance with all applicable rules and regulations.

4.6.1 Drill Cuttings

Drill cuttings were collected and stored on site in labeled roll-off bins. Following completion of the drilling and well installation activities, a composite soil sample was collected from each roll-off bin for waste characterization to profile the cuttings for off-site disposal. The composite sample was submitted to Pace Analytical laboratory (Pace) for the following analyses:

- United States Environmental Protection Agency (USEPA) Method 8260B (VOCs)
- USEPA Method 6010/7471 (Resource Conservation and Recovery Act 8 metals)
- USEPA Method 8270C-SIM (PAHs)

Analytical results are included in Appendix E. The drill cuttings were characterized as non-hazardous. The drill cuttings were removed from the Site by Environmental Response Inc. and disposed of at Waste Management Marana Regional Landfill in Marana, Arizona under proper manifest. Waste manifests are included in Appendix F.

4.6.2 Purge Water

Purge water from the development and decontamination activities was stored temporarily in a trailer-mounted tank on site. A sample was collected and submitted to Turner Laboratories, Inc. in Tucson, Arizona and analyzed for the following:

- USEPA Method 8260B (VOCs)
- USEPA Method 4500 (pH)
- COD-Hach 8000 (chemical oxygen demand)
- USEPA Method SM2540D (total suspended solids)

Purged water was transferred from the trailer-mounted tank to the on-site sump. The purge water was pumped from the sump through two 55-gallon carbon vessels and then discharged into the COT sewer system in accordance with Pima County Wastewater Management Department industrial wastewater discharge permit #12821. A copy of the laboratory analytical results is included in Appendix G.

4.6.3 Refuse

Miscellaneous refuse included disposable personal protective equipment, disposable sampling equipment, used labels, food and drink containers, plastic sheeting, and construction-type debris. This material was classified as non-hazardous solid waste and was disposed of at an approved landfill.

5 Pilot Test Set-up and Operation

5.1 System Design

An air sparge pilot test system was used to inject compressed atmospheric air into the submerged screened intervals in wells MW-29M and MW-29D with the purpose of increasing dissolved oxygen levels in groundwater within the upper portion of the aquifer and thus enhance aerobic biodegradation of COCs, specifically dissolved-

phase MTBE. The air sparge system consisted of an Atlas-Copco model GA11 air compressor, pressure transmitters, isolation valves, flow meters, and associated piping connected to the wells. Each of the air sparge wellheads was fitted with a polyvinyl chloride (PVC) Tee, check valve, and an adapter for transition from the PVC well casing to the high-density polyethylene conveyance piping. The air sparge system was constructed in accordance with plans approved by the COT on October 23, 2020. Design drawings and associated COT approvals are included in Appendix H.

The air sparge system was connected to wells MW-29M and MW-29D and pulse operated to inject compressed ambient air into the aquifer for groundwater treatment (Figure 10). Air sparge rates varied between 20-25 standard cubic feet per minute to each sparge well at pressures varying between 25-35 pounds per square gauge.

Four additional sparge wells (MW-31M, MW-31D, MW-32M, and MW-32D) were connected for potential system expansion and future use (Figure 10). During the pilot test MW-31M, MW-31D, MW-32M, and MW-32D were used to monitor dissolved oxygen levels and COC concentrations in groundwater within the proximity of sparge wells MW-29M and MW-29D to determine an estimated radius of influence for enhancement of dissolved oxygen levels in groundwater and to establish the efficacy and scalability of the remedial measure.

5.2 Performance Monitoring

Arcadis collected groundwater samples from MW-29S, MW-29M, MW-29D, MW-31M, MW-31D, MW-32S, MW-32M, MW-32D monthly to evaluate the performance of the test. A 2-inch diameter Bennet™ low flow sampling pump was used to purge each well. The pump's intake was placed at the approximate center of the saturated screen interval (the midpoint of the well depth and measured depth to water) in each well. Each well was purged at approximately 300 milliliters per minute (ml/min). Parameters (dissolved oxygen [DO], oxidation reduction potential [ORP], ferrous iron, sulfite, and manganese) were monitored with an YSI 650 Multi-Parameter System with a flow through cell. Parameters were recorded approximately every five minutes on field data sheets. Upon stabilization, the purge flow rate was reduced to approximately 100 ml/min, the flow-through cell was disconnected, and the groundwater sample was collected from the outlet of the dedicated sample tubing.

Groundwater samples were collected directly into laboratory-supplied sample bottles. The sample bottles were then immediately placed into a cooler containing wet ice to maintain the samples at approximately 4 degrees Centigrade. Samples were picked up from Arcadis by a representative of Pace and delivered via Federal Express to Pace in Mount Juliet, Tennessee. Groundwater samples were analyzed for VOCs by USEPA Method 8260B, total iron by USEPA Method 6010D, total dissolved solids (TDS) by USEPA Method 2540; nitrate, nitrite, and sulfate by USEPA Method 9056A, and methane, ethane, and ethene by USEPA Method RSK175.

Purged water was collected into 5-gallon plastic buckets with lids, and then transferred to the on-site sump. The purge water was pumped from the sump through two 55-gallon carbon vessels, and then discharged into the COT sewer system in accordance with Pima County Wastewater Management Department industrial wastewater discharge permit #12821.

Analytical results are summarized in Tables 3 and 4. Field parameters are summarized in Table 5. Field sheets are included in Appendix I. Complete laboratory reports are included in Appendix J.

5.3 Summary of Results

The air sparge pilot test was conducted from December 2021 through June 2022. Since the aerobic degradation of benzene is faster than MTBE, MTBE concentrations in addition to dissolved oxygen levels in groundwater were evaluated as an indicator of effectiveness. Groundwater samples collected during the operation of the pilot test indicate that the pilot system was effective in increasing dissolved oxygen levels and enhancing aerobic biodegradation of MTBE mass. Hydrographs showing MTBE and DO versus time in monitor wells MW-29S, MW-29M, MW-29D, MW-31M, MW-31D, MW-32S, MW-32M, MW-32D, are included in Figures 11, 12, 13, 14, 15, 16, 17, and 18, respectively. As indicated in the hydrographs, where dissolved oxygen concentrations increased in monitoring wells, MTBE concentrations decreased except for those measured in groundwater from well MW-31M, which increased in the last sampling event. This increase could be the result of groundwater containing MTBE in the immediate vicinity of the two sparge wells migrating radially due to injected air pressure. Further monitoring should demonstrate that this is a transient condition that resolves itself once the full radius of influence of the injected air is established and DO concentrations stabilize. From the start of the pilot test through June 2022, there was a 47 percent (%), 72.9%, 34%, 99.9%, and 97.4% decrease in MTBE concentrations in monitoring wells MW-29S, MW-29M, MW-32S, MW-32M, and MW-32D, respectively. While no concentrations of MTBE were detected above laboratory reporting limits in MW-29D and MW-31D in any performance monitoring event, dissolved oxygen concentrations increased in both wells, which further demonstrates the effectiveness of the sparge system.

The approximate area of influence as indicated by increase of dissolved oxygen concentrations in the monitoring wells is shown on Figure 19. The increase in dissolved oxygen concentrations coinciding with decreases in MTBE mass is evidence that the sparge system is adding dissolved oxygen to the aquifer resulting in a change from anaerobic to aerobic conditions within the area of influence of the two pilot test sparge wells as designed.

6 Proposed Groundwater Remedy

6.1 Description

The proposed groundwater remedy includes in-situ air sparging within the approximate center of dissolved-phase MTBE mass utilizing wells MW-29M, MW-29D, MW-31M, MW-31D, MW-32M, and MW-32D and monitored natural attenuation (MNA) of the upgradient and downgradient dissolved-phase MTBE mass to achieve the site ROs. Air sparging will increase DO concentrations in groundwater within the vicinity of the injection well network to enhance aerobic biodegradation of dissolved-phase MTBE, creating an in-situ remediation zone within the upper portions of the aquifer. Increasing DO concentrations stimulates the growth of indigenous microorganisms that will biodegrade petroleum constituents through aerobic digestion leading to higher degradation rates for dissolved phase COCs than would otherwise be possible through natural attenuation alone. Air sparging will limit the mass flux downgradient of the proposed sparge well cluster and biodegrade dissolved-phase COC mass migrating to the in-situ remediation zone from upgradient. Consistent with the general principle that plumes migrate downgradient until they reach a point where the mass loading is approximately equal to the rate of attenuation on the front edge of the plume, reducing COC mass flux downgradient of the in-situ remediation zone established by sparging will further enhance the rate of attenuation of dissolved-phase MTBE mass. Atmospheric air is being injected into the aquifer well below the air-water interface, thus there is no concern with vadose zone fate and transport; the system increases dissolved oxygen to enhance in-situ biodegradation of COCs.

MNA is a plume monitoring remedial measure that involves routine groundwater sampling and analysis to monitor the results of one or more naturally occurring physical, chemical, or biological processes that reduce the concentrations of contaminants in groundwater. The progress of attenuation, and specifically degradation, will be measured at monitor wells until the cleanup levels are achieved. MNA will be utilized to demonstrate the continued decline of COC concentrations until the defined ROs have been achieved.

In the event pumping at the SRF does cause the MTBE plume to migrate downgradient, it will be greatly diluted and captured by those wells and will not migrate downgradient to domestic or irrigation wells. Should MTBE be captured by the COT EW wells, the concentrations will be treated by the carbon adsorption system, which can be operated as necessary to ensure Sweetwater deliveries meet regulatory requirements. For example, MTBE mass loading can be accounted for in calculations of carbon breakthrough timeframes and adjustments to carbon change-out frequency can be performed as required to maintain effluent concentration limits. Additionally, as discussed in the Final RI, COT's potential capture, treatment and discharge to SRF of MTBE-affected groundwater associated with the Silvercroft Wash Release Site would not pose a significant risk to human health.

Therefore, the residual risks associated with the proposed remedy are anticipated to be low and the remedy is protective of human health, ecological health, and the environment.

6.2 Remedy Monitoring

As discussed in Section 2.3.4, attenuation of dissolved-phase COCs, including biodegradation, is ongoing throughout the groundwater plume, and will continue. The progress of attenuation, and specifically degradation, will be monitored until the cleanup levels are achieved. Monthly sampling of MW-29S and MW-32S will be conducted through September 2022 and then quarterly to evaluate performance of the sparge system. Quarterly sampling of the existing monitoring well network will continue using low flow sampling. Parameters (DO, ORP, ferrous iron, sulfite, and manganese) will be monitored with a YSI 650 Multi-Parameter System with a flow through cell. Groundwater samples will be analyzed for VOCs by USEPA Method 8260B, total iron by USEPA Method 6010D, TDS by USEPA Method 2540; nitrate, nitrite, and sulfate by USEPA Method 9056A, and methane, ethane, and ethene by USEPA Method RSK175. Additional monitoring wells may be added or installed based on evaluation of performance data.

Semiannual reports will be submitted to ADEQ summarizing field activities, analytical results, and sparge system performance. An annual evaluation of data will be performed using a Mann-Kendall analysis described in Section 2.3.5 above and will be included in the second semiannual report. MTBE concentrations in monitoring wells MW-26, MW-29S, MW-32, WR-359A, WR-067A, and WR-430A will be evaluated. Data from the Mann-Kendall analysis will be used to evaluate progress of the remedy and support modification of the monitoring program as needed.

6.3 Rationale

The proposed remedy is a proven, reliable remedial alternative that will be protective of the public health and the environment. The risk to human health and the environment with this remedy is low and known exposure pathways have been addressed. Over time, the remedial action will reduce the concentrations and the volume of contaminated groundwater. Groundwater sampling will be conducted to monitor that the remedy is protective of public health and the environment during and after remedy implementation.

6.4 Achievement of Remedial Objectives

Per A.A.C. R18-16-408(B)(3), the proposed remedy must achieve the ROs established by ADEQ for the Site. The proposed remedy combines proven and reliable methods known to effectively reduce contaminant concentrations in groundwater to meet the ROs. Historical data collected from the site has demonstrated attenuation is currently occurring in the downgradient portions of the plume. Continued biodegradation and dispersion is expected to continue towards achieving the ROs. Environmental sampling will be used to monitor that the ROs are being met.

6.5 Achievement of Remedial Action Criteria

A.R.S. §49-282.06(A) requires that remedial actions shall:

1. Assure the protection of public health and welfare and the environment.
2. To the extent practicable, provide for the control, management, or cleanup of the hazardous substances in order to allow the maximum beneficial use of the waters of the state.
3. Be reasonable, necessary, cost-effective, and technically feasible.

As discussed above, the proposed remedy meets these requirements. The proposed remedy is practicable, cost-effective, and technically feasible and is a proven and reliable method known to effectively monitor and reduce contaminant concentrations in groundwater. Implementation of the proposed remedy will be protective of public health and welfare, and the environment.

6.6 Schedule

The sparge system will continue to be operated by injecting air into MW-29M and MW-29D until end of September 2022. Wells MW-31M, MW-31D, MW-32M, and MW-32D will be added as sparge wells in October 2022. The system will continue to operate by intermittently injecting air into the six sparge wells to maintain an in-situ remediation zone within the upper portion of the aquifer in the vicinity of the sparge wells until concentrations in MW-29S, MW-32S and all identified monitoring wells upgradient of the sparge wells are below AWQS for COCs and meet the ROs discussed in Section 3.2.

Sampling will be conducted quarterly and the frequency will be scaled back based on the annual metrics and trend analysis.

6.7 Proposed Contingency Actions

If evaluation of the proposed metrics indicates a change in remedy performance, the following contingencies may be enacted:

- If MTBE is found in EW-11, EW-12, or WR-093A above 20 µg/L, a contingency plan will be implemented, which could include actions such as VRP notification, increased monitoring frequency, the need for additional groundwater monitoring wells, or other appropriate action.
- If groundwater elevations decrease below the screened interval in WR-093A such that it cannot be monitored, well reconstruction or replacement will be evaluated.

- If MTBE concentration data statistics collected from MW-26, MW-29S, MW-32, WR-359A, WR-067A, and WR-430A indicate a significant change in site conceptual model, a contingency action will be implemented and may include an assessment of the monitoring program that evaluates changes to the monitoring frequency, parameters, or locations.

7 Community Involvement

A Notice to the Public announcing the availability of the RAP on ADEQ's website at www.azdeq.gov was issued for a 30-day public comment period on March 17, 2023. A copy of the notice was mailed to the stakeholders for the Site and any other interested parties. ADEQ accepted written comments on the RAP that were postmarked within the comment period and submitted to:

Arizona Department of Environmental Quality

Attention: Nichole Osuch

1110 Washington Street

Phoenix, Arizona 85007

Email: Osuch.Nichole@azdeq.gov

8 Responsiveness Summary

The RAP was released for public comment during a 30-day comment period that ran from March 17, 2023 through April 17, 2023. ADEQ received one written comment from a resident. The comment and ADEQ's response are included in the Responsiveness Summary that is included as Appendix K of this final RAP. There is no action required by Kinder Morgan at this time.

9 References

Arcadis. 2016. First Quarter 2016 Groundwater Monitoring Report, Silvercroft Wash Release Site, Tucson, Arizona, Site Code: 501251-00. May 13.

Arcadis. 2017. Final Remedial Investigation Report, Silvercroft Wash Release Site, Tucson, Arizona. May 18.

Arcadis. 2018. Request for No Further Action for Soils Excluding the Source Area Column at the Release Location at the SFPP Silvercroft Wash Release Site, Tucson, Arizona. May 1.

Arcadis. 2019. Request for No Further Action for Soils Inside the Source Area Column at the Release Location at the SFPP Silvercroft Wash Release Site, Tucson, Arizona. May 23.

Arcadis 2022. Second Quarter 2022 Groundwater Monitoring Report, Silvercroft Wash Release Site, Tucson, Arizona, Site Code: 501251-00. August 18.

ADEQ. 2016. Final Remedial Objectives Report. SFPP Silvercroft Wash Release Site. VRP Code: 506251-00, Tucson, Arizona. September.

ADEQ. 2017a. Soil Vapor Sampling Guidance. July 10, 2008 and revised on May 19, 2011 and April 21, 2017.

ADEQ. 2017b. Approval of *Final Remedial Investigation Report*, SFPP Silvercroft Wash Release Site, Tucson, Arizona, Site Code: 506251-00. May 30.

ADEQ. 2018. No Further Action Determination for Soil; Non-Source Area Soils SFPP Silvercroft Wash Release Site, Tucson, Arizona, Site Code: 506251-00. October 9.

ADEQ. 2019. No Further Action Determination for Soil for Source Area Soils, SFPP Silvercroft Wash Release Site, Tucson, Arizona, Site Code: 506251-00. November 12.

Davidson, E.S. 1973. Geohistory and Water Resources of the Tucson Basin, Arizona. United States Geological Survey Paper 1939-E. 1973.

LFR.2005. Final Consolidated and Updated Proposed Remediation Work Plan, SFPP L.P. – Silvercroft Wash Release Site, Tucson, Arizona. January 6.

Tucson Water. 1988. Phase A, Tucson Recharge Feasibility Assessment; Prepared by CH2Mhill, in association with Errol L. Montgomery & Associates, Inc. and L.G. Wilson, recharge specialist for Tucson Water. March.

Tucson Water. 1996. Annual Static Water Level Basic Data Report, Tucson Basin and Avra Valley, Pima County, Arizona 1994, City of Tucson, Tucson Water, Planning & Engineering Division. May.

Tables

Table 1
Summary of Relevant Groundwater Standards for Contaminants of Concern
Silvercroft Wash Release Site
Tucson, Arizona

Contaminant of Concern	AWQS or Tier 1 Cleanup Standard (µg/L)
Benzene	5
Toluene	1,000
Ethylbenzene	700
Xylenes (total)	10,000
MTBE	94*

Notes:

· AWQS = Aquifer Water Quality Standard

· ADEQ UST Program Tier I Cleanup Standards: Petroleum Products dated July 2017

· MTBE = methyl tertiary-butyl ether

· Underground Storage Tank

· (µg/L) = micrograms per liter

· * = ADEQ UST Program Interim Policy for MTBE in groundwater and is a risk based corrective action Tier 1 Remedial level of dissolved-phase MTBE

Table 2
Well Construction Information
Silvercroft Wash Release Site
Tucson, Arizona

Well Name		MW-31M	MW-31D	MW-32S	MW-32M	MW-32D
ADWR Well Number		55-232864	55-232863	55-232867	55-232866	55-232865
Total Borehole Depth (ft bgs)		225	260	190	225	260
Screen	Diameter (inches)	4	4	4	4	4
	Type	SS Wire Wrap	SS Wire Wrap	SS Wire Wrap	SS Wire Wrap	SS Wire Wrap
	Slot (inches)	0.020	0.020	0.020	0.020	0.020
	Interval (ft bgs)	194 - 224	229-259	149-189	194 - 224	229-259
Blank Casing	Type	SCH 80 PVC	SCH 80 PVC	SCH 80 PVC	SCH 80 PVC	SCH 80 PVC
	Interval (ft bgs)	0-194	0-229	0-149	0-194	0-229
Filter Pack	Type	#8-12	#8-12	#8-12	#8-12	#8-12
	Interval (ft bgs)	189-225	224-260	144-190	189-225	224-260
Transition Sand	Type	#60	#60	#60	#60	#60
	Interval (ft bgs)	184-189	219-224	139-144	184-189	219-224
Bentonite Seal	Type	Bentonite Chips	Bentonite Chips	Bentonite Chips	Bentonite Chips	Bentonite Chips
	Interval (ft bgs)	179-184	214-219	134-139	179-184	214-219
Neat Cement Seal	Type	Neat Cement	Neat Cement	Neat Cement	Neat Cement	Neat Cement
	Interval (ft bgs)	0-179	0-214	0-134	0-179	0-214
Surface Completion	Type	12-inch diameter Monument	12-inch diameter Monument	12-inch diameter Monument	12-inch diameter Monument	12-inch diameter Monument
	Pad	Concrete	Concrete	Concrete	Concrete	Concrete
Development	Surge	X	X	X	X	X
	Bail	X	X	X	X	X
	Pump	X	X	X	X	X

Note:
ADWR = Arizona Department of Water Resources
ft = feet
bgs = below ground surface
SCH 80 PVC = Schedule 80 polyvinyl chloride
SS = stainless steel

Table 3
Groundwater Analytical Results, Pilot Test
Silvercroft Wash Release Site
Tucson, Arizona

Well ID	Quality Control Sample	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	MTBE (µg/L)	TBA (µg/L)	PCE (µg/L)	TCE (µg/L)	C12DCE (µg/L)	CCl_2F_2 (µg/L)
Arizona AWQS (µg/L)			5	1,000	700	10,000	N/A	N/A	5	5	70	N/A
MW-29S		1/19/2022	<1,000	<1,000	<1,000	<3,000	30,800	<5,000	<1,000	<1,000	<1,000	<5,000
MW-29S		2/22/2022	<250	<250	<250	<750	7,020	<1,250	<250	<250	<250	<1,250
MW-29S		3/18/2022	<250	<250	<250	<750	18,800	<1,250	<250	<250	<250	<1,250
MW-29S	Duplicate	3/18/2022	<250	<250	<250	<750	17,800	<1,250	<250	<250	<250	<1,250
MW-29S		4/12/2022	<250	<250	<250	<750	9,700	<1,250	<250	<250	<250	<1,250
MW-29S		5/4/2022	<250	<250	<250	<750	10,400	<1,250	<250	<250	<250	<1,250
MW-29S	Duplicate	5/4/2022	<250	<250	<250	<750	10,600	<1,250	<250	<250	<250	<1,250
MW-29S		5/25/2022	<200	<200	<200	<600	7,980	<1,000	<200	<200	<200	<1,000
MW-29S	Duplicate	5/25/2022	<1.00	<1.00	<1.00	<3.00	8,890	<5.00	<1.00	<1.00	<1.00	<5.00
MW-29S		6/15/2022	<200	<200	<200	<600	16,300	<1,000	<200	<200	<200	<1,000
MW-29S	Duplicate	6/15/2022	<1.00	<1.00	<1.00	<3.00	13,600	455	<1.00	<1.00	<1.00	<5.00
MW-29M		1/18/2022	<1.00	<1.00	<1.00	<3.00	2,030	90.1	<1.00	<1.00	<1.00	<5.00
MW-29M		2/22/2022	<1.00	<1.00	<1.00	<3.00	180	<5.00	<1.00	<1.00	<1.00	<5.00
MW-29M		3/18/2022	<1.00	<1.00	<1.00	<3.00	1.13	<5.00	<1.00	<1.00	<1.00	<5.00
MW-29M		4/12/2022	<1.00	<1.00	<1.00	<3.00	128	<5.00	<1.00	<1.00	<1.00	<5.00
MW-29M		5/3/2022	<1.00	<1.00	<1.00	<3.00	168	<5.00	<1.00	<1.00	<1.00	<5.00
MW-29M		5/24/2022	<1.00	<1.00	<1.00	<3.00	112	<5.00	<1.00	<1.00	<1.00	<5.00
MW-29M		6/14/2022	<1.00	<1.00	<1.00	<3.00	551	<5.00	<1.00	<1.00	<1.00	<5.00
MW-29D		1/10/2022	<1.00	<1.00	<1.00	<3.00	<1.00	<5.00	<1.00	<1.00	<1.00	<5.00
MW-29D		2/21/2022	<1.00	<1.00	<1.00	<3.00	<1.00	<5.00	<1.00	<1.00	<1.00	<5.00
MW-29D		3/17/2022	<1.00	<1.00	<1.00	<3.00	<1.00	<5.00	<1.00	<1.00	<1.00	<5.00
MW-29D		4/11/2022	<1.00	<1.00	<1.00	<3.00	<1.00	<5.00	<1.00	<1.00	<1.00	<5.00
MW-29D		5/3/2022	<1.00	<1.00	<1.00	<3.00	<1.00	<5.00	<1.00	<1.00	<1.00	<5.00
MW-29D		5/23/2022	<1.00	<1.00	<1.00	<3.00	<1.00	<5.00	<1.00	<1.00	<1.00	<5.00
MW-29D		6/14/2022	<1.00	<1.00	<1.00	<3.00	<1.00	<5.00	<1.00	<1.00	<1.00	<5.00
MW-31M		1/18/2022	<1.00	<1.00	<1.00	<3.00	15.8	6.04	<1.00	<1.00	<1.00	<5.00
MW-31M		2/22/2022	<1.00	<1.00	<1.00	<3.00	81.8	<5.00	<1.00	<1.00	<1.00	<5.00
MW-31M		3/17/2022	<1.00	<1.00	<1.00	<3.00	<1.00	<5.00	<1.00	<1.00	<1.00	<5.00
MW-31M		4/12/2022	<1.00	<1.00	<1.00	<3.00	1.03	<5.00	<1.00	<1.00	<1.00	<5.00
MW-31M		5/3/2022	<1.00	<1.00	<1.00	<3.00	<1.00	<5.00	<1.00	<1.00	<1.00	<5.00
MW-31M		5/24/2022	<1.00	<1.00	<1.00	<3.00	10.1	<5.00	<1.00	<1.00	<1.00	<5.00
MW-31M		6/14/2022	<1.00	<1.00	<1.00	<3.00	384	<5.00	<1.00	<1.00	<1.00	<5.00
MW-31D		1/11/2022	<1.00	<1.00	<1.00	<3.00	<1.00	<5.00	<1.00	<1.00	<1.00	<5.00
MW-31D		2/21/2022	<1.00	<1.00	<1.00	<3.00	<1.00	<5.00	<1.00	<1.00	<1.00	<5.00
MW-31D		3/17/2022	<1.00	<1.00	<1.00	<3.00	<1.00	<5.00	<1.00	<1.00	<1.00	<5.00
MW-31D		4/11/2022	<1.00	<1.00	<1.00	<3.00	<1.00	<5.00	<1.00	<1.00	<1.00	<5.00
MW-31D		5/3/2022	<1.00	<1.00	<1.00	<3.00	<1.00	<5.00	<1.00	<1.00	<1.00	<5.00
MW-31D		5/23/2022	<1.00	<1.00	<1.00	<3.00	<1.00	<5.00	<1.00	<1.00	<1.00	<5.00
MW-31D		6/14/2022	<1.00	<1.00	<1.00	<3.00	<1.00	<5.00	<1.00	<1.00	<1.00	<5.00
MW-32S		1/19/2022	<10.0	<10.0	<10.0	<30.0	98,600	<50.0	<10.0	<10.0	<10.0	<50.0

Table 3
Groundwater Analytical Results, Pilot Test
Silvercroft Wash Release Site
Tucson, Arizona

Well ID	Quality Control Sample	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	MTBE (µg/L)	TBA (µg/L)	PCE (µg/L)	TCE (µg/L)	C12DCE (µg/L)	CCl_2F_2 (µg/L)
Arizona AWQS (µg/L)			5	1,000	700	10,000	N/A	N/A	5	5	70	N/A
MW-32S		2/22/2022	<10.0	<10.0	<10.0	<30.0	83,900	<50.0	<10.0	<10.0	<10.0	<50.0
MW-32S		3/18/2022	<1,000	<1,000	<1,000	<3,000	72,000	<5,000	<1,000	<1,000	<1,000	<5,000
MW-32S		4/12/2022	<1,000	<1,000	<1,000	<3,000	74,000	<5,000	<1,000	<1,000	<1,000	<5,000
MW-32S		5/4/2022	<1,000	<1,000	<1,000	<3,000	63,500	<5,000	<1,000	<1,000	<1,000	<5,000
MW-32S		5/24/2022	<1.00	<1.00	<1.00	<3.00	68,100	33,500	<1.00	<1.00	<1.00	<5.00
MW-32S		6/15/2022	<2,000	<2,000	<2,000	<6,000	65,100	<10,000	<2,000	<2,000	<2,000	<10,000
MW-32M		1/18/2022	<1.00	<1.00	<1.00	<3.00	3,320	37.4	<1.00	<1.00	<1.00	<5.00
MW-32M		2/22/2022	<1.00	<1.00	<1.00	<3.00	1,570	34.1	<1.00	<1.00	<1.00	<5.00
MW-32M		3/17/2022	<10.0	<10.0	<10.0	<30.0	748	<50.0	<10.0	<10.0	<10.0	<50.0
MW-32M		4/12/2022	<10.0	<10.0	<10.0	<30.0	825	<50.0	<10.0	<10.0	<10.0	<50.0
MW-32M		5/4/2022	<10.0	<10.0	<10.0	<30.0	234	<50.0	<10.0	<10.0	<10.0	<50.0
MW-32M		5/24/2022	<1.00	<1.00	<1.00	<3.00	49.2	<5.00	<1.00	<1.00	<1.00	<5.00
MW-32M		6/15/2022	<1.00	<1.00	<1.00	<3.00	<1.00	<5.00	<1.00	<1.00	<1.00	<5.00
MW-32D		1/10/2022	<1.00	<1.00	<1.00	<3.00	2,390	<5.00	<1.00	<1.00	<1.00	<5.00
MW-32D	Duplicate	1/10/2022	<1.00	<1.00	<1.00	<3.00	2,240	<5.00	<1.00	<1.00	<1.00	<5.00
MW-32D		2/21/2022	<1.00	<1.00	<1.00	<3.00	610	<5.00	<1.00	<1.00	<1.00	<5.00
MW-32D	Duplicate	2/21/2022	<1.00	<1.00	<1.00	<3.00	238	<5.00	<1.00	<1.00	<1.00	<5.00
MW-32D		3/17/2022	<1.00	<1.00	<1.00	<3.00	23.3	<5.00	<1.00	<1.00	<1.00	<5.00
MW-32D		4/11/2022	<1.00	<1.00	<1.00	<3.00	80.2	<5.00	<1.00	<1.00	<1.00	<5.00
MW-32D		5/3/2022	<1.00	<1.00	<1.00	<3.00	135	<5.00	<1.00	<1.00	<1.00	<5.00
MW-32D		5/23/2022	<1.00	<1.00	<1.00	<3.00	32.5	<5.00	<1.00	<1.00	<1.00	<5.00
MW-32D		6/14/2022	<1.00	<1.00	<1.00	<3.00	62.8	<5.00	<1.00	<1.00	<1.00	<5.00

Notes

· No results exceed the Arizona Aquifer Water Quality Standard (AWQS).
· < = Analyte concentration below displayed detection limit.
· C12DCE = cis-1,2-dichloroethene.
· CCl_2F_2 = Dichlorodifluoromethane.
· MTBE = Methyl tert-butyl ether.
· N/A = AWQS not applicable; no standard exists.
· PCE = Tetrachloroethene.
· TBA = Tert-butyl alcohol.
· TCE = Trichloroethene.

Table 4
Monitored Natural Attenuation Analytical Results, Pilot Test
Silvercroft Wash Release Site
Tucson, Arizona

Well ID	Quality Control Sample	Sample Date	Iron, total (mg/L)	TDS (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Methane (mg/L)
EPA MCL (mg/L)			0.3	500	10	1	250	N/A
MW-29S		1/19/2022	<0.100	**828**	<0.100	<0.100	**372**	<0.0100
MW-29S		2/22/2022	**1.77**	**813**	1.41	<0.100	**336**	<0.0100
MW-29S		3/18/2022	0.163	**840**	0.470	<0.100	**350**	<0.0100
MW-29S	Duplicate	3/18/2022	0.181	**843**	0.540	<0.100	**348**	<0.0100
MW-29S		4/12/2022	<0.100	**788**	0.200	<0.100	**358**	<0.0100
MW-29S		5/4/2022	<0.100	**757**	0.211	<0.100	**347**	<0.0100
MW-29S	Duplicate	5/4/2022	<0.100	**732**	0.221	<0.100	**333**	<0.0100
MW-29S		5/25/2022	<0.100	**777**	<0.100	<0.100	**369**	<0.0100
MW-29S	Duplicate	5/25/2022	<0.100	**775**	<0.100	<0.100	**345**	<0.0100
MW-29S		6/15/2022	NA	**771**	<0.100	<0.100	**362**	<0.0100
MW-29S	Duplicate	6/15/2022	NA	**787**	<0.100	<0.100	**358**	<0.0100
MW-29M		1/18/2022	<0.100	**646**	2.04	<0.100	228	<0.0100
MW-29M		2/22/2022	<0.100	**689**	3.28	<0.100	220	<0.0100
MW-29M		3/18/2022	<0.100	**695**	2.56	<0.100	218	<0.0100
MW-29M		4/12/2022	0.104	**691**	2.45	<0.100	242	<0.0100
MW-29M		5/3/2022	**0.314**	**680**	2.17	<0.100	240	<0.0100
MW-29M		5/24/2022	<0.100	**667**	2.56	<0.100	231	<0.0100
MW-29M		6/14/2022	NA	**685**	2.09	<0.100	225	<0.0100
MW-29D		1/10/2022	**2.79**	**702**	2.75*		**250**	<0.0100
MW-29D		2/21/2022	<0.100	**705**	1.64	<0.100	**255**	<0.0100
MW-29D		3/17/2022	<0.100	**776**	3.56	<0.100	**261**	<0.0100
MW-29D		4/11/2022	<0.100	**716**	2.78	<0.100	244	<0.0100
MW-29D		5/3/2022	0.126	**661**	3.11	<0.100	**252**	<0.0100
MW-29D		5/23/2022	<0.100	**763**	2.82	<0.100	**259**	<0.0100
MW-29D		6/14/2022	NA	**641**	2.93	<0.100	234	<0.0100
MW-31M		1/18/2022	**0.542**	**723**	2.88	<0.100	**295**	<0.0100
MW-31M		2/22/2022	**1.10**	**643**	3.29	<0.100	233	<0.0100
MW-31M		3/17/2022	**2.33**	**661**	2.63	<0.100	206	<0.0100
MW-31M		4/12/2022	**0.750**	**613**	2.66	<0.100	236	<0.0100
MW-31M		5/3/2022	**0.832**	**612**	2.67	<0.100	220	<0.0100
MW-31M		5/24/2022	**0.790**	**617**	2.90	<0.100	221	<0.0100
MW-31M		6/14/2022	NA	**639**	2.64	<0.100	208	<0.0100
MW-31D		1/11/2022	**0.695**	**801**	3.75	<0.100	**259**	<0.0100
MW-31D		2/21/2022	**0.319**	**755**	2.23	<0.100	**262**	<0.0100
MW-31D		3/17/2022	**0.305**	**789**	3.77	<0.100	**253**	<0.0100
MW-31D		4/11/2022	0.252	**773**	3.98	<0.100	**253**	<0.0100
MW-31D		5/3/2022	0.146	**759**	4.00	<0.100	**276**	<0.0100
MW-31D		5/23/2022	0.146	**653**	2.82	<0.100	**252**	<0.0100
MW-31D		6/14/2022	NA	**804**	3.92	<0.100	**255**	<0.0100
MW-32S		1/19/2022	<0.100	**865**	<0.100	<0.100	**298**	<0.0100
MW-32S		2/22/2022	<0.100	**793**	<0.100	<0.100	**292**	<0.0100
MW-32S		3/18/2022	<0.100	**803**	<0.100	<0.100	**287**	<0.0100
MW-32S		4/12/2022	0.157	**800**	0.544	<0.100	**303**	<0.0100
MW-32S		5/4/2022	<0.100	**745**	<0.100	<0.100	**290**	<0.0100

Table 4
Monitored Natural Attenuation Analytical Results, Pilot Test
Silvercroft Wash Release Site
Tucson, Arizona

Well ID	Quality Control Sample	Sample Date	Iron, total (mg/L)	TDS (mg/L)	Nitrate (mg/L)	Nitrite (mg/L)	Sulfate (mg/L)	Methane (mg/L)
EPA MCL (mg/L)			0.3	500	10	1	250	N/A
MW-32S		5/24/2022	<0.100	**791**	<0.100	<0.100	**293**	<0.0100
MW-32S		6/15/2022	NA	**784**	<0.100	<0.100	**302**	<0.0100
MW-32M		1/18/2022	<0.100	**620**	2.58	<0.100	205	<0.0100
MW-32M		2/22/2022	<0.100	**637**	3.10	<0.100	208	<0.0100
MW-32M		3/17/2022	<0.100	**649**	2.58	<0.100	213	<0.0100
MW-32M		4/12/2022	<0.100	**640**	2.47	<0.100	227	<0.0100
MW-32M		5/4/2022	<0.100	**606**	2.65	<0.100	210	<0.0100
MW-32M		5/24/2022	<0.100	**622**	2.77	<0.100	222	<0.0100
MW-32M		6/15/2022	NA	**646**	2.57	<0.100	220	<0.0100
MW-32D		1/10/2022	**1.32**	**719**	1.96*		245	<0.0100
MW-32D	Duplicate	1/10/2022	**1.63**	**717**	2.17*		245	<0.0100
MW-32D		2/21/2022	<0.100	**768**	3.03	<0.100	248	<0.0100
MW-32D	Duplicate	2/21/2022	<0.100	**771**	3.01	<0.100	**253**	<0.0100
MW-32D		3/17/2022	<0.100	**795**	3.36	<0.100	**262**	<0.0100
MW-32D		4/11/2022	<0.100	**784**	3.46	<0.100	**258**	<0.0100
MW-32D		5/3/2022	<0.100	**783**	3.11	<0.100	**268**	<0.0100
MW-32D		5/23/2022	<0.100	**755**	3.27	<0.100	**276**	<0.0100
MW-32D		6/14/2022	NA	**764**	3.30	<0.100	**265**	<0.0100

Notes
· Results displayed in **bold** exceed the Environmental Protection Agency Maximum Contaminant Level (EPA MCL).
· < = Analyte concentration below displayed detection limit.
· * = A nitrate-nitrite analysis was performed instead of separate nitrate and nitrite analyses.
· mg/L = milligrams per liter
· NA = Not analyzed.
· TDS = Total dissolved solids.

Table 5
Monitored Natural Attenuation Field Measurements
Silvercroft Wash Release Site
Tucson, Arizona

Well ID	Sample Date	DO (surface) (mg/L)	ORP (mV)	Iron, Ferrous (mg/L)	Sulfite* (mg/L)	Manganese (mg/L)
MW-29S	1/19/2022	0.80	88.3	0.00	0.64 - 1.28	0.3
	2/22/2022	1.53	191.9	0.02	0.64 - 1.28	0.7
	3/18/2022	4.56	308.3	0.02	0.64 - 1.28	0.9
	4/12/2022	2.19	282.9	0.01	0.64 - 1.28	0.7
	5/4/2022	3.59	235.0	0.01	0.64 - 1.28	--
	5/25/2022	1.73	193.8	0.01	0.64 - 1.28	--
	6/15/2022	1.06	192.0	0.01	0.64 - 1.28	1.0
MW-29M	1/18/2022	1.65	326.7	0.03	1.28 - 1.92	0.8
	2/22/2022	4.86	250.2	0.00	1.28 - 1.92	0.4
	3/18/2022	7.49	337.2	0.04	1.28 - 1.92	0.4
	4/12/2022	7.37	257.7	0.00	0.64 - 1.28	0.5
	5/3/2022	8.39	184.5	0.02	0.64 - 1.28	--
	5/24/2022	7.86	260.1	0.01	0.64 - 1.28	--
	6/14/2022	7.14	180.2	0.03	0.64 - 1.28	1.3
MW-29D	1/10/2022	8.44	250.2	0.07	0.64 - 1.28	0.1
	2/21/2022	7.33	279.1	0.06	0.64 - 1.28	0.9
	3/17/2022	4.47	325.6	0.01	0.64 - 1.28	0.5
	4/11/2022	9.52	285.9	0.02	0.64 - 1.28	0.4
	5/3/2022	10.95	281.3	0.04	0.64 - 1.28	--
	5/23/2022	12.64	282.6	0.01	0.64 - 1.28	--
	6/14/2022	8.89	213.5	0.04	< 0.64	0.3
MW-31M	1/18/2022	7.99	359.5	0.14	0.64 - 1.28	0.0
	2/22/2022	6.98	256.6	0.10	0.64 - 1.28	0.1
	3/17/2022	8.89	253.6	0.09	0.64 - 1.28	0.2
	4/12/2022	9.51	310.9	0.10	0.64 - 1.28	0.3
	5/3/2022	8.01	257.6	0.14	0.64 - 1.28	--
	5/24/2022	7.85	279.6	0.14	0.64 - 1.28	--
	6/14/2022	6.61	183.7	0.09	0.64 - 1.28	0.9
MW-31D	1/11/2022	3.46	130.1	0.01	0.64 - 1.28	0.9
	2/21/2022	5.66	133.5	0.07	0.64 - 1.28	0.7
	3/17/2022	4.27	146.1	0.05	0.64 - 1.28	0.5
	4/11/2022	4.21	193.8	0.03	0.64 - 1.28	0.4
	5/3/2022	5.73	224.7	0.08	0.64 - 1.28	--
	5/23/2022	3.84	244.3	0.02	0.64 - 1.28	--
	6/14/2022	3.76	190.2	0.02	< 0.64	0.8
MW-32S	1/19/2022	2.91	228.3	0.05	0.64 - 1.28	0.7
	2/22/2022	2.57	222.3	0.04	0.64 - 1.28	0.4
	3/18/2022	2.96	303.3	0.03	0.64 - 1.28	0.4
	4/12/2022	3.01	282.8	0.02	0.64 - 1.28	0.3
	5/4/2022	5.18	273.6	0.00	0.64 - 1.28	--
	5/24/2022	5.84	252.5	0.02	0.64 - 1.28	--
	6/15/2022	4.16	232.2	0.02	0.64 - 1.28	1.3
MW-32M	1/18/2022	3.07	327.2	0.05	0.64 - 1.28	0.4
	2/22/2022	5.09	187.3	0.04	0.64 - 1.28	0.6
	3/17/2022	7.41	217.3	0.05	0.64 - 1.28	0.6
	4/12/2022	5.98	305.6	0.04	0.64 - 1.28	0.5
	5/4/2022	8.90	338.2	0.00	0.64 - 1.28	--
	5/24/2022	7.72	277.0	0.01	0.64 - 1.28	--
	6/15/2022	8.44	267.6	0.04	0.64 - 1.28	1.0

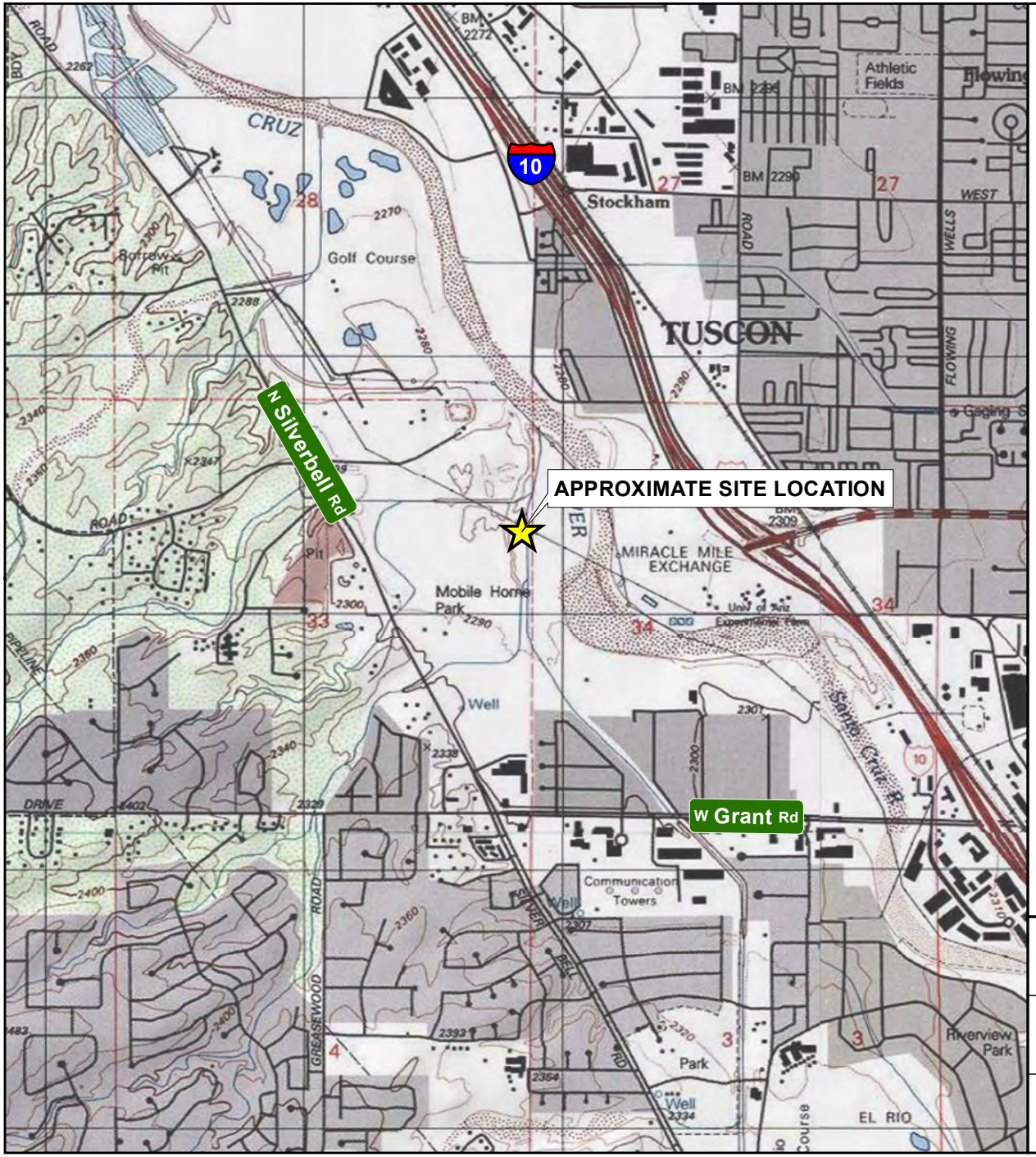
Table 5
Monitored Natural Attenuation Field Measurements
Silvercroft Wash Release Site
Tucson, Arizona

Well ID	Sample Date	DO (surface) (mg/L)	ORP (mV)	Iron, Ferrous (mg/L)	Sulfite* (mg/L)	Manganese (mg/L)
MW-32D	1/10/2022	1.40	73.5	0.00	0.64 - 1.28	0.0
	2/21/2022	1.78	165.6	0.02	0.64 - 1.28	0.6
	3/17/2022	3.28	177.4	0.03	0.64 - 1.28	0.5
	4/11/2022	3.12	249.2	0.02	0.64 - 1.28	0.4
	5/3/2022	3.03	233.2	0.05	0.64 - 1.28	--
	5/23/2022	2.51	201.8	0.01	0.64 - 1.28	--
	6/14/2022	2.31	184.6	0.02	0.64 - 1.28	0.8

Notes
· DO = Dissolved oxygen.
· mg/L = milligram per liters.
· mV = millivolts.
· ORP = Oxidation reduction potential.
· * = Due to the Hach SU-5 sulfite test kit's titration analysis method, sulfite concentrations are accurate to within 0.64-mg/L intervals.

Figures

\\Scottsdale-AZ\Project\KMEP (Kinder Morgan Energy Partners)\10022-Silvercroft Wash\GIS\Projects\Remedial action plan 06-2022\Figure 01 - Site vicinity.mxd 6/29/2022



SITE LOCATION

LEGEND

Approximate site location

NOTES

· Topographic map source: ESRI USA Topo Maps.

Feet
0 1,000 2,000
Scale: 1" = 2,000'

SILVERCROFT WASH RELEASE SITE
TUCSON, ARIZONA
REMEDIAL ACTION PLAN

SITE VICINITY

ARCADIS

FIGURE
1

LEGEND

- Silvercroft Wash release site
- Sweetwater Recharge Facility (existing recharge basin)
- Sweetwater Recharge Facility (future recharge basin)
- KM groundwater monitor well
- KM soil vapor monitor well
- KM soil vapor extraction well
- COT groundwater monitor well
- SRF groundwater extraction well
- Silverbell Landfill WQARF Site Groundwater Remediation Extraction Well

NOTES

· Aerial photo source: ESRI World Imagery.
· KM = Kinder Morgan, Inc.
· COT = City of Tucson.
· SRF = Sweetwater Recharge Facility.
· WQARF = Water Quality Assurance Revolving Fund.

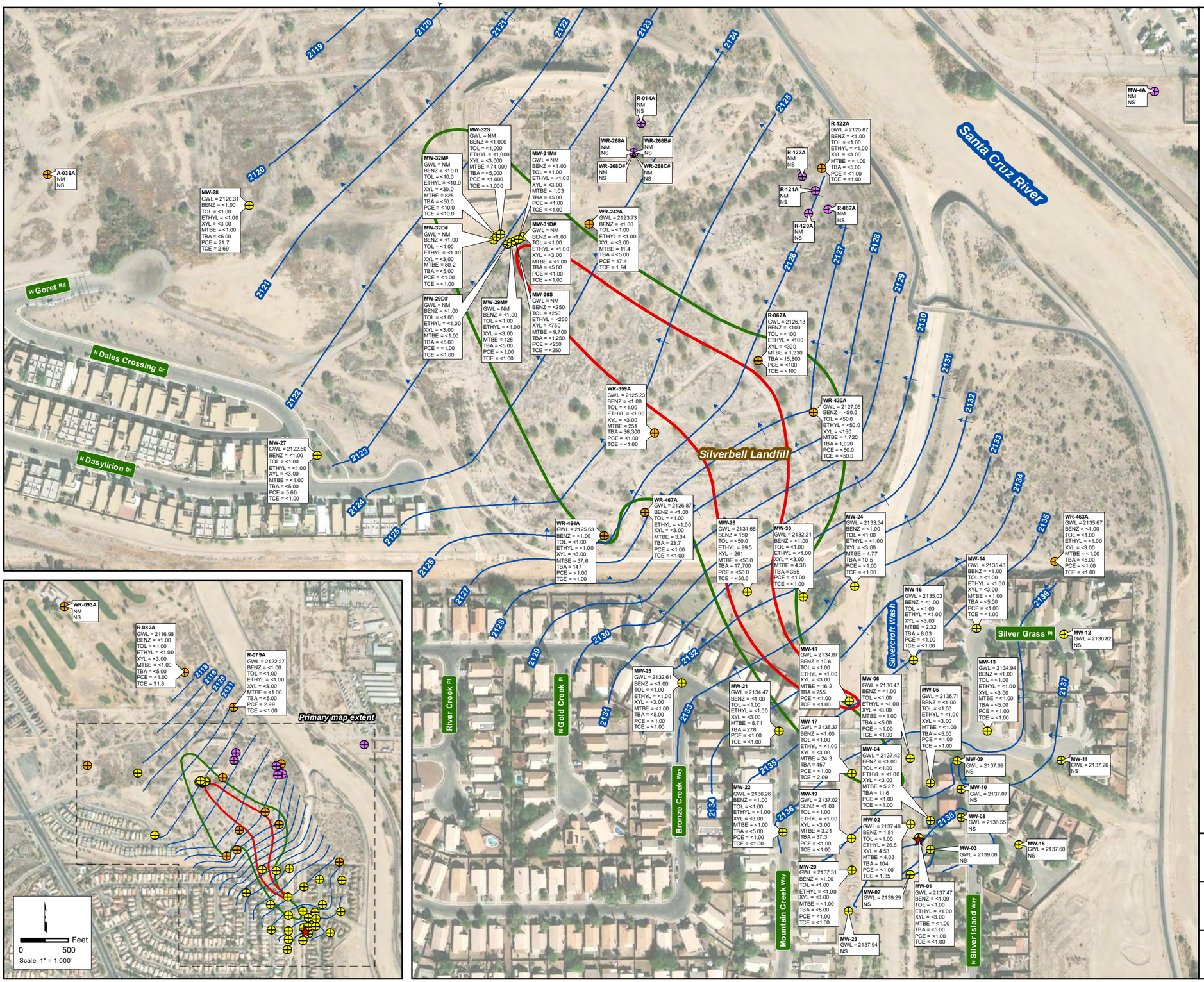
SILVERCROFT WASH RELEASE SITE
TUCSON, ARIZONA
REMEDIAL ACTION PLAN

SITE LOCATION

ARCADIS

FIGURE
2

\\Scottsdale-AZ\Project\KMEP (Kinder Morgan Energy Partners)\10022-Silvercroft Wash\GIS\Projects\Remedial action plan 06-2022\Figure 03 - GW elevation contours Q2 2022.mxd 9/16/2022



LEGEND

- Release point
- Groundwater monitor well (monitored by Arcadis)
- Groundwater monitor well (monitored by Arcadis; formerly monitored by City of Tucson)
- Groundwater monitor well (monitored by City of Tucson)
- Groundwater elevation contour
- Direction of groundwater flow
- Approximate extent of dissolved phase BTEX above AWQS
- Approximate extent of dissolved phase MTBE above 20 µg/L

NOTES

- Aerial photo source: ESRI World Imagery.
- Depths to groundwater were measured on 4/6/2022.
- Wells were sampled from 4/7 to 4/20/2022.
- Groundwater elevations are expressed in feet above mean sea level (ft amsl).
- Concentrations are expressed in micrograms per liter (µg/L).
- No wells contained light non-aqueous phase liquid (LNAPL) during the April 2022 monitoring event.
- GWL = Groundwater elevation.
- BENZ = Benzene.
- TOL = Toluene.
- ETHYL = Ethylbenzene.
- XYL = Total xylenes.
- MTBE = Methyl tert-butyl ether.
- TBA = Tert-butyl alcohol.
- PCE = Tetrachloroethene.
- TCE = Trichloroethene.
- # = Well is screened at a greater depth than others and is not used in contouring.
- < = Analyte was not detected above the indicated laboratory detection limit.
- NM = Not measured.
- NS = Not sampled.

N

Feet
0 125 250
Scale: 1" = 250'

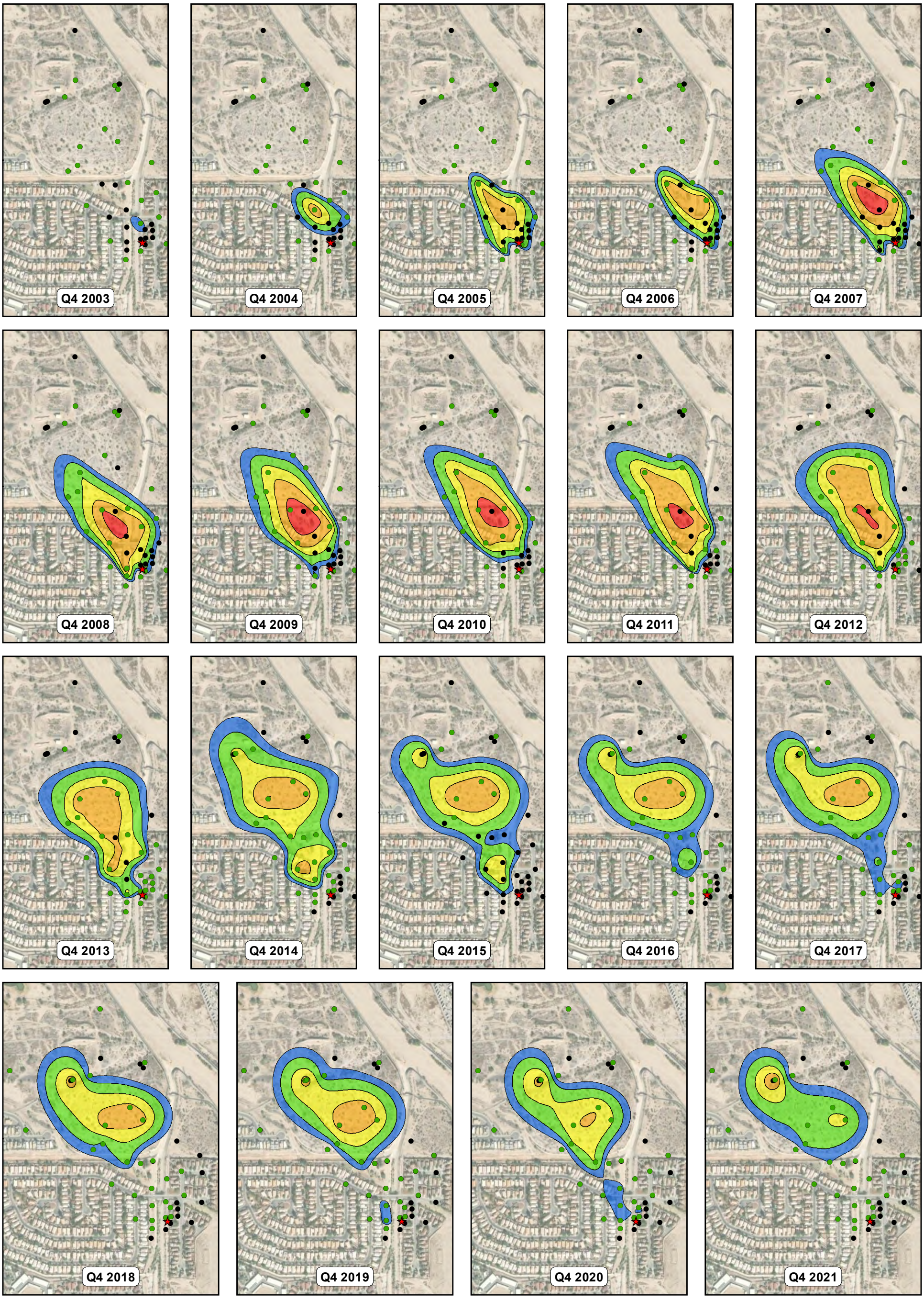
SILVERCROFT WASH RELEASE SITE
TUCSON, ARIZONA
REMEDIAL ACTION PLAN

GROUNDWATER ELEVATION CONTOURS WITH ANALYTICAL RESULTS, SECOND QUARTER 2022

ARCADIS

FIGURE
3

\\Scottsdale-AZ\Project\KMEP (Kinder Morgan Energy Partners)\10022-Silvercroft Wash\GIS\Shapefiles\Remedial action plan 06-2022\Figure 04 - MTBE plume evolution 2003-2021.mxd 6/29/2022



LEGEND

- Groundwater monitor well (sampled)
- Groundwater monitor well (not sampled)
- Release point

MTBE CONCENTRATIONS

- > 100,000 µg/L
- > 10,000 µg/L
- > 1,000 µg/L
- > 100 µg/L
- > 20 µg/L

NOTES

- Aerial photo source: ESRI World Imagery.
- Concentrations are expressed in micrograms per liter (µg/L).
- MTBE = Methyl tert-butyl ether.

N

0 500 1,000 Feet

Scale: 1" = 1,000'

SILVERCROFT WASH RELEASE SITE
TUCSON, ARIZONA
REMEDIAL ACTION PLAN

EVOLUTION OF MTBE PLUME, 2003-2021

ARCADIS

FIGURE
4

Figure 5
Dissolved Phase MTBE Mass in Groundwater and Center of Mass Migration vs. Time
Kinder Morgan, Inc.
Silvercroft Wash Release Site, Tucson, Arizona

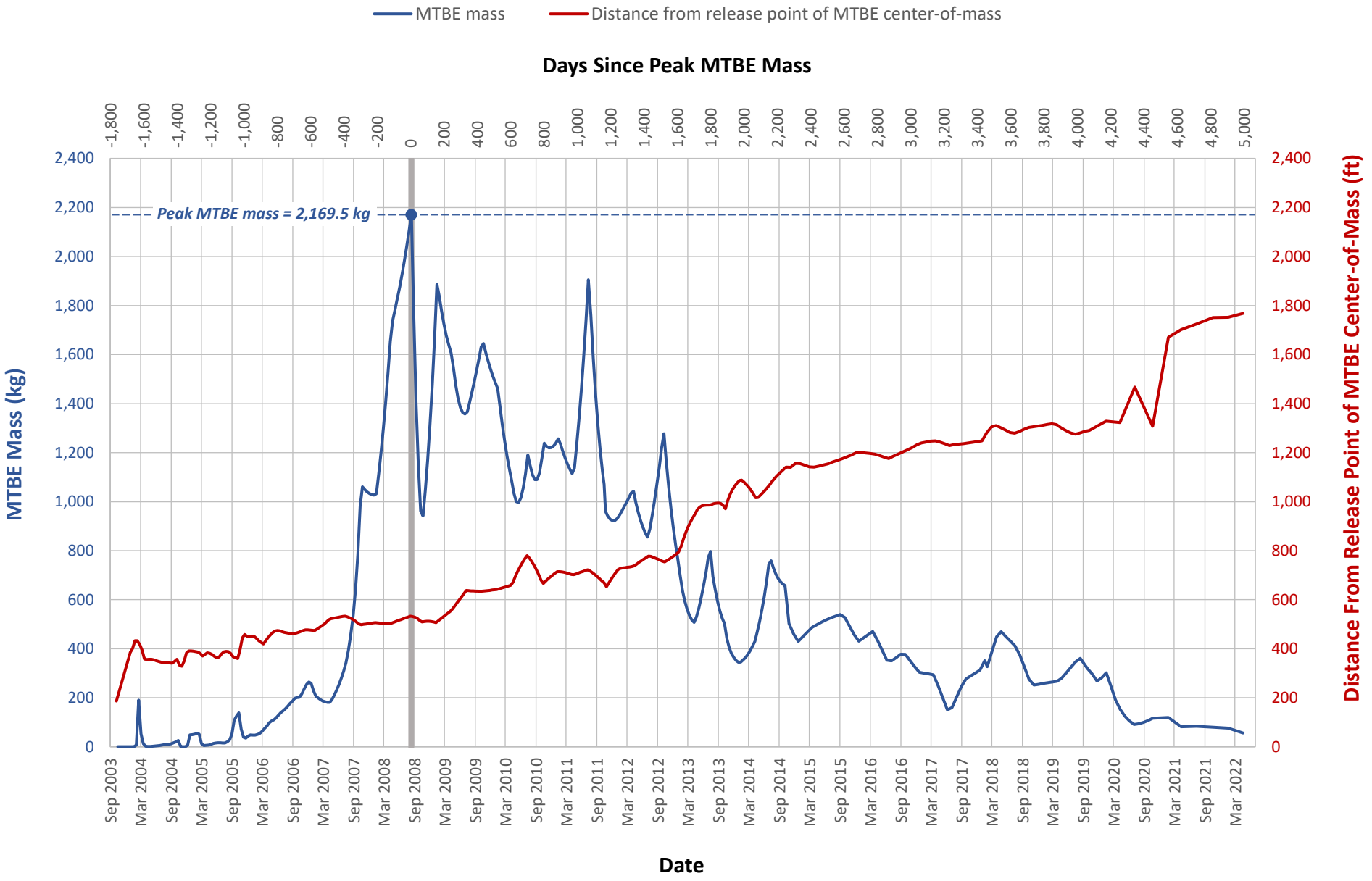
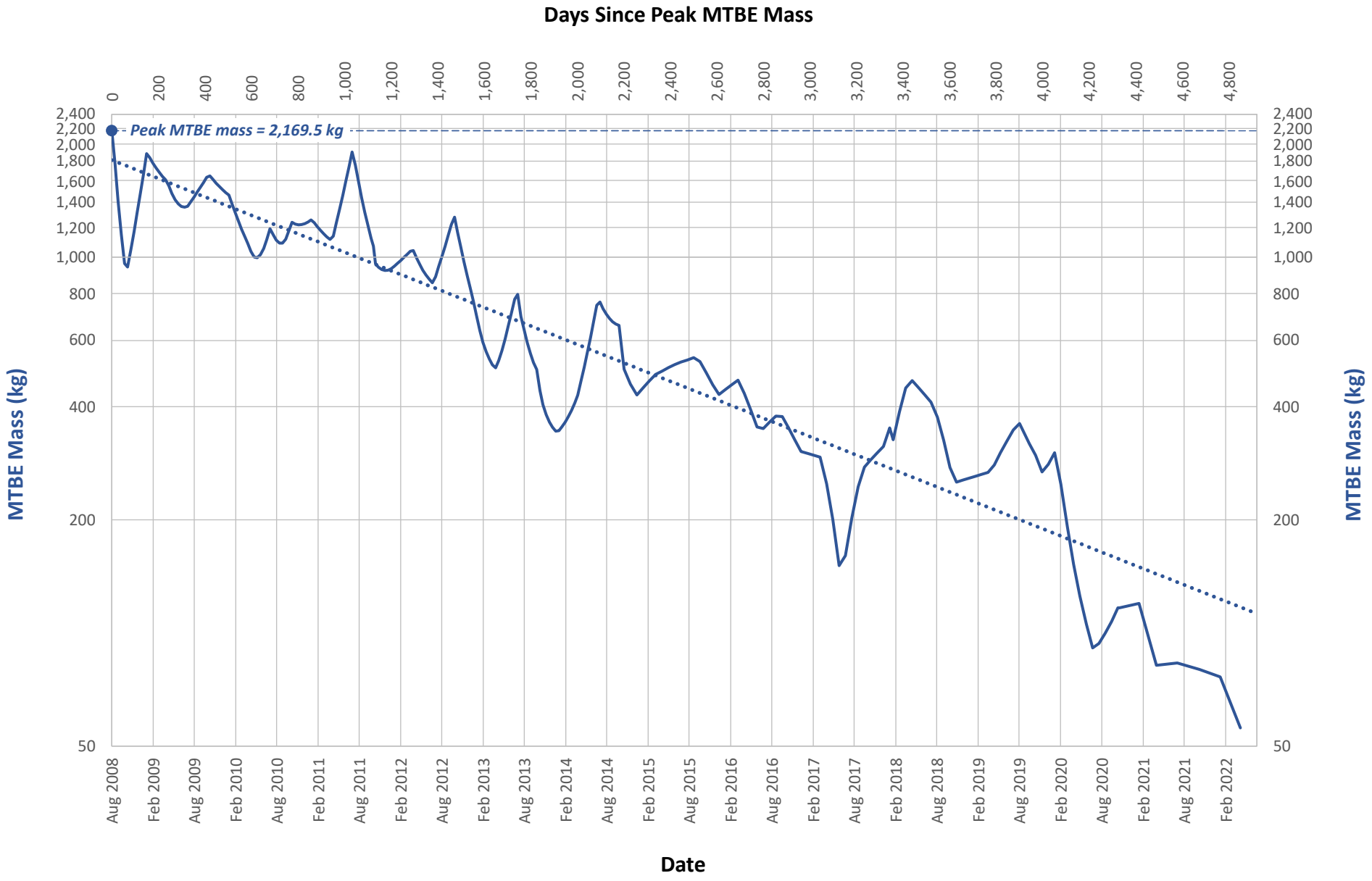
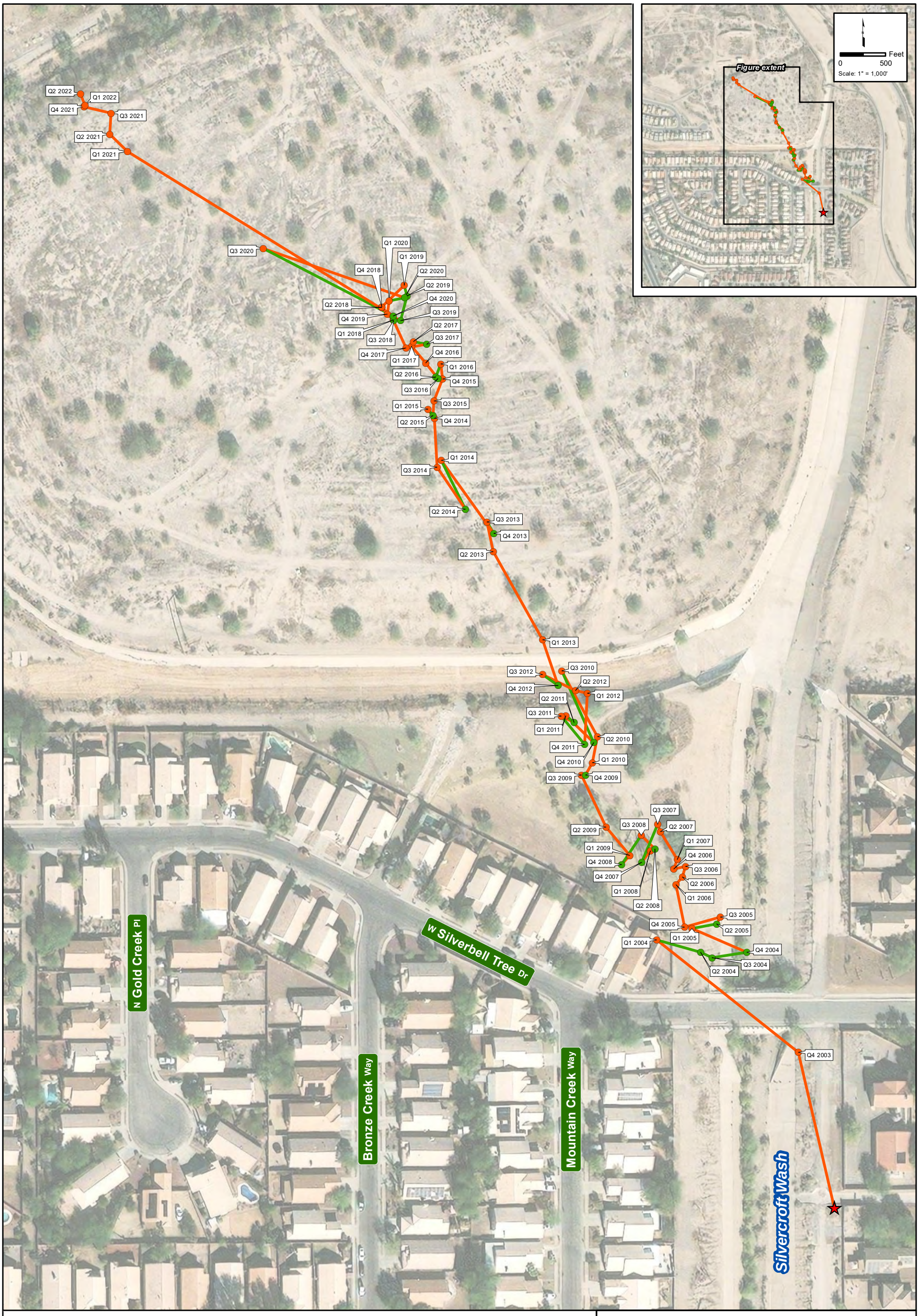


Figure 6
Dissolved Phase MTBE Mass in Groundwater vs. Time
Kinder Morgan, Inc.
Silvercroft Wash Release Site, Tucson, Arizona



\\Scottsdale-AZ\Project\KMEP (Kinder Morgan Energy Partners)\10022-Silvercroft Wash\GIS\Projects\Remedial action plan 06-2022\Figure 07 - MTBE center of mass migration 2003-2022.mxd 9/16/2022



LEGEND

- Release point
- Center of mass of MTBE in groundwater (advancing)
- Center of mass of MTBE in groundwater (retreating)
- Path of MTBE center of mass migration (advancing)
- Path of MTBE center of mass migration (retreating)

NOTES

· Aerial photo source: ESRI World Imagery.

Feet
0 60 120
Scale: 1" = 120'

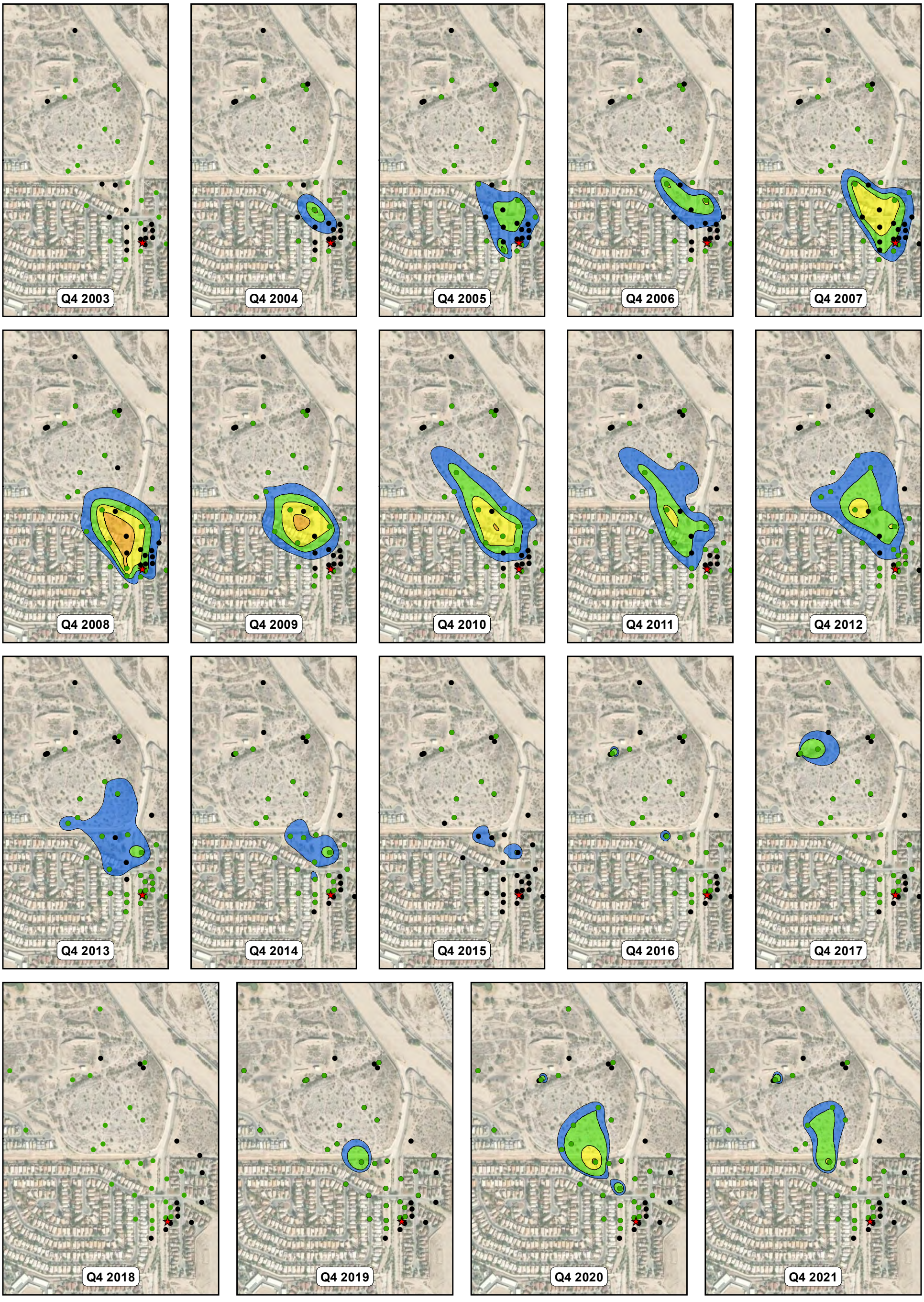
SILVERCROFT WASH RELEASE SITE
TUCSON, ARIZONA
REMEDIAL ACTION PLAN

CENTER OF MASS OF MTBE IN GROUNDWATER 2003-2022

ARCADIS

FIGURE
7

\\Scottsdale-AZ\Project\KMEP (Kinder Morgan Energy Partners)\10022-Silvercroft Wash\GIS\Shapefiles\Remedial Action Plan 06-2022\Figure 08 - MTBE plume evolution 2003-2021.mxd 6/29/2022



LEGEND

- Groundwater monitor well (sampled)
- Groundwater monitor well (not sampled)
- Release point

BENZENE CONCENTRATIONS

- > 100,000 µg/L
- > 10,000 µg/L
- > 1,000 µg/L
- > 100 µg/L
- > 5 µg/L

NOTES

· Aerial photo source: ESRI World Imagery.
· Concentrations are expressed in micrograms per liter (µg/L).

N

0 500 1,000 Feet

Scale: 1" = 1,000'

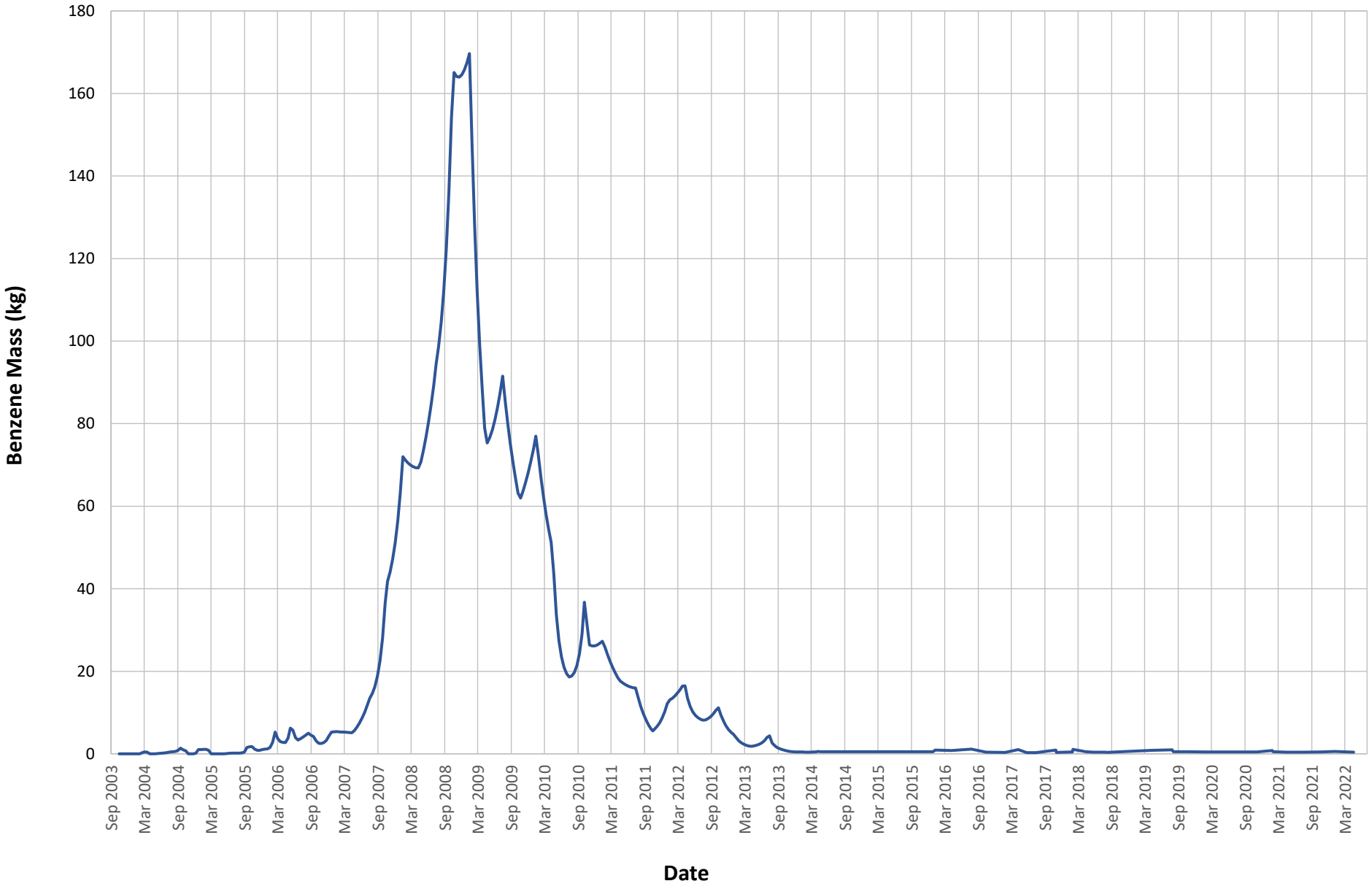
SILVERCROFT WASH RELEASE SITE
TUCSON, ARIZONA
REMEDIAL ACTION PLAN

EVOLUTION OF BENZENE PLUME, 2003-2021

ARCADIS

FIGURE
8

Figure 9
Dissolved Phase Benzene Mass in Groundwater vs. Time
Kinder Morgan, Inc.
Silvercroft Wash Release Site, Tucson, Arizona



\\Scottsdale-AZ\Project\KMEP (Kinder Morgan Energy Partners)\10022-Silvercroft Wash\GIS\Projects\Remedial action plan 06-2022\Figure 10 - Pilot test well layout.mxd 8/12/2022

LEGEND

- Approximate extent of air sparge treatment system
- Air sparge pilot test well
- Air sparge monitoring well

NOTES

· Aerial photo source: Google Earth Pro.

N

Feet
0 7½ 15
Scale: 1" = 15'

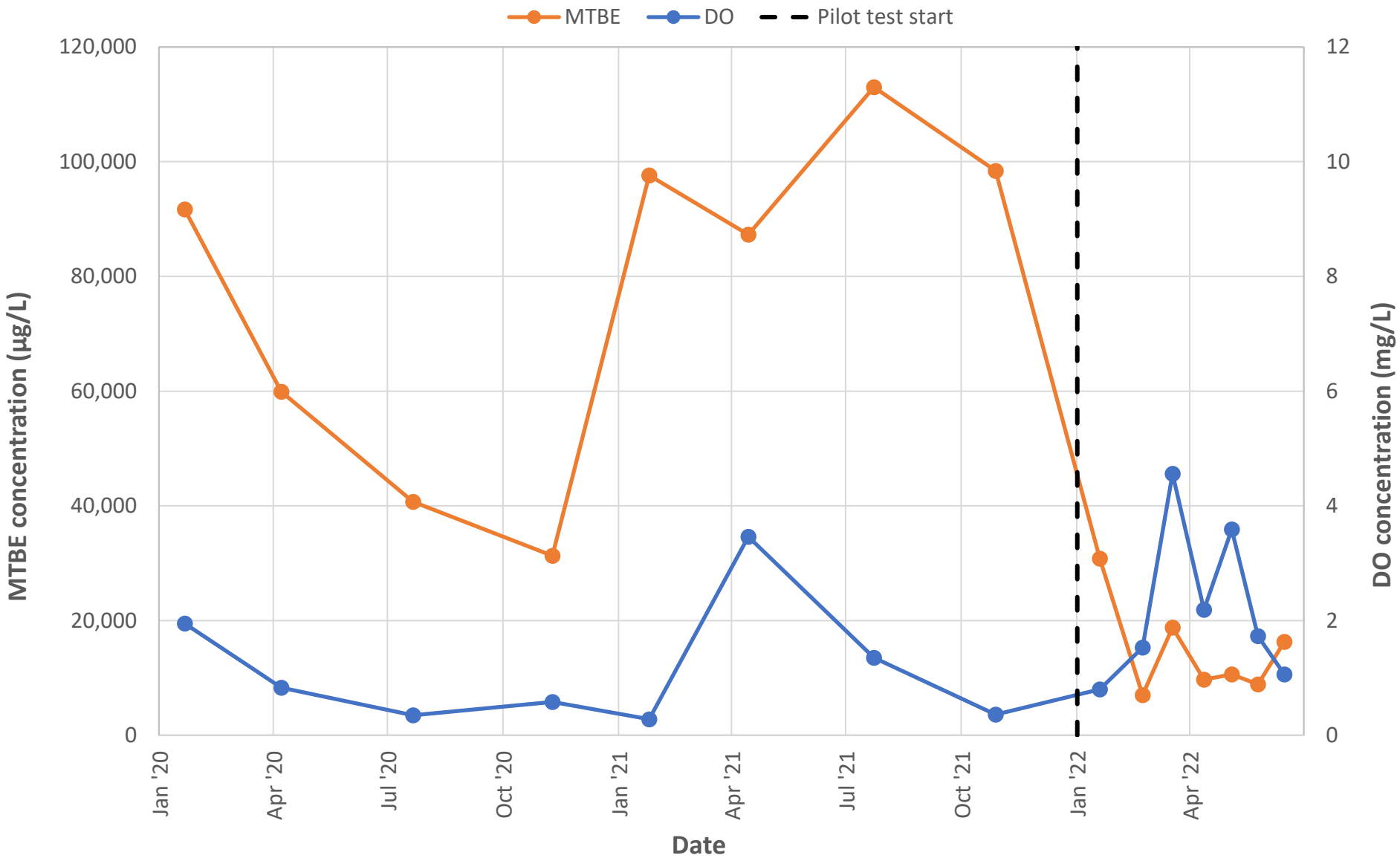
SILVERCROFT WASH RELEASE SITE
TUCSON, ARIZONA
REMEDIAL ACTION PLAN

AIR SPARGE AND MONITORING WELL LAYOUT

ARCADIS

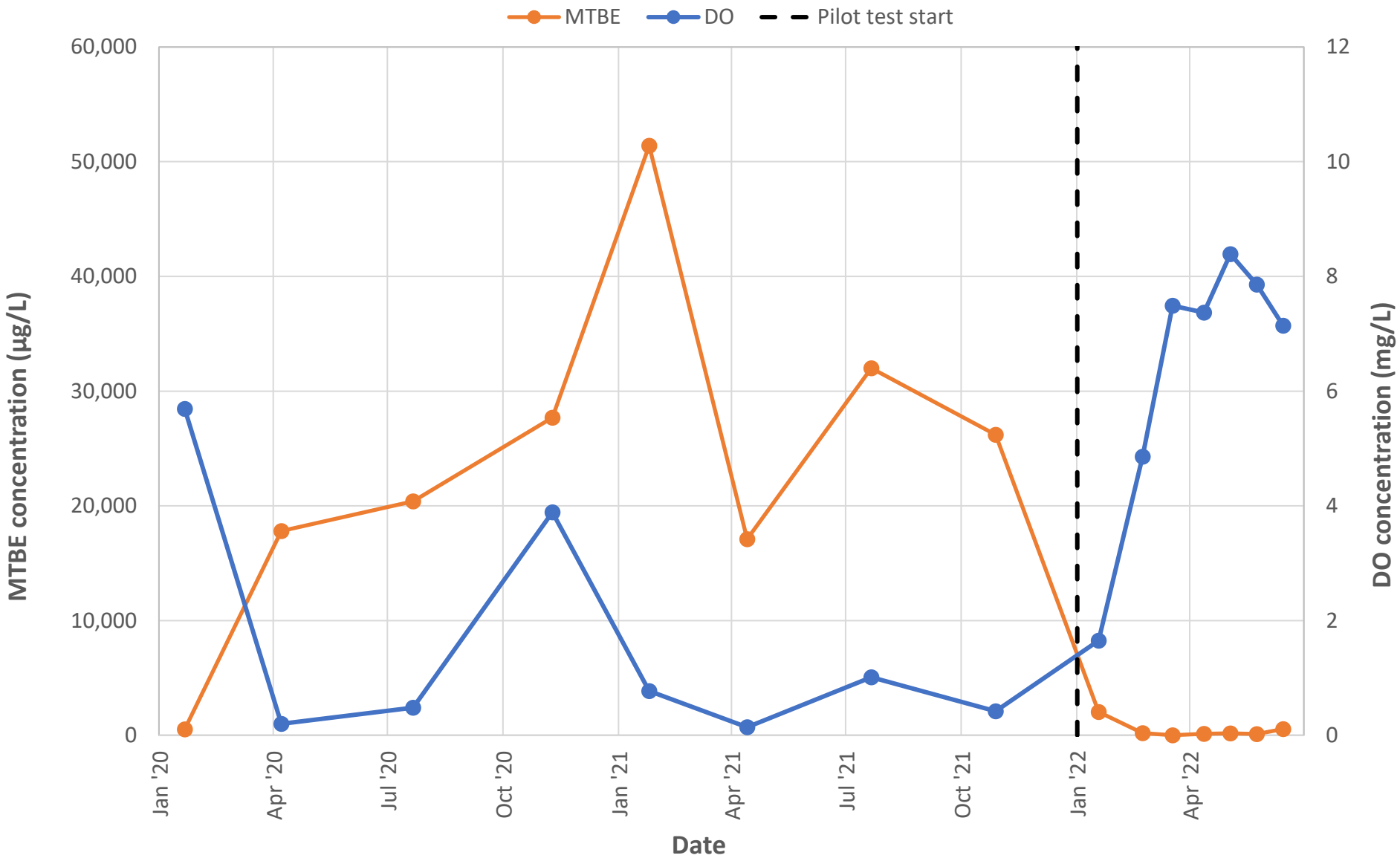
FIGURE
10

Figure 11
MTBE and Dissolved Oxygen vs. Time in MW-29S
Kinder Morgan, Inc.
Silvercroft Wash Release Site, Tucson, Arizona



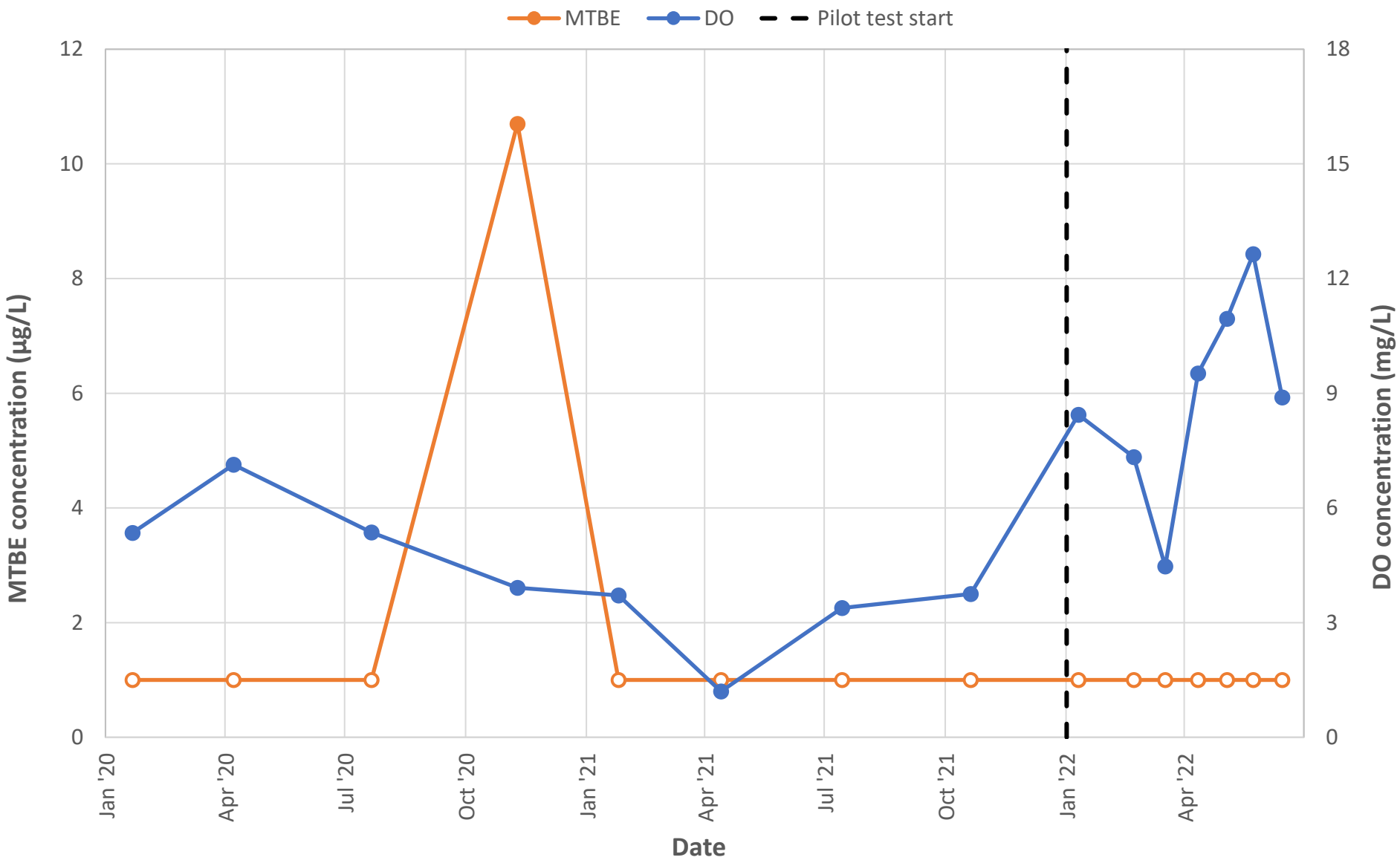
Note: *Analytical data from June 2022 is preliminary.*

Figure 12
MTBE and Dissolved Oxygen vs. Time in MW-29M
Kinder Morgan, Inc.
Silvercroft Wash Release Site, Tucson, Arizona



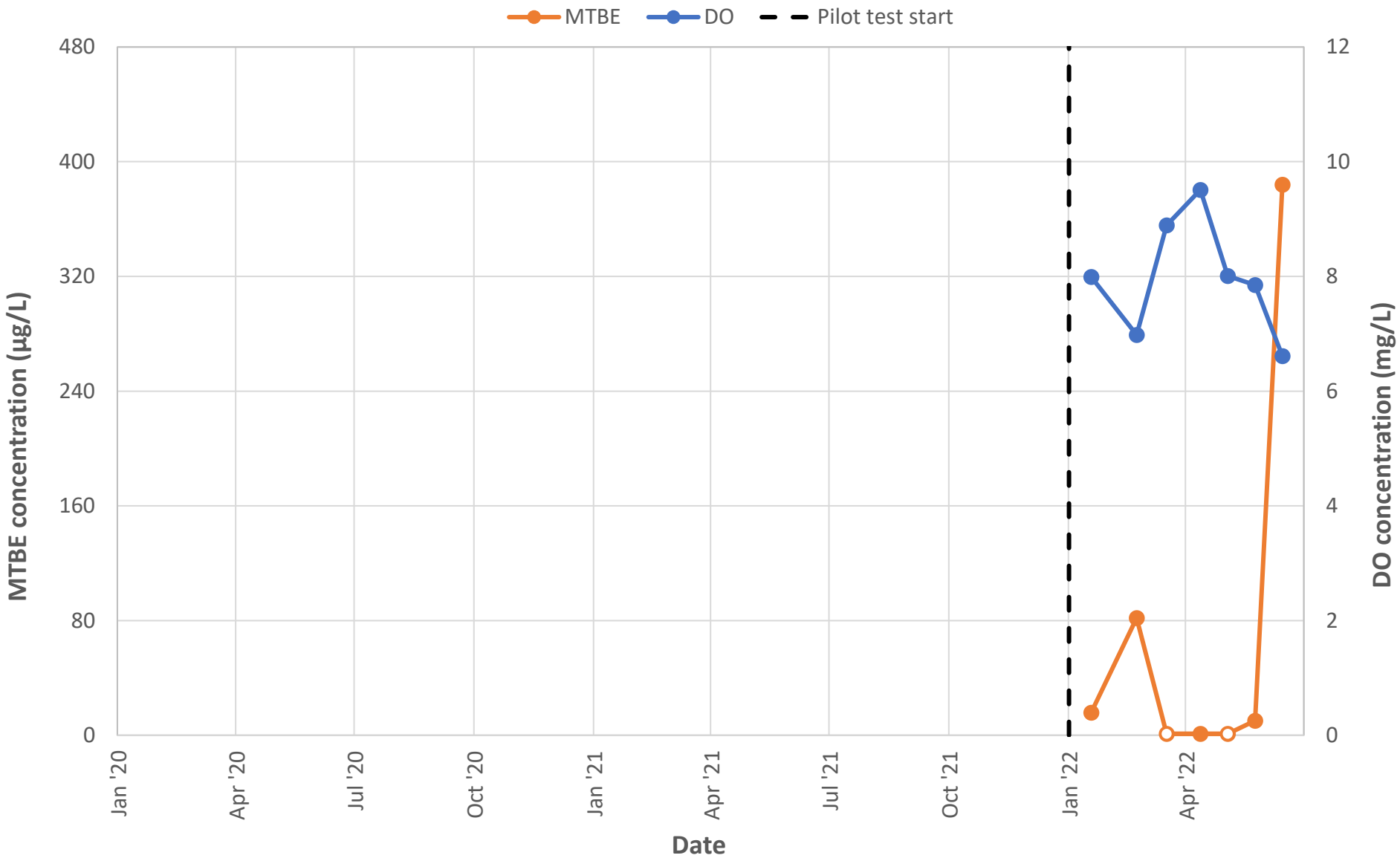
Note: *Analytical data from June 2022 is preliminary.*

Figure 13
MTBE and Dissolved Oxygen vs. Time in MW-29D
Kinder Morgan, Inc.
Silvercroft Wash Release Site, Tucson, Arizona



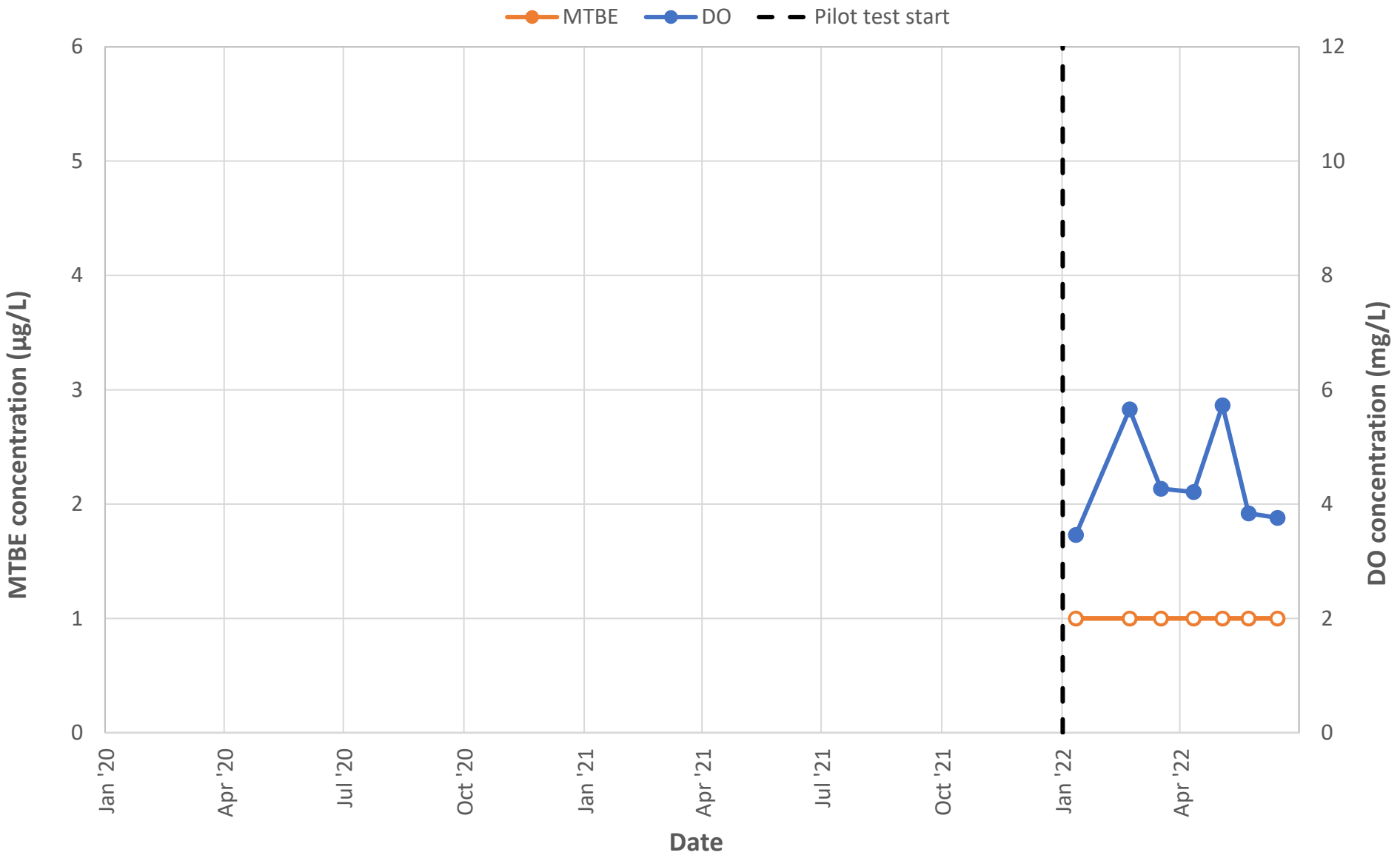
Note: *Analytical data from June 2022 is preliminary.*

Figure 14
MTBE and Dissolved Oxygen vs. Time in MW-31M
Kinder Morgan, Inc.
Silvercroft Wash Release Site, Tucson, Arizona



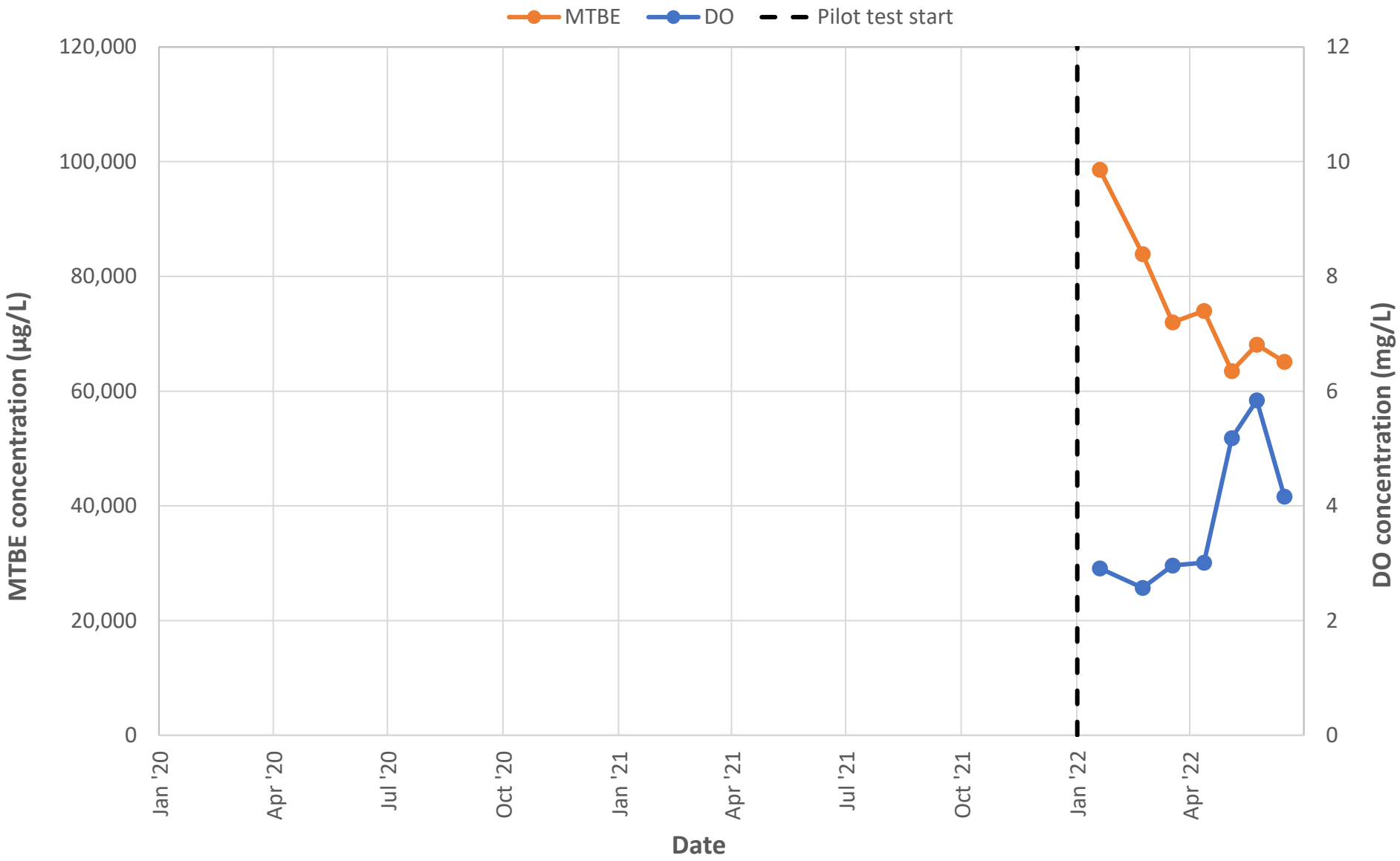
Note: *Analytical data from June 2022 is preliminary.*

Figure 15
MTBE and Dissolved Oxygen vs. Time in MW-31D
Kinder Morgan, Inc.
Silvercroft Wash Release Site, Tucson, Arizona



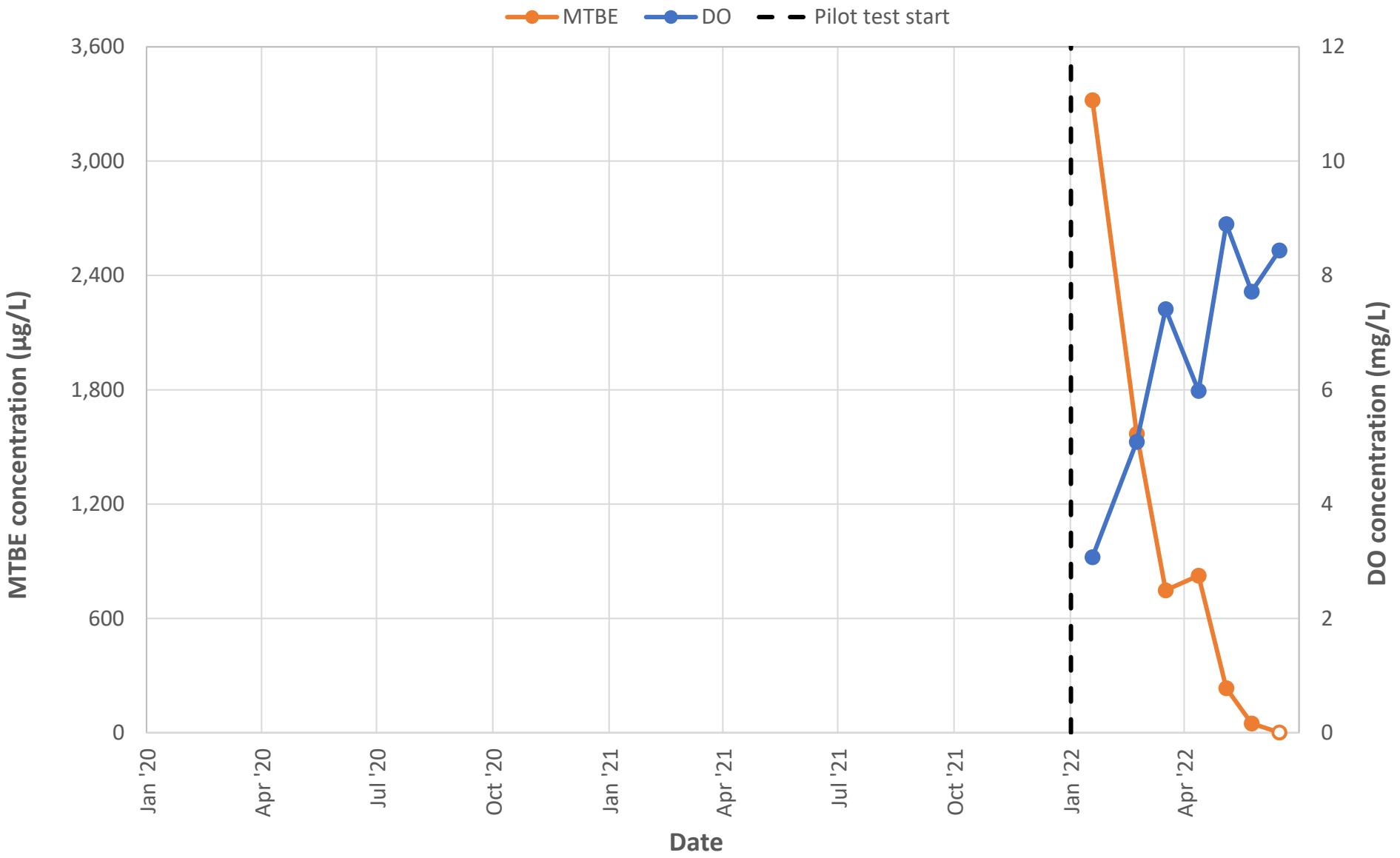
Note: *Analytical data from June 2022 is preliminary.*

Figure 16
MTBE and Dissolved Oxygen vs. Time in MW-32S
Kinder Morgan, Inc.
Silvercroft Wash Release Site, Tucson, Arizona



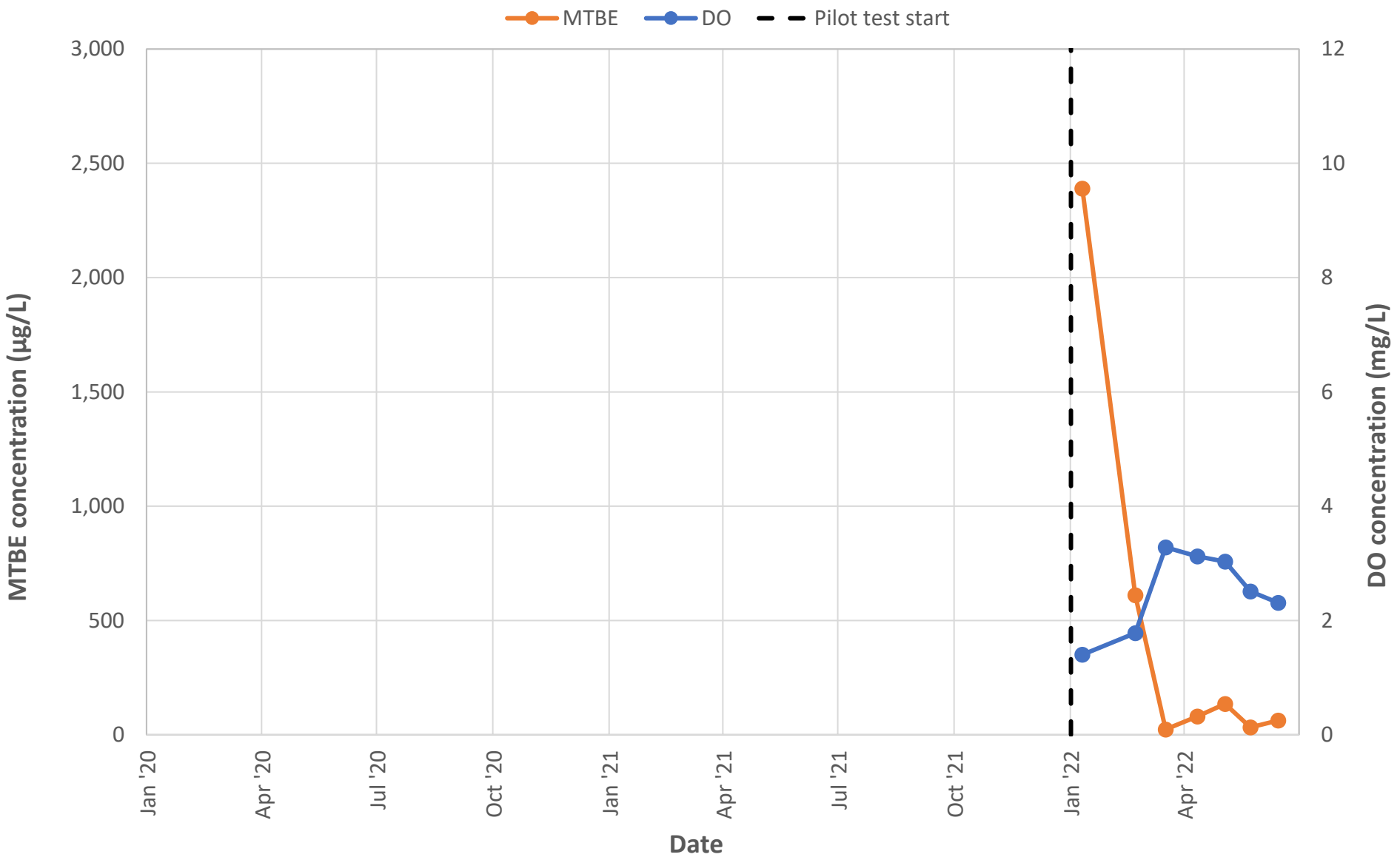
Note: *Analytical data from June 2022 is preliminary.*

Figure 17
MTBE and Dissolved Oxygen vs. Time in MW-32M
Kinder Morgan, Inc.
Silvercroft Wash Release Site, Tucson, Arizona



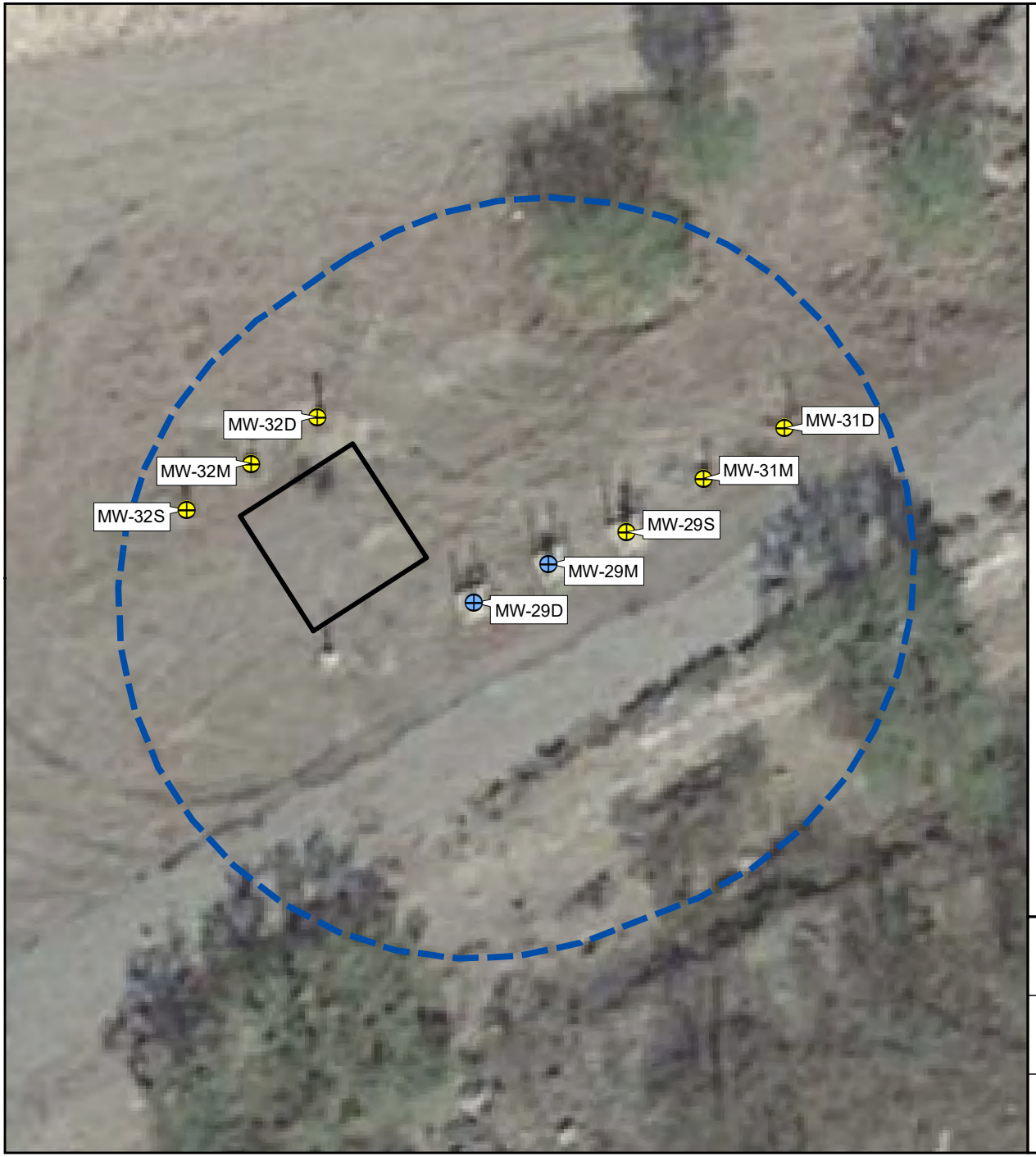
Note: *Analytical data from June 2022 is preliminary.*

Figure 18
MTBE and Dissolved Oxygen vs. Time in MW-32D
Kinder Morgan, Inc.
Silvercroft Wash Release Site, Tucson, Arizona



Note: *Analytical data from June 2022 is preliminary.*

\\Scottsdale-AZ\Project\KMEP (Kinder Morgan Energy Partners)\10022-Silvercroft Wash\GIS\Projects\Remedial action plan 06-2022\Figure 19 - Pilot test area of influence.mxd 8/12/2022



LEGEND

- Approximate extent of air sparge treatment system
- Air sparge pilot test well
- Air sparge monitoring well
- Air sparge pilot test area of influence

NOTES

· Aerial photo source: Google Earth Pro.

N

0 10 20 Feet

Scale: 1" = 20'

SILVERCROFT WASH RELEASE SITE
TUCSON, ARIZONA
REMEDIAL ACTION PLAN

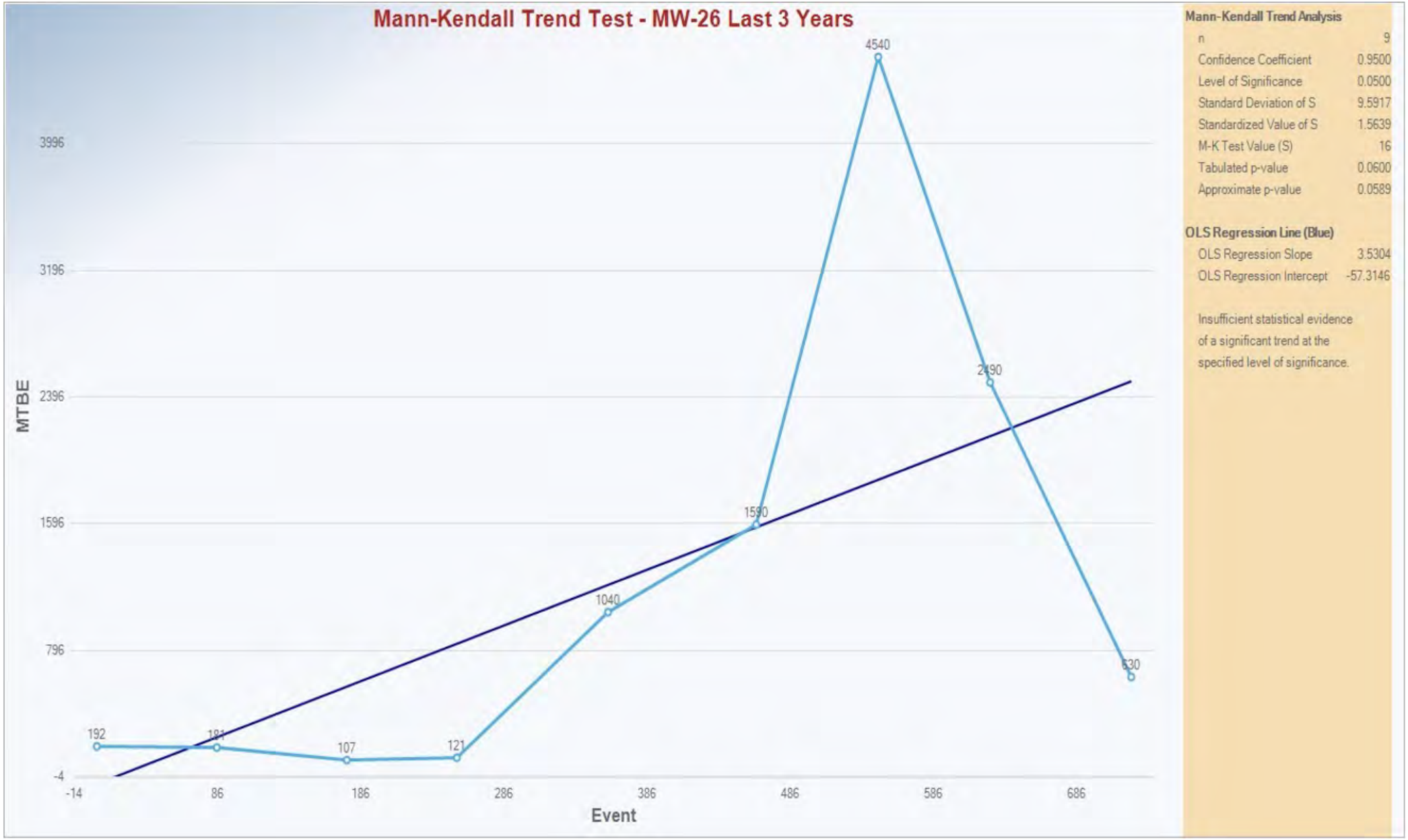
AIR SPARGE PILOT TEST AREA OF INFLUENCE

ARCADIS

FIGURE
19

Appendix A

Mann-Kendall Analyses



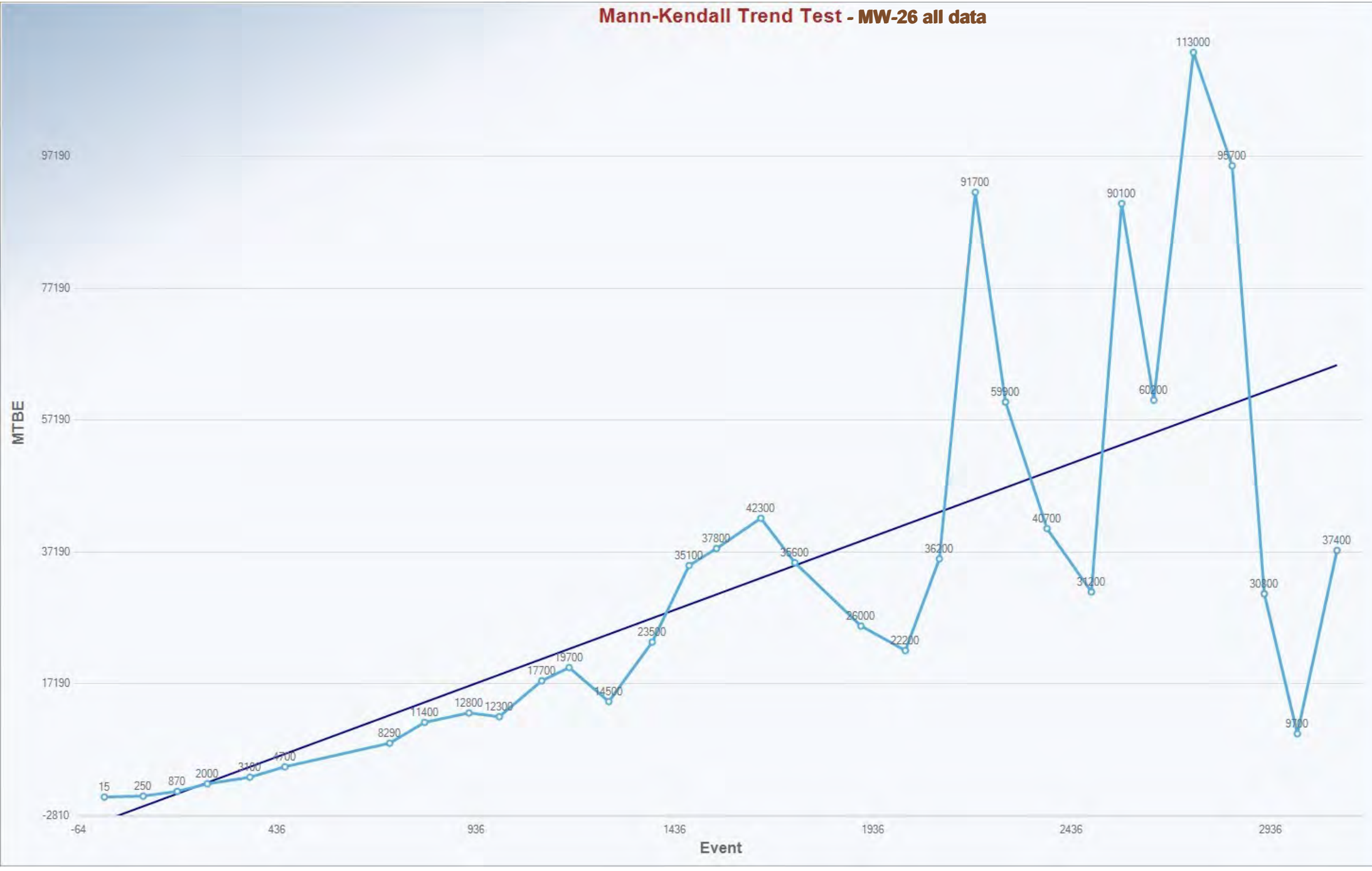
Mann-Kendall Trend Analysis

n	9
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	9.5917
Standardized Value of S	1.5639
M-K Test Value (S)	16
Tabulated p-value	0.0600
Approximate p-value	0.0589

OLS Regression Line (Blue)

OLS Regression Slope	3.5304
OLS Regression Intercept	-57.3146

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

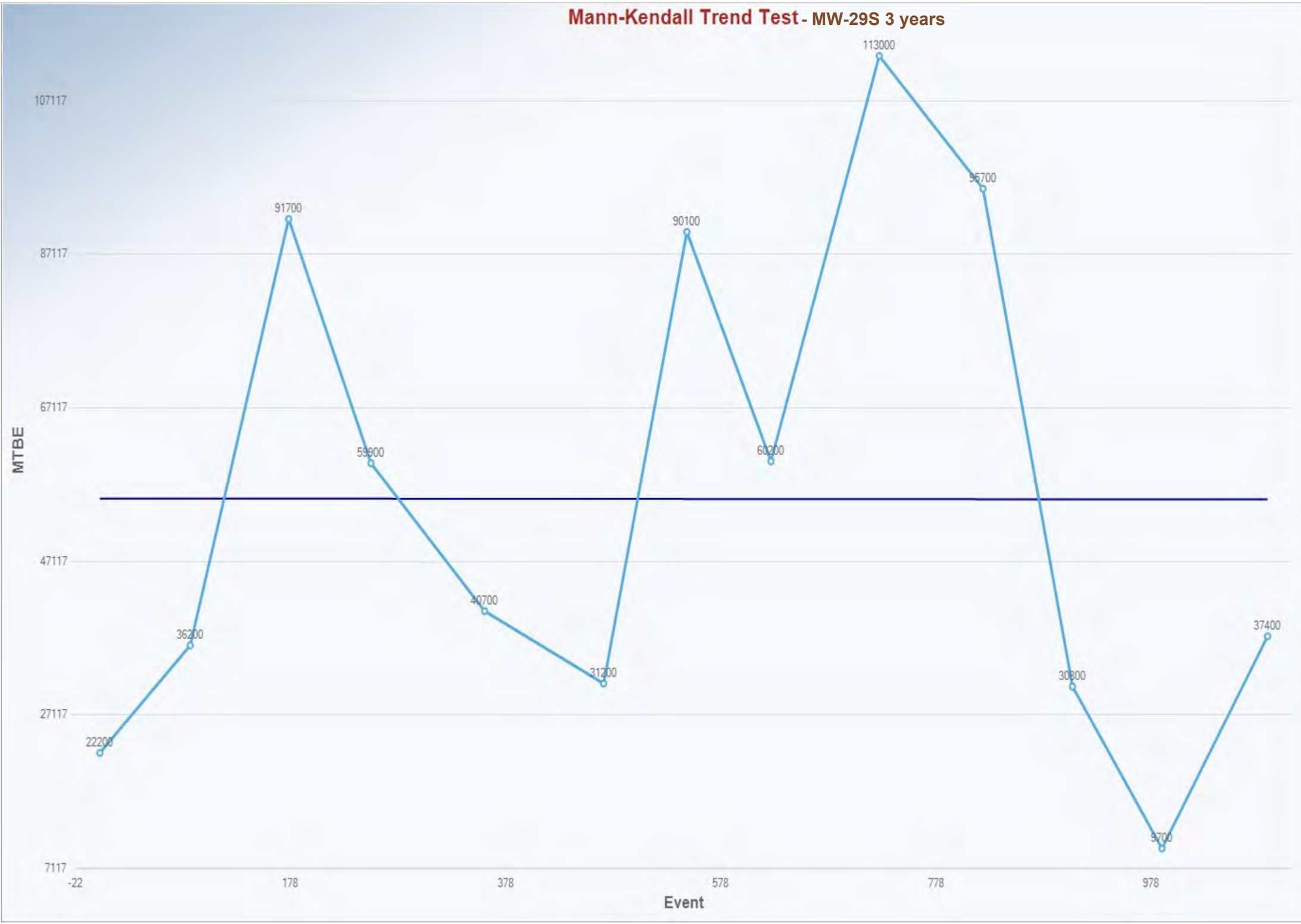
n	32
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	61.6658
Standardized Value of S	5.4974
M-K Test Value (S)	340
Appx. Critical Value (0.05)	1.6449
Approximate p-value	0.0000

OLS Regression Line (Blue)

OLS Regression Slope	22.2946
OLS Regression Intercept	-3,635.6478

Statistically significant evidence of an increasing trend at the specified level of significance.

Mann-Kendall Trend Test - MW-29S 3 years



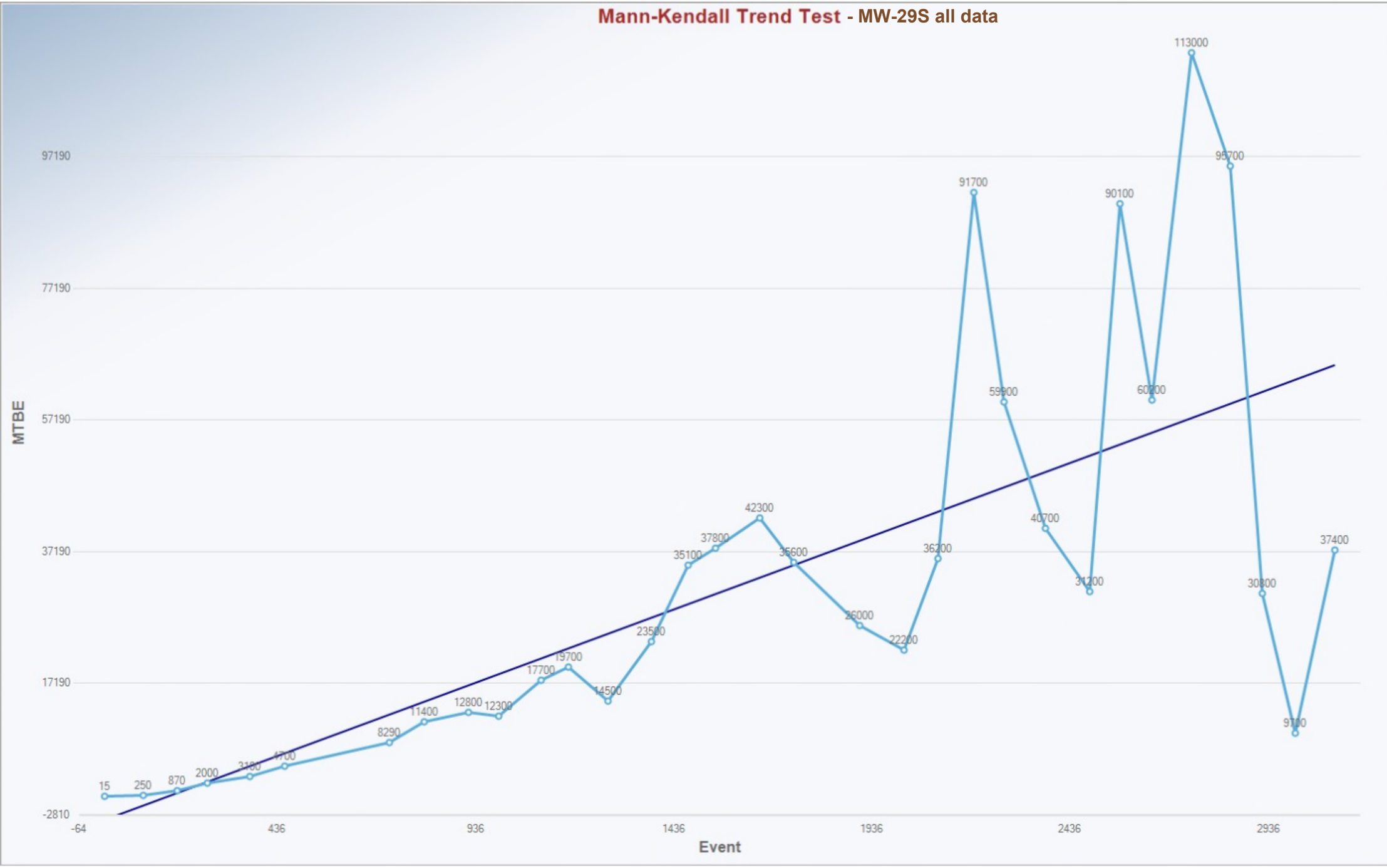
Mann-Kendall Trend Analysis

n	13
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	16.3911
Standardized Value of S	0.0610
M-K Test Value (S)	2
Tabulated p-value	0.4760
Approximate p-value	0.4757

OLS Regression Line (Blue)

OLS Regression Slope	-0.0812
OLS Regression Intercept	55,336.2604

Insufficient statistical evidence of a significant trend at the specified level of significance.



Mann-Kendall Trend Analysis

n	32
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	61.6658
Standardized Value of S	5.4974
M-K Test Value (S)	340
Appx. Critical Value (0.05)	1.6449
Approximate p-value	0.0000

OLS Regression Line (Blue)

OLS Regression Slope	22.2946
OLS Regression Intercept	-3,635.6478

Statistically significant evidence of an increasing trend at the specified level of significance.

Mann-Kendall Trend Analysis

n	13
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	16.3911
Standardized Value of S	-3.1115
M-K Test Value (S)	-52
Tabulated p-value	0.0000
Approximate p-value	0.0009

OLS Regression Line (Blue)

OLS Regression Slope	-47.4950
OLS Regression Intercept	40,897.7992

Statistically significant evidence of a decreasing trend at the specified level of significance.


Mann-Kendall Trend Test - R-067A All Data
MTBE
Event
54606
46606
38606
30606
22606
14606
6606
-1394
-100
700
1500
2300
3100
3900
4700
26.4 29.5 14.4 8.4 10.3 6.3 10.5 6.8 7 48.3 37.9 89 600 1100 1600 1400 3320 4000 4700 13000 24200 16000 24000 27000 32000 38000 35000 31000 33000 34000 40000 56000 52000 24000 47700 38400 49200 36600 8920 8330 2160 880 1420 594 1910 1230 2100
Mann-Kendall Trend Analysis
n 47
Confidence Coefficient 0.9500
Level of Significance 0.0500
Standard Deviation of S 109.0413
Standardized Value of S 4.4662
M-K Test Value (S) 488
Appx. Critical Value (0.05) 1.6449
Approximate p-value 0.0000
OLS Regression Line (Blue)
OLS Regression Slope 4.8967
OLS Regression Intercept 2,862.4136
Statistically significant evidence of an increasing trend at the specified level of significance.

Mann-Kendall Trend Analysis

n	13
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	16.3911
Standardized Value of S	-3.4775
M-K Test Value (S)	-58
Tabulated p-value	0.0000
Approximate p-value	0.0003

OLS Regression Line (Blue)

OLS Regression Slope	-29.1115
OLS Regression Intercept	24,270.2394

Statistically significant evidence of a decreasing trend at the specified level of significance

Mann-Kendall Trend Analysis

n	71
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	199.9900
Standardized Value of S	4.1152
M-K Test Value (S)	824
Appx. Critical Value (0.05)	1.6449
Approximate p-value	0.0000

OLS Regression Line (Blue)

OLS Regression Slope	5.0602
OLS Regression Intercept	13,961.6094

Statistically significant evidence of an increasing trend at the specified level of significance.

Mann-Kendall Trend Analysis

n	13
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	16.3299
Standardized Value of S	-1.4085
M-K Test Value (S)	-24
Tabulated p-value	0.0820
Approximate p-value	0.0795

OLS Regression Line (Blue)

OLS Regression Slope	-6.8677
OLS Regression Intercept	6,941.4881

Insufficient statistical evidence of a significant trend at the specified level of significance.

Mann-Kendall Trend Analysis

n	48
Confidence Coefficient	0.9500
Level of Significance	0.0500
Standard Deviation of S	112.4455
Standardized Value of S	1.6097
M-K Test Value (S)	182
Appx. Critical Value (0.05)	1.6449
Approximate p-value	0.0537

OLS Regression Line (Blue)

OLS Regression Slope	0.6502
OLS Regression Intercept	9,254.1139

Insufficient statistical evidence of a significant trend at the specified level of significance.

Appendix B

ADWR Permits

ARIZONA DEPARTMENT OF WATER RESOURCES
1110 W. Washington St. Suite 310
Phoenix, Arizona 85007

ANY DEVIATION IN WELL LOCATION FROM THE PLOT PLAN APPROVED FROM THE COUNTY OR LOCAL HEALTH AUTHORITY MUST BE RE-SUBMITTED FOR APPROVAL

NOTICE! This well is located in or near an area of groundwater contamination (WQARF/CERCLA/DOD or Other). Be advised that **special requirements may apply.**

THIS AUTHORIZATION SHALL BE IN POSSESSION OF THE DRILLER DURING ALL DRILLING OPERATIONS

WELL REGISTRATION NO: **55-232863** WELL OWNER ID: AS-MW-1D

AUTHORIZED DRILLER: **CASCADE DRILLING, LP** LICENSE NO: **226**

NOTICE OF INTENTION TO DRILL ENV - SPARGING (AIR, OZONE, AS/SVE) WELL(S) HAS BEEN FILED WITH THE DEPARTMENT BY:

WELL OWNER: **SFPP, L.P. 7776 POINTE PARKWAY WEST #185 PHOENIX, AZ, 85044**

THE WELL(S) IS/ARE TO BE LOCATED IN THE:

SW 1/4 of the **NE** 1/4 of the **NE** 1/4 Section **28** Township **13.0 SOUTH** Range **13.0 EAST**

NO. OF WELLS IN THIS PROJECT:

THIS AUTHORIZATION EXPIRES AT MIDNIGHT ON THE DAY OF **September 4, 2021**

GROUNDWATER PERMITTING AND WELLS

THE DRILLER MUST FILE A LOG OF THE WELL WITHIN 30 DAYS OF COMPLETION OF DRILLING.

Arcadis
113-70-1185
AS-MW-1D
MW-31D

Arizona Department of Water Resources
Groundwater Permitting and Wells
PO Box 36020 • Phoenix, Arizona 85067-6020
(602) 771-8527 • 602-771-8500
www.azwater.gov

Well Driller Report and Well Log

THIS REPORT MUST BE FILED WITHIN 30 DAYS OF COMPLETING THE WELL. PURSUANT TO ARIZONA REVISED STATUTE 45-600 AND A.A.C. RULE R12-15-808.

FILE NUMBER: D(13-13) 28 AAC
WELL REGISTRATION NUMBER: 55 - 232863
PERMIT NUMBER (IF ISSUED):

WELL DRILLER LOGS AND REPORTS CAN ALSO BE DONE ONLINE AT:
http://www.azwater.gov/eForms/Forms/DL/DWR_DL.aspx

SECTION 1. DRILLING AUTHORIZATION

Drilling Firm

Mail To:

NAME	DWR LICENSE NUMBER
CASCADE DRILLING, LP	226
ADDRESS: 7773 W. SELDON LANE.	TELEPHONE NUMBER: 623-935-0124
CITY / STATE / ZIP: PEORIA, AZ, 85345-7973	FAX

SECTION 2. REGISTRY INFORMATION

Well Owner

FULL NAME OF COMPANY, ORGANIZATION, OR INDIVIDUAL: SFPP, L.P.

MAILING ADDRESS: 7776 POINTE PARKWAY WEST #185

CITY / STATE / ZIP: PHOENIX, AZ, 85044

CONTACT PERSON NAME AND TITLE:

TELEPHONE NUMBER: 480 203-9968 FAX:

WELL NAME (e.g., MW-1, PZ-3, Tot 25 Well, Smith Well, etc.): AS-MW-1D

COUNTY: PIMA

ASSESSOR'S PARCEL ID NUMBER (MOST RECENT): BOOK: MAP: PARCEL:

Location of Well

WELL LOCATION ADDRESS (IF ANY):

TOWNSHIP (N/S)	RANGE (E/W)	SECTION	160 ACRE	40 ACRE	10 ACRE
13 S	13 E	28	NE 1/4	NE 1/4	SW 1/4

LATITUDE			LONGITUDE		
° DEGREES	' MINUTES	"N SECONDS	° DEGREES	' MINUTES	"W SECONDS

METHOD OF LATITUDE/LONGITUDE (CHECK ONE)
☐ *GPS: Hand-Held ☐ *GPS: Survey-Grade ☐ TOPO

*LATITUDE/LONGITUDE DATUM, GPS (CHECK ONE)
☐ NAD83 ☐ NAD27 ☐ WGS84 ☐ Other _____

METHOD OF ELEVATION (CHECK ONE)
☐ *GPS: Hand-Held ☐ *GPS: Survey-Grade ☐ TOPO

LAND SURFACE ELEVATION AT WELL
ELEVATION _____ Feet Above Sea Level

*ELEVATION DATUM (CHECK ONE)
☐ NAVD88 ☐ NGVD29 ☐ OTHER _____

SECTION 3. WELL CONSTRUCTION DETAILS

Drilling Method

CHECK ONE
☐ Air Rotary
☐ Bored or Augered
☐ Cable Tool
☐ Dual Rotary
☐ Mud Rotary
☐ Reverse Circulation
☐ Driven
☐ Jetted
☐ Air Percussion / Odex Tubing
☒ Other (please specify)
Sonic

Method of Well Development

CHECK ONE
☐ Airlift
☒ Bail
☐ Surge Block
☒ Surge Pump
☐ Other (please specify)

Condition of Well

CHECK ONE
☒ Capped ☐ Abandoned
☐ Pump Installed ☐ Not Drilled

Method of Sealing at Reduction Points

CHECK ONE
☒ None
☐ Packed
☐ Swedged
☐ Welded
☐ Other (please specify)

Construction Dates

DATE WELL CONSTRUCTION STARTED: 11/6/20

DATE WELL CONSTRUCTION COMPLETED: 11/8/20

I state that this notice is filed in compliance with A.R.S. § 45-596 and is complete and correct to the best of my knowledge and belief.

SIGNATURE OF QUALIFYING PARTY: [signature]

DATE: 12-13-2020

Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55 - 232863

SECTION 4. WELL CONSTRUCTION DESIGN (AS BUILD) (attach additional page if needed)

Depth

DEPTH OF BORING		DEPTH OF COMPLETED WELL	
2160	Feet Below Land Surface	2360	Feet Below Land Surface

Water Level Information

STATIC WATER LEVEL		DATE MEASURED	TIME MEASURED	IF FLOWING WELL, METHOD OF FLOW REGULATION
101	Feet Below Land Surface	11.19.20	8:15am	☐ Valve ☐ Other:

Borehole

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	BOREHOLE DIAMETER (inches)
0	2160	8"

Installed Casing

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	OUTER (inches)	MATERIAL TYPE (X) STEEL	PVC	ABS	IF OTHER TYPE, DESCRIBE	PERFORATION TYPE (X) BLANK OR NONE	WIRE WRAP	SHUTTER SCREEN	MILLS KNIFE	SLOTTED	IF OTHER TYPE, DESCRIBE	SLOT SIZE (inches)
0	2300	4"		X		Sch80	X						
2300	2360	4"				S		X					.020

Installed Annular Material

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	ANNULAR MATERIAL TYPE (X) NONE	CONCRETE	NEAT CEMENT OR CEMENT GROUT	CEMENT-BENTONITE GROUT	BENTONITE GROUT	BENTONITE CHIPS	BENTONITE PELLETS	IF OTHER TYPE OF ANNULAR MATERIAL, DESCRIBE	FILTER PACK SAND	FILTER PACK GRAVEL	FILTER PACK SIZE
0	1		X									
1	20			X								
20	214				X							
214	224						X					
214	230									X		#60
230	2160									X		8/12

Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55 - 232863

SECTION 5. GEOLOGIC LOG OF WELL

DEPTH FROM SURFACE FROM (feet)	TO (feet)	Description Describe material, grain size, color, etc.	Check (X) every interval where water was encountered (if known)
0	50	Brown, Silts, Sand	
50	100	Silty, Sandy, Cobbles, brown	
100	150	Brown Silty Sands, Cobbles moist	
150	200	Wet brown, Silts, Cobbles	X
200	260	Silty Sands, brown, Cobbles	X

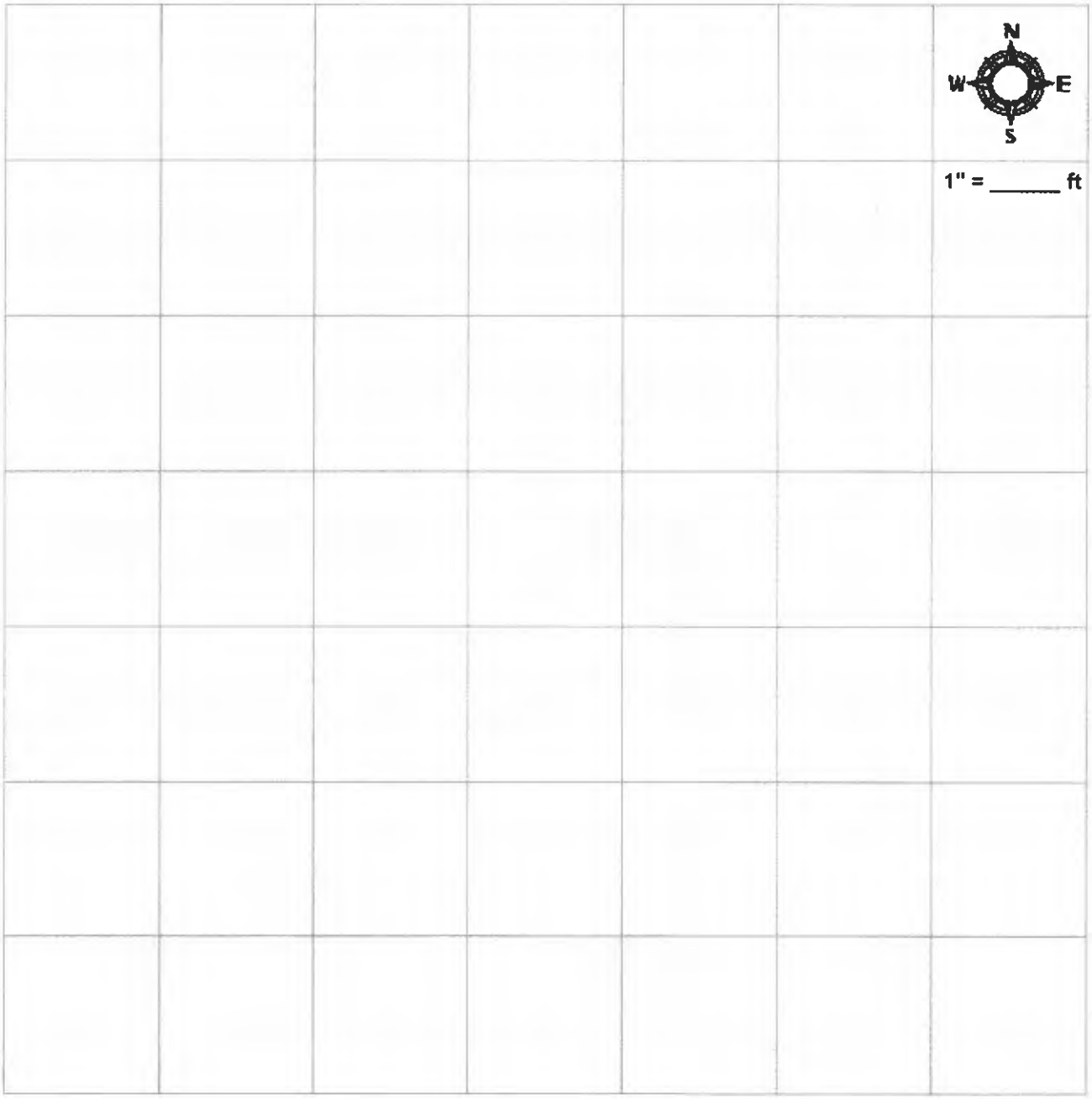
Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55 - 232863

SECTION 6. WELL SITE PLAN

NAME OF WELL OWNER	COUNTY ASSESSOR'S PARCEL ID NUMBER (MOST RECENT)		
	BOOK	MAP	PARCEL
SFPP, L.P.			

- Required for all wells, please draw the following: (1) the boundaries of property on which the well was located; (2) the well location; (3) the locations of all septic tank systems and sewer systems on the property or within 100 feet of the well location, even if on neighboring properties; and (4) any permanent structures on the property that may aid in locating the well.
- Please indicate the distance between the well location and any septic tank system or sewer system.



Arizona Department of Water Resources
Groundwater Permitting and Wells Section
P.O. Box 36020 Phoenix, Arizona 85067-6020
(602) 771-8527 · Fax (602) 771-8689
· www.azwater.gov ·

Received
AUG 2 9 2020
Arizona Department of Water Resources

Notice of Intent to Drill, Deepen, or Modify a *Monitor / Piezometer / Environmental* Well

$150 FEE

- Review instructions prior to completing form in black or blue ink.
- You must include with your Notice:
  - $150 check or money order for the filing fee.
  - Well construction diagram, labeling all specifications listed in Section 6 and Section 7.

Authority for fee: A.R.S. § 45-596 and A.A.C. R12-15-104.

AMA / INA	B SB	FILE NUMBER
RECEIVED DATE	W/S	WELL REGISTRATION NUMBER 55 - 232863
ISSUED DATE	REMEDIAL ACTION SITE	

SECTION 1. REGISTRY INFORMATION

To determine the location of well, please refer to the Well Registry Map (https://gisweb.azwater.gov/WellRegistry/Default.aspx) and/or Google Earth (http://www.earthpoint.us/Townships.aspx)

Well Type — CHECK ONE
- ☐ Monitor
- ☐ Piezometer
- ☐ Vadose Zone
- ☒ Air Sparging
- ☐ Soil Vapor Extraction
- ☐ Other (*please specify*):

Proposed Action — CHECK ONE
- ☒ Drill New Well
- ☐ Deepen
- ☐ Modify

WELL REGISTRATION NUMBER (*if Deepening or Modifying*): 55 -

Location of Well

WELL LOCATION ADDRESS (IF ANY): City of Tucson, former Silverbell Landfill

TOWNSHIP(N/S)	RANGE (E/W)	SECTION	160 ACRE	40 ACRE	10 ACRE
13.0 S	13.0 E	30 28	NE ¼	NE ¼	SW ¼

COUNTY ASSESSOR'S PARCEL ID NUMBER: BOOK | MAP | PARCEL

COUNTY WHERE WELL IS LOCATED: PIMA

SECTION 2. OWNER INFORMATION

Land Owner
- FULL NAME OF COMPANY ORGANIZATION OR INDIVIDUAL: City of Tucson Real Estate
- MAILING ADDRESS: 201 N. Stone Ave
- CITY / STATE / ZIP CODE: Tucson, AZ 85701
- CONTACT PERSON NAME AND TITLE: John Cahill
- TELEPHONE NUMBER: (520) 791-4181
- EMAIL: John.Cahill@tucsonaz.gov

Well Owner (*check this box if Land Owner and Well Owner are same* ☐)
- FULL NAME OF COMPANY GOVERNMENT AGENCY, OR INDIVIDUAL: SFPP, L.P.
- MAILING ADDRESS: 7776 Pointe Parkway West #185 Phoenix, Arizona 85004
- CITY / STATE / ZIP CODE: phoenix, AZ 85044
- CONTACT PERSON NAME AND TITLE: Paul Salcido, Project Manager, Remediation
- TELEPHONE NUMBER: (480) 203-9968
- EMAIL: paul_salcido@kindermorgan.com

SECTION 3. DRILLING AUTHORIZATION

Drilling Firm
- NAME: Cascade
- DWR LICENSE NUMBER: 226
- ROC LICENSE CATEGORY: A-4
- TELEPHONE NUMBER: (623) 935-01
- FAX:
- EMAIL ADDRESS:

Consultant (*if applicable*)
- CONSULTING FIRM: Arcadis
- CONTACT PERSON NAME: Michael Nesky
- TELEPHONE NUMBER: 602 438 0883
- FAX:
- EMAIL ADDRESS:

SECTION 4.

Questions	Yes	No	Explanation:
1. Are all annular spaces between the casing(s) and the borehole for the placement of grout at least 2 inches?	☒	☐	2-inch annular spaces are special standards required for wells located in and near groundwater contamination sites (such as CERCLA, WQARF, DOD, LUST).
2. Is the screened or perforated interval of casing greater than 100 feet in length?	☐	☒	100-foot maximum screen intervals are a special standard for wells located in and near groundwater contamination sites (such as CERCLA, WQARF, DOD, LUST).
3. Are you requesting a variance to use thermoplastic casing in lieu of steel casing in the surface seal?	☐	☒	The wells must be constructed in a vault. Pursuant to A.A.C. R12-15-801 (27) a "vault" is defined as a tamper-resistant watertight structure used to complete a well below the land surface.
4. Is there another well name or identification number associated with this well? (e.g., MW-1, PZ2, 06-04, etc.)	☒	☐	If yes, please state AS-MW-1D
5. Have construction plans been coordinated with the Arizona Department of Environmental Quality?	☐	☒	If yes, please state agency contact & phone number
6. For monitor wells, is dedicated pump equipment to be installed?	☐	☒	If yes, please state design pump capacity (*Gallons per Minute*)
7. Is this well a new well located in an Active Management Area AND intended to pump water for the purpose of remediating groundwater?	☐	☒	You must also file a supplemental form A.R.S. § 45-454(c) & (f) unless the well is a replacement well and the total number of operable wells on the site is not increasing. (*See instructions*)
8. Will the well registration number be stamped on the vault cover or on the upper part of the casing?	☒	☐	If no, where will the registration number be placed?

Notice of Intent to Drill, Deepen, or Modify a *Monitor / Piezometer / Environmental* Well

WELL REGISTRATION NUMBER
55 -

SECTION 6. WELL CONSTRUCTION DETAILS

Drill Method (CHECK ONE)

- ☐ Air Rotary
- ☐ Bored or Augered
- ☐ Cable Tool
- ☐ Dual Rotary
- ☐ Mud Rotary
- ☐ Reverse Circulation
- ☐ Driven
- ☐ Jetted
- ☐ Air Percussion / Odex Tubing
- ☒ Other (*please specify*): Sonic

DATE CONSTRUCTION TO BEGIN: 08/17/2020

Method of Well Development (CHECK ONE)

- ☐ Airlift
- ☐ Bail
- ☐ Surge Block
- ☐ Surge Pump
- ☒ Other (*please specify*): bail,surge,pump

Method of Sealing at Reduction Points (CHECK ONE)

- ☒ None
- ☐ Welded
- ☐ Swedged
- ☐ Packed
- ☐ Other (*please specify*):

Grout Emplacement Method (CHECK ONE)

- ☒ Tremie Pumped *(Recommended)*
- ☐ Gravity
- ☐ Pressure Grout
- ☐ Other (*please specify*):

Surface or Conductor Casing (CHECK ONE)

- ☐ Flush Mount in a vault
- ☒ Extends at least 1' above grade

SECTION 7. PROPOSED WELL CONSTRUCTION PLAN (attach additional page if needed)

Attach a well construction diagram labeling all specifications below.

Borehole

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	BOREHOLE DIAMETER (inches)
0	259	10

Casing

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	OUTER DIAMETER (inches)	MATERIAL TYPE (T) STEEL	PVC	ABS	IF OTHER TYPE DESCRIBE	PERFORATION TYPE (T) BLANK OR NONE	WIRE WRAP	SHUTTER SCREEN	MILLS KNIFE	SLOTTED	IF OTHER TYPE DESCRIBE	SLOT SIZE IF ANY (inches)
0	229	4	☐	☒	☐		☒	☐	☐	☐	☐		
229	259		☐	☐	☐	SS	☐	☒	☐	☐	☐		0.020
			☐	☐	☐		☐	☐	☐	☐	☐		

Annular Material

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	ANNULAR MATERIAL TYPE (T) NONE	CONCRETE	NEAT CEMENT OR CEMENT GROUT	CEMENT-BENTONITE GROUT	BENTONITE GROUT	BENTONITE CHIPS	BENTONITE PELLETS	IF OTHER TYPE OF ANNULAR MATERIAL DESCRIBE	FILTER PACK SAND	FILTER PACK GRAVEL	FILTER PACK SIZE
0	224	☐	☐	☒	☐	☐	☐	☐		☐	☐	
224	229	☐	☐	☐	☐	☐	☐	☐		☒	☐	#60
229	259	☐	☐	☐	☐	☐	☐	☐		☒	☐	#8/12

IF THIS WELL HAS NESTED CASINGS, SPECIFY NUMBER OF CASING STRINGS:

EXPECTED DEPTH TO WATER *(Feet Below Ground Surface)*: 157'

SECTION 8. PERMISSION TO ACCESS

☐ By checking this box, I hereby provide ADWR permission to enter the property for the purpose of taking water level measurements at this well. *(See instructions.)*

SECTION 9. LAND OWNER AND WELL OWNER SIGNATURE

I state that this notice is filed in compliance with A.R.S. § 45-596 and is complete and correct to the best of my knowledge and

Land Owner	Well Owner *(if different from Land Owner; See instructions)*
PRINT NAME AND TITLE: [signature]	PRINT NAME AND TITLE: Paul M. Salcido, Project Mgr. Remediation
SIGNATURE OF LAND OWNER: City of Tucson John Cahill Real Estate Administrator	SIGNATURE OF WELL OWNER: Paul M Salcido
DATE: 7-16-2020	DATE: 07/15/2020
☒ By checking this box, you agree to allow ADWR to contact you via electronic mail.	☒ By checking this box, you agree to allow ADWR to contact you via electronic mail.
EMAIL ADDRESS: john.cahill@tucsonaz.gov	EMAIL ADDRESS: paul_salcido@kindermorgan.com

Printed: 8/31/2020 12:34:00 PM

Arizona Department of Water Resources

1110 West Washington Street, Suite 310
Phoenix AZ 85007

Customer:

ARCADIS
630 PLAZA DRIVE, SUITE 600
HIGHLANDS RANCH, CO 80129

Receipt #: 21-75259
Office: MAIN OFFICE
Receipt Date: 08/31/2020
Sale Type: Mail
Cashier: WRSYM

Item No.	Function Code	AOBJ	Description	Ref ID	Qty	Unit Price	Ext Price
8505	122221	4439-6F	MONITOR, PIEZOMETER, AIR SPARGING, SOIL VAPOR EXTR	232863 thru 232867	5	150.00	750.00
						RECEIPT TOTAL:	**750.00**

Payment type: CHECK
Amount Paid: $750.00
Payment Received Date: 08/31/2020

Check # 301962

Notes:

No refund without valid receipt

ARIZONA DEPARTMENT OF WATER RESOURCES
1110 W. Washington St. Suite 310
Phoenix, Arizona 85007

ANY DEVIATION IN WELL LOCATION FROM THE PLOT PLAN APPROVED FROM THE COUNTY OR LOCAL HEALTH AUTHORITY MUST BE RE-SUBMITTED FOR APPROVAL

NOTICE! This well is located in or near an area of groundwater contamination (WQARF/CERCLA/DOD or Other). Be advised that **special requirements may apply**.

THIS AUTHORIZATION SHALL BE IN POSSESSION OF THE DRILLER DURING ALL DRILLING OPERATIONS

WELL REGISTRATION NO: **55-232864** WELL OWNER ID: AS-MW-1M

AUTHORIZED DRILLER: **CASCADE DRILLING, LP** LICENSE NO: **226**

NOTICE OF INTENTION TO DRILL ENV - SPARGING (AIR, OZONE, AS/SVE) WELL(S) HAS BEEN FILED WITH THE DEPARTMENT BY:

WELL OWNER: **SFPP, L.P. 7776 POINTE PARKWAY WEST #185 PHOENIX, AZ, 85044**

THE WELL(S) IS/ARE TO BE LOCATED IN THE:

SW 1/4 of the **NE** 1/4 of the **NE** 1/4 Section **28** Township **13.0 SOUTH** Range **13.0 EAST**

NO. OF WELLS IN THIS PROJECT:

THIS AUTHORIZATION EXPIRES AT MIDNIGHT ON THE DAY OF **September 4, 2021**

GROUNDWATER PERMITTING AND WELLS

THE DRILLER MUST FILE A LOG OF THE WELL WITHIN 30 DAYS OF COMPLETION OF DRILLING.

Arcadis 113.20-1185 AS-MW-1M

MW-31M

Arizona Department of Water Resources
Groundwater Permitting and Wells
PO Box 36020 • Phoenix, Arizona 85067-6020
(602) 771-8527 • 602-771-8500
www.azwater.gov

Well Driller Report and Well Log

THIS REPORT MUST BE FILED WITHIN 30 DAYS OF COMPLETING THE WELL. PURSUANT TO ARIZONA REVISED STATUTE 45-600 AND A.A.C. RULE R12-15-808.

FILE NUMBER: **D(13-13) 28 AAC**
WELL REGISTRATION NUMBER: **55 - 232864**
PERMIT NUMBER (IF ISSUED):

WELL DRILLER LOGS AND REPORTS CAN ALSO BE DONE ONLINE AT:
http://www.azwater.gov/eForms/Forms/DL/DWR_DL.aspx

SECTION 1. DRILLING AUTHORIZATION

Drilling Firm

Mail To:

NAME	DWR LICENSE NUMBER
CASCADE DRILLING, LP	226
ADDRESS	**TELEPHONE NUMBER**
7773 W. SELDON LANE.	623-935-0124
CITY / STATE / ZIP	**FAX**
PEORIA, AZ, 85345-7973	

SECTION 2. REGISTRY INFORMATION

Well Owner

FULL NAME OF COMPANY, ORGANIZATION, OR INDIVIDUAL: SFPP, L.P.

MAILING ADDRESS: 7776 POINTE PARKWAY WEST #185

CITY / STATE / ZIP: PHOENIX, AZ, 85044

CONTACT PERSON NAME AND TITLE:

TELEPHONE NUMBER: 480 203-9968

FAX:

WELL NAME (e.g., MW-1, PZ-3, lot 25 Well, Smith Well, etc.): AS-MW-1M

COUNTY: PIMA

ASSESSOR'S PARCEL ID NUMBER (MOST RECENT): BOOK | MAP | PARCEL

Location of Well

WELL LOCATION ADDRESS (IF ANY): City of Tucson, Former Silverbell Landfill

TOWNSHIP (N/S)	RANGE (E/W)	SECTION	160 ACRE	40 ACRE	10 ACRE
13 S	13 E	28	NE 1/4	NE 1/4	SW 1/4

LATITUDE			LONGITUDE		
° DEGREES	' MINUTES	"N SECONDS	° DEGREES	' MINUTES	"W SECONDS

METHOD OF LATITUDE/LONGITUDE (CHECK ONE)
☐ *GPS, Hand-Held ☐ *GPS, Survey-Grade ☐ TOPO

*LATITUDE/LONGITUDE DATUM, GPS (CHECK ONE)
☐ NAD83 ☐ NAD27 ☐ WGS84 ☐ Other _____

METHOD OF ELEVATION (CHECK ONE)
☐ *GPS, Hand-Held ☐ *GPS, Survey-Grade ☐ TOPO

LAND SURFACE ELEVATION AT WELL
ELEVATION _____ Feet Above Sea Level

*ELEVATION DATUM (CHECK ONE)
☐ NAVD88 ☐ NGVD29 ☐ OTHER _____

SECTION 3. WELL CONSTRUCTION DETAILS

Drilling Method (CHECK ONE)
☐ Air Rotary
☐ Bored or Augered
☐ Cable Tool
☐ Dual Rotary
☐ Mud Rotary
☐ Reverse Circulation
☐ Driven
☐ Jetted
☐ Air Percussion / Odex Tubing
☒ Other (please specify): Sonic

Method of Well Development (CHECK ONE)
☐ Airlift
☐ Bail
☐ Surge Block
☐ Surge Pump
☐ Other (please specify)

Condition of Well (CHECK ONE)
☒ Capped ☐ Abandoned
☐ Pump Installed ☐ Not Drilled

Method of Sealing at Reduction Points (CHECK ONE)
☒ None
☐ Packed
☐ Swedged
☐ Welded
☐ Other (please specify)

Construction Dates
DATE WELL CONSTRUCTION STARTED: 10/28/20
DATE WELL CONSTRUCTION COMPLETED: 10/30/20

I state that this notice is filed in compliance with A.R.S. § 45-596 and is complete and correct to the best of my knowledge and belief.

SIGNATURE OF QUALIFYING PARTY: S. L. C.
DATE: 12-13-2020

Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55 - 232864

SECTION 4. WELL CONSTRUCTION DESIGN (AS BUILD) (attach additional page if needed)

Depth

DEPTH OF BORING	DEPTH OF COMPLETED WELL
254' Feet Below Land Surface	225 Feet Below Land Surface

Water Level Information

STATIC WATER LEVEL	DATE MEASURED	TIME MEASURED	IF FLOWING WELL, METHOD OF FLOW REGULATION
Feet Below Land Surface			☐ Valve ☐ Other:

Borehole

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	BOREHOLE DIAMETER (inches)
0	225	8"

Installed Casing

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	OUTER (inches)	MATERIAL TYPE (X) STEEL	PVC	ABS	IF OTHER TYPE, DESCRIBE	PERFORATION TYPE (X) BLANK OR NONE	WIRE WRAP	SHUTTER SCREEN	MILLS KNIFE	SLOTTED	IF OTHER TYPE DESCRIBE	SLOT SIZE (inches)
0	195	4"		X		Sch 80	X						
195	225	4"		X		Sch 80		X			X		.020

Installed Annular Material

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	ANNULAR MATERIAL TYPE (X) NONE	CONCRETE	NEAT CEMENT OR CEMENT GROUT	CEMENT-BENTONITE GROUT	BENTONITE GROUT	BENTONITE CHIPS	BENTONITE PELLETS	IF OTHER TYPE OF ANNULAR MATERIAL, DESCRIBE	FILTER PACK SAND	FILTER PACK GRAVEL	FILTER PACK SIZE
0	179			X								
179	184						X					
184	189									X		#100
189	254									X		8/12

Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55 - 232864

SECTION 5. GEOLOGIC LOG OF WELL

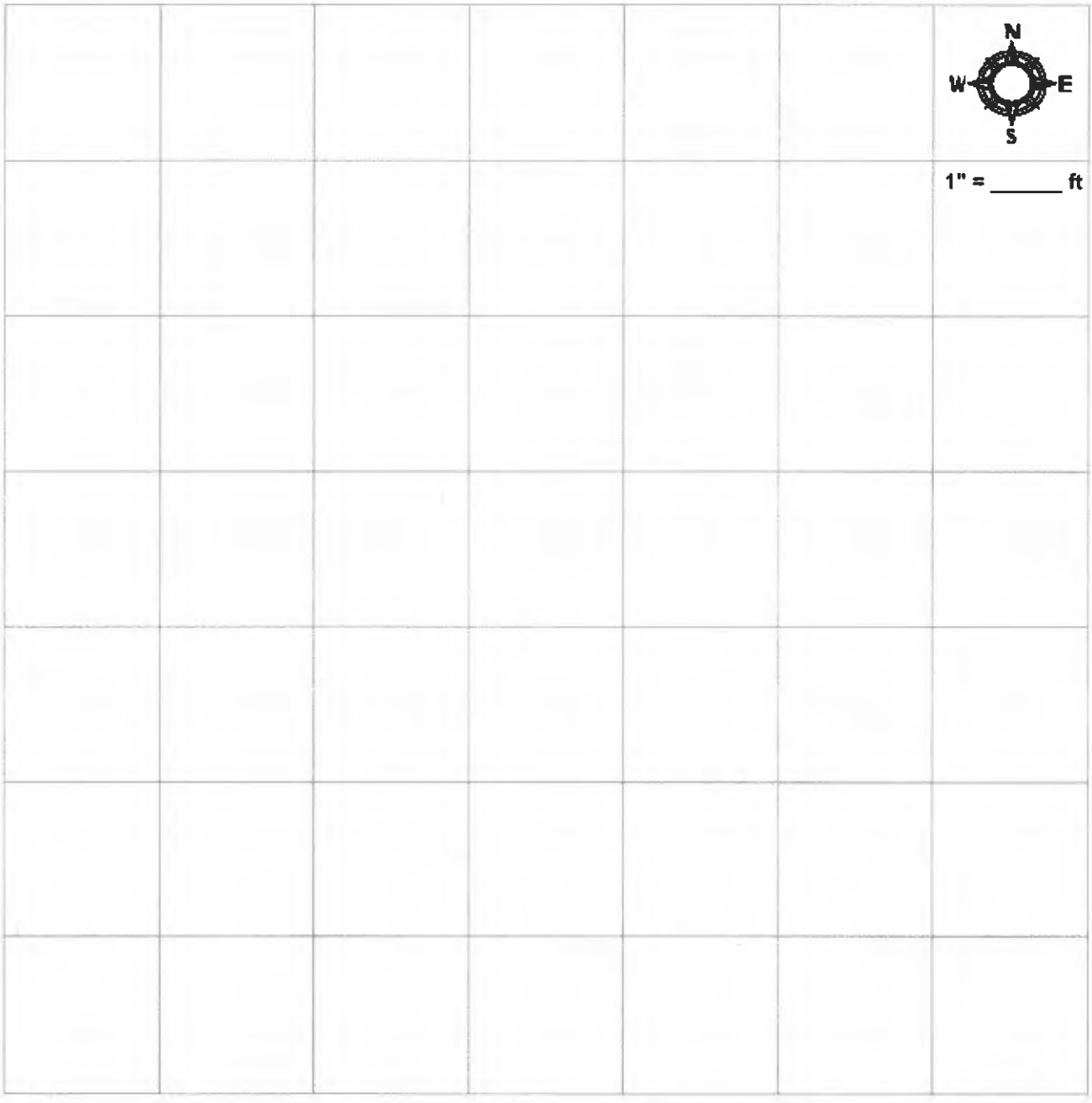
DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	**Description** Describe material, grain size, color, etc.	Check (X) every interval where water was encountered (if known)

Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55 - 232864

SECTION 6. WELL SITE PLAN			
NAME OF WELL OWNER	COUNTY ASSESSOR'S PARCEL ID NUMBER (MOST RECENT)		
	BOOK	MAP	PARCEL
SFPP, L.P.			

- Required for all wells, please draw the following: (1) the boundaries of property on which the well was located; (2) the well location; (3) the locations of all septic tank systems and sewer systems on the property or within 100 feet of the well location, even if on neighboring properties; and (4) any permanent structures on the property that may aid in locating the well.
- Please indicate the distance between the well location and any septic tank system or sewer system.



Arizona Department of Water Resources
Groundwater Permitting and Wells Section
P.O. Box 36020 Phoenix, Arizona 85067-6020
(602) 771-8527 • Fax (602) 771-8689
· www.azwater.gov ·

Received
AUG 27 2020
Arizona Department of Water Resources

Notice of Intent to Drill, Deepen, or Modify a *Monitor / Piezometer / Environmental* Well

$150 FEE

- Review instructions prior to completing form in black or blue ink.
- You must include with your Notice:
  - $150 check or money order for the filing fee.
  - Well construction diagram, labeling all specifications listed in Section 6 and Section 7.

Authority for fee: A.R.S. § 45-596 and A.A.C. R12-15-104.

AMA / INA	B SB	FILE NUMBER
RECEIVED DATE	WS	WELL REGISTRATION NUMBER 55 - 232864
ISSUED DATE	REMEDIAL ACTION SITE	

SECTION 1. REGISTRY INFORMATION

To determine the location of well, please refer to the Well Registry Map (https://gisweb.azwater.gov/WellRegistry/Default.aspx) and/or Google Earth (http://www.earthpoint.us/Townships.aspx)

Well Type (CHECK ONE)
- ☐ Monitor
- ☐ Piezometer
- ☐ Vadose Zone
- ☒ Air Sparging
- ☐ Soil Vapor Extraction
- ☐ Other (*please specify*):

Proposed Action (CHECK ONE)
- ☒ Drill New Well
- ☐ Deepen
- ☐ Modify

WELL REGISTRATION NUMBER (*if Deepening or Modifying*): 55 -

Location of Well

WELL LOCATION ADDRESS (IF ANY): City of Tucson, former Silverbell Landfill

TOWNSHIP(N/S)	RANGE (E/W)	SECTION	160 ACRE	40 ACRE	10 ACRE
13.0 S	13.0 E	30 29	NE ¼	NE ¼	SW ¼

COUNTY ASSESSOR'S PARCEL ID NUMBER: BOOK | MAP | PARCEL

COUNTY WHERE WELL IS LOCATED: PIMA

SECTION 2. OWNER INFORMATION

Land Owner

FULL NAME OF COMPANY, ORGANIZATION, OR INDIVIDUAL: City of Tucson Real Estate
MAILING ADDRESS: 201 N. Stone Ave
CITY / STATE / ZIP CODE: Tucson, AZ 85701
CONTACT PERSON NAME AND TITLE: John Cahill
TELEPHONE NUMBER: (520) 791-4181
EMAIL: John.Cahill@tucsonaz.gov

Well Owner (*check this box if Land Owner and Well Owner are same* ☐)

FULL NAME OF COMPANY, GOVERNMENT AGENCY, OR INDIVIDUAL: SFPP, L.P.
MAILING ADDRESS: 7776 Pointe Parkway West #185 Phoenix, Arizona 85004
CITY / STATE / ZIP CODE: phoenix, AZ 85044
CONTACT PERSON NAME AND TITLE: Paul Salcido, Project Manager, Remediation
TELEPHONE NUMBER: (480) 203-9968
EMAIL: paul_salcido@kindermorgan.com

SECTION 3. DRILLING AUTHORIZATION

Drilling Firm

NAME: Cascade
DWR LICENSE NUMBER: 226
ROC LICENSE CATEGORY: A-4
TELEPHONE NUMBER: (623) 935-01
FAX:
EMAIL ADDRESS:

Consultant (*if applicable*)

CONSULTING FIRM: Arcadis
CONTACT PERSON NAME: Michael Nesky
TELEPHONE NUMBER: 602 438 0883
FAX:
EMAIL ADDRESS:

SECTION 4.

Questions	Yes	No	Explanation:
1. Are all annular spaces between the casing(s) and the borehole for the placement of grout at least 2 inches?	☒	☐	2-inch annular spaces are special standards required for wells located in and near groundwater contamination sites (such as CERCLA, WQARF, DOD, LUST).
2. Is the screened or perforated interval of casing greater than 100 feet in length?	☐	☒	100-foot maximum screen intervals are a special standard for wells located in and near groundwater contamination sites (such as CERCLA, WQARF, DOD, LUST).
3. Are you requesting a variance to use thermoplastic casing in lieu of steel casing in the surface seal?	☐	☒	The wells must be constructed in a vault. Pursuant to A.A.C. R12-15-801 (27) a "vault" is defined as a tamper-resistant watertight structure used to complete a well below the land surface.
4. Is there another well name or identification number associated with this well? (e.g., MW-1, PZ2, 06-04, etc.)	☒	☐	If yes, please state AS-MW-1M
5. Have construction plans been coordinated with the Arizona Department of Environmental Quality?	☐	☒	If yes, please state agency contact & phone number
6. For monitor wells, is dedicated pump equipment to be installed?	☐	☒	If yes, please state design pump capacity (*Gallons per Minute*)
7. Is this well a new well located in an Active Management Area AND intended to pump water for the purpose of remediating groundwater?	☐	☒	You must also file a supplemental form A.R.S. § 45-454(c) & (f) unless the well is a replacement well and the total number of operable wells on the site is not increasing. (*See instructions*)
8. Will the well registration number be stamped on the vault cover or on the upper part of the casing?	☒	☐	If no, where will the registration number be placed?

Notice of Intent to Drill, Deepen, or Modify a *Monitor / Piezometer / Environmental* Well

WELL REGISTRATION NUMBER
55 -

SECTION 6. WELL CONSTRUCTION DETAILS

Drill Method

CHECK ONE

- ☐ Air Rotary
- ☐ Bored or Augered
- ☐ Cable Tool
- ☐ Dual Rotary
- ☐ Mud Rotary
- ☐ Reverse Circulation
- ☐ Driven
- ☐ Jetted
- ☐ Air Percussion / Odex Tubing
- ☒ Other (*please specify*) Sonic

DATE CONSTRUCTION TO BEGIN
08/17/2020

Method of Well Development

CHECK ONE

- ☐ Airlift
- ☐ Bail
- ☐ Surge Block
- ☐ Surge Pump
- ☒ Other (*please specify*) bail,surge,pump

Method of Sealing at Reduction Points

CHECK ONE

- ☒ None
- ☐ Welded
- ☐ Swedged
- ☐ Packed
- ☐ Other (*please specify*)

Grout Emplacement Method

CHECK ONE

- ☒ Tremie Pumped *(Recommended)*
- ☐ Gravity
- ☐ Pressure Grout
- ☐ Other (*please specify*)

Surface or Conductor Casing

CHECK ONE

- ☐ Flush Mount in a vault
- ☒ Extends at least 1' above grade

SECTION 7. PROPOSED WELL CONSTRUCTION PLAN (attach additional page if needed)

Attach a well construction diagram labeling all specifications below.

Borehole

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	BOREHOLE DIAMETER (inches)
0	224	10

Casing

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	OUTER DIAMETER (inches)	MATERIAL TYPE (T) STEEL	PVC	ABS	IF OTHER TYPE DESCRIBE	PERFORATION TYPE (T) BLANK OR NONE	WIRE WRAP	SHUTTER SCREEN	MILLS KNIFE	SLOTTED	IF OTHER TYPE DESCRIBE	SLOT SIZE IF ANY (inches)
0	194	4	☐	☒	☐		☒	☐	☐	☐	☐		
194	224		☐	☐	☐	SS	☐	☒	☐	☐	☐		0.020
			☐	☐	☐		☐	☐	☐	☐	☐		

Annular Material

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	ANNULAR MATERIAL TYPE (T) NONE	CONCRETE	NEAT CEMENT OR CEMENT GROUT	CEMENT-BENTONITE GROUT	BENTONITE GROUT	BENTONITE CHIPS	BENTONITE PELLETS	IF OTHER TYPE OF ANNULAR MATERIAL DESCRIBE	FILTER PACK SAND	FILTER PACK GRAVEL	FILTER PACK SIZE
0	189	☐	☐	☒	☐	☐	☐	☐		☐	☐	
189	194	☐	☐	☐	☐	☐	☐	☐		☒	☐	#60
194	224	☐	☐	☐	☐	☐	☐	☐		☒	☐	#8/12

IF THIS WELL HAS NESTED CASINGS, SPECIFY NUMBER OF CASING STRINGS

EXPECTED DEPTH TO WATER *(Feet Below Ground Surface)*
157'

SECTION 8. PERMISSION TO ACCESS

☐ By checking this box, I hereby provide ADWR permission to enter the property for the purpose of taking water level measurements at this well. *(See instructions.)*

SECTION 9. LAND OWNER AND WELL OWNER SIGNATURE

I state that this notice is filed in compliance with A.R.S. § 45-596 and is complete and correct to the best of my knowledge and

Land Owner	Well Owner *(if different from Land Owner; See instructions)*
PRINT NAME AND TITLE John Ochi II	PRINT NAME AND TITLE Paul M. Salcido, Project Mgr. Remediation
SIGNATURE OF LAND OWNER City of Tucson Real Estate Administrator	SIGNATURE OF WELL OWNER Paul M Salcido
DATE 7.16.2020	DATE 07/15/2020
☒ By checking this box, you agree to allow ADWR to contact you via electronic mail.	☒ By checking this box, you agree to allow ADWR to contact you via electronic mail.
EMAIL ADDRESS John.ochi11@tucsonaz.gov	EMAIL ADDRESS paul_salcido@kindermorgan.com

Printed: 8/31/2020 12:34:00 PM

Arizona Department of Water Resources

1110 West Washington Street, Suite 310
Phoenix AZ 85007

Customer:

ARCADIS
630 PLAZA DRIVE, SUITE 600
HIGHLANDS RANCH, CO 80129

Receipt #: 21-75259
Office: MAIN OFFICE
Receipt Date: 08/31/2020
Sale Type: Mail
Cashier: WRSYM

Item No.	Function Code	AOBJ	Description	Ref ID	Qty	Unit Price	Ext Price
8505	122221	4439-6F	MONITOR, PIEZOMETER, AIR SPARGING, SOIL VAPOR EXTR	232863 thru 232867	5	150.00	750.00
						RECEIPT TOTAL:	**750.00**

Payment type: CHECK
Amount Paid: $750.00
Payment Received Date: 08/31/2020

Check # 301962

Notes:

No refund without valid receipt

ARIZONA DEPARTMENT OF WATER RESOURCES
1110 W. Washington St. Suite 310
Phoenix, Arizona 85007

ANY DEVIATION IN WELL LOCATION FROM THE PLOT PLAN APPROVED FROM THE COUNTY OR LOCAL HEALTH AUTHORITY MUST BE RE-SUBMITTED FOR APPROVAL

NOTICE! This well is located in or near an area of groundwater contamination (WQARF/CERCLA/DOD or Other). Be advised that **special requirements may apply**.

THIS AUTHORIZATION SHALL BE IN POSSESSION OF THE DRILLER DURING ALL DRILLING OPERATIONS

WELL REGISTRATION NO: **55-232865** WELL OWNER ID: AS-MW-2D

AUTHORIZED DRILLER: **CASCADE DRILLING, LP** LICENSE NO: **226**

NOTICE OF INTENTION TO DRILL ENV - SPARGING (AIR, OZONE, AS/SVE) WELL(S) HAS BEEN FILED WITH THE DEPARTMENT BY:

WELL OWNER: **SFPP, L.P. 7776 POINTE PARKWAY WEST #185 PHOENIX, AZ, 85044**

THE WELL(S) IS/ARE TO BE LOCATED IN THE:

SW 1/4 of the **NE** 1/4 of the **NE** 1/4 Section **28** Township **13.0 SOUTH** Range **13.0 EAST**

NO. OF WELLS IN THIS PROJECT:

THIS AUTHORIZATION EXPIRES AT MIDNIGHT ON THE DAY OF **September 4, 2021**

GROUNDWATER PERMITTING AND WELLS

THE DRILLER MUST FILE A LOG OF THE WELL WITHIN 30 DAYS OF COMPLETION OF DRILLING.

Arcadis
113-20-1185
AS-MW-2D
MW-32D

Arizona Department of Water Resources
Groundwater Permitting and Wells
PO Box 36020 • Phoenix, Arizona 85067-6020
(602) 771-8527 • 602-771-8500
www.azwater.gov

Well Driller Report and Well Log

THIS REPORT MUST BE FILED WITHIN 30 DAYS OF COMPLETING THE WELL. PURSUANT TO ARIZONA REVISED STATUTE 45-600 AND A.A.C. RULE R12-15-808.

FILE NUMBER: D(13-13) 28 AAC
WELL REGISTRATION NUMBER: 55 - 232865
PERMIT NUMBER (IF ISSUED):

WELL DRILLER LOGS AND REPORTS CAN ALSO BE DONE ONLINE AT:
http://www.azwater.gov/eForms/Forms/DL/DWR_DL.aspx

SECTION 1. DRILLING AUTHORIZATION

Drilling Firm

Mail To:

NAME	DWR LICENSE NUMBER
CASCADE DRILLING, LP	226
ADDRESS: 7773 W. SELDON LANE.	TELEPHONE NUMBER: 623-935-0124
CITY / STATE / ZIP: PEORIA, AZ, 85345-7973	FAX

SECTION 2. REGISTRY INFORMATION

Well Owner

FULL NAME OF COMPANY, ORGANIZATION, OR INDIVIDUAL: SFPP, L.P.

MAILING ADDRESS: 7776 POINTE PARKWAY WEST #185

CITY / STATE / ZIP: PHOENIX, AZ, 85044

CONTACT PERSON NAME AND TITLE:

TELEPHONE NUMBER: 480 203-9968

FAX:

WELL NAME (e.g., MW-1, PZ-3, lot 25 Well, Smith Well, etc.): AS-MW-2D

COUNTY: PIMA

ASSESSOR'S PARCEL ID NUMBER (MOST RECENT): BOOK | MAP | PARCEL

Location of Well

WELL LOCATION ADDRESS (IF ANY):

TOWNSHIP (N/S)	RANGE (E/W)	SECTION	160 ACRE	40 ACRE	10 ACRE
13 S	13 E	28	NE 1/4	NE 1/4	SW 1/4

LATITUDE			LONGITUDE		
° DEGREES	' MINUTES	"N SECONDS	° DEGREES	' MINUTES	"W SECONDS

METHOD OF LATITUDE/LONGITUDE (CHECK ONE)
☐ *GPS: Hand-Held ☐ *GPS: Survey-Grade ☐ TOPO

*LATITUDE/LONGITUDE DATUM, GPS (CHECK ONE)
☐ NAD83 ☐ NAD27 ☐ WGS84 ☐ Other _____

METHOD OF ELEVATION (CHECK ONE)
☐ *GPS: Hand-Held ☐ *GPS: Survey-Grade ☐ TOPO

LAND SURFACE ELEVATION AT WELL
ELEVATION _____ Feet Above Sea Level

*ELEVATION DATUM (CHECK ONE)
☐ NAVD88 ☐ NGVD29 ☐ OTHER _____

SECTION 3. WELL CONSTRUCTION DETAILS

Drilling Method (CHECK ONE)
☐ Air Rotary
☐ Bored or Augered
☐ Cable Tool
☐ Dual Rotary
☐ Mud Rotary
☐ Reverse Circulation
☐ Driven
☐ Jetted
☐ Air Percussion / Odex Tubing
☒ Other (please specify) Sonic

Method of Well Development (CHECK ONE)
☐ Airlift
☒ Bail
☐ Surge Block
☒ Surge Pump
☐ Other (please specify)

Condition of Well (CHECK ONE)
☒ Capped ☐ Abandoned
☐ Pump Installed ☐ Not Drilled

Method of Sealing at Reduction Points (CHECK ONE)
☒ None
☐ Packed
☐ Swedged
☐ Welded
☐ Other (please specify)

Construction Dates
DATE WELL CONSTRUCTION STARTED: 11/07/20
DATE WELL CONSTRUCTION COMPLETED: 11/13/20

I state that this notice is filed in compliance with A.R.S. § 45-596 and is complete and correct to the best of my knowledge and belief.

SIGNATURE OF QUALIFYING PARTY: [signature]
DATE: 12-13-2020

Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55 - 232865

SECTION 4. WELL CONSTRUCTION DESIGN (AS BUILD) (attach additional page if needed)

Depth

DEPTH OF BORING	DEPTH OF COMPLETED WELL
260 Feet Below Land Surface	260 Feet Below Land Surface

Water Level Information

STATIC WATER LEVEL	DATE MEASURED	TIME MEASURED	IF FLOWING WELL, METHOD OF FLOW REGULATION
162 Feet Below Land Surface	11-18	8:15am	☐ Valve ☐ Other:

Borehole

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	BOREHOLE DIAMETER (inches)
0	260	8"

Installed Casing

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	OUTER (inches)	MATERIAL TYPE (X) STEEL	PVC	ABS	IF OTHER TYPE, DESCRIBE	PERFORATION TYPE (X) BLANK OR NONE	WIRE WRAP	SHUTTER SCREEN	MILLS KNIFE	SLOTTED	IF OTHER TYPE, DESCRIBE	SLOT SIZE (inches)
0	230	4"		X		Sch 80	X						
230	260	4"									X		.020

Installed Annular Material

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	ANNULAR MATERIAL TYPE (X) NONE	CONCRETE	NEAT CEMENT OR CEMENT GROUT	CEMENT-BENTONITE GROUT	BENTONITE GROUT	BENTONITE CHIPS	BENTONITE PELLETS	IF OTHER TYPE OF ANNULAR MATERIAL, DESCRIBE	FILTER PACK SAND	FILTER PACK GRAVEL	FILTER PACK SIZE
0	1		X									
1	20			X								
20	214				X							
214	219						X					
219	224											
224	260									X		#60
										X		8/12

Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55 - 232865

SECTION 5. GEOLOGIC LOG OF WELL

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	Description Describe material, grain size, color, etc.	Check (X) every interval where water was encountered (if known)
0	50	Brown, Silts, Sands	
50	100	Silts, brown Sand	
100	150	Silty Sand, moist, brown	
150	200	Brown, Silty Sand, ~~moist~~ wet, Cobbles	X
200	200	Cobbles, brown, wet Silty Sand	X

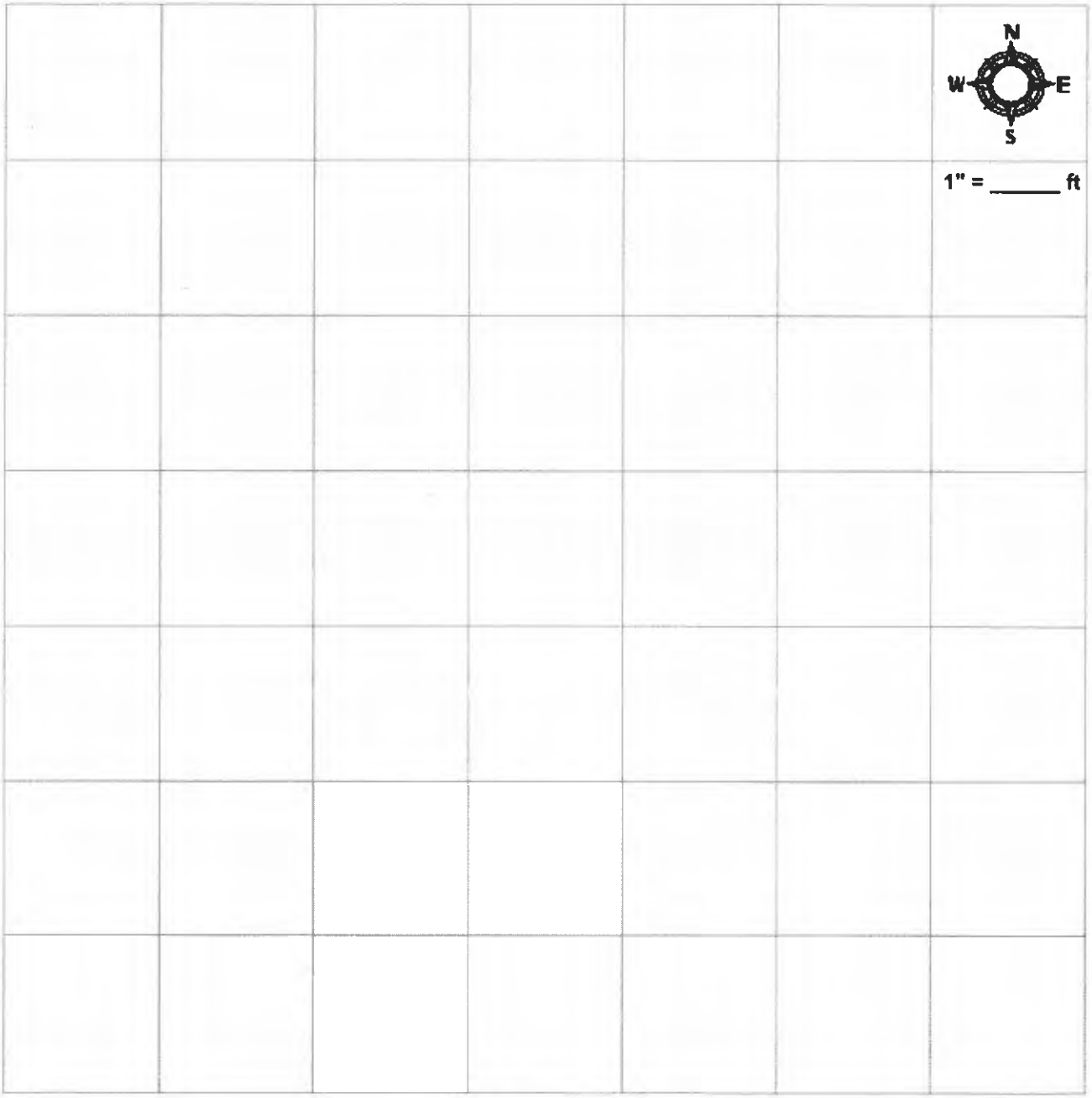
Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55 - 232865

SECTION 6. WELL SITE PLAN

NAME OF WELL OWNER	COUNTY ASSESSOR'S PARCEL ID NUMBER (MOST RECENT)		
	BOOK	MAP	PARCEL
SFPP, L.P.			

- Required for all wells, please draw the following: (1) the boundaries of property on which the well was located; (2) the well location; (3) the locations of all septic tank systems and sewer systems on the property or within 100 feet of the well location, even if on neighboring properties; and (4) any permanent structures on the property that may aid in locating the well.
- Please indicate the distance between the well location and any septic tank system or sewer system.



Arizona Department of Water Resources
Groundwater Permitting and Wells Section
P.O. Box 36020 Phoenix, Arizona 85067-6020
(602) 771-8527 • Fax (602) 771-8689
www.azwater.gov

Received
AUG 29 2020
Arizona Department of Water Resources

Notice of Intent to Drill, Deepen, or Modify a *Monitor / Piezometer / Environmental* Well

$150 FEE

- Review instructions prior to completing form in black or blue ink.
- You must include with your Notice:
  - $150 check or money order for the filing fee.
  - Well construction diagram, labeling all specifications listed in Section 6 and Section 7.

Authority for fee: A.R.S. § 45-596 and A.A.C. R12-15-104.

AMA / INA	B SB	FILE NUMBER
RECEIVED DATE	WS	WELL REGISTRATION NUMBER 55 - 232865
ISSUED DATE	REMEDIAL ACTION SITE	

SECTION 1. REGISTRY INFORMATION

To determine the location of well, please refer to the Well Registry Map (https://gisweb.azwater.gov/WellRegistry/Default.aspx) and/or Google Earth (http://www.earthpoint.us/Townships.aspx)

Well Type (CHECK ONE)
- ☐ Monitor
- ☐ Piezometer
- ☐ Vadose Zone
- ☒ Air Sparging
- ☐ Soil Vapor Extraction
- ☐ Other (*please specify*):

Proposed Action (CHECK ONE)
- ☒ Drill New Well
- ☐ Deepen
- ☐ Modify

WELL REGISTRATION NUMBER (*if Deepening or Modifying*): 55 -

Location of Well

WELL LOCATION ADDRESS (IF ANY): City of Tucson, former Silverbell Landfill

TOWNSHIP(N/S)	RANGE (E/W)	SECTION	160 ACRE	40 ACRE	10 ACRE
13.0 S	13.0 E	30 28	NE ¼	NE ¼	SW ¼

COUNTY ASSESSOR'S PARCEL ID NUMBER: BOOK | MAP | PARCEL

COUNTY WHERE WELL IS LOCATED: PIMA

SECTION 2. OWNER INFORMATION

Land Owner

FULL NAME OF COMPANY, ORGANIZATION, OR INDIVIDUAL: City of Tucson Real Estate
MAILING ADDRESS: 201 N. Stone Ave
CITY / STATE / ZIP CODE: Tucson, AZ 85701
CONTACT PERSON NAME AND TITLE: John Cahill
TELEPHONE NUMBER: (520) 791-4181
EMAIL: John.Cahill@tucsonaz.gov

Well Owner (*check this box if Land Owner and Well Owner are same* ☐)

FULL NAME OF COMPANY, GOVERNMENT AGENCY, OR INDIVIDUAL: SFPP, L.P.
MAILING ADDRESS: 7776 Pointe Parkway West #185 Phoenix, Arizona 85004
CITY / STATE / ZIP CODE: phoenix, AZ 85044
CONTACT PERSON NAME AND TITLE: Paul Salcido, Project Manager, Remediation
TELEPHONE NUMBER: (480) 203-9968
EMAIL: paul_salcido@kindermorgan.com

SECTION 3. DRILLING AUTHORIZATION

Drilling Firm

NAME: Cascade
DWR LICENSE NUMBER: 226
ROC LICENSE CATEGORY: A-4
TELEPHONE NUMBER: (623) 935-01
FAX:
EMAIL ADDRESS:

Consultant (*if applicable*)

CONSULTING FIRM: Arcadis
CONTACT PERSON NAME: Michael Nesky
TELEPHONE NUMBER: 602 438 0883
FAX:
EMAIL ADDRESS:

SECTION 4.

Questions	Yes	No	Explanation:
1. Are all annular spaces between the casing(s) and the borehole for the placement of grout at least 2 inches?	☒	☐	2-inch annular spaces are special standards required for wells located in and near groundwater contamination sites (such as CERCLA, WQARF, DOD, LUST).
2. Is the screened or perforated interval of casing greater than 100 feet in length?	☐	☒	100-foot maximum screen intervals are a special standard for wells located in and near groundwater contamination sites (such as CERCLA, WQARF, DOD, LUST).
3. Are you requesting a variance to use thermoplastic casing in lieu of steel casing in the surface seal?	☐	☒	The wells must be constructed in a vault. Pursuant to A.A.C. R12-15-801 (27) a "vault" is defined as a tamper-resistant watertight structure used to complete a well below the land surface.
4. Is there another well name or identification number associated with this well? (e.g., MW-1, PZ2, 06-04, etc.)	☒	☐	If yes, please state: AS-MW-2D
5. Have construction plans been coordinated with the Arizona Department of Environmental Quality?	☐	☒	If yes, please state agency contact & phone number
6. For monitor wells, is dedicated pump equipment to be installed?	☐	☒	If yes, please state design pump capacity (*Gallons per Minute*)
7. Is this well a new well located in an Active Management Area AND intended to pump water for the purpose of remediating groundwater?	☐	☒	You must also file a supplemental form A.R.S. § 45-454(c) & (f) unless the well is a replacement well and the total number of operable wells on the site is not increasing. (*See instructions*)
8. Will the well registration number be stamped on the vault cover or on the upper part of the casing?	☒	☐	If no, where will the registration number be placed?

Notice of Intent to Drill, Deepen, or Modify a *Monitor / Piezometer / Environmental* Well

WELL REGISTRATION NUMBER
55 -

SECTION 6. WELL CONSTRUCTION DETAILS

Drill Method

CHECK ONE

- ☐ Air Rotary
- ☐ Bored or Augered
- ☐ Cable Tool
- ☐ Dual Rotary
- ☐ Mud Rotary
- ☐ Reverse Circulation
- ☐ Driven
- ☐ Jetted
- ☐ Air Percussion / Odex Tubing
- ☒ Other (*please specify*): Sonic

DATE CONSTRUCTION TO BEGIN: 08/17/2020

Method of Well Development

CHECK ONE

- ☐ Airlift
- ☐ Bail
- ☐ Surge Block
- ☐ Surge Pump
- ☒ Other (*please specify*): bail,surge,pump

Method of Sealing at Reduction Points

CHECK ONE

- ☒ None
- ☐ Welded
- ☐ Swedged
- ☐ Packed
- ☐ Other (*please specify*):

Grout Emplacement Method

CHECK ONE

- ☒ Tremie Pumped *(Recommended)*
- ☐ Gravity
- ☐ Pressure Grout
- ☐ Other (*please specify*):

Surface or Conductor Casing

CHECK ONE

- ☐ Flush Mount in a vault
- ☒ Extends at least 1' above grade

SECTION 7. PROPOSED WELL CONSTRUCTION PLAN (attach additional page if needed)

Attach a well construction diagram labeling all specifications below.

Borehole

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	BOREHOLE DIAMETER (inches)
0	259	10

Casing

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	OUTER DIAMETER (inches)	MATERIAL TYPE (T): STEEL	PVC	ABS	IF OTHER TYPE, DESCRIBE	PERFORATION TYPE (T): BLANK OR NONE	WIRE WRAP	SHUTTER SCREEN	MILLS KNIFE	SLOTTED	IF OTHER TYPE, DESCRIBE	SLOT SIZE IF ANY (inches)
0	229	4	☐	☒	☐		☒	☐	☐	☐	☐		
229	259		☐	☐	☐	SS	☐	☒	☐	☐	☐		0.020
			☐	☐	☐		☐	☐	☐	☐	☐		

Annular Material

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	ANNULAR MATERIAL TYPE (T): NONE	CONCRETE	NEAT CEMENT OR CEMENT GROUT	CEMENT-BENTONITE GROUT	BENTONITE: GROUT	CHIPS	PELLETS	IF OTHER TYPE OF ANNULAR MATERIAL, DESCRIBE	FILTER PACK: SAND	GRAVEL	SIZE
0	224	☐	☐	☒	☐	☐	☐	☐		☐	☐	
224	229	☐	☐	☐	☐	☐	☐	☐		☒	☐	#60
229	259	☐	☐	☐	☐	☐	☐	☐		☒	☐	#8/12

IF THIS WELL HAS NESTED CASINGS, SPECIFY NUMBER OF CASING STRINGS:

EXPECTED DEPTH TO WATER *(Feet Below Ground Surface)*: 157'

SECTION 8. PERMISSION TO ACCESS

☐ By checking this box, I hereby provide ADWR permission to enter the property for the purpose of taking water level measurements at this well. *(See instructions.)*

SECTION 9. LAND OWNER AND WELL OWNER SIGNATURE

I state that this notice is filed in compliance with A.R.S. § 45-596 and is complete and correct to the best of my knowledge and

Land Owner	Well Owner *(If different from Land Owner; See instructions)*
PRINT NAME AND TITLE: John Cahill	PRINT NAME AND TITLE: Paul M. Salcido, Project Mgr. Remediation
SIGNATURE OF LAND OWNER: [signature]	SIGNATURE OF WELL OWNER: Paul M Salcido
DATE: 7.16.2020 City of Tucson Real Estate Administrator	DATE: 07/15/2020
☒ By checking this box, you agree to allow ADWR to contact you via electronic mail.	☒ By checking this box, you agree to allow ADWR to contact you via electronic mail.
EMAIL ADDRESS: John.Cahill@tucsonaz.gov	EMAIL ADDRESS: paul_salcido@kindermorgan.com

Printed: 8/31/2020 12:34:00 PM

Arizona Department of Water Resources

1110 West Washington Street, Suite 310
Phoenix AZ 85007

Customer:

ARCADIS
630 PLAZA DRIVE, SUITE 600
HIGHLANDS RANCH, CO 80129

Receipt #: 21-75259
Office: MAIN OFFICE
Receipt Date: 08/31/2020
Sale Type: Mail
Cashier: WRSYM

Item No.	Function Code	AOBJ	Description	Ref ID	Qty	Unit Price	Ext Price
8505	122221	4439-6F	MONITOR, PIEZOMETER, AIR SPARGING, SOIL VAPOR EXTR	232863 thru 232867	5	150.00	750.00
						RECEIPT TOTAL:	**750.00**

Payment type: CHECK
Amount Paid: $750.00
Payment Received Date: 08/31/2020

Check # 301962

Notes:

No refund without valid receipt

ARIZONA DEPARTMENT OF WATER RESOURCES
1110 W. Washington St. Suite 310
Phoenix, Arizona 85007

ANY DEVIATION IN WELL LOCATION FROM THE PLOT PLAN APPROVED FROM THE COUNTY OR LOCAL HEALTH AUTHORITY MUST BE RE-SUBMITTED FOR APPROVAL

NOTICE! This well is located in or near an area of groundwater contamination (WQARF/CERCLA/DOD or Other). Be advised that **special requirements may apply**.

THIS AUTHORIZATION SHALL BE IN POSSESSION OF THE DRILLER DURING ALL DRILLING OPERATIONS

WELL REGISTRATION NO: **55-232866** WELL OWNER ID: AS-MW-2M

AUTHORIZED DRILLER: **CASCADE DRILLING, LP** LICENSE NO: **226**

NOTICE OF INTENTION TO DRILL ENV - SPARGING (AIR, OZONE, AS/SVE) WELL(S) HAS BEEN FILED WITH THE DEPARTMENT BY:

WELL OWNER: **SFPP, L.P. 7776 POINTE PARKWAY WEST #185 PHOENIX, AZ, 85044**

THE WELL(S) IS/ARE TO BE LOCATED IN THE:

SW 1/4 of the **NE** 1/4 of the **NE** 1/4 Section **28** Township **13.0 SOUTH** Range **13.0 EAST**

NO. OF WELLS IN THIS PROJECT:

THIS AUTHORIZATION EXPIRES AT MIDNIGHT ON THE DAY OF **September 4, 2021**

GROUNDWATER PERMITTING AND WELLS

THE DRILLER MUST FILE A LOG OF THE WELL WITHIN 30 DAYS OF COMPLETION OF DRILLING

Arcadis 113-207185 AS-MW-2M

MW-32M

Arizona Department of Water Resources
Groundwater Permitting and Wells
PO Box 36020 • Phoenix, Arizona 85067-6020
(602) 771-8527 • 602-771-8500
www.azwater.gov

Well Driller Report and Well Log

THIS REPORT MUST BE FILED WITHIN 30 DAYS OF COMPLETING THE WELL. PURSUANT TO ARIZONA REVISED STATUTE 45-600 AND A.A.C. RULE R12-15-808.

FILE NUMBER: **D(13-13) 28 AAC**
WELL REGISTRATION NUMBER: **55 - 232866**
PERMIT NUMBER (IF ISSUED):

WELL DRILLER LOGS AND REPORTS CAN ALSO BE DONE ONLINE AT:
http://www.azwater.gov/eForms/Forms/DL/DWR_DL.aspx

SECTION 1. DRILLING AUTHORIZATION

Drilling Firm

Mail To:

NAME	DWR LICENSE NUMBER
CASCADE DRILLING, LP	226
ADDRESS	**TELEPHONE NUMBER**
7773 W. SELDON LANE	623-935-0124
CITY / STATE / ZIP	**FAX**
PEORIA, AZ, 85345-7973	

SECTION 2. REGISTRY INFORMATION

Well Owner

FULL NAME OF COMPANY, ORGANIZATION, OR INDIVIDUAL: SFPP, L.P.

MAILING ADDRESS: 7776 POINTE PARKWAY WEST #185

CITY / STATE / ZIP: PHOENIX, AZ, 85044

CONTACT PERSON NAME AND TITLE:

TELEPHONE NUMBER: 480 203-9968

FAX:

WELL NAME (e.g., MW-1, PZ-3, lot 25 Well, Smith Well, etc.): AS-MW-2M

COUNTY: PIMA

ASSESSOR'S PARCEL ID NUMBER (MOST RECENT): BOOK | MAP | PARCEL

Location of Well

WELL LOCATION ADDRESS (IF ANY):

TOWNSHIP (N/S)	RANGE (E/W)	SECTION	160 ACRE	40 ACRE	10 ACRE
13 S	13 E	28	NE 1/4	NE 1/4	SW 1/4

LATITUDE			LONGITUDE		
° DEGREES	' MINUTES	"N SECONDS	° DEGREES	' MINUTES	"W SECONDS

METHOD OF LATITUDE/LONGITUDE (CHECK ONE)
☐ *GPS: Hand-Held ☐ *GPS: Survey-Grade ☐ TOPO

*LATITUDE/LONGITUDE DATUM, GPS (CHECK ONE)
☐ NAD83 ☐ NAD27 ☐ WGS84 ☐ Other _____

METHOD OF ELEVATION (CHECK ONE)
☐ *GPS: Hand-Held ☐ *GPS: Survey-Grade ☐ TOPO

LAND SURFACE ELEVATION AT WELL
ELEVATION _____ Feet Above Sea Level

*ELEVATION DATUM (CHECK ONE)
☐ NAVD88 ☐ NGVD29 ☐ OTHER _____

SECTION 3. WELL CONSTRUCTION DETAILS

Drilling Method (CHECK ONE)
☐ Air Rotary
☐ Bored or Augered
☐ Cable Tool
☐ Dual Rotary
☐ Mud Rotary
☐ Reverse Circulation
☐ Driven
☐ Jetted
☐ Air Percussion / Odex Tubing
☒ Other (please specify) Sonic

Method of Well Development (CHECK ONE)
☐ Airlift
☒ Bail
☐ Surge Block
☒ Surge Pump
☐ Other (please specify)

Condition of Well (CHECK ONE)
☒ Capped ☐ Abandoned
☐ Pump Installed ☐ Not Drilled

Method of Sealing at Reduction Points (CHECK ONE)
☒ None
☐ Packed
☐ Swedged
☐ Welded
☐ Other (please specify)

Construction Dates
DATE WELL CONSTRUCTION STARTED: 10/31/20
DATE WELL CONSTRUCTION COMPLETED: 11/4/20

I state that this notice is filed in compliance with A.R.S. § 45-596 and is complete and correct to the best of my knowledge and belief.

SIGNATURE OF QUALIFYING PARTY: S. C.
DATE: 12-13-2020

Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55 - 232866

SECTION 4. WELL CONSTRUCTION DESIGN (AS BUILD) (attach additional page if needed)

Depth

DEPTH OF BORING	DEPTH OF COMPLETED WELL
224 Feet Below Land Surface	224 Feet Below Land Surface

Water Level Information

STATIC WATER LEVEL	DATE MEASURED	TIME MEASURED	IF FLOWING WELL, METHOD OF FLOW REGULATION
141 Feet Below Land Surface	11·17·20	8:00am	☐ Valve ☐ Other:

Borehole

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	BOREHOLE DIAMETER (inches)
0	224	8"

Installed Casing

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	OUTER (inches)	MATERIAL TYPE (X) STEEL	PVC	ABS	IF OTHER TYPE, DESCRIBE	PERFORATION TYPE (X) BLANK OR NONE	WIRE WRAP	SHUTTER SCREEN	MILLS KNIFE	SLOTTED	IF OTHER TYPE, DESCRIBE	SLOT SIZE (inches)
0	190	4"		X		Sch	X						
190	224	4"						X			X		.020

Installed Annular Material

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	ANNULAR MATERIAL TYPE (X) NONE	CONCRETE	NEAT CEMENT OR CEMENT GROUT	CEMENT-BENTONITE GROUT	BENTONITE GROUT	BENTONITE CHIPS	BENTONITE PELLETS	IF OTHER TYPE OF ANNULAR MATERIAL, DESCRIBE	FILTER PACK SAND	FILTER PACK GRAVEL	FILTER PACK SIZE
0	1		X									
1	179			X								
179	184						X					
184	194									X		#100
194	224									X		8/12

Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55 - 232866

SECTION 5. GEOLOGIC LOG OF WELL

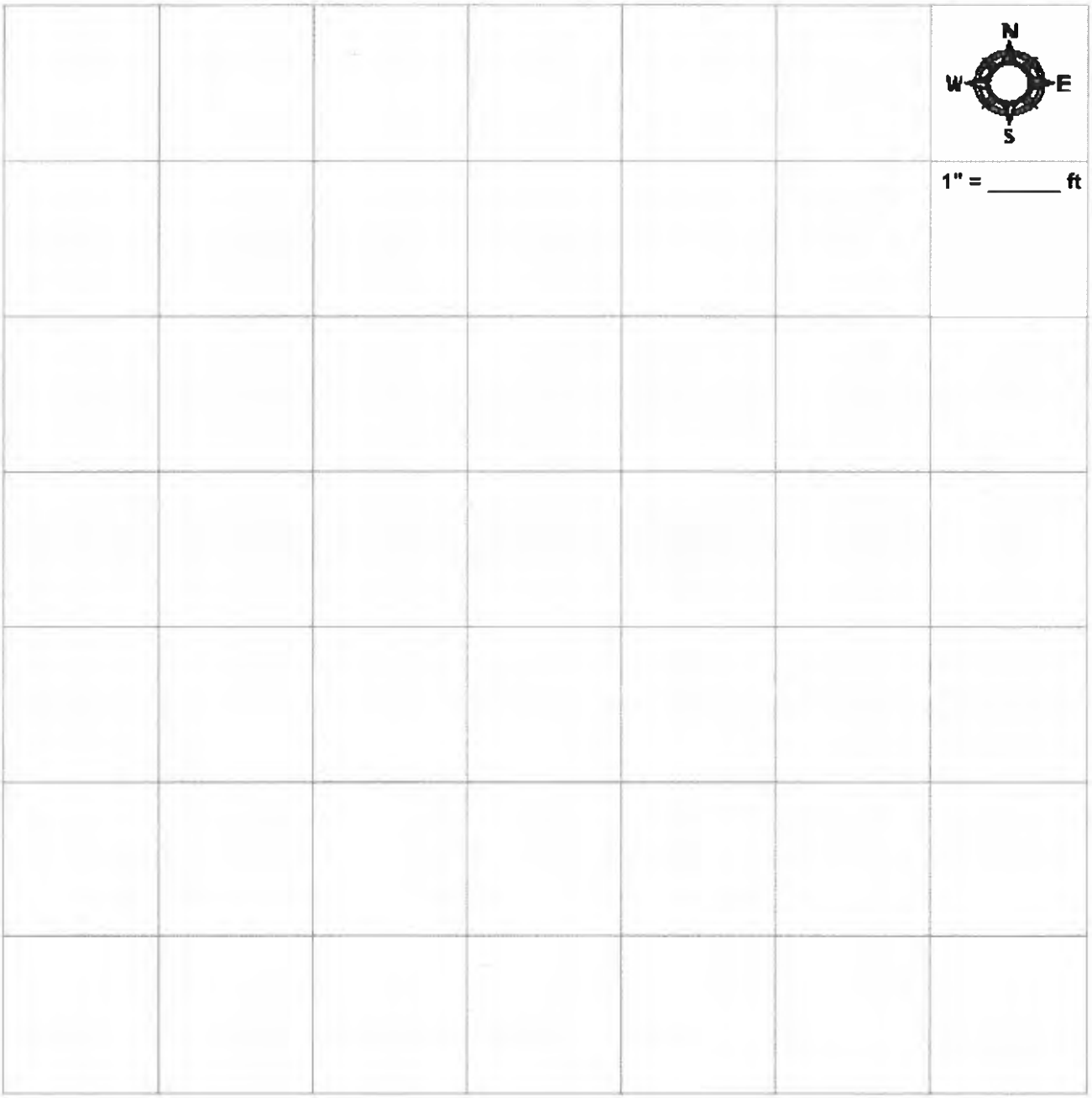
DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	Description Describe material, grain size, color, etc.	Check (X) every interval where water was encountered (if known)
0	50	Silty Sand, brown	
50	100	Sandy Silts, Cobbles, brown	
100	150	Brown, Silts, Sand, gravel	
150	224	Silty Sands, Wet, brown, gravel	X

Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55 - 232866

SECTION 6. WELL SITE PLAN			
NAME OF WELL OWNER	COUNTY ASSESSOR'S PARCEL ID NUMBER (MOST RECENT)		
	BOOK	MAP	PARCEL
SFPP, L.P.			

- Required for all wells, please draw the following: (1) the boundaries of property on which the well was located; (2) the well location; (3) the locations of all septic tank systems and sewer systems on the property or within 100 feet of the well location, even if on neighboring properties; and (4) any permanent structures on the property that may aid in locating the well.
- Please indicate the distance between the well location and any septic tank system or sewer system.



Arizona Department of Water Resources
Groundwater Permitting and Wells Section
P.O. Box 36020 Phoenix, Arizona 85067-6020
(602) 771-8527 • Fax (602) 771-8689
· www.azwater.gov ·

RECEIVED
AUG 29 2023

Notice of Intent to Drill, Deepen, or Modify a *Monitor / Piezometer / Environmental* Well

$150 FEE

- Review instructions prior to completing form in black or blue ink.
- You must include with your Notice:
  - $150 check or money order for the filing fee.
  - Well construction diagram, labeling all specifications listed in Section 6 and Section 7.

Authority for fee: A.R.S. § 45-596 and A.A.C. R12-15-104.

AMA / INA	B SB	FILE NUMBER
RECEIVED DATE	WS	WELL REGISTRATION NUMBER 55 - 232866
ISSUED DATE	REMEDIAL ACTION SITE	

SECTION 1. REGISTRY INFORMATION

To determine the location of well, please refer to the Well Registry Map (https://gisweb.azwater.gov/WellRegistry/Default.aspx) and/or Google Earth (http://www.earthpoint.us/Townships.aspx)

Well Type

CHECK ONE
- ☐ Monitor
- ☐ Piezometer
- ☐ Vadose Zone
- ☒ Air Sparging
- ☐ Soil Vapor Extraction
- ☐ Other (*please specify*):

Proposed Action

CHECK ONE
- ☒ Drill New Well
- ☐ Deepen
- ☐ Modify

WELL REGISTRATION NUMBER (*if Deepening or Modifying*)
55 -

Location of Well

WELL LOCATION ADDRESS (IF ANY)
City of Tucson, former Silverbell Landfill

TOWNSHIP(N/S)	RANGE (E/W)	SECTION	160 ACRE	40 ACRE	10 ACRE
13.0 S	13.0 E	30	NE ¼	NE ¼	SW ¼

COUNTY ASSESSOR'S PARCEL ID NUMBER

BOOK	MAP	PARCEL

COUNTY WHERE WELL IS LOCATED
PIMA

SECTION 2. OWNER INFORMATION

Land Owner

FULL NAME OF COMPANY, ORGANIZATION, OR INDIVIDUAL
City of Tucson Real Estate

MAILING ADDRESS
201 N. Stone Ave

CITY / STATE / ZIP CODE
Tucson, AZ 85701

CONTACT PERSON NAME AND TITLE
John Cahill

TELEPHONE NUMBER
(520) 791-4181

EMAIL
John.Cahill@tucsonaz.gov

Well Owner (*check this box if Land Owner and Well Owner are same* ☐)

FULL NAME OF COMPANY, GOVERNMENT AGENCY, OR INDIVIDUAL
SFPP, L.P.

MAILING ADDRESS
7776 Pointe Parkway West #185 Phoenix, Arizona 85004

CITY / STATE / ZIP CODE
phoenix, AZ 85044

CONTACT PERSON NAME AND TITLE
Paul Salcido, Project Manager, Remediation

TELEPHONE NUMBER
(480) 203-9968

EMAIL
paul_salcido@kindermorgan.com

SECTION 3. DRILLING AUTHORIZATION

Drilling Firm

NAME Cascade

DWR LICENSE NUMBER 226

ROC LICENSE CATEGORY A-4

TELEPHONE NUMBER (623) 935-01[illegible]

FAX

EMAIL ADDRESS

Consultant (*if applicable*)

CONSULTING FIRM
Arcadis

CONTACT PERSON NAME
Michael Nesky

TELEPHONE NUMBER 602 438 0883

FAX

EMAIL ADDRESS

SECTION 4.

Questions	Yes	No	Explanation:
1. Are all annular spaces between the casing(s) and the borehole for the placement of grout at least 2 inches?	☒	☐	2-inch annular spaces are special standards required for wells located in and near groundwater contamination sites (such as CERCLA, WQARF, DOD, LUST).
2. Is the screened or perforated interval of casing greater than 100 feet in length?	☐	☒	100-foot maximum screen intervals are a special standard for wells located in and near groundwater contamination sites (such as CERCLA, WQARF, DOD, LUST).
3. Are you requesting a variance to use thermoplastic casing in lieu of steel casing in the surface seal?	☐	☒	The wells must be constructed in a vault. Pursuant to A.A.C. R12-15-801 (27) a "vault" is defined as a tamper-resistant watertight structure used to complete a well below the land surface.
4. Is there another well name or identification number associated with this well? (e.g., MW-1, PZ2, 06-04, etc.)	☒	☐	If yes, please state AS-MW-2M
5 Have construction plans been coordinated with the Arizona Department of Environmental Quality?	☐	☒	If yes, please state agency contact & phone number
6. For monitor wells, is dedicated pump equipment to be installed?	☐	☒	If yes, please state design pump capacity *(Gallons per Minute)*
7 Is this well a new well located in an Active Management Area **AND** intended to pump water for the purpose of remediating groundwater?	☐	☒	You must also file a supplemental form A.R.S. § 45-454(c) & (f) unless the well is a replacement well and the total number of operable wells on the site is not increasing. *(See instructions)*
8 Will the well registration number be stamped on the vault cover or on the upper part of the casing?	☒	☐	If no, where will the registration number be placed?

Notice of Intent to Drill, Deepen, or Modify a *Monitor / Piezometer / Environmental* Well

WELL REGISTRATION NUMBER: 55 -

SECTION 6. WELL CONSTRUCTION DETAILS

Drill Method

CHECK ONE

- ☐ Air Rotary
- ☐ Bored or Augered
- ☐ Cable Tool
- ☐ Dual Rotary
- ☐ Mud Rotary
- ☐ Reverse Circulation
- ☐ Driven
- ☐ Jetted
- ☐ Air Percussion / Odex Tubing
- ☒ Other (*please specify*): Sonic

DATE CONSTRUCTION TO BEGIN: 08/17/2020

Method of Well Development

CHECK ONE

- ☐ Airlift
- ☐ Bail
- ☐ Surge Block
- ☐ Surge Pump
- ☒ Other (*please specify*): bail,surge,pump

Grout Emplacement Method

CHECK ONE

- ☒ Tremie Pumped (*Recommended*)
- ☐ Gravity
- ☐ Pressure Grout
- ☐ Other (*please specify*)

Method of Sealing at Reduction Points

CHECK ONE

- ☒ None
- ☐ Welded
- ☐ Swedged
- ☐ Packed
- ☐ Other (*please specify*)

Surface or Conductor Casing

CHECK ONE

- ☐ Flush Mount in a vault
- ☒ Extends at least 1' above grade

SECTION 7. PROPOSED WELL CONSTRUCTION PLAN (attach additional page if needed)

Attach a well construction diagram labeling all specifications below.

Borehole

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	BOREHOLE DIAMETER (inches)
0	224	10

Casing

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	OUTER DIAMETER (inches)	MATERIAL TYPE (T): STEEL	PVC	ABS	IF OTHER TYPE, DESCRIBE	PERFORATION TYPE (T): BLANK OR NONE	WIRE WRAP	SHUTTER SCREEN	MILLS KNIFE	SLOTTED	IF OTHER TYPE, DESCRIBE	SLOT SIZE IF ANY (inches)
0	194	4	☐	☒	☐		☒	☐	☐	☐	☐		
194	224		☐	☐	☐	SS	☐	☒	☐	☐	☐		0.020
			☐	☐	☐		☐	☐	☐	☐	☐		

Annular Material

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	ANNULAR MATERIAL TYPE (T): NONE	CONCRETE	NEAT CEMENT OR CEMENT GROUT	CEMENT-BENTONITE GROUT	BENTONITE: GROUT	CHIPS	PELLETS	IF OTHER TYPE OF ANNULAR MATERIAL, DESCRIBE	FILTER PACK: SAND	GRAVEL	SIZE
0	189	☐	☐	☒	☐	☐	☐	☐		☐	☐	
189	194	☐	☐	☐	☐	☐	☐	☐		☒	☐	#60
194	224	☐	☐	☐	☐	☐	☐	☐		☒	☐	#8/12

IF THIS WELL HAS NESTED CASINGS, SPECIFY NUMBER OF CASING STRINGS:

EXPECTED DEPTH TO WATER (*Feet Below Ground Surface*): 157'

SECTION 8. PERMISSION TO ACCESS

☐ By checking this box, I hereby provide ADWR permission to enter the property for the purpose of taking water level measurements at this well. (*See instructions.*)

SECTION 9. LAND OWNER AND WELL OWNER SIGNATURE

I state that this notice is filed in compliance with A.R.S. § 45-596 and is complete and correct to the best of my knowledge and

Land Owner	Well Owner (*if different from Land Owner; See instructions*)
PRINT NAME AND TITLE: John Cahill	PRINT NAME AND TITLE: Paul M. Salcido, Project Mgr. Remediation
SIGNATURE OF LAND OWNER: City of Tucson John Cahill Real Estate Administrator	SIGNATURE OF WELL OWNER: Paul M Salcido
DATE: 7.16.2020	DATE: 07/15/2020
☒ By checking this box, you agree to allow ADWR to contact you via electronic mail.	☒ By checking this box, you agree to allow ADWR to contact you via electronic mail.
EMAIL ADDRESS: john.cahill@tucsonaz.gov	EMAIL ADDRESS: paul_salcido@kindermorgan.com

Printed: 8/31/2020 12:34:00 PM

Arizona Department of Water Resources

1110 West Washington Street, Suite 310
Phoenix AZ 85007

Customer:

ARCADIS
630 PLAZA DRIVE, SUITE 600
HIGHLANDS RANCH, CO 80129

Receipt #: 21-75259
Office: MAIN OFFICE
Receipt Date: 08/31/2020
Sale Type: Mail
Cashier: WRSYM

Item No.	Function Code	AOBJ	Description	Ref ID	Qty	Unit Price	Ext Price
8505	122221	4439-6F	MONITOR, PIEZOMETER, AIR SPARGING, SOIL VAPOR EXTR	232863 thru 232867	5	150.00	750.00
						RECEIPT TOTAL:	**750.00**

Payment type: CHECK
Amount Paid: $750.00
Payment Received Date: 08/31/2020

Check # 301962

Notes:

No refund without valid receipt

ARIZONA DEPARTMENT OF WATER RESOURCES

1110 W. Washington St. Suite 310
Phoenix, Arizona 85007

ANY DEVIATION IN WELL LOCATION FROM THE PLOT PLAN APPROVED FROM THE COUNTY OR LOCAL HEALTH AUTHORITY MUST BE RE-SUBMITTED FOR APPROVAL

NOTICE! This well is located in or near an area of groundwater contamination (WQARF/CERCLA/DOD or Other). Be advised that **special requirements may apply.**

THIS AUTHORIZATION SHALL BE IN POSSESSION OF THE DRILLER DURING ALL DRILLING OPERATIONS

WELL REGISTRATION NO: **55-232867** WELL OWNER ID: AS-MW-2S

AUTHORIZED DRILLER: **CASCADE DRILLING, LP** LICENSE NO: **226**

NOTICE OF INTENTION TO DRILL ENV - SPARGING (AIR, OZONE, AS/SVE) WELL(S) HAS BEEN FILED WITH THE DEPARTMENT BY:

WELL OWNER: **SFPP, L.P. 7776 POINTE PARKWAY WEST #185 PHOENIX, AZ, 85044**

THE WELL(S) IS/ARE TO BE LOCATED IN THE:

SW 1/4 of the **NE** 1/4 of the **NE** 1/4 Section **28** Township **13.0 SOUTH** Range **13.0 EAST**

NO. OF WELLS IN THIS PROJECT:

THIS AUTHORIZATION EXPIRES AT MIDNIGHT ON THE DAY OF **September 4, 2021**

GROUNDWATER PERMITTING AND WELLS

THE DRILLER MUST FILE A LOG OF THE WELL WITHIN 30 DAYS OF COMPLETION OF DRILLING.

Arcadis

113-20-1185

AS-MW-2S

MW-32S

Arizona Department of Water Resources
Groundwater Permitting and Wells
PO Box 36020 • Phoenix, Arizona 85067-6020
(602) 771-8527 • 602-771-8500
www.azwater.gov

Well Driller Report and Well Log

THIS REPORT MUST BE FILED WITHIN 30 DAYS OF COMPLETING THE WELL. PURSUANT TO ARIZONA REVISED STATUTE 45-600 AND A.A.C. RULE R12-15-808.

FILE NUMBER: D(13-13) 28 AAC
WELL REGISTRATION NUMBER: 55 - 232867
PERMIT NUMBER (IF ISSUED):

WELL DRILLER LOGS AND REPORTS CAN ALSO BE DONE ONLINE AT:
http://www.azwater.gov/eForms/Forms/DL/DWR_DL.aspx

SECTION 1. DRILLING AUTHORIZATION

Drilling Firm

Mail To:

NAME	DWR LICENSE NUMBER
CASCADE DRILLING, LP	226
ADDRESS: 7773 W. SELDON LANE.	TELEPHONE NUMBER: 623-935-0124
CITY / STATE / ZIP: PEORIA, AZ, 85345-7973	FAX

SECTION 2. REGISTRY INFORMATION

Well Owner

FULL NAME OF COMPANY, ORGANIZATION, OR INDIVIDUAL: SFPP, L.P.

MAILING ADDRESS: 7776 POINTE PARKWAY WEST #185

CITY / STATE / ZIP: PHOENIX, AZ, 85044

CONTACT PERSON NAME AND TITLE:

TELEPHONE NUMBER: 480 203-9968

FAX:

WELL NAME (e.g., MW-1, PZ-3, Lot 25 Well, Smith Well, etc.): AS-MW-2S ✓

COUNTY: PIMA

ASSESSOR'S PARCEL ID NUMBER (MOST RECENT): BOOK | MAP | PARCEL

Location of Well

WELL LOCATION ADDRESS (IF ANY): City of Tucson, Former Silverbell landfill

TOWNSHIP (N/S)	RANGE (E/W)	SECTION	160 ACRE	40 ACRE	10 ACRE
13 S	13 E	28	NE 1/4	NE 1/4	SW 1/4

LATITUDE			LONGITUDE		
° DEGREES	' MINUTES	"N SECONDS	° DEGREES	' MINUTES	"W SECONDS

METHOD OF LATITUDE/LONGITUDE (CHECK ONE)
☐ *GPS: Hand-Held ☐ *GPS: Survey-Grade ☐ TOPO

*LATITUDE/LONGITUDE DATUM, GPS (CHECK ONE)
☐ NAD83 ☐ NAD27 ☐ WGS84 ☐ Other _____

METHOD OF ELEVATION (CHECK ONE)
☐ *GPS: Hand-Held ☐ *GPS: Survey-Grade ☐ TOPO

LAND SURFACE ELEVATION AT WELL
ELEVATION _____ Feet Above Sea Level

*ELEVATION DATUM (CHECK ONE)
☐ NAVD88 ☐ NGVD29 ☐ OTHER _____

SECTION 3. WELL CONSTRUCTION DETAILS

Drilling Method

CHECK ONE
☐ Air Rotary
☐ Bored or Augered
☐ Cable Tool
☐ Dual Rotary
☐ Mud Rotary
☐ Reverse Circulation
☐ Driven
☐ Jetted
☐ Air Percussion / Odex Tubing
☒ Other (please specify): Sonic

Method of Well Development

CHECK ONE
☐ Airlift
☐ Bail
☐ Surge Block
☐ Surge Pump
☐ Other (please specify)

Condition of Well

CHECK ONE
☒ Capped ☐ Abandoned
☐ Pump Installed ☐ Not Drilled

Method of Sealing at Reduction Points

CHECK ONE
☒ None
☐ Packed
☐ Swedged
☐ Welded
☐ Other (please specify)

Construction Dates

DATE WELL CONSTRUCTION STARTED: 10/26/20

DATE WELL CONSTRUCTION COMPLETED: 10/28/20

I state that this notice is filed in compliance with A.R.S. § 45-596 and is complete and correct to the best of my knowledge and belief.

SIGNATURE OF QUALIFYING PARTY: S. C.

DATE: 12-13-2020

Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55 - 232867

SECTION 4. WELL CONSTRUCTION DESIGN (AS BUILD) (attach additional page if needed)

Depth

DEPTH OF BORING	DEPTH OF COMPLETED WELL
189 Feet Below Land Surface	189 Feet Below Land Surface

Water Level Information

STATIC WATER LEVEL	DATE MEASURED	TIME MEASURED	IF FLOWING WELL, METHOD OF FLOW REGULATION
161 Feet Below Land Surface	11/14	10:00am	☐ Valve ☐ Other:

Borehole

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	BOREHOLE DIAMETER (inches)
0	189	8"

Installed Casing

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	OUTER (inches)	MATERIAL TYPE (X) STEEL	PVC	ABS	IF OTHER TYPE, DESCRIBE	PERFORATION TYPE (X) BLANK OR NONE	WIRE WRAP	SHUTTER SCREEN	MILLS KNIFE	SLOTTED	IF OTHER TYPE, DESCRIBE	SLOT SIZE (inches)
0	149	4"		X		Sch 80	X						
149	189	4"		X		Sch 80		X					.020

Installed Annular Material

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	ANNULAR MATERIAL TYPE (X) NONE	CONCRETE	NEAT CEMENT OR CEMENT GROUT	CEMENT-BENTONITE GROUT	BENTONITE GROUT	BENTONITE CHIPS	BENTONITE PELLETS	IF OTHER TYPE OF ANNULAR MATERIAL, DESCRIBE	FILTER PACK SAND	FILTER PACK GRAVEL	FILTER PACK SIZE
0	134			X								
134	139						X					
139	144									X		#60
144	189									X		8/12

Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55 - 232867

SECTION 5. GEOLOGIC LOG OF WELL

DEPTH FROM SURFACE FROM (feet)	TO (feet)	Description Describe material, grain size, color, etc.	Check (X) every interval where water was encountered (if known)
0	50	Brown, Silts, Sandy	
50	100	Silty Sands, Brown, Clay	
100	150	Brown, Silty Sands Gravel, moist	
150	189	Silty Sand, brown, wet	X

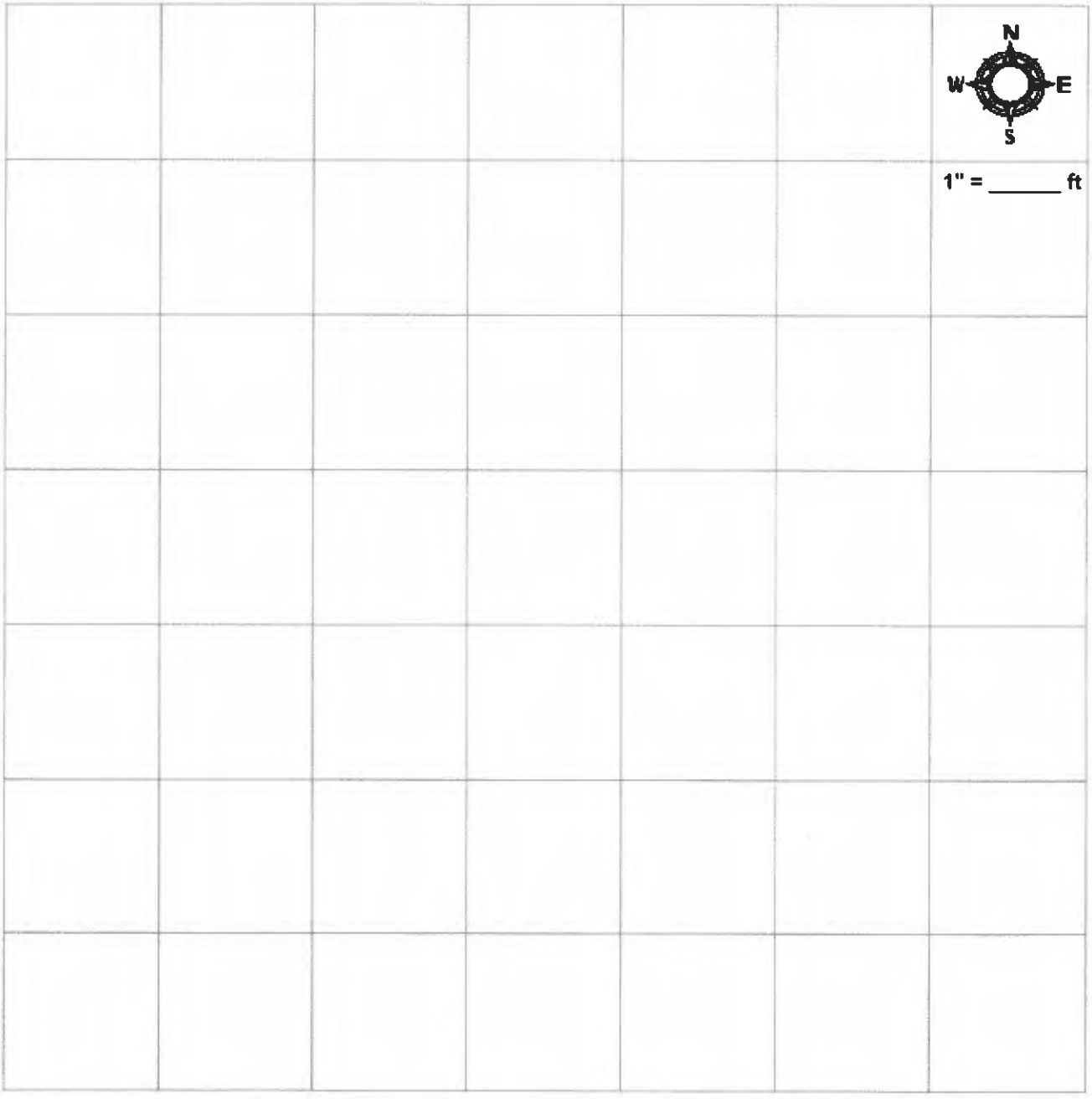
Well Driller Report and Well Log

WELL REGISTRATION NUMBER
55 - 232867

SECTION 6. WELL SITE PLAN

NAME OF WELL OWNER	COUNTY ASSESSOR'S PARCEL ID NUMBER (MOST RECENT)		
	BOOK	MAP	PARCEL
SFPP, L.P.			

- Required for all wells, please draw the following: (1) the boundaries of property on which the well was located; (2) the well location; (3) the locations of all septic tank systems and sewer systems on the property or within 100 feet of the well location, even if on neighboring properties; and (4) any permanent structures on the property that may aid in locating the well.
- Please indicate the distance between the well location and any septic tank system or sewer system.



Received
AUG 2 5 2020
Arizona Department of Water Resources

Arizona Department of Water Resources
Groundwater Permitting and Wells Section
P.O. Box 36020 Phoenix, Arizona 85067-6020
(602) 771-8527 • Fax (602) 771-3689
· www.azwater.gov ·

Notice of Intent to Drill, Deepen, or Modify a *Monitor / Piezometer / Environmental* Well

$150 FEE

- Review instructions prior to completing form in black or blue ink.
- You must include with your Notice:
  - $150 check or money order for the filing fee.
  - Well construction diagram, labeling all specifications listed in Section 6 and Section 7.

  Authority for fee: A.R.S. § 45-596 and A.A.C. R12-15-104.

AMA / INA	B SB	FILE NUMBER
RECEIVED DATE	WS	WELL REGISTRATION NUMBER 55 - 232867
ISSUED DATE	REMEDIAL ACTION SITE	

SECTION 1. REGISTRY INFORMATION

To determine the location of well, please refer to the Well Registry Map (https://gisweb.azwater.gov/WellRegistry/Default.aspx) and/or Google Earth (http://www.earthpoint.us/Townships.aspx)

Well Type (CHECK ONE)
- ☐ Monitor
- ☐ Piezometer
- ☐ Vadose Zone
- ☒ Air Sparging
- ☐ Soil Vapor Extraction
- ☐ Other (*please specify*):

Proposed Action (CHECK ONE)
- ☒ Drill New Well
- ☐ Deepen
- ☐ Modify

WELL REGISTRATION NUMBER (*if Deepening or Modifying*): 55 -

Location of Well

WELL LOCATION ADDRESS (IF ANY): City of Tucson, former Silverbell Landfill

TOWNSHIP(N/S)	RANGE (E/W)	SECTION	160 ACRE	40 ACRE	10 ACRE
13.0 S	13.0 E	30 28	NE ¼	NE ¼	SW ¼

COUNTY ASSESSOR'S PARCEL ID NUMBER: BOOK | MAP | PARCEL

COUNTY WHERE WELL IS LOCATED: PIMA

SECTION 2. OWNER INFORMATION

Land Owner
- FULL NAME OF COMPANY, ORGANIZATION, OR INDIVIDUAL: City of Tucson Real Estate
- MAILING ADDRESS: 201 N. Stone Ave
- CITY / STATE / ZIP CODE: Tucson, AZ 85701
- CONTACT PERSON NAME AND TITLE: John Cahill
- TELEPHONE NUMBER: (520) 791-4181
- EMAIL: John.Cahill@tucsonaz.gov

Well Owner (*check this box if Land Owner and Well Owner are same* ☐)
- FULL NAME OF COMPANY, GOVERNMENT AGENCY, OR INDIVIDUAL: SFPP, L.P.
- MAILING ADDRESS: 7776 Pointe Parkway West #185 Phoenix, Arizona 85004
- CITY / STATE / ZIP CODE: phoenix, AZ 85044
- CONTACT PERSON NAME AND TITLE: Paul Salcido, Project Manager, Remediation
- TELEPHONE NUMBER: (480) 203-9968
- EMAIL: paul_salcido@kindermorgan.com

SECTION 3. DRILLING AUTHORIZATION

Drilling Firm
- NAME: Cascade
- DWR LICENSE NUMBER: 226
- ROC LICENSE CATEGORY: A-4
- TELEPHONE NUMBER: (623) 935-01[illegible]
- FAX:
- EMAIL ADDRESS:

Consultant (*if applicable*)
- CONSULTING FIRM: Arcadis
- CONTACT PERSON NAME: Michael Nesky
- TELEPHONE NUMBER: 602 438 0883
- FAX:
- EMAIL ADDRESS:

SECTION 4.

Questions	Yes	No	Explanation:
1. Are all annular spaces between the casing(s) and the borehole for the placement of grout at least 2 inches?	☒	☐	2-inch annular spaces are special standards required for wells located in and near groundwater contamination sites (such as CERCLA, WQARF, DOD, LUST).
2. Is the screened or perforated interval of casing greater than 100 feet in length?	☐	☒	100-foot maximum screen intervals are a special standard for wells located in and near groundwater contamination sites (such as CERCLA, WQARF, DOD, LUST).
3. Are you requesting a variance to use thermoplastic casing in lieu of steel casing in the surface seal?	☐	☒	The wells must be constructed in a vault. Pursuant to A.A.C. R12-15-801 (27) a "vault" is defined as a tamper-resistant watertight structure used to complete a well below the land surface.
4. Is there another well name or identification number associated with this well? (e.g., MW-1, PZ2, 06-04, etc.)	☒	☐	If yes, please state AS-MW-2S
5. Have construction plans been coordinated with the Arizona Department of Environmental Quality?	☐	☒	If yes, please state agency contact & phone number
6. For monitor wells, is dedicated pump equipment to be installed?	☐	☒	If yes, please state design pump capacity (*Gallons per Minute*)
7. Is this well a new well located in an Active Management Area AND intended to pump water for the purpose of remediating groundwater?	☐	☒	You must also file a supplemental form A.R.S. § 45-454(c) & (f) unless the well is a replacement well and the total number of operable wells on the site is not increasing. (*See instructions*)
8. Will the well registration number be stamped on the vault cover or on the upper part of the casing?	☒	☐	If no, where will the registration number be placed?

Notice of Intent to Drill, Deepen, or Modify a *Monitor / Piezometer / Environmental* Well

WELL REGISTRATION NUMBER: 55 -

SECTION 6. WELL CONSTRUCTION DETAILS

Drill Method (CHECK ONE)

- ☐ Air Rotary
- ☐ Bored or Augered
- ☐ Cable Tool
- ☐ Dual Rotary
- ☐ Mud Rotary
- ☐ Reverse Circulation
- ☐ Driven
- ☐ Jetted
- ☐ Air Percussion / Odex Tubing
- ☒ Other (*please specify*): Sonic

DATE CONSTRUCTION TO BEGIN: 08/17/2020

Method of Well Development (CHECK ONE)

- ☐ Airlift
- ☐ Bail
- ☐ Surge Block
- ☐ Surge Pump
- ☒ Other (*please specify*): bail,surge,pump

Method of Sealing at Reduction Points (CHECK ONE)

- ☒ None
- ☐ Welded
- ☐ Swedged
- ☐ Packed
- ☐ Other (*please specify*)

Grout Emplacement Method (CHECK ONE)

- ☒ Tremie Pumped (*Recommended*)
- ☐ Gravity
- ☐ Pressure Grout
- ☐ Other (*please specify*)

Surface or Conductor Casing (CHECK ONE)

- ☐ Flush Mount in a vault
- ☒ Extends at least 1' above grade

SECTION 7. PROPOSED WELL CONSTRUCTION PLAN (attach additional page if needed)

Attach a well construction diagram labeling all specifications below.

Borehole

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	BOREHOLE DIAMETER (inches)
0	189	10

Casing

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	OUTER DIAMETER (inches)	MATERIAL TYPE (T): STEEL	PVC	ABS	IF OTHER TYPE, DESCRIBE	PERFORATION TYPE (T): BLANK OR NONE	WIRE WRAP	SHUTTER SCREEN	MILLS KNIFE	SLOTTED	IF OTHER TYPE, DESCRIBE	SLOT SIZE IF ANY (inches)
0	149	4	☐	☒	☐		☒	☐	☐	☐	☐		
149	189		☐	☐	☐	SS	☐	☒	☐	☐	☐		0.020
			☐	☐	☐		☐	☐	☐	☐	☐		

Annular Material

DEPTH FROM SURFACE FROM (feet)	DEPTH FROM SURFACE TO (feet)	ANNULAR MATERIAL TYPE (T): NONE	CONCRETE	NEAT CEMENT OR CEMENT GROUT	CEMENT-BENTONITE GROUT	BENTONITE: GROUT	CHIPS	PELLETS	IF OTHER TYPE OF ANNULAR MATERIAL, DESCRIBE	FILTER PACK: SAND	GRAVEL	SIZE
0	144	☐	☐	☒	☐	☐	☐	☐		☐	☐	
144	149	☐	☐	☐	☐	☐	☐	☐		☒	☐	#60
149	189	☐	☐	☐	☐	☐	☐	☐		☒	☐	#8/12

IF THIS WELL HAS NESTED CASINGS, SPECIFY NUMBER OF CASING STRINGS:

EXPECTED DEPTH TO WATER (*Feet Below Ground Surface*): 157'

SECTION 8. PERMISSION TO ACCESS

☐ By checking this box, I hereby provide ADWR permission to enter the property for the purpose of taking water level measurements at this well. (*See instructions.*)

SECTION 9. LAND OWNER AND WELL OWNER SIGNATURE

I state that this notice is filed in compliance with A.R.S. § 45-596 and is complete and correct to the best of my knowledge and

Land Owner	Well Owner (*if different from Land Owner; See instructions*)
PRINT NAME AND TITLE: John Cahill	PRINT NAME AND TITLE: Paul M. Salcido, Project Mgr. Remediation
SIGNATURE OF LAND OWNER: [signature]	SIGNATURE OF WELL OWNER: Paul M Salcido
DATE: 7-16-2020	DATE: 07/15/2020
☒ By checking this box, you agree to allow ADWR to contact you via electronic mail.	☒ By checking this box, you agree to allow ADWR to contact you via electronic mail.
EMAIL ADDRESS: john.cahill@tucsonaz.gov	EMAIL ADDRESS: paul_salcido@kindermorgan.com

City of Tucson
Real Estate Administrator

Printed: 8/31/2020 12:34:00 PM

Arizona Department of Water Resources

1110 West Washington Street, Suite 310
Phoenix AZ 85007

Customer:

ARCADIS
630 PLAZA DRIVE, SUITE 600
HIGHLANDS RANCH, CO 80129

Receipt #: 21-75259
Office: MAIN OFFICE
Receipt Date: 08/31/2020
Sale Type: Mail
Cashier: WRSYM

Item No.	Function Code	AOBJ	Description	Ref ID	Qty	Unit Price	Ext Price
8505	122221	4439-6F	MONITOR, PIEZOMETER, AIR SPARGING, SOIL VAPOR EXTR	232863 thru 232867	5	150.00	750.00
						RECEIPT TOTAL:	**750.00**

Payment type: CHECK
Amount Paid: $750.00
Payment Received Date: 08/31/2020

Check # 301962

Notes:

No refund without valid receipt

Appendix C

Boring Logs and Well Construction Diagrams

Date Start/Finish:	11/2/2020 - 11/4/2020	**Northing:**	Not surveyed	**Well/Boring ID:**	**MW-31M**
Drilling Company:	Cascade Drilling, L.P.	**Easting:**		**Client:**	**SFPP, L.P.**
Driller:	S. Lorn	**Elevation:**		**Location:**	Silvercroft Wash Release Site Tucson, Arizona Site Code: 506251-00
Drilling Method:	Rotosonic	**Borehole Diameter:**	8 inch		
Rig Type:	Rotosonic	**Borehole Depth:**	225 feet		
Sampling Method:	Continuous Core	**Descriptions By:**	S. Arnold	**Reviewed By:**	R. Forsberg

Depth (ft. bgs)	USCS Code	Geologic Column	Stratigraphic Description	Well Construction
0			No recovery	0-6 ft: open hole for air sparge equipment
5	SM		Silty Sand 80% sand (fine to medium), 20% silt Dry, loose, dark brown	
10	SP		Poorly-Graded Sand sand (fine to coarse), gravel (subsubrounded to angular) Dry, loose. Tan/ gray/ light brown	
15	SW		Well-Graded Sand with Gravel 75% sand (fine to coarse), 25% gravel (subrounded to angular), trace silt Dry, loose. Tan/ gray/ light brown	
20				
25	SW		Gravelly Sand 60% sand (fine to coarse), 40% gravel (subrounded to angular) Dry, loose. Tan/gray	
30				
35	GW		Well-Graded Gravel with Sand 80% gravel (subrounded to subangular), 20% sand (medium to coarse) Dry, loose. Brown/ dark brown	
40	SW		Gravelly Sand 75% sand (fine to coarse), 25% gravel (subrounded to subangular), trace silt Dry, loose. Tan/ gray/ brown	
45				
50				0-194 ft: 4" SCH 80 PVC riser with 3 ft stickup
55	SW		At 51.5 ft: large gravel (4" diameter) Gravelly Sand 75% sand (fine to coarse), 25% gravel (subrounded to subangular), trace silt Dry, loose. Tan/ gray/ brown	6-179 ft: Cement grout
60				
65				
70				
75				
80			79-80 ft: cementation of sand and gravel	
85				
90				
95			91-93 ft: cementation of sand and gravel	
100	SW		95-115 ft: Gravelly Sand (see next page)	

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Remarks:

" = inches
ft = feet
bgs = below ground surface
btoc = below top of casing
SCH 80 PVC = schedule 80 polyvinyl chloride
SST = stainless steel
USCS = Unified Soil Classification System

Water Level Data

Date	Depth	Elevation
	ft. btoc	ft. amsl
	ft. btoc	ft. amsl
	ft. btoc	ft. amsl

Project: 30138689

Date: 9/25/2022 Created/Edited by: E. McDonald

Date Start/Finish:	11/2/2020 - 11/4/2020	**Northing:**	Not surveyed	**Well/Boring ID:**	**MW-31M**
Drilling Company:	Cascade Drilling, L.P.	**Easting:**		**Client:**	**SFPP, L.P.**
Driller:	S. Lorn	**Elevation:**		**Location:**	Silvercroft Wash Release Site Tucson, Arizona Site Code: 506251-00
Drilling Method:	Rotosonic	**Borehole Diameter:**	8 inch		
Rig Type:	Rotosonic	**Borehole Depth:**	225 feet		
Sampling Method:	Continuous Core	**Descriptions By:**	S. Arnold	**Reviewed By:**	R. Forsberg

Depth (ft. bgs)	USCS Code	Geologic Column	Stratigraphic Description	Well Construction
105	SW		95-115 ft: Gravelly Sand 60% sand (medium to coarse), 40% gravel (subrounded to angular, up to 3" diameter), trace silt Dry, loose to medium-dense, trace cementation	
110				
115	SW		Gravelly Sand 80% sand (fine to coarse), 20% gravel (subrounded to angular, up to 1" diameter). Dry, loose	
120	SW		At 120 ft: 60% sand (fine to coarse), 40% gravel, some cementation	
125				
130	SW		Gravelly Sand 70% sand (medium to coarse), 30% gravel (subrounded to subangular, up to 3" diameter), traces of silt Dry, medium-dense, trace cementation. Tan/ gray/ brown	
135				
140				6-179 ft: Cement grout
145				0-194 ft: 4" SCH 80 PVC riser with 3 ft stickup
150	SM		Silty Sand with Gravel 60% sand (medium to coarse), 30% gravel (subrounded to angular, up to 2" diameter), 10% silt, trace clay, poorly-sorted Dry, loose-hard, nonplastic, some cementation. Brown	
155				
160				
165			Groundwater at 166 ft. bgs	
170	SW		Well-Graded Sand sand (fine to coarse, multi-colored), trace gravels (up to 0.5" diameter). Wet, loose. Brown	
175	SW		Well-Graded Sand with Gravel 70% sand (fine to coarse, multi-colored), 25% gravels (subrounded to subangular, up to 1" diameter), 5% silt, poorly-sorted. Dry, medium-dense, nonplastic	
180	SP		Poorly-Graded Sand with Gravel 90% sand (medium to coarse), 10% gravels (subrounded to subangular, up to 1" diameter, multi-colored), 5% silt. Wet, loose	179-184 ft: Bentonite chips
185	GM		Silty Gravel with Sand 70% gravel (subrounded to subangular), 15% sand (fine to coarse), 15% silt. Wet, loose. Brown	184-189 ft: #60 sand
190	SW		Gravelly Sand 70% sand (fine to coarse), 25% gravel (subrounded to subangular), 5% silt. Wet, loose, nonplastic. Gray/brown	
195	GW		Sand (fine to coarse), trace silt, poorly-sorted. Wet, loose	
200				

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USCS = Unified Soil Classification System

Water Level Data

Date	Depth	Elevation
	ft. btoc	ft. amsl
	ft. btoc	ft. amsl
	ft. btoc	ft. amsl

Date Start/Finish:	11/2/2020 - 11/4/2020	**Northing:**	Not surveyed	**Well/Boring ID:**	**MW-31M**
Drilling Company:	Cascade Drilling, L.P.	**Easting:**		**Client:**	**SFPP, L.P.**
Driller:	S. Lorn	**Elevation:**		**Location:**	Silvercroft Wash Release Site Tucson, Arizona Site Code: 506251-00
Drilling Method:	Rotosonic	**Borehole Diameter:**	8 inch		
Rig Type:	Rotosonic	**Borehole Depth:**	225 feet		
Sampling Method:	Continuous Core	**Descriptions By:**	S. Arnold	**Reviewed By:**	R. Forsberg

Depth (ft. bgs)	USCS Code	Geologic Column	Stratigraphic Description	Well Construction
205 210 215 220 225 230	GW		Well-Graded Gravel with Sand and Silt 60% gravel (subrounded to subangular, up to 2" diameter), 30% sand (medium to coarse), 10% silt, trace clay, poorly-sorted Wet, loose, nonplastic. Tan/ gray/ brown	189-225 ft: #8/12 sand 194-224 ft: 4" SST wire wrap screen (0.020" slots)
	SW		Gravelly Sand 60% sand (medium to coarse), 35% gravel (subrounded to subangular), 5% silt Wet, loose, nonplastic. Gray/ tan/ brown	

ARCADIS

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SCH 80 PVC = schedule 80 polyvinyl chloride
SST = stainless steel
USCS = Unified Soil Classification System

Water Level Data

Date	Depth	Elevation
	ft. btoc	ft. amsl
	ft. btoc	ft. amsl
	ft. btoc	ft. amsl

Date Start/Finish:	11/4/2020 - 11/6/2020	**Northing:**	Not surveyed	**Well/Boring ID:**	**MW-31D**
Drilling Company:	Cascade Drilling, L.P.	**Easting:**		**Client:**	**SFPP, L.P.**
Driller:	S. Lorn	**Elevation:**		**Location:**	Silvercroft Wash Release Site Tucson, Arizona Site Code: 506251-00
Drilling Method:	Rotosonic	**Borehole Diameter:**	8 inch		
Rig Type:	Rotosonic	**Borehole Depth:**	260 feet		
Sampling Method:	Continuous Core	**Descriptions By:**	S. Arnold	**Reviewed By:**	R. Forsberg

Depth (ft. bgs)	USCS Code	Geologic Column	Stratigraphic Description	Well Construction
0			No recovery	0-6 ft: open hole for air sparge equipment
5	SM		Silty Sand. 60% sand (fine to medium), 40% silt Dry, loose, nonplastic. Dark brown	
	SW			
10	SW		Sand with Gravel and Silt 80% sand (fine to medium), 15% gravel, 5% silt. Dry, loose. Light brown	
15			Sand with Gravel 90% sand (fine to coarse), 10% gravel (subangular, up to 1" diameter). Dry, loose. Tan/ gray/ light brown	
	SW			
20			Sand with Gravel 75% sand (fine to coarse), 25% gravel (subangular, up to 1" diameter) Dry, loose. Tan/ gray/ light brown	
25				
30	GW		Sandy Gravel 60% gravel (subrounded to angular, up to 4" diameter), 40% sand (fine to medium) Dry, loose. Tan/ gray/ light brown	
35	SW		Gravelly Sand 65% sand (fine to coarse), 35% gravel (subrounded to angular, up to 3" diameter), poorly-sorted Dry, loose. Red/brown	
40				
45	SW		Gravelly Sand 60% sand (fine to coarse), 40% gravel (subrounded to angular, up to 3" diameter) Dry, loose/brittle, some cementation. Tan/ gray/ brown	0-229 ft: 4" SCH 80 PVC riser with 3 ft stickup
50				
55	SW		Gravelly Sand 75% sand (medium to coarse), 25% gravel (subrounded to angular, up to 1" diameter), trace silt Dry, loose. brown/ dark brown	6-214 ft: Cement grout
60				
65				
70				
75				
80				
85	SW		At 84 ft: some cementation, brittle. Grayish color	
			Gravelly Sand 75% sand (medium to coarse), 25% gravel (subrounded to angular, up to 1" diameter), trace silt Dry, loose. brown/ dark brown	
90				
95				
100				

ARCADIS

Remarks:

" = inches
ft = feet
bgs = below ground surface
btoc = below top of casing
SCH 80 PVC = schedule 80 polyvinyl chloride
SST = stainless steel
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Water Level Data

Date	Depth	Elevation
	ft. btoc	ft. amsl
	ft. btoc	ft. amsl
	ft. btoc	ft. amsl

Project: 30138689

Date: 9/25/2022 Created/Edited by: E. McDonald

Date Start/Finish:	11/4/2020 - 11/6/2020	**Northing:**	Not surveyed	**Well/Boring ID:**	**MW-31D**
Drilling Company:	Cascade Drilling, L.P.	**Easting:**		**Client:**	**SFPP, L.P.**
Driller:	S. Lorn	**Elevation:**		**Location:**	Silvercroft Wash Release Site Tucson, Arizona Site Code: 506251-00
Drilling Method:	Rotosonic	**Borehole Diameter:**	8 inch		
Rig Type:	Rotosonic	**Borehole Depth:**	260 feet		
Sampling Method:	Continuous Core	**Descriptions By:**	S. Arnold	**Reviewed By:**	R. Forsberg

Depth (ft. bgs)	USCS Code	Geologic Column	Stratigraphic Description	Well Construction
105	SW		Gravelly Sand 60% sand (fine to coarse), 35% gravel (subrounded to angular, up to 1" diameter), 5% silt Dry, loose. Brown/ dark brown. Some layers of cementation, 1-2" thick	
	SW		At 104.5-106.5: gravel size increased to up to 4" diameter	
110	SW		Gravelly Sand 70% sand (fine to coarse), 30% gravel (subrounded to angular, up to 1" diameter) Dry, loose. Brown/ dark brown	
115				
120				
125				
130	SW		Gravelly Sand 65% sand (fine to coarse), 35% gravel (subrounded to angular, up to 2" diameter) Dry, medium-dense. Brown/red Some layers of cementation, brittle, 1" thick. Gray	
135				
140				
145				
150				6-214 ft: Cement grout
155	GM		Silty Gravel with Sand 60% gravel (subrounded to angular), 30% sand (fine to coarse), 10% silt Dry, hard, nonplastic, some cementation. Dark brown/ red	0-229 ft: 4" SCH 80 PVC riser with 3 ft stickup
160				
165	GM		From 163 ft: increasing moisture with depth	
	SM		Silty Sand 60% sand (fine to coarse), 35% gravel (subrounded-subangulat, up to 3" diameter), 5% silt, poorly-sorted Moist, nonplastic. Brown Groundwater at 168.5 ft. bgs	
170				
175	GM		Silty Gravel with Sand 70% gravel (subrounded to angular, up to 3" diameter), 25% sand (medium to coarse), 5% silt, trace clay Wet, medium-dense, nonplastic. Reddish brown	
180				
185				
190				
195				
200				

ARCADIS

Remarks:

" = inches
ft = feet
bgs = below ground surface
btoc = below top of casing
SCH 80 PVC = schedule 80 polyvinyl chloride
SST = stainless steel
USCS = Unified Soil Classification System

Water Level Data

Date	Depth	Elevation
	ft. btoc	ft. amsl
	ft. btoc	ft. amsl
	ft. btoc	ft. amsl

Date Start/Finish:	11/4/2020 - 11/6/2020	**Northing:**	Not surveyed	**Well/Boring ID:**	**MW-31D**
Drilling Company:	Cascade Drilling, L.P.	**Easting:**		**Client:**	**SFPP, L.P.**
Driller:	S. Lorn	**Elevation:**		**Location:**	Silvercroft Wash Release Site Tucson, Arizona Site Code: 506251-00
Drilling Method:	Rotosonic	**Borehole Diameter:**	8 inch		
Rig Type:	Rotosonic	**Borehole Depth:**	260 feet		
Sampling Method:	Continuous Core	**Descriptions By:**	S. Arnold	**Reviewed By:**	R. Forsberg

Depth (ft. bgs)	USCS Code	Geologic Column	Stratigraphic Description	Well Construction
205 210 215 220 225 230 235 240 245 250 255 260 265 270 275 280	GM		Silty Gravel with Sand 60% gravel (subrounded to subangular, up to 3" diameter), 30% sand (medium to coarse), 10% silt, trace clay Moist, medium-dense, some cementation. Brown/red	6-214 ft: Cement grout 0-229 ft: 4" SCH 80 PVC riser with 3 ft stickup 214-219 ft: Bentonite chips 219-224 ft: #60 sand 224-260 ft: #8/12 sand 229-259 ft: 4" SST wire wrap screen (0.020" slots)

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Water Level Data

Date	Depth	Elevation
	ft. btoc	ft. amsl
	ft. btoc	ft. amsl
	ft. btoc	ft. amsl

Date Start/Finish:	10/26/2020 - 10/27/2020	**Northing:**	Not surveyed	**Well/Boring ID:**	**MW-32S**
Drilling Company:	Cascade Drilling, L.P.	**Easting:**		**Client:**	**SFPP, L.P.**
Driller:	S. Lorn	**Elevation:**		**Location:**	Silvercroft Wash Release Site Tucson, Arizona Site Code: 506251-00
Drilling Method:	Rotosonic	**Borehole Diameter:**	8 inch		
Rig Type:	Rotosonic	**Borehole Depth:**	190 feet		
Sampling Method:	Continuous Core	**Descriptions By:**	S. Arnold	**Reviewed By:**	R. Forsberg

Depth (ft. bgs)	USCS Code	Geologic Column	Stratigraphic Description	Well Construction
0			No recovery	0-6 ft: open hole for air sparge equipment
5	ML		Sandy Silt. Some fine sand, well-sorted. Dry, loose. Light brown	
10	SW		Sand (fine to medium). Dry. Tan/ light brown	
	SW		Coarse sand (subrounded to angular). Dry, loose. Brown	
15	SP		Gravelly Sand. 90% coarse sand, 10% gravel (small pebbles), well-sorted/ poorly-graded. Dry. Tan	
20	SP		Gravelly Sand (Gravel up to 1" diameter), well-sorted/ poorly-graded. Dry to moist. Brown/gray	
25	GP		Poorly-Graded Gravel with Sand. Trace clay, well-sorted. Dry. Brown	
30	GW		Gravel (subrounded to angular, up to 4" diameter), trace fine sand, poorly-sorted. Dry, very loose. Tan/gray	
	GC		Clayey Gravel. 75% gravel (subrounded to angular), 25% clay (hard, nonplastic), trace medium sand and silt, poorly-sorted. Dry, dark brown	
35	GP		Gravel with Sand 70% gravel (subrounded to angular, up to 4" diameter), 30% sand (medium to coarse), poorly-sorted Dry, loose. Tan/brown	
40	GW		Gravel (subrounded to subangular, up to 6" diameter)	
	SW		Sand with Gravel 70% sand, 30% gravel (subrounded to angular), traces of silt and clay, poorly-sorted Dry, loose. Tan to light brown	0-149 ft: 4" SCH 80 PVC riser with 3 ft stickup 6-134 ft: Cement grout
45				
50				
55				
60				
65				
70				
75				
80				
85				
90				
95				
100				

ARCADIS

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Water Level Data

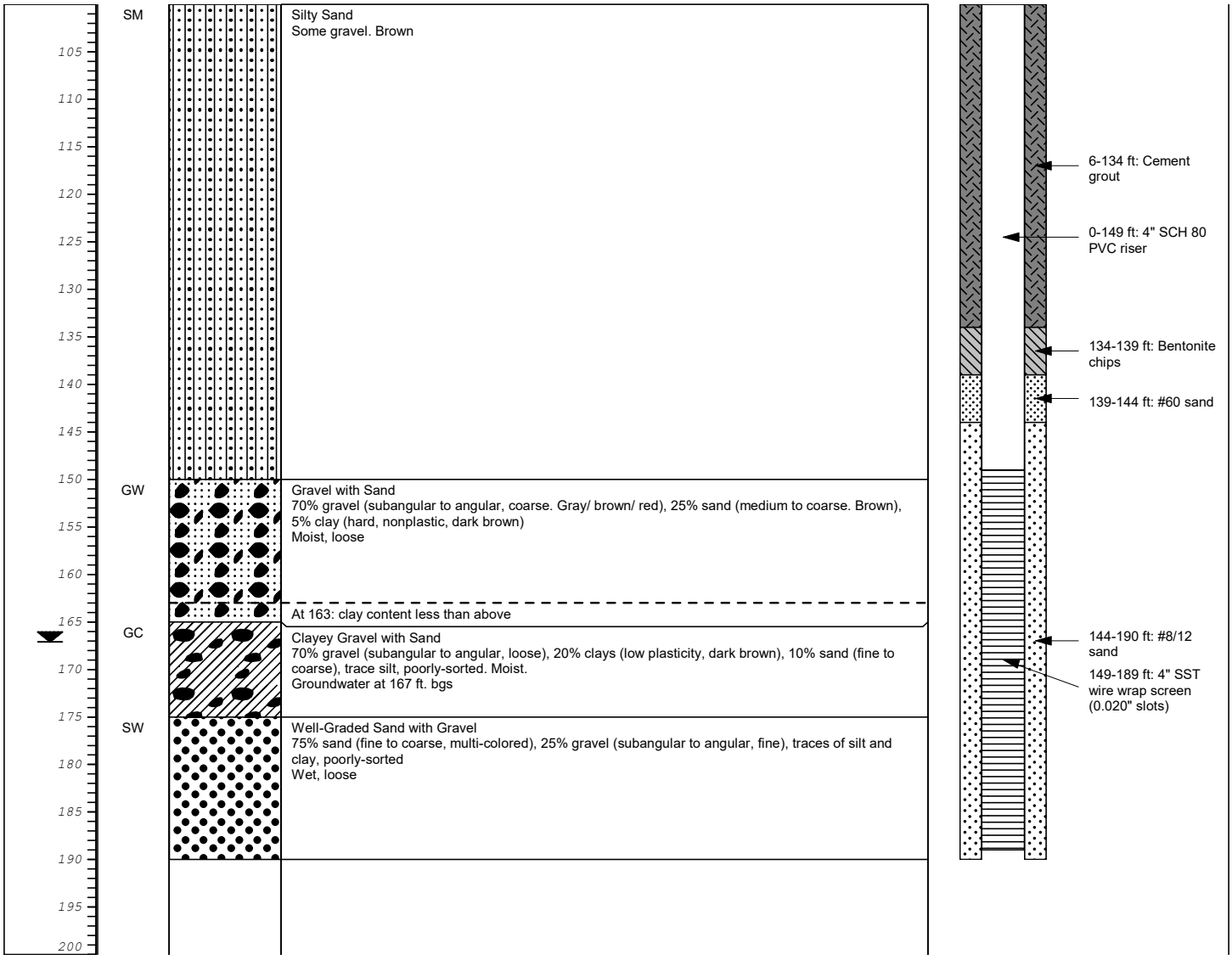
Date	Depth	Elevation
	ft. btoc	ft. amsl
	ft. btoc	ft. amsl
	ft. btoc	ft. amsl

Project: 30138689

Date: 9/25/2022 Created/Edited by: E. McDonald

Date Start/Finish:	10/26/2020 - 10/27/2020	**Northing:**	Not surveyed	**Well/Boring ID:**	**MW-32S**
Drilling Company:	Cascade Drilling, L.P.	**Easting:**		**Client:**	**SFPP, L.P.**
Driller:	S. Lorn	**Elevation:**		**Location:**	Silvercroft Wash Release Site Tucson, Arizona Site Code: 506251-00
Drilling Method:	Rotosonic	**Borehole Diameter:**	8 inch		
Rig Type:	Rotosonic	**Borehole Depth:**	190 feet		
Sampling Method:	Continuous Core	**Descriptions By:**	S. Arnold	**Reviewed By:**	R. Forsberg

Depth (ft. bgs)	USCS Code	Geologic Column	Stratigraphic Description	Well Construction



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Water Level Data

Date	Depth	Elevation
	ft. btoc	ft. amsl
	ft. btoc	ft. amsl
	ft. btoc	ft. amsl

Date Start/Finish:	10/28/2020 - 10/30/2020	**Northing:**	Not surveyed	**Well/Boring ID:**	**MW-32M**
Drilling Company:	Cascade Drilling, L.P.	**Easting:**		**Client:**	**SFPP, L.P.**
Driller:	S. Lorn	**Elevation:**		**Location:**	Silvercroft Wash Release Site Tucson, Arizona Site Code: 506251-00
Drilling Method:	Rotosonic	**Borehole Diameter:**	8 inch		
Rig Type:	Rotosonic	**Borehole Depth:**	225 feet		
Sampling Method:	Continuous Core	**Descriptions By:**	S. Arnold	**Reviewed By:**	R. Forsberg

Depth (ft. bgs)	USCS Code	Geologic Column	Stratigraphic Description	Well Construction
0			No recovery	0-6 ft: open hole for air sparge equipment
5	SW		Sand (medium to coarse), trace gravel (subsubrounded to angular), poorly-sorted Dry, loose. Light brown	
10	SW		Sand with Gravel. 75% sand (fine to coarse), 25% gravel (subrounded to subangular), poorly-sorted Dry, loose. Brown	
15	SW		Sand 90% sand (fine to coarse), 10% gravel (subrounded to subangular) Wet, loose. Gray/tan	
20	SW		Gravelly Sand 60% sand (medium to coarse), 40% gravel (subrounded to angular), poorly-sorted Dry, loose. Gray/ light brown	
25				
30	GW		Gravel with Sand 70% gravel (subrounded to subangular), 25% sand (fine to coarse), 5% clay Dry, loose, nonplastic. Gray/ light brown	
35				
40				
45				
50	SW		Gravelly Sand. 80% sand (medium to coarse), 20% gravel (subrounded to angular)	0-194 ft: 4" SCH 80 PVC riser with 3 ft stickup
55	GW		Sandy Gravel 70% gravel (subrounded to angular), 30% sand (medium to coarse), traces of silt and clay Dry, loose-hard, nonplastic. Brown/ light brown	6-179 ft: Cement grout
60				
65				
70	SW		Gravelly Sand 75% sand (medium to coarse), 25% gravel (subrounded to subangular), poorly-sorted Dry, loose to medium-dense. Light brown/ brown	
75	SW		Well-Graded Sand with Gravel 60% sand (fine to coarse), 40% gravel (subrounded to angular), trace silt, poorly-sorted Dry, loose to medium-dense. Tan/brown	
80				
85				
90				
95				
100				

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Water Level Data

Date	Depth	Elevation
	ft. btoc	ft. amsl
	ft. btoc	ft. amsl
	ft. btoc	ft. amsl

Date Start/Finish:	10/28/2020 - 10/30/2020	**Northing:**	Not surveyed	**Well/Boring ID:**	**MW-32M**
Drilling Company:	Cascade Drilling, L.P.	**Easting:**		**Client:**	**SFPP, L.P.**
Driller:	S. Lorn	**Elevation:**		**Location:**	Silvercroft Wash Release Site Tucson, Arizona Site Code: 506251-00
Drilling Method:	Rotosonic	**Borehole Diameter:**	8 inch		
Rig Type:	Rotosonic	**Borehole Depth:**	225 feet		
Sampling Method:	Continuous Core	**Descriptions By:**	S. Arnold	**Reviewed By:**	R. Forsberg

Depth (ft. bgs)	USCS Code	Geologic Column	Stratigraphic Description	Well Construction
105	SW		Gravelly Sand 70% sand (medium to coarse), 30% gravel	
110				
115				
120				
125	SW		Gravelly Sand 60% sand, 40% gravel, traces of silt and clay Hard, nonplastic	
130				
135				
140	SW		Gravelly Sand 60% sand (fine to coarse), 40% gravel (subrounded to angular), trace silt Dry, loose to medium-dense. Reddish brown	6-179 ft: Cement grout
145				0-194 ft: 4" SCH 80 PVC riser with 3 ft stickup
150				
155	SM		Silty Sand with Gravel 60% sand (fine to coarse), 30% gravels (subrounded to angular, multi-colored), 10% silt, trace clay, poorly-sorted Dry, medium-dense, nonplastic. Red/brown	
160				
165	SC		Clayey Sand with Gravel 60% sand (medium to coarse), 30% clay (low plasticity, stiff), 10% gravel (subrounded to angular, multicolored), poorly-sorted. Moist to wet, loose to dense. Brown Groundwater at 168 ft. bgs	
170	SC		Clayey Sand with Gravel. 60% sand, 20% clay, 20% gravel	
175	SW		Gravelly Sand with Silt and Clay 60% sand (medium to coarse, medium-dense), 30% gravel (subrounded to angular, loose), 10% silt and clay (nonplastic, moist), poorly-sorted. Moist. Brown	
180	SW		At 180 ft: moisture increasing with depth	179-184 ft: Bentonite chips
185				184-189 ft: #60 sand
190				
195				
200				

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Water Level Data

Date	Depth	Elevation
	ft. btoc	ft. amsl
	ft. btoc	ft. amsl
	ft. btoc	ft. amsl

Date Start/Finish:	10/28/2020 - 10/30/2020	**Northing:**	Not surveyed	**Well/Boring ID:**	**MW-32M**
Drilling Company:	Cascade Drilling, L.P.	**Easting:**		**Client:**	**SFPP, L.P.**
Driller:	S. Lorn	**Elevation:**		**Location:**	Silvercroft Wash Release Site Tucson, Arizona Site Code: 506251-00
Drilling Method:	Rotosonic	**Borehole Diameter:**	8 inch		
Rig Type:	Rotosonic	**Borehole Depth:**	225 feet		
Sampling Method:	Continuous Core	**Descriptions By:**	S. Arnold	**Reviewed By:**	R. Forsberg

Depth (ft. bgs)	USCS Code	Geologic Column	Stratigraphic Description	Well Construction
205	SW		Gravelly Sand with Silt and Clay 60% sand (medium to coarse, medium-dense), 35% gravel (subrounded to angular, multi-colored), 5% clay (low plasticity, medium stiff), poorly-sorted. Moist, weak cementation. Tan/ gray/ brown.	
210	SW		Gravelly Sand 70% sand (medium to coarse), 30% gravel (subrounded to angular, multi-colored), poorly-sorted Wet, loose. Brown/tan	189-225 ft: #8/12 sand 194-224 ft: 4" SST wire wrap screen (0.020" slots)
215				
220	GC		Clayey Gravel with Sand 60% gravel (subrounded to angular, multicolored), 30% clay (low plasticity, soft), 10% sand (medium to coarse, subrounded to angular), poorly-sorted. Moist to wet, loose to dense. Brownish	
225	SW		Gravelly Sand 60% sand (medium to coarse), 40% gravel (subrounded to angular), trace silt, poorly-sorted Wet, medium-dense to loose	
230				

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Water Level Data

Date	Depth	Elevation
	ft. btoc	ft. amsl
	ft. btoc	ft. amsl
	ft. btoc	ft. amsl

Date Start/Finish:	11/9/2020 - 11/11/2020	**Northing:**	Not surveyed	**Well/Boring ID:**	**MW-32D**
Drilling Company:	Cascade Drilling, L.P.	**Easting:**		**Client:**	**SFPP, L.P.**
Driller:	S. Lorn	**Elevation:**		**Location:**	Silvercroft Wash Release Site Tucson, Arizona Site Code: 506251-00
Drilling Method:	Rotosonic	**Borehole Diameter:**	8 inch		
Rig Type:	Rotosonic	**Borehole Depth:**	260 feet		
Sampling Method:	Continuous Core	**Descriptions By:**	S. Arnold	**Reviewed By:**	R. Forsberg

Depth (ft. bgs)	USCS Code	Geologic Column	Stratigraphic Description	Well Construction
0			No recovery	0-6 ft: open hole for air sparge equipment
5	SP		Poorly-Graded Sand (fine to medium) Dry, loose. Tan/ light brown	
10				
15				
20				
25	SW		Well-Graded Sand with Gravel 80% sand (fine to coarse), 20% gravel (subsubrounded to angular, up to 1" diameter) Dry, loose. Tan/gray	
30	SW		At 27 ft: 60% sand, 40% gravel (up to 2" diameter)	
	SP		Poorly-Graded Sand (fine to coarse). Dry, loose. Tan/gray	
35	GW		Well-Graded Gravel with Sand 70% gravel (subrounded to subangular), 30% sand (medium to coarse). Dry, loose. Brown/ tan/ gray	
	SW		Gravelly Sand 60% sand, 40% gravel Dry, loose. Tan/ gray/ brown	
40				
45				
50	SW		Gravelly Sand 75% sand (fine to coarse), 25% gravel (up to 2" diameter), trace silt Dry, loose. Brown/red	0-229 ft: 4" SCH 80 PVC riser with 3 ft stickup
55				6-214 ft: Cement grout
60				
65				
70				
75				
80	SW		Gravelly Sand 70% sand (fine to coarse), 30% gravel (subrounded to subangular, up to 2" diameter), trace silt Dry, medium-dense. Brown/ red/ gray	
85				
90	SW		At 90 ft: Some cementation, dry/brittle. Gray	
95				
100				

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Date	Depth	Elevation
	ft. btoc	ft. amsl
	ft. btoc	ft. amsl
	ft. btoc	ft. amsl

Project: 30138689

Date: 9/25/2022 Created/Edited by: E. McDonald

Date Start/Finish:	11/9/2020 - 11/11/2020	**Northing:**	Not surveyed	**Well/Boring ID:**	**MW-32D**
Drilling Company:	Cascade Drilling, L.P.	**Easting:**		**Client:**	**SFPP, L.P.**
Driller:	S. Lorn	**Elevation:**		**Location:**	Silvercroft Wash Release Site Tucson, Arizona Site Code: 506251-00
Drilling Method:	Rotosonic	**Borehole Diameter:**	8 inch		
Rig Type:	Rotosonic	**Borehole Depth:**	260 feet		
Sampling Method:	Continuous Core	**Descriptions By:**	S. Arnold	**Reviewed By:**	R. Forsberg

Depth (ft. bgs)	USCS Code	Geologic Column	Stratigraphic Description	Well Construction
105	SW		Gravelly Sand 60% sand (fine to coarse), 40% gravel (subrounded to subangular, up to 3" diameter), traces of silt and clay Dry, medium-dense to hard, nonplastic. Brown/ dark red	
110				
115				
120				
125				
130				
135				
140				
145				
150	SW		Gravelly Sand 75% sand (fine to coarse), 25% gravel (subrounded to angular, up to 3" diameter), traces of silt and clay Hard, nonplastic	6-214 ft: Cement grout 0-229 ft: 4" SCH 80 PVC riser with 3 ft stickup
155				
160			Groundwater at 168 ft. bgs	
165				
170	GM		Silty Gravel with Sand 60% gravel, 30% sand, 10% silt Wet	
175				
180				
185				
190				
195	SW		195-210 ft: Sand with Gravel 75% sand (medium to coarse), 25% gravel (up to 2" diameter)	
200				

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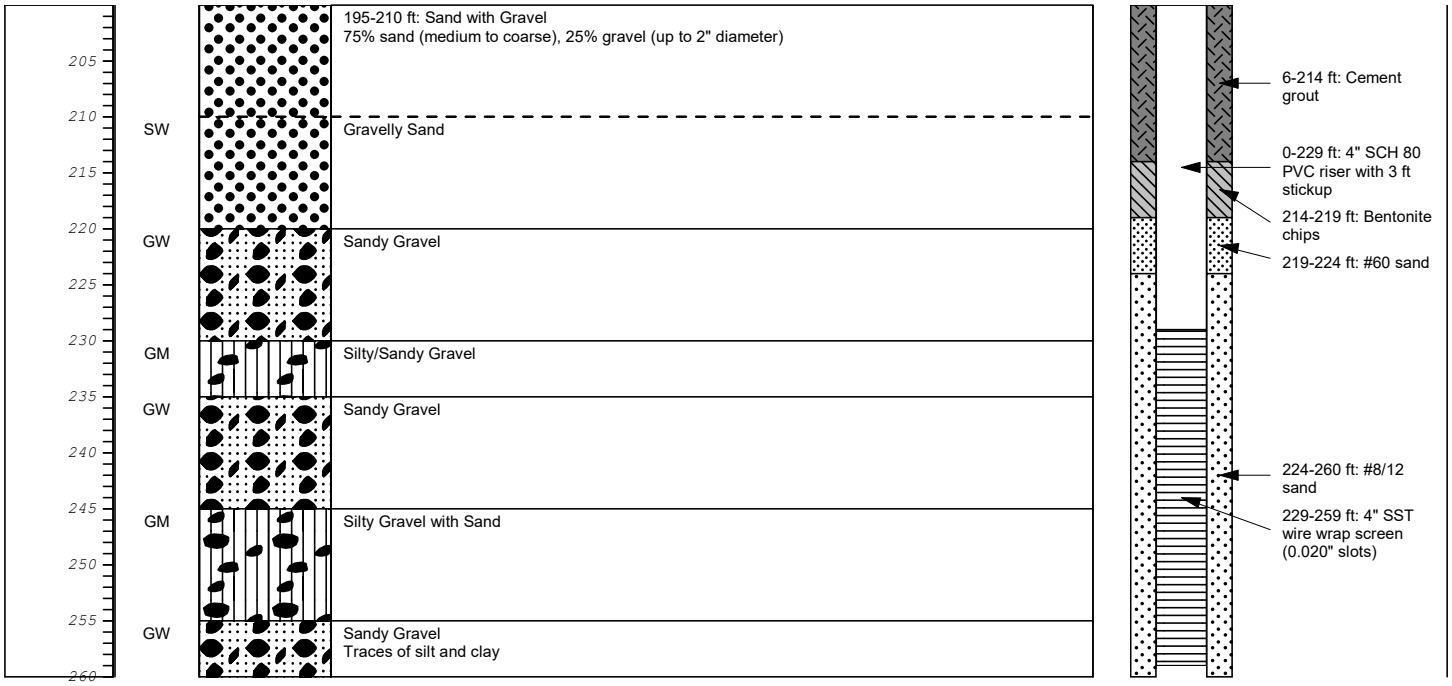
Water Level Data

Date	Depth	Elevation
	ft. btoc	ft. amsl
	ft. btoc	ft. amsl
	ft. btoc	ft. amsl

Date Start/Finish:	11/9/2020 - 11/11/2020	**Northing:**	Not surveyed	**Well/Boring ID:**	**MW-32D**
Drilling Company:	Cascade Drilling, L.P.	**Easting:**		**Client:**	**SFPP, L.P.**
Driller:	S. Lorn	**Elevation:**		**Location:**	Silvercroft Wash Release Site Tucson, Arizona Site Code: 506251-00
Drilling Method:	Rotosonic	**Borehole Diameter:**	8 inch		
Rig Type:	Rotosonic	**Borehole Depth:**	260 feet		
Sampling Method:	Continuous Core	**Descriptions By:**	S. Arnold	**Reviewed By:**	R. Forsberg

Depth (ft. bgs)	USCS Code	Geologic Column	Stratigraphic Description	Well Construction



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Water Level Data

Date	Depth	Elevation
	ft. btoc	ft. amsl
	ft. btoc	ft. amsl
	ft. btoc	ft. amsl

Appendix D

Well Development Logs

WELL DEVELOPMENT LOG

Site/Well No. MW-31M

Project Silvercroft Release Site Project No. 30113573 Page 1 of 1

Site Location Silvercroft Wash Release Site Date

Weather sunny Development Time Begin 8:12 End 10:30

Evacuation Data

Measuring Point

MP Elevation (ft)

Land Surface Elevation (ft)

Sounded Well Depth (ft bmp) 224

Depth to Water (ft bmp) 162.14

Water-Level Elevation (ft)

Water Column in Well (ft)

Casing Diameter/Type 4-inch

Gallons in Well

Sample Pump Intake Setting (ft bmp) 208

Pumping Rate (gpm) 7

Evacuation Method submersible pump

Field Parameters

Color

Odor

Appearance

Time	Depth to Water	pH (s.u.)	Conductivity (mS/cm or umhos/cm)	Turbidity (NTU)	Temperature (°C)	Remarks
8:15		7.26	834	<1000	22.4	
8:25		7.49	834	640	23.9	
8:40		7.39	830	343	24.3	
8:50		7.50	834	115	24.1	
9:15		7.47	835	465	23.6	
9:30		7.46	838	19.8	24.5	
9:45		7.46	837	17.1	24.7	
10:00		7.45	835	12.3	24.8	
10:15		7.31	860	10.91	25.2	
10:25		7.37	851	10.72	25.3	
10:30		7.35	847	10.80	25.2	

Development Personnel: SXA

Notes: Total volume pumped ~1,000 gallons

Well Casing Volumes (gallon/feet)

1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Milisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Miligrams per liter	NM	Not Measured	VOC	Volatile Organic Compounds

WELL DEVELOPMENT LOG

Site/Well No. MW-31D

Project Silvercroft Release Site Project No. 30113573 Page 1 of 1

Site Location Silvercroft Wash Release Site Date

Weather sunny Development Time Begin 10:42 End 14:30

Evacuation Data

Measuring Point

MP Elevation (ft)

Land Surface Elevation (ft)

Sounded Well Depth (ft bmp) 259

Depth to Water (ft bmp) 161.98

Water-Level Elevation (ft)

Water Column in Well (ft)

Casing Diameter/Type 4-inch

Gallons in Well

Sample Pump Intake Setting (ft bmp) 242 ft bgs

Pumping Rate (gpm) 10

Evacuation Method submersible pump

Field Parameters

Color

Odor

Appearance

Time	Depth to Water	pH (s.u.)	Conductivity (mS/cm or umhos/cm)	Turbidity (NTU)	Temperature (°C)	Remarks
11:00		7.12	936	<1000	27.0	
11:10		7.10	937	460	26.4	
11:30		7.11	932	178	26.1	
11:50		7.02	960	85.2	27.5	
12:05		7.08	951	80.2	27.1	
12:20		7.06	950	125	27.7	
12:30		7.05	958	63.2	28.1	
12:45		7.01	960	66.1	28.4	
13:00		6.88	963	21.3	28.4	
13:10		7.03	961	11.1	28.5	
13:20		7.04	967	12.9	28.5	
13:30		7.08	959	13.8	28.7	
13:40		7.11	961	14.7	28.7	
13:50		7.08	962	15.0	28.6	
14:30						pump turned off

Development Personnel: SXA

Notes: Total volume pumped ~2,500 gallons

Well Casing Volumes (gallon/feet)

1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Milisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Miligrams per liter	NM	Not Measured	VOC	Volatile Organic Compounds

WELL DEVELOPMENT LOG

Site/Well No. MW-32S

Project Silvercroft Release Site Project No. 30113573 Page ___ of 1

Site Location Silvercroft Wash Release Site Date ___

Weather sunny Development Time Begin 13:43 End 15:24

Evacuation Data

Measuring Point		Sample Pump Intake Setting (ft bmp)	187 ft bgs
MP Elevation (ft)		Pumping Rate (gpm)	4
Land Surface Elevation (ft)		Evacuation Method	submersible pump
Sounded Well Depth (ft bmp)	189		
Depth to Water (ft bmp)	161.84		
Water-Level Elevation (ft)		**Field Parameters**	
Water Column in Well (ft)	27.16	Color	
Casing Diameter/Type	4-inch	Odor	
Gallons in Well		Appearance	

Time	Depth to Water	pH (s.u.)	Conductivity (mS/cm or umhos/cm)	Turbidity (NTU)	Temperature (°C)	Remarks
13:45		6.8	1010		28.4	water is brown
13:55		7.18	936	661	24.7	
14:05		7.24	917	244	24.7	
14:15		7.12	916	94.0	25.1	
14:25		7.13	922	29.4	25.2	
14:35		7.24	921	19.4	24.9	
14:45		7.14	906	12.1	25.1	
14:55		7.33	906	16.5	24.5	
15:05		7.26	912	8.65	24.7	
15:15		7.15	916	8.09	25.2	
15:20		7.21	913	8.31	24.9	

Development Personnel: SXA

Notes: Total volume pumped ~500 gallons

Well Casing Volumes (gallon/feet)

1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Milisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Miligrams per liter	NM	Not Measured	VOC	Volatile Organic Compounds

WELL DEVELOPMENT LOG

Site/Well No. MW-32M

Project Silvercroft Release Site Project No. 30113573 Page 1 of 1

Site Location Silvercroft Wash Release Site Date

Weather sunny Development Time Begin 10:50 End 15:30

Evacuation Data

Measuring Point

MP Elevation (ft)

Land Surface Elevation (ft)

Sounded Well Depth (ft bmp) 224

Depth to Water (ft bmp) 161.08

Water-Level Elevation (ft)

Water Column in Well (ft)

Casing Diameter/Type 4-inch

Gallons in Well

Sample Pump Intake Setting (ft bmp) 223 ft bgs

Pumping Rate (gpm) 5

Evacuation Method submersible pump

Field Parameters

Color

Odor

Appearance

Time	Depth to Water	pH (s.u.)	Conductivity (mS/cm or umhos/cm)	Turbidity (NTU)	Temperature (°C)	Remarks
10:55		7.51	784	<1000	28.4	
11:05		7.61	775	<1000	25.4	
11:15		7.39	807	475	26.1	
11:25		7.41	812	223	25.6	
11:35		7.45	807	192	25.8	
11:50		7.33	821	185	26.3	
12:00		7.4	822	161	25.6	
12:10		7.3	833	142	26.6	
14:00		7.31	816	1052	27.1	
14:15		7.43	824	150	25.4	
14:30		7.36	832	101	25.3	
14:45		7.42	825	7.59	24.9	
15:00		7.43	834	7.87	24.3	
15:15		7.36	829	8.14	24.5	
15:30		7.39	833	7.85	24.7	

Development Personnel: SXA

Notes: Total volume pumped ~1,00 gallons

Stopped pumping at 12:12 to 500-gallon trailer tank; resumed pumping at 13:55

Well Casing Volumes (gallon/feet)

1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Milisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Miligrams per liter	NM	Not Measured	VOC	Volatile Organic Compounds

WELL DEVELOPMENT LOG

Site/Well No. MW-32D

Project Silvercroft Release Site Project No. 30113573 Page 1 of 1

Site Location Silvercroft Wash Release Site Date

Weather sunny Development Time Begin 10:52 End 16:55

Evacuation Data

Measuring Point

MP Elevation (ft)

Land Surface Elevation (ft)

Sounded Well Depth (ft bmp) 259

Depth to Water (ft bmp) 162.06

Water-Level Elevation (ft)

Water Column in Well (ft)

Casing Diameter/Type 4-inch

Gallons in Well

Sample Pump Intake Setting (ft bmp) 240 ft bgs

Pumping Rate (gpm) 9

Evacuation Method submersible pump

Field Parameters

Color

Odor

Appearance

Time	Depth to Water	pH (s.u.)	Conductivity (mS/cm or umhos/cm)	Turbidity (NTU)	Temperature (°C)	Remarks
11:00		7.36	912	<1000	26.5	
11:10		7.36	930	<1000	24.7	
11:25		7.27	933	960	24.7	
11:35		7.18	934	559	24.6	
11:45		7.27	939	493	24.5	
13:50		7.1	935	355	28.6	
14:05		7.17	943	139	25.4	
14:25		7.21	937	110	25.8	
14:35		7.19	948	82.1	25.7	
14:45		7.21	955	62.1	25.6	
15:00		7.27	951	42.7	25.4	
15:15		7.16	954	25.8	25.4	
15:30		7.24	945	11.2	25.2	
15:45		7.27	948	10.1	25.5	
16:00		7.21	942	9.75	25.4	
16:15		7.24	953	8.91	25.2	
16:30		7.16	948	9.7	25.1	

Development Personnel: SXA

Notes: Total volume pumped ~2,500 gallons

Well Casing Volumes (gallon/feet)

1-¼" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65
1-½" = 0.09	2-½" = 0.26	3-½" = 0.50	6" = 1.47

bmp	below measuring point	ml	milliliter	NTU	Nephelometric Turbidity Units
°C	Degrees Celsius	mS/cm	Milisiemens per centimeter	PVC	Polyvinyl chloride
ft	feet	msl	mean sea-level	s.u.	Standard units
gpm	Gallons per minute	N/A	Not Applicable	umhos/cm	Micromhos per centimeter
mg/L	Miligrams per liter	NM	Not Measured	VOC	Volatile Organic Compounds

Appendix E

Drill Cutting Laboratory Analytical Reports

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

November 23, 2020

Kinder Morgan - Rocklin, CA-AZ Work

Sample Delivery Group:	L1284898
Samples Received:	11/12/2020
Project Number:	30055459.00001
Description:	KMEP - Silvercroft
Site:	SILVERCROFT WASH
Report To:	Bob Forsberg 410 N.44th Street Suite 1000 Phoenix, AZ 85008

Entire Report Reviewed By:

Brian Ford

Project Manager

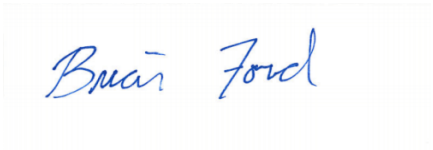
TABLE OF CONTENTS

IDW-SOIL L1284898-01 Solid

Collected by	Collected date/time	Received date/time
SXA	11/11/20 10:45	11/12/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Mercury by Method 7471B	WG1578420	1	11/18/20 13:02	11/19/20 09:02	ABL	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1578368	1	11/18/20 11:27	11/18/20 14:26	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1577906	1	11/11/20 10:45	11/18/20 03:49	ADM	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1578520	1	11/19/20 08:32	11/23/20 02:46	JNJ	Mt. Juliet, TN

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



Brian Ford
Project Manager

Mercury by Method 7471B

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Mercury	ND		0.0400	1	11/19/2020 09:02	WG1578420

Metals (ICP) by Method 6010D

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	ND		2.00	1	11/18/2020 14:26	WG1578368
Barium	72.9	R5	0.500	1	11/18/2020 14:26	WG1578368
Cadmium	ND		0.500	1	11/18/2020 14:26	WG1578368
Chromium	1.93		1.00	1	11/18/2020 14:26	WG1578368
Lead	5.15		0.500	1	11/18/2020 14:26	WG1578368
Selenium	ND		2.00	1	11/18/2020 14:26	WG1578368
Silver	ND		1.00	1	11/18/2020 14:26	WG1578368

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Acetone	ND		1.25	1	11/18/2020 03:49	WG1577906
Acrylonitrile	ND	R7	0.313	1	11/18/2020 03:49	WG1577906
Benzene	ND		0.0250	1	11/18/2020 03:49	WG1577906
Bromobenzene	ND		0.313	1	11/18/2020 03:49	WG1577906
Bromodichloromethane	ND		0.0625	1	11/18/2020 03:49	WG1577906
Bromoform	ND		0.625	1	11/18/2020 03:49	WG1577906
Bromomethane	ND		0.313	1	11/18/2020 03:49	WG1577906
1,3-Butadiene	ND		0.625	1	11/18/2020 03:49	WG1577906
n-Butylbenzene	ND		0.313	1	11/18/2020 03:49	WG1577906
sec-Butylbenzene	ND		0.313	1	11/18/2020 03:49	WG1577906
tert-Butylbenzene	ND		0.125	1	11/18/2020 03:49	WG1577906
Carbon disulfide	ND		0.313	1	11/18/2020 03:49	WG1577906
Carbon tetrachloride	ND		0.125	1	11/18/2020 03:49	WG1577906
Chlorobenzene	ND		0.0625	1	11/18/2020 03:49	WG1577906
Chlorodibromomethane	ND		0.0625	1	11/18/2020 03:49	WG1577906
Chloroethane	ND		0.125	1	11/18/2020 03:49	WG1577906
Chloroform	ND		0.0625	1	11/18/2020 03:49	WG1577906
Chloromethane	ND		0.313	1	11/18/2020 03:49	WG1577906
2-Chlorotoluene	ND		0.0625	1	11/18/2020 03:49	WG1577906
4-Chlorotoluene	ND		0.125	1	11/18/2020 03:49	WG1577906
Cyclohexane	ND	R5	0.0625	1	11/18/2020 03:49	WG1577906
1,2-Dibromo-3-Chloropropane	ND		0.625	1	11/18/2020 03:49	WG1577906
1,2-Dibromoethane	ND		0.0625	1	11/18/2020 03:49	WG1577906
Dibromomethane	ND		0.125	1	11/18/2020 03:49	WG1577906
1,2-Dichlorobenzene	ND		0.125	1	11/18/2020 03:49	WG1577906
1,3-Dichlorobenzene	ND		0.125	1	11/18/2020 03:49	WG1577906
1,4-Dichlorobenzene	ND		0.125	1	11/18/2020 03:49	WG1577906
Dichlorodifluoromethane	ND		0.0625	1	11/18/2020 03:49	WG1577906
1,1-Dichloroethane	ND		0.0625	1	11/18/2020 03:49	WG1577906
1,2-Dichloroethane	ND		0.0625	1	11/18/2020 03:49	WG1577906
1,1-Dichloroethene	ND		0.0625	1	11/18/2020 03:49	WG1577906
cis-1,2-Dichloroethene	ND		0.0625	1	11/18/2020 03:49	WG1577906
trans-1,2-Dichloroethene	ND		0.125	1	11/18/2020 03:49	WG1577906
1,2-Dichloropropane	ND		0.125	1	11/18/2020 03:49	WG1577906
1,1-Dichloropropene	ND		0.0625	1	11/18/2020 03:49	WG1577906
1,3-Dichloropropane	ND		0.125	1	11/18/2020 03:49	WG1577906
cis-1,3-Dichloropropene	ND		0.0625	1	11/18/2020 03:49	WG1577906
trans-1,3-Dichloropropene	ND		0.125	1	11/18/2020 03:49	WG1577906
2,2-Dichloropropane	ND		0.0625	1	11/18/2020 03:49	WG1577906

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Dicyclopentadiene	ND		0.313	1	11/18/2020 03:49	WG1577906
Di-isopropyl ether	ND		0.0250	1	11/18/2020 03:49	WG1577906
Ethylbenzene	ND		0.0625	1	11/18/2020 03:49	WG1577906
4-Ethyltoluene	ND		0.125	1	11/18/2020 03:49	WG1577906
Hexachloro-1,3-butadiene	ND		0.625	1	11/18/2020 03:49	WG1577906
n-Hexane	ND		0.125	1	11/18/2020 03:49	WG1577906
Isopropylbenzene	ND		0.0625	1	11/18/2020 03:49	WG1577906
p-Isopropyltoluene	ND		0.125	1	11/18/2020 03:49	WG1577906
2-Butanone (MEK)	ND		2.50	1	11/18/2020 03:49	WG1577906
Methylene Chloride	ND		0.625	1	11/18/2020 03:49	WG1577906
4-Methyl-2-pentanone (MIBK)	ND		0.625	1	11/18/2020 03:49	WG1577906
Methyl tert-butyl ether	ND		0.0250	1	11/18/2020 03:49	WG1577906
Methyl Cyclohexane	ND		0.125	1	11/18/2020 03:49	WG1577906
Naphthalene	ND		0.313	1	11/18/2020 03:49	WG1577906
Propene	ND	L1	1.25	1	11/18/2020 03:49	WG1577906
n-Propylbenzene	ND		0.125	1	11/18/2020 03:49	WG1577906
Styrene	ND		0.313	1	11/18/2020 03:49	WG1577906
1,1,1,2-Tetrachloroethane	ND		0.0625	1	11/18/2020 03:49	WG1577906
1,1,2,2-Tetrachloroethane	ND		0.0625	1	11/18/2020 03:49	WG1577906
1,1,2-Trichlorotrifluoroethane	ND		0.0625	1	11/18/2020 03:49	WG1577906
Tetrachloroethene	ND		0.0625	1	11/18/2020 03:49	WG1577906
Toluene	ND		0.125	1	11/18/2020 03:49	WG1577906
1,2,3-Trichlorobenzene	ND		0.313	1	11/18/2020 03:49	WG1577906
1,2,4-Trichlorobenzene	ND		0.313	1	11/18/2020 03:49	WG1577906
1,1,1-Trichloroethane	ND		0.0625	1	11/18/2020 03:49	WG1577906
1,1,2-Trichloroethane	ND		0.0625	1	11/18/2020 03:49	WG1577906
Trichloroethene	ND		0.0250	1	11/18/2020 03:49	WG1577906
Trichlorofluoromethane	ND		0.0625	1	11/18/2020 03:49	WG1577906
1,2,3-Trichloropropane	ND		0.313	1	11/18/2020 03:49	WG1577906
1,2,4-Trimethylbenzene	ND		0.125	1	11/18/2020 03:49	WG1577906
1,2,3-Trimethylbenzene	ND		0.125	1	11/18/2020 03:49	WG1577906
1,3,5-Trimethylbenzene	ND		0.125	1	11/18/2020 03:49	WG1577906
Vinyl chloride	ND		0.0625	1	11/18/2020 03:49	WG1577906
Xylenes, Total	ND		0.163	1	11/18/2020 03:49	WG1577906
(S) Toluene-d8	*112*		*75.0-131*		*11/18/2020 03:49*	WG1577906
(S) 4-Bromofluorobenzene	*100*		*67.0-138*		*11/18/2020 03:49*	WG1577906
(S) 1,2-Dichloroethane-d4	*98.6*		*70.0-130*		*11/18/2020 03:49*	WG1577906

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Anthracene	ND		0.00600	1	11/23/2020 02:46	WG1578520
Acenaphthene	ND		0.00600	1	11/23/2020 02:46	WG1578520
Acenaphthylene	ND		0.00600	1	11/23/2020 02:46	WG1578520
Benzo(a)anthracene	ND		0.00600	1	11/23/2020 02:46	WG1578520
Benzo(a)pyrene	ND		0.00600	1	11/23/2020 02:46	WG1578520
Benzo(b)fluoranthene	ND		0.00600	1	11/23/2020 02:46	WG1578520
Benzo(g,h,i)perylene	ND		0.00600	1	11/23/2020 02:46	WG1578520
Benzo(k)fluoranthene	ND		0.00600	1	11/23/2020 02:46	WG1578520
Chrysene	ND		0.00600	1	11/23/2020 02:46	WG1578520
Dibenz(a,h)anthracene	ND		0.00600	1	11/23/2020 02:46	WG1578520
Fluoranthene	ND		0.00600	1	11/23/2020 02:46	WG1578520
Fluorene	ND		0.00600	1	11/23/2020 02:46	WG1578520
Indeno(1,2,3-cd)pyrene	ND		0.00600	1	11/23/2020 02:46	WG1578520
Naphthalene	ND		0.0200	1	11/23/2020 02:46	WG1578520
Phenanthrene	ND		0.00600	1	11/23/2020 02:46	WG1578520

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

Analyte	Result mg/kg	Qualifier	RDL mg/kg	Dilution	Analysis date / time	Batch
Pyrene	ND		0.00600	1	11/23/2020 02:46	WG1578520
1-Methylnaphthalene	ND		0.0200	1	11/23/2020 02:46	WG1578520
2-Methylnaphthalene	ND		0.0200	1	11/23/2020 02:46	WG1578520
2-Chloronaphthalene	ND		0.0200	1	11/23/2020 02:46	WG1578520
(S) p-Terphenyl-d14	*56.3*		*23.0-120*		*11/23/2020 02:46*	WG1578520
(S) Nitrobenzene-d5	*49.3*		*14.0-149*		*11/23/2020 02:46*	WG1578520
(S) 2-Fluorobiphenyl	*44.2*		*34.0-125*		*11/23/2020 02:46*	WG1578520

Method Blank (MB)

(MB) R3594861-1 11/19/20 08:48

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

Laboratory Control Sample (LCS)

(LCS) R3594861-2 11/19/20 08:50

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Mercury	0.500	0.512	102	80.0-120	

L1286620-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1286620-02 11/19/20 08:56 • (MS) R3594861-3 11/19/20 08:58 • (MSD) R3594861-4 11/19/20 09:00

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 %
Mercury	0.500	ND	0.490	0.522	98.0	104	1	75.0-125			6.26	20

Method Blank (MB)

(MB) R3594562-1 11/18/20 14:20

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

Laboratory Control Sample (LCS)

(LCS) R3594562-2 11/18/20 14:23

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Arsenic	100	98.9	98.9	80.0-120	
Barium	100	103	103	80.0-120	
Cadmium	100	101	101	80.0-120	
Chromium	100	102	102	80.0-120	
Lead	100	103	103	80.0-120	
Selenium	100	99.3	99.3	80.0-120	
Silver	20.0	18.7	93.5	80.0-120	

L1284898-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1284898-01 11/18/20 14:26 • (MS) R3594562-5 11/18/20 14:33 • (MSD) R3594562-6 11/18/20 14:36

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	ND	99.0	94.5	97.5	92.9	1	75.0-125			4.72	20
Barium	100	72.9	152	193	79.1	120	1	75.0-125		R5	23.8	20
Cadmium	100	ND	101	95.3	101	95.3	1	75.0-125			5.65	20
Chromium	100	1.93	103	97.4	101	95.5	1	75.0-125			5.37	20
Lead	100	5.15	107	105	102	100	1	75.0-125			1.74	20
Selenium	100	ND	95.1	90.0	95.1	90.0	1	75.0-125			5.57	20
Silver	20.0	ND	18.4	17.4	92.1	87.0	1	75.0-125			5.75	20

Method Blank (MB)

(MB) R3594520-3 11/17/20 23:20

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.913	1.25
Acrylonitrile	U		0.0903	0.313
Benzene	U		0.0117	0.0250
Bromobenzene	U		0.0225	0.313
Bromodichloromethane	U		0.0181	0.0625
Bromoform	U		0.0293	0.625
Bromomethane	U		0.0493	0.313
1,3-Butadiene	U		0.128	0.625
n-Butylbenzene	U		0.131	0.313
sec-Butylbenzene	U		0.0720	0.313
tert-Butylbenzene	U		0.0488	0.125
Carbon disulfide	U		0.0175	0.313
Carbon tetrachloride	U		0.0225	0.125
Chlorobenzene	U		0.00525	0.0625
Chlorodibromomethane	U		0.0153	0.0625
Chloroethane	U		0.0425	0.125
Chloroform	U		0.0258	0.0625
Chloromethane	U		0.109	0.313
Cyclohexane	U		0.0278	0.0625
2-Chlorotoluene	U		0.0216	0.0625
4-Chlorotoluene	U		0.0113	0.125
1,2-Dibromo-3-Chloropropane	U		0.0975	0.625
1,2-Dibromoethane	U		0.0162	0.0625
Dibromomethane	U		0.0188	0.125
1,2-Dichlorobenzene	U		0.0106	0.125
1,3-Dichlorobenzene	U		0.0150	0.125
1,4-Dichlorobenzene	U		0.0175	0.125
Dichlorodifluoromethane	U		0.0403	0.0625
1,1-Dichloroethane	U		0.0123	0.0625
1,2-Dichloroethane	U		0.0162	0.0625
1,1-Dichloroethene	U		0.0152	0.0625
cis-1,2-Dichloroethene	U		0.0184	0.0625
trans-1,2-Dichloroethene	U		0.0260	0.125
1,2-Dichloropropane	U		0.0355	0.125
1,1-Dichloropropene	U		0.0202	0.0625
1,3-Dichloropropane	U		0.0125	0.125
cis-1,3-Dichloropropene	U		0.0189	0.0625
trans-1,3-Dichloropropene	U		0.0285	0.125
2,2-Dichloropropane	U		0.0345	0.0625
Dicyclopentadiene	U		0.0413	0.313

Method Blank (MB)

(MB) R3594520-3 11/17/20 23:20

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Di-isopropyl ether	U		0.0103	0.0250
Ethylbenzene	U		0.0184	0.0625
4-Ethyltoluene	U		0.0580	0.125
Hexachloro-1,3-butadiene	U		0.150	0.625
n-Hexane	U		0.0565	0.125
Isopropylbenzene	U		0.0106	0.0625
p-Isopropyltoluene	U		0.0638	0.125
2-Butanone (MEK)	U		1.59	2.50
Methyl Cyclohexane	U		0.0515	0.125
Methylene Chloride	U		0.166	0.625
4-Methyl-2-pentanone (MIBK)	U		0.0570	0.625
Methyl tert-butyl ether	U		0.00875	0.0250
Naphthalene	U		0.122	0.313
Propene	U		0.153	1.25
n-Propylbenzene	U		0.0238	0.125
Styrene	U		0.00573	0.313
1,1,1,2-Tetrachloroethane	U		0.0237	0.0625
1,1,2,2-Tetrachloroethane	U		0.0174	0.0625
Tetrachloroethene	U		0.0224	0.0625
Toluene	U		0.0325	0.125
1,1,2-Trichlorotrifluoroethane	U		0.0189	0.0625
1,2,3-Trichlorobenzene	U		0.183	0.313
1,2,4-Trichlorobenzene	U		0.110	0.313
1,1,1-Trichloroethane	U		0.0231	0.0625
1,1,2-Trichloroethane	U		0.0149	0.0625
Trichloroethene	U		0.0146	0.0250
Trichlorofluoromethane	U		0.0207	0.0625
1,2,3-Trichloropropane	U		0.0405	0.313
1,2,3-Trimethylbenzene	U		0.0395	0.125
1,2,4-Trimethylbenzene	U		0.0395	0.125
1,3,5-Trimethylbenzene	U		0.0500	0.125
Vinyl chloride	U		0.0290	0.0625
Xylenes, Total	U		0.0220	0.163
(S) Toluene-d8	*110*			*75.0-131*
(S) 4-Bromofluorobenzene	*104*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*

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

(LCS) R3594520-1 11/17/20 22:04 • (LCSD) R3594520-2 11/17/20 22:23

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 %
Acetone	0.625	0.613	0.671	98.1	107	30.0-160			9.03	31
Acrylonitrile	0.625	0.722	0.568	116	90.9	45.0-153		R7	23.9	22
Benzene	0.125	0.127	0.117	102	93.6	70.0-123			8.20	20
Bromobenzene	0.125	0.138	0.123	110	98.4	73.0-121			11.5	20
Bromodichloromethane	0.125	0.126	0.119	101	95.2	73.0-121			5.71	20
Bromoform	0.125	0.158	0.139	126	111	64.0-132			12.8	20
Bromomethane	0.125	0.144	0.133	115	106	56.0-147			7.94	20
1,3-Butadiene	0.125	0.157	0.138	126	110	32.0-150			12.9	20
n-Butylbenzene	0.125	0.127	0.121	102	96.8	68.0-135			4.84	20
sec-Butylbenzene	0.125	0.128	0.115	102	92.0	74.0-130			10.7	20
tert-Butylbenzene	0.125	0.136	0.121	109	96.8	75.0-127			11.7	20
Carbon disulfide	0.125	0.117	0.106	93.6	84.8	56.0-133			9.87	20
Carbon tetrachloride	0.125	0.133	0.124	106	99.2	66.0-128			7.00	20
Chlorobenzene	0.125	0.144	0.130	115	104	76.0-128			10.2	20
Chlorodibromomethane	0.125	0.141	0.119	113	95.2	74.0-127			16.9	20
Chloroethane	0.125	0.136	0.126	109	101	61.0-134			7.63	20
Chloroform	0.125	0.135	0.126	108	101	72.0-123			6.90	20
Chloromethane	0.125	0.154	0.137	123	110	51.0-138			11.7	20
Cyclohexane	0.125	0.144	0.102	115	81.6	70.0-130		R7	34.1	20
2-Chlorotoluene	0.125	0.127	0.112	102	89.6	75.0-124			12.6	20
4-Chlorotoluene	0.125	0.123	0.106	98.4	84.8	75.0-124			14.8	20
1,2-Dibromo-3-Chloropropane	0.125	0.124	0.104	99.2	83.2	59.0-130			17.5	20
1,2-Dibromoethane	0.125	0.133	0.123	106	98.4	74.0-128			7.81	20
Dibromomethane	0.125	0.145	0.130	116	104	75.0-122			10.9	20
1,2-Dichlorobenzene	0.125	0.137	0.121	110	96.8	76.0-124			12.4	20
1,3-Dichlorobenzene	0.125	0.131	0.121	105	96.8	76.0-125			7.94	20
1,4-Dichlorobenzene	0.125	0.135	0.124	108	99.2	77.0-121			8.49	20
Dichlorodifluoromethane	0.125	0.177	0.158	142	126	43.0-156			11.3	20
1,1-Dichloroethane	0.125	0.126	0.116	101	92.8	70.0-127			8.26	20
1,2-Dichloroethane	0.125	0.135	0.119	108	95.2	65.0-131			12.6	20
1,1-Dichloroethene	0.125	0.142	0.132	114	106	65.0-131			7.30	20
cis-1,2-Dichloroethene	0.125	0.131	0.120	105	96.0	73.0-125			8.76	20
trans-1,2-Dichloroethene	0.125	0.126	0.114	101	91.2	71.0-125			10.0	20
1,2-Dichloropropane	0.125	0.130	0.119	104	95.2	74.0-125			8.84	20
1,1-Dichloropropene	0.125	0.135	0.124	108	99.2	73.0-125			8.49	20
1,3-Dichloropropane	0.125	0.131	0.113	105	90.4	80.0-125			14.8	20
cis-1,3-Dichloropropene	0.125	0.119	0.108	95.2	86.4	76.0-127			9.69	20
trans-1,3-Dichloropropene	0.125	0.132	0.116	106	92.8	73.0-127			12.9	20
2,2-Dichloropropane	0.125	0.157	0.135	126	108	59.0-135			15.1	20
Dicyclopentadiene	0.125	0.141	0.126	113	101	71.0-132			11.2	20

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

(LCS) R3594520-1 11/17/20 22:04 • (LCSD) R3594520-2 11/17/20 22:23

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 %
Di-isopropyl ether	0.125	0.131	0.114	105	91.2	60.0-136			13.9	20
Ethylbenzene	0.125	0.141	0.126	113	101	74.0-126			11.2	20
4-Ethyltoluene	0.125	0.144	0.127	115	102	71.0-129			12.5	20
Hexachloro-1,3-butadiene	0.125	0.124	0.125	99.2	100	57.0-150			0.803	20
n-Hexane	0.125	0.126	0.117	101	93.6	55.0-137			7.41	20
Isopropylbenzene	0.125	0.144	0.131	115	105	72.0-127			9.45	20
p-Isopropyltoluene	0.125	0.128	0.113	102	90.4	72.0-133			12.4	20
2-Butanone (MEK)	0.625	0.506	0.639	81.0	102	30.0-160			23.2	24
Methyl Cyclohexane	0.125	0.132	0.120	106	96.0	67.0-129			9.52	20
Methylene Chloride	0.125	0.127	0.117	102	93.6	68.0-123			8.20	20
4-Methyl-2-pentanone (MIBK)	0.625	0.680	0.593	109	94.9	56.0-143			13.7	20
Methyl tert-butyl ether	0.125	0.135	0.121	108	96.8	66.0-132			10.9	20
Naphthalene	0.125	0.131	0.109	105	87.2	59.0-130			18.3	20
Propene	0.125	0.308	0.273	246	218	30.0-160	L1	L1	12.0	20
n-Propylbenzene	0.125	0.127	0.111	102	88.8	74.0-126			13.4	20
Styrene	0.125	0.133	0.117	106	93.6	72.0-127			12.8	20
1,1,1,2-Tetrachloroethane	0.125	0.151	0.137	121	110	74.0-129			9.72	20
1,1,2,2-Tetrachloroethane	0.125	0.132	0.111	106	88.8	68.0-128			17.3	20
Tetrachloroethene	0.125	0.142	0.128	114	102	70.0-136			10.4	20
Toluene	0.125	0.126	0.113	101	90.4	75.0-121			10.9	20
1,1,2-Trichlorotrifluoroethane	0.125	0.140	0.124	112	99.2	61.0-139			12.1	20
1,2,3-Trichlorobenzene	0.125	0.153	0.128	122	102	59.0-139			17.8	20
1,2,4-Trichlorobenzene	0.125	0.149	0.129	119	103	62.0-137			14.4	20
1,1,1-Trichloroethane	0.125	0.141	0.126	113	101	69.0-126			11.2	20
1,1,2-Trichloroethane	0.125	0.147	0.126	118	101	78.0-123			15.4	20
Trichloroethene	0.125	0.139	0.124	111	99.2	76.0-126			11.4	20
Trichlorofluoromethane	0.125	0.141	0.128	113	102	61.0-142			9.67	20
1,2,3-Trichloropropane	0.125	0.138	0.113	110	90.4	67.0-129			19.9	20
1,2,3-Trimethylbenzene	0.125	0.126	0.110	101	88.0	74.0-124			13.6	20
1,2,4-Trimethylbenzene	0.125	0.124	0.109	99.2	87.2	70.0-126			12.9	20
1,3,5-Trimethylbenzene	0.125	0.127	0.114	102	91.2	73.0-127			10.8	20
Vinyl chloride	0.125	0.149	0.130	119	104	63.0-134			13.6	20
Xylenes, Total	0.375	0.413	0.375	110	100	72.0-127			9.64	20
(S) Toluene-d8				*108*	*106*	*75.0-131*				
(S) 4-Bromofluorobenzene				*99.5*	*104*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*111*	*110*	*70.0-130*				

L1285072-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1285072-06 11/18/20 07:00 • (MS) R3594520-4 11/18/20 08:36 • (MSD) R3594520-5 11/18/20 08:55

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	0.575	ND	ND	ND	99.5	71.0	1	10.0-160			33.5	40
Acrylonitrile	0.575	ND	0.608	0.651	106	113	1	10.0-160			6.83	40
Benzene	0.115	0.0753	0.183	0.175	93.7	86.7	1	10.0-149			4.47	37
Bromobenzene	0.115	ND	ND	ND	91.3	93.0	1	10.0-156			1.89	38
Bromodichloromethane	0.115	ND	0.0871	0.0689	75.7	59.9	1	10.0-143			23.3	37
Bromoform	0.115	ND	ND	ND	96.5	99.1	1	10.0-146			2.67	36
Bromomethane	0.115	ND	ND	ND	58.5	56.0	1	10.0-149			4.40	38
1,3-Butadiene	0.115	ND	ND	ND	73.4	95.7	1	10.0-137			26.3	36
n-Butylbenzene	0.115	0.414	0.498	0.837	73.0	368	1	10.0-160		M1 R5	50.8	40
sec-Butylbenzene	0.115	ND	ND	0.313	80.9	107	1	10.0-159			10.1	39
tert-Butylbenzene	0.115	ND	ND	ND	99.1	102	1	10.0-156			2.60	39
Carbon disulfide	0.115	ND	ND	ND	59.3	52.0	1	10.0-145			13.1	39
Carbon tetrachloride	0.115	ND	ND	ND	86.3	87.8	1	10.0-145			1.70	37
Chlorobenzene	0.115	ND	0.110	0.110	95.7	95.7	1	10.0-152			0.000	39
Chlorodibromomethane	0.115	ND	0.103	0.108	89.6	93.9	1	10.0-146			4.74	37
Chloroethane	0.115	ND	ND	ND	51.2	48.3	1	10.0-146			5.76	40
Chloroform	0.115	ND	0.128	0.130	111	113	1	10.0-146			1.55	37
Chloromethane	0.115	ND	ND	ND	96.5	32.6	1	10.0-159		R5	99.0	37
Cyclohexane	0.115	0.253	0.504	0.613	218	313	1	10.0-157	M1	M1	19.5	32
2-Chlorotoluene	0.115	ND	0.104	0.107	90.4	93.0	1	10.0-159			2.84	38
4-Chlorotoluene	0.115	ND	ND	ND	87.8	90.4	1	10.0-155			2.93	39
1,2-Dibromo-3-Chloropropane	0.115	ND	ND	ND	78.5	81.4	1	10.0-151			3.59	39
1,2-Dibromoethane	0.115	ND	0.107	0.105	93.0	91.3	1	10.0-148			1.89	34
Dibromomethane	0.115	ND	ND	0.132	98.3	115	1	10.0-147			15.5	35
1,2-Dichlorobenzene	0.115	ND	ND	ND	103	106	1	10.0-155			2.49	37
1,3-Dichlorobenzene	0.115	ND	ND	ND	96.5	99.1	1	10.0-153			2.67	38
1,4-Dichlorobenzene	0.115	ND	ND	ND	102	103	1	10.0-151			1.69	38
Dichlorodifluoromethane	0.115	ND	0.123	0.134	107	117	1	10.0-160			8.56	35
1,1-Dichloroethane	0.115	ND	0.108	0.112	93.9	97.4	1	10.0-147			3.64	37
1,2-Dichloroethane	0.115	ND	0.0964	0.0983	83.8	85.5	1	10.0-148			1.95	35
1,1-Dichloroethene	0.115	ND	0.113	0.124	98.3	108	1	10.0-155			9.28	37
cis-1,2-Dichloroethene	0.115	ND	0.104	0.100	90.4	87.0	1	10.0-149			3.92	37
trans-1,2-Dichloroethene	0.115	ND	ND	ND	86.1	82.7	1	10.0-150			4.02	37
1,2-Dichloropropane	0.115	ND	0.135	0.132	117	115	1	10.0-148			2.25	37
1,1-Dichloropropene	0.115	ND	0.112	0.112	97.4	97.4	1	10.0-153			0.000	35
1,3-Dichloropropane	0.115	ND	ND	ND	93.0	90.4	1	10.0-154			2.84	35
cis-1,3-Dichloropropene	0.115	ND	0.0955	0.0973	83.0	84.6	1	10.0-151			1.87	37
trans-1,3-Dichloropropene	0.115	ND	ND	ND	92.2	89.6	1	10.0-148			2.87	37
2,2-Dichloropropane	0.115	ND	0.0673	0.0768	58.5	66.8	1	10.0-138			13.2	36
Dicyclopentadiene	0.115	ND	ND	ND	111	117	1	12.0-152			4.58	34

L1285072-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1285072-06 11/18/20 07:00 • (MS) R3594520-4 11/18/20 08:36 • (MSD) R3594520-5 11/18/20 08:55

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 %
Di-isopropyl ether	0.115	ND	0.104	0.103	90.4	89.6	1	10.0-147			0.966	36
Ethylbenzene	0.115	1.66	1.57	1.68	0.000	17.4	1	10.0-160	M3		6.77	38
4-Ethyltoluene	0.115	7.01	6.93	7.36	0.000	304	1	10.0-156	E1 M3	E1 M3	6.02	32
Hexachloro-1,3-butadiene	0.115	ND	ND	ND	175	186	1	10.0-160	M1	M1	6.27	40
n-Hexane	0.115	1.20	1.04	1.24	0.000	34.8	1	10.0-157	M3		17.5	37
Isopropylbenzene	0.115	0.334	0.404	0.441	60.9	93.0	1	10.0-155			8.76	38
p-Isopropyltoluene	0.115	ND	0.223	0.246	108	128	1	10.0-160			9.81	40
2-Butanone (MEK)	0.575	ND	ND	ND	99.1	113	1	10.0-160			13.1	40
Methyl Cyclohexane	0.115	3.51	3.46	4.03	0.000	452	1	10.0-160	E1 M3	E1 M3	15.2	33
Methylene Chloride	0.115	ND	ND	ND	35.2	48.6	1	10.0-141			32.0	37
4-Methyl-2-pentanone (MIBK)	0.575	ND	ND	ND	73.7	70.8	1	10.0-160			4.09	35
Methyl tert-butyl ether	0.115	0.294	0.364	0.423	60.9	112	1	11.0-147			15.0	35
Naphthalene	0.115	2.56	2.41	2.52	0.000	0.000	1	10.0-160	E1 M3	E1 M3	4.46	36
Propene	0.115	ND	ND	ND	133	180	1	10.0-160		M1	30.0	35
n-Propylbenzene	0.115	1.46	1.38	1.57	0.000	95.7	1	10.0-158	M3		12.9	38
Styrene	0.115	ND	ND	ND	86.2	88.7	1	10.0-160			2.88	40
1,1,1,2-Tetrachloroethane	0.115	ND	0.105	0.109	91.3	94.8	1	10.0-149			3.74	39
1,1,2,2-Tetrachloroethane	0.115	ND	0.103	0.111	89.6	96.5	1	10.0-160			7.48	35
Tetrachloroethene	0.115	ND	0.107	0.104	93.0	90.4	1	10.0-156			2.84	39
Toluene	0.115	ND	0.150	0.139	93.0	83.5	1	10.0-156			7.61	38
1,1,2-Trichlorotrifluoroethane	0.115	ND	0.107	0.120	93.0	104	1	10.0-160			11.5	36
1,2,3-Trichlorobenzene	0.115	ND	ND	ND	184	182	1	10.0-160	M1	M1	1.43	40
1,2,4-Trichlorobenzene	0.115	ND	ND	ND	190	194	1	10.0-160	M1	M1	1.81	40
1,1,1-Trichloroethane	0.115	ND	0.108	0.111	93.9	96.5	1	10.0-144			2.74	35
1,1,2-Trichloroethane	0.115	ND	0.193	0.192	168	167	1	10.0-160	M1	M1	0.519	35
Trichloroethene	0.115	ND	0.129	0.141	112	123	1	10.0-156			8.89	38
Trichlorofluoromethane	0.115	ND	0.0653	ND	56.8	50.3	1	10.0-160			12.2	40
1,2,3-Trichloropropane	0.115	ND	ND	ND	84.5	77.4	1	10.0-156			8.81	35
1,2,3-Trimethylbenzene	0.115	3.31	3.10	3.48	0.000	148	1	10.0-160	E1 M3	E1	11.6	36
1,2,4-Trimethylbenzene	0.115	8.33	8.67	8.68	296	304	1	10.0-160	E1 M3	E1 M3	0.115	36
1,3,5-Trimethylbenzene	0.115	3.80	3.50	3.94	0.000	122	1	10.0-160	E1 M3	E1	11.8	38
Vinyl chloride	0.115	ND	0.107	0.109	93.0	94.8	1	10.0-160			1.85	37
Xylenes, Total	0.345	14.0	13.7	14.5	0.000	145	1	10.0-160	M3		5.67	38
(S) Toluene-d8					*103*	*98.6*		*75.0-131*				
(S) 4-Bromofluorobenzene					*104*	*89.4*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*107*	*99.5*		*70.0-130*				

Method Blank (MB)

(MB) R3596111-2 11/20/20 12:00

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Anthracene	U		0.00230	0.00600
Acenaphthene	U		0.00209	0.00600
Acenaphthylene	U		0.00216	0.00600
Benzo(a)anthracene	U		0.00173	0.00600
Benzo(a)pyrene	U		0.00179	0.00600
Benzo(b)fluoranthene	U		0.00153	0.00600
Benzo(g,h,i)perylene	U		0.00177	0.00600
Benzo(k)fluoranthene	U		0.00215	0.00600
Chrysene	U		0.00232	0.00600
Dibenz(a,h)anthracene	U		0.00172	0.00600
Fluoranthene	U		0.00227	0.00600
Fluorene	U		0.00205	0.00600
Indeno(1,2,3-cd)pyrene	U		0.00181	0.00600
Naphthalene	U		0.00408	0.0200
Phenanthrene	U		0.00231	0.00600
Pyrene	U		0.00200	0.00600
1-Methylnaphthalene	U		0.00449	0.0200
2-Methylnaphthalene	U		0.00427	0.0200
2-Chloronaphthalene	U		0.00466	0.0200
(S) Nitrobenzene-d5	*18.9*			*14.0-149*
(S) 2-Fluorobiphenyl	*23.6*	S6		*34.0-125*
(S) p-Terphenyl-d14	*29.9*			*23.0-120*

Laboratory Control Sample (LCS)

(LCS) R3596111-1 11/20/20 11:36

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Anthracene	0.0800	0.0699	87.4	50.0-126	
Acenaphthene	0.0800	0.0633	79.1	50.0-120	
Acenaphthylene	0.0800	0.0692	86.5	50.0-120	
Benzo(a)anthracene	0.0800	0.0688	86.0	45.0-120	
Benzo(a)pyrene	0.0800	0.0676	84.5	42.0-120	
Benzo(b)fluoranthene	0.0800	0.0670	83.8	42.0-121	
Benzo(g,h,i)perylene	0.0800	0.0646	80.7	45.0-125	
Benzo(k)fluoranthene	0.0800	0.0675	84.4	49.0-125	
Chrysene	0.0800	0.0682	85.3	49.0-122	
Dibenz(a,h)anthracene	0.0800	0.0690	86.3	47.0-125	
Fluoranthene	0.0800	0.0695	86.9	49.0-129	

Laboratory Control Sample (LCS)

(LCS) R3596111-1 11/20/20 11:36

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Fluorene	0.0800	0.0686	85.8	49.0-120	
Indeno(1,2,3-cd)pyrene	0.0800	0.0679	84.9	46.0-125	
Naphthalene	0.0800	0.0591	73.9	50.0-120	
Phenanthrene	0.0800	0.0652	81.5	47.0-120	
Pyrene	0.0800	0.0632	79.0	43.0-123	
1-Methylnaphthalene	0.0800	0.0636	79.5	51.0-121	
2-Methylnaphthalene	0.0800	0.0627	78.4	50.0-120	
2-Chloronaphthalene	0.0800	0.0640	80.0	50.0-120	
(S) Nitrobenzene-d5			*24.2*	*14.0-149*	
(S) 2-Fluorobiphenyl			*32.7*	*34.0-125*	S6
(S) p-Terphenyl-d14			*46.0*	*23.0-120*	

Instrument: VOCMS54 • File ID: 1117A_02

11/17/20 22:04

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	1117A_02	560993.70	249987.90	214243.70
Upper Limit		1121987	499976	428487
Lower Limit		280497	124994	107122
LCS R3594520-1 WG1577906 1x	1117A_02LCS	560993.70	249987.90	214243.70
LCSD R3594520-2 WG1577906 1x	1117A_03	528405.30	243156.10	219978.20
BLANK R3594520-3 WG1577906 1x	1117A_06A	564828.80	248832.40	232740
L1284898-01 WG1577906 1x	1117A_20	552031.90	240786.30	209761.40
MS R3594520-4 WG1577906 1x	1117A_35	664305.50	299682.60	257603.80
MSD R3594520-5 WG1577906 1x	1117A_36	701014.50	330697.20	276780.70

Instrument: BNAMS25 • File ID: 1120_03

11/20/20 10:59

Sample ID	File ID	NAPHTHALENE-D8 Response	ACENAPHTHENE-D10 Response	PHENANTHRENE-D10 Response	CHRYSENE-D12 Response	PERYLENE-D12 Response
Standard	1120_03	80703	42483	76903	71269	68986
Upper Limit		161406	84966	153806	142538	137972
Lower Limit		40352	21242	38452	35635	34493
LCS R3596111-1 WG1578520 1x	1120_04	84917	45024	81856	74612	72128
BLANK R3596111-2 WG1578520 1x	1120_05	86468	47068	84465	75148	72462

Instrument: BNAMS28 • File ID: 1122B_03

11/22/20 18:37

Sample ID	File ID	NAPHTHALENE-D8 Response	ACENAPHTHENE-D10 Response	PHENANTHRENE-D10 Response	CHRYSENE-D12 Response	PERYLENE-D12 Response
Standard	1122B_03	7005	4344	8020	7204	6194
Upper Limit		14010	8688	16040	14408	12388
Lower Limit		3503	2172	4010	3602	3097
L1284898-01 WG1578520 1x	1122B_31	6594	4063	7235	6256	5350

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.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	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
E1	Concentration estimated. Analyte exceeded calibration range. Reanalysis not possible due to insufficient sample.
L1	The associated blank spike recovery was above laboratory acceptance limits.
M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike recovery was acceptable.
R5	MS/MSD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.
R7	LFB/LFBD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.
S6	Surrogate recovery was below laboratory and method acceptance limits. Reextraction and/or reanalysis confirms low recovery caused by matrix effect.

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
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]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

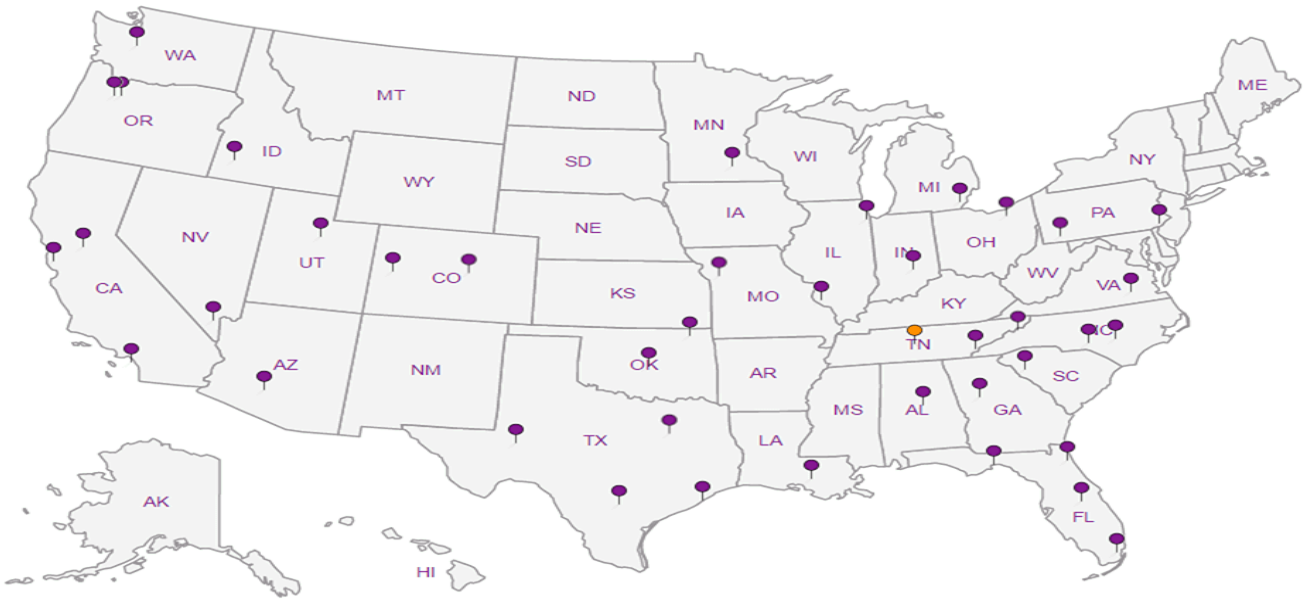
Third Party Federal Accreditations

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

Our Locations

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



Arcadis / Kinder Morgan
410 N 44th St, #1000
Phoenix, AZ 85008

Billing Information: KMEP: Paul Salcido

Pres Chk

Report to: **Sascha Arnold**

Email To: **Sascha.Arnold@arcadis.com**

Project Description: KMEP = Silvercroft

City/State Collected: Tucson, AZ

Phone: ~~480-905-9311~~
Fax: ~~480-905-9353~~

Client Project # 30055459.0000

Lab Project #

Collected by (print): SA

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

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: STD TURN

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOC 8260B Full List / 40ml amber / MeOH	PAH 8270SIM / 4oz clear jar / NoPres	RCRA8 Metals / 2oz clear jar / NoPres	Remarks	Sample # (lab only)
IDW-soil	Comp	SS	—	11/11/20	1045	3	X	X	X		-01

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking #

Relinquished by: (Signature) — Date: 11/11/20 — Time: 1122 — Received by: (Signature)

Relinquished by: (Signature) — Date: 11/11/20 — Time: 1326 — Received by: (Signature)

Relinquished by: (Signature) — Date: 11-11-20 — Time: 1800 — Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeOH
TBR

Temp: WA °C — Bottles Received: 3

Date: 11/12/20 — Time: 8:00

If preservation required by Login: Date/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

Chain of Custody Page 1 of 1

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

L# L1284898
C008

Acctnum: LEVFRISAZ
Template:
Prelogin:
TSR: Daphne Richards
PB:
Shipped Via:

Appendix F

Investigative-Derived Waste Disposal Documents

WASTE MANAGEMENT

Marana Regional Landfill
14508 W Avra Valley Rd
Marana, AZ, 85653
Ph: (520) 329-6888

Original
Ticket# 430880

Customer Name ERI Environmental Response In
Ticket Date 12/22/2020
Payment Type Credit Account
Manual Ticket#
Hauling Ticket#
Route
State Waste Code
Manifest 001
Destination
PO 20-209301-7
Profile 446097AZ (Drill Cuttings)
Generator 160-SFPPLPSILVERISLAND SFPP LP (2905 N SILVER ISLAND WAY)

Carrier SPRAY SYSTEMS
Vehicle# 304
Container
Driver
Check#
Billing # 0000089
Gen EPA ID
Grid

Volume

	Time	Scale	Operator	Inbound		
In	12/22/2020 08:30:26	Inbound	PWILLI		Gross	74620 lb
Out	12/22/2020 09:16:21	Outbound	clerk		Tare	43400 lb
					Net	31220 lb
					Tons	15.61

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil Pet-Tons	100	15.61	Tons				Arizona
2	FUEL-Fuel Surcharg	100		%				Arizona
3	EVF-P6-Environment	100		%				Arizona
4	ADE-ADEQ Fee	100	15.61	Tons				Arizona

Total Tax
Total Ticket

PUBLIC WEIGHMASTER'S CERTIFICATE OF WEIGHT AND MEASURE.
This is to certify that the described merchandise was weighed, counted, or measured by a public or deputy weighmaster, and when properly signed and sealed, is prima facie evidence of the accuracy of the weight, count, or measure shown as prescribed by law.

Driver`s Signature

Please print or type
(Form designed for use on elite (12 pitch) typewriter.)

001

NON-HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
	AZR000046656	1	800-535-5053	

GENERATOR

5. Generator's Name and Mailing Address

SFPP, L.P.
7775 Pointe Parkway West #185
Phoenix, AZ 85004
Generator's Phone: 480 203-4968

Generator's Site Address (if different than mailing address)

SFPP, L.P. Tucson
2905 N. Silver Island Way
Tucson, AZ 85745

6. Transporter 1 Company Name — U.S. EPA ID Number

Environmental Response Inc — AZ0000303032

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address — U.S. EPA ID Number

Waste Management Marana Regional Landfill
14508 W. Avra Valley Road
Marana, AZ 85653
Facility's Phone: 800-963-4776 — Not Applicable

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-Regulated Material (Drill Cuttings)	1	CM	18	T	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information

a) WP# MAR446097AZ, Bin # 2960 rental
ER Phone Infotrac #75003, CD Required, ERI# 20-209301-3

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: Paul Salcido — Signature: Paul M. Salcido — Month: 12 — Day: 17 — Year: 20

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: M. Lucatorto — Signature — Month: 12 — Day: 22 — Year: 20

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: PWICL I — Signature — Month: 12 — Day: 22 — Year: 20

WASTE MANAGEMENT

Marana Regional Landfill
14508 W Avra Valley Rd
Marana, AZ, 85653
Ph: (520) 329-6888

Original
Ticket# 430928

Customer Name	ERI Environmental Response In	Carrier	SPRAY SYSTEMS
Ticket Date	12/22/2020	Vehicle#	304
Payment Type	Credit Account	Container	
Manual Ticket#		Driver	
Hauling Ticket#		Check#	
Route		Billing #	0000089
State Waste Code		Gen EPA ID	
Manifest	002		
Destination		Grid	
PO	20-209301-7		
Profile	446097AZ (Drill Cuttings)		
Generator	160-SFPPLPSILVERISLAND SFPP LP (2905 N SILVER ISLAND WAY)		

Volume

	Time	Scale	Operator	Inbound		
In	12/22/2020 10:44:50	Inbound	PWILLI		Gross	64000 lb
Out	12/22/2020 11:18:19	Outbound	clerk		Tare	38600 lb
					Net	25400 lb
					Tons	12.70

Comments

	Product	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil Pet-Tons	100	12.70	Tons				Arizona
2	FUEL-Fuel Surcharg	100		%				Arizona
3	EVF-P6-Environment	100		%				Arizona
4	ADE-ADEQ Fee	100	12.70	Tons				Arizona

Total Tax
Total Ticket

PUBLIC WEIGHMASTER'S CERTIFICATE OF WEIGHT AND MEASURE.
This is to certify that the described merchandise was weighed, counted, or measured by a public or deputy weighmaster, and when properly signed and sealed, is prima facie evidence of the accuracy of the weight, count, or measure shown as prescribed by law.

Driver`s Signature

Please print or type
(Form designed for use on elite (12-pitch) typewriter.)

002

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
AZR000046656	1	800-535-5053	

GENERATOR

5. Generator's Name and Mailing Address

SFPP, L.P.
7776 Pointe Parkway West #185
Phoenix, AZ 85004
Generator's Phone: 480 203 9068

Generator's Site Address (if different than mailing address)

SFPP, L.P. Tucson
2905 N. Silver Island Way
Tucson, AZ 85745

6. Transporter 1 Company Name — U.S. EPA ID Number

Environmental Response Inc — AZR000030932

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address — U.S. EPA ID Number

Waste Management Marana Regional Landfill
14508 W. Avra Valley Road
Marana, AZ 85653
Facility's Phone: 800-963-4776 — Not Applicable

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non-Regulated Material (Drill Cuttings)	1	CM	18	T	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information

a) WP# MAR446097AZ, Bin # B95
ER Phone Infotrac #75003, CD Required, ERI# 20-209301-3

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

X

Generator's/Offeror's Printed/Typed Name: Paul Solcido — Signature: Paul M. Solcido — Month: 12 — Day: 17 — Year: 20

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name: M. Lucatorto — Signature: — Month: 12 — Day: 22 — Year: 20

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) — Month — Day — Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name: Phillip — Signature — Month: 12 — Day: 22 — Year: 20

Appendix G

Purge Water Laboratory Analytical Reports

December 11, 2020

Michael Nesky
Arcadis
630 Plaza Drive, Suite 600
Highlands Ranch, CO 80129

TEL (480) 905-9311
FAX (720) 344-3535

Work Order No.: 20L0073
Order Name: 30055459

RE: Silvercroft

Dear Michael Nesky,

Turner Laboratories, Inc. received 2 sample(s) on 12/01/2020 for the analyses presented in the following report.

All results are intended to be considered in their entirety, and Turner Laboratories, Inc. is not responsible for use of less than the complete report. Results apply only to the samples analyzed. Samples will be disposed of 30 days after issue of our report unless special arrangements are made.

The pages that follow may contain sensitive, privileged or confidential information intended solely for the addressee named above. If you receive this message and are not the agent or employee of the addressee, this communication has been sent in error. Please do not disseminate or copy any of the attached and notify the sender immediately by telephone. Please also return the attached sheet(s) to the sender by mail.

Please call if you have any questions.

Respectfully submitted,

Turner Laboratories, Inc.
ADHS License AZ0066

Elizabeth Kasik
Laboratory Director

Client: Arcadis
Project: Silvercroft
Work Order: 20L0073
Date Received: 12/01/2020

Order: 30055459

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
20L0073-01	LSP-120120	Wastewater	12/01/2020 1505
20L0073-02	Trip Blank	Wastewater	12/01/2020 0000

Client: Arcadis
Project: Silvercroft
Work Order: 20L0073
Date Received: 12/01/2020

Case Narrative

H5	This test is specified to be performed in the field within 15 minutes of sampling; sample was received and analyzed past the regulatory holding time.
Q9	Insufficient sample received to meet method QC requirements.
R12	RPD/RSD exceeded the method acceptance limit. Result less than 5 times the PQL.
V1	CCV recovery was above method acceptance limits. This target analyte was not detected in the sample.

All soil, sludge, and solid matrix determinations are reported on a wet weight basis unless otherwise noted.

ND	Not Detected at or above the PQL
PQL	Practical Quantitation Limit
DF	Dilution Factor

Client: Arcadis
Project: Silvercroft
Work Order: 20L0073
Lab Sample ID: 20L0073-01

Client Sample ID: LSP-120120
Collection Date/Time: 12/01/2020 1505
Matrix: Wastewater
Order Name: 30055459

Analyses	Result	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Chemical Oxygen Demand-Hach 8000								
Chemical Oxygen Demand	ND	20		mg/L	1	12/07/2020 0825	12/07/2020 1624	JG
Total Suspended Solids (Residue, Non-Filterable)-SM2540 D								
Total Suspended Solids	ND	10	Q9	mg/L	1	12/01/2020 1645	12/02/2020 1215	CWB
pH-SM4500-H+ B								
pH (pH Units)	8.0		H5	-	1	12/01/2020 1550	12/01/2020 1556	LB
Temperature (°C)	21		H5	-	1	12/01/2020 1550	12/01/2020 1556	LB
Volatile Organic Compounds by GC/MS-SW8260B								
1,1,1,2-Tetrachloroethane	ND	0.50		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
1,1,1-Trichloroethane	ND	0.50		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
1,1,2,2-Tetrachloroethane	ND	0.50		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
1,1,2-Trichloroethane	ND	0.50		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
1,1,2-Trichlorotrifluoroethane	ND	5.0		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
1,1-Dichloroethane	ND	0.50		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
1,1-Dichloroethene	ND	0.50		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
1,1-Dichloropropene	ND	0.50		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
1,2,3-Trichlorobenzene	ND	2.0		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
1,2,3-Trichloropropane	ND	1.0		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
1,2,4-Trichlorobenzene	ND	2.0		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
1,2,4-Trimethylbenzene	ND	0.50		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
1,2-Dibromo-3-chloropropane	ND	10		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
1,2-Dibromoethane	ND	2.0		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
1,2-Dichlorobenzene	ND	0.50		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
1,2-Dichloroethane	ND	0.50		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
1,2-Dichloropropane	ND	0.50		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
1,3,5-Trimethylbenzene	ND	0.50		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
1,3-Dichlorobenzene	ND	0.50		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
1,3-Dichloropropane	ND	0.50		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
1,4-Dichlorobenzene	ND	0.50		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
2,2-Dichloropropane	ND	0.50		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
2-Butanone (MEK)	ND	10		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
2-Chlorotoluene	ND	0.50		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
2-Hexanone	ND	2.5		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
4-Chlorotoluene	ND	0.50		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
4-Isopropyltoluene	ND	0.50		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
4-Methyl-2-pentanone	ND	2.5		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
Acetone	ND	10		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
Acrylonitrile	ND	10		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP

Client: Arcadis
Project: Silvercroft
Work Order: 20L0073
Lab Sample ID: 20L0073-01

Client Sample ID: LSP-120120
Collection Date/Time: 12/01/2020 1505
Matrix: Wastewater
Order Name: 30055459

Analyses	Result	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Benzene	ND	0.50		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
Bromobenzene	ND	0.50		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
Bromochloromethane	ND	0.50		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
Bromodichloromethane	ND	0.50		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
Bromoform	ND	2.0		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
Bromomethane	ND	1.0		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
Carbon disulfide	ND	2.0		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
Carbon tetrachloride	ND	0.50		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
Chlorobenzene	ND	0.50		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
Chloroethane	ND	1.0		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
Chloroform	ND	0.50		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
Chloromethane	ND	1.0		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
cis-1,2-Dichloroethene	ND	0.50		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
cis-1,3-Dichloropropene	ND	2.0		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
Dibromochloromethane	ND	0.50		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
Dibromomethane	ND	0.50		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
Dichlorodifluoromethane	ND	0.50		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
Ethylbenzene	ND	0.50		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
Hexachlorobutadiene	ND	5.0		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
Iodomethane	ND	10		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
Isopropylbenzene	ND	0.50		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
m,p-Xylene	ND	1.0		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
Methylene chloride	ND	1.0		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
Naphthalene	ND	2.0		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
n-Butylbenzene	ND	0.50		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
n-Propylbenzene	ND	0.50		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
o-Xylene	ND	0.50		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
sec-Butylbenzene	ND	2.0		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
Styrene	ND	0.50		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
tert-Butylbenzene	ND	0.50		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
Tetrachloroethene	ND	0.50		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
Toluene	ND	0.50		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
trans-1,2-Dichloroethene	ND	0.50		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
trans-1,3-Dichloropropene	ND	2.0		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
trans-1,4-Dichloro-2-butene	ND	10		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
Trichloroethene	ND	0.50		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
Trichlorofluoromethane	ND	0.50		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
Vinyl acetate	ND	10		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
Vinyl chloride	ND	0.50		ug/L	1	12/10/2020 1022	12/10/2020 1700	KP
Surr: 4-Bromofluorobenzene	*94*	*70-130*		*%REC*	*1*	*12/10/2020 1022*	*12/10/2020 1700*	*KP*
Surr: Dibromofluoromethane	*108*	*70-130*		*%REC*	*1*	*12/10/2020 1022*	*12/10/2020 1700*	*KP*
Surr: Toluene-d8	*104*	*70-130*		*%REC*	*1*	*12/10/2020 1022*	*12/10/2020 1700*	*KP*

Client:	Arcadis	**Client Sample ID:**	LSP-120120
Project:	Silvercroft	**Collection Date/Time:**	12/01/2020 1505
Work Order:	20L0073	**Matrix:**	Wastewater
Lab Sample ID:	20L0073-01	**Order Name:**	30055459

Analyses	Result	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst

Client: Arcadis
Project: Silvercroft
Work Order: 20L0073
Lab Sample ID: 20L0073-02

Client Sample ID: Trip Blank
Collection Date/Time: 12/01/2020 0000
Matrix: Wastewater
Order Name: 30055459

Analyses	Result	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Volatile Organic Compounds by GC/MS-SW8260B								
1,1,1,2-Tetrachloroethane	ND	0.50		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
1,1,1-Trichloroethane	ND	0.50		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
1,1,2,2-Tetrachloroethane	ND	0.50		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
1,1,2-Trichloroethane	ND	0.50		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
1,1,2-Trichlorotrifluoroethane	ND	5.0		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
1,1-Dichloroethane	ND	0.50		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
1,1-Dichloroethene	ND	0.50		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
1,1-Dichloropropene	ND	0.50		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
1,2,3-Trichlorobenzene	ND	2.0		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
1,2,3-Trichloropropane	ND	1.0		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
1,2,4-Trichlorobenzene	ND	2.0		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
1,2,4-Trimethylbenzene	ND	0.50		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
1,2-Dibromo-3-chloropropane	ND	10		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
1,2-Dibromoethane	ND	2.0		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
1,2-Dichlorobenzene	ND	0.50		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
1,2-Dichloroethane	ND	0.50		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
1,2-Dichloropropane	ND	0.50		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
1,3,5-Trimethylbenzene	ND	0.50		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
1,3-Dichlorobenzene	ND	0.50		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
1,3-Dichloropropane	ND	0.50		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
1,4-Dichlorobenzene	ND	0.50		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
2,2-Dichloropropane	ND	0.50		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
2-Butanone (MEK)	ND	10		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
2-Chlorotoluene	ND	0.50		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
2-Hexanone	ND	2.5		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
4-Chlorotoluene	ND	0.50		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
4-Isopropyltoluene	ND	0.50		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
4-Methyl-2-pentanone	ND	2.5		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
Acetone	ND	10		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
Acrylonitrile	ND	10		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
Benzene	ND	0.50		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
Bromobenzene	ND	0.50		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
Bromochloromethane	ND	0.50		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
Bromodichloromethane	ND	0.50		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
Bromoform	ND	2.0		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
Bromomethane	ND	1.0		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
Carbon disulfide	ND	2.0		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
Carbon tetrachloride	ND	0.50		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
Chlorobenzene	ND	0.50		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
Chloroethane	ND	1.0	V1	ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
Chloroform	ND	0.50		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP

Client: Arcadis
Project: Silvercroft
Work Order: 20L0073
Lab Sample ID: 20L0073-02

Client Sample ID: Trip Blank
Collection Date/Time: 12/01/2020 0000
Matrix: Wastewater
Order Name: 30055459

Analyses	Result	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Chloromethane	ND	1.0		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
cis-1,2-Dichloroethene	ND	0.50		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
cis-1,3-Dichloropropene	ND	2.0		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
Dibromochloromethane	ND	0.50		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
Dibromomethane	ND	0.50		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
Dichlorodifluoromethane	ND	0.50		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
Ethylbenzene	ND	0.50		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
Hexachlorobutadiene	ND	5.0		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
Iodomethane	ND	10		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
Isopropylbenzene	ND	0.50		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
m,p-Xylene	ND	1.0		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
Methylene chloride	ND	1.0		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
Naphthalene	ND	2.0		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
n-Butylbenzene	ND	0.50		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
n-Propylbenzene	ND	0.50		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
o-Xylene	ND	0.50		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
sec-Butylbenzene	ND	2.0		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
Styrene	ND	0.50		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
tert-Butylbenzene	ND	0.50		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
Tetrachloroethene	ND	0.50		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
Toluene	ND	0.50		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
trans-1,2-Dichloroethene	ND	0.50		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
trans-1,3-Dichloropropene	ND	2.0		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
trans-1,4-Dichloro-2-butene	ND	10		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
Trichloroethene	ND	0.50		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
Trichlorofluoromethane	ND	0.50		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
Vinyl acetate	ND	10	V1	ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
Vinyl chloride	ND	0.50		ug/L	1	12/03/2020 1002	12/04/2020 0115	KP
Surr: 4-Bromofluorobenzene	*99*	*70-130*		*%REC*	*1*	*12/03/2020 1002*	*12/04/2020 115*	*KP*
Surr: Dibromofluoromethane	*100*	*70-130*		*%REC*	*1*	*12/03/2020 1002*	*12/04/2020 115*	*KP*
Surr: Toluene-d8	*112*	*70-130*		*%REC*	*1*	*12/03/2020 1002*	*12/04/2020 115*	*KP*

Client: Arcadis
Project: Silvercroft
Work Order: 20L0073
Date Received: 12/01/2020

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2012023 - SM2540 D										
Duplicate (2012023-DUP1)		**Source: 20L0005-01**		Prepared: 12/01/2020 Analyzed: 12/02/2020						
Total Suspended Solids	ND	10	mg/L		2.0			200	5	Q9, R12
Duplicate (2012023-DUP2)		**Source: 20L0073-01**		Prepared: 12/01/2020 Analyzed: 12/02/2020						
Total Suspended Solids	3.0	10	mg/L		3.0			0	5	Q9
Batch 2012028 - SM4500-H+ B										
Duplicate (2012028-DUP1)		**Source: 20L0073-01**		Prepared & Analyzed: 12/01/2020						
pH (pH Units)	8.1		-		8.0			1	200	H5
Temperature (°C)	21		-		21			0.5	200	H5
Batch 2012094 - Hach 8000										
Blank (2012094-BLK1)				Prepared & Analyzed: 12/07/2020						
Chemical Oxygen Demand	ND	20	mg/L							
LCS (2012094-BS1)				Prepared & Analyzed: 12/07/2020						
Chemical Oxygen Demand	500	20	mg/L	500.0		100	70-130			
LCS Dup (2012094-BSD1)				Prepared & Analyzed: 12/07/2020						
Chemical Oxygen Demand	520	20	mg/L	500.0		104	70-130	5	20	
Matrix Spike (2012094-MS1)		**Source: 20L0005-01**		Prepared & Analyzed: 12/07/2020						
Chemical Oxygen Demand	510	20	mg/L	500.0	22	97	70-130			
Matrix Spike Dup (2012094-MSD1)		**Source: 20L0005-01**		Prepared & Analyzed: 12/07/2020						
Chemical Oxygen Demand	510	20	mg/L	500.0	22	98	70-130	0.6	20	

Client: Arcadis
Project: Silvercroft
Work Order: 20L0073
Date Received: 12/01/2020

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2012055 - SW8260B										

Client: Arcadis
Project: Silvercroft
Work Order: 20L0073
Date Received: 12/01/2020

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2012055 - SW8260B										
Blank (2012055-BLK1)				Prepared & Analyzed: 12/03/2020						
1,1,1,2-Tetrachloroethane	ND	0.50	ug/L							
1,1,1-Trichloroethane	ND	0.50	ug/L							
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L							
1,1,2-Trichloroethane	ND	0.50	ug/L							
1,1,2-Trichlorotrifluoroethane	ND	5.0	ug/L							
1,1-Dichloroethane	ND	0.50	ug/L							
1,1-Dichloroethene	ND	0.50	ug/L							
1,1-Dichloropropene	ND	0.50	ug/L							
1,2,3-Trichlorobenzene	ND	2.0	ug/L							
1,2,3-Trichloropropane	ND	1.0	ug/L							
1,2,4-Trichlorobenzene	ND	2.0	ug/L							
1,2,4-Trimethylbenzene	ND	0.50	ug/L							
1,2-Dibromo-3-chloropropane	ND	10	ug/L							
1,2-Dibromoethane	ND	2.0	ug/L							
1,2-Dichlorobenzene	ND	0.50	ug/L							
1,2-Dichloroethane	ND	0.50	ug/L							
1,2-Dichloropropane	ND	0.50	ug/L							
1,3,5-Trimethylbenzene	ND	0.50	ug/L							
1,3-Dichlorobenzene	ND	0.50	ug/L							
1,3-Dichloropropane	ND	0.50	ug/L							
1,4-Dichlorobenzene	ND	0.50	ug/L							
2,2-Dichloropropane	ND	0.50	ug/L							
2-Butanone (MEK)	ND	10	ug/L							
2-Chlorotoluene	ND	0.50	ug/L							
2-Hexanone	ND	2.5	ug/L							
4-Chlorotoluene	ND	0.50	ug/L							
4-Isopropyltoluene	ND	0.50	ug/L							
4-Methyl-2-pentanone	ND	2.5	ug/L							
Acetone	ND	10	ug/L							
Acrylonitrile	ND	10	ug/L							
Benzene	ND	0.50	ug/L							
Bromobenzene	ND	0.50	ug/L							
Bromochloromethane	ND	0.50	ug/L							
Bromodichloromethane	ND	0.50	ug/L							
Bromoform	ND	2.0	ug/L							
Bromomethane	ND	1.0	ug/L							
Carbon disulfide	ND	2.0	ug/L							
Carbon tetrachloride	ND	0.50	ug/L							
Chlorobenzene	ND	0.50	ug/L							
Chloroethane	ND	1.0	ug/L							
Chloroform	ND	0.50	ug/L							
Chloromethane	ND	1.0	ug/L							
cis-1,2-Dichloroethene	ND	0.50	ug/L							
cis-1,3-Dichloropropene	ND	2.0	ug/L							
Dibromochloromethane	ND	0.50	ug/L							
Dibromomethane	ND	0.50	ug/L							
Dichlorodifluoromethane	ND	0.50	ug/L							
Ethylbenzene	ND	0.50	ug/L							

Client: Arcadis
Project: Silvercroft
Work Order: 20L0073
Date Received: 12/01/2020

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2012055 - SW8260B										
Blank (2012055-BLK1)				Prepared & Analyzed: 12/03/2020						
Hexachlorobutadiene	ND	5.0	ug/L							
Iodomethane	ND	10	ug/L							
Isopropylbenzene	ND	0.50	ug/L							
m,p-Xylene	ND	1.0	ug/L							
Methylene chloride	ND	1.0	ug/L							
Naphthalene	ND	2.0	ug/L							
n-Butylbenzene	ND	0.50	ug/L							
n-Propylbenzene	ND	0.50	ug/L							
o-Xylene	ND	0.50	ug/L							
sec-Butylbenzene	ND	2.0	ug/L							
Styrene	ND	0.50	ug/L							
tert-Butylbenzene	ND	0.50	ug/L							
Tetrachloroethene	ND	0.50	ug/L							
Toluene	ND	0.50	ug/L							
trans-1,2-Dichloroethene	ND	0.50	ug/L							
trans-1,3-Dichloropropene	ND	2.0	ug/L							
trans-1,4-Dichloro-2-butene	ND	10	ug/L							
Trichloroethene	ND	0.50	ug/L							
Trichlorofluoromethane	ND	0.50	ug/L							
Vinyl acetate	ND	10	ug/L							
Vinyl chloride	ND	0.50	ug/L							
Surrogate: 4-Bromofluorobenzene	*23.0*		*ug/L*	*25.00*		*92*	*70-130*			
Surrogate: Dibromofluoromethane	*25.4*		*ug/L*	*25.00*		*102*	*70-130*			
Surrogate: Toluene-d8	*25.8*		*ug/L*	*25.00*		*103*	*70-130*			
LCS (2012055-BS1)				Prepared & Analyzed: 12/03/2020						
1,1-Dichloroethene	26		ug/L	25.00		105	70-130			
Benzene	23		ug/L	25.00		92	70-130			
Chlorobenzene	30		ug/L	25.00		120	70-130			
Toluene	27		ug/L	25.00		110	70-130			
Trichloroethene	27		ug/L	25.00		107	70-130			
Surrogate: 4-Bromofluorobenzene	*24.1*		*ug/L*	*25.00*		*96*	*70-130*			
Surrogate: Dibromofluoromethane	*23.9*		*ug/L*	*25.00*		*96*	*70-130*			
Surrogate: Toluene-d8	*25.9*		*ug/L*	*25.00*		*103*	*70-130*			
LCS Dup (2012055-BSD1)				Prepared & Analyzed: 12/03/2020						
1,1-Dichloroethene	24		ug/L	25.00		95	70-130	11	30	
Benzene	23		ug/L	25.00		92	70-130	0.7	30	
Chlorobenzene	29		ug/L	25.00		117	70-130	3	30	
Toluene	27		ug/L	25.00		108	70-130	2	30	
Trichloroethene	26		ug/L	25.00		102	70-130	4	30	
Surrogate: 4-Bromofluorobenzene	*23.7*		*ug/L*	*25.00*		*95*	*70-130*			
Surrogate: Dibromofluoromethane	*24.8*		*ug/L*	*25.00*		*99*	*70-130*			
Surrogate: Toluene-d8	*26.5*		*ug/L*	*25.00*		*106*	*70-130*			

Client: Arcadis
Project: Silvercroft
Work Order: 20L0073
Date Received: 12/01/2020

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2012055 - SW8260B										
Matrix Spike (2012055-MS1)	**Source: 20L0082-01**			Prepared & Analyzed: 12/03/2020						
1,1-Dichloroethene	25		ug/L	25.00	0.13	98	70-130			
Benzene	24		ug/L	25.00	0.0	94	70-130			
Chlorobenzene	29		ug/L	25.00	0.0	118	70-130			
Toluene	27		ug/L	25.00	0.0	110	70-130			
Trichloroethene	44		ug/L	25.00	18	107	70-130			
Surrogate: 4-Bromofluorobenzene	*22.7*		*ug/L*	*25.00*		*91*	*70-130*			
Surrogate: Dibromofluoromethane	*24.8*		*ug/L*	*25.00*		*99*	*70-130*			
Surrogate: Toluene-d8	*25.0*		*ug/L*	*25.00*		*100*	*70-130*			
Matrix Spike Dup (2012055-MSD1)	**Source: 20L0082-01**			Prepared & Analyzed: 12/03/2020						
1,1-Dichloroethene	24		ug/L	25.00	0.13	97	70-130	1	30	
Benzene	24		ug/L	25.00	0.0	94	70-130	0	30	
Chlorobenzene	30		ug/L	25.00	0.0	120	70-130	2	30	
Toluene	27		ug/L	25.00	0.0	110	70-130	0.1	30	
Trichloroethene	45		ug/L	25.00	18	111	70-130	2	30	
Surrogate: 4-Bromofluorobenzene	*23.6*		*ug/L*	*25.00*		*94*	*70-130*			
Surrogate: Dibromofluoromethane	*25.8*		*ug/L*	*25.00*		*103*	*70-130*			
Surrogate: Toluene-d8	*25.6*		*ug/L*	*25.00*		*103*	*70-130*			
Batch 2012140 - SW8260B										

Client: Arcadis
Project: Silvercroft
Work Order: 20L0073
Date Received: 12/01/2020

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2012140 - SW8260B										
Blank (2012140-BLK1)				Prepared & Analyzed: 12/10/2020						
1,1,1,2-Tetrachloroethane	ND	0.50	ug/L							
1,1,1-Trichloroethane	ND	0.50	ug/L							
1,1,2,2-Tetrachloroethane	ND	0.50	ug/L							
1,1,2-Trichloroethane	ND	0.50	ug/L							
1,1,2-Trichlorotrifluoroethane	ND	5.0	ug/L							
1,1-Dichloroethane	ND	0.50	ug/L							
1,1-Dichloroethene	ND	0.50	ug/L							
1,1-Dichloropropene	ND	0.50	ug/L							
1,2,3-Trichlorobenzene	ND	2.0	ug/L							
1,2,3-Trichloropropane	ND	1.0	ug/L							
1,2,4-Trichlorobenzene	ND	2.0	ug/L							
1,2,4-Trimethylbenzene	ND	0.50	ug/L							
1,2-Dibromo-3-chloropropane	ND	10	ug/L							
1,2-Dibromoethane	ND	2.0	ug/L							
1,2-Dichlorobenzene	ND	0.50	ug/L							
1,2-Dichloroethane	ND	0.50	ug/L							
1,2-Dichloropropane	ND	0.50	ug/L							
1,3,5-Trimethylbenzene	ND	0.50	ug/L							
1,3-Dichlorobenzene	ND	0.50	ug/L							
1,3-Dichloropropane	ND	0.50	ug/L							
1,4-Dichlorobenzene	ND	0.50	ug/L							
2,2-Dichloropropane	ND	0.50	ug/L							
2-Butanone (MEK)	ND	10	ug/L							
2-Chlorotoluene	ND	0.50	ug/L							
2-Hexanone	ND	2.5	ug/L							
4-Chlorotoluene	ND	0.50	ug/L							
4-Isopropyltoluene	ND	0.50	ug/L							
4-Methyl-2-pentanone	ND	2.5	ug/L							
Acetone	ND	10	ug/L							
Acrylonitrile	ND	10	ug/L							
Benzene	ND	0.50	ug/L							
Bromobenzene	ND	0.50	ug/L							
Bromochloromethane	ND	0.50	ug/L							
Bromodichloromethane	ND	0.50	ug/L							
Bromoform	ND	2.0	ug/L							
Bromomethane	ND	1.0	ug/L							
Carbon disulfide	ND	2.0	ug/L							
Carbon tetrachloride	ND	0.50	ug/L							
Chlorobenzene	ND	0.50	ug/L							
Chloroethane	ND	1.0	ug/L							
Chloroform	ND	0.50	ug/L							
Chloromethane	ND	1.0	ug/L							
cis-1,2-Dichloroethene	ND	0.50	ug/L							
cis-1,3-Dichloropropene	ND	2.0	ug/L							
Dibromochloromethane	ND	0.50	ug/L							
Dibromomethane	ND	0.50	ug/L							
Dichlorodifluoromethane	ND	0.50	ug/L							
Ethylbenzene	ND	0.50	ug/L							

Client: Arcadis
Project: Silvercroft
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QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2012140 - SW8260B										
Blank (2012140-BLK1)				Prepared & Analyzed: 12/10/2020						
Hexachlorobutadiene	ND	5.0	ug/L							
Iodomethane	ND	10	ug/L							
Isopropylbenzene	ND	0.50	ug/L							
m,p-Xylene	ND	1.0	ug/L							
Methylene chloride	ND	1.0	ug/L							
Naphthalene	ND	2.0	ug/L							
n-Butylbenzene	ND	0.50	ug/L							
n-Propylbenzene	ND	0.50	ug/L							
o-Xylene	ND	0.50	ug/L							
sec-Butylbenzene	ND	2.0	ug/L							
Styrene	ND	0.50	ug/L							
tert-Butylbenzene	ND	0.50	ug/L							
Tetrachloroethene	ND	0.50	ug/L							
Toluene	ND	0.50	ug/L							
trans-1,2-Dichloroethene	ND	0.50	ug/L							
trans-1,3-Dichloropropene	ND	2.0	ug/L							
trans-1,4-Dichloro-2-butene	ND	10	ug/L							
Trichloroethene	ND	0.50	ug/L							
Trichlorofluoromethane	ND	0.50	ug/L							
Vinyl acetate	ND	10	ug/L							
Vinyl chloride	ND	0.50	ug/L							
Surrogate: 4-Bromofluorobenzene	*24.0*		*ug/L*	*25.00*		*96*	*70-130*			
Surrogate: Dibromofluoromethane	*26.1*		*ug/L*	*25.00*		*104*	*70-130*			
Surrogate: Toluene-d8	*26.1*		*ug/L*	*25.00*		*105*	*70-130*			
LCS (2012140-BS1)				Prepared & Analyzed: 12/10/2020						
1,1-Dichloroethene	24		ug/L	25.00		96	70-130			
Benzene	23		ug/L	25.00		91	70-130			
Chlorobenzene	30		ug/L	25.00		121	70-130			
Toluene	28		ug/L	25.00		112	70-130			
Trichloroethene	26		ug/L	25.00		106	70-130			
Surrogate: 4-Bromofluorobenzene	*27.0*		*ug/L*	*25.00*		*108*	*70-130*			
Surrogate: Dibromofluoromethane	*25.8*		*ug/L*	*25.00*		*103*	*70-130*			
Surrogate: Toluene-d8	*29.9*		*ug/L*	*25.00*		*119*	*70-130*			
LCS Dup (2012140-BSD1)				Prepared & Analyzed: 12/10/2020						
1,1-Dichloroethene	25		ug/L	25.00		99	70-130	3	30	
Benzene	22		ug/L	25.00		90	70-130	1	30	
Chlorobenzene	29		ug/L	25.00		116	70-130	4	30	
Toluene	27		ug/L	25.00		107	70-130	5	30	
Trichloroethene	25		ug/L	25.00		101	70-130	4	30	
Surrogate: 4-Bromofluorobenzene	*23.6*		*ug/L*	*25.00*		*94*	*70-130*			
Surrogate: Dibromofluoromethane	*25.3*		*ug/L*	*25.00*		*101*	*70-130*			
Surrogate: Toluene-d8	*25.9*		*ug/L*	*25.00*		*104*	*70-130*			

Client: Arcadis
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QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2012140 - SW8260B										
Matrix Spike (2012140-MS1)	**Source: 20L0073-01**			Prepared & Analyzed: 12/10/2020						
1,1-Dichloroethene	25		ug/L	25.00	0.0	98	70-130			
Benzene	23		ug/L	25.00	0.0	94	70-130			
Chlorobenzene	30		ug/L	25.00	0.0	121	70-130			
Toluene	27		ug/L	25.00	0.0	109	70-130			
Trichloroethene	25		ug/L	25.00	0.0	101	70-130			
Surrogate: 4-Bromofluorobenzene	*22.6*		*ug/L*	*25.00*		*90*	*70-130*			
Surrogate: Dibromofluoromethane	*23.9*		*ug/L*	*25.00*		*95*	*70-130*			
Surrogate: Toluene-d8	*25.9*		*ug/L*	*25.00*		*104*	*70-130*			
Matrix Spike Dup (2012140-MSD1)	**Source: 20L0073-01**			Prepared & Analyzed: 12/10/2020						
1,1-Dichloroethene	25		ug/L	25.00	0.0	100	70-130	2	30	
Benzene	24		ug/L	25.00	0.0	95	70-130	2	30	
Chlorobenzene	30		ug/L	25.00	0.0	121	70-130	0.3	30	
Toluene	28		ug/L	25.00	0.0	112	70-130	3	30	
Trichloroethene	25		ug/L	25.00	0.0	102	70-130	0.8	30	
Surrogate: 4-Bromofluorobenzene	*21.5*		*ug/L*	*25.00*		*86*	*70-130*			
Surrogate: Dibromofluoromethane	*24.8*		*ug/L*	*25.00*		*99*	*70-130*			
Surrogate: Toluene-d8	*26.6*		*ug/L*	*25.00*		*106*	*70-130*			

TURNER LABORATORIES INC
2445 N. Coyote Drive, Suite 104
Tucson, Arizona 85745
(520) 882-5880
Fax: (520) 882-9788
www.turnerlabs.com

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 20L6073 DATE 12/1/20 PAGE 1 OF 1

PROJECT NAME Silvercroft # 30055459
CONTACT NAME Michael Nesky
COMPANY NAME Arcadis
ADDRESS 410 N. 44th St Phoenix, AZ
ZIP 85008 PHONE 6024380883 EMAIL michael.nesky@arcadis.com
SAMPLER'S SIGNATURE

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*	NUMBER OF CONTAINERS	CIRCLE ANALYSIS REQUESTED AND/OR CHECK THE APPROPRIATE BOX
LSP-120120	12/1/20	1505		WW	5	Volatile Organics ☐ 624 X; COD X; TSS X; pH X
Trip Blank	12/1/20	—		AQ	1	Volatile Organics ☐ 624 X

1. RELINQUISHED BY:
Signature
Printed Name Sascha Arndt
Firm Arcadis
Date/Time 12/1/20 1511

2. RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

3. RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

4. RECEIVED BY:
Signature
Printed Name
Firm TURNER LABORATORIES, INC.
Date/Time 12/1/20 1511

TURNAROUND REQUIREMENTS:
X Standard (approx. 10 days)*
___ Next Day ___ 2 Day ___ 5 Day*
___ Email Preliminary Results
* Working Days

REPORT REQUIREMENTS:
___ I. Routine Report
___ II. Report (includes DUP, MS, MSD, as required, may be charged as samples)
___ III. Date Validation Report (Includes All Raw Data) Add 10% to invoice

INVOICE INFORMATION:
Account ___ Y ___ N
P.O. #
Bill to:

SAMPLE RECEIPT:
Total Containers 6
Temperature 10.4
☒ Wet Ice
☐ Ambient
☐ Blue Ice

* LEGEND SAMPLE MATRIX
DW = DRINKING WATER
GW = GROUNDWATER
SD = SOLID
SG = SLUDGE
SL = SOIL
ST = STORMWATER
WW = WASTEWATER

Compliance Analysis: ☐ Yes ☐ No	Custody Seals ☐	Preservation Confirmation ☒
ADEQ Forms: ☐ Yes ☐ No	Container Intact ☒	Appropriate Head Space ☒
Mail ADEQ Forms: ☐ Yes ☐ No	COC / Labels Agree ☒	Received Within Hold Time ☒

SPECIAL INSTRUCTIONS/COMMENTS:

Appendix H

Design Drawings

DEVELOPMENT PACKAGE

AIR SPARGE TREATMENT SYSTEM
SILVERCROFT WASH RELEASE SITE

DATE ISSUED / DATE REVISED
09/16/2020

KINDER MORGAN
TUCSON, ARIZONA

ARCADIS Design & Consultancy for natural and built assets

ARCADIS U.S., INC.

Professional Engineer (Environmental)
CERTIFICATE NO.
59234
RYAN M. O'KEEFE
Date Signed 09/15/2020
ARIZONA, U.S.A.

SITE INFORMATION

PROPERTY OWNER:	CITY OF TUCSON
MAILING ADDRESS:	CITY OF TUCSON - REAL ESTATE DIVISION ATTN: PROPERTY MANAGEMENT P.O. BOX 27210 TUCSON, ARIZONA 85726-7210
EMAIL ADDRESS:	John.Cahill@tucsonaz.gov
PHONE NUMBER:	(520) 837-6715
PROJECT DEVELOPER:	ARCADIS U.S., Inc.
PROJECT MANAGER:	MICHAEL NESKY, P.E. (AZ #50634)
PROJECT ENGINEER:	RYAN O'KEEFE, P.E. (AZ #59234)

INDEX TO DRAWINGS

City of Tucson Approval Stamp

CDRC Approved
Development Package
AHines2
10/23/2020
PLANNING & DEVELOPMENT SERVICES

☑ Site/Dev Plan	☐ SCZ
☐ Tentative Plat	☐ ERZ
☐ Grading	☐ HDZ
☐ SWPPP	☐ WASH
☐ FUP	☐ Other
☐ per letter in SIRE, Revision #	

GENERAL NOTES:

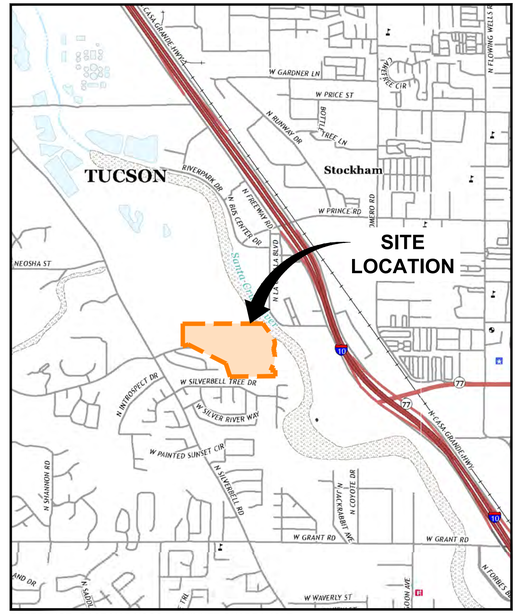
1. EXISTING ZONING IS R-1.
2. THE GROSS AREA OF THE SITE PARCEL IS 65.38 ACRES, PER THE PIMA COUNTY ASSESSOR.
3. THE SITE IS A FORMER LANDFILL AND CURRENTLY OWNED BY THE CITY OF TUCSON REAL ESTATE DIVISION. THE PROPOSED LAND USE AS CLASSIFIED PER THE UDC IS SANITATION SYSTEM.
4. THE FLOOR AREA OF THE PROPOSED AIR SPARGE TREATMENT SYSTEM IS APPROXIMATELY 121 SQUARE FEET. THE PROPOSED CANOPY AREA IS APPROXIMATELY 100 SQUARE FEET AND ITS HEIGHT IS APPROXIMATELY 8 FEET TALL. THE EXISTING PRIVATE ROAD AREA IS APPROXIMATELY 51,358 SQUARE FEET. THE IMPACTED AREA FOR MONITORING WELL AND PIPING INSTALLATION IS NOT ANTICIPATED TO EXCEED 3,000 SQUARE FEET.
5. REQUIRED GENERAL NOTE NO.5 DOES NOT APPLY SINCE NO EXPANSIONS TO EXISTING USE AREAS ARE ANTICIPATED.
6. REQUIRED GENERAL NOTE NO.6 DOES NOT APPLY.
7. THE CLOSEST DWELLING TO THE PROPOSED PROJECT IS APPROXIMATELY 660 FT SSE FROM THE SE CORNER OF THE PROPOSED FENCE.
8. DRAINAGE WILL REMAIN IN ITS NATURAL STATE AND WILL NOT BE ALTERED, DISTURBED, OR OBSTRUCTED OTHER THAN AS SHOWN ON THIS SITE PLAN.
9. THE DEVELOPER, ANY SUCCESSORS AND ASSIGNS, WILL HOLD THE CITY OF TUCSON, ITS OFFICERS, EMPLOYEES, AND AGENTS HARMLESS FROM ANY AND ALL CLAIMS OF DAMAGES RELATED TO THE USE OF THIS DEVELOPMENT AS SHOWN HEREON, NOW AND IN THE FUTURE, BY REASON OF FLOODING, FLOWAGE, EROSION, OR DAMAGE CAUSED BY WATER, WHETHER SURFACE FLOOD OR RAINFALL.
10. NO STRUCTURE OR VEGETATION SHALL BE LOCATED OR MAINTAINED SO AS TO INTERFERE WITH THE SIGHT VISIBILITY TRIANGLES IN ACCORDANCE WITH SECTION 10-01.5.0, SIGHT VISIBILITY, OF THE TECHNICAL STANDARDS MANUAL.
11. TOTAL MILES OF NEW PUBLIC STREETS IS ZERO.
12. TOTAL MILES OF NEW PRIVATE STREETS IS ZERO.
13. ANY RELOCATION OR MODIFICATION OF EXISTING UTILITIES AND/OR PUBLIC IMPROVEMENTS NECESSITATED BY THE PROPOSED DEVELOPMENT WILL BE AT NO EXPENSE TO THE PUBLIC.
14. THE PROPOSED DEVELOPMENT WILL NOT BE OCCUPIED, SO NO WASTEWATER IS ANTICIPATED TO BE DISCHARGED INTO PUBLIC OR PRIVATE SEWER LINES.
15. NO NEW TRAILS OR PATHS ARE PROPOSED.

INFORMATION OF PROPOSED DEVELOPMENT:

1. ZONING CLASSIFICATIONS ARE SHOWN ON SHEETS 03 AND 04.
2. SITE IS NOT ANTICIPATED TO BE OCCUPIED, AND THEREFORE, NO OFF-STREET PARKING WOULD BE REQUIRED.
3. PER THE CITY OF TUCSON LAND USE CODE, ART. III, DIV. 3, SECTION 3.3.4, BICYCLE PARKING IS NOT REQUIRED FOR THE LAND USE TYPE AT THIS SITE.
4. THE SITE IS NOT EXPECTED TO BE OCCUPIED, AND THEREFORE, NO LOADING ZONE WOULD BE REQUIRED.
5. NO NEW EASEMENTS ARE PROPOSED FOR THIS SITE.
6. THE PROPOSED TREATMENT SYSTEM IS LOCATED ENTIRELY WITHIN ZONE X (AREA OF MINIMAL FLOOD HAZARD), PER THE FEMA NATIONAL FLOOD HAZARD LAYER FIRMETTE.
7. THE FLOOR AREA OF THE PROPOSED AIR SPARGE TREATMENT SYSTEM IS APPROXIMATELY 121 SQUARE FEET (11 FEET WIDE BY 11 FEET LONG). THE PROPOSED CANOPY ATOP THE PROPOSED AREA IS APPROXIMATELY 8 FEET TALL. THE PROPOSED LAND USE AS CLASSIFIED PER THE UDC IS SANITATION SYSTEM. PROPOSED DEVELOPMENT DIMENSIONS AND DETAILS ARE SHOWN ON SHEET 04.
8. PEDESTRIAN ACCESS TO THE SITE IS NOT NECESSARY AND IS DISCOURAGED.
9. PROPOSED STRUCTURE IS NOT ABUTTING OR ADJACENT TO EXISTING PEDESTRIAN RIGHT-OF-WAYS.
10. THE SITE IS NOT EXPECTED TO BE OCCUPIED, AND THEREFORE, NO REFUSE COLLECTION WOULD BE NECESSARY.
11. NO SIGNS ARE PROPOSED FOR THIS SITE.
12. NO LANDSCAPING IS ANTICIPATED ON THIS SITE.

EXISTING SITE CONDITIONS:

1. SITE DESCRIPTION: NELY TRI PTN NE4 NW4 & PTN N2 NE4. SECTION 33-T13S-R13E. 65.38 ACRES.
2. AN ENVIRONMENTAL ACCESS AGREEMENT AND A TEMPORARY REVOCABLE EASEMENT WAS GRANTED BY THE CITY OF TUCSON ON OCTOBER 24, 2014 AND LAST AMENDED ON JANUARY 13, 2020. THE EXTENT OF REQUESTED ACCESS IS SHOWN ON SHEET 03. FURTHER DETAILS ARE ATTACHED TO THE DEVELOPMENT PACKAGE.
3. EXISTING PRIVATE ROAD IS APPROXIMATELY 13 FEET WIDE. THE REST OF THE DIMENSIONS ARE PROVIDED ON THE SITE PLAN.



REFERENCE: BASE MAP USGS 7.5 MINUTE QUADRANGLE., TUCSON NORTH, TUCSON, JAYNES & CAT MOUNTAIN, AZ., 2019.

SECTION 33
TOWNSHIP 13S
RANGE 13E
SECTION CORNERS: NE-NE

LOCATION MAP

0 1/4 1/2 MILE 3/4 1 MILE
GRAPHIC SCALE

City of Tucson Approval Stamps:

CDRC Approved
Development Package
AHines2
10/23/2020
PLANNING & DEVELOPMENT SERVICES

- ☑ Site/Dev Plan
- ☐ Tentative Plat
- ☐ Grading
- ☐ SWPPP
- ☐ FUP
- ☐ SCZ
- ☐ ERZ
- ☐ HDZ
- ☐ WASH
- ☐ Other
- ☐ per letter in SIRE, Revision #

CITY: PHOENIX AZ DIV/GROUP: ENVCAD DB: E. KRAHMER PIC: PM: R. O'KEEFE TM: F. BROWN-MUNOZ LYR:ON=*;OFF=*REF*
C:\Users\EKrahmer\BIM 360\Arcadis\ANA - KINDER MORGAN ENERGY PARTNERS\Project Files\MEP SILVERCROFT\2020\30055459\01-DWG\TUC_DP_Fig 01_General Notes.dwg LAYOUT: 01 SAVED: 9/15/2020 9:04 PM ACADVER: 23.1S (LMS TECH) PAGESETUP: C-LD-PDF PLOTSTYLETABLE:
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No.	Date	Revisions	By	Ckd
02	09/16/2020	Revisions per City of Tucson Planning and Development Services Dept.	EAK	FBM
01	06/12/2020	Initial Submission	EAK	ROK

THIS DRAWING IS THE PROPERTY OF THE ARCADIS ENTITY IDENTIFIED IN THE TITLE BLOCK AND MAY NOT BE REUSED OR ALTERED IN WHOLE OR IN PART WITHOUT THE EXPRESS WRITTEN PERMISSION OF SAME.

THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING: _____ USE TO VERIFY FIGURE REPRODUCTION SCALE

Professional Engineer's Name: **RYAN O'KEEFE**
Professional Engineer's No.: 59234, Expires 03/31/2021

State	Date Signed	Project Mgr.
AZ	09/16/2020	MPN
Designed by: ROK	Drawn by: EAK	Checked by: MPN

Registered Professional Engineer (Administrative) CERTIFICATE NO. 59234 RYAN M. O'KEEFE Date 9/16/2020 Registered ARIZONA, U.S.A.

ARCADIS Design & Consultancy for natural and built assets
ARCADIS U.S., INC.

Proposed Name of Project: NEW AIR SPARGE TREATMENT SYSTEM
Brief Legal Description: SANITATION SYSTEM
Development Package Case Number: DP20-0141
Activity Number: T20CM03944

KINDER MORGAN ● TUCSON, ARIZONA
SILVERCROFT WASH RELEASE SITE

GENERAL NOTES

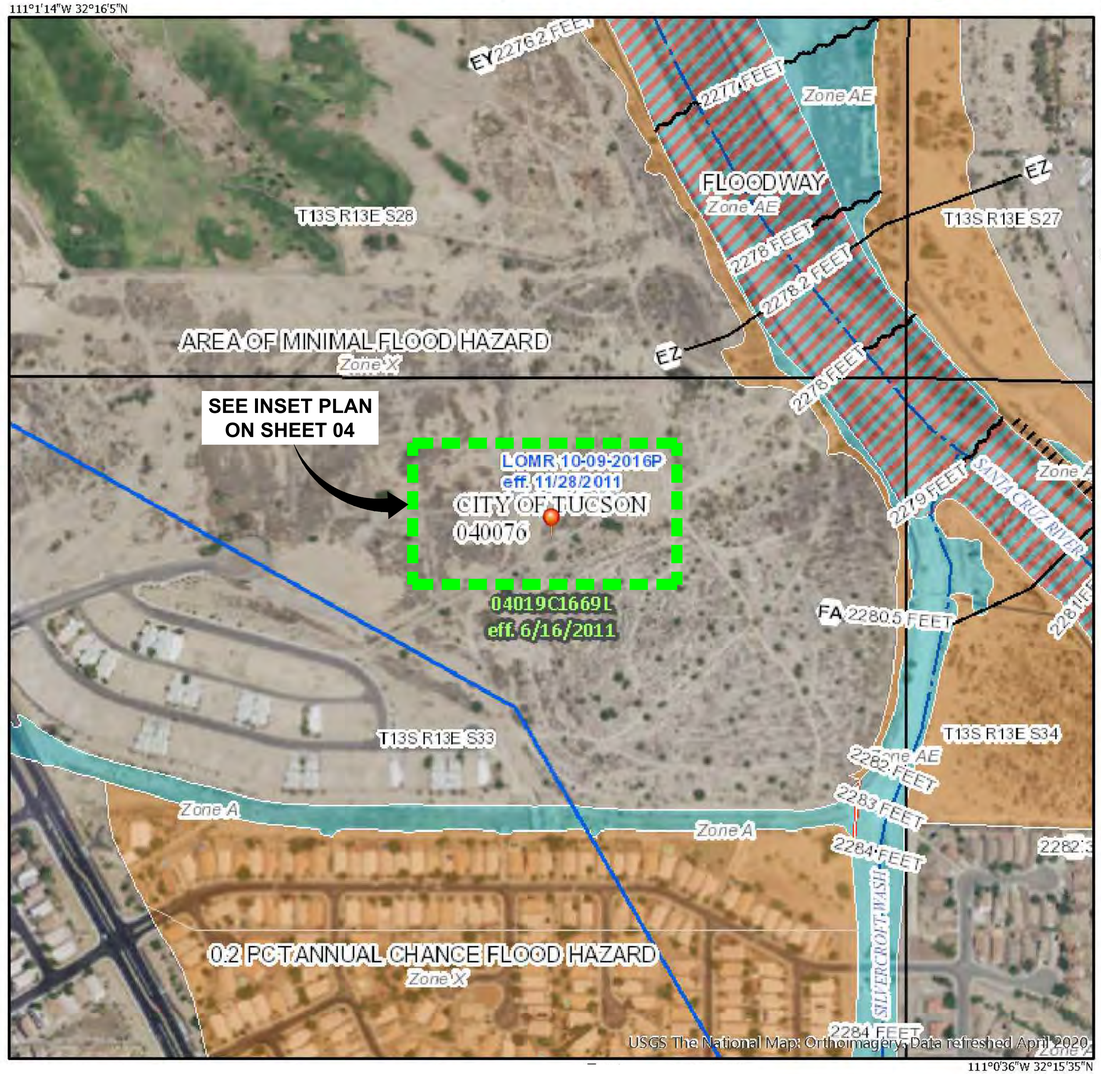
ARCADIS Project No. 30055459
Date 09/16/2020
ARCADIS 410 N. 44th STREET SUITE 1000 PHOENIX, AZ

SHEET 01 OF 04

National Flood Hazard Layer FIRMette

FEMA

111°1'14"W 32°16'5"N



111°0'36"W 32°15'35"N

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN — Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 — Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- 93 — Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 7/7/2020 at 5:53 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

City of Tucson Approval Stamps:

CDRC Approved
Development Package
AHines2
10/23/2020
PLANNING & DEVELOPMENT SERVICES

- ☑ Site/Dev Plan
- ☐ Tentative Plat
- ☐ Grading
- ☐ SWPPP
- ☐ FUP
- ☐ SCZ
- ☐ ERZ
- ☐ HDZ
- ☐ WASH
- ☐ Other
- ☐ per letter in SIRE, Revision #

CITY: PHOENIX AZ DIV/GROUP: ENVCAD DB: E. KRAHMER PIC: PM: R. O'KEEFE TM: F. BROWN-MUNOZ LYR:ON=*;OFF=*REF*
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1"=250' — 250' 0 250' 500'

THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING: USE TO VERIFY FIGURE REPRODUCTION SCALE

No.	Date	Revisions	By	Ckd
02	09/16/2020	Revisions per City of Tucson Planning and Development Services Dept.	EAK	FBM
01	06/12/2020	Initial Submission	EAK	ROK

Professional Engineer's Name: RYAN O'KEEFE
Professional Engineer's No.: 59234, Expires 03/31/2021
State: AZ | Date Signed: 09/16/2020 | Project Mgr.: MPN
Designed by: ROK | Drawn by: EAK | Checked by: MPN

Registered Professional Engineer (Environmental) CERTIFICATE NO. 59234 RYAN M. O'KEEFE Date Signed 09/16/2020 ARIZONA, U.S.A.

ARCADIS Design & Consultancy for natural and built assets
ARCADIS U.S., INC.

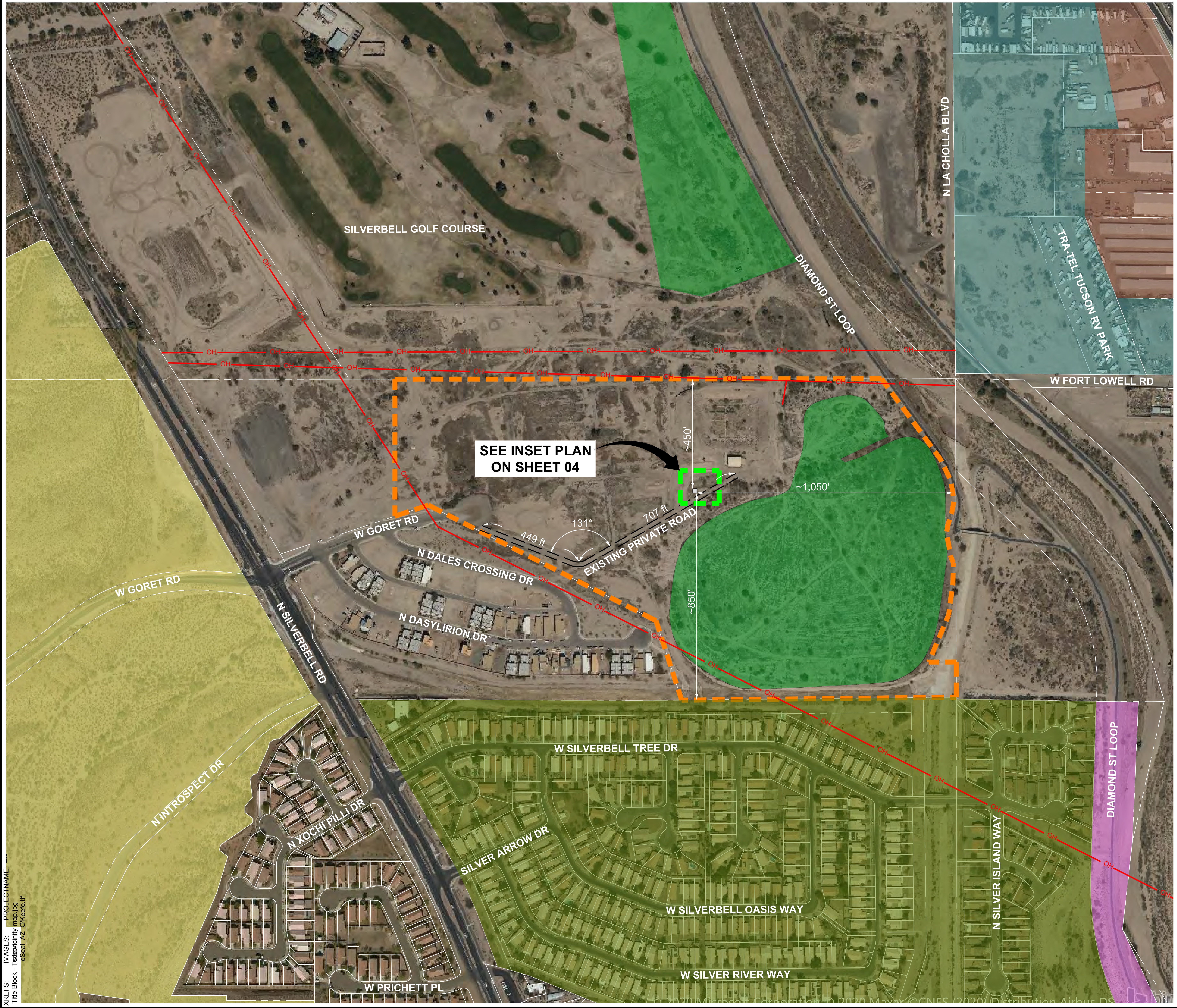
Proposed Name of Project: NEW AIR SPARGE TREATMENT SYSTEM
Brief Legal Description: SANITATION SYSTEM
Development Package Case Number: DP20-0141
Activity Number: T20CM03944

KINDER MORGAN • TUCSON, ARIZONA
SILVERCROFT WASH RELEASE SITE

FEMA FLOODPLAIN INFORMATION

ARCADIS Project No. 30055459
Date 09/16/2020
ARCADIS 410 N. 44th STREET SUITE 1000 PHOENIX, AZ

SHEET 02 OF 04



LEGEND:

- PARCEL BOUNDARIES
- EXTENT OF ENVIRONMENTAL ACCESS AGREEMENT WITHIN PARCEL 103-19-001S
- EXISTING PRIVATE ROAD
- OH — EXISTING OVERHEAD ELECTRIC LINE

LANDFILL:

- CLOSED TUCSON/PIMA COUNTY

ZONING:

- R-1
- MH-1
- O-3
- OS
- RX-1
- C-2

City of Tucson Approval Stamps:

CDRC Approved Development Package
AHines2
10/23/2020
PLANNING & DEVELOPMENT SERVICES

- [x] Site/Dev Plan
- [ ] Tentative Plat
- [ ] Grading
- [ ] SWPPP
- [ ] FUP
- [ ] per letter in SIRE, Revision #
- [ ] SCZ
- [ ] ERZ
- [ ] HDZ
- [ ] WASH
- [ ] Other

200' 0 200' 400'
1"=200'

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Professional Engineer's No.: 59234, Expires 03/31/2021

State	Date Signed	Project Mgr.
AZ	09/16/2020	MPN
Designed by	**Drawn by**	**Checked by**
ROK	EAK	MPN

Registered Professional Engineer (Environmental) CERTIFICATE NO. 59234 RYAN M. O'KEEFE Date Signed 09/16/2020 ARIZONA, U.S.A.

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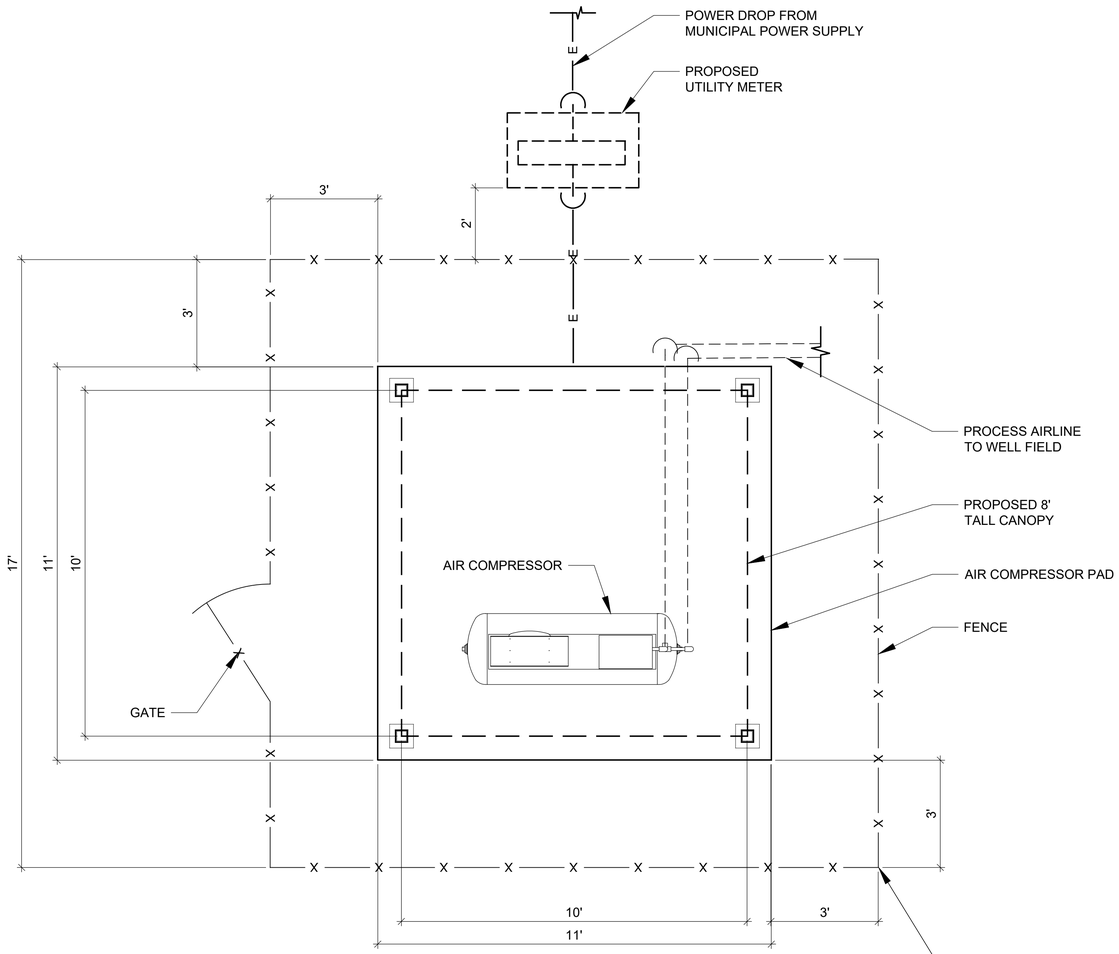
KINDER MORGAN • TUCSON, ARIZONA
SILVERCROFT WASH RELEASE SITE

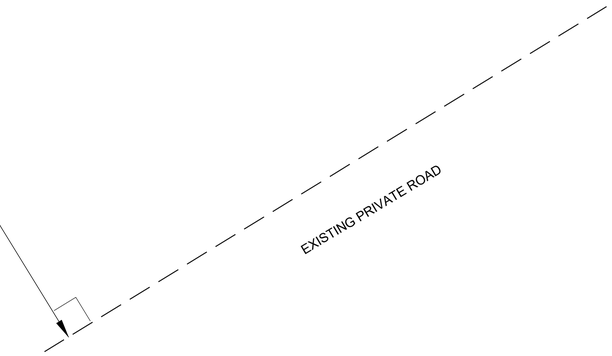
SITE PLAN

ARCADIS Project No. 30055459
Date 09/16/2020
ARCADIS
410 N. 44th STREET
SUITE 1000
PHOENIX, AZ

SHEET 03 OF 04



ENLARGED PLAN



LEGEND

FENCE LINE	X X X
PROPOSED CANOPY	— — — — — —
AIR SPARGE TRENCH	- - - - - - - - - - - -
ELECTRICAL TRENCH	E E E
FEMA	FEDERAL EMERGENCY MANAGEMENT AGENCY
LOMR	LETTER OF MAP REVISION

NOTES

1. ZONING IS R-1.
2. PROPOSED SYSTEM AND STRUCTURES ARE LOCATED ENTIRELY WITHIN ZONE X (AREA OF MINIMAL FLOOD HAZARD), ACCORDING TO FEMA.
3. LOMR 10-09-2016P EFFECTIVE 11/28/2011.
4. PROPOSED CANOPY SQUARED FOOTAGE IS APPROXIMATELY 100 SQ. FT.

City of Tucson Approval Stamps:

CDRC Approved
Development Package
AHines2
10/23/2020
PLANNING & DEVELOPMENT SERVICES

- ☑ Site/Dev Plan
- ☐ Tentative Plat
- ☐ Grading
- ☐ SWPPP
- ☐ FUP
- ☐ per letter in SIRE, Revision #
- ☐ SCZ
- ☐ ERZ
- ☐ HDZ
- ☐ WASH
- ☐ Other

0 2' 4'

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Professional Engineer's Name: RYAN O'KEEFE
Professional Engineer's No.: 59234, Expires 03/31/2021

State	Date Signed	Project Mgr.
AZ	09/16/2020	MPN
Designed by: ROK	Drawn by: EAK	Checked by: MPN

Professional Engineer (Registrant) CERTIFICATE NO. 59234 RYAN M. O'KEEFE Date Signed 09/16/2020 ARIZONA, U.S.A.

ARCADIS Design & Consultancy for natural and built assets

ARCADIS U.S., INC.

Proposed Name of Project: NEW AIR SPARGE TREATMENT SYSTEM
Brief Legal Description: SANITATION SYSTEM
Development Package Case Number: DP20-0141
Activity Number: T20CM03944

KINDER MORGAN ● TUCSON, ARIZONA
SILVERCROFT WASH RELEASE SITE

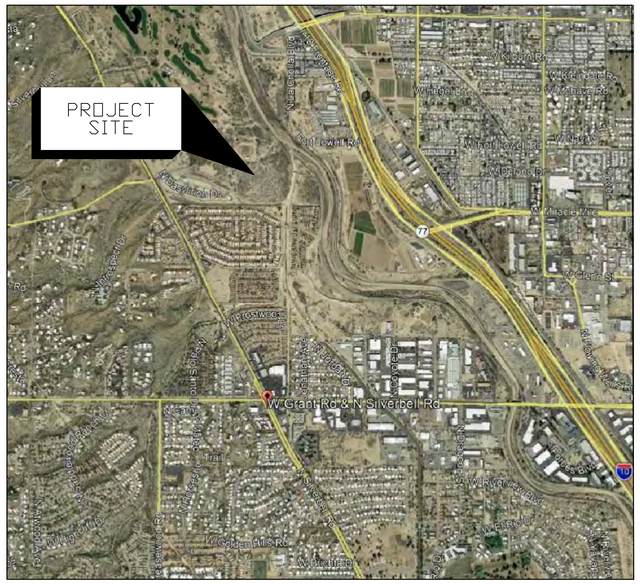
PROPOSED SYSTEM PLAN

ARCADIS Project No. 30055459
Date 09/16/2020
ARCADIS
410 N. 44th STREET
SUITE 1000
PHOENIX, AZ

SHEET 04 OF 04

CONSTRUCTION DRAWINGS FOR AIR SPARGE TREATMENT SYSTEM SILVERCROFT WASH RELEASE SITE TUCSON, ARIZONA KINDER MORGAN APRIL 2020

DRAWING INDEX:



NOTE:
TOPOGRAPHIC MAP SOURCE:
GOOGLE EARTH PRO

LOCATION MAP
NOT TO SCALE

Registered Professional Engineer (Environmental)
CERTIFICATE NO.
59234
RYAN M. O'KEEFE
Date Signed
ARIZONA, U.S.A.

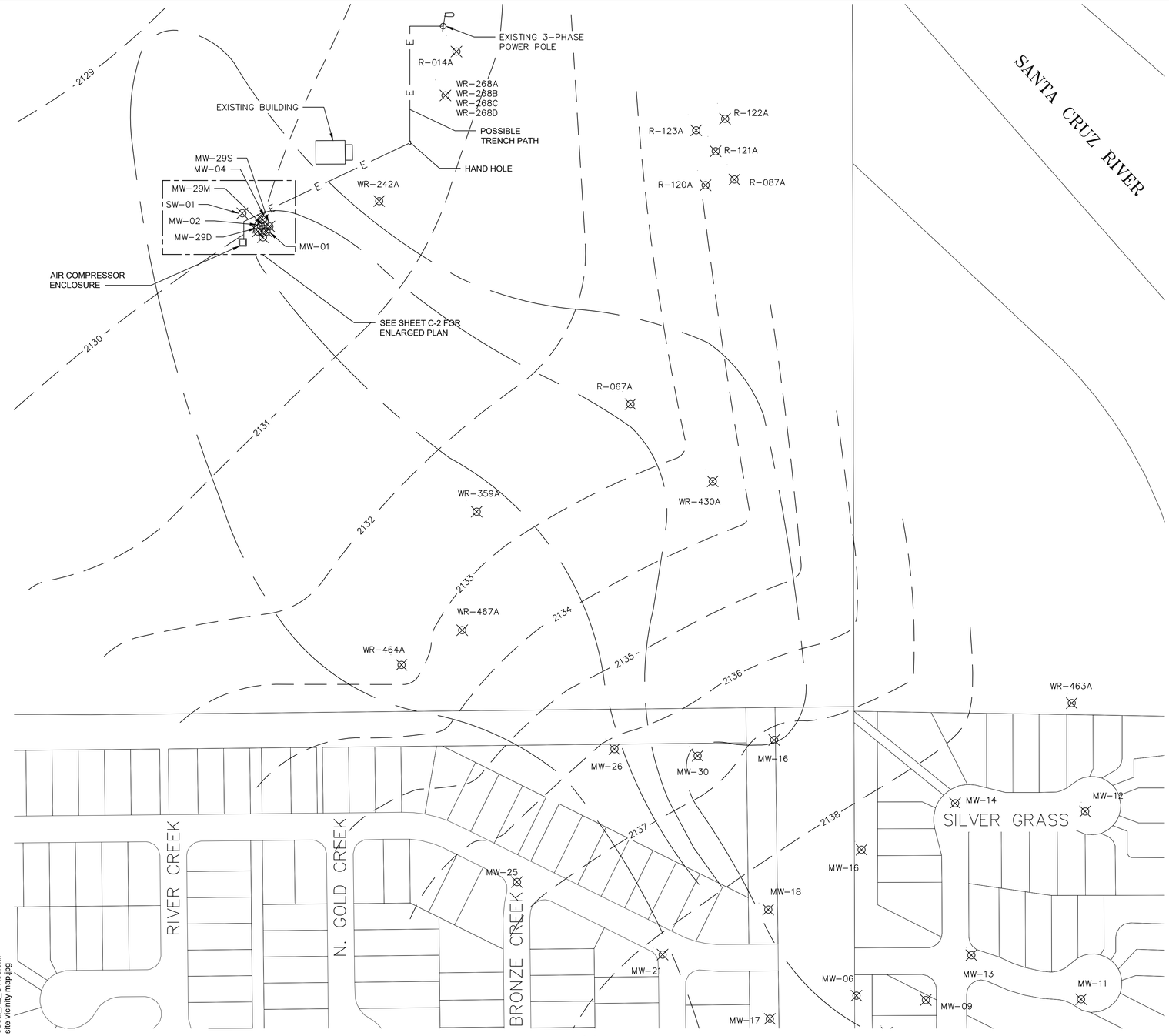
Date signed: 04/23/2020
Expires: 03/31/2021

APPROVED _____

LEGAL ENTITY: ARCADIS-U.S., INC.

ARCADIS Design & Consultancy for natural and built assets

City of Tucson Stamps Field:



SITE PLAN

0 100' 200'

LEGEND

CONTOUR
PLUME
WELL
ELECTRICAL — E — E — E —

NOTES:

1. CONTRACTOR SHALL MODIFY EXISTING MONITORING WELLS MW-29M AND MW-29D TO CONVERT TO AIR SPARGE WELLS.
2. CONTRACTOR SHALL INSTALL CONCRETE PAD AND FOUNDATION FOR AIR COMPRESSOR.
3. CONTRACTOR SHALL INSTALL FENCE AROUND CONCRETE PAD WITH ONE GATED ACCESS.
4. CONTRACTOR SHALL PURCHASE AND INSTALL AIR COMPRESSOR, AIR LINES, AND APPURTENANCES.
5. CONTRACTOR SHALL TRENCH AND INSTALL SUBGRADE AIR LINES FROM COMPRESSOR PAD TO WELL LOCATIONS.
6. REFER TO ELECTRICAL DRAWINGS FOR METER AND DISCONNECT DETAILS.

City of Tucson Stamps Field:

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Silvercroft_arcadis.dwt Aerial MAP.jpg
eSeal_AZ_O'Keefe.tif
site vicinity map.jpg

CITY: DIV/GROUP: DB: LD: PIC: PM: TM: LYRON=*;OFF=*REF*
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SCALE(S) AS INDICATED

THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING: USE TO VERIFY FIGURE REPRODUCTION SCALE

No.	Date	Revisions	By	Ckd
B	4/22/20	100% DESIGN	ROK	MPN
A	4/12/19	60% DESIGN	ROK	

Professional Engineer's Name: RYAN O'KEEFE
Professional Engineer's No.: 59234, expires 03/31/2021

State	Date Signed	Project Mgr.
AZ	04/23/2020	MPN
Designed by: ROK	Drawn by: GE	Checked by: MPN

Registered Professional Engineer (Environmental) CERTIFICATE NO. 59234 RYAN M. O'KEEFE Date Signed ARIZONA, U.S.A.

ARCADIS Design & Consultancy for natural and built assets

ARCADIS U.S. INC

KINDER MORGAN • TUCSON, ARIZONA
SILVERCROFT WASH RELEASE SITE

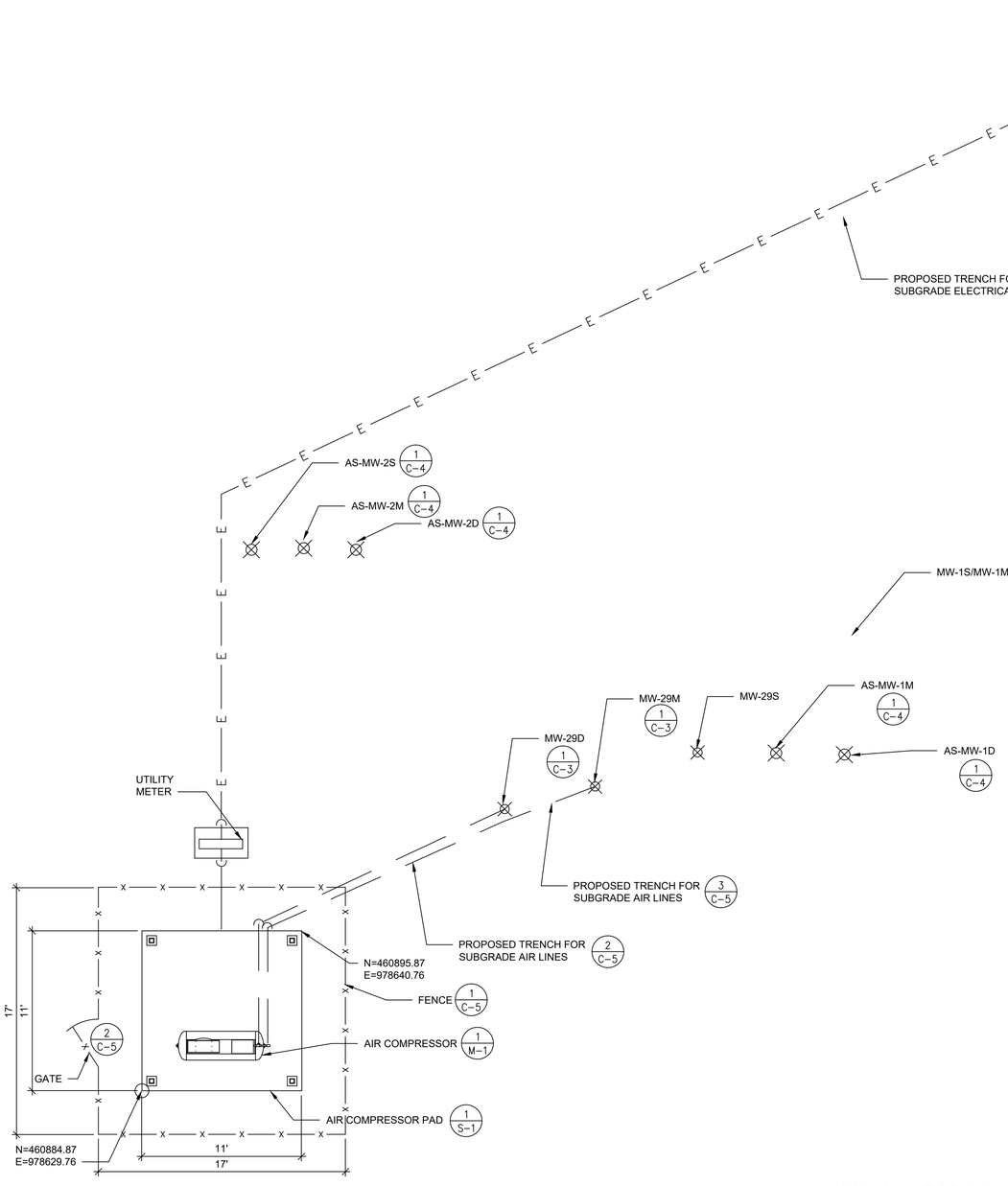
OVERALL SITE LAYOUT

CIVIL

ARCADIS Project No.: 30044877
Date: APRIL 2020

ARCADIS
410 N. 44th ST.
SUITE 1000
PHOENIX, AZ 85008

C-1



ENLARGED PLAN

0 5' 10'

LEGEND

- FENCE LINE — x — x — x — x —
- AIR SPARGE TRENCH ——— ——— ———
- EXISTING WELL ⊗
- PROPOSED MONITORING WELL ⊗
- ELECTRICAL TRENCH ——— E ——— E ———

NOTES:
1. REFER TO C-1 FOR LOCATION OF UTILITY POWER POLE.
2. REFER TO ELECTRICAL DRAWINGS FOR METER AND DISCONNECT DETAILS.

City of Tucson Stamps Field:

CITY: DIV/GROUP: DB: LD: PIC: PM: TM: LYR:ON=*;OFF=*REF*
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SCALE(S) AS INDICATED

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A	4/12/19	60% DESIGN	ROK	

Professional Engineer's Name: **RYAN O'KEEFE**
Professional Engineer's No.: 59234, expires 03/31/2021

State	Date Signed	Project Mgr.
AZ	4/23/2020	MPN
Designed by: ROK	Drawn by: MK	Checked by: MPN

Registered Professional Engineer (Environmental) CERTIFICATE NO. 59234 RYAN M. O'KEEFE Date Signed ARIZONA, U.S.A.

ARCADIS Design & Consultancy for natural and built assets

ARCADIS U.S. INC

KINDER MORGAN • TUCSON, ARIZONA
SILVERCROFT WASH RELEASE SITE

PROPOSED SYSTEM PLAN VIEW

CIVIL

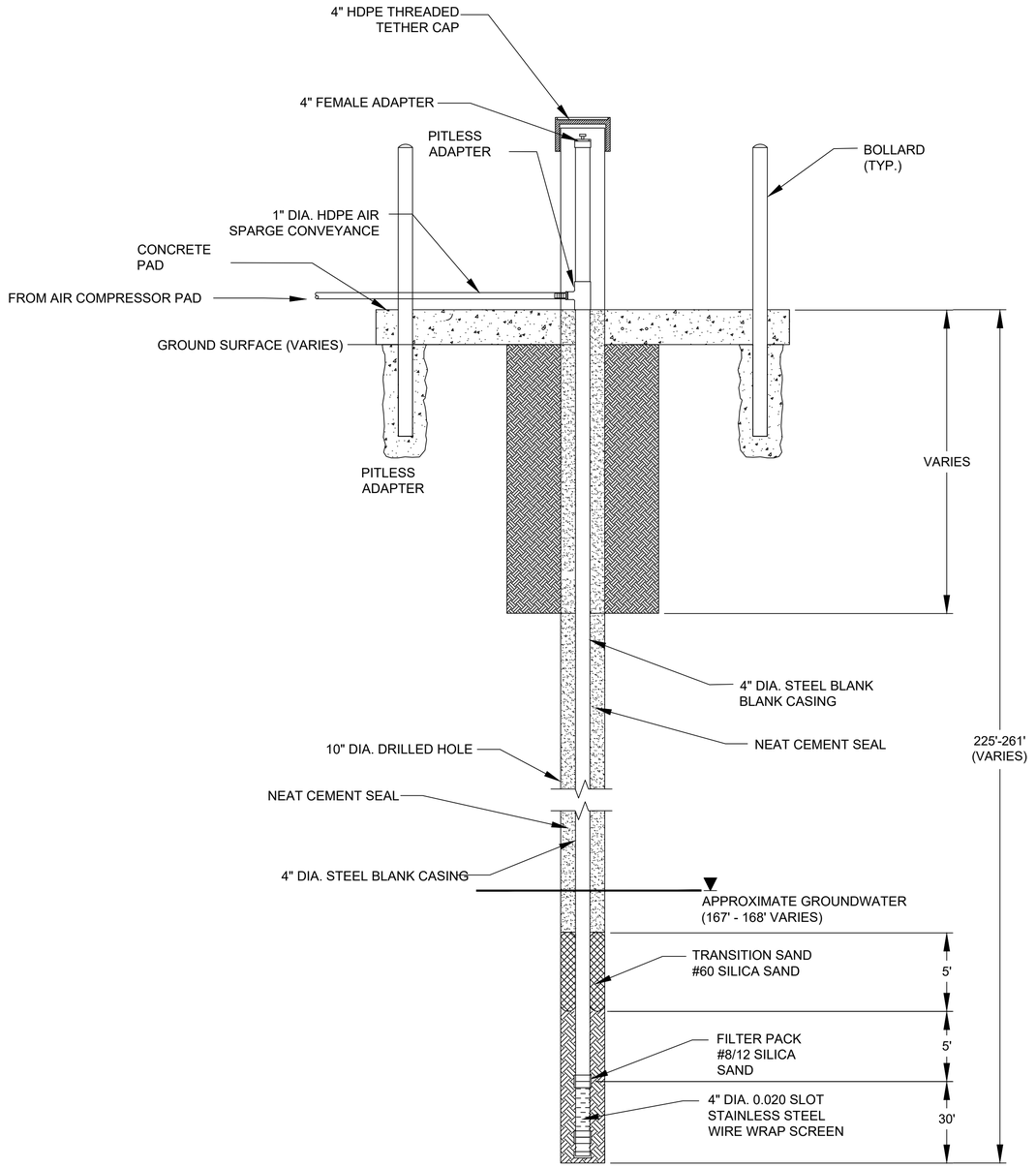
ARCADIS Project No. 30044877
Date APRIL 2020

ARCADIS
410 N. 44th ST.
SUITE 1000
PHOENIX, AZ 85008

C-2

NOTE:

1. CONTRACTOR SHALL COMPLETE SUBGRADE MODIFICATIONS TO COMPLETE CONVERSION OF MONITORING WELLS MW-29M AND MW-29D INTO AIR SPARGE WELLS.



1 C-2 **TYPICAL SPARGE WELL MODIFICATION DETAIL**

NOT TO SCALE

City of Tucson Stamps Field:

CITY: DIV/GROUP: DB: LD: PIC: PM: TM: LYR:ON=*;OFF=*REF*
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SCALE(S) AS INDICATED

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No.	Date	Revisions	By	Ckd
B	4/22/20	100% DESIGN	ROK	MPN
A	4/12/19	60% DESIGN	ROK	

Professional Engineer's Name: **RYAN O'KEEFE**
Professional Engineer's No.: 59234, expires 03/31/2021

State	Date Signed	Project Mgr.
AZ	4/23/2020	MPN
Designed by	Drawn by	Checked by
ROK	MK	MPN

Registered Professional Engineer (Environmental) CERTIFICATE NO. 59234 RYAN M. O'KEEFE Date Signed ARIZONA, U.S.A.

ARCADIS Design & Consultancy for natural and built assets

ARCADIS U.S. INC

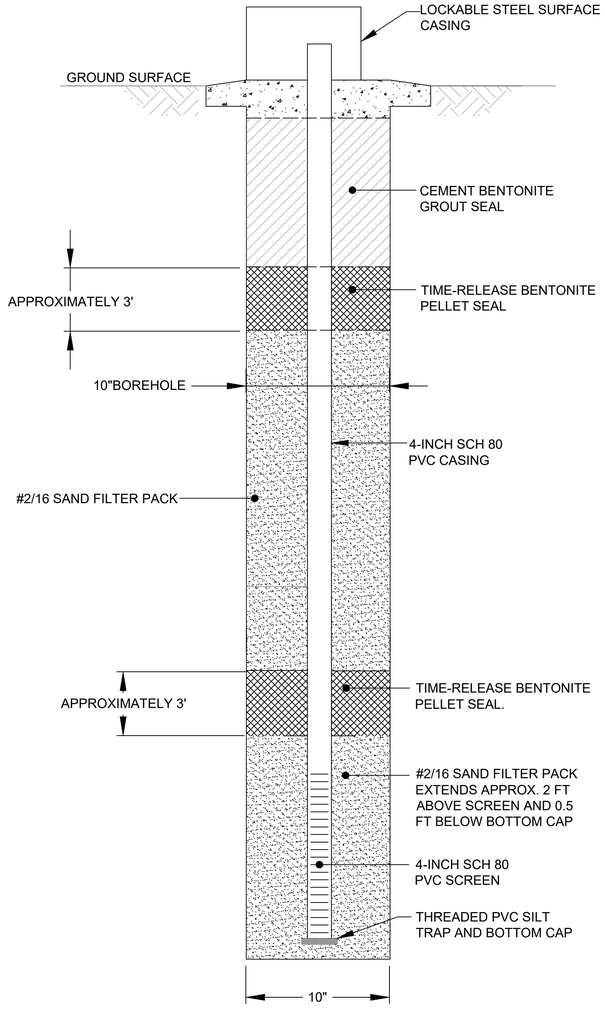
KINDER MORGAN • TUCSON ARIZONA
SILVERCROFT WASH RELEASE SITE

SPARGE WELL VAULT AND WELL HEAD MODIFICATION DETAILS

CIVIL

ARCADIS Project No. 30044877
Date APRIL 2020
ARCADIS 410 N. 44th ST. SUITE 1000 PHOENIX, AZ 85008

C-3



DOUBLE COMPLETION PERFORMANCE WELL SCREEN SCHEDULE

WELL ID	SCREEN INTERVAL FT BGS	SLOT SIZE	MATERIAL
AS-MW-1M	194-224	0.020	STAINLESS STEEL WIRE WRAP SCREEN
AS-MW-1D	229-259	0.020	STAINLESS STEEL WIRE WRAP SCREEN
AS-MW-2S	149-189	0.020	STAINLESS STEEL WIRE WRAP SCREEN
AS-MW-2M	194-224	0.020	STAINLESS STEEL WIRE WRAP SCREEN
AS-MW-2M	229-259	0.020	STAINLESS STEEL WIRE WRAP SCREEN

1
C-2

PERFORMANCE MONITORING WELL (TYP. OF 5)

NOT TO SCALE

City of Tucson Stamps Field:

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KINDER MORGAN • TUCSON, ARIZONA
SILVERCROFT WASH RELEASE SITE

PERFORMANCE MONITORING WELL DETAILS

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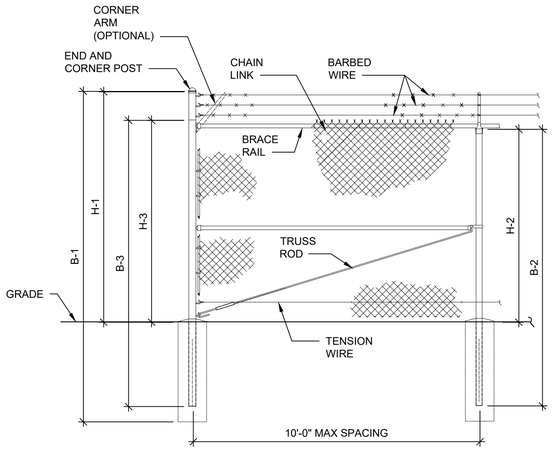
ARCADIS
410 N. 44th ST.
SUITE 1000
PHOENIX, AZ 85008

C-4



FENCE SECTION ELEVATION

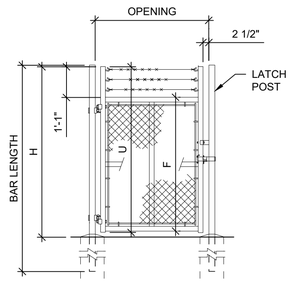
WITH TOP RAIL & WITH BARBED WIRE

NOTES:

1. STEEL PIPE SHALL CONFORM TO ASTM F1083. WITH MINIMUM YIELD STRENGTH OF 30 KSI.
2. STEEL TUBING SHALL BE ASTM A607 OR ASTM 569 AND SHALL BE GALVANIZED TO ASTM A525.
3. FOOTING WIDTH TO BE 12 INCHES
   THIS NOTE FOR GATE PLAN ELEVATION BELOW.

FENCE HEIGHT	UPRIGHT END AND CORNER POSTS			LINE POSTS			CORNER POSTS WITH CORNER ARM		
NOM HT INCLUDING BARBED WIRE	NOM. Ø IN	B-1 BAR LENGTH	H-1 HEIGHT ABOVE GRADE	NOM. Ø IN	B-2 BAR LENGTH	H-2 HEIGHT ABOVE GRADE	NOM. Ø IN	B-3 BAR LENGTH	H-3 HEIGHT ABOVE GRADE
10'-0"	3	13'-0"	10'-0 5/8"	2	11'-8"	8'-8 5/8"	3	12'-0"	9'-0 5/8"

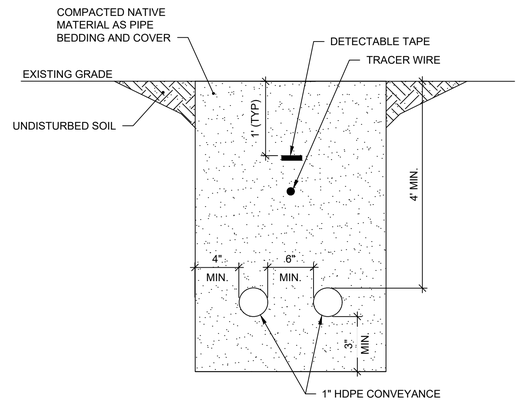
GATE PLAN VIEW



1 SINGLE GATE ELEVATION

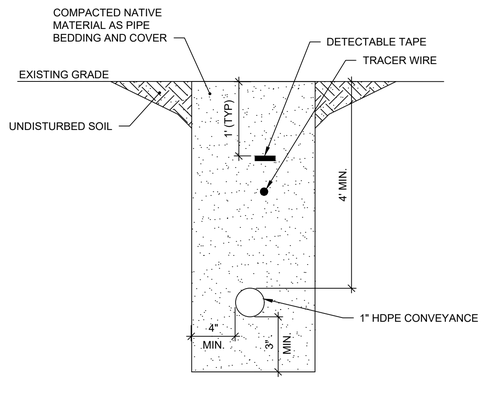
C-2

SINGLE OR DOUBLE LEAF GATES		
NOM HEIGHT (H)	UPRIGHT HT (U)	FRAME HT (F)
NOM HT INCLUDING BARBED WIRE	ACTUAL DIM	ACTUAL DIM
10'-0"	9'-10"	8'-8 1/2"



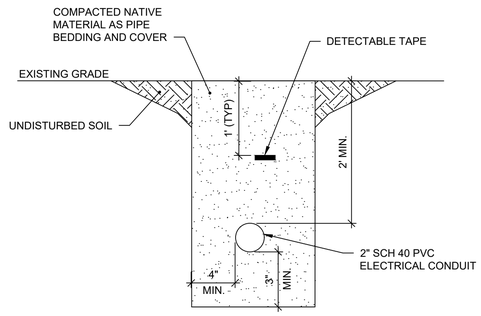
2 AIR CONVEYANCE TRENCH DETAIL

C-2



3 AIR CONVEYANCE TRENCH DETAIL

C-2



4 ELECTRICAL TRENCH DETAIL

C-2

City of Tucson Stamps Field:

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Professional Engineer's No.: 59234, expires 03/31/2021
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Designed by: ROK | Drawn by: GE | Checked by: MPN

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ARCADIS Design & Consultancy for natural and built assets

ARCADIS U.S. INC

KINDER MORGAN • TUCSON, ARIZONA
SILVERCROFT WASH RELEASE SITE

AIR CONVEYANCE TRENCH AND FENCE DETAILS

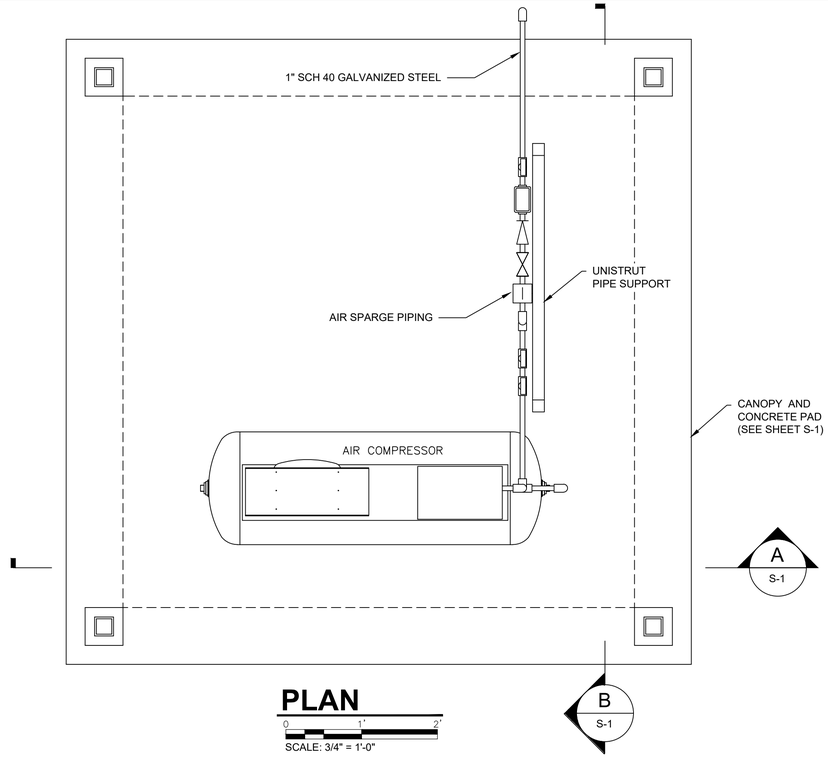
CIVIL

ARCADIS Project No. 30044877

Date APRIL 2020

ARCADIS
410 N. 44th ST.
SUITE 1000
PHOENIX, AZ 85008

C-5

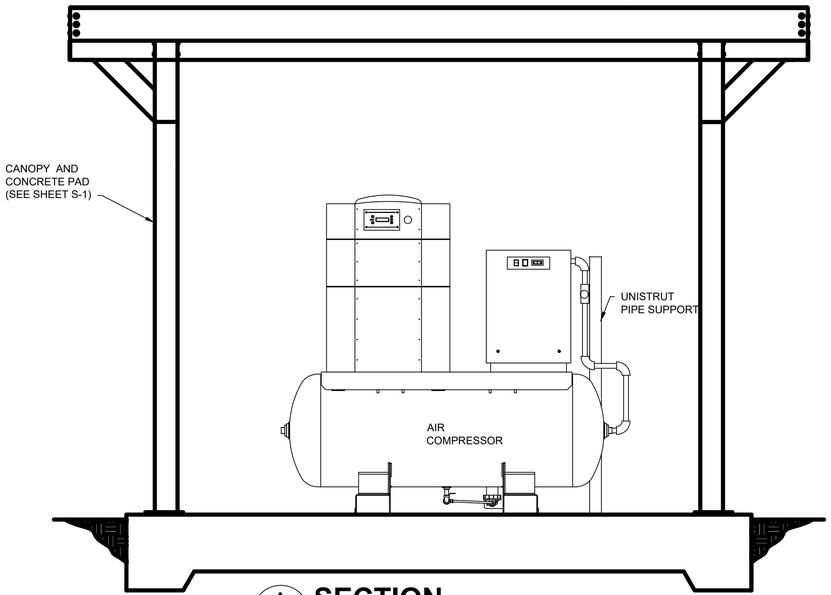


PLAN

SCALE: 3/4" = 1'-0"

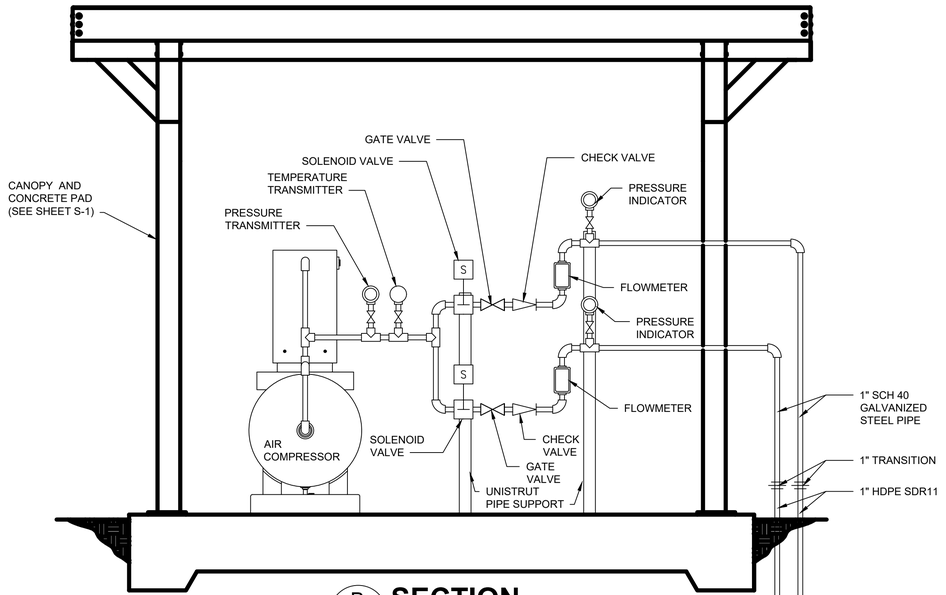
BILL OF MATERIAL

ITEM	QTY	DRAWING ID	DESCRIPTION	PIPE/ CONNECTION SIZE (INCHES)	MODEL / PART NO.	MANUFACTURER	NOTES / STATUS
	1	P-1	AIR COMPRESSOR	NA	L04-12 GIL80H3 GIL80V3	GARDNER-DENVER	SOLD THROUGH ACCURATE AIR ENGINEERING, INC.
PIT-101	1	P-1	PRESSURE INDICATOR TRANSMITTER	1/4	DPG-206	DWYER OR EQUIVALENT	
V-100/101	2	P-1	SOLENOID VALVE	1	8210G004	ASCO OR EQUIVALENT	
FE-100/101	2	P-1	FLOWMETER	1	UV-B112	DWYER OR EQUIVALENT	
PI-100/101	2	P-1	PRESSURE INDICATOR	1/4	113.13.20.200.L	WIKA OR EQUIVALENT	
V-102/103	2	P-1	GATE VALVE	1	2012-020	SPEARS OR EQUIVALENT	
V-104/105	2	P-1	CHECK VALVE	1	CB10	CDI VALVE OR EQUIVALENT	
-	30 ft.	P-1	ABOVE GROUND PROCESS PIPE	1	SCHEDULE 40 GALVANIZED STEEL		LENGTHS TO BE FIELD VERIFIED
-	45 ft.	P-1	TRENCHED PROCESS PIPE	1	SDR 11 HDPE		LENGTHS TO BE FIELD VERIFIED



A M-1 **SECTION**

SCALE: 3/4" = 1'-0"



B M-1 **SECTION**

SCALE: 3/4" = 1'-0"

City of Tucson Stamps Field:

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ARCADIS Design & Consultancy for natural and built assets

ARCADIS U.S. INC

KINDER MORGAN ● TUCSON, ARIZONA
SILVERCROFT WASH RELEASE SITE

AIR SPARGE PIPING LAYOUT

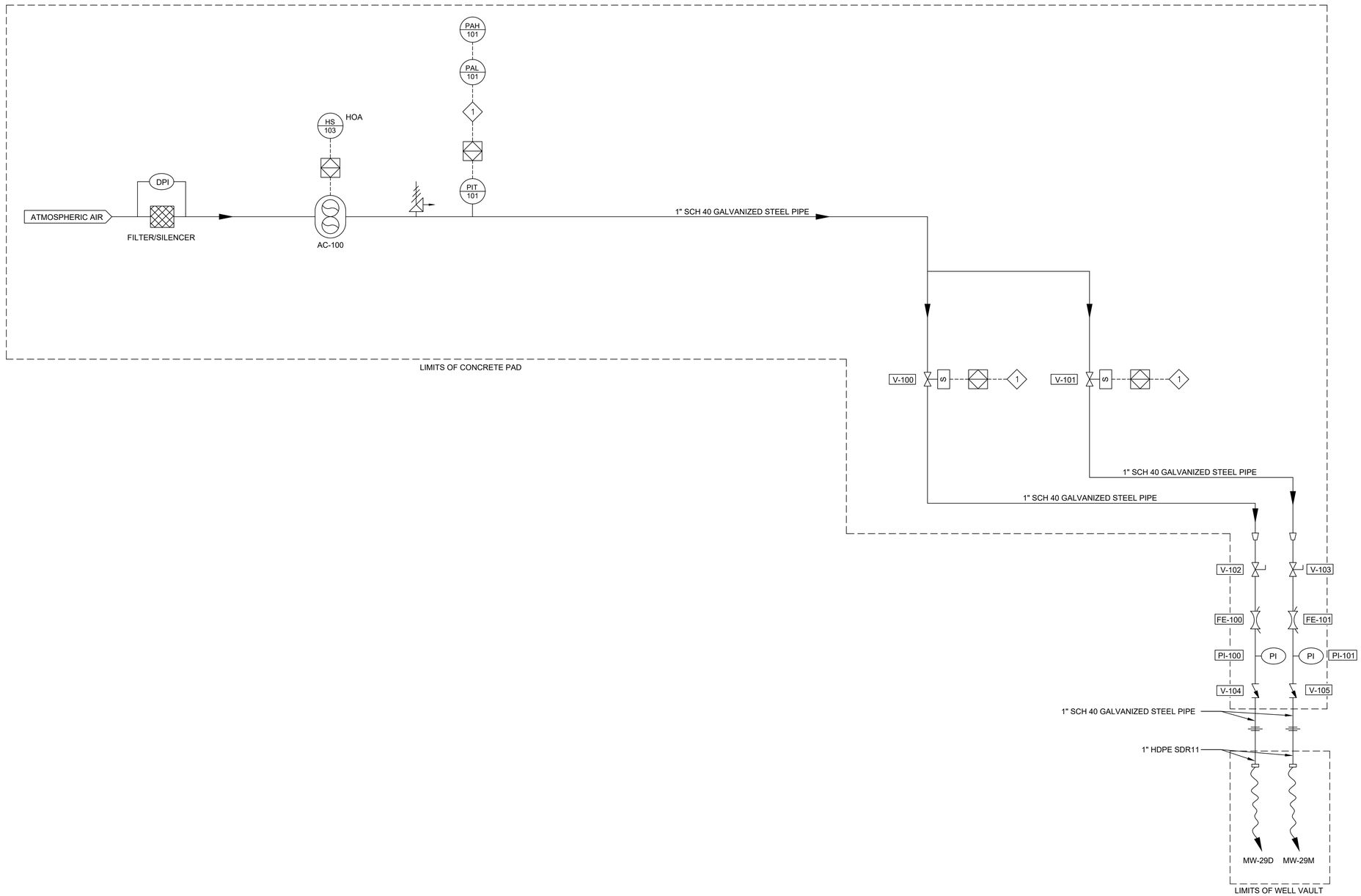
PROCESS

ARCADIS Project No. 30044877

Date APRIL 2020

ARCADIS
410 N. 44th ST.
SUITE 1000
PHOENIX, AZ 85008

M-1



ABBREVIATIONS:

PAH	PRESSURE ALARM HIGH
PAL	PRESSURE ALARM LOW
HS	HAND SWITCH
HOA	HAND OFF AUTO

INTERLOCKS:

1 — PRESSURE ALARM HIGH AND PRESSURE ALARM LOW, SHUT DOWN AC-100 AND CLOSE V-100 AND V-101 SIGNAL ALARM

LEGEND:

- PI — PRESSURE INDICATOR
- PIT — PRESSURE TRANSMITTER
- TI — TEMPERATURE INDICATOR
- DPI — DIFFERENTIAL PRESSURE INDICATOR
- TIT — TEMPERATURE TRANSMITER
- RELIEF VALVE
- GATE VALVE
- PNEUMATIC CHECK VALVE
- FLOWMETER
- S — SOLENOID VALVE
- HS # — HAND - OFF - AUTO HAND SWITCH
- PLC INTERLOCK
- AIR COMPRESSOR
- TRANSITION

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ARCADIS U.S. INC

KINDER MORGAN • TUCSON, ARIZONA
SILVERCROFT WASH RELEASE SITE

AIR SPARGE PROCESS AND INSTRUMENTATION DIAGRAM

PROCESS

ARCADIS Project No. 30044877
Date APRIL 2020
ARCADIS 410 N. 44th ST. SUITE 1000 PHOENIX, AZ 85008

P-1

STRUCTURAL

GENERAL

1. QUALITY OF CONSTRUCTION REQUIRED, PERFORMANCE LEVELS OF WORKMANSHIP, MANUFACTURING AND INDUSTRY STANDARDS, STRENGTH AND PHYSICAL REQUIREMENTS OF MATERIALS, CONFORMANCE TO CODES AND REGULATIONS, GUARANTEES AND OTHER PROJECT REQUIREMENTS ARE SPECIFIED HEREIN.
2. IF MATERIALS, QUANTITIES, STRENGTHS OR SIZES INDICATED BY THE DRAWINGS OR SPECIFICATIONS ARE NOT IN AGREEMENT WITH THESE NOTES, THE BETTER QUALITY AND/OR GREATER QUANTITY, STRENGTH OR SIZE INDICATED, SPECIFIED, OR NOTED SHALL BE PROVIDED.
3. PERFORM ALL WORK IN COORDINATION WITH ALL DRAWINGS AND INFORMATION RELATED TO STRUCTURAL WORK. ANY CHANGES TO THE EQUIPMENT REQUIRING CHANGES TO THE STRUCTURAL SYSTEMS SHALL BE REDESIGNED BY A PROFESSIONAL ENGINEER AT NO COST TO THE OWNER AND SUBMITTED TO THE ENGINEER. SUBMITTAL SHALL BE ACKNOWLEDGED IN WRITING BEFORE BEGINNING OF CONSTRUCTION.
4. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE TO ENSURE SAFETY OF THE STRUCTURE AND ITS COMPONENT PARTS DURING ERECTION. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF WHATEVEDR TEMPORARY BRACING, GUYS OR TIE-DOWNS THAT MAY BE NECESSARY. SUCH MATERIAL SHALL BE REMOVED AND SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER COMPLETION OF THE PROJECT.
5. STRUCTURAL ITEMS HAVE BEEN DESIGNED FOR DESIGN LOADS SHOWN OR SPECIFIED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR STRUCTURAL ITEMS SUBJECT TO CONSTRUCTION LOADS EXCEEDING THE DESIGN LOADS AND SHALL NOTIFY THE ENGINEER OF ANY SUCH ADDITIONAL LOADS.
6. NO STRUCTURAL MEMBERS SHALL BE CUT FOR PIPES, DUCTS, ETC. UNLESS SPECIFICALLY DETAILED OR APPROVED IN WRITING BY THE ENGINEER.
7. DESIGN LOADS: BASED ON INTERNATIONAL BUILDING CODE 2018 AND ASCE 7-16. SEE DESIGN AND CODE INFORMATION TABLE ON THIS SHEET FOR LOAD VALUES.
8. VERIFY EXISTING CONDITIONS AND DIMENSIONS AND NOTIFY ENGINEER OF ANY CONDITIONS AND DIMENSIONS WHICH DO NOT COMPLY WITH PLANS. STRUCTURAL DRAWINGS MUST BE COORDINATED WITH ALL OTHER DISCIPLINES.
9. SHOP DRAWINGS WILL NOT BE REVIEWED BY THE ENGINEER UNTIL AFTER THE GENERAL CONTRACTOR HAS THOROUGHLY REVIEWED THE SHOP DRAWINGS, VERIFIED EXISTING CONDITIONS, AND COORDINATED THE SHOP DRAWINGS WITH OTHER AFFECTED TRADES. REPRODUCTION OF STRUCTURAL DRAWINGS FOR SHOP DRAWINGS IS NOT PERMITTED.
10. DO NOT SCALE STRUCTURAL DRAWINGS, AND FOR LOCATION OF MISCELLANEOUS ITEMS (OPENINGS, BENT PLATES, INSERTS, ETC.) AFFECTING STRUCTURAL WORK, SEE CIVIL, MECHANICAL AND ELECTRICAL DRAWINGS.
11. ENGINEER OF RECORD FOR STRUCTURAL DESIGN WILL REVIEW AND APPROVE ALL CONSTRUCTION SUBMITTALS FOR STRUCTURAL WORK PRIOR TO ORDERING MATERIALS OR BEGINNING CONSTRUCTION OF THOSE COMPONENTS. SUBMITTALS REQUIRED FOR THE FOLLOWING: CONCRETE MIX INCLUDING ADMIXTURE DATA, PRE-ENGINEERED ALUMINUM CANOPY INCLUDING CALCULATIONS, ADHESIVE ANCHORS.

CAST IN PLACE CONCRETE

1. COMPLY WITH ACI 301-10, ACI 318-14 UNLESS SPECIFICALLY NOTED OTHERWISE.
2. FORM MATERIALS:
   - FORMS FOR FINISH CONCRETE: PLYWOOD, LUMBER, METAL, OR OTHER ACCEPTABLE MATERIAL, PROVIDE LUMBER DRESSED ON AT LEAST TWO EDGES AND ONE SIDE FOR TIGHT FIT.
   - EARTH FORMS: SUBJECT TO ENGINEER'S APPROVAL.
   - FORM RELEASE AGENT: COLORLESS MINERAL OIL WHICH WILL NOT STAIN CONCRETE OR ABSORB MOISTURE.
3. REINFORCEMENT
   - REINFORCING STEEL: ASTM A615, 60 KSI YIELD GRADE, DEFORMED BILLET STEEL BARS, UNFINISHED; OR ASTM A616, 60 KSI YIELD GRADE DEFORMED RAIL STEEL BARS, UNFINISHED.
4. CONCRETE MATERIALS AND ADMIXTURES
   - CEMENT: ASTM C150, TYPE II.
   - FINE AND COARSE AGGREGATES: ASTM C33 (NORMAL WEIGHT AGGREGATE); MATERIALS CONTAINING DELETERIOUS SUBSTANCE (SPALLING CAUSING) ARE NOT ACCEPTABLE. WATER: CLEAN, POTABLE.CHEMICAL: ASTM C494 TYPE A - WATER-REDUCING, TYPE B - RETARDING, TYPE D - WATER- REDUCING AND RETARDING, TYPE F - WATER-REDUCING, HIGH RANGE, TYPE G - WATER-REDUCING, HIGH RANGE AND RETARDING CONTAINING NO CHLORIDES; MASTER BUILDERS, W.R. GRACE, OR AS APPROVED. FLY ASH: ASTM C618 CLASS F OR C; LOSS ON IGNITION LESS THAN 3 PERCENT.
5. CURING MATERIALS MEMBRANE CURING COMPOUND: ASTM C309, TYPE 1-D, CLASS B, CLEAR WITH FUGITIVE DYE WHICH DISAPPEARS APPROXIMATELY 24 HOURS AFTER EXPOSURE TO SUNLIGHT; SPRAY-CURE SAFE CURE CLEAR, EUCLID CHEMICAL COMPANY KUREZ DR, OR AS APPROVED.
6. CONCRETE MIX
   - CONCRETE PROPORTIONS: COMPLY WITH ACI 301, 4.2.
   - PROVIDE CONCRETE TO THE FOLLOWING CRITERIA:
   - COMPRESSIVE STRENGTH (7 DAYS): 3200 PSI.
   - COMPRESSIVE STRENGTH (28 DAYS): 4000 PSI.
   - WATER/CEMENT RATIO (MAXIMUM): 0.50 BY WEIGHT.
   - FLY ASH CONTENT: MAXIMUM 25 PERCENT OF CEMENT CONTENT.
   - SLUMP (MAXIMUM): 3 INCHES (DUE TO WATER).
   - MID OR HIGH RANGE WATER REDUCER: ADD TO INCREASE SLUMP TO 6 INCHES, +1-1/2 INCHES.
7. PLACEMENT OF REINFORCEMENT
   - PLACE, SUPPORT, AND SECURE REINFORCEMENT AGAINST DISPLACEMENT. DO NOT DEVIATE FROM REQUIRED POSITIONS. UNLESS NOTED OTHERWISE, MAINTAIN CONCRETE COVER FOR REINFORCEMENT AS FOLLOWS:
   - FOOTINGS AND CONCRETE FORMED AGAINST EARTH : 3 INCH
   - ALL OTHER : 2 INCH
8. PLACING CONCRETE
   - WHEN CLASS 1 CONCRETE ARRIVES AT THE PROJECT WITH SLUMP BELOW 3 INCHES, WATER MAY BE ADDED ONLY IF NEITHER THE MAXIMUM PERMISSIBLE WATER -CEMENT RATIO NOR THE MAXIMUM SLUMP IS EXCEEDED. SLUMP ADJUSTMENT, WITH WATER, SHALL BE MADE ONLY ONE TIME.
   - CONSOLIDATE CONCRETE PER ACI-301 SECTION 5.3.2.5.
   - PROVIDE 3/4 INCH CHAMFER AT ALL EXTERNAL CORNERS.
   - SITE MIXING: USE DRUM-TYPE BATCH MACHINE MIXER, MIXING NOT LESS THAN 1.5 MINUTES FOR ONE CUBIC YARD OR SMALLER CAPACITY. INCREASE REQUIRED MIXING TIME BY MINIMUM OF 15 SECONDS FOR EACH ADDITIONAL CUBIC YARD OR FRACTION THEREOF.
   - READY-MIXED CONCRETE: COMPLY WITH ASTM C94/C94M.
   - COMPLETE CONCRETE PLACING WITHIN 90 MINUTES OF A ADDITION OF WATER TO THE DRY INGREDIENTS
   - PROTECT CONCRETE FROM PHYSICAL DAMAGE OR REDUCED STRENGTH DUE TO WEATHER EXTREMES DURING MIXING, PLACING, AND CURING. IN HOT WEATHER COMPLY WITH ACI 305R.
9. QUALITY OF CONCRETE WORK
   - MAKE CONCRETE SOLID, COMPACT, SMOOTH, AND FREE OF LAITANCE, CRACKS, AND COLD JOINTS.
   - CUT OUT AND PROPERLY REPLACE TO EXTENT DIRECTED BY ENGINEER , OR REPAIR TO
   - SATISFACTION OF ENGINEER, SURFACES ARE CRACKED, CONTAIN VOIDS, ARE UNDULY ROUGH, OR ARE IN DEFECTIVE IN ANY WAY.
   - REPAIR, REMOVAL AND REPLACEMENT OF DEFECTIVE CONCRETE DIRECTED BY ENGINEER SHALL BE AT NO ADDITIONAL COST TO OWNER.
10. CURING
    - HORIZONTAL SURFACES: CURE SURFACES IN ACCORDANCE WITH ACI 301 USING ANY OF THE FOLLOWING ACCEPTED PROCEDURES:
    - SPRAYING: SPRAY WATER OVER FLOOR SLAB AREAS AND MAINTAIN WET FOR 7 DAYS.
    - ABSORPTIVE MAT: SATURATE BURLAP-POLYETHYLENE AND PLACE BURLAP-SIDE DOWN OVER FLOOR SLAB AREA, LAPPING ENDS AND SIDES; MAINTAIN IN PLACE FOR 7 DAYS.
    - MEMBRANE CURING COMPOUND
    - VERTICAL SURFACES: CURE SURFACES USING ANY OF THE FOLLOWING ACCEPTED PROCEDURES:
    - FORMWORK: KEEP FORMS IN PLACE FOR 7 DAYS.
    - MEMBRANE CURING COMPOUND.
11. CONCRETE FINISHING
    - HORIZONTAL CONCRETE SURFACES: ACI 301, 5.3.4.2.D, NON-SLIP BROOM FINISH, MAXIMUM VARIATION OF SURFACE FLATNESS FOR EXPOSED CONCRETE 1/8 INCHES IN 10 FEET.
    - FORMED CONCRETE SURFACES NOT EXPOSED: ACI 301, 5.3.3.3.A, ROUGH FORM FINISH.
    - EXPOSED FORMED SURFACES: ACI 301, 5.3.3.4.B, GROUT-CLEANED FINISH.
12. FIELD QUALITY CONTROL
    - CONTRACTOR SHALL EMPLOY INDEPENDENT TESTING LABORATORY TO PERFORM FIELD QUALITY CONTROL TESTING FOR CONCRETE.
    - TESTING LABORATORY WILL PROVIDE ALL LABOR, MATERIAL, AND EQUIPMENT REQUIRED FOR
    - SAMPLING AND TESTING CONCRETE.
    - TESTS OF CONCRETE SLUMP AND STRENGTH WILL BE MADE AT THE DIRECTION OF THE ENGINEER.

PRE-ENGINEERED ALUMINUM CANOPY

1. DESIGN, FABRICATE, AND INSTALL PRE- ENGINEERED, PRE-FINISHED ALUMINUM CANOPY.
2. SUBMITTALS
   - SUBMIT COMPLETE SHOP DRAWINGS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN ARIZONA INCLUDING:
   1) OVERALL CANOPY LAYOUT DIMENSIONS
   2) CUT SECTION DETAILS INCLUDING ELEVATION, SUPPORT FRAMING LAYOUT AND DIMENSIONS, CANOPY CONNECTION DETAILS
   3) FLASHING DETAILS PERTAINING TO ALUMINUM CANOPY
   4) CANOPY COLUMN ANCHORAGE DETAILS
   5) CERTIFICATION - PROVIDE CERTIFICATION THAT THE PROPOSED CANOPY DESIGN AND LAYOUT MEETS OR EXCEEDS ALL APPLICABLE LOADINGS FOR THE JOB LOCATION IN ACCORDANCE WITH IBC 2018 AND ASCE 7-16
   6) MANUFACTURER'S PRODUCT INFORMATION, SPECIFICATIONS, AND INSTALLATION INSTRUCTIONS FOR THE ALUMINUM CANOPY.
   7) STRUCTURAL CALCULATIONS INCLUDING ANCHORAGE.
3. QUALITY ASSURANCE
   - MANUFACTURER SHALL HAVE MINIMUM FIVE YEARS EXPERIENCE IN DESIGN, FABRICATION, AND PRODUCTION OF ALUMINUM PROTECTIVE COVERS. COMPONENTS SHALL BE ASSEMBLED IN SHOP TO GREATEST EXTENT POSSIBLE TO MINIMIZE FIELD ASSEMBLY.
   - ALUMINUM PROTECTIVE COVER, INCLUDING MATERIAL AND WORKMANSHIP, SHALL BE WARRANTED FROM DEFECTS FOR A PERIOD OF ONE YEAR FROM DATE OF COMPLETION OF ALUMINUM PROTECTIVE COVER INSTALLATION.
   - ACCEPTABLE MANUFACTURERS: MITCHELL METALS, LLC, DITTMER ARCHITECTURAL ALUMINUM OR AS APPROVED.
4. DESIGN & ASSEMBLY
   - DESIGN CRITERIA: SEE DESIGN AND CODE INFORMATION TABLE.
   - ALUMINUM CANOPY SHALL BE MECHANICALLY FASTENED USING INTERNALLY WELDED BRACKETS AND CONCEALED STAINLESS STEEL FASTENERS. WELDED CONNECTIONS PERMITTED.
   - CANOPY SHALL USE PERIMETER EXTRUDED GUTTER AND EXTRUDED DECKING. BEAMS ARE TO BE NOTCHED TO RECEIVE THE EXTRUDED GUTTER TO ALLOW DECKING TO SIT FLUSH TO THE TOP OF THE BEAM. EXTRUDED DECKING SHALL BE A ROLL-LOCKED DESIGN WHERE THE EXTRUDED CAP AND PAN SHALL INTERLOCK TO MAKE A RIGID STRUCTURE.
   - CANOPIES SHALL DRAIN FROM THE DECKING TO THE PERIMETER GUTTER, INTO THE DRAIN BEAM, AND DISCHARGE AT THE BOTTOM OF THE COLUMN. ANGLED SUPPORT BRACKETS ARE TO BE WELDED TO THE TOP PART OF EACH COLUMN. THE BRACES SHALL BE WELDED SO THAT WHEN THE COLUMN IS MECHANICALLY FASTENED TO FLUSH WITH THE OUTSIDE EDGE OF THE BEAM.
   - DEFLECTOR PLATES ARE TO BE INSTALLED AT THE BOTTOM OF THE COLUMN TO DISCHARGE THE WATER AWAY FROM THE COLUMN.
5. MATERIALS
   - COLUMNS ARE TO BE ALUMINUM TUBULAR EXTRUSIONS INCLUDING BASEPLATES AND STIFFENERS AS REQUIRED BY DESIGN. MINIMUM COLUMN SIZE SHALL BE 4"X 4" X 0.125" THICK. PROVIDE CLEAR ACRYLIC PROTECTION OR BITUMINOUS PAINT PROTECTION BETWEEN THE ALUMINUM BASE PLATE AND THE CONCRETE FOUNDATION.
   - BEAMS ARE TO BE OPEN TOPPED ALUMINUM TUBULAR EXTRUSIONS. MINIMUM BEAM SIZE SHALL BE
   - 4"X 6" X 0.125" THICK.
   - DECKING SHALL BE A RIGID ROLL-LOCKED DESIGN THAT IS SELF FLASHING AND UTILIZES INTERLOCKING SECTIONS. MINIMUM 3" X 6" CAP AND PAN.
   - GUTTER SHALL BE ALUMINUM EXTRUSION MINIMUM SIZE 4"X 6" X 0.093" THICK.
   - FASCIA SHALL BE ALUMINUM EXTRUSION, MINIMUM SIZE 1"X 6" X 0.070" THICK.
   - FLASHING SHALL BE MADE OF ALUMINUM SHEET PAINTED TO MATCH THE COLOR OF THE CANOPY. MINIMUM FLASHING THICKNESS SHALL BE 0.040" THICK.
   - ALL FRAMING FASTENERS SHALL BE 300 SERIES STAINLESS STEEL WITH NEOPRENE WASHERS. ALL RIVETS SHALL BE ALUMINUM. ALL DECKING FASTENERS SHALL BE LONG LIFE COATED STEEL WITH A 300 SERIES STAINLESS STEEL CAP AND NEOPRENE WASHER.
6. FINISHES
   - FACTORY APPLIED BAKED ENAMEL COMPLYING WITH AAMA 2603. COLOR TO BE AS SELECTED BY OWNER FROM MANUFACTURER'S STANDARD COLOR CHART.
7. ERECTION
   - CANOPIES ARE TO BE INSTALLED ACCORDING TO APPROVED SHOP DRAWINGS AND PLANS.
   - THE ENTIRE STRUCTURE SHALL BE INSTALLED STRAIGHT, TRUE, AND PLUMB ACCORDING TO STANDARD CONSTRUCTION PROCEDURES.
   - CANOPIES SHALL BE INSTALLED WITH MINIMAL SLOPE TO ALLOW WATER FLOW FROM TOP OF CANOPY TO DRAINING COLUMNS AND ELIMINATE PONDING.
   - ALL JOINTS, CORNERS, AND CONNECTIONS SHALL BE TIGHT AND CLEAN.
   - ALL EXPOSED FASTENERS ARE TO BE PAINTED TO MATCH THE CANOPY COLOR.
   - DECKING IS TO BE ALIGNED AND SECURED TO ALUMINUM FRAME STRUCTURE.
   - ALL CANOPY SURFACES EXPOSED ARE TO BE CLEANED AFTER INSTALLATION IS COMPLETE.

DESIGN AND CODE INFORMATION

1. BASED ON INTERNATIONAL BUILDING CODE (2018 EDITION) AND ASCE 7-16.
2. LIVE LOADS:

ROOF:	20 PSF
FLOOR:	250 PSF

3. WIND LOADS:

BASIC WIND SPEED, V:	103 MPH
ALLOWABLE STRESS WIND SPEED, Vasd:	90 MPH
RISK CATEGORY:	II
WIND EXPOSURE CATEGORY:	C
INTERNAL PRESSURE COEFFICIENT:	NA
COMPONENTS AND CLADDING WIND PRESSURES:	ZONE 1, 2, 3: +20 PSF/-18.3 PSF

4. SEISMIC LOADS:

SEISMIC IMPORTANCE FACTOR:	1.0
RISK CATEGORY:	II
SPECTRAL RESPONSE ACCELERATIONS:	S_S = 0.205 S_1 = 0.064
SITE CLASS:	C
SPECTRAL RESPONSE COEFFICIENTS:	S_{DS} = 0.164 S_{D1} = 0.073
SEISMIC DESIGN CATEGORY:	B
ANALYSIS PROCEDURE:	TO BE DETERMINED

5. SNOW LOADS:

GROUND SNOW LOAD	0 PSF

6. FLOOD LOADS: N/A
7. FOUNDATION DESIGN: ALLOWABLE SOIL BEARING PRESSURE USED FOR FOUNDATION DESIGN IS 2,000 PSF, (MAXIMUM ALLOWABLE BEARING CAPACITY PER GEOTECHNICAL SUBSURFACE EXPLORATION REPORT BY ALPHA GEOTECHNICAL & MATERIALS, INC. DATED MAY 8, 2017).

City of Tucson Stamps Field:

SCALE(S) AS INDICATED

THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING: USE TO VERIFY FIGURE REPRODUCTION SCALE

No.	Date	Revisions	By	Ckd
B	4/17/20	100% DESIGN	LAB	ROK
A	4/12/19	60% DESIGN		

Professional Engineer's Name: **LISA A. BOWE**
Professional Engineer's No.: 32924 EXP 9/30/2022

State	Date Signed	Project Mgr.
AZ	4/17/20	MPN
Designed by	Drawn by	Checked by
LAB	GE	ROK

Certified Professional Engineer 32924 LISA A. BOWE 4/17/20 ARIZONA, U.S.A.

ARCADIS Design & Consultancy for natural and built assets

ARCADIS U.S. INC

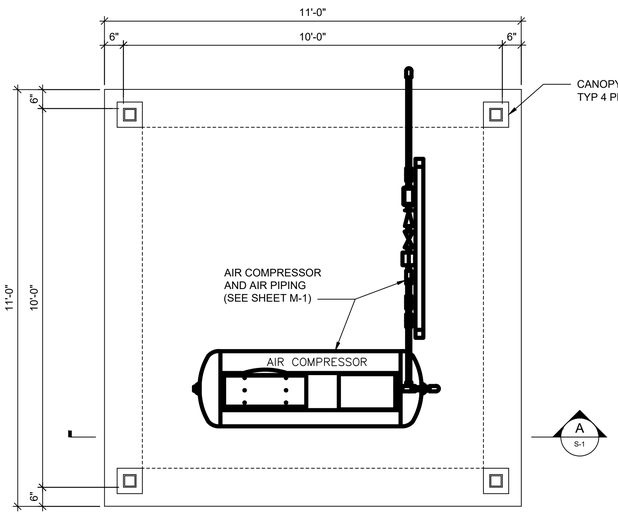
KINDER MORGAN • TUCSON, ARIZONA
SILVERCROFT WASH RELEASE SITE

GENERAL NOTES

STRUCTURAL

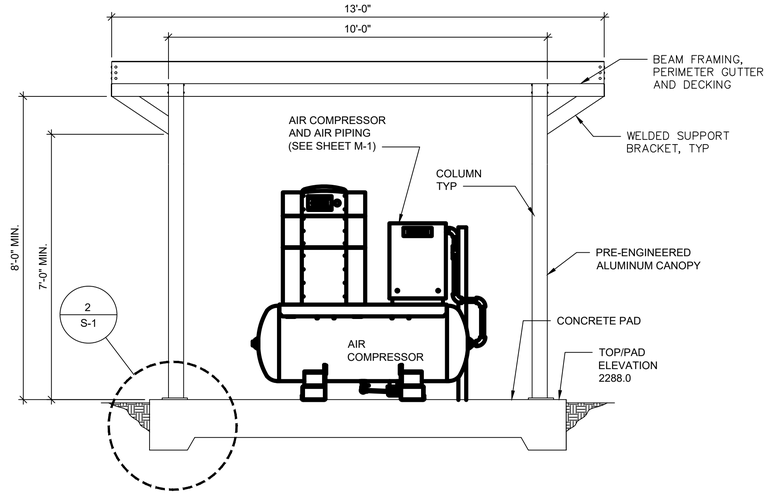
ARCADIS Project No. 30044877
Date APRIL 2020
ARCADIS 410 N. 44th ST. SUITE 1000 PHOENIX, AZ 85008

S-1



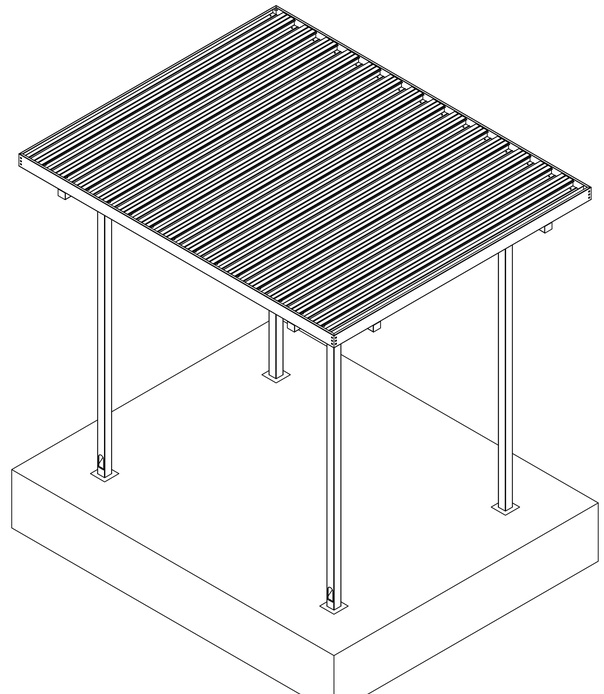
1 C-2 CONCRETE PAD PLAN

SCALE: 1/2" = 1'-0"



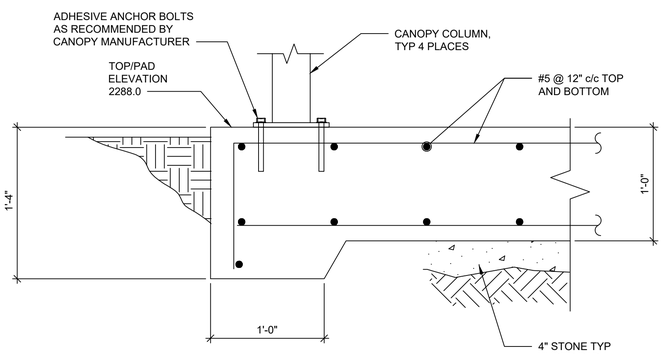
A S-1 SECTION

SCALE: 1/2" = 1'-0"



PRE-ENGINEERED CANOPY

ISOMETRIC VIEW



2 S-1 DETAIL

SCALE: 1 1/2" = 1'-0"

City of Tucson Stamps Field:

CITY: DIV/GROUP: DB: LD: PIC: PM: TM: LYR:ON=*;OFF=*REF*
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PLOTSTYLETABLE: MONOCHROME.CTB PLOTTED: 5/1/2020 4:14 PM BY: BROWN-MUNOZ, FRANCISCO
XREFS: IMAGES: PROJECTNAME: ----

SCALE(S) AS INDICATED

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No.	Date	Revisions	By	Ckd
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Professional Engineer's Name: **LISA A. BOWE**
Professional Engineer's No.: 32924 EXP 9/30/2022

State	Date Signed	Project Mgr.
AZ	4/17/20	MPN
Designed by: LAB	Drawn by: GE	Checked by: ROK

Registered Professional Engineer CERTIFICATE NO. 32924 LISA A. BOWE 4/17/20 ARIZONA, U.S.A.

ARCADIS Design & Consultancy for natural and built assets

ARCADIS U. S. INC

KINDER MORGAN ● TUCSON, ARIZONA
SILVERCROFT SILVERCROFT SITE

CANOPY AND CONCRETE PAD DETAILS

STRUCTURAL

ARCADIS Project No. 30044877
Date APRIL 2020

ARCADIS
410 N. 44th ST.
SUITE 1000
PHOENIX, AZ 85008

S-2

ELECTRICAL SPECIFICATIONS:

GENERAL

1. ALL ELECTRICAL EQUIPMENT SHALL BE U.L. LISTED AND LABELED. ELECTRICAL EQUIPMENT AND INSTALLATION COMPLY WITH NFPA 70 AND 70E.

2. ALL ELECTRICAL WORK SHALL BE COMPLETED IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS INCLUDING THE MOST RECENT EDITION OF THE NATIONAL ELECTRIC CODE (NEC) AND OSHA REQUIREMENTS, ALL AS INTERPRETED BY THOSE HAVING JURISDICTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COORDINATION REQUIRED WITH THE LOCAL FIRE DEPARTMENT. ANY DRAWINGS REQUIRED FOR PERMITS OTHER THAN THOSE PRESENTED HEREIN WILL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE REVIEWED BY THE ENGINEER PRIOR TO USE.

3. THERE SHALL BE NO SUBSTITUTIONS UNLESS THE CONTRACTOR HAS OBTAINED WRITTEN APPROVAL FROM THE OWNER AFTER HAVING SUBMITTED AN ALTERNATIVE PROPOSAL COMPLETE WITH A DESCRIPTION OF DEVIATION FROM THE SPECIFICATIONS AND A STATEMENT OF BENEFITS TO BE DERIVED SHOULD SUCH A PROPOSED SUBSTITUTE BE ACCEPTED.

4. THE ELECTRICAL DRAWINGS ARE DIAGRAMMATIC AND ARE INTENDED TO SHOW THE APPROXIMATE LOCATIONS OF OUTLETS, CONDUIT, JUNCTION BOXES, EQUIPMENT, ETC. DIMENSIONS PRESENTED ON THE DRAWINGS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS AND ALL DIMENSIONS, WHETHER SHOWN ON THE DRAWINGS OR SCALED, SHALL BE VERIFIED IN THE FIELD.

5. ELECTRICAL PANEL BUILDER(S) SHALL PROVIDE DETAILED SHOP DRAWINGS OF PANEL FOR ENGINEER APPROVAL PRIOR TO CONSTRUCTION.

6. UNLESS OTHERWISE NOTED, CONDUIT USE SHALL BE AS FOLLOWS:

   A. CONDUIT ABOVE GRADE AND EXPOSED TO THE ELEMENTS SHALL BE RIGID GALVANIZED STEEL (RGS).

   B. FINAL CONNECTION TO MOVING EQUIPMENT (i.e. MOTORS, TRANSFORMERS, FREE STANDING EQUIPMENT, ECT.) SHALL BE BY LIQUID TIGHT FLEXIBLE METALLIC CONDUIT.

   C. INTERIOR LIGHTING CIRCUITS ABOVE 8'-0" AFF SHALL BE MC CABLE WITH A DEDICATED GROUNDING CONDUCTOR.

   D. DIRECT BURIED CONDUIT BELOW GRADE SHALL BE SCHEDULE 40 PVC. RIGID CONDUIT (RGS) SHALL BE USED ABOVE GRADE. PROVIDE SEAL OFF FITTINGS FOR ALL CONDUITS ENTERING AND EXITING CLASSIFIED AREAS.

7. INSTALL PULL BOXES, JUNCTION BOXES, SPLICE BOXES AND FITTINGS WHERE SHOWN AND AT OTHER LOCATIONS AS NECESSARY. PULL AND JUNCTION BOX MATERIAL SHALL MATCH THE CONDUIT SYSTEM ATTACHED.

8. ALL 120 VOLT, SINGLE PHASE 20 AMPERE RECEPTACLE OUTLETS USED BY THE CONTRACTOR SHALL BE GROUND FAULT CIRCUIT INTERRUPTER (GFCI) TYPE. ALL RECEPTACLES INSTALLED OUTDOORS SHALL BE WEATHER RESISTANT, GFCI TYPE RECEPTACLES, PER NEC 406.9.

RIGID METAL CONDUIT (RGS)

1. GALVANIZED STEEL, HOT-DIPPED ZINC, ANSI STANDARD C80.1 AND C80.4.

2. MANUFACTURER SHALL BE ALLIED TUBE & CONDUIT CORPORATION, TRIANGLE WIRE AND CABLE INC., OR EQUAL.

NONMETALLIC CONDUIT (PVC)

1. NONMETALLIC RIGID CONDUIT AND FITTINGS SHALL BE SCHEDULE 40, POLYVINYL CHLORIDE AND SHALL BE RESISTANT TO CORROSION.

2. CONDUIT AND FITTINGS SHALL BE IN ACCORDANCE WITH NEMA STANDARD TC-2 AND TC-3, LATEST REVISION.

3. MANUFACTURER SHALL BE CARLON ELECTRIC CONDUIT CO., TRIANGLE PWC CO., OR EQUAL.

LIQUID TIGHT FLEXIBLE METALLIC CONDUIT (LFMC)

1. FLEXIBLE CONDUIT SHALL BE AN INTERLINKED GALVANIZED STEEL CORE WITH A SMOOTH LIQUID TIGHT PVC COVER.

2. FITTINGS SHALL BE NEMA-3R RATED AND MATCH CONDUIT TYPE INSTALLED.

3. MANUFACTURER'S SHALL BE ANACONDA, LIQUATITE OR EQUAL.

JUNCTION BOXES

1. IN INDOOR, DRY LOCATIONS, JUNCTION BOXES AND FITTINGS SHALL BE OF GALVANIZED STEEL OR COPPER FREE ALUMINUM. IN EXTERIOR LOCATIONS, JUNCTION BOXES SHALL BE NEMA 4X STAINLESS STEEL.

WIRES AND CABLES

1. GENERAL

   A. ALL CONDUCTORS, UNLESS OTHERWISE NOTED, SHALL BE STRANDED COPPER, CONSTRUCTED OF SOFT DRAWN OR ANNEALED COPPER.

   B. CONDUCTORS INSULATION SHALL BE COLOR CODED. COLOR OF INSULATION SHALL BE ONE COLOR THROUGHOUT THE ENTIRE RUN.

   C. 277/480 VAC, THREE PHASE, 4 WIRE
      PHASE A - BROWN
      PHASE B - ORANGE
      PHASE C - YELLOW
      NEUTRAL - GRAY
      GROUND - GREEN

   D. 120/208 VAC, THREE PHASE, 4 WIRE
      PHASE A - BLACK
      PHASE B - RED
      PHASE C - BLUE
      NEUTRAL - WHITE
      GROUND - GREEN

2. LOW VOLTAGE CONDUCTORS

   A. ALL CONDUCTORS FOR POWER, LIGHTING AND 120 VAC CONTROL SHALL BE RATED FOR A MINIMUM OF 600 VAC.

   B. CONDUCTORS SHALL BE CONSTRUCTED OF UNCOATED CLASS C COPPER CONCENTRIC-LAY-STRANDED WIRES.

   C. POWER AND LIGHTING CONDUCTORS SHALL BE TYPE THWN-2-90C OR XHHW WITH PVC INSULATION AND NYLON JACKET.

3. INSTRUMENTATION CABLES

   A. TWISTED PAIR, WITH QUANTITY OF PAIRS AS SHOWN ON DRAWINGS, OF NO. 18 AWG TINNED COATED CLASS C COPPER CONCENTRIC LAY STRANDED WIRES WITH AN ALUMINUM POLYESTER SHIELD AND COPPER DRAIN. RATED FOR 600V AND COLOR CODED WITH PVC OUTER JACKET.

4. VARIABLE FREQUENCY DRIVE (VFD) CABLES

   A. SHALL HAVE A MINIMUM OF 45 MILS OF CROSS LINKED POLYETHYLENE INSULATION.

5. CONNECTORS

   A. PIGTAIL SPLICING #10 AND SMALLER, USE TAPERED SPRING WIRE NUTS. MANUFACTURER SHALL BE IDEAL WING NUT, BUCHANAN B-CAP, T&B PIGGIES, OR EQUAL.

   B. FOR TERMINATION OF #14 CONTROL WIRES TO TERMINALS, USE INSULATED COMPRESSION SPADE TYPE CONNECTORS. MANUFACTURER SHALL BE BURNDY HYDENT, T&B STA-KON, OR EQUAL.

   C. SPLICES AND TERMINALS FOR #8 AND LARGER SHALL BE COPPER COMPRESSION TYPE. MANUFACTURER SHALL BE BURNDY HYDENT OR HYLUG, T&B, STA-CON, OR EQUAL..

   D. FIXTURE CONNECTIONS MANUFACTURER SHALL BE T&B STA-KON SERIES PT-66M, IDEAL CRIMP SLEEVE NO. 410 WITH LONG BARREL, OR EQUAL.

   E. CONNECTORS IN OUTDOOR HANDHOLES (ABOVE GRADE OR IN GRADE) SHALL BE SUBMERSIBLE TYPE, RATED FOR USE IN UNDERGROUND AND EXTERIOR ENVIRONMENT.

GROUNDING

1. GROUNDING OF ELECTRICAL SYSTEMS AND EQUIPMENT SHALL, AT A MINIMUM, MEET THE REQUIREMENTS OF NEC ARTICLE 250 OR SHALL EXCEED ARTICLE 250 AS HEREIN SPECIFIED.

2. ALL CONDUITS SHALL HAVE AN INTERNAL GROUNDING CONDUCTOR. THIS GROUNDING CONDUCTOR SHALL BE PROVIDED ALTHOUGH IT MAY NOT BE SHOWN OR SCHEDULED ON THE PLANS.

3. GROUNDING ELECTRODE CONDUCTORS SHALL BE A MINIMUM OF NO. 6 AWG BARE STRANDED COPPER.

4. GROUND RODS SHALL BE 3/4" DIAMETER, 10 FEET LONG, STEEL CORE WITH COPPER MOLTEN WELDED OR ELECTROLYTICALLY BONDED TO EXTERIOR.

5. ALL CONNECTIONS SHALL BE MADE WITH COMPRESSION OR CADWELD CONNECTORS.

6. PROVIDE GROUNDING ELECTRODE SYSTEM AS REQUIRED BY NEC ARTICLE 250. GROUND RESISTANCE SHALL BE MEASURED AND ADDITIONAL GROUND RODS SHALL BE INSTALLED IF RESISTANCE IS GREATER THAN 25 OHMS, PER NEC REQUIREMENTS. GROUND RESISTANCE TEST SHALL BE PERFORMED MINIMUM OF 48 HOURS AFTER THE LAST RAINFALL. GROUND RESISTANCE TEST RESULTS SHALL BE SUBMITTED TO OWNER/OWNER'S AGENT FOR REVIEW AND APPROVAL.

ENCLOSURES

1. ENCLOSURES SHALL BE NEMA 12 FOR DRY, INDOOR LOCATIONS UNLESS OTHERWISE NOTED.

2. WET LOCATIONS OR OUTDOORS, ENCLOSURES SHALL BE NEMA 4X STAINLESS STEEL.

3. ENCLOSURES SHALL HAVE A NAMEPLATE ON THE EXTERIOR IDENTIFYING THE APPLICATION OR FUNCTION OF THE EQUIPMENT ENCLOSED. COORDINATE NAMING IN THE FIELD.

HAND HOLES (HH)

1. POLYMER REINFORCED CONCRETE, SIZED AS SHOWN IN DRAWINGS, WITH TIER 22 RATING, MANUFACTURED BY QUAZITE OR EQUAL.

WIRING DEVICES

1. RECEPTACLES MARKED AS GFCI SHALL BE OF THE GROUND FAULT CIRCUIT INTERRUPTER TYPE. MANUFACTURER SHALL BE GE TYPE TGTR 20, OR EQUAL.

2. WEATHER-PROOF (WP) RECEPTACLE COVERS SHALL BE IN-USE TYPE, CARLON E9UDVCRN, OR EQUAL, NON-METALLIC, NON-CONDUCTIVE CORROSION RESISTANT. COVER SHALL BE VIERTICAL TYPE RATED FOR IN-USE PROTECTION WITH BOTTOM ENTRY CORD.

3. SWITCHES

   D. LIGHTING SWITCHES SHALL BE RATED 20 AMPERES AT 120 VAC, TOGGLE OPERATED, PLASTIC ENCLOSED, SINGLE POLE, THREE-WAY OR FOUR-WAY AS SHOWN OR REQUIRED. MANUFACTURER SHALL BE P&S SERIES 20AC1 SPECIFICATION GRADE, OR EQUAL.

   E. SWITCHES SHALL HAVE SILVER ALLOY CONTACTS AND PROVISIONS FOR SIDE AND BACK WIRING.

   F. EACH SWITCH SHALL BE SUITED FOR FULL-RATED CAPACITY ON TUNGSTEN FILAMENT AND FLOURSCENT LAMP LOADS.

4. FACEPLATE AND COVERS

   A. FINISHED AREAS SHALL HAVE STAINLESS STEEL TYPE 302 ALLOY COVERS.

   B. WET AND CORROSIVE AREAS SHALL BE WEATHERPROOF COVERS WITH GASKETS.

DISCONNECT SWITCHES

1. NON-FUSIBLE SWITCH ASSEMBLIES: NEMA KS 1, TYPE HD LOAD INTERRUPTER ENCLOSED KNIFE SWITCH WITH EXTERNALLY LOCKABLE HANDLE INTERLOCKED TO PREVENT OPENING FRONT COVER WITH SWITCH IN "ON" POSITION, HANDLE LOCKABLE IN "OFF" POSITION. INCLUDE ELECTRICAL INTERLOCK (N.C.) SNAP SWITCH TYPE.

2. FUSIBLE SWITCH ASSEMBLIES: SAME CONSTRUCTION AS NON-FUSED EXCEPT WITH FUSE CLIPS DESIGNED TO ACCOMMODATE CLASS R FUSES.

3. VOLTAGE AND AMPERE RATING: AS INDICATED ON DRAWINGS.

DISCONNECT SWITCHES (CONT.)

4. SHORT CIRCUIT RATING: 10 KA FOR NON-FUSIBLE DISCONNECTS,100 KA FOR FUSIBLE DISCONNECTS UNLESS OTHERWISE INDICATED.

5. SWITCHES USED AS MAIN DISCONNECTS FOR BUILDINGS AND STRUCTURES SHALL BE RATED FOR SERVICE ENTRANCE USE.

6. ENCLOSURE: NEMA 4 UNLESS OTHERWISE INDICATED

7. INSTALLATION

   A. INSTALL SWITCHES WHERE INDICATED.

   B. INSTALL SWITCHES 5 FEET FROM OPERATING HANDLE TO FLOOR OR FINISHED GRADE, UNLESS OTHERWISE NOTED.

COMBINATION MOTOR CONTROLLERS

1. COMBINE MOTOR CONTROLLERS AND OVERCURRENT PROTECTION DEVICE IN CONTROL PANEL.

2. OVERCURRENT PROTECTION DEVICES:

   A. MOTOR CIRCUIT PROTECTOR (MCP): NEMA AB 1; INTEGRAL INSTANTANEOUS MAGNETIC TRIP IN EACH POLE. PROVIDE MANUAL INSTANTANEOUS TRIP ADJUSTMENT TO ALLOW ADJUSTMENT FROM 400 PERCENT TO 1000 PERCENT OF MOTOR STARTING CURRENT.

   B. THERMAL-MAGNETIC CIRCUIT BREAKERS (T-M): NEMA AB 1. INTEGRAL THERMAL AND INSTANTANEOUS MAGNETIC TRIP IN EACH POLE.

   C. PROVIDE TRIP RATING AS SHOWN IN SCHEDULE ON DRAWINGS.

3. MAGNETIC MOTOR CONTROLLERS:

   A. NEMA ICS 2. RATED IN ACCORDANCE WITH NEMA STANDARD SIZES AND HORSEPOWER RATINGS.

   B. MINIMUM RATING: NEMA SIZE 1.

   C. COIL OPERATING VOLTAGE: 120 VOLTS, 60 HZ FOR SIZE 3 AND SMALLER. USE LINE-RATED VOLTAGE COILS FOR SIZE 4 AND LARGER MOTOR STARTERS.

4. OVERLOAD RELAY: NEMA ICS; THREE THERMAL OVERLOAD RELAYS OF THE AMBIENT-COMPENSATED BI-METAL MELTING ALLOY TYPE.

DRY TYPE TRANSFORMERS

1. MANUFACTURERS

   A. ACME ELECTRIC, CUTLER-HAMMER, GENERAL ELECTRIC, HEVI-DUTY, SIEMENS, SQUARE D COMPANY, OR AS APPROVED.

2. FACTORY-ASSEMBLED, AIR-COOLED, DRY TYPE TRANSFORMERS; RATINGS AS INDICATED ON SCHEDULE.

City of Tucson Stamps Field:

SCALE(S) AS INDICATED

THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING: _____ USE TO VERIFY FIGURE REPRODUCTION SCALE

No.	Date	Revisions	By	Ckd
B	4/17/20	100% DESIGN	DEC	JMS
A	4/12/19	60% DESIGN	DEC	JMS

Professional Engineer's Name: JOHN M. SIDOTI
Professional Engineer's No.: 59617

State	Date Signed	Project Mgr.
AZ	4/17/20	MPN

Designed by	Drawn by	Checked by
DEC	DEC	JMS

Registered Professional Engineer (Retired) CERTIFICATE NO. 59617 JOHN M. SIDOTI DATE ISSUED 4/17/20 ARIZONA U.S.A. Exp. 3/31/21

ARCADIS Design & Consultancy for natural and built assets

ARCADIS U.S., INC.

KINDER MORGAN ● TUCSON, ARIZONA
SILVERCROFT WASH RELEASE SITE

ELECTRICAL SPECIFICATIONS (1 OF 2)

ELECTRICAL

ARCADIS Project No. 30044877

Date APRIL 2020

ARCADIS
410 N. 44th ST.
SUITE 1000
PHOENIX, AZ 85008

E-1

ELECTRICAL SPECIFICATIONS (CONT.):

DRY TYPE TRANSFORMERS (CONT):

3. INSULATION SYSTEM AND AVERAGE WINDING TEMPERATURE RISE:

   A. 1 TO 15 KVA: TEMPERATURE CLASS 185 DEGREES C WITH WINDING RISE OF 115 DEGREES C.

   B. 16 TO 500 KVA: TEMPERATURE CLASS 220 DEGREES C WITH WINDING RISE OF 150 DEGREES C.

4. CASE TEMPERATURE: MAXIMUM 35 DEGREES C RISE ABOVE AMBIENT AT WARMEST POINT.

5. WINDING TAPS:

   A. TRANSFORMERS LESS THAN 15 KVA: TWO 5 PERCENT BELOW RATED VOLTAGE, FULL CAPACITY TAPS ON PRIMARY WINDING.

   B. TRANSFORMERS 15 KVA AND LARGER: NEMA ST 20. MINIMUM OF FOUR 2-1/2 PERCENT FULL CAPACITY PRIMARY TAPS.

6. SOUND LEVELS: AS DETERMINED BY NEMA OR ANSI STANDARDS.

7. ENCLOSURE: TYPE 4XSS.

8. VENTILATION OPENINGS: DESIGNED TO PREVENT ACCIDENTAL ACCESS TO LIVE PARTS IN ACCORDANCE WITH UL, NEMA, AND NEC STANDARDS.

9. MOUNTING: CONCRETE PAD.

10. VIBRATION ISOLATING PADS.

11. COIL CONDUCTORS: CONTINUOUS WINDINGS IMPREGNATED WITH NON-HYGROSCOPIC, THERMO-SETTING VARNISH AND WITH TERMINATIONS BRAZED OR WELDED.

12. GROUND CORE AND COIL ASSEMBLY TO ENCLOSURE BY MEANS OF A VISIBLE, FLEXIBLE COPPER GROUNDING CONDUCTOR SIZED IN ACCORDANCE WITH NEMA, IEEE, AND ANSI STANDARDS.

13. NAMEPLATE: INCLUDE TRANSFORMER CONNECTION DATA AND OVERLOAD CAPACITY BASED ON RATED ALLOWABLE TEMPERATURE RISE.

14. TERMINAL COMPARTMENT: LOCATED AT THE BOTTOM OF THE TRANSFORMER.

15. LISTED BY UNDERWRITERS LABORATORIES, INC., FOR THE SPECIFIED TEMPERATURE RISE.

16. EXAMINATION

   A. VERIFY THAT SURFACES ARE SUITABLE FOR INSTALLING TRANSFORMER SUPPORTS.

17. INSTALLATION

   A. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

   B. PROVIDE PROPERLY SIZED HOUSEKEEPING PAD.

   C. SET TRANSFORMER PLUMB AND LEVEL.

   D. USE FLEXIBLE CONDUIT, 2 FEET MINIMUM LENGTH, FOR CONNECTIONS TO TRANSFORMER CASE; SEE SECTION 16111. MAKE CONDUIT CONNECTION TO SIDE PANEL OF ENCLOSURE.

   E. MOUNT TRANSFORMERS ON VIBRATION ISOLATING PADS SUITABLE FOR ISOLATING THE TRANSFORMER FROM THE BUILDING STRUCTURE.

   F. PROVIDE GROUNDING AND BONDING.

   G. MOUNT WITH A MINIMUM 3 INCH CLEARANCE FOR AIR CIRCULATION.

DRY TYPE TRANSFORMERS (CONT):

18. FIELD QUALITY CONTROL

   A. CHECK FOR DAMAGE AND TIGHT CONNECTIONS PRIOR TO ENERGIZING TRANSFORMER

   B. TEST TRANSFORMER AS REQUIRED TO VERIFY PROPER INSTALLATION AND OPERATION.

   C. MEASURE PRIMARY AND SECONDARY VOLTAGES AND MAKE APPROPRIATE TAP ADJUSTMENTS.

ELECTRICAL SYMBOL LEGEND

SINGLE LINE DIAGRAM		PLAN VIEW	
	SERVICE CONNECTION		SERVICE CONNECTION
	CIRCUIT BREAKER	HP	MOTOR
	DISCONNECT SWITCH	M	METER
HP	MOTOR		GROUND ROD
	COMBINATION MOTOR STARTER WITH MOTOR CIRCUIT PROTECTOR AND OVERLOADS		PANEL
M	METER		RECEPTACLES
	GROUND ROD		PROPOSED UTILITY POLE
	FUSE		
	DRY TYPE TRANSFORMER		
	PANEL		
VFD	VARIABLE FREQUENCY DRIVE		
SPD	SURGE PROTECTION DEVICE		
	RECEPTACLES		
	LIGHTS		

City of Tucson Stamps Field:

SCALE(S) AS INDICATED

THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING: USE TO VERIFY FIGURE REPRODUCTION SCALE

No.	Date	Revisions	By	Ckd
B	4/17/20	100% DESIGN	DEC	JMS
A	4/12/19	60% DESIGN	DEC	JMS

Professional Engineer's Name: JOHN M. SIDOTI
Professional Engineer's No.: 59617

State	Date Signed	Project Mgr.
AZ	4/17/20	MPN
Designed by	Drawn by	Checked by
DEC	DEC	JMS

Registered Professional Engineer (Civil) — CERTIFICATE NO. 59617 — JOHN M. SIDOTI — Date Signed 4/12/20 — ARIZONA U.S.A. — Exp. 3/31/21

ARCADIS | Design & Consultancy for natural and built assets

ARCADIS U.S., INC.

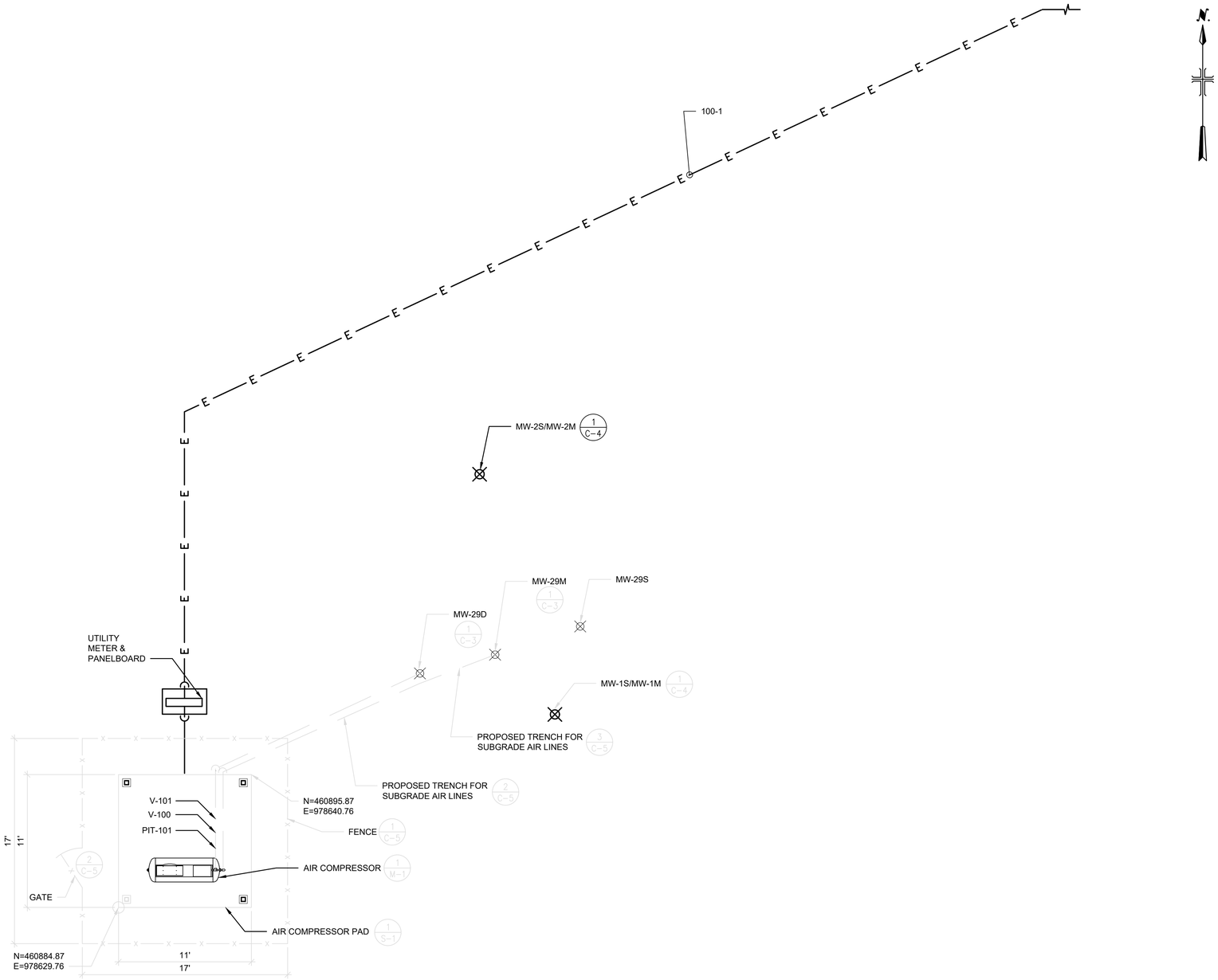
KINDER MORGAN ● TUCSON, ARIZONA
SILVERCROFT WASH RELEASE SITE

ELECTRICAL SPECIFICATIONS (2 OF 2) & SYMBOL LEGEND

ELECTRICAL

ARCADIS Project No. 30044877
Date APRIL 2020
ARCADIS 410 N. 44th ST. SUITE 1000 PHOENIX, AZ 85008

E-2



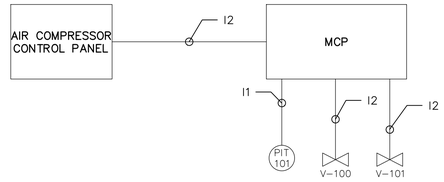
ENLARGED PLAN

0 5' 10'

LEGEND

FENCE LINE	x x x x
AIR SPARGE TRENCH	
EXISTING WELL	⊗
PROPOSED MONITORING WELL	⊗
ELECTRICAL TRENCH	E E

NOTES:
1. REFER TO C-1 FOR LOCATION OF UTILITY POWER POLE.
2. REFER TO ELECTRICAL DRAWINGS FOR METER AND DISCONNECT DETAILS.



INSTRUMENT RISER DIAGRAM

City of Tucson Stamps Field:

CITY: DIV/GROUP: DB: LD: PIC: PM: TM: LYR:ON=*;OFF=*REF*
\\arcadis-us.com\officedata\Milwaukee-WHEIC_DWG\PROJECTS\Kinder Morgan\Silvercroft\Dwg\CADD\E-3.dwg LAYOUT: E-3 SAVED: 4/22/2020 4:19 PM ACADVER: 22.0S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: BLACKGRAY-THIN.CTB PLOTTED: 4/22/2020 4:21 PM BY: CATCHPOLE, DAN
XREFS: IMAGES: PROJECTNAME: ----
JMS PE 4-22-20.jpg

SCALE(S) AS INDICATED

THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING: ____ USE TO VERIFY FIGURE REPRODUCTION SCALE

No.	Date	Revisions	By	Ckd
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A	4/12/19	60% DESIGN	DEC	JMS

Professional Engineer's Name: JOHN M. SIDOTI
Professional Engineer's No.: 59617

State	Date Signed	Project Mgr.
AZ	4/17/20	MPN
Designed by	Drawn by	Checked by
DEC	DEC	JMS

Professional Engineer Registration CERTIFICATE NO. 59617 JOHN M. SIDOTI ARIZONA U.S.A. Exp. 3/31/21 4/12/19

ARCADIS Design & Consultancy for natural and built assets

ARCADIS U.S. INC

KINDER MORGAN ● TUCSON, ARIZONA
SILVERCROFT WASH RELEASE SITE

ELECTRICAL PLAN VIEW

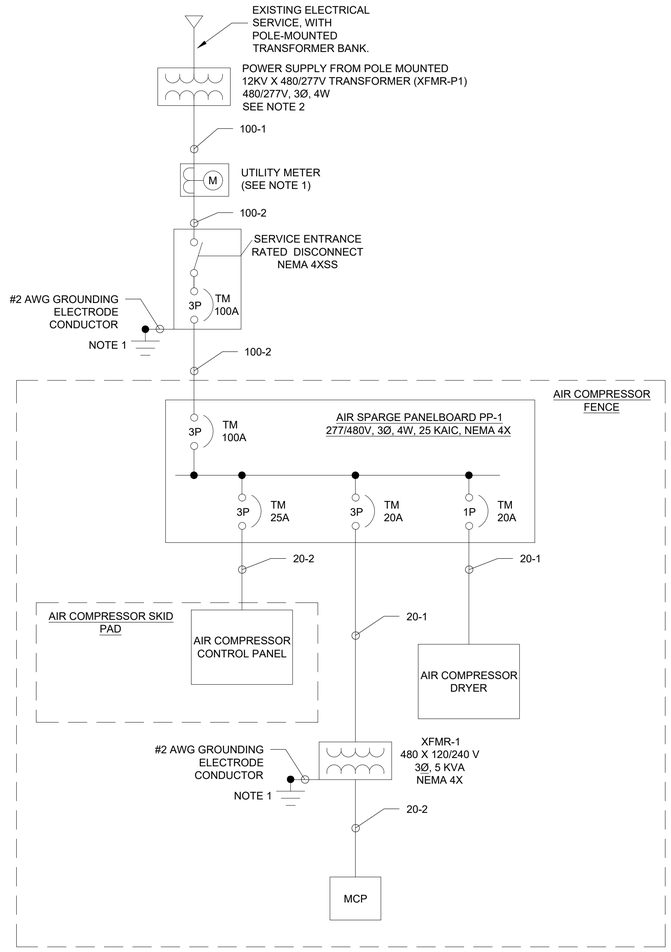
ELECTRICAL

ARCADIS Project No. 30044877

APRIL 2020

ARCADIS
410 N. 44th ST.
SUITE 1000
PHOENIX, AZ 85008

E-3



NOTES:

1. METER BASE SHALL BE PROVIDED AND INSTALLED BY CONTRACTOR IN ACCORDANCE WITH TUCSON ELECTRIC POWER (TEP). METER SHALL BE PROVIDED/INSTALLED BY TEP.

2. REFER TO CIVIL DRAWINGS FOR LOCATION OF OVERHEAD LINE AND METER.

CONDUCTOR SCHEDULE				
TAG	WIRE TYPE	CONDUCTORS	GROUND	CONDUIT
20-1	XHHW	(3) #10	(1) # 10	3/4"
20-2	XHHW	(3) #10	(1) # 10	3/4"
100-1	USE-RHW	(4) #2		2"
100-2	XHHW	(4) #2	(1) #6	2"
I1	SHLD	(1) 2/C #18	(1) # 14	3/4"
I2	XHHW	(2) #14	-	3/4"

AIR SPARGE PANELBOARD PP-1								
DEVICE	VOLTAGE	PHASE	HP	DUTY FACTOR	BREAKER SIZE (AMPS)	CONNECT LOAD - 460V (AMPS)**	DEMAND LOAD - 460V (AMPS)**	kVA	
AIR COMPRESSOR CONTROL PANEL	480	3	--	100.0%	20	17.00	17.00	14.13	
XFMR & MCP	480	3	--	100.0%	20	15.00	15.00	12.47	
					SUBTOTALS :	32	32	26.60	
						TOTAL ELECTRICAL LOAD:		32.00	CONNECTED AMPS
**VALUES TAKEN FROM 2017 NEC								32.00	DEMAND AMPS
MAIN BREAKER INFORMATION								40	MINIMUM BREAKER SIZE
								50	MAIN BREAKER

City of Tucson Stamps Field:

CITY: DIV/GROUP: DB: LD: PIC: PM: TM: LYR:ON=*;OFF=*REF*
\\arcadis-us.com\officedata\Milwaukee-WI\EIC_DWG\PROJECTS\Kinder Morgan\SilvercroftDwg\CADDIE-4.dwg LAYOUT: E-4 SAVED: 4/22/2020 4:19 PM ACADVER: 22.0S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: BLACKGRAY-THIN.CTB PLOTTED: 4/22/2020 4:21 PM BY: CATCHPOLE, DAN
XREFS: IMAGES PROJECTNAME: ----
JMS PE 4-22-20.jpg

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No.	Date	Revisions	By	Ckd
B	4/17/20	100% DESIGN	DEC	JMS
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Professional Engineer's Name		
JOHN M. SIDOTI		
Professional Engineer's No.		
59617		
State	Date Signed	Project Mgr.
AZ	4/17/20	MPN
Designed by	Drawn by	Checked by
DEC	DEC	JMS

Registered Professional Engineer (Electrical) CERTIFICATE NO. 59617 JOHN M. SIDOTI Date Signed 4/12/20 ARIZONA U.S.A.

Exp. 3/31/21

ARCADIS Design & Consultancy for natural and built assets

ARCADIS U.S., INC.

KINDER MORGRAN • TUCSON, ARIZONA
SILVERCROFT WASH RELEASE SITE

SINGLE LINE AND RISER DIAGRAM

ELECTRICAL

ARCADIS Project No. 30044877

Date APRIL 2020

ARCADIS
410 N. 44th ST.
SUITE 1000
PHOENIX, AZ 85008

E-4

Appendix I

Performance Monitoring Field Sheets

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MW-32M

GROUNDWATER SAMPLING LOG

Project No. 30113573.01 Well ID MW-2M Date 1/18/22

Project Name/Location KMEP – Silvercroft / Tucson, AZ Weather mild, cloudy, rain

Measuring Pt. Description NTOC Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) ~166 Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) 199 Purge Method: low flow Centrifugal Submersible Bennett Other Sample Method grab

Pump On/Off 1200 Volumes Purged ~14 L

Sample Time: Label 1242 Start 1242 End 1247 Replicate/ Code No. NA Sampled by MAT/SXA

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(umhos)~~ (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) ~~(°F)~~	Redox (mV)	Appearance Color	Appearance Odor
1210	10	300	NA	3	7.07	0.835	1.82	1.81	24.52	437.4	clear	*
1215	15			4.5	7.07	.839	1.44	1.44	24.30	403.6		
1220	20			6	7.07	.845	—	1.42	24.34	372.4		
1225	25			7.5	7.09	.858	—	2.35	23.97	343.1		
1230	30			9	7.10	.862	—	2.83	23.81	336.5		
1235	35			10.5	7.12	.864	—	3.10	23.53	329.8		
1240	40	↓	↓	12	7.13	.866	0.11	3.07	23.32	327.2	↓	↓

Constituents Sampled	Container	Number	Preservative
see COC			
* "Sweet" chemical	odor		
Fe = 0.05 mg/L			
Mn = 0.4			
Sulfide = .64-1.28 ↓			

Well Casing Volumes

Gallons/Foot: 1" = 0.04; 1.25" = 0.06; 1.5" = 0.09; 2" = 0.16; 2.5" = 0.26; 3" = 0.37; 3.5" = 0.50; 4" = 0.65; 6" = 1.47

Well Information

Well Location: field

Condition of Well: good

Well Completion: Flush Mount / (Stick Up)

Well Locked at Arrival: (Yes) / No

Well Locked at Departure: (Yes) / No

Key Number To Well: 2474

ARCADIS | Design & Consultancy for natural and built assets

MW-31M

GROUNDWATER SAMPLING LOG

Project No. 30113573.01 Well ID MW-1M Date 1/18/22

Project Name/Location KMEP – Silvercroft / Tucson, AZ Weather mild, clouds, rain

Measuring Pt. Description NTOC Screen Setting (ft-bmp) – Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) 1166 Total Depth (ft-bmp) – Water Column/ Gallons in Well NA

MP Elevation – Pump Intake (ft-bmp) 199 Purge Method: low flow Sample Method grab

Pump On/Off 1315 Volumes Purged 1.2 L Centrifugal Submersible Bennett Other

Sample Time: Label 1352 Start 1353 End 1358 Replicate/ Code No. NA Sampled by MAT/SXA

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(mmhos)~~ (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. ~~(°F)~~ (°C)	Redox (mV)	Appearance Color	Appearance Odor
1325	10	300	NA	3	7.52	1.021	–	7.10	22.68	349.1	cloudy	none
1330	15	↓	↓	4.5	7.52	1.002	19.8	6.97	23.99	355.3	↓	↓
1335	20			6	7.52	1.007	–	7.76	23.49	355.4		
1340	25			7.5	7.52	1.009	20.1	8.20	23.64	358.5		
1345	30			9	7.52	1.008	–	8.08	23.34	359.3		
1350	35	↓	↓	10.5	7.5	1.008	11.9	7.99	23.53	359.5	↓	↓

Constituents Sampled	Container	Number	Preservative
see COC			
Fe = 0.14 mg/L			
Mn = 0.0			
Sulfide = .64-1.28			

Well Casing Volumes

Gallons/Foot					
	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location:	Field	Well Locked at Arrival:	(Yes) / No
Condition of Well:	good	Well Locked at Departure:	(Yes) / No
Well Completion:	Flush Mount / (Stick Up)	Key Number To Well:	2174

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GROUNDWATER SAMPLING LOG

Project No. 30113573.01 Well ID MW-29M Date 1/18/22

Project Name/Location KMEP - Silvercroft / Tucson, AZ Weather mild, wind, rain

Measuring Pt. Description NTOC Screen Setting (ft-bmp) — Casing Diameter (in.) 4-" Well Material X PVC ___ SS

Static Water Level (ft-bmp) ~165.79 Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) 199 Purge Method: low flow Centrifugal Submersible Bennett Other Sample Method grab

Pump On/Off 1425 Volumes Purged ~11 L

Sample Time: Label 1457 Start 1457 End 1502 Replicate/ Code No. NA Sampled by MAT/SXA

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(umhos)~~ (mS/cm) c	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) ~~(°F)~~	Redox (mV)	Appearance Color	Appearance Odor
1435	10	300	NA	3	7.13	0.889	0.13	1.69	24.11	347.4	clear	#
1440	15	↓	↓	4.5	7.14	.891	↓	1.52	23.89	338.9	↓	↓
1445	20			6	7.14	.891		1.55	23.57	333.7		
1450	25			7.5	7.14	.895		1.57	23.56	329.3		
1455	30	↓	↓	9	7.14	0.901	↓	1.65	23.45	326.7	↓	↓

Constituents Sampled	Container	Number	Preservative
see COC			
# Slight chemical smell			
Fe = 0.03 mg/L			
Mn = 0.8			
Sulfide = 1.28-1.92			

Well Casing Volumes

Gallons/Foot					
	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location:	field	Well Locked at Arrival:	(Yes) / No
Condition of Well:	good	Well Locked at Departure:	(Yes) / No
Well Completion:	Flush Mount / (Stick Up)	Key Number To Well:	2174

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MW-32S

GROUNDWATER SAMPLING LOG

Project No. 30113573.01 Well ID MW-25 Date 1/19/22

Project Name/Location KMEP – Silverpoint / Tucson, AZ Weather Cool, overcast

Measuring Pt. Description NTOC Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) ~166 Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) 172 Purge Method: low flow Centrifugal Submersible Bennett Other Sample Method grab

Pump On/Off 0925 Volumes Purged ~18 L

Sample Time: Label 1017 Start 1017 End 1023 Replicate/ Code No. NA Sampled by MAT/SXA

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(mS/cm)~~ (mS/cm) C	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) ~~(°F)~~	Redox (mV)	Appearance Color	Appearance Odor
0935	10	300	NA	3	6.76	1.144	0.73	3.43	19.66	285.3	clear	
0940	15			4.5	6.77	1.145	—	3.07	21.92	276.1		
0945	20			6	6.78	1.145	0.22	2.99	22.37	264.6		
0950	25			7.5	6.79	1.142	—	2.82	22.94	260.2		
0955	30			9	6.80	1.142	—	2.95	22.69	248.7		
1000	35			10.5	6.81	1.140	—	2.95	22.67	242.5		
1005	40			12	6.83	1.139	—	2.94	22.61	235.3		
1010	45			13.5	6.85	1.135	—	2.93	22.56	231.0		
1015	50	↓	↓	15	6.85	1.136	—	2.91	22.69	228.3	↓	↓

Constituents Sampled	Container	Number	Preservative
see COC			
↓ Run MS/MSD			
Fe = 0.05 mg/L			
Mn = 0.7			
Sulfide = .64-1.28 ↓			

Well Casing Volumes

Gallons/Foot					
	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location:	field	Well Locked at Arrival:	(Yes) / No
Condition of Well:	good	Well Locked at Departure:	(Yes) / No
Well Completion:	Flush Mount / (Stick Up)	Key Number To Well:	2174

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GROUNDWATER SAMPLING LOG

Page 27 of 28

Project No. 30113573.01 Well ID MW-29S Date 1/19/22

Project Name/Location KMEP - Silvercroft / Tucson, AZ Weather cod, part clouds

Measuring Pt. Description NTOC Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) 167.15 Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) 172 Purge Method: low flow Sample Method grab

Pump On/Off 1105 Volumes Purged ~15 L Centrifugal / Submersible Beneath / Other

Sample Time: Label 1157 Start 1154 End 1202 Replicate/ Code No. NA Sampled by MAT/SXA

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(umhos)~~ (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) ~~(°F)~~	Redox (mV)	Appearance Color	Appearance Odor
1115	10	300	NA	3	7.05	1.169	1.05	1.60	24.28	207.5	clear	
1120	15			4.5	7.06	1.161	—	1.37	24.38	150.1		
1125	20			6	7.07	1.161	—	1.15	24.33	129.6		
1130	25			7.5	7.07	1.159	—	0.99	24.18	117.4		
1135	30			9	7.08	1.159	—	1.02	24.39	107.6		
1140	35			10.5	7.08	1.165	—	0.92	24.45	94.9		
1150	40			12	7.09	1.158	—	.86	24.38	91.0		
1155	45	↓	↓	13.5	7.09	1.162	—	.80	24.47	88.3	↓	↓

Constituents Sampled	Container	Number	Preservative
see COC			
Fe = 0.00 mg/L			
Mn = 0.3			
Sulfide = .64-1.28 ↓			

Well Casing Volumes

Gallons/Foot					
	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location:	field	Well Locked at Arrival:	(Yes) / No
Condition of Well:	good	Well Locked at Departure:	(Yes) / No
Well Completion:	Flush Mount / (Stick Up)	Key Number To Well:	2174

ARCADIS Design & Consultancy for natural and built assets

GROUNDWATER SAMPLING LOG

Project No. 30113573.01 Well ID MW-29D Date 1/10/22

Project Name/Location KMEP – Silvercroft / Tucson, AZ Weather warm, clear, wind

Measuring Pt. Description N-TOC Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) ~166 Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) 235 Purge Method: low flow Centrifugal Submersible beneath Other Sample Method grab

Pump On/Off 1315 Volumes Purged ~10 L

Sample Time: Label 1342 Start 1343 End 1357 Replicate/ Code No. NA Sampled by MAT/SXA

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(mMhos)~~ (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. ~~(°F)~~ (°C)	Redox (mV)	Appearance Color	Appearance Odor
1325	10	300	NA	3	7.66	0.958	60.0	7.69	23.95	238.7	cloudy	none
1330	15	↓	↓	4.5	7.08	.964	59	8.15	23.96	241.0	↓	↓
1335	20			6	7.09	.972	55	8.38	23.76	245.0		
1340	25	↓	↓	7.5	7.11	.973	52.0	8.44	23.60	250.2	↓	↓

(*) from IW effluent

Constituents Sampled	Container	Number	Preservative
see COC			
(*) MS/MSD			
Fe = 0.07 mg/L			
Mn = 0.1			
Sulfide = .64-1.28 ↓			

Well Casing Volumes

Gallons/Foot					
	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location:	field	Well Locked at Arrival:	(Yes) / No
Condition of Well:	good	Well Locked at Departure:	(Yes) / No
Well Completion:	Flush Mount / (Stick Up)	Key Number To Well:	2174

ARCADIS Design & Consultancy for natural and built assets

MW-32D

GROUNDWATER SAMPLING LOG

Project No. 30113573.01 Well ID MW-2D Date 1/10/22

Project Name/Location KMEP – Silvercroft / Tucson, AZ Weather Warm, clear, wind

Measuring Pt. Description N TOC Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) ~166 Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) 235 Purge Method: low flow Centrifugal Submersible Bennett Other Sample Method grab

Pump On/Off 1430 Volumes Purged ~22L

Sample Time: Label 1527 Start 1527 End 1536 Replicate/ Code No. MW-2D-DUP @ 1532 Sampled by MAT/SXA

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(umhos)~~ (mS/cm) c	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. ~~(°F)~~ (°C)	Redox (mV)	Appearance Color	Appearance Odor
1440	10	300	NA	3	7.00	0.971	75.4	1.71	23.74	-25.1		none
1445	15			4.5	7.02	.974		1.04	23.91	-1.1		
1450	20			6	7.03	.977		0.98	23.97	21.8		
1455	25			7.5	7.03	.982		.99	24.16	33.6		
1500	30			9	7.03	.986		1.07	23.81	46.0		
1505	35			10.5	7.04	.988		1.15	23.77	54.0		
1510	40			12	7.04	.991		1.22	23.68	59.6		
1515	45			13.5	7.04	.994		1.31	23.64	65.1		
1520	50			15	7.04	.998		1.37	23.56	70.6		
1525	55	↓	↓	20	7.04	0.996	36.6	1.40	23.45	73.5	↓	↓

Constituents Sampled	Container	Number	Preservative
see COC			
Fe = 0.00 mg/L			
Mn = 0.0			
Sulfide = .64 - 1.28			

Well Casing Volumes

Gallons/Foot: 1" = 0.04; 1.25" = 0.06; 1.5" = 0.09; 2" = 0.16; 2.5" = 0.26; 3" = 0.37; 3.5" = 0.50; 4" = 0.65; 6" = 1.47

Well Information

Well Location: field

Condition of Well: good

Well Completion: Flush Mount / Stick Up

Well Locked at Arrival: Yes / No

Well Locked at Departure: Yes / No

Key Number To Well: 2174

ARCADIS Design & Consultancy for natural and built assets

MW-31D

GROUNDWATER SAMPLING LOG

Project No. 30113573.01 Well ID MW-1D Date 1/11/22

Project Name/Location KMEP - Silvercroft / Tucson, AZ Weather Mild, Overcast

Measuring Pt. Description N-TOC Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) 4.66 Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) 235 Purge Method: low flow Centrifugal Submersible Bennett Other Sample Method grab

Pump On/Off 1025 Volumes Purged ~70 L

Sample Time: Label 1127 Start 1127 End 1136 Replicate/ Code No. NA Sampled by MAT/SKA

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(umhos)~~ (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) ~~(°F)~~	Redox (mV)	Appearance Color	Appearance Odor
1035	10	300	NA	3	6.97	1.037	57.2	4.11	21.80	304.7	cloudy	none
1040	15			4.5	6.98	1.037		3.71	21.87	282.4		
1045	20			6	6.98	1.036		3.68	21.72	265.5		
1050	25			7.5	6.98	1.034		3.59	21.75	249.6		
1055	30			9	6.99	1.034		3.54	21.91	234.0		
1100	35			10.5	6.99	1.033		3.46	22.11	227.2		
1105	40			12	6.98	1.035		3.48	23.23	193.7		
1110	45			13.5	6.97	1.042		3.46	23.68	158.2		
1115	50			15	6.98	1.043		3.50	23.18	138.3		
1120	55			16.5	6.99	1.042		3.48	22.96	133.5		
1125	60			18	6.99	1.041	28.7	3.46	22.90	130.1		

1 hr purge

Constituents Sampled	Container	Number	Preservative
see COC			
Run MS/MSD	Also: Pump flushed, MS changed out		
Fe = 0.01 mg/L			
Mn = 0.9			
Sulfide = .64 - 1.28			

Well Casing Volumes

Gallons/Foot					
	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location:	fveld	Well Locked at Arrival:	(Yes) / No
Condition of Well:	good	Well Locked at Departure:	(Yes) / No
Well Completion:	Flush Mount / (Stick Up)	Key Number To Well:	2174

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GROUNDWATER SAMPLING LOG

Project No. 30113593.01 Well ID MW-29D Date 2/21/22

Project Name/Location KMEP - Silvercroft / Tucson, AZ Weather Warm, pc, Windy

Measuring Pt. Description N TOC Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) 166.45 Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) 235 Purge Method: low flow Sample Method grab

Pump On/Off 1300 Volumes Purged ~11 L Centrifugal Submersible Bennett Other

Sample Time: Label 1325 Start 1327 End ~~1340~~ 1330 Replicate/ Code No. NA Sampled by MAT/SKA

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(mMhos)~~ (mS/cm) C	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) ~~(°F)~~	Redox (mV)	Appearance Color	Appearance Odor
1305	5	300	NA	1.5	6.99	1.033	**	7.16	24.18	274.4	Foamy	none
1310	10	↓	↓	3	7.17	1.085	**	9.37	24.54	276.7	↓	↓
1315	15			4.5	7.23	1.078	↓	7.78	24.34	276.1		
1320	20			6	7.25	1.076		7.32	24.43	279.0		
1325	25	↓	↓	7.5	7.27	1.084	↓	7.33	24.31	279.1	clear	↓

Constituents Sampled	Container	Number	Preservative
see COC			
** High turbidity from air sparge			
* Run MS/MSD			
Fe = 0.06 mg/L			
Mn = 0.9			
Sulfide = .64-1.28 ↓			

Well Casing Volumes

Gallons/Foot					
	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: Field

Condition of Well: good

Well Completion: Flush Mount / (Stick Up)

Well Locked at Arrival: (Yes) / No

Well Locked at Departure: (Yes) / No

Key Number To Well: 2174

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MW-31D

GROUNDWATER SAMPLING LOG

Project No. 30113573.01 Well ID MW-1D Date 2/21/22

Project Name/Location KMEP - Silvercroft / Tucson, AZ Weather Windy, overcast, warm

Measuring Pt. Description NTOC (~166) Screen Setting (ft-bmp) — Casing Diameter (in.) 4 " Well Material X PVC ___ SS

Static Water Level (ft-bmp) NA Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) 235 Purge Method: low flow Sample Method grab

Pump On/Off 1420 Volumes Purged ~14 L Centrifugal Submersible Bennett Other

Sample Time: Label 1502 Start 1502 End 1570 Replicate/ Code No. NA Sampled by MAT/SXA

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(mhos/cm)~~ (mS/cm) c	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. ~~(°F)~~ (°C)	Redox (mV)	Appearance Color	Appearance Odor
1425	5	300	NA	1.5	7.24	1.141	☆	5.91	22.91	254.4	clear	none
1430	10	↑	↑	3	7.24	1.139	↑	5.90	22.87	231.3	↑	↑
1435	15	↑	↑	4.5	7.24	1.137	↑	5.87	22.80	210.0	↑	↑
1440	20	↑	↑	6	7.23	1.133	↑	5.88	22.64	182.3	↑	↑
1445	25	↑	↑	7.5	7.24	1.130	↑	5.81	22.63	156.2	↑	↑
1450	30	↑	↑	9	7.25	1.126	↑	5.83	22.47	139.9	↑	↑
1455	35	↑	↑	10.5	7.24	1.120	↑	5.83	22.24	136.4	↑	↑
1500	40	↓	↓	12	7.25	1.132	↓	5.66	22.60	133.5	↓	↓
↓												

Constituents Sampled	Container	Number	Preservative
see COC			
☆ High turbidity			
Fe = 0.07 mg/L			
Mn = 0.4			
Sulfide = .64-1.28 ↓			

Well Casing Volumes

Gallons/Foot					
	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location:	field	Well Locked at Arrival:	(Yes) / No
Condition of Well:	good	Well Locked at Departure:	(Yes) / No
Well Completion:	Flush Mount / (Stick Up)	Key Number To Well:	2174

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GROUNDWATER SAMPLING LOG

MW-32D

Project No. 30113573.01 Well ID MW-2D Date 2/21/22

Project Name/Location KMEP – Silvercroft / Tucson, AZ Weather Overcast, Windy

Measuring Pt. Description NTOC Screen Setting (ft-bmp) – Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) ~166 Total Depth (ft-bmp) – Water Column/ Gallons in Well NA

MP Elevation – Pump Intake (ft-bmp) 235 Purge Method: low flow Centrifugal Submersible Bennett Other Sample Method grab

Pump On/Off 1535 Volumes Purged ~12 L

Sample Time: Label 1607 Start 1607 End 1615 Replicate/ Code No. MW-2D-DUP @ 1612 Sampled by MAT/SXA

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(mmhos)~~ (mS/cm) c	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) ~~(°F)~~	Redox (mV)	Appearance Color	Appearance Odor
1540	5	300	NA	1.5	–	–	*	–	–	–	clear	none
1545	10	↓	↓	3	7.28	1.034	↓	2.01	22.64	147.6	↓	↓
1550	15			4.5	7.29	1.039		1.14	23.10	153.8		
1555	20			6	7.29	1.087		0.96	23.16	158.6		
1600	25			7.5	7.28	1.138		1.37	23.22	160.4		
1605	30	↓	↓	9	7.28	1.154	↓	1.78	23.34	165.6	↓	↓

Constituents Sampled	Container	Number	Preservative
see COC			
* High turbidity			
Fe = 0.02 mg/L			
Mn = 0.16			
Sulfide = .64-1.28			

Well Casing Volumes

Gallons/Foot 1" = 0.04 1.25" = 0.06 1.5" = 0.09 2" = 0.16 2.5" = 0.26 3" = 0.37 3.5" = 0.50 4" = 0.65 6" = 1.47

Well Information

Well Location: Field

Condition of Well: good

Well Completion: Flush Mount / (Stick Up)

Well Locked at Arrival: (Yes) / No

Well Locked at Departure: (Yes) / No

Key Number To Well: 2174

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GROUNDWATER SAMPLING LOG

Project No. 30113573.01 Well ID MW-29M Date 2/22/22

Project Name/Location KMEP – Silvercroft / Tucson, AZ Weather cool/sun, breeze

Measuring Pt. Description NTOC (MP) Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) 166.11 Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) 199 Purge Method: low flow Sample Method grab

Pump On/Off 0850 Volumes Purged ~12 L Centrifugal / Submersible Bennett / Other

Sample Time: Label 0922 Start 0923 End 0930 Replicate/ Code No. NA Sampled by MAT/SXA

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(umhos)~~ (mS/cm) c	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) ~~(°F)~~	Redox (mV)	Appearance Color	Appearance Odor
0855	5	300	NA	1.5	—	—	NA	—	—	—	clear	None
0900	10	↓	↓	3	6.94	0.975	↓	5.59	19.69	252.2	↓	↓
0905	15			4.5	7.03	1.014		5.02	21.48	250.6		
0910	20			6	7.12	1.031		4.81	22.17	249.3		
0915	25			7.5	7.15	1.027		4.92	21.74	250.3		
0920	30	↓	↓	9	7.17	1.028	↓	4.86	21.97	250.2	↓	↓

Constituents Sampled	Container	Number	Preservative
see COC			
↓ Run MS/MSD			
Fe = 0.00 mg/L			
Mn = 0.4			
Sulfide = 1.28 - 1.92 ↓			

Well Casing Volumes

Gallons/Foot: 1" = 0.04; 1.25" = 0.06; 1.5" = 0.09; 2" = 0.16; 2.5" = 0.26; 3" = 0.37; 3.5" = 0.50; 4" = 0.65; 6" = 1.47

Well Information

Well Location: fenced

Condition of Well: good

Well Completion: Flush Mount / (Stick Up)

Well Locked at Arrival: (Yes) / No

Well Locked at Departure: (Yes) / No

Key Number To Well: 2174

ARCADIS Design & Consultancy for natural and built assets

MW-31M

GROUNDWATER SAMPLING LOG

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Project No. 30113573.01 Well ID MW-1M Date 2/22/22

Project Name/Location KMEP – Silvercroft / Tucson, AZ Weather mild, sunny

Measuring Pt. Description NTOC Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) ~166 Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) 199 Purge Method: low flow Sample Method grab

Pump On/Off 1015 Volumes Purged ~8 L Centrifugal Submersible beneath Other

Sample Time: Label 1037 Start 1038 End 1046 Replicate/ Code No. NA Sampled by MAT/SXA

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(umhos)~~ (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) ~~(°F)~~	Redox (mV)	Appearance	
											Color	Odor
1020	5	300	NA	1.5	7.55	0.988	[illegible]	6.42	21.74	260.8	cloudy	none
1025	10	↓	↓	3	7.55	.997	↓	6.53	22.08	258.7	↓	↓
1030	15	↓	↓	4.5	7.56	.997	↓	6.63	22.38	256.7	↓	↓
1035	20	↓	↓	6	7.57	.998	↓	6.98	22.40	256.6	↓	↓

Constituents Sampled	Container	Number	Preservative
see COC			
* high turbidity			
Fe = 0.10 mg/L			
Mn = 0.1			
Sulfide = .64-1.28 ↓			

Well Casing Volumes

Gallons/Foot					
	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location:	Field	Well Locked at Arrival:	(Yes) / No
Condition of Well:	good	Well Locked at Departure:	(Yes) / No
Well Completion:	Flush Mount / (Stick Up)	Key Number To Well:	2174

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GROUNDWATER SAMPLING LOG

MW-32M

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Project No. 30113573.01 Well ID MW-2M Date 2/22/22

Project Name/Location KMEP – Silvercroft / Tucson, AZ Weather mild, sun, wind

Measuring Pt. Description NTOC Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) ~166 Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) 199 Purge Method: low flow Sample Method grab

Pump On/Off 1120 Volumes Purged ~17 L Centrifugal Submersible Bennett Other

Sample Time: Label 212 Start 1213 End 1220 Replicate/ Code No. NA Sampled by MAT/SXA

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(umhos)~~ (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) ~~(°F)~~	Redox (mV)	Appearance Color	Appearance Odor
1125	5	300	NA	1.5	7.38	0.963	NA	4.22	23.49	39.2	clear	✱
1130	10			3	7.40	0.977		4.36	23.96	112.7		
1135	15			4.5	7.42	.976		4.41	23.97	131.7		
1140	20			6	7.44	.984		4.53	24.20	144.2		
1145	25			7.5	7.44	.988		4.80	24.26	155.8		
1150	30			9	7.45	.990		4.86	24.29	164.2		
1155	35			10.5	7.46	.994		5.00	24.14	171.7		
1200	40			12	7.47	.999		5.01	24.40	178.5		
1205	45			13.5	7.47	.994		5.15	24.15	185.0		
1210	50	↓	↓	15	7.48	1.004	↓	5.09	24.30	187.3	↓	↓

Constituents Sampled	Container	Number	Preservative
see COC			
* slight chemical odor			
Fe = 0.04 mg/L			
Mn = 0.6			
Sulfide = 1.64-1.78			

Well Casing Volumes

Gallons/Foot: 1" = 0.04; 1.25" = 0.06; 1.5" = 0.09; 2" = 0.16; 2.5" = 0.26; 3" = 0.37; 3.5" = 0.50; 4" = 0.65; 6" = 1.47

Well Information

Well Location: field

Condition of Well: good

Well Completion: Flush Mount / Stick Up

Well Locked at Arrival: Yes / No

Well Locked at Departure: Yes / No

Key Number To Well: 217

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GROUNDWATER SAMPLING LOG

MW-32S

Project No. 30113573.01 Well ID MW-2S Date 2/22/22

Project Name/Location KMEP – Silvercroft / Tucson, AZ Weather warm, sun, wind

Measuring Pt. Description NTOC Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) 1167 Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) 172 Purge Method: Low flow Centrifugal Submersible Bennett Other Sample Method grab

Pump On/Off 1320 Volumes Purged 4.10 L

Sample Time: Label 1347 Start 1347 End 1355 Replicate/ Code No. NA Sampled by MAT/SXA

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(mMHos)~~ (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) ~~(°F)~~	Redox (mV)	Appearance	
											Color	Odor
1325	5	300	NA	2.0	7.23	1.252	NA	3.49	24.41	227.0	clear	*
1330	10			3	7.23	1.254		3.25	24.57	226.4		
1335	15			4.5	7.22	1.250		2.97	24.30	224.5		
1340	20			6	7.21	1.245		2.69	23.97	222.7		
1345	25			7.5	7.21	1.239		2.57	24.08	222.3		

Constituents Sampled	Container	Number	Preservative
see COC			
* Slight chemical odor			
Fe = .04 mg/L			
Mn = 0.4			
Sulfide = .64-1.28			

Well Casing Volumes

Gallons/Foot					
	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location:	Field	Well Locked at Arrival:	(Yes) / No
Condition of Well:	good	Well Locked at Departure:	(Yes) / No
Well Completion:	Flush Mount / (Stick Up)	Key Number To Well:	2174

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GROUNDWATER SAMPLING LOG

Project No. 30113573.01 Well ID MW-29S Date 2/22/22

Project Name/Location KMEP – Silvercroft / Tucson, AZ Weather warm, sun, wind

Measuring Pt. Description NTOC Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) 166 Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) 172 Purge Method: low flow Centrifugal Submersible beneath Other Sample Method grab

Pump On/Off 1420 Volumes Purged ~10 L

Sample Time: Label 1447 Start ~~1442~~ End ~~1455~~ Replicate/ Code No. NA Sampled by MAT/SXA

Time	Minutes Elapsed	Rate ~~(spm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(umhos)~~ (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. ~~(°F)~~ (°C)	Redox (mV)	Appearance Color	Appearance Odor
1425	5	300	NA	1.5	7.50	1.205	NA	2.30	23.80	212.3	clear	odor
1430	10	↓	↓	3	7.56	1.213	↓	1.85	24.38	206.9	↓	↓
1435	15	↓	↓	4.5	7.59	1.216	↓	1.56	24.34	199.0	↓	↓
1440	20	↓	↓	6	7.60	1.202	↓	1.53	24.11	195.5	↓	↓
1445	25	↓	↓	7.5	7.62	1.215	↓	1.53	24.44	191.9	↓	↓
~~1450~~	~~30~~			9								

Constituents Sampled	Container	Number	Preservative
see COC & Chemical Small	Note: Tubing stuck in well. Probe on IP stuck and pulled off of the tape. Probe came up with the tubing when finally removed.		
Fe = 0.02 mg/L Mn = 0.17 Sulfide = .64 - 1.28			

Well Casing Volumes

Gallons/Foot					
	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location:	field	Well Locked at Arrival:	(Yes) / No
Condition of Well:	good	Well Locked at Departure:	(Yes) / No
Well Completion:	Flush Mount / (Stick Up)	Key Number To Well:	2174

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GROUNDWATER SAMPLING LOG

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Project No. 30113573.01 Well ID MW-29D Date 3/17/22

Project Name/Location KMEP - Silvercroft / Tucson, AZ Weather Mild, clear

Measuring Pt. Description NTOC Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) 166.33 Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) 235 Purge Method: low flow Sample Method grab

Pump On/Off 0845 Volumes Purged ~10 L Centrifugal Submersible Bennett Other

Sample Time: Label 0912 Replicate/ Code No. NA Sampled by MAT/SXA

Start 0913

End 0925

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(umhos)~~ (mS/cm) C	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) ~~(°F)~~	Redox (mV)	Appearance Color	Appearance Odor
0850	5	300	NA	1.5	6.97	1.159	⊗	6.34	24.58	349.0	clear	none
0855	10	↓	↓	3	7.05	1.182	NM	5.20	24.89	339.7	↓	↓
0900	15			4.5	7.06	1.181		4.71	24.96	333.7		
0905	20			6	7.07	1.179		4.54	25.03	329.2		
0910	25	↓	↓	7.5	7.08	1.177	↓	4.47	25.15	325.6	↓	↓

Constituents Sampled	Container	Number	Preservative
see COC			
✱ Run MS/MSD			
⊗ high turbidity (sparge)			
Fe = 0.01 mg/L			
Mn = 0.5			
Sulfide = .64-1.28 ↓			

Well Casing Volumes

Gallons/Foot					
	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location:	Field	Well Locked at Arrival:	(Yes) / No
Condition of Well:	good	Well Locked at Departure:	(Yes) / No
Well Completion:	Flush Mount / (Stick Up)	Key Number To Well:	2174

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MW-31D

GROUNDWATER SAMPLING LOG

Project No. 30113573.01 Well ID MW-1D Date 3/17/22

Project Name/Location KMEP – Silvercroft / Tucson, AZ Weather Warm, Sun

Measuring Pt. Description NTOC Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) ~166 Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) 235 Purge Method: low flow Sample Method grab

Pump On/Off 0950 Volumes Purged ~14 L Centrifugal ___ Submersible Bennett Other ___

Sample Time: Label 1032 Start 1003 End ___ Replicate/ Code No. NA Sampled by MAT/SXA

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(mMhos)~~ (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. ~~(°F)~~ (°C)	Redox (mV)	Appearance Color	Appearance Odor
0955	5	300	NA	1.5	7.13	1.174	NM	5.34	23.40	288.1	clear	none
1000	10			3	7.13	1.174		4.89	23.44	262.3		
1005	15			4.5	7.13	1.171		4.68	23.24	245.7		
1010	20			6	7.13	1.178		4.59	23.28	178.6		
1015	25			7.5	7.13	1.177		4.44	23.41	162.7		
1020	30			9	7.14	1.175		4.39	23.32	145.7		
1025	35			10.5	7.14	1.174		4.30	23.60	144.2		
1030	40	"	"	12	7.14	1.174		4.27	23.46	146.1	"	"

Constituents Sampled	Container	Number	Preservative
see COC			
Fe = 0.05 mg/L			
Mn = 0.5			
Sulfide = .64-1.28			

Well Casing Volumes

Gallons/Foot					
	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location:	field	Well Locked at Arrival:	(Yes) / No
Condition of Well:	good	Well Locked at Departure:	(Yes) / No
Well Completion:	Flush Mount / (Stick Up)	Key Number To Well:	2174

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GROUNDWATER SAMPLING LOG

MW-32D

Project No. 30113573.01 Well ID MW-2D Date 3/17/22

Project Name/Location KMEP – Silvercroft / Tucson, AZ Weather Warm, sun, breeze

Measuring Pt. Description NTOC Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) ~167 Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) 235 Purge Method: low flow Sample Method grab

Pump On/Off 1110 Volumes Purged ~13 L Centrifugal Submersible Bennett Other

Sample Time: Label 1147 Start 1147 End 1155 Replicate/ Code No. NA Sampled by MAT/SXA

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(mMhos)~~ (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) ~~(°F)~~	Redox (mV)	Appearance Color	Appearance Odor
1115	5	300	NA	1.5	7.17	1.162	NM	3.84	24.91	68.8	clear	none
1120	10	↓	↓	3	7.17	1.176	↓	3.44	25.27	117.1	↓	↓
1125	15			4.5	7.16	1.175		3.26	25.45	145.2		
1130	20			6	7.17	1.179		3.29	25.27	159.8		
1135	25			7.5	7.17	1.178		3.30	25.45	169.0		
1140	30			9	7.17	1.180		3.31	25.32	174.9		
1145	35	↓	↓	10.5	7.17	1.178	↓	3.28	25.40	177.4	↓	↓

Constituents Sampled	Container	Number	Preservative
see COC			
Fe = 0.03 mg/L			
Mn = 0.5			
Sulfide = .14-1.28 ↓			

Well Casing Volumes

Gallons/Foot					
	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location:	field	Well Locked at Arrival:	(Yes) / No
Condition of Well:	good	Well Locked at Departure:	(Yes) / No
Well Completion:	Flush Mount / (Stick Up)	Key Number To Well:	2174

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MW-32M

GROUNDWATER SAMPLING LOG

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Project No. 30113573.01 Well ID MW-2M Date 3/17/22

Project Name/Location KMEP - Silvercroft / Tucson, AZ Weather warm, Sunny breeze

Measuring Pt. Description N TOC Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) ~166 Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) 199 Purge Method: low flow Centrifugal ___ Submersible Bennett Other ___ Sample Method grab

Pump On/Off 1220 / 1330 Volumes Purged ~20 L

Sample Time: Label 1339 Start 1338 End 1342 Replicate/ Code No. NA Sampled by MAT/SXA

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(mhos)~~ (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. ~~(°C)~~ (°F)	Redox (mV)	Appearance Color	Appearance Odor
1225	5	300	NA	1.5	7.42	0.997	NM	8.15	25.44	186.7	clear	*
1230	10			3	7.41	.998		8.51	25.64	211.6		
1235	15			4.5	7.42	1.008		8.59	25.63	232.0		
1240	20	↓	↓	6	7.42	1.000	↓	8.86	25.70	246.5	↓	↓
1245	25			7.5	7.74							
(XX) 1250	30			9								
(1300 Start) 1305	30	300	NA	9	7.42	1.002	NM	7.69	26.37	77.7	clear	*
1310	35			10.5	7.42	1.004		7.07	26.26	130.3		
1315	40			12	7.43	1.003		6.77	26.24	169.3		
1320	45			13.5	7.43	1.004		7.00	26.42	191.1		
1325	50			15	7.43	1.004		7.24	26.20	202.7		
1330	55			16.5	7.43	1.006		7.40	26.37	208.5		
1335	60	↓	↓	18	7.43	1.008	↓	7.41	26.55	217.3	↓	↓
							1338 sample		1 hr purge			

Constituents Sampled	Container	Number	Preservative
see COC			
* Slight chemical odor	(XX) Tube fell off pump. Pull & reset pump.		
Fe = 0.05 mg/L			
Mn = 0.6			
Sulfide = .64 - 1.28			

Well Casing Volumes

Gallons/Foot					
	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location:	Fenced	Well Locked at Arrival:	(Yes) / No
Condition of Well:	good	Well Locked at Departure:	(Yes) / No
Well Completion:	Flush Mount / (Stick Up)	Key Number To Well:	2174

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GROUNDWATER SAMPLING LOG

MW-31M

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Project No. 30113573.01 Well ID MW-1M Date 3/17/20

Project Name/Location KMEP – Silvercroft / Tucson, AZ Weather Warm, Sun, Wind

Measuring Pt. Description NTOC Screen Setting (ft-bmp) – Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) ~167 Total Depth (ft-bmp) – Water Column/ Gallons in Well NA

MP Elevation – Pump Intake (ft-bmp) 199 Purge Method: Low flow Sample Method grab

Pump On/Off 1425 Volumes Purged ~8 L Centrifugal Submersible Bennett Other

Sample Time: Label 1447 Start 1447 End ~~1455~~ Replicate/ Code No. NA Sampled by MAT/SXA

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(mhos)~~ (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. ~~(°F)~~ (°C)	Redox (mV)	Appearance Color	Appearance Odor
1430	5	300	NA	1.5	7.59	1.007	NM	8.61	24.17	247.2		
1435	10	↓	↓	3	7.58	1.009	↓	9.03	23.94	248.7	↓	↓
1440	15	↓	↓	4.5	7.58	1.016	↓	9.14	24.05	251.6	↓	↓
1445	20	↓	↓	6	7.57	1.011	↓	8.89	24.20	253.6	↓	↓
		↓	↓	~~25~~	↓	↓	↓	↓	↓	↓	↓	↓

Constituents Sampled	Container	Number	Preservative
see COC			
Fe = 0.09 mg/L			
Mn = 0.2			
Sulfide = .64-1.28			

Well Casing Volumes

Gallons/Foot					
	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location:	field	Well Locked at Arrival:	(Yes) / No
Condition of Well:	good	Well Locked at Departure:	(Yes) / No
Well Completion:	Flush Mount / (Stick Up)	Key Number To Well:	274

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GROUNDWATER SAMPLING LOG

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Project No. 30013573.01 Well ID MW-29M Date 3/18/22

Project Name/Location KMEP – Silvercroft / Tucson, AZ Weather mild, sunny

Measuring Pt. Description N-TOC Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) 186.22 Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) 199 Purge Method: low flow Sample Method grab

Pump On/Off 0850 Volumes Purged ~12 L Centrifugal / Submersible Bennett / Other

Sample Time: Label 0922 Start 0922 End 0930 Replicate/ Code No. NA Sampled by MAT/SXM

Time	Minutes Elapsed	Rate ~~(spm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(mmhos)~~ (mS/cm) C	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. ~~(°F)~~ (°C)	Redox (mV)	Appearance Color	Appearance Odor
0855	5	300	NA	1.5	6.81	1.086	NA	7.37	23.89	316.5	clear	None
0900	10	↓	↓	3	6.97	1.083	↓	7.35	23.87	325.0	↓	↓
0905	15			4.5	7.22	1.090		7.52	24.72	328.3		
0910	20			6	7.23	1.088		7.36	24.42	332.6		
0915	25			7.5	7.23	1.084		7.56	24.52	335.4		
0920	30	↓	↓	9	7.23	1.080	↓	7.49	24.63	337.2	↓	↓

Constituents Sampled	Container	Number	Preservative
see COC			
* Run MS/MSD			
Fe = 0.04 mg/L			
Mn = 0.04			
Sulfide = 1.28 - 1.92			

Well Casing Volumes

Gallons/Foot: 1" = 0.04; 1.25" = 0.06; 1.5" = 0.09; 2" = 0.16; 2.5" = 0.26; 3" = 0.37; 3.5" = 0.50; 4" = 0.65; 6" = 1.47

Well Information

Well Location:	Fresh	Well Locked at Arrival:	(Yes) / No
Condition of Well:	good	Well Locked at Departure:	(Yes) / No
Well Completion:	Flush Mount / (Stick Up)	Key Number To Well:	2174

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GROUNDWATER SAMPLING LOG

Project No. 30113573.01 Well ID MW-29S Date 3/18/22

Project Name/Location KMEP – Silvercroft / Tucson, AZ Weather WARM, SUN

Measuring Pt. Description N-TOC Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) 167.73 Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) 173 Purge Method: low flow Centrifugal Submersible Bennett Other Sample Method grab

Pump On/Off 1000 Volumes Purged ~14 L

Sample Time: Label 1037 Start 1037 End 1050 Replicate/ Code No. MW-29S-DUP @ 1042 Sampled by MAT/SXA

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(mmhos)~~ (mS/cm) c	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) ~~(°F)~~	Redox (mV)	Appearance Color	Appearance Odor
1005	5	300	NA	1.5	7.32	1.226	NA	6.51	23.51	342.1	clear	*
1010	10	↓	↓	3	7.33	1.244	↓	3.83	24.36	333.1	↓	↓
1015	15			4.5	7.39	1.248		3.95	24.43	326.5		
1020	20			6	7.42	1.256		3.93	24.41	317.8		
1025	25			7.5	7.47	1.256		4.04	24.67	312.3		
1030	30			9	7.55	1.256		4.33	24.81	309.6		
1035	35	↓	↓	10.5	7.57	1.255	↓	4.56	24.84	308.3	↓	↓
								↓				

Constituents Sampled	Container	Number	Preservative
see COC			
* "Sweet" Chemical Smell			
Fe = 0.02 mg/L			
Mn = 0.9			
Sulfide = .64-1.28 ↓			

Well Casing Volumes

Gallons/Foot: 1" = 0.04; 1.25" = 0.06; 1.5" = 0.09; 2" = 0.16; 2.5" = 0.26; 3" = 0.37; 3.5" = 0.50; 4" = 0.65; 6" = 1.47

Well Information

Well Location:	field	Well Locked at Arrival:	(Yes) / No
Condition of Well:	good	Well Locked at Departure:	(Yes) / No
Well Completion:	Flush Mount / (Stick Up)	Key Number To Well:	274

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MW-32S

GROUNDWATER SAMPLING LOG

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Project No. 30113573.01 Well ID MW-2S Date 3/18/22

Project Name/Location KMEP - Silvercroft / Tucson, AZ Weather Warm, Sun

Measuring Pt. Description NTOC Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) 8167 Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) 173 Purge Method: low flow Sample Method grab

Pump On/Off 1115 Volumes Purged ~9 L Centrifugal Submersible Bennett Other

Sample Time: Label 1135 Start 1130 End 1145 Replicate/ Code No. NA Sampled by MAT/SXA

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(umhos)~~ (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. ~~(°F)~~ (°C)	Redox (mV)	Appearance Color	Appearance Odor
1120	5	300	NA	1.5	7.15	1.189	NM	3.57	25.50	305.9	clear	✱
1125	10	↓	↓	3	7.14	1.185	↓	3.13	25.86	304.6	↓	↓
1130	15	↓	↓	4.5	7.14	1.183	↓	2.96	25.88	303.8	↓	↓
1135	20	↓	↓	6	7.13	1.182	↓	2.96	25.59	303.3	↓	↓

Constituents Sampled	Container	Number	Preservative
see COC			
✱ "sweet" chemical odor			
Fe = .03 mg/L			
Mn = 0.4 ↓			
Sulfide = .64 - 1.28 ↓			

Well Casing Volumes

Gallons/Foot					
	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: field

Condition of Well: good

Well Completion: Flush Mount / (Stick Up)

Well Locked at Arrival: (Yes) / No

Well Locked at Departure: (Yes) / No

Key Number To Well: 274

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GROUNDWATER SAMPLING LOG

(MW-32D)

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Project No. 30113573.01 Well ID MW-2D Date 4/11/22

Project Name/Location KMEP - Silvercroft / Tucson, AZ Weather Warm, sunny, wind

Measuring Pt. Description NTOC Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) 0.167 Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) 235 Purge Method: low flow Sample Method grab

Pump On/Off 1055 Volumes Purged ~15 L Centrifugal Submersible Beneath Other

Sample Time: Label 1137 Start 1137 End 1150 Replicate/ Code No. NA Sampled by MAT/SKA

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(umhos/cm)~~ (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. ~~(F)~~ (°C)	Redox (mV)	Appearance Color	Appearance Odor
1105	10	300	NA	3	6.85	1.040	0.15	2.10	26.62	211.8	clear	none
1110	15			4.5	6.90	1.052	—	1.70	27.03	216.1		
1115	20			6	6.92	1.145	—	2.26	26.77	222.1		
1120	25			7.5	6.92	1.150	—	3.00	27.27	233.7		
1125	30			9	6.92	1.143	—	3.33	26.97	240.0		
1130	35			10.5	6.91	1.123	—	3.28	27.04	246.0		
1135	40	↓	↓	12	6.89	1.122	—	3.12	27.03	249.2	↓	↓

Constituents Sampled	Container	Number	Preservative
see COC			
* Run MS/MSD			
Fe = 0.02 mg/L			
Mn = 0.4			
Sulfide = .64-1.28			

Well Casing Volumes

Gallons/Foot: 1" = 0.04; 1.25" = 0.06; 1.5" = 0.09; 2" = 0.16; 2.5" = 0.26; 3" = 0.37; 3.5" = 0.50; 4" = 0.65; 6" = 1.47

Well Information

Well Location: field

Condition of Well: good

Well Completion: Flush Mount / (Stick Up)

Well Locked at Arrival: (Yes) / No

Well Locked at Departure: (Yes) / No

Key Number To Well: 2174

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GROUNDWATER SAMPLING LOG

(MW-31D)

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Project No. 30113573.01 Well ID MW-1D Date 4/11/22

Project Name/Location KMEP – Silvercroft / Tucson, AZ Weather warm, sun, windy

Measuring Pt. Description NTOC Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) 167 Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) 235 Purge Method: low flow Sample Method grab

Pump On/Off (NA) 1235 Volumes Purged .9 L Centrifugal Submersible Bennett Other

Sample Time: Label 1302 Start 1303 End 1310 Replicate/ Code No. NA Sampled by MAT/SXA

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(mhos/cm)~~ (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. ~~(°F)~~ (°C)	Redox (mV)	Appearance Color	Appearance Odor
(MW) 1245	10	300	NA	3	6.96	1.148	4.7	4.15	27.16	189.9	clear	none
1250	15	↓	↓	4.5	6.95	1.149	✓	4.10	27.49	189.2	↓	↓
1255	20			6	6.95	1.145	4.3	4.12	27.56	184.2		
1300	25	↓	↓	7.5	6.95	1.147	—	4.21	27.45	193.8	↓	↓

Constituents Sampled	Container	Number	Preservative
see COC			
Fe = 0.03 mg/L			
Mn = 0.4 ✓			
Sulfide = .64-1.28 ✓			

Well Casing Volumes

Gallons/Foot: 1" = 0.04; 1.25" = 0.06; 1.5" = 0.09; 2" = 0.16; 2.5" = 0.26; 3" = 0.37; 3.5" = 0.50; 4" = 0.65; 6" = 1.47

Well Information

Well Location: field

Condition of Well: good

Well Completion: Flush Mount / (Stick Up)

Well Locked at Arrival: (Yes) / No

Well Locked at Departure: (Yes) / No

Key Number To Well: 2174

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GROUNDWATER SAMPLING LOG

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Project No. 30113573.01 Well ID MW-29D Date 4/11/22

Project Name/Location KMEP – Silvercroft / Tucson, AZ Weather warm, Sun, windy

Measuring Pt. Description N TOC Screen Setting (ft-bmp) – Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) ~167 Total Depth (ft-bmp) – Water Column/ Gallons in Well NA

MP Elevation – Pump Intake (ft-bmp) 235 Purge Method: low flow Centrifugal Submersible Bennett Other Sample Method grab

Pump On/Off 1345 Volumes Purged 14 L

Sample Time: Label 1428 Start ~~1428~~ End 1436 Replicate/ Code No. NA Sampled by MAT/SXA

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(mmhos)~~ (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. ~~(°F)~~ (°C)	Redox (mV)	Appearance Color	Appearance Odor
1355	10	300	NA	3	7.07	1.027	0.19	6.89	28.65	260.4	clear	none
1400	15			4.5	7.09	1.033	–	7.74	28.55	269.5		
1405	20			6	7.12	1.037	–	8.72	27.74	273.2		
1410	25			7.5	7.06	1.044	–	9.58	27.55	277.9		
1415	30			9	7.10	1.055	–	9.68	27.28	281.5		
1420	35			10.5	7.06	1.056	–	9.77	27.25	287.1		
1425	40	↓	↓	12	7.07	1.056	–	9.52	27.25	285.9	↓	↓

Constituents Sampled	Container	Number	Preservative
see COC			
Fe = 0.02 mg/L			
Mn = 0.4			
Sulfide = .64-1.28 ↓			

Well Casing Volumes

Gallons/Foot					
	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location:	Field	Well Locked at Arrival:	(Yes) / No
Condition of Well:	Good	Well Locked at Departure:	(Yes) / No
Well Completion:	Flush Mount / (Stick Up)	Key Number To Well:	2174

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MW-31M

GROUNDWATER SAMPLING LOG

Project No. 30135573.01 Well ID MW-1M Date 4/12/22

Project Name/Location KMEP - Silvercroft / Tucson, AZ Weather mild, sun, windy

Measuring Pt. Description NTOC Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) 5.167 Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) 199 Purge Method: low flow Sample Method grab

Pump On/Off 0830 Volumes Purged ~13 L Centrifugal Submersible Bennett Other

Sample Time: Label 0902 Start 0902 End 0920 Replicate/ Code No. NA Sampled by MAT/SKA

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(umhos)~~ (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) ~~(°F)~~	Redox (mV)	Appearance Color	Appearance Odor
0840	10	300	NA	3	7.09	0.965	—	9.56	23.41	302.0	cloudy	none
0845	15			4.5	7.18	.961	—	9.49	23.68	306.8		
0850	20			6	7.19	.954	20	9.55	23.62	310.2		
0955	25			7.5	7.24	.959	—	9.46	23.71	309.8		
0900	30	↓	↓	9	7.17	.959	19	9.57	23.50	310.9	↓	↓

Constituents Sampled	Container	Number	Preservative
see COC			
Δ Run MS/MSD			
Fe = 0.10 mg/L			
Mn = 0.3 ↓			
Sulfide = .64-1.28 ↓			

Well Casing Volumes

Gallons/Foot 1" = 0.04 | 1.25" = 0.06 | 1.5" = 0.09 | 2" = 0.16 | 2.5" = 0.26 | 3" = 0.37 | 3.5" = 0.50 | 4" = 0.65 | 6" = 1.47

Well Information

Well Location: field

Condition of Well: good

Well Completion: Flush Mount / Stick Up

Well Locked at Arrival: (Yes) / No

Well Locked at Departure: (Yes) / No

Key Number To Well: 2174

ARCADIS Design & Consultancy for natural and built assets

MW-32M

GROUNDWATER SAMPLING LOG

Project No. 30113573.01 Well ID MW-2M Date 4/12/23

Project Name/Location KMEP – Silvercroft / Tucson, AZ Weather Warm, SUN, WIND

Measuring Pt. Description NTOC Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) 417 Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) 199 Purge Method: low flow Sample Method grab

Pump On/Off 0955 Volumes Purged 4/0 L Centrifugal Submersible Bennett Other

Sample Time: Label 1023 Start ~~1025~~ End ~~1030~~ Replicate/ Code No. NA Sampled by MAT/SXA

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(µmhos/cm)~~ (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. ~~(°C)~~ (°F)	Redox (mV)	Appearance Color	Appearance Odor
1005	10	300	NA	3	6.98	0.954	—	5.16	25.35	304.7	clear	~~slight~~
1010	15	↓	↓	4.5	6.95	.956	—	5.23	24.72	303.6	↓	↓
1015	20	↓	↓	6	6.96	.959	1.5	5.75	24.78	304.1	↓	↓
1020	25	↓	↓	7.5	6.99	.960	—	5.98	24.44	305.6	↓	↓

Constituents Sampled	Container	Number	Preservative
see COC			
& Slight chemical odor			
Fe = 0.04 mg/L			
Mn = 0.5			
Sulfide = .64 - 1.28 ↓			

Well Casing Volumes

Gallons/Foot: 1" = 0.04; 1.25" = 0.06; 1.5" = 0.09; 2" = 0.16; 2.5" = 0.26; 3" = 0.37; 3.5" = 0.50; 4" = 0.65; 6" = 1.47

Well Information

Well Location: field

Condition of Well: good

Well Completion: Flush Mount / (Stick Up)

Well Locked at Arrival: (Yes) / No

Well Locked at Departure: (Yes) / No

Key Number To Well: 2174

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GROUNDWATER SAMPLING LOG

Project No. 30113573.09 Well ID MW-29M Date 4/12/22

Project Name/Location KMEP – Silvercroft / Tucson, AZ Weather Warm, Wind, Sun

Measuring Pt. Description NTOC Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) 0167 Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) 199 Purge Method: low flow Sample Method grab

Pump On/Off 1110 Volumes Purged ~15 L Centrifugal Submersible Bennett Other

Sample Time: Label 1152 Replicate/ Code No. NA Sampled by MAT/EXA

Start 1152

End 1200

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(µmhos)~~ (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. ~~(°F)~~ (°C)	Redox (mV)	Appearance Color	Appearance Odor
1120	10	300	NA	3	7.10	1.043		7.32	25.72	296.5	clear	none
1125	15			4.5	7.01	1.041		7.30	25.57	287.6		
1130	20			6	7.01	1.046		7.34	25.67	280.1		
1135	25			7.5	7.01	1.044		7.26	25.95	271.8		
1140	30			9	7.02	1.050		7.26	25.58	264.2		
1145	35			10.5	7.02	1.048		7.31	25.74	258.6		
1150	40			12	7.03	1.048	.30	7.37	25.73	257.7		

Constituents Sampled	Container	Number	Preservative
see COC			
Fe = 0.00 mg/L			
Mn = 0.5			
Sulfide = .64-1.28			

Well Casing Volumes

Gallons/Foot: 1" = 0.04; 1.25" = 0.06; 1.5" = 0.09; 2" = 0.16; 2.5" = 0.26; 3" = 0.37; 3.5" = 0.50; 4" = 0.65; 6" = 1.47

Well Information

Well Location: field

Condition of Well: good

Well Completion: Flush Mount / (Stick Up)

Well Locked at Arrival: (Yes) / No

Well Locked at Departure: (Yes) / No

Key Number To Well: 2174

ARCADIS Design & Consultancy for natural and built assets

GROUNDWATER SAMPLING LOG

Project No. 30135773.01 Well ID MW-29S Date 4/12/22

Project Name/Location KMEP – Silvercroft / Tucson, AZ Weather warm, wind, PC

Measuring Pt. Description NTOC Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) ~167 Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) 172 Purge Method: low flow Sample Method grab

Pump On/Off 1235 Volumes Purged ~12 L Centrifugal Submersible Bennett Other

Sample Time: Label 1307 Start 1308 End 1315 Replicate/ Code No. NA Sampled by MAT/SXA

Time	Minutes Elapsed	Rate (gpm) (mL/min)	Depth to Water (ft)	Gallons Purged L	pH	Cond. (µmhos) (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) (°F)	Redox (mV)	Appearance Color	Appearance Odor
1245	10	300	NA	3	7.19	1.119		4.09	25.52	285.3	clear	X
1250	15			4.5	7.30	1.122		3.37	25.47	284.1		
1255	20			6	7.28	1.130		2.78	25.46	284.0		
1300	25			7.5	7.28	1.135		2.39	25.50	283.4		
1305	30	↓	↓	9	7.28	1.140	0.09	2.19	25.58	282.9	↓	↓

Constituents Sampled	Container	Number	Preservative
see COC			
X "Sweet" Chemical	Smell		
Fe = 0.01 mg/L			
Mn = 0.7			
Sulfide = .64-1.28			

Well Casing Volumes

Gallons/Foot: 1" = 0.04; 1.25" = 0.06; 1.5" = 0.09; 2" = 0.16; 2.5" = 0.26; 3" = 0.37; 3.5" = 0.50; 4" = 0.65; 6" = 1.47

Well Information

Well Location: field

Condition of Well: good

Well Completion: Flush Mount / (Stick Up)

Well Locked at Arrival: (Yes) / No

Well Locked at Departure: (Yes) / No

Key Number To Well: 2174

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MW-32S

GROUNDWATER SAMPLING LOG

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Project No. 30113573.01 Well ID MW-25 Date 4/12/22

Project Name/Location KMEP - Silvercroft / Tucson, AZ Weather warm, CL, WINDY

Measuring Pt. Description NTOC Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) ~167 Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) 172 Purge Method: low flow Sample Method grab

Pump On/Off 1350 Volumes Purged ~10 L Centrifugal Submersible Bennett Other

Sample Time: Label 1448 Start 1418 End 1425 Replicate/ Code No. NA Sampled by MAT/SMA

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(umhos)~~ (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. ~~(°F)~~ (°C)	Redox (mV)	Appearance	
											Color	Odor
1400	10	300	NA	3	7.10	1.140	0.75	3.56	25.31	287.8	clear	↓
1405	15	↓	↓	4.5	7.00	1.137	—	3.16	25.59	284.8	↓	
1410	20			6	7.03	1.137	—	3.04	25.64	283.1		
1415	25	↓	↓	7.5	7.00	1.138	—	3.01	25.40	282.8	↓	↓

Constituents Sampled	Container	Number	Preservative
see COC			
* usually Chemical smell			
Fe = .02 mg/L			
Mn = 0.3 ↓			
Sulfide = .64-1.28 ↓			

Well Casing Volumes

Gallons/Foot: 1" = 0.04; 1.25" = 0.06; 1.5" = 0.09; 2" = 0.16; 2.5" = 0.26; 3" = 0.37; 3.5" = 0.50; 4" = 0.65; 6" = 1.47

Well Information

Well Location: Field

Condition of Well: good

Well Completion: Flush Mount / (Stick Up)

Well Locked at Arrival: (Yes) / No

Well Locked at Departure: (Yes) / No

Key Number To Well: 2174

ARCADIS Design & Consultancy for natural and built assets

GROUNDWATER SAMPLING LOG

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Project No. 30113573.01 Well ID MW-29D Date 5/3/22

Project Name/Location KMEP – Silvercroft / Tucson, AZ Weather warm, overcast, breezy

Measuring Pt. Description NTOC Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) 166.88 Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) 235 Purge Method: low flow Sample Method grab

Pump On/Off 0910 Volumes Purged ~15 L Centrifugal Submersible bennett Other

Sample Time: Label 0950 Start 0952 End 1005 Replicate/ Code No. NA

Sampled by MAT/SXA

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(mS/cm)~~ (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) ~~(°F)~~	Redox (mV)	Appearance Color	Appearance Odor
0920	10	300	NA	3	7.02	0.939	NM	10.13	27.07	284.0	clear	none
0925	15			4.5	7.18	.941		9.57	27.58	278.6		
0930	20			6	7.09	.942		9.83	26.77	285.2		
0935	25			7.5	6.97	.940		9.84	26.70	292.0		
0940	30			9	7.23	.940		10.52	26.49	278.0		
0945	35			10.5	7.23	.955		10.12	26.78	279.9		
0950	40	↓	↓	12	7.24	0.970		10.95	26.87	281.3	↓	↓

Constituents Sampled	Container	Number	Preservative
see COC			
✱ Run MS/MSD			
Fe = 0.04 mg/L			
Mn = NM			
Sulfide = .64-1.28			

Well Casing Volumes

Gallons/Foot					
	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location:	Field	Well Locked at Arrival:	(Yes) / No
Condition of Well:	good	Well Locked at Departure:	(Yes) / No
Well Completion:	Flush Mount / (Stick Up)	Key Number To Well:	2174

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GROUNDWATER SAMPLING LOG

(MW-31D)

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Project No. 30135773.01 Well ID MW-1D Date 5/3/22

Project Name/Location KMEP – Silvercroft / Tucson, AZ Weather warm, PC, breezy

Measuring Pt. Description NTOC Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) ~167 Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) 235 Purge Method: low flow Centrifugal Submersible Bennett Other Sample Method grab

Pump On/Off 1035 Volumes Purged ~15 L

Sample Time: Label 1127 Start 1127 End 1130 Replicate/ Code No. NA Sampled by MAT/SXA

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(mS/cm)~~ (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. ~~(°F)~~ (°C)	Redox (mV)	Appearance Color	Appearance Odor
1045	10	300	NA	3	6.67	1.122	NM	6.55	26.58	277.1	clear	none
1050	15			4.5	6.89	1.122		6.27	26.76	253.1		
1055	20			6	6.84	1.122		6.01	27.00	241.2		
1100	25			7.5	6.83	1.122		5.92	27.16	235.6		
1105	30			9	6.82	1.122		5.76	27.33	233.6		
1110	35			10.5	6.77	1.122		5.71	27.16	223.0		
1115	40			12	6.71	1.122		5.74	26.83	222.9		
1120	45	↓	↓	13.5	6.71	1.121		5.73	26.72	224.7	↓	↓

Constituents Sampled	Container	Number	Preservative
see COC			
Fe = 0.08 mg/L			
Mn = NM			
Sulfide = .64-1.78 ↓			

Well Casing Volumes

Gallons/Foot					
	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location:	field	Well Locked at Arrival:	(Yes) / No
Condition of Well:	good	Well Locked at Departure:	(Yes) / No
Well Completion:	Flush Mount / (Stick Up)	Key Number To Well:	2174

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GROUNDWATER SAMPLING LOG

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Project No. 30113573.01 Well ID (MW-32D) MW-2D Date 5/3/22

Project Name/Location KMEP – Silvercroft / Tucson, AZ Weather Warm, Overcast, Wind

Measuring Pt. Description NTOC Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) ~168 Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) 235 Purge Method: Low flow Centrifugal Submersible Beneath Other Sample Method grab

Pump On/Off 1205 Volumes Purged ~14 L

Sample Time: Label 1247 Start ~~1247~~ End 1255 Replicate/ Code No. NA Sampled by MAT/SXA

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(mhos/cm)~~ (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) ~~(°F)~~	Redox (mV)	Appearance Color	Appearance Odor
1215	0	300	NA	3	6.67	1.010	NA	2.11	27.27	239.5	clear	none
1220	15			4.5	6.76	1.010		1.38	27.25	231.8		
1225	20			6	6.87	1.042		1.02	28.36	218.6		
1230	25			7.5	6.87	1.098		2.03	28.26	222.2		
1235	30			9	6.88	1.127		2.52	28.20	225.3		
1240	35			10.5	6.84	1.123		2.94	27.60	230.7		
1245	40	↓	↓	12	6.6	1.120	↓	3.03	27.35	233.2	↓	↓

Constituents Sampled	Container	Number	Preservative
see COC			
Fe = 0.05 mg/L			
Mn = NM			
Sulfide = .64-1.28 ↓			

Well Casing Volumes

Gallons/Foot					
	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location:	field	Well Locked at Arrival:	(Yes) / No
Condition of Well:	good	Well Locked at Departure:	(Yes) / No
Well Completion:	Flush Mount / (Stick Up)	Key Number To Well:	2174

ARCADIS Design & Consultancy for natural and built assets

MW-31M

GROUNDWATER SAMPLING LOG

Project No. 30113573.01 Well ID MW-1M Date 5/3/22

Project Name/Location KMEP – Silvercroft / Tucson, AZ Weather warm, overcast, windy

Measuring Pt. Description NTOC Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) 167 Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) 190 Purge Method: low flow Centrifugal Submersible Bennett Other Sample Method grab

Pump On/Off 1325 Volumes Purged ~9 L

Sample Time: Label ~~1353~~ 1350 Replicate/ Code No. NA Sampled by MAT/SXA

Start ~~1353~~ 1325

End ~~1400~~ 1350

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(umhos)~~ (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) ~~(°F)~~	Redox (mV)	Appearance	
											Color	Odor
1335	10	300	NA	3	7.35	0.944	NM	6.69	27.86	249.5	clear	none
1340	15	"	"	4.5	7.29	0.940	"	7.51	27.53	254.8	"	"
1345	20	"	"	6	7.34	.942	"	7.80	27.45	254.2	"	"
1350	25	"	"	7.5	7.35	0.943	"	8.01	27.35	257.6	"	"

Constituents Sampled	Container	Number	Preservative
see COC			
Fe = 0.14 mg/L			
Mn = NM			
Sulfide = .64-1.28			

Well Casing Volumes

Gallons/Foot	1" = 0.04	1.25" = 0.06	1.5" = 0.09	2" = 0.16	2.5" = 0.26	3" = 0.37	3.5" = 0.50	4" = 0.65	6" = 1.47

Well Information

Well Location:	Field	Well Locked at Arrival:	(Yes) / No
Condition of Well:	good	Well Locked at Departure:	(Yes) / No
Well Completion:	Flush Mount / (Stick Up)	Key Number To Well:	2174

ARCADIS Design & Consultancy for natural and built assets

GROUNDWATER SAMPLING LOG

Project No. 30113573.01 Well ID MW-29M Date 5/3/22

Project Name/Location KMEP - Silvercroft / Tucson, AZ Weather Warm, Overcast & WIND

Measuring Pt. Description NTOC Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) 166.68 Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) 199 Purge Method: low flow Centrifugal Submersible Bennett Other

Pump On/Off 1435 Volumes Purged ~4 L Sample Method grab

Sample Time: Label 1507 Replicate/ Code No. NA

Start 1507 End 1575

Sampled by MAT/SXA

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(mmhos)~~ (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) ~~(°F)~~	Redox (mV)	Appearance Color	Appearance Odor
1445	10	300	NA	3	7.08	1.017	NM	8.15	29.05	204.9	clear	none
1450	15	"	"	4.5	7.05	1.016	"	8.25	28.49	195.9	"	"
1455	20	"	"	6	7.03	1.014	"	8.49	28.02	192.6	"	"
1500	25	"	"	7.5	7.03	1.013	"	8.49	27.91	188.7	"	"
1505	30	"	"	9	7.04	1.014	"	8.39	28.28	184.5	"	"

Constituents Sampled	Container	Number	Preservative
see COC			
Fe = 0.02 mg/L			
Mn = NM			
Sulfide = .64-1.28			

Well Casing Volumes

Gallons/Foot					
	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location:	field	Well Locked at Arrival:	(Yes) / No
Condition of Well:	good	Well Locked at Departure:	(Yes) / No
Well Completion:	Flush Mount / (Stick Up)	Key Number To Well:	2174

ARCADIS Design & Consultancy for natural and built assets

GROUNDWATER SAMPLING LOG

MW-32M

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Project No. 30113573.01 Well ID MW-2M Date 5/4/22

Project Name/Location KMEP – Silvercroft / Tucson, AZ Weather mild, sun

Measuring Pt. Description NTOC Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) 167 Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) 199 Purge Method: low flow Centrifugal Submersible Bennett Other Sample Method grab

Pump On/Off 0855 Volumes Purged ~28 L

Sample Time: Label 0957 Start 0957 End 1005 Replicate/ Code No. NA Sampled by MAT/SXA

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(mhos)~~ (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. ~~(°F)~~ (°C)	Redox (mV)	Appearance Color	Appearance Odor
0905	10	300	NA	3	7.09	0.928	NM	7.47	25.78	476.0	clear	✱
0910	15			4.5	7.11	.926		7.90	25.79	447.0		
0915	20			6	7.13	.923		8.15	25.79	426.0		
0920	25			7.5	7.15	.923		8.89	25.87	410.3		
0925	30			9	7.17	.923		9.28	25.93	399.0		
0930	35			10.5	7.19	.922		9.04	26.11	384.2		
0935	40			12	7.19	.923		8.83	26.01	373.9		
0940	45			13.5	7.20	.920		8.92	26.18	362.0		
0945	50			15	7.21	.909		9.25	26.32	351.6		
0950	55			20	7.21	.921		8.95	26.42	344.5		
0955	60	↓	↓	25	7.22	0.926	↓	8.90	26.36	338.2	↓	↓
										1 hr purge		

Constituents Sampled	Container	Number	Preservative
see COC			
✱ Run MS/MSD	✱ Slight "sweet" chemical odor		
Fe = 0.00 mg/L			
Mn = NM			
Sulfide = .64 – 1.28 ↓			

Well Casing Volumes

Gallons/Foot					
	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location:	field	Well Locked at Arrival:	(Yes) / No
Condition of Well:	good	Well Locked at Departure:	(Yes) / No
Well Completion:	Flush Mount / (Stick Up)	Key Number To Well:	2174

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GROUNDWATER SAMPLING LOG

MW-32S

Project No. 30135730.01 Well ID MW-25 Date 5/4/22

Project Name/Location KMEP – Silvercroft / Tucson, AZ Weather warm clear

Measuring Pt. Description NTOC Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) ~167 Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) 172 Purge Method: low flow Sample Method grab

Pump On/Off 1040 Volumes Purged ___ L Centrifugal / Submersible Bennett / Other

Sample Time: Label 1117 Replicate/ Code No. NA Sampled by MAT/SXA

Start 1117

End 1125

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(mhos/cm)~~ (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) ~~(°F)~~	Redox (mV)	Appearance Color	Appearance Odor
1050	10	300	NA	3	7.12	1.084	NM	6.59	26.47	296.4	clear	X
1055	15	↓	↓	4.5	7.12	1.084	↓	5.97	26.64	289.5	↓	↓
1100	20			6	7.11	1.083		5.74	26.41	285.9		
1105	25			7.5	7.12	1.085		5.57	26.49	281.8		
1110	30			9	7.12	1.086		5.29	26.55	277.3		
1115	35	↓	↓	10.5	7.12	1.083	↓	5.18	26.64	273.6	↓	↓

Constituents Sampled	Container	Number	Preservative
see COC			
* chemical smell			
Fe = 0.00 mg/L			
Mn = NM ↓			
Sulfide = .64-1.28 ↓			

Well Casing Volumes

Gallons/Foot					
	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location:	field	Well Locked at Arrival:	(Yes) / No
Condition of Well:	good	Well Locked at Departure:	(Yes) / No
Well Completion:	Flush Mount / (Stick Up)	Key Number To Well:	2174

ARCADIS Design & Consultancy for natural and built assets

GROUNDWATER SAMPLING LOG

Project No. 30113573.01 Well ID MW-29S Date 5/4/12

Project Name/Location KMEP – Silvercroft / Tucson, AZ Weather Hot, clear, breeze

Measuring Pt. Description NTOC Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) ___ Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) 172 Purge Method: low flow Sample Method grab

Pump On/Off 1205 Volumes Purged ___ L Centrifugal Submersible Bennett Other

Sample Time: Label 1238 Start ~~1252~~ End ~~1250~~ Replicate/ Code No. MW-29S-DUP @ 1243 Sampled by MAT/SXA

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(mMhos)~~ (mS/cm) c	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) ~~(°F)~~	Redox (mV)	Appearance Color	Appearance Odor
1215	10	300	NA	3	7.52	1.070	NM	5.24	27.76	249.6	clear	✗
1220	15	↓	↓	4.5	7.43	1.104	↓	4.41	27.82	246.3	↓	↓
1225	20			6	7.41	1.111		3.92	27.88	241.5		
1230	25			7.5	7.41	1.112		3.70	27.98	238.3		
1235	30	↓	↓	9	7.41	1.112	↓	3.59	27.90	235.0	↓	↓

Constituents Sampled	Container	Number	Preservative
see COC			
Fe = 0.01 mg/L			
Mn = NM			
Sulfide = .64-1.28			

Well Casing Volumes

Gallons/Foot					
	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location:	field	Well Locked at Arrival:	(Yes) / No
Condition of Well:	good	Well Locked at Departure:	(Yes) / No
Well Completion:	Flush Mount / (Stick Up)	Key Number To Well:	2174

ARCADIS Design & Consultancy for natural and built assets

GROUNDWATER SAMPLING LOG

Page 1 of 8

Project No. 30113573.01 Well ID MW-29D Date 5/23/22

Project Name/Location KMEP – Silvercroft / Tucson, AZ Weather Hot, sunny

Measuring Pt. Description NTOC Screen Setting (ft-bmp) – Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) 167 Total Depth (ft-bmp) – Water Column/ Gallons in Well NA

MP Elevation – Pump Intake (ft-bmp) 235 Purge Method: low flow Centrifugal Submersible Bennett Other Sample Method grab

Pump On/Off 1135 Volumes Purged ~3 L

Sample Time: Label 1212 Start ~~1212~~ End 1228 Replicate/ Code No. NA Sampled by MAT/SXA

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(mMhos)~~ (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) ~~(°F)~~	Redox (mV)	Appearance Color	Appearance Odor
1145	10	300	NA	3	6.37	0.899	NM	9.46	28.88	339.0	clear	none
1150	15	↓	↓	4.5	6.79	.903	↓	11.60	28.83	313.6	↓	↓
1155	20			6	7.02	.930		11.92	28.18	295.3		
1200	25			7.5	7.12	.940		12.88	28.59	283.2		
1205	30			9	7.08	.957		12.49	28.25	284.2		
1210	35	↓	↓	10.5	7.10	.959	↓	12.64	28.28	282.6	↓	↓

Constituents Sampled	Container	Number	Preservative
see COC			
★ Run MS/MSD			
Fe = 0.01 mg/L			
Mn = NM			
Sulfide = .64-1.28 ↓			

Well Casing Volumes

Gallons/Foot: 1" = 0.04; 1.25" = 0.06; 1.5" = 0.09; 2" = 0.16; 2.5" = 0.26; 3" = 0.37; 3.5" = 0.50; 4" = 0.65; 6" = 1.47

Well Information

Well Location:	Field	Well Locked at Arrival:	(Yes) / No
Condition of Well:	good	Well Locked at Departure:	(Yes) / No
Well Completion:	Flush Mount / (Stick Up)	Key Number To Well:	2174

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GROUNDWATER SAMPLING LOG

Project No. 30113573.01 Well ID MW-31D Date 5/23/22

Project Name/Location KMEP – Silvercroft / Tucson, AZ Weather Hot, sunny

Measuring Pt. Description NTOC Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) ~167 Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) 235 Purge Method: low flow Sample Method grab

Pump On/Off 1310 Volumes Purged ~11 L Centrifugal Submersible Bennett Other

Sample Time: Label 1342 Start ~~1342~~ End 1350 Replicate/ Code No. NA Sampled by MAT / SXA

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(umhos)~~ (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) ~~(°F)~~	Redox (mV)	Appearance Color	Appearance Odor
1320	10	300	NA	3	6.54	1.077	NM	4.34	28.71	277.7	clear	none
1325	15	↓	↓	4.5	6.66	1.077	↓	4.05	28.47	265.7	↓	↓
1330	20			6	6.87	1.078		3.84	28.80	248.2		
1335	25			7.5	6.89	1.077		3.67	29.08	240.1		
1340	30	↓	↓	9	6.82	1.076		3.84	28.75	244.3	↓	↓

Constituents Sampled	Container	Number	Preservative
see COC			
Fe = 0.02 mg/L			
Mn = NM			
Sulfide = .64-1.28 ↓			

Well Casing Volumes

Gallons/Foot: 1" = 0.04; 1.25" = 0.06; 1.5" = 0.09; 2" = 0.16; 2.5" = 0.26; 3" = 0.37; 3.5" = 0.50; 4" = 0.65; 6" = 1.47

Well Information

Well Location: field

Condition of Well: good

Well Completion: Flush Mount / (Stick Up)

Well Locked at Arrival: (Yes) / No

Well Locked at Departure: (Yes) / No

Key Number To Well: 2174

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GROUNDWATER SAMPLING LOG

Project No. 30113573.01 Well ID MW-32D Date 5/23/22

Project Name/Location KMEP – Silvercroft / Tucson, AZ Weather Hot, Sunny

Measuring Pt. Description NTOC Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) ~167 Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) 235 Purge Method: low flow Sample Method grab

Pump On/Off 1430 Volumes Purged ~14 L Centrifugal ___ Submersible Bennett Other ___

Sample Time: Label 1512 Start 1512 End 1520 Replicate/ Code No. NA Sampled by MAT/SXA

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(mhos/cm)~~ (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. ~~(°F)~~ (°C)	Redox (mV)	Appearance	
											Color	Odor
1440	10	300	NA	3	6.49	1.006	NA	1.11	29.10	137.9	clear	none
1445	15			4.5	6.95	1.070		1.70	29.05	160.9		
1450	20			6	6.98	1.070		1.89	29.18	175.0		
1455	25			7.5	6.68	1.064		2.16	28.63	201.9		
1500	30			9	6.65	1.055		2.35	28.59	203.3		
1505	35			10.5	6.97	1.059		2.37	29.17	195.2		
1510	40	↓	↓	12	6.77	1.067		2.51	28.85	201.8	↓	↓

Constituents Sampled	Container	Number	Preservative
see COC			
Fe = 0.09 mg/L			
Mn = NM			
Sulfide = .64-1.28			

Well Casing Volumes

Gallons/Foot					
	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location:	field	Well Locked at Arrival:	(Yes) / No
Condition of Well:	good	Well Locked at Departure:	(Yes) / No
Well Completion:	Flush Mount / (Stick Up)	Key Number To Well:	2174

ARCADIS Design & Consultancy for natural and built assets

GROUNDWATER SAMPLING LOG

Project No. 30113573.01 Well ID MW-29M Date 5/24/22

Project Name/Location KMEP – Silvercroft / Tucson, AZ Weather Warm, sunny

Measuring Pt. Description NTOC Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) ~167 Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) 199 Purge Method: low flow Centrifugal Submersible Bennett Other Sample Method grab

Pump On/Off 0820 Volumes Purged ~8 L

Sample Time: Label 0842 Start ~~0842~~ End ~~0850~~ Replicate/ Code No. NA Sampled by MAT/SXA

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(mMhos)~~ (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) ~~(°F)~~	Redox (mV)	Appearance Color	Appearance Odor
0830	10	300	NA	5	7.19	0.980	NM	7.74	27.87	261.1	clear	none
0835	15	↓	↓	4.5	7.20	.980	↓	8.05	27.97	259.1	↓	↓
0840	20	↓	↓	6	7.18	0.981	↓	7.86	27.92	260.1	↓	↓

Constituents Sampled	Container	Number	Preservative
see COC			
Fe = 0.01 mg/L			
Mn = NM			
Sulfide = .64-1.28 ↓			

Well Casing Volumes

Gallons/Foot					
	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location:	Field	Well Locked at Arrival:	(Yes) / No
Condition of Well:	good	Well Locked at Departure:	(Yes) / No
Well Completion:	Flush Mount / (Stick Up)	Key Number To Well:	2174

ARCADIS Design & Consultancy for natural and built assets

GROUNDWATER SAMPLING LOG

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Project No. 30113573.01 Well ID MW-31M Date 5/24/22

Project Name/Location KMEP - Silvercroft / Tucson, AZ Weather Hot, sunny

Measuring Pt. Description N TOC Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) ~167 Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) 199 Purge Method: low flow Sample Method grab

Pump On/Off 0940 Volumes Purged ~10 L Centrifugal / Submersible Beneath / Other

Sample Time: Label 1007 Start 1007 End 1023 Replicate/ Code No. NM Sampled by MAT/SXA

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(mhos/cm)~~ (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) ~~(°F)~~	Redox (mV)	Appearance Color	Appearance Odor
0950	10	300	NA	3	7.36	0.901	NM	7.86	28.22	274.2	cloudy	none
0955	15	↓	↓	4.5	7.34	.901	↓	7.70	28.33	278.0	↓	↓
1000	20	↓	↓	6	7.37	.902	↓	7.67	28.64	276.7	↓	↓
1005	25	↓	↓	7.5	7.23	0.899	↓	7.85	28.50	279.6	↓	↓

Constituents Sampled	Container	Number	Preservative
see COC			
✡ Run MS/MSD			
Fe = 0.14 mg/L			
Mn = NM			
Sulfide = .64-1.28 ↓			

Well Casing Volumes

Gallons/Foot: 1" = 0.04; 1.25" = 0.06; 1.5" = 0.09; 2" = 0.16; 2.5" = 0.26; 3" = 0.37; 3.5" = 0.50; 4" = 0.65; 6" = 1.47

Well Information

Well Location: field

Condition of Well: good

Well Completion: Flush Mount / Stick Up

Well Locked at Arrival: Yes / No

Well Locked at Departure: Yes / No

Key Number To Well: 2174

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GROUNDWATER SAMPLING LOG

Project No. 30113573.01 | Well ID MW-32M | Page 6 of 8

Project Name/Location KMEP – Silvercroft / Tucson, AZ | Date 5/24/22

Measuring Pt. Description NTOC | Screen Setting (ft-bmp) – | Casing Diameter (in.) 4" | Weather Hot, sunny, breezy

Well Material X PVC ___ SS

Static Water Level (ft-bmp) ~167 | Total Depth (ft-bmp) – | Water Column/ Gallons in Well NA

MP Elevation – | Pump Intake (ft-bmp) 199 | Purge Method: low flow

Pump On/Off 1100 | Volumes Purged ~11 L | Centrifugal / Submersible Bennett / Other

Sample Time: Label 1132 | Start ~~1132~~ | End 1140 | Replicate/ Code No. NA

Sample Method grab

Sampled by MAT / SXA

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	Gallons Purged L	pH	Cond. ~~(µmhos/cm)~~ (mS/cm) C	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) ~~(°F)~~	Redox (mV)	Appearance Color	Appearance Odor
1110	10	300	NA	3	6.45	0.892	NM	7.30	28.45	301.1	clear	*
1115	15	↓	↓	4.5	6.96	.892	↓	7.45	28.56	274.2	↓	↓
1120	20			6	7.06	.893		7.78	28.64	270.8		
1125	25			7.5	7.06	.892		7.82	28.62	272.9		
1130	30	↓	↓	9	7.02	0.893		7.72	28.87	277.0	↓	↓

Constituents Sampled	Container	Number	Preservative
see COC			
* Slight Chemical smell			
Fe = 0.01 mg/L			
Mn = NM			
Sulfide = .14-1.28 ↓			

Well Casing Volumes

Gallons/Foot: 1" = 0.04 | 1.25" = 0.06 | 1.5" = 0.09 | 2" = 0.16 | 2.5" = 0.26 | 3" = 0.37 | 3.5" = 0.50 | 4" = 0.65 | 6" = 1.47

Well Information

Well Location: field

Condition of Well: good

Well Completion: Flush Mount / (Stick Up)

Well Locked at Arrival: (Yes) / No

Well Locked at Departure: (Yes) / No

Key Number To Well: 2174

ARCADIS Design & Consultancy for natural and built assets

GROUNDWATER SAMPLING LOG

Project No. 30113573.01 Well ID MW-32S

Project Name/Location KMEP – Silvercroft / Tucson, AZ

Date 5/24/22

Weather hot, sun, breeze

Measuring Pt. Description N-TOC

Screen Setting (ft-bmp) —

Casing Diameter (in.) 4"

Well Material X PVC ___ SS

Static Water Level (ft-bmp) ~167

Total Depth (ft-bmp) —

Water Column/ Gallons in Well NA

MP Elevation —

Pump Intake (ft-bmp) 173

Purge Method: low flow Centrifugal Submersible beneath Other

Sample Method grab

Pump On/Off 1230

Volumes Purged ~13 L

Sample Time: Label 1307 Start 1307 End 1315

Replicate/ Code No. NM

Sampled by MAT/SXA

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(mMhos)~~ (mS/cm) c	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) ~~(°F)~~	Redox (mV)	Appearance Color	Appearance Odor
1240	10	300	NA	3	6.37	1.040	NM	6.71	28.69	291.4	clear	#
1245	15			4.5	6.65	1.040		6.39	28.25	270.0		
1250	20			6	6.99	1.041		6.29	28.21	247.4		
1255	25			7.5	6.83	1.042		6.06	28.21	254.8		
1300	30			9	6.85	1.042		5.85	28.42	250.4		
1305	35	↓	↓	11.5	6.81	1.044		5.84	28.31	252.5	↓	↓

Constituents Sampled

see COC

Chemical Smell

Fe = 0.02 mg/L

Mn = NM

Sulfide = 1.64 – 1.28

Container | **Number** | **Preservative**

Well Casing Volumes

Gallons/Foot: 1" = 0.04; 1.25" = 0.06; 1.5" = 0.09; 2" = 0.16; 2.5" = 0.26; 3" = 0.37; 3.5" = 0.50; 4" = 0.65; 6" = 1.47

Well Information

Well Location: field

Condition of Well: good

Well Completion: Flush Mount / (Stick Up)

Well Locked at Arrival: (Yes) / No

Well Locked at Departure: (Yes) / No

Key Number To Well: 2174

ARCADIS | Design & Consultancy for natural and built assets

GROUNDWATER SAMPLING LOG

Project No. 30113573.01 Well ID MW-29S Date 5/25/22

Project Name/Location KMEP – Silvercroft / Tucson, AZ Weather mild, sun, breeze

Measuring Pt. Description NTOC Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) ~167 Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) ~173 Purge Method: low flow Sample Method grab

Pump On/Off 0905 Volumes Purged ___ L Centrifugal Submersible Bennett Other

Sample Time: Label 0937 Start 0937 End 1006 Replicate/ Code No. MW-29S-DUP @ 0942 Sampled by MATANI

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(umhos/cm)~~ (mS/cm) C	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) ~~(°F)~~	Redox (mV)	Appearance Color	Appearance Odor
0915	10	300	NA	3	7.01	1.073	NM	1.93	27.80	225.9	clear	(⊗)
0920	15	↓	↓	4.5	6.97	1.072	↓	1.87	27.43	222.9	↓	↓
0925	20			5	7.21	1.073		1.81	27.66	201.5		
0930	25			7.5	7.22	1.075		1.76	27.47	199.2		
0935	30	↓	↓	9	7.24	1.076		1.73	27.60	193.8	↓	↓

Constituents Sampled	Container	Number	Preservative
see COC			
⊗ – Run MS/MSD			
(⊗) – Chemical smell			
Fe = 0.01 mg/L			
Mn = NM			
Sulfide = 1.64-1.28			

Well Casing Volumes

Gallons/Foot: 1" = 0.04; 1.25" = 0.06; 1.5" = 0.09; 2" = 0.16; 2.5" = 0.26; 3" = 0.37; 3.5" = 0.50; 4" = 0.65; 6" = 1.47

Well Information

Well Location: ft Bld

Condition of Well: good

Well Completion: Flush Mount / (Stick Up)

Well Locked at Arrival: (Yes) / No

Well Locked at Departure: (Yes) / No

Key Number To Well: 2174

ARCADIS | Design & Consultancy for natural and built assets

GROUNDWATER SAMPLING LOG

Project No. 30113573.01 Well ID MW-29D Date 6/14/22

Project Name/Location KMEP – Silvercroft / Tucson, AZ Weather Warm, Sunny, Windy

Measuring Pt. Description NTOC Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) ~168 Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) 235 Purge Method: low flow Centrifugal Submersible Bennett Other Sample Method grab

Pump On/Off 0830 Volumes Purged ~21 L

Sample Time: Label 0932 Start 0932 End 0943 Replicate/ Code No. NA Sampled by MAT/SKA

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(umhos)~~ (mS/cm) C	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) ~~(°F)~~	Redox (mV)	Appearance Color	Appearance Odor
0840	10	300	NA	3	6.95	0.960	NM	8.55	30.16	252.4	clear	none
0845	15			4.5	6.78	.959		9.23	28.87	257.7		
0850	20			6	5.58	.962		9.09	28.85	310.0		
0855	25			7.5	6.09	.979		9.18	28.99	285.6		
0900	30			9	6.40	.992		8.94	29.09	269.4		
0905	35			10.5	6.45	1.006		8.91	29.02	251.3		
0910	40			12	6.49	1.013		9.53	28.87	239.4		
0915	45			13.5	6.84	1.016		8.87	29.23	212.8		
0920	50			15	6.68	1.018		9.05	29.14	215.0		
0925	55			~~20~~ 16.5	6.82	1.020		10.01	29.01	207.1		
0930	60	↓	↓	~~20~~ 18	6.81	1.021		8.89	28.97	213.5	↓	↓
		1 hour purge										

Constituents Sampled	Container	Number	Preservative
see COC			
☆ Rinse MS/MSD			
Fe = 0.04 mg/L			
Mn = 0.13			
Sulfide = <0.64			

Well Casing Volumes

Gallons/Foot					
	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location:	field	Well Locked at Arrival:	(Yes) / No
Condition of Well:	good	Well Locked at Departure:	(Yes) / No
Well Completion:	Flush Mount / (Stick Up)	Key Number To Well:	2174

ARCADIS Design & Consultancy for natural and built assets

GROUNDWATER SAMPLING LOG

Project No. 30113573.01 Well ID MW-31D Date 6/14/22

Project Name/Location KMEP – Silversoft / Tucson, AZ Weather Hot, sun, wind

Measuring Pt. Description NTOC Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) 168 Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) 235 Purge Method: Low flow Centrifugal Submersible Bennett Other Sample Method grab

Pump On/Off 1035 Volumes Purged 12 L

Sample Time: Label 1113 Start 1113 End 1120 Replicate/ Code No. NA Sampled by MAT/SXA

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(umhos)~~ (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. ~~(°F)~~ (°C)	Redox (mV)	Appearance Color	Appearance Odor
1045	0	300	NA	3	6.29	1.164	NM	4.14	30.37	229.8	clear	none
1050	15			4.5	6.73	1.163		3.88	30.40	186.2		
1055	20			6	6.60	1.163		3.77	30.70	197.9		
1100	25			7.5	6.79	1.163		3.74	30.71	181.7		
1105	30			9	6.64	1.162		3.70	30.64	186.9		
1110	35	↓	↓	10.5	6.68	1.161		3.76	30.51	190.2	↓	↓

Constituents Sampled	Container	Number	Preservative
see COC			
Fe = 0.02 mg/L			
Mn = 0.8			
Sulfide = 1.64 ↓			

Well Casing Volumes

Gallons/Foot: 1" = 0.04; 1.25" = 0.06; 1.5" = 0.09; 2" = 0.16; 2.5" = 0.26; 3" = 0.37; 3.5" = 0.50; 4" = 0.65; 6" = 1.47

Well Information

Well Location:	field	Well Locked at Arrival:	(Yes) / No
Condition of Well:	good	Well Locked at Departure:	(Yes) / No
Well Completion:	Flush Mount / (Stick Up)	Key Number To Well:	2774

ARCADIS Design & Consultancy for natural and built assets

GROUNDWATER SAMPLING LOG

Project No. 30113573.01 Well ID MW-32D Date 6/14/22

Project Name/Location KMEP – Silvercroft / Tucson, AZ Weather HOT, SUN, WINDY

Measuring Pt. Description NTOC Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) ~168 Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) ~235 Purge Method: Low flow Centrifugal Submersible Beneath Other ___ Sample Method grab

Pump On/Off 1155 Volumes Purged ~17 L

Sample Time: Label 1247 Start 1247 End 1255 Replicate/ Code No. NA Sampled by MAT/SXA

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(mhos)~~ (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. ~~(°F)~~ (°C)	Redox (mV)	Appearance Color	Appearance Odor
1205	10	300	NA	3	6.62	1.046	NM	1.28	31.95	177.2	clear	none
1210	15			4.5	6.70	1.047		0.99	31.41	148.7		
1215	20			6	6.71	1.047		0.79	31.11	145.7		
1220	25			7.5	6.89	1.102		1.16	31.84	144.4		
1225	30			9	6.86	1.163		1.65	31.60	160.4		
1230	35			10.5	6.57	1.171		2.07	31.28	183.1		
1235	40			12	6.61	1.163		2.10	30.82	185.7		
1240	45			13.5	6.56	1.166		2.23	30.69	187.1		
1245	50	↓	↓	15	6.63	1.161	↓	2.31	30.56	184.6	↓	↓

Constituents Sampled	Container	Number	Preservative
see COC			
Fe = 0.02 mg/L			
Mn = 0.8			
Sulfide = .64-1.28			

Well Casing Volumes

Gallons/Foot					
	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location:	field	Well Locked at Arrival:	(Yes) / No
Condition of Well:	good	Well Locked at Departure:	(Yes) / No
Well Completion:	Flush Mount / (Stick Up)	Key Number To Well:	2174

ARCADIS | Design & Consultancy for natural and built assets

GROUNDWATER SAMPLING LOG

Project No. 30135573.01 Well ID MW-31M Date 6/14/22

Project Name/Location KMEP – Silvercroft / Tucson, AZ Weather Hot, SUN, WIND

Measuring Pt. Description TOC Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) ~168 Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) 173 Purge Method: low flow Centrifugal Submersible Bennett Other Sample Method grab

Pump On/Off 1315 Volumes Purged 10 L

Sample Time: Label 1342 Start 1342 End 1350 Replicate/ Code No. NA Sampled by MAT/SXA

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(µmhos)~~ (mS/cm) c	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. ~~(°F)~~ (°C)	Redox (mV)	Appearance	
											Color	Odor
1325	10	300	NA	3	7.31	0.973	NM	7.07	33.19	176.9	cloudy	*
1330	15	↓	↓	4.5	7.36	.975	↓	6.60	33.79	181.3	↓	↓
1335	20	↓	↓	6	7.34	.974	↓	6.64	33.89	184.2	↓	↓
1340	25	↓	↓	7.5	7.33	.975	↓	6.61	33.73	183.7	↓	↓

Constituents Sampled	Container	Number	Preservative
see COC			
* Slight chem smell? (Very slight)			
Fe = 0.09 mg/L			
Mn = 0.9			
Sulfide = .64-1.28 ↓			

Well Casing Volumes

Gallons/Foot					
	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location:	field	Well Locked at Arrival:	(Yes) / No
Condition of Well:	good	Well Locked at Departure:	(Yes) / No
Well Completion:	Flush Mount / (Stick Up)	Key Number To Well:	274

ARCADIS Design & Consultancy for natural and built assets

GROUNDWATER SAMPLING LOG

Project No. 30113573.01 Well ID MW-29M Date 6/14/22

Project Name/Location KMEP – Silvercroft / Tucson, AZ Weather HOT, SUN, WIND

Measuring Pt. Description NTOC Screen Setting (ft-bmp) – Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) ~168 Total Depth (ft-bmp) – Water Column/ Gallons in Well NA

MP Elevation – Pump Intake (ft-bmp) 199 Purge Method: low flow Centrifugal Submersible beneath Other Sample Method grab

Pump On/Off 1440 Volumes Purged ~13 L

Sample Time: Label 1517 Start 1517 End 1525 Replicate/ Code No. NA Sampled by MAT/SXA

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(mhos/cm)~~ (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) ~~(°F)~~	Redox (mV)	Appearance Color	Appearance Odor
1450	10	300	NA	3	6.93	1.055	NM	6.62	32.68	179.0	clear	#
1455	15	↓	↓	4.5	7.11	1.056	↓	6.53	33.02	170.0	↓	↓
1500	20	↓	↓	6	6.96	1.052	↓	6.53	31.22	204.9	↓	↓
1505	25	↓	↓	7.5	7.11	1.056	↓	6.93	33.18	173.7	↓	↓
1510	30	↓	↓	9	7.08	1.056	↓	7.05	32.94	178.7	↓	↓
1515	35	↓	↓	10.5	7.07	1.053	↓	7.14	33.01	180.2	↓	↓

Constituents Sampled	Container	Number	Preservative
see COC			
# Chemical odor			
Fe = 0.03 mg/L			
Mn = 1.3			
Sulfide = .64-1.28			

Well Casing Volumes

Gallons/Foot					
	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location:	field	Well Locked at Arrival:	(Yes) / No
Condition of Well:	good	Well Locked at Departure:	(Yes) / No
Well Completion:	Flush Mount / (Stick Up)	Key Number To Well:	2174

ARCADIS | Design & Consultancy for natural and built assets

GROUNDWATER SAMPLING LOG

Project No. 30113573.01 Well ID MW-32M Date 6/15/22

Project Name/Location KMEP – Silvercroft / Tucson, AZ Weather Warm, Sunny

Measuring Pt. Description NTOC Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) ~168 Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) 199 Purge Method: low flow Centrifugal Submersible Bennett Other Sample Method grab

Pump On/Off 0740 Volumes Purged ~12 L

Sample Time: Label 0812 Start ~~0812~~ End 0820 Replicate/ Code No. NA Sampled by MAT/SXM

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	Gallons Purged L	pH	Cond. ~~(umhos/cm)~~ (mS/cm) c	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) ~~(°F)~~	Redox (mV)	Appearance Color	Appearance Odor
0750	10	300	NA	3	6.97	0.952	NM	7.82	26.64	281.1	clear	none
0755	15	↓	↓	4.5	7.01	.951	↓	8.13	26.75	273.7	↓	↓
0800	20			6	7.02	.951		8.84	26.71	267.7		
0805	25			7.5	6.98	.950		8.21	26.81	267.8		
0810	30	↓	↓	9	6.95	.950		8.44	26.80	267.6	↓	↓

Constituents Sampled	Container	Number	Preservative
see COC			
~~X~~ Run MS/MSD			
Fe = 0.04 mg/L			
Mn = 1.01			
Sulfide = .64-1.28			

Well Casing Volumes

Gallons/Foot: 1" = 0.04; 1.25" = 0.06; 1.5" = 0.09; 2" = 0.16; 2.5" = 0.26; 3" = 0.37; 3.5" = 0.50; 4" = 0.65; 6" = 1.47

Well Information

Well Location: field

Condition of Well: good

Well Completion: Flush Mount / (Stick Up)

Well Locked at Arrival: (Yes) / No

Well Locked at Departure: (Yes) / No

Key Number To Well: 2174

ARCADIS | Design & Consultancy for natural and built assets

GROUNDWATER SAMPLING LOG

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Project No. 30113573.01 Well ID MW-32S Date 6/15/22

Project Name/Location KMEP – Silvercroft / Tucson, AZ Weather Hot, sun, breeze

Measuring Pt. Description NTOC Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) ~168 Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) 173 Purge Method: low flow Centrifugal Submersible Bennett Other ___ Sample Method grab

Pump On/Off 0900 Volumes Purged ~10 L

Sample Time: Label 0927 Start 0927 End 0935 Replicate/ Code No. NA Sampled by MAT/SXA

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(umhos)~~ (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. ~~(°F)~~ (°C)	Redox (mV)	Appearance	
											Color	Odor
0910	10	300	NA	3	6.80	1.087	NM	5.11	28.48	244.2	clear	✱
0915	15	↓	↓	4.5	6.79	1.086	↓	4.84	28.01	240.3	↓	↓
0920	20			6	6.80	1.086		4.43	27.88	238.6		
0925	25	↓	↓	7.5	6.89	1.084	↓	4.16	28.15	232.2	↓	↓

Constituents Sampled	Container	Number	Preservative
see COC			
✱ Chemical Odor			
Fe = 0.02 mg/L			
Mn = 1.3			
Sulfide = 1.64-1.28 ↓			

Well Casing Volumes

Gallons/Foot					
	1" = 0.04	1.5" = 0.09	2.5" = 0.26	3.5" = 0.50	6" = 1.47
	1.25" = 0.06	2" = 0.16	3" = 0.37	4" = 0.65	

Well Information

Well Location: field

Condition of Well: good

Well Completion: Flush Mount / (Stick Up)

Well Locked at Arrival: (Yes) / No

Well Locked at Departure: (Yes) / No

Key Number To Well: 2174

ARCADIS Design & Consultancy for natural and built assets

GROUNDWATER SAMPLING LOG

Project No. 30113573.01 Well ID MW-29S Date 6/15/22

Project Name/Location KMEP – Silvercroft / Tucson, AZ Weather hot, partcloudy, breezy

Measuring Pt. Description NTOC Screen Setting (ft-bmp) — Casing Diameter (in.) 4" Well Material X PVC ___ SS

Static Water Level (ft-bmp) ~168 Total Depth (ft-bmp) — Water Column/ Gallons in Well NA

MP Elevation — Pump Intake (ft-bmp) 173 Purge Method: low flow Centrifugal Submersible Bennett Other

Pump On/Off 1015 Volumes Purged ~11 L Sample Method grab

Sample Time: Label 1042 Start 1042 End 1058 Replicate/ Code No. MW-29S-DUP @1047

Sampled by MAT/SXA

Time	Minutes Elapsed	Rate ~~(gpm)~~ (mL/min)	Depth to Water (ft)	~~Gallons~~ Purged L	pH	Cond. ~~(mmhos)~~ (mS/cm) c	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C) ~~(°F)~~	Redox (mV)	Appearance	
											Color	Odor
1025	10	300	NA	3	6.96	1.181	NM	1.29	29.13	206.9	clear	✱
1030	15	↓	↓	4.5	7.02	1.171	↓	1.09	28.86	195.5	↓	↓
1035	20	↓	↓	6	7.06	1.166	↓	1.07	28.62	192.2	↓	↓
1040	25	↓	↓	7.5	7.10	1.168	↓	1.06	28.79	192.0	↓	✱

Constituents Sampled	Container	Number	Preservative
see COC			
# Chemical Small			
Fe = 0.01 mg/L			
Mn = 1.0			
Sulfide = .64-1.28 ↓			

Well Casing Volumes

Gallons/Foot: 1" = 0.04; 1.25" = 0.06; 1.5" = 0.09; 2" = 0.16; 2.5" = 0.26; 3" = 0.37; 3.5" = 0.50; 4" = 0.65; 6" = 1.47

Well Information

Well Location: field

Condition of Well: good

Well Completion: Flush Mount / (Stick Up)

Well Locked at Arrival: (Yes) / No

Well Locked at Departure: (Yes) / No

Key Number To Well: 274

Appendix J

Performance Monitoring Laboratory Analytical Reports

ANALYTICAL REPORT

January 26, 2022

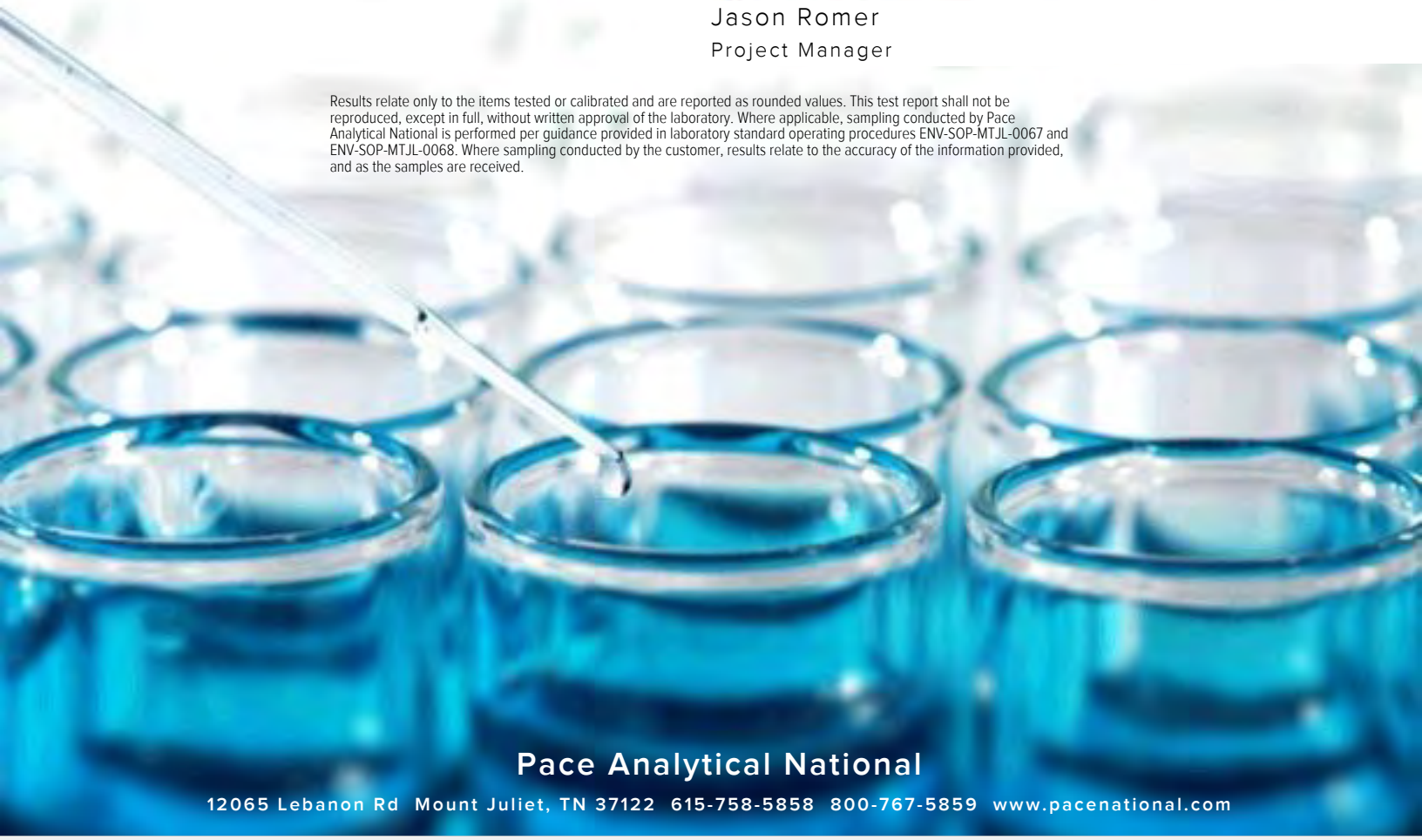
Kinder Morgan - Rocklin, CA-AZ Work

Sample Delivery Group:	L1450176
Samples Received:	01/12/2022
Project Number:	30113573.01
Description:	KMEP Silvercroft Wash
Site:	SILVERCROFT WASH
Report To:	Bob Forsberg 410 N.44th Street Suite 1000 Phoenix, AZ 85008

Entire Report Reviewed By:

Jason Romer
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

TABLE OF CONTENTS

MW-1D L1450176-01 GW

Collected by: MAT / SXA | Collected date/time: 01/11/22 11:27 | Received date/time: 01/12/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1803990	1	01/18/22 12:42	01/18/22 14:38	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1800943	1	01/12/22 18:22	01/12/22 18:22	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1800943	10	01/12/22 21:24	01/12/22 21:24	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1805815	1	01/21/22 11:59	01/22/22 12:28	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1801021	1	01/13/22 11:06	01/13/22 11:06	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1801257	1	01/12/22 22:21	01/12/22 22:21	ACG	Mt. Juliet, TN

MW-4 L1450176-02 GW

Collected by: MAT / SXA | Collected date/time: 01/11/22 12:32 | Received date/time: 01/12/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1803990	1	01/18/22 12:42	01/18/22 14:38	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1800943	1	01/12/22 19:14	01/12/22 19:14	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1800943	5	01/12/22 21:50	01/12/22 21:50	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1805363	1	01/20/22 20:12	01/25/22 21:30	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1801021	1	01/13/22 11:18	01/13/22 11:18	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1801257	1	01/12/22 22:42	01/12/22 22:42	ACG	Mt. Juliet, TN

MW-16 L1450176-03 GW

Collected by: MAT / SXA | Collected date/time: 01/11/22 13:27 | Received date/time: 01/12/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1803990	1	01/18/22 12:42	01/18/22 14:38	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1800943	1	01/12/22 19:27	01/12/22 19:27	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1800943	5	01/12/22 22:03	01/12/22 22:03	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1805363	1	01/20/22 20:12	01/25/22 21:33	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1801021	1	01/13/22 11:22	01/13/22 11:22	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1801257	1	01/12/22 23:03	01/12/22 23:03	ACG	Mt. Juliet, TN

MW-30 L1450176-04 GW

Collected by: MAT / SXA | Collected date/time: 01/11/22 15:12 | Received date/time: 01/12/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1803990	1	01/18/22 12:42	01/18/22 14:38	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1800943	1	01/12/22 19:40	01/12/22 19:40	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1800943	5	01/12/22 22:17	01/12/22 22:17	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1805363	1	01/20/22 20:12	01/25/22 21:36	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1801021	1	01/13/22 11:26	01/13/22 11:26	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1801257	1	01/12/22 23:24	01/12/22 23:24	ACG	Mt. Juliet, TN

EQUIPMENT BLANK-2 L1450176-05 GW

Collected by: MAT / SXA | Collected date/time: 01/11/22 10:10 | Received date/time: 01/12/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1801257	1	01/12/22 19:12	01/12/22 19:12	ACG	Mt. Juliet, TN

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

TRIP BLANK L1450176-06 GW

Collected by	Collected date/time	Received date/time
MAT / SXA	01/11/22 00:00	01/12/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1801257	1	01/12/22 18:52	01/12/22 18:52	ACG	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.

Jason Romer
Project Manager

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	801		13.3	1	01/18/2022 14:38	WG1803990

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Nitrate	3.75		0.100	1	01/12/2022 18:22	WG1800943
Nitrite	ND		0.100	1	01/12/2022 18:22	WG1800943
Sulfate	259		50.0	10	01/12/2022 21:24	WG1800943

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Iron	0.695		0.100	1	01/22/2022 12:28	WG1805815

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Methane	ND		0.0100	1	01/13/2022 11:06	WG1801021
Ethane	ND		0.0130	1	01/13/2022 11:06	WG1801021
Ethene	ND		0.0130	1	01/13/2022 11:06	WG1801021

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Acetone	ND		0.0500	1	01/12/2022 22:21	WG1801257
Acrylonitrile	ND		0.0100	1	01/12/2022 22:21	WG1801257
Benzene	ND		0.00100	1	01/12/2022 22:21	WG1801257
Bromobenzene	ND		0.00100	1	01/12/2022 22:21	WG1801257
Bromochloromethane	ND		0.00100	1	01/12/2022 22:21	WG1801257
Bromodichloromethane	ND		0.00100	1	01/12/2022 22:21	WG1801257
Bromoform	ND		0.00100	1	01/12/2022 22:21	WG1801257
Bromomethane	ND		0.00500	1	01/12/2022 22:21	WG1801257
n-Butylbenzene	ND		0.00100	1	01/12/2022 22:21	WG1801257
sec-Butylbenzene	ND		0.00100	1	01/12/2022 22:21	WG1801257
tert-Butylbenzene	ND		0.00100	1	01/12/2022 22:21	WG1801257
Carbon tetrachloride	ND		0.00100	1	01/12/2022 22:21	WG1801257
Carbon disulfide	ND		0.00100	1	01/12/2022 22:21	WG1801257
Chlorobenzene	ND		0.00100	1	01/12/2022 22:21	WG1801257
Chlorodibromomethane	ND		0.00100	1	01/12/2022 22:21	WG1801257
Chloroethane	ND		0.00500	1	01/12/2022 22:21	WG1801257
Chloroform	ND		0.00500	1	01/12/2022 22:21	WG1801257
Chloromethane	ND		0.00250	1	01/12/2022 22:21	WG1801257
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	01/12/2022 22:21	WG1801257
1,2-Dibromoethane	ND		0.00100	1	01/12/2022 22:21	WG1801257
Dibromomethane	ND		0.00100	1	01/12/2022 22:21	WG1801257
1,2-Dichlorobenzene	ND		0.00100	1	01/12/2022 22:21	WG1801257
1,3-Dichlorobenzene	ND		0.00100	1	01/12/2022 22:21	WG1801257
1,4-Dichlorobenzene	ND		0.00100	1	01/12/2022 22:21	WG1801257
trans-1,4-Dichloro-2-butene	ND		0.00250	1	01/12/2022 22:21	WG1801257
Dichlorodifluoromethane	ND		0.00500	1	01/12/2022 22:21	WG1801257
1,1-Dichloroethane	ND		0.00100	1	01/12/2022 22:21	WG1801257
1,2-Dichloroethane	ND		0.00100	1	01/12/2022 22:21	WG1801257
1,1-Dichloroethene	ND		0.00100	1	01/12/2022 22:21	WG1801257
cis-1,2-Dichloroethene	ND		0.00100	1	01/12/2022 22:21	WG1801257

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.00100	1	01/12/2022 22:21	WG1801257
1,2-Dichloropropane	ND		0.00100	1	01/12/2022 22:21	WG1801257
cis-1,3-Dichloropropene	ND		0.00100	1	01/12/2022 22:21	WG1801257
trans-1,3-Dichloropropene	ND		0.00100	1	01/12/2022 22:21	WG1801257
Ethylbenzene	ND		0.00100	1	01/12/2022 22:21	WG1801257
Hexachloro-1,3-butadiene	ND		0.00100	1	01/12/2022 22:21	WG1801257
2-Hexanone	ND		0.0100	1	01/12/2022 22:21	WG1801257
2-Butanone (MEK)	ND		0.0100	1	01/12/2022 22:21	WG1801257
Iodomethane	ND		0.0100	1	01/12/2022 22:21	WG1801257
Methylene Chloride	ND		0.00500	1	01/12/2022 22:21	WG1801257
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	01/12/2022 22:21	WG1801257
Naphthalene	ND		0.00500	1	01/12/2022 22:21	WG1801257
n-Propylbenzene	ND		0.00100	1	01/12/2022 22:21	WG1801257
Styrene	ND		0.00100	1	01/12/2022 22:21	WG1801257
1,1,1,2-Tetrachloroethane	ND		0.00100	1	01/12/2022 22:21	WG1801257
1,1,2,2-Tetrachloroethane	ND		0.00100	1	01/12/2022 22:21	WG1801257
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	01/12/2022 22:21	WG1801257
Tetrachloroethene	ND		0.00100	1	01/12/2022 22:21	WG1801257
Toluene	ND		0.00100	1	01/12/2022 22:21	WG1801257
1,2,4-Trichlorobenzene	ND		0.00100	1	01/12/2022 22:21	WG1801257
1,1,1-Trichloroethane	ND		0.00100	1	01/12/2022 22:21	WG1801257
1,1,2-Trichloroethane	ND		0.00100	1	01/12/2022 22:21	WG1801257
Trichloroethene	ND		0.00100	1	01/12/2022 22:21	WG1801257
Trichlorofluoromethane	ND		0.00500	1	01/12/2022 22:21	WG1801257
1,2,3-Trichloropropane	ND		0.00250	1	01/12/2022 22:21	WG1801257
1,2,4-Trimethylbenzene	ND		0.00100	1	01/12/2022 22:21	WG1801257
1,3,5-Trimethylbenzene	ND		0.00100	1	01/12/2022 22:21	WG1801257
Vinyl acetate	ND		0.0100	1	01/12/2022 22:21	WG1801257
Vinyl chloride	ND		0.00100	1	01/12/2022 22:21	WG1801257
Xylenes, Total	ND		0.00300	1	01/12/2022 22:21	WG1801257
Di-isopropyl ether	ND		0.00100	1	01/12/2022 22:21	WG1801257
Ethanol	ND	M1 R5	0.100	1	01/12/2022 22:21	WG1801257
Ethyl tert-butyl ether	ND		0.00100	1	01/12/2022 22:21	WG1801257
Methyl tert-butyl ether	ND		0.00100	1	01/12/2022 22:21	WG1801257
tert-Butyl alcohol	ND		0.00500	1	01/12/2022 22:21	WG1801257
tert-Amyl Methyl Ether	ND		0.00100	1	01/12/2022 22:21	WG1801257
(S) Toluene-d8	*110*		*80.0-120*		*01/12/2022 22:21*	WG1801257
(S) 4-Bromofluorobenzene	*102*		*77.0-126*		*01/12/2022 22:21*	WG1801257
(S) 1,2-Dichloroethane-d4	*90.4*		*70.0-130*		*01/12/2022 22:21*	WG1801257

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

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	626		10.0	1	01/18/2022 14:38	WG1803990

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Nitrate	ND		0.100	1	01/12/2022 19:14	WG1800943
Nitrite	ND		0.100	1	01/12/2022 19:14	WG1800943
Sulfate	145		25.0	5	01/12/2022 21:50	WG1800943

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Iron	2.01		0.100	1	01/25/2022 21:30	WG1805363

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Methane	0.0113		0.0100	1	01/13/2022 11:18	WG1801021
Ethane	ND		0.0130	1	01/13/2022 11:18	WG1801021
Ethene	ND		0.0130	1	01/13/2022 11:18	WG1801021

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Acetone	ND		0.0500	1	01/12/2022 22:42	WG1801257
Acrylonitrile	ND		0.0100	1	01/12/2022 22:42	WG1801257
Benzene	ND		0.00100	1	01/12/2022 22:42	WG1801257
Bromobenzene	ND		0.00100	1	01/12/2022 22:42	WG1801257
Bromochloromethane	ND		0.00100	1	01/12/2022 22:42	WG1801257
Bromodichloromethane	ND		0.00100	1	01/12/2022 22:42	WG1801257
Bromoform	ND		0.00100	1	01/12/2022 22:42	WG1801257
Bromomethane	ND		0.00500	1	01/12/2022 22:42	WG1801257
n-Butylbenzene	ND		0.00100	1	01/12/2022 22:42	WG1801257
sec-Butylbenzene	ND		0.00100	1	01/12/2022 22:42	WG1801257
tert-Butylbenzene	ND		0.00100	1	01/12/2022 22:42	WG1801257
Carbon tetrachloride	ND		0.00100	1	01/12/2022 22:42	WG1801257
Carbon disulfide	ND		0.00100	1	01/12/2022 22:42	WG1801257
Chlorobenzene	ND		0.00100	1	01/12/2022 22:42	WG1801257
Chlorodibromomethane	ND		0.00100	1	01/12/2022 22:42	WG1801257
Chloroethane	ND		0.00500	1	01/12/2022 22:42	WG1801257
Chloroform	ND		0.00500	1	01/12/2022 22:42	WG1801257
Chloromethane	ND		0.00250	1	01/12/2022 22:42	WG1801257
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	01/12/2022 22:42	WG1801257
1,2-Dibromoethane	ND		0.00100	1	01/12/2022 22:42	WG1801257
Dibromomethane	ND		0.00100	1	01/12/2022 22:42	WG1801257
1,2-Dichlorobenzene	ND		0.00100	1	01/12/2022 22:42	WG1801257
1,3-Dichlorobenzene	ND		0.00100	1	01/12/2022 22:42	WG1801257
1,4-Dichlorobenzene	ND		0.00100	1	01/12/2022 22:42	WG1801257
trans-1,4-Dichloro-2-butene	ND		0.00250	1	01/12/2022 22:42	WG1801257
Dichlorodifluoromethane	ND		0.00500	1	01/12/2022 22:42	WG1801257
1,1-Dichloroethane	ND		0.00100	1	01/12/2022 22:42	WG1801257
1,2-Dichloroethane	ND		0.00100	1	01/12/2022 22:42	WG1801257
1,1-Dichloroethene	ND		0.00100	1	01/12/2022 22:42	WG1801257
cis-1,2-Dichloroethene	ND		0.00100	1	01/12/2022 22:42	WG1801257

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.00100	1	01/12/2022 22:42	WG1801257
1,2-Dichloropropane	ND		0.00100	1	01/12/2022 22:42	WG1801257
cis-1,3-Dichloropropene	ND		0.00100	1	01/12/2022 22:42	WG1801257
trans-1,3-Dichloropropene	ND		0.00100	1	01/12/2022 22:42	WG1801257
Ethylbenzene	ND		0.00100	1	01/12/2022 22:42	WG1801257
Hexachloro-1,3-butadiene	ND	R7	0.00100	1	01/12/2022 22:42	WG1801257
2-Hexanone	ND		0.0100	1	01/12/2022 22:42	WG1801257
2-Butanone (MEK)	ND		0.0100	1	01/12/2022 22:42	WG1801257
Iodomethane	ND		0.0100	1	01/12/2022 22:42	WG1801257
Methylene Chloride	ND		0.00500	1	01/12/2022 22:42	WG1801257
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	01/12/2022 22:42	WG1801257
Naphthalene	ND	R7	0.00500	1	01/12/2022 22:42	WG1801257
n-Propylbenzene	ND		0.00100	1	01/12/2022 22:42	WG1801257
Styrene	ND		0.00100	1	01/12/2022 22:42	WG1801257
1,1,1,2-Tetrachloroethane	ND		0.00100	1	01/12/2022 22:42	WG1801257
1,1,2,2-Tetrachloroethane	ND		0.00100	1	01/12/2022 22:42	WG1801257
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	01/12/2022 22:42	WG1801257
Tetrachloroethene	ND		0.00100	1	01/12/2022 22:42	WG1801257
Toluene	ND		0.00100	1	01/12/2022 22:42	WG1801257
1,2,4-Trichlorobenzene	ND	R7	0.00100	1	01/12/2022 22:42	WG1801257
1,1,1-Trichloroethane	ND		0.00100	1	01/12/2022 22:42	WG1801257
1,1,2-Trichloroethane	ND		0.00100	1	01/12/2022 22:42	WG1801257
Trichloroethene	ND		0.00100	1	01/12/2022 22:42	WG1801257
Trichlorofluoromethane	ND		0.00500	1	01/12/2022 22:42	WG1801257
1,2,3-Trichloropropane	ND		0.00250	1	01/12/2022 22:42	WG1801257
1,2,4-Trimethylbenzene	ND		0.00100	1	01/12/2022 22:42	WG1801257
1,3,5-Trimethylbenzene	ND		0.00100	1	01/12/2022 22:42	WG1801257
Vinyl acetate	ND		0.0100	1	01/12/2022 22:42	WG1801257
Vinyl chloride	ND		0.00100	1	01/12/2022 22:42	WG1801257
Xylenes, Total	ND		0.00300	1	01/12/2022 22:42	WG1801257
Di-isopropyl ether	ND		0.00100	1	01/12/2022 22:42	WG1801257
Ethanol	ND	R5	0.100	1	01/12/2022 22:42	WG1801257
Ethyl tert-butyl ether	ND		0.00100	1	01/12/2022 22:42	WG1801257
Methyl tert-butyl ether	0.0152		0.00100	1	01/12/2022 22:42	WG1801257
tert-Butyl alcohol	0.0486		0.00500	1	01/12/2022 22:42	WG1801257
tert-Amyl Methyl Ether	0.00503		0.00100	1	01/12/2022 22:42	WG1801257
(S) Toluene-d8	*110*		*80.0-120*		*01/12/2022 22:42*	WG1801257
(S) 4-Bromofluorobenzene	*101*		*77.0-126*		*01/12/2022 22:42*	WG1801257
(S) 1,2-Dichloroethane-d4	*91.3*		*70.0-130*		*01/12/2022 22:42*	WG1801257

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	793		13.3	1	01/18/2022 14:38	WG1803990

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Nitrate	4.24		0.100	1	01/12/2022 19:27	WG1800943
Nitrite	ND		0.100	1	01/12/2022 19:27	WG1800943
Sulfate	213		25.0	5	01/12/2022 22:03	WG1800943

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Iron	0.213		0.100	1	01/25/2022 21:33	WG1805363

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Methane	ND		0.0100	1	01/13/2022 11:22	WG1801021
Ethane	ND		0.0130	1	01/13/2022 11:22	WG1801021
Ethene	ND		0.0130	1	01/13/2022 11:22	WG1801021

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Acetone	ND		0.0500	1	01/12/2022 23:03	WG1801257
Acrylonitrile	ND		0.0100	1	01/12/2022 23:03	WG1801257
Benzene	ND		0.00100	1	01/12/2022 23:03	WG1801257
Bromobenzene	ND		0.00100	1	01/12/2022 23:03	WG1801257
Bromochloromethane	ND		0.00100	1	01/12/2022 23:03	WG1801257
Bromodichloromethane	ND		0.00100	1	01/12/2022 23:03	WG1801257
Bromoform	ND		0.00100	1	01/12/2022 23:03	WG1801257
Bromomethane	ND		0.00500	1	01/12/2022 23:03	WG1801257
n-Butylbenzene	ND		0.00100	1	01/12/2022 23:03	WG1801257
sec-Butylbenzene	ND		0.00100	1	01/12/2022 23:03	WG1801257
tert-Butylbenzene	ND		0.00100	1	01/12/2022 23:03	WG1801257
Carbon tetrachloride	ND		0.00100	1	01/12/2022 23:03	WG1801257
Carbon disulfide	ND		0.00100	1	01/12/2022 23:03	WG1801257
Chlorobenzene	ND		0.00100	1	01/12/2022 23:03	WG1801257
Chlorodibromomethane	ND		0.00100	1	01/12/2022 23:03	WG1801257
Chloroethane	ND		0.00500	1	01/12/2022 23:03	WG1801257
Chloroform	ND		0.00500	1	01/12/2022 23:03	WG1801257
Chloromethane	ND		0.00250	1	01/12/2022 23:03	WG1801257
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	01/12/2022 23:03	WG1801257
1,2-Dibromoethane	ND		0.00100	1	01/12/2022 23:03	WG1801257
Dibromomethane	ND		0.00100	1	01/12/2022 23:03	WG1801257
1,2-Dichlorobenzene	ND		0.00100	1	01/12/2022 23:03	WG1801257
1,3-Dichlorobenzene	ND		0.00100	1	01/12/2022 23:03	WG1801257
1,4-Dichlorobenzene	ND		0.00100	1	01/12/2022 23:03	WG1801257
trans-1,4-Dichloro-2-butene	ND		0.00250	1	01/12/2022 23:03	WG1801257
Dichlorodifluoromethane	ND		0.00500	1	01/12/2022 23:03	WG1801257
1,1-Dichloroethane	ND		0.00100	1	01/12/2022 23:03	WG1801257
1,2-Dichloroethane	ND		0.00100	1	01/12/2022 23:03	WG1801257
1,1-Dichloroethene	ND		0.00100	1	01/12/2022 23:03	WG1801257
cis-1,2-Dichloroethene	ND		0.00100	1	01/12/2022 23:03	WG1801257

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.00100	1	01/12/2022 23:03	WG1801257
1,2-Dichloropropane	ND		0.00100	1	01/12/2022 23:03	WG1801257
cis-1,3-Dichloropropene	ND		0.00100	1	01/12/2022 23:03	WG1801257
trans-1,3-Dichloropropene	ND		0.00100	1	01/12/2022 23:03	WG1801257
Ethylbenzene	ND		0.00100	1	01/12/2022 23:03	WG1801257
Hexachloro-1,3-butadiene	ND	R7	0.00100	1	01/12/2022 23:03	WG1801257
2-Hexanone	ND		0.0100	1	01/12/2022 23:03	WG1801257
2-Butanone (MEK)	ND		0.0100	1	01/12/2022 23:03	WG1801257
Iodomethane	ND		0.0100	1	01/12/2022 23:03	WG1801257
Methylene Chloride	ND		0.00500	1	01/12/2022 23:03	WG1801257
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	01/12/2022 23:03	WG1801257
Naphthalene	ND	R7	0.00500	1	01/12/2022 23:03	WG1801257
n-Propylbenzene	ND		0.00100	1	01/12/2022 23:03	WG1801257
Styrene	ND		0.00100	1	01/12/2022 23:03	WG1801257
1,1,1,2-Tetrachloroethane	ND		0.00100	1	01/12/2022 23:03	WG1801257
1,1,2,2-Tetrachloroethane	ND		0.00100	1	01/12/2022 23:03	WG1801257
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	01/12/2022 23:03	WG1801257
Tetrachloroethene	ND		0.00100	1	01/12/2022 23:03	WG1801257
Toluene	ND		0.00100	1	01/12/2022 23:03	WG1801257
1,2,4-Trichlorobenzene	ND	R7	0.00100	1	01/12/2022 23:03	WG1801257
1,1,1-Trichloroethane	ND		0.00100	1	01/12/2022 23:03	WG1801257
1,1,2-Trichloroethane	ND		0.00100	1	01/12/2022 23:03	WG1801257
Trichloroethene	ND		0.00100	1	01/12/2022 23:03	WG1801257
Trichlorofluoromethane	ND		0.00500	1	01/12/2022 23:03	WG1801257
1,2,3-Trichloropropane	ND		0.00250	1	01/12/2022 23:03	WG1801257
1,2,4-Trimethylbenzene	ND		0.00100	1	01/12/2022 23:03	WG1801257
1,3,5-Trimethylbenzene	ND		0.00100	1	01/12/2022 23:03	WG1801257
Vinyl acetate	ND		0.0100	1	01/12/2022 23:03	WG1801257
Vinyl chloride	ND		0.00100	1	01/12/2022 23:03	WG1801257
Xylenes, Total	ND		0.00300	1	01/12/2022 23:03	WG1801257
Di-isopropyl ether	ND		0.00100	1	01/12/2022 23:03	WG1801257
Ethanol	ND	R5	0.100	1	01/12/2022 23:03	WG1801257
Ethyl tert-butyl ether	ND		0.00100	1	01/12/2022 23:03	WG1801257
Methyl tert-butyl ether	ND		0.00100	1	01/12/2022 23:03	WG1801257
tert-Butyl alcohol	0.00500		0.00500	1	01/12/2022 23:03	WG1801257
tert-Amyl Methyl Ether	ND		0.00100	1	01/12/2022 23:03	WG1801257
(S) Toluene-d8	*107*		*80.0-120*		*01/12/2022 23:03*	WG1801257
(S) 4-Bromofluorobenzene	*104*		*77.0-126*		*01/12/2022 23:03*	WG1801257
(S) 1,2-Dichloroethane-d4	*92.5*		*70.0-130*		*01/12/2022 23:03*	WG1801257

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

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	522		10.0	1	01/18/2022 14:38	WG1803990

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Nitrate	ND		0.100	1	01/12/2022 19:40	WG1800943
Nitrite	ND		0.100	1	01/12/2022 19:40	WG1800943
Sulfate	133		25.0	5	01/12/2022 22:17	WG1800943

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Iron	0.154		0.100	1	01/25/2022 21:36	WG1805363

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Methane	0.120		0.0100	1	01/13/2022 11:26	WG1801021
Ethane	ND		0.0130	1	01/13/2022 11:26	WG1801021
Ethene	ND		0.0130	1	01/13/2022 11:26	WG1801021

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Acetone	ND		0.0500	1	01/12/2022 23:24	WG1801257
Acrylonitrile	ND		0.0100	1	01/12/2022 23:24	WG1801257
Benzene	ND		0.00100	1	01/12/2022 23:24	WG1801257
Bromobenzene	ND		0.00100	1	01/12/2022 23:24	WG1801257
Bromochloromethane	ND		0.00100	1	01/12/2022 23:24	WG1801257
Bromodichloromethane	ND		0.00100	1	01/12/2022 23:24	WG1801257
Bromoform	ND		0.00100	1	01/12/2022 23:24	WG1801257
Bromomethane	ND		0.00500	1	01/12/2022 23:24	WG1801257
n-Butylbenzene	ND		0.00100	1	01/12/2022 23:24	WG1801257
sec-Butylbenzene	ND		0.00100	1	01/12/2022 23:24	WG1801257
tert-Butylbenzene	ND		0.00100	1	01/12/2022 23:24	WG1801257
Carbon tetrachloride	ND		0.00100	1	01/12/2022 23:24	WG1801257
Carbon disulfide	ND		0.00100	1	01/12/2022 23:24	WG1801257
Chlorobenzene	ND		0.00100	1	01/12/2022 23:24	WG1801257
Chlorodibromomethane	ND		0.00100	1	01/12/2022 23:24	WG1801257
Chloroethane	ND		0.00500	1	01/12/2022 23:24	WG1801257
Chloroform	ND		0.00500	1	01/12/2022 23:24	WG1801257
Chloromethane	ND		0.00250	1	01/12/2022 23:24	WG1801257
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	01/12/2022 23:24	WG1801257
1,2-Dibromoethane	ND		0.00100	1	01/12/2022 23:24	WG1801257
Dibromomethane	ND		0.00100	1	01/12/2022 23:24	WG1801257
1,2-Dichlorobenzene	ND		0.00100	1	01/12/2022 23:24	WG1801257
1,3-Dichlorobenzene	ND		0.00100	1	01/12/2022 23:24	WG1801257
1,4-Dichlorobenzene	ND		0.00100	1	01/12/2022 23:24	WG1801257
trans-1,4-Dichloro-2-butene	ND		0.00250	1	01/12/2022 23:24	WG1801257
Dichlorodifluoromethane	ND		0.00500	1	01/12/2022 23:24	WG1801257
1,1-Dichloroethane	ND		0.00100	1	01/12/2022 23:24	WG1801257
1,2-Dichloroethane	ND		0.00100	1	01/12/2022 23:24	WG1801257
1,1-Dichloroethene	ND		0.00100	1	01/12/2022 23:24	WG1801257
cis-1,2-Dichloroethene	ND		0.00100	1	01/12/2022 23:24	WG1801257

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.00100	1	01/12/2022 23:24	WG1801257
1,2-Dichloropropane	ND		0.00100	1	01/12/2022 23:24	WG1801257
cis-1,3-Dichloropropene	ND		0.00100	1	01/12/2022 23:24	WG1801257
trans-1,3-Dichloropropene	ND		0.00100	1	01/12/2022 23:24	WG1801257
Ethylbenzene	ND		0.00100	1	01/12/2022 23:24	WG1801257
Hexachloro-1,3-butadiene	ND	R7	0.00100	1	01/12/2022 23:24	WG1801257
2-Hexanone	ND		0.0100	1	01/12/2022 23:24	WG1801257
2-Butanone (MEK)	ND		0.0100	1	01/12/2022 23:24	WG1801257
Iodomethane	ND		0.0100	1	01/12/2022 23:24	WG1801257
Methylene Chloride	ND		0.00500	1	01/12/2022 23:24	WG1801257
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	01/12/2022 23:24	WG1801257
Naphthalene	ND	R7	0.00500	1	01/12/2022 23:24	WG1801257
n-Propylbenzene	ND		0.00100	1	01/12/2022 23:24	WG1801257
Styrene	ND		0.00100	1	01/12/2022 23:24	WG1801257
1,1,1,2-Tetrachloroethane	ND		0.00100	1	01/12/2022 23:24	WG1801257
1,1,2,2-Tetrachloroethane	ND		0.00100	1	01/12/2022 23:24	WG1801257
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	01/12/2022 23:24	WG1801257
Tetrachloroethene	ND		0.00100	1	01/12/2022 23:24	WG1801257
Toluene	ND		0.00100	1	01/12/2022 23:24	WG1801257
1,2,4-Trichlorobenzene	ND	R7	0.00100	1	01/12/2022 23:24	WG1801257
1,1,1-Trichloroethane	ND		0.00100	1	01/12/2022 23:24	WG1801257
1,1,2-Trichloroethane	ND		0.00100	1	01/12/2022 23:24	WG1801257
Trichloroethene	ND		0.00100	1	01/12/2022 23:24	WG1801257
Trichlorofluoromethane	ND		0.00500	1	01/12/2022 23:24	WG1801257
1,2,3-Trichloropropane	ND		0.00250	1	01/12/2022 23:24	WG1801257
1,2,4-Trimethylbenzene	ND		0.00100	1	01/12/2022 23:24	WG1801257
1,3,5-Trimethylbenzene	ND		0.00100	1	01/12/2022 23:24	WG1801257
Vinyl acetate	ND		0.0100	1	01/12/2022 23:24	WG1801257
Vinyl chloride	ND		0.00100	1	01/12/2022 23:24	WG1801257
Xylenes, Total	ND		0.00300	1	01/12/2022 23:24	WG1801257
Di-isopropyl ether	ND		0.00100	1	01/12/2022 23:24	WG1801257
Ethanol	ND	R5	0.100	1	01/12/2022 23:24	WG1801257
Ethyl tert-butyl ether	ND		0.00100	1	01/12/2022 23:24	WG1801257
Methyl tert-butyl ether	0.00432		0.00100	1	01/12/2022 23:24	WG1801257
tert-Butyl alcohol	0.443		0.00500	1	01/12/2022 23:24	WG1801257
tert-Amyl Methyl Ether	ND		0.00100	1	01/12/2022 23:24	WG1801257
(S) Toluene-d8	*108*		*80.0-120*		*01/12/2022 23:24*	WG1801257
(S) 4-Bromofluorobenzene	*105*		*77.0-126*		*01/12/2022 23:24*	WG1801257
(S) 1,2-Dichloroethane-d4	*92.6*		*70.0-130*		*01/12/2022 23:24*	WG1801257

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

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	01/12/2022 19:12	WG1801257
Acrylonitrile	ND		0.0100	1	01/12/2022 19:12	WG1801257
Benzene	ND		0.00100	1	01/12/2022 19:12	WG1801257
Bromobenzene	ND		0.00100	1	01/12/2022 19:12	WG1801257
Bromochloromethane	ND		0.00100	1	01/12/2022 19:12	WG1801257
Bromodichloromethane	0.0129		0.00100	1	01/12/2022 19:12	WG1801257
Bromoform	ND		0.00100	1	01/12/2022 19:12	WG1801257
Bromomethane	ND		0.00500	1	01/12/2022 19:12	WG1801257
n-Butylbenzene	ND		0.00100	1	01/12/2022 19:12	WG1801257
sec-Butylbenzene	ND		0.00100	1	01/12/2022 19:12	WG1801257
tert-Butylbenzene	ND		0.00100	1	01/12/2022 19:12	WG1801257
Carbon tetrachloride	ND		0.00100	1	01/12/2022 19:12	WG1801257
Carbon disulfide	ND		0.00100	1	01/12/2022 19:12	WG1801257
Chlorobenzene	ND		0.00100	1	01/12/2022 19:12	WG1801257
Chlorodibromomethane	0.00818		0.00100	1	01/12/2022 19:12	WG1801257
Chloroethane	ND		0.00500	1	01/12/2022 19:12	WG1801257
Chloroform	0.0184		0.00500	1	01/12/2022 19:12	WG1801257
Chloromethane	ND		0.00250	1	01/12/2022 19:12	WG1801257
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	01/12/2022 19:12	WG1801257
1,2-Dibromoethane	ND		0.00100	1	01/12/2022 19:12	WG1801257
Dibromomethane	ND		0.00100	1	01/12/2022 19:12	WG1801257
1,2-Dichlorobenzene	ND		0.00100	1	01/12/2022 19:12	WG1801257
1,3-Dichlorobenzene	ND		0.00100	1	01/12/2022 19:12	WG1801257
1,4-Dichlorobenzene	ND		0.00100	1	01/12/2022 19:12	WG1801257
trans-1,4-Dichloro-2-butene	ND		0.00250	1	01/12/2022 19:12	WG1801257
Dichlorodifluoromethane	ND		0.00500	1	01/12/2022 19:12	WG1801257
1,1-Dichloroethane	ND		0.00100	1	01/12/2022 19:12	WG1801257
1,2-Dichloroethane	ND		0.00100	1	01/12/2022 19:12	WG1801257
1,1-Dichloroethene	ND		0.00100	1	01/12/2022 19:12	WG1801257
cis-1,2-Dichloroethene	ND		0.00100	1	01/12/2022 19:12	WG1801257
trans-1,2-Dichloroethene	ND		0.00100	1	01/12/2022 19:12	WG1801257
1,2-Dichloropropane	ND		0.00100	1	01/12/2022 19:12	WG1801257
cis-1,3-Dichloropropene	ND		0.00100	1	01/12/2022 19:12	WG1801257
trans-1,3-Dichloropropene	ND		0.00100	1	01/12/2022 19:12	WG1801257
Ethylbenzene	ND		0.00100	1	01/12/2022 19:12	WG1801257
Hexachloro-1,3-butadiene	ND	R7	0.00100	1	01/12/2022 19:12	WG1801257
2-Hexanone	ND		0.0100	1	01/12/2022 19:12	WG1801257
2-Butanone (MEK)	ND		0.0100	1	01/12/2022 19:12	WG1801257
Iodomethane	ND		0.0100	1	01/12/2022 19:12	WG1801257
Methylene Chloride	ND		0.00500	1	01/12/2022 19:12	WG1801257
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	01/12/2022 19:12	WG1801257
Naphthalene	ND	R7	0.00500	1	01/12/2022 19:12	WG1801257
n-Propylbenzene	ND		0.00100	1	01/12/2022 19:12	WG1801257
Styrene	ND		0.00100	1	01/12/2022 19:12	WG1801257
1,1,1,2-Tetrachloroethane	ND		0.00100	1	01/12/2022 19:12	WG1801257
1,1,2,2-Tetrachloroethane	ND		0.00100	1	01/12/2022 19:12	WG1801257
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	01/12/2022 19:12	WG1801257
Tetrachloroethene	ND		0.00100	1	01/12/2022 19:12	WG1801257
Toluene	ND		0.00100	1	01/12/2022 19:12	WG1801257
1,2,4-Trichlorobenzene	ND	R7	0.00100	1	01/12/2022 19:12	WG1801257
1,1,1-Trichloroethane	ND		0.00100	1	01/12/2022 19:12	WG1801257
1,1,2-Trichloroethane	ND		0.00100	1	01/12/2022 19:12	WG1801257
Trichloroethene	ND		0.00100	1	01/12/2022 19:12	WG1801257
Trichlorofluoromethane	ND		0.00500	1	01/12/2022 19:12	WG1801257
1,2,3-Trichloropropane	ND		0.00250	1	01/12/2022 19:12	WG1801257
1,2,4-Trimethylbenzene	ND		0.00100	1	01/12/2022 19:12	WG1801257

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
1,3,5-Trimethylbenzene	ND		0.00100	1	01/12/2022 19:12	WG1801257
Vinyl acetate	ND		0.0100	1	01/12/2022 19:12	WG1801257
Vinyl chloride	ND		0.00100	1	01/12/2022 19:12	WG1801257
Xylenes, Total	ND		0.00300	1	01/12/2022 19:12	WG1801257
Di-isopropyl ether	ND		0.00100	1	01/12/2022 19:12	WG1801257
Ethanol	ND	R5	0.100	1	01/12/2022 19:12	WG1801257
Ethyl tert-butyl ether	ND		0.00100	1	01/12/2022 19:12	WG1801257
Methyl tert-butyl ether	ND		0.00100	1	01/12/2022 19:12	WG1801257
tert-Butyl alcohol	ND		0.00500	1	01/12/2022 19:12	WG1801257
tert-Amyl Methyl Ether	ND		0.00100	1	01/12/2022 19:12	WG1801257
(S) Toluene-d8	*107*		*80.0-120*		*01/12/2022 19:12*	WG1801257
(S) 4-Bromofluorobenzene	*102*		*77.0-126*		*01/12/2022 19:12*	WG1801257
(S) 1,2-Dichloroethane-d4	*90.8*		*70.0-130*		*01/12/2022 19:12*	WG1801257

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	01/12/2022 18:52	WG1801257
Acrylonitrile	ND		0.0100	1	01/12/2022 18:52	WG1801257
Benzene	ND		0.00100	1	01/12/2022 18:52	WG1801257
Bromobenzene	ND		0.00100	1	01/12/2022 18:52	WG1801257
Bromochloromethane	ND		0.00100	1	01/12/2022 18:52	WG1801257
Bromodichloromethane	ND		0.00100	1	01/12/2022 18:52	WG1801257
Bromoform	ND		0.00100	1	01/12/2022 18:52	WG1801257
Bromomethane	ND		0.00500	1	01/12/2022 18:52	WG1801257
n-Butylbenzene	ND		0.00100	1	01/12/2022 18:52	WG1801257
sec-Butylbenzene	ND		0.00100	1	01/12/2022 18:52	WG1801257
tert-Butylbenzene	ND		0.00100	1	01/12/2022 18:52	WG1801257
Carbon tetrachloride	ND		0.00100	1	01/12/2022 18:52	WG1801257
Carbon disulfide	ND		0.00100	1	01/12/2022 18:52	WG1801257
Chlorobenzene	ND		0.00100	1	01/12/2022 18:52	WG1801257
Chlorodibromomethane	ND		0.00100	1	01/12/2022 18:52	WG1801257
Chloroethane	ND		0.00500	1	01/12/2022 18:52	WG1801257
Chloroform	ND		0.00500	1	01/12/2022 18:52	WG1801257
Chloromethane	ND		0.00250	1	01/12/2022 18:52	WG1801257
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	01/12/2022 18:52	WG1801257
1,2-Dibromoethane	ND		0.00100	1	01/12/2022 18:52	WG1801257
Dibromomethane	ND		0.00100	1	01/12/2022 18:52	WG1801257
1,2-Dichlorobenzene	ND		0.00100	1	01/12/2022 18:52	WG1801257
1,3-Dichlorobenzene	ND		0.00100	1	01/12/2022 18:52	WG1801257
1,4-Dichlorobenzene	ND		0.00100	1	01/12/2022 18:52	WG1801257
trans-1,4-Dichloro-2-butene	ND		0.00250	1	01/12/2022 18:52	WG1801257
Dichlorodifluoromethane	ND		0.00500	1	01/12/2022 18:52	WG1801257
1,1-Dichloroethane	ND		0.00100	1	01/12/2022 18:52	WG1801257
1,2-Dichloroethane	ND		0.00100	1	01/12/2022 18:52	WG1801257
1,1-Dichloroethene	ND		0.00100	1	01/12/2022 18:52	WG1801257
cis-1,2-Dichloroethene	ND		0.00100	1	01/12/2022 18:52	WG1801257
trans-1,2-Dichloroethene	ND		0.00100	1	01/12/2022 18:52	WG1801257
1,2-Dichloropropane	ND		0.00100	1	01/12/2022 18:52	WG1801257
cis-1,3-Dichloropropene	ND		0.00100	1	01/12/2022 18:52	WG1801257
trans-1,3-Dichloropropene	ND		0.00100	1	01/12/2022 18:52	WG1801257
Ethylbenzene	ND		0.00100	1	01/12/2022 18:52	WG1801257
Hexachloro-1,3-butadiene	ND	R7	0.00100	1	01/12/2022 18:52	WG1801257
2-Hexanone	ND		0.0100	1	01/12/2022 18:52	WG1801257
2-Butanone (MEK)	ND		0.0100	1	01/12/2022 18:52	WG1801257
Iodomethane	ND		0.0100	1	01/12/2022 18:52	WG1801257
Methylene Chloride	ND		0.00500	1	01/12/2022 18:52	WG1801257
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	01/12/2022 18:52	WG1801257
Naphthalene	ND	R7	0.00500	1	01/12/2022 18:52	WG1801257
n-Propylbenzene	ND		0.00100	1	01/12/2022 18:52	WG1801257
Styrene	ND		0.00100	1	01/12/2022 18:52	WG1801257
1,1,1,2-Tetrachloroethane	ND		0.00100	1	01/12/2022 18:52	WG1801257
1,1,2,2-Tetrachloroethane	ND		0.00100	1	01/12/2022 18:52	WG1801257
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	01/12/2022 18:52	WG1801257
Tetrachloroethene	ND		0.00100	1	01/12/2022 18:52	WG1801257
Toluene	ND		0.00100	1	01/12/2022 18:52	WG1801257
1,2,4-Trichlorobenzene	ND	R7	0.00100	1	01/12/2022 18:52	WG1801257
1,1,1-Trichloroethane	ND		0.00100	1	01/12/2022 18:52	WG1801257
1,1,2-Trichloroethane	ND		0.00100	1	01/12/2022 18:52	WG1801257
Trichloroethene	ND		0.00100	1	01/12/2022 18:52	WG1801257
Trichlorofluoromethane	ND		0.00500	1	01/12/2022 18:52	WG1801257
1,2,3-Trichloropropane	ND		0.00250	1	01/12/2022 18:52	WG1801257
1,2,4-Trimethylbenzene	ND		0.00100	1	01/12/2022 18:52	WG1801257

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
1,3,5-Trimethylbenzene	ND		0.00100	1	01/12/2022 18:52	WG1801257
Vinyl acetate	ND		0.0100	1	01/12/2022 18:52	WG1801257
Vinyl chloride	ND		0.00100	1	01/12/2022 18:52	WG1801257
Xylenes, Total	ND		0.00300	1	01/12/2022 18:52	WG1801257
Di-isopropyl ether	ND		0.00100	1	01/12/2022 18:52	WG1801257
Ethanol	ND	R5	0.100	1	01/12/2022 18:52	WG1801257
Ethyl tert-butyl ether	ND		0.00100	1	01/12/2022 18:52	WG1801257
Methyl tert-butyl ether	ND		0.00100	1	01/12/2022 18:52	WG1801257
tert-Butyl alcohol	ND		0.00500	1	01/12/2022 18:52	WG1801257
tert-Amyl Methyl Ether	ND		0.00100	1	01/12/2022 18:52	WG1801257
(S) Toluene-d8	*108*		*80.0-120*		*01/12/2022 18:52*	WG1801257
(S) 4-Bromofluorobenzene	*106*		*77.0-126*		*01/12/2022 18:52*	WG1801257
(S) 1,2-Dichloroethane-d4	*91.6*		*70.0-130*		*01/12/2022 18:52*	WG1801257

Method Blank (MB)

(MB) R3752026-1 01/18/22 14:38

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1450541-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1450541-01 01/18/22 14:38 • (DUP) R3752026-3 01/18/22 14:38

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	880	879	1	0.151		5

L1450541-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1450541-02 01/18/22 14:38 • (DUP) R3752026-4 01/18/22 14:38

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	919	921	1	0.289		5

Laboratory Control Sample (LCS)

(LCS) R3752026-2 01/18/22 14:38

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8670	98.5	77.4-123	

Method Blank (MB)

(MB) R3749754-1 01/12/22 10:56

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate	U		0.0480	0.100
Nitrite	U		0.0420	0.100
Sulfate	U		0.594	5.00

L1450156-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1450156-02 01/12/22 13:22 • (DUP) R3749754-3 01/12/22 13:35

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	ND	ND	1	0.594		15
Sulfate	37.9	38.8	1	2.48		15

L1450176-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1450176-01 01/12/22 18:22 • (DUP) R3749754-6 01/12/22 18:35

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	3.75	3.67	1	2.27		15
Nitrite	ND	ND	1	0.000		15
Sulfate	257	251	1	2.27	E1	15

L1450176-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1450176-01 01/12/22 21:24 • (DUP) R3749754-9 01/12/22 21:37

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfate	259	265	10	2.11		15

Laboratory Control Sample (LCS)

(LCS) R3749754-2 01/12/22 11:09

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate	8.00	7.92	99.0	80.0-120	
Nitrite	8.00	8.01	100	80.0-120	
Sulfate	40.0	40.1	100	80.0-120	

L1450156-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1450156-02 01/12/22 13:22 • (MS) R3749754-4 01/12/22 13:48 • (MSD) R3749754-5 01/12/22 14:01

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 %
Nitrate	5.00	ND	4.97	5.03	97.7	98.9	1	80.0-120			1.23	15
Sulfate	50.0	37.9	83.2	85.3	90.6	94.8	1	80.0-120			2.46	15

L1450176-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1450176-01 01/12/22 18:22 • (MS) R3749754-7 01/12/22 18:48 • (MSD) R3749754-8 01/12/22 19:01

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 %
Nitrate	5.00	3.75	8.56	8.43	96.2	93.6	1	80.0-120			1.58	15
Nitrite	5.00	ND	5.10	5.11	102	102	1	80.0-120			0.112	15
Sulfate	50.0	257	293	293	72.1	72.0	1	80.0-120	E1 M3	E1 M3	0.0171	15

Method Blank (MB)

(MB) R3753534-1 01/25/22 20:34

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Iron	U		0.0180	0.100

Laboratory Control Sample (LCS)

(LCS) R3753534-2 01/25/22 20:37

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Iron	10.0	9.52	95.2	80.0-120	

L1449009-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1449009-01 01/25/22 20:40 • (MS) R3753534-4 01/25/22 20:46 • (MSD) R3753534-5 01/25/22 20:49

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 %
Iron	10.0	0.179	11.0	9.94	108	97.6	1	75.0-125			9.81	20

Method Blank (MB)

(MB) R3752775-1 01/22/22 12:23

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Iron	U		0.0180	0.100

Laboratory Control Sample (LCS)

(LCS) R3752775-2 01/22/22 12:26

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Iron	10.0	9.85	98.5	80.0-120	

L1450176-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1450176-01 01/22/22 12:28 • (MS) R3752775-4 01/22/22 12:33 • (MSD) R3752775-5 01/22/22 12:36

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 %
Iron	10.0	0.695	10.6	10.7	98.9	100	1	75.0-125			1.50	20

Method Blank (MB)

(MB) R3749632-2 01/13/22 09:41

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Methane	U		0.00291	0.0100
Ethane	U		0.00407	0.0130
Ethene	U		0.00426	0.0130

L1450162-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1450162-06 01/13/22 10:58 • (DUP) R3749632-3 01/13/22 11:02

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	0.909	0.901	1	0.884		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20

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

(LCS) R3749632-1 01/13/22 09:37 • (LCSD) R3749632-6 01/13/22 11:46

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Methane	0.0678	0.0694	0.0708	102	104	85.0-115			2.00	20
Ethane	0.129	0.130	0.130	101	101	85.0-115			0.000	20
Ethene	0.127	0.130	0.130	102	102	85.0-115			0.000	20

L1450176-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1450176-01 01/13/22 11:06 • (MS) R3749632-4 01/13/22 11:36 • (MSD) R3749632-5 01/13/22 11:42

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 %
Methane	0.0678	ND	0.0776	0.0717	114	106	1	50.0-150			7.90	20
Ethane	0.129	ND	0.143	0.136	111	105	1	50.0-150			5.02	20
Ethene	0.127	ND	0.144	0.136	113	107	1	50.0-150			5.71	20

Method Blank (MB)

(MB) R3749523-3 01/12/22 17:15

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
1,1,1,2-Tetrachloroethane	U		0.000147	0.00100
1,1,1-Trichloroethane	U		0.000149	0.00100
1,1,2,2-Tetrachloroethane	U		0.000133	0.00100
1,1,2-Trichloroethane	U		0.000158	0.00100
1,1,2-Trichlorotrifluoroethane	U		0.000180	0.00100
1,1-Dichloroethane	U		0.000100	0.00100
1,1-Dichloroethene	U		0.000188	0.00100
1,2,3-Trichloropropane	U		0.000237	0.00250
1,2,4-Trichlorobenzene	U		0.000481	0.00100
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,2-Dibromo-3-Chloropropane	U		0.000276	0.00500
1,2-Dibromoethane	U		0.000126	0.00100
1,2-Dichlorobenzene	U		0.000107	0.00100
1,2-Dichloroethane	U		0.0000819	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
1,3-Dichlorobenzene	U		0.000110	0.00100
1,4-Dichlorobenzene	U		0.000120	0.00100
2-Butanone (MEK)	U		0.00119	0.0100
2-Hexanone	U		0.000787	0.0100
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Acetone	U		0.0113	0.0500
Acrylonitrile	U		0.000671	0.0100
Benzene	U		0.0000941	0.00100
Bromobenzene	U		0.000118	0.00100
Bromochloromethane	U		0.000128	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
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
cis-1,2-Dichloroethene	U		0.000126	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
Di-isopropyl ether	U		0.000105	0.00100
Dibromomethane	U		0.000122	0.00100

Method Blank (MB)

(MB) R3749523-3 01/12/22 17:15

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dichlorodifluoromethane	U		0.000374	0.00500
Ethyl tert-butyl ether	U		0.000101	0.00100
Ethylbenzene	U		0.000137	0.00100
Hexachloro-1,3-butadiene	U		0.000337	0.00100
Iodomethane	U		0.00600	0.0100
Methyl tert-butyl ether	U		0.000101	0.00100
Methylene Chloride	U		0.000430	0.00500
n-Butylbenzene	U		0.000157	0.00100
n-Propylbenzene	U		0.0000993	0.00100
Naphthalene	U		0.00100	0.00500
sec-Butylbenzene	U		0.000125	0.00100
Styrene	U		0.000118	0.00100
tert-Amyl Methyl Ether	U		0.000195	0.00100
tert-Butylbenzene	U		0.000127	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
trans-1,4-Dichloro-2-butene	U		0.000467	0.00250
Trichloroethene	U		0.000190	0.00100
Trichlorofluoromethane	U		0.000160	0.00500
Vinyl acetate	U		0.000692	0.0100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
tert-Butyl alcohol	U		0.00406	0.00500
Ethanol	U		0.0420	0.100
(S) 1,2-Dichloroethane-d4	*91.5*			*70.0-130*
(S) Toluene-d8	*111*			*80.0-120*
(S) 4-Bromofluorobenzene	*105*			*77.0-126*

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

(LCS) R3749523-1 01/12/22 15:31 • (LCSD) R3749523-2 01/12/22 15:51

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,1,1,2-Tetrachloroethane	0.00500	0.00501	0.00517	100	103	75.0-125			3.14	20
1,1,1-Trichloroethane	0.00500	0.00504	0.00480	101	96.0	73.0-124			4.88	20
1,1,2,2-Tetrachloroethane	0.00500	0.00457	0.00427	91.4	85.4	65.0-130			6.79	20
1,1,2-Trichloroethane	0.00500	0.00494	0.00490	98.8	98.0	80.0-120			0.813	20

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

(LCS) R3749523-1 01/12/22 15:31 • (LCSD) R3749523-2 01/12/22 15:51

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,1,2-Trichlorotrifluoroethane	0.00500	0.00513	0.00514	103	103	69.0-132			0.195	20
1,1-Dichloroethane	0.00500	0.00495	0.00466	99.0	93.2	70.0-126			6.04	20
1,1-Dichloroethene	0.00500	0.00470	0.00446	94.0	89.2	71.0-124			5.24	20
1,2,3-Trichloropropane	0.00500	0.00489	0.00466	97.8	93.2	73.0-130			4.82	20
1,2,4-Trichlorobenzene	0.00500	0.00422	0.00580	84.4	116	57.0-137		R7	31.5	20
1,2,4-Trimethylbenzene	0.00500	0.00492	0.00484	98.4	96.8	76.0-121			1.64	20
1,2-Dibromo-3-Chloropropane	0.00500	0.00352	0.00420	70.4	84.0	58.0-134			17.6	20
1,2-Dibromoethane	0.00500	0.00505	0.00498	101	99.6	80.0-122			1.40	20
1,2-Dichlorobenzene	0.00500	0.00516	0.00533	103	107	79.0-121			3.24	20
1,2-Dichloroethane	0.00500	0.00477	0.00485	95.4	97.0	70.0-128			1.66	20
1,2-Dichloropropane	0.00500	0.00481	0.00476	96.2	95.2	77.0-125			1.04	20
1,3,5-Trimethylbenzene	0.00500	0.00508	0.00485	102	97.0	76.0-122			4.63	20
1,3-Dichlorobenzene	0.00500	0.00519	0.00513	104	103	79.0-120			1.16	20
1,4-Dichlorobenzene	0.00500	0.00536	0.00525	107	105	79.0-120			2.07	20
2-Butanone (MEK)	0.0250	0.0230	0.0234	92.0	93.6	44.0-160			1.72	20
2-Hexanone	0.0250	0.0251	0.0250	100	100	67.0-149			0.399	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.0249	0.0247	99.6	98.8	68.0-142			0.806	20
Acetone	0.0250	0.0221	0.0212	88.4	84.8	19.0-160			4.16	27
Acrylonitrile	0.0250	0.0229	0.0232	91.6	92.8	55.0-149			1.30	20
Benzene	0.00500	0.00480	0.00480	96.0	96.0	70.0-123			0.000	20
Bromobenzene	0.00500	0.00474	0.00455	94.8	91.0	73.0-121			4.09	20
Bromochloromethane	0.00500	0.00499	0.00507	99.8	101	76.0-122			1.59	20
Bromodichloromethane	0.00500	0.00433	0.00447	86.6	89.4	75.0-120			3.18	20
Bromoform	0.00500	0.00436	0.00460	87.2	92.0	68.0-132			5.36	20
Bromomethane	0.00500	0.00487	0.00469	97.4	93.8	10.0-160			3.77	25
Carbon disulfide	0.00500	0.00383	0.00367	76.6	73.4	61.0-128			4.27	20
Carbon tetrachloride	0.00500	0.00492	0.00492	98.4	98.4	68.0-126			0.000	20
Chlorobenzene	0.00500	0.00531	0.00527	106	105	80.0-121			0.756	20
Chlorodibromomethane	0.00500	0.00468	0.00472	93.6	94.4	77.0-125			0.851	20
Chloroethane	0.00500	0.00525	0.00498	105	99.6	47.0-150			5.28	20
Chloroform	0.00500	0.00477	0.00466	95.4	93.2	73.0-120			2.33	20
Chloromethane	0.00500	0.00436	0.00433	87.2	86.6	41.0-142			0.690	20
cis-1,2-Dichloroethene	0.00500	0.00500	0.00490	100	98.0	73.0-120			2.02	20
cis-1,3-Dichloropropene	0.00500	0.00455	0.00464	91.0	92.8	80.0-123			1.96	20
Di-isopropyl ether	0.00500	0.00499	0.00492	99.8	98.4	58.0-138			1.41	20
Dibromomethane	0.00500	0.00462	0.00474	92.4	94.8	80.0-120			2.56	20
Dichlorodifluoromethane	0.00500	0.00528	0.00535	106	107	51.0-149			1.32	20
Ethanol	0.250	0.167	0.229	66.8	91.6	10.0-160		R7	31.3	30
Ethyl tert-butyl ether	0.00500	0.00484	0.00480	96.8	96.0	63.0-138			0.830	20
Ethylbenzene	0.00500	0.00535	0.00524	107	105	79.0-123			2.08	20

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

(LCS) R3749523-1 01/12/22 15:31 • (LCSD) R3749523-2 01/12/22 15:51

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Hexachloro-1,3-butadiene	0.00500	0.00524	0.00669	105	134	54.0-138		R7	24.3	20
Iodomethane	0.0250	0.0253	0.0241	101	96.4	33.0-147			4.86	26
Methyl tert-butyl ether	0.00500	0.00477	0.00475	95.4	95.0	68.0-125			0.420	20
Methylene Chloride	0.00500	0.00497	0.00469	99.4	93.8	67.0-120			5.80	20
n-Butylbenzene	0.00500	0.00484	0.00511	96.8	102	73.0-125			5.43	20
n-Propylbenzene	0.00500	0.00503	0.00476	101	95.2	77.0-124			5.52	20
Naphthalene	0.00500	0.00342	0.00468	68.4	93.6	54.0-135		R7	31.1	20
sec-Butylbenzene	0.00500	0.00452	0.00445	90.4	89.0	75.0-125			1.56	20
Styrene	0.00500	0.00501	0.00514	100	103	73.0-130			2.56	20
tert-Amyl Methyl Ether	0.00500	0.00457	0.00463	91.4	92.6	66.0-125			1.30	20
tert-Butyl alcohol	0.0250	0.0177	0.0193	70.8	77.2	27.0-160			8.65	30
tert-Butylbenzene	0.00500	0.00543	0.00514	109	103	76.0-124			5.49	20
Tetrachloroethene	0.00500	0.00600	0.00577	120	115	72.0-132			3.91	20
Toluene	0.00500	0.00507	0.00498	101	99.6	79.0-120			1.79	20
trans-1,2-Dichloroethene	0.00500	0.00505	0.00469	101	93.8	73.0-120			7.39	20
trans-1,3-Dichloropropene	0.00500	0.00455	0.00456	91.0	91.2	78.0-124			0.220	20
trans-1,4-Dichloro-2-butene	0.00500	0.00363	0.00321	72.6	64.2	33.0-144			12.3	20
Trichloroethene	0.00500	0.00513	0.00505	103	101	78.0-124			1.57	20
Trichlorofluoromethane	0.00500	0.00533	0.00483	107	96.6	59.0-147			9.84	20
Vinyl acetate	0.0250	0.0262	0.0272	105	109	11.0-160			3.75	20
Vinyl chloride	0.00500	0.00501	0.00470	100	94.0	67.0-131			6.39	20
Xylenes, Total	0.0150	0.0156	0.0159	104	106	79.0-123			1.90	20
(S) 1,2-Dichloroethane-d4				*90.3*	*91.4*	*70.0-130*				
(S) Toluene-d8				*109*	*106*	*80.0-120*				
(S) 4-Bromofluorobenzene				*99.9*	*103*	*77.0-126*				

L1450176-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1450176-01 01/12/22 22:21 • (MS) R3749523-4 01/13/22 01:08 • (MSD) R3749523-5 01/13/22 01:28

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 %
Bromochloromethane	0.00500	ND	0.00528	0.00530	106	106	1	38.0-142			0.378	26
Acetone	0.0250	ND	ND	ND	124	116	1	10.0-160			6.32	35
Acrylonitrile	0.0250	ND	0.0263	0.0256	105	102	1	21.0-160			2.70	32
1,1,1-Trichloroethane	0.00500	ND	0.00532	0.00530	106	106	1	23.0-160			0.377	28
1,1,2,2-Tetrachloroethane	0.00500	ND	0.00453	0.00448	90.6	89.6	1	33.0-150			1.11	28
Bromobenzene	0.00500	ND	0.00464	0.00455	92.8	91.0	1	30.0-149			1.96	28
1,1,2-Trichloroethane	0.00500	ND	0.00496	0.00510	99.2	102	1	35.0-147			2.78	27
1,1-Dichloroethane	0.00500	ND	0.00503	0.00492	101	98.4	1	25.0-158			2.21	27

L1450176-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1450176-01 01/12/22 22:21 • (MS) R3749523-4 01/13/22 01:08 • (MSD) R3749523-5 01/13/22 01:28

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 %
1,1-Dichloroethene	0.00500	ND	0.00543	0.00508	109	102	1	11.0-160			6.66	29
trans-1,4-Dichloro-2-butene	0.00500	ND	0.00275	0.00314	55.0	62.8	1	10.0-157			13.2	37
n-Butylbenzene	0.00500	ND	0.00497	0.00497	99.4	99.4	1	31.0-150			0.000	30
sec-Butylbenzene	0.00500	ND	0.00453	0.00440	90.6	88.0	1	33.0-155			2.91	29
tert-Butylbenzene	0.00500	ND	0.00545	0.00532	109	106	1	34.0-153			2.41	28
Carbon disulfide	0.00500	ND	0.00442	0.00424	88.4	84.8	1	10.0-156			4.16	28
1,2-Dichlorobenzene	0.00500	ND	0.00530	0.00527	106	105	1	34.0-149			0.568	28
1,2-Dichloroethane	0.00500	ND	0.00493	0.00481	98.6	96.2	1	29.0-151			2.46	27
1,2-Dichloropropane	0.00500	ND	0.00490	0.00496	98.0	99.2	1	30.0-156			1.22	27
1,3-Dichlorobenzene	0.00500	ND	0.00534	0.00510	107	102	1	36.0-146			4.60	27
1,4-Dichlorobenzene	0.00500	ND	0.00534	0.00526	107	105	1	35.0-142			1.51	27
1,2-Dibromo-3-Chloropropane	0.00500	ND	ND	ND	83.0	81.8	1	22.0-151			1.46	34
1,2-Dibromoethane	0.00500	ND	0.00519	0.00493	104	98.6	1	34.0-147			5.14	27
Dibromomethane	0.00500	ND	0.00475	0.00474	95.0	94.8	1	30.0-151			0.211	27
2-Hexanone	0.0250	ND	0.0265	0.0259	106	104	1	21.0-160			2.29	29
Iodomethane	0.0250	ND	0.0269	0.0263	108	105	1	10.0-160			2.26	40
cis-1,2-Dichloroethene	0.00500	ND	0.00525	0.00495	105	99.0	1	10.0-160			5.88	27
Benzene	0.00500	ND	0.00499	0.00498	99.8	99.6	1	17.0-158			0.201	27
Bromodichloromethane	0.00500	ND	0.00454	0.00456	90.8	91.2	1	31.0-150			0.440	27
Bromoform	0.00500	ND	0.00470	0.00458	94.0	91.6	1	29.0-150			2.59	29
Di-isopropyl ether	0.00500	ND	0.00503	0.00480	101	96.0	1	21.0-160			4.68	28
Bromomethane	0.00500	ND	0.00521	0.00519	104	104	1	10.0-160			0.385	38
Carbon tetrachloride	0.00500	ND	0.00558	0.00550	112	110	1	23.0-159			1.44	28
Chlorobenzene	0.00500	ND	0.00555	0.00538	111	108	1	33.0-152			3.11	27
Hexachloro-1,3-butadiene	0.00500	ND	0.00577	0.00599	115	120	1	20.0-154			3.74	34
Chlorodibromomethane	0.00500	ND	0.00478	0.00479	95.6	95.8	1	37.0-149			0.209	27
Chloroethane	0.00500	ND	0.00539	0.00510	108	102	1	10.0-160			5.53	30
Chloroform	0.00500	ND	0.00508	ND	102	98.2	1	29.0-154			3.40	28
Chloromethane	0.00500	ND	0.00453	0.00439	90.6	87.8	1	10.0-160			3.14	29
2-Butanone (MEK)	0.0250	ND	0.0277	0.0267	111	107	1	10.0-160			3.68	32
cis-1,3-Dichloropropene	0.00500	ND	0.00443	0.00451	88.6	90.2	1	34.0-149			1.79	28
4-Methyl-2-pentanone (MIBK)	0.0250	ND	0.0264	0.0260	106	104	1	29.0-160			1.53	29
Methyl tert-butyl ether	0.00500	ND	0.00502	0.00474	100	94.8	1	28.0-150			5.74	29
Vinyl acetate	0.0250	ND	0.0286	0.0253	114	101	1	12.0-160			12.2	31
Dichlorodifluoromethane	0.00500	ND	0.00572	0.00563	114	113	1	10.0-160			1.59	29
Naphthalene	0.00500	ND	ND	ND	81.8	75.4	1	12.0-156			8.14	35
tert-Amyl Methyl Ether	0.00500	ND	0.00491	0.00470	98.2	94.0	1	10.0-160			4.37	37
Ethyl tert-butyl ether	0.00500	ND	0.00504	0.00483	101	96.6	1	10.0-160			4.26	37
n-Propylbenzene	0.00500	ND	0.00512	0.00497	102	99.4	1	31.0-154			2.97	28
Styrene	0.00500	ND	0.00529	0.00466	106	93.2	1	33.0-155			12.7	28

L1450176-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1450176-01 01/12/22 22:21 • (MS) R3749523-4 01/13/22 01:08 • (MSD) R3749523-5 01/13/22 01:28

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 %
1,1,1,2-Tetrachloroethane	0.00500	ND	0.00535	0.00524	107	105	1	36.0-151			2.08	29
Ethylbenzene	0.00500	ND	0.00562	0.00550	112	110	1	30.0-155			2.16	27
1,1,2-Trichlorotrifluoroethane	0.00500	ND	0.00590	0.00578	118	116	1	23.0-160			2.05	30
1,2,4-Trichlorobenzene	0.00500	ND	0.00501	0.00466	100	93.2	1	24.0-150			7.24	33
1,2,3-Trichloropropane	0.00500	ND	0.00504	0.00471	101	94.2	1	34.0-151			6.77	29
Methylene Chloride	0.00500	ND	ND	ND	97.4	93.8	1	23.0-144			3.77	28
1,2,4-Trimethylbenzene	0.00500	ND	0.00492	0.00479	98.4	95.8	1	26.0-154			2.68	27
1,3,5-Trimethylbenzene	0.00500	ND	0.00504	0.00490	101	98.0	1	28.0-153			2.82	27
Tetrachloroethene	0.00500	ND	0.00626	0.00645	125	129	1	10.0-160			2.99	27
Toluene	0.00500	ND	0.00532	0.00516	106	103	1	26.0-154			3.05	28
trans-1,2-Dichloroethene	0.00500	ND	0.00545	0.00488	109	97.6	1	17.0-153			11.0	27
trans-1,3-Dichloropropene	0.00500	ND	0.00436	0.00433	87.2	86.6	1	32.0-149			0.690	28
Trichloroethene	0.00500	ND	0.00546	0.00548	109	110	1	10.0-160			0.366	25
Trichlorofluoromethane	0.00500	ND	0.00565	0.00589	113	118	1	17.0-160			4.16	31
Vinyl chloride	0.00500	ND	0.00511	0.00510	102	102	1	10.0-160			0.196	27
Xylenes, Total	0.0150	ND	0.0172	0.0164	115	109	1	29.0-154			4.76	28
ethanol	0.250	ND	0.753	0.520	301	208	1	50.0-150	M1	M1 R5	36.6	20
tert-Butyl alcohol	0.0250	ND	0.0315	0.0268	126	107	1	50.0-150			16.1	20
(S) 1,2-Dichloroethane-d4					*89.9*	*91.8*		*70.0-130*				
(S) Toluene-d8					*105*	*105*		*80.0-120*				
(S) 4-Bromofluorobenzene					*104*	*103*		*77.0-126*				

INTERNAL STANDARD SUMMARY

Instrument: VOCMS33 • File ID: 0112_28

01/12/22 15:31

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0112_28	257360	112266	117461
Upper Limit		514720	224532	234922
Lower Limit		128680	56133	58731
LCS R3749523-1 WG1801257 1x	0112_28LCS	257360	112266	117461
LCSD R3749523-2 WG1801257 1x	0112_29	257101	117110	136562
BLANK R3749523-3 WG1801257 1x	0112_33	265870	114561	131276
L1450176-06 WG1801257 1x	0112_36	264271	115417	134310
L1450176-05 WG1801257 1x	0112_37	264298	116842	130881
L1450176-01 WG1801257 1x	0112_46	257259	112747	124125
L1450176-02 WG1801257 1x	0112_47	252157	108727	114274
L1450176-03 WG1801257 1x	0112_48	254775	113211	126615
L1450176-04 WG1801257 1x	0112_49	260940	112760	127774
MS R3749523-4 WG1801257 1x	0112_54	262606	119762	136795
MSD R3749523-5 WG1801257 1x	0112_55	265694	121030	137540

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

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	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
E1	Concentration estimated. Analyte exceeded calibration range. Reanalysis not possible due to insufficient sample.
M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike recovery was acceptable.
R5	MS/MSD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.
R7	LFB/LFBD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.

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:
Kinder Morgan - Rocklin, CA-AZ Work

410 N.44th Street
Suite 1000
Phoenix. AZ 85008

Billing Information:
Accounts Payable- Alan Van Antwerp
9950 SAN DIEGO MISSION RD.
SAN DIEGO, CA 92108

Pres Chk

Report to: **Bob Forsberg**

Email To: bob.forsberg@arcadis-us.com;sascha.arnold@arcadis.com

Project Description: **KMEP Silvercroft Wash**

City/State Collected: Tucson, AZ

Please Circle: PT (MT) CT ET

Phone: **602-438-0883**

Client Project # ~~30106087.01~~ 30113573.01

Lab Project # **KINARCPAZ-SILVERCROF**

Collected by (print): MAT / SXA

Site/Facility ID # **SILVERCROFT WASH**

P.O. # **WD876456**

Collected by (signature): M. Tarin

Immediately Packed on Ice N ___ Y X

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: STD TURN

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	*NO2,NO3,SO4,TDS 250mlHDPE-NoPres	EEM RSK175 40mlAmb HCl	HOLD - NO2+NO3 250mlHDPE-H2SO4	Total Fe 6010 250mlHDPE-HNO3	VOCs+OXYs 8260 40mlAmb-HCl	Remarks	Sample # (lab only)
MW-1D	G	GW	235	1/11/22	1127	16	X	X	X	X	X	for MS/MSD	01
MW-4	"	GW	162	"	1232	8	X	X	X	X	X		02
MW-16	"	GW	159	"	1327	8	X	X	X	X	X		03
MW-30	"	GW	156	"	1512	8	X	X	X	X	X		04
		GW											
		GW											
		GW											
Equipment Blank-2	G	Aq	—	1/11/22	1010	3					X		05
Trip Blank	—	Aq	—	1/11/22	—	1					X		06

Chain of Custody Page 1 of 1

Pace Analytical®

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SDG # L1450176

Table # F242

Acctnum: **KINARCPAZ**

Template: **T190237**

Prelogin: **P894954**

PM: **110 - Brian Ford**

PB:

Shipped Via:

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:*NO2,NO3 have a 48 hour holding time.

pH _____ Temp _____

Flow _____ Other _____

Samples returned via: __ UPS __ FedEx __ Courier _____

Tracking # 5433 8383 9210

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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
M. Tarin	1/11/22	1600	Shipt Mail Express (FedEx)	BA A9	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.6 1.6 °C Bottles Received: 43	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 1/12/22 Time: 900	Hold: / Condition: NCF / OK

ANALYTICAL REPORT

January 31, 2022

Kinder Morgan - Rocklin, CA-AZ Work

Sample Delivery Group:	L1450738
Samples Received:	01/13/2022
Project Number:	30113573.01
Description:	KMEP Silvercroft Wash
Site:	SILVERCROFT WASH
Report To:	Bob Forsberg 410 N.44th Street Suite 1000 Phoenix, AZ 85008

Entire Report Reviewed By:

Brian Ford

Project Manager

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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MW-29D L1450738-01 GW

Collected by: MAT/SXA | Collected date/time: 01/10/22 13:42 | Received date/time: 01/13/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1803403	1	01/17/22 13:21	01/17/22 13:37	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1809761	1	01/30/22 08:04	01/30/22 08:04	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1802191	5	01/14/22 17:15	01/14/22 17:15	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1805826	1	01/25/22 03:59	01/26/22 23:20	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1801762	1	01/14/22 11:05	01/14/22 11:05	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1802656	1	01/14/22 22:54	01/14/22 22:54	JHH	Mt. Juliet, TN

MW-2D L1450738-02 GW

Collected by: MAT/SXA | Collected date/time: 01/10/22 15:27 | Received date/time: 01/13/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1803403	1	01/17/22 13:21	01/17/22 13:37	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1809761	1	01/30/22 08:08	01/30/22 08:08	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1802191	5	01/14/22 18:00	01/14/22 18:00	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1805826	1	01/25/22 03:59	01/26/22 23:33	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1801762	1	01/14/22 11:10	01/14/22 11:10	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1802656	1	01/14/22 23:15	01/14/22 23:15	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1803854	100	01/19/22 10:48	01/19/22 10:48	ADM	Mt. Juliet, TN

MW-2D-DUP L1450738-03 GW

Collected by: MAT/SXA | Collected date/time: 01/10/22 15:32 | Received date/time: 01/13/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1803403	1	01/17/22 13:21	01/17/22 13:37	MMF	Mt. Juliet, TN
Wet Chemistry by Method 353.2	WG1809761	1	01/30/22 08:10	01/30/22 08:10	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1802191	5	01/14/22 18:15	01/14/22 18:15	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1805826	1	01/25/22 03:59	01/26/22 23:36	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1801762	1	01/14/22 11:13	01/14/22 11:13	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1802656	1	01/14/22 23:35	01/14/22 23:35	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1803854	100	01/19/22 11:09	01/19/22 11:09	ADM	Mt. Juliet, TN

TRIP BLANK L1450738-04 GW

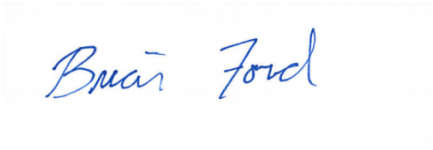
Collected by: MAT/SXA | Collected date/time: 01/10/22 00:00 | Received date/time: 01/13/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1802656	1	01/14/22 21:30	01/14/22 21:30	ACG	Mt. Juliet, TN

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

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.



Brian Ford
Project Manager

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	702		10.0	1	01/17/2022 13:37	WG1803403

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	2.75		0.100	1	01/30/2022 08:04	WG1809761

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Sulfate	250		25.0	5	01/14/2022 17:15	WG1802191

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	2.79		0.100	1	01/26/2022 23:20	WG1805826

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND	R5	0.0100	1	01/14/2022 11:05	WG1801762
Ethane	ND		0.0130	1	01/14/2022 11:05	WG1801762
Ethene	ND		0.0130	1	01/14/2022 11:05	WG1801762

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	01/14/2022 22:54	WG1802656
Acrylonitrile	ND		0.0100	1	01/14/2022 22:54	WG1802656
Benzene	ND		0.00100	1	01/14/2022 22:54	WG1802656
Bromobenzene	ND		0.00100	1	01/14/2022 22:54	WG1802656
Bromochloromethane	ND		0.00100	1	01/14/2022 22:54	WG1802656
Bromodichloromethane	ND		0.00100	1	01/14/2022 22:54	WG1802656
Bromoform	ND		0.00100	1	01/14/2022 22:54	WG1802656
Bromomethane	ND		0.00500	1	01/14/2022 22:54	WG1802656
n-Butylbenzene	ND		0.00100	1	01/14/2022 22:54	WG1802656
sec-Butylbenzene	ND		0.00100	1	01/14/2022 22:54	WG1802656
tert-Butylbenzene	ND		0.00100	1	01/14/2022 22:54	WG1802656
Carbon tetrachloride	ND		0.00100	1	01/14/2022 22:54	WG1802656
Carbon disulfide	ND		0.00100	1	01/14/2022 22:54	WG1802656
Chlorobenzene	ND		0.00100	1	01/14/2022 22:54	WG1802656
Chlorodibromomethane	ND		0.00100	1	01/14/2022 22:54	WG1802656
Chloroethane	ND		0.00500	1	01/14/2022 22:54	WG1802656
Chloroform	ND		0.00500	1	01/14/2022 22:54	WG1802656
Chloromethane	ND		0.00250	1	01/14/2022 22:54	WG1802656
1,2-Dibromo-3-Chloropropane	ND	L2	0.00500	1	01/14/2022 22:54	WG1802656
1,2-Dibromoethane	ND		0.00100	1	01/14/2022 22:54	WG1802656
Dibromomethane	ND		0.00100	1	01/14/2022 22:54	WG1802656
1,2-Dichlorobenzene	ND		0.00100	1	01/14/2022 22:54	WG1802656
1,3-Dichlorobenzene	ND		0.00100	1	01/14/2022 22:54	WG1802656
1,4-Dichlorobenzene	ND		0.00100	1	01/14/2022 22:54	WG1802656
trans-1,4-Dichloro-2-butene	ND		0.00250	1	01/14/2022 22:54	WG1802656
Dichlorodifluoromethane	ND		0.00500	1	01/14/2022 22:54	WG1802656

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
1,1-Dichloroethane	ND		0.00100	1	01/14/2022 22:54	WG1802656
1,2-Dichloroethane	ND		0.00100	1	01/14/2022 22:54	WG1802656
1,1-Dichloroethene	ND		0.00100	1	01/14/2022 22:54	WG1802656
cis-1,2-Dichloroethene	ND		0.00100	1	01/14/2022 22:54	WG1802656
trans-1,2-Dichloroethene	ND		0.00100	1	01/14/2022 22:54	WG1802656
1,2-Dichloropropane	ND		0.00100	1	01/14/2022 22:54	WG1802656
cis-1,3-Dichloropropene	ND		0.00100	1	01/14/2022 22:54	WG1802656
trans-1,3-Dichloropropene	ND		0.00100	1	01/14/2022 22:54	WG1802656
Ethylbenzene	ND		0.00100	1	01/14/2022 22:54	WG1802656
Hexachloro-1,3-butadiene	ND	R7	0.00100	1	01/14/2022 22:54	WG1802656
2-Hexanone	ND		0.0100	1	01/14/2022 22:54	WG1802656
2-Butanone (MEK)	ND		0.0100	1	01/14/2022 22:54	WG1802656
Iodomethane	ND		0.0100	1	01/14/2022 22:54	WG1802656
Methylene Chloride	ND	L1	0.00500	1	01/14/2022 22:54	WG1802656
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	01/14/2022 22:54	WG1802656
Naphthalene	ND	M1 R5	0.00500	1	01/14/2022 22:54	WG1802656
n-Propylbenzene	ND		0.00100	1	01/14/2022 22:54	WG1802656
Styrene	ND		0.00100	1	01/14/2022 22:54	WG1802656
1,1,1,2-Tetrachloroethane	ND		0.00100	1	01/14/2022 22:54	WG1802656
1,1,2,2-Tetrachloroethane	ND		0.00100	1	01/14/2022 22:54	WG1802656
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	01/14/2022 22:54	WG1802656
Tetrachloroethene	ND		0.00100	1	01/14/2022 22:54	WG1802656
Toluene	ND		0.00100	1	01/14/2022 22:54	WG1802656
1,2,4-Trichlorobenzene	ND		0.00100	1	01/14/2022 22:54	WG1802656
1,1,1-Trichloroethane	ND		0.00100	1	01/14/2022 22:54	WG1802656
1,1,2-Trichloroethane	ND		0.00100	1	01/14/2022 22:54	WG1802656
Trichloroethene	ND		0.00100	1	01/14/2022 22:54	WG1802656
Trichlorofluoromethane	ND		0.00500	1	01/14/2022 22:54	WG1802656
1,2,3-Trichloropropane	ND		0.00250	1	01/14/2022 22:54	WG1802656
1,2,4-Trimethylbenzene	ND		0.00100	1	01/14/2022 22:54	WG1802656
1,3,5-Trimethylbenzene	ND		0.00100	1	01/14/2022 22:54	WG1802656
Vinyl acetate	ND		0.0100	1	01/14/2022 22:54	WG1802656
Vinyl chloride	ND		0.00100	1	01/14/2022 22:54	WG1802656
Xylenes, Total	ND		0.00300	1	01/14/2022 22:54	WG1802656
Di-isopropyl ether	ND		0.00100	1	01/14/2022 22:54	WG1802656
Ethanol	ND	M2 R5	0.100	1	01/14/2022 22:54	WG1802656
Ethyl tert-butyl ether	ND		0.00100	1	01/14/2022 22:54	WG1802656
Methyl tert-butyl ether	ND		0.00100	1	01/14/2022 22:54	WG1802656
tert-Butyl alcohol	ND	R5	0.00500	1	01/14/2022 22:54	WG1802656
tert-Amyl Methyl Ether	ND		0.00100	1	01/14/2022 22:54	WG1802656
(S) Toluene-d8	*103*		*80.0-120*		*01/14/2022 22:54*	WG1802656
(S) 4-Bromofluorobenzene	*94.3*		*77.0-126*		*01/14/2022 22:54*	WG1802656
(S) 1,2-Dichloroethane-d4	*87.4*		*70.0-130*		*01/14/2022 22:54*	WG1802656

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	719		13.3	1	01/17/2022 13:37	WG1803403

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	1.96		0.100	1	01/30/2022 08:08	WG1809761

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Sulfate	245		25.0	5	01/14/2022 18:00	WG1802191

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	1.32		0.100	1	01/26/2022 23:33	WG1805826

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	01/14/2022 11:10	WG1801762
Ethane	ND		0.0130	1	01/14/2022 11:10	WG1801762
Ethene	ND		0.0130	1	01/14/2022 11:10	WG1801762

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	01/14/2022 23:15	WG1802656
Acrylonitrile	ND		0.0100	1	01/14/2022 23:15	WG1802656
Benzene	ND		0.00100	1	01/14/2022 23:15	WG1802656
Bromobenzene	ND		0.00100	1	01/14/2022 23:15	WG1802656
Bromochloromethane	ND		0.00100	1	01/14/2022 23:15	WG1802656
Bromodichloromethane	ND		0.00100	1	01/14/2022 23:15	WG1802656
Bromoform	ND		0.00100	1	01/14/2022 23:15	WG1802656
Bromomethane	ND		0.00500	1	01/14/2022 23:15	WG1802656
n-Butylbenzene	ND		0.00100	1	01/14/2022 23:15	WG1802656
sec-Butylbenzene	ND		0.00100	1	01/14/2022 23:15	WG1802656
tert-Butylbenzene	ND		0.00100	1	01/14/2022 23:15	WG1802656
Carbon tetrachloride	ND		0.00100	1	01/14/2022 23:15	WG1802656
Carbon disulfide	ND		0.00100	1	01/14/2022 23:15	WG1802656
Chlorobenzene	ND		0.00100	1	01/14/2022 23:15	WG1802656
Chlorodibromomethane	ND		0.00100	1	01/14/2022 23:15	WG1802656
Chloroethane	ND		0.00500	1	01/14/2022 23:15	WG1802656
Chloroform	ND		0.00500	1	01/14/2022 23:15	WG1802656
Chloromethane	ND		0.00250	1	01/14/2022 23:15	WG1802656
1,2-Dibromo-3-Chloropropane	ND	L2	0.00500	1	01/14/2022 23:15	WG1802656
1,2-Dibromoethane	ND		0.00100	1	01/14/2022 23:15	WG1802656
Dibromomethane	ND		0.00100	1	01/14/2022 23:15	WG1802656
1,2-Dichlorobenzene	ND		0.00100	1	01/14/2022 23:15	WG1802656
1,3-Dichlorobenzene	ND		0.00100	1	01/14/2022 23:15	WG1802656
1,4-Dichlorobenzene	ND		0.00100	1	01/14/2022 23:15	WG1802656
trans-1,4-Dichloro-2-butene	ND		0.00250	1	01/14/2022 23:15	WG1802656
Dichlorodifluoromethane	ND		0.00500	1	01/14/2022 23:15	WG1802656

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
1,1-Dichloroethane	ND		0.00100	1	01/14/2022 23:15	WG1802656
1,2-Dichloroethane	ND		0.00100	1	01/14/2022 23:15	WG1802656
1,1-Dichloroethene	ND		0.00100	1	01/14/2022 23:15	WG1802656
cis-1,2-Dichloroethene	ND		0.00100	1	01/14/2022 23:15	WG1802656
trans-1,2-Dichloroethene	ND		0.00100	1	01/14/2022 23:15	WG1802656
1,2-Dichloropropane	ND		0.00100	1	01/14/2022 23:15	WG1802656
cis-1,3-Dichloropropene	ND		0.00100	1	01/14/2022 23:15	WG1802656
trans-1,3-Dichloropropene	ND		0.00100	1	01/14/2022 23:15	WG1802656
Ethylbenzene	ND		0.00100	1	01/14/2022 23:15	WG1802656
Hexachloro-1,3-butadiene	ND	R7	0.00100	1	01/14/2022 23:15	WG1802656
2-Hexanone	ND		0.0100	1	01/14/2022 23:15	WG1802656
2-Butanone (MEK)	0.0126		0.0100	1	01/14/2022 23:15	WG1802656
Iodomethane	ND		0.0100	1	01/14/2022 23:15	WG1802656
Methylene Chloride	ND	L1	0.00500	1	01/14/2022 23:15	WG1802656
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	01/14/2022 23:15	WG1802656
Naphthalene	ND		0.00500	1	01/14/2022 23:15	WG1802656
n-Propylbenzene	ND		0.00100	1	01/14/2022 23:15	WG1802656
Styrene	ND		0.00100	1	01/14/2022 23:15	WG1802656
1,1,1,2-Tetrachloroethane	ND		0.00100	1	01/14/2022 23:15	WG1802656
1,1,2,2-Tetrachloroethane	ND		0.00100	1	01/14/2022 23:15	WG1802656
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	01/14/2022 23:15	WG1802656
Tetrachloroethene	ND		0.00100	1	01/14/2022 23:15	WG1802656
Toluene	ND		0.00100	1	01/14/2022 23:15	WG1802656
1,2,4-Trichlorobenzene	ND		0.00100	1	01/14/2022 23:15	WG1802656
1,1,1-Trichloroethane	ND		0.00100	1	01/14/2022 23:15	WG1802656
1,1,2-Trichloroethane	ND		0.00100	1	01/14/2022 23:15	WG1802656
Trichloroethene	ND		0.00100	1	01/14/2022 23:15	WG1802656
Trichlorofluoromethane	ND		0.00500	1	01/14/2022 23:15	WG1802656
1,2,3-Trichloropropane	ND		0.00250	1	01/14/2022 23:15	WG1802656
1,2,4-Trimethylbenzene	ND		0.00100	1	01/14/2022 23:15	WG1802656
1,3,5-Trimethylbenzene	ND		0.00100	1	01/14/2022 23:15	WG1802656
Vinyl acetate	ND		0.0100	1	01/14/2022 23:15	WG1802656
Vinyl chloride	ND		0.00100	1	01/14/2022 23:15	WG1802656
Xylenes, Total	ND		0.00300	1	01/14/2022 23:15	WG1802656
Di-isopropyl ether	ND		0.00100	1	01/14/2022 23:15	WG1802656
Ethanol	ND	R5	0.100	1	01/14/2022 23:15	WG1802656
Ethyl tert-butyl ether	ND		0.00100	1	01/14/2022 23:15	WG1802656
Methyl tert-butyl ether	2.39		0.100	100	01/19/2022 10:48	WG1803854
tert-Butyl alcohol	ND		0.00500	1	01/14/2022 23:15	WG1802656
tert-Amyl Methyl Ether	0.303		0.100	100	01/19/2022 10:48	WG1803854
(S) Toluene-d8	*110*		*80.0-120*		*01/14/2022 23:15*	WG1802656
(S) Toluene-d8	*108*		*80.0-120*		*01/19/2022 10:48*	WG1803854
(S) 4-Bromofluorobenzene	*97.3*		*77.0-126*		*01/14/2022 23:15*	WG1802656
(S) 4-Bromofluorobenzene	*103*		*77.0-126*		*01/19/2022 10:48*	WG1803854
(S) 1,2-Dichloroethane-d4	*87.7*		*70.0-130*		*01/14/2022 23:15*	WG1802656
(S) 1,2-Dichloroethane-d4	*96.1*		*70.0-130*		*01/19/2022 10:48*	WG1803854

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	717	R8	13.3	1	01/17/2022 13:37	WG1803403

Wet Chemistry by Method 353.2

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate-Nitrite	2.17		0.100	1	01/30/2022 08:10	WG1809761

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Sulfate	245		25.0	5	01/14/2022 18:15	WG1802191

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	1.63		0.100	1	01/26/2022 23:36	WG1805826

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	01/14/2022 11:13	WG1801762
Ethane	ND		0.0130	1	01/14/2022 11:13	WG1801762
Ethene	ND		0.0130	1	01/14/2022 11:13	WG1801762

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	01/14/2022 23:35	WG1802656
Acrylonitrile	ND		0.0100	1	01/14/2022 23:35	WG1802656
Benzene	ND		0.00100	1	01/14/2022 23:35	WG1802656
Bromobenzene	ND		0.00100	1	01/14/2022 23:35	WG1802656
Bromochloromethane	ND		0.00100	1	01/14/2022 23:35	WG1802656
Bromodichloromethane	ND		0.00100	1	01/14/2022 23:35	WG1802656
Bromoform	ND		0.00100	1	01/14/2022 23:35	WG1802656
Bromomethane	ND		0.00500	1	01/14/2022 23:35	WG1802656
n-Butylbenzene	ND		0.00100	1	01/14/2022 23:35	WG1802656
sec-Butylbenzene	ND		0.00100	1	01/14/2022 23:35	WG1802656
tert-Butylbenzene	ND		0.00100	1	01/14/2022 23:35	WG1802656
Carbon tetrachloride	ND		0.00100	1	01/14/2022 23:35	WG1802656
Carbon disulfide	ND		0.00100	1	01/14/2022 23:35	WG1802656
Chlorobenzene	ND		0.00100	1	01/14/2022 23:35	WG1802656
Chlorodibromomethane	ND		0.00100	1	01/14/2022 23:35	WG1802656
Chloroethane	ND		0.00500	1	01/14/2022 23:35	WG1802656
Chloroform	ND		0.00500	1	01/14/2022 23:35	WG1802656
Chloromethane	ND		0.00250	1	01/14/2022 23:35	WG1802656
1,2-Dibromo-3-Chloropropane	ND	L2	0.00500	1	01/14/2022 23:35	WG1802656
1,2-Dibromoethane	ND		0.00100	1	01/14/2022 23:35	WG1802656
Dibromomethane	ND		0.00100	1	01/14/2022 23:35	WG1802656
1,2-Dichlorobenzene	ND		0.00100	1	01/14/2022 23:35	WG1802656
1,3-Dichlorobenzene	ND		0.00100	1	01/14/2022 23:35	WG1802656
1,4-Dichlorobenzene	ND		0.00100	1	01/14/2022 23:35	WG1802656
trans-1,4-Dichloro-2-butene	ND		0.00250	1	01/14/2022 23:35	WG1802656
Dichlorodifluoromethane	ND		0.00500	1	01/14/2022 23:35	WG1802656

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
1,1-Dichloroethane	ND		0.00100	1	01/14/2022 23:35	WG1802656
1,2-Dichloroethane	ND		0.00100	1	01/14/2022 23:35	WG1802656
1,1-Dichloroethene	ND		0.00100	1	01/14/2022 23:35	WG1802656
cis-1,2-Dichloroethene	ND		0.00100	1	01/14/2022 23:35	WG1802656
trans-1,2-Dichloroethene	ND		0.00100	1	01/14/2022 23:35	WG1802656
1,2-Dichloropropane	ND		0.00100	1	01/14/2022 23:35	WG1802656
cis-1,3-Dichloropropene	ND		0.00100	1	01/14/2022 23:35	WG1802656
trans-1,3-Dichloropropene	ND		0.00100	1	01/14/2022 23:35	WG1802656
Ethylbenzene	ND		0.00100	1	01/14/2022 23:35	WG1802656
Hexachloro-1,3-butadiene	ND	R7	0.00100	1	01/14/2022 23:35	WG1802656
2-Hexanone	ND		0.0100	1	01/14/2022 23:35	WG1802656
2-Butanone (MEK)	0.0129		0.0100	1	01/14/2022 23:35	WG1802656
Iodomethane	ND		0.0100	1	01/14/2022 23:35	WG1802656
Methylene Chloride	ND	L1	0.00500	1	01/14/2022 23:35	WG1802656
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	01/14/2022 23:35	WG1802656
Naphthalene	ND		0.00500	1	01/14/2022 23:35	WG1802656
n-Propylbenzene	ND		0.00100	1	01/14/2022 23:35	WG1802656
Styrene	ND		0.00100	1	01/14/2022 23:35	WG1802656
1,1,1,2-Tetrachloroethane	ND		0.00100	1	01/14/2022 23:35	WG1802656
1,1,2,2-Tetrachloroethane	ND		0.00100	1	01/14/2022 23:35	WG1802656
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	01/14/2022 23:35	WG1802656
Tetrachloroethene	ND		0.00100	1	01/14/2022 23:35	WG1802656
Toluene	ND		0.00100	1	01/14/2022 23:35	WG1802656
1,2,4-Trichlorobenzene	ND		0.00100	1	01/14/2022 23:35	WG1802656
1,1,1-Trichloroethane	ND		0.00100	1	01/14/2022 23:35	WG1802656
1,1,2-Trichloroethane	ND		0.00100	1	01/14/2022 23:35	WG1802656
Trichloroethene	ND		0.00100	1	01/14/2022 23:35	WG1802656
Trichlorofluoromethane	ND		0.00500	1	01/14/2022 23:35	WG1802656
1,2,3-Trichloropropane	ND		0.00250	1	01/14/2022 23:35	WG1802656
1,2,4-Trimethylbenzene	ND		0.00100	1	01/14/2022 23:35	WG1802656
1,3,5-Trimethylbenzene	ND		0.00100	1	01/14/2022 23:35	WG1802656
Vinyl acetate	ND		0.0100	1	01/14/2022 23:35	WG1802656
Vinyl chloride	ND		0.00100	1	01/14/2022 23:35	WG1802656
Xylenes, Total	ND		0.00300	1	01/14/2022 23:35	WG1802656
Di-isopropyl ether	ND		0.00100	1	01/14/2022 23:35	WG1802656
Ethanol	ND	R5	0.100	1	01/14/2022 23:35	WG1802656
Ethyl tert-butyl ether	ND		0.00100	1	01/14/2022 23:35	WG1802656
Methyl tert-butyl ether	2.24		0.100	100	01/19/2022 11:09	WG1803854
tert-Butyl alcohol	ND		0.00500	1	01/14/2022 23:35	WG1802656
tert-Amyl Methyl Ether	0.278		0.100	100	01/19/2022 11:09	WG1803854
(S) Toluene-d8	*111*		*80.0-120*		*01/14/2022 23:35*	WG1802656
(S) Toluene-d8	*108*		*80.0-120*		*01/19/2022 11:09*	WG1803854
(S) 4-Bromofluorobenzene	*103*		*77.0-126*		*01/14/2022 23:35*	WG1802656
(S) 4-Bromofluorobenzene	*102*		*77.0-126*		*01/19/2022 11:09*	WG1803854
(S) 1,2-Dichloroethane-d4	*81.1*		*70.0-130*		*01/14/2022 23:35*	WG1802656
(S) 1,2-Dichloroethane-d4	*95.9*		*70.0-130*		*01/19/2022 11:09*	WG1803854

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	01/14/2022 21:30	WG1802656
Acrylonitrile	ND		0.0100	1	01/14/2022 21:30	WG1802656
Benzene	ND		0.00100	1	01/14/2022 21:30	WG1802656
Bromobenzene	ND		0.00100	1	01/14/2022 21:30	WG1802656
Bromochloromethane	ND		0.00100	1	01/14/2022 21:30	WG1802656
Bromodichloromethane	ND		0.00100	1	01/14/2022 21:30	WG1802656
Bromoform	ND		0.00100	1	01/14/2022 21:30	WG1802656
Bromomethane	ND		0.00500	1	01/14/2022 21:30	WG1802656
n-Butylbenzene	ND		0.00100	1	01/14/2022 21:30	WG1802656
sec-Butylbenzene	ND		0.00100	1	01/14/2022 21:30	WG1802656
tert-Butylbenzene	ND		0.00100	1	01/14/2022 21:30	WG1802656
Carbon tetrachloride	ND		0.00100	1	01/14/2022 21:30	WG1802656
Carbon disulfide	ND		0.00100	1	01/14/2022 21:30	WG1802656
Chlorobenzene	ND		0.00100	1	01/14/2022 21:30	WG1802656
Chlorodibromomethane	ND		0.00100	1	01/14/2022 21:30	WG1802656
Chloroethane	ND		0.00500	1	01/14/2022 21:30	WG1802656
Chloroform	ND		0.00500	1	01/14/2022 21:30	WG1802656
Chloromethane	ND		0.00250	1	01/14/2022 21:30	WG1802656
1,2-Dibromo-3-Chloropropane	ND	L2	0.00500	1	01/14/2022 21:30	WG1802656
1,2-Dibromoethane	ND		0.00100	1	01/14/2022 21:30	WG1802656
Dibromomethane	ND		0.00100	1	01/14/2022 21:30	WG1802656
1,2-Dichlorobenzene	ND		0.00100	1	01/14/2022 21:30	WG1802656
1,3-Dichlorobenzene	ND		0.00100	1	01/14/2022 21:30	WG1802656
1,4-Dichlorobenzene	ND		0.00100	1	01/14/2022 21:30	WG1802656
trans-1,4-Dichloro-2-butene	ND		0.00250	1	01/14/2022 21:30	WG1802656
Dichlorodifluoromethane	ND		0.00500	1	01/14/2022 21:30	WG1802656
1,1-Dichloroethane	ND		0.00100	1	01/14/2022 21:30	WG1802656
1,2-Dichloroethane	ND		0.00100	1	01/14/2022 21:30	WG1802656
1,1-Dichloroethene	ND		0.00100	1	01/14/2022 21:30	WG1802656
cis-1,2-Dichloroethene	ND		0.00100	1	01/14/2022 21:30	WG1802656
trans-1,2-Dichloroethene	ND		0.00100	1	01/14/2022 21:30	WG1802656
1,2-Dichloropropane	ND		0.00100	1	01/14/2022 21:30	WG1802656
cis-1,3-Dichloropropene	ND		0.00100	1	01/14/2022 21:30	WG1802656
trans-1,3-Dichloropropene	ND		0.00100	1	01/14/2022 21:30	WG1802656
Ethylbenzene	ND		0.00100	1	01/14/2022 21:30	WG1802656
Hexachloro-1,3-butadiene	ND	R7	0.00100	1	01/14/2022 21:30	WG1802656
2-Hexanone	ND		0.0100	1	01/14/2022 21:30	WG1802656
2-Butanone (MEK)	ND		0.0100	1	01/14/2022 21:30	WG1802656
Iodomethane	ND		0.0100	1	01/14/2022 21:30	WG1802656
Methylene Chloride	ND	L1	0.00500	1	01/14/2022 21:30	WG1802656
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	01/14/2022 21:30	WG1802656
Naphthalene	ND		0.00500	1	01/14/2022 21:30	WG1802656
n-Propylbenzene	ND		0.00100	1	01/14/2022 21:30	WG1802656
Styrene	ND		0.00100	1	01/14/2022 21:30	WG1802656
1,1,1,2-Tetrachloroethane	ND		0.00100	1	01/14/2022 21:30	WG1802656
1,1,2,2-Tetrachloroethane	ND		0.00100	1	01/14/2022 21:30	WG1802656
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	01/14/2022 21:30	WG1802656
Tetrachloroethene	ND		0.00100	1	01/14/2022 21:30	WG1802656
Toluene	ND		0.00100	1	01/14/2022 21:30	WG1802656
1,2,4-Trichlorobenzene	ND		0.00100	1	01/14/2022 21:30	WG1802656
1,1,1-Trichloroethane	ND		0.00100	1	01/14/2022 21:30	WG1802656
1,1,2-Trichloroethane	ND		0.00100	1	01/14/2022 21:30	WG1802656
Trichloroethene	ND		0.00100	1	01/14/2022 21:30	WG1802656
Trichlorofluoromethane	ND		0.00500	1	01/14/2022 21:30	WG1802656
1,2,3-Trichloropropane	ND		0.00250	1	01/14/2022 21:30	WG1802656
1,2,4-Trimethylbenzene	ND		0.00100	1	01/14/2022 21:30	WG1802656

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
1,3,5-Trimethylbenzene	ND		0.00100	1	01/14/2022 21:30	WG1802656
Vinyl acetate	ND		0.0100	1	01/14/2022 21:30	WG1802656
Vinyl chloride	ND		0.00100	1	01/14/2022 21:30	WG1802656
Xylenes, Total	ND		0.00300	1	01/14/2022 21:30	WG1802656
Di-isopropyl ether	ND		0.00100	1	01/14/2022 21:30	WG1802656
Ethanol	ND	R5	0.100	1	01/14/2022 21:30	WG1802656
Ethyl tert-butyl ether	ND		0.00100	1	01/14/2022 21:30	WG1802656
Methyl tert-butyl ether	ND		0.00100	1	01/14/2022 21:30	WG1802656
tert-Butyl alcohol	ND		0.00500	1	01/14/2022 21:30	WG1802656
tert-Amyl Methyl Ether	ND		0.00100	1	01/14/2022 21:30	WG1802656
(S) Toluene-d8	*111*		*80.0-120*		*01/14/2022 21:30*	WG1802656
(S) 4-Bromofluorobenzene	*101*		*77.0-126*		*01/14/2022 21:30*	WG1802656
(S) 1,2-Dichloroethane-d4	*86.8*		*70.0-130*		*01/14/2022 21:30*	WG1802656

Method Blank (MB)

(MB) R3751237-1 01/17/22 13:37

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1450738-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1450738-03 01/17/22 13:37 • (DUP) R3751237-3 01/17/22 13:37

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	717	759	1	5.60	R8	5

Laboratory Control Sample (LCS)

(LCS) R3751237-2 01/17/22 13:37

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8380	95.2	77.4-123	

Method Blank (MB)

(MB) R3754947-1 01/30/22 07:58

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate-Nitrite	U		0.0500	0.100

L1450711-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1450711-01 01/30/22 08:01 • (DUP) R3754947-3 01/30/22 08:02

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	0.125	0.120	1	4.08		20

L1452811-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1452811-01 01/30/22 08:20 • (DUP) R3754947-6 01/30/22 08:21

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate-Nitrite	0.205	0.213	1	3.83		20

Laboratory Control Sample (LCS)

(LCS) R3754947-2 01/30/22 07:59

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate-Nitrite	2.50	2.56	102	90.0-110	

L1450738-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1450738-01 01/30/22 08:04 • (MS) R3754947-4 01/30/22 08:06 • (MSD) R3754947-5 01/30/22 08:07

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 %
Nitrate-Nitrite	2.50	2.75	5.37	5.27	105	101	1	90.0-110	E1	E1	1.88	20

L1453844-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1453844-05 01/30/22 08:32 • (MS) R3754947-7 01/30/22 08:34 • (MSD) R3754947-8 01/30/22 08:35

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 %
Nitrate-Nitrite	2.50	13.6	17.2	17.0	144	136	10	90.0-110	M3	M3	1.17	20

Method Blank (MB)

(MB) R3750305-1 01/14/22 09:59

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Sulfate	U		0.594	5.00

L1451063-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1451063-01 01/14/22 12:32 • (DUP) R3750305-3 01/14/22 12:47

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfate	33.4	32.8	1	1.75		15

L1451063-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1451063-06 01/14/22 15:01 • (DUP) R3750305-6 01/14/22 15:16

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfate	9.14	9.10	1	0.386		15

Laboratory Control Sample (LCS)

(LCS) R3750305-2 01/14/22 10:14

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Sulfate	40.0	40.2	100	80.0-120	

L1451063-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1451063-01 01/14/22 12:32 • (MS) R3750305-4 01/14/22 13:01 • (MSD) R3750305-5 01/14/22 13:46

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 %
Sulfate	50.0	33.4	82.3	81.7	97.8	96.7	1	80.0-120			0.675	15

L1450738-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1450738-01 01/14/22 17:15 • (MS) R3750305-7 01/14/22 17:30 • (MSD) R3750305-8 01/14/22 17:45

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 %
Sulfate	50.0	250	296	292	91.7	83.8	5	80.0-120			1.35	15

QUALITY CONTROL SUMMARY

L1450738-01,02,03

Method Blank (MB)

(MB) R3753995-1 01/26/22 23:15

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Iron	0.0338	E4	0.0180	0.100

Laboratory Control Sample (LCS)

(LCS) R3753995-2 01/26/22 23:18

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Iron	10.0	9.21	92.1	80.0-120	

L1450738-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1450738-01 01/26/22 23:20 • (MS) R3753995-4 01/26/22 23:25 • (MSD) R3753995-5 01/26/22 23:28

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 %
Iron	10.0	2.79	12.0	12.0	92.0	91.9	1	75.0-125			0.0502	20

Method Blank (MB)

(MB) R3750043-2 01/14/22 09:20

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Methane	U		0.00291	0.0100
Ethane	U		0.00407	0.0130
Ethene	U		0.00426	0.0130

L1450701-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1450701-05 01/14/22 10:51 • (DUP) R3750043-3 01/14/22 10:56

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	0.378	0.442	1	15.6		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20

L1450738-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1450738-01 01/14/22 11:05 • (DUP) R3750043-4 01/14/22 11:56

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	ND	ND	1	0.000		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20

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

(LCS) R3750043-1 01/14/22 09:15 • (LCSD) R3750043-7 01/14/22 12:14

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Methane	0.0678	0.0736	0.0702	109	104	85.0-115			4.73	20
Ethane	0.129	0.137	0.124	106	96.1	85.0-115			9.96	20
Ethene	0.127	0.137	0.125	108	98.4	85.0-115			9.16	20

L1450738-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1450738-01 01/14/22 11:05 • (MS) R3750043-5 01/14/22 12:01 • (MSD) R3750043-6 01/14/22 12:10

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 %
Methane	0.0678	ND	0.0983	0.0773	145	114	1	50.0-150		R5	23.9	20
Ethane	0.129	ND	0.176	0.150	136	116	1	50.0-150			16.0	20
Ethene	0.127	ND	0.177	0.151	139	119	1	50.0-150			15.9	20

Method Blank (MB)

(MB) R3750811-3 01/14/22 21:09

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	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
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
trans-1,4-Dichloro-2-butene	U		0.000467	0.00250
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
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Di-isopropyl ether	U		0.000105	0.00100
Ethylbenzene	U		0.000137	0.00100
Ethanol	U		0.0420	0.100
Hexachloro-1,3-butadiene	U		0.000337	0.00100
2-Hexanone	U		0.000787	0.0100
Iodomethane	U		0.00600	0.0100

Method Blank (MB)

(MB) R3750811-3 01/14/22 21:09

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
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
1,2,4-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
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl acetate	U		0.000692	0.0100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
tert-Amyl Methyl Ether	U		0.000195	0.00100
Ethyl tert-butyl ether	U		0.000101	0.00100
tert-Butyl alcohol	U		0.00406	0.00500
(S) Toluene-d8	*103*			*80.0-120*
(S) 4-Bromofluorobenzene	*102*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*89.6*			*70.0-130*

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

(LCS) R3750811-1 01/14/22 20:07 • (LCSD) R3750811-2 01/14/22 20:27

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	0.0276	0.0273	110	109	19.0-160			1.09	27
Acrylonitrile	0.0250	0.0228	0.0240	91.2	96.0	55.0-149			5.13	20
Benzene	0.00500	0.00570	0.00565	114	113	70.0-123			0.881	20
Bromobenzene	0.00500	0.00488	0.00477	97.6	95.4	73.0-121			2.28	20

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

(LCS) R3750811-1 01/14/22 20:07 • (LCSD) R3750811-2 01/14/22 20:27

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromodichloromethane	0.00500	0.00473	0.00461	94.6	92.2	75.0-120			2.57	20
Bromochloromethane	0.00500	0.00577	0.00590	115	118	76.0-122			2.23	20
Bromoform	0.00500	0.00349	0.00349	69.8	69.8	68.0-132			0.000	20
Bromomethane	0.00500	0.00599	0.00602	120	120	10.0-160			0.500	25
n-Butylbenzene	0.00500	0.00440	0.00459	88.0	91.8	73.0-125			4.23	20
sec-Butylbenzene	0.00500	0.00525	0.00573	105	115	75.0-125			8.74	20
tert-Butylbenzene	0.00500	0.00518	0.00536	104	107	76.0-124			3.42	20
Carbon disulfide	0.00500	0.00406	0.00378	81.2	75.6	61.0-128			7.14	20
Carbon tetrachloride	0.00500	0.00480	0.00449	96.0	89.8	68.0-126			6.67	20
Chlorobenzene	0.00500	0.00569	0.00565	114	113	80.0-121			0.705	20
Chlorodibromomethane	0.00500	0.00390	0.00410	78.0	82.0	77.0-125			5.00	20
Chloroethane	0.00500	0.00490	0.00500	98.0	100	47.0-150			2.02	20
Chloroform	0.00500	0.00547	0.00562	109	112	73.0-120			2.71	20
Chloromethane	0.00500	0.00438	0.00435	87.6	87.0	41.0-142			0.687	20
1,2-Dibromo-3-Chloropropane	0.00500	0.00289	0.00306	57.8	61.2	58.0-134	L2		5.71	20
1,2-Dibromoethane	0.00500	0.00519	0.00556	104	111	80.0-122			6.88	20
Dibromomethane	0.00500	0.00519	0.00509	104	102	80.0-120			1.95	20
1,2-Dichlorobenzene	0.00500	0.00544	0.00524	109	105	79.0-121			3.75	20
1,3-Dichlorobenzene	0.00500	0.00566	0.00526	113	105	79.0-120			7.33	20
1,4-Dichlorobenzene	0.00500	0.00502	0.00482	100	96.4	79.0-120			4.07	20
trans-1,4-Dichloro-2-butene	0.00500	0.00396	0.00441	79.2	88.2	33.0-144			10.8	20
Dichlorodifluoromethane	0.00500	0.00588	0.00584	118	117	51.0-149			0.683	20
1,1-Dichloroethane	0.00500	0.00498	0.00503	99.6	101	70.0-126			0.999	20
1,2-Dichloroethane	0.00500	0.00481	0.00562	96.2	112	70.0-128			15.5	20
1,1-Dichloroethene	0.00500	0.00555	0.00484	111	96.8	71.0-124			13.7	20
cis-1,2-Dichloroethene	0.00500	0.00554	0.00552	111	110	73.0-120			0.362	20
trans-1,2-Dichloroethene	0.00500	0.00511	0.00509	102	102	73.0-120			0.392	20
1,2-Dichloropropane	0.00500	0.00545	0.00545	109	109	77.0-125			0.000	20
cis-1,3-Dichloropropene	0.00500	0.00462	0.00455	92.4	91.0	80.0-123			1.53	20
trans-1,3-Dichloropropene	0.00500	0.00484	0.00440	96.8	88.0	78.0-124			9.52	20
Di-isopropyl ether	0.00500	0.00467	0.00481	93.4	96.2	58.0-138			2.95	20
Ethylbenzene	0.00500	0.00545	0.00521	109	104	79.0-123			4.50	20
Hexachloro-1,3-butadiene	0.00500	0.00409	0.00507	81.8	101	54.0-138		R7	21.4	20
2-Hexanone	0.0250	0.0235	0.0232	94.0	92.8	67.0-149			1.28	20
Iodomethane	0.0250	0.0230	0.0237	92.0	94.8	33.0-147			3.00	26
2-Butanone (MEK)	0.0250	0.0237	0.0238	94.8	95.2	44.0-160			0.421	20
Methylene Chloride	0.00500	0.00579	0.00616	116	123	67.0-120		L1	6.19	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.0240	0.0239	96.0	95.6	68.0-142			0.418	20
Methyl tert-butyl ether	0.00500	0.00579	0.00610	116	122	68.0-125			5.21	20
Naphthalene	0.00500	0.00473	0.00505	94.6	101	54.0-135			6.54	20

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

(LCS) R3750811-1 01/14/22 20:07 • (LCSD) R3750811-2 01/14/22 20:27

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
n-Propylbenzene	0.00500	0.00506	0.00501	101	100	77.0-124			0.993	20
Styrene	0.00500	0.00492	0.00492	98.4	98.4	73.0-130			0.000	20
1,1,1,2-Tetrachloroethane	0.00500	0.00461	0.00425	92.2	85.0	75.0-125			8.13	20
1,1,2,2-Tetrachloroethane	0.00500	0.00500	0.00533	100	107	65.0-130			6.39	20
Tetrachloroethene	0.00500	0.00475	0.00549	95.0	110	72.0-132			14.5	20
Toluene	0.00500	0.00545	0.00544	109	109	79.0-120			0.184	20
1,1,2-Trichlorotrifluoroethane	0.00500	0.00587	0.00534	117	107	69.0-132			9.46	20
1,2,4-Trichlorobenzene	0.00500	0.00427	0.00421	85.4	84.2	57.0-137			1.42	20
1,1,1-Trichloroethane	0.00500	0.00555	0.00527	111	105	73.0-124			5.18	20
1,1,2-Trichloroethane	0.00500	0.00560	0.00569	112	114	80.0-120			1.59	20
Trichloroethene	0.00500	0.00495	0.00505	99.0	101	78.0-124			2.00	20
Trichlorofluoromethane	0.00500	0.00591	0.00507	118	101	59.0-147			15.3	20
1,2,3-Trichloropropane	0.00500	0.00538	0.00535	108	107	73.0-130			0.559	20
1,2,4-Trimethylbenzene	0.00500	0.00550	0.00565	110	113	76.0-121			2.69	20
1,3,5-Trimethylbenzene	0.00500	0.00481	0.00507	96.2	101	76.0-122			5.26	20
Vinyl acetate	0.0250	0.0255	0.0263	102	105	11.0-160			3.09	20
Vinyl chloride	0.00500	0.00572	0.00523	114	105	67.0-131			8.95	20
Xylenes, Total	0.0150	0.0164	0.0160	109	107	79.0-123			2.47	20
ethanol	0.250	0.120	0.272	48.0	109	10.0-160		R7	77.6	30
tert-Butyl alcohol	0.0250	0.0277	0.0287	111	115	27.0-160			3.55	30
tert-Amyl Methyl Ether	0.00500	0.00596	0.00594	119	119	66.0-125			0.336	20
Ethyl tert-butyl ether	0.00500	0.00508	0.00495	102	99.0	63.0-138			2.59	20
(S) Toluene-d8				*103*	*99.4*	*80.0-120*				
(S) 4-Bromofluorobenzene				*99.7*	*94.7*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*93.2*	*91.6*	*70.0-130*				

L1450738-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1450738-01 01/14/22 22:54 • (MS) R3750811-4 01/15/22 04:24 • (MSD) R3750811-5 01/15/22 04:44

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 %
Bromochloromethane	0.00500	ND	0.00552	0.00533	110	107	1	38.0-142			3.50	26
Acetone	0.0250	ND	ND	ND	90.8	77.2	1	10.0-160			16.2	35
Acrylonitrile	0.0250	ND	0.0205	0.0191	82.0	76.4	1	21.0-160			7.07	32
Benzene	0.00500	ND	0.00548	0.00497	110	99.4	1	17.0-158			9.76	27
Bromobenzene	0.00500	ND	0.00405	0.00402	81.0	80.4	1	30.0-149			0.744	28
Bromodichloromethane	0.00500	ND	0.00449	0.00424	89.8	84.8	1	31.0-150			5.73	27
Bromoform	0.00500	ND	0.00287	0.00339	57.4	67.8	1	29.0-150			16.6	29
Bromomethane	0.00500	ND	ND	ND	79.6	76.2	1	10.0-160			4.36	38

L1450738-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1450738-01 01/14/22 22:54 • (MS) R3750811-4 01/15/22 04:24 • (MSD) R3750811-5 01/15/22 04:44

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 %
trans-1,4-Dichloro-2-butene	0.00500	ND	0.00321	0.00287	64.2	57.4	1	10.0-157			11.2	37
n-Butylbenzene	0.00500	ND	0.00377	0.00303	75.4	60.6	1	31.0-150			21.8	30
sec-Butylbenzene	0.00500	ND	0.00472	0.00424	94.4	84.8	1	33.0-155			10.7	29
tert-Butylbenzene	0.00500	ND	0.00410	0.00463	82.0	92.6	1	34.0-153			12.1	28
Carbon disulfide	0.00500	ND	0.00340	0.00316	68.0	63.2	1	10.0-156			7.32	28
Carbon tetrachloride	0.00500	ND	0.00480	0.00469	96.0	93.8	1	23.0-159			2.32	28
Chlorobenzene	0.00500	ND	0.00491	0.00538	98.2	108	1	33.0-152			9.14	27
Chlorodibromomethane	0.00500	ND	0.00329	0.00375	65.8	75.0	1	37.0-149			13.1	27
Chloroethane	0.00500	ND	0.00668	0.00627	134	125	1	10.0-160			6.33	30
Chloroform	0.00500	ND	0.00558	ND	112	99.2	1	29.0-154			11.8	28
Chloromethane	0.00500	ND	0.00409	0.00383	81.8	76.6	1	10.0-160			6.57	29
1,2-Dibromo-3-Chloropropane	0.00500	ND	ND	ND	55.4	56.8	1	22.0-151			2.50	34
1,2-Dibromoethane	0.00500	ND	0.00431	0.00456	86.2	91.2	1	34.0-147			5.64	27
Dibromomethane	0.00500	ND	0.00440	0.00439	88.0	87.8	1	30.0-151			0.228	27
1,2-Dichlorobenzene	0.00500	ND	0.00420	0.00432	84.0	86.4	1	34.0-149			2.82	28
1,3-Dichlorobenzene	0.00500	ND	0.00393	0.00410	78.6	82.0	1	36.0-146			4.23	27
2-Hexanone	0.0250	ND	0.0188	0.0192	75.2	76.8	1	21.0-160			2.11	29
1,4-Dichlorobenzene	0.00500	ND	0.00367	0.00342	73.4	68.4	1	35.0-142			7.05	27
Iodomethane	0.0250	ND	0.0185	0.0192	74.0	76.8	1	10.0-160			3.71	40
Dichlorodifluoromethane	0.00500	ND	ND	ND	84.2	95.0	1	10.0-160			12.1	29
1,1-Dichloroethane	0.00500	ND	0.00482	0.00456	96.4	91.2	1	25.0-158			5.54	27
1,2-Dichloroethane	0.00500	ND	0.00454	0.00425	90.8	85.0	1	29.0-151			6.60	27
1,1-Dichloroethene	0.00500	ND	0.00540	0.00523	108	105	1	11.0-160			3.20	29
cis-1,2-Dichloroethene	0.00500	ND	0.00454	0.00527	90.8	105	1	10.0-160			14.9	27
trans-1,2-Dichloroethene	0.00500	ND	0.00455	0.00504	91.0	101	1	17.0-153			10.2	27
1,2-Dichloropropane	0.00500	ND	0.00489	0.00498	97.8	99.6	1	30.0-156			1.82	27
cis-1,3-Dichloropropene	0.00500	ND	0.00398	0.00377	79.6	75.4	1	34.0-149			5.42	28
trans-1,3-Dichloropropene	0.00500	ND	0.00367	0.00341	73.4	68.2	1	32.0-149			7.34	28
Di-isopropyl ether	0.00500	ND	0.00398	0.00412	79.6	82.4	1	21.0-160			3.46	28
Ethylbenzene	0.00500	ND	0.00479	0.00515	95.8	103	1	30.0-155			7.24	27
Hexachloro-1,3-butadiene	0.00500	ND	0.00357	0.00455	71.4	91.0	1	20.0-154			24.1	34
2-Butanone (MEK)	0.0250	ND	0.0203	0.0224	81.2	89.6	1	10.0-160			9.84	32
Methylene Chloride	0.00500	ND	0.00512	0.00513	102	103	1	23.0-144			0.195	28
4-Methyl-2-pentanone (MIBK)	0.0250	ND	0.0197	0.0203	78.8	81.2	1	29.0-160			3.00	29
Methyl tert-butyl ether	0.00500	ND	0.00540	0.00496	108	99.2	1	28.0-150			8.49	29
Vinyl acetate	0.0250	ND	0.0250	0.0239	100	95.6	1	12.0-160			4.50	31
Naphthalene	0.00500	ND	0.0278	0.00705	556	141	1	12.0-156	M1	R5	119	35
n-Propylbenzene	0.00500	ND	0.00479	0.00414	95.8	82.8	1	31.0-154			14.6	28
Styrene	0.00500	ND	0.00411	0.00375	82.2	75.0	1	33.0-155			9.16	28
1,1,1,2-Tetrachloroethane	0.00500	ND	0.00407	0.00414	81.4	82.8	1	36.0-151			1.71	29

L1450738-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1450738-01 01/14/22 22:54 • (MS) R3750811-4 01/15/22 04:24 • (MSD) R3750811-5 01/15/22 04:44

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 %
1,1,2,2-Tetrachloroethane	0.00500	ND	0.00432	0.00418	86.4	83.6	1	33.0-150			3.29	28
Tetrachloroethene	0.00500	ND	0.00388	0.00488	77.6	97.6	1	10.0-160			22.8	27
Toluene	0.00500	ND	0.00466	0.00496	93.2	99.2	1	26.0-154			6.24	28
1,1,2-Trichlorotrifluoroethane	0.00500	ND	0.00486	0.00542	97.2	108	1	23.0-160			10.9	30
1,2,4-Trichlorobenzene	0.00500	ND	0.00332	0.00340	66.4	68.0	1	24.0-150			2.38	33
1,1,1-Trichloroethane	0.00500	ND	0.00533	0.00526	107	105	1	23.0-160			1.32	28
1,1,2-Trichloroethane	0.00500	ND	0.00464	0.00471	92.8	94.2	1	35.0-147			1.50	27
Trichloroethene	0.00500	ND	0.00435	0.00490	87.0	98.0	1	10.0-160			11.9	25
Trichlorofluoromethane	0.00500	ND	0.00552	0.00546	110	109	1	17.0-160			1.09	31
1,2,3-Trichloropropane	0.00500	ND	0.00467	0.00418	93.4	83.6	1	34.0-151			11.1	29
1,2,4-Trimethylbenzene	0.00500	ND	0.00590	0.00466	118	93.2	1	26.0-154			23.5	27
1,3,5-Trimethylbenzene	0.00500	ND	0.00486	0.00428	97.2	85.6	1	28.0-153			12.7	27
Vinyl chloride	0.00500	ND	0.00512	0.00482	102	96.4	1	10.0-160			6.04	27
Xylenes, Total	0.0150	ND	0.0138	0.0149	92.0	99.3	1	29.0-154			7.67	28
ethanol	0.250	ND	0.116	0.128	46.4	51.2	1	50.0-150	M2		9.84	20
tert-Butyl alcohol	0.0250	ND	0.0248	0.0196	99.2	78.4	1	50.0-150		R5	23.4	20
tert-Amyl Methyl Ether	0.00500	ND	0.00499	0.00473	99.8	94.6	1	10.0-160			5.35	37
Ethyl tert-butyl ether	0.00500	ND	0.00437	0.00441	87.4	88.2	1	10.0-160			0.911	37
(S) Toluene-d8					*95.1*	*104*		*80.0-120*				
(S) 4-Bromofluorobenzene					*90.4*	*100*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*88.8*	*84.9*		*70.0-130*				

L1451238-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1451238-02 01/15/22 00:58 • (MS) R3750811-6 01/15/22 05:05 • (MSD) R3750811-7 01/15/22 05:26

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 %
Bromochloromethane	0.00500	ND	0.00455	0.00516	91.0	103	1	38.0-142			12.6	26
Acetone	0.0250	ND	ND	ND	74.0	80.8	1	10.0-160			8.79	35
Acrylonitrile	0.0250	ND	0.0200	0.0206	80.0	82.4	1	21.0-160			2.96	32
Benzene	0.00500	ND	0.00530	0.00602	106	120	1	17.0-158			12.7	27
Bromobenzene	0.00500	ND	0.00389	0.00437	77.8	87.4	1	30.0-149			11.6	28
Bromodichloromethane	0.00500	ND	0.00364	0.00439	72.8	87.8	1	31.0-150			18.7	27
Bromoform	0.00500	ND	0.00280	0.00286	56.0	57.2	1	29.0-150			2.12	29
Bromomethane	0.00500	ND	ND	ND	57.8	76.0	1	10.0-160			27.2	38
trans-1,4-Dichloro-2-butene	0.00500	ND	0.00309	ND	61.8	49.8	1	10.0-157			21.5	37
n-Butylbenzene	0.00500	ND	0.00305	0.00350	61.0	70.0	1	31.0-150			13.7	30
sec-Butylbenzene	0.00500	ND	0.00472	0.00518	94.4	104	1	33.0-155			9.29	29
tert-Butylbenzene	0.00500	ND	0.00431	0.00525	86.2	105	1	34.0-153			19.7	28

L1451238-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1451238-02 01/15/22 00:58 • (MS) R3750811-6 01/15/22 05:05 • (MSD) R3750811-7 01/15/22 05:26

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 %
Carbon disulfide	0.00500	ND	0.00278	0.00339	55.6	67.8	1	10.0-156			19.8	28
Carbon tetrachloride	0.00500	ND	0.00389	0.00485	77.8	97.0	1	23.0-159			22.0	28
Chlorobenzene	0.00500	ND	0.00410	0.00523	82.0	105	1	33.0-152			24.2	27
Chlorodibromomethane	0.00500	ND	0.00320	0.00369	64.0	73.8	1	37.0-149			14.2	27
Chloroethane	0.00500	ND	0.00543	ND	109	86.2	1	10.0-160			23.0	30
Chloroform	0.00500	ND	ND	0.00521	92.6	104	1	29.0-154			11.8	28
Chloromethane	0.00500	ND	0.00335	0.00380	67.0	76.0	1	10.0-160			12.6	29
1,2-Dibromo-3-Chloropropane	0.00500	ND	ND	ND	53.8	57.8	1	22.0-151			7.17	34
1,2-Dibromoethane	0.00500	ND	0.00402	0.00475	80.4	95.0	1	34.0-147			16.6	27
Dibromomethane	0.00500	ND	0.00391	0.00461	78.2	92.2	1	30.0-151			16.4	27
1,2-Dichlorobenzene	0.00500	ND	0.00376	0.00440	75.2	88.0	1	34.0-149			15.7	28
1,3-Dichlorobenzene	0.00500	ND	0.00369	0.00469	73.8	93.8	1	36.0-146			23.9	27
2-Hexanone	0.0250	ND	0.0182	0.0206	72.8	82.4	1	21.0-160			12.4	29
1,4-Dichlorobenzene	0.00500	ND	0.00319	0.00436	63.8	87.2	1	35.0-142		R5	31.0	27
Iodomethane	0.0250	ND	0.0165	0.0198	66.0	79.2	1	10.0-160			18.2	40
Dichlorodifluoromethane	0.00500	ND	ND	ND	66.2	96.4	1	10.0-160		R5	37.1	29
1,1-Dichloroethane	0.00500	ND	0.00388	0.00490	77.6	98.0	1	25.0-158			23.2	27
1,2-Dichloroethane	0.00500	ND	0.00373	0.00467	74.6	93.4	1	29.0-151			22.4	27
1,1-Dichloroethene	0.00500	ND	0.00412	0.00525	82.4	105	1	11.0-160			24.1	29
cis-1,2-Dichloroethene	0.00500	ND	0.00440	0.00548	88.0	110	1	10.0-160			21.9	27
trans-1,2-Dichloroethene	0.00500	ND	0.00414	0.00534	82.8	107	1	17.0-153			25.3	27
1,2-Dichloropropane	0.00500	ND	0.00405	0.00460	81.0	92.0	1	30.0-156			12.7	27
cis-1,3-Dichloropropene	0.00500	ND	0.00337	0.00391	67.4	78.2	1	34.0-149			14.8	28
trans-1,3-Dichloropropene	0.00500	ND	0.00321	0.00371	64.2	74.2	1	32.0-149			14.5	28
Di-isopropyl ether	0.00500	ND	0.00360	0.00438	72.0	87.6	1	21.0-160			19.5	28
Ethylbenzene	0.00500	ND	0.00411	0.00519	82.2	104	1	30.0-155			23.2	27
Hexachloro-1,3-butadiene	0.00500	ND	0.00359	0.00347	71.8	69.4	1	20.0-154			3.40	34
2-Butanone (MEK)	0.0250	ND	0.0186	0.0192	74.4	76.8	1	10.0-160			3.17	32
Methylene Chloride	0.00500	ND	ND	ND	85.4	98.6	1	23.0-144			14.3	28
4-Methyl-2-pentanone (MIBK)	0.0250	ND	0.0193	0.0209	77.2	83.6	1	29.0-160			7.96	29
Methyl tert-butyl ether	0.00500	0.00232	0.00703	0.00811	94.2	116	1	28.0-150			14.3	29
Vinyl acetate	0.0250	ND	0.0198	0.0250	79.2	100	1	12.0-160			23.2	31
Naphthalene	0.00500	ND	0.00518	ND	104	89.2	1	12.0-156			14.9	35
n-Propylbenzene	0.00500	ND	0.00391	0.00444	78.2	88.8	1	31.0-154			12.7	28
Styrene	0.00500	ND	0.00350	0.00427	70.0	85.4	1	33.0-155			19.8	28
1,1,1,2-Tetrachloroethane	0.00500	ND	0.00343	0.00432	68.6	86.4	1	36.0-151			23.0	29
1,1,2,2-Tetrachloroethane	0.00500	ND	0.00438	0.00471	87.6	94.2	1	33.0-150			7.26	28
Tetrachloroethene	0.00500	ND	0.00361	0.00455	72.2	91.0	1	10.0-160			23.0	27
Toluene	0.00500	ND	0.00456	0.00546	91.2	109	1	26.0-154			18.0	28
1,1,2-Trichlorotrifluoroethane	0.00500	ND	0.00393	0.00516	78.6	103	1	23.0-160			27.1	30

L1451238-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1451238-02 01/15/22 00:58 • (MS) R3750811-6 01/15/22 05:05 • (MSD) R3750811-7 01/15/22 05:26

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 %
1,2,4-Trichlorobenzene	0.00500	ND	0.00343	0.00348	68.6	69.6	1	24.0-150			1.45	33
1,1,1-Trichloroethane	0.00500	ND	0.00459	0.00568	91.8	114	1	23.0-160			21.2	28
1,1,2-Trichloroethane	0.00500	ND	0.00428	0.00475	85.6	95.0	1	35.0-147			10.4	27
Trichloroethene	0.00500	ND	0.00363	0.00461	72.6	92.2	1	10.0-160			23.8	25
Trichlorofluoromethane	0.00500	ND	ND	0.00522	82.4	104	1	17.0-160			23.6	31
1,2,3-Trichloropropane	0.00500	ND	0.00401	0.00527	80.2	105	1	34.0-151			27.2	29
1,2,4-Trimethylbenzene	0.00500	ND	0.00427	0.00491	85.4	98.2	1	26.0-154			13.9	27
1,3,5-Trimethylbenzene	0.00500	ND	0.00401	0.00441	80.2	88.2	1	28.0-153			9.50	27
Vinyl chloride	0.00500	ND	0.00383	0.00458	76.6	91.6	1	10.0-160			17.8	27
Xylenes, Total	0.0150	ND	0.0122	0.0151	81.3	101	1	29.0-154			21.2	28
ethanol	0.250	ND	0.231	0.108	92.4	43.2	1	50.0-150		M2 R5	72.6	20
tert-Butyl alcohol	0.0250	0.0421	0.0768	0.0671	139	100	1	50.0-150			13.5	20
tert-Amyl Methyl Ether	0.00500	ND	0.00505	0.00655	101	131	1	10.0-160			25.9	37
Ethyl tert-butyl ether	0.00500	ND	0.00379	0.00454	75.8	90.8	1	10.0-160			18.0	37
(S) Toluene-d8					*109*	*105*		*80.0-120*				
(S) 4-Bromofluorobenzene					*102*	*101*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*87.1*	*90.3*		*70.0-130*				

Method Blank (MB)

(MB) R3751387-3 01/19/22 09:29

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Methyl tert-butyl ether	U		0.000101	0.00100
tert-Amyl Methyl Ether	U		0.000195	0.00100
(S) Toluene-d8	*107*			*80.0-120*
(S) 4-Bromofluorobenzene	*104*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*95.2*			*70.0-130*

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

(LCS) R3751387-1 01/19/22 08:24 • (LCSD) R3751387-2 01/19/22 08:45

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Methyl tert-butyl ether	0.00500	0.00518	0.00529	104	106	68.0-125			2.10	20
tert-Amyl Methyl Ether	0.00500	0.00525	0.00532	105	106	66.0-125			1.32	20
(S) Toluene-d8				*102*	*102*	*80.0-120*				
(S) 4-Bromofluorobenzene				*99.9*	*102*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*97.9*	*97.8*	*70.0-130*				

INTERNAL STANDARD SUMMARY

Instrument: VOCMS21 • File ID: 0114_34

01/14/22 20:07

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0114_34	170495	79759	74200
Upper Limit		340990	159518	148400
Lower Limit		85248	39880	37100
LCS R3750811-1 WG1802656 1x	0114_34LCS	170495	79759	74200
LCSD R3750811-2 WG1802656 1x	0114_35	172122	78530	71501
BLANK R3750811-3 WG1802656 1x	0114_37	167281	72122	58921
L1450738-04 WG1802656 1x	0114_38	161265	66966	57463
L1450738-01 WG1802656 1x	0114_42	161452	71305	55961
L1450738-02 WG1802656 1x	0114_43	179994	70424	62259
L1450738-03 WG1802656 1x	0114_44	181386	70904	64603
MS R3750811-4 WG1802656 1x	0114_58	186103	90957	80310
MSD R3750811-5 WG1802656 1x	0114_59	183312	80810	77047
MS R3750811-6 WG1802656 1x	0114_60	196485	85052	73732
MSD R3750811-7 WG1802656 1x	0114_61	187587	83146	74412

Instrument: VOCMS26 • File ID: 0119_02

01/19/22 08:24

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0119_02	280155	119184	114949
Upper Limit		560310	238368	229898
Lower Limit		140078	59592	57475
LCS R3751387-1 WG1803854 1x	0119_02LCS	280155	119184	114949
LCSD R3751387-2 WG1803854 1x	0119_03	282017	119817	117253
BLANK R3751387-3 WG1803854 1x	0119_05A	270417	107759	106973
L1450738-02 WG1803854 100x	0119_07	276945	112524	107826
L1450738-03 WG1803854 100x	0119_08	274614	111160	109342

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

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	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
E1	Concentration estimated. Analyte exceeded calibration range. Reanalysis not possible due to insufficient sample.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
L1	The associated blank spike recovery was above laboratory acceptance limits.
L2	The associated blank spike recovery was below laboratory acceptance limits.
M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike recovery was acceptable.
R5	MS/MSD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.
R7	LFB/LFBD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.
R8	Sample RPD exceeded the method acceptance limit.

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:
Kinder Morgan - Rocklin, CA-AZ Work
410 N.44th Street
Suite 1000
Phoenix. AZ 85008

Billing Information:
Accounts Payable- Alan Van Antwerp
9950 SAN DIEGO MISSION RD.
SAN DIEGO, CA 92108

Pres Chk

Report to: Bob Forsberg

Email To: bob.forsberg@arcadis-us.com;sascha.arnold@arcadis.com

Project Description: KMEP Silvercroft Wash

City/State Collected: Tucson, AZ

Please Circle: PT (MT) CT ET

Phone: 602-438-0883

Client Project # ~~30106087.01~~ 30113573.01

Lab Project # KINARCPAZ-SILVERCROF

Collected by (print): MAT / SXA

Site/Facility ID # SILVERCROFT WASH

P.O. # WD876456

Collected by (signature): M. Tani

Immediately Packed on Ice N ___ Y X

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: STD TURN

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	*NO2,NO3,SO4,TDS 250mlHDPE-NoPres	EEM RSK175 40mlAmb HCl	HOLD - NO2+NO3 250mlHDPE-H2SO4	Total Fe 6010 250mlHDPE-HNO3	VOCs+OXYs 8260 40mlAmb-HCl	Remarks	Sample # (lab only)
MW-29D	G	GW	235	1/10/22	1342	16	X	X	X	X	X	MS/MSD	-01
MW-2D		GW	235		1527	8	X	X	X	X	X		-02
MW-2D-DUP		GW	235		1532	8	X	X	X	X	X		-03
		GW											
		GW											
		GW											
		GW											
		GW											
		GW											
Trip Blank	—	GW	—	1/10/22	—	1					X		-04

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Pace Analytical®

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1450738

G084

Acctnum: KINARCPAZ

Template: T190237

Prelogin: P894954

PM: 110 - Brian Ford

PB:

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: *NO2,NO3 have a 48 hour holding time.

pH _____ Temp _____

Flow _____ Other _____

Samples returned via: __ UPS _/ FedEx __ Courier _____

Tracking # 5433 8383 9150

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

Relinquished by: (Signature) M. Tani	Date: 1/10/22	Time: 1624	Received by: (Signature) FedEx	Trip Blank Received: (Yes) / No HCL / MeoH TBR	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received: BAT 1.5+0=1.5 32	If preservation required by Login: Date/Time
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature) Veronica Sistrunk	Date: 1/13/22 Time: 0900	Hold: Condition: NCF / OK

ANALYTICAL REPORT

January 31, 2022

Kinder Morgan - Rocklin, CA-AZ Work

Sample Delivery Group:	L1452486
Samples Received:	01/19/2022
Project Number:	30113573.01
Description:	KMEP Silvercroft Wash
Site:	SILVERCROFT WASH
Report To:	Bob Forsberg 410 N.44th Street Suite 1000 Phoenix, AZ 85008

Entire Report Reviewed By:

Brian Ford

Project Manager

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

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

MW-2M L1452486-01 GW

Collected by: MAT/SXA | Collected date/time: 01/18/22 12:42 | Received date/time: 01/19/22 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1807130	1	01/24/22 16:26	01/24/22 17:28	BRG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1804528	1	01/19/22 14:54	01/19/22 14:54	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1804528	5	01/19/22 19:40	01/19/22 19:40	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1806897	1	01/28/22 12:29	01/28/22 18:25	KMG	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1805960	1	01/21/22 12:42	01/21/22 12:42	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1805030	1	01/20/22 01:48	01/20/22 01:48	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1806841	50	01/24/22 18:52	01/24/22 18:52	BMB	Mt. Juliet, TN

MW-1M L1452486-02 GW

Collected by: MAT/SXA | Collected date/time: 01/18/22 13:52 | Received date/time: 01/19/22 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1807864	1	01/25/22 16:18	01/25/22 17:56	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1804607	1	01/19/22 19:33	01/19/22 19:33	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1805587	5	01/21/22 17:25	01/21/22 17:25	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1806897	1	01/28/22 12:29	01/28/22 19:32	KMG	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1805960	1	01/21/22 12:46	01/21/22 12:46	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1805030	1	01/20/22 02:09	01/20/22 02:09	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1806841	1	01/24/22 11:44	01/24/22 11:44	BMB	Mt. Juliet, TN

MW-29M L1452486-03 GW

Collected by: MAT/SXA | Collected date/time: 01/18/22 14:57 | Received date/time: 01/19/22 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1807864	1	01/25/22 16:18	01/25/22 17:56	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1804607	1	01/19/22 19:48	01/19/22 19:48	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1805587	5	01/21/22 18:10	01/21/22 18:10	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1806897	1	01/28/22 12:29	01/28/22 19:35	KMG	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1805960	1	01/21/22 12:49	01/21/22 12:49	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1805030	1	01/20/22 02:30	01/20/22 02:30	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1806841	50	01/24/22 19:13	01/24/22 19:13	BMB	Mt. Juliet, TN

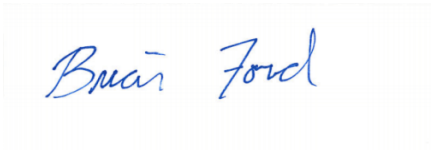
TRIP BLANK L1452486-04 GW

Collected by: MAT/SXA | Collected date/time: 01/18/22 00:00 | Received date/time: 01/19/22 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1805030	1	01/20/22 01:06	01/20/22 01:06	BMB	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.



Brian Ford
Project Manager

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	620		10.0	1	01/24/2022 17:28	WG1807130

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Nitrate	2.58		0.100	1	01/19/2022 14:54	WG1804528
Nitrite	ND		0.100	1	01/19/2022 14:54	WG1804528
Sulfate	205		25.0	5	01/19/2022 19:40	WG1804528

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Iron	ND		0.100	1	01/28/2022 18:25	WG1806897

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Methane	ND		0.0100	1	01/21/2022 12:42	WG1805960
Ethane	ND		0.0130	1	01/21/2022 12:42	WG1805960
Ethene	ND		0.0130	1	01/21/2022 12:42	WG1805960

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Acetone	ND		0.0500	1	01/20/2022 01:48	WG1805030
Acrylonitrile	ND		0.0100	1	01/20/2022 01:48	WG1805030
Benzene	ND		0.00100	1	01/20/2022 01:48	WG1805030
Bromobenzene	ND		0.00100	1	01/20/2022 01:48	WG1805030
Bromochloromethane	ND		0.00100	1	01/20/2022 01:48	WG1805030
Bromodichloromethane	ND		0.00100	1	01/20/2022 01:48	WG1805030
Bromoform	ND		0.00100	1	01/20/2022 01:48	WG1805030
Bromomethane	ND		0.00500	1	01/20/2022 01:48	WG1805030
n-Butylbenzene	ND		0.00100	1	01/20/2022 01:48	WG1805030
sec-Butylbenzene	ND		0.00100	1	01/20/2022 01:48	WG1805030
tert-Butylbenzene	ND		0.00100	1	01/20/2022 01:48	WG1805030
Carbon tetrachloride	ND		0.00100	1	01/20/2022 01:48	WG1805030
Carbon disulfide	ND		0.00100	1	01/20/2022 01:48	WG1805030
Chlorobenzene	ND		0.00100	1	01/20/2022 01:48	WG1805030
Chlorodibromomethane	ND		0.00100	1	01/20/2022 01:48	WG1805030
Chloroethane	ND		0.00500	1	01/20/2022 01:48	WG1805030
Chloroform	ND		0.00500	1	01/20/2022 01:48	WG1805030
Chloromethane	ND		0.00250	1	01/20/2022 01:48	WG1805030
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	01/20/2022 01:48	WG1805030
1,2-Dibromoethane	ND		0.00100	1	01/20/2022 01:48	WG1805030
Dibromomethane	ND		0.00100	1	01/20/2022 01:48	WG1805030
1,2-Dichlorobenzene	ND		0.00100	1	01/20/2022 01:48	WG1805030
1,3-Dichlorobenzene	ND		0.00100	1	01/20/2022 01:48	WG1805030
1,4-Dichlorobenzene	ND		0.00100	1	01/20/2022 01:48	WG1805030
trans-1,4-Dichloro-2-butene	ND		0.00250	1	01/20/2022 01:48	WG1805030
Dichlorodifluoromethane	ND		0.00500	1	01/20/2022 01:48	WG1805030
1,1-Dichloroethane	ND		0.00100	1	01/20/2022 01:48	WG1805030
1,2-Dichloroethane	ND		0.00100	1	01/20/2022 01:48	WG1805030
1,1-Dichloroethene	ND		0.00100	1	01/20/2022 01:48	WG1805030
cis-1,2-Dichloroethene	ND		0.00100	1	01/20/2022 01:48	WG1805030

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.00100	1	01/20/2022 01:48	WG1805030
1,2-Dichloropropane	ND		0.00100	1	01/20/2022 01:48	WG1805030
cis-1,3-Dichloropropene	ND		0.00100	1	01/20/2022 01:48	WG1805030
trans-1,3-Dichloropropene	ND		0.00100	1	01/20/2022 01:48	WG1805030
Ethylbenzene	ND		0.00100	1	01/20/2022 01:48	WG1805030
Hexachloro-1,3-butadiene	ND		0.00100	1	01/20/2022 01:48	WG1805030
2-Hexanone	ND		0.0100	1	01/20/2022 01:48	WG1805030
2-Butanone (MEK)	ND		0.0100	1	01/20/2022 01:48	WG1805030
Iodomethane	ND		0.0100	1	01/20/2022 01:48	WG1805030
Methylene Chloride	ND		0.00500	1	01/20/2022 01:48	WG1805030
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	01/20/2022 01:48	WG1805030
Naphthalene	ND		0.00500	1	01/20/2022 01:48	WG1805030
n-Propylbenzene	ND		0.00100	1	01/20/2022 01:48	WG1805030
Styrene	ND		0.00100	1	01/20/2022 01:48	WG1805030
1,1,1,2-Tetrachloroethane	ND		0.00100	1	01/20/2022 01:48	WG1805030
1,1,2,2-Tetrachloroethane	ND		0.00100	1	01/20/2022 01:48	WG1805030
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	01/20/2022 01:48	WG1805030
Tetrachloroethene	ND		0.00100	1	01/20/2022 01:48	WG1805030
Toluene	ND		0.00100	1	01/20/2022 01:48	WG1805030
1,2,4-Trichlorobenzene	ND		0.00100	1	01/20/2022 01:48	WG1805030
1,1,1-Trichloroethane	ND		0.00100	1	01/20/2022 01:48	WG1805030
1,1,2-Trichloroethane	ND		0.00100	1	01/20/2022 01:48	WG1805030
Trichloroethene	ND		0.00100	1	01/20/2022 01:48	WG1805030
Trichlorofluoromethane	ND		0.00500	1	01/20/2022 01:48	WG1805030
1,2,3-Trichloropropane	ND		0.00250	1	01/20/2022 01:48	WG1805030
1,2,4-Trimethylbenzene	ND		0.00100	1	01/20/2022 01:48	WG1805030
1,3,5-Trimethylbenzene	ND		0.00100	1	01/20/2022 01:48	WG1805030
Vinyl acetate	ND		0.0100	1	01/20/2022 01:48	WG1805030
Vinyl chloride	ND		0.00100	1	01/20/2022 01:48	WG1805030
Xylenes, Total	ND		0.00300	1	01/20/2022 01:48	WG1805030
Di-isopropyl ether	ND	M1 R5	0.00100	1	01/20/2022 01:48	WG1805030
Ethanol	ND	L1 R5	0.100	1	01/20/2022 01:48	WG1805030
Ethyl tert-butyl ether	ND		0.00100	1	01/20/2022 01:48	WG1805030
Methyl tert-butyl ether	3.32		0.0500	50	01/24/2022 18:52	WG1806841
tert-Butyl alcohol	0.0374	M2 R5	0.00500	1	01/20/2022 01:48	WG1805030
tert-Amyl Methyl Ether	0.617		0.0500	50	01/24/2022 18:52	WG1806841
(S) Toluene-d8	*105*		*80.0-120*		*01/20/2022 01:48*	WG1805030
(S) Toluene-d8	*104*		*80.0-120*		*01/24/2022 18:52*	WG1806841
(S) 4-Bromofluorobenzene	*107*		*77.0-126*		*01/20/2022 01:48*	WG1805030
(S) 4-Bromofluorobenzene	*98.8*		*77.0-126*		*01/24/2022 18:52*	WG1806841
(S) 1,2-Dichloroethane-d4	*86.8*		*70.0-130*		*01/20/2022 01:48*	WG1805030
(S) 1,2-Dichloroethane-d4	*89.9*		*70.0-130*		*01/24/2022 18:52*	WG1806841

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	723	L2	13.3	1	01/25/2022 17:56	WG1807864

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	2.88		0.100	1	01/19/2022 19:33	WG1804607
Nitrite	ND		0.100	1	01/19/2022 19:33	WG1804607
Sulfate	295		25.0	5	01/21/2022 17:25	WG1805587

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	0.542		0.100	1	01/28/2022 19:32	WG1806897

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	01/21/2022 12:46	WG1805960
Ethane	ND		0.0130	1	01/21/2022 12:46	WG1805960
Ethene	ND		0.0130	1	01/21/2022 12:46	WG1805960

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND	R7	0.0500	1	01/20/2022 02:09	WG1805030
Acrylonitrile	ND		0.0100	1	01/20/2022 02:09	WG1805030
Benzene	ND		0.00100	1	01/20/2022 02:09	WG1805030
Bromobenzene	ND		0.00100	1	01/20/2022 02:09	WG1805030
Bromochloromethane	ND		0.00100	1	01/20/2022 02:09	WG1805030
Bromodichloromethane	ND		0.00100	1	01/20/2022 02:09	WG1805030
Bromoform	ND		0.00100	1	01/20/2022 02:09	WG1805030
Bromomethane	ND		0.00500	1	01/20/2022 02:09	WG1805030
n-Butylbenzene	ND		0.00100	1	01/20/2022 02:09	WG1805030
sec-Butylbenzene	ND		0.00100	1	01/20/2022 02:09	WG1805030
tert-Butylbenzene	ND		0.00100	1	01/20/2022 02:09	WG1805030
Carbon tetrachloride	ND		0.00100	1	01/20/2022 02:09	WG1805030
Carbon disulfide	ND		0.00100	1	01/20/2022 02:09	WG1805030
Chlorobenzene	ND		0.00100	1	01/20/2022 02:09	WG1805030
Chlorodibromomethane	ND		0.00100	1	01/20/2022 02:09	WG1805030
Chloroethane	ND		0.00500	1	01/20/2022 02:09	WG1805030
Chloroform	ND		0.00500	1	01/20/2022 02:09	WG1805030
Chloromethane	ND		0.00250	1	01/20/2022 02:09	WG1805030
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	01/20/2022 02:09	WG1805030
1,2-Dibromoethane	ND		0.00100	1	01/20/2022 02:09	WG1805030
Dibromomethane	ND		0.00100	1	01/20/2022 02:09	WG1805030
1,2-Dichlorobenzene	ND		0.00100	1	01/20/2022 02:09	WG1805030
1,3-Dichlorobenzene	ND		0.00100	1	01/20/2022 02:09	WG1805030
1,4-Dichlorobenzene	ND		0.00100	1	01/20/2022 02:09	WG1805030
trans-1,4-Dichloro-2-butene	ND	R7	0.00250	1	01/20/2022 02:09	WG1805030
Dichlorodifluoromethane	ND		0.00500	1	01/20/2022 02:09	WG1805030
1,1-Dichloroethane	ND		0.00100	1	01/20/2022 02:09	WG1805030
1,2-Dichloroethane	ND		0.00100	1	01/20/2022 02:09	WG1805030
1,1-Dichloroethene	ND		0.00100	1	01/20/2022 02:09	WG1805030
cis-1,2-Dichloroethene	ND		0.00100	1	01/20/2022 02:09	WG1805030

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.00100	1	01/20/2022 02:09	WG1805030
1,2-Dichloropropane	ND		0.00100	1	01/20/2022 02:09	WG1805030
cis-1,3-Dichloropropene	ND		0.00100	1	01/20/2022 02:09	WG1805030
trans-1,3-Dichloropropene	ND		0.00100	1	01/20/2022 02:09	WG1805030
Ethylbenzene	ND		0.00100	1	01/20/2022 02:09	WG1805030
Hexachloro-1,3-butadiene	ND	R7	0.00100	1	01/20/2022 02:09	WG1805030
2-Hexanone	ND		0.0100	1	01/20/2022 02:09	WG1805030
2-Butanone (MEK)	ND		0.0100	1	01/20/2022 02:09	WG1805030
Iodomethane	ND		0.0100	1	01/20/2022 02:09	WG1805030
Methylene Chloride	ND		0.00500	1	01/20/2022 02:09	WG1805030
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	01/20/2022 02:09	WG1805030
Naphthalene	ND		0.00500	1	01/20/2022 02:09	WG1805030
n-Propylbenzene	ND		0.00100	1	01/20/2022 02:09	WG1805030
Styrene	ND		0.00100	1	01/20/2022 02:09	WG1805030
1,1,1,2-Tetrachloroethane	ND		0.00100	1	01/20/2022 02:09	WG1805030
1,1,2,2-Tetrachloroethane	ND		0.00100	1	01/20/2022 02:09	WG1805030
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	01/20/2022 02:09	WG1805030
Tetrachloroethene	ND		0.00100	1	01/20/2022 02:09	WG1805030
Toluene	ND		0.00100	1	01/20/2022 02:09	WG1805030
1,2,4-Trichlorobenzene	ND	R7	0.00100	1	01/20/2022 02:09	WG1805030
1,1,1-Trichloroethane	ND		0.00100	1	01/20/2022 02:09	WG1805030
1,1,2-Trichloroethane	ND		0.00100	1	01/20/2022 02:09	WG1805030
Trichloroethene	ND		0.00100	1	01/20/2022 02:09	WG1805030
Trichlorofluoromethane	ND		0.00500	1	01/20/2022 02:09	WG1805030
1,2,3-Trichloropropane	ND		0.00250	1	01/20/2022 02:09	WG1805030
1,2,4-Trimethylbenzene	ND		0.00100	1	01/20/2022 02:09	WG1805030
1,3,5-Trimethylbenzene	ND		0.00100	1	01/20/2022 02:09	WG1805030
Vinyl acetate	ND	R7	0.0100	1	01/20/2022 02:09	WG1805030
Vinyl chloride	ND		0.00100	1	01/20/2022 02:09	WG1805030
Xylenes, Total	ND		0.00300	1	01/20/2022 02:09	WG1805030
Di-isopropyl ether	ND		0.00100	1	01/20/2022 02:09	WG1805030
Ethanol	ND	L1 R5	0.100	1	01/20/2022 02:09	WG1805030
Ethyl tert-butyl ether	ND		0.00100	1	01/20/2022 02:09	WG1805030
Methyl tert-butyl ether	0.0158		0.00100	1	01/24/2022 11:44	WG1806841
tert-Butyl alcohol	0.00604	R5	0.00500	1	01/20/2022 02:09	WG1805030
tert-Amyl Methyl Ether	ND		0.00100	1	01/20/2022 02:09	WG1805030
(S) Toluene-d8	*106*		*80.0-120*		*01/20/2022 02:09*	WG1805030
(S) Toluene-d8	*107*		*80.0-120*		*01/24/2022 11:44*	WG1806841
(S) 4-Bromofluorobenzene	*107*		*77.0-126*		*01/20/2022 02:09*	WG1805030
(S) 4-Bromofluorobenzene	*102*		*77.0-126*		*01/24/2022 11:44*	WG1806841
(S) 1,2-Dichloroethane-d4	*89.3*		*70.0-130*		*01/20/2022 02:09*	WG1805030
(S) 1,2-Dichloroethane-d4	*88.9*		*70.0-130*		*01/24/2022 11:44*	WG1806841

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	646	L2	10.0	1	01/25/2022 17:56	WG1807864

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	2.04		0.100	1	01/19/2022 19:48	WG1804607
Nitrite	ND		0.100	1	01/19/2022 19:48	WG1804607
Sulfate	228		25.0	5	01/21/2022 18:10	WG1805587

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	ND		0.100	1	01/28/2022 19:35	WG1806897

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	01/21/2022 12:49	WG1805960
Ethane	ND		0.0130	1	01/21/2022 12:49	WG1805960
Ethene	ND		0.0130	1	01/21/2022 12:49	WG1805960

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND	R7	0.0500	1	01/20/2022 02:30	WG1805030
Acrylonitrile	ND		0.0100	1	01/20/2022 02:30	WG1805030
Benzene	ND		0.00100	1	01/20/2022 02:30	WG1805030
Bromobenzene	ND		0.00100	1	01/20/2022 02:30	WG1805030
Bromochloromethane	ND		0.00100	1	01/20/2022 02:30	WG1805030
Bromodichloromethane	ND		0.00100	1	01/20/2022 02:30	WG1805030
Bromoform	ND		0.00100	1	01/20/2022 02:30	WG1805030
Bromomethane	ND		0.00500	1	01/20/2022 02:30	WG1805030
n-Butylbenzene	ND		0.00100	1	01/20/2022 02:30	WG1805030
sec-Butylbenzene	ND		0.00100	1	01/20/2022 02:30	WG1805030
tert-Butylbenzene	ND		0.00100	1	01/20/2022 02:30	WG1805030
Carbon tetrachloride	ND		0.00100	1	01/20/2022 02:30	WG1805030
Carbon disulfide	ND		0.00100	1	01/20/2022 02:30	WG1805030
Chlorobenzene	ND		0.00100	1	01/20/2022 02:30	WG1805030
Chlorodibromomethane	ND		0.00100	1	01/20/2022 02:30	WG1805030
Chloroethane	ND		0.00500	1	01/20/2022 02:30	WG1805030
Chloroform	ND		0.00500	1	01/20/2022 02:30	WG1805030
Chloromethane	ND		0.00250	1	01/20/2022 02:30	WG1805030
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	01/20/2022 02:30	WG1805030
1,2-Dibromoethane	ND		0.00100	1	01/20/2022 02:30	WG1805030
Dibromomethane	ND		0.00100	1	01/20/2022 02:30	WG1805030
1,2-Dichlorobenzene	ND		0.00100	1	01/20/2022 02:30	WG1805030
1,3-Dichlorobenzene	ND		0.00100	1	01/20/2022 02:30	WG1805030
1,4-Dichlorobenzene	ND		0.00100	1	01/20/2022 02:30	WG1805030
trans-1,4-Dichloro-2-butene	ND	R7	0.00250	1	01/20/2022 02:30	WG1805030
Dichlorodifluoromethane	ND		0.00500	1	01/20/2022 02:30	WG1805030
1,1-Dichloroethane	ND		0.00100	1	01/20/2022 02:30	WG1805030
1,2-Dichloroethane	ND		0.00100	1	01/20/2022 02:30	WG1805030
1,1-Dichloroethene	ND		0.00100	1	01/20/2022 02:30	WG1805030
cis-1,2-Dichloroethene	ND		0.00100	1	01/20/2022 02:30	WG1805030

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.00100	1	01/20/2022 02:30	WG1805030
1,2-Dichloropropane	ND		0.00100	1	01/20/2022 02:30	WG1805030
cis-1,3-Dichloropropene	ND		0.00100	1	01/20/2022 02:30	WG1805030
trans-1,3-Dichloropropene	ND		0.00100	1	01/20/2022 02:30	WG1805030
Ethylbenzene	ND		0.00100	1	01/20/2022 02:30	WG1805030
Hexachloro-1,3-butadiene	ND	R7	0.00100	1	01/20/2022 02:30	WG1805030
2-Hexanone	ND		0.0100	1	01/20/2022 02:30	WG1805030
2-Butanone (MEK)	ND		0.0100	1	01/20/2022 02:30	WG1805030
Iodomethane	ND		0.0100	1	01/20/2022 02:30	WG1805030
Methylene Chloride	ND		0.00500	1	01/20/2022 02:30	WG1805030
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	01/20/2022 02:30	WG1805030
Naphthalene	ND		0.00500	1	01/20/2022 02:30	WG1805030
n-Propylbenzene	ND		0.00100	1	01/20/2022 02:30	WG1805030
Styrene	ND		0.00100	1	01/20/2022 02:30	WG1805030
1,1,1,2-Tetrachloroethane	ND		0.00100	1	01/20/2022 02:30	WG1805030
1,1,2,2-Tetrachloroethane	ND		0.00100	1	01/20/2022 02:30	WG1805030
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	01/20/2022 02:30	WG1805030
Tetrachloroethene	ND		0.00100	1	01/20/2022 02:30	WG1805030
Toluene	ND		0.00100	1	01/20/2022 02:30	WG1805030
1,2,4-Trichlorobenzene	ND	R7	0.00100	1	01/20/2022 02:30	WG1805030
1,1,1-Trichloroethane	ND		0.00100	1	01/20/2022 02:30	WG1805030
1,1,2-Trichloroethane	ND		0.00100	1	01/20/2022 02:30	WG1805030
Trichloroethene	ND		0.00100	1	01/20/2022 02:30	WG1805030
Trichlorofluoromethane	ND		0.00500	1	01/20/2022 02:30	WG1805030
1,2,3-Trichloropropane	ND		0.00250	1	01/20/2022 02:30	WG1805030
1,2,4-Trimethylbenzene	ND		0.00100	1	01/20/2022 02:30	WG1805030
1,3,5-Trimethylbenzene	ND		0.00100	1	01/20/2022 02:30	WG1805030
Vinyl acetate	ND	R7	0.0100	1	01/20/2022 02:30	WG1805030
Vinyl chloride	ND		0.00100	1	01/20/2022 02:30	WG1805030
Xylenes, Total	ND		0.00300	1	01/20/2022 02:30	WG1805030
Di-isopropyl ether	ND		0.00100	1	01/20/2022 02:30	WG1805030
Ethanol	ND	L1 R5	0.100	1	01/20/2022 02:30	WG1805030
Ethyl tert-butyl ether	ND		0.00100	1	01/20/2022 02:30	WG1805030
Methyl tert-butyl ether	2.03		0.0500	50	01/24/2022 19:13	WG1806841
tert-Butyl alcohol	0.0901	R5	0.00500	1	01/20/2022 02:30	WG1805030
tert-Amyl Methyl Ether	0.283		0.0500	50	01/24/2022 19:13	WG1806841
(S) Toluene-d8	*107*		*80.0-120*		*01/20/2022 02:30*	WG1805030
(S) Toluene-d8	*106*		*80.0-120*		*01/24/2022 19:13*	WG1806841
(S) 4-Bromofluorobenzene	*105*		*77.0-126*		*01/20/2022 02:30*	WG1805030
(S) 4-Bromofluorobenzene	*104*		*77.0-126*		*01/24/2022 19:13*	WG1806841
(S) 1,2-Dichloroethane-d4	*87.4*		*70.0-130*		*01/20/2022 02:30*	WG1805030
(S) 1,2-Dichloroethane-d4	*87.5*		*70.0-130*		*01/24/2022 19:13*	WG1806841

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND	R7	0.0500	1	01/20/2022 01:06	WG1805030
Acrylonitrile	ND		0.0100	1	01/20/2022 01:06	WG1805030
Benzene	ND		0.00100	1	01/20/2022 01:06	WG1805030
Bromobenzene	ND		0.00100	1	01/20/2022 01:06	WG1805030
Bromochloromethane	ND		0.00100	1	01/20/2022 01:06	WG1805030
Bromodichloromethane	ND		0.00100	1	01/20/2022 01:06	WG1805030
Bromoform	ND		0.00100	1	01/20/2022 01:06	WG1805030
Bromomethane	ND		0.00500	1	01/20/2022 01:06	WG1805030
n-Butylbenzene	ND		0.00100	1	01/20/2022 01:06	WG1805030
sec-Butylbenzene	ND		0.00100	1	01/20/2022 01:06	WG1805030
tert-Butylbenzene	ND		0.00100	1	01/20/2022 01:06	WG1805030
Carbon tetrachloride	ND		0.00100	1	01/20/2022 01:06	WG1805030
Carbon disulfide	ND		0.00100	1	01/20/2022 01:06	WG1805030
Chlorobenzene	ND		0.00100	1	01/20/2022 01:06	WG1805030
Chlorodibromomethane	ND		0.00100	1	01/20/2022 01:06	WG1805030
Chloroethane	ND		0.00500	1	01/20/2022 01:06	WG1805030
Chloroform	ND		0.00500	1	01/20/2022 01:06	WG1805030
Chloromethane	ND		0.00250	1	01/20/2022 01:06	WG1805030
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	01/20/2022 01:06	WG1805030
1,2-Dibromoethane	ND		0.00100	1	01/20/2022 01:06	WG1805030
Dibromomethane	ND		0.00100	1	01/20/2022 01:06	WG1805030
1,2-Dichlorobenzene	ND		0.00100	1	01/20/2022 01:06	WG1805030
1,3-Dichlorobenzene	ND		0.00100	1	01/20/2022 01:06	WG1805030
1,4-Dichlorobenzene	ND		0.00100	1	01/20/2022 01:06	WG1805030
trans-1,4-Dichloro-2-butene	ND	R7	0.00250	1	01/20/2022 01:06	WG1805030
Dichlorodifluoromethane	ND		0.00500	1	01/20/2022 01:06	WG1805030
1,1-Dichloroethane	ND		0.00100	1	01/20/2022 01:06	WG1805030
1,2-Dichloroethane	ND		0.00100	1	01/20/2022 01:06	WG1805030
1,1-Dichloroethene	ND		0.00100	1	01/20/2022 01:06	WG1805030
cis-1,2-Dichloroethene	ND		0.00100	1	01/20/2022 01:06	WG1805030
trans-1,2-Dichloroethene	ND		0.00100	1	01/20/2022 01:06	WG1805030
1,2-Dichloropropane	ND		0.00100	1	01/20/2022 01:06	WG1805030
cis-1,3-Dichloropropene	ND		0.00100	1	01/20/2022 01:06	WG1805030
trans-1,3-Dichloropropene	ND		0.00100	1	01/20/2022 01:06	WG1805030
Ethylbenzene	ND		0.00100	1	01/20/2022 01:06	WG1805030
Hexachloro-1,3-butadiene	ND	R7	0.00100	1	01/20/2022 01:06	WG1805030
2-Hexanone	ND		0.0100	1	01/20/2022 01:06	WG1805030
2-Butanone (MEK)	ND		0.0100	1	01/20/2022 01:06	WG1805030
Iodomethane	ND		0.0100	1	01/20/2022 01:06	WG1805030
Methylene Chloride	ND		0.00500	1	01/20/2022 01:06	WG1805030
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	01/20/2022 01:06	WG1805030
Naphthalene	ND		0.00500	1	01/20/2022 01:06	WG1805030
n-Propylbenzene	ND		0.00100	1	01/20/2022 01:06	WG1805030
Styrene	ND		0.00100	1	01/20/2022 01:06	WG1805030
1,1,1,2-Tetrachloroethane	ND		0.00100	1	01/20/2022 01:06	WG1805030
1,1,2,2-Tetrachloroethane	ND		0.00100	1	01/20/2022 01:06	WG1805030
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	01/20/2022 01:06	WG1805030
Tetrachloroethene	ND		0.00100	1	01/20/2022 01:06	WG1805030
Toluene	ND		0.00100	1	01/20/2022 01:06	WG1805030
1,2,4-Trichlorobenzene	ND	R7	0.00100	1	01/20/2022 01:06	WG1805030
1,1,1-Trichloroethane	ND		0.00100	1	01/20/2022 01:06	WG1805030
1,1,2-Trichloroethane	ND		0.00100	1	01/20/2022 01:06	WG1805030
Trichloroethene	ND		0.00100	1	01/20/2022 01:06	WG1805030
Trichlorofluoromethane	ND		0.00500	1	01/20/2022 01:06	WG1805030
1,2,3-Trichloropropane	ND		0.00250	1	01/20/2022 01:06	WG1805030
1,2,4-Trimethylbenzene	ND		0.00100	1	01/20/2022 01:06	WG1805030

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
1,3,5-Trimethylbenzene	ND		0.00100	1	01/20/2022 01:06	WG1805030
Vinyl acetate	ND	R7	0.0100	1	01/20/2022 01:06	WG1805030
Vinyl chloride	ND		0.00100	1	01/20/2022 01:06	WG1805030
Xylenes, Total	ND		0.00300	1	01/20/2022 01:06	WG1805030
Di-isopropyl ether	ND		0.00100	1	01/20/2022 01:06	WG1805030
Ethanol	ND	L1 R5	0.100	1	01/20/2022 01:06	WG1805030
Ethyl tert-butyl ether	ND		0.00100	1	01/20/2022 01:06	WG1805030
Methyl tert-butyl ether	ND		0.00100	1	01/20/2022 01:06	WG1805030
tert-Butyl alcohol	ND	R5	0.00500	1	01/20/2022 01:06	WG1805030
tert-Amyl Methyl Ether	ND		0.00100	1	01/20/2022 01:06	WG1805030
(S) Toluene-d8	*106*		*80.0-120*		*01/20/2022 01:06*	WG1805030
(S) 4-Bromofluorobenzene	*102*		*77.0-126*		*01/20/2022 01:06*	WG1805030
(S) 1,2-Dichloroethane-d4	*92.0*		*70.0-130*		*01/20/2022 01:06*	WG1805030

Method Blank (MB)

(MB) R3753820-1 01/24/22 17:28

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1452384-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1452384-01 01/24/22 17:28 • (DUP) R3753820-3 01/24/22 17:28

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1420	1510	1	5.64	R8	5

L1452689-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1452689-02 01/24/22 17:28 • (DUP) R3753820-4 01/24/22 17:28

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1210	1290	1	6.40	R8	5

Laboratory Control Sample (LCS)

(LCS) R3753820-2 01/24/22 17:28

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8210	93.3	77.4-123	

Method Blank (MB)

(MB) R3754134-1 01/25/22 17:56

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1452486-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1452486-02 01/25/22 17:56 • (DUP) R3754134-3 01/25/22 17:56

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	723	751	1	3.80		5

L1452717-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1452717-01 01/25/22 17:56 • (DUP) R3754134-4 01/25/22 17:56

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	692	701	1	1.34		5

Laboratory Control Sample (LCS)

(LCS) R3754134-2 01/25/22 17:56

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	2370	26.9	77.4-123	L2

Method Blank (MB)

(MB) R3751881-1 01/19/22 10:23

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate	U		0.0480	0.100
Nitrite	U		0.0420	0.100
Sulfate	U		0.594	5.00

L1452462-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1452462-01 01/19/22 12:17 • (DUP) R3751881-3 01/19/22 12:30

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	ND	ND	1	0.000		15
Nitrite	ND	ND	1	0.000		15
Sulfate	ND	ND	1	0.000		15

L1452462-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1452462-02 01/19/22 17:30 • (DUP) R3751881-8 01/19/22 17:43

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	2.17	2.22	1	2.59		15
Nitrite	ND	ND	1	0.000		15
Sulfate	59.5	61.5	1	3.30		15

Laboratory Control Sample (LCS)

(LCS) R3751881-2 01/19/22 10:36

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate	8.00	7.90	98.8	80.0-120	
Nitrite	8.00	7.98	99.7	80.0-120	
Sulfate	40.0	40.3	101	80.0-120	

L1452462-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1452462-01 01/19/22 12:17 • (MS) R3751881-4 01/19/22 12:44 • (MSD) R3751881-5 01/19/22 13:23

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 %
Nitrate	5.00	ND	4.83	4.96	96.5	99.2	1	80.0-120			2.68	15
Nitrite	5.00	ND	5.06	5.20	101	104	1	80.0-120			2.65	15
Sulfate	50.0	ND	49.0	50.4	98.0	101	1	80.0-120			2.78	15

L1452486-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1452486-01 01/19/22 14:54 • (MS) R3751881-6 01/19/22 15:07 • (MSD) R3751881-7 01/19/22 15:20

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 %
Nitrate	5.00	2.58	7.40	7.29	96.5	94.3	1	80.0-120			1.50	15
Nitrite	5.00	ND	5.22	5.14	104	103	1	80.0-120			1.61	15
Sulfate	50.0	204	244	239	79.3	70.2	1	80.0-120	E1 M3	E1 M3	1.89	15

Method Blank (MB)

(MB) R3751817-1 01/19/22 10:37

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate	U		0.0480	0.100
Nitrite	U		0.0420	0.100

L1452343-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1452343-02 01/19/22 15:50 • (DUP) R3751817-3 01/19/22 16:04

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	0.408	0.392	1	3.85		15
Nitrite	ND	ND	1	0.000		15

L1452486-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1452486-03 01/19/22 19:48 • (DUP) R3751817-6 01/19/22 20:33

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	2.04	2.02	1	0.980		15
Nitrite	ND	ND	1	0.000		15

Laboratory Control Sample (LCS)

(LCS) R3751817-2 01/19/22 10:52

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate	8.00	8.04	100	80.0-120	
Nitrite	8.00	8.46	106	80.0-120	

L1452343-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1452343-02 01/19/22 15:50 • (MS) R3751817-4 01/19/22 16:19 • (MSD) R3751817-5 01/19/22 16:34

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 %
Nitrate	5.00	0.408	4.59	5.20	83.7	95.9	1	80.0-120			12.5	15
Nitrite	5.00	ND	5.04	5.22	101	104	1	80.0-120			3.56	15

L1452486-03 Original Sample (OS) • Matrix Spike (MS)

(OS) L1452486-03 01/19/22 19:48 • (MS) R3751817-7 01/19/22 20:48

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate	5.00	2.04	7.29	105	1	80.0-120	
Nitrite	5.00	ND	5.20	104	1	80.0-120	

Method Blank (MB)

(MB) R3752600-1 01/21/22 09:46

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Sulfate	U		0.594	5.00

L1453170-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1453170-08 01/21/22 16:56 • (DUP) R3752600-6 01/21/22 19:25

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfate	ND	ND	1	2.36		15

Laboratory Control Sample (LCS)

(LCS) R3752600-2 01/21/22 10:01

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Sulfate	40.0	40.4	101	80.0-120	

L1453170-08 Original Sample (OS) • Matrix Spike (MS)

(OS) L1453170-08 01/21/22 16:56 • (MS) R3752600-7 01/21/22 19:40

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Sulfate	50.0	ND	51.0	99.2	1	80.0-120	

Method Blank (MB)

(MB) R3754864-1 01/28/22 18:19

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Iron	0.0280	E4	0.0180	0.100

Laboratory Control Sample (LCS)

(LCS) R3754864-5 01/28/22 19:51

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Iron	10.0	9.87	98.7	80.0-120	

L1452486-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1452486-01 01/28/22 18:25 • (MS) R3754864-3 01/28/22 18:30 • (MSD) R3754864-4 01/28/22 18:33

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 %
Iron	10.0	ND	10.1	10.1	100	100	1	75.0-125			0.0888	20

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

Method Blank (MB)

(MB) R3752365-2 01/21/22 12:38

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Methane	U		0.00291	0.0100
Ethane	U		0.00407	0.0130
Ethene	U		0.00426	0.0130

L1453228-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1453228-02 01/21/22 13:25 • (DUP) R3752365-3 01/21/22 13:28

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	ND	ND	1	0.000		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20

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

(LCS) R3752365-1 01/21/22 12:33 • (LCSD) R3752365-10 01/21/22 15:03

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Methane	0.0678	0.0708	0.0699	104	103	85.0-115			1.28	20
Ethane	0.129	0.131	0.131	102	102	85.0-115			0.000	20
Ethene	0.127	0.132	0.131	104	103	85.0-115			0.760	20

L1452486-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1452486-01 01/21/22 12:42 • (MS) R3752365-4 01/21/22 13:45 • (MSD) R3752365-5 01/21/22 13:49

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 %
Methane	0.0678	ND	0.0749	0.0710	110	105	1	50.0-150			5.35	20
Ethane	0.129	ND	0.145	0.137	112	106	1	50.0-150			5.67	20
Ethene	0.127	ND	0.146	0.137	115	108	1	50.0-150			6.36	20

L1453226-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1453226-05 01/21/22 13:09 • (MS) R3752365-6 01/21/22 13:53 • (MSD) R3752365-7 01/21/22 14:04

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 %
Methane	0.0678	0.142	0.229	0.224	128	121	1	50.0-150			2.21	20
Ethane	0.129	ND	0.146	0.143	113	111	1	50.0-150			2.08	20

L1453226-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1453226-05 01/21/22 13:09 • (MS) R3752365-6 01/21/22 13:53 • (MSD) R3752365-7 01/21/22 14:04

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 %
Ethene	0.127	ND	0.147	0.144	116	113	1	50.0-150			2.06	20

L1453228-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1453228-01 01/21/22 13:16 • (MS) R3752365-8 01/21/22 14:15 • (MSD) R3752365-9 01/21/22 14:59

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 %
Methane	0.0678	ND	0.0807	0.0744	119	110	1	50.0-150			8.12	20
Ethane	0.129	ND	0.142	0.139	110	108	1	50.0-150			2.14	20
Ethene	0.127	ND	0.143	0.140	113	110	1	50.0-150			2.12	20

Method Blank (MB)

(MB) R3752738-3 01/20/22 00:23

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	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
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
trans-1,4-Dichloro-2-butene	U		0.000467	0.00250
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
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Di-isopropyl ether	U		0.000105	0.00100
Ethylbenzene	U		0.000137	0.00100
Ethanol	U		0.0420	0.100
Hexachloro-1,3-butadiene	U		0.000337	0.00100
2-Hexanone	U		0.000787	0.0100
Iodomethane	U		0.00600	0.0100

Method Blank (MB)

(MB) R3752738-3 01/20/22 00:23

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
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
1,2,4-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
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl acetate	U		0.000692	0.0100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
tert-Amyl Methyl Ether	U		0.000195	0.00100
Ethyl tert-butyl ether	U		0.000101	0.00100
tert-Butyl alcohol	U		0.00406	0.00500
(S) Toluene-d8	*110*			*80.0-120*
(S) 4-Bromofluorobenzene	*104*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*89.4*			*70.0-130*

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

(LCS) R3752738-1 01/19/22 23:14 • (LCSD) R3752738-2 01/19/22 23:34

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	0.0279	0.0183	112	73.2	19.0-160		R7	41.6	27
Acrylonitrile	0.0250	0.0264	0.0240	106	96.0	55.0-149			9.52	20
Benzene	0.00500	0.00475	0.00473	95.0	94.6	70.0-123			0.422	20
Bromobenzene	0.00500	0.00389	0.00453	77.8	90.6	73.0-121			15.2	20

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

(LCS) R3752738-1 01/19/22 23:14 • (LCSD) R3752738-2 01/19/22 23:34

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromodichloromethane	0.00500	0.00406	0.00414	81.2	82.8	75.0-120			1.95	20
Bromochloromethane	0.00500	0.00533	0.00516	107	103	76.0-122			3.24	20
Bromoform	0.00500	0.00390	0.00446	78.0	89.2	68.0-132			13.4	20
Bromomethane	0.00500	0.00428	0.00488	85.6	97.6	10.0-160			13.1	25
n-Butylbenzene	0.00500	0.00411	0.00387	82.2	77.4	73.0-125			6.02	20
sec-Butylbenzene	0.00500	0.00438	0.00462	87.6	92.4	75.0-125			5.33	20
tert-Butylbenzene	0.00500	0.00450	0.00491	90.0	98.2	76.0-124			8.71	20
Carbon disulfide	0.00500	0.00437	0.00428	87.4	85.6	61.0-128			2.08	20
Carbon tetrachloride	0.00500	0.00482	0.00488	96.4	97.6	68.0-126			1.24	20
Chlorobenzene	0.00500	0.00493	0.00511	98.6	102	80.0-121			3.59	20
Chlorodibromomethane	0.00500	0.00429	0.00456	85.8	91.2	77.0-125			6.10	20
Chloroethane	0.00500	0.00481	0.00490	96.2	98.0	47.0-150			1.85	20
Chloroform	0.00500	0.00471	0.00466	94.2	93.2	73.0-120			1.07	20
Chloromethane	0.00500	0.00424	0.00415	84.8	83.0	41.0-142			2.15	20
1,2-Dibromo-3-Chloropropane	0.00500	0.00361	0.00352	72.2	70.4	58.0-134			2.52	20
1,2-Dibromoethane	0.00500	0.00483	0.00503	96.6	101	80.0-122			4.06	20
Dibromomethane	0.00500	0.00454	0.00465	90.8	93.0	80.0-120			2.39	20
1,2-Dichlorobenzene	0.00500	0.00472	0.00483	94.4	96.6	79.0-121			2.30	20
1,3-Dichlorobenzene	0.00500	0.00465	0.00483	93.0	96.6	79.0-120			3.80	20
1,4-Dichlorobenzene	0.00500	0.00463	0.00490	92.6	98.0	79.0-120			5.67	20
trans-1,4-Dichloro-2-butene	0.00500	0.00240	0.00334	48.0	66.8	33.0-144		R7	32.8	20
Dichlorodifluoromethane	0.00500	0.00505	0.00522	101	104	51.0-149			3.31	20
1,1-Dichloroethane	0.00500	0.00468	0.00475	93.6	95.0	70.0-126			1.48	20
1,2-Dichloroethane	0.00500	0.00487	0.00491	97.4	98.2	70.0-128			0.818	20
1,1-Dichloroethene	0.00500	0.00495	0.00483	99.0	96.6	71.0-124			2.45	20
cis-1,2-Dichloroethene	0.00500	0.00491	0.00507	98.2	101	73.0-120			3.21	20
trans-1,2-Dichloroethene	0.00500	0.00487	0.00500	97.4	100	73.0-120			2.63	20
1,2-Dichloropropane	0.00500	0.00449	0.00494	89.8	98.8	77.0-125			9.54	20
cis-1,3-Dichloropropene	0.00500	0.00412	0.00432	82.4	86.4	80.0-123			4.74	20
trans-1,3-Dichloropropene	0.00500	0.00416	0.00437	83.2	87.4	78.0-124			4.92	20
Di-isopropyl ether	0.00500	0.00484	0.00480	96.8	96.0	58.0-138			0.830	20
Ethylbenzene	0.00500	0.00477	0.00505	95.4	101	79.0-123			5.70	20
Hexachloro-1,3-butadiene	0.00500	0.00502	0.00396	100	79.2	54.0-138		R7	23.6	20
2-Hexanone	0.0250	0.0249	0.0252	99.6	101	67.0-149			1.20	20
Iodomethane	0.0250	0.0266	0.0265	106	106	33.0-147			0.377	26
2-Butanone (MEK)	0.0250	0.0257	0.0227	103	90.8	44.0-160			12.4	20
Methylene Chloride	0.00500	0.00488	0.00481	97.6	96.2	67.0-120			1.44	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.0253	0.0250	101	100	68.0-142			1.19	20
Methyl tert-butyl ether	0.00500	0.00496	0.00481	99.2	96.2	68.0-125			3.07	20
Naphthalene	0.00500	0.00320	0.00282	64.0	56.4	54.0-135			12.6	20

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

(LCS) R3752738-1 01/19/22 23:14 • (LCSD) R3752738-2 01/19/22 23:34

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
n-Propylbenzene	0.00500	0.00413	0.00448	82.6	89.6	77.0-124			8.13	20
Styrene	0.00500	0.00459	0.00489	91.8	97.8	73.0-130			6.33	20
1,1,1,2-Tetrachloroethane	0.00500	0.00488	0.00509	97.6	102	75.0-125			4.21	20
1,1,2,2-Tetrachloroethane	0.00500	0.00362	0.00407	72.4	81.4	65.0-130			11.7	20
Tetrachloroethene	0.00500	0.00550	0.00560	110	112	72.0-132			1.80	20
Toluene	0.00500	0.00479	0.00492	95.8	98.4	79.0-120			2.68	20
1,1,2-Trichlorotrifluoroethane	0.00500	0.00523	0.00531	105	106	69.0-132			1.52	20
1,2,4-Trichlorobenzene	0.00500	0.00441	0.00332	88.2	66.4	57.0-137		R7	28.2	20
1,1,1-Trichloroethane	0.00500	0.00501	0.00475	100	95.0	73.0-124			5.33	20
1,1,2-Trichloroethane	0.00500	0.00468	0.00499	93.6	99.8	80.0-120			6.41	20
Trichloroethene	0.00500	0.00555	0.00565	111	113	78.0-124			1.79	20
Trichlorofluoromethane	0.00500	0.00507	0.00489	101	97.8	59.0-147			3.61	20
1,2,3-Trichloropropane	0.00500	0.00437	0.00492	87.4	98.4	73.0-130			11.8	20
1,2,4-Trimethylbenzene	0.00500	0.00420	0.00445	84.0	89.0	76.0-121			5.78	20
1,3,5-Trimethylbenzene	0.00500	0.00424	0.00453	84.8	90.6	76.0-122			6.61	20
Vinyl acetate	0.0250	0.0153	0.0118	61.2	47.2	11.0-160		R7	25.8	20
Vinyl chloride	0.00500	0.00479	0.00477	95.8	95.4	67.0-131			0.418	20
Xylenes, Total	0.0150	0.0143	0.0150	95.3	100	79.0-123			4.78	20
ethanol	0.250	0.594	0.110	238	44.0	10.0-160	L1	R7	138	30
tert-Butyl alcohol	0.0250	0.0301	0.0171	120	68.4	27.0-160		R7	55.1	30
tert-Amyl Methyl Ether	0.00500	0.00458	0.00448	91.6	89.6	66.0-125			2.21	20
Ethyl tert-butyl ether	0.00500	0.00494	0.00478	98.8	95.6	63.0-138			3.29	20
(S) Toluene-d8				*108*	*108*	*80.0-120*				
(S) 4-Bromofluorobenzene				*103*	*101*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*91.8*	*90.9*	*70.0-130*				

L1452484-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1452484-02 01/20/22 01:27 • (MS) R3752738-4 01/20/22 07:46 • (MSD) R3752738-5 01/20/22 08:07

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 %
Bromochloromethane	0.00500	ND	0.00594	0.00674	119	135	1	38.0-142			12.6	26
Acetone	0.0250	ND	ND	ND	89.2	94.0	1	10.0-160			5.24	35
Acrylonitrile	0.0250	ND	0.0247	0.0310	98.8	124	1	21.0-160			22.6	32
Benzene	0.00500	ND	0.00566	0.00618	113	124	1	17.0-158			8.78	27
Bromobenzene	0.00500	ND	0.00466	0.00530	93.2	106	1	30.0-149			12.9	28
Bromodichloromethane	0.00500	ND	0.00506	0.00558	101	112	1	31.0-150			9.77	27
Bromoform	0.00500	ND	0.00499	0.00547	99.8	109	1	29.0-150			9.18	29
Bromomethane	0.00500	ND	0.00517	0.00530	103	106	1	10.0-160			2.48	38

L1452484-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1452484-02 01/20/22 01:27 • (MS) R3752738-4 01/20/22 07:46 • (MSD) R3752738-5 01/20/22 08:07

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 %
trans-1,4-Dichloro-2-butene	0.00500	ND	0.00344	0.00398	68.8	79.6	1	10.0-157			14.6	37
n-Butylbenzene	0.00500	ND	0.00407	0.00500	81.4	100	1	31.0-150			20.5	30
sec-Butylbenzene	0.00500	ND	0.00500	0.00577	100	115	1	33.0-155			14.3	29
tert-Butylbenzene	0.00500	ND	0.00547	0.00592	109	118	1	34.0-153			7.90	28
Carbon disulfide	0.00500	ND	0.00514	0.00577	103	115	1	10.0-156			11.5	28
Carbon tetrachloride	0.00500	ND	0.00590	0.00624	118	125	1	23.0-159			5.60	28
Chlorobenzene	0.00500	ND	0.00586	0.00653	117	131	1	33.0-152			10.8	27
Chlorodibromomethane	0.00500	ND	0.00519	0.00571	104	114	1	37.0-149			9.54	27
Chloroethane	0.00500	ND	0.00564	0.00550	113	110	1	10.0-160			2.51	30
Chloroform	0.00500	ND	0.00555	0.00598	111	120	1	29.0-154			7.46	28
Chloromethane	0.00500	ND	0.00514	0.00547	103	109	1	10.0-160			6.22	29
1,2-Dibromo-3-Chloropropane	0.00500	ND	ND	ND	82.4	95.2	1	22.0-151			14.4	34
1,2-Dibromoethane	0.00500	ND	0.00559	0.00614	112	123	1	34.0-147			9.38	27
Dibromomethane	0.00500	ND	0.00547	0.00594	109	119	1	30.0-151			8.24	27
1,2-Dichlorobenzene	0.00500	ND	0.00536	0.00605	107	121	1	34.0-149			12.1	28
1,3-Dichlorobenzene	0.00500	ND	0.00512	0.00591	102	118	1	36.0-146			14.3	27
2-Hexanone	0.0250	ND	0.0276	0.0305	110	122	1	21.0-160			9.98	29
1,4-Dichlorobenzene	0.00500	ND	0.00516	0.00612	103	122	1	35.0-142			17.0	27
Iodomethane	0.0250	ND	0.0318	0.0336	127	134	1	10.0-160			5.50	40
Dichlorodifluoromethane	0.00500	ND	0.00554	0.00653	111	131	1	10.0-160			16.4	29
1,1-Dichloroethane	0.00500	ND	0.00571	0.00615	114	123	1	25.0-158			7.42	27
1,2-Dichloroethane	0.00500	ND	0.00636	0.00680	114	123	1	29.0-151			6.69	27
1,1-Dichloroethene	0.00500	ND	0.00602	0.00674	120	135	1	11.0-160			11.3	29
cis-1,2-Dichloroethene	0.00500	ND	0.00578	0.00618	116	124	1	10.0-160			6.69	27
trans-1,2-Dichloroethene	0.00500	ND	0.00571	0.00646	114	129	1	17.0-153			12.3	27
1,2-Dichloropropane	0.00500	ND	0.00536	0.00612	107	122	1	30.0-156			13.2	27
cis-1,3-Dichloropropene	0.00500	ND	0.00494	0.00537	98.8	107	1	34.0-149			8.34	28
trans-1,3-Dichloropropene	0.00500	ND	0.00488	0.00513	97.6	103	1	32.0-149			5.00	28
Di-isopropyl ether	0.00500	ND	0.00570	0.00598	114	120	1	21.0-160			4.79	28
Ethylbenzene	0.00500	ND	0.00562	0.00627	112	125	1	30.0-155			10.9	27
Hexachloro-1,3-butadiene	0.00500	ND	0.00458	0.00559	91.6	112	1	20.0-154			19.9	34
2-Butanone (MEK)	0.0250	ND	0.0251	0.0334	100	134	1	10.0-160			28.4	32
Methylene Chloride	0.00500	ND	0.00569	0.00625	114	125	1	23.0-144			9.38	28
4-Methyl-2-pentanone (MIBK)	0.0250	ND	0.0306	0.0339	122	136	1	29.0-160			10.2	29
Methyl tert-butyl ether	0.00500	0.0793	0.0888	0.0921	190	256	1	28.0-150	M3	M3	3.65	29
Vinyl acetate	0.0250	ND	0.0309	0.0334	124	134	1	12.0-160			7.78	31
Naphthalene	0.00500	ND	ND	ND	76.6	95.2	1	12.0-156			21.7	35
n-Propylbenzene	0.00500	ND	0.00462	0.00543	92.4	109	1	31.0-154			16.1	28
Styrene	0.00500	ND	0.00539	0.00607	108	121	1	33.0-155			11.9	28
1,1,1,2-Tetrachloroethane	0.00500	ND	0.00587	0.00626	117	125	1	36.0-151			6.43	29

L1452484-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1452484-02 01/20/22 01:27 • (MS) R3752738-4 01/20/22 07:46 • (MSD) R3752738-5 01/20/22 08:07

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 %
1,1,2,2-Tetrachloroethane	0.00500	ND	0.00491	0.00538	98.2	108	1	33.0-150			9.14	28
Tetrachloroethene	0.00500	ND	0.00556	0.00687	111	137	1	10.0-160			21.1	27
Toluene	0.00500	ND	0.00577	0.00634	100	112	1	26.0-154			9.41	28
1,1,2-Trichlorotrifluoroethane	0.00500	ND	0.00532	0.00688	106	138	1	23.0-160			25.6	30
1,2,4-Trichlorobenzene	0.00500	ND	0.00423	0.00544	84.6	109	1	24.0-150			25.0	33
1,1,1-Trichloroethane	0.00500	ND	0.00617	0.00660	123	132	1	23.0-160			6.73	28
1,1,2-Trichloroethane	0.00500	ND	0.00560	0.00607	112	121	1	35.0-147			8.05	27
Trichloroethene	0.00500	ND	0.00584	0.00648	117	130	1	10.0-160			10.4	25
Trichlorofluoromethane	0.00500	ND	0.00529	0.00630	106	126	1	17.0-160			17.4	31
1,2,3-Trichloropropane	0.00500	ND	0.00506	0.00569	101	114	1	34.0-151			11.7	29
1,2,4-Trimethylbenzene	0.00500	ND	0.00474	0.00550	94.8	110	1	26.0-154			14.8	27
1,3,5-Trimethylbenzene	0.00500	ND	0.00477	0.00545	95.4	109	1	28.0-153			13.3	27
Vinyl chloride	0.00500	ND	0.00601	0.00648	120	130	1	10.0-160			7.53	27
Xylenes, Total	0.0150	ND	0.0169	0.0188	108	121	1	29.0-154			10.6	28
ethanol	0.250	ND	0.238	ND	95.2	0.000	1	50.0-150		M2 R5	200	20
tert-Butyl alcohol	0.0250	0.0230	0.0362	0.0361	52.8	52.4	1	50.0-150			0.277	20
tert-Amyl Methyl Ether	0.00500	ND	0.00542	0.00598	108	120	1	10.0-160			9.82	37
Ethyl tert-butyl ether	0.00500	ND	0.00558	0.00587	112	117	1	10.0-160			5.07	37
(S) Toluene-d8					*106*	*105*		*80.0-120*				
(S) 4-Bromofluorobenzene					*104*	*102*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*91.1*	*91.5*		*70.0-130*				

L1452486-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1452486-01 01/20/22 01:48 • (MS) R3752738-6 01/20/22 08:28 • (MSD) R3752738-7 01/20/22 08:50

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 %
Bromochloromethane	0.00500	ND	0.00668	0.00562	134	112	1	38.0-142			17.2	26
Acetone	0.0250	ND	ND	ND	87.6	92.4	1	10.0-160			5.33	35
Acrylonitrile	0.0250	ND	0.0261	0.0247	104	98.8	1	21.0-160			5.51	32
Benzene	0.00500	ND	0.00644	0.00538	129	108	1	17.0-158			17.9	27
Bromobenzene	0.00500	ND	0.00543	0.00431	109	86.2	1	30.0-149			23.0	28
Bromodichloromethane	0.00500	ND	0.00568	0.00479	114	95.8	1	31.0-150			17.0	27
Bromoform	0.00500	ND	0.00568	0.00477	114	95.4	1	29.0-150			17.4	29
Bromomethane	0.00500	ND	0.00602	0.00502	120	100	1	10.0-160			18.1	38
trans-1,4-Dichloro-2-butene	0.00500	ND	0.00401	0.00319	80.2	63.8	1	10.0-157			22.8	37
n-Butylbenzene	0.00500	ND	0.00490	0.00419	98.0	83.8	1	31.0-150			15.6	30
sec-Butylbenzene	0.00500	ND	0.00611	0.00493	122	98.6	1	33.0-155			21.4	29
tert-Butylbenzene	0.00500	ND	0.00638	0.00502	128	100	1	34.0-153			23.9	28

L1452486-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1452486-01 01/20/22 01:48 • (MS) R3752738-6 01/20/22 08:28 • (MSD) R3752738-7 01/20/22 08:50

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 %
Carbon disulfide	0.00500	ND	0.00526	0.00475	105	95.0	1	10.0-156			10.2	28
Carbon tetrachloride	0.00500	ND	0.00680	0.00535	136	107	1	23.0-159			23.9	28
Chlorobenzene	0.00500	ND	0.00657	0.00552	131	110	1	33.0-152			17.4	27
Chlorodibromomethane	0.00500	ND	0.00586	0.00494	117	98.8	1	37.0-149			17.0	27
Chloroethane	0.00500	ND	0.00590	ND	118	94.8	1	10.0-160			21.8	30
Chloroform	0.00500	ND	0.00657	0.00557	131	111	1	29.0-154			16.5	28
Chloromethane	0.00500	ND	0.00519	0.00492	104	98.4	1	10.0-160			5.34	29
1,2-Dibromo-3-Chloropropane	0.00500	ND	ND	ND	86.2	80.6	1	22.0-151			6.71	34
1,2-Dibromoethane	0.00500	ND	0.00610	0.00512	122	102	1	34.0-147			17.5	27
Dibromomethane	0.00500	ND	0.00612	0.00499	122	99.8	1	30.0-151			20.3	27
1,2-Dichlorobenzene	0.00500	ND	0.00622	0.00517	124	103	1	34.0-149			18.4	28
1,3-Dichlorobenzene	0.00500	ND	0.00613	0.00504	123	101	1	36.0-146			19.5	27
2-Hexanone	0.0250	ND	0.0312	0.0262	125	105	1	21.0-160			17.4	29
1,4-Dichlorobenzene	0.00500	ND	0.00620	0.00488	124	97.6	1	35.0-142			23.8	27
Iodomethane	0.0250	ND	0.0332	0.0286	133	114	1	10.0-160			14.9	40
Dichlorodifluoromethane	0.00500	ND	0.00585	0.00541	117	108	1	10.0-160			7.82	29
1,1-Dichloroethane	0.00500	ND	0.00594	0.00505	119	101	1	25.0-158			16.2	27
1,2-Dichloroethane	0.00500	ND	0.00586	0.00506	117	101	1	29.0-151			14.7	27
1,1-Dichloroethene	0.00500	ND	0.00606	0.00567	121	113	1	11.0-160			6.65	29
cis-1,2-Dichloroethene	0.00500	ND	0.00622	0.00525	124	105	1	10.0-160			16.9	27
trans-1,2-Dichloroethene	0.00500	ND	0.00612	0.00529	122	106	1	17.0-153			14.5	27
1,2-Dichloropropane	0.00500	ND	0.00615	0.00541	123	108	1	30.0-156			12.8	27
cis-1,3-Dichloropropene	0.00500	ND	0.00562	0.00461	112	92.2	1	34.0-149			19.7	28
trans-1,3-Dichloropropene	0.00500	ND	0.00550	0.00454	110	90.8	1	32.0-149			19.1	28
Di-isopropyl ether	0.00500	ND	0.0100	0.00658	200	132	1	21.0-160	M1	R5	41.3	28
Ethylbenzene	0.00500	ND	0.00653	0.00544	131	109	1	30.0-155			18.2	27
Hexachloro-1,3-butadiene	0.00500	ND	0.00533	0.00521	107	104	1	20.0-154			2.28	34
2-Butanone (MEK)	0.0250	ND	0.0296	0.0260	118	104	1	10.0-160			12.9	32
Methylene Chloride	0.00500	ND	0.00555	0.00532	111	106	1	23.0-144			4.23	28
4-Methyl-2-pentanone (MIBK)	0.0250	ND	0.0300	0.0260	120	104	1	29.0-160			14.3	29
Methyl tert-butyl ether	0.00500	1.83	1.85	1.71	400	0.000	1	28.0-150	E1 M3	E1 M3	7.87	29
Vinyl acetate	0.0250	ND	0.0328	0.0280	131	112	1	12.0-160			15.8	31
Naphthalene	0.00500	ND	ND	ND	81.0	82.0	1	12.0-156			1.23	35
n-Propylbenzene	0.00500	ND	0.00572	0.00452	114	90.4	1	31.0-154			23.4	28
Styrene	0.00500	ND	0.00605	0.00496	121	99.2	1	33.0-155			19.8	28
1,1,1,2-Tetrachloroethane	0.00500	ND	0.00627	0.00546	125	109	1	36.0-151			13.8	29
1,1,2,2-Tetrachloroethane	0.00500	ND	0.00544	0.00446	109	89.2	1	33.0-150			19.8	28
Tetrachloroethene	0.00500	ND	0.00717	0.00600	143	120	1	10.0-160			17.8	27
Toluene	0.00500	ND	0.00650	0.00517	130	103	1	26.0-154			22.8	28
1,1,2-Trichlorotrifluoroethane	0.00500	ND	0.00604	0.00575	121	115	1	23.0-160			4.92	30

L1452486-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1452486-01 01/20/22 01:48 • (MS) R3752738-6 01/20/22 08:28 • (MSD) R3752738-7 01/20/22 08:50

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 %
1,2,4-Trichlorobenzene	0.00500	ND	0.00480	0.00475	96.0	95.0	1	24.0-150			1.05	33
1,1,1-Trichloroethane	0.00500	ND	0.00668	0.00553	134	111	1	23.0-160			18.8	28
1,1,2-Trichloroethane	0.00500	ND	0.00619	0.00526	124	105	1	35.0-147			16.2	27
Trichloroethene	0.00500	ND	0.00676	0.00555	135	111	1	10.0-160			19.7	25
Trichlorofluoromethane	0.00500	ND	0.00587	0.00563	117	113	1	17.0-160			4.17	31
1,2,3-Trichloropropane	0.00500	ND	0.00604	0.00467	121	93.4	1	34.0-151			25.6	29
1,2,4-Trimethylbenzene	0.00500	ND	0.00560	0.00463	112	92.6	1	26.0-154			19.0	27
1,3,5-Trimethylbenzene	0.00500	ND	0.00579	0.00461	116	92.2	1	28.0-153			22.7	27
Vinyl chloride	0.00500	ND	0.00620	0.00545	124	109	1	10.0-160			12.9	27
Xylenes, Total	0.0150	ND	0.0194	0.0163	129	109	1	29.0-154			17.4	28
ethanol	0.250	ND	0.155	0.199	62.0	79.6	1	50.0-150		R5	24.9	20
tert-Butyl alcohol	0.0250	0.0374	0.0467	0.0605	37.2	92.4	1	50.0-150	M2	R5	25.7	20
tert-Amyl Methyl Ether	0.00500	0.535	0.562	0.530	540	0.000	1	10.0-160	E1 M3	E1 M3	5.86	37
Ethyl tert-butyl ether	0.00500	ND	0.00599	0.00512	120	102	1	10.0-160			15.7	37
(S) Toluene-d8					*106*	*106*		*80.0-120*				
(S) 4-Bromofluorobenzene					*102*	*104*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*85.8*	*87.7*		*70.0-130*				

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

Method Blank (MB)

(MB) R3753078-3 01/24/22 11:23

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Methyl tert-butyl ether	U		0.000101	0.00100
tert-Amyl Methyl Ether	U		0.000195	0.00100
(S) Toluene-d8	*107*			*80.0-120*
(S) 4-Bromofluorobenzene	*98.5*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*88.3*			*70.0-130*

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

(LCS) R3753078-1 01/24/22 09:34 • (LCSD) R3753078-2 01/24/22 09:55

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Methyl tert-butyl ether	0.00500	0.00497	0.00514	99.4	103	68.0-125			3.36	20
tert-Amyl Methyl Ether	0.00500	0.00481	0.00492	96.2	98.4	66.0-125			2.26	20
(S) Toluene-d8				*105*	*106*	*80.0-120*				
(S) 4-Bromofluorobenzene				*101*	*104*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*88.8*	*91.1*	*70.0-130*				

INTERNAL STANDARD SUMMARY

Instrument: VOCMS33 • File ID: 0119_53

01/19/22 23:14

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0119_53	260829	115572	135241
Upper Limit		521658	231144	270482
Lower Limit		130415	57786	67621
LCS R3752738-1 WG1805030 1x	0119_53LCS	260829	115572	135241
LCSD R3752738-2 WG1805030 1x	0119_54	248322	111679	119788
BLANK R3752738-3 WG1805030 1x	0119_56	260488	111937	131169
L1452486-04 WG1805030 1x	0119_58	251947	114442	132447
L1452486-01 WG1805030 1x	0119_60	248691	115362	138270
L1452486-02 WG1805030 1x	0119_61	254151	112803	136869
L1452486-03 WG1805030 1x	0119_62	250904	113918	137147
MS R3752738-4 WG1805030 1x	0119_77	230755	106532	123281
MSD R3752738-5 WG1805030 1x	0119_78	228233	106647	123180
MS R3752738-6 WG1805030 1x	0119_79	249565	118687	130400
MSD R3752738-7 WG1805030 1x	0119_80	258838	122061	145728

Instrument: VOCMS33 • File ID: 0124_02

01/24/22 09:34

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0124_02	250321	112978	110173
Upper Limit		500642	225956	220346
Lower Limit		125161	56489	55087
LCS R3753078-1 WG1806841 1x	0124_02LCS	250321	112978	110173
LCSD R3753078-2 WG1806841 1x	0124_03	238764	104102	106038
BLANK R3753078-3 WG1806841 1x	0124_07	233998	102788	101467
L1452486-02 WG1806841 1x	0124_08	228811	100310	101252
L1452486-01 WG1806841 50x	0124_28	215156	96643	97287
L1452486-03 WG1806841 50x	0124_29	220343	97023	98464

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

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	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
E1	Concentration estimated. Analyte exceeded calibration range. Reanalysis not possible due to insufficient sample.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
L1	The associated blank spike recovery was above laboratory acceptance limits.
L2	The associated blank spike recovery was below laboratory acceptance limits.
M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike recovery was acceptable.
R5	MS/MSD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.
R7	LFB/LFBD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.
R8	Sample RPD exceeded the method acceptance limit.

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:
Kinder Morgan - Rocklin, CA-AZ Work

410 N.44th Street
Suite 1000
Phoenix. AZ 85008

Billing Information:
Accounts Payable- Alan Van Antwerp
9950 SAN DIEGO MISSION RD.
SAN DIEGO, CA 92108

Pres Chk

Report to:
Bob Forsberg

Email To: **bob.forsberg@arcadis-us.com;sascha.arnold@arcadis.com**

Project Description:
KMEP Silvercroft Wash

City/State Collected: Tucson, AZ

Please Circle: PT (MT) CT ET

Phone: **602-438-0883**

Client Project # ~~30106087.01~~ 30113573.01

Lab Project # **KINARCPAZ-SILVERCROF**

Collected by (print): MAT / SXA

Site/Facility ID # **SILVERCROFT WASH**

P.O. # **WD876456**

Collected by (signature): M. Tami

Immediately Packed on Ice N ___ Y X

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: STD TURN

No. of Cntrs

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	*NO2,NO3,SO4,TDS 250mlHDPE-NoPres	EEM RSK175 40mlAmb HCl	HOLD - NO2+NO3 250mlHDPE-H2SO4	Total Fe 6010 250mlHDPE-HNO3	VOCs+OXYs 8260 40mlAmb-HCl	Remarks	Sample # (lab only)
							2	2					
							✓	✓					
~~MW-2D~~		GW											
		GW											
MW-2M	G	GW	199	1/18/22	1242	16	X	X	X	X	X	R/TNS/NSD	-01
MW-1M	↓	GW	199	↓	1352	8	X	X	X	X	X		-02
MW-29M	↓	GW	199	↓	1457	8	X	X	X	X	X		-03
		GW											
		GW											
		GW											
		GW											
Trip Blank	—	~~GW~~	—	1/18/22		1					X		-04

Chain of Custody Page 1 of 1

Pace Analytical®

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1452486

E019

Acctnum: **KINARCPAZ**
Template: **T190237**
Prelogin: **P894954**
PM: **110 - Brian Ford**
PB:
Shipped Via:

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:*NO2,NO3 have a 48 hour holding time.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: (Yes) / No (HCl) / MeoH TBR	Remarks
M. Tami	1/18/22	1530		1	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: NSA 7°C 1.4+0=1.4 Bottles Received: 8 32	If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) O. Ramsey	Date: 1-19-22 Time: 8:45	Hold: / Condition: NCF / OK

ANALYTICAL REPORT

February 01, 2022

Kinder Morgan - Rocklin, CA-AZ Work

Sample Delivery Group:	L1453228
Samples Received:	01/20/2022
Project Number:	30113573.01
Description:	KMEP Silvercroft Wash
Site:	SILVERCROFT WASH
Report To:	Bob Forsberg 410 N.44th Street Suite 1000 Phoenix, AZ 85008

Entire Report Reviewed By:

Brian Ford

Project Manager

TABLE OF CONTENTS

MW-2S L1453228-01 GW

Collected by: SXA/MAT | Collected date/time: 01/19/22 10:17 | Received date/time: 01/20/22 12:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1808018	1	01/26/22 02:03	01/26/22 04:00	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1805654	1	01/20/22 23:55	01/20/22 23:55	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1805654	5	01/21/22 00:39	01/21/22 00:39	RAF	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1809324	1	01/30/22 23:44	01/31/22 13:08	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1805960	1	01/21/22 13:16	01/21/22 13:16	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1805731	10	01/21/22 05:22	01/21/22 05:22	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1807338	1000	01/24/22 22:57	01/24/22 22:57	BMB	Mt. Juliet, TN

MW-29S L1453228-02 GW

Collected by: SXA/MAT | Collected date/time: 01/19/22 11:57 | Received date/time: 01/20/22 12:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1808326	1	01/26/22 15:47	01/26/22 17:34	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1805654	1	01/21/22 00:54	01/21/22 00:54	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1805654	5	01/21/22 01:09	01/21/22 01:09	RAF	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1809324	1	01/30/22 23:44	01/31/22 13:54	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1805960	1	01/21/22 13:25	01/21/22 13:25	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1807256	1000	01/24/22 22:14	01/24/22 22:14	BMB	Mt. Juliet, TN

MW-26 L1453228-03 GW

Collected by: SXA/MAT | Collected date/time: 01/19/22 13:27 | Received date/time: 01/20/22 12:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1808300	1	01/26/22 13:23	01/26/22 14:30	BRG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1805654	1	01/21/22 01:24	01/21/22 01:24	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1809324	1	01/30/22 23:44	01/31/22 13:57	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1805960	1	01/21/22 13:38	01/21/22 13:38	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1805731	200	01/21/22 06:03	01/21/22 06:03	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1807256	200	01/24/22 22:36	01/24/22 22:36	BMB	Mt. Juliet, TN

MW-26-DUP L1453228-04 GW

Collected by: SXA/MAT | Collected date/time: 01/19/22 13:32 | Received date/time: 01/20/22 12:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1808300	1	01/26/22 13:23	01/26/22 14:30	BRG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1805654	1	01/21/22 01:39	01/21/22 01:39	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1809324	1	01/30/22 23:44	01/31/22 13:59	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1805960	1	01/21/22 13:41	01/21/22 13:41	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1805731	200	01/21/22 06:23	01/21/22 06:23	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1807256	200	01/24/22 22:58	01/24/22 22:58	BMB	Mt. Juliet, TN

EQUIPMENT BLANK-3 L1453228-05 GW

Collected by: SXA/MAT | Collected date/time: 01/19/22 08:55 | Received date/time: 01/20/22 12:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1805731	1	01/21/22 01:16	01/21/22 01:16	ACG	Mt. Juliet, TN

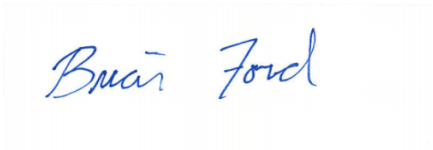
TRIP BLANK L1453228-06 GW

Collected by	Collected date/time	Received date/time
SXA/MAT	01/19/22 00:00	01/20/22 12:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1805731	1	01/20/22 23:55	01/20/22 23:55	ACG	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.



Brian Ford
Project Manager

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	865		13.3	1	01/26/2022 04:00	WG1808018

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	ND		0.100	1	01/20/2022 23:55	WG1805654
Nitrite	ND		0.100	1	01/20/2022 23:55	WG1805654
Sulfate	298		25.0	5	01/21/2022 00:39	WG1805654

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	ND		0.100	1	01/31/2022 13:08	WG1809324

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	01/21/2022 13:16	WG1805960
Ethane	ND		0.0130	1	01/21/2022 13:16	WG1805960
Ethene	ND		0.0130	1	01/21/2022 13:16	WG1805960

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.500	10	01/21/2022 05:22	WG1805731
Acrylonitrile	ND		0.100	10	01/21/2022 05:22	WG1805731
Benzene	ND		0.0100	10	01/21/2022 05:22	WG1805731
Bromobenzene	ND		0.0100	10	01/21/2022 05:22	WG1805731
Bromochloromethane	ND		0.0100	10	01/21/2022 05:22	WG1805731
Bromodichloromethane	ND		0.0100	10	01/21/2022 05:22	WG1805731
Bromoform	ND		0.0100	10	01/21/2022 05:22	WG1805731
Bromomethane	ND		0.0500	10	01/21/2022 05:22	WG1805731
n-Butylbenzene	ND		0.0100	10	01/21/2022 05:22	WG1805731
sec-Butylbenzene	ND		0.0100	10	01/21/2022 05:22	WG1805731
tert-Butylbenzene	ND		0.0100	10	01/21/2022 05:22	WG1805731
Carbon tetrachloride	ND		0.0100	10	01/21/2022 05:22	WG1805731
Carbon disulfide	ND		0.0100	10	01/21/2022 05:22	WG1805731
Chlorobenzene	ND		0.0100	10	01/21/2022 05:22	WG1805731
Chlorodibromomethane	ND		0.0100	10	01/21/2022 05:22	WG1805731
Chloroethane	ND		0.0500	10	01/21/2022 05:22	WG1805731
Chloroform	ND		0.0500	10	01/21/2022 05:22	WG1805731
Chloromethane	ND		0.0250	10	01/21/2022 05:22	WG1805731
1,2-Dibromo-3-Chloropropane	ND		0.0500	10	01/21/2022 05:22	WG1805731
1,2-Dibromoethane	ND		0.0100	10	01/21/2022 05:22	WG1805731
Dibromomethane	ND		0.0100	10	01/21/2022 05:22	WG1805731
1,2-Dichlorobenzene	ND		0.0100	10	01/21/2022 05:22	WG1805731
1,3-Dichlorobenzene	ND		0.0100	10	01/21/2022 05:22	WG1805731
1,4-Dichlorobenzene	ND		0.0100	10	01/21/2022 05:22	WG1805731
trans-1,4-Dichloro-2-butene	ND		0.0250	10	01/21/2022 05:22	WG1805731
Dichlorodifluoromethane	ND		0.0500	10	01/21/2022 05:22	WG1805731
1,1-Dichloroethane	ND		0.0100	10	01/21/2022 05:22	WG1805731
1,2-Dichloroethane	ND		0.0100	10	01/21/2022 05:22	WG1805731
1,1-Dichloroethene	ND		0.0100	10	01/21/2022 05:22	WG1805731
cis-1,2-Dichloroethene	ND		0.0100	10	01/21/2022 05:22	WG1805731

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.0100	10	01/21/2022 05:22	WG1805731
1,2-Dichloropropane	ND		0.0100	10	01/21/2022 05:22	WG1805731
cis-1,3-Dichloropropene	ND		0.0100	10	01/21/2022 05:22	WG1805731
trans-1,3-Dichloropropene	ND		0.0100	10	01/21/2022 05:22	WG1805731
Ethylbenzene	ND		0.0100	10	01/21/2022 05:22	WG1805731
Hexachloro-1,3-butadiene	ND	R5	0.0100	10	01/21/2022 05:22	WG1805731
2-Hexanone	ND		0.100	10	01/21/2022 05:22	WG1805731
2-Butanone (MEK)	ND		0.100	10	01/21/2022 05:22	WG1805731
Iodomethane	ND		0.100	10	01/21/2022 05:22	WG1805731
Methylene Chloride	ND		0.0500	10	01/21/2022 05:22	WG1805731
4-Methyl-2-pentanone (MIBK)	ND		0.100	10	01/21/2022 05:22	WG1805731
Naphthalene	ND		0.0500	10	01/21/2022 05:22	WG1805731
n-Propylbenzene	ND		0.0100	10	01/21/2022 05:22	WG1805731
Styrene	ND		0.0100	10	01/21/2022 05:22	WG1805731
1,1,1,2-Tetrachloroethane	ND		0.0100	10	01/21/2022 05:22	WG1805731
1,1,2,2-Tetrachloroethane	ND		0.0100	10	01/21/2022 05:22	WG1805731
1,1,2-Trichlorotrifluoroethane	ND		0.0100	10	01/21/2022 05:22	WG1805731
Tetrachloroethene	ND		0.0100	10	01/21/2022 05:22	WG1805731
Toluene	ND		0.0100	10	01/21/2022 05:22	WG1805731
1,2,4-Trichlorobenzene	ND		0.0100	10	01/21/2022 05:22	WG1805731
1,1,1-Trichloroethane	ND		0.0100	10	01/21/2022 05:22	WG1805731
1,1,2-Trichloroethane	ND		0.0100	10	01/21/2022 05:22	WG1805731
Trichloroethene	ND		0.0100	10	01/21/2022 05:22	WG1805731
Trichlorofluoromethane	ND	L2	0.0500	10	01/21/2022 05:22	WG1805731
1,2,3-Trichloropropane	ND		0.0250	10	01/21/2022 05:22	WG1805731
1,2,4-Trimethylbenzene	ND		0.0100	10	01/21/2022 05:22	WG1805731
1,3,5-Trimethylbenzene	ND		0.0100	10	01/21/2022 05:22	WG1805731
Vinyl acetate	ND		0.100	10	01/21/2022 05:22	WG1805731
Vinyl chloride	ND		0.0100	10	01/21/2022 05:22	WG1805731
Xylenes, Total	ND		0.0300	10	01/21/2022 05:22	WG1805731
Di-isopropyl ether	ND	M1	0.0100	10	01/21/2022 05:22	WG1805731
Ethanol	ND	L1 M1 R5	1.00	10	01/21/2022 05:22	WG1805731
Ethyl tert-butyl ether	ND		0.0100	10	01/21/2022 05:22	WG1805731
Methyl tert-butyl ether	98.6		1.00	1000	01/24/2022 22:57	WG1807338
tert-Butyl alcohol	ND	M1	0.0500	10	01/21/2022 05:22	WG1805731
tert-Amyl Methyl Ether	12.0		1.00	1000	01/24/2022 22:57	WG1807338
(S) Toluene-d8	*107*		*80.0-120*		*01/21/2022 05:22*	WG1805731
(S) Toluene-d8	*79.9*	S6	*80.0-120*		*01/24/2022 22:57*	WG1807338
(S) 4-Bromofluorobenzene	*101*		*77.0-126*		*01/21/2022 05:22*	WG1805731
(S) 4-Bromofluorobenzene	*82.6*		*77.0-126*		*01/24/2022 22:57*	WG1807338
(S) 1,2-Dichloroethane-d4	*102*		*70.0-130*		*01/21/2022 05:22*	WG1805731
(S) 1,2-Dichloroethane-d4	*92.1*		*70.0-130*		*01/24/2022 22:57*	WG1807338

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	828		13.3	1	01/26/2022 17:34	WG1808326

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	ND		0.100	1	01/21/2022 00:54	WG1805654
Nitrite	ND		0.100	1	01/21/2022 00:54	WG1805654
Sulfate	372		25.0	5	01/21/2022 01:09	WG1805654

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	ND		0.100	1	01/31/2022 13:54	WG1809324

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	01/21/2022 13:25	WG1805960
Ethane	ND		0.0130	1	01/21/2022 13:25	WG1805960
Ethene	ND		0.0130	1	01/21/2022 13:25	WG1805960

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		50.0	1000	01/24/2022 22:14	WG1807256
Acrylonitrile	ND		10.0	1000	01/24/2022 22:14	WG1807256
Benzene	ND		1.00	1000	01/24/2022 22:14	WG1807256
Bromobenzene	ND		1.00	1000	01/24/2022 22:14	WG1807256
Bromochloromethane	ND		1.00	1000	01/24/2022 22:14	WG1807256
Bromodichloromethane	ND		1.00	1000	01/24/2022 22:14	WG1807256
Bromoform	ND		1.00	1000	01/24/2022 22:14	WG1807256
Bromomethane	ND		5.00	1000	01/24/2022 22:14	WG1807256
n-Butylbenzene	ND		1.00	1000	01/24/2022 22:14	WG1807256
sec-Butylbenzene	ND		1.00	1000	01/24/2022 22:14	WG1807256
tert-Butylbenzene	ND		1.00	1000	01/24/2022 22:14	WG1807256
Carbon tetrachloride	ND		1.00	1000	01/24/2022 22:14	WG1807256
Carbon disulfide	ND		1.00	1000	01/24/2022 22:14	WG1807256
Chlorobenzene	ND		1.00	1000	01/24/2022 22:14	WG1807256
Chlorodibromomethane	ND		1.00	1000	01/24/2022 22:14	WG1807256
Chloroethane	ND		5.00	1000	01/24/2022 22:14	WG1807256
Chloroform	ND		5.00	1000	01/24/2022 22:14	WG1807256
Chloromethane	ND		2.50	1000	01/24/2022 22:14	WG1807256
1,2-Dibromo-3-Chloropropane	ND		5.00	1000	01/24/2022 22:14	WG1807256
1,2-Dibromoethane	ND		1.00	1000	01/24/2022 22:14	WG1807256
Dibromomethane	ND		1.00	1000	01/24/2022 22:14	WG1807256
1,2-Dichlorobenzene	ND		1.00	1000	01/24/2022 22:14	WG1807256
1,3-Dichlorobenzene	ND		1.00	1000	01/24/2022 22:14	WG1807256
1,4-Dichlorobenzene	ND		1.00	1000	01/24/2022 22:14	WG1807256
trans-1,4-Dichloro-2-butene	ND		2.50	1000	01/24/2022 22:14	WG1807256
Dichlorodifluoromethane	ND		5.00	1000	01/24/2022 22:14	WG1807256
1,1-Dichloroethane	ND		1.00	1000	01/24/2022 22:14	WG1807256
1,2-Dichloroethane	ND		1.00	1000	01/24/2022 22:14	WG1807256
1,1-Dichloroethene	ND		1.00	1000	01/24/2022 22:14	WG1807256
cis-1,2-Dichloroethene	ND		1.00	1000	01/24/2022 22:14	WG1807256

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		1.00	1000	01/24/2022 22:14	WG1807256
1,2-Dichloropropane	ND		1.00	1000	01/24/2022 22:14	WG1807256
cis-1,3-Dichloropropene	ND		1.00	1000	01/24/2022 22:14	WG1807256
trans-1,3-Dichloropropene	ND		1.00	1000	01/24/2022 22:14	WG1807256
Ethylbenzene	ND		1.00	1000	01/24/2022 22:14	WG1807256
Hexachloro-1,3-butadiene	ND		1.00	1000	01/24/2022 22:14	WG1807256
2-Hexanone	ND		10.0	1000	01/24/2022 22:14	WG1807256
2-Butanone (MEK)	ND		10.0	1000	01/24/2022 22:14	WG1807256
Iodomethane	ND		10.0	1000	01/24/2022 22:14	WG1807256
Methylene Chloride	ND		5.00	1000	01/24/2022 22:14	WG1807256
4-Methyl-2-pentanone (MIBK)	ND		10.0	1000	01/24/2022 22:14	WG1807256
Naphthalene	ND		5.00	1000	01/24/2022 22:14	WG1807256
n-Propylbenzene	ND		1.00	1000	01/24/2022 22:14	WG1807256
Styrene	ND		1.00	1000	01/24/2022 22:14	WG1807256
1,1,1,2-Tetrachloroethane	ND		1.00	1000	01/24/2022 22:14	WG1807256
1,1,2,2-Tetrachloroethane	ND		1.00	1000	01/24/2022 22:14	WG1807256
1,1,2-Trichlorotrifluoroethane	ND		1.00	1000	01/24/2022 22:14	WG1807256
Tetrachloroethene	ND		1.00	1000	01/24/2022 22:14	WG1807256
Toluene	ND		1.00	1000	01/24/2022 22:14	WG1807256
1,2,4-Trichlorobenzene	ND		1.00	1000	01/24/2022 22:14	WG1807256
1,1,1-Trichloroethane	ND		1.00	1000	01/24/2022 22:14	WG1807256
1,1,2-Trichloroethane	ND		1.00	1000	01/24/2022 22:14	WG1807256
Trichloroethene	ND		1.00	1000	01/24/2022 22:14	WG1807256
Trichlorofluoromethane	ND		5.00	1000	01/24/2022 22:14	WG1807256
1,2,3-Trichloropropane	ND		2.50	1000	01/24/2022 22:14	WG1807256
1,2,4-Trimethylbenzene	ND		1.00	1000	01/24/2022 22:14	WG1807256
1,3,5-Trimethylbenzene	ND		1.00	1000	01/24/2022 22:14	WG1807256
Vinyl acetate	ND		10.0	1000	01/24/2022 22:14	WG1807256
Vinyl chloride	ND		1.00	1000	01/24/2022 22:14	WG1807256
Xylenes, Total	ND		3.00	1000	01/24/2022 22:14	WG1807256
Di-isopropyl ether	ND		1.00	1000	01/24/2022 22:14	WG1807256
Ethanol	ND		100	1000	01/24/2022 22:14	WG1807256
Ethyl tert-butyl ether	ND		1.00	1000	01/24/2022 22:14	WG1807256
Methyl tert-butyl ether	30.8		1.00	1000	01/24/2022 22:14	WG1807256
tert-Butyl alcohol	ND		5.00	1000	01/24/2022 22:14	WG1807256
tert-Amyl Methyl Ether	4.06		1.00	1000	01/24/2022 22:14	WG1807256
(S) Toluene-d8	*104*		*80.0-120*		*01/24/2022 22:14*	WG1807256
(S) 4-Bromofluorobenzene	*98.6*		*77.0-126*		*01/24/2022 22:14*	WG1807256
(S) 1,2-Dichloroethane-d4	*98.2*		*70.0-130*		*01/24/2022 22:14*	WG1807256

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	362		10.0	1	01/26/2022 14:30	WG1808300

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	ND		0.100	1	01/21/2022 01:24	WG1805654
Nitrite	ND		0.100	1	01/21/2022 01:24	WG1805654
Sulfate	27.5		5.00	1	01/21/2022 01:24	WG1805654

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	0.147		0.100	1	01/31/2022 13:57	WG1809324

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	1.15		0.0100	1	01/21/2022 13:38	WG1805960
Ethane	ND		0.0130	1	01/21/2022 13:38	WG1805960
Ethene	ND		0.0130	1	01/21/2022 13:38	WG1805960

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		10.0	200	01/21/2022 06:03	WG1805731
Acrylonitrile	ND		2.00	200	01/21/2022 06:03	WG1805731
Benzene	0.900		0.200	200	01/21/2022 06:03	WG1805731
Bromobenzene	ND		0.200	200	01/21/2022 06:03	WG1805731
Bromochloromethane	ND		0.200	200	01/21/2022 06:03	WG1805731
Bromodichloromethane	ND		0.200	200	01/21/2022 06:03	WG1805731
Bromoform	ND		0.200	200	01/21/2022 06:03	WG1805731
Bromomethane	ND		1.00	200	01/21/2022 06:03	WG1805731
n-Butylbenzene	ND		0.200	200	01/21/2022 06:03	WG1805731
sec-Butylbenzene	ND		0.200	200	01/21/2022 06:03	WG1805731
tert-Butylbenzene	ND		0.200	200	01/21/2022 06:03	WG1805731
Carbon tetrachloride	ND		0.200	200	01/21/2022 06:03	WG1805731
Carbon disulfide	ND		0.200	200	01/21/2022 06:03	WG1805731
Chlorobenzene	ND		0.200	200	01/21/2022 06:03	WG1805731
Chlorodibromomethane	ND		0.200	200	01/21/2022 06:03	WG1805731
Chloroethane	ND		1.00	200	01/21/2022 06:03	WG1805731
Chloroform	ND		1.00	200	01/21/2022 06:03	WG1805731
Chloromethane	ND		0.500	200	01/21/2022 06:03	WG1805731
1,2-Dibromo-3-Chloropropane	ND		1.00	200	01/21/2022 06:03	WG1805731
1,2-Dibromoethane	ND		0.200	200	01/21/2022 06:03	WG1805731
Dibromomethane	ND		0.200	200	01/21/2022 06:03	WG1805731
1,2-Dichlorobenzene	ND		0.200	200	01/21/2022 06:03	WG1805731
1,3-Dichlorobenzene	ND		0.200	200	01/21/2022 06:03	WG1805731
1,4-Dichlorobenzene	ND		0.200	200	01/21/2022 06:03	WG1805731
trans-1,4-Dichloro-2-butene	ND		0.500	200	01/21/2022 06:03	WG1805731
Dichlorodifluoromethane	ND		1.00	200	01/21/2022 06:03	WG1805731
1,1-Dichloroethane	ND		0.200	200	01/21/2022 06:03	WG1805731
1,2-Dichloroethane	ND		0.200	200	01/21/2022 06:03	WG1805731
1,1-Dichloroethene	ND		0.200	200	01/21/2022 06:03	WG1805731
cis-1,2-Dichloroethene	ND		0.200	200	01/21/2022 06:03	WG1805731

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.200	200	01/21/2022 06:03	WG1805731
1,2-Dichloropropane	ND		0.200	200	01/21/2022 06:03	WG1805731
cis-1,3-Dichloropropene	ND		0.200	200	01/21/2022 06:03	WG1805731
trans-1,3-Dichloropropene	ND		0.200	200	01/21/2022 06:03	WG1805731
Ethylbenzene	0.495		0.200	200	01/21/2022 06:03	WG1805731
Hexachloro-1,3-butadiene	ND		0.200	200	01/21/2022 06:03	WG1805731
2-Hexanone	ND		2.00	200	01/21/2022 06:03	WG1805731
2-Butanone (MEK)	ND		2.00	200	01/21/2022 06:03	WG1805731
Iodomethane	ND		2.00	200	01/21/2022 06:03	WG1805731
Methylene Chloride	ND		1.00	200	01/21/2022 06:03	WG1805731
4-Methyl-2-pentanone (MIBK)	ND		2.00	200	01/21/2022 06:03	WG1805731
Naphthalene	ND		1.00	200	01/21/2022 06:03	WG1805731
n-Propylbenzene	ND		0.200	200	01/21/2022 06:03	WG1805731
Styrene	ND		0.200	200	01/21/2022 06:03	WG1805731
1,1,1,2-Tetrachloroethane	ND		0.200	200	01/21/2022 06:03	WG1805731
1,1,2,2-Tetrachloroethane	ND		0.200	200	01/21/2022 06:03	WG1805731
1,1,2-Trichlorotrifluoroethane	ND		0.200	200	01/21/2022 06:03	WG1805731
Tetrachloroethene	ND		0.200	200	01/21/2022 06:03	WG1805731
Toluene	ND		0.200	200	01/21/2022 06:03	WG1805731
1,2,4-Trichlorobenzene	ND		0.200	200	01/21/2022 06:03	WG1805731
1,1,1-Trichloroethane	ND		0.200	200	01/21/2022 06:03	WG1805731
1,1,2-Trichloroethane	ND		0.200	200	01/21/2022 06:03	WG1805731
Trichloroethene	ND		0.200	200	01/21/2022 06:03	WG1805731
Trichlorofluoromethane	ND	L2 R7	1.00	200	01/21/2022 06:03	WG1805731
1,2,3-Trichloropropane	ND		0.500	200	01/21/2022 06:03	WG1805731
1,2,4-Trimethylbenzene	ND		0.200	200	01/21/2022 06:03	WG1805731
1,3,5-Trimethylbenzene	ND		0.200	200	01/21/2022 06:03	WG1805731
Vinyl acetate	ND		2.00	200	01/21/2022 06:03	WG1805731
Vinyl chloride	ND		0.200	200	01/21/2022 06:03	WG1805731
Xylenes, Total	1.20		0.600	200	01/21/2022 06:03	WG1805731
Di-isopropyl ether	ND		0.200	200	01/21/2022 06:03	WG1805731
Ethanol	ND	L1	20.0	200	01/21/2022 06:03	WG1805731
Ethyl tert-butyl ether	ND		0.200	200	01/21/2022 06:03	WG1805731
Methyl tert-butyl ether	ND		0.200	200	01/24/2022 22:36	WG1807256
tert-Butyl alcohol	29.7		1.00	200	01/24/2022 22:36	WG1807256
tert-Amyl Methyl Ether	ND		0.200	200	01/21/2022 06:03	WG1805731
(S) Toluene-d8	*106*		*80.0-120*		*01/21/2022 06:03*	WG1805731
(S) Toluene-d8	*102*		*80.0-120*		*01/24/2022 22:36*	WG1807256
(S) 4-Bromofluorobenzene	*100*		*77.0-126*		*01/21/2022 06:03*	WG1805731
(S) 4-Bromofluorobenzene	*96.8*		*77.0-126*		*01/24/2022 22:36*	WG1807256
(S) 1,2-Dichloroethane-d4	*94.6*		*70.0-130*		*01/21/2022 06:03*	WG1805731
(S) 1,2-Dichloroethane-d4	*99.1*		*70.0-130*		*01/24/2022 22:36*	WG1807256

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	363		10.0	1	01/26/2022 14:30	WG1808300

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	ND		0.100	1	01/21/2022 01:39	WG1805654
Nitrite	ND		0.100	1	01/21/2022 01:39	WG1805654
Sulfate	27.3		5.00	1	01/21/2022 01:39	WG1805654

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	0.139		0.100	1	01/31/2022 13:59	WG1809324

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	1.12		0.0100	1	01/21/2022 13:41	WG1805960
Ethane	ND		0.0130	1	01/21/2022 13:41	WG1805960
Ethene	ND		0.0130	1	01/21/2022 13:41	WG1805960

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		10.0	200	01/21/2022 06:23	WG1805731
Acrylonitrile	ND		2.00	200	01/21/2022 06:23	WG1805731
Benzene	0.945		0.200	200	01/21/2022 06:23	WG1805731
Bromobenzene	ND		0.200	200	01/21/2022 06:23	WG1805731
Bromochloromethane	ND		0.200	200	01/21/2022 06:23	WG1805731
Bromodichloromethane	ND		0.200	200	01/21/2022 06:23	WG1805731
Bromoform	ND		0.200	200	01/21/2022 06:23	WG1805731
Bromomethane	ND		1.00	200	01/21/2022 06:23	WG1805731
n-Butylbenzene	ND		0.200	200	01/21/2022 06:23	WG1805731
sec-Butylbenzene	ND		0.200	200	01/21/2022 06:23	WG1805731
tert-Butylbenzene	ND		0.200	200	01/21/2022 06:23	WG1805731
Carbon tetrachloride	ND		0.200	200	01/21/2022 06:23	WG1805731
Carbon disulfide	ND		0.200	200	01/21/2022 06:23	WG1805731
Chlorobenzene	ND		0.200	200	01/21/2022 06:23	WG1805731
Chlorodibromomethane	ND		0.200	200	01/21/2022 06:23	WG1805731
Chloroethane	ND		1.00	200	01/21/2022 06:23	WG1805731
Chloroform	ND		1.00	200	01/21/2022 06:23	WG1805731
Chloromethane	ND		0.500	200	01/21/2022 06:23	WG1805731
1,2-Dibromo-3-Chloropropane	ND		1.00	200	01/21/2022 06:23	WG1805731
1,2-Dibromoethane	ND		0.200	200	01/21/2022 06:23	WG1805731
Dibromomethane	ND		0.200	200	01/21/2022 06:23	WG1805731
1,2-Dichlorobenzene	ND		0.200	200	01/21/2022 06:23	WG1805731
1,3-Dichlorobenzene	ND		0.200	200	01/21/2022 06:23	WG1805731
1,4-Dichlorobenzene	ND		0.200	200	01/21/2022 06:23	WG1805731
trans-1,4-Dichloro-2-butene	ND		0.500	200	01/21/2022 06:23	WG1805731
Dichlorodifluoromethane	ND		1.00	200	01/21/2022 06:23	WG1805731
1,1-Dichloroethane	ND		0.200	200	01/21/2022 06:23	WG1805731
1,2-Dichloroethane	ND		0.200	200	01/21/2022 06:23	WG1805731
1,1-Dichloroethene	ND		0.200	200	01/21/2022 06:23	WG1805731
cis-1,2-Dichloroethene	ND		0.200	200	01/21/2022 06:23	WG1805731

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.200	200	01/21/2022 06:23	WG1805731
1,2-Dichloropropane	ND		0.200	200	01/21/2022 06:23	WG1805731
cis-1,3-Dichloropropene	ND		0.200	200	01/21/2022 06:23	WG1805731
trans-1,3-Dichloropropene	ND		0.200	200	01/21/2022 06:23	WG1805731
Ethylbenzene	0.517		0.200	200	01/21/2022 06:23	WG1805731
Hexachloro-1,3-butadiene	ND		0.200	200	01/21/2022 06:23	WG1805731
2-Hexanone	ND		2.00	200	01/21/2022 06:23	WG1805731
2-Butanone (MEK)	ND		2.00	200	01/21/2022 06:23	WG1805731
Iodomethane	ND		2.00	200	01/21/2022 06:23	WG1805731
Methylene Chloride	ND		1.00	200	01/21/2022 06:23	WG1805731
4-Methyl-2-pentanone (MIBK)	ND		2.00	200	01/21/2022 06:23	WG1805731
Naphthalene	ND		1.00	200	01/21/2022 06:23	WG1805731
n-Propylbenzene	ND		0.200	200	01/21/2022 06:23	WG1805731
Styrene	ND		0.200	200	01/21/2022 06:23	WG1805731
1,1,1,2-Tetrachloroethane	ND		0.200	200	01/21/2022 06:23	WG1805731
1,1,2,2-Tetrachloroethane	ND		0.200	200	01/21/2022 06:23	WG1805731
1,1,2-Trichlorotrifluoroethane	ND		0.200	200	01/21/2022 06:23	WG1805731
Tetrachloroethene	ND		0.200	200	01/21/2022 06:23	WG1805731
Toluene	0.208		0.200	200	01/21/2022 06:23	WG1805731
1,2,4-Trichlorobenzene	ND		0.200	200	01/21/2022 06:23	WG1805731
1,1,1-Trichloroethane	ND		0.200	200	01/21/2022 06:23	WG1805731
1,1,2-Trichloroethane	ND		0.200	200	01/21/2022 06:23	WG1805731
Trichloroethene	ND		0.200	200	01/21/2022 06:23	WG1805731
Trichlorofluoromethane	ND	L2 R7	1.00	200	01/21/2022 06:23	WG1805731
1,2,3-Trichloropropane	ND		0.500	200	01/21/2022 06:23	WG1805731
1,2,4-Trimethylbenzene	ND		0.200	200	01/21/2022 06:23	WG1805731
1,3,5-Trimethylbenzene	ND		0.200	200	01/21/2022 06:23	WG1805731
Vinyl acetate	ND		2.00	200	01/21/2022 06:23	WG1805731
Vinyl chloride	ND		0.200	200	01/21/2022 06:23	WG1805731
Xylenes, Total	1.34		0.600	200	01/21/2022 06:23	WG1805731
Di-isopropyl ether	ND		0.200	200	01/21/2022 06:23	WG1805731
Ethanol	ND	L1	20.0	200	01/21/2022 06:23	WG1805731
Ethyl tert-butyl ether	ND		0.200	200	01/21/2022 06:23	WG1805731
Methyl tert-butyl ether	ND		0.200	200	01/21/2022 06:23	WG1805731
tert-Butyl alcohol	30.2		1.00	200	01/24/2022 22:58	WG1807256
tert-Amyl Methyl Ether	ND		0.200	200	01/21/2022 06:23	WG1805731
(S) Toluene-d8	*106*		*80.0-120*		*01/21/2022 06:23*	WG1805731
(S) Toluene-d8	*103*		*80.0-120*		*01/24/2022 22:58*	WG1807256
(S) 4-Bromofluorobenzene	*102*		*77.0-126*		*01/21/2022 06:23*	WG1805731
(S) 4-Bromofluorobenzene	*98.4*		*77.0-126*		*01/24/2022 22:58*	WG1807256
(S) 1,2-Dichloroethane-d4	*96.1*		*70.0-130*		*01/21/2022 06:23*	WG1805731
(S) 1,2-Dichloroethane-d4	*99.3*		*70.0-130*		*01/24/2022 22:58*	WG1807256

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	01/21/2022 01:16	WG1805731
Acrylonitrile	ND		0.0100	1	01/21/2022 01:16	WG1805731
Benzene	ND		0.00100	1	01/21/2022 01:16	WG1805731
Bromobenzene	ND		0.00100	1	01/21/2022 01:16	WG1805731
Bromochloromethane	ND		0.00100	1	01/21/2022 01:16	WG1805731
Bromodichloromethane	0.0143		0.00100	1	01/21/2022 01:16	WG1805731
Bromoform	ND		0.00100	1	01/21/2022 01:16	WG1805731
Bromomethane	ND		0.00500	1	01/21/2022 01:16	WG1805731
n-Butylbenzene	ND		0.00100	1	01/21/2022 01:16	WG1805731
sec-Butylbenzene	ND		0.00100	1	01/21/2022 01:16	WG1805731
tert-Butylbenzene	ND		0.00100	1	01/21/2022 01:16	WG1805731
Carbon tetrachloride	ND		0.00100	1	01/21/2022 01:16	WG1805731
Carbon disulfide	ND		0.00100	1	01/21/2022 01:16	WG1805731
Chlorobenzene	ND		0.00100	1	01/21/2022 01:16	WG1805731
Chlorodibromomethane	0.00909		0.00100	1	01/21/2022 01:16	WG1805731
Chloroethane	ND		0.00500	1	01/21/2022 01:16	WG1805731
Chloroform	0.0187		0.00500	1	01/21/2022 01:16	WG1805731
Chloromethane	ND		0.00250	1	01/21/2022 01:16	WG1805731
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	01/21/2022 01:16	WG1805731
1,2-Dibromoethane	ND		0.00100	1	01/21/2022 01:16	WG1805731
Dibromomethane	ND		0.00100	1	01/21/2022 01:16	WG1805731
1,2-Dichlorobenzene	ND		0.00100	1	01/21/2022 01:16	WG1805731
1,3-Dichlorobenzene	ND		0.00100	1	01/21/2022 01:16	WG1805731
1,4-Dichlorobenzene	ND		0.00100	1	01/21/2022 01:16	WG1805731
trans-1,4-Dichloro-2-butene	ND		0.00250	1	01/21/2022 01:16	WG1805731
Dichlorodifluoromethane	ND		0.00500	1	01/21/2022 01:16	WG1805731
1,1-Dichloroethane	ND		0.00100	1	01/21/2022 01:16	WG1805731
1,2-Dichloroethane	ND		0.00100	1	01/21/2022 01:16	WG1805731
1,1-Dichloroethene	ND		0.00100	1	01/21/2022 01:16	WG1805731
cis-1,2-Dichloroethene	ND		0.00100	1	01/21/2022 01:16	WG1805731
trans-1,2-Dichloroethene	ND		0.00100	1	01/21/2022 01:16	WG1805731
1,2-Dichloropropane	ND		0.00100	1	01/21/2022 01:16	WG1805731
cis-1,3-Dichloropropene	ND		0.00100	1	01/21/2022 01:16	WG1805731
trans-1,3-Dichloropropene	ND		0.00100	1	01/21/2022 01:16	WG1805731
Ethylbenzene	ND		0.00100	1	01/21/2022 01:16	WG1805731
Hexachloro-1,3-butadiene	ND		0.00100	1	01/21/2022 01:16	WG1805731
2-Hexanone	ND		0.0100	1	01/21/2022 01:16	WG1805731
2-Butanone (MEK)	ND		0.0100	1	01/21/2022 01:16	WG1805731
Iodomethane	ND		0.0100	1	01/21/2022 01:16	WG1805731
Methylene Chloride	ND		0.00500	1	01/21/2022 01:16	WG1805731
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	01/21/2022 01:16	WG1805731
Naphthalene	ND		0.00500	1	01/21/2022 01:16	WG1805731
n-Propylbenzene	ND		0.00100	1	01/21/2022 01:16	WG1805731
Styrene	ND		0.00100	1	01/21/2022 01:16	WG1805731
1,1,1,2-Tetrachloroethane	ND		0.00100	1	01/21/2022 01:16	WG1805731
1,1,2,2-Tetrachloroethane	ND		0.00100	1	01/21/2022 01:16	WG1805731
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	01/21/2022 01:16	WG1805731
Tetrachloroethene	ND		0.00100	1	01/21/2022 01:16	WG1805731
Toluene	ND		0.00100	1	01/21/2022 01:16	WG1805731
1,2,4-Trichlorobenzene	ND		0.00100	1	01/21/2022 01:16	WG1805731
1,1,1-Trichloroethane	ND		0.00100	1	01/21/2022 01:16	WG1805731
1,1,2-Trichloroethane	ND		0.00100	1	01/21/2022 01:16	WG1805731
Trichloroethene	ND		0.00100	1	01/21/2022 01:16	WG1805731
Trichlorofluoromethane	ND	L2 R7	0.00500	1	01/21/2022 01:16	WG1805731
1,2,3-Trichloropropane	ND		0.00250	1	01/21/2022 01:16	WG1805731
1,2,4-Trimethylbenzene	ND		0.00100	1	01/21/2022 01:16	WG1805731

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
1,3,5-Trimethylbenzene	ND		0.00100	1	01/21/2022 01:16	WG1805731
Vinyl acetate	ND		0.0100	1	01/21/2022 01:16	WG1805731
Vinyl chloride	ND		0.00100	1	01/21/2022 01:16	WG1805731
Xylenes, Total	ND		0.00300	1	01/21/2022 01:16	WG1805731
Di-isopropyl ether	ND		0.00100	1	01/21/2022 01:16	WG1805731
Ethanol	ND	L1	0.100	1	01/21/2022 01:16	WG1805731
Ethyl tert-butyl ether	ND		0.00100	1	01/21/2022 01:16	WG1805731
Methyl tert-butyl ether	ND		0.00100	1	01/21/2022 01:16	WG1805731
tert-Butyl alcohol	ND		0.00500	1	01/21/2022 01:16	WG1805731
tert-Amyl Methyl Ether	ND		0.00100	1	01/21/2022 01:16	WG1805731
(S) Toluene-d8	*106*		*80.0-120*		*01/21/2022 01:16*	WG1805731
(S) 4-Bromofluorobenzene	*99.9*		*77.0-126*		*01/21/2022 01:16*	WG1805731
(S) 1,2-Dichloroethane-d4	*96.1*		*70.0-130*		*01/21/2022 01:16*	WG1805731

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Acetone	ND		0.0500	1	01/20/2022 23:55	WG1805731
Acrylonitrile	ND		0.0100	1	01/20/2022 23:55	WG1805731
Benzene	ND		0.00100	1	01/20/2022 23:55	WG1805731
Bromobenzene	ND		0.00100	1	01/20/2022 23:55	WG1805731
Bromochloromethane	ND		0.00100	1	01/20/2022 23:55	WG1805731
Bromodichloromethane	ND		0.00100	1	01/20/2022 23:55	WG1805731
Bromoform	ND		0.00100	1	01/20/2022 23:55	WG1805731
Bromomethane	ND		0.00500	1	01/20/2022 23:55	WG1805731
n-Butylbenzene	ND		0.00100	1	01/20/2022 23:55	WG1805731
sec-Butylbenzene	ND		0.00100	1	01/20/2022 23:55	WG1805731
tert-Butylbenzene	ND		0.00100	1	01/20/2022 23:55	WG1805731
Carbon tetrachloride	ND		0.00100	1	01/20/2022 23:55	WG1805731
Carbon disulfide	ND		0.00100	1	01/20/2022 23:55	WG1805731
Chlorobenzene	ND		0.00100	1	01/20/2022 23:55	WG1805731
Chlorodibromomethane	ND		0.00100	1	01/20/2022 23:55	WG1805731
Chloroethane	ND		0.00500	1	01/20/2022 23:55	WG1805731
Chloroform	ND		0.00500	1	01/20/2022 23:55	WG1805731
Chloromethane	ND		0.00250	1	01/20/2022 23:55	WG1805731
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	01/20/2022 23:55	WG1805731
1,2-Dibromoethane	ND		0.00100	1	01/20/2022 23:55	WG1805731
Dibromomethane	ND		0.00100	1	01/20/2022 23:55	WG1805731
1,2-Dichlorobenzene	ND		0.00100	1	01/20/2022 23:55	WG1805731
1,3-Dichlorobenzene	ND		0.00100	1	01/20/2022 23:55	WG1805731
1,4-Dichlorobenzene	ND		0.00100	1	01/20/2022 23:55	WG1805731
trans-1,4-Dichloro-2-butene	ND		0.00250	1	01/20/2022 23:55	WG1805731
Dichlorodifluoromethane	ND		0.00500	1	01/20/2022 23:55	WG1805731
1,1-Dichloroethane	ND		0.00100	1	01/20/2022 23:55	WG1805731
1,2-Dichloroethane	ND		0.00100	1	01/20/2022 23:55	WG1805731
1,1-Dichloroethene	ND		0.00100	1	01/20/2022 23:55	WG1805731
cis-1,2-Dichloroethene	ND		0.00100	1	01/20/2022 23:55	WG1805731
trans-1,2-Dichloroethene	ND		0.00100	1	01/20/2022 23:55	WG1805731
1,2-Dichloropropane	ND		0.00100	1	01/20/2022 23:55	WG1805731
cis-1,3-Dichloropropene	ND		0.00100	1	01/20/2022 23:55	WG1805731
trans-1,3-Dichloropropene	ND		0.00100	1	01/20/2022 23:55	WG1805731
Ethylbenzene	ND		0.00100	1	01/20/2022 23:55	WG1805731
Hexachloro-1,3-butadiene	ND		0.00100	1	01/20/2022 23:55	WG1805731
2-Hexanone	ND		0.0100	1	01/20/2022 23:55	WG1805731
2-Butanone (MEK)	ND		0.0100	1	01/20/2022 23:55	WG1805731
Iodomethane	ND		0.0100	1	01/20/2022 23:55	WG1805731
Methylene Chloride	ND		0.00500	1	01/20/2022 23:55	WG1805731
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	01/20/2022 23:55	WG1805731
Naphthalene	ND		0.00500	1	01/20/2022 23:55	WG1805731
n-Propylbenzene	ND		0.00100	1	01/20/2022 23:55	WG1805731
Styrene	ND		0.00100	1	01/20/2022 23:55	WG1805731
1,1,1,2-Tetrachloroethane	ND		0.00100	1	01/20/2022 23:55	WG1805731
1,1,2,2-Tetrachloroethane	ND		0.00100	1	01/20/2022 23:55	WG1805731
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	01/20/2022 23:55	WG1805731
Tetrachloroethene	ND		0.00100	1	01/20/2022 23:55	WG1805731
Toluene	ND		0.00100	1	01/20/2022 23:55	WG1805731
1,2,4-Trichlorobenzene	ND		0.00100	1	01/20/2022 23:55	WG1805731
1,1,1-Trichloroethane	ND		0.00100	1	01/20/2022 23:55	WG1805731
1,1,2-Trichloroethane	ND		0.00100	1	01/20/2022 23:55	WG1805731
Trichloroethene	ND		0.00100	1	01/20/2022 23:55	WG1805731
Trichlorofluoromethane	ND	L2 R7	0.00500	1	01/20/2022 23:55	WG1805731
1,2,3-Trichloropropane	ND		0.00250	1	01/20/2022 23:55	WG1805731
1,2,4-Trimethylbenzene	ND		0.00100	1	01/20/2022 23:55	WG1805731

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

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
1,3,5-Trimethylbenzene	ND		0.00100	1	01/20/2022 23:55	WG1805731
Vinyl acetate	ND		0.0100	1	01/20/2022 23:55	WG1805731
Vinyl chloride	ND		0.00100	1	01/20/2022 23:55	WG1805731
Xylenes, Total	ND		0.00300	1	01/20/2022 23:55	WG1805731
Di-isopropyl ether	ND		0.00100	1	01/20/2022 23:55	WG1805731
Ethanol	ND	L1	0.100	1	01/20/2022 23:55	WG1805731
Ethyl tert-butyl ether	ND		0.00100	1	01/20/2022 23:55	WG1805731
Methyl tert-butyl ether	ND		0.00100	1	01/20/2022 23:55	WG1805731
tert-Butyl alcohol	ND		0.00500	1	01/20/2022 23:55	WG1805731
tert-Amyl Methyl Ether	ND		0.00100	1	01/20/2022 23:55	WG1805731
(S) Toluene-d8	*106*		*80.0-120*		*01/20/2022 23:55*	WG1805731
(S) 4-Bromofluorobenzene	*101*		*77.0-126*		*01/20/2022 23:55*	WG1805731
(S) 1,2-Dichloroethane-d4	*96.9*		*70.0-130*		*01/20/2022 23:55*	WG1805731

Method Blank (MB)

(MB) R3754333-1 01/26/22 04:00

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1451675-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1451675-01 01/26/22 04:00 • (DUP) R3754333-3 01/26/22 04:00

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	5650	5620	1	0.444		5

L1453422-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1453422-05 01/26/22 04:00 • (DUP) R3754333-4 01/26/22 04:00

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1200	1200	1	0.333		5

Laboratory Control Sample (LCS)

(LCS) R3754333-2 01/26/22 04:00

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	2460	2540	103	77.4-123	

Method Blank (MB)

(MB) R3754884-1 01/26/22 14:30

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1453625-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1453625-02 01/26/22 14:30 • (DUP) R3754884-3 01/26/22 14:30

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	867	859	1	0.927		5

L1453625-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1453625-04 01/26/22 14:30 • (DUP) R3754884-4 01/26/22 14:30

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	860	863	1	0.310		5

Laboratory Control Sample (LCS)

(LCS) R3754884-2 01/26/22 14:30

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	2460	2440	99.2	77.4-123	

Method Blank (MB)

(MB) R3754313-1 01/26/22 17:34

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1454498-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1454498-06 01/26/22 17:34 • (DUP) R3754313-3 01/26/22 17:34

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	799	829	1	3.77		5

L1454498-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1454498-08 01/26/22 17:34 • (DUP) R3754313-4 01/26/22 17:34

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	803	823	1	2.46		5

Laboratory Control Sample (LCS)

(LCS) R3754313-2 01/26/22 17:34

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	2460	2410	98.0	77.4-123	

Method Blank (MB)

(MB) R3752576-1 01/20/22 10:10

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate	U		0.0480	0.100
Nitrite	U		0.0420	0.100
Sulfate	0.627	E4	0.594	5.00

L1453262-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1453262-03 01/21/22 03:08 • (DUP) R3752576-8 01/21/22 03:23

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrite	ND	ND	1	0.000		15
Sulfate	ND	ND	1	0.000		15

L1453226-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1453226-01 01/21/22 05:38 • (DUP) R3752576-9 01/21/22 05:52

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfate	115	114	5	0.927		15

L1453226-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1453226-01 01/20/22 21:09 • (DUP) R3752576-10 01/20/22 21:24

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	0.537	0.306	1	55.0	R8	15
Nitrite	ND	ND	1	0.000		15

Laboratory Control Sample (LCS)

(LCS) R3752576-2 01/20/22 10:25

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate	8.00	8.01	100	80.0-120	
Nitrite	8.00	8.48	106	80.0-120	
Sulfate	40.0	40.4	101	80.0-120	

L1453228-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1453228-01 01/20/22 23:55 • (MS) R3752576-6 01/21/22 00:10 • (MSD) R3752576-7 01/21/22 00:25

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 %
Nitrate	5.00	ND	5.52	5.49	110	110	1	80.0-120			0.443	15
Nitrite	5.00	ND	5.12	5.13	102	103	1	80.0-120			0.285	15

L1453226-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1453226-05 01/20/22 22:26 • (MS) R3752576-11 01/20/22 22:40 • (MSD) R3752576-12 01/20/22 23:25

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 %
Nitrite	5.00	1.02	5.52	5.48	89.9	89.2	10	80.0-120			0.633	15
Sulfate	50.0	520	542	535	42.6	29.8	10	80.0-120	M3	M3	1.19	15

Method Blank (MB)

(MB) R3755502-1 01/31/22 13:03

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Iron	U		0.0180	0.100

Laboratory Control Sample (LCS)

(LCS) R3755502-2 01/31/22 13:05

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Iron	10.0	9.82	98.2	80.0-120	

L1453228-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1453228-01 01/31/22 13:08 • (MS) R3755502-4 01/31/22 13:13 • (MSD) R3755502-5 01/31/22 13:16

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 %
Iron	10.0	ND	9.88	9.81	98.6	97.9	1	75.0-125			0.664	20

Method Blank (MB)

(MB) R3752365-2 01/21/22 12:38

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Methane	U		0.00291	0.0100
Ethane	U		0.00407	0.0130
Ethene	U		0.00426	0.0130

L1453228-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1453228-02 01/21/22 13:25 • (DUP) R3752365-3 01/21/22 13:28

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	ND	ND	1	0.000		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20

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

(LCS) R3752365-1 01/21/22 12:33 • (LCSD) R3752365-10 01/21/22 15:03

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Methane	0.0678	0.0708	0.0699	104	103	85.0-115			1.28	20
Ethane	0.129	0.131	0.131	102	102	85.0-115			0.000	20
Ethene	0.127	0.132	0.131	104	103	85.0-115			0.760	20

L1452486-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1452486-01 01/21/22 12:42 • (MS) R3752365-4 01/21/22 13:45 • (MSD) R3752365-5 01/21/22 13:49

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 %
Methane	0.0678	ND	0.0749	0.0710	110	105	1	50.0-150			5.35	20
Ethane	0.129	ND	0.145	0.137	112	106	1	50.0-150			5.67	20
Ethene	0.127	ND	0.146	0.137	115	108	1	50.0-150			6.36	20

L1453226-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1453226-05 01/21/22 13:09 • (MS) R3752365-6 01/21/22 13:53 • (MSD) R3752365-7 01/21/22 14:04

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 %
Methane	0.0678	0.142	0.229	0.224	128	121	1	50.0-150			2.21	20
Ethane	0.129	ND	0.146	0.143	113	111	1	50.0-150			2.08	20

L1453226-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1453226-05 01/21/22 13:09 • (MS) R3752365-6 01/21/22 13:53 • (MSD) R3752365-7 01/21/22 14:04

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 %
Ethene	0.127	ND	0.147	0.144	116	113	1	50.0-150			2.06	20

L1453228-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1453228-01 01/21/22 13:16 • (MS) R3752365-8 01/21/22 14:15 • (MSD) R3752365-9 01/21/22 14:59

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 %
Methane	0.0678	ND	0.0807	0.0744	119	110	1	50.0-150			8.12	20
Ethane	0.129	ND	0.142	0.139	110	108	1	50.0-150			2.14	20
Ethene	0.127	ND	0.143	0.140	113	110	1	50.0-150			2.12	20

Method Blank (MB)

(MB) R3752986-4 01/20/22 20:53

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	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
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
trans-1,4-Dichloro-2-butene	U		0.000467	0.00250
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
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Di-isopropyl ether	U		0.000105	0.00100
Ethylbenzene	U		0.000137	0.00100
Ethanol	U		0.0420	0.100
Hexachloro-1,3-butadiene	U		0.000337	0.00100
2-Hexanone	U		0.000787	0.0100
Iodomethane	U		0.00600	0.0100

Method Blank (MB)

(MB) R3752986-4 01/20/22 20:53

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
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
1,2,4-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
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl acetate	U		0.000692	0.0100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
tert-Amyl Methyl Ether	U		0.000195	0.00100
Ethyl tert-butyl ether	U		0.000101	0.00100
tert-Butyl alcohol	U		0.00406	0.00500
(S) Toluene-d8	*107*			*80.0-120*
(S) 4-Bromofluorobenzene	*100*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*94.4*			*70.0-130*

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

(LCS) R3752986-1 01/20/22 19:10 • (LCSD) R3752986-2 01/20/22 19:31

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	0.0277	0.0279	111	112	19.0-160			0.719	27
Acrylonitrile	0.0250	0.0263	0.0262	105	105	55.0-149			0.381	20
Benzene	0.00500	0.00508	0.00509	102	102	70.0-123			0.197	20
Bromobenzene	0.00500	0.00468	0.00465	93.6	93.0	73.0-121			0.643	20

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

(LCS) R3752986-1 01/20/22 19:10 • (LCSD) R3752986-2 01/20/22 19:31

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromodichloromethane	0.00500	0.00513	0.00524	103	105	75.0-120			2.12	20
Bromochloromethane	0.00500	0.00515	0.00508	103	102	76.0-122			1.37	20
Bromoform	0.00500	0.00515	0.00496	103	99.2	68.0-132			3.76	20
Bromomethane	0.00500	0.00548	0.00523	110	105	10.0-160			4.67	25
n-Butylbenzene	0.00500	0.00509	0.00522	102	104	73.0-125			2.52	20
sec-Butylbenzene	0.00500	0.00528	0.00540	106	108	75.0-125			2.25	20
tert-Butylbenzene	0.00500	0.00526	0.00550	105	110	76.0-124			4.46	20
Carbon disulfide	0.00500	0.00537	0.00533	107	107	61.0-128			0.748	20
Carbon tetrachloride	0.00500	0.00573	0.00565	115	113	68.0-126			1.41	20
Chlorobenzene	0.00500	0.00528	0.00528	106	106	80.0-121			0.000	20
Chlorodibromomethane	0.00500	0.00558	0.00538	112	108	77.0-125			3.65	20
Chloroethane	0.00500	0.00583	0.00524	117	105	47.0-150			10.7	20
Chloroform	0.00500	0.00511	0.00514	102	103	73.0-120			0.585	20
Chloromethane	0.00500	0.00609	0.00578	122	116	41.0-142			5.22	20
1,2-Dibromo-3-Chloropropane	0.00500	0.00541	0.00546	108	109	58.0-134			0.920	20
1,2-Dibromoethane	0.00500	0.00532	0.00524	106	105	80.0-122			1.52	20
Dibromomethane	0.00500	0.00528	0.00532	106	106	80.0-120			0.755	20
1,2-Dichlorobenzene	0.00500	0.00533	0.00537	107	107	79.0-121			0.748	20
1,3-Dichlorobenzene	0.00500	0.00529	0.00544	106	109	79.0-120			2.80	20
1,4-Dichlorobenzene	0.00500	0.00528	0.00530	106	106	79.0-120			0.378	20
trans-1,4-Dichloro-2-butene	0.00500	0.00462	0.00428	92.4	85.6	33.0-144			7.64	20
Dichlorodifluoromethane	0.00500	0.00596	0.00584	119	117	51.0-149			2.03	20
1,1-Dichloroethane	0.00500	0.00517	0.00496	103	99.2	70.0-126			4.15	20
1,2-Dichloroethane	0.00500	0.00512	0.00500	102	100	70.0-128			2.37	20
1,1-Dichloroethene	0.00500	0.00538	0.00521	108	104	71.0-124			3.21	20
cis-1,2-Dichloroethene	0.00500	0.00512	0.00489	102	97.8	73.0-120			4.60	20
trans-1,2-Dichloroethene	0.00500	0.00498	0.00497	99.6	99.4	73.0-120			0.201	20
1,2-Dichloropropane	0.00500	0.00540	0.00551	108	110	77.0-125			2.02	20
cis-1,3-Dichloropropene	0.00500	0.00539	0.00543	108	109	80.0-123			0.739	20
trans-1,3-Dichloropropene	0.00500	0.00526	0.00534	105	107	78.0-124			1.51	20
Di-isopropyl ether	0.00500	0.00477	0.00477	95.4	95.4	58.0-138			0.000	20
Ethylbenzene	0.00500	0.00534	0.00511	107	102	79.0-123			4.40	20
Hexachloro-1,3-butadiene	0.00500	0.00572	0.00562	114	112	54.0-138			1.76	20
2-Hexanone	0.0250	0.0257	0.0260	103	104	67.0-149			1.16	20
Iodomethane	0.0250	0.0265	0.0262	106	105	33.0-147			1.14	26
2-Butanone (MEK)	0.0250	0.0265	0.0261	106	104	44.0-160			1.52	20
Methylene Chloride	0.00500	0.00517	0.00505	103	101	67.0-120			2.35	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.0252	0.0250	101	100	68.0-142			0.797	20
Methyl tert-butyl ether	0.00500	0.00516	0.00517	103	103	68.0-125			0.194	20
Naphthalene	0.00500	0.00586	0.00591	117	118	54.0-135			0.850	20

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

(LCS) R3752986-1 01/20/22 19:10 • (LCSD) R3752986-2 01/20/22 19:31

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
n-Propylbenzene	0.00500	0.00517	0.00523	103	105	77.0-124			1.15	20
Styrene	0.00500	0.00500	0.00496	100	99.2	73.0-130			0.803	20
1,1,1,2-Tetrachloroethane	0.00500	0.00519	0.00511	104	102	75.0-125			1.55	20
1,1,2,2-Tetrachloroethane	0.00500	0.00471	0.00489	94.2	97.8	65.0-130			3.75	20
Tetrachloroethene	0.00500	0.00580	0.00584	116	117	72.0-132			0.687	20
Toluene	0.00500	0.00520	0.00508	104	102	79.0-120			2.33	20
1,1,2-Trichlorotrifluoroethane	0.00500	0.00538	0.00525	108	105	69.0-132			2.45	20
1,2,4-Trichlorobenzene	0.00500	0.00568	0.00602	114	120	57.0-137			5.81	20
1,1,1-Trichloroethane	0.00500	0.00544	0.00547	109	109	73.0-124			0.550	20
1,1,2-Trichloroethane	0.00500	0.00508	0.00518	102	104	80.0-120			1.95	20
Trichloroethene	0.00500	0.00580	0.00563	116	113	78.0-124			2.97	20
Trichlorofluoromethane	0.00500	0.00539	0.00239	108	47.8	59.0-147		L2 R7	77.1	20
1,2,3-Trichloropropane	0.00500	0.00507	0.00534	101	107	73.0-130			5.19	20
1,2,4-Trimethylbenzene	0.00500	0.00513	0.00506	103	101	76.0-121			1.37	20
1,3,5-Trimethylbenzene	0.00500	0.00517	0.00506	103	101	76.0-122			2.15	20
Vinyl acetate	0.0250	0.0205	0.0237	82.0	94.8	11.0-160			14.5	20
Vinyl chloride	0.00500	0.00655	0.00631	131	126	67.0-131			3.73	20
Xylenes, Total	0.0150	0.0158	0.0156	105	104	79.0-123			1.27	20
tert-Amyl Methyl Ether	0.00500	0.00519	0.00526	104	105	66.0-125			1.34	20
Ethyl tert-butyl ether	0.00500	0.00506	0.00508	101	102	63.0-138			0.394	20
ethanol	0.250	0.487	0.457	195	183	10.0-160	L1	L1	6.36	30
tert-Butyl alcohol	0.0250	0.0334	0.0335	134	134	27.0-160			0.299	30
(S) Toluene-d8				*104*	*104*	*80.0-120*				
(S) 4-Bromofluorobenzene				*100*	*99.7*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*97.0*	*96.1*	*70.0-130*				

L1453228-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1453228-01 01/21/22 05:22 • (MS) R3752986-5 01/21/22 06:44 • (MSD) R3752986-6 01/21/22 07:04

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 %
Benzene	0.0500	ND	0.0486	0.0530	97.2	106	10	17.0-158			8.66	27
Acetone	0.250	ND	ND	ND	100	112	10	10.0-160			10.6	35
Acrylonitrile	0.250	ND	0.252	0.276	101	110	10	21.0-160			9.09	32
Bromobenzene	0.0500	ND	0.0414	0.0467	82.8	93.4	10	30.0-149			12.0	28
Bromodichloromethane	0.0500	ND	0.0485	0.0532	97.0	106	10	31.0-150			9.24	27
Bromoform	0.0500	ND	0.0493	0.0525	98.6	105	10	29.0-150			6.29	29
Bromomethane	0.0500	ND	ND	ND	76.0	88.6	10	10.0-160			15.3	38
1,2-Dichloroethane	0.0500	ND	0.0496	0.0537	99.2	107	10	29.0-151			7.94	27

L1453228-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1453228-01 01/21/22 05:22 • (MS) R3752986-5 01/21/22 06:44 • (MSD) R3752986-6 01/21/22 07:04

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 %
n-Butylbenzene	0.0500	ND	0.0408	0.0508	81.6	102	10	31.0-150			21.8	30
sec-Butylbenzene	0.0500	ND	0.0471	0.0541	94.2	108	10	33.0-155			13.8	29
tert-Butylbenzene	0.0500	ND	0.0494	0.0560	98.8	112	10	34.0-153			12.5	28
Carbon tetrachloride	0.0500	ND	0.0504	0.0560	101	112	10	23.0-159			10.5	28
Chlorobenzene	0.0500	ND	0.0476	0.0526	95.2	105	10	33.0-152			9.98	27
Chlorodibromomethane	0.0500	ND	0.0520	0.0554	104	111	10	37.0-149			6.33	27
Chloroethane	0.0500	ND	ND	ND	77.6	98.0	10	10.0-160			23.2	30
Chloroform	0.0500	ND	ND	0.0526	97.2	105	10	29.0-154			7.91	28
Chloromethane	0.0500	ND	0.0394	0.0447	78.8	89.4	10	10.0-160			12.6	29
Di-isopropyl ether	0.0500	ND	0.118	0.120	236	240	10	21.0-160	M1	M1	1.68	28
Ethylbenzene	0.0500	ND	0.0473	0.0523	94.6	105	10	30.0-155			10.0	27
1,2-Dibromo-3-Chloropropane	0.0500	ND	0.0533	0.0576	107	115	10	22.0-151			7.75	34
1,2-Dibromoethane	0.0500	ND	0.0485	0.0510	97.0	102	10	34.0-147			5.03	27
Dibromomethane	0.0500	ND	0.0474	0.0519	94.8	104	10	30.0-151			9.06	27
1,2-Dichlorobenzene	0.0500	ND	0.0490	0.0549	98.0	110	10	34.0-149			11.4	28
1,3-Dichlorobenzene	0.0500	ND	0.0467	0.0516	93.4	103	10	36.0-146			9.97	27
2-Hexanone	0.250	ND	0.245	0.267	98.0	107	10	21.0-160			8.59	29
1,4-Dichlorobenzene	0.0500	ND	0.0460	0.0541	92.0	108	10	35.0-142			16.2	27
Dichlorodifluoromethane	0.0500	ND	ND	ND	79.6	94.4	10	10.0-160			17.0	29
1,1-Dichloroethane	0.0500	ND	0.0483	0.0519	96.6	104	10	25.0-158			7.19	27
Methyl tert-butyl ether	0.0500	32.6	33.0	31.4	800	0.000	10	28.0-150	E1 M3	E1 M3	4.97	29
1,1-Dichloroethene	0.0500	ND	0.0431	0.0487	86.2	97.4	10	11.0-160			12.2	29
cis-1,2-Dichloroethene	0.0500	ND	0.0463	0.0494	92.6	98.8	10	10.0-160			6.48	27
Naphthalene	0.0500	ND	ND	0.0599	96.4	120	10	12.0-156			21.6	35
trans-1,2-Dichloroethene	0.0500	ND	0.0412	0.0442	82.4	88.4	10	17.0-153			7.03	27
1,2-Dichloropropane	0.0500	ND	0.0515	0.0545	103	109	10	30.0-156			5.66	27
Bromochloromethane	0.0500	ND	0.0458	0.0499	91.6	99.8	10	38.0-142			8.57	26
Toluene	0.0500	ND	0.0461	0.0509	92.2	102	10	26.0-154			9.90	28
Carbon disulfide	0.0500	ND	0.0292	0.0329	58.4	65.8	10	10.0-156			11.9	28
1,1,2-Trichlorotrifluoroethane	0.0500	ND	0.0439	0.0515	87.8	103	10	23.0-160			15.9	30
Hexachloro-1,3-butadiene	0.0500	ND	0.0425	0.0602	85.0	120	10	20.0-154		R5	34.5	34
2-Butanone (MEK)	0.250	ND	0.256	0.282	102	113	10	10.0-160			9.67	32
cis-1,3-Dichloropropene	0.0500	ND	0.0474	0.0515	94.8	103	10	34.0-149			8.29	28
Methylene Chloride	0.0500	ND	ND	ND	86.0	92.0	10	23.0-144			6.74	28
4-Methyl-2-pentanone (MIBK)	0.250	ND	0.244	0.264	97.6	106	10	29.0-160			7.87	29
Xylenes, Total	0.150	ND	0.140	0.156	93.3	104	10	29.0-154			10.8	28
n-Propylbenzene	0.0500	ND	0.0453	0.0519	90.6	104	10	31.0-154			13.6	28
Styrene	0.0500	ND	0.0462	0.0507	92.4	101	10	33.0-155			9.29	28
1,1,1,2-Tetrachloroethane	0.0500	ND	0.0498	0.0538	99.6	108	10	36.0-151			7.72	29
1,1,2,2-Tetrachloroethane	0.0500	ND	0.0473	0.0503	94.6	101	10	33.0-150			6.15	28

L1453228-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1453228-01 01/21/22 05:22 • (MS) R3752986-5 01/21/22 06:44 • (MSD) R3752986-6 01/21/22 07:04

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 %
Tetrachloroethene	0.0500	ND	0.0466	0.0550	93.2	110	10	10.0-160			16.5	27
Iodomethane	0.250	ND	0.205	0.225	82.0	90.0	10	10.0-160			9.30	40
1,2,4-Trichlorobenzene	0.0500	ND	0.0472	0.0578	94.4	116	10	24.0-150			20.2	33
1,1,1-Trichloroethane	0.0500	ND	0.0494	0.0546	98.8	109	10	23.0-160			10.0	28
1,1,2-Trichloroethane	0.0500	ND	0.0494	0.0507	98.8	101	10	35.0-147			2.60	27
Trichloroethene	0.0500	ND	0.0477	0.0552	95.4	110	10	10.0-160			14.6	25
Trichlorofluoromethane	0.0500	ND	ND	ND	82.2	95.8	10	17.0-160			15.3	31
1,2,3-Trichloropropane	0.0500	ND	0.0504	0.0505	101	101	10	34.0-151			0.198	29
1,2,4-Trimethylbenzene	0.0500	ND	0.0431	0.0484	86.2	96.8	10	26.0-154			11.6	27
1,3,5-Trimethylbenzene	0.0500	ND	0.0440	0.0498	88.0	99.6	10	28.0-153			12.4	27
Vinyl chloride	0.0500	ND	0.0447	0.0499	89.4	99.8	10	10.0-160			11.0	27
trans-1,3-Dichloropropene	0.0500	ND	0.0482	0.0526	96.4	105	10	32.0-149			8.73	28
trans-1,4-Dichloro-2-butene	0.0500	ND	0.0399	0.0434	79.8	86.8	10	10.0-157			8.40	37
Vinyl acetate	0.250	ND	0.268	0.294	107	118	10	12.0-160			9.25	31
ethanol	2.50	ND	3.54	4.71	142	188	10	50.0-150		M1 R5	28.4	20
tert-Butyl alcohol	0.250	ND	4.62	4.55	1850	1820	10	50.0-150	M1	M1	1.53	20
tert-Amyl Methyl Ether	0.0500	14.7	14.2	13.9	0.000	0.000	10	10.0-160	E1 M3	E1 M3	2.14	37
Ethyl tert-butyl ether	0.0500	ND	0.0485	0.0539	97.0	108	10	10.0-160			10.5	37
(S) Toluene-d8					*103*	*103*		*80.0-120*				
(S) 4-Bromofluorobenzene					*101*	*100*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*103*	*104*		*70.0-130*				

Method Blank (MB)

(MB) R3753097-3 01/24/22 21:02

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	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
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
trans-1,4-Dichloro-2-butene	U		0.000467	0.00250
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
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Di-isopropyl ether	U		0.000105	0.00100
Ethylbenzene	U		0.000137	0.00100
Ethanol	U		0.0420	0.100
Hexachloro-1,3-butadiene	U		0.000337	0.00100
2-Hexanone	U		0.000787	0.0100
Iodomethane	U		0.00600	0.0100

Method Blank (MB)

(MB) R3753097-3 01/24/22 21:02

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
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
1,2,4-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
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl acetate	U		0.000692	0.0100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
tert-Amyl Methyl Ether	U		0.000195	0.00100
Ethyl tert-butyl ether	U		0.000101	0.00100
tert-Butyl alcohol	U		0.00406	0.00500
(S) Toluene-d8	*105*			*80.0-120*
(S) 4-Bromofluorobenzene	*98.1*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*97.3*			*70.0-130*

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

(LCS) R3753097-1 01/24/22 19:57 • (LCSD) R3753097-2 01/24/22 20:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	0.0251	0.0265	100	106	19.0-160			5.43	27
Acrylonitrile	0.0250	0.0238	0.0244	95.2	97.6	55.0-149			2.49	20
Benzene	0.00500	0.00427	0.00427	85.4	85.4	70.0-123			0.000	20
Bromobenzene	0.00500	0.00497	0.00495	99.4	99.0	73.0-121			0.403	20

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

(LCS) R3753097-1 01/24/22 19:57 • (LCSD) R3753097-2 01/24/22 20:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromodichloromethane	0.00500	0.00435	0.00443	87.0	88.6	75.0-120			1.82	20
Bromochloromethane	0.00500	0.00434	0.00450	86.8	90.0	76.0-122			3.62	20
Bromoform	0.00500	0.00385	0.00397	77.0	79.4	68.0-132			3.07	20
Bromomethane	0.00500	0.00395	0.00424	79.0	84.8	10.0-160			7.08	25
n-Butylbenzene	0.00500	0.00437	0.00430	87.4	86.0	73.0-125			1.61	20
sec-Butylbenzene	0.00500	0.00485	0.00476	97.0	95.2	75.0-125			1.87	20
tert-Butylbenzene	0.00500	0.00496	0.00492	99.2	98.4	76.0-124			0.810	20
Carbon disulfide	0.00500	0.00339	0.00349	67.8	69.8	61.0-128			2.91	20
Carbon tetrachloride	0.00500	0.00434	0.00425	86.8	85.0	68.0-126			2.10	20
Chlorobenzene	0.00500	0.00463	0.00470	92.6	94.0	80.0-121			1.50	20
Chlorodibromomethane	0.00500	0.00442	0.00445	88.4	89.0	77.0-125			0.676	20
Chloroethane	0.00500	0.00429	0.00431	85.8	86.2	47.0-150			0.465	20
Chloroform	0.00500	0.00454	0.00463	90.8	92.6	73.0-120			1.96	20
Chloromethane	0.00500	0.00397	0.00405	79.4	81.0	41.0-142			2.00	20
1,2-Dibromo-3-Chloropropane	0.00500	0.00415	0.00407	83.0	81.4	58.0-134			1.95	20
1,2-Dibromoethane	0.00500	0.00449	0.00457	89.8	91.4	80.0-122			1.77	20
Dibromomethane	0.00500	0.00453	0.00456	90.6	91.2	80.0-120			0.660	20
1,2-Dichlorobenzene	0.00500	0.00485	0.00479	97.0	95.8	79.0-121			1.24	20
1,3-Dichlorobenzene	0.00500	0.00477	0.00470	95.4	94.0	79.0-120			1.48	20
1,4-Dichlorobenzene	0.00500	0.00479	0.00463	95.8	92.6	79.0-120			3.40	20
trans-1,4-Dichloro-2-butene	0.00500	0.00394	0.00394	78.8	78.8	33.0-144			0.000	20
Dichlorodifluoromethane	0.00500	0.00430	0.00429	86.0	85.8	51.0-149			0.233	20
1,1-Dichloroethane	0.00500	0.00449	0.00443	89.8	88.6	70.0-126			1.35	20
1,2-Dichloroethane	0.00500	0.00443	0.00441	88.6	88.2	70.0-128			0.452	20
1,1-Dichloroethene	0.00500	0.00407	0.00404	81.4	80.8	71.0-124			0.740	20
cis-1,2-Dichloroethene	0.00500	0.00455	0.00450	91.0	90.0	73.0-120			1.10	20
trans-1,2-Dichloroethene	0.00500	0.00429	0.00437	85.8	87.4	73.0-120			1.85	20
1,2-Dichloropropane	0.00500	0.00458	0.00449	91.6	89.8	77.0-125			1.98	20
cis-1,3-Dichloropropene	0.00500	0.00427	0.00452	85.4	90.4	80.0-123			5.69	20
trans-1,3-Dichloropropene	0.00500	0.00458	0.00463	91.6	92.6	78.0-124			1.09	20
Di-isopropyl ether	0.00500	0.00457	0.00473	91.4	94.6	58.0-138			3.44	20
Ethylbenzene	0.00500	0.00473	0.00467	94.6	93.4	79.0-123			1.28	20
Hexachloro-1,3-butadiene	0.00500	0.00435	0.00450	87.0	90.0	54.0-138			3.39	20
2-Hexanone	0.0250	0.0237	0.0242	94.8	96.8	67.0-149			2.09	20
Iodomethane	0.0250	0.0187	0.0189	74.8	75.6	33.0-147			1.06	26
2-Butanone (MEK)	0.0250	0.0245	0.0254	98.0	102	44.0-160			3.61	20
Methylene Chloride	0.00500	0.00436	0.00439	87.2	87.8	67.0-120			0.686	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.0250	0.0253	100	101	68.0-142			1.19	20
Methyl tert-butyl ether	0.00500	0.00460	0.00473	92.0	94.6	68.0-125			2.79	20
Naphthalene	0.00500	0.00405	0.00419	81.0	83.8	54.0-135			3.40	20

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

(LCS) R3753097-1 01/24/22 19:57 • (LCSD) R3753097-2 01/24/22 20:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
n-Propylbenzene	0.00500	0.00489	0.00476	97.8	95.2	77.0-124			2.69	20
Styrene	0.00500	0.00448	0.00444	89.6	88.8	73.0-130			0.897	20
1,1,1,2-Tetrachloroethane	0.00500	0.00481	0.00482	96.2	96.4	75.0-125			0.208	20
1,1,2,2-Tetrachloroethane	0.00500	0.00510	0.00507	102	101	65.0-130			0.590	20
Tetrachloroethene	0.00500	0.00452	0.00445	90.4	89.0	72.0-132			1.56	20
Toluene	0.00500	0.00458	0.00452	91.6	90.4	79.0-120			1.32	20
1,1,2-Trichlorotrifluoroethane	0.00500	0.00420	0.00436	84.0	87.2	69.0-132			3.74	20
1,2,4-Trichlorobenzene	0.00500	0.00394	0.00404	78.8	80.8	57.0-137			2.51	20
1,1,1-Trichloroethane	0.00500	0.00450	0.00449	90.0	89.8	73.0-124			0.222	20
1,1,2-Trichloroethane	0.00500	0.00494	0.00500	98.8	100	80.0-120			1.21	20
Trichloroethene	0.00500	0.00444	0.00460	88.8	92.0	78.0-124			3.54	20
Trichlorofluoromethane	0.00500	0.00440	0.00439	88.0	87.8	59.0-147			0.228	20
1,2,3-Trichloropropane	0.00500	0.00506	0.00504	101	101	73.0-130			0.396	20
1,2,4-Trimethylbenzene	0.00500	0.00493	0.00479	98.6	95.8	76.0-121			2.88	20
1,3,5-Trimethylbenzene	0.00500	0.00485	0.00471	97.0	94.2	76.0-122			2.93	20
Vinyl acetate	0.0250	0.0231	0.0223	92.4	89.2	11.0-160			3.52	20
Vinyl chloride	0.00500	0.00422	0.00430	84.4	86.0	67.0-131			1.88	20
Xylenes, Total	0.0150	0.0140	0.0136	93.3	90.7	79.0-123			2.90	20
ethanol	0.250	0.270	0.261	108	104	10.0-160			3.39	30
tert-Butyl alcohol	0.0250	0.0243	0.0254	97.2	102	27.0-160			4.43	30
tert-Amyl Methyl Ether	0.00500	0.00464	0.00472	92.8	94.4	66.0-125			1.71	20
Ethyl tert-butyl ether	0.00500	0.00462	0.00479	92.4	95.8	63.0-138			3.61	20
(S) Toluene-d8				*103*	*100*	*80.0-120*				
(S) 4-Bromofluorobenzene				*98.1*	*98.8*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*98.6*	*101*	*70.0-130*				

Method Blank (MB)

(MB) R3753524-3 01/24/22 20:53

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Methyl tert-butyl ether	U		0.000101	0.00100
tert-Amyl Methyl Ether	U		0.000195	0.00100
(S) Toluene-d8	*94.6*			*80.0-120*
(S) 4-Bromofluorobenzene	*99.4*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*91.3*			*70.0-130*

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

(LCS) R3753524-1 01/24/22 19:49 • (LCSD) R3753524-2 01/24/22 20:10

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Methyl tert-butyl ether	0.00500	0.00442	0.00462	88.4	92.4	68.0-125			4.42	20
tert-Amyl Methyl Ether	0.00500	0.00447	0.00438	89.4	87.6	66.0-125			2.03	20
(S) Toluene-d8				*92.6*	*91.8*	*80.0-120*				
(S) 4-Bromofluorobenzene				*99.9*	*99.6*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*92.2*	*90.6*	*70.0-130*				

INTERNAL STANDARD SUMMARY

Instrument: VOCMS6 • File ID: 0124_18

01/24/22 19:49

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0124_18	201493	107803	96388
Upper Limit		402986	215606	192776
Lower Limit		100747	53902	48194
LCS R3753524-1 WG1807338 1x	0124_18LCSA	201493	107803	96388
LCSD R3753524-2 WG1807338 1x	0124_19A	192479	105672	97619
BLANK R3753524-3 WG1807338 1x	0124_21	188661	98863	90499
L1453228-01 WG1807338 1000x	0124_26	184635	116438	89562

Instrument: VOCMS26 • File ID: 0120_33

01/20/22 19:10

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0120_33	289794	125971	121123
Upper Limit		579588	251942	242246
Lower Limit		144897	62986	60562
LCS R3752986-1 WG1805731 1x	0120_33LCS	289794	125971	121123
LCSD R3752986-2 WG1805731 1x	0120_34	288110	125807	119165
BLANK R3752986-4 WG1805731 1x	0120_38	290640	121222	115085
L1453228-06 WG1805731 1x	0120_39	311587	130632	125625
L1453228-05 WG1805731 1x	0120_43	276787	115883	113177
L1453228-01 WG1805731 10x	0120_55	289716	119334	113928
L1453228-03 WG1805731 200x	0120_57	275243	116796	111232
L1453228-04 WG1805731 200x	0120_58	269091	111260	112416
MS R3752986-5 WG1805731 10x	0120_59	294071	125153	121100
MSD R3752986-6 WG1805731 10x	0120_60	303932	129485	127844

INTERNAL STANDARD SUMMARY

Instrument: VOCMS36 • File ID: 0124_25

01/24/22 19:57

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0124_25	260946	115922	99616
Upper Limit		521892	231844	199232
Lower Limit		130473	57961	49808
LCS R3753097-1 WG1807256 1x	0124_25LCSA	260946	115922	99616
LCSD R3753097-2 WG1807256 1x	0124_26A	255642	115399	100649
BLANK R3753097-3 WG1807256 1x	0124_28A	258614	112264	91164
L1453228-02 WG1807256 1000x	0124_30	259983	111389	91672
L1453228-03 WG1807256 200x	0124_31	249994	109901	91008
L1453228-04 WG1807256 200x	0124_32	253870	112303	91100

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

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	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
E1	Concentration estimated. Analyte exceeded calibration range. Reanalysis not possible due to insufficient sample.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
L1	The associated blank spike recovery was above laboratory acceptance limits.
L2	The associated blank spike recovery was below laboratory acceptance limits.
M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike recovery was acceptable.
R5	MS/MSD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.
R7	LFB/LFBD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.
R8	Sample RPD exceeded the method acceptance limit.
S6	Surrogate recovery was below laboratory and method acceptance limits. Reextraction and/or reanalysis confirms low recovery caused by matrix effect.

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:
Kinder Morgan - Rocklin, CA-AZ Work

410 N.44th Street
Suite 1000
Phoenix. AZ 85008

Billing Information:
Accounts Payable- Alan Van Antwerp
9950 SAN DIEGO MISSION RD.
SAN DIEGO, CA 92108

Pres Chk

Report to: **Bob Forsberg**

Email To: bob.forsberg@arcadis-us.com;sascha.arnold@arcadis.com

Project Description: **KMEP Silvercroft Wash**

City/State Collected: Tucson, AZ

Please Circle: PT (MT) CT ET

Phone: **602-438-0883**

Client Project # ~~30106087.01~~ 30113573,01

Lab Project # **KINARCPAZ-SILVERCROF**

Collected by (print): SXA / MAT

Site/Facility ID # **SILVERCROFT WASH**

P.O. # **WD876456**

Collected by (signature):

Immediately Packed on Ice N ___ Y X

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: STD TURN

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	*NO2,NO3,SO4,TDS 250mlHDPE-NoPres	EEM RSK175 40mlAmb HCl	HOLD - NO2+NO3 250mlHDPE-H2SO4	Total Fe 6010 250mlHDPE-HNO3	VOCs+OXYs 8260 40mlAmb-HCl	Remarks	Sample # (lab only)
MW-2S	G	GW	172	1/19/22	1017	16	X	X	X	X	X	Rm MS/MSD	-01
MW-29S	|	GW	172	|	1157	8	X	X	X	X	X		-02
MW-26	|	GW	159	|	1327	8	X	X	X	X	X		-03
MW-26-DUP	↓	GW	159	↓	1332	8	X	X	X	X	X		-04
		GW											
		GW											
		GW											
		GW											
Equipment Blank-3	G	GW	—	1/19/22	0855	3					X		-05
Trip Blank	—	GW	—	1/19/22	—	1					X		-06

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Pace Analytical®

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1453228
C199

Tat

Acctnum: **KINARCPAZ**
Template: **T190237**
Prelogin: **P894954**
PM: **110 - Brian Ford**
PB:
Shipped Via:

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:*NO2,NO3 have a 48 hour holding time.

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
	1/19/22	1552			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 29+29 °C Bottles Received: 43	
	1/19/22	1800			
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 1/20/22 Time: 1200	Hold: Condition: NCF / OK

PNPAZ

ANALYTICAL REPORT

March 01, 2022

Kinder Morgan - Rocklin, CA-AZ Work

Sample Delivery Group:	L1463857
Samples Received:	02/22/2022
Project Number:	30113573.01
Description:	KMEP Silvercroft Wash
Site:	SILVERCROFT WASH
Report To:	Bob Forsberg 410 N.44th Street Suite 1000 Phoenix, AZ 85008

Entire Report Reviewed By:

Brian Ford

Project Manager

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

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

MW-29D L1463857-01 GW

Collected by: SXA/MAT | Collected date/time: 02/21/22 13:27 | Received date/time: 02/22/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1822769	1	02/24/22 12:56	02/24/22 13:31	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1821658	1	02/22/22 14:51	02/22/22 14:51	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1822389	5	02/24/22 00:19	02/24/22 00:19	KEG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1822164	1	02/23/22 09:07	02/23/22 12:57	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1821931	1	02/23/22 14:08	02/23/22 14:08	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1822116	1	02/23/22 03:27	02/23/22 03:27	GLN	Mt. Juliet, TN

MW-1D L1463857-02 GW

Collected by: SXA/MAT | Collected date/time: 02/21/22 15:02 | Received date/time: 02/22/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1822769	1	02/24/22 12:56	02/24/22 13:31	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1821658	1	02/22/22 15:42	02/22/22 15:42	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1822389	5	02/24/22 01:10	02/24/22 01:10	KEG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1822164	1	02/23/22 09:07	02/23/22 13:18	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1821931	1	02/23/22 14:10	02/23/22 14:10	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1822116	1	02/23/22 03:49	02/23/22 03:49	ACG	Mt. Juliet, TN

MW-2D L1463857-03 GW

Collected by: SXA/MAT | Collected date/time: 02/21/22 16:07 | Received date/time: 02/22/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1823199	1	02/24/22 13:05	02/24/22 16:09	BRG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1821658	1	02/22/22 16:33	02/22/22 16:33	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1821658	5	02/22/22 16:46	02/22/22 16:46	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1822164	1	02/23/22 09:07	02/23/22 13:27	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1821931	1	02/23/22 14:12	02/23/22 14:12	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1822116	1	02/23/22 04:11	02/23/22 04:11	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1822418	20	02/23/22 14:35	02/23/22 14:35	ACG	Mt. Juliet, TN

MW-2D-DUP L1463857-04 GW

Collected by: SXA/MAT | Collected date/time: 02/21/22 16:12 | Received date/time: 02/22/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1823416	1	02/24/22 17:19	02/24/22 19:26	BRG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1821658	1	02/22/22 16:59	02/22/22 16:59	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1821658	5	02/22/22 17:12	02/22/22 17:12	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1822164	1	02/23/22 09:07	02/23/22 13:30	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1821931	1	02/23/22 14:15	02/23/22 14:15	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1822116	1	02/23/22 04:32	02/23/22 04:32	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1822418	10	02/23/22 14:55	02/23/22 14:55	ACG	Mt. Juliet, TN

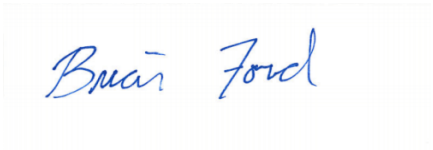
TRIP BLANK L1463857-05 GW

Collected by: SXA/MAT | Collected date/time: 02/21/22 00:00 | Received date/time: 02/22/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1822116	1	02/23/22 02:43	02/23/22 02:43	ACG	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.



Brian Ford
Project Manager

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	705		13.3	1	02/24/2022 13:31	WG1822769

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	1.64		0.100	1	02/22/2022 14:51	WG1821658
Nitrite	ND		0.100	1	02/22/2022 14:51	WG1821658
Sulfate	255		25.0	5	02/24/2022 00:19	WG1822389

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	ND		0.100	1	02/23/2022 12:57	WG1822164

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	02/23/2022 14:08	WG1821931
Ethane	ND		0.0130	1	02/23/2022 14:08	WG1821931
Ethene	ND		0.0130	1	02/23/2022 14:08	WG1821931

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND	M1 R5	0.0500	1	02/23/2022 03:27	WG1822116
Acrylonitrile	ND		0.0100	1	02/23/2022 03:27	WG1822116
Benzene	ND		0.00100	1	02/23/2022 03:27	WG1822116
Bromobenzene	ND		0.00100	1	02/23/2022 03:27	WG1822116
Bromochloromethane	ND		0.00100	1	02/23/2022 03:27	WG1822116
Bromodichloromethane	ND		0.00100	1	02/23/2022 03:27	WG1822116
Bromoform	ND	M2	0.00100	1	02/23/2022 03:27	WG1822116
Bromomethane	ND		0.00500	1	02/23/2022 03:27	WG1822116
n-Butylbenzene	ND		0.00100	1	02/23/2022 03:27	WG1822116
sec-Butylbenzene	ND		0.00100	1	02/23/2022 03:27	WG1822116
tert-Butylbenzene	ND		0.00100	1	02/23/2022 03:27	WG1822116
Carbon tetrachloride	ND	M2	0.00100	1	02/23/2022 03:27	WG1822116
Carbon disulfide	ND		0.00100	1	02/23/2022 03:27	WG1822116
Chlorobenzene	ND		0.00100	1	02/23/2022 03:27	WG1822116
Chlorodibromomethane	ND	M2	0.00100	1	02/23/2022 03:27	WG1822116
Chloroethane	ND		0.00500	1	02/23/2022 03:27	WG1822116
Chloroform	ND		0.00500	1	02/23/2022 03:27	WG1822116
Chloromethane	ND	L1 M1	0.00250	1	02/23/2022 03:27	WG1822116
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	02/23/2022 03:27	WG1822116
1,2-Dibromoethane	ND		0.00100	1	02/23/2022 03:27	WG1822116
Dibromomethane	ND		0.00100	1	02/23/2022 03:27	WG1822116
1,2-Dichlorobenzene	ND		0.00100	1	02/23/2022 03:27	WG1822116
1,3-Dichlorobenzene	ND		0.00100	1	02/23/2022 03:27	WG1822116
1,4-Dichlorobenzene	ND		0.00100	1	02/23/2022 03:27	WG1822116
trans-1,4-Dichloro-2-butene	ND		0.00250	1	02/23/2022 03:27	WG1822116
Dichlorodifluoromethane	ND		0.00500	1	02/23/2022 03:27	WG1822116
1,1-Dichloroethane	ND		0.00100	1	02/23/2022 03:27	WG1822116
1,2-Dichloroethane	ND		0.00100	1	02/23/2022 03:27	WG1822116
1,1-Dichloroethene	ND		0.00100	1	02/23/2022 03:27	WG1822116
cis-1,2-Dichloroethene	ND		0.00100	1	02/23/2022 03:27	WG1822116

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.00100	1	02/23/2022 03:27	WG1822116
1,2-Dichloropropane	ND		0.00100	1	02/23/2022 03:27	WG1822116
cis-1,3-Dichloropropene	ND		0.00100	1	02/23/2022 03:27	WG1822116
trans-1,3-Dichloropropene	ND		0.00100	1	02/23/2022 03:27	WG1822116
Ethylbenzene	ND		0.00100	1	02/23/2022 03:27	WG1822116
Hexachloro-1,3-butadiene	ND		0.00100	1	02/23/2022 03:27	WG1822116
2-Hexanone	ND		0.0100	1	02/23/2022 03:27	WG1822116
2-Butanone (MEK)	ND		0.0100	1	02/23/2022 03:27	WG1822116
Iodomethane	ND	L2	0.0100	1	02/23/2022 03:27	WG1822116
Methylene Chloride	ND		0.00500	1	02/23/2022 03:27	WG1822116
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	02/23/2022 03:27	WG1822116
Naphthalene	ND		0.00500	1	02/23/2022 03:27	WG1822116
n-Propylbenzene	ND		0.00100	1	02/23/2022 03:27	WG1822116
Styrene	ND		0.00100	1	02/23/2022 03:27	WG1822116
1,1,1,2-Tetrachloroethane	ND		0.00100	1	02/23/2022 03:27	WG1822116
1,1,2,2-Tetrachloroethane	ND		0.00100	1	02/23/2022 03:27	WG1822116
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	02/23/2022 03:27	WG1822116
Tetrachloroethene	ND		0.00100	1	02/23/2022 03:27	WG1822116
Toluene	ND		0.00100	1	02/23/2022 03:27	WG1822116
1,2,4-Trichlorobenzene	ND		0.00100	1	02/23/2022 03:27	WG1822116
1,1,1-Trichloroethane	ND		0.00100	1	02/23/2022 03:27	WG1822116
1,1,2-Trichloroethane	ND		0.00100	1	02/23/2022 03:27	WG1822116
Trichloroethene	ND		0.00100	1	02/23/2022 03:27	WG1822116
Trichlorofluoromethane	ND		0.00500	1	02/23/2022 03:27	WG1822116
1,2,3-Trichloropropane	ND		0.00250	1	02/23/2022 03:27	WG1822116
1,2,4-Trimethylbenzene	ND		0.00100	1	02/23/2022 03:27	WG1822116
1,3,5-Trimethylbenzene	ND		0.00100	1	02/23/2022 03:27	WG1822116
Vinyl acetate	ND		0.0100	1	02/23/2022 03:27	WG1822116
Vinyl chloride	ND		0.00100	1	02/23/2022 03:27	WG1822116
Xylenes, Total	ND		0.00300	1	02/23/2022 03:27	WG1822116
Di-isopropyl ether	ND		0.00100	1	02/23/2022 03:27	WG1822116
Ethanol	ND	M1 R5	0.100	1	02/23/2022 03:27	WG1822116
Ethyl tert-butyl ether	ND		0.00100	1	02/23/2022 03:27	WG1822116
Methyl tert-butyl ether	ND		0.00100	1	02/23/2022 03:27	WG1822116
tert-Butyl alcohol	ND		0.00500	1	02/23/2022 03:27	WG1822116
tert-Amyl Methyl Ether	ND		0.00100	1	02/23/2022 03:27	WG1822116
(S) Toluene-d8	*99.9*		*80.0-120*		*02/23/2022 03:27*	WG1822116
(S) 4-Bromofluorobenzene	*98.0*		*77.0-126*		*02/23/2022 03:27*	WG1822116
(S) 1,2-Dichloroethane-d4	*102*		*70.0-130*		*02/23/2022 03:27*	WG1822116

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	755		13.3	1	02/24/2022 13:31	WG1822769

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	2.23		0.100	1	02/22/2022 15:42	WG1821658
Nitrite	ND		0.100	1	02/22/2022 15:42	WG1821658
Sulfate	262		25.0	5	02/24/2022 01:10	WG1822389

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	0.319		0.100	1	02/23/2022 13:18	WG1822164

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	02/23/2022 14:10	WG1821931
Ethane	ND		0.0130	1	02/23/2022 14:10	WG1821931
Ethene	ND		0.0130	1	02/23/2022 14:10	WG1821931

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	02/23/2022 03:49	WG1822116
Acrylonitrile	ND		0.0100	1	02/23/2022 03:49	WG1822116
Benzene	ND		0.00100	1	02/23/2022 03:49	WG1822116
Bromobenzene	ND		0.00100	1	02/23/2022 03:49	WG1822116
Bromochloromethane	ND		0.00100	1	02/23/2022 03:49	WG1822116
Bromodichloromethane	ND		0.00100	1	02/23/2022 03:49	WG1822116
Bromoform	ND		0.00100	1	02/23/2022 03:49	WG1822116
Bromomethane	ND		0.00500	1	02/23/2022 03:49	WG1822116
n-Butylbenzene	ND		0.00100	1	02/23/2022 03:49	WG1822116
sec-Butylbenzene	ND		0.00100	1	02/23/2022 03:49	WG1822116
tert-Butylbenzene	ND		0.00100	1	02/23/2022 03:49	WG1822116
Carbon tetrachloride	ND		0.00100	1	02/23/2022 03:49	WG1822116
Carbon disulfide	ND		0.00100	1	02/23/2022 03:49	WG1822116
Chlorobenzene	ND		0.00100	1	02/23/2022 03:49	WG1822116
Chlorodibromomethane	ND		0.00100	1	02/23/2022 03:49	WG1822116
Chloroethane	ND		0.00500	1	02/23/2022 03:49	WG1822116
Chloroform	ND		0.00500	1	02/23/2022 03:49	WG1822116
Chloromethane	ND	L1	0.00250	1	02/23/2022 03:49	WG1822116
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	02/23/2022 03:49	WG1822116
1,2-Dibromoethane	ND		0.00100	1	02/23/2022 03:49	WG1822116
Dibromomethane	ND		0.00100	1	02/23/2022 03:49	WG1822116
1,2-Dichlorobenzene	ND		0.00100	1	02/23/2022 03:49	WG1822116
1,3-Dichlorobenzene	ND		0.00100	1	02/23/2022 03:49	WG1822116
1,4-Dichlorobenzene	ND		0.00100	1	02/23/2022 03:49	WG1822116
trans-1,4-Dichloro-2-butene	ND		0.00250	1	02/23/2022 03:49	WG1822116
Dichlorodifluoromethane	ND		0.00500	1	02/23/2022 03:49	WG1822116
1,1-Dichloroethane	ND		0.00100	1	02/23/2022 03:49	WG1822116
1,2-Dichloroethane	ND		0.00100	1	02/23/2022 03:49	WG1822116
1,1-Dichloroethene	ND		0.00100	1	02/23/2022 03:49	WG1822116
cis-1,2-Dichloroethene	ND		0.00100	1	02/23/2022 03:49	WG1822116

Cp Tc Ss Cn Sr Qc Is Gl Al Sc

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.00100	1	02/23/2022 03:49	WG1822116
1,2-Dichloropropane	ND		0.00100	1	02/23/2022 03:49	WG1822116
cis-1,3-Dichloropropene	ND		0.00100	1	02/23/2022 03:49	WG1822116
trans-1,3-Dichloropropene	ND		0.00100	1	02/23/2022 03:49	WG1822116
Ethylbenzene	ND		0.00100	1	02/23/2022 03:49	WG1822116
Hexachloro-1,3-butadiene	ND		0.00100	1	02/23/2022 03:49	WG1822116
2-Hexanone	ND		0.0100	1	02/23/2022 03:49	WG1822116
2-Butanone (MEK)	ND		0.0100	1	02/23/2022 03:49	WG1822116
Iodomethane	ND	L2	0.0100	1	02/23/2022 03:49	WG1822116
Methylene Chloride	ND		0.00500	1	02/23/2022 03:49	WG1822116
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	02/23/2022 03:49	WG1822116
Naphthalene	ND		0.00500	1	02/23/2022 03:49	WG1822116
n-Propylbenzene	ND		0.00100	1	02/23/2022 03:49	WG1822116
Styrene	ND		0.00100	1	02/23/2022 03:49	WG1822116
1,1,1,2-Tetrachloroethane	ND		0.00100	1	02/23/2022 03:49	WG1822116
1,1,2,2-Tetrachloroethane	ND		0.00100	1	02/23/2022 03:49	WG1822116
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	02/23/2022 03:49	WG1822116
Tetrachloroethene	ND		0.00100	1	02/23/2022 03:49	WG1822116
Toluene	ND		0.00100	1	02/23/2022 03:49	WG1822116
1,2,4-Trichlorobenzene	ND		0.00100	1	02/23/2022 03:49	WG1822116
1,1,1-Trichloroethane	ND		0.00100	1	02/23/2022 03:49	WG1822116
1,1,2-Trichloroethane	ND		0.00100	1	02/23/2022 03:49	WG1822116
Trichloroethene	ND		0.00100	1	02/23/2022 03:49	WG1822116
Trichlorofluoromethane	ND		0.00500	1	02/23/2022 03:49	WG1822116
1,2,3-Trichloropropane	ND		0.00250	1	02/23/2022 03:49	WG1822116
1,2,4-Trimethylbenzene	ND		0.00100	1	02/23/2022 03:49	WG1822116
1,3,5-Trimethylbenzene	ND		0.00100	1	02/23/2022 03:49	WG1822116
Vinyl acetate	ND		0.0100	1	02/23/2022 03:49	WG1822116
Vinyl chloride	ND		0.00100	1	02/23/2022 03:49	WG1822116
Xylenes, Total	ND		0.00300	1	02/23/2022 03:49	WG1822116
Di-isopropyl ether	ND		0.00100	1	02/23/2022 03:49	WG1822116
Ethanol	ND		0.100	1	02/23/2022 03:49	WG1822116
Ethyl tert-butyl ether	ND		0.00100	1	02/23/2022 03:49	WG1822116
Methyl tert-butyl ether	ND		0.00100	1	02/23/2022 03:49	WG1822116
tert-Butyl alcohol	ND		0.00500	1	02/23/2022 03:49	WG1822116
tert-Amyl Methyl Ether	ND		0.00100	1	02/23/2022 03:49	WG1822116
(S) Toluene-d8	*101*		*80.0-120*		*02/23/2022 03:49*	WG1822116
(S) 4-Bromofluorobenzene	*97.4*		*77.0-126*		*02/23/2022 03:49*	WG1822116
(S) 1,2-Dichloroethane-d4	*102*		*70.0-130*		*02/23/2022 03:49*	WG1822116

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

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	768		13.3	1	02/24/2022 16:09	WG1823199

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	3.03		0.100	1	02/22/2022 16:33	WG1821658
Nitrite	ND		0.100	1	02/22/2022 16:33	WG1821658
Sulfate	248		25.0	5	02/22/2022 16:46	WG1821658

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	ND		0.100	1	02/23/2022 13:27	WG1822164

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	02/23/2022 14:12	WG1821931
Ethane	ND		0.0130	1	02/23/2022 14:12	WG1821931
Ethene	ND		0.0130	1	02/23/2022 14:12	WG1821931

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	02/23/2022 04:11	WG1822116
Acrylonitrile	ND		0.0100	1	02/23/2022 04:11	WG1822116
Benzene	ND		0.00100	1	02/23/2022 04:11	WG1822116
Bromobenzene	ND		0.00100	1	02/23/2022 04:11	WG1822116
Bromochloromethane	ND		0.00100	1	02/23/2022 04:11	WG1822116
Bromodichloromethane	ND		0.00100	1	02/23/2022 04:11	WG1822116
Bromoform	ND		0.00100	1	02/23/2022 04:11	WG1822116
Bromomethane	ND		0.00500	1	02/23/2022 04:11	WG1822116
n-Butylbenzene	ND		0.00100	1	02/23/2022 04:11	WG1822116
sec-Butylbenzene	ND		0.00100	1	02/23/2022 04:11	WG1822116
tert-Butylbenzene	ND		0.00100	1	02/23/2022 04:11	WG1822116
Carbon tetrachloride	ND		0.00100	1	02/23/2022 04:11	WG1822116
Carbon disulfide	ND		0.00100	1	02/23/2022 04:11	WG1822116
Chlorobenzene	ND		0.00100	1	02/23/2022 04:11	WG1822116
Chlorodibromomethane	ND		0.00100	1	02/23/2022 04:11	WG1822116
Chloroethane	ND		0.00500	1	02/23/2022 04:11	WG1822116
Chloroform	ND		0.00500	1	02/23/2022 04:11	WG1822116
Chloromethane	ND	L1	0.00250	1	02/23/2022 04:11	WG1822116
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	02/23/2022 04:11	WG1822116
1,2-Dibromoethane	ND		0.00100	1	02/23/2022 04:11	WG1822116
Dibromomethane	ND		0.00100	1	02/23/2022 04:11	WG1822116
1,2-Dichlorobenzene	ND		0.00100	1	02/23/2022 04:11	WG1822116
1,3-Dichlorobenzene	ND		0.00100	1	02/23/2022 04:11	WG1822116
1,4-Dichlorobenzene	ND		0.00100	1	02/23/2022 04:11	WG1822116
trans-1,4-Dichloro-2-butene	ND		0.00250	1	02/23/2022 04:11	WG1822116
Dichlorodifluoromethane	ND		0.00500	1	02/23/2022 04:11	WG1822116
1,1-Dichloroethane	ND		0.00100	1	02/23/2022 04:11	WG1822116
1,2-Dichloroethane	ND		0.00100	1	02/23/2022 04:11	WG1822116
1,1-Dichloroethene	ND		0.00100	1	02/23/2022 04:11	WG1822116
cis-1,2-Dichloroethene	ND		0.00100	1	02/23/2022 04:11	WG1822116

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.00100	1	02/23/2022 04:11	WG1822116
1,2-Dichloropropane	ND		0.00100	1	02/23/2022 04:11	WG1822116
cis-1,3-Dichloropropene	ND		0.00100	1	02/23/2022 04:11	WG1822116
trans-1,3-Dichloropropene	ND		0.00100	1	02/23/2022 04:11	WG1822116
Ethylbenzene	ND		0.00100	1	02/23/2022 04:11	WG1822116
Hexachloro-1,3-butadiene	ND		0.00100	1	02/23/2022 04:11	WG1822116
2-Hexanone	ND		0.0100	1	02/23/2022 04:11	WG1822116
2-Butanone (MEK)	ND		0.0100	1	02/23/2022 04:11	WG1822116
Iodomethane	ND	L2	0.0100	1	02/23/2022 04:11	WG1822116
Methylene Chloride	ND		0.00500	1	02/23/2022 04:11	WG1822116
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	02/23/2022 04:11	WG1822116
Naphthalene	ND		0.00500	1	02/23/2022 04:11	WG1822116
n-Propylbenzene	ND		0.00100	1	02/23/2022 04:11	WG1822116
Styrene	ND		0.00100	1	02/23/2022 04:11	WG1822116
1,1,1,2-Tetrachloroethane	ND		0.00100	1	02/23/2022 04:11	WG1822116
1,1,2,2-Tetrachloroethane	ND		0.00100	1	02/23/2022 04:11	WG1822116
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	02/23/2022 04:11	WG1822116
Tetrachloroethene	ND		0.00100	1	02/23/2022 04:11	WG1822116
Toluene	ND		0.00100	1	02/23/2022 04:11	WG1822116
1,2,4-Trichlorobenzene	ND		0.00100	1	02/23/2022 04:11	WG1822116
1,1,1-Trichloroethane	ND		0.00100	1	02/23/2022 04:11	WG1822116
1,1,2-Trichloroethane	ND		0.00100	1	02/23/2022 04:11	WG1822116
Trichloroethene	ND		0.00100	1	02/23/2022 04:11	WG1822116
Trichlorofluoromethane	ND		0.00500	1	02/23/2022 04:11	WG1822116
1,2,3-Trichloropropane	ND		0.00250	1	02/23/2022 04:11	WG1822116
1,2,4-Trimethylbenzene	ND		0.00100	1	02/23/2022 04:11	WG1822116
1,3,5-Trimethylbenzene	ND		0.00100	1	02/23/2022 04:11	WG1822116
Vinyl acetate	ND		0.0100	1	02/23/2022 04:11	WG1822116
Vinyl chloride	ND		0.00100	1	02/23/2022 04:11	WG1822116
Xylenes, Total	ND		0.00300	1	02/23/2022 04:11	WG1822116
Di-isopropyl ether	ND		0.00100	1	02/23/2022 04:11	WG1822116
Ethanol	ND		0.100	1	02/23/2022 04:11	WG1822116
Ethyl tert-butyl ether	ND		0.00100	1	02/23/2022 04:11	WG1822116
Methyl tert-butyl ether	0.610		0.0200	20	02/23/2022 14:35	WG1822418
tert-Butyl alcohol	ND		0.00500	1	02/23/2022 04:11	WG1822116
tert-Amyl Methyl Ether	0.00715		0.00100	1	02/23/2022 04:11	WG1822116
(S) Toluene-d8	*100*		*80.0-120*		*02/23/2022 04:11*	WG1822116
(S) Toluene-d8	*105*		*80.0-120*		*02/23/2022 14:35*	WG1822418
(S) 4-Bromofluorobenzene	*96.7*		*77.0-126*		*02/23/2022 04:11*	WG1822116
(S) 4-Bromofluorobenzene	*96.9*		*77.0-126*		*02/23/2022 14:35*	WG1822418
(S) 1,2-Dichloroethane-d4	*100*		*70.0-130*		*02/23/2022 04:11*	WG1822116
(S) 1,2-Dichloroethane-d4	*116*		*70.0-130*		*02/23/2022 14:35*	WG1822418

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	771		13.3	1	02/24/2022 19:26	WG1823416

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	3.01		0.100	1	02/22/2022 16:59	WG1821658
Nitrite	ND		0.100	1	02/22/2022 16:59	WG1821658
Sulfate	253		25.0	5	02/22/2022 17:12	WG1821658

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	ND		0.100	1	02/23/2022 13:30	WG1822164

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	02/23/2022 14:15	WG1821931
Ethane	ND		0.0130	1	02/23/2022 14:15	WG1821931
Ethene	ND		0.0130	1	02/23/2022 14:15	WG1821931

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	02/23/2022 04:32	WG1822116
Acrylonitrile	ND		0.0100	1	02/23/2022 04:32	WG1822116
Benzene	ND		0.00100	1	02/23/2022 04:32	WG1822116
Bromobenzene	ND		0.00100	1	02/23/2022 04:32	WG1822116
Bromochloromethane	ND		0.00100	1	02/23/2022 04:32	WG1822116
Bromodichloromethane	ND		0.00100	1	02/23/2022 04:32	WG1822116
Bromoform	ND		0.00100	1	02/23/2022 04:32	WG1822116
Bromomethane	ND		0.00500	1	02/23/2022 04:32	WG1822116
n-Butylbenzene	ND		0.00100	1	02/23/2022 04:32	WG1822116
sec-Butylbenzene	ND		0.00100	1	02/23/2022 04:32	WG1822116
tert-Butylbenzene	ND		0.00100	1	02/23/2022 04:32	WG1822116
Carbon tetrachloride	ND		0.00100	1	02/23/2022 04:32	WG1822116
Carbon disulfide	ND		0.00100	1	02/23/2022 04:32	WG1822116
Chlorobenzene	ND		0.00100	1	02/23/2022 04:32	WG1822116
Chlorodibromomethane	ND		0.00100	1	02/23/2022 04:32	WG1822116
Chloroethane	ND		0.00500	1	02/23/2022 04:32	WG1822116
Chloroform	ND		0.00500	1	02/23/2022 04:32	WG1822116
Chloromethane	ND	L1	0.00250	1	02/23/2022 04:32	WG1822116
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	02/23/2022 04:32	WG1822116
1,2-Dibromoethane	ND		0.00100	1	02/23/2022 04:32	WG1822116
Dibromomethane	ND		0.00100	1	02/23/2022 04:32	WG1822116
1,2-Dichlorobenzene	ND		0.00100	1	02/23/2022 04:32	WG1822116
1,3-Dichlorobenzene	ND		0.00100	1	02/23/2022 04:32	WG1822116
1,4-Dichlorobenzene	ND		0.00100	1	02/23/2022 04:32	WG1822116
trans-1,4-Dichloro-2-butene	ND		0.00250	1	02/23/2022 04:32	WG1822116
Dichlorodifluoromethane	ND		0.00500	1	02/23/2022 04:32	WG1822116
1,1-Dichloroethane	ND		0.00100	1	02/23/2022 04:32	WG1822116
1,2-Dichloroethane	ND		0.00100	1	02/23/2022 04:32	WG1822116
1,1-Dichloroethene	ND		0.00100	1	02/23/2022 04:32	WG1822116
cis-1,2-Dichloroethene	ND		0.00100	1	02/23/2022 04:32	WG1822116

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.00100	1	02/23/2022 04:32	WG1822116
1,2-Dichloropropane	ND		0.00100	1	02/23/2022 04:32	WG1822116
cis-1,3-Dichloropropene	ND		0.00100	1	02/23/2022 04:32	WG1822116
trans-1,3-Dichloropropene	ND		0.00100	1	02/23/2022 04:32	WG1822116
Ethylbenzene	ND		0.00100	1	02/23/2022 04:32	WG1822116
Hexachloro-1,3-butadiene	ND		0.00100	1	02/23/2022 04:32	WG1822116
2-Hexanone	ND		0.0100	1	02/23/2022 04:32	WG1822116
2-Butanone (MEK)	ND		0.0100	1	02/23/2022 04:32	WG1822116
Iodomethane	ND	L2	0.0100	1	02/23/2022 04:32	WG1822116
Methylene Chloride	ND		0.00500	1	02/23/2022 04:32	WG1822116
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	02/23/2022 04:32	WG1822116
Naphthalene	ND		0.00500	1	02/23/2022 04:32	WG1822116
n-Propylbenzene	ND		0.00100	1	02/23/2022 04:32	WG1822116
Styrene	ND		0.00100	1	02/23/2022 04:32	WG1822116
1,1,1,2-Tetrachloroethane	ND		0.00100	1	02/23/2022 04:32	WG1822116
1,1,2,2-Tetrachloroethane	ND		0.00100	1	02/23/2022 04:32	WG1822116
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	02/23/2022 04:32	WG1822116
Tetrachloroethene	ND		0.00100	1	02/23/2022 04:32	WG1822116
Toluene	ND		0.00100	1	02/23/2022 04:32	WG1822116
1,2,4-Trichlorobenzene	ND		0.00100	1	02/23/2022 04:32	WG1822116
1,1,1-Trichloroethane	ND		0.00100	1	02/23/2022 04:32	WG1822116
1,1,2-Trichloroethane	ND		0.00100	1	02/23/2022 04:32	WG1822116
Trichloroethene	ND		0.00100	1	02/23/2022 04:32	WG1822116
Trichlorofluoromethane	ND		0.00500	1	02/23/2022 04:32	WG1822116
1,2,3-Trichloropropane	ND		0.00250	1	02/23/2022 04:32	WG1822116
1,2,4-Trimethylbenzene	ND		0.00100	1	02/23/2022 04:32	WG1822116
1,3,5-Trimethylbenzene	ND		0.00100	1	02/23/2022 04:32	WG1822116
Vinyl acetate	ND		0.0100	1	02/23/2022 04:32	WG1822116
Vinyl chloride	ND		0.00100	1	02/23/2022 04:32	WG1822116
Xylenes, Total	ND		0.00300	1	02/23/2022 04:32	WG1822116
Di-isopropyl ether	ND		0.00100	1	02/23/2022 04:32	WG1822116
Ethanol	ND		0.100	1	02/23/2022 04:32	WG1822116
Ethyl tert-butyl ether	ND		0.00100	1	02/23/2022 04:32	WG1822116
Methyl tert-butyl ether	0.238		0.0100	10	02/23/2022 14:55	WG1822418
tert-Butyl alcohol	ND		0.00500	1	02/23/2022 04:32	WG1822116
tert-Amyl Methyl Ether	0.00373		0.00100	1	02/23/2022 04:32	WG1822116
(S) Toluene-d8	*101*		*80.0-120*		*02/23/2022 04:32*	WG1822116
(S) Toluene-d8	*103*		*80.0-120*		*02/23/2022 14:55*	WG1822418
(S) 4-Bromofluorobenzene	*97.8*		*77.0-126*		*02/23/2022 04:32*	WG1822116
(S) 4-Bromofluorobenzene	*100*		*77.0-126*		*02/23/2022 14:55*	WG1822418
(S) 1,2-Dichloroethane-d4	*101*		*70.0-130*		*02/23/2022 04:32*	WG1822116
(S) 1,2-Dichloroethane-d4	*115*		*70.0-130*		*02/23/2022 14:55*	WG1822418

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	02/23/2022 02:43	WG1822116
Acrylonitrile	ND		0.0100	1	02/23/2022 02:43	WG1822116
Benzene	ND		0.00100	1	02/23/2022 02:43	WG1822116
Bromobenzene	ND		0.00100	1	02/23/2022 02:43	WG1822116
Bromochloromethane	ND		0.00100	1	02/23/2022 02:43	WG1822116
Bromodichloromethane	ND		0.00100	1	02/23/2022 02:43	WG1822116
Bromoform	ND		0.00100	1	02/23/2022 02:43	WG1822116
Bromomethane	ND		0.00500	1	02/23/2022 02:43	WG1822116
n-Butylbenzene	ND		0.00100	1	02/23/2022 02:43	WG1822116
sec-Butylbenzene	ND		0.00100	1	02/23/2022 02:43	WG1822116
tert-Butylbenzene	ND		0.00100	1	02/23/2022 02:43	WG1822116
Carbon tetrachloride	ND		0.00100	1	02/23/2022 02:43	WG1822116
Carbon disulfide	ND		0.00100	1	02/23/2022 02:43	WG1822116
Chlorobenzene	ND		0.00100	1	02/23/2022 02:43	WG1822116
Chlorodibromomethane	ND		0.00100	1	02/23/2022 02:43	WG1822116
Chloroethane	ND		0.00500	1	02/23/2022 02:43	WG1822116
Chloroform	ND		0.00500	1	02/23/2022 02:43	WG1822116
Chloromethane	ND	L1	0.00250	1	02/23/2022 02:43	WG1822116
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	02/23/2022 02:43	WG1822116
1,2-Dibromoethane	ND		0.00100	1	02/23/2022 02:43	WG1822116
Dibromomethane	ND		0.00100	1	02/23/2022 02:43	WG1822116
1,2-Dichlorobenzene	ND		0.00100	1	02/23/2022 02:43	WG1822116
1,3-Dichlorobenzene	ND		0.00100	1	02/23/2022 02:43	WG1822116
1,4-Dichlorobenzene	ND		0.00100	1	02/23/2022 02:43	WG1822116
trans-1,4-Dichloro-2-butene	ND		0.00250	1	02/23/2022 02:43	WG1822116
Dichlorodifluoromethane	ND		0.00500	1	02/23/2022 02:43	WG1822116
1,1-Dichloroethane	ND		0.00100	1	02/23/2022 02:43	WG1822116
1,2-Dichloroethane	ND		0.00100	1	02/23/2022 02:43	WG1822116
1,1-Dichloroethene	ND		0.00100	1	02/23/2022 02:43	WG1822116
cis-1,2-Dichloroethene	ND		0.00100	1	02/23/2022 02:43	WG1822116
trans-1,2-Dichloroethene	ND		0.00100	1	02/23/2022 02:43	WG1822116
1,2-Dichloropropane	ND		0.00100	1	02/23/2022 02:43	WG1822116
cis-1,3-Dichloropropene	ND		0.00100	1	02/23/2022 02:43	WG1822116
trans-1,3-Dichloropropene	ND		0.00100	1	02/23/2022 02:43	WG1822116
Ethylbenzene	ND		0.00100	1	02/23/2022 02:43	WG1822116
Hexachloro-1,3-butadiene	ND		0.00100	1	02/23/2022 02:43	WG1822116
2-Hexanone	ND		0.0100	1	02/23/2022 02:43	WG1822116
2-Butanone (MEK)	ND		0.0100	1	02/23/2022 02:43	WG1822116
Iodomethane	ND	L2	0.0100	1	02/23/2022 02:43	WG1822116
Methylene Chloride	ND		0.00500	1	02/23/2022 02:43	WG1822116
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	02/23/2022 02:43	WG1822116
Naphthalene	ND		0.00500	1	02/23/2022 02:43	WG1822116
n-Propylbenzene	ND		0.00100	1	02/23/2022 02:43	WG1822116
Styrene	ND		0.00100	1	02/23/2022 02:43	WG1822116
1,1,1,2-Tetrachloroethane	ND		0.00100	1	02/23/2022 02:43	WG1822116
1,1,2,2-Tetrachloroethane	ND		0.00100	1	02/23/2022 02:43	WG1822116
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	02/23/2022 02:43	WG1822116
Tetrachloroethene	ND		0.00100	1	02/23/2022 02:43	WG1822116
Toluene	ND		0.00100	1	02/23/2022 02:43	WG1822116
1,2,4-Trichlorobenzene	ND		0.00100	1	02/23/2022 02:43	WG1822116
1,1,1-Trichloroethane	ND		0.00100	1	02/23/2022 02:43	WG1822116
1,1,2-Trichloroethane	ND		0.00100	1	02/23/2022 02:43	WG1822116
Trichloroethene	ND		0.00100	1	02/23/2022 02:43	WG1822116
Trichlorofluoromethane	ND		0.00500	1	02/23/2022 02:43	WG1822116
1,2,3-Trichloropropane	ND		0.00250	1	02/23/2022 02:43	WG1822116
1,2,4-Trimethylbenzene	ND		0.00100	1	02/23/2022 02:43	WG1822116

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

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
1,3,5-Trimethylbenzene	ND		0.00100	1	02/23/2022 02:43	WG1822116
Vinyl acetate	ND		0.0100	1	02/23/2022 02:43	WG1822116
Vinyl chloride	ND		0.00100	1	02/23/2022 02:43	WG1822116
Xylenes, Total	ND		0.00300	1	02/23/2022 02:43	WG1822116
Di-isopropyl ether	ND		0.00100	1	02/23/2022 02:43	WG1822116
Ethanol	ND		0.100	1	02/23/2022 02:43	WG1822116
Ethyl tert-butyl ether	ND		0.00100	1	02/23/2022 02:43	WG1822116
Methyl tert-butyl ether	ND		0.00100	1	02/23/2022 02:43	WG1822116
tert-Butyl alcohol	ND		0.00500	1	02/23/2022 02:43	WG1822116
tert-Amyl Methyl Ether	ND		0.00100	1	02/23/2022 02:43	WG1822116
(S) Toluene-d8	*100*		*80.0-120*		*02/23/2022 02:43*	WG1822116
(S) 4-Bromofluorobenzene	*98.9*		*77.0-126*		*02/23/2022 02:43*	WG1822116
(S) 1,2-Dichloroethane-d4	*102*		*70.0-130*		*02/23/2022 02:43*	WG1822116

Method Blank (MB)

(MB) R3764712-1 02/24/22 13:31

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1463857-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1463857-01 02/24/22 13:31 • (DUP) R3764712-3 02/24/22 13:31

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	705	717	1	1.69		5

L1463857-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1463857-02 02/24/22 13:31 • (DUP) R3764712-4 02/24/22 13:31

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	755	780	1	3.30		5

Laboratory Control Sample (LCS)

(LCS) R3764712-2 02/24/22 13:31

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8410	95.6	77.4-123	

Method Blank (MB)

(MB) R3764150-1 02/24/22 16:09

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1463410-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1463410-01 02/24/22 16:09 • (DUP) R3764150-3 02/24/22 16:09

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	825	831	1	0.645		5

L1463857-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1463857-03 02/24/22 16:09 • (DUP) R3764150-4 02/24/22 16:09

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	768	776	1	1.04		5

Laboratory Control Sample (LCS)

(LCS) R3764150-2 02/24/22 16:09

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8550	97.2	77.4-123	

Method Blank (MB)

(MB) R3764159-1 02/24/22 19:26

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1463857-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1463857-04 02/24/22 19:26 • (DUP) R3764159-3 02/24/22 19:26

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	771	767	1	0.520		5

L1464264-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1464264-01 02/24/22 19:26 • (DUP) R3764159-4 02/24/22 19:26

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	689	695	1	0.772		5

Laboratory Control Sample (LCS)

(LCS) R3764159-2 02/24/22 19:26

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8560	97.3	77.4-123	

Method Blank (MB)

(MB) R3762930-1 02/22/22 09:48

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate	U		0.0480	0.100
Nitrite	U		0.0420	0.100
Sulfate	U		0.594	5.00

L1463691-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1463691-01 02/22/22 11:38 • (DUP) R3762930-3 02/22/22 11:51

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	ND	ND	1	0.000		15
Nitrite	ND	ND	1	0.000		15

Laboratory Control Sample (LCS)

(LCS) R3762930-2 02/22/22 10:01

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate	8.00	7.67	95.8	80.0-120	
Nitrite	8.00	7.72	96.5	80.0-120	
Sulfate	40.0	39.1	97.8	80.0-120	

L1463691-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1463691-01 02/22/22 11:38 • (MS) R3762930-4 02/22/22 12:04

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate	5.00	ND	4.98	98.4	1	80.0-120	
Nitrite	5.00	ND	5.10	102	1	80.0-120	

L1463857-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1463857-01 02/22/22 14:51 • (MS) R3762930-6 02/22/22 15:16 • (MSD) R3762930-8 02/22/22 15:29

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 %
Nitrate	5.00	1.64	4.48	4.52	56.7	57.5	1	80.0-120	M2	M2	0.925	15
Nitrite	5.00	ND	3.06	3.07	61.2	61.4	1	80.0-120	M2	M2	0.264	15

Method Blank (MB)

(MB) R3763380-1 02/23/22 13:01

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Sulfate	U		0.594	5.00

L1464287-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1464287-01 02/23/22 14:28 • (DUP) R3763380-9 02/23/22 14:44

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfate	75.0	75.0	1	0.00200		15

L1463816-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1463816-01 02/24/22 01:44 • (DUP) R3763380-15 02/24/22 03:25

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfate	233	232	1	0.320	E1	15

Laboratory Control Sample (LCS)

(LCS) R3763380-4 02/23/22 13:18

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Sulfate	40.0	40.9	102	80.0-120	

L1464287-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1464287-01 02/23/22 14:28 • (MS) R3763380-11 02/23/22 15:35 • (MSD) R3763380-12 02/23/22 15:52

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 %
Sulfate	50.0	75.0	123	125	96.9	99.9	1	80.0-120	E1	E1	1.23	15

QUALITY CONTROL SUMMARY

L1463857-01,02,03,04

Method Blank (MB)

(MB) R3763028-1 02/23/22 12:51

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Iron	U		0.0180	0.100

Laboratory Control Sample (LCS)

(LCS) R3763028-2 02/23/22 12:54

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Iron	10.0	9.44	94.4	80.0-120	

L1463857-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1463857-01 02/23/22 12:57 • (MS) R3763028-4 02/23/22 13:02 • (MSD) R3763028-5 02/23/22 13:05

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 %
Iron	10.0	ND	9.61	9.49	95.9	94.7	1	75.0-125			1.27	20

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

Method Blank (MB)

(MB) R3763084-2 02/23/22 13:47

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Methane	U		0.00291	0.0100
Ethane	U		0.00407	0.0130
Ethene	U		0.00426	0.0130

L1464007-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1464007-04 02/23/22 14:30 • (DUP) R3763084-3 02/23/22 14:37

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	ND	ND	1	0.000		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20

L1464007-14 Original Sample (OS) • Duplicate (DUP)

(OS) L1464007-14 02/23/22 15:20 • (DUP) R3763084-8 02/23/22 15:37

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	0.154	0.229	1	39.2		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20

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

(LCS) R3763084-1 02/23/22 13:44 • (LCSD) R3763084-9 02/23/22 15:44

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Methane	0.0678	0.0651	0.0679	96.0	100	85.0-115			4.21	20
Ethane	0.129	0.121	0.119	93.8	92.2	85.0-115			1.67	20
Ethene	0.127	0.123	0.121	96.9	95.3	85.0-115			1.64	20

L1463857-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1463857-01 02/23/22 14:08 • (MS) R3763084-4 02/23/22 15:23 • (MSD) R3763084-5 02/23/22 15:28

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 %
Methane	0.0678	ND	0.0701	0.0699	103	103	1	50.0-150			0.286	20
Ethane	0.129	ND	0.116	0.119	89.9	92.2	1	50.0-150			2.55	20
Ethene	0.127	ND	0.118	0.121	92.9	95.3	1	50.0-150			2.51	20

L1464007-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1464007-09 02/23/22 15:03 • (MS) R3763084-6 02/23/22 15:31 • (MSD) R3763084-7 02/23/22 15:34

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 %
Methane	0.0678	1.76	2.13	2.16	546	590	1	50.0-150	M3	M3	1.40	20
Ethane	0.129	ND	0.126	0.119	97.7	92.2	1	50.0-150			5.71	20
Ethene	0.127	ND	0.126	0.120	99.2	94.5	1	50.0-150			4.88	20

Method Blank (MB)

(MB) R3762852-4 02/22/22 15:21

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	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
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
trans-1,4-Dichloro-2-butene	U		0.000467	0.00250
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
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Di-isopropyl ether	U		0.000105	0.00100
Ethylbenzene	U		0.000137	0.00100
Ethanol	U		0.0420	0.100
Hexachloro-1,3-butadiene	U		0.000337	0.00100
2-Hexanone	U		0.000787	0.0100
Iodomethane	U		0.00600	0.0100

Method Blank (MB)

(MB) R3762852-4 02/22/22 15:21

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
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
1,2,4-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
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl acetate	U		0.000692	0.0100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
tert-Amyl Methyl Ether	U		0.000195	0.00100
Ethyl tert-butyl ether	U		0.000101	0.00100
tert-Butyl alcohol	U		0.00406	0.00500
(S) Toluene-d8	*103*			*80.0-120*
(S) 4-Bromofluorobenzene	*95.4*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*

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

(LCS) R3762852-1 02/22/22 13:54 • (LCSD) R3762852-2 02/22/22 14:16

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	0.0264	0.0273	106	109	19.0-160			3.35	27
Acrylonitrile	0.0250	0.0265	0.0271	106	108	55.0-149			2.24	20
Benzene	0.00500	0.00438	0.00440	87.6	88.0	70.0-123			0.456	20
Bromobenzene	0.00500	0.00449	0.00461	89.8	92.2	73.0-121			2.64	20

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

(LCS) R3762852-1 02/22/22 13:54 • (LCSD) R3762852-2 02/22/22 14:16

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromodichloromethane	0.00500	0.00453	0.00443	90.6	88.6	75.0-120			2.23	20
Bromochloromethane	0.00500	0.00433	0.00420	86.6	84.0	76.0-122			3.05	20
Bromoform	0.00500	0.00357	0.00345	71.4	69.0	68.0-132			3.42	20
Bromomethane	0.00500	0.000787	0.000872	15.7	17.4	10.0-160			10.2	25
n-Butylbenzene	0.00500	0.00420	0.00442	84.0	88.4	73.0-125			5.10	20
sec-Butylbenzene	0.00500	0.00444	0.00454	88.8	90.8	75.0-125			2.23	20
tert-Butylbenzene	0.00500	0.00459	0.00457	91.8	91.4	76.0-124			0.437	20
Carbon disulfide	0.00500	0.00497	0.00530	99.4	106	61.0-128			6.43	20
Carbon tetrachloride	0.00500	0.00428	0.00422	85.6	84.4	68.0-126			1.41	20
Chlorobenzene	0.00500	0.00452	0.00441	90.4	88.2	80.0-121			2.46	20
Chlorodibromomethane	0.00500	0.00414	0.00423	82.8	84.6	77.0-125			2.15	20
Chloroethane	0.00500	0.00455	0.00483	91.0	96.6	47.0-150			5.97	20
Chloroform	0.00500	0.00472	0.00481	94.4	96.2	73.0-120			1.89	20
Chloromethane	0.00500	0.0108	0.0111	216	222	41.0-142	L1	L1	2.74	20
1,2-Dibromo-3-Chloropropane	0.00500	0.00354	0.00352	70.8	70.4	58.0-134			0.567	20
1,2-Dibromoethane	0.00500	0.00440	0.00424	88.0	84.8	80.0-122			3.70	20
Dibromomethane	0.00500	0.00466	0.00444	93.2	88.8	80.0-120			4.84	20
1,2-Dichlorobenzene	0.00500	0.00447	0.00441	89.4	88.2	79.0-121			1.35	20
1,3-Dichlorobenzene	0.00500	0.00451	0.00444	90.2	88.8	79.0-120			1.56	20
1,4-Dichlorobenzene	0.00500	0.00442	0.00425	88.4	85.0	79.0-120			3.92	20
trans-1,4-Dichloro-2-butene	0.00500	0.00338	0.00336	67.6	67.2	33.0-144			0.593	20
Dichlorodifluoromethane	0.00500	0.00502	0.00503	100	101	51.0-149			0.199	20
1,1-Dichloroethane	0.00500	0.00464	0.00455	92.8	91.0	70.0-126			1.96	20
1,2-Dichloroethane	0.00500	0.00451	0.00441	90.2	88.2	70.0-128			2.24	20
1,1-Dichloroethene	0.00500	0.00460	0.00481	92.0	96.2	71.0-124			4.46	20
cis-1,2-Dichloroethene	0.00500	0.00459	0.00456	91.8	91.2	73.0-120			0.656	20
trans-1,2-Dichloroethene	0.00500	0.00471	0.00483	94.2	96.6	73.0-120			2.52	20
1,2-Dichloropropane	0.00500	0.00503	0.00492	101	98.4	77.0-125			2.21	20
cis-1,3-Dichloropropene	0.00500	0.00418	0.00414	83.6	82.8	80.0-123			0.962	20
trans-1,3-Dichloropropene	0.00500	0.00406	0.00408	81.2	81.6	78.0-124			0.491	20
Di-isopropyl ether	0.00500	0.00539	0.00538	108	108	58.0-138			0.186	20
Ethylbenzene	0.00500	0.00447	0.00449	89.4	89.8	79.0-123			0.446	20
Hexachloro-1,3-butadiene	0.00500	0.00374	0.00408	74.8	81.6	54.0-138			8.70	20
2-Hexanone	0.0250	0.0241	0.0239	96.4	95.6	67.0-149			0.833	20
Iodomethane	0.0250	0.00575	0.00636	23.0	25.4	33.0-147	L2	L2	10.1	26
2-Butanone (MEK)	0.0250	0.0282	0.0276	113	110	44.0-160			2.15	20
Methylene Chloride	0.00500	0.00430	0.00448	86.0	89.6	67.0-120			4.10	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.0271	0.0265	108	106	68.0-142			2.24	20
Methyl tert-butyl ether	0.00500	0.00442	0.00458	88.4	91.6	68.0-125			3.56	20
Naphthalene	0.00500	0.00372	0.00366	74.4	73.2	54.0-135			1.63	20

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

(LCS) R3762852-1 02/22/22 13:54 • (LCSD) R3762852-2 02/22/22 14:16

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
n-Propylbenzene	0.00500	0.00460	0.00462	92.0	92.4	77.0-124			0.434	20
Styrene	0.00500	0.00395	0.00396	79.0	79.2	73.0-130			0.253	20
1,1,1,2-Tetrachloroethane	0.00500	0.00411	0.00423	82.2	84.6	75.0-125			2.88	20
1,1,2,2-Tetrachloroethane	0.00500	0.00470	0.00458	94.0	91.6	65.0-130			2.59	20
Tetrachloroethene	0.00500	0.00445	0.00454	89.0	90.8	72.0-132			2.00	20
Toluene	0.00500	0.00440	0.00445	88.0	89.0	79.0-120			1.13	20
1,1,2-Trichlorotrifluoroethane	0.00500	0.00466	0.00463	93.2	92.6	69.0-132			0.646	20
1,2,4-Trichlorobenzene	0.00500	0.00362	0.00376	72.4	75.2	57.0-137			3.79	20
1,1,1-Trichloroethane	0.00500	0.00466	0.00458	93.2	91.6	73.0-124			1.73	20
1,1,2-Trichloroethane	0.00500	0.00456	0.00459	91.2	91.8	80.0-120			0.656	20
Trichloroethene	0.00500	0.00471	0.00476	94.2	95.2	78.0-124			1.06	20
Trichlorofluoromethane	0.00500	0.00468	0.00465	93.6	93.0	59.0-147			0.643	20
1,2,3-Trichloropropane	0.00500	0.00463	0.00459	92.6	91.8	73.0-130			0.868	20
1,2,4-Trimethylbenzene	0.00500	0.00466	0.00469	93.2	93.8	76.0-121			0.642	20
1,3,5-Trimethylbenzene	0.00500	0.00449	0.00457	89.8	91.4	76.0-122			1.77	20
Vinyl acetate	0.0250	0.0224	0.0232	89.6	92.8	11.0-160			3.51	20
Vinyl chloride	0.00500	0.00501	0.00499	100	99.8	67.0-131			0.400	20
Xylenes, Total	0.0150	0.0135	0.0135	90.0	90.0	79.0-123			0.000	20
ethanol	0.250	0.269	0.271	108	108	10.0-160			0.741	30
tert-Butyl alcohol	0.0250	0.0250	0.0242	100	96.8	27.0-160			3.25	30
tert-Amyl Methyl Ether	0.00500	0.00459	0.00451	91.8	90.2	66.0-125			1.76	20
Ethyl tert-butyl ether	0.00500	0.00479	0.00483	95.8	96.6	63.0-138			0.832	20
(S) Toluene-d8				*98.4*	*99.3*	*80.0-120*				
(S) 4-Bromofluorobenzene				*99.1*	*98.0*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*103*	*102*	*70.0-130*				

L1463857-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1463857-01 02/23/22 03:27 • (MS) R3762852-5 02/23/22 06:21 • (MSD) R3762852-6 02/23/22 06:43

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 %
Bromochloromethane	0.00500	ND	0.00452	0.00494	90.4	98.8	1	38.0-142			8.88	26
Carbon disulfide	0.00500	ND	0.00670	0.00742	134	148	1	10.0-156			10.2	28
Acetone	0.0250	ND	0.0806	ND	322	148	1	10.0-160	M1	R5	74.1	35
Acrylonitrile	0.0250	ND	0.0264	0.0289	106	116	1	21.0-160			9.04	32
Benzene	0.00500	ND	0.00449	0.00484	89.8	96.8	1	17.0-158			7.50	27
Bromobenzene	0.00500	ND	0.00471	0.00521	94.2	104	1	30.0-149			10.1	28
Bromodichloromethane	0.00500	ND	0.00303	0.00318	60.6	63.6	1	31.0-150			4.83	27
Bromoform	0.00500	ND	0.00104	ND	20.8	19.1	1	29.0-150	M2	M2	8.63	29

L1463857-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1463857-01 02/23/22 03:27 • (MS) R3762852-5 02/23/22 06:21 • (MSD) R3762852-6 02/23/22 06:43

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 %
Bromomethane	0.00500	ND	ND	ND	17.1	16.3	1	10.0-160			4.91	38
trans-1,4-Dichloro-2-butene	0.00500	ND	0.00406	0.00420	81.2	84.0	1	10.0-157			3.39	37
n-Butylbenzene	0.00500	ND	0.00463	0.00510	92.6	102	1	31.0-150			9.66	30
sec-Butylbenzene	0.00500	ND	0.00456	0.00491	91.2	98.2	1	33.0-155			7.39	29
tert-Butylbenzene	0.00500	ND	0.00468	0.00506	93.6	101	1	34.0-153			7.80	28
Carbon tetrachloride	0.00500	ND	ND	ND	5.40	4.18	1	23.0-159	M2	M2	25.5	28
Chlorobenzene	0.00500	ND	0.00463	0.00507	92.6	101	1	33.0-152			9.07	27
Chlorodibromomethane	0.00500	ND	0.00141	0.00129	28.2	25.8	1	37.0-149	M2	M2	8.89	27
Chloroethane	0.00500	ND	0.00528	0.00559	106	112	1	10.0-160			5.70	30
Chloroform	0.00500	ND	0.00521	0.00562	104	112	1	29.0-154			7.57	28
Chloromethane	0.00500	ND	0.0110	0.0140	220	280	1	10.0-160	M1	M1	24.0	29
1,2-Dibromo-3-Chloropropane	0.00500	ND	ND	ND	90.0	91.0	1	22.0-151			1.10	34
1,2-Dibromoethane	0.00500	ND	0.00434	0.00488	86.8	97.6	1	34.0-147			11.7	27
Dibromomethane	0.00500	ND	0.00460	0.00507	92.0	101	1	30.0-151			9.72	27
1,2-Dichlorobenzene	0.00500	ND	0.00452	0.00488	90.4	97.6	1	34.0-149			7.66	28
1,3-Dichlorobenzene	0.00500	ND	0.00468	0.00506	93.6	101	1	36.0-146			7.80	27
2-Hexanone	0.0250	ND	0.0251	0.0285	100	114	1	21.0-160			12.7	29
1,4-Dichlorobenzene	0.00500	ND	0.00463	0.00498	92.6	99.6	1	35.0-142			7.28	27
Iodomethane	0.0250	ND	ND	ND	32.0	27.8	1	10.0-160			14.1	40
Dichlorodifluoromethane	0.00500	ND	0.00584	0.00624	117	125	1	10.0-160			6.62	29
1,1-Dichloroethane	0.00500	ND	0.00470	0.00513	94.0	103	1	25.0-158			8.75	27
1,2-Dichloroethane	0.00500	ND	0.00452	0.00489	90.4	97.8	1	29.0-151			7.86	27
1,1-Dichloroethene	0.00500	ND	0.00651	0.00736	130	147	1	11.0-160			12.3	29
cis-1,2-Dichloroethene	0.00500	ND	0.00461	0.00507	92.2	101	1	10.0-160			9.50	27
trans-1,2-Dichloroethene	0.00500	ND	0.00497	0.00544	99.4	109	1	17.0-153			9.03	27
1,2-Dichloropropane	0.00500	ND	0.00504	0.00559	101	112	1	30.0-156			10.3	27
cis-1,3-Dichloropropene	0.00500	ND	0.00384	0.00426	76.8	85.2	1	34.0-149			10.4	28
trans-1,3-Dichloropropene	0.00500	ND	0.00409	0.00436	81.8	87.2	1	32.0-149			6.39	28
Di-isopropyl ether	0.00500	ND	0.00533	0.00592	107	118	1	21.0-160			10.5	28
Ethylbenzene	0.00500	ND	0.00469	0.00504	93.8	101	1	30.0-155			7.19	27
Hexachloro-1,3-butadiene	0.00500	ND	0.00381	0.00388	76.2	77.6	1	20.0-154			1.82	34
2-Butanone (MEK)	0.0250	ND	0.0282	0.0311	113	124	1	10.0-160			9.78	32
Methylene Chloride	0.00500	ND	ND	ND	89.2	96.0	1	23.0-144			7.34	28
4-Methyl-2-pentanone (MIBK)	0.0250	ND	0.0286	0.0320	114	128	1	29.0-160			11.2	29
Methyl tert-butyl ether	0.00500	ND	0.00450	0.00489	90.0	97.8	1	28.0-150			8.31	29
Vinyl acetate	0.0250	ND	0.0363	0.0398	145	159	1	12.0-160			9.20	31
Naphthalene	0.00500	ND	ND	ND	62.0	60.0	1	12.0-156			3.28	35
tert-Amyl Methyl Ether	0.00500	ND	0.00439	0.00484	87.8	96.8	1	10.0-160			9.75	37
Ethyl tert-butyl ether	0.00500	ND	0.00496	0.00527	99.2	105	1	10.0-160			6.06	37
n-Propylbenzene	0.00500	ND	0.00483	0.00518	96.6	104	1	31.0-154			6.99	28

L1463857-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1463857-01 02/23/22 03:27 • (MS) R3762852-5 02/23/22 06:21 • (MSD) R3762852-6 02/23/22 06:43

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 %
Styrene	0.00500	ND	0.00422	0.00465	84.4	93.0	1	33.0-155			9.70	28
1,1,1,2-Tetrachloroethane	0.00500	ND	0.00231	0.00236	46.2	47.2	1	36.0-151			2.14	29
1,1,2,2-Tetrachloroethane	0.00500	ND	0.00499	0.00530	99.8	106	1	33.0-150			6.03	28
Tetrachloroethene	0.00500	ND	0.00478	0.00531	95.6	106	1	10.0-160			10.5	27
Toluene	0.00500	ND	0.00458	0.00506	91.6	101	1	26.0-154			9.96	28
1,1,2-Trichlorotrifluoroethane	0.00500	ND	0.00543	0.00594	109	119	1	23.0-160			8.97	30
1,2,4-Trichlorobenzene	0.00500	ND	0.00347	0.00353	69.4	70.6	1	24.0-150			1.71	33
1,1,1-Trichloroethane	0.00500	ND	0.00456	0.00489	91.2	97.8	1	23.0-160			6.98	28
1,1,2-Trichloroethane	0.00500	ND	0.00473	0.00510	94.6	102	1	35.0-147			7.53	27
Trichloroethene	0.00500	ND	0.00472	0.00519	94.4	104	1	10.0-160			9.49	25
Trichlorofluoromethane	0.00500	ND	0.00526	0.00565	105	113	1	17.0-160			7.15	31
1,2,3-Trichloropropane	0.00500	ND	0.00475	0.00513	95.0	103	1	34.0-151			7.69	29
1,2,4-Trimethylbenzene	0.00500	ND	0.00462	0.00509	92.4	102	1	26.0-154			9.68	27
1,3,5-Trimethylbenzene	0.00500	ND	0.00431	0.00467	86.2	93.4	1	28.0-153			8.02	27
Vinyl chloride	0.00500	ND	0.00556	0.00582	111	116	1	10.0-160			4.57	27
Xylenes, Total	0.0150	ND	0.0137	0.0153	91.3	102	1	29.0-154			11.0	28
ethanol	0.250	ND	0.397	0.293	159	117	1	50.0-150	M1	R5	30.1	20
tert-Butyl alcohol	0.0250	ND	0.0225	0.0274	90.0	110	1	50.0-150			19.6	20
(S) Toluene-d8					*97.3*	*99.2*		*80.0-120*				
(S) 4-Bromofluorobenzene					*98.0*	*99.8*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*101*	*102*		*70.0-130*				

Method Blank (MB)

(MB) R3763561-3 02/23/22 10:43

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Methyl tert-butyl ether	U		0.000101	0.00100
(S) Toluene-d8	*105*			*80.0-120*
(S) 4-Bromofluorobenzene	*97.9*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*113*			*70.0-130*

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

(LCS) R3763561-1 02/23/22 09:22 • (LCSD) R3763561-2 02/23/22 09:42

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Methyl tert-butyl ether	0.00500	0.00549	0.00537	110	107	68.0-125			2.21	20
(S) Toluene-d8				*103*	*105*	*80.0-120*				
(S) 4-Bromofluorobenzene				*96.2*	*106*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*114*	*116*	*70.0-130*				

INTERNAL STANDARD SUMMARY

Instrument: VOCMS32 • File ID: 0223_02

02/23/22 09:22

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0223_02	131277	54052	30329
Upper Limit		262554	108104	60658
Lower Limit		65639	27026	15165
LCS R3763561-1 WG1822418 1x	0223_02LCSC	131277	54052	30329
LCSD R3763561-2 WG1822418 1x	0223_03C	128959	52320	33198
BLANK R3763561-3 WG1822418 1x	0223_06C	129399	51274	30935
L1463857-03 WG1822418 20x	0223_11	127318	50658	29647
L1463857-04 WG1822418 10x	0223_12	130600	52324	32813

Instrument: VOCMS36 • File ID: 0222_12

02/22/22 13:54

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0222_12	260504	122749	107073
Upper Limit		521008	245498	214146
Lower Limit		130252	61375	53537
LCS R3762852-1 WG1822116 1x	0222_12LCS	260504	122749	107073
LCSD R3762852-2 WG1822116 1x	0222_13	264816	123120	107540
BLANK R3762852-4 WG1822116 1x	0222_16	262829	117083	99743

Instrument: VOCMS36 • File ID: 0222_34

02/23/22 01:38

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0222_34	259907	120190	102932
Upper Limit		519814	240380	205864
Lower Limit		129954	60095	51466
L1463857-05 WG1822116 1x	0222_37	260945	119196	101403
L1463857-01 WG1822116 1x	0222_39	259314	116937	100151
L1463857-02 WG1822116 1x	0222_40	238709	108842	86460
L1463857-03 WG1822116 1x	0222_41	261029	116217	94506
L1463857-04 WG1822116 1x	0222_42	247604	110139	90286

INTERNAL STANDARD SUMMARY

Instrument: VOCMS36 • File ID: 0222_34

02/23/22 01:38

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
MS R3762852-5 WG1822116 1x	0222_47	261806	119999	104078
MSD R3762852-6 WG1822116 1x	0222_48	256611	116166	103057

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.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	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
E1	Concentration estimated. Analyte exceeded calibration range. Reanalysis not possible due to insufficient sample.
L1	The associated blank spike recovery was above laboratory acceptance limits.
L2	The associated blank spike recovery was below laboratory acceptance limits.
M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike recovery was acceptable.
R5	MS/MSD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.

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:
Kinder Morgan - Rocklin, CA-AZ Work

410 N.44th Street
Suite 1000
Phoenix. AZ 85008

Billing Information:
Accounts Payable- Alan Van Antwerp
9950 SAN DIEGO MISSION RD.
SAN DIEGO, CA 92108

Pres Chk

Report to: Bob Forsberg

Email To: bob.forsberg@arcadis-us.com;sascha.arnold@arcadis.com

Project Description: KMEP Silvercroft Wash

City/State Collected: Tucson, AZ

Please Circle: PT MT CT ET

Phone: 602-438-0883

Client Project # 30113573.01

Lab Project # KINARCPAZ-SILVERCROF

Collected by (print): SxA, MAT

Site/Facility ID # SILVERCROFT WASH

P.O. # WD876456

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed: STD TURN

Quote #

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	*NO2,NO3,SO4 125mlHDPE-NoPres	EEM RSK175 40mlAmb HCl	HOLD - NO2+NO3 250mlHDPE-H2SO4	TDS 1L-HDPE NoPres	Total Fe 6010 250mlHDPE-HNO3	VOCs+OXYs 8260 40mlAmb-HCl	Remarks	Sample # (lab only)
MW-29D	Grab	GW	235'	2/21/22	1327	18	X	X	X	X	X	X	MS/MSD	-01
MW-1D	↓	GW	235'	↓	1502	9	X	X	X	X	X	X		-02
MW-2D	↓	GW	235'	↓	1607	9	X	X	X	X	X	X		-03
MW-2D-DUP	grab	GW	235'	2/21/22	1612	9	X	X	X	X	X	X		-04
		GW												
		GW												
		GW												
		GW												
		GW												
Trip Blank	Grab	GW	—	2/21/22	—	1						X		-05

Chain of Custody Page 1 of 1

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1463857
C085
Table

Acctnum: KINARCPAZ
Template: T190237
Prelogin: P903930
PM: 110 - Brian Ford
PB:
Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: *NO2,NO3 have a 48 hour holding time.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: __ UPS __ FedEx __ Courier _____

Tracking # 5528 5946 5025

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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	2/21/22	1745	FedEx
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
			K. Valen

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: 2.4+0.2°C

Bottles Received: 45

Date: 2/22/22 Time: 900

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

ANALYTICAL REPORT

March 03, 2022

Kinder Morgan - Rocklin, CA-AZ Work

Sample Delivery Group:	L1464264
Samples Received:	02/23/2022
Project Number:	30113573.01
Description:	KMEP Silvercroft Wash
Site:	SILVERCROFT WASH
Report To:	Bob Forsberg 410 N.44th Street Suite 1000 Phoenix, AZ 85008

Entire Report Reviewed By:

Brian Ford

Project Manager

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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MW-29M L1464264-01 GW

Collected by	Collected date/time	Received date/time
MAT/SA	02/22/22 09:22	02/23/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1823416	1	02/24/22 17:19	02/24/22 19:26	BRG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1822359	1	02/23/22 15:19	02/23/22 15:19	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1822359	5	02/23/22 15:34	02/23/22 15:34	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1822780	1	02/23/22 17:29	02/24/22 03:06	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1822758	1	02/24/22 12:34	02/24/22 12:34	DBB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1822772	1	02/23/22 22:23	02/23/22 22:23	ACG	Mt. Juliet, TN

MW-1M L1464264-02 GW

Collected by	Collected date/time	Received date/time
MAT/SA	02/22/22 10:37	02/23/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1822769	1	02/24/22 12:56	02/24/22 13:31	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1822359	1	02/23/22 16:48	02/23/22 16:48	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1822359	5	02/23/22 17:03	02/23/22 17:03	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1822780	1	02/23/22 17:29	02/24/22 03:25	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1822758	1	02/24/22 13:30	02/24/22 13:30	DBB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1822772	1	02/23/22 22:45	02/23/22 22:45	ACG	Mt. Juliet, TN

MW-2M L1464264-03 GW

Collected by	Collected date/time	Received date/time
MAT/SA	02/22/22 12:12	02/23/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1823416	1	02/24/22 17:19	02/24/22 19:26	BRG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1822359	1	02/23/22 17:18	02/23/22 17:18	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1822359	5	02/23/22 17:33	02/23/22 17:33	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1822780	1	02/23/22 17:29	02/24/22 03:34	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1822758	1	02/24/22 13:33	02/24/22 13:33	DBB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1822772	1	02/23/22 23:06	02/23/22 23:06	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1824908	50	02/28/22 15:06	02/28/22 15:06	BMB	Mt. Juliet, TN

MW-2S L1464264-04 GW

Collected by	Collected date/time	Received date/time
MAT/SA	02/22/22 13:47	02/23/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1822769	1	02/24/22 12:56	02/24/22 13:31	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1822359	1	02/23/22 17:48	02/23/22 17:48	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1822359	5	02/23/22 18:03	02/23/22 18:03	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1822780	1	02/23/22 17:29	02/24/22 03:36	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1822758	1	02/24/22 13:36	02/24/22 13:36	DBB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1822772	10	02/24/22 00:33	02/24/22 00:33	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1824908	1000	02/28/22 15:27	02/28/22 15:27	BMB	Mt. Juliet, TN

MW-29S L1464264-05 GW

Collected by	Collected date/time	Received date/time
MAT/SA	02/22/22 14:47	02/23/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1825498	1	03/01/22 13:43	03/01/22 16:28	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1822359	1	02/23/22 18:18	02/23/22 18:18	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1822359	5	02/23/22 18:33	02/23/22 18:33	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1822780	1	02/23/22 17:29	02/24/22 03:39	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1822758	1	02/24/22 13:46	02/24/22 13:46	DBB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1824908	250	02/28/22 15:47	02/28/22 15:47	BMB	Mt. Juliet, TN

EQUIPMENT BLANKS L1464264-06 GW

Collected by	Collected date/time	Received date/time
MAT/SA	02/22/22 08:15	02/23/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1822772	1	02/23/22 19:31	02/23/22 19:31	ACG	Mt. Juliet, TN

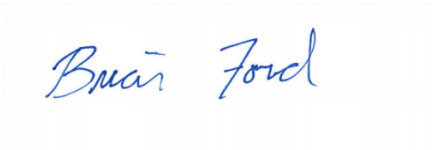
TRIP BLANK L1464264-07 GW

Collected by	Collected date/time	Received date/time
MAT/SA	02/22/22 00:00	02/23/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1822772	1	02/23/22 19:09	02/23/22 19:09	ACG	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.



Brian Ford
Project Manager

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	689		13.3	1	02/24/2022 19:26	WG1823416

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	3.28		0.100	1	02/23/2022 15:19	WG1822359
Nitrite	ND		0.100	1	02/23/2022 15:19	WG1822359
Sulfate	220		25.0	5	02/23/2022 15:34	WG1822359

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	ND		0.100	1	02/24/2022 03:06	WG1822780

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND	R5	0.0100	1	02/24/2022 12:34	WG1822758
Ethane	ND		0.0130	1	02/24/2022 12:34	WG1822758
Ethene	ND		0.0130	1	02/24/2022 12:34	WG1822758

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	02/23/2022 22:23	WG1822772
Acrylonitrile	ND		0.0100	1	02/23/2022 22:23	WG1822772
Benzene	ND		0.00100	1	02/23/2022 22:23	WG1822772
Bromobenzene	ND		0.00100	1	02/23/2022 22:23	WG1822772
Bromochloromethane	ND		0.00100	1	02/23/2022 22:23	WG1822772
Bromodichloromethane	ND		0.00100	1	02/23/2022 22:23	WG1822772
Bromoform	ND	L2	0.00100	1	02/23/2022 22:23	WG1822772
Bromomethane	ND		0.00500	1	02/23/2022 22:23	WG1822772
n-Butylbenzene	ND		0.00100	1	02/23/2022 22:23	WG1822772
sec-Butylbenzene	ND		0.00100	1	02/23/2022 22:23	WG1822772
tert-Butylbenzene	ND		0.00100	1	02/23/2022 22:23	WG1822772
Carbon tetrachloride	ND		0.00100	1	02/23/2022 22:23	WG1822772
Carbon disulfide	ND		0.00100	1	02/23/2022 22:23	WG1822772
Chlorobenzene	ND		0.00100	1	02/23/2022 22:23	WG1822772
Chlorodibromomethane	ND		0.00100	1	02/23/2022 22:23	WG1822772
Chloroethane	ND		0.00500	1	02/23/2022 22:23	WG1822772
Chloroform	ND		0.00500	1	02/23/2022 22:23	WG1822772
Chloromethane	ND		0.00250	1	02/23/2022 22:23	WG1822772
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	02/23/2022 22:23	WG1822772
1,2-Dibromoethane	ND		0.00100	1	02/23/2022 22:23	WG1822772
Dibromomethane	ND		0.00100	1	02/23/2022 22:23	WG1822772
1,2-Dichlorobenzene	ND		0.00100	1	02/23/2022 22:23	WG1822772
1,3-Dichlorobenzene	ND		0.00100	1	02/23/2022 22:23	WG1822772
1,4-Dichlorobenzene	ND		0.00100	1	02/23/2022 22:23	WG1822772
trans-1,4-Dichloro-2-butene	ND		0.00250	1	02/23/2022 22:23	WG1822772
Dichlorodifluoromethane	ND		0.00500	1	02/23/2022 22:23	WG1822772
1,1-Dichloroethane	ND		0.00100	1	02/23/2022 22:23	WG1822772
1,2-Dichloroethane	ND		0.00100	1	02/23/2022 22:23	WG1822772
1,1-Dichloroethene	ND		0.00100	1	02/23/2022 22:23	WG1822772
cis-1,2-Dichloroethene	ND		0.00100	1	02/23/2022 22:23	WG1822772

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.00100	1	02/23/2022 22:23	WG1822772
1,2-Dichloropropane	ND		0.00100	1	02/23/2022 22:23	WG1822772
cis-1,3-Dichloropropene	ND		0.00100	1	02/23/2022 22:23	WG1822772
trans-1,3-Dichloropropene	ND		0.00100	1	02/23/2022 22:23	WG1822772
Ethylbenzene	ND		0.00100	1	02/23/2022 22:23	WG1822772
Hexachloro-1,3-butadiene	ND		0.00100	1	02/23/2022 22:23	WG1822772
2-Hexanone	ND		0.0100	1	02/23/2022 22:23	WG1822772
2-Butanone (MEK)	ND		0.0100	1	02/23/2022 22:23	WG1822772
Iodomethane	ND		0.0100	1	02/23/2022 22:23	WG1822772
Methylene Chloride	ND		0.00500	1	02/23/2022 22:23	WG1822772
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	02/23/2022 22:23	WG1822772
Naphthalene	ND		0.00500	1	02/23/2022 22:23	WG1822772
n-Propylbenzene	ND		0.00100	1	02/23/2022 22:23	WG1822772
Styrene	ND		0.00100	1	02/23/2022 22:23	WG1822772
1,1,1,2-Tetrachloroethane	ND		0.00100	1	02/23/2022 22:23	WG1822772
1,1,2,2-Tetrachloroethane	ND		0.00100	1	02/23/2022 22:23	WG1822772
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	02/23/2022 22:23	WG1822772
Tetrachloroethene	ND		0.00100	1	02/23/2022 22:23	WG1822772
Toluene	ND		0.00100	1	02/23/2022 22:23	WG1822772
1,2,4-Trichlorobenzene	ND		0.00100	1	02/23/2022 22:23	WG1822772
1,1,1-Trichloroethane	ND		0.00100	1	02/23/2022 22:23	WG1822772
1,1,2-Trichloroethane	ND		0.00100	1	02/23/2022 22:23	WG1822772
Trichloroethene	ND		0.00100	1	02/23/2022 22:23	WG1822772
Trichlorofluoromethane	ND		0.00500	1	02/23/2022 22:23	WG1822772
1,2,3-Trichloropropane	ND		0.00250	1	02/23/2022 22:23	WG1822772
1,2,4-Trimethylbenzene	ND		0.00100	1	02/23/2022 22:23	WG1822772
1,3,5-Trimethylbenzene	ND		0.00100	1	02/23/2022 22:23	WG1822772
Vinyl acetate	ND	M1	0.0100	1	02/23/2022 22:23	WG1822772
Vinyl chloride	ND		0.00100	1	02/23/2022 22:23	WG1822772
Xylenes, Total	ND		0.00300	1	02/23/2022 22:23	WG1822772
Di-isopropyl ether	ND		0.00100	1	02/23/2022 22:23	WG1822772
Ethanol	ND	M1	0.100	1	02/23/2022 22:23	WG1822772
Ethyl tert-butyl ether	ND		0.00100	1	02/23/2022 22:23	WG1822772
Methyl tert-butyl ether	0.180	M3	0.00100	1	02/23/2022 22:23	WG1822772
tert-Butyl alcohol	ND	M1	0.00500	1	02/23/2022 22:23	WG1822772
tert-Amyl Methyl Ether	0.0222		0.00100	1	02/23/2022 22:23	WG1822772
(S) Toluene-d8	*99.6*		*80.0-120*		*02/23/2022 22:23*	WG1822772
(S) 4-Bromofluorobenzene	*99.1*		*77.0-126*		*02/23/2022 22:23*	WG1822772
(S) 1,2-Dichloroethane-d4	*96.2*		*70.0-130*		*02/23/2022 22:23*	WG1822772

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

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	643		13.3	1	02/24/2022 13:31	WG1822769

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Nitrate	3.29		0.100	1	02/23/2022 16:48	WG1822359
Nitrite	ND		0.100	1	02/23/2022 16:48	WG1822359
Sulfate	233		25.0	5	02/23/2022 17:03	WG1822359

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Iron	1.10		0.100	1	02/24/2022 03:25	WG1822780

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Methane	ND		0.0100	1	02/24/2022 13:30	WG1822758
Ethane	ND		0.0130	1	02/24/2022 13:30	WG1822758
Ethene	ND		0.0130	1	02/24/2022 13:30	WG1822758

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Acetone	ND		0.0500	1	02/23/2022 22:45	WG1822772
Acrylonitrile	ND		0.0100	1	02/23/2022 22:45	WG1822772
Benzene	ND		0.00100	1	02/23/2022 22:45	WG1822772
Bromobenzene	ND		0.00100	1	02/23/2022 22:45	WG1822772
Bromochloromethane	ND		0.00100	1	02/23/2022 22:45	WG1822772
Bromodichloromethane	ND		0.00100	1	02/23/2022 22:45	WG1822772
Bromoform	ND	L2	0.00100	1	02/23/2022 22:45	WG1822772
Bromomethane	ND		0.00500	1	02/23/2022 22:45	WG1822772
n-Butylbenzene	ND		0.00100	1	02/23/2022 22:45	WG1822772
sec-Butylbenzene	ND		0.00100	1	02/23/2022 22:45	WG1822772
tert-Butylbenzene	ND		0.00100	1	02/23/2022 22:45	WG1822772
Carbon tetrachloride	ND		0.00100	1	02/23/2022 22:45	WG1822772
Carbon disulfide	ND		0.00100	1	02/23/2022 22:45	WG1822772
Chlorobenzene	ND		0.00100	1	02/23/2022 22:45	WG1822772
Chlorodibromomethane	ND		0.00100	1	02/23/2022 22:45	WG1822772
Chloroethane	ND		0.00500	1	02/23/2022 22:45	WG1822772
Chloroform	ND		0.00500	1	02/23/2022 22:45	WG1822772
Chloromethane	ND		0.00250	1	02/23/2022 22:45	WG1822772
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	02/23/2022 22:45	WG1822772
1,2-Dibromoethane	ND		0.00100	1	02/23/2022 22:45	WG1822772
Dibromomethane	ND		0.00100	1	02/23/2022 22:45	WG1822772
1,2-Dichlorobenzene	ND		0.00100	1	02/23/2022 22:45	WG1822772
1,3-Dichlorobenzene	ND		0.00100	1	02/23/2022 22:45	WG1822772
1,4-Dichlorobenzene	ND		0.00100	1	02/23/2022 22:45	WG1822772
trans-1,4-Dichloro-2-butene	ND		0.00250	1	02/23/2022 22:45	WG1822772
Dichlorodifluoromethane	ND		0.00500	1	02/23/2022 22:45	WG1822772
1,1-Dichloroethane	ND		0.00100	1	02/23/2022 22:45	WG1822772
1,2-Dichloroethane	ND		0.00100	1	02/23/2022 22:45	WG1822772
1,1-Dichloroethene	ND		0.00100	1	02/23/2022 22:45	WG1822772
cis-1,2-Dichloroethene	ND		0.00100	1	02/23/2022 22:45	WG1822772

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.00100	1	02/23/2022 22:45	WG1822772
1,2-Dichloropropane	ND		0.00100	1	02/23/2022 22:45	WG1822772
cis-1,3-Dichloropropene	ND		0.00100	1	02/23/2022 22:45	WG1822772
trans-1,3-Dichloropropene	ND		0.00100	1	02/23/2022 22:45	WG1822772
Ethylbenzene	ND		0.00100	1	02/23/2022 22:45	WG1822772
Hexachloro-1,3-butadiene	ND		0.00100	1	02/23/2022 22:45	WG1822772
2-Hexanone	ND		0.0100	1	02/23/2022 22:45	WG1822772
2-Butanone (MEK)	ND		0.0100	1	02/23/2022 22:45	WG1822772
Iodomethane	ND		0.0100	1	02/23/2022 22:45	WG1822772
Methylene Chloride	ND		0.00500	1	02/23/2022 22:45	WG1822772
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	02/23/2022 22:45	WG1822772
Naphthalene	ND		0.00500	1	02/23/2022 22:45	WG1822772
n-Propylbenzene	ND		0.00100	1	02/23/2022 22:45	WG1822772
Styrene	ND		0.00100	1	02/23/2022 22:45	WG1822772
1,1,1,2-Tetrachloroethane	ND		0.00100	1	02/23/2022 22:45	WG1822772
1,1,2,2-Tetrachloroethane	ND		0.00100	1	02/23/2022 22:45	WG1822772
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	02/23/2022 22:45	WG1822772
Tetrachloroethene	ND		0.00100	1	02/23/2022 22:45	WG1822772
Toluene	ND		0.00100	1	02/23/2022 22:45	WG1822772
1,2,4-Trichlorobenzene	ND		0.00100	1	02/23/2022 22:45	WG1822772
1,1,1-Trichloroethane	ND		0.00100	1	02/23/2022 22:45	WG1822772
1,1,2-Trichloroethane	ND		0.00100	1	02/23/2022 22:45	WG1822772
Trichloroethene	ND		0.00100	1	02/23/2022 22:45	WG1822772
Trichlorofluoromethane	ND		0.00500	1	02/23/2022 22:45	WG1822772
1,2,3-Trichloropropane	ND		0.00250	1	02/23/2022 22:45	WG1822772
1,2,4-Trimethylbenzene	ND		0.00100	1	02/23/2022 22:45	WG1822772
1,3,5-Trimethylbenzene	ND		0.00100	1	02/23/2022 22:45	WG1822772
Vinyl acetate	ND	R5	0.0100	1	02/23/2022 22:45	WG1822772
Vinyl chloride	ND		0.00100	1	02/23/2022 22:45	WG1822772
Xylenes, Total	ND		0.00300	1	02/23/2022 22:45	WG1822772
Di-isopropyl ether	ND		0.00100	1	02/23/2022 22:45	WG1822772
Ethanol	ND		0.100	1	02/23/2022 22:45	WG1822772
Ethyl tert-butyl ether	ND		0.00100	1	02/23/2022 22:45	WG1822772
Methyl tert-butyl ether	0.0818		0.00100	1	02/23/2022 22:45	WG1822772
tert-Butyl alcohol	ND		0.00500	1	02/23/2022 22:45	WG1822772
tert-Amyl Methyl Ether	0.00464		0.00100	1	02/23/2022 22:45	WG1822772
(S) Toluene-d8	*103*		*80.0-120*		*02/23/2022 22:45*	WG1822772
(S) 4-Bromofluorobenzene	*102*		*77.0-126*		*02/23/2022 22:45*	WG1822772
(S) 1,2-Dichloroethane-d4	*100*		*70.0-130*		*02/23/2022 22:45*	WG1822772

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

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	637		13.3	1	02/24/2022 19:26	WG1823416

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	3.10		0.100	1	02/23/2022 17:18	WG1822359
Nitrite	ND		0.100	1	02/23/2022 17:18	WG1822359
Sulfate	208		25.0	5	02/23/2022 17:33	WG1822359

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	ND		0.100	1	02/24/2022 03:34	WG1822780

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	02/24/2022 13:33	WG1822758
Ethane	ND		0.0130	1	02/24/2022 13:33	WG1822758
Ethene	ND		0.0130	1	02/24/2022 13:33	WG1822758

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	02/23/2022 23:06	WG1822772
Acrylonitrile	ND		0.0100	1	02/23/2022 23:06	WG1822772
Benzene	ND		0.00100	1	02/23/2022 23:06	WG1822772
Bromobenzene	ND		0.00100	1	02/23/2022 23:06	WG1822772
Bromochloromethane	ND		0.00100	1	02/23/2022 23:06	WG1822772
Bromodichloromethane	ND		0.00100	1	02/23/2022 23:06	WG1822772
Bromoform	ND	L2	0.00100	1	02/23/2022 23:06	WG1822772
Bromomethane	ND		0.00500	1	02/23/2022 23:06	WG1822772
n-Butylbenzene	ND		0.00100	1	02/23/2022 23:06	WG1822772
sec-Butylbenzene	ND		0.00100	1	02/23/2022 23:06	WG1822772
tert-Butylbenzene	ND		0.00100	1	02/23/2022 23:06	WG1822772
Carbon tetrachloride	ND		0.00100	1	02/23/2022 23:06	WG1822772
Carbon disulfide	ND		0.00100	1	02/23/2022 23:06	WG1822772
Chlorobenzene	ND		0.00100	1	02/23/2022 23:06	WG1822772
Chlorodibromomethane	ND		0.00100	1	02/23/2022 23:06	WG1822772
Chloroethane	ND		0.00500	1	02/23/2022 23:06	WG1822772
Chloroform	ND		0.00500	1	02/23/2022 23:06	WG1822772
Chloromethane	ND		0.00250	1	02/23/2022 23:06	WG1822772
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	02/23/2022 23:06	WG1822772
1,2-Dibromoethane	ND		0.00100	1	02/23/2022 23:06	WG1822772
Dibromomethane	ND		0.00100	1	02/23/2022 23:06	WG1822772
1,2-Dichlorobenzene	ND		0.00100	1	02/23/2022 23:06	WG1822772
1,3-Dichlorobenzene	ND		0.00100	1	02/23/2022 23:06	WG1822772
1,4-Dichlorobenzene	ND		0.00100	1	02/23/2022 23:06	WG1822772
trans-1,4-Dichloro-2-butene	ND		0.00250	1	02/23/2022 23:06	WG1822772
Dichlorodifluoromethane	ND		0.00500	1	02/23/2022 23:06	WG1822772
1,1-Dichloroethane	ND		0.00100	1	02/23/2022 23:06	WG1822772
1,2-Dichloroethane	ND		0.00100	1	02/23/2022 23:06	WG1822772
1,1-Dichloroethene	ND		0.00100	1	02/23/2022 23:06	WG1822772
cis-1,2-Dichloroethene	ND		0.00100	1	02/23/2022 23:06	WG1822772

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.00100	1	02/23/2022 23:06	WG1822772
1,2-Dichloropropane	ND		0.00100	1	02/23/2022 23:06	WG1822772
cis-1,3-Dichloropropene	ND		0.00100	1	02/23/2022 23:06	WG1822772
trans-1,3-Dichloropropene	ND		0.00100	1	02/23/2022 23:06	WG1822772
Ethylbenzene	ND		0.00100	1	02/23/2022 23:06	WG1822772
Hexachloro-1,3-butadiene	ND		0.00100	1	02/23/2022 23:06	WG1822772
2-Hexanone	ND		0.0100	1	02/23/2022 23:06	WG1822772
2-Butanone (MEK)	ND		0.0100	1	02/23/2022 23:06	WG1822772
Iodomethane	ND		0.0100	1	02/23/2022 23:06	WG1822772
Methylene Chloride	ND		0.00500	1	02/23/2022 23:06	WG1822772
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	02/23/2022 23:06	WG1822772
Naphthalene	ND		0.00500	1	02/23/2022 23:06	WG1822772
n-Propylbenzene	ND		0.00100	1	02/23/2022 23:06	WG1822772
Styrene	ND		0.00100	1	02/23/2022 23:06	WG1822772
1,1,1,2-Tetrachloroethane	ND		0.00100	1	02/23/2022 23:06	WG1822772
1,1,2,2-Tetrachloroethane	ND		0.00100	1	02/23/2022 23:06	WG1822772
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	02/23/2022 23:06	WG1822772
Tetrachloroethene	ND		0.00100	1	02/23/2022 23:06	WG1822772
Toluene	ND		0.00100	1	02/23/2022 23:06	WG1822772
1,2,4-Trichlorobenzene	ND		0.00100	1	02/23/2022 23:06	WG1822772
1,1,1-Trichloroethane	ND		0.00100	1	02/23/2022 23:06	WG1822772
1,1,2-Trichloroethane	ND		0.00100	1	02/23/2022 23:06	WG1822772
Trichloroethene	ND		0.00100	1	02/23/2022 23:06	WG1822772
Trichlorofluoromethane	ND		0.00500	1	02/23/2022 23:06	WG1822772
1,2,3-Trichloropropane	ND		0.00250	1	02/23/2022 23:06	WG1822772
1,2,4-Trimethylbenzene	ND		0.00100	1	02/23/2022 23:06	WG1822772
1,3,5-Trimethylbenzene	ND		0.00100	1	02/23/2022 23:06	WG1822772
Vinyl acetate	ND	R5	0.0100	1	02/23/2022 23:06	WG1822772
Vinyl chloride	ND		0.00100	1	02/23/2022 23:06	WG1822772
Xylenes, Total	ND		0.00300	1	02/23/2022 23:06	WG1822772
Di-isopropyl ether	ND		0.00100	1	02/23/2022 23:06	WG1822772
Ethanol	ND		0.100	1	02/23/2022 23:06	WG1822772
Ethyl tert-butyl ether	ND		0.00100	1	02/23/2022 23:06	WG1822772
Methyl tert-butyl ether	1.57		0.0500	50	02/28/2022 15:06	WG1824908
tert-Butyl alcohol	0.0341		0.00500	1	02/23/2022 23:06	WG1822772
tert-Amyl Methyl Ether	0.269		0.0500	50	02/28/2022 15:06	WG1824908
(S) Toluene-d8	*99.7*		*80.0-120*		*02/23/2022 23:06*	WG1822772
(S) Toluene-d8	*110*		*80.0-120*		*02/28/2022 15:06*	WG1824908
(S) 4-Bromofluorobenzene	*98.1*		*77.0-126*		*02/23/2022 23:06*	WG1822772
(S) 4-Bromofluorobenzene	*103*		*77.0-126*		*02/28/2022 15:06*	WG1824908
(S) 1,2-Dichloroethane-d4	*99.7*		*70.0-130*		*02/23/2022 23:06*	WG1822772
(S) 1,2-Dichloroethane-d4	*110*		*70.0-130*		*02/28/2022 15:06*	WG1824908

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	793		13.3	1	02/24/2022 13:31	WG1822769

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	ND		0.100	1	02/23/2022 17:48	WG1822359
Nitrite	ND		0.100	1	02/23/2022 17:48	WG1822359
Sulfate	292		25.0	5	02/23/2022 18:03	WG1822359

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	ND		0.100	1	02/24/2022 03:36	WG1822780

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	02/24/2022 13:36	WG1822758
Ethane	ND		0.0130	1	02/24/2022 13:36	WG1822758
Ethene	ND		0.0130	1	02/24/2022 13:36	WG1822758

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.500	10	02/24/2022 00:33	WG1822772
Acrylonitrile	ND		0.100	10	02/24/2022 00:33	WG1822772
Benzene	ND		0.0100	10	02/24/2022 00:33	WG1822772
Bromobenzene	ND		0.0100	10	02/24/2022 00:33	WG1822772
Bromochloromethane	ND		0.0100	10	02/24/2022 00:33	WG1822772
Bromodichloromethane	ND		0.0100	10	02/24/2022 00:33	WG1822772
Bromoform	ND	L2	0.0100	10	02/24/2022 00:33	WG1822772
Bromomethane	ND		0.0500	10	02/24/2022 00:33	WG1822772
n-Butylbenzene	ND		0.0100	10	02/24/2022 00:33	WG1822772
sec-Butylbenzene	ND		0.0100	10	02/24/2022 00:33	WG1822772
tert-Butylbenzene	ND		0.0100	10	02/24/2022 00:33	WG1822772
Carbon tetrachloride	ND		0.0100	10	02/24/2022 00:33	WG1822772
Carbon disulfide	ND		0.0100	10	02/24/2022 00:33	WG1822772
Chlorobenzene	ND		0.0100	10	02/24/2022 00:33	WG1822772
Chlorodibromomethane	ND		0.0100	10	02/24/2022 00:33	WG1822772
Chloroethane	ND		0.0500	10	02/24/2022 00:33	WG1822772
Chloroform	ND		0.0500	10	02/24/2022 00:33	WG1822772
Chloromethane	ND		0.0250	10	02/24/2022 00:33	WG1822772
1,2-Dibromo-3-Chloropropane	ND		0.0500	10	02/24/2022 00:33	WG1822772
1,2-Dibromoethane	ND		0.0100	10	02/24/2022 00:33	WG1822772
Dibromomethane	ND		0.0100	10	02/24/2022 00:33	WG1822772
1,2-Dichlorobenzene	ND		0.0100	10	02/24/2022 00:33	WG1822772
1,3-Dichlorobenzene	ND		0.0100	10	02/24/2022 00:33	WG1822772
1,4-Dichlorobenzene	ND		0.0100	10	02/24/2022 00:33	WG1822772
trans-1,4-Dichloro-2-butene	ND		0.0250	10	02/24/2022 00:33	WG1822772
Dichlorodifluoromethane	ND		0.0500	10	02/24/2022 00:33	WG1822772
1,1-Dichloroethane	ND		0.0100	10	02/24/2022 00:33	WG1822772
1,2-Dichloroethane	ND		0.0100	10	02/24/2022 00:33	WG1822772
1,1-Dichloroethene	ND		0.0100	10	02/24/2022 00:33	WG1822772
cis-1,2-Dichloroethene	ND		0.0100	10	02/24/2022 00:33	WG1822772

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.0100	10	02/24/2022 00:33	WG1822772
1,2-Dichloropropane	ND		0.0100	10	02/24/2022 00:33	WG1822772
cis-1,3-Dichloropropene	ND		0.0100	10	02/24/2022 00:33	WG1822772
trans-1,3-Dichloropropene	ND		0.0100	10	02/24/2022 00:33	WG1822772
Ethylbenzene	ND		0.0100	10	02/24/2022 00:33	WG1822772
Hexachloro-1,3-butadiene	ND		0.0100	10	02/24/2022 00:33	WG1822772
2-Hexanone	ND		0.100	10	02/24/2022 00:33	WG1822772
2-Butanone (MEK)	ND		0.100	10	02/24/2022 00:33	WG1822772
Iodomethane	ND		0.100	10	02/24/2022 00:33	WG1822772
Methylene Chloride	ND		0.0500	10	02/24/2022 00:33	WG1822772
4-Methyl-2-pentanone (MIBK)	ND		0.100	10	02/24/2022 00:33	WG1822772
Naphthalene	ND		0.0500	10	02/24/2022 00:33	WG1822772
n-Propylbenzene	ND		0.0100	10	02/24/2022 00:33	WG1822772
Styrene	ND		0.0100	10	02/24/2022 00:33	WG1822772
1,1,1,2-Tetrachloroethane	ND		0.0100	10	02/24/2022 00:33	WG1822772
1,1,2,2-Tetrachloroethane	ND		0.0100	10	02/24/2022 00:33	WG1822772
1,1,2-Trichlorotrifluoroethane	ND		0.0100	10	02/24/2022 00:33	WG1822772
Tetrachloroethene	ND		0.0100	10	02/24/2022 00:33	WG1822772
Toluene	ND		0.0100	10	02/24/2022 00:33	WG1822772
1,2,4-Trichlorobenzene	ND		0.0100	10	02/24/2022 00:33	WG1822772
1,1,1-Trichloroethane	ND		0.0100	10	02/24/2022 00:33	WG1822772
1,1,2-Trichloroethane	ND		0.0100	10	02/24/2022 00:33	WG1822772
Trichloroethene	ND		0.0100	10	02/24/2022 00:33	WG1822772
Trichlorofluoromethane	ND		0.0500	10	02/24/2022 00:33	WG1822772
1,2,3-Trichloropropane	ND		0.0250	10	02/24/2022 00:33	WG1822772
1,2,4-Trimethylbenzene	ND		0.0100	10	02/24/2022 00:33	WG1822772
1,3,5-Trimethylbenzene	ND		0.0100	10	02/24/2022 00:33	WG1822772
Vinyl acetate	ND	R5	0.100	10	02/24/2022 00:33	WG1822772
Vinyl chloride	ND		0.0100	10	02/24/2022 00:33	WG1822772
Xylenes, Total	ND		0.0300	10	02/24/2022 00:33	WG1822772
Di-isopropyl ether	ND		0.0100	10	02/24/2022 00:33	WG1822772
Ethanol	ND		1.00	10	02/24/2022 00:33	WG1822772
Ethyl tert-butyl ether	ND		0.0100	10	02/24/2022 00:33	WG1822772
Methyl tert-butyl ether	83.9		1.00	1000	02/28/2022 15:27	WG1824908
tert-Butyl alcohol	ND		0.0500	10	02/24/2022 00:33	WG1822772
tert-Amyl Methyl Ether	12.3		1.00	1000	02/28/2022 15:27	WG1824908
(S) Toluene-d8	*99.1*		*80.0-120*		*02/24/2022 00:33*	WG1822772
(S) Toluene-d8	*107*		*80.0-120*		*02/28/2022 15:27*	WG1824908
(S) 4-Bromofluorobenzene	*98.9*		*77.0-126*		*02/24/2022 00:33*	WG1822772
(S) 4-Bromofluorobenzene	*99.9*		*77.0-126*		*02/28/2022 15:27*	WG1824908
(S) 1,2-Dichloroethane-d4	*95.3*		*70.0-130*		*02/24/2022 00:33*	WG1822772
(S) 1,2-Dichloroethane-d4	*109*		*70.0-130*		*02/28/2022 15:27*	WG1824908

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	813		13.3	1	03/01/2022 16:28	WG1825498

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	1.41		0.100	1	02/23/2022 18:18	WG1822359
Nitrite	ND		0.100	1	02/23/2022 18:18	WG1822359
Sulfate	336		25.0	5	02/23/2022 18:33	WG1822359

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	1.77		0.100	1	02/24/2022 03:39	WG1822780

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	02/24/2022 13:46	WG1822758
Ethane	ND		0.0130	1	02/24/2022 13:46	WG1822758
Ethene	ND		0.0130	1	02/24/2022 13:46	WG1822758

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		12.5	250	02/28/2022 15:47	WG1824908
Acrylonitrile	ND		2.50	250	02/28/2022 15:47	WG1824908
Benzene	ND		0.250	250	02/28/2022 15:47	WG1824908
Bromobenzene	ND		0.250	250	02/28/2022 15:47	WG1824908
Bromochloromethane	ND		0.250	250	02/28/2022 15:47	WG1824908
Bromodichloromethane	ND		0.250	250	02/28/2022 15:47	WG1824908
Bromoform	ND		0.250	250	02/28/2022 15:47	WG1824908
Bromomethane	ND		1.25	250	02/28/2022 15:47	WG1824908
n-Butylbenzene	ND		0.250	250	02/28/2022 15:47	WG1824908
sec-Butylbenzene	ND		0.250	250	02/28/2022 15:47	WG1824908
tert-Butylbenzene	ND		0.250	250	02/28/2022 15:47	WG1824908
Carbon tetrachloride	ND		0.250	250	02/28/2022 15:47	WG1824908
Carbon disulfide	ND		0.250	250	02/28/2022 15:47	WG1824908
Chlorobenzene	ND		0.250	250	02/28/2022 15:47	WG1824908
Chlorodibromomethane	ND		0.250	250	02/28/2022 15:47	WG1824908
Chloroethane	ND		1.25	250	02/28/2022 15:47	WG1824908
Chloroform	ND		1.25	250	02/28/2022 15:47	WG1824908
Chloromethane	ND		0.625	250	02/28/2022 15:47	WG1824908
1,2-Dibromo-3-Chloropropane	ND		1.25	250	02/28/2022 15:47	WG1824908
1,2-Dibromoethane	ND		0.250	250	02/28/2022 15:47	WG1824908
Dibromomethane	ND		0.250	250	02/28/2022 15:47	WG1824908
1,2-Dichlorobenzene	ND		0.250	250	02/28/2022 15:47	WG1824908
1,3-Dichlorobenzene	ND		0.250	250	02/28/2022 15:47	WG1824908
1,4-Dichlorobenzene	ND		0.250	250	02/28/2022 15:47	WG1824908
trans-1,4-Dichloro-2-butene	ND		0.625	250	02/28/2022 15:47	WG1824908
Dichlorodifluoromethane	ND		1.25	250	02/28/2022 15:47	WG1824908
1,1-Dichloroethane	ND		0.250	250	02/28/2022 15:47	WG1824908
1,2-Dichloroethane	ND		0.250	250	02/28/2022 15:47	WG1824908
1,1-Dichloroethene	ND		0.250	250	02/28/2022 15:47	WG1824908
cis-1,2-Dichloroethene	ND		0.250	250	02/28/2022 15:47	WG1824908

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.250	250	02/28/2022 15:47	WG1824908
1,2-Dichloropropane	ND		0.250	250	02/28/2022 15:47	WG1824908
cis-1,3-Dichloropropene	ND		0.250	250	02/28/2022 15:47	WG1824908
trans-1,3-Dichloropropene	ND		0.250	250	02/28/2022 15:47	WG1824908
Ethylbenzene	ND		0.250	250	02/28/2022 15:47	WG1824908
Hexachloro-1,3-butadiene	ND		0.250	250	02/28/2022 15:47	WG1824908
2-Hexanone	ND		2.50	250	02/28/2022 15:47	WG1824908
2-Butanone (MEK)	ND		2.50	250	02/28/2022 15:47	WG1824908
Iodomethane	ND		2.50	250	02/28/2022 15:47	WG1824908
Methylene Chloride	ND		1.25	250	02/28/2022 15:47	WG1824908
4-Methyl-2-pentanone (MIBK)	ND		2.50	250	02/28/2022 15:47	WG1824908
Naphthalene	ND	L2	1.25	250	02/28/2022 15:47	WG1824908
n-Propylbenzene	ND		0.250	250	02/28/2022 15:47	WG1824908
Styrene	ND		0.250	250	02/28/2022 15:47	WG1824908
1,1,1,2-Tetrachloroethane	ND		0.250	250	02/28/2022 15:47	WG1824908
1,1,2,2-Tetrachloroethane	ND		0.250	250	02/28/2022 15:47	WG1824908
1,1,2-Trichlorotrifluoroethane	ND		0.250	250	02/28/2022 15:47	WG1824908
Tetrachloroethene	ND		0.250	250	02/28/2022 15:47	WG1824908
Toluene	ND		0.250	250	02/28/2022 15:47	WG1824908
1,2,4-Trichlorobenzene	ND		0.250	250	02/28/2022 15:47	WG1824908
1,1,1-Trichloroethane	ND		0.250	250	02/28/2022 15:47	WG1824908
1,1,2-Trichloroethane	ND		0.250	250	02/28/2022 15:47	WG1824908
Trichloroethene	ND		0.250	250	02/28/2022 15:47	WG1824908
Trichlorofluoromethane	ND		1.25	250	02/28/2022 15:47	WG1824908
1,2,3-Trichloropropane	ND		0.625	250	02/28/2022 15:47	WG1824908
1,2,4-Trimethylbenzene	ND		0.250	250	02/28/2022 15:47	WG1824908
1,3,5-Trimethylbenzene	ND		0.250	250	02/28/2022 15:47	WG1824908
Vinyl acetate	ND		2.50	250	02/28/2022 15:47	WG1824908
Vinyl chloride	ND		0.250	250	02/28/2022 15:47	WG1824908
Xylenes, Total	ND		0.750	250	02/28/2022 15:47	WG1824908
Di-isopropyl ether	ND		0.250	250	02/28/2022 15:47	WG1824908
Ethanol	ND		25.0	250	02/28/2022 15:47	WG1824908
Ethyl tert-butyl ether	ND		0.250	250	02/28/2022 15:47	WG1824908
Methyl tert-butyl ether	7.02		0.250	250	02/28/2022 15:47	WG1824908
tert-Butyl alcohol	ND		1.25	250	02/28/2022 15:47	WG1824908
tert-Amyl Methyl Ether	0.819		0.250	250	02/28/2022 15:47	WG1824908
(S) Toluene-d8	*110*		*80.0-120*		*02/28/2022 15:47*	WG1824908
(S) 4-Bromofluorobenzene	*102*		*77.0-126*		*02/28/2022 15:47*	WG1824908
(S) 1,2-Dichloroethane-d4	*107*		*70.0-130*		*02/28/2022 15:47*	WG1824908

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	02/23/2022 19:31	WG1822772
Acrylonitrile	ND		0.0100	1	02/23/2022 19:31	WG1822772
Benzene	ND		0.00100	1	02/23/2022 19:31	WG1822772
Bromobenzene	ND		0.00100	1	02/23/2022 19:31	WG1822772
Bromochloromethane	ND		0.00100	1	02/23/2022 19:31	WG1822772
Bromodichloromethane	ND		0.00100	1	02/23/2022 19:31	WG1822772
Bromoform	ND	L2	0.00100	1	02/23/2022 19:31	WG1822772
Bromomethane	ND		0.00500	1	02/23/2022 19:31	WG1822772
n-Butylbenzene	ND		0.00100	1	02/23/2022 19:31	WG1822772
sec-Butylbenzene	ND		0.00100	1	02/23/2022 19:31	WG1822772
tert-Butylbenzene	ND		0.00100	1	02/23/2022 19:31	WG1822772
Carbon tetrachloride	ND		0.00100	1	02/23/2022 19:31	WG1822772
Carbon disulfide	ND		0.00100	1	02/23/2022 19:31	WG1822772
Chlorobenzene	ND		0.00100	1	02/23/2022 19:31	WG1822772
Chlorodibromomethane	ND		0.00100	1	02/23/2022 19:31	WG1822772
Chloroethane	ND		0.00500	1	02/23/2022 19:31	WG1822772
Chloroform	ND		0.00500	1	02/23/2022 19:31	WG1822772
Chloromethane	ND		0.00250	1	02/23/2022 19:31	WG1822772
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	02/23/2022 19:31	WG1822772
1,2-Dibromoethane	ND		0.00100	1	02/23/2022 19:31	WG1822772
Dibromomethane	ND		0.00100	1	02/23/2022 19:31	WG1822772
1,2-Dichlorobenzene	ND		0.00100	1	02/23/2022 19:31	WG1822772
1,3-Dichlorobenzene	ND		0.00100	1	02/23/2022 19:31	WG1822772
1,4-Dichlorobenzene	ND		0.00100	1	02/23/2022 19:31	WG1822772
trans-1,4-Dichloro-2-butene	ND		0.00250	1	02/23/2022 19:31	WG1822772
Dichlorodifluoromethane	ND		0.00500	1	02/23/2022 19:31	WG1822772
1,1-Dichloroethane	ND		0.00100	1	02/23/2022 19:31	WG1822772
1,2-Dichloroethane	ND		0.00100	1	02/23/2022 19:31	WG1822772
1,1-Dichloroethene	ND		0.00100	1	02/23/2022 19:31	WG1822772
cis-1,2-Dichloroethene	ND		0.00100	1	02/23/2022 19:31	WG1822772
trans-1,2-Dichloroethene	ND		0.00100	1	02/23/2022 19:31	WG1822772
1,2-Dichloropropane	ND		0.00100	1	02/23/2022 19:31	WG1822772
cis-1,3-Dichloropropene	ND		0.00100	1	02/23/2022 19:31	WG1822772
trans-1,3-Dichloropropene	ND		0.00100	1	02/23/2022 19:31	WG1822772
Ethylbenzene	ND		0.00100	1	02/23/2022 19:31	WG1822772
Hexachloro-1,3-butadiene	ND		0.00100	1	02/23/2022 19:31	WG1822772
2-Hexanone	ND		0.0100	1	02/23/2022 19:31	WG1822772
2-Butanone (MEK)	ND		0.0100	1	02/23/2022 19:31	WG1822772
Iodomethane	ND		0.0100	1	02/23/2022 19:31	WG1822772
Methylene Chloride	ND		0.00500	1	02/23/2022 19:31	WG1822772
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	02/23/2022 19:31	WG1822772
Naphthalene	ND		0.00500	1	02/23/2022 19:31	WG1822772
n-Propylbenzene	ND		0.00100	1	02/23/2022 19:31	WG1822772
Styrene	ND		0.00100	1	02/23/2022 19:31	WG1822772
1,1,1,2-Tetrachloroethane	ND		0.00100	1	02/23/2022 19:31	WG1822772
1,1,2,2-Tetrachloroethane	ND		0.00100	1	02/23/2022 19:31	WG1822772
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	02/23/2022 19:31	WG1822772
Tetrachloroethene	ND		0.00100	1	02/23/2022 19:31	WG1822772
Toluene	ND		0.00100	1	02/23/2022 19:31	WG1822772
1,2,4-Trichlorobenzene	ND		0.00100	1	02/23/2022 19:31	WG1822772
1,1,1-Trichloroethane	ND		0.00100	1	02/23/2022 19:31	WG1822772
1,1,2-Trichloroethane	ND		0.00100	1	02/23/2022 19:31	WG1822772
Trichloroethene	ND		0.00100	1	02/23/2022 19:31	WG1822772
Trichlorofluoromethane	ND		0.00500	1	02/23/2022 19:31	WG1822772
1,2,3-Trichloropropane	ND		0.00250	1	02/23/2022 19:31	WG1822772
1,2,4-Trimethylbenzene	ND		0.00100	1	02/23/2022 19:31	WG1822772

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
1,3,5-Trimethylbenzene	ND		0.00100	1	02/23/2022 19:31	WG1822772
Vinyl acetate	ND	R5	0.0100	1	02/23/2022 19:31	WG1822772
Vinyl chloride	ND		0.00100	1	02/23/2022 19:31	WG1822772
Xylenes, Total	ND		0.00300	1	02/23/2022 19:31	WG1822772
Di-isopropyl ether	ND		0.00100	1	02/23/2022 19:31	WG1822772
Ethanol	ND		0.100	1	02/23/2022 19:31	WG1822772
Ethyl tert-butyl ether	ND		0.00100	1	02/23/2022 19:31	WG1822772
Methyl tert-butyl ether	ND		0.00100	1	02/23/2022 19:31	WG1822772
tert-Butyl alcohol	ND		0.00500	1	02/23/2022 19:31	WG1822772
tert-Amyl Methyl Ether	ND		0.00100	1	02/23/2022 19:31	WG1822772
(S) Toluene-d8	*101*		*80.0-120*		*02/23/2022 19:31*	WG1822772
(S) 4-Bromofluorobenzene	*102*		*77.0-126*		*02/23/2022 19:31*	WG1822772
(S) 1,2-Dichloroethane-d4	*98.7*		*70.0-130*		*02/23/2022 19:31*	WG1822772

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	02/23/2022 19:09	WG1822772
Acrylonitrile	ND		0.0100	1	02/23/2022 19:09	WG1822772
Benzene	ND		0.00100	1	02/23/2022 19:09	WG1822772
Bromobenzene	ND		0.00100	1	02/23/2022 19:09	WG1822772
Bromochloromethane	ND		0.00100	1	02/23/2022 19:09	WG1822772
Bromodichloromethane	ND		0.00100	1	02/23/2022 19:09	WG1822772
Bromoform	ND	L2	0.00100	1	02/23/2022 19:09	WG1822772
Bromomethane	ND		0.00500	1	02/23/2022 19:09	WG1822772
n-Butylbenzene	ND		0.00100	1	02/23/2022 19:09	WG1822772
sec-Butylbenzene	ND		0.00100	1	02/23/2022 19:09	WG1822772
tert-Butylbenzene	ND		0.00100	1	02/23/2022 19:09	WG1822772
Carbon tetrachloride	ND		0.00100	1	02/23/2022 19:09	WG1822772
Carbon disulfide	ND		0.00100	1	02/23/2022 19:09	WG1822772
Chlorobenzene	ND		0.00100	1	02/23/2022 19:09	WG1822772
Chlorodibromomethane	ND		0.00100	1	02/23/2022 19:09	WG1822772
Chloroethane	ND		0.00500	1	02/23/2022 19:09	WG1822772
Chloroform	ND		0.00500	1	02/23/2022 19:09	WG1822772
Chloromethane	ND		0.00250	1	02/23/2022 19:09	WG1822772
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	02/23/2022 19:09	WG1822772
1,2-Dibromoethane	ND		0.00100	1	02/23/2022 19:09	WG1822772
Dibromomethane	ND		0.00100	1	02/23/2022 19:09	WG1822772
1,2-Dichlorobenzene	ND		0.00100	1	02/23/2022 19:09	WG1822772
1,3-Dichlorobenzene	ND		0.00100	1	02/23/2022 19:09	WG1822772
1,4-Dichlorobenzene	ND		0.00100	1	02/23/2022 19:09	WG1822772
trans-1,4-Dichloro-2-butene	ND		0.00250	1	02/23/2022 19:09	WG1822772
Dichlorodifluoromethane	ND		0.00500	1	02/23/2022 19:09	WG1822772
1,1-Dichloroethane	ND		0.00100	1	02/23/2022 19:09	WG1822772
1,2-Dichloroethane	ND		0.00100	1	02/23/2022 19:09	WG1822772
1,1-Dichloroethene	ND		0.00100	1	02/23/2022 19:09	WG1822772
cis-1,2-Dichloroethene	ND		0.00100	1	02/23/2022 19:09	WG1822772
trans-1,2-Dichloroethene	ND		0.00100	1	02/23/2022 19:09	WG1822772
1,2-Dichloropropane	ND		0.00100	1	02/23/2022 19:09	WG1822772
cis-1,3-Dichloropropene	ND		0.00100	1	02/23/2022 19:09	WG1822772
trans-1,3-Dichloropropene	ND		0.00100	1	02/23/2022 19:09	WG1822772
Ethylbenzene	ND		0.00100	1	02/23/2022 19:09	WG1822772
Hexachloro-1,3-butadiene	ND		0.00100	1	02/23/2022 19:09	WG1822772
2-Hexanone	ND		0.0100	1	02/23/2022 19:09	WG1822772
2-Butanone (MEK)	ND		0.0100	1	02/23/2022 19:09	WG1822772
Iodomethane	ND		0.0100	1	02/23/2022 19:09	WG1822772
Methylene Chloride	ND		0.00500	1	02/23/2022 19:09	WG1822772
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	02/23/2022 19:09	WG1822772
Naphthalene	ND		0.00500	1	02/23/2022 19:09	WG1822772
n-Propylbenzene	ND		0.00100	1	02/23/2022 19:09	WG1822772
Styrene	ND		0.00100	1	02/23/2022 19:09	WG1822772
1,1,1,2-Tetrachloroethane	ND		0.00100	1	02/23/2022 19:09	WG1822772
1,1,2,2-Tetrachloroethane	ND		0.00100	1	02/23/2022 19:09	WG1822772
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	02/23/2022 19:09	WG1822772
Tetrachloroethene	ND		0.00100	1	02/23/2022 19:09	WG1822772
Toluene	ND		0.00100	1	02/23/2022 19:09	WG1822772
1,2,4-Trichlorobenzene	ND		0.00100	1	02/23/2022 19:09	WG1822772
1,1,1-Trichloroethane	ND		0.00100	1	02/23/2022 19:09	WG1822772
1,1,2-Trichloroethane	ND		0.00100	1	02/23/2022 19:09	WG1822772
Trichloroethene	ND		0.00100	1	02/23/2022 19:09	WG1822772
Trichlorofluoromethane	ND		0.00500	1	02/23/2022 19:09	WG1822772
1,2,3-Trichloropropane	ND		0.00250	1	02/23/2022 19:09	WG1822772
1,2,4-Trimethylbenzene	ND		0.00100	1	02/23/2022 19:09	WG1822772

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
1,3,5-Trimethylbenzene	ND		0.00100	1	02/23/2022 19:09	WG1822772
Vinyl acetate	ND	R5	0.0100	1	02/23/2022 19:09	WG1822772
Vinyl chloride	ND		0.00100	1	02/23/2022 19:09	WG1822772
Xylenes, Total	ND		0.00300	1	02/23/2022 19:09	WG1822772
Di-isopropyl ether	ND		0.00100	1	02/23/2022 19:09	WG1822772
Ethanol	ND		0.100	1	02/23/2022 19:09	WG1822772
Ethyl tert-butyl ether	ND		0.00100	1	02/23/2022 19:09	WG1822772
Methyl tert-butyl ether	ND		0.00100	1	02/23/2022 19:09	WG1822772
tert-Butyl alcohol	ND		0.00500	1	02/23/2022 19:09	WG1822772
tert-Amyl Methyl Ether	ND		0.00100	1	02/23/2022 19:09	WG1822772
(S) Toluene-d8	*100*		*80.0-120*		*02/23/2022 19:09*	WG1822772
(S) 4-Bromofluorobenzene	*99.9*		*77.0-126*		*02/23/2022 19:09*	WG1822772
(S) 1,2-Dichloroethane-d4	*102*		*70.0-130*		*02/23/2022 19:09*	WG1822772

Method Blank (MB)

(MB) R3764712-1 02/24/22 13:31

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1463857-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1463857-01 02/24/22 13:31 • (DUP) R3764712-3 02/24/22 13:31

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	705	717	1	1.69		5

L1463857-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1463857-02 02/24/22 13:31 • (DUP) R3764712-4 02/24/22 13:31

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	755	780	1	3.30		5

Laboratory Control Sample (LCS)

(LCS) R3764712-2 02/24/22 13:31

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8410	95.6	77.4-123	

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

Method Blank (MB)

(MB) R3764159-1 02/24/22 19:26

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1463857-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1463857-04 02/24/22 19:26 • (DUP) R3764159-3 02/24/22 19:26

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	771	767	1	0.520		5

L1464264-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1464264-01 02/24/22 19:26 • (DUP) R3764159-4 02/24/22 19:26

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	689	695	1	0.772		5

Laboratory Control Sample (LCS)

(LCS) R3764159-2 02/24/22 19:26

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8560	97.3	77.4-123	

Method Blank (MB)

(MB) R3766137-1 03/01/22 16:28

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1464280-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1464280-01 03/01/22 16:28 • (DUP) R3766137-3 03/01/22 16:28

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	78.0	81.0	1	3.77		5

L1464858-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1464858-01 03/01/22 16:28 • (DUP) R3766137-4 03/01/22 16:28

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	2400	2410	1	0.208		5

L1464858-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1464858-02 03/01/22 16:28 • (DUP) R3766137-5 03/01/22 16:28

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	658	672	1	2.11		5

L1464858-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1464858-03 03/01/22 16:28 • (DUP) R3766137-6 03/01/22 16:28

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	206	215	1	4.28		5

Laboratory Control Sample (LCS)

(LCS) R3766137-2 03/01/22 16:28

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8620	98.0	77.4-123	

Method Blank (MB)

(MB) R3763376-1 02/23/22 10:25

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate	U		0.0480	0.100
Nitrite	U		0.0420	0.100
Sulfate	U		0.594	5.00

L1464276-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1464276-01 02/23/22 11:21 • (DUP) R3763376-3 02/23/22 11:35

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	0.822	0.941	1	13.5		15
Nitrite	ND	ND	1	0.000		15
Sulfate	67.1	67.2	1	0.108		15

L1464224-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1464224-02 02/23/22 19:47 • (DUP) R3763376-8 02/23/22 20:02

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	1.59	1.53	1	3.36		15
Nitrite	ND	ND	1	0.421		15
Sulfate	38.0	38.2	1	0.361		15

Laboratory Control Sample (LCS)

(LCS) R3763376-2 02/23/22 10:40

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate	8.00	7.92	99.0	80.0-120	
Nitrite	8.00	8.22	103	80.0-120	
Sulfate	40.0	40.0	100	80.0-120	

L1464276-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1464276-01 02/23/22 11:21 • (MS) R3763376-4 02/23/22 11:50 • (MSD) R3763376-5 02/23/22 12:05

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 %
Nitrate	5.00	0.822	5.59	5.48	95.4	93.2	1	80.0-120			2.01	15
Nitrite	5.00	ND	5.03	5.03	101	101	1	80.0-120			0.0417	15
Sulfate	50.0	67.1	114	113	93.8	92.1	1	80.0-120	E1	E1	0.745	15

L1464264-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1464264-01 02/23/22 15:19 • (MS) R3763376-6 02/23/22 15:49 • (MSD) R3763376-7 02/23/22 16:04

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 %
Nitrate	5.00	3.28	7.79	7.96	90.2	93.4	1	80.0-120			2.09	15
Nitrite	5.00	ND	4.99	4.99	99.7	99.8	1	80.0-120			0.0441	15
Sulfate	50.0	222	267	267	90.5	90.8	1	80.0-120	E1	E1	0.0632	15

QUALITY CONTROL SUMMARY

L1464264-01,02,03,04,05

Method Blank (MB)

(MB) R3763246-1 02/24/22 03:00

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Iron	U		0.0180	0.100

Laboratory Control Sample (LCS)

(LCS) R3763246-2 02/24/22 03:03

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Iron	10.0	9.85	98.5	80.0-120	

L1464264-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1464264-01 02/24/22 03:06 • (MS) R3763246-4 02/24/22 03:11 • (MSD) R3763246-5 02/24/22 03:14

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 %
Iron	10.0	ND	9.87	9.87	98.5	98.5	1	75.0-125			0.0700	20

Method Blank (MB)

(MB) R3763560-2 02/24/22 11:40

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Methane	U		0.00291	0.0100
Ethane	U		0.00407	0.0130
Ethene	U		0.00426	0.0130

L1464264-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1464264-05 02/24/22 13:46 • (DUP) R3763560-3 02/24/22 13:48

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	ND	ND	1	0.000		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20

L1464287-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1464287-10 02/24/22 14:43 • (DUP) R3763560-4 02/24/22 14:48

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	ND	ND	1	0.000		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20

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

(LCS) R3763560-1 02/24/22 11:36 • (LCSD) R3763560-7 02/24/22 15:07

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Methane	0.0678	0.0744	0.0666	110	98.2	85.0-115			11.1	20
Ethane	0.129	0.132	0.117	102	90.7	85.0-115			12.0	20
Ethene	0.127	0.133	0.119	105	93.7	85.0-115			11.1	20

L1464264-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1464264-01 02/24/22 12:34 • (MS) R3763560-5 02/24/22 14:59 • (MSD) R3763560-6 02/24/22 15:03

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 %
Methane	0.0678	ND	0.0862	0.0629	127	92.8	1	50.0-150		R5	31.3	20
Ethane	0.129	ND	0.139	0.117	108	90.7	1	50.0-150			17.2	20
Ethene	0.127	ND	0.140	0.119	110	93.7	1	50.0-150			16.2	20

Method Blank (MB)

(MB) R3764545-3 02/23/22 18:11

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Acrylonitrile	U		0.000671	0.0100
Benzene	U		0.0000941	0.00100
Bromobenzene	U		0.000118	0.00100
Bromochloromethane	U		0.000128	0.00100
Bromodichloromethane	U		0.000136	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 tetrachloride	U		0.000128	0.00100
Carbon disulfide	U		0.0000962	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
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
trans-1,4-Dichloro-2-butene	U		0.000467	0.00250
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
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
Hexachloro-1,3-butadiene	U		0.000337	0.00100
2-Hexanone	U		0.000787	0.0100
2-Butanone (MEK)	U		0.00119	0.0100
Iodomethane	U		0.00600	0.0100
Methylene Chloride	U		0.000430	0.00500

Method Blank (MB)

(MB) R3764545-3 02/23/22 18:11

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
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
1,1,2-Trichlorotrifluoroethane	U		0.000180	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	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
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl acetate	U		0.000692	0.0100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
Di-isopropyl ether	U		0.000105	0.00100
Ethanol	U		0.0420	0.100
Ethyl tert-butyl ether	U		0.000101	0.00100
Methyl tert-butyl ether	U		0.000101	0.00100
tert-Butyl alcohol	U		0.00406	0.00500
tert-Amyl Methyl Ether	U		0.000195	0.00100
(S) Toluene-d8	*102*			*80.0-120*
(S) 4-Bromofluorobenzene	*96.8*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*95.8*			*70.0-130*

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

(LCS) R3764545-1 02/23/22 15:40 • (LCSD) R3764545-2 02/23/22 16:02

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	0.0262	0.0270	105	108	19.0-160			3.01	27
Acrylonitrile	0.0250	0.0278	0.0289	111	116	55.0-149			3.88	20
Benzene	0.00500	0.00442	0.00414	88.4	82.8	70.0-123			6.54	20
Bromobenzene	0.00500	0.00468	0.00456	93.6	91.2	73.0-121			2.60	20

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

(LCS) R3764545-1 02/23/22 15:40 • (LCSD) R3764545-2 02/23/22 16:02

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromochloromethane	0.00500	0.00450	0.00447	90.0	89.4	76.0-122			0.669	20
Bromodichloromethane	0.00500	0.00417	0.00420	83.4	84.0	75.0-120			0.717	20
Bromoform	0.00500	0.00333	0.00338	66.6	67.6	68.0-132	L2	L2	1.49	20
Bromomethane	0.00500	0.00327	0.00341	65.4	68.2	10.0-160			4.19	25
n-Butylbenzene	0.00500	0.00451	0.00427	90.2	85.4	73.0-125			5.47	20
sec-Butylbenzene	0.00500	0.00461	0.00437	92.2	87.4	75.0-125			5.35	20
tert-Butylbenzene	0.00500	0.00476	0.00444	95.2	88.8	76.0-124			6.96	20
Carbon tetrachloride	0.00500	0.00429	0.00413	85.8	82.6	68.0-126			3.80	20
Carbon disulfide	0.00500	0.00423	0.00409	84.6	81.8	61.0-128			3.37	20
Chlorobenzene	0.00500	0.00457	0.00432	91.4	86.4	80.0-121			5.62	20
Chlorodibromomethane	0.00500	0.00385	0.00387	77.0	77.4	77.0-125			0.518	20
Chloroethane	0.00500	0.00389	0.00404	77.8	80.8	47.0-150			3.78	20
Chloroform	0.00500	0.00458	0.00456	91.6	91.2	73.0-120			0.438	20
Chloromethane	0.00500	0.00533	0.00506	107	101	41.0-142			5.20	20
1,2-Dibromo-3-Chloropropane	0.00500	0.00386	0.00370	77.2	74.0	58.0-134			4.23	20
1,2-Dibromoethane	0.00500	0.00439	0.00431	87.8	86.2	80.0-122			1.84	20
Dibromomethane	0.00500	0.00455	0.00455	91.0	91.0	80.0-120			0.000	20
1,2-Dichlorobenzene	0.00500	0.00451	0.00443	90.2	88.6	79.0-121			1.79	20
1,3-Dichlorobenzene	0.00500	0.00457	0.00443	91.4	88.6	79.0-120			3.11	20
1,4-Dichlorobenzene	0.00500	0.00462	0.00435	92.4	87.0	79.0-120			6.02	20
trans-1,4-Dichloro-2-butene	0.00500	0.00531	0.00524	106	105	33.0-144			1.33	20
Dichlorodifluoromethane	0.00500	0.00498	0.00461	99.6	92.2	51.0-149			7.72	20
1,1-Dichloroethane	0.00500	0.00452	0.00436	90.4	87.2	70.0-126			3.60	20
1,2-Dichloroethane	0.00500	0.00437	0.00443	87.4	88.6	70.0-128			1.36	20
1,1-Dichloroethene	0.00500	0.00473	0.00438	94.6	87.6	71.0-124			7.68	20
cis-1,2-Dichloroethene	0.00500	0.00448	0.00444	89.6	88.8	73.0-120			0.897	20
trans-1,2-Dichloroethene	0.00500	0.00475	0.00445	95.0	89.0	73.0-120			6.52	20
1,2-Dichloropropane	0.00500	0.00495	0.00470	99.0	94.0	77.0-125			5.18	20
cis-1,3-Dichloropropene	0.00500	0.00404	0.00400	80.8	80.0	80.0-123			0.995	20
trans-1,3-Dichloropropene	0.00500	0.00406	0.00406	81.2	81.2	78.0-124			0.000	20
Ethylbenzene	0.00500	0.00456	0.00429	91.2	85.8	79.0-123			6.10	20
Hexachloro-1,3-butadiene	0.00500	0.00370	0.00360	74.0	72.0	54.0-138			2.74	20
2-Hexanone	0.0250	0.0263	0.0263	105	105	67.0-149			0.000	20
2-Butanone (MEK)	0.0250	0.0289	0.0290	116	116	44.0-160			0.345	20
Iodomethane	0.0250	0.0164	0.0182	65.6	72.8	33.0-147			10.4	26
Methylene Chloride	0.00500	0.00447	0.00435	89.4	87.0	67.0-120			2.72	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.0289	0.0289	116	116	68.0-142			0.000	20
Naphthalene	0.00500	0.00295	0.00283	59.0	56.6	54.0-135			4.15	20
n-Propylbenzene	0.00500	0.00470	0.00438	94.0	87.6	77.0-124			7.05	20
Styrene	0.00500	0.00410	0.00395	82.0	79.0	73.0-130			3.73	20

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

(LCS) R3764545-1 02/23/22 15:40 • (LCSD) R3764545-2 02/23/22 16:02

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,1,1,2-Tetrachloroethane	0.00500	0.00421	0.00393	84.2	78.6	75.0-125			6.88	20
1,1,2,2-Tetrachloroethane	0.00500	0.00456	0.00477	91.2	95.4	65.0-130			4.50	20
1,1,2-Trichlorotrifluoroethane	0.00500	0.00473	0.00439	94.6	87.8	69.0-132			7.46	20
Tetrachloroethene	0.00500	0.00453	0.00423	90.6	84.6	72.0-132			6.85	20
Toluene	0.00500	0.00444	0.00424	88.8	84.8	79.0-120			4.61	20
1,2,4-Trichlorobenzene	0.00500	0.00311	0.00298	62.2	59.6	57.0-137			4.27	20
1,1,1-Trichloroethane	0.00500	0.00457	0.00438	91.4	87.6	73.0-124			4.25	20
1,1,2-Trichloroethane	0.00500	0.00471	0.00467	94.2	93.4	80.0-120			0.853	20
Trichloroethene	0.00500	0.00481	0.00445	96.2	89.0	78.0-124			7.78	20
Trichlorofluoromethane	0.00500	0.00464	0.00448	92.8	89.6	59.0-147			3.51	20
1,2,3-Trichloropropane	0.00500	0.00501	0.00498	100	99.6	73.0-130			0.601	20
1,2,4-Trimethylbenzene	0.00500	0.00479	0.00450	95.8	90.0	76.0-121			6.24	20
1,3,5-Trimethylbenzene	0.00500	0.00434	0.00420	86.8	84.0	76.0-122			3.28	20
Vinyl acetate	0.0250	0.0120	0.0173	48.0	69.2	11.0-160		R7	36.2	20
Vinyl chloride	0.00500	0.00497	0.00461	99.4	92.2	67.0-131			7.52	20
Xylenes, Total	0.0150	0.0138	0.0130	92.0	86.7	79.0-123			5.97	20
Di-isopropyl ether	0.00500	0.00531	0.00524	106	105	58.0-138			1.33	20
ethanol	0.250	0.319	0.323	128	129	10.0-160			1.25	30
Ethyl tert-butyl ether	0.00500	0.00475	0.00479	95.0	95.8	63.0-138			0.839	20
Methyl tert-butyl ether	0.00500	0.00452	0.00450	90.4	90.0	68.0-125			0.443	20
tert-Butyl alcohol	0.0250	0.0273	0.0276	109	110	27.0-160			1.09	30
tert-Amyl Methyl Ether	0.00500	0.00460	0.00458	92.0	91.6	66.0-125			0.436	20
(S) Toluene-d8				*99.0*	*97.9*	*80.0-120*				
(S) 4-Bromofluorobenzene				*99.7*	*97.8*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*101*	*101*	*70.0-130*				

L1464264-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1464264-01 02/23/22 22:23 • (MS) R3764545-4 02/24/22 01:59 • (MSD) R3764545-5 02/24/22 02:20

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 %
Acetone	0.0250	ND	ND	ND	133	125	1	10.0-160			6.21	35
Acrylonitrile	0.0250	ND	0.0355	0.0330	142	132	1	21.0-160			7.30	32
Benzene	0.00500	ND	0.00560	0.00502	112	100	1	17.0-158			10.9	27
Bromobenzene	0.00500	ND	0.00560	0.00523	112	105	1	30.0-149			6.83	28
Bromochloromethane	0.00500	ND	0.00565	0.00516	113	103	1	38.0-142			9.07	26
Bromodichloromethane	0.00500	ND	0.00545	0.00511	109	102	1	31.0-150			6.44	27
Bromoform	0.00500	ND	0.00436	0.00416	87.2	83.2	1	29.0-150			4.69	29
Bromomethane	0.00500	ND	ND	ND	89.2	88.6	1	10.0-160			0.675	38

L1464264-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1464264-01 02/23/22 22:23 • (MS) R3764545-4 02/24/22 01:59 • (MSD) R3764545-5 02/24/22 02:20

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 %
n-Butylbenzene	0.00500	ND	0.00591	0.00560	118	112	1	31.0-150			5.39	30
sec-Butylbenzene	0.00500	ND	0.00590	0.00570	118	114	1	33.0-155			3.45	29
tert-Butylbenzene	0.00500	ND	0.00589	0.00565	118	113	1	34.0-153			4.16	28
Carbon tetrachloride	0.00500	ND	0.00583	0.00546	117	109	1	23.0-159			6.55	28
Carbon disulfide	0.00500	ND	0.00527	0.00492	105	98.4	1	10.0-156			6.87	28
Chlorobenzene	0.00500	ND	0.00563	0.00532	113	106	1	33.0-152			5.66	27
Chlorodibromomethane	0.00500	ND	0.00512	0.00475	102	95.0	1	37.0-149			7.50	27
Chloroethane	0.00500	ND	0.00604	0.00540	121	108	1	10.0-160			11.2	30
Chloroform	0.00500	ND	0.00592	0.00555	118	111	1	29.0-154			6.45	28
Chloromethane	0.00500	ND	0.00622	0.00572	124	114	1	10.0-160			8.38	29
1,2-Dibromo-3-Chloropropane	0.00500	ND	0.00561	0.00531	112	106	1	22.0-151			5.49	34
1,2-Dibromoethane	0.00500	ND	0.00547	0.00508	109	102	1	34.0-147			7.39	27
Dibromomethane	0.00500	ND	0.00579	0.00537	116	107	1	30.0-151			7.53	27
1,2-Dichlorobenzene	0.00500	ND	0.00576	0.00533	115	107	1	34.0-149			7.75	28
1,3-Dichlorobenzene	0.00500	ND	0.00574	0.00542	115	108	1	36.0-146			5.73	27
1,4-Dichlorobenzene	0.00500	ND	0.00562	0.00539	112	108	1	35.0-142			4.18	27
trans-1,4-Dichloro-2-butene	0.00500	ND	0.00558	0.00537	112	107	1	10.0-157			3.84	37
Dichlorodifluoromethane	0.00500	ND	0.00664	0.00624	133	125	1	10.0-160			6.21	29
1,1-Dichloroethane	0.00500	ND	0.00572	0.00538	114	108	1	25.0-158			6.13	27
1,2-Dichloroethane	0.00500	ND	0.00537	0.00499	107	99.8	1	29.0-151			7.34	27
1,1-Dichloroethene	0.00500	ND	0.00603	0.00564	121	113	1	11.0-160			6.68	29
cis-1,2-Dichloroethene	0.00500	ND	0.00566	0.00531	113	106	1	10.0-160			6.38	27
trans-1,2-Dichloroethene	0.00500	ND	0.00590	0.00546	118	109	1	17.0-153			7.75	27
1,2-Dichloropropane	0.00500	ND	0.00616	0.00564	123	113	1	30.0-156			8.81	27
cis-1,3-Dichloropropene	0.00500	ND	0.00530	0.00493	106	98.6	1	34.0-149			7.23	28
trans-1,3-Dichloropropene	0.00500	ND	0.00561	0.00513	112	103	1	32.0-149			8.94	28
Ethylbenzene	0.00500	ND	0.00574	0.00537	115	107	1	30.0-155			6.66	27
Hexachloro-1,3-butadiene	0.00500	ND	0.00620	0.00562	124	112	1	20.0-154			9.81	34
2-Hexanone	0.0250	ND	0.0322	0.0295	129	118	1	21.0-160			8.75	29
2-Butanone (MEK)	0.0250	ND	0.0367	0.0337	147	135	1	10.0-160			8.52	32
Iodomethane	0.0250	ND	0.0272	0.0259	109	104	1	10.0-160			4.90	40
Methylene Chloride	0.00500	ND	0.00556	0.00521	111	104	1	23.0-144			6.50	28
4-Methyl-2-pentanone (MIBK)	0.0250	ND	0.0345	0.0325	138	130	1	29.0-160			5.97	29
Naphthalene	0.00500	ND	0.00574	0.00516	115	103	1	12.0-156			10.6	35
n-Propylbenzene	0.00500	ND	0.00584	0.00547	117	109	1	31.0-154			6.54	28
Styrene	0.00500	ND	0.00516	0.00484	103	96.8	1	33.0-155			6.40	28
1,1,1,2-Tetrachloroethane	0.00500	ND	0.00543	0.00507	109	101	1	36.0-151			6.86	29
1,1,2,2-Tetrachloroethane	0.00500	ND	0.00618	0.00579	124	116	1	33.0-150			6.52	28
1,1,2-Trichlorotrifluoroethane	0.00500	ND	0.00654	0.00603	131	121	1	23.0-160			8.11	30
Tetrachloroethene	0.00500	ND	0.00575	0.00563	115	113	1	10.0-160			2.11	27

L1464264-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1464264-01 02/23/22 22:23 • (MS) R3764545-4 02/24/22 01:59 • (MSD) R3764545-5 02/24/22 02:20

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 %
Toluene	0.00500	ND	0.00561	0.00518	112	104	1	26.0-154			7.97	28
1,2,4-Trichlorobenzene	0.00500	ND	0.00510	0.00481	102	96.2	1	24.0-150			5.85	33
1,1,1-Trichloroethane	0.00500	ND	0.00595	0.00552	119	110	1	23.0-160			7.50	28
1,1,2-Trichloroethane	0.00500	ND	0.00596	0.00538	119	108	1	35.0-147			10.2	27
Trichloroethene	0.00500	ND	0.00573	0.00531	115	106	1	10.0-160			7.61	25
Trichlorofluoromethane	0.00500	ND	0.00637	0.00583	127	117	1	17.0-160			8.85	31
1,2,3-Trichloropropane	0.00500	ND	0.00586	0.00570	117	114	1	34.0-151			2.77	29
1,2,4-Trimethylbenzene	0.00500	ND	0.00594	0.00552	119	110	1	26.0-154			7.33	27
1,3,5-Trimethylbenzene	0.00500	ND	0.00556	0.00530	111	106	1	28.0-153			4.79	27
Vinyl acetate	0.0250	ND	0.0433	0.0403	173	161	1	12.0-160	M1	M1	7.18	31
Vinyl chloride	0.00500	ND	0.00622	0.00575	124	115	1	10.0-160			7.85	27
Xylenes, Total	0.0150	ND	0.0174	0.0161	116	107	1	29.0-154			7.76	28
Di-isopropyl ether	0.00500	ND	0.00644	0.00603	129	121	1	21.0-160			6.58	28
ethanol	0.250	ND	0.398	0.381	159	152	1	50.0-150	M1	M1	4.36	20
Ethyl tert-butyl ether	0.00500	ND	0.00605	0.00557	121	111	1	10.0-160			8.26	37
Methyl tert-butyl ether	0.00500	0.180	0.198	0.188	360	160	1	28.0-150	M3	M3	5.18	29
tert-Butyl alcohol	0.0250	ND	0.0459	0.0426	184	170	1	50.0-150	M1	M1	7.46	20
tert-Amyl Methyl Ether	0.00500	0.0222	0.0298	0.0278	152	112	1	10.0-160			6.94	37
(S) Toluene-d8					*97.2*	*98.2*		*80.0-120*				
(S) 4-Bromofluorobenzene					*100*	*101*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*101*	*100*		*70.0-130*				

Method Blank (MB)

(MB) R3764778-3 02/28/22 13:12

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Acrylonitrile	U		0.000671	0.0100
Benzene	U		0.0000941	0.00100
Bromobenzene	U		0.000118	0.00100
Bromochloromethane	U		0.000128	0.00100
Bromodichloromethane	U		0.000136	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 tetrachloride	U		0.000128	0.00100
Carbon disulfide	U		0.0000962	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
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
trans-1,4-Dichloro-2-butene	U		0.000467	0.00250
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
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
Hexachloro-1,3-butadiene	U		0.000337	0.00100
2-Hexanone	U		0.000787	0.0100
2-Butanone (MEK)	U		0.00119	0.0100
Iodomethane	U		0.00600	0.0100
Methylene Chloride	U		0.000430	0.00500

Method Blank (MB)

(MB) R3764778-3 02/28/22 13:12

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
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
1,1,2-Trichlorotrifluoroethane	U		0.000180	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	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
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl acetate	U		0.000692	0.0100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
Di-isopropyl ether	U		0.000105	0.00100
Ethanol	U		0.0420	0.100
Ethyl tert-butyl ether	U		0.000101	0.00100
Methyl tert-butyl ether	U		0.000101	0.00100
tert-Butyl alcohol	U		0.00406	0.00500
tert-Amyl Methyl Ether	U		0.000195	0.00100
(S) Toluene-d8	*108*			*80.0-120*
(S) 4-Bromofluorobenzene	*97.2*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*110*			*70.0-130*

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

(LCS) R3764778-1 02/28/22 12:10 • (LCSD) R3764778-2 02/28/22 12:31

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	0.0260	0.0279	104	112	19.0-160			7.05	27
Acrylonitrile	0.0250	0.0239	0.0263	95.6	105	55.0-149			9.56	20
Benzene	0.00500	0.00487	0.00493	97.4	98.6	70.0-123			1.22	20
Bromobenzene	0.00500	0.00465	0.00501	93.0	100	73.0-121			7.45	20

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

(LCS) R3764778-1 02/28/22 12:10 • (LCSD) R3764778-2 02/28/22 12:31

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromochloromethane	0.00500	0.00481	0.00521	96.2	104	76.0-122			7.98	20
Bromodichloromethane	0.00500	0.00462	0.00495	92.4	99.0	75.0-120			6.90	20
Bromoform	0.00500	0.00471	0.00488	94.2	97.6	68.0-132			3.55	20
Bromomethane	0.00500	0.00453	0.00542	90.6	108	10.0-160			17.9	25
n-Butylbenzene	0.00500	0.00412	0.00423	82.4	84.6	73.0-125			2.63	20
sec-Butylbenzene	0.00500	0.00469	0.00486	93.8	97.2	75.0-125			3.56	20
tert-Butylbenzene	0.00500	0.00458	0.00477	91.6	95.4	76.0-124			4.06	20
Carbon tetrachloride	0.00500	0.00504	0.00538	101	108	68.0-126			6.53	20
Carbon disulfide	0.00500	0.00498	0.00497	99.6	99.4	61.0-128			0.201	20
Chlorobenzene	0.00500	0.00466	0.00492	93.2	98.4	80.0-121			5.43	20
Chlorodibromomethane	0.00500	0.00458	0.00470	91.6	94.0	77.0-125			2.59	20
Chloroethane	0.00500	0.00527	0.00557	105	111	47.0-150			5.54	20
Chloroform	0.00500	0.00468	0.00487	93.6	97.4	73.0-120			3.98	20
Chloromethane	0.00500	0.00497	0.00504	99.4	101	41.0-142			1.40	20
1,2-Dibromo-3-Chloropropane	0.00500	0.00346	0.00371	69.2	74.2	58.0-134			6.97	20
1,2-Dibromoethane	0.00500	0.00453	0.00488	90.6	97.6	80.0-122			7.44	20
Dibromomethane	0.00500	0.00456	0.00497	91.2	99.4	80.0-120			8.60	20
1,2-Dichlorobenzene	0.00500	0.00455	0.00480	91.0	96.0	79.0-121			5.35	20
1,3-Dichlorobenzene	0.00500	0.00468	0.00485	93.6	97.0	79.0-120			3.57	20
1,4-Dichlorobenzene	0.00500	0.00463	0.00535	92.6	107	79.0-120			14.4	20
trans-1,4-Dichloro-2-butene	0.00500	0.00416	0.00452	83.2	90.4	33.0-144			8.29	20
Dichlorodifluoromethane	0.00500	0.00542	0.00548	108	110	51.0-149			1.10	20
1,1-Dichloroethane	0.00500	0.00458	0.00489	91.6	97.8	70.0-126			6.55	20
1,2-Dichloroethane	0.00500	0.00480	0.00493	96.0	98.6	70.0-128			2.67	20
1,1-Dichloroethene	0.00500	0.00485	0.00487	97.0	97.4	71.0-124			0.412	20
cis-1,2-Dichloroethene	0.00500	0.00460	0.00486	92.0	97.2	73.0-120			5.50	20
trans-1,2-Dichloroethene	0.00500	0.00477	0.00500	95.4	100	73.0-120			4.71	20
1,2-Dichloropropane	0.00500	0.00478	0.00490	95.6	98.0	77.0-125			2.48	20
cis-1,3-Dichloropropene	0.00500	0.00460	0.00485	92.0	97.0	80.0-123			5.29	20
trans-1,3-Dichloropropene	0.00500	0.00478	0.00480	95.6	96.0	78.0-124			0.418	20
Ethylbenzene	0.00500	0.00480	0.00494	96.0	98.8	79.0-123			2.87	20
Hexachloro-1,3-butadiene	0.00500	0.00468	0.00491	93.6	98.2	54.0-138			4.80	20
2-Hexanone	0.0250	0.0217	0.0230	86.8	92.0	67.0-149			5.82	20
2-Butanone (MEK)	0.0250	0.0258	0.0272	103	109	44.0-160			5.28	20
Iodomethane	0.0250	0.0141	0.0173	56.4	69.2	33.0-147			20.4	26
Methylene Chloride	0.00500	0.00464	0.00477	92.8	95.4	67.0-120			2.76	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.0253	0.0260	101	104	68.0-142			2.73	20
Naphthalene	0.00500	0.00267	0.00295	53.4	59.0	54.0-135	L2		9.96	20
n-Propylbenzene	0.00500	0.00472	0.00484	94.4	96.8	77.0-124			2.51	20
Styrene	0.00500	0.00455	0.00510	91.0	102	73.0-130			11.4	20

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

(LCS) R3764778-1 02/28/22 12:10 • (LCSD) R3764778-2 02/28/22 12:31

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,1,1,2-Tetrachloroethane	0.00500	0.00463	0.00492	92.6	98.4	75.0-125			6.07	20
1,1,2,2-Tetrachloroethane	0.00500	0.00518	0.00533	104	107	65.0-130			2.85	20
1,1,2-Trichlorotrifluoroethane	0.00500	0.00509	0.00524	102	105	69.0-132			2.90	20
Tetrachloroethene	0.00500	0.00479	0.00505	95.8	101	72.0-132			5.28	20
Toluene	0.00500	0.00479	0.00505	95.8	101	79.0-120			5.28	20
1,2,4-Trichlorobenzene	0.00500	0.00336	0.00398	67.2	79.6	57.0-137			16.9	20
1,1,1-Trichloroethane	0.00500	0.00476	0.00494	95.2	98.8	73.0-124			3.71	20
1,1,2-Trichloroethane	0.00500	0.00465	0.00478	93.0	95.6	80.0-120			2.76	20
Trichloroethene	0.00500	0.00459	0.00490	91.8	98.0	78.0-124			6.53	20
Trichlorofluoromethane	0.00500	0.00487	0.00508	97.4	102	59.0-147			4.22	20
1,2,3-Trichloropropane	0.00500	0.00488	0.00501	97.6	100	73.0-130			2.63	20
1,2,4-Trimethylbenzene	0.00500	0.00458	0.00485	91.6	97.0	76.0-121			5.73	20
1,3,5-Trimethylbenzene	0.00500	0.00472	0.00515	94.4	103	76.0-122			8.71	20
Vinyl acetate	0.0250	0.0396	0.0386	158	154	11.0-160			2.56	20
Vinyl chloride	0.00500	0.00494	0.00506	98.8	101	67.0-131			2.40	20
Xylenes, Total	0.0150	0.0139	0.0143	92.7	95.3	79.0-123			2.84	20
Di-isopropyl ether	0.00500	0.00475	0.00498	95.0	99.6	58.0-138			4.73	20
ethanol	0.250	0.239	0.257	95.6	103	10.0-160			7.26	30
Ethyl tert-butyl ether	0.00500	0.00481	0.00512	96.2	102	63.0-138			6.24	20
Methyl tert-butyl ether	0.00500	0.00475	0.00483	95.0	96.6	68.0-125			1.67	20
tert-Butyl alcohol	0.0250	0.0243	0.0249	97.2	99.6	27.0-160			2.44	30
tert-Amyl Methyl Ether	0.00500	0.00467	0.00495	93.4	99.0	66.0-125			5.82	20
(S) Toluene-d8				*107*	*106*	*80.0-120*				
(S) 4-Bromofluorobenzene				*103*	*103*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*108*	*111*	*70.0-130*				

INTERNAL STANDARD SUMMARY

Instrument: VOCMS23 • File ID: 0228_12

02/28/22 12:10

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0228_12	587266	261752	230388
Upper Limit		1174532	523504	460776
Lower Limit		293633	130876	115194
LCS R3764778-1 WG1824908 1x	0228_12LCSA	587266	261752	230388
LCSD R3764778-2 WG1824908 1x	0228_13A	561919	252866	223670
BLANK R3764778-3 WG1824908 1x	0228_15A	537254	235989	208590
L1464264-03 WG1824908 50x	0228_19	524363	221940	196063
L1464264-04 WG1824908 1000x	0228_20	545366	235227	200367
L1464264-05 WG1824908 250x	0228_21	529423	225413	196964

Instrument: VOCMS36 • File ID: 0223_09

02/23/22 15:40

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0223_09	274724	126784	109832
Upper Limit		549448	253568	219664
Lower Limit		137362	63392	54916
LCS R3764545-1 WG1822772 1x	0223_09LCS	274724	126784	109832
LCSD R3764545-2 WG1822772 1x	0223_10	281997	131825	114331
BLANK R3764545-3 WG1822772 1x	0223_14	283235	126428	108412
L1464264-07 WG1822772 1x	0223_16	271354	124661	109995
L1464264-06 WG1822772 1x	0223_17	267733	120378	106010
L1464264-01 WG1822772 1x	0223_25	269772	119873	103140
L1464264-02 WG1822772 1x	0223_26	261109	116570	104626
L1464264-03 WG1822772 1x	0223_27	270992	119157	105689
L1464264-04 WG1822772 10x	0223_31	263694	116820	101891
MS R3764545-4 WG1822772 1x	0223_35	266559	122034	111397
MSD R3764545-5 WG1822772 1x	0223_36	267871	122922	110509

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

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	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
E1	Concentration estimated. Analyte exceeded calibration range. Reanalysis not possible due to insufficient sample.
L2	The associated blank spike recovery was below laboratory acceptance limits.
M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike recovery was acceptable.
R5	MS/MSD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.
R7	LFB/LFBD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.

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	LAO000356
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:
Kinder Morgan - Rocklin, CA-AZ Work

410 N.44th Street
Suite 1000
Phoenix. AZ 85008

Billing Information:
Accounts Payable- Alan Van Antwerp
9950 SAN DIEGO MISSION RD.
SAN DIEGO, CA 92108

Pres Chk

Report to: **Bob Forsberg**

Email To: bob.forsberg@arcadis-us.com;sascha.arnold@arcadis.com

Project Description: **KMEP Silvercroft Wash**

City/State Collected: Tucson, AZ

Please Circle: PT MT CT ET

Phone: **602-438-0883**

Client Project # **30113573.01**

Lab Project # **KINARCPAZ-SILVERCROF**

Collected by (print): MAT / SA

Site/Facility ID # **SILVERCROFT WASH**

P.O. # **WD876456**

Collected by (signature): M. Tani

Immediately Packed on Ice N ___ Y X

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: STD TURN

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	*NO2,NO3,SO4 125mlHDPE-NoPres	EEM RSK175 40mlAmb HCl	HOLD - NO2+NO3 250mlHDPE-H2SO4 L2	TDS 1L-HDPE NoPres	Total Fe 6010 250mlHDPE-HNO3 L2	VOCs+OXYs 8260 40mlAmb-HCl	Remarks	Sample # (lab only)
MW-29M	Grab	GW	199'	2/22/22	0922	18	X	X	X	X	X	X	Run MS/MSD	01
MW-1M		GW	199		1037	9	X	X	X	X	X	X		02
MW-2M		GW	199		1212	9	X	X	X	X	X	X		03
MW-2S		GW	172		1347	9	X	X	X	X	X	X		04
MW-29S		GW	172		1447	9	X	X	X	X	X	X		05
		GW												
		GW												
		GW												
Equipment blanks	G	~~GW~~	—	2/22/22	0815	3						X		06
Trip Blank	—	~~GW~~	—	2/22/22	—	1 2						X		07

T-12.

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:*NO2,NO3 have a 48 hour holding time.

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 5433 8383 9209

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
M. Tani	2/22/22	1600	FedEX
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
			T. Robertson

Trip Blank Received: Yes / No (2) HCL / MeoH TBR

Temp: 1.2+0=1.2 °C Bottles Received: 57

Date: 2/23/22 Time: 900

If preservation required by Login: Date/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

Chain of Custody Page 1 of 1

Pace PEOPLE ADVANCING SCIENCE

MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # 1464264

Table H006

Acctnum: KINARCPAZ

Template: T190237

Prelogin: P903930

PM: 110 - Brian Ford

PB:

Shipped Via:

ANALYTICAL REPORT

March 28, 2022

Kinder Morgan - Rocklin, CA-AZ Work

Sample Delivery Group:	L1472760
Samples Received:	03/18/2022
Project Number:	30113573.01
Description:	KMEP Silvercroft Wash
Site:	SILVERCROFT WASH
Report To:	Bob Forsberg 410 N.44th Street Suite 1000 Phoenix, AZ 85008

Entire Report Reviewed By:

Brian Ford

Project Manager

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

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

MW-29D L1472760-01 GW

Collected by: SXA/MAT | Collected date/time: 03/17/22 09:12 | Received date/time: 03/18/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1837101	1	03/23/22 13:32	03/23/22 16:23	BRG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1834623	1	03/18/22 13:31	03/18/22 13:31	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1834623	10	03/18/22 13:46	03/18/22 13:46	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1836044	1	03/24/22 03:07	03/25/22 02:38	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1836151	1	03/22/22 16:10	03/22/22 16:10	DBB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1836600	1	03/23/22 14:26	03/23/22 14:26	BMB	Mt. Juliet, TN

MW-1D L1472760-02 GW

Collected by: SXA/MAT | Collected date/time: 03/17/22 10:32 | Received date/time: 03/18/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1837101	1	03/23/22 13:32	03/23/22 16:23	BRG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1834623	1	03/18/22 20:26	03/18/22 20:26	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1834623	10	03/18/22 20:42	03/18/22 20:42	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1836040	1	03/22/22 23:43	03/23/22 19:56	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1836151	1	03/22/22 16:13	03/22/22 16:13	DBB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1836600	1	03/23/22 14:47	03/23/22 14:47	BMB	Mt. Juliet, TN

MW-2D L1472760-03 GW

Collected by: SXA/MAT | Collected date/time: 03/17/22 11:47 | Received date/time: 03/18/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1837289	1	03/23/22 18:13	03/23/22 20:20	BRG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1834623	1	03/18/22 20:57	03/18/22 20:57	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1834623	10	03/18/22 21:13	03/18/22 21:13	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1836040	1	03/22/22 23:43	03/23/22 19:59	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1836151	1	03/22/22 16:15	03/22/22 16:15	DBB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1836600	1	03/23/22 19:08	03/23/22 19:08	BMB	Mt. Juliet, TN

MW-2M L1472760-04 GW

Collected by: SXA/MAT | Collected date/time: 03/17/22 13:38 | Received date/time: 03/18/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1837289	1	03/23/22 18:13	03/23/22 20:20	BRG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1834623	1	03/18/22 21:28	03/18/22 21:28	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1834623	10	03/18/22 22:14	03/18/22 22:14	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1836040	1	03/22/22 23:43	03/23/22 20:02	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1836151	1	03/22/22 16:22	03/22/22 16:22	DBB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1837436	10	03/25/22 11:01	03/25/22 11:01	JAH	Mt. Juliet, TN

MW-1M L1472760-05 GW

Collected by: SXA/MAT | Collected date/time: 03/17/22 14:47 | Received date/time: 03/18/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1837289	1	03/23/22 18:13	03/23/22 20:20	BRG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1834623	1	03/18/22 14:32	03/18/22 14:32	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1834623	10	03/18/22 14:47	03/18/22 14:47	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1837241	1	03/23/22 18:37	03/24/22 22:20	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1836151	1	03/22/22 16:25	03/22/22 16:25	DBB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1836600	1	03/23/22 15:09	03/23/22 15:09	BMB	Mt. Juliet, TN

EQUIPMENT BLANK L1472760-06 GW

Collected by	Collected date/time	Received date/time
SXA/MAT	03/17/22 08:10	03/18/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1836600	1	03/23/22 13:42	03/23/22 13:42	DWR	Mt. Juliet, TN

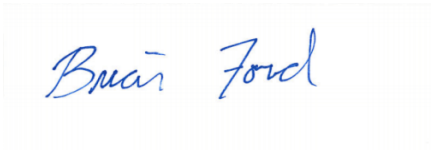
TRIP BLANK L1472760-07 GW

Collected by	Collected date/time	Received date/time
SXA/MAT	03/17/22 00:00	03/18/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1836600	1	03/23/22 12:16	03/23/22 12:16	DWR	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.



Brian Ford
Project Manager

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	776		13.3	1	03/23/2022 16:23	WG1837101

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	3.56		0.100	1	03/18/2022 13:31	WG1834623
Nitrite	ND		0.100	1	03/18/2022 13:31	WG1834623
Sulfate	261	M3	50.0	10	03/18/2022 13:46	WG1834623

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	ND		0.100	1	03/25/2022 02:38	WG1836044

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	03/22/2022 16:10	WG1836151
Ethane	ND		0.0130	1	03/22/2022 16:10	WG1836151
Ethene	ND		0.0130	1	03/22/2022 16:10	WG1836151

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	03/23/2022 14:26	WG1836600
Acrylonitrile	ND		0.0100	1	03/23/2022 14:26	WG1836600
Benzene	ND		0.00100	1	03/23/2022 14:26	WG1836600
Bromobenzene	ND	L1	0.00100	1	03/23/2022 14:26	WG1836600
Bromochloromethane	ND		0.00100	1	03/23/2022 14:26	WG1836600
Bromodichloromethane	ND		0.00100	1	03/23/2022 14:26	WG1836600
Bromoform	ND		0.00100	1	03/23/2022 14:26	WG1836600
Bromomethane	ND	L1 R5	0.00500	1	03/23/2022 14:26	WG1836600
n-Butylbenzene	ND		0.00100	1	03/23/2022 14:26	WG1836600
sec-Butylbenzene	ND		0.00100	1	03/23/2022 14:26	WG1836600
tert-Butylbenzene	ND		0.00100	1	03/23/2022 14:26	WG1836600
Carbon tetrachloride	ND		0.00100	1	03/23/2022 14:26	WG1836600
Carbon disulfide	ND		0.00100	1	03/23/2022 14:26	WG1836600
Chlorobenzene	ND		0.00100	1	03/23/2022 14:26	WG1836600
Chlorodibromomethane	ND		0.00100	1	03/23/2022 14:26	WG1836600
Chloroethane	ND		0.00500	1	03/23/2022 14:26	WG1836600
Chloroform	ND		0.00500	1	03/23/2022 14:26	WG1836600
Chloromethane	ND		0.00250	1	03/23/2022 14:26	WG1836600
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	03/23/2022 14:26	WG1836600
1,2-Dibromoethane	ND		0.00100	1	03/23/2022 14:26	WG1836600
Dibromomethane	ND		0.00100	1	03/23/2022 14:26	WG1836600
1,2-Dichlorobenzene	ND		0.00100	1	03/23/2022 14:26	WG1836600
1,3-Dichlorobenzene	ND		0.00100	1	03/23/2022 14:26	WG1836600
1,4-Dichlorobenzene	ND		0.00100	1	03/23/2022 14:26	WG1836600
trans-1,4-Dichloro-2-butene	ND	L1	0.00250	1	03/23/2022 14:26	WG1836600
Dichlorodifluoromethane	ND		0.00500	1	03/23/2022 14:26	WG1836600
1,1-Dichloroethane	ND		0.00100	1	03/23/2022 14:26	WG1836600
1,2-Dichloroethane	ND		0.00100	1	03/23/2022 14:26	WG1836600
1,1-Dichloroethene	ND		0.00100	1	03/23/2022 14:26	WG1836600
cis-1,2-Dichloroethene	ND		0.00100	1	03/23/2022 14:26	WG1836600

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.00100	1	03/23/2022 14:26	WG1836600
1,2-Dichloropropane	ND		0.00100	1	03/23/2022 14:26	WG1836600
cis-1,3-Dichloropropene	ND		0.00100	1	03/23/2022 14:26	WG1836600
trans-1,3-Dichloropropene	ND		0.00100	1	03/23/2022 14:26	WG1836600
Ethylbenzene	ND		0.00100	1	03/23/2022 14:26	WG1836600
Hexachloro-1,3-butadiene	ND		0.00100	1	03/23/2022 14:26	WG1836600
2-Hexanone	ND		0.0100	1	03/23/2022 14:26	WG1836600
2-Butanone (MEK)	ND		0.0100	1	03/23/2022 14:26	WG1836600
Iodomethane	ND	L1 R5	0.0100	1	03/23/2022 14:26	WG1836600
Methylene Chloride	ND		0.00500	1	03/23/2022 14:26	WG1836600
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	03/23/2022 14:26	WG1836600
Naphthalene	ND		0.00500	1	03/23/2022 14:26	WG1836600
n-Propylbenzene	ND		0.00100	1	03/23/2022 14:26	WG1836600
Styrene	ND		0.00100	1	03/23/2022 14:26	WG1836600
1,1,1,2-Tetrachloroethane	ND		0.00100	1	03/23/2022 14:26	WG1836600
1,1,2,2-Tetrachloroethane	ND		0.00100	1	03/23/2022 14:26	WG1836600
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	03/23/2022 14:26	WG1836600
Tetrachloroethene	ND		0.00100	1	03/23/2022 14:26	WG1836600
Toluene	ND		0.00100	1	03/23/2022 14:26	WG1836600
1,2,4-Trichlorobenzene	ND		0.00100	1	03/23/2022 14:26	WG1836600
1,1,1-Trichloroethane	ND		0.00100	1	03/23/2022 14:26	WG1836600
1,1,2-Trichloroethane	ND		0.00100	1	03/23/2022 14:26	WG1836600
Trichloroethene	ND		0.00100	1	03/23/2022 14:26	WG1836600
Trichlorofluoromethane	ND		0.00500	1	03/23/2022 14:26	WG1836600
1,2,3-Trichloropropane	ND		0.00250	1	03/23/2022 14:26	WG1836600
1,2,4-Trimethylbenzene	ND		0.00100	1	03/23/2022 14:26	WG1836600
1,3,5-Trimethylbenzene	ND		0.00100	1	03/23/2022 14:26	WG1836600
Vinyl acetate	ND		0.0100	1	03/23/2022 14:26	WG1836600
Vinyl chloride	ND		0.00100	1	03/23/2022 14:26	WG1836600
Xylenes, Total	ND		0.00300	1	03/23/2022 14:26	WG1836600
Di-isopropyl ether	ND		0.00100	1	03/23/2022 14:26	WG1836600
Ethanol	ND		0.100	1	03/23/2022 14:26	WG1836600
Ethyl tert-butyl ether	ND		0.00100	1	03/23/2022 14:26	WG1836600
Methyl tert-butyl ether	ND		0.00100	1	03/23/2022 14:26	WG1836600
tert-Butyl alcohol	ND		0.00500	1	03/23/2022 14:26	WG1836600
tert-Amyl Methyl Ether	ND		0.00100	1	03/23/2022 14:26	WG1836600
(S) Toluene-d8	*110*		*80.0-120*		*03/23/2022 14:26*	WG1836600
(S) 4-Bromofluorobenzene	*90.7*		*77.0-126*		*03/23/2022 14:26*	WG1836600
(S) 1,2-Dichloroethane-d4	*103*		*70.0-130*		*03/23/2022 14:26*	WG1836600

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	789		13.3	1	03/23/2022 16:23	WG1837101

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	3.77		0.100	1	03/18/2022 20:26	WG1834623
Nitrite	ND		0.100	1	03/18/2022 20:26	WG1834623
Sulfate	253		50.0	10	03/18/2022 20:42	WG1834623

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	0.305		0.100	1	03/23/2022 19:56	WG1836040

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	03/22/2022 16:13	WG1836151
Ethane	ND		0.0130	1	03/22/2022 16:13	WG1836151
Ethene	ND		0.0130	1	03/22/2022 16:13	WG1836151

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	03/23/2022 14:47	WG1836600
Acrylonitrile	ND		0.0100	1	03/23/2022 14:47	WG1836600
Benzene	ND		0.00100	1	03/23/2022 14:47	WG1836600
Bromobenzene	ND	L1	0.00100	1	03/23/2022 14:47	WG1836600
Bromochloromethane	ND		0.00100	1	03/23/2022 14:47	WG1836600
Bromodichloromethane	ND		0.00100	1	03/23/2022 14:47	WG1836600
Bromoform	ND		0.00100	1	03/23/2022 14:47	WG1836600
Bromomethane	ND	L1	0.00500	1	03/23/2022 14:47	WG1836600
n-Butylbenzene	ND		0.00100	1	03/23/2022 14:47	WG1836600
sec-Butylbenzene	ND		0.00100	1	03/23/2022 14:47	WG1836600
tert-Butylbenzene	ND		0.00100	1	03/23/2022 14:47	WG1836600
Carbon tetrachloride	ND		0.00100	1	03/23/2022 14:47	WG1836600
Carbon disulfide	ND		0.00100	1	03/23/2022 14:47	WG1836600
Chlorobenzene	ND		0.00100	1	03/23/2022 14:47	WG1836600
Chlorodibromomethane	ND		0.00100	1	03/23/2022 14:47	WG1836600
Chloroethane	ND		0.00500	1	03/23/2022 14:47	WG1836600
Chloroform	ND		0.00500	1	03/23/2022 14:47	WG1836600
Chloromethane	ND		0.00250	1	03/23/2022 14:47	WG1836600
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	03/23/2022 14:47	WG1836600
1,2-Dibromoethane	ND		0.00100	1	03/23/2022 14:47	WG1836600
Dibromomethane	ND		0.00100	1	03/23/2022 14:47	WG1836600
1,2-Dichlorobenzene	ND		0.00100	1	03/23/2022 14:47	WG1836600
1,3-Dichlorobenzene	ND		0.00100	1	03/23/2022 14:47	WG1836600
1,4-Dichlorobenzene	ND		0.00100	1	03/23/2022 14:47	WG1836600
trans-1,4-Dichloro-2-butene	ND	L1	0.00250	1	03/23/2022 14:47	WG1836600
Dichlorodifluoromethane	ND		0.00500	1	03/23/2022 14:47	WG1836600
1,1-Dichloroethane	ND		0.00100	1	03/23/2022 14:47	WG1836600
1,2-Dichloroethane	ND		0.00100	1	03/23/2022 14:47	WG1836600
1,1-Dichloroethene	ND		0.00100	1	03/23/2022 14:47	WG1836600
cis-1,2-Dichloroethene	ND		0.00100	1	03/23/2022 14:47	WG1836600

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.00100	1	03/23/2022 14:47	WG1836600
1,2-Dichloropropane	ND		0.00100	1	03/23/2022 14:47	WG1836600
cis-1,3-Dichloropropene	ND		0.00100	1	03/23/2022 14:47	WG1836600
trans-1,3-Dichloropropene	ND		0.00100	1	03/23/2022 14:47	WG1836600
Ethylbenzene	ND		0.00100	1	03/23/2022 14:47	WG1836600
Hexachloro-1,3-butadiene	ND		0.00100	1	03/23/2022 14:47	WG1836600
2-Hexanone	ND		0.0100	1	03/23/2022 14:47	WG1836600
2-Butanone (MEK)	ND		0.0100	1	03/23/2022 14:47	WG1836600
Iodomethane	ND	L1	0.0100	1	03/23/2022 14:47	WG1836600
Methylene Chloride	ND		0.00500	1	03/23/2022 14:47	WG1836600
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	03/23/2022 14:47	WG1836600
Naphthalene	ND		0.00500	1	03/23/2022 14:47	WG1836600
n-Propylbenzene	ND		0.00100	1	03/23/2022 14:47	WG1836600
Styrene	ND		0.00100	1	03/23/2022 14:47	WG1836600
1,1,1,2-Tetrachloroethane	ND		0.00100	1	03/23/2022 14:47	WG1836600
1,1,2,2-Tetrachloroethane	ND		0.00100	1	03/23/2022 14:47	WG1836600
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	03/23/2022 14:47	WG1836600
Tetrachloroethene	ND		0.00100	1	03/23/2022 14:47	WG1836600
Toluene	ND		0.00100	1	03/23/2022 14:47	WG1836600
1,2,4-Trichlorobenzene	ND		0.00100	1	03/23/2022 14:47	WG1836600
1,1,1-Trichloroethane	ND		0.00100	1	03/23/2022 14:47	WG1836600
1,1,2-Trichloroethane	ND		0.00100	1	03/23/2022 14:47	WG1836600
Trichloroethene	ND		0.00100	1	03/23/2022 14:47	WG1836600
Trichlorofluoromethane	ND		0.00500	1	03/23/2022 14:47	WG1836600
1,2,3-Trichloropropane	ND		0.00250	1	03/23/2022 14:47	WG1836600
1,2,4-Trimethylbenzene	ND		0.00100	1	03/23/2022 14:47	WG1836600
1,3,5-Trimethylbenzene	ND		0.00100	1	03/23/2022 14:47	WG1836600
Vinyl acetate	ND		0.0100	1	03/23/2022 14:47	WG1836600
Vinyl chloride	ND		0.00100	1	03/23/2022 14:47	WG1836600
Xylenes, Total	ND		0.00300	1	03/23/2022 14:47	WG1836600
Di-isopropyl ether	ND		0.00100	1	03/23/2022 14:47	WG1836600
Ethanol	ND		0.100	1	03/23/2022 14:47	WG1836600
Ethyl tert-butyl ether	ND		0.00100	1	03/23/2022 14:47	WG1836600
Methyl tert-butyl ether	ND		0.00100	1	03/23/2022 14:47	WG1836600
tert-Butyl alcohol	ND		0.00500	1	03/23/2022 14:47	WG1836600
tert-Amyl Methyl Ether	ND		0.00100	1	03/23/2022 14:47	WG1836600
(S) Toluene-d8	*115*		*80.0-120*		*03/23/2022 14:47*	WG1836600
(S) 4-Bromofluorobenzene	*93.6*		*77.0-126*		*03/23/2022 14:47*	WG1836600
(S) 1,2-Dichloroethane-d4	*102*		*70.0-130*		*03/23/2022 14:47*	WG1836600

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

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	795		13.3	1	03/23/2022 20:20	WG1837289

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	3.36		0.100	1	03/18/2022 20:57	WG1834623
Nitrite	ND		0.100	1	03/18/2022 20:57	WG1834623
Sulfate	262		50.0	10	03/18/2022 21:13	WG1834623

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	ND		0.100	1	03/23/2022 19:59	WG1836040

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	03/22/2022 16:15	WG1836151
Ethane	ND		0.0130	1	03/22/2022 16:15	WG1836151
Ethene	ND		0.0130	1	03/22/2022 16:15	WG1836151

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	03/23/2022 19:08	WG1836600
Acrylonitrile	ND		0.0100	1	03/23/2022 19:08	WG1836600
Benzene	ND		0.00100	1	03/23/2022 19:08	WG1836600
Bromobenzene	ND	L1	0.00100	1	03/23/2022 19:08	WG1836600
Bromochloromethane	ND		0.00100	1	03/23/2022 19:08	WG1836600
Bromodichloromethane	ND		0.00100	1	03/23/2022 19:08	WG1836600
Bromoform	ND		0.00100	1	03/23/2022 19:08	WG1836600
Bromomethane	ND	L1	0.00500	1	03/23/2022 19:08	WG1836600
n-Butylbenzene	ND		0.00100	1	03/23/2022 19:08	WG1836600
sec-Butylbenzene	ND		0.00100	1	03/23/2022 19:08	WG1836600
tert-Butylbenzene	ND		0.00100	1	03/23/2022 19:08	WG1836600
Carbon tetrachloride	ND		0.00100	1	03/23/2022 19:08	WG1836600
Carbon disulfide	ND		0.00100	1	03/23/2022 19:08	WG1836600
Chlorobenzene	ND		0.00100	1	03/23/2022 19:08	WG1836600
Chlorodibromomethane	ND		0.00100	1	03/23/2022 19:08	WG1836600
Chloroethane	ND		0.00500	1	03/23/2022 19:08	WG1836600
Chloroform	ND		0.00500	1	03/23/2022 19:08	WG1836600
Chloromethane	ND		0.00250	1	03/23/2022 19:08	WG1836600
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	03/23/2022 19:08	WG1836600
1,2-Dibromoethane	ND		0.00100	1	03/23/2022 19:08	WG1836600
Dibromomethane	ND		0.00100	1	03/23/2022 19:08	WG1836600
1,2-Dichlorobenzene	ND		0.00100	1	03/23/2022 19:08	WG1836600
1,3-Dichlorobenzene	ND		0.00100	1	03/23/2022 19:08	WG1836600
1,4-Dichlorobenzene	ND		0.00100	1	03/23/2022 19:08	WG1836600
trans-1,4-Dichloro-2-butene	ND	L1	0.00250	1	03/23/2022 19:08	WG1836600
Dichlorodifluoromethane	ND		0.00500	1	03/23/2022 19:08	WG1836600
1,1-Dichloroethane	ND		0.00100	1	03/23/2022 19:08	WG1836600
1,2-Dichloroethane	ND		0.00100	1	03/23/2022 19:08	WG1836600
1,1-Dichloroethene	ND		0.00100	1	03/23/2022 19:08	WG1836600
cis-1,2-Dichloroethene	ND		0.00100	1	03/23/2022 19:08	WG1836600

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.00100	1	03/23/2022 19:08	WG1836600
1,2-Dichloropropane	ND		0.00100	1	03/23/2022 19:08	WG1836600
cis-1,3-Dichloropropene	ND		0.00100	1	03/23/2022 19:08	WG1836600
trans-1,3-Dichloropropene	ND		0.00100	1	03/23/2022 19:08	WG1836600
Ethylbenzene	ND		0.00100	1	03/23/2022 19:08	WG1836600
Hexachloro-1,3-butadiene	ND		0.00100	1	03/23/2022 19:08	WG1836600
2-Hexanone	ND		0.0100	1	03/23/2022 19:08	WG1836600
2-Butanone (MEK)	ND		0.0100	1	03/23/2022 19:08	WG1836600
Iodomethane	ND	L1	0.0100	1	03/23/2022 19:08	WG1836600
Methylene Chloride	ND		0.00500	1	03/23/2022 19:08	WG1836600
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	03/23/2022 19:08	WG1836600
Naphthalene	ND		0.00500	1	03/23/2022 19:08	WG1836600
n-Propylbenzene	ND		0.00100	1	03/23/2022 19:08	WG1836600
Styrene	ND		0.00100	1	03/23/2022 19:08	WG1836600
1,1,1,2-Tetrachloroethane	ND		0.00100	1	03/23/2022 19:08	WG1836600
1,1,2,2-Tetrachloroethane	ND		0.00100	1	03/23/2022 19:08	WG1836600
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	03/23/2022 19:08	WG1836600
Tetrachloroethene	ND		0.00100	1	03/23/2022 19:08	WG1836600
Toluene	ND		0.00100	1	03/23/2022 19:08	WG1836600
1,2,4-Trichlorobenzene	ND		0.00100	1	03/23/2022 19:08	WG1836600
1,1,1-Trichloroethane	ND		0.00100	1	03/23/2022 19:08	WG1836600
1,1,2-Trichloroethane	ND		0.00100	1	03/23/2022 19:08	WG1836600
Trichloroethene	ND		0.00100	1	03/23/2022 19:08	WG1836600
Trichlorofluoromethane	ND		0.00500	1	03/23/2022 19:08	WG1836600
1,2,3-Trichloropropane	ND		0.00250	1	03/23/2022 19:08	WG1836600
1,2,4-Trimethylbenzene	ND		0.00100	1	03/23/2022 19:08	WG1836600
1,3,5-Trimethylbenzene	ND		0.00100	1	03/23/2022 19:08	WG1836600
Vinyl acetate	ND		0.0100	1	03/23/2022 19:08	WG1836600
Vinyl chloride	ND		0.00100	1	03/23/2022 19:08	WG1836600
Xylenes, Total	ND		0.00300	1	03/23/2022 19:08	WG1836600
Di-isopropyl ether	ND		0.00100	1	03/23/2022 19:08	WG1836600
Ethanol	ND		0.100	1	03/23/2022 19:08	WG1836600
Ethyl tert-butyl ether	ND		0.00100	1	03/23/2022 19:08	WG1836600
Methyl tert-butyl ether	0.0233		0.00100	1	03/23/2022 19:08	WG1836600
tert-Butyl alcohol	ND		0.00500	1	03/23/2022 19:08	WG1836600
tert-Amyl Methyl Ether	ND		0.00100	1	03/23/2022 19:08	WG1836600
(S) Toluene-d8	*115*		*80.0-120*		*03/23/2022 19:08*	WG1836600
(S) 4-Bromofluorobenzene	*93.9*		*77.0-126*		*03/23/2022 19:08*	WG1836600
(S) 1,2-Dichloroethane-d4	*101*		*70.0-130*		*03/23/2022 19:08*	WG1836600

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

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	649		13.3	1	03/23/2022 20:20	WG1837289

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	2.58		0.100	1	03/18/2022 21:28	WG1834623
Nitrite	ND		0.100	1	03/18/2022 21:28	WG1834623
Sulfate	213		50.0	10	03/18/2022 22:14	WG1834623

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	ND		0.100	1	03/23/2022 20:02	WG1836040

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	03/22/2022 16:22	WG1836151
Ethane	ND		0.0130	1	03/22/2022 16:22	WG1836151
Ethene	ND		0.0130	1	03/22/2022 16:22	WG1836151

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.500	10	03/25/2022 11:01	WG1837436
Acrylonitrile	ND		0.100	10	03/25/2022 11:01	WG1837436
Benzene	ND		0.0100	10	03/25/2022 11:01	WG1837436
Bromobenzene	ND		0.0100	10	03/25/2022 11:01	WG1837436
Bromochloromethane	ND		0.0100	10	03/25/2022 11:01	WG1837436
Bromodichloromethane	ND		0.0100	10	03/25/2022 11:01	WG1837436
Bromoform	ND		0.0100	10	03/25/2022 11:01	WG1837436
Bromomethane	ND		0.0500	10	03/25/2022 11:01	WG1837436
n-Butylbenzene	ND		0.0100	10	03/25/2022 11:01	WG1837436
sec-Butylbenzene	ND		0.0100	10	03/25/2022 11:01	WG1837436
tert-Butylbenzene	ND		0.0100	10	03/25/2022 11:01	WG1837436
Carbon tetrachloride	ND		0.0100	10	03/25/2022 11:01	WG1837436
Carbon disulfide	ND		0.0100	10	03/25/2022 11:01	WG1837436
Chlorobenzene	ND		0.0100	10	03/25/2022 11:01	WG1837436
Chlorodibromomethane	ND		0.0100	10	03/25/2022 11:01	WG1837436
Chloroethane	ND		0.0500	10	03/25/2022 11:01	WG1837436
Chloroform	ND		0.0500	10	03/25/2022 11:01	WG1837436
Chloromethane	ND		0.0250	10	03/25/2022 11:01	WG1837436
1,2-Dibromo-3-Chloropropane	ND		0.0500	10	03/25/2022 11:01	WG1837436
1,2-Dibromoethane	ND		0.0100	10	03/25/2022 11:01	WG1837436
Dibromomethane	ND		0.0100	10	03/25/2022 11:01	WG1837436
1,2-Dichlorobenzene	ND		0.0100	10	03/25/2022 11:01	WG1837436
1,3-Dichlorobenzene	ND		0.0100	10	03/25/2022 11:01	WG1837436
1,4-Dichlorobenzene	ND		0.0100	10	03/25/2022 11:01	WG1837436
trans-1,4-Dichloro-2-butene	ND		0.0250	10	03/25/2022 11:01	WG1837436
Dichlorodifluoromethane	ND		0.0500	10	03/25/2022 11:01	WG1837436
1,1-Dichloroethane	ND		0.0100	10	03/25/2022 11:01	WG1837436
1,2-Dichloroethane	ND		0.0100	10	03/25/2022 11:01	WG1837436
1,1-Dichloroethene	ND		0.0100	10	03/25/2022 11:01	WG1837436
cis-1,2-Dichloroethene	ND		0.0100	10	03/25/2022 11:01	WG1837436

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.0100	10	03/25/2022 11:01	WG1837436
1,2-Dichloropropane	ND		0.0100	10	03/25/2022 11:01	WG1837436
cis-1,3-Dichloropropene	ND		0.0100	10	03/25/2022 11:01	WG1837436
trans-1,3-Dichloropropene	ND		0.0100	10	03/25/2022 11:01	WG1837436
Ethylbenzene	ND		0.0100	10	03/25/2022 11:01	WG1837436
Hexachloro-1,3-butadiene	ND		0.0100	10	03/25/2022 11:01	WG1837436
2-Hexanone	ND		0.100	10	03/25/2022 11:01	WG1837436
2-Butanone (MEK)	0.271		0.100	10	03/25/2022 11:01	WG1837436
Iodomethane	ND		0.100	10	03/25/2022 11:01	WG1837436
Methylene Chloride	ND		0.0500	10	03/25/2022 11:01	WG1837436
4-Methyl-2-pentanone (MIBK)	ND		0.100	10	03/25/2022 11:01	WG1837436
Naphthalene	ND	L1	0.0500	10	03/25/2022 11:01	WG1837436
n-Propylbenzene	ND		0.0100	10	03/25/2022 11:01	WG1837436
Styrene	ND		0.0100	10	03/25/2022 11:01	WG1837436
1,1,1,2-Tetrachloroethane	ND		0.0100	10	03/25/2022 11:01	WG1837436
1,1,2,2-Tetrachloroethane	ND		0.0100	10	03/25/2022 11:01	WG1837436
1,1,2-Trichlorotrifluoroethane	ND		0.0100	10	03/25/2022 11:01	WG1837436
Tetrachloroethene	ND		0.0100	10	03/25/2022 11:01	WG1837436
Toluene	ND		0.0100	10	03/25/2022 11:01	WG1837436
1,2,4-Trichlorobenzene	ND		0.0100	10	03/25/2022 11:01	WG1837436
1,1,1-Trichloroethane	ND		0.0100	10	03/25/2022 11:01	WG1837436
1,1,2-Trichloroethane	ND		0.0100	10	03/25/2022 11:01	WG1837436
Trichloroethene	ND		0.0100	10	03/25/2022 11:01	WG1837436
Trichlorofluoromethane	ND		0.0500	10	03/25/2022 11:01	WG1837436
1,2,3-Trichloropropane	ND		0.0250	10	03/25/2022 11:01	WG1837436
1,2,4-Trimethylbenzene	ND		0.0100	10	03/25/2022 11:01	WG1837436
1,3,5-Trimethylbenzene	ND		0.0100	10	03/25/2022 11:01	WG1837436
Vinyl acetate	ND	R7	0.100	10	03/25/2022 11:01	WG1837436
Vinyl chloride	ND		0.0100	10	03/25/2022 11:01	WG1837436
Xylenes, Total	ND		0.0300	10	03/25/2022 11:01	WG1837436
Di-isopropyl ether	ND		0.0100	10	03/25/2022 11:01	WG1837436
Ethanol	ND	L1	1.00	10	03/25/2022 11:01	WG1837436
Ethyl tert-butyl ether	ND		0.0100	10	03/25/2022 11:01	WG1837436
Methyl tert-butyl ether	0.748		0.0100	10	03/25/2022 11:01	WG1837436
tert-Butyl alcohol	ND		0.0500	10	03/25/2022 11:01	WG1837436
tert-Amyl Methyl Ether	0.138		0.0100	10	03/25/2022 11:01	WG1837436
(S) Toluene-d8	*101*		*80.0-120*		*03/25/2022 11:01*	WG1837436
(S) 4-Bromofluorobenzene	*103*		*77.0-126*		*03/25/2022 11:01*	WG1837436
(S) 1,2-Dichloroethane-d4	*86.9*		*70.0-130*		*03/25/2022 11:01*	WG1837436

Sample Narrative:

L1472760-04 WG1837436: Target compounds too high to run at a lower dilution.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	661		13.3	1	03/23/2022 20:20	WG1837289

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	2.63		0.100	1	03/18/2022 14:32	WG1834623
Nitrite	ND		0.100	1	03/18/2022 14:32	WG1834623
Sulfate	206		50.0	10	03/18/2022 14:47	WG1834623

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	2.33		0.100	1	03/24/2022 22:20	WG1837241

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	03/22/2022 16:25	WG1836151
Ethane	ND		0.0130	1	03/22/2022 16:25	WG1836151
Ethene	ND		0.0130	1	03/22/2022 16:25	WG1836151

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	03/23/2022 15:09	WG1836600
Acrylonitrile	ND		0.0100	1	03/23/2022 15:09	WG1836600
Benzene	ND		0.00100	1	03/23/2022 15:09	WG1836600
Bromobenzene	ND	L1	0.00100	1	03/23/2022 15:09	WG1836600
Bromochloromethane	ND		0.00100	1	03/23/2022 15:09	WG1836600
Bromodichloromethane	ND		0.00100	1	03/23/2022 15:09	WG1836600
Bromoform	ND		0.00100	1	03/23/2022 15:09	WG1836600
Bromomethane	ND	L1	0.00500	1	03/23/2022 15:09	WG1836600
n-Butylbenzene	ND		0.00100	1	03/23/2022 15:09	WG1836600
sec-Butylbenzene	ND		0.00100	1	03/23/2022 15:09	WG1836600
tert-Butylbenzene	ND		0.00100	1	03/23/2022 15:09	WG1836600
Carbon tetrachloride	ND		0.00100	1	03/23/2022 15:09	WG1836600
Carbon disulfide	ND		0.00100	1	03/23/2022 15:09	WG1836600
Chlorobenzene	ND		0.00100	1	03/23/2022 15:09	WG1836600
Chlorodibromomethane	ND		0.00100	1	03/23/2022 15:09	WG1836600
Chloroethane	ND		0.00500	1	03/23/2022 15:09	WG1836600
Chloroform	ND		0.00500	1	03/23/2022 15:09	WG1836600
Chloromethane	ND		0.00250	1	03/23/2022 15:09	WG1836600
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	03/23/2022 15:09	WG1836600
1,2-Dibromoethane	ND		0.00100	1	03/23/2022 15:09	WG1836600
Dibromomethane	ND		0.00100	1	03/23/2022 15:09	WG1836600
1,2-Dichlorobenzene	ND		0.00100	1	03/23/2022 15:09	WG1836600
1,3-Dichlorobenzene	ND		0.00100	1	03/23/2022 15:09	WG1836600
1,4-Dichlorobenzene	ND		0.00100	1	03/23/2022 15:09	WG1836600
trans-1,4-Dichloro-2-butene	ND	L1	0.00250	1	03/23/2022 15:09	WG1836600
Dichlorodifluoromethane	ND		0.00500	1	03/23/2022 15:09	WG1836600
1,1-Dichloroethane	ND		0.00100	1	03/23/2022 15:09	WG1836600
1,2-Dichloroethane	ND		0.00100	1	03/23/2022 15:09	WG1836600
1,1-Dichloroethene	ND		0.00100	1	03/23/2022 15:09	WG1836600
cis-1,2-Dichloroethene	ND		0.00100	1	03/23/2022 15:09	WG1836600

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.00100	1	03/23/2022 15:09	WG1836600
1,2-Dichloropropane	ND		0.00100	1	03/23/2022 15:09	WG1836600
cis-1,3-Dichloropropene	ND		0.00100	1	03/23/2022 15:09	WG1836600
trans-1,3-Dichloropropene	ND		0.00100	1	03/23/2022 15:09	WG1836600
Ethylbenzene	ND		0.00100	1	03/23/2022 15:09	WG1836600
Hexachloro-1,3-butadiene	ND		0.00100	1	03/23/2022 15:09	WG1836600
2-Hexanone	ND		0.0100	1	03/23/2022 15:09	WG1836600
2-Butanone (MEK)	ND		0.0100	1	03/23/2022 15:09	WG1836600
Iodomethane	ND	L1	0.0100	1	03/23/2022 15:09	WG1836600
Methylene Chloride	ND		0.00500	1	03/23/2022 15:09	WG1836600
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	03/23/2022 15:09	WG1836600
Naphthalene	ND		0.00500	1	03/23/2022 15:09	WG1836600
n-Propylbenzene	ND		0.00100	1	03/23/2022 15:09	WG1836600
Styrene	ND		0.00100	1	03/23/2022 15:09	WG1836600
1,1,1,2-Tetrachloroethane	ND		0.00100	1	03/23/2022 15:09	WG1836600
1,1,2,2-Tetrachloroethane	ND		0.00100	1	03/23/2022 15:09	WG1836600
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	03/23/2022 15:09	WG1836600
Tetrachloroethene	ND		0.00100	1	03/23/2022 15:09	WG1836600
Toluene	ND		0.00100	1	03/23/2022 15:09	WG1836600
1,2,4-Trichlorobenzene	ND		0.00100	1	03/23/2022 15:09	WG1836600
1,1,1-Trichloroethane	ND		0.00100	1	03/23/2022 15:09	WG1836600
1,1,2-Trichloroethane	ND		0.00100	1	03/23/2022 15:09	WG1836600
Trichloroethene	ND		0.00100	1	03/23/2022 15:09	WG1836600
Trichlorofluoromethane	ND		0.00500	1	03/23/2022 15:09	WG1836600
1,2,3-Trichloropropane	ND		0.00250	1	03/23/2022 15:09	WG1836600
1,2,4-Trimethylbenzene	ND		0.00100	1	03/23/2022 15:09	WG1836600
1,3,5-Trimethylbenzene	ND		0.00100	1	03/23/2022 15:09	WG1836600
Vinyl acetate	ND		0.0100	1	03/23/2022 15:09	WG1836600
Vinyl chloride	ND		0.00100	1	03/23/2022 15:09	WG1836600
Xylenes, Total	ND		0.00300	1	03/23/2022 15:09	WG1836600
Di-isopropyl ether	ND		0.00100	1	03/23/2022 15:09	WG1836600
Ethanol	ND		0.100	1	03/23/2022 15:09	WG1836600
Ethyl tert-butyl ether	ND		0.00100	1	03/23/2022 15:09	WG1836600
Methyl tert-butyl ether	ND		0.00100	1	03/23/2022 15:09	WG1836600
tert-Butyl alcohol	ND		0.00500	1	03/23/2022 15:09	WG1836600
tert-Amyl Methyl Ether	ND		0.00100	1	03/23/2022 15:09	WG1836600
(S) Toluene-d8	*114*		*80.0-120*		*03/23/2022 15:09*	WG1836600
(S) 4-Bromofluorobenzene	*92.6*		*77.0-126*		*03/23/2022 15:09*	WG1836600
(S) 1,2-Dichloroethane-d4	*103*		*70.0-130*		*03/23/2022 15:09*	WG1836600

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	03/23/2022 13:42	WG1836600
Acrylonitrile	ND		0.0100	1	03/23/2022 13:42	WG1836600
Benzene	ND		0.00100	1	03/23/2022 13:42	WG1836600
Bromobenzene	ND	L1	0.00100	1	03/23/2022 13:42	WG1836600
Bromochloromethane	ND		0.00100	1	03/23/2022 13:42	WG1836600
Bromodichloromethane	ND		0.00100	1	03/23/2022 13:42	WG1836600
Bromoform	ND		0.00100	1	03/23/2022 13:42	WG1836600
Bromomethane	ND	L1	0.00500	1	03/23/2022 13:42	WG1836600
n-Butylbenzene	ND		0.00100	1	03/23/2022 13:42	WG1836600
sec-Butylbenzene	ND		0.00100	1	03/23/2022 13:42	WG1836600
tert-Butylbenzene	ND		0.00100	1	03/23/2022 13:42	WG1836600
Carbon tetrachloride	ND		0.00100	1	03/23/2022 13:42	WG1836600
Carbon disulfide	ND		0.00100	1	03/23/2022 13:42	WG1836600
Chlorobenzene	ND		0.00100	1	03/23/2022 13:42	WG1836600
Chlorodibromomethane	ND		0.00100	1	03/23/2022 13:42	WG1836600
Chloroethane	ND		0.00500	1	03/23/2022 13:42	WG1836600
Chloroform	ND		0.00500	1	03/23/2022 13:42	WG1836600
Chloromethane	ND		0.00250	1	03/23/2022 13:42	WG1836600
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	03/23/2022 13:42	WG1836600
1,2-Dibromoethane	ND		0.00100	1	03/23/2022 13:42	WG1836600
Dibromomethane	ND		0.00100	1	03/23/2022 13:42	WG1836600
1,2-Dichlorobenzene	ND		0.00100	1	03/23/2022 13:42	WG1836600
1,3-Dichlorobenzene	ND		0.00100	1	03/23/2022 13:42	WG1836600
1,4-Dichlorobenzene	ND		0.00100	1	03/23/2022 13:42	WG1836600
trans-1,4-Dichloro-2-butene	ND	L1	0.00250	1	03/23/2022 13:42	WG1836600
Dichlorodifluoromethane	ND		0.00500	1	03/23/2022 13:42	WG1836600
1,1-Dichloroethane	ND		0.00100	1	03/23/2022 13:42	WG1836600
1,2-Dichloroethane	ND		0.00100	1	03/23/2022 13:42	WG1836600
1,1-Dichloroethene	ND		0.00100	1	03/23/2022 13:42	WG1836600
cis-1,2-Dichloroethene	ND		0.00100	1	03/23/2022 13:42	WG1836600
trans-1,2-Dichloroethene	ND		0.00100	1	03/23/2022 13:42	WG1836600
1,2-Dichloropropane	ND		0.00100	1	03/23/2022 13:42	WG1836600
cis-1,3-Dichloropropene	ND		0.00100	1	03/23/2022 13:42	WG1836600
trans-1,3-Dichloropropene	ND		0.00100	1	03/23/2022 13:42	WG1836600
Ethylbenzene	ND		0.00100	1	03/23/2022 13:42	WG1836600
Hexachloro-1,3-butadiene	ND		0.00100	1	03/23/2022 13:42	WG1836600
2-Hexanone	ND		0.0100	1	03/23/2022 13:42	WG1836600
2-Butanone (MEK)	ND		0.0100	1	03/23/2022 13:42	WG1836600
Iodomethane	ND	L1	0.0100	1	03/23/2022 13:42	WG1836600
Methylene Chloride	ND		0.00500	1	03/23/2022 13:42	WG1836600
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	03/23/2022 13:42	WG1836600
Naphthalene	ND		0.00500	1	03/23/2022 13:42	WG1836600
n-Propylbenzene	ND		0.00100	1	03/23/2022 13:42	WG1836600
Styrene	ND		0.00100	1	03/23/2022 13:42	WG1836600
1,1,1,2-Tetrachloroethane	ND		0.00100	1	03/23/2022 13:42	WG1836600
1,1,2,2-Tetrachloroethane	ND		0.00100	1	03/23/2022 13:42	WG1836600
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	03/23/2022 13:42	WG1836600
Tetrachloroethene	ND		0.00100	1	03/23/2022 13:42	WG1836600
Toluene	ND		0.00100	1	03/23/2022 13:42	WG1836600
1,2,4-Trichlorobenzene	ND		0.00100	1	03/23/2022 13:42	WG1836600
1,1,1-Trichloroethane	ND		0.00100	1	03/23/2022 13:42	WG1836600
1,1,2-Trichloroethane	ND		0.00100	1	03/23/2022 13:42	WG1836600
Trichloroethene	ND		0.00100	1	03/23/2022 13:42	WG1836600
Trichlorofluoromethane	ND		0.00500	1	03/23/2022 13:42	WG1836600
1,2,3-Trichloropropane	ND		0.00250	1	03/23/2022 13:42	WG1836600
1,2,4-Trimethylbenzene	ND		0.00100	1	03/23/2022 13:42	WG1836600

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
1,3,5-Trimethylbenzene	ND		0.00100	1	03/23/2022 13:42	WG1836600
Vinyl acetate	ND		0.0100	1	03/23/2022 13:42	WG1836600
Vinyl chloride	ND		0.00100	1	03/23/2022 13:42	WG1836600
Xylenes, Total	ND		0.00300	1	03/23/2022 13:42	WG1836600
Di-isopropyl ether	ND		0.00100	1	03/23/2022 13:42	WG1836600
Ethanol	ND		0.100	1	03/23/2022 13:42	WG1836600
Ethyl tert-butyl ether	ND		0.00100	1	03/23/2022 13:42	WG1836600
Methyl tert-butyl ether	ND		0.00100	1	03/23/2022 13:42	WG1836600
tert-Butyl alcohol	ND		0.00500	1	03/23/2022 13:42	WG1836600
tert-Amyl Methyl Ether	ND		0.00100	1	03/23/2022 13:42	WG1836600
(S) Toluene-d8	*119*		*80.0-120*		*03/23/2022 13:42*	WG1836600
(S) 4-Bromofluorobenzene	*97.2*		*77.0-126*		*03/23/2022 13:42*	WG1836600
(S) 1,2-Dichloroethane-d4	*103*		*70.0-130*		*03/23/2022 13:42*	WG1836600

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	03/23/2022 12:16	WG1836600
Acrylonitrile	ND		0.0100	1	03/23/2022 12:16	WG1836600
Benzene	ND		0.00100	1	03/23/2022 12:16	WG1836600
Bromobenzene	ND	L1	0.00100	1	03/23/2022 12:16	WG1836600
Bromochloromethane	ND		0.00100	1	03/23/2022 12:16	WG1836600
Bromodichloromethane	ND		0.00100	1	03/23/2022 12:16	WG1836600
Bromoform	ND		0.00100	1	03/23/2022 12:16	WG1836600
Bromomethane	ND	L1	0.00500	1	03/23/2022 12:16	WG1836600
n-Butylbenzene	ND		0.00100	1	03/23/2022 12:16	WG1836600
sec-Butylbenzene	ND		0.00100	1	03/23/2022 12:16	WG1836600
tert-Butylbenzene	ND		0.00100	1	03/23/2022 12:16	WG1836600
Carbon tetrachloride	ND		0.00100	1	03/23/2022 12:16	WG1836600
Carbon disulfide	ND		0.00100	1	03/23/2022 12:16	WG1836600
Chlorobenzene	ND		0.00100	1	03/23/2022 12:16	WG1836600
Chlorodibromomethane	ND		0.00100	1	03/23/2022 12:16	WG1836600
Chloroethane	ND		0.00500	1	03/23/2022 12:16	WG1836600
Chloroform	ND		0.00500	1	03/23/2022 12:16	WG1836600
Chloromethane	ND		0.00250	1	03/23/2022 12:16	WG1836600
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	03/23/2022 12:16	WG1836600
1,2-Dibromoethane	ND		0.00100	1	03/23/2022 12:16	WG1836600
Dibromomethane	ND		0.00100	1	03/23/2022 12:16	WG1836600
1,2-Dichlorobenzene	ND		0.00100	1	03/23/2022 12:16	WG1836600
1,3-Dichlorobenzene	ND		0.00100	1	03/23/2022 12:16	WG1836600
1,4-Dichlorobenzene	ND		0.00100	1	03/23/2022 12:16	WG1836600
trans-1,4-Dichloro-2-butene	ND	L1	0.00250	1	03/23/2022 12:16	WG1836600
Dichlorodifluoromethane	ND		0.00500	1	03/23/2022 12:16	WG1836600
1,1-Dichloroethane	ND		0.00100	1	03/23/2022 12:16	WG1836600
1,2-Dichloroethane	ND		0.00100	1	03/23/2022 12:16	WG1836600
1,1-Dichloroethene	ND		0.00100	1	03/23/2022 12:16	WG1836600
cis-1,2-Dichloroethene	ND		0.00100	1	03/23/2022 12:16	WG1836600
trans-1,2-Dichloroethene	ND		0.00100	1	03/23/2022 12:16	WG1836600
1,2-Dichloropropane	ND		0.00100	1	03/23/2022 12:16	WG1836600
cis-1,3-Dichloropropene	ND		0.00100	1	03/23/2022 12:16	WG1836600
trans-1,3-Dichloropropene	ND		0.00100	1	03/23/2022 12:16	WG1836600
Ethylbenzene	ND		0.00100	1	03/23/2022 12:16	WG1836600
Hexachloro-1,3-butadiene	ND		0.00100	1	03/23/2022 12:16	WG1836600
2-Hexanone	ND		0.0100	1	03/23/2022 12:16	WG1836600
2-Butanone (MEK)	ND		0.0100	1	03/23/2022 12:16	WG1836600
Iodomethane	ND	L1	0.0100	1	03/23/2022 12:16	WG1836600
Methylene Chloride	ND		0.00500	1	03/23/2022 12:16	WG1836600
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	03/23/2022 12:16	WG1836600
Naphthalene	ND		0.00500	1	03/23/2022 12:16	WG1836600
n-Propylbenzene	ND		0.00100	1	03/23/2022 12:16	WG1836600
Styrene	ND		0.00100	1	03/23/2022 12:16	WG1836600
1,1,1,2-Tetrachloroethane	ND		0.00100	1	03/23/2022 12:16	WG1836600
1,1,2,2-Tetrachloroethane	ND		0.00100	1	03/23/2022 12:16	WG1836600
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	03/23/2022 12:16	WG1836600
Tetrachloroethene	ND		0.00100	1	03/23/2022 12:16	WG1836600
Toluene	ND		0.00100	1	03/23/2022 12:16	WG1836600
1,2,4-Trichlorobenzene	ND		0.00100	1	03/23/2022 12:16	WG1836600
1,1,1-Trichloroethane	ND		0.00100	1	03/23/2022 12:16	WG1836600
1,1,2-Trichloroethane	ND		0.00100	1	03/23/2022 12:16	WG1836600
Trichloroethene	ND		0.00100	1	03/23/2022 12:16	WG1836600
Trichlorofluoromethane	ND		0.00500	1	03/23/2022 12:16	WG1836600
1,2,3-Trichloropropane	ND		0.00250	1	03/23/2022 12:16	WG1836600
1,2,4-Trimethylbenzene	ND		0.00100	1	03/23/2022 12:16	WG1836600

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
1,3,5-Trimethylbenzene	ND		0.00100	1	03/23/2022 12:16	WG1836600
Vinyl acetate	ND		0.0100	1	03/23/2022 12:16	WG1836600
Vinyl chloride	ND		0.00100	1	03/23/2022 12:16	WG1836600
Xylenes, Total	ND		0.00300	1	03/23/2022 12:16	WG1836600
Di-isopropyl ether	ND		0.00100	1	03/23/2022 12:16	WG1836600
Ethanol	ND		0.100	1	03/23/2022 12:16	WG1836600
Ethyl tert-butyl ether	ND		0.00100	1	03/23/2022 12:16	WG1836600
Methyl tert-butyl ether	ND		0.00100	1	03/23/2022 12:16	WG1836600
tert-Butyl alcohol	ND		0.00500	1	03/23/2022 12:16	WG1836600
tert-Amyl Methyl Ether	ND		0.00100	1	03/23/2022 12:16	WG1836600
(S) Toluene-d8	*115*		*80.0-120*		*03/23/2022 12:16*	WG1836600
(S) 4-Bromofluorobenzene	*91.2*		*77.0-126*		*03/23/2022 12:16*	WG1836600
(S) 1,2-Dichloroethane-d4	*102*		*70.0-130*		*03/23/2022 12:16*	WG1836600

Method Blank (MB)

(MB) R3774348-1 03/23/22 16:23

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1472760-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1472760-01 03/23/22 16:23 • (DUP) R3774348-3 03/23/22 16:23

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	776	783	1	0.856		5

L1473094-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1473094-02 03/23/22 16:23 • (DUP) R3774348-4 03/23/22 16:23

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	724	731	1	0.917		5

Laboratory Control Sample (LCS)

(LCS) R3774348-2 03/23/22 16:23

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8660	98.4	77.4-123	

Method Blank (MB)

(MB) R3774340-1 03/23/22 20:20

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1472760-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1472760-03 03/23/22 20:20 • (DUP) R3774340-3 03/23/22 20:20

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	795	796	1	0.167		5

L1472760-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1472760-04 03/23/22 20:20 • (DUP) R3774340-4 03/23/22 20:20

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	649	651	1	0.206		5

Laboratory Control Sample (LCS)

(LCS) R3774340-2 03/23/22 20:20

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8640	98.2	77.4-123	

Method Blank (MB)

(MB) R3772090-1 03/18/22 10:06

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate	U		0.0480	0.100
Nitrite	U		0.0420	0.100
Sulfate	U		0.594	5.00

L1472716-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1472716-07 03/18/22 16:04 • (DUP) R3772090-5 03/18/22 16:20

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	ND	ND	1	0.000		15
Nitrite	ND	ND	1	0.000		15
Sulfate	30.4	30.4	1	0.0371		15

L1472716-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1472716-09 03/18/22 19:09 • (DUP) R3772090-6 03/18/22 19:25

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	ND	ND	1	0.000		15
Nitrite	ND	ND	1	0.000		15
Sulfate	ND	ND	1	0.000		15

Laboratory Control Sample (LCS)

(LCS) R3772090-2 03/18/22 10:22

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate	8.00	7.96	99.4	80.0-120	
Nitrite	8.00	8.11	101	80.0-120	
Sulfate	40.0	39.4	98.6	80.0-120	

L1472760-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1472760-01 03/18/22 13:31 • (MS) R3772090-3 03/18/22 14:01 • (MSD) R3772090-4 03/18/22 14:16

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 %
Nitrate	5.00	3.56	8.68	8.74	103	104	1	80.0-120			0.647	15
Nitrite	5.00	ND	5.13	5.18	103	104	1	80.0-120			0.907	15
Sulfate	50.0	274	307	308	65.7	67.1	1	80.0-120	E1 M3	E1 M3	0.234	15

L1472716-09 Original Sample (OS) • Matrix Spike (MS)

(OS) L1472716-09 03/18/22 19:09 • (MS) R3772090-7 03/18/22 19:40

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate	5.00	ND	4.93	98.6	1	80.0-120	
Nitrite	5.00	ND	5.08	102	1	80.0-120	
Sulfate	50.0	ND	49.3	98.5	1	80.0-120	

Method Blank (MB)

(MB) R3773342-1 03/23/22 18:43

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Iron	U		0.0180	0.100

Laboratory Control Sample (LCS)

(LCS) R3773342-2 03/23/22 18:46

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Iron	10.0	9.70	97.0	80.0-120	

L1472622-16 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1472622-16 03/23/22 18:48 • (MS) R3773342-4 03/23/22 18:54 • (MSD) R3773342-5 03/23/22 18:56

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 %
Iron	10.0	11.0	20.2	20.3	91.6	92.2	1	75.0-125			0.308	20

Method Blank (MB)

(MB) R3773880-1 03/25/22 02:33

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Iron	U		0.0180	0.100

Laboratory Control Sample (LCS)

(LCS) R3773880-2 03/25/22 02:35

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Iron	10.0	9.43	94.3	80.0-120	

L1472760-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1472760-01 03/25/22 02:38 • (MS) R3773880-4 03/25/22 02:44 • (MSD) R3773880-5 03/25/22 02:47

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 %
Iron	10.0	ND	9.60	9.48	95.2	94.0	1	75.0-125			1.24	20

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

Method Blank (MB)

(MB) R3773887-1 03/24/22 21:57

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Iron	0.0370	E4	0.0180	0.100

Laboratory Control Sample (LCS)

(LCS) R3773887-2 03/24/22 21:59

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Iron	10.0	9.73	97.3	80.0-120	

L1472852-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1472852-02 03/24/22 22:02 • (MS) R3773887-4 03/24/22 22:07 • (MSD) R3773887-5 03/24/22 22:09

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 %
Iron	10.0	2.52	12.0	12.0	94.8	94.5	1	75.0-125			0.248	20

Method Blank (MB)

(MB) R3772743-2 03/22/22 14:42

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Methane	U		0.00291	0.0100
Ethane	U		0.00407	0.0130
Ethene	U		0.00426	0.0130

L1472726-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1472726-03 03/22/22 15:48 • (DUP) R3772743-3 03/22/22 15:52

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	0.635	0.636	1	0.157		20
Ethane	ND	ND	1	0.000		20
Ethene	0.0215	0.0218	1	1.39		20

L1472760-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1472760-05 03/22/22 16:25 • (DUP) R3772743-4 03/22/22 16:28

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	ND	ND	1	0.000		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20

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

(LCS) R3772743-1 03/22/22 14:36 • (LCSD) R3772743-9 03/22/22 16:43

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Methane	0.0678	0.0666	0.0717	98.2	106	85.0-115			7.38	20
Ethane	0.129	0.115	0.115	89.1	89.1	85.0-115			0.000	20
Ethene	0.127	0.117	0.116	92.1	91.3	85.0-115			0.858	20

L1472726-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1472726-02 03/22/22 15:42 • (MS) R3772743-5 03/22/22 16:33 • (MSD) R3772743-6 03/22/22 16:35

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 %
Methane	0.0678	16.0	18.8	18.6	4130	3830	1	50.0-150	E1 M3	E1 M3	1.07	20
Ethane	0.129	0.0168	0.145	0.149	99.4	102	1	50.0-150			2.72	20
Ethene	0.127	ND	0.130	0.135	102	106	1	50.0-150			3.77	20

L1472760-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1472760-01 03/22/22 16:10 • (MS) R3772743-7 03/22/22 16:38 • (MSD) R3772743-8 03/22/22 16:41

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 %
Methane	0.0678	ND	0.0757	0.0739	112	109	1	50.0-150			2.41	20
Ethane	0.129	ND	0.130	0.133	101	103	1	50.0-150			2.28	20
Ethene	0.127	ND	0.132	0.135	104	106	1	50.0-150			2.25	20

Method Blank (MB)

(MB) R3773137-3 03/23/22 11:32

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Acrylonitrile	U		0.000671	0.0100
Benzene	U		0.0000941	0.00100
Bromobenzene	U		0.000118	0.00100
Bromochloromethane	U		0.000128	0.00100
Bromodichloromethane	U		0.000136	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 tetrachloride	U		0.000128	0.00100
Carbon disulfide	U		0.0000962	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
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
trans-1,4-Dichloro-2-butene	U		0.000467	0.00250
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
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
Hexachloro-1,3-butadiene	U		0.000337	0.00100
2-Hexanone	U		0.000787	0.0100
2-Butanone (MEK)	U		0.00119	0.0100
Iodomethane	U		0.00600	0.0100
Methylene Chloride	U		0.000430	0.00500

Method Blank (MB)

(MB) R3773137-3 03/23/22 11:32

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
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
1,1,2-Trichlorotrifluoroethane	U		0.000180	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	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
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl acetate	U		0.000692	0.0100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
Di-isopropyl ether	U		0.000105	0.00100
Ethanol	U		0.0420	0.100
Ethyl tert-butyl ether	U		0.000101	0.00100
Methyl tert-butyl ether	U		0.000101	0.00100
tert-Butyl alcohol	U		0.00406	0.00500
tert-Amyl Methyl Ether	U		0.000195	0.00100
(S) Toluene-d8	*113*			*80.0-120*
(S) 4-Bromofluorobenzene	*90.2*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*

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

(LCS) R3773137-1 03/23/22 10:06 • (LCSD) R3773137-2 03/23/22 10:27

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	0.0301	0.0302	120	121	19.0-160			0.332	27
Acrylonitrile	0.0250	0.0278	0.0267	111	107	55.0-149			4.04	20
Benzene	0.00500	0.00417	0.00424	83.4	84.8	70.0-123			1.66	20
Bromobenzene	0.00500	0.00572	0.00616	114	123	73.0-121		L1	7.41	20

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

(LCS) R3773137-1 03/23/22 10:06 • (LCSD) R3773137-2 03/23/22 10:27

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromochloromethane	0.00500	0.00432	0.00456	86.4	91.2	76.0-122			5.41	20
Bromodichloromethane	0.00500	0.00398	0.00404	79.6	80.8	75.0-120			1.50	20
Bromoform	0.00500	0.00418	0.00414	83.6	82.8	68.0-132			0.962	20
Bromomethane	0.00500	0.00983	0.0108	197	216	10.0-160	L1	L1	9.40	25
n-Butylbenzene	0.00500	0.00479	0.00510	95.8	102	73.0-125			6.27	20
sec-Butylbenzene	0.00500	0.00497	0.00532	99.4	106	75.0-125			6.80	20
tert-Butylbenzene	0.00500	0.00535	0.00545	107	109	76.0-124			1.85	20
Carbon tetrachloride	0.00500	0.00413	0.00394	82.6	78.8	68.0-126			4.71	20
Carbon disulfide	0.00500	0.00308	0.00318	61.6	63.6	61.0-128			3.19	20
Chlorobenzene	0.00500	0.00497	0.00496	99.4	99.2	80.0-121			0.201	20
Chlorodibromomethane	0.00500	0.00453	0.00445	90.6	89.0	77.0-125			1.78	20
Chloroethane	0.00500	0.00431	0.00438	86.2	87.6	47.0-150			1.61	20
Chloroform	0.00500	0.00430	0.00446	86.0	89.2	73.0-120			3.65	20
Chloromethane	0.00500	0.00220	0.00231	44.0	46.2	41.0-142			4.88	20
1,2-Dibromo-3-Chloropropane	0.00500	0.00483	0.00521	96.6	104	58.0-134			7.57	20
1,2-Dibromoethane	0.00500	0.00502	0.00474	100	94.8	80.0-122			5.74	20
Dibromomethane	0.00500	0.00453	0.00462	90.6	92.4	80.0-120			1.97	20
1,2-Dichlorobenzene	0.00500	0.00588	0.00585	118	117	79.0-121			0.512	20
1,3-Dichlorobenzene	0.00500	0.00561	0.00560	112	112	79.0-120			0.178	20
1,4-Dichlorobenzene	0.00500	0.00545	0.00589	109	118	79.0-120			7.76	20
trans-1,4-Dichloro-2-butene	0.00500	0.00750	0.00737	150	147	33.0-144	L1	L1	1.75	20
Dichlorodifluoromethane	0.00500	0.00383	0.00389	76.6	77.8	51.0-149			1.55	20
1,1-Dichloroethane	0.00500	0.00475	0.00475	95.0	95.0	70.0-126			0.000	20
1,2-Dichloroethane	0.00500	0.00446	0.00470	89.2	94.0	70.0-128			5.24	20
1,1-Dichloroethene	0.00500	0.00421	0.00424	84.2	84.8	71.0-124			0.710	20
cis-1,2-Dichloroethene	0.00500	0.00420	0.00433	84.0	86.6	73.0-120			3.05	20
trans-1,2-Dichloroethene	0.00500	0.00404	0.00412	80.8	82.4	73.0-120			1.96	20
1,2-Dichloropropane	0.00500	0.00509	0.00523	102	105	77.0-125			2.71	20
cis-1,3-Dichloropropene	0.00500	0.00415	0.00422	83.0	84.4	80.0-123			1.67	20
trans-1,3-Dichloropropene	0.00500	0.00464	0.00460	92.8	92.0	78.0-124			0.866	20
Ethylbenzene	0.00500	0.00449	0.00452	89.8	90.4	79.0-123			0.666	20
Hexachloro-1,3-butadiene	0.00500	0.00562	0.00583	112	117	54.0-138			3.67	20
2-Hexanone	0.0250	0.0260	0.0253	104	101	67.0-149			2.73	20
2-Butanone (MEK)	0.0250	0.0247	0.0230	98.8	92.0	44.0-160			7.13	20
Iodomethane	0.0250	0.0366	0.0393	146	157	33.0-147		L1	7.11	26
Methylene Chloride	0.00500	0.00497	0.00496	99.4	99.2	67.0-120			0.201	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.0311	0.0291	124	116	68.0-142			6.64	20
Naphthalene	0.00500	0.00555	0.00601	111	120	54.0-135			7.96	20
n-Propylbenzene	0.00500	0.00509	0.00525	102	105	77.0-124			3.09	20
Styrene	0.00500	0.00449	0.00455	89.8	91.0	73.0-130			1.33	20

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

(LCS) R3773137-1 03/23/22 10:06 • (LCSD) R3773137-2 03/23/22 10:27

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,1,1,2-Tetrachloroethane	0.00500	0.00466	0.00468	93.2	93.6	75.0-125			0.428	20
1,1,2,2-Tetrachloroethane	0.00500	0.00618	0.00598	124	120	65.0-130			3.29	20
1,1,2-Trichlorotrifluoroethane	0.00500	0.00425	0.00439	85.0	87.8	69.0-132			3.24	20
Tetrachloroethene	0.00500	0.00387	0.00393	77.4	78.6	72.0-132			1.54	20
Toluene	0.00500	0.00474	0.00484	94.8	96.8	79.0-120			2.09	20
1,2,4-Trichlorobenzene	0.00500	0.00546	0.00556	109	111	57.0-137			1.81	20
1,1,1-Trichloroethane	0.00500	0.00430	0.00427	86.0	85.4	73.0-124			0.700	20
1,1,2-Trichloroethane	0.00500	0.00519	0.00520	104	104	80.0-120			0.192	20
Trichloroethene	0.00500	0.00419	0.00411	83.8	82.2	78.0-124			1.93	20
Trichlorofluoromethane	0.00500	0.00398	0.00411	79.6	82.2	59.0-147			3.21	20
1,2,3-Trichloropropane	0.00500	0.00588	0.00613	118	123	73.0-130			4.16	20
1,2,4-Trimethylbenzene	0.00500	0.00527	0.00556	105	111	76.0-121			5.36	20
1,3,5-Trimethylbenzene	0.00500	0.00539	0.00567	108	113	76.0-122			5.06	20
Vinyl acetate	0.0250	0.0218	0.0206	87.2	82.4	11.0-160			5.66	20
Vinyl chloride	0.00500	0.00453	0.00464	90.6	92.8	67.0-131			2.40	20
Xylenes, Total	0.0150	0.0144	0.0144	96.0	96.0	79.0-123			0.000	20
Di-isopropyl ether	0.00500	0.00527	0.00551	105	110	58.0-138			4.45	20
ethanol	0.250	0.286	0.296	114	118	10.0-160			3.44	30
Ethyl tert-butyl ether	0.00500	0.00496	0.00505	99.2	101	63.0-138			1.80	20
Methyl tert-butyl ether	0.00500	0.00441	0.00423	88.2	84.6	68.0-125			4.17	20
tert-Butyl alcohol	0.0250	0.0230	0.0214	92.0	85.6	27.0-160			7.21	30
tert-Amyl Methyl Ether	0.00500	0.00462	0.00447	92.4	89.4	66.0-125			3.30	20
(S) Toluene-d8				*111*	*110*	*80.0-120*				
(S) 4-Bromofluorobenzene				*90.9*	*92.1*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*104*	*104*	*70.0-130*				

L1472760-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1472760-01 03/23/22 14:26 • (MS) R3773137-4 03/23/22 19:30 • (MSD) R3773137-5 03/23/22 19:51

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 %
Acetone	0.0250	ND	ND	ND	69.2	74.0	1	10.0-160			6.70	35
Acrylonitrile	0.0250	ND	0.0203	0.0214	81.2	85.6	1	21.0-160			5.28	32
Benzene	0.00500	ND	0.00349	0.00371	69.8	74.2	1	17.0-158			6.11	27
Bromobenzene	0.00500	ND	0.00435	0.00434	87.0	86.8	1	30.0-149			0.230	28
Bromochloromethane	0.00500	ND	0.00375	0.00399	75.0	79.8	1	38.0-142			6.20	26
Bromodichloromethane	0.00500	ND	0.00316	0.00331	63.2	66.2	1	31.0-150			4.64	27
Bromoform	0.00500	ND	0.00303	0.00323	60.6	64.6	1	29.0-150			6.39	29
Bromomethane	0.00500	ND	ND	ND	37.6	92.0	1	10.0-160		R5	84.0	38

L1472760-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1472760-01 03/23/22 14:26 • (MS) R3773137-4 03/23/22 19:30 • (MSD) R3773137-5 03/23/22 19:51

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 %
n-Butylbenzene	0.00500	ND	0.00372	0.00299	74.4	59.8	1	31.0-150			21.8	30
sec-Butylbenzene	0.00500	ND	0.00400	0.00378	80.0	75.6	1	33.0-155			5.66	29
tert-Butylbenzene	0.00500	ND	0.00415	0.00424	83.0	84.8	1	34.0-153			2.15	28
Carbon tetrachloride	0.00500	ND	0.00337	0.00352	67.4	70.4	1	23.0-159			4.35	28
Carbon disulfide	0.00500	ND	0.00243	0.00233	48.6	46.6	1	10.0-156			4.20	28
Chlorobenzene	0.00500	ND	0.00393	0.00407	78.6	81.4	1	33.0-152			3.50	27
Chlorodibromomethane	0.00500	ND	0.00347	0.00381	69.4	76.2	1	37.0-149			9.34	27
Chloroethane	0.00500	ND	ND	ND	81.6	79.8	1	10.0-160			2.23	30
Chloroform	0.00500	ND	ND	ND	65.8	72.6	1	29.0-154			9.83	28
Chloromethane	0.00500	ND	ND	ND	30.2	32.8	1	10.0-160			8.25	29
1,2-Dibromo-3-Chloropropane	0.00500	ND	ND	ND	66.4	71.4	1	22.0-151			7.26	34
1,2-Dibromoethane	0.00500	ND	0.00382	0.00396	76.4	79.2	1	34.0-147			3.60	27
Dibromomethane	0.00500	ND	0.00311	0.00348	62.2	69.6	1	30.0-151			11.2	27
1,2-Dichlorobenzene	0.00500	ND	0.00418	0.00422	83.6	84.4	1	34.0-149			0.952	28
1,3-Dichlorobenzene	0.00500	ND	0.00418	0.00387	83.6	77.4	1	36.0-146			7.70	27
1,4-Dichlorobenzene	0.00500	ND	0.00431	0.00402	86.2	80.4	1	35.0-142			6.96	27
trans-1,4-Dichloro-2-butene	0.00500	ND	0.00475	0.00445	95.0	89.0	1	10.0-157			6.52	37
Dichlorodifluoromethane	0.00500	ND	ND	ND	64.4	60.0	1	10.0-160			7.07	29
1,1-Dichloroethane	0.00500	ND	0.00380	0.00392	76.0	78.4	1	25.0-158			3.11	27
1,2-Dichloroethane	0.00500	ND	0.00341	0.00371	68.2	74.2	1	29.0-151			8.43	27
1,1-Dichloroethene	0.00500	ND	0.00355	0.00356	71.0	71.2	1	11.0-160			0.281	29
cis-1,2-Dichloroethene	0.00500	ND	0.00330	0.00352	66.0	70.4	1	10.0-160			6.45	27
trans-1,2-Dichloroethene	0.00500	ND	0.00338	0.00340	67.6	68.0	1	17.0-153			0.590	27
1,2-Dichloropropane	0.00500	ND	0.00388	0.00415	77.6	83.0	1	30.0-156			6.72	27
cis-1,3-Dichloropropene	0.00500	ND	0.00322	0.00330	64.4	66.0	1	34.0-149			2.45	28
trans-1,3-Dichloropropene	0.00500	ND	0.00366	0.00358	73.2	71.6	1	32.0-149			2.21	28
Ethylbenzene	0.00500	ND	0.00400	0.00372	80.0	74.4	1	30.0-155			7.25	27
Hexachloro-1,3-butadiene	0.00500	ND	0.00442	0.00350	88.4	70.0	1	20.0-154			23.2	34
2-Hexanone	0.0250	ND	0.0202	0.0203	80.8	81.2	1	21.0-160			0.494	29
2-Butanone (MEK)	0.0250	ND	0.0179	0.0185	71.6	74.0	1	10.0-160			3.30	32
Iodomethane	0.0250	ND	0.0132	0.0227	52.8	90.8	1	10.0-160		R5	52.9	40
Methylene Chloride	0.00500	ND	ND	ND	72.0	75.8	1	23.0-144			5.14	28
4-Methyl-2-pentanone (MIBK)	0.0250	ND	0.0211	0.0228	84.4	91.2	1	29.0-160			7.74	29
Naphthalene	0.00500	ND	ND	ND	87.8	97.4	1	12.0-156			10.4	35
n-Propylbenzene	0.00500	ND	0.00401	0.00355	80.2	71.0	1	31.0-154			12.2	28
Styrene	0.00500	ND	0.00349	0.00352	69.8	70.4	1	33.0-155			0.856	28
1,1,1,2-Tetrachloroethane	0.00500	ND	0.00382	0.00395	76.4	79.0	1	36.0-151			3.35	29
1,1,2,2-Tetrachloroethane	0.00500	ND	0.00442	0.00480	88.4	96.0	1	33.0-150			8.24	28
1,1,2-Trichlorotrifluoroethane	0.00500	ND	0.00375	0.00321	75.0	64.2	1	23.0-160			15.5	30
Tetrachloroethene	0.00500	ND	0.00315	0.00291	63.0	58.2	1	10.0-160			7.92	27

L1472760-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1472760-01 03/23/22 14:26 • (MS) R3773137-4 03/23/22 19:30 • (MSD) R3773137-5 03/23/22 19:51

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 %
Toluene	0.00500	ND	0.00406	0.00409	81.2	81.8	1	26.0-154			0.736	28
1,2,4-Trichlorobenzene	0.00500	ND	0.00402	0.00367	80.4	73.4	1	24.0-150			9.10	33
1,1,1-Trichloroethane	0.00500	ND	0.00359	0.00376	71.8	75.2	1	23.0-160			4.63	28
1,1,2-Trichloroethane	0.00500	ND	0.00379	0.00418	75.8	83.6	1	35.0-147			9.79	27
Trichloroethene	0.00500	ND	0.00344	0.00328	68.8	65.6	1	10.0-160			4.76	25
Trichlorofluoromethane	0.00500	ND	ND	ND	70.0	68.2	1	17.0-160			2.60	31
1,2,3-Trichloropropane	0.00500	ND	0.00437	0.00471	87.4	94.2	1	34.0-151			7.49	29
1,2,4-Trimethylbenzene	0.00500	ND	0.00420	0.00397	84.0	79.4	1	26.0-154			5.63	27
1,3,5-Trimethylbenzene	0.00500	ND	0.00406	0.00397	81.2	79.4	1	28.0-153			2.24	27
Vinyl acetate	0.0250	ND	0.0184	0.0192	73.6	76.8	1	12.0-160			4.26	31
Vinyl chloride	0.00500	ND	0.00400	0.00410	80.0	82.0	1	10.0-160			2.47	27
Xylenes, Total	0.0150	ND	0.0123	0.0116	82.0	77.3	1	29.0-154			5.86	28
Di-isopropyl ether	0.00500	ND	0.00404	0.00428	80.8	85.6	1	21.0-160			5.77	28
ethanol	0.250	ND	0.165	0.198	66.0	79.2	1	50.0-150			18.2	20
Ethyl tert-butyl ether	0.00500	ND	0.00371	0.00391	74.2	78.2	1	10.0-160			5.25	37
Methyl tert-butyl ether	0.00500	ND	0.00327	0.00344	65.4	68.8	1	28.0-150			5.07	29
tert-Butyl alcohol	0.0250	ND	0.0182	0.0170	72.8	68.0	1	50.0-150			6.82	20
tert-Amyl Methyl Ether	0.00500	ND	0.00336	0.00369	67.2	73.8	1	10.0-160			9.36	37
(S) Toluene-d8					*112*	*113*		*80.0-120*				
(S) 4-Bromofluorobenzene					*92.9*	*90.8*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*102*	*96.8*		*70.0-130*				

Method Blank (MB)

(MB) R3774091-3 03/25/22 09:11

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Acrylonitrile	U		0.000671	0.0100
Benzene	U		0.0000941	0.00100
Bromobenzene	U		0.000118	0.00100
Bromochloromethane	U		0.000128	0.00100
Bromodichloromethane	U		0.000136	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 tetrachloride	U		0.000128	0.00100
Carbon disulfide	U		0.0000962	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
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
trans-1,4-Dichloro-2-butene	U		0.000467	0.00250
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
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
Hexachloro-1,3-butadiene	U		0.000337	0.00100
2-Hexanone	U		0.000787	0.0100
2-Butanone (MEK)	U		0.00119	0.0100
Iodomethane	U		0.00600	0.0100
Methylene Chloride	U		0.000430	0.00500

Method Blank (MB)

(MB) R3774091-3 03/25/22 09:11

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
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
1,1,2-Trichlorotrifluoroethane	U		0.000180	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	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
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl acetate	U		0.000692	0.0100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
Di-isopropyl ether	U		0.000105	0.00100
Ethanol	U		0.0420	0.100
Ethyl tert-butyl ether	U		0.000101	0.00100
Methyl tert-butyl ether	U		0.000101	0.00100
tert-Butyl alcohol	U		0.00406	0.00500
tert-Amyl Methyl Ether	U		0.000195	0.00100
(S) Toluene-d8	*103*			*80.0-120*
(S) 4-Bromofluorobenzene	*103*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*87.3*			*70.0-130*

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

(LCS) R3774091-1 03/25/22 07:50 • (LCSD) R3774091-2 03/25/22 08:10

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	0.0356	0.0357	142	143	19.0-160			0.281	27
Acrylonitrile	0.0250	0.0303	0.0314	121	126	55.0-149			3.57	20
Benzene	0.00500	0.00516	0.00548	103	110	70.0-123			6.02	20
Bromobenzene	0.00500	0.00414	0.00431	82.8	86.2	73.0-121			4.02	20

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

(LCS) R3774091-1 03/25/22 07:50 • (LCSD) R3774091-2 03/25/22 08:10

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromochloromethane	0.00500	0.00536	0.00561	107	112	76.0-122			4.56	20
Bromodichloromethane	0.00500	0.00519	0.00546	104	109	75.0-120			5.07	20
Bromoform	0.00500	0.00469	0.00503	93.8	101	68.0-132			7.00	20
Bromomethane	0.00500	0.00470	0.00456	94.0	91.2	10.0-160			3.02	25
n-Butylbenzene	0.00500	0.00411	0.00448	82.2	89.6	73.0-125			8.61	20
sec-Butylbenzene	0.00500	0.00458	0.00494	91.6	98.8	75.0-125			7.56	20
tert-Butylbenzene	0.00500	0.00481	0.00527	96.2	105	76.0-124			9.13	20
Carbon tetrachloride	0.00500	0.00526	0.00555	105	111	68.0-126			5.37	20
Carbon disulfide	0.00500	0.00591	0.00571	118	114	61.0-128			3.44	20
Chlorobenzene	0.00500	0.00481	0.00513	96.2	103	80.0-121			6.44	20
Chlorodibromomethane	0.00500	0.00508	0.00531	102	106	77.0-125			4.43	20
Chloroethane	0.00500	0.00468	0.00480	93.6	96.0	47.0-150			2.53	20
Chloroform	0.00500	0.00532	0.00549	106	110	73.0-120			3.15	20
Chloromethane	0.00500	0.00542	0.00543	108	109	41.0-142			0.184	20
1,2-Dibromo-3-Chloropropane	0.00500	0.00538	0.00564	108	113	58.0-134			4.72	20
1,2-Dibromoethane	0.00500	0.00506	0.00540	101	108	80.0-122			6.50	20
Dibromomethane	0.00500	0.00555	0.00582	111	116	80.0-120			4.75	20
1,2-Dichlorobenzene	0.00500	0.00487	0.00518	97.4	104	79.0-121			6.17	20
1,3-Dichlorobenzene	0.00500	0.00457	0.00489	91.4	97.8	79.0-120			6.77	20
1,4-Dichlorobenzene	0.00500	0.00476	0.00497	95.2	99.4	79.0-120			4.32	20
trans-1,4-Dichloro-2-butene	0.00500	0.00282	0.00297	56.4	59.4	33.0-144			5.18	20
Dichlorodifluoromethane	0.00500	0.00575	0.00538	115	108	51.0-149			6.65	20
1,1-Dichloroethane	0.00500	0.00490	0.00495	98.0	99.0	70.0-126			1.02	20
1,2-Dichloroethane	0.00500	0.00458	0.00485	91.6	97.0	70.0-128			5.73	20
1,1-Dichloroethene	0.00500	0.00556	0.00569	111	114	71.0-124			2.31	20
cis-1,2-Dichloroethene	0.00500	0.00529	0.00563	106	113	73.0-120			6.23	20
trans-1,2-Dichloroethene	0.00500	0.00550	0.00540	110	108	73.0-120			1.83	20
1,2-Dichloropropane	0.00500	0.00559	0.00573	112	115	77.0-125			2.47	20
cis-1,3-Dichloropropene	0.00500	0.00554	0.00548	111	110	80.0-123			1.09	20
trans-1,3-Dichloropropene	0.00500	0.00489	0.00479	97.8	95.8	78.0-124			2.07	20
Ethylbenzene	0.00500	0.00470	0.00506	94.0	101	79.0-123			7.38	20
Hexachloro-1,3-butadiene	0.00500	0.00520	0.00508	104	102	54.0-138			2.33	20
2-Hexanone	0.0250	0.0251	0.0265	100	106	67.0-149			5.43	20
2-Butanone (MEK)	0.0250	0.0329	0.0341	132	136	44.0-160			3.58	20
Iodomethane	0.0250	0.0256	0.0269	102	108	33.0-147			4.95	26
Methylene Chloride	0.00500	0.00531	0.00570	106	114	67.0-120			7.08	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.0264	0.0277	106	111	68.0-142			4.81	20
Naphthalene	0.00500	0.00665	0.00687	133	137	54.0-135		L1	3.25	20
n-Propylbenzene	0.00500	0.00454	0.00483	90.8	96.6	77.0-124			6.19	20
Styrene	0.00500	0.00417	0.00445	83.4	89.0	73.0-130			6.50	20

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

(LCS) R3774091-1 03/25/22 07:50 • (LCSD) R3774091-2 03/25/22 08:10

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,1,1,2-Tetrachloroethane	0.00500	0.00472	0.00503	94.4	101	75.0-125			6.36	20
1,1,2,2-Tetrachloroethane	0.00500	0.00490	0.00503	98.0	101	65.0-130			2.62	20
1,1,2-Trichlorotrifluoroethane	0.00500	0.00503	0.00516	101	103	69.0-132			2.55	20
Tetrachloroethene	0.00500	0.00491	0.00520	98.2	104	72.0-132			5.74	20
Toluene	0.00500	0.00487	0.00513	97.4	103	79.0-120			5.20	20
1,2,4-Trichlorobenzene	0.00500	0.00504	0.00602	101	120	57.0-137			17.7	20
1,1,1-Trichloroethane	0.00500	0.00515	0.00556	103	111	73.0-124			7.66	20
1,1,2-Trichloroethane	0.00500	0.00505	0.00534	101	107	80.0-120			5.58	20
Trichloroethene	0.00500	0.00579	0.00593	116	119	78.0-124			2.39	20
Trichlorofluoromethane	0.00500	0.00508	0.00521	102	104	59.0-147			2.53	20
1,2,3-Trichloropropane	0.00500	0.00519	0.00519	104	104	73.0-130			0.000	20
1,2,4-Trimethylbenzene	0.00500	0.00456	0.00501	91.2	100	76.0-121			9.40	20
1,3,5-Trimethylbenzene	0.00500	0.00458	0.00488	91.6	97.6	76.0-122			6.34	20
Vinyl acetate	0.0250	0.0257	0.0315	103	126	11.0-160		R7	20.3	20
Vinyl chloride	0.00500	0.00545	0.00523	109	105	67.0-131			4.12	20
Xylenes, Total	0.0150	0.0145	0.0154	96.7	103	79.0-123			6.02	20
Di-isopropyl ether	0.00500	0.00532	0.00561	106	112	58.0-138			5.31	20
ethanol	0.250	0.698	0.768	279	307	10.0-160	L1	L1	9.55	30
Ethyl tert-butyl ether	0.00500	0.00499	0.00531	99.8	106	63.0-138			6.21	20
Methyl tert-butyl ether	0.00500	0.00559	0.00576	112	115	68.0-125			3.00	20
tert-Butyl alcohol	0.0250	0.0329	0.0354	132	142	27.0-160			7.32	30
tert-Amyl Methyl Ether	0.00500	0.00545	0.00573	109	115	66.0-125			5.01	20
(S) Toluene-d8				*99.2*	*101*	*80.0-120*				
(S) 4-Bromofluorobenzene				*101*	*104*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*88.4*	*89.6*	*70.0-130*				

INTERNAL STANDARD SUMMARY

Instrument: VOCMS6 • File ID: 0323_02

03/23/22 10:06

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0323_02	192376	78693	73225
Upper Limit		384752	157386	146450
Lower Limit		96188	39347	36613
LCS R3773137-1 WG1836600 1x	0323_02LCS	192376	78693	73225
LCSD R3773137-2 WG1836600 1x	0323_03	194230	80472	73137
BLANK R3773137-3 WG1836600 1x	0323_06A	192056	76930	70012
L1472760-07 WG1836600 1x	0323_08	193210	77115	69473
L1472760-06 WG1836600 1x	0323_12	193334	74891	70908
L1472760-01 WG1836600 1x	0323_14	189360	76127	69891
L1472760-02 WG1836600 1x	0323_15	194477	75139	68843
L1472760-05 WG1836600 1x	0323_16	200085	77808	69841
L1472760-03 WG1836600 1x	0323_27	209750	81238	78218
MS R3773137-4 WG1836600 1x	0323_28	202703	82449	80598
MSD R3773137-5 WG1836600 1x	0323_29	207796	84117	80634

Instrument: VOCMS26 • File ID: 0325_02

03/25/22 07:50

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0325_02	460291	221948	204903
Upper Limit		920582	443896	409806
Lower Limit		230146	110974	102452
LCS R3774091-1 WG1837436 1x	0325_02LCSA	460291	221948	204903
LCSD R3774091-2 WG1837436 1x	0325_03A	462743	219225	208372
BLANK R3774091-3 WG1837436 1x	0325_06A	443810	205688	193738
L1472760-04 WG1837436 10x	0325_09	465161	216705	202717

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

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	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
E1	Concentration estimated. Analyte exceeded calibration range. Reanalysis not possible due to insufficient sample.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
L1	The associated blank spike recovery was above laboratory acceptance limits.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike recovery was acceptable.
R5	MS/MSD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.
R7	LFB/LFBD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.

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	LAO000356
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:
Kinder Morgan - Rocklin, CA-AZ Work

410 N.44th Street
Suite 1000
Phoenix. AZ 85008

Billing Information:
Accounts Payable- Alan Van Antwerp
9950 SAN DIEGO MISSION RD.
SAN DIEGO, CA 92108

Pres Chk

Report to: **Bob Forsberg**

Email To: bob.forsberg@arcadis-us.com;sascha.arnold@arcadis.com

Project Description: **KMEP Silvercroft Wash**

City/State Collected: Tucson, AZ

Please Circle: PT (MT) CT ET

Phone: **602-438-0883**

Client Project # **30113573.01**

Lab Project # **KINARCPAZ-SILVERCROF**

Collected by (print): SxA, MAT

Site/Facility ID # **SILVERCROFT WASH**

P.O. # **WD876456**

Collected by (signature): M. Tan

Immediately Packed on Ice N ___ Y X

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: STD TURN

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	*NO2,NO3,SO4 125mlHDPE-NoPres	EEM RSK175 40mlAmb HCl	HOLD - NO2+NO3 250mlHDPE-H2SO4	TDS 1L-HDPE NoPres	Total Fe 6010 250mlHDPE-HNO3	VOCs+OXYs 8260 40mlAmb-HCl	Remarks	Sample # (lab only)
MW-29D	Grab	GW	235	3/17/22	0912	18	X	X	X	X	X	X	MS/MSD	-01
MW-1D	"	GW	235	"	1032	9	X	X	X	X	X	X		-02
MW-2D	"	GW	235	"	1147	9	X	X	X	X	X	X		-03
MW-2M	"	GW	199	"	1338	9	X	X	X	X	X	X		-04
MW-1M	"	GW	199	"	1447	9	X	X	X	X	X	X		-05
		GW												
		GW												
		GW												
Equipment Blank	G	GW	—	3/17/22	0810	3						X		-06
Trip Blank	~~Grab~~	~~GW~~	—	3/17/22	—	1/2						X		-07

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Pace PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1477260
H239
Ta

Acctnum: KINARCPAZ
Template: T190237
Prelogin: P909634
PM: 110 - Brian Ford
PB:
Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: *NO2,NO3 have a 48 hour holding time.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: ___ UPS ___ FedEx ___ Courier _____

Tracking # 5671 5377 0245

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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
M. Tan	3/17/22	1550	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
			Olivia Tan

Trip Blank Received: Yes / No HCL MeoH TBR
ORIG 2 C

Temp: 2.9+0=2.9 °C Bottles Received: 54

Date: 3/18/22 Time: 960

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

ANALYTICAL REPORT

March 28, 2022

Kinder Morgan - Rocklin, CA-AZ Work

Sample Delivery Group:	L1473272
Samples Received:	03/19/2022
Project Number:	30113573.01
Description:	KMEP Silvercroft Wash
Site:	SILVERCROFT WASH
Report To:	Bob Forsberg 410 N.44th Street Suite 1000 Phoenix, AZ 85008

Entire Report Reviewed By:

Brian Ford

Project Manager

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

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

MW-29M L1473272-01 GW

Collected by: SxA/MAT | Collected date/time: 03/18/22 09:22 | Received date/time: 03/19/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1837595	1	03/24/22 10:49	03/24/22 14:26	BRG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1835052	1	03/19/22 23:34	03/19/22 23:34	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1835052	5	03/19/22 23:49	03/19/22 23:49	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1836051	1	03/23/22 12:05	03/23/22 23:35	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1837227	1	03/25/22 10:56	03/25/22 10:56	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1836703	1	03/23/22 07:12	03/23/22 07:12	JAH	Mt. Juliet, TN

MW-29S L1473272-02 GW

Collected by: SxA/MAT | Collected date/time: 03/18/22 10:37 | Received date/time: 03/19/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1837595	1	03/24/22 10:49	03/24/22 14:26	BRG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1835052	1	03/20/22 00:35	03/20/22 00:35	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1835052	5	03/20/22 00:51	03/20/22 00:51	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1836051	1	03/23/22 12:05	03/24/22 00:18	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1837227	1	03/25/22 11:05	03/25/22 11:05	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1836703	250	03/23/22 07:55	03/23/22 07:55	JAH	Mt. Juliet, TN

MW-29S-DUP L1473272-03 GW

Collected by: SxA/MAT | Collected date/time: 03/18/22 10:42 | Received date/time: 03/19/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1837595	1	03/24/22 10:49	03/24/22 14:26	BRG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1835052	1	03/20/22 01:06	03/20/22 01:06	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1835052	5	03/20/22 01:22	03/20/22 01:22	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1836051	1	03/23/22 12:05	03/24/22 00:21	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1837227	1	03/25/22 11:10	03/25/22 11:10	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1836703	250	03/23/22 08:17	03/23/22 08:17	JAH	Mt. Juliet, TN

MW-2S L1473272-04 GW

Collected by: SxA/MAT | Collected date/time: 03/18/22 11:38 | Received date/time: 03/19/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1837595	1	03/24/22 10:49	03/24/22 14:26	BRG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1835052	1	03/20/22 01:37	03/20/22 01:37	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1835052	5	03/20/22 01:52	03/20/22 01:52	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1836051	1	03/23/22 12:05	03/24/22 00:23	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1837863	1	03/25/22 13:35	03/25/22 13:35	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1836703	1000	03/23/22 08:39	03/23/22 08:39	JAH	Mt. Juliet, TN

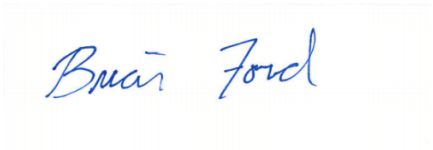
TRIP BLANK L1473272-05 GW

Collected by: SxA/MAT | Collected date/time: 03/18/22 00:00 | Received date/time: 03/19/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1836703	1	03/23/22 01:05	03/23/22 01:05	JAH	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.



Brian Ford
Project Manager

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	695		13.3	1	03/24/2022 14:26	WG1837595

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Nitrate	2.56		0.100	1	03/19/2022 23:34	WG1835052
Nitrite	ND		0.100	1	03/19/2022 23:34	WG1835052
Sulfate	218		25.0	5	03/19/2022 23:49	WG1835052

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Iron	ND		0.100	1	03/23/2022 23:35	WG1836051

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Methane	ND		0.0100	1	03/25/2022 10:56	WG1837227
Ethane	ND		0.0130	1	03/25/2022 10:56	WG1837227
Ethene	ND		0.0130	1	03/25/2022 10:56	WG1837227

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Acetone	ND		0.0500	1	03/23/2022 07:12	WG1836703
Acrylonitrile	ND		0.0100	1	03/23/2022 07:12	WG1836703
Benzene	ND		0.00100	1	03/23/2022 07:12	WG1836703
Bromobenzene	ND		0.00100	1	03/23/2022 07:12	WG1836703
Bromochloromethane	ND		0.00100	1	03/23/2022 07:12	WG1836703
Bromodichloromethane	ND		0.00100	1	03/23/2022 07:12	WG1836703
Bromoform	ND		0.00100	1	03/23/2022 07:12	WG1836703
Bromomethane	ND	L1 M1	0.00500	1	03/23/2022 07:12	WG1836703
n-Butylbenzene	ND	R5	0.00100	1	03/23/2022 07:12	WG1836703
sec-Butylbenzene	ND	R5	0.00100	1	03/23/2022 07:12	WG1836703
tert-Butylbenzene	ND	R5	0.00100	1	03/23/2022 07:12	WG1836703
Carbon tetrachloride	ND	R5	0.00100	1	03/23/2022 07:12	WG1836703
Carbon disulfide	ND		0.00100	1	03/23/2022 07:12	WG1836703
Chlorobenzene	ND		0.00100	1	03/23/2022 07:12	WG1836703
Chlorodibromomethane	ND		0.00100	1	03/23/2022 07:12	WG1836703
Chloroethane	ND		0.00500	1	03/23/2022 07:12	WG1836703
Chloroform	ND		0.00500	1	03/23/2022 07:12	WG1836703
Chloromethane	ND		0.00250	1	03/23/2022 07:12	WG1836703
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	03/23/2022 07:12	WG1836703
1,2-Dibromoethane	ND	R5	0.00100	1	03/23/2022 07:12	WG1836703
Dibromomethane	ND		0.00100	1	03/23/2022 07:12	WG1836703
1,2-Dichlorobenzene	ND		0.00100	1	03/23/2022 07:12	WG1836703
1,3-Dichlorobenzene	ND		0.00100	1	03/23/2022 07:12	WG1836703
1,4-Dichlorobenzene	ND	R5	0.00100	1	03/23/2022 07:12	WG1836703
trans-1,4-Dichloro-2-butene	ND	L1	0.00250	1	03/23/2022 07:12	WG1836703
Dichlorodifluoromethane	ND	R5	0.00500	1	03/23/2022 07:12	WG1836703
1,1-Dichloroethane	ND		0.00100	1	03/23/2022 07:12	WG1836703
1,2-Dichloroethane	ND		0.00100	1	03/23/2022 07:12	WG1836703
1,1-Dichloroethene	ND	R5	0.00100	1	03/23/2022 07:12	WG1836703
cis-1,2-Dichloroethene	ND		0.00100	1	03/23/2022 07:12	WG1836703

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND	R5	0.00100	1	03/23/2022 07:12	WG1836703
1,2-Dichloropropane	ND		0.00100	1	03/23/2022 07:12	WG1836703
cis-1,3-Dichloropropene	ND		0.00100	1	03/23/2022 07:12	WG1836703
trans-1,3-Dichloropropene	ND		0.00100	1	03/23/2022 07:12	WG1836703
Ethylbenzene	ND		0.00100	1	03/23/2022 07:12	WG1836703
Hexachloro-1,3-butadiene	ND	R5	0.00100	1	03/23/2022 07:12	WG1836703
2-Hexanone	ND	R5	0.0100	1	03/23/2022 07:12	WG1836703
2-Butanone (MEK)	ND		0.0100	1	03/23/2022 07:12	WG1836703
Iodomethane	ND		0.0100	1	03/23/2022 07:12	WG1836703
Methylene Chloride	ND		0.00500	1	03/23/2022 07:12	WG1836703
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	03/23/2022 07:12	WG1836703
Naphthalene	ND		0.00500	1	03/23/2022 07:12	WG1836703
n-Propylbenzene	ND	R5	0.00100	1	03/23/2022 07:12	WG1836703
Styrene	ND		0.00100	1	03/23/2022 07:12	WG1836703
1,1,1,2-Tetrachloroethane	ND		0.00100	1	03/23/2022 07:12	WG1836703
1,1,2,2-Tetrachloroethane	ND		0.00100	1	03/23/2022 07:12	WG1836703
1,1,2-Trichlorotrifluoroethane	ND	R5	0.00100	1	03/23/2022 07:12	WG1836703
Tetrachloroethene	ND	R5	0.00100	1	03/23/2022 07:12	WG1836703
Toluene	ND		0.00100	1	03/23/2022 07:12	WG1836703
1,2,4-Trichlorobenzene	ND	R5	0.00100	1	03/23/2022 07:12	WG1836703
1,1,1-Trichloroethane	ND		0.00100	1	03/23/2022 07:12	WG1836703
1,1,2-Trichloroethane	ND		0.00100	1	03/23/2022 07:12	WG1836703
Trichloroethene	ND	R5	0.00100	1	03/23/2022 07:12	WG1836703
Trichlorofluoromethane	ND		0.00500	1	03/23/2022 07:12	WG1836703
1,2,3-Trichloropropane	ND		0.00250	1	03/23/2022 07:12	WG1836703
1,2,4-Trimethylbenzene	ND	R5	0.00100	1	03/23/2022 07:12	WG1836703
1,3,5-Trimethylbenzene	ND	R5	0.00100	1	03/23/2022 07:12	WG1836703
Vinyl acetate	ND		0.0100	1	03/23/2022 07:12	WG1836703
Vinyl chloride	ND		0.00100	1	03/23/2022 07:12	WG1836703
Xylenes, Total	ND	R5	0.00300	1	03/23/2022 07:12	WG1836703
Di-isopropyl ether	ND	R5	0.00100	1	03/23/2022 07:12	WG1836703
Ethanol	ND		0.100	1	03/23/2022 07:12	WG1836703
Ethyl tert-butyl ether	ND		0.00100	1	03/23/2022 07:12	WG1836703
Methyl tert-butyl ether	0.00113		0.00100	1	03/23/2022 07:12	WG1836703
tert-Butyl alcohol	ND		0.00500	1	03/23/2022 07:12	WG1836703
tert-Amyl Methyl Ether	ND		0.00100	1	03/23/2022 07:12	WG1836703
(S) Toluene-d8	*112*		*80.0-120*		*03/23/2022 07:12*	WG1836703
(S) 4-Bromofluorobenzene	*87.9*		*77.0-126*		*03/23/2022 07:12*	WG1836703
(S) 1,2-Dichloroethane-d4	*104*		*70.0-130*		*03/23/2022 07:12*	WG1836703

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

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	840		13.3	1	03/24/2022 14:26	WG1837595

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	0.470		0.100	1	03/20/2022 00:35	WG1835052
Nitrite	ND		0.100	1	03/20/2022 00:35	WG1835052
Sulfate	350		25.0	5	03/20/2022 00:51	WG1835052

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	0.163		0.100	1	03/24/2022 00:18	WG1836051

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	03/25/2022 11:05	WG1837227
Ethane	ND		0.0130	1	03/25/2022 11:05	WG1837227
Ethene	ND		0.0130	1	03/25/2022 11:05	WG1837227

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		12.5	250	03/23/2022 07:55	WG1836703
Acrylonitrile	ND		2.50	250	03/23/2022 07:55	WG1836703
Benzene	ND		0.250	250	03/23/2022 07:55	WG1836703
Bromobenzene	ND		0.250	250	03/23/2022 07:55	WG1836703
Bromochloromethane	ND		0.250	250	03/23/2022 07:55	WG1836703
Bromodichloromethane	ND		0.250	250	03/23/2022 07:55	WG1836703
Bromoform	ND		0.250	250	03/23/2022 07:55	WG1836703
Bromomethane	ND	L1 R5	1.25	250	03/23/2022 07:55	WG1836703
n-Butylbenzene	ND		0.250	250	03/23/2022 07:55	WG1836703
sec-Butylbenzene	ND		0.250	250	03/23/2022 07:55	WG1836703
tert-Butylbenzene	ND		0.250	250	03/23/2022 07:55	WG1836703
Carbon tetrachloride	ND		0.250	250	03/23/2022 07:55	WG1836703
Carbon disulfide	ND		0.250	250	03/23/2022 07:55	WG1836703
Chlorobenzene	ND		0.250	250	03/23/2022 07:55	WG1836703
Chlorodibromomethane	ND		0.250	250	03/23/2022 07:55	WG1836703
Chloroethane	ND		1.25	250	03/23/2022 07:55	WG1836703
Chloroform	ND		1.25	250	03/23/2022 07:55	WG1836703
Chloromethane	ND		0.625	250	03/23/2022 07:55	WG1836703
1,2-Dibromo-3-Chloropropane	ND		1.25	250	03/23/2022 07:55	WG1836703
1,2-Dibromoethane	ND		0.250	250	03/23/2022 07:55	WG1836703
Dibromomethane	ND		0.250	250	03/23/2022 07:55	WG1836703
1,2-Dichlorobenzene	ND		0.250	250	03/23/2022 07:55	WG1836703
1,3-Dichlorobenzene	ND		0.250	250	03/23/2022 07:55	WG1836703
1,4-Dichlorobenzene	ND		0.250	250	03/23/2022 07:55	WG1836703
trans-1,4-Dichloro-2-butene	ND	L1	0.625	250	03/23/2022 07:55	WG1836703
Dichlorodifluoromethane	ND		1.25	250	03/23/2022 07:55	WG1836703
1,1-Dichloroethane	ND		0.250	250	03/23/2022 07:55	WG1836703
1,2-Dichloroethane	ND		0.250	250	03/23/2022 07:55	WG1836703
1,1-Dichloroethene	ND		0.250	250	03/23/2022 07:55	WG1836703
cis-1,2-Dichloroethene	ND		0.250	250	03/23/2022 07:55	WG1836703

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.250	250	03/23/2022 07:55	WG1836703
1,2-Dichloropropane	ND		0.250	250	03/23/2022 07:55	WG1836703
cis-1,3-Dichloropropene	ND		0.250	250	03/23/2022 07:55	WG1836703
trans-1,3-Dichloropropene	ND		0.250	250	03/23/2022 07:55	WG1836703
Ethylbenzene	ND		0.250	250	03/23/2022 07:55	WG1836703
Hexachloro-1,3-butadiene	ND		0.250	250	03/23/2022 07:55	WG1836703
2-Hexanone	ND		2.50	250	03/23/2022 07:55	WG1836703
2-Butanone (MEK)	ND		2.50	250	03/23/2022 07:55	WG1836703
Iodomethane	ND	R7	2.50	250	03/23/2022 07:55	WG1836703
Methylene Chloride	ND		1.25	250	03/23/2022 07:55	WG1836703
4-Methyl-2-pentanone (MIBK)	ND		2.50	250	03/23/2022 07:55	WG1836703
Naphthalene	ND		1.25	250	03/23/2022 07:55	WG1836703
n-Propylbenzene	ND		0.250	250	03/23/2022 07:55	WG1836703
Styrene	ND		0.250	250	03/23/2022 07:55	WG1836703
1,1,1,2-Tetrachloroethane	ND		0.250	250	03/23/2022 07:55	WG1836703
1,1,2,2-Tetrachloroethane	ND		0.250	250	03/23/2022 07:55	WG1836703
1,1,2-Trichlorotrifluoroethane	ND		0.250	250	03/23/2022 07:55	WG1836703
Tetrachloroethene	ND		0.250	250	03/23/2022 07:55	WG1836703
Toluene	ND		0.250	250	03/23/2022 07:55	WG1836703
1,2,4-Trichlorobenzene	ND		0.250	250	03/23/2022 07:55	WG1836703
1,1,1-Trichloroethane	ND		0.250	250	03/23/2022 07:55	WG1836703
1,1,2-Trichloroethane	ND		0.250	250	03/23/2022 07:55	WG1836703
Trichloroethene	ND		0.250	250	03/23/2022 07:55	WG1836703
Trichlorofluoromethane	ND		1.25	250	03/23/2022 07:55	WG1836703
1,2,3-Trichloropropane	ND		0.625	250	03/23/2022 07:55	WG1836703
1,2,4-Trimethylbenzene	ND		0.250	250	03/23/2022 07:55	WG1836703
1,3,5-Trimethylbenzene	ND		0.250	250	03/23/2022 07:55	WG1836703
Vinyl acetate	ND		2.50	250	03/23/2022 07:55	WG1836703
Vinyl chloride	ND		0.250	250	03/23/2022 07:55	WG1836703
Xylenes, Total	ND		0.750	250	03/23/2022 07:55	WG1836703
Di-isopropyl ether	ND		0.250	250	03/23/2022 07:55	WG1836703
Ethanol	ND		25.0	250	03/23/2022 07:55	WG1836703
Ethyl tert-butyl ether	ND		0.250	250	03/23/2022 07:55	WG1836703
Methyl tert-butyl ether	18.8		0.250	250	03/23/2022 07:55	WG1836703
tert-Butyl alcohol	ND		1.25	250	03/23/2022 07:55	WG1836703
tert-Amyl Methyl Ether	2.38		0.250	250	03/23/2022 07:55	WG1836703
(S) Toluene-d8	*116*		*80.0-120*		*03/23/2022 07:55*	WG1836703
(S) 4-Bromofluorobenzene	*91.8*		*77.0-126*		*03/23/2022 07:55*	WG1836703
(S) 1,2-Dichloroethane-d4	*101*		*70.0-130*		*03/23/2022 07:55*	WG1836703

Sample Narrative:

L1473272-02 WG1836703: Target compounds too high to run at a lower dilution.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	843		13.3	1	03/24/2022 14:26	WG1837595

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	0.540		0.100	1	03/20/2022 01:06	WG1835052
Nitrite	ND		0.100	1	03/20/2022 01:06	WG1835052
Sulfate	348		25.0	5	03/20/2022 01:22	WG1835052

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	0.181		0.100	1	03/24/2022 00:21	WG1836051

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	03/25/2022 11:10	WG1837227
Ethane	ND		0.0130	1	03/25/2022 11:10	WG1837227
Ethene	ND		0.0130	1	03/25/2022 11:10	WG1837227

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		12.5	250	03/23/2022 08:17	WG1836703
Acrylonitrile	ND		2.50	250	03/23/2022 08:17	WG1836703
Benzene	ND		0.250	250	03/23/2022 08:17	WG1836703
Bromobenzene	ND		0.250	250	03/23/2022 08:17	WG1836703
Bromochloromethane	ND		0.250	250	03/23/2022 08:17	WG1836703
Bromodichloromethane	ND		0.250	250	03/23/2022 08:17	WG1836703
Bromoform	ND		0.250	250	03/23/2022 08:17	WG1836703
Bromomethane	ND	L1 R5	1.25	250	03/23/2022 08:17	WG1836703
n-Butylbenzene	ND		0.250	250	03/23/2022 08:17	WG1836703
sec-Butylbenzene	ND		0.250	250	03/23/2022 08:17	WG1836703
tert-Butylbenzene	ND		0.250	250	03/23/2022 08:17	WG1836703
Carbon tetrachloride	ND		0.250	250	03/23/2022 08:17	WG1836703
Carbon disulfide	ND		0.250	250	03/23/2022 08:17	WG1836703
Chlorobenzene	ND		0.250	250	03/23/2022 08:17	WG1836703
Chlorodibromomethane	ND		0.250	250	03/23/2022 08:17	WG1836703
Chloroethane	ND		1.25	250	03/23/2022 08:17	WG1836703
Chloroform	ND		1.25	250	03/23/2022 08:17	WG1836703
Chloromethane	ND		0.625	250	03/23/2022 08:17	WG1836703
1,2-Dibromo-3-Chloropropane	ND		1.25	250	03/23/2022 08:17	WG1836703
1,2-Dibromoethane	ND		0.250	250	03/23/2022 08:17	WG1836703
Dibromomethane	ND		0.250	250	03/23/2022 08:17	WG1836703
1,2-Dichlorobenzene	ND		0.250	250	03/23/2022 08:17	WG1836703
1,3-Dichlorobenzene	ND		0.250	250	03/23/2022 08:17	WG1836703
1,4-Dichlorobenzene	ND		0.250	250	03/23/2022 08:17	WG1836703
trans-1,4-Dichloro-2-butene	ND	L1	0.625	250	03/23/2022 08:17	WG1836703
Dichlorodifluoromethane	ND		1.25	250	03/23/2022 08:17	WG1836703
1,1-Dichloroethane	ND		0.250	250	03/23/2022 08:17	WG1836703
1,2-Dichloroethane	ND		0.250	250	03/23/2022 08:17	WG1836703
1,1-Dichloroethene	ND		0.250	250	03/23/2022 08:17	WG1836703
cis-1,2-Dichloroethene	ND		0.250	250	03/23/2022 08:17	WG1836703

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.250	250	03/23/2022 08:17	WG1836703
1,2-Dichloropropane	ND		0.250	250	03/23/2022 08:17	WG1836703
cis-1,3-Dichloropropene	ND		0.250	250	03/23/2022 08:17	WG1836703
trans-1,3-Dichloropropene	ND		0.250	250	03/23/2022 08:17	WG1836703
Ethylbenzene	ND		0.250	250	03/23/2022 08:17	WG1836703
Hexachloro-1,3-butadiene	ND		0.250	250	03/23/2022 08:17	WG1836703
2-Hexanone	ND		2.50	250	03/23/2022 08:17	WG1836703
2-Butanone (MEK)	ND		2.50	250	03/23/2022 08:17	WG1836703
Iodomethane	ND	R7	2.50	250	03/23/2022 08:17	WG1836703
Methylene Chloride	ND		1.25	250	03/23/2022 08:17	WG1836703
4-Methyl-2-pentanone (MIBK)	ND		2.50	250	03/23/2022 08:17	WG1836703
Naphthalene	ND		1.25	250	03/23/2022 08:17	WG1836703
n-Propylbenzene	ND		0.250	250	03/23/2022 08:17	WG1836703
Styrene	ND		0.250	250	03/23/2022 08:17	WG1836703
1,1,1,2-Tetrachloroethane	ND		0.250	250	03/23/2022 08:17	WG1836703
1,1,2,2-Tetrachloroethane	ND		0.250	250	03/23/2022 08:17	WG1836703
1,1,2-Trichlorotrifluoroethane	ND		0.250	250	03/23/2022 08:17	WG1836703
Tetrachloroethene	ND		0.250	250	03/23/2022 08:17	WG1836703
Toluene	ND		0.250	250	03/23/2022 08:17	WG1836703
1,2,4-Trichlorobenzene	ND		0.250	250	03/23/2022 08:17	WG1836703
1,1,1-Trichloroethane	ND		0.250	250	03/23/2022 08:17	WG1836703
1,1,2-Trichloroethane	ND		0.250	250	03/23/2022 08:17	WG1836703
Trichloroethene	ND		0.250	250	03/23/2022 08:17	WG1836703
Trichlorofluoromethane	ND		1.25	250	03/23/2022 08:17	WG1836703
1,2,3-Trichloropropane	ND		0.625	250	03/23/2022 08:17	WG1836703
1,2,4-Trimethylbenzene	ND		0.250	250	03/23/2022 08:17	WG1836703
1,3,5-Trimethylbenzene	ND		0.250	250	03/23/2022 08:17	WG1836703
Vinyl acetate	ND		2.50	250	03/23/2022 08:17	WG1836703
Vinyl chloride	ND		0.250	250	03/23/2022 08:17	WG1836703
Xylenes, Total	ND		0.750	250	03/23/2022 08:17	WG1836703
Di-isopropyl ether	ND		0.250	250	03/23/2022 08:17	WG1836703
Ethanol	ND		25.0	250	03/23/2022 08:17	WG1836703
Ethyl tert-butyl ether	ND		0.250	250	03/23/2022 08:17	WG1836703
Methyl tert-butyl ether	17.8		0.250	250	03/23/2022 08:17	WG1836703
tert-Butyl alcohol	ND		1.25	250	03/23/2022 08:17	WG1836703
tert-Amyl Methyl Ether	2.23		0.250	250	03/23/2022 08:17	WG1836703
(S) Toluene-d8	*120*		*80.0-120*		*03/23/2022 08:17*	WG1836703
(S) 4-Bromofluorobenzene	*94.6*		*77.0-126*		*03/23/2022 08:17*	WG1836703
(S) 1,2-Dichloroethane-d4	*99.0*		*70.0-130*		*03/23/2022 08:17*	WG1836703

Sample Narrative:

L1473272-03 WG1836703: Target compounds too high to run at a lower dilution.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	803		13.3	1	03/24/2022 14:26	WG1837595

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	ND		0.100	1	03/20/2022 01:37	WG1835052
Nitrite	ND		0.100	1	03/20/2022 01:37	WG1835052
Sulfate	287		25.0	5	03/20/2022 01:52	WG1835052

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	ND		0.100	1	03/24/2022 00:23	WG1836051

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	03/25/2022 13:35	WG1837863
Ethane	ND		0.0130	1	03/25/2022 13:35	WG1837863
Ethene	ND		0.0130	1	03/25/2022 13:35	WG1837863

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		50.0	1000	03/23/2022 08:39	WG1836703
Acrylonitrile	ND		10.0	1000	03/23/2022 08:39	WG1836703
Benzene	ND		1.00	1000	03/23/2022 08:39	WG1836703
Bromobenzene	ND		1.00	1000	03/23/2022 08:39	WG1836703
Bromochloromethane	ND		1.00	1000	03/23/2022 08:39	WG1836703
Bromodichloromethane	ND		1.00	1000	03/23/2022 08:39	WG1836703
Bromoform	ND		1.00	1000	03/23/2022 08:39	WG1836703
Bromomethane	ND	L1 R5	5.00	1000	03/23/2022 08:39	WG1836703
n-Butylbenzene	ND		1.00	1000	03/23/2022 08:39	WG1836703
sec-Butylbenzene	ND		1.00	1000	03/23/2022 08:39	WG1836703
tert-Butylbenzene	ND		1.00	1000	03/23/2022 08:39	WG1836703
Carbon tetrachloride	ND		1.00	1000	03/23/2022 08:39	WG1836703
Carbon disulfide	ND		1.00	1000	03/23/2022 08:39	WG1836703
Chlorobenzene	ND		1.00	1000	03/23/2022 08:39	WG1836703
Chlorodibromomethane	ND		1.00	1000	03/23/2022 08:39	WG1836703
Chloroethane	ND		5.00	1000	03/23/2022 08:39	WG1836703
Chloroform	ND		5.00	1000	03/23/2022 08:39	WG1836703
Chloromethane	ND		2.50	1000	03/23/2022 08:39	WG1836703
1,2-Dibromo-3-Chloropropane	ND		5.00	1000	03/23/2022 08:39	WG1836703
1,2-Dibromoethane	ND		1.00	1000	03/23/2022 08:39	WG1836703
Dibromomethane	ND		1.00	1000	03/23/2022 08:39	WG1836703
1,2-Dichlorobenzene	ND		1.00	1000	03/23/2022 08:39	WG1836703
1,3-Dichlorobenzene	ND		1.00	1000	03/23/2022 08:39	WG1836703
1,4-Dichlorobenzene	ND		1.00	1000	03/23/2022 08:39	WG1836703
trans-1,4-Dichloro-2-butene	ND	L1	2.50	1000	03/23/2022 08:39	WG1836703
Dichlorodifluoromethane	ND		5.00	1000	03/23/2022 08:39	WG1836703
1,1-Dichloroethane	ND		1.00	1000	03/23/2022 08:39	WG1836703
1,2-Dichloroethane	ND		1.00	1000	03/23/2022 08:39	WG1836703
1,1-Dichloroethene	ND		1.00	1000	03/23/2022 08:39	WG1836703
cis-1,2-Dichloroethene	ND		1.00	1000	03/23/2022 08:39	WG1836703

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		1.00	1000	03/23/2022 08:39	WG1836703
1,2-Dichloropropane	ND		1.00	1000	03/23/2022 08:39	WG1836703
cis-1,3-Dichloropropene	ND		1.00	1000	03/23/2022 08:39	WG1836703
trans-1,3-Dichloropropene	ND		1.00	1000	03/23/2022 08:39	WG1836703
Ethylbenzene	ND		1.00	1000	03/23/2022 08:39	WG1836703
Hexachloro-1,3-butadiene	ND		1.00	1000	03/23/2022 08:39	WG1836703
2-Hexanone	ND		10.0	1000	03/23/2022 08:39	WG1836703
2-Butanone (MEK)	ND		10.0	1000	03/23/2022 08:39	WG1836703
Iodomethane	ND	R7	10.0	1000	03/23/2022 08:39	WG1836703
Methylene Chloride	ND		5.00	1000	03/23/2022 08:39	WG1836703
4-Methyl-2-pentanone (MIBK)	ND		10.0	1000	03/23/2022 08:39	WG1836703
Naphthalene	ND		5.00	1000	03/23/2022 08:39	WG1836703
n-Propylbenzene	ND		1.00	1000	03/23/2022 08:39	WG1836703
Styrene	ND		1.00	1000	03/23/2022 08:39	WG1836703
1,1,1,2-Tetrachloroethane	ND		1.00	1000	03/23/2022 08:39	WG1836703
1,1,2,2-Tetrachloroethane	ND		1.00	1000	03/23/2022 08:39	WG1836703
1,1,2-Trichlorotrifluoroethane	ND		1.00	1000	03/23/2022 08:39	WG1836703
Tetrachloroethene	ND		1.00	1000	03/23/2022 08:39	WG1836703
Toluene	ND		1.00	1000	03/23/2022 08:39	WG1836703
1,2,4-Trichlorobenzene	ND		1.00	1000	03/23/2022 08:39	WG1836703
1,1,1-Trichloroethane	ND		1.00	1000	03/23/2022 08:39	WG1836703
1,1,2-Trichloroethane	ND		1.00	1000	03/23/2022 08:39	WG1836703
Trichloroethene	ND		1.00	1000	03/23/2022 08:39	WG1836703
Trichlorofluoromethane	ND		5.00	1000	03/23/2022 08:39	WG1836703
1,2,3-Trichloropropane	ND		2.50	1000	03/23/2022 08:39	WG1836703
1,2,4-Trimethylbenzene	ND		1.00	1000	03/23/2022 08:39	WG1836703
1,3,5-Trimethylbenzene	ND		1.00	1000	03/23/2022 08:39	WG1836703
Vinyl acetate	ND		10.0	1000	03/23/2022 08:39	WG1836703
Vinyl chloride	ND		1.00	1000	03/23/2022 08:39	WG1836703
Xylenes, Total	ND		3.00	1000	03/23/2022 08:39	WG1836703
Di-isopropyl ether	ND		1.00	1000	03/23/2022 08:39	WG1836703
Ethanol	ND		100	1000	03/23/2022 08:39	WG1836703
Ethyl tert-butyl ether	ND		1.00	1000	03/23/2022 08:39	WG1836703
Methyl tert-butyl ether	72.0		1.00	1000	03/23/2022 08:39	WG1836703
tert-Butyl alcohol	ND		5.00	1000	03/23/2022 08:39	WG1836703
tert-Amyl Methyl Ether	11.3		1.00	1000	03/23/2022 08:39	WG1836703
(S) Toluene-d8	*116*		*80.0-120*		*03/23/2022 08:39*	WG1836703
(S) 4-Bromofluorobenzene	*93.1*		*77.0-126*		*03/23/2022 08:39*	WG1836703
(S) 1,2-Dichloroethane-d4	*100*		*70.0-130*		*03/23/2022 08:39*	WG1836703

Sample Narrative:

L1473272-04 WG1836703: Target compounds too high to run at a lower dilution.

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	03/23/2022 01:05	WG1836703
Acrylonitrile	ND		0.0100	1	03/23/2022 01:05	WG1836703
Benzene	ND		0.00100	1	03/23/2022 01:05	WG1836703
Bromobenzene	ND		0.00100	1	03/23/2022 01:05	WG1836703
Bromochloromethane	ND		0.00100	1	03/23/2022 01:05	WG1836703
Bromodichloromethane	ND		0.00100	1	03/23/2022 01:05	WG1836703
Bromoform	ND		0.00100	1	03/23/2022 01:05	WG1836703
Bromomethane	ND	L1 R5	0.00500	1	03/23/2022 01:05	WG1836703
n-Butylbenzene	ND		0.00100	1	03/23/2022 01:05	WG1836703
sec-Butylbenzene	ND		0.00100	1	03/23/2022 01:05	WG1836703
tert-Butylbenzene	ND		0.00100	1	03/23/2022 01:05	WG1836703
Carbon tetrachloride	ND		0.00100	1	03/23/2022 01:05	WG1836703
Carbon disulfide	ND		0.00100	1	03/23/2022 01:05	WG1836703
Chlorobenzene	ND		0.00100	1	03/23/2022 01:05	WG1836703
Chlorodibromomethane	ND		0.00100	1	03/23/2022 01:05	WG1836703
Chloroethane	ND		0.00500	1	03/23/2022 01:05	WG1836703
Chloroform	ND		0.00500	1	03/23/2022 01:05	WG1836703
Chloromethane	ND		0.00250	1	03/23/2022 01:05	WG1836703
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	03/23/2022 01:05	WG1836703
1,2-Dibromoethane	ND		0.00100	1	03/23/2022 01:05	WG1836703
Dibromomethane	ND		0.00100	1	03/23/2022 01:05	WG1836703
1,2-Dichlorobenzene	ND		0.00100	1	03/23/2022 01:05	WG1836703
1,3-Dichlorobenzene	ND		0.00100	1	03/23/2022 01:05	WG1836703
1,4-Dichlorobenzene	ND		0.00100	1	03/23/2022 01:05	WG1836703
trans-1,4-Dichloro-2-butene	ND	L1	0.00250	1	03/23/2022 01:05	WG1836703
Dichlorodifluoromethane	ND		0.00500	1	03/23/2022 01:05	WG1836703
1,1-Dichloroethane	ND		0.00100	1	03/23/2022 01:05	WG1836703
1,2-Dichloroethane	ND		0.00100	1	03/23/2022 01:05	WG1836703
1,1-Dichloroethene	ND		0.00100	1	03/23/2022 01:05	WG1836703
cis-1,2-Dichloroethene	ND		0.00100	1	03/23/2022 01:05	WG1836703
trans-1,2-Dichloroethene	ND		0.00100	1	03/23/2022 01:05	WG1836703
1,2-Dichloropropane	ND		0.00100	1	03/23/2022 01:05	WG1836703
cis-1,3-Dichloropropene	ND		0.00100	1	03/23/2022 01:05	WG1836703
trans-1,3-Dichloropropene	ND		0.00100	1	03/23/2022 01:05	WG1836703
Ethylbenzene	ND		0.00100	1	03/23/2022 01:05	WG1836703
Hexachloro-1,3-butadiene	ND		0.00100	1	03/23/2022 01:05	WG1836703
2-Hexanone	ND		0.0100	1	03/23/2022 01:05	WG1836703
2-Butanone (MEK)	ND		0.0100	1	03/23/2022 01:05	WG1836703
Iodomethane	ND	R7	0.0100	1	03/23/2022 01:05	WG1836703
Methylene Chloride	ND		0.00500	1	03/23/2022 01:05	WG1836703
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	03/23/2022 01:05	WG1836703
Naphthalene	ND		0.00500	1	03/23/2022 01:05	WG1836703
n-Propylbenzene	ND		0.00100	1	03/23/2022 01:05	WG1836703
Styrene	ND		0.00100	1	03/23/2022 01:05	WG1836703
1,1,1,2-Tetrachloroethane	ND		0.00100	1	03/23/2022 01:05	WG1836703
1,1,2,2-Tetrachloroethane	ND		0.00100	1	03/23/2022 01:05	WG1836703
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	03/23/2022 01:05	WG1836703
Tetrachloroethene	ND		0.00100	1	03/23/2022 01:05	WG1836703
Toluene	ND		0.00100	1	03/23/2022 01:05	WG1836703
1,2,4-Trichlorobenzene	ND		0.00100	1	03/23/2022 01:05	WG1836703
1,1,1-Trichloroethane	ND		0.00100	1	03/23/2022 01:05	WG1836703
1,1,2-Trichloroethane	ND		0.00100	1	03/23/2022 01:05	WG1836703
Trichloroethene	ND		0.00100	1	03/23/2022 01:05	WG1836703
Trichlorofluoromethane	ND		0.00500	1	03/23/2022 01:05	WG1836703
1,2,3-Trichloropropane	ND		0.00250	1	03/23/2022 01:05	WG1836703
1,2,4-Trimethylbenzene	ND		0.00100	1	03/23/2022 01:05	WG1836703

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
1,3,5-Trimethylbenzene	ND		0.00100	1	03/23/2022 01:05	WG1836703
Vinyl acetate	ND		0.0100	1	03/23/2022 01:05	WG1836703
Vinyl chloride	ND		0.00100	1	03/23/2022 01:05	WG1836703
Xylenes, Total	ND		0.00300	1	03/23/2022 01:05	WG1836703
Di-isopropyl ether	ND		0.00100	1	03/23/2022 01:05	WG1836703
Ethanol	ND		0.100	1	03/23/2022 01:05	WG1836703
Ethyl tert-butyl ether	ND		0.00100	1	03/23/2022 01:05	WG1836703
Methyl tert-butyl ether	ND		0.00100	1	03/23/2022 01:05	WG1836703
tert-Butyl alcohol	ND		0.00500	1	03/23/2022 01:05	WG1836703
tert-Amyl Methyl Ether	ND		0.00100	1	03/23/2022 01:05	WG1836703
(S) Toluene-d8	*117*		*80.0-120*		*03/23/2022 01:05*	WG1836703
(S) 4-Bromofluorobenzene	*94.9*		*77.0-126*		*03/23/2022 01:05*	WG1836703
(S) 1,2-Dichloroethane-d4	*99.9*		*70.0-130*		*03/23/2022 01:05*	WG1836703

Method Blank (MB)

(MB) R3774291-1 03/24/22 14:26

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1473272-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1473272-02 03/24/22 14:26 • (DUP) R3774291-3 03/24/22 14:26

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	840	847	1	0.791		5

L1473634-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1473634-03 03/24/22 14:26 • (DUP) R3774291-4 03/24/22 14:26

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1030	1020	1	1.04		5

Laboratory Control Sample (LCS)

(LCS) R3774291-2 03/24/22 14:26

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8530	96.9	77.4-123	

Method Blank (MB)

(MB) R3772095-1 03/19/22 10:24

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate	U		0.0480	0.100
Nitrite	U		0.0420	0.100
Sulfate	U		0.594	5.00

L1473260-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1473260-03 03/19/22 13:03 • (DUP) R3772095-3 03/19/22 15:22

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	0.110	0.115	1	4.52		15
Nitrite	ND	ND	1	0.000		15
Sulfate	15.3	15.0	1	2.01		15

L1473264-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1473264-01 03/19/22 17:25 • (DUP) R3772095-6 03/19/22 17:40

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	0.778	0.784	1	0.807		15
Nitrite	ND	ND	1	0.000		15
Sulfate	64.2	64.1	1	0.0620		15

Laboratory Control Sample (LCS)

(LCS) R3772095-2 03/19/22 10:40

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate	8.00	7.96	99.5	80.0-120	
Nitrite	8.00	8.11	101	80.0-120	
Sulfate	40.0	39.5	98.7	80.0-120	

L1473260-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1473260-03 03/19/22 13:03 • (MS) R3772095-4 03/19/22 15:37 • (MSD) R3772095-5 03/19/22 15:52

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 %
Nitrate	5.00	0.110	4.98	5.01	97.5	97.9	1	80.0-120			0.452	15
Nitrite	5.00	ND	5.01	5.05	100	101	1	80.0-120			0.839	15
Sulfate	50.0	15.3	64.3	65.1	98.1	99.6	1	80.0-120			1.17	15

L1473272-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1473272-01 03/19/22 23:34 • (MS) R3772095-7 03/20/22 00:05 • (MSD) R3772095-8 03/20/22 00:20

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 %
Nitrate	5.00	2.56	7.70	7.69	103	102	1	80.0-120			0.109	15
Nitrite	5.00	ND	5.00	5.01	100	100	1	80.0-120			0.186	15
Sulfate	50.0	226	265	265	77.8	77.9	1	80.0-120	E1 M3	E1 M3	0.00899	15

QUALITY CONTROL SUMMARY

L1473272-01,02,03,04

Method Blank (MB)

(MB) R3773346-1 03/23/22 23:30

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Iron	U		0.0180	0.100

Laboratory Control Sample (LCS)

(LCS) R3773346-2 03/23/22 23:32

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Iron	10.0	9.74	97.4	80.0-120	

L1473272-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1473272-01 03/23/22 23:35 • (MS) R3773346-4 03/23/22 23:41 • (MSD) R3773346-5 03/23/22 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 %
Iron	10.0	ND	9.72	9.72	97.0	97.0	1	75.0-125			0.0183	20

Method Blank (MB)

(MB) R3774002-2 03/25/22 08:51

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Methane	U		0.00291	0.0100
Ethane	U		0.00407	0.0130
Ethene	U		0.00426	0.0130

L1473079-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1473079-06 03/25/22 09:49 • (DUP) R3774002-3 03/25/22 09:52

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	ND	ND	1	0.000		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20

L1473272-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1473272-03 03/25/22 11:10 • (DUP) R3774002-4 03/25/22 11:16

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	ND	ND	1	0.000		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20

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

(LCS) R3774002-1 03/25/22 08:48 • (LCSD) R3774002-9 03/25/22 11:46

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Methane	0.0678	0.0763	0.0683	113	101	85.0-115			11.1	20
Ethane	0.129	0.117	0.118	90.7	91.5	85.0-115			0.851	20
Ethene	0.127	0.117	0.119	92.1	93.7	85.0-115			1.69	20

L1472806-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1472806-04 03/25/22 08:53 • (MS) R3774002-5 03/25/22 11:20 • (MSD) R3774002-6 03/25/22 11:29

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 %
Methane	0.678	10.0	13.1	15.3	457	782	10	50.0-150	M3	M3	15.5	20
Ethane	1.29	ND	1.22	1.18	88.2	85.1	10	50.0-150			3.33	20
Ethene	1.27	0.184	1.36	1.36	92.6	92.6	10	50.0-150			0.000	20

L1473272-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1473272-01 03/25/22 10:56 • (MS) R3774002-7 03/25/22 11:39 • (MSD) R3774002-8 03/25/22 11:43

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 %
Methane	0.0678	ND	0.0776	0.0767	114	113	1	50.0-150			1.17	20
Ethane	0.129	ND	0.135	0.136	105	105	1	50.0-150			0.738	20
Ethene	0.127	ND	0.136	0.137	107	108	1	50.0-150			0.733	20

Method Blank (MB)

(MB) R3774110-2 03/25/22 13:33

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Methane	U		0.00291	0.0100
Ethane	U		0.00407	0.0130
Ethene	U		0.00426	0.0130

L1473675-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1473675-02 03/25/22 14:08 • (DUP) R3774110-3 03/25/22 14:15

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	0.172	0.183	1	6.20		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20

L1473835-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1473835-03 03/25/22 14:51 • (DUP) R3774110-4 03/25/22 14:55

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	ND	ND	1	0.000		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20

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

(LCS) R3774110-1 03/25/22 13:29 • (LCSD) R3774110-5 03/25/22 14:58

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Methane	0.0678	0.0654	0.0683	96.5	101	85.0-115			4.34	20
Ethane	0.129	0.121	0.113	93.8	87.6	85.0-115			6.84	20
Ethene	0.127	0.123	0.115	96.9	90.6	85.0-115			6.72	20

Method Blank (MB)

(MB) R3773010-4 03/22/22 23:44

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Acrylonitrile	U		0.000671	0.0100
Benzene	U		0.0000941	0.00100
Bromobenzene	U		0.000118	0.00100
Bromochloromethane	U		0.000128	0.00100
Bromodichloromethane	U		0.000136	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 tetrachloride	U		0.000128	0.00100
Carbon disulfide	U		0.0000962	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
1,2-Dibromo-3-Chloropropane	U		0.000276	0.00500
1,2-Dibromoethane	U		0.000126	0.00100
Dibromomethane	0.000675	E4	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
trans-1,4-Dichloro-2-butene	U		0.000467	0.00250
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
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
Hexachloro-1,3-butadiene	U		0.000337	0.00100
2-Hexanone	U		0.000787	0.0100
2-Butanone (MEK)	U		0.00119	0.0100
Iodomethane	U		0.00600	0.0100
Methylene Chloride	U		0.000430	0.00500

Method Blank (MB)

(MB) R3773010-4 03/22/22 23:44

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
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
1,1,2-Trichlorotrifluoroethane	U		0.000180	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	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
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl acetate	U		0.000692	0.0100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
Di-isopropyl ether	U		0.000105	0.00100
Ethanol	U		0.0420	0.100
Ethyl tert-butyl ether	U		0.000101	0.00100
Methyl tert-butyl ether	U		0.000101	0.00100
tert-Butyl alcohol	U		0.00406	0.00500
tert-Amyl Methyl Ether	U		0.000195	0.00100
(S) Toluene-d8	*114*			*80.0-120*
(S) 4-Bromofluorobenzene	*93.2*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*

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

(LCS) R3773010-1 03/22/22 22:18 • (LCSD) R3773010-2 03/22/22 22:39

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	0.0277	0.0290	111	116	19.0-160			4.59	27
Acrylonitrile	0.0250	0.0238	0.0251	95.2	100	55.0-149			5.32	20
Benzene	0.00500	0.00430	0.00416	86.0	83.2	70.0-123			3.31	20
Bromobenzene	0.00500	0.00592	0.00574	118	115	73.0-121			3.09	20

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

(LCS) R3773010-1 03/22/22 22:18 • (LCSD) R3773010-2 03/22/22 22:39

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromochloromethane	0.00500	0.00505	0.00485	101	97.0	76.0-122			4.04	20
Bromodichloromethane	0.00500	0.00415	0.00399	83.0	79.8	75.0-120			3.93	20
Bromoform	0.00500	0.00413	0.00419	82.6	83.8	68.0-132			1.44	20
Bromomethane	0.00500	0.0280	0.0202	560	404	10.0-160	L1	L1 R7	32.4	25
n-Butylbenzene	0.00500	0.00526	0.00521	105	104	73.0-125			0.955	20
sec-Butylbenzene	0.00500	0.00526	0.00511	105	102	75.0-125			2.89	20
tert-Butylbenzene	0.00500	0.00565	0.00543	113	109	76.0-124			3.97	20
Carbon tetrachloride	0.00500	0.00377	0.00400	75.4	80.0	68.0-126			5.92	20
Carbon disulfide	0.00500	0.00315	0.00314	63.0	62.8	61.0-128			0.318	20
Chlorobenzene	0.00500	0.00507	0.00508	101	102	80.0-121			0.197	20
Chlorodibromomethane	0.00500	0.00468	0.00461	93.6	92.2	77.0-125			1.51	20
Chloroethane	0.00500	0.00403	0.00443	80.6	88.6	47.0-150			9.46	20
Chloroform	0.00500	0.00432	0.00428	86.4	85.6	73.0-120			0.930	20
Chloromethane	0.00500	0.00234	0.00236	46.8	47.2	41.0-142			0.851	20
1,2-Dibromo-3-Chloropropane	0.00500	0.00478	0.00478	95.6	95.6	58.0-134			0.000	20
1,2-Dibromoethane	0.00500	0.00487	0.00496	97.4	99.2	80.0-122			1.83	20
Dibromomethane	0.00500	0.00543	0.00507	109	101	80.0-120			6.86	20
1,2-Dichlorobenzene	0.00500	0.00606	0.00577	121	115	79.0-121			4.90	20
1,3-Dichlorobenzene	0.00500	0.00569	0.00571	114	114	79.0-120			0.351	20
1,4-Dichlorobenzene	0.00500	0.00567	0.00578	113	116	79.0-120			1.92	20
trans-1,4-Dichloro-2-butene	0.00500	0.00822	0.00684	164	137	33.0-144	L1		18.3	20
Dichlorodifluoromethane	0.00500	0.00397	0.00386	79.4	77.2	51.0-149			2.81	20
1,1-Dichloroethane	0.00500	0.00466	0.00477	93.2	95.4	70.0-126			2.33	20
1,2-Dichloroethane	0.00500	0.00460	0.00434	92.0	86.8	70.0-128			5.82	20
1,1-Dichloroethene	0.00500	0.00420	0.00422	84.0	84.4	71.0-124			0.475	20
cis-1,2-Dichloroethene	0.00500	0.00429	0.00427	85.8	85.4	73.0-120			0.467	20
trans-1,2-Dichloroethene	0.00500	0.00404	0.00421	80.8	84.2	73.0-120			4.12	20
1,2-Dichloropropane	0.00500	0.00526	0.00508	105	102	77.0-125			3.48	20
cis-1,3-Dichloropropene	0.00500	0.00439	0.00431	87.8	86.2	80.0-123			1.84	20
trans-1,3-Dichloropropene	0.00500	0.00474	0.00474	94.8	94.8	78.0-124			0.000	20
Ethylbenzene	0.00500	0.00484	0.00487	96.8	97.4	79.0-123			0.618	20
Hexachloro-1,3-butadiene	0.00500	0.00586	0.00562	117	112	54.0-138			4.18	20
2-Hexanone	0.0250	0.0253	0.0266	101	106	67.0-149			5.01	20
2-Butanone (MEK)	0.0250	0.0228	0.0234	91.2	93.6	44.0-160			2.60	20
Iodomethane	0.0250	0.0198	0.0312	79.2	125	33.0-147		R7	44.7	26
Methylene Chloride	0.00500	0.00509	0.00508	102	102	67.0-120			0.197	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.0291	0.0289	116	116	68.0-142			0.690	20
Naphthalene	0.00500	0.00575	0.00592	115	118	54.0-135			2.91	20
n-Propylbenzene	0.00500	0.00533	0.00522	107	104	77.0-124			2.09	20
Styrene	0.00500	0.00491	0.00493	98.2	98.6	73.0-130			0.406	20

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

(LCS) R3773010-1 03/22/22 22:18 • (LCSD) R3773010-2 03/22/22 22:39

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,1,1,2-Tetrachloroethane	0.00500	0.00502	0.00493	100	98.6	75.0-125			1.81	20
1,1,2,2-Tetrachloroethane	0.00500	0.00619	0.00594	124	119	65.0-130			4.12	20
1,1,2-Trichlorotrifluoroethane	0.00500	0.00439	0.00437	87.8	87.4	69.0-132			0.457	20
Tetrachloroethene	0.00500	0.00388	0.00400	77.6	80.0	72.0-132			3.05	20
Toluene	0.00500	0.00483	0.00501	96.6	100	79.0-120			3.66	20
1,2,4-Trichlorobenzene	0.00500	0.00555	0.00556	111	111	57.0-137			0.180	20
1,1,1-Trichloroethane	0.00500	0.00405	0.00413	81.0	82.6	73.0-124			1.96	20
1,1,2-Trichloroethane	0.00500	0.00502	0.00514	100	103	80.0-120			2.36	20
Trichloroethene	0.00500	0.00415	0.00417	83.0	83.4	78.0-124			0.481	20
Trichlorofluoromethane	0.00500	0.00418	0.00407	83.6	81.4	59.0-147			2.67	20
1,2,3-Trichloropropane	0.00500	0.00561	0.00570	112	114	73.0-130			1.59	20
1,2,4-Trimethylbenzene	0.00500	0.00570	0.00556	114	111	76.0-121			2.49	20
1,3,5-Trimethylbenzene	0.00500	0.00567	0.00556	113	111	76.0-122			1.96	20
Vinyl acetate	0.0250	0.0220	0.0219	88.0	87.6	11.0-160			0.456	20
Vinyl chloride	0.00500	0.00471	0.00492	94.2	98.4	67.0-131			4.36	20
Xylenes, Total	0.0150	0.0146	0.0147	97.3	98.0	79.0-123			0.683	20
Di-isopropyl ether	0.00500	0.00552	0.00549	110	110	58.0-138			0.545	20
Ethanol	0.250	0.274	0.295	110	118	10.0-160			7.38	30
Ethyl tert-butyl ether	0.00500	0.00509	0.00498	102	99.6	63.0-138			2.18	20
Methyl tert-butyl ether	0.00500	0.00431	0.00423	86.2	84.6	68.0-125			1.87	20
tert-Butyl alcohol	0.0250	0.0208	0.0202	83.2	80.8	27.0-160			2.93	30
tert-Amyl Methyl Ether	0.00500	0.00448	0.00438	89.6	87.6	66.0-125			2.26	20
(S) Toluene-d8				*109*	*112*	*80.0-120*				
(S) 4-Bromofluorobenzene				*93.6*	*94.8*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*101*	*102*	*70.0-130*				

L1473272-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1473272-01 03/23/22 07:12 • (MS) R3773010-5 03/23/22 09:01 • (MSD) R3773010-6 03/23/22 09:22

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 %
Acetone	0.0250	ND	ND	ND	68.0	80.0	1	10.0-160			16.2	35
Acrylonitrile	0.0250	ND	0.0227	0.0266	90.8	106	1	21.0-160			15.8	32
Benzene	0.00500	ND	0.00332	0.00420	66.4	84.0	1	17.0-158			23.4	27
Bromobenzene	0.00500	ND	0.00425	0.00549	85.0	110	1	30.0-149			25.5	28
Bromochloromethane	0.00500	ND	0.00390	0.00464	78.0	92.8	1	38.0-142			17.3	26
Bromodichloromethane	0.00500	ND	0.00316	0.00392	63.2	78.4	1	31.0-150			21.5	27
Bromoform	0.00500	ND	0.00314	0.00394	62.8	78.8	1	29.0-150			22.6	29
Bromomethane	0.00500	ND	0.00956	0.0116	191	232	1	10.0-160	M1	M1	19.3	38

L1473272-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1473272-01 03/23/22 07:12 • (MS) R3773010-5 03/23/22 09:01 • (MSD) R3773010-6 03/23/22 09:22

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 %
n-Butylbenzene	0.00500	ND	0.00279	0.00459	55.8	91.8	1	31.0-150		R5	48.8	30
sec-Butylbenzene	0.00500	ND	0.00353	0.00513	70.6	103	1	33.0-155		R5	37.0	29
tert-Butylbenzene	0.00500	ND	0.00400	0.00539	80.0	108	1	34.0-153		R5	29.6	28
Carbon tetrachloride	0.00500	ND	0.00303	0.00426	60.6	85.2	1	23.0-159		R5	33.7	28
Carbon disulfide	0.00500	ND	0.00236	0.00284	47.2	56.8	1	10.0-156			18.5	28
Chlorobenzene	0.00500	ND	0.00379	0.00485	75.8	97.0	1	33.0-152			24.5	27
Chlorodibromomethane	0.00500	ND	0.00344	0.00450	68.8	90.0	1	37.0-149			26.7	27
Chloroethane	0.00500	ND	ND	ND	65.2	82.2	1	10.0-160			23.1	30
Chloroform	0.00500	ND	ND	ND	68.8	86.8	1	29.0-154			23.1	28
Chloromethane	0.00500	ND	ND	ND	37.6	42.4	1	10.0-160			12.0	29
1,2-Dibromo-3-Chloropropane	0.00500	ND	ND	ND	78.2	91.4	1	22.0-151			15.6	34
1,2-Dibromoethane	0.00500	ND	0.00349	0.00480	69.8	96.0	1	34.0-147		R5	31.6	27
Dibromomethane	0.00500	ND	0.00333	0.00432	66.6	86.4	1	30.0-151			25.9	27
1,2-Dichlorobenzene	0.00500	ND	0.00430	0.00556	86.0	111	1	34.0-149			25.6	28
1,3-Dichlorobenzene	0.00500	ND	0.00402	0.00517	80.4	103	1	36.0-146			25.0	27
1,4-Dichlorobenzene	0.00500	ND	0.00384	0.00526	76.8	105	1	35.0-142		R5	31.2	27
trans-1,4-Dichloro-2-butene	0.00500	ND	0.00595	0.00783	119	157	1	10.0-157			27.3	37
Dichlorodifluoromethane	0.00500	ND	ND	ND	56.6	80.6	1	10.0-160		R5	35.0	29
1,1-Dichloroethane	0.00500	ND	0.00375	0.00472	75.0	94.4	1	25.0-158			22.9	27
1,2-Dichloroethane	0.00500	ND	0.00351	0.00425	70.2	85.0	1	29.0-151			19.1	27
1,1-Dichloroethene	0.00500	ND	0.00326	0.00443	65.2	88.6	1	11.0-160		R5	30.4	29
cis-1,2-Dichloroethene	0.00500	ND	0.00339	0.00420	67.8	84.0	1	10.0-160			21.3	27
trans-1,2-Dichloroethene	0.00500	ND	0.00320	0.00422	64.0	84.4	1	17.0-153		R5	27.5	27
1,2-Dichloropropane	0.00500	ND	0.00403	0.00506	80.6	101	1	30.0-156			22.7	27
cis-1,3-Dichloropropene	0.00500	ND	0.00334	0.00406	66.8	81.2	1	34.0-149			19.5	28
trans-1,3-Dichloropropene	0.00500	ND	0.00338	0.00442	67.6	88.4	1	32.0-149			26.7	28
Ethylbenzene	0.00500	ND	0.00356	0.00462	71.2	92.4	1	30.0-155			25.9	27
Hexachloro-1,3-butadiene	0.00500	ND	0.00291	0.00548	58.2	110	1	20.0-154		R5	61.3	34
2-Hexanone	0.0250	ND	0.0176	0.0251	70.4	100	1	21.0-160		R5	35.1	29
2-Butanone (MEK)	0.0250	ND	0.0175	0.0222	70.0	88.8	1	10.0-160			23.7	32
Iodomethane	0.0250	ND	0.0234	0.0335	93.6	134	1	10.0-160			35.5	40
Methylene Chloride	0.00500	ND	ND	ND	77.6	87.0	1	23.0-144			11.4	28
4-Methyl-2-pentanone (MIBK)	0.0250	ND	0.0213	0.0285	85.2	114	1	29.0-160			28.9	29
Naphthalene	0.00500	ND	ND	0.00554	84.0	111	1	12.0-156			27.5	35
n-Propylbenzene	0.00500	ND	0.00362	0.00501	72.4	100	1	31.0-154		R5	32.2	28
Styrene	0.00500	ND	0.00342	0.00439	68.4	87.8	1	33.0-155			24.8	28
1,1,1,2-Tetrachloroethane	0.00500	ND	0.00355	0.00470	71.0	94.0	1	36.0-151			27.9	29
1,1,2,2-Tetrachloroethane	0.00500	ND	0.00462	0.00576	92.4	115	1	33.0-150			22.0	28
1,1,2-Trichlorotrifluoroethane	0.00500	ND	0.00300	0.00460	60.0	92.0	1	23.0-160		R5	42.1	30
Tetrachloroethene	0.00500	ND	0.00275	0.00381	55.0	76.2	1	10.0-160		R5	32.3	27

L1473272-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1473272-01 03/23/22 07:12 • (MS) R3773010-5 03/23/22 09:01 • (MSD) R3773010-6 03/23/22 09:22

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 %
Toluene	0.00500	ND	0.00355	0.00467	71.0	93.4	1	26.0-154			27.3	28
1,2,4-Trichlorobenzene	0.00500	ND	0.00343	0.00499	68.6	99.8	1	24.0-150		R5	37.1	33
1,1,1-Trichloroethane	0.00500	ND	0.00342	0.00449	68.4	89.8	1	23.0-160			27.1	28
1,1,2-Trichloroethane	0.00500	ND	0.00382	0.00489	76.4	97.8	1	35.0-147			24.6	27
Trichloroethene	0.00500	ND	0.00316	0.00415	63.2	83.0	1	10.0-160		R5	27.1	25
Trichlorofluoromethane	0.00500	ND	ND	ND	65.0	87.0	1	17.0-160			28.9	31
1,2,3-Trichloropropane	0.00500	ND	0.00479	0.00576	95.8	115	1	34.0-151			18.4	29
1,2,4-Trimethylbenzene	0.00500	ND	0.00381	0.00506	76.2	101	1	26.0-154		R5	28.2	27
1,3,5-Trimethylbenzene	0.00500	ND	0.00372	0.00524	74.4	105	1	28.0-153		R5	33.9	27
Vinyl acetate	0.0250	ND	0.0203	0.0254	81.2	102	1	12.0-160			22.3	31
Vinyl chloride	0.00500	ND	0.00412	0.00485	82.4	97.0	1	10.0-160			16.3	27
Xylenes, Total	0.0150	ND	0.0106	0.0142	70.7	94.7	1	29.0-154		R5	29.0	28
Di-isopropyl ether	0.00500	ND	0.00385	0.00552	77.0	110	1	21.0-160		R5	35.6	28
ethanol	0.250	ND	0.234	0.271	93.6	108	1	50.0-150			14.7	20
Ethyl tert-butyl ether	0.00500	ND	0.00356	0.00491	71.2	98.2	1	10.0-160			31.9	37
Methyl tert-butyl ether	0.00500	0.00113	0.00423	0.00523	62.0	82.0	1	28.0-150			21.1	29
tert-Butyl alcohol	0.0250	ND	0.0198	0.0216	79.2	86.4	1	50.0-150			8.70	20
tert-Amyl Methyl Ether	0.00500	ND	0.00349	0.00454	69.8	90.8	1	10.0-160			26.2	37
(S) Toluene-d8					*110*	*113*		*80.0-120*				
(S) 4-Bromofluorobenzene					*90.3*	*92.0*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*106*	*105*		*70.0-130*				

INTERNAL STANDARD SUMMARY

Instrument: VOCMS6 • File ID: 0322_28

03/22/22 22:18

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0322_28	209054	85340	78289
Upper Limit		418108	170680	156578
Lower Limit		104527	42670	39145
LCS R3773010-1 WG1836703 1x	0322_28LCS	209054	85340	78289
LCSD R3773010-2 WG1836703 1x	0322_29	211029	85024	80140
BLANK R3773010-4 WG1836703 1x	0322_32	205895	82465	78358
L1473272-05 WG1836703 1x	0322_35	205850	79227	76863
L1473272-01 WG1836703 1x	0322_52	198145	78980	68479
L1473272-02 WG1836703 250x	0322_54	197640	78164	74145
L1473272-03 WG1836703 250x	0322_55	200624	76023	75819
L1473272-04 WG1836703 1000x	0322_56	198517	77144	71616
MS R3773010-5 WG1836703 1x	0322_57	190205	79652	73333
MSD R3773010-6 WG1836703 1x	0322_58	198765	81747	77758

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

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	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
E1	Concentration estimated. Analyte exceeded calibration range. Reanalysis not possible due to insufficient sample.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
L1	The associated blank spike recovery was above laboratory acceptance limits.
M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike recovery was acceptable.
R5	MS/MSD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.
R7	LFB/LFBD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.

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:
Kinder Morgan - Rocklin, CA-AZ Work

410 N.44th Street
Suite 1000
Phoenix. AZ 85008

Billing Information:
Accounts Payable- Alan Van Antwerp
9950 SAN DIEGO MISSION RD.
SAN DIEGO, CA 92108

Pres Chk

Report to: **Bob Forsberg**

Email To: bob.forsberg@arcadis-us.com;sascha.arnold@arcadis.com

Project Description: **KMEP Silvercroft Wash**

City/State Collected: Tucson, AZ

Please Circle: PT MT CT ET

Phone: **602-438-0883**

Client Project # **30113573.01**

Lab Project # **KINARCPAZ-SILVERCROF**

Collected by (print): SA, MAT

Site/Facility ID # **SILVERCROFT WASH**

P.O. # **WD876456**

Collected by (signature): M. Tarn

Immediately Packed on Ice N ___ Y X

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: STD TURN

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	*NO2,NO3,SO4 125mlHDPE-NoPres	EEM RSK175 40mlAmb HCl	HOLD - NO2+NO3 250mlHDPE-H2SO4	TDS 1L-HDPE NoPres	Total Fe 6010 250mlHDPE-HNO3	VOCs+OXYs 8260 40mlAmb-HCl	Remarks	Sample # (lab only)
MW-29M	Grab	GW	199'	3/18/22	0922	18	X	X	X	X	X	X	MS/MSD	-01
MW-29S		GW	173		1037	9	X	X	X	X	X	X		-02
MW-29S-DUP		GW	173		1042	9	X	X	X	X	X	X		-03
MW-25		GW	173		1138	9	X	X	X	X	X	X		-04
		GW												
		GW												
		GW												
		GW												
		GW												
Trip Blank	Grab	GW	—	3/18/22	—	1						X		

Chain of Custody Page 1 of 1

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1473272
F016

Acctnum: **KINARCPAZ**
Template: **T190237**
Prelogin: **P909634**
PM: **110 - Brian Ford**
PB:

Shipped Via:

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:*NO2,NO3 have a 48 hour holding time.

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
M. Tarn	3/18/22	1500	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	3-18-22	1700	FedEx
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: (Yes) / No
2 (HCl) / MeoH TBR

Temp: DR 2°C
1.4+0=1.4

Bottles Received: 45

Date: 3/19/22 Time: 930

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

KNPAZ

ANALYTICAL REPORT

April 22, 2022

Kinder Morgan - Rocklin, CA-AZ Work

Sample Delivery Group:	L1481121
Samples Received:	04/12/2022
Project Number:	30113573.01
Description:	KMEP Silvercroft Wash
Site:	SILVERCROFT WASH
Report To:	Bob Forsberg 410 N.44th Street Suite 1000 Phoenix, AZ 85008

Entire Report Reviewed By:

Brian Ford

Project Manager

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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MW-2D L1481121-01 GW

Collected by: MAT/SXA | Collected date/time: 04/11/22 11:37 | Received date/time: 04/12/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1847721	1	04/13/22 09:59	04/13/22 15:37	BRG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1847269	1	04/12/22 23:13	04/12/22 23:13	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1847269	10	04/12/22 23:32	04/12/22 23:32	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1849176	1	04/17/22 23:58	04/19/22 10:01	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1848485	1	04/18/22 12:14	04/18/22 12:14	DBB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1847496	1	04/13/22 03:23	04/13/22 03:23	ACG	Mt. Juliet, TN

MW-1D L1481121-02 GW

Collected by: MAT/SXA | Collected date/time: 04/11/22 13:02 | Received date/time: 04/12/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1847721	1	04/13/22 09:59	04/13/22 15:37	BRG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1847269	1	04/13/22 01:06	04/13/22 01:06	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1847269	10	04/13/22 01:25	04/13/22 01:25	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1849877	1	04/17/22 22:52	04/22/22 10:29	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1848485	1	04/18/22 12:17	04/18/22 12:17	DBB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1847496	1	04/13/22 03:48	04/13/22 03:48	ACG	Mt. Juliet, TN

MW-29D L1481121-03 GW

Collected by: MAT/SXA | Collected date/time: 04/11/22 14:28 | Received date/time: 04/12/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1847902	1	04/13/22 13:12	04/13/22 17:26	SJF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1847269	1	04/13/22 01:44	04/13/22 01:44	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1847269	10	04/13/22 02:03	04/13/22 02:03	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1849877	1	04/17/22 22:52	04/22/22 10:58	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1848485	1	04/18/22 12:20	04/18/22 12:20	DBB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1847496	1	04/13/22 04:15	04/13/22 04:15	ACG	Mt. Juliet, TN

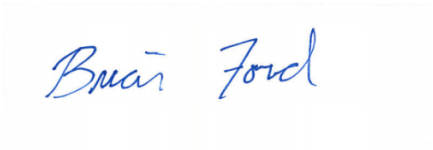
TRIP BLANK L1481121-04 GW

Collected by: MAT/SXA | Collected date/time: 04/11/22 00:00 | Received date/time: 04/12/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1847496	1	04/13/22 00:59	04/13/22 00:59	ACG	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.



Brian Ford
Project Manager

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	784		13.3	1	04/13/2022 15:37	WG1847721

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Nitrate	3.46		0.100	1	04/12/2022 23:13	WG1847269
Nitrite	ND		0.100	1	04/12/2022 23:13	WG1847269
Sulfate	258		50.0	10	04/12/2022 23:32	WG1847269

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Iron	ND		0.100	1	04/19/2022 10:01	WG1849176

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Methane	ND		0.0100	1	04/18/2022 12:14	WG1848485
Ethane	ND		0.0130	1	04/18/2022 12:14	WG1848485
Ethene	ND		0.0130	1	04/18/2022 12:14	WG1848485

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Acetone	ND		0.0500	1	04/13/2022 03:23	WG1847496
Acrylonitrile	ND		0.0100	1	04/13/2022 03:23	WG1847496
Benzene	ND		0.00100	1	04/13/2022 03:23	WG1847496
Bromobenzene	ND		0.00100	1	04/13/2022 03:23	WG1847496
Bromochloromethane	ND		0.00100	1	04/13/2022 03:23	WG1847496
Bromodichloromethane	ND		0.00100	1	04/13/2022 03:23	WG1847496
Bromoform	ND		0.00100	1	04/13/2022 03:23	WG1847496
Bromomethane	ND		0.00500	1	04/13/2022 03:23	WG1847496
n-Butylbenzene	ND		0.00100	1	04/13/2022 03:23	WG1847496
sec-Butylbenzene	ND		0.00100	1	04/13/2022 03:23	WG1847496
tert-Butylbenzene	ND		0.00100	1	04/13/2022 03:23	WG1847496
Carbon tetrachloride	ND		0.00100	1	04/13/2022 03:23	WG1847496
Carbon disulfide	ND		0.00100	1	04/13/2022 03:23	WG1847496
Chlorobenzene	ND		0.00100	1	04/13/2022 03:23	WG1847496
Chlorodibromomethane	ND		0.00100	1	04/13/2022 03:23	WG1847496
Chloroethane	ND		0.00500	1	04/13/2022 03:23	WG1847496
Chloroform	ND		0.00500	1	04/13/2022 03:23	WG1847496
Chloromethane	ND		0.00250	1	04/13/2022 03:23	WG1847496
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	04/13/2022 03:23	WG1847496
1,2-Dibromoethane	ND		0.00100	1	04/13/2022 03:23	WG1847496
Dibromomethane	ND		0.00100	1	04/13/2022 03:23	WG1847496
1,2-Dichlorobenzene	ND		0.00100	1	04/13/2022 03:23	WG1847496
1,3-Dichlorobenzene	ND		0.00100	1	04/13/2022 03:23	WG1847496
1,4-Dichlorobenzene	ND		0.00100	1	04/13/2022 03:23	WG1847496
trans-1,4-Dichloro-2-butene	ND		0.00250	1	04/13/2022 03:23	WG1847496
Dichlorodifluoromethane	ND		0.00500	1	04/13/2022 03:23	WG1847496
1,1-Dichloroethane	ND		0.00100	1	04/13/2022 03:23	WG1847496
1,2-Dichloroethane	ND		0.00100	1	04/13/2022 03:23	WG1847496
1,1-Dichloroethene	ND		0.00100	1	04/13/2022 03:23	WG1847496
cis-1,2-Dichloroethene	ND		0.00100	1	04/13/2022 03:23	WG1847496

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.00100	1	04/13/2022 03:23	WG1847496
1,2-Dichloropropane	ND		0.00100	1	04/13/2022 03:23	WG1847496
cis-1,3-Dichloropropene	ND		0.00100	1	04/13/2022 03:23	WG1847496
trans-1,3-Dichloropropene	ND		0.00100	1	04/13/2022 03:23	WG1847496
Ethylbenzene	ND		0.00100	1	04/13/2022 03:23	WG1847496
Hexachloro-1,3-butadiene	ND		0.00100	1	04/13/2022 03:23	WG1847496
2-Hexanone	ND		0.0100	1	04/13/2022 03:23	WG1847496
2-Butanone (MEK)	ND		0.0100	1	04/13/2022 03:23	WG1847496
Iodomethane	ND		0.0100	1	04/13/2022 03:23	WG1847496
Methylene Chloride	ND		0.00500	1	04/13/2022 03:23	WG1847496
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	04/13/2022 03:23	WG1847496
Naphthalene	ND		0.00500	1	04/13/2022 03:23	WG1847496
n-Propylbenzene	ND		0.00100	1	04/13/2022 03:23	WG1847496
Styrene	ND		0.00100	1	04/13/2022 03:23	WG1847496
1,1,1,2-Tetrachloroethane	ND		0.00100	1	04/13/2022 03:23	WG1847496
1,1,2,2-Tetrachloroethane	ND		0.00100	1	04/13/2022 03:23	WG1847496
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	04/13/2022 03:23	WG1847496
Tetrachloroethene	ND		0.00100	1	04/13/2022 03:23	WG1847496
Toluene	ND		0.00100	1	04/13/2022 03:23	WG1847496
1,2,4-Trichlorobenzene	ND		0.00100	1	04/13/2022 03:23	WG1847496
1,1,1-Trichloroethane	ND		0.00100	1	04/13/2022 03:23	WG1847496
1,1,2-Trichloroethane	ND		0.00100	1	04/13/2022 03:23	WG1847496
Trichloroethene	ND		0.00100	1	04/13/2022 03:23	WG1847496
Trichlorofluoromethane	ND		0.00500	1	04/13/2022 03:23	WG1847496
1,2,3-Trichloropropane	ND		0.00250	1	04/13/2022 03:23	WG1847496
1,2,4-Trimethylbenzene	ND		0.00100	1	04/13/2022 03:23	WG1847496
1,3,5-Trimethylbenzene	ND		0.00100	1	04/13/2022 03:23	WG1847496
Vinyl acetate	ND		0.0100	1	04/13/2022 03:23	WG1847496
Vinyl chloride	ND		0.00100	1	04/13/2022 03:23	WG1847496
Xylenes, Total	ND		0.00300	1	04/13/2022 03:23	WG1847496
Di-isopropyl ether	ND		0.00100	1	04/13/2022 03:23	WG1847496
Ethanol	ND	R5	0.100	1	04/13/2022 03:23	WG1847496
Ethyl tert-butyl ether	ND		0.00100	1	04/13/2022 03:23	WG1847496
Methyl tert-butyl ether	0.0802	M3	0.00100	1	04/13/2022 03:23	WG1847496
tert-Butyl alcohol	ND		0.00500	1	04/13/2022 03:23	WG1847496
tert-Amyl Methyl Ether	0.00264		0.00100	1	04/13/2022 03:23	WG1847496
(S) Toluene-d8	*112*		*80.0-120*		*04/13/2022 03:23*	WG1847496
(S) 4-Bromofluorobenzene	*95.9*		*77.0-126*		*04/13/2022 03:23*	WG1847496
(S) 1,2-Dichloroethane-d4	*87.0*		*70.0-130*		*04/13/2022 03:23*	WG1847496

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	773		13.3	1	04/13/2022 15:37	WG1847721

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	3.98		0.100	1	04/13/2022 01:06	WG1847269
Nitrite	ND		0.100	1	04/13/2022 01:06	WG1847269
Sulfate	253		50.0	10	04/13/2022 01:25	WG1847269

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	0.252		0.100	1	04/22/2022 10:29	WG1849877

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	04/18/2022 12:17	WG1848485
Ethane	ND		0.0130	1	04/18/2022 12:17	WG1848485
Ethene	ND		0.0130	1	04/18/2022 12:17	WG1848485

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	04/13/2022 03:48	WG1847496
Acrylonitrile	ND		0.0100	1	04/13/2022 03:48	WG1847496
Benzene	ND		0.00100	1	04/13/2022 03:48	WG1847496
Bromobenzene	ND		0.00100	1	04/13/2022 03:48	WG1847496
Bromochloromethane	ND		0.00100	1	04/13/2022 03:48	WG1847496
Bromodichloromethane	ND		0.00100	1	04/13/2022 03:48	WG1847496
Bromoform	ND		0.00100	1	04/13/2022 03:48	WG1847496
Bromomethane	ND		0.00500	1	04/13/2022 03:48	WG1847496
n-Butylbenzene	ND		0.00100	1	04/13/2022 03:48	WG1847496
sec-Butylbenzene	ND		0.00100	1	04/13/2022 03:48	WG1847496
tert-Butylbenzene	ND		0.00100	1	04/13/2022 03:48	WG1847496
Carbon tetrachloride	ND		0.00100	1	04/13/2022 03:48	WG1847496
Carbon disulfide	ND		0.00100	1	04/13/2022 03:48	WG1847496
Chlorobenzene	ND		0.00100	1	04/13/2022 03:48	WG1847496
Chlorodibromomethane	ND		0.00100	1	04/13/2022 03:48	WG1847496
Chloroethane	ND		0.00500	1	04/13/2022 03:48	WG1847496
Chloroform	ND		0.00500	1	04/13/2022 03:48	WG1847496
Chloromethane	ND		0.00250	1	04/13/2022 03:48	WG1847496
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	04/13/2022 03:48	WG1847496
1,2-Dibromoethane	ND		0.00100	1	04/13/2022 03:48	WG1847496
Dibromomethane	ND		0.00100	1	04/13/2022 03:48	WG1847496
1,2-Dichlorobenzene	ND		0.00100	1	04/13/2022 03:48	WG1847496
1,3-Dichlorobenzene	ND		0.00100	1	04/13/2022 03:48	WG1847496
1,4-Dichlorobenzene	ND		0.00100	1	04/13/2022 03:48	WG1847496
trans-1,4-Dichloro-2-butene	ND		0.00250	1	04/13/2022 03:48	WG1847496
Dichlorodifluoromethane	ND		0.00500	1	04/13/2022 03:48	WG1847496
1,1-Dichloroethane	ND		0.00100	1	04/13/2022 03:48	WG1847496
1,2-Dichloroethane	ND		0.00100	1	04/13/2022 03:48	WG1847496
1,1-Dichloroethene	ND		0.00100	1	04/13/2022 03:48	WG1847496
cis-1,2-Dichloroethene	ND		0.00100	1	04/13/2022 03:48	WG1847496

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.00100	1	04/13/2022 03:48	WG1847496
1,2-Dichloropropane	ND		0.00100	1	04/13/2022 03:48	WG1847496
cis-1,3-Dichloropropene	ND		0.00100	1	04/13/2022 03:48	WG1847496
trans-1,3-Dichloropropene	ND		0.00100	1	04/13/2022 03:48	WG1847496
Ethylbenzene	ND		0.00100	1	04/13/2022 03:48	WG1847496
Hexachloro-1,3-butadiene	ND		0.00100	1	04/13/2022 03:48	WG1847496
2-Hexanone	ND		0.0100	1	04/13/2022 03:48	WG1847496
2-Butanone (MEK)	ND		0.0100	1	04/13/2022 03:48	WG1847496
Iodomethane	ND		0.0100	1	04/13/2022 03:48	WG1847496
Methylene Chloride	ND		0.00500	1	04/13/2022 03:48	WG1847496
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	04/13/2022 03:48	WG1847496
Naphthalene	ND		0.00500	1	04/13/2022 03:48	WG1847496
n-Propylbenzene	ND		0.00100	1	04/13/2022 03:48	WG1847496
Styrene	ND		0.00100	1	04/13/2022 03:48	WG1847496
1,1,1,2-Tetrachloroethane	ND		0.00100	1	04/13/2022 03:48	WG1847496
1,1,2,2-Tetrachloroethane	ND		0.00100	1	04/13/2022 03:48	WG1847496
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	04/13/2022 03:48	WG1847496
Tetrachloroethene	ND		0.00100	1	04/13/2022 03:48	WG1847496
Toluene	ND		0.00100	1	04/13/2022 03:48	WG1847496
1,2,4-Trichlorobenzene	ND		0.00100	1	04/13/2022 03:48	WG1847496
1,1,1-Trichloroethane	ND		0.00100	1	04/13/2022 03:48	WG1847496
1,1,2-Trichloroethane	ND		0.00100	1	04/13/2022 03:48	WG1847496
Trichloroethene	ND		0.00100	1	04/13/2022 03:48	WG1847496
Trichlorofluoromethane	ND		0.00500	1	04/13/2022 03:48	WG1847496
1,2,3-Trichloropropane	ND		0.00250	1	04/13/2022 03:48	WG1847496
1,2,4-Trimethylbenzene	ND		0.00100	1	04/13/2022 03:48	WG1847496
1,3,5-Trimethylbenzene	ND		0.00100	1	04/13/2022 03:48	WG1847496
Vinyl acetate	ND		0.0100	1	04/13/2022 03:48	WG1847496
Vinyl chloride	ND		0.00100	1	04/13/2022 03:48	WG1847496
Xylenes, Total	ND		0.00300	1	04/13/2022 03:48	WG1847496
Di-isopropyl ether	ND		0.00100	1	04/13/2022 03:48	WG1847496
Ethanol	ND	R5	0.100	1	04/13/2022 03:48	WG1847496
Ethyl tert-butyl ether	ND		0.00100	1	04/13/2022 03:48	WG1847496
Methyl tert-butyl ether	ND		0.00100	1	04/13/2022 03:48	WG1847496
tert-Butyl alcohol	ND		0.00500	1	04/13/2022 03:48	WG1847496
tert-Amyl Methyl Ether	ND		0.00100	1	04/13/2022 03:48	WG1847496
(S) Toluene-d8	*108*		*80.0-120*		*04/13/2022 03:48*	WG1847496
(S) 4-Bromofluorobenzene	*99.3*		*77.0-126*		*04/13/2022 03:48*	WG1847496
(S) 1,2-Dichloroethane-d4	*86.9*		*70.0-130*		*04/13/2022 03:48*	WG1847496

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	716		13.3	1	04/13/2022 17:26	WG1847902

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	2.78		0.100	1	04/13/2022 01:44	WG1847269
Nitrite	ND		0.100	1	04/13/2022 01:44	WG1847269
Sulfate	244		50.0	10	04/13/2022 02:03	WG1847269

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	ND		0.100	1	04/22/2022 10:58	WG1849877

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	04/18/2022 12:20	WG1848485
Ethane	ND		0.0130	1	04/18/2022 12:20	WG1848485
Ethene	ND		0.0130	1	04/18/2022 12:20	WG1848485

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	04/13/2022 04:15	WG1847496
Acrylonitrile	ND		0.0100	1	04/13/2022 04:15	WG1847496
Benzene	ND		0.00100	1	04/13/2022 04:15	WG1847496
Bromobenzene	ND		0.00100	1	04/13/2022 04:15	WG1847496
Bromochloromethane	ND		0.00100	1	04/13/2022 04:15	WG1847496
Bromodichloromethane	ND		0.00100	1	04/13/2022 04:15	WG1847496
Bromoform	ND		0.00100	1	04/13/2022 04:15	WG1847496
Bromomethane	ND		0.00500	1	04/13/2022 04:15	WG1847496
n-Butylbenzene	ND		0.00100	1	04/13/2022 04:15	WG1847496
sec-Butylbenzene	ND		0.00100	1	04/13/2022 04:15	WG1847496
tert-Butylbenzene	ND		0.00100	1	04/13/2022 04:15	WG1847496
Carbon tetrachloride	ND		0.00100	1	04/13/2022 04:15	WG1847496
Carbon disulfide	ND		0.00100	1	04/13/2022 04:15	WG1847496
Chlorobenzene	ND		0.00100	1	04/13/2022 04:15	WG1847496
Chlorodibromomethane	ND		0.00100	1	04/13/2022 04:15	WG1847496
Chloroethane	ND		0.00500	1	04/13/2022 04:15	WG1847496
Chloroform	ND		0.00500	1	04/13/2022 04:15	WG1847496
Chloromethane	ND		0.00250	1	04/13/2022 04:15	WG1847496
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	04/13/2022 04:15	WG1847496
1,2-Dibromoethane	ND		0.00100	1	04/13/2022 04:15	WG1847496
Dibromomethane	ND		0.00100	1	04/13/2022 04:15	WG1847496
1,2-Dichlorobenzene	ND		0.00100	1	04/13/2022 04:15	WG1847496
1,3-Dichlorobenzene	ND		0.00100	1	04/13/2022 04:15	WG1847496
1,4-Dichlorobenzene	ND		0.00100	1	04/13/2022 04:15	WG1847496
trans-1,4-Dichloro-2-butene	ND		0.00250	1	04/13/2022 04:15	WG1847496
Dichlorodifluoromethane	ND		0.00500	1	04/13/2022 04:15	WG1847496
1,1-Dichloroethane	ND		0.00100	1	04/13/2022 04:15	WG1847496
1,2-Dichloroethane	ND		0.00100	1	04/13/2022 04:15	WG1847496
1,1-Dichloroethene	ND		0.00100	1	04/13/2022 04:15	WG1847496
cis-1,2-Dichloroethene	ND		0.00100	1	04/13/2022 04:15	WG1847496

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.00100	1	04/13/2022 04:15	WG1847496
1,2-Dichloropropane	ND		0.00100	1	04/13/2022 04:15	WG1847496
cis-1,3-Dichloropropene	ND		0.00100	1	04/13/2022 04:15	WG1847496
trans-1,3-Dichloropropene	ND		0.00100	1	04/13/2022 04:15	WG1847496
Ethylbenzene	ND		0.00100	1	04/13/2022 04:15	WG1847496
Hexachloro-1,3-butadiene	ND		0.00100	1	04/13/2022 04:15	WG1847496
2-Hexanone	ND		0.0100	1	04/13/2022 04:15	WG1847496
2-Butanone (MEK)	ND		0.0100	1	04/13/2022 04:15	WG1847496
Iodomethane	ND		0.0100	1	04/13/2022 04:15	WG1847496
Methylene Chloride	ND		0.00500	1	04/13/2022 04:15	WG1847496
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	04/13/2022 04:15	WG1847496
Naphthalene	ND		0.00500	1	04/13/2022 04:15	WG1847496
n-Propylbenzene	ND		0.00100	1	04/13/2022 04:15	WG1847496
Styrene	ND		0.00100	1	04/13/2022 04:15	WG1847496
1,1,1,2-Tetrachloroethane	ND		0.00100	1	04/13/2022 04:15	WG1847496
1,1,2,2-Tetrachloroethane	ND		0.00100	1	04/13/2022 04:15	WG1847496
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	04/13/2022 04:15	WG1847496
Tetrachloroethene	ND		0.00100	1	04/13/2022 04:15	WG1847496
Toluene	ND		0.00100	1	04/13/2022 04:15	WG1847496
1,2,4-Trichlorobenzene	ND		0.00100	1	04/13/2022 04:15	WG1847496
1,1,1-Trichloroethane	ND		0.00100	1	04/13/2022 04:15	WG1847496
1,1,2-Trichloroethane	ND		0.00100	1	04/13/2022 04:15	WG1847496
Trichloroethene	ND		0.00100	1	04/13/2022 04:15	WG1847496
Trichlorofluoromethane	ND		0.00500	1	04/13/2022 04:15	WG1847496
1,2,3-Trichloropropane	ND		0.00250	1	04/13/2022 04:15	WG1847496
1,2,4-Trimethylbenzene	ND		0.00100	1	04/13/2022 04:15	WG1847496
1,3,5-Trimethylbenzene	ND		0.00100	1	04/13/2022 04:15	WG1847496
Vinyl acetate	ND		0.0100	1	04/13/2022 04:15	WG1847496
Vinyl chloride	ND		0.00100	1	04/13/2022 04:15	WG1847496
Xylenes, Total	ND		0.00300	1	04/13/2022 04:15	WG1847496
Di-isopropyl ether	ND		0.00100	1	04/13/2022 04:15	WG1847496
Ethanol	ND	R5	0.100	1	04/13/2022 04:15	WG1847496
Ethyl tert-butyl ether	ND		0.00100	1	04/13/2022 04:15	WG1847496
Methyl tert-butyl ether	ND		0.00100	1	04/13/2022 04:15	WG1847496
tert-Butyl alcohol	ND		0.00500	1	04/13/2022 04:15	WG1847496
tert-Amyl Methyl Ether	ND		0.00100	1	04/13/2022 04:15	WG1847496
(S) Toluene-d8	*110*		*80.0-120*		*04/13/2022 04:15*	WG1847496
(S) 4-Bromofluorobenzene	*99.6*		*77.0-126*		*04/13/2022 04:15*	WG1847496
(S) 1,2-Dichloroethane-d4	*87.1*		*70.0-130*		*04/13/2022 04:15*	WG1847496

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	04/13/2022 00:59	WG1847496
Acrylonitrile	ND		0.0100	1	04/13/2022 00:59	WG1847496
Benzene	ND		0.00100	1	04/13/2022 00:59	WG1847496
Bromobenzene	ND		0.00100	1	04/13/2022 00:59	WG1847496
Bromochloromethane	ND		0.00100	1	04/13/2022 00:59	WG1847496
Bromodichloromethane	ND		0.00100	1	04/13/2022 00:59	WG1847496
Bromoform	ND		0.00100	1	04/13/2022 00:59	WG1847496
Bromomethane	ND		0.00500	1	04/13/2022 00:59	WG1847496
n-Butylbenzene	ND		0.00100	1	04/13/2022 00:59	WG1847496
sec-Butylbenzene	ND		0.00100	1	04/13/2022 00:59	WG1847496
tert-Butylbenzene	ND		0.00100	1	04/13/2022 00:59	WG1847496
Carbon tetrachloride	ND		0.00100	1	04/13/2022 00:59	WG1847496
Carbon disulfide	ND		0.00100	1	04/13/2022 00:59	WG1847496
Chlorobenzene	ND		0.00100	1	04/13/2022 00:59	WG1847496
Chlorodibromomethane	ND		0.00100	1	04/13/2022 00:59	WG1847496
Chloroethane	ND		0.00500	1	04/13/2022 00:59	WG1847496
Chloroform	ND		0.00500	1	04/13/2022 00:59	WG1847496
Chloromethane	ND		0.00250	1	04/13/2022 00:59	WG1847496
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	04/13/2022 00:59	WG1847496
1,2-Dibromoethane	ND		0.00100	1	04/13/2022 00:59	WG1847496
Dibromomethane	ND		0.00100	1	04/13/2022 00:59	WG1847496
1,2-Dichlorobenzene	ND		0.00100	1	04/13/2022 00:59	WG1847496
1,3-Dichlorobenzene	ND		0.00100	1	04/13/2022 00:59	WG1847496
1,4-Dichlorobenzene	ND		0.00100	1	04/13/2022 00:59	WG1847496
trans-1,4-Dichloro-2-butene	ND		0.00250	1	04/13/2022 00:59	WG1847496
Dichlorodifluoromethane	ND		0.00500	1	04/13/2022 00:59	WG1847496
1,1-Dichloroethane	ND		0.00100	1	04/13/2022 00:59	WG1847496
1,2-Dichloroethane	ND		0.00100	1	04/13/2022 00:59	WG1847496
1,1-Dichloroethene	ND		0.00100	1	04/13/2022 00:59	WG1847496
cis-1,2-Dichloroethene	ND		0.00100	1	04/13/2022 00:59	WG1847496
trans-1,2-Dichloroethene	ND		0.00100	1	04/13/2022 00:59	WG1847496
1,2-Dichloropropane	ND		0.00100	1	04/13/2022 00:59	WG1847496
cis-1,3-Dichloropropene	ND		0.00100	1	04/13/2022 00:59	WG1847496
trans-1,3-Dichloropropene	ND		0.00100	1	04/13/2022 00:59	WG1847496
Ethylbenzene	ND		0.00100	1	04/13/2022 00:59	WG1847496
Hexachloro-1,3-butadiene	ND		0.00100	1	04/13/2022 00:59	WG1847496
2-Hexanone	ND		0.0100	1	04/13/2022 00:59	WG1847496
2-Butanone (MEK)	ND		0.0100	1	04/13/2022 00:59	WG1847496
Iodomethane	ND		0.0100	1	04/13/2022 00:59	WG1847496
Methylene Chloride	ND		0.00500	1	04/13/2022 00:59	WG1847496
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	04/13/2022 00:59	WG1847496
Naphthalene	ND		0.00500	1	04/13/2022 00:59	WG1847496
n-Propylbenzene	ND		0.00100	1	04/13/2022 00:59	WG1847496
Styrene	ND		0.00100	1	04/13/2022 00:59	WG1847496
1,1,1,2-Tetrachloroethane	ND		0.00100	1	04/13/2022 00:59	WG1847496
1,1,2,2-Tetrachloroethane	ND		0.00100	1	04/13/2022 00:59	WG1847496
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	04/13/2022 00:59	WG1847496
Tetrachloroethene	ND		0.00100	1	04/13/2022 00:59	WG1847496
Toluene	ND		0.00100	1	04/13/2022 00:59	WG1847496
1,2,4-Trichlorobenzene	ND		0.00100	1	04/13/2022 00:59	WG1847496
1,1,1-Trichloroethane	ND		0.00100	1	04/13/2022 00:59	WG1847496
1,1,2-Trichloroethane	ND		0.00100	1	04/13/2022 00:59	WG1847496
Trichloroethene	ND		0.00100	1	04/13/2022 00:59	WG1847496
Trichlorofluoromethane	ND		0.00500	1	04/13/2022 00:59	WG1847496
1,2,3-Trichloropropane	ND		0.00250	1	04/13/2022 00:59	WG1847496
1,2,4-Trimethylbenzene	ND		0.00100	1	04/13/2022 00:59	WG1847496

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
1,3,5-Trimethylbenzene	ND		0.00100	1	04/13/2022 00:59	WG1847496
Vinyl acetate	ND		0.0100	1	04/13/2022 00:59	WG1847496
Vinyl chloride	ND		0.00100	1	04/13/2022 00:59	WG1847496
Xylenes, Total	ND		0.00300	1	04/13/2022 00:59	WG1847496
Di-isopropyl ether	ND		0.00100	1	04/13/2022 00:59	WG1847496
Ethanol	ND	R5	0.100	1	04/13/2022 00:59	WG1847496
Ethyl tert-butyl ether	ND		0.00100	1	04/13/2022 00:59	WG1847496
Methyl tert-butyl ether	ND		0.00100	1	04/13/2022 00:59	WG1847496
tert-Butyl alcohol	ND		0.00500	1	04/13/2022 00:59	WG1847496
tert-Amyl Methyl Ether	ND		0.00100	1	04/13/2022 00:59	WG1847496
(S) Toluene-d8	*109*		*80.0-120*		*04/13/2022 00:59*	WG1847496
(S) 4-Bromofluorobenzene	*100*		*77.0-126*		*04/13/2022 00:59*	WG1847496
(S) 1,2-Dichloroethane-d4	*87.4*		*70.0-130*		*04/13/2022 00:59*	WG1847496

Method Blank (MB)

(MB) R3781806-1 04/13/22 15:37

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1481121-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1481121-01 04/13/22 15:37 • (DUP) R3781806-3 04/13/22 15:37

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	784	767	1	2.24		5

L1481137-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1481137-02 04/13/22 15:37 • (DUP) R3781806-4 04/13/22 15:37

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	517	530	1	2.48		5

Laboratory Control Sample (LCS)

(LCS) R3781806-2 04/13/22 15:37

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8520	96.8	77.4-123	

Method Blank (MB)

(MB) R3781662-1 04/13/22 17:26

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1480221-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1480221-02 04/13/22 17:26 • (DUP) R3781662-3 04/13/22 17:26

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	680	681	1	0.195		5

L1481121-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1481121-03 04/13/22 17:26 • (DUP) R3781662-4 04/13/22 17:26

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	716	723	1	0.927		5

Laboratory Control Sample (LCS)

(LCS) R3781662-2 04/13/22 17:26

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8490	96.5	77.4-123	

Method Blank (MB)

(MB) R3781823-1 04/12/22 16:36

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate	U		0.0480	0.100
Nitrite	U		0.0420	0.100
Sulfate	U		0.594	5.00

L1481120-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1481120-01 04/12/22 17:32 • (DUP) R3781823-3 04/12/22 17:51

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	1.45	1.46	1	0.997		15
Nitrite	ND	ND	1	0.000		15
Sulfate	36.0	35.8	1	0.575		15

L1481120-12 Original Sample (OS) • Duplicate (DUP)

(OS) L1481120-12 04/12/22 22:35 • (DUP) R3781823-6 04/12/22 22:54

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	2.16	2.16	1	0.194		15
Nitrite	ND	ND	1	0.000		15
Sulfate	16.7	16.5	1	0.972		15

Laboratory Control Sample (LCS)

(LCS) R3781823-2 04/12/22 16:55

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate	8.00	8.14	102	80.0-120	
Nitrite	8.00	8.24	103	80.0-120	
Sulfate	40.0	40.0	100	80.0-120	

L1481120-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1481120-01 04/12/22 17:32 • (MS) R3781823-4 04/12/22 18:10 • (MSD) R3781823-5 04/12/22 18:29

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 %
Nitrate	5.00	1.45	6.67	6.68	104	105	1	80.0-120			0.180	15
Nitrite	5.00	ND	5.09	5.11	102	102	1	80.0-120			0.320	15
Sulfate	50.0	36.0	86.5	86.7	101	101	1	80.0-120			0.209	15

L1481121-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1481121-01 04/12/22 23:13 • (MS) R3781823-7 04/13/22 00:29 • (MSD) R3781823-8 04/13/22 00:48

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 %
Nitrate	5.00	3.46	8.74	8.77	106	106	1	80.0-120			0.267	15
Nitrite	5.00	ND	5.07	5.13	101	103	1	80.0-120			1.18	15

Method Blank (MB)

(MB) R3782734-1 04/19/22 09:56

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Iron	U		0.0180	0.100

Laboratory Control Sample (LCS)

(LCS) R3782734-2 04/19/22 09:58

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Iron	10.0	9.36	93.6	80.0-120	

L1481121-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1481121-01 04/19/22 10:01 • (MS) R3782734-4 04/19/22 10:07 • (MSD) R3782734-5 04/19/22 10:10

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 %
Iron	10.0	ND	9.36	9.29	93.2	92.5	1	75.0-125			0.784	20

QUALITY CONTROL SUMMARY

L1481121-02,03

Method Blank (MB)

(MB) R3784136-1 04/22/22 10:23

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Iron	U		0.0180	0.100

Laboratory Control Sample (LCS)

(LCS) R3784136-2 04/22/22 10:26

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Iron	10.0	9.57	95.7	80.0-120	

L1481121-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1481121-02 04/22/22 10:29 • (MS) R3784136-4 04/22/22 10:35 • (MSD) R3784136-5 04/22/22 10:37

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 %
Iron	10.0	0.252	9.52	9.83	92.7	95.8	1	75.0-125			3.14	20

Method Blank (MB)

(MB) R3782316-2 04/18/22 12:11

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Methane	U		0.00291	0.0100
Ethane	U		0.00407	0.0130
Ethene	U		0.00426	0.0130

L1481121-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1481121-02 04/18/22 12:17 • (DUP) R3782316-3 04/18/22 14:14

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	ND	ND	1	0.000		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20

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

(LCS) R3782316-1 04/18/22 12:03 • (LCSD) R3782316-6 04/18/22 15:24

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Methane	0.0678	0.0701	0.0765	103	113	85.0-115			8.73	20
Ethane	0.129	0.121	0.127	93.8	98.4	85.0-115			4.84	20
Ethene	0.127	0.123	0.128	96.9	101	85.0-115			3.98	20

L1481121-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1481121-01 04/18/22 12:14 • (MS) R3782316-4 04/18/22 15:18 • (MSD) R3782316-5 04/18/22 15:20

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 %
Methane	0.0678	ND	0.0863	0.0854	127	126	1	50.0-150			1.05	20
Ethane	0.129	ND	0.143	0.144	111	112	1	50.0-150			0.697	20
Ethene	0.127	ND	0.143	0.146	113	115	1	50.0-150			2.08	20

Method Blank (MB)

(MB) R3780710-3 04/13/22 00:37

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Acrylonitrile	U		0.000671	0.0100
Benzene	U		0.0000941	0.00100
Bromobenzene	U		0.000118	0.00100
Bromochloromethane	U		0.000128	0.00100
Bromodichloromethane	U		0.000136	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 tetrachloride	U		0.000128	0.00100
Carbon disulfide	U		0.0000962	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
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
trans-1,4-Dichloro-2-butene	U		0.000467	0.00250
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
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
Hexachloro-1,3-butadiene	U		0.000337	0.00100
2-Hexanone	U		0.000787	0.0100
2-Butanone (MEK)	U		0.00119	0.0100
Iodomethane	U		0.00600	0.0100
Methylene Chloride	U		0.000430	0.00500

Method Blank (MB)

(MB) R3780710-3 04/13/22 00:37

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
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
1,1,2-Trichlorotrifluoroethane	U		0.000180	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	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
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl acetate	U		0.000692	0.0100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
Di-isopropyl ether	U		0.000105	0.00100
Ethanol	U		0.0420	0.100
Ethyl tert-butyl ether	U		0.000101	0.00100
Methyl tert-butyl ether	U		0.000101	0.00100
tert-Butyl alcohol	U		0.00406	0.00500
tert-Amyl Methyl Ether	U		0.000195	0.00100
(S) Toluene-d8	*112*			*80.0-120*
(S) 4-Bromofluorobenzene	*98.4*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*84.6*			*70.0-130*

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

(LCS) R3780710-1 04/12/22 22:19 • (LCSD) R3780710-2 04/12/22 22:42

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	0.0164	0.0181	65.6	72.4	19.0-160			9.86	27
Acrylonitrile	0.0250	0.0212	0.0216	84.8	86.4	55.0-149			1.87	20
Benzene	0.00500	0.00497	0.00489	99.4	97.8	70.0-123			1.62	20
Bromobenzene	0.00500	0.00515	0.00537	103	107	73.0-121			4.18	20

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

(LCS) R3780710-1 04/12/22 22:19 • (LCSD) R3780710-2 04/12/22 22:42

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromochloromethane	0.00500	0.00488	0.00477	97.6	95.4	76.0-122			2.28	20
Bromodichloromethane	0.00500	0.00424	0.00441	84.8	88.2	75.0-120			3.93	20
Bromoform	0.00500	0.00369	0.00378	73.8	75.6	68.0-132			2.41	20
Bromomethane	0.00500	0.00329	0.00316	65.8	63.2	10.0-160			4.03	25
n-Butylbenzene	0.00500	0.00439	0.00447	87.8	89.4	73.0-125			1.81	20
sec-Butylbenzene	0.00500	0.00516	0.00519	103	104	75.0-125			0.580	20
tert-Butylbenzene	0.00500	0.00514	0.00519	103	104	76.0-124			0.968	20
Carbon tetrachloride	0.00500	0.00471	0.00468	94.2	93.6	68.0-126			0.639	20
Carbon disulfide	0.00500	0.00454	0.00461	90.8	92.2	61.0-128			1.53	20
Chlorobenzene	0.00500	0.00493	0.00501	98.6	100	80.0-121			1.61	20
Chlorodibromomethane	0.00500	0.00445	0.00451	89.0	90.2	77.0-125			1.34	20
Chloroethane	0.00500	0.00429	0.00420	85.8	84.0	47.0-150			2.12	20
Chloroform	0.00500	0.00491	0.00492	98.2	98.4	73.0-120			0.203	20
Chloromethane	0.00500	0.00466	0.00485	93.2	97.0	41.0-142			4.00	20
1,2-Dibromo-3-Chloropropane	0.00500	0.00358	0.00378	71.6	75.6	58.0-134			5.43	20
1,2-Dibromoethane	0.00500	0.00484	0.00489	96.8	97.8	80.0-122			1.03	20
Dibromomethane	0.00500	0.00481	0.00486	96.2	97.2	80.0-120			1.03	20
1,2-Dichlorobenzene	0.00500	0.00488	0.00482	97.6	96.4	79.0-121			1.24	20
1,3-Dichlorobenzene	0.00500	0.00480	0.00498	96.0	99.6	79.0-120			3.68	20
1,4-Dichlorobenzene	0.00500	0.00484	0.00500	96.8	100	79.0-120			3.25	20
trans-1,4-Dichloro-2-butene	0.00500	0.00338	0.00382	67.6	76.4	33.0-144			12.2	20
Dichlorodifluoromethane	0.00500	0.00496	0.00484	99.2	96.8	51.0-149			2.45	20
1,1-Dichloroethane	0.00500	0.00466	0.00468	93.2	93.6	70.0-126			0.428	20
1,2-Dichloroethane	0.00500	0.00468	0.00465	93.6	93.0	70.0-128			0.643	20
1,1-Dichloroethene	0.00500	0.00502	0.00503	100	101	71.0-124			0.199	20
cis-1,2-Dichloroethene	0.00500	0.00489	0.00482	97.8	96.4	73.0-120			1.44	20
trans-1,2-Dichloroethene	0.00500	0.00509	0.00503	102	101	73.0-120			1.19	20
1,2-Dichloropropane	0.00500	0.00511	0.00498	102	99.6	77.0-125			2.58	20
cis-1,3-Dichloropropene	0.00500	0.00449	0.00450	89.8	90.0	80.0-123			0.222	20
trans-1,3-Dichloropropene	0.00500	0.00450	0.00425	90.0	85.0	78.0-124			5.71	20
Ethylbenzene	0.00500	0.00494	0.00487	98.8	97.4	79.0-123			1.43	20
Hexachloro-1,3-butadiene	0.00500	0.00353	0.00368	70.6	73.6	54.0-138			4.16	20
2-Hexanone	0.0250	0.0233	0.0230	93.2	92.0	67.0-149			1.30	20
2-Butanone (MEK)	0.0250	0.0190	0.0202	76.0	80.8	44.0-160			6.12	20
Iodomethane	0.0250	0.0227	0.0222	90.8	88.8	33.0-147			2.23	26
Methylene Chloride	0.00500	0.00493	0.00481	98.6	96.2	67.0-120			2.46	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.0227	0.0227	90.8	90.8	68.0-142			0.000	20
Naphthalene	0.00500	0.00351	0.00373	70.2	74.6	54.0-135			6.08	20
n-Propylbenzene	0.00500	0.00528	0.00536	106	107	77.0-124			1.50	20
Styrene	0.00500	0.00403	0.00394	80.6	78.8	73.0-130			2.26	20

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

(LCS) R3780710-1 04/12/22 22:19 • (LCSD) R3780710-2 04/12/22 22:42

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,1,1,2-Tetrachloroethane	0.00500	0.00476	0.00448	95.2	89.6	75.0-125			6.06	20
1,1,2,2-Tetrachloroethane	0.00500	0.00476	0.00497	95.2	99.4	65.0-130			4.32	20
1,1,2-Trichlorotrifluoroethane	0.00500	0.00549	0.00533	110	107	69.0-132			2.96	20
Tetrachloroethene	0.00500	0.00502	0.00477	100	95.4	72.0-132			5.11	20
Toluene	0.00500	0.00520	0.00501	104	100	79.0-120			3.72	20
1,2,4-Trichlorobenzene	0.00500	0.00352	0.00353	70.4	70.6	57.0-137			0.284	20
1,1,1-Trichloroethane	0.00500	0.00479	0.00476	95.8	95.2	73.0-124			0.628	20
1,1,2-Trichloroethane	0.00500	0.00491	0.00497	98.2	99.4	80.0-120			1.21	20
Trichloroethene	0.00500	0.00514	0.00516	103	103	78.0-124			0.388	20
Trichlorofluoromethane	0.00500	0.00394	0.00415	78.8	83.0	59.0-147			5.19	20
1,2,3-Trichloropropane	0.00500	0.00533	0.00547	107	109	73.0-130			2.59	20
1,2,4-Trimethylbenzene	0.00500	0.00489	0.00510	97.8	102	76.0-121			4.20	20
1,3,5-Trimethylbenzene	0.00500	0.00510	0.00515	102	103	76.0-122			0.976	20
Vinyl acetate	0.0250	0.0146	0.0133	58.4	53.2	11.0-160			9.32	20
Vinyl chloride	0.00500	0.00500	0.00484	100	96.8	67.0-131			3.25	20
Xylenes, Total	0.0150	0.0145	0.0142	96.7	94.7	79.0-123			2.09	20
Di-isopropyl ether	0.00500	0.00451	0.00451	90.2	90.2	58.0-138			0.000	20
ethanol	0.250	0.135	0.282	54.0	113	10.0-160		R7	70.5	30
Ethyl tert-butyl ether	0.00500	0.00462	0.00455	92.4	91.0	63.0-138			1.53	20
Methyl tert-butyl ether	0.00500	0.00477	0.00475	95.4	95.0	68.0-125			0.420	20
tert-Butyl alcohol	0.0250	0.0154	0.0163	61.6	65.2	27.0-160			5.68	30
tert-Amyl Methyl Ether	0.00500	0.00457	0.00446	91.4	89.2	66.0-125			2.44	20
(S) Toluene-d8				*109*	*108*	*80.0-120*				
(S) 4-Bromofluorobenzene				*101*	*97.7*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*88.5*	*87.6*	*70.0-130*				

L1481121-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1481121-01 04/13/22 03:23 • (MS) R3780710-4 04/13/22 10:22 • (MSD) R3780710-5 04/13/22 10:46

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 %
Acetone	0.0250	ND	ND	ND	57.2	68.0	1	10.0-160			17.3	35
Acrylonitrile	0.0250	ND	0.0185	0.0212	74.0	84.8	1	21.0-160			13.6	32
Benzene	0.00500	ND	0.00460	0.00483	92.0	96.6	1	17.0-158			4.88	27
Bromobenzene	0.00500	ND	0.00529	0.00544	106	109	1	30.0-149			2.80	28
Bromochloromethane	0.00500	ND	0.00446	0.00491	89.2	98.2	1	38.0-142			9.61	26
Bromodichloromethane	0.00500	ND	0.00416	0.00436	83.2	87.2	1	31.0-150			4.69	27
Bromoform	0.00500	ND	0.00338	0.00333	67.6	66.6	1	29.0-150			1.49	29
Bromomethane	0.00500	ND	ND	ND	62.2	50.4	1	10.0-160			21.0	38

L1481121-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1481121-01 04/13/22 03:23 • (MS) R3780710-4 04/13/22 10:22 • (MSD) R3780710-5 04/13/22 10:46

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 %
n-Butylbenzene	0.00500	ND	0.00398	0.00417	79.6	83.4	1	31.0-150			4.66	30
sec-Butylbenzene	0.00500	ND	0.00515	0.00520	103	104	1	33.0-155			0.966	29
tert-Butylbenzene	0.00500	ND	0.00525	0.00541	105	108	1	34.0-153			3.00	28
Carbon tetrachloride	0.00500	ND	0.00473	0.00490	94.6	98.0	1	23.0-159			3.53	28
Carbon disulfide	0.00500	ND	0.00326	0.00361	65.2	72.2	1	10.0-156			10.2	28
Chlorobenzene	0.00500	ND	0.00490	0.00501	98.0	100	1	33.0-152			2.22	27
Chlorodibromomethane	0.00500	ND	0.00418	0.00441	83.6	88.2	1	37.0-149			5.36	27
Chloroethane	0.00500	ND	ND	ND	67.4	90.8	1	10.0-160			29.6	30
Chloroform	0.00500	ND	ND	0.00512	97.4	102	1	29.0-154			5.01	28
Chloromethane	0.00500	ND	0.00479	0.00543	95.8	109	1	10.0-160			12.5	29
1,2-Dibromo-3-Chloropropane	0.00500	ND	ND	ND	62.0	67.6	1	22.0-151			8.64	34
1,2-Dibromoethane	0.00500	ND	0.00458	0.00469	91.6	93.8	1	34.0-147			2.37	27
Dibromomethane	0.00500	ND	0.00418	0.00463	83.6	92.6	1	30.0-151			10.2	27
1,2-Dichlorobenzene	0.00500	ND	0.00445	0.00482	89.0	96.4	1	34.0-149			7.98	28
1,3-Dichlorobenzene	0.00500	ND	0.00471	0.00469	94.2	93.8	1	36.0-146			0.426	27
1,4-Dichlorobenzene	0.00500	ND	0.00461	0.00494	92.2	98.8	1	35.0-142			6.91	27
trans-1,4-Dichloro-2-butene	0.00500	ND	0.00272	0.00250	54.4	50.0	1	10.0-157			8.43	37
Dichlorodifluoromethane	0.00500	ND	ND	ND	88.8	93.6	1	10.0-160			5.26	29
1,1-Dichloroethane	0.00500	ND	0.00457	0.00479	91.4	95.8	1	25.0-158			4.70	27
1,2-Dichloroethane	0.00500	ND	0.00431	0.00475	86.2	95.0	1	29.0-151			9.71	27
1,1-Dichloroethene	0.00500	ND	0.00496	0.00524	99.2	105	1	11.0-160			5.49	29
cis-1,2-Dichloroethene	0.00500	ND	0.00449	0.00491	89.8	98.2	1	10.0-160			8.94	27
trans-1,2-Dichloroethene	0.00500	ND	0.00459	0.00484	91.8	96.8	1	17.0-153			5.30	27
1,2-Dichloropropane	0.00500	ND	0.00480	0.00522	96.0	104	1	30.0-156			8.38	27
cis-1,3-Dichloropropene	0.00500	ND	0.00401	0.00420	80.2	84.0	1	34.0-149			4.63	28
trans-1,3-Dichloropropene	0.00500	ND	0.00409	0.00426	81.8	85.2	1	32.0-149			4.07	28
Ethylbenzene	0.00500	ND	0.00470	0.00480	94.0	96.0	1	30.0-155			2.11	27
Hexachloro-1,3-butadiene	0.00500	ND	0.00288	0.00318	57.6	63.6	1	20.0-154			9.90	34
2-Hexanone	0.0250	ND	0.0240	0.0237	96.0	94.8	1	21.0-160			1.26	29
2-Butanone (MEK)	0.0250	ND	0.0174	0.0184	69.6	73.6	1	10.0-160			5.59	32
Iodomethane	0.0250	ND	0.0188	0.0228	75.2	91.2	1	10.0-160			19.2	40
Methylene Chloride	0.00500	ND	ND	0.00501	91.2	100	1	23.0-144			9.40	28
4-Methyl-2-pentanone (MIBK)	0.0250	ND	0.0224	0.0230	89.6	92.0	1	29.0-160			2.64	29
Naphthalene	0.00500	ND	ND	ND	55.4	58.4	1	12.0-156			5.27	35
n-Propylbenzene	0.00500	ND	0.00539	0.00540	108	108	1	31.0-154			0.185	28
Styrene	0.00500	ND	0.00386	0.00389	77.2	77.8	1	33.0-155			0.774	28
1,1,1,2-Tetrachloroethane	0.00500	ND	0.00460	0.00482	92.0	96.4	1	36.0-151			4.67	29
1,1,2,2-Tetrachloroethane	0.00500	ND	0.00563	0.00589	113	118	1	33.0-150			4.51	28
1,1,2-Trichlorotrifluoroethane	0.00500	ND	0.00552	0.00583	110	117	1	23.0-160			5.46	30
Tetrachloroethene	0.00500	ND	0.00468	0.00465	93.6	93.0	1	10.0-160			0.643	27

L1481121-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1481121-01 04/13/22 03:23 • (MS) R3780710-4 04/13/22 10:22 • (MSD) R3780710-5 04/13/22 10:46

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 %
Toluene	0.00500	ND	0.00492	0.00504	98.4	101	1	26.0-154			2.41	28
1,2,4-Trichlorobenzene	0.00500	ND	0.00263	0.00256	52.6	51.2	1	24.0-150			2.70	33
1,1,1-Trichloroethane	0.00500	ND	0.00472	0.00502	94.4	100	1	23.0-160			6.16	28
1,1,2-Trichloroethane	0.00500	ND	0.00505	0.00503	101	101	1	35.0-147			0.397	27
Trichloroethene	0.00500	ND	0.00441	0.00471	88.2	94.2	1	10.0-160			6.58	25
Trichlorofluoromethane	0.00500	ND	ND	ND	90.6	96.0	1	17.0-160			5.79	31
1,2,3-Trichloropropane	0.00500	ND	0.00572	0.00590	114	118	1	34.0-151			3.10	29
1,2,4-Trimethylbenzene	0.00500	ND	0.00481	0.00499	96.2	99.8	1	26.0-154			3.67	27
1,3,5-Trimethylbenzene	0.00500	ND	0.00501	0.00523	100	105	1	28.0-153			4.30	27
Vinyl acetate	0.0250	ND	0.0220	0.0239	88.0	95.6	1	12.0-160			8.28	31
Vinyl chloride	0.00500	ND	0.00435	0.00477	87.0	95.4	1	10.0-160			9.21	27
Xylenes, Total	0.0150	ND	0.0135	0.0140	90.0	93.3	1	29.0-154			3.64	28
Di-isopropyl ether	0.00500	ND	0.00422	0.00453	84.4	90.6	1	21.0-160			7.09	28
ethanol	0.250	ND	0.165	0.280	66.0	112	1	50.0-150		R5	51.7	20
Ethyl tert-butyl ether	0.00500	ND	0.00432	0.00460	86.4	92.0	1	10.0-160			6.28	37
Methyl tert-butyl ether	0.00500	0.0802	0.0741	0.0892	0.000	180	1	28.0-150	M3	M3	18.5	29
tert-Butyl alcohol	0.0250	ND	0.0161	0.0165	64.4	66.0	1	50.0-150			2.45	20
tert-Amyl Methyl Ether	0.00500	0.00264	0.00642	0.00728	75.6	92.8	1	10.0-160			12.6	37
(S) Toluene-d8					*109*	*108*		*80.0-120*				
(S) 4-Bromofluorobenzene					*96.9*	*95.1*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*84.7*	*87.6*		*70.0-130*				

L1481397-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1481397-04 04/13/22 05:54 • (MS) R3780710-6 04/13/22 11:08 • (MSD) R3780710-7 04/13/22 11:32

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 %
Acetone	0.0250	ND	ND	ND	66.8	79.6	1	10.0-160			17.5	35
Acrylonitrile	0.0250	ND	0.0220	0.0233	88.0	93.2	1	21.0-160			5.74	32
Benzene	0.00500	ND	0.00528	0.00468	106	93.6	1	17.0-158			12.0	27
Bromobenzene	0.00500	ND	0.00590	0.00558	118	112	1	30.0-149			5.57	28
Bromochloromethane	0.00500	ND	0.00498	0.00457	99.6	91.4	1	38.0-142			8.59	26
Bromodichloromethane	0.00500	ND	0.00464	0.00430	92.8	86.0	1	31.0-150			7.61	27
Bromoform	0.00500	ND	0.00376	0.00376	75.2	75.2	1	29.0-150			0.000	29
Bromomethane	0.00500	ND	0.00532	ND	106	85.0	1	10.0-160			22.4	38
n-Butylbenzene	0.00500	ND	0.00430	0.00430	86.0	86.0	1	31.0-150			0.000	30
sec-Butylbenzene	0.00500	ND	0.00558	0.00526	112	105	1	33.0-155			5.90	29
tert-Butylbenzene	0.00500	ND	0.00598	0.00540	120	108	1	34.0-153			10.2	28
Carbon tetrachloride	0.00500	ND	0.00544	0.00464	109	92.8	1	23.0-159			15.9	28

L1481397-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1481397-04 04/13/22 05:54 • (MS) R3780710-6 04/13/22 11:08 • (MSD) R3780710-7 04/13/22 11:32

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 %
Carbon disulfide	0.00500	ND	0.00390	0.00326	78.0	65.2	1	10.0-156			17.9	28
Chlorobenzene	0.00500	ND	0.00543	0.00482	109	96.4	1	33.0-152			11.9	27
Chlorodibromomethane	0.00500	ND	0.00472	0.00453	94.4	90.6	1	37.0-149			4.11	27
Chloroethane	0.00500	ND	0.00588	ND	118	95.2	1	10.0-160			21.1	30
Chloroform	0.00500	ND	0.00728	0.00661	112	98.4	1	29.0-154			9.65	28
Chloromethane	0.00500	ND	0.00441	0.00363	88.2	72.6	1	10.0-160			19.4	29
1,2-Dibromo-3-Chloropropane	0.00500	ND	ND	ND	75.2	76.6	1	22.0-151			1.84	34
1,2-Dibromoethane	0.00500	ND	0.00517	0.00492	103	98.4	1	34.0-147			4.96	27
Dibromomethane	0.00500	ND	0.00502	0.00486	100	97.2	1	30.0-151			3.24	27
1,2-Dichlorobenzene	0.00500	ND	0.00524	0.00475	105	95.0	1	34.0-149			9.81	28
1,3-Dichlorobenzene	0.00500	ND	0.00529	0.00486	106	97.2	1	36.0-146			8.47	27
1,4-Dichlorobenzene	0.00500	ND	0.00534	0.00505	107	101	1	35.0-142			5.58	27
trans-1,4-Dichloro-2-butene	0.00500	ND	0.00336	0.00373	67.2	74.6	1	10.0-157			10.4	37
Dichlorodifluoromethane	0.00500	ND	ND	ND	86.8	86.2	1	10.0-160			0.694	29
1,1-Dichloroethane	0.00500	ND	0.00520	0.00460	104	92.0	1	25.0-158			12.2	27
1,2-Dichloroethane	0.00500	ND	0.00492	0.00466	98.4	93.2	1	29.0-151			5.43	27
1,1-Dichloroethene	0.00500	ND	0.00556	0.00489	111	97.8	1	11.0-160			12.8	29
cis-1,2-Dichloroethene	0.00500	ND	0.00510	0.00470	102	94.0	1	10.0-160			8.16	27
trans-1,2-Dichloroethene	0.00500	ND	0.00510	0.00464	102	92.8	1	17.0-153			9.45	27
1,2-Dichloropropane	0.00500	ND	0.00550	0.00505	110	101	1	30.0-156			8.53	27
cis-1,3-Dichloropropene	0.00500	ND	0.00458	0.00419	91.6	83.8	1	34.0-149			8.89	28
trans-1,3-Dichloropropene	0.00500	ND	0.00469	0.00446	93.8	89.2	1	32.0-149			5.03	28
Ethylbenzene	0.00500	ND	0.00517	0.00469	103	93.8	1	30.0-155			9.74	27
Hexachloro-1,3-butadiene	0.00500	ND	0.00333	0.00292	66.6	58.4	1	20.0-154			13.1	34
2-Hexanone	0.0250	ND	0.0255	0.0257	102	103	1	21.0-160			0.781	29
2-Butanone (MEK)	0.0250	ND	0.0206	0.0225	82.4	90.0	1	10.0-160			8.82	32
Iodomethane	0.0250	ND	0.0247	0.0207	98.8	82.8	1	10.0-160			17.6	40
Methylene Chloride	0.00500	ND	0.00531	ND	106	93.2	1	23.0-144			13.0	28
4-Methyl-2-pentanone (MIBK)	0.0250	ND	0.0240	0.0251	96.0	100	1	29.0-160			4.48	29
Naphthalene	0.00500	ND	ND	ND	72.4	58.6	1	12.0-156			21.1	35
n-Propylbenzene	0.00500	ND	0.00578	0.00552	116	110	1	31.0-154			4.60	28
Styrene	0.00500	ND	ND	ND	16.1	0.000	1	33.0-155	M2	M2 R5	200	28
1,1,1,2-Tetrachloroethane	0.00500	ND	0.00509	0.00479	102	95.8	1	36.0-151			6.07	29
1,1,2,2-Tetrachloroethane	0.00500	ND	0.00634	0.00637	127	127	1	33.0-150			0.472	28
1,1,2-Trichlorotrifluoroethane	0.00500	ND	0.00525	0.00547	105	109	1	23.0-160			4.10	30
Tetrachloroethene	0.00500	0.00215	0.00710	0.00683	99.0	93.6	1	10.0-160			3.88	27
Toluene	0.00500	ND	0.00544	0.00486	109	97.2	1	26.0-154			11.3	28
1,2,4-Trichlorobenzene	0.00500	ND	0.00339	0.00268	67.8	53.6	1	24.0-150			23.4	33
1,1,1-Trichloroethane	0.00500	ND	0.00560	0.00483	112	96.6	1	23.0-160			14.8	28
1,1,2-Trichloroethane	0.00500	ND	0.00557	0.00535	111	107	1	35.0-147			4.03	27

L1481397-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1481397-04 04/13/22 05:54 • (MS) R3780710-6 04/13/22 11:08 • (MSD) R3780710-7 04/13/22 11:32

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 %
Trichloroethene	0.00500	ND	0.00499	0.00450	99.8	90.0	1	10.0-160			10.3	25
Trichlorofluoromethane	0.00500	ND	0.00593	0.00533	119	107	1	17.0-160			10.7	31
1,2,3-Trichloropropane	0.00500	ND	0.00613	0.00622	123	124	1	34.0-151			1.46	29
1,2,4-Trimethylbenzene	0.00500	ND	0.00534	0.00486	107	97.2	1	26.0-154			9.41	27
1,3,5-Trimethylbenzene	0.00500	ND	0.00565	0.00519	113	104	1	28.0-153			8.49	27
Vinyl acetate	0.0250	ND	ND	ND	30.9	14.5	1	12.0-160		R5	72.4	31
Vinyl chloride	0.00500	ND	0.00479	0.00400	95.8	80.0	1	10.0-160			18.0	27
Xylenes, Total	0.0150	ND	0.0153	0.0137	102	91.3	1	29.0-154			11.0	28
Di-isopropyl ether	0.00500	ND	0.00493	0.00449	98.6	89.8	1	21.0-160			9.34	28
ethanol	0.250	ND	0.226	0.269	90.4	108	1	50.0-150			17.4	20
Ethyl tert-butyl ether	0.00500	ND	0.00490	0.00466	98.0	93.2	1	10.0-160			5.02	37
Methyl tert-butyl ether	0.00500	ND	0.00521	0.00494	104	98.8	1	28.0-150			5.32	29
tert-Butyl alcohol	0.0250	ND	0.0194	0.0225	77.6	90.0	1	50.0-150			14.8	20
tert-Amyl Methyl Ether	0.00500	ND	0.00476	0.00460	95.2	92.0	1	10.0-160			3.42	37
(S) Toluene-d8					*110*	*110*		*80.0-120*				
(S) 4-Bromofluorobenzene					*97.5*	*97.9*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*86.6*	*87.4*		*70.0-130*				

INTERNAL STANDARD SUMMARY

Instrument: VOCMS33 • File ID: 0412_28

04/12/22 22:19

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0412_28	233945	102301	93836
Upper Limit		467890	204602	187672
Lower Limit		116973	51151	46918
LCS R3780710-1 WG1847496 1x	0412_28LCS	233945	102301	93836
LCSD R3780710-2 WG1847496 1x	0412_29	234712	103913	90167
BLANK R3780710-3 WG1847496 1x	0412_33	239549	100727	87272
L1481121-04 WG1847496 1x	0412_34	220550	94192	83638
L1481121-01 WG1847496 1x	0412_40	225854	93280	75121
L1481121-02 WG1847496 1x	0412_41	221398	97256	87511
L1481121-03 WG1847496 1x	0412_42	234750	100173	91396
MS R3780710-4 WG1847496 1x	0412_57	214494	90603	75335
MSD R3780710-5 WG1847496 1x	0412_58	207178	89670	74191
MS R3780710-6 WG1847496 1x	0412_59	202764	86772	74288
MSD R3780710-7 WG1847496 1x	0412_60	206652	87949	72339

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

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	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
M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike recovery was acceptable.
R5	MS/MSD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.
R7	LFB/LFBD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.

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	LAO000356
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:
Kinder Morgan - Rocklin, CA-AZ Work

410 N.44th Street
Suite 1000
Phoenix. AZ 85008

Billing Information:
Accounts Payable- Alan Van Antwerp
9950 SAN DIEGO MISSION RD.
SAN DIEGO, CA 92108

Pres Chk

Report to:
Bob Forsberg

Email To: bob.forsberg@arcadis-us.com;sascha.arnold@arcadis.com

Project Description:
KMEP Silvercroft Wash

City/State Collected: Tucson, AZ

Please Circle: PT (MT) CT ET

Phone: 602-438-0883

Client Project #
30113573.01

Lab Project #
KINARCPAZ-SILVERCROF

Collected by (print):
SXA MKT

Site/Facility ID #
SILVERCROFT WASH

P.O. #
WD876456

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed: STD TURN

Quote #

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	*NO2,NO3,SO4 125mlHDPE-NoPres	EEM RSK175 40mlAmb HCl	HOLD - NO2+NO3 250mlHDPE-H2SO4	TDS 1L-HDPE NoPres	Total Fe 6010 250mlHDPE-HNO3	VOCs+OXYs 8260 40mlAmb-HCl				Remarks	Sample # (lab only)
MW-2D	G	GW	235	4/11/22	1137	18	X	X	X	X	X	X				RPD MS/MSD	-9
MW-1D		GW	235		1302	9	X	X	X	X	X	X					-10
MW-29D		GW	235		1428	9	X	X	X	X	X	X					-11
~~MW-29M~~		GW	199		—	9	X	X	X	X	X	X					
		GW															
		GW															
		GW															
		GW															
		GW															
Trip Blank	—	~~GW~~	—	4/11/22	—(1)	1						X					-12

(HH) (HH)

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: *NO2,NO3 have a 48 hour holding time.

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

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

	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Log-in: Date/Time
Relinquished by: (Signature) M. Terri	4/11/22	1550	Ship & Mail Express (FedEx)		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.3+0.2=1.5 °C Bottles Received: 16	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 4/12/22 Time: 0930	Hold: Condition: NCF / OK

Chain of Custody Page 1 of 1

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # U481121
E086

Acctnum: KINARCPAZ
Template: T190237
Prelogin: P914772
PM: 110 - Brian Ford
PB:
Shipped Via:

ANALYTICAL REPORT

April 26, 2022

Kinder Morgan - Rocklin, CA-AZ Work

Sample Delivery Group:	L1481743
Samples Received:	04/13/2022
Project Number:	30113573.01
Description:	KMEP Silvercroft Wash
Site:	SILVERCROFT WASH
Report To:	Bob Forsberg 410 N.44th Street Suite 1000 Phoenix, AZ 85008

Entire Report Reviewed By:

Brian Ford

Project Manager

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

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

MW-1M L1481743-01 GW

Collected by: MAT / SXA | Collected date/time: 04/12/22 09:02 | Received date/time: 04/13/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1848788	1	04/14/22 17:00	04/14/22 18:45	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1847816	1	04/13/22 17:07	04/13/22 17:07	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1848901	5	04/15/22 08:18	04/15/22 08:18	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1849880	1	04/19/22 11:29	04/19/22 23:06	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1848755	1	04/20/22 11:07	04/20/22 11:07	DBB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1848912	1	04/15/22 05:02	04/15/22 05:02	JAH	Mt. Juliet, TN

MW-2M L1481743-02 GW

Collected by: MAT / SXA | Collected date/time: 04/12/22 10:23 | Received date/time: 04/13/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1848552	1	04/14/22 11:59	04/14/22 15:38	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1847816	1	04/13/22 18:28	04/13/22 18:28	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1848901	5	04/15/22 09:13	04/15/22 09:13	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1849880	1	04/19/22 11:29	04/19/22 23:50	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1848755	1	04/20/22 11:09	04/20/22 11:09	DBB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1848912	10	04/15/22 05:43	04/15/22 05:43	JAH	Mt. Juliet, TN

MW-29M L1481743-03 GW

Collected by: MAT / SXA | Collected date/time: 04/12/22 11:52 | Received date/time: 04/13/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1848545	1	04/14/22 11:56	04/14/22 17:08	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1847816	1	04/13/22 18:41	04/13/22 18:41	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1848901	5	04/15/22 09:25	04/15/22 09:25	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1849880	1	04/19/22 11:29	04/19/22 23:52	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1848755	1	04/20/22 11:14	04/20/22 11:14	DBB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1848912	1	04/15/22 05:22	04/15/22 05:22	JAH	Mt. Juliet, TN

MW-29S L1481743-04 GW

Collected by: MAT / SXA | Collected date/time: 04/12/22 13:07 | Received date/time: 04/13/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1848545	1	04/14/22 11:56	04/14/22 17:08	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1847915	1	04/13/22 16:48	04/13/22 16:48	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1849897	5	04/17/22 23:08	04/17/22 23:08	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1849881	1	04/19/22 18:20	04/25/22 14:38	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1848755	1	04/20/22 11:17	04/20/22 11:17	DBB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1848912	250	04/15/22 06:03	04/15/22 06:03	JAH	Mt. Juliet, TN

MW-2S L1481743-05 GW

Collected by: MAT / SXA | Collected date/time: 04/12/22 14:18 | Received date/time: 04/13/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1848545	1	04/14/22 11:56	04/14/22 17:08	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1847915	1	04/13/22 17:00	04/13/22 17:00	LBR	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1849897	5	04/17/22 23:20	04/17/22 23:20	LBR	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1849881	1	04/19/22 18:20	04/25/22 14:49	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1848755	1	04/20/22 11:23	04/20/22 11:23	DBB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1848912	1000	04/15/22 06:23	04/15/22 06:23	JAH	Mt. Juliet, TN

EQUIPMENT BLANK-2 L1481743-06 GW

Collected by	Collected date/time	Received date/time
MAT / SXA	04/12/22 08:08	04/13/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1848912	1	04/15/22 01:20	04/15/22 01:20	JAH	Mt. Juliet, TN

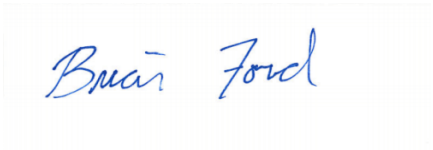
TRIP BLANK L1481743-07 GW

Collected by	Collected date/time	Received date/time
MAT / SXA	04/12/22 00:00	04/13/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1848912	1	04/15/22 00:20	04/15/22 00:20	JAH	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.



Brian Ford
Project Manager

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	613		10.0	1	04/14/2022 18:45	WG1848788

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	2.66		0.100	1	04/13/2022 17:07	WG1847816
Nitrite	ND		0.100	1	04/13/2022 17:07	WG1847816
Sulfate	236		25.0	5	04/15/2022 08:18	WG1848901

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	0.750		0.100	1	04/19/2022 23:06	WG1849880

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	04/20/2022 11:07	WG1848755
Ethane	ND		0.0130	1	04/20/2022 11:07	WG1848755
Ethene	ND		0.0130	1	04/20/2022 11:07	WG1848755

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND	M1	0.0500	1	04/15/2022 05:02	WG1848912
Acrylonitrile	ND		0.0100	1	04/15/2022 05:02	WG1848912
Benzene	ND		0.00100	1	04/15/2022 05:02	WG1848912
Bromobenzene	ND		0.00100	1	04/15/2022 05:02	WG1848912
Bromochloromethane	ND		0.00100	1	04/15/2022 05:02	WG1848912
Bromodichloromethane	ND		0.00100	1	04/15/2022 05:02	WG1848912
Bromoform	ND		0.00100	1	04/15/2022 05:02	WG1848912
Bromomethane	ND		0.00500	1	04/15/2022 05:02	WG1848912
n-Butylbenzene	ND		0.00100	1	04/15/2022 05:02	WG1848912
sec-Butylbenzene	ND		0.00100	1	04/15/2022 05:02	WG1848912
tert-Butylbenzene	ND		0.00100	1	04/15/2022 05:02	WG1848912
Carbon tetrachloride	ND		0.00100	1	04/15/2022 05:02	WG1848912
Carbon disulfide	ND		0.00100	1	04/15/2022 05:02	WG1848912
Chlorobenzene	ND		0.00100	1	04/15/2022 05:02	WG1848912
Chlorodibromomethane	ND		0.00100	1	04/15/2022 05:02	WG1848912
Chloroethane	ND	M1	0.00500	1	04/15/2022 05:02	WG1848912
Chloroform	ND		0.00500	1	04/15/2022 05:02	WG1848912
Chloromethane	ND		0.00250	1	04/15/2022 05:02	WG1848912
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	04/15/2022 05:02	WG1848912
1,2-Dibromoethane	ND		0.00100	1	04/15/2022 05:02	WG1848912
Dibromomethane	ND		0.00100	1	04/15/2022 05:02	WG1848912
1,2-Dichlorobenzene	ND		0.00100	1	04/15/2022 05:02	WG1848912
1,3-Dichlorobenzene	ND		0.00100	1	04/15/2022 05:02	WG1848912
1,4-Dichlorobenzene	ND		0.00100	1	04/15/2022 05:02	WG1848912
trans-1,4-Dichloro-2-butene	ND		0.00250	1	04/15/2022 05:02	WG1848912
Dichlorodifluoromethane	ND		0.00500	1	04/15/2022 05:02	WG1848912
1,1-Dichloroethane	ND		0.00100	1	04/15/2022 05:02	WG1848912
1,2-Dichloroethane	ND	M1	0.00100	1	04/15/2022 05:02	WG1848912
1,1-Dichloroethene	ND		0.00100	1	04/15/2022 05:02	WG1848912
cis-1,2-Dichloroethene	ND		0.00100	1	04/15/2022 05:02	WG1848912

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.00100	1	04/15/2022 05:02	WG1848912
1,2-Dichloropropane	ND		0.00100	1	04/15/2022 05:02	WG1848912
cis-1,3-Dichloropropene	ND		0.00100	1	04/15/2022 05:02	WG1848912
trans-1,3-Dichloropropene	ND		0.00100	1	04/15/2022 05:02	WG1848912
Ethylbenzene	ND		0.00100	1	04/15/2022 05:02	WG1848912
Hexachloro-1,3-butadiene	ND		0.00100	1	04/15/2022 05:02	WG1848912
2-Hexanone	ND		0.0100	1	04/15/2022 05:02	WG1848912
2-Butanone (MEK)	ND		0.0100	1	04/15/2022 05:02	WG1848912
Iodomethane	ND		0.0100	1	04/15/2022 05:02	WG1848912
Methylene Chloride	ND	M1	0.00500	1	04/15/2022 05:02	WG1848912
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	04/15/2022 05:02	WG1848912
Naphthalene	ND		0.00500	1	04/15/2022 05:02	WG1848912
n-Propylbenzene	ND		0.00100	1	04/15/2022 05:02	WG1848912
Styrene	ND		0.00100	1	04/15/2022 05:02	WG1848912
1,1,1,2-Tetrachloroethane	ND		0.00100	1	04/15/2022 05:02	WG1848912
1,1,2,2-Tetrachloroethane	ND		0.00100	1	04/15/2022 05:02	WG1848912
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	04/15/2022 05:02	WG1848912
Tetrachloroethene	ND		0.00100	1	04/15/2022 05:02	WG1848912
Toluene	ND		0.00100	1	04/15/2022 05:02	WG1848912
1,2,4-Trichlorobenzene	ND		0.00100	1	04/15/2022 05:02	WG1848912
1,1,1-Trichloroethane	ND		0.00100	1	04/15/2022 05:02	WG1848912
1,1,2-Trichloroethane	ND		0.00100	1	04/15/2022 05:02	WG1848912
Trichloroethene	ND		0.00100	1	04/15/2022 05:02	WG1848912
Trichlorofluoromethane	ND		0.00500	1	04/15/2022 05:02	WG1848912
1,2,3-Trichloropropane	ND		0.00250	1	04/15/2022 05:02	WG1848912
1,2,4-Trimethylbenzene	ND		0.00100	1	04/15/2022 05:02	WG1848912
1,3,5-Trimethylbenzene	ND		0.00100	1	04/15/2022 05:02	WG1848912
Vinyl acetate	ND	M1	0.0100	1	04/15/2022 05:02	WG1848912
Vinyl chloride	ND		0.00100	1	04/15/2022 05:02	WG1848912
Xylenes, Total	ND		0.00300	1	04/15/2022 05:02	WG1848912
Di-isopropyl ether	ND		0.00100	1	04/15/2022 05:02	WG1848912
Ethanol	ND		0.100	1	04/15/2022 05:02	WG1848912
Ethyl tert-butyl ether	ND		0.00100	1	04/15/2022 05:02	WG1848912
Methyl tert-butyl ether	0.00103		0.00100	1	04/15/2022 05:02	WG1848912
tert-Butyl alcohol	ND		0.00500	1	04/15/2022 05:02	WG1848912
tert-Amyl Methyl Ether	ND		0.00100	1	04/15/2022 05:02	WG1848912
(S) Toluene-d8	*105*		*80.0-120*		*04/15/2022 05:02*	WG1848912
(S) 4-Bromofluorobenzene	*102*		*77.0-126*		*04/15/2022 05:02*	WG1848912
(S) 1,2-Dichloroethane-d4	*103*		*70.0-130*		*04/15/2022 05:02*	WG1848912

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	640		10.0	1	04/14/2022 15:38	WG1848552

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Nitrate	2.47		0.100	1	04/13/2022 18:28	WG1847816
Nitrite	ND		0.100	1	04/13/2022 18:28	WG1847816
Sulfate	227		25.0	5	04/15/2022 09:13	WG1848901

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Iron	ND		0.100	1	04/19/2022 23:50	WG1849880

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Methane	ND		0.0100	1	04/20/2022 11:09	WG1848755
Ethane	ND		0.0130	1	04/20/2022 11:09	WG1848755
Ethene	ND		0.0130	1	04/20/2022 11:09	WG1848755

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Acetone	ND		0.500	10	04/15/2022 05:43	WG1848912
Acrylonitrile	ND		0.100	10	04/15/2022 05:43	WG1848912
Benzene	ND		0.0100	10	04/15/2022 05:43	WG1848912
Bromobenzene	ND		0.0100	10	04/15/2022 05:43	WG1848912
Bromochloromethane	ND		0.0100	10	04/15/2022 05:43	WG1848912
Bromodichloromethane	ND		0.0100	10	04/15/2022 05:43	WG1848912
Bromoform	ND		0.0100	10	04/15/2022 05:43	WG1848912
Bromomethane	ND		0.0500	10	04/15/2022 05:43	WG1848912
n-Butylbenzene	ND		0.0100	10	04/15/2022 05:43	WG1848912
sec-Butylbenzene	ND		0.0100	10	04/15/2022 05:43	WG1848912
tert-Butylbenzene	ND		0.0100	10	04/15/2022 05:43	WG1848912
Carbon tetrachloride	ND		0.0100	10	04/15/2022 05:43	WG1848912
Carbon disulfide	ND		0.0100	10	04/15/2022 05:43	WG1848912
Chlorobenzene	ND		0.0100	10	04/15/2022 05:43	WG1848912
Chlorodibromomethane	ND		0.0100	10	04/15/2022 05:43	WG1848912
Chloroethane	ND		0.0500	10	04/15/2022 05:43	WG1848912
Chloroform	ND		0.0500	10	04/15/2022 05:43	WG1848912
Chloromethane	ND		0.0250	10	04/15/2022 05:43	WG1848912
1,2-Dibromo-3-Chloropropane	ND		0.0500	10	04/15/2022 05:43	WG1848912
1,2-Dibromoethane	ND		0.0100	10	04/15/2022 05:43	WG1848912
Dibromomethane	ND		0.0100	10	04/15/2022 05:43	WG1848912
1,2-Dichlorobenzene	ND		0.0100	10	04/15/2022 05:43	WG1848912
1,3-Dichlorobenzene	ND		0.0100	10	04/15/2022 05:43	WG1848912
1,4-Dichlorobenzene	ND		0.0100	10	04/15/2022 05:43	WG1848912
trans-1,4-Dichloro-2-butene	ND	R7	0.0250	10	04/15/2022 05:43	WG1848912
Dichlorodifluoromethane	ND		0.0500	10	04/15/2022 05:43	WG1848912
1,1-Dichloroethane	ND		0.0100	10	04/15/2022 05:43	WG1848912
1,2-Dichloroethane	ND		0.0100	10	04/15/2022 05:43	WG1848912
1,1-Dichloroethene	ND		0.0100	10	04/15/2022 05:43	WG1848912
cis-1,2-Dichloroethene	ND		0.0100	10	04/15/2022 05:43	WG1848912

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

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.0100	10	04/15/2022 05:43	WG1848912
1,2-Dichloropropane	ND		0.0100	10	04/15/2022 05:43	WG1848912
cis-1,3-Dichloropropene	ND		0.0100	10	04/15/2022 05:43	WG1848912
trans-1,3-Dichloropropene	ND		0.0100	10	04/15/2022 05:43	WG1848912
Ethylbenzene	ND		0.0100	10	04/15/2022 05:43	WG1848912
Hexachloro-1,3-butadiene	ND		0.0100	10	04/15/2022 05:43	WG1848912
2-Hexanone	ND		0.100	10	04/15/2022 05:43	WG1848912
2-Butanone (MEK)	ND		0.100	10	04/15/2022 05:43	WG1848912
Iodomethane	ND		0.100	10	04/15/2022 05:43	WG1848912
Methylene Chloride	ND		0.0500	10	04/15/2022 05:43	WG1848912
4-Methyl-2-pentanone (MIBK)	ND		0.100	10	04/15/2022 05:43	WG1848912
Naphthalene	ND		0.0500	10	04/15/2022 05:43	WG1848912
n-Propylbenzene	ND		0.0100	10	04/15/2022 05:43	WG1848912
Styrene	ND		0.0100	10	04/15/2022 05:43	WG1848912
1,1,1,2-Tetrachloroethane	ND		0.0100	10	04/15/2022 05:43	WG1848912
1,1,2,2-Tetrachloroethane	ND		0.0100	10	04/15/2022 05:43	WG1848912
1,1,2-Trichlorotrifluoroethane	ND		0.0100	10	04/15/2022 05:43	WG1848912
Tetrachloroethene	ND		0.0100	10	04/15/2022 05:43	WG1848912
Toluene	ND		0.0100	10	04/15/2022 05:43	WG1848912
1,2,4-Trichlorobenzene	ND		0.0100	10	04/15/2022 05:43	WG1848912
1,1,1-Trichloroethane	ND		0.0100	10	04/15/2022 05:43	WG1848912
1,1,2-Trichloroethane	ND		0.0100	10	04/15/2022 05:43	WG1848912
Trichloroethene	ND		0.0100	10	04/15/2022 05:43	WG1848912
Trichlorofluoromethane	ND		0.0500	10	04/15/2022 05:43	WG1848912
1,2,3-Trichloropropane	ND		0.0250	10	04/15/2022 05:43	WG1848912
1,2,4-Trimethylbenzene	ND		0.0100	10	04/15/2022 05:43	WG1848912
1,3,5-Trimethylbenzene	ND		0.0100	10	04/15/2022 05:43	WG1848912
Vinyl acetate	ND		0.100	10	04/15/2022 05:43	WG1848912
Vinyl chloride	ND		0.0100	10	04/15/2022 05:43	WG1848912
Xylenes, Total	ND		0.0300	10	04/15/2022 05:43	WG1848912
Di-isopropyl ether	ND		0.0100	10	04/15/2022 05:43	WG1848912
Ethanol	ND		1.00	10	04/15/2022 05:43	WG1848912
Ethyl tert-butyl ether	ND		0.0100	10	04/15/2022 05:43	WG1848912
Methyl tert-butyl ether	0.825		0.0100	10	04/15/2022 05:43	WG1848912
tert-Butyl alcohol	ND		0.0500	10	04/15/2022 05:43	WG1848912
tert-Amyl Methyl Ether	0.158		0.0100	10	04/15/2022 05:43	WG1848912
(S) Toluene-d8	*107*		*80.0-120*		*04/15/2022 05:43*	WG1848912
(S) 4-Bromofluorobenzene	*98.9*		*77.0-126*		*04/15/2022 05:43*	WG1848912
(S) 1,2-Dichloroethane-d4	*102*		*70.0-130*		*04/15/2022 05:43*	WG1848912

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	691		13.3	1	04/14/2022 17:08	WG1848545

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	2.45		0.100	1	04/13/2022 18:41	WG1847816
Nitrite	ND		0.100	1	04/13/2022 18:41	WG1847816
Sulfate	242		25.0	5	04/15/2022 09:25	WG1848901

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	0.104	B1	0.100	1	04/19/2022 23:52	WG1849880

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	04/20/2022 11:14	WG1848755
Ethane	ND		0.0130	1	04/20/2022 11:14	WG1848755
Ethene	ND		0.0130	1	04/20/2022 11:14	WG1848755

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	04/15/2022 05:22	WG1848912
Acrylonitrile	ND		0.0100	1	04/15/2022 05:22	WG1848912
Benzene	ND		0.00100	1	04/15/2022 05:22	WG1848912
Bromobenzene	ND		0.00100	1	04/15/2022 05:22	WG1848912
Bromochloromethane	ND		0.00100	1	04/15/2022 05:22	WG1848912
Bromodichloromethane	ND		0.00100	1	04/15/2022 05:22	WG1848912
Bromoform	ND		0.00100	1	04/15/2022 05:22	WG1848912
Bromomethane	ND		0.00500	1	04/15/2022 05:22	WG1848912
n-Butylbenzene	ND		0.00100	1	04/15/2022 05:22	WG1848912
sec-Butylbenzene	ND		0.00100	1	04/15/2022 05:22	WG1848912
tert-Butylbenzene	ND		0.00100	1	04/15/2022 05:22	WG1848912
Carbon tetrachloride	ND		0.00100	1	04/15/2022 05:22	WG1848912
Carbon disulfide	ND		0.00100	1	04/15/2022 05:22	WG1848912
Chlorobenzene	ND		0.00100	1	04/15/2022 05:22	WG1848912
Chlorodibromomethane	ND		0.00100	1	04/15/2022 05:22	WG1848912
Chloroethane	ND		0.00500	1	04/15/2022 05:22	WG1848912
Chloroform	ND		0.00500	1	04/15/2022 05:22	WG1848912
Chloromethane	ND		0.00250	1	04/15/2022 05:22	WG1848912
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	04/15/2022 05:22	WG1848912
1,2-Dibromoethane	ND		0.00100	1	04/15/2022 05:22	WG1848912
Dibromomethane	ND		0.00100	1	04/15/2022 05:22	WG1848912
1,2-Dichlorobenzene	ND		0.00100	1	04/15/2022 05:22	WG1848912
1,3-Dichlorobenzene	ND		0.00100	1	04/15/2022 05:22	WG1848912
1,4-Dichlorobenzene	ND		0.00100	1	04/15/2022 05:22	WG1848912
trans-1,4-Dichloro-2-butene	ND	R7	0.00250	1	04/15/2022 05:22	WG1848912
Dichlorodifluoromethane	ND		0.00500	1	04/15/2022 05:22	WG1848912
1,1-Dichloroethane	ND		0.00100	1	04/15/2022 05:22	WG1848912
1,2-Dichloroethane	ND		0.00100	1	04/15/2022 05:22	WG1848912
1,1-Dichloroethene	ND		0.00100	1	04/15/2022 05:22	WG1848912
cis-1,2-Dichloroethene	ND		0.00100	1	04/15/2022 05:22	WG1848912

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.00100	1	04/15/2022 05:22	WG1848912
1,2-Dichloropropane	ND		0.00100	1	04/15/2022 05:22	WG1848912
cis-1,3-Dichloropropene	ND		0.00100	1	04/15/2022 05:22	WG1848912
trans-1,3-Dichloropropene	ND		0.00100	1	04/15/2022 05:22	WG1848912
Ethylbenzene	ND		0.00100	1	04/15/2022 05:22	WG1848912
Hexachloro-1,3-butadiene	ND		0.00100	1	04/15/2022 05:22	WG1848912
2-Hexanone	ND		0.0100	1	04/15/2022 05:22	WG1848912
2-Butanone (MEK)	ND		0.0100	1	04/15/2022 05:22	WG1848912
Iodomethane	ND		0.0100	1	04/15/2022 05:22	WG1848912
Methylene Chloride	ND		0.00500	1	04/15/2022 05:22	WG1848912
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	04/15/2022 05:22	WG1848912
Naphthalene	ND		0.00500	1	04/15/2022 05:22	WG1848912
n-Propylbenzene	ND		0.00100	1	04/15/2022 05:22	WG1848912
Styrene	ND		0.00100	1	04/15/2022 05:22	WG1848912
1,1,1,2-Tetrachloroethane	ND		0.00100	1	04/15/2022 05:22	WG1848912
1,1,2,2-Tetrachloroethane	ND		0.00100	1	04/15/2022 05:22	WG1848912
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	04/15/2022 05:22	WG1848912
Tetrachloroethene	ND		0.00100	1	04/15/2022 05:22	WG1848912
Toluene	ND		0.00100	1	04/15/2022 05:22	WG1848912
1,2,4-Trichlorobenzene	ND		0.00100	1	04/15/2022 05:22	WG1848912
1,1,1-Trichloroethane	ND		0.00100	1	04/15/2022 05:22	WG1848912
1,1,2-Trichloroethane	ND		0.00100	1	04/15/2022 05:22	WG1848912
Trichloroethene	ND		0.00100	1	04/15/2022 05:22	WG1848912
Trichlorofluoromethane	ND		0.00500	1	04/15/2022 05:22	WG1848912
1,2,3-Trichloropropane	ND		0.00250	1	04/15/2022 05:22	WG1848912
1,2,4-Trimethylbenzene	ND		0.00100	1	04/15/2022 05:22	WG1848912
1,3,5-Trimethylbenzene	ND		0.00100	1	04/15/2022 05:22	WG1848912
Vinyl acetate	ND		0.0100	1	04/15/2022 05:22	WG1848912
Vinyl chloride	ND		0.00100	1	04/15/2022 05:22	WG1848912
Xylenes, Total	ND		0.00300	1	04/15/2022 05:22	WG1848912
Di-isopropyl ether	ND		0.00100	1	04/15/2022 05:22	WG1848912
Ethanol	ND		0.100	1	04/15/2022 05:22	WG1848912
Ethyl tert-butyl ether	ND		0.00100	1	04/15/2022 05:22	WG1848912
Methyl tert-butyl ether	0.128		0.00100	1	04/15/2022 05:22	WG1848912
tert-Butyl alcohol	ND		0.00500	1	04/15/2022 05:22	WG1848912
tert-Amyl Methyl Ether	0.0185		0.00100	1	04/15/2022 05:22	WG1848912
(S) Toluene-d8	*107*		*80.0-120*		*04/15/2022 05:22*	WG1848912
(S) 4-Bromofluorobenzene	*98.7*		*77.0-126*		*04/15/2022 05:22*	WG1848912
(S) 1,2-Dichloroethane-d4	*95.5*		*70.0-130*		*04/15/2022 05:22*	WG1848912

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	788		13.3	1	04/14/2022 17:08	WG1848545

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Nitrate	0.200		0.100	1	04/13/2022 16:48	WG1847915
Nitrite	ND		0.100	1	04/13/2022 16:48	WG1847915
Sulfate	358		25.0	5	04/17/2022 23:08	WG1849897

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Iron	ND		0.100	1	04/25/2022 14:38	WG1849881

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Methane	ND		0.0100	1	04/20/2022 11:17	WG1848755
Ethane	ND		0.0130	1	04/20/2022 11:17	WG1848755
Ethene	ND		0.0130	1	04/20/2022 11:17	WG1848755

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Acetone	ND		12.5	250	04/15/2022 06:03	WG1848912
Acrylonitrile	ND		2.50	250	04/15/2022 06:03	WG1848912
Benzene	ND		0.250	250	04/15/2022 06:03	WG1848912
Bromobenzene	ND		0.250	250	04/15/2022 06:03	WG1848912
Bromochloromethane	ND		0.250	250	04/15/2022 06:03	WG1848912
Bromodichloromethane	ND		0.250	250	04/15/2022 06:03	WG1848912
Bromoform	ND		0.250	250	04/15/2022 06:03	WG1848912
Bromomethane	ND		1.25	250	04/15/2022 06:03	WG1848912
n-Butylbenzene	ND		0.250	250	04/15/2022 06:03	WG1848912
sec-Butylbenzene	ND		0.250	250	04/15/2022 06:03	WG1848912
tert-Butylbenzene	ND		0.250	250	04/15/2022 06:03	WG1848912
Carbon tetrachloride	ND		0.250	250	04/15/2022 06:03	WG1848912
Carbon disulfide	ND		0.250	250	04/15/2022 06:03	WG1848912
Chlorobenzene	ND		0.250	250	04/15/2022 06:03	WG1848912
Chlorodibromomethane	ND		0.250	250	04/15/2022 06:03	WG1848912
Chloroethane	ND		1.25	250	04/15/2022 06:03	WG1848912
Chloroform	ND		1.25	250	04/15/2022 06:03	WG1848912
Chloromethane	ND		0.625	250	04/15/2022 06:03	WG1848912
1,2-Dibromo-3-Chloropropane	ND		1.25	250	04/15/2022 06:03	WG1848912
1,2-Dibromoethane	ND		0.250	250	04/15/2022 06:03	WG1848912
Dibromomethane	ND		0.250	250	04/15/2022 06:03	WG1848912
1,2-Dichlorobenzene	ND		0.250	250	04/15/2022 06:03	WG1848912
1,3-Dichlorobenzene	ND		0.250	250	04/15/2022 06:03	WG1848912
1,4-Dichlorobenzene	ND		0.250	250	04/15/2022 06:03	WG1848912
trans-1,4-Dichloro-2-butene	ND	R7	0.625	250	04/15/2022 06:03	WG1848912
Dichlorodifluoromethane	ND		1.25	250	04/15/2022 06:03	WG1848912
1,1-Dichloroethane	ND		0.250	250	04/15/2022 06:03	WG1848912
1,2-Dichloroethane	ND		0.250	250	04/15/2022 06:03	WG1848912
1,1-Dichloroethene	ND		0.250	250	04/15/2022 06:03	WG1848912
cis-1,2-Dichloroethene	ND		0.250	250	04/15/2022 06:03	WG1848912

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.250	250	04/15/2022 06:03	WG1848912
1,2-Dichloropropane	ND		0.250	250	04/15/2022 06:03	WG1848912
cis-1,3-Dichloropropene	ND		0.250	250	04/15/2022 06:03	WG1848912
trans-1,3-Dichloropropene	ND		0.250	250	04/15/2022 06:03	WG1848912
Ethylbenzene	ND		0.250	250	04/15/2022 06:03	WG1848912
Hexachloro-1,3-butadiene	ND		0.250	250	04/15/2022 06:03	WG1848912
2-Hexanone	ND		2.50	250	04/15/2022 06:03	WG1848912
2-Butanone (MEK)	ND		2.50	250	04/15/2022 06:03	WG1848912
Iodomethane	ND		2.50	250	04/15/2022 06:03	WG1848912
Methylene Chloride	ND		1.25	250	04/15/2022 06:03	WG1848912
4-Methyl-2-pentanone (MIBK)	ND		2.50	250	04/15/2022 06:03	WG1848912
Naphthalene	ND		1.25	250	04/15/2022 06:03	WG1848912
n-Propylbenzene	ND		0.250	250	04/15/2022 06:03	WG1848912
Styrene	ND		0.250	250	04/15/2022 06:03	WG1848912
1,1,1,2-Tetrachloroethane	ND		0.250	250	04/15/2022 06:03	WG1848912
1,1,2,2-Tetrachloroethane	ND		0.250	250	04/15/2022 06:03	WG1848912
1,1,2-Trichlorotrifluoroethane	ND		0.250	250	04/15/2022 06:03	WG1848912
Tetrachloroethene	ND		0.250	250	04/15/2022 06:03	WG1848912
Toluene	ND		0.250	250	04/15/2022 06:03	WG1848912
1,2,4-Trichlorobenzene	ND		0.250	250	04/15/2022 06:03	WG1848912
1,1,1-Trichloroethane	ND		0.250	250	04/15/2022 06:03	WG1848912
1,1,2-Trichloroethane	ND		0.250	250	04/15/2022 06:03	WG1848912
Trichloroethene	ND		0.250	250	04/15/2022 06:03	WG1848912
Trichlorofluoromethane	ND		1.25	250	04/15/2022 06:03	WG1848912
1,2,3-Trichloropropane	ND		0.625	250	04/15/2022 06:03	WG1848912
1,2,4-Trimethylbenzene	ND		0.250	250	04/15/2022 06:03	WG1848912
1,3,5-Trimethylbenzene	ND		0.250	250	04/15/2022 06:03	WG1848912
Vinyl acetate	ND		2.50	250	04/15/2022 06:03	WG1848912
Vinyl chloride	ND		0.250	250	04/15/2022 06:03	WG1848912
Xylenes, Total	ND		0.750	250	04/15/2022 06:03	WG1848912
Di-isopropyl ether	ND		0.250	250	04/15/2022 06:03	WG1848912
Ethanol	ND		25.0	250	04/15/2022 06:03	WG1848912
Ethyl tert-butyl ether	ND		0.250	250	04/15/2022 06:03	WG1848912
Methyl tert-butyl ether	9.70		0.250	250	04/15/2022 06:03	WG1848912
tert-Butyl alcohol	ND		1.25	250	04/15/2022 06:03	WG1848912
tert-Amyl Methyl Ether	1.32		0.250	250	04/15/2022 06:03	WG1848912
(S) Toluene-d8	*106*		*80.0-120*		*04/15/2022 06:03*	WG1848912
(S) 4-Bromofluorobenzene	*101*		*77.0-126*		*04/15/2022 06:03*	WG1848912
(S) 1,2-Dichloroethane-d4	*101*		*70.0-130*		*04/15/2022 06:03*	WG1848912

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	800		13.3	1	04/14/2022 17:08	WG1848545

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	0.544	R8	0.100	1	04/13/2022 17:00	WG1847915
Nitrite	ND		0.100	1	04/13/2022 17:00	WG1847915
Sulfate	303		25.0	5	04/17/2022 23:20	WG1849897

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	0.157	B1	0.100	1	04/25/2022 14:49	WG1849881

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	04/20/2022 11:23	WG1848755
Ethane	ND		0.0130	1	04/20/2022 11:23	WG1848755
Ethene	ND		0.0130	1	04/20/2022 11:23	WG1848755

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		50.0	1000	04/15/2022 06:23	WG1848912
Acrylonitrile	ND		10.0	1000	04/15/2022 06:23	WG1848912
Benzene	ND		1.00	1000	04/15/2022 06:23	WG1848912
Bromobenzene	ND		1.00	1000	04/15/2022 06:23	WG1848912
Bromochloromethane	ND		1.00	1000	04/15/2022 06:23	WG1848912
Bromodichloromethane	ND		1.00	1000	04/15/2022 06:23	WG1848912
Bromoform	ND		1.00	1000	04/15/2022 06:23	WG1848912
Bromomethane	ND		5.00	1000	04/15/2022 06:23	WG1848912
n-Butylbenzene	ND		1.00	1000	04/15/2022 06:23	WG1848912
sec-Butylbenzene	ND		1.00	1000	04/15/2022 06:23	WG1848912
tert-Butylbenzene	ND		1.00	1000	04/15/2022 06:23	WG1848912
Carbon tetrachloride	ND		1.00	1000	04/15/2022 06:23	WG1848912
Carbon disulfide	ND		1.00	1000	04/15/2022 06:23	WG1848912
Chlorobenzene	ND		1.00	1000	04/15/2022 06:23	WG1848912
Chlorodibromomethane	ND		1.00	1000	04/15/2022 06:23	WG1848912
Chloroethane	ND		5.00	1000	04/15/2022 06:23	WG1848912
Chloroform	ND		5.00	1000	04/15/2022 06:23	WG1848912
Chloromethane	ND		2.50	1000	04/15/2022 06:23	WG1848912
1,2-Dibromo-3-Chloropropane	ND		5.00	1000	04/15/2022 06:23	WG1848912
1,2-Dibromoethane	ND		1.00	1000	04/15/2022 06:23	WG1848912
Dibromomethane	ND		1.00	1000	04/15/2022 06:23	WG1848912
1,2-Dichlorobenzene	ND		1.00	1000	04/15/2022 06:23	WG1848912
1,3-Dichlorobenzene	ND		1.00	1000	04/15/2022 06:23	WG1848912
1,4-Dichlorobenzene	ND		1.00	1000	04/15/2022 06:23	WG1848912
trans-1,4-Dichloro-2-butene	ND	R7	2.50	1000	04/15/2022 06:23	WG1848912
Dichlorodifluoromethane	ND		5.00	1000	04/15/2022 06:23	WG1848912
1,1-Dichloroethane	ND		1.00	1000	04/15/2022 06:23	WG1848912
1,2-Dichloroethane	ND		1.00	1000	04/15/2022 06:23	WG1848912
1,1-Dichloroethene	ND		1.00	1000	04/15/2022 06:23	WG1848912
cis-1,2-Dichloroethene	ND		1.00	1000	04/15/2022 06:23	WG1848912

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		1.00	1000	04/15/2022 06:23	WG1848912
1,2-Dichloropropane	ND		1.00	1000	04/15/2022 06:23	WG1848912
cis-1,3-Dichloropropene	ND		1.00	1000	04/15/2022 06:23	WG1848912
trans-1,3-Dichloropropene	ND		1.00	1000	04/15/2022 06:23	WG1848912
Ethylbenzene	ND		1.00	1000	04/15/2022 06:23	WG1848912
Hexachloro-1,3-butadiene	ND		1.00	1000	04/15/2022 06:23	WG1848912
2-Hexanone	ND		10.0	1000	04/15/2022 06:23	WG1848912
2-Butanone (MEK)	ND		10.0	1000	04/15/2022 06:23	WG1848912
Iodomethane	ND		10.0	1000	04/15/2022 06:23	WG1848912
Methylene Chloride	ND		5.00	1000	04/15/2022 06:23	WG1848912
4-Methyl-2-pentanone (MIBK)	ND		10.0	1000	04/15/2022 06:23	WG1848912
Naphthalene	ND		5.00	1000	04/15/2022 06:23	WG1848912
n-Propylbenzene	ND		1.00	1000	04/15/2022 06:23	WG1848912
Styrene	ND		1.00	1000	04/15/2022 06:23	WG1848912
1,1,1,2-Tetrachloroethane	ND		1.00	1000	04/15/2022 06:23	WG1848912
1,1,2,2-Tetrachloroethane	ND		1.00	1000	04/15/2022 06:23	WG1848912
1,1,2-Trichlorotrifluoroethane	ND		1.00	1000	04/15/2022 06:23	WG1848912
Tetrachloroethene	ND		1.00	1000	04/15/2022 06:23	WG1848912
Toluene	ND		1.00	1000	04/15/2022 06:23	WG1848912
1,2,4-Trichlorobenzene	ND		1.00	1000	04/15/2022 06:23	WG1848912
1,1,1-Trichloroethane	ND		1.00	1000	04/15/2022 06:23	WG1848912
1,1,2-Trichloroethane	ND		1.00	1000	04/15/2022 06:23	WG1848912
Trichloroethene	ND		1.00	1000	04/15/2022 06:23	WG1848912
Trichlorofluoromethane	ND		5.00	1000	04/15/2022 06:23	WG1848912
1,2,3-Trichloropropane	ND		2.50	1000	04/15/2022 06:23	WG1848912
1,2,4-Trimethylbenzene	ND		1.00	1000	04/15/2022 06:23	WG1848912
1,3,5-Trimethylbenzene	ND		1.00	1000	04/15/2022 06:23	WG1848912
Vinyl acetate	ND		10.0	1000	04/15/2022 06:23	WG1848912
Vinyl chloride	ND		1.00	1000	04/15/2022 06:23	WG1848912
Xylenes, Total	ND		3.00	1000	04/15/2022 06:23	WG1848912
Di-isopropyl ether	ND		1.00	1000	04/15/2022 06:23	WG1848912
Ethanol	ND		100	1000	04/15/2022 06:23	WG1848912
Ethyl tert-butyl ether	ND		1.00	1000	04/15/2022 06:23	WG1848912
Methyl tert-butyl ether	74.0		1.00	1000	04/15/2022 06:23	WG1848912
tert-Butyl alcohol	ND		5.00	1000	04/15/2022 06:23	WG1848912
tert-Amyl Methyl Ether	11.3		1.00	1000	04/15/2022 06:23	WG1848912
(S) Toluene-d8	*105*		*80.0-120*		*04/15/2022 06:23*	WG1848912
(S) 4-Bromofluorobenzene	*103*		*77.0-126*		*04/15/2022 06:23*	WG1848912
(S) 1,2-Dichloroethane-d4	*104*		*70.0-130*		*04/15/2022 06:23*	WG1848912

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	04/15/2022 01:20	WG1848912
Acrylonitrile	ND		0.0100	1	04/15/2022 01:20	WG1848912
Benzene	ND		0.00100	1	04/15/2022 01:20	WG1848912
Bromobenzene	ND		0.00100	1	04/15/2022 01:20	WG1848912
Bromochloromethane	ND		0.00100	1	04/15/2022 01:20	WG1848912
Bromodichloromethane	ND		0.00100	1	04/15/2022 01:20	WG1848912
Bromoform	ND		0.00100	1	04/15/2022 01:20	WG1848912
Bromomethane	ND		0.00500	1	04/15/2022 01:20	WG1848912
n-Butylbenzene	ND		0.00100	1	04/15/2022 01:20	WG1848912
sec-Butylbenzene	ND		0.00100	1	04/15/2022 01:20	WG1848912
tert-Butylbenzene	ND		0.00100	1	04/15/2022 01:20	WG1848912
Carbon tetrachloride	ND		0.00100	1	04/15/2022 01:20	WG1848912
Carbon disulfide	ND		0.00100	1	04/15/2022 01:20	WG1848912
Chlorobenzene	ND		0.00100	1	04/15/2022 01:20	WG1848912
Chlorodibromomethane	ND		0.00100	1	04/15/2022 01:20	WG1848912
Chloroethane	ND		0.00500	1	04/15/2022 01:20	WG1848912
Chloroform	ND		0.00500	1	04/15/2022 01:20	WG1848912
Chloromethane	ND		0.00250	1	04/15/2022 01:20	WG1848912
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	04/15/2022 01:20	WG1848912
1,2-Dibromoethane	ND		0.00100	1	04/15/2022 01:20	WG1848912
Dibromomethane	ND		0.00100	1	04/15/2022 01:20	WG1848912
1,2-Dichlorobenzene	ND		0.00100	1	04/15/2022 01:20	WG1848912
1,3-Dichlorobenzene	ND		0.00100	1	04/15/2022 01:20	WG1848912
1,4-Dichlorobenzene	ND		0.00100	1	04/15/2022 01:20	WG1848912
trans-1,4-Dichloro-2-butene	ND	R7	0.00250	1	04/15/2022 01:20	WG1848912
Dichlorodifluoromethane	ND		0.00500	1	04/15/2022 01:20	WG1848912
1,1-Dichloroethane	ND		0.00100	1	04/15/2022 01:20	WG1848912
1,2-Dichloroethane	ND		0.00100	1	04/15/2022 01:20	WG1848912
1,1-Dichloroethene	ND		0.00100	1	04/15/2022 01:20	WG1848912
cis-1,2-Dichloroethene	ND		0.00100	1	04/15/2022 01:20	WG1848912
trans-1,2-Dichloroethene	ND		0.00100	1	04/15/2022 01:20	WG1848912
1,2-Dichloropropane	ND		0.00100	1	04/15/2022 01:20	WG1848912
cis-1,3-Dichloropropene	ND		0.00100	1	04/15/2022 01:20	WG1848912
trans-1,3-Dichloropropene	ND		0.00100	1	04/15/2022 01:20	WG1848912
Ethylbenzene	ND		0.00100	1	04/15/2022 01:20	WG1848912
Hexachloro-1,3-butadiene	ND		0.00100	1	04/15/2022 01:20	WG1848912
2-Hexanone	ND		0.0100	1	04/15/2022 01:20	WG1848912
2-Butanone (MEK)	ND		0.0100	1	04/15/2022 01:20	WG1848912
Iodomethane	ND		0.0100	1	04/15/2022 01:20	WG1848912
Methylene Chloride	ND		0.00500	1	04/15/2022 01:20	WG1848912
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	04/15/2022 01:20	WG1848912
Naphthalene	ND		0.00500	1	04/15/2022 01:20	WG1848912
n-Propylbenzene	ND		0.00100	1	04/15/2022 01:20	WG1848912
Styrene	ND		0.00100	1	04/15/2022 01:20	WG1848912
1,1,1,2-Tetrachloroethane	ND		0.00100	1	04/15/2022 01:20	WG1848912
1,1,2,2-Tetrachloroethane	ND		0.00100	1	04/15/2022 01:20	WG1848912
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	04/15/2022 01:20	WG1848912
Tetrachloroethene	ND		0.00100	1	04/15/2022 01:20	WG1848912
Toluene	ND		0.00100	1	04/15/2022 01:20	WG1848912
1,2,4-Trichlorobenzene	ND		0.00100	1	04/15/2022 01:20	WG1848912
1,1,1-Trichloroethane	ND		0.00100	1	04/15/2022 01:20	WG1848912
1,1,2-Trichloroethane	ND		0.00100	1	04/15/2022 01:20	WG1848912
Trichloroethene	ND		0.00100	1	04/15/2022 01:20	WG1848912
Trichlorofluoromethane	ND		0.00500	1	04/15/2022 01:20	WG1848912
1,2,3-Trichloropropane	ND		0.00250	1	04/15/2022 01:20	WG1848912
1,2,4-Trimethylbenzene	ND		0.00100	1	04/15/2022 01:20	WG1848912

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
1,3,5-Trimethylbenzene	ND		0.00100	1	04/15/2022 01:20	WG1848912
Vinyl acetate	ND		0.0100	1	04/15/2022 01:20	WG1848912
Vinyl chloride	ND		0.00100	1	04/15/2022 01:20	WG1848912
Xylenes, Total	ND		0.00300	1	04/15/2022 01:20	WG1848912
Di-isopropyl ether	ND		0.00100	1	04/15/2022 01:20	WG1848912
Ethanol	ND		0.100	1	04/15/2022 01:20	WG1848912
Ethyl tert-butyl ether	ND		0.00100	1	04/15/2022 01:20	WG1848912
Methyl tert-butyl ether	ND		0.00100	1	04/15/2022 01:20	WG1848912
tert-Butyl alcohol	ND		0.00500	1	04/15/2022 01:20	WG1848912
tert-Amyl Methyl Ether	ND		0.00100	1	04/15/2022 01:20	WG1848912
(S) Toluene-d8	*105*		*80.0-120*		*04/15/2022 01:20*	WG1848912
(S) 4-Bromofluorobenzene	*101*		*77.0-126*		*04/15/2022 01:20*	WG1848912
(S) 1,2-Dichloroethane-d4	*105*		*70.0-130*		*04/15/2022 01:20*	WG1848912

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	04/15/2022 00:20	WG1848912
Acrylonitrile	ND		0.0100	1	04/15/2022 00:20	WG1848912
Benzene	ND		0.00100	1	04/15/2022 00:20	WG1848912
Bromobenzene	ND		0.00100	1	04/15/2022 00:20	WG1848912
Bromochloromethane	ND		0.00100	1	04/15/2022 00:20	WG1848912
Bromodichloromethane	ND		0.00100	1	04/15/2022 00:20	WG1848912
Bromoform	ND		0.00100	1	04/15/2022 00:20	WG1848912
Bromomethane	ND		0.00500	1	04/15/2022 00:20	WG1848912
n-Butylbenzene	ND		0.00100	1	04/15/2022 00:20	WG1848912
sec-Butylbenzene	ND		0.00100	1	04/15/2022 00:20	WG1848912
tert-Butylbenzene	ND		0.00100	1	04/15/2022 00:20	WG1848912
Carbon tetrachloride	ND		0.00100	1	04/15/2022 00:20	WG1848912
Carbon disulfide	ND		0.00100	1	04/15/2022 00:20	WG1848912
Chlorobenzene	ND		0.00100	1	04/15/2022 00:20	WG1848912
Chlorodibromomethane	ND		0.00100	1	04/15/2022 00:20	WG1848912
Chloroethane	ND		0.00500	1	04/15/2022 00:20	WG1848912
Chloroform	ND		0.00500	1	04/15/2022 00:20	WG1848912
Chloromethane	ND		0.00250	1	04/15/2022 00:20	WG1848912
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	04/15/2022 00:20	WG1848912
1,2-Dibromoethane	ND		0.00100	1	04/15/2022 00:20	WG1848912
Dibromomethane	ND		0.00100	1	04/15/2022 00:20	WG1848912
1,2-Dichlorobenzene	ND		0.00100	1	04/15/2022 00:20	WG1848912
1,3-Dichlorobenzene	ND		0.00100	1	04/15/2022 00:20	WG1848912
1,4-Dichlorobenzene	ND		0.00100	1	04/15/2022 00:20	WG1848912
trans-1,4-Dichloro-2-butene	ND	R7	0.00250	1	04/15/2022 00:20	WG1848912
Dichlorodifluoromethane	ND		0.00500	1	04/15/2022 00:20	WG1848912
1,1-Dichloroethane	ND		0.00100	1	04/15/2022 00:20	WG1848912
1,2-Dichloroethane	ND		0.00100	1	04/15/2022 00:20	WG1848912
1,1-Dichloroethene	ND		0.00100	1	04/15/2022 00:20	WG1848912
cis-1,2-Dichloroethene	ND		0.00100	1	04/15/2022 00:20	WG1848912
trans-1,2-Dichloroethene	ND		0.00100	1	04/15/2022 00:20	WG1848912
1,2-Dichloropropane	ND		0.00100	1	04/15/2022 00:20	WG1848912
cis-1,3-Dichloropropene	ND		0.00100	1	04/15/2022 00:20	WG1848912
trans-1,3-Dichloropropene	ND		0.00100	1	04/15/2022 00:20	WG1848912
Ethylbenzene	ND		0.00100	1	04/15/2022 00:20	WG1848912
Hexachloro-1,3-butadiene	ND		0.00100	1	04/15/2022 00:20	WG1848912
2-Hexanone	ND		0.0100	1	04/15/2022 00:20	WG1848912
2-Butanone (MEK)	ND		0.0100	1	04/15/2022 00:20	WG1848912
Iodomethane	ND		0.0100	1	04/15/2022 00:20	WG1848912
Methylene Chloride	ND		0.00500	1	04/15/2022 00:20	WG1848912
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	04/15/2022 00:20	WG1848912
Naphthalene	ND		0.00500	1	04/15/2022 00:20	WG1848912
n-Propylbenzene	ND		0.00100	1	04/15/2022 00:20	WG1848912
Styrene	ND		0.00100	1	04/15/2022 00:20	WG1848912
1,1,1,2-Tetrachloroethane	ND		0.00100	1	04/15/2022 00:20	WG1848912
1,1,2,2-Tetrachloroethane	ND		0.00100	1	04/15/2022 00:20	WG1848912
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	04/15/2022 00:20	WG1848912
Tetrachloroethene	ND		0.00100	1	04/15/2022 00:20	WG1848912
Toluene	ND		0.00100	1	04/15/2022 00:20	WG1848912
1,2,4-Trichlorobenzene	ND		0.00100	1	04/15/2022 00:20	WG1848912
1,1,1-Trichloroethane	ND		0.00100	1	04/15/2022 00:20	WG1848912
1,1,2-Trichloroethane	ND		0.00100	1	04/15/2022 00:20	WG1848912
Trichloroethene	ND		0.00100	1	04/15/2022 00:20	WG1848912
Trichlorofluoromethane	ND		0.00500	1	04/15/2022 00:20	WG1848912
1,2,3-Trichloropropane	ND		0.00250	1	04/15/2022 00:20	WG1848912
1,2,4-Trimethylbenzene	ND		0.00100	1	04/15/2022 00:20	WG1848912

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
1,3,5-Trimethylbenzene	ND		0.00100	1	04/15/2022 00:20	WG1848912
Vinyl acetate	ND		0.0100	1	04/15/2022 00:20	WG1848912
Vinyl chloride	ND		0.00100	1	04/15/2022 00:20	WG1848912
Xylenes, Total	ND		0.00300	1	04/15/2022 00:20	WG1848912
Di-isopropyl ether	ND		0.00100	1	04/15/2022 00:20	WG1848912
Ethanol	ND		0.100	1	04/15/2022 00:20	WG1848912
Ethyl tert-butyl ether	ND		0.00100	1	04/15/2022 00:20	WG1848912
Methyl tert-butyl ether	ND		0.00100	1	04/15/2022 00:20	WG1848912
tert-Butyl alcohol	ND		0.00500	1	04/15/2022 00:20	WG1848912
tert-Amyl Methyl Ether	ND		0.00100	1	04/15/2022 00:20	WG1848912
(S) Toluene-d8	*105*		*80.0-120*		*04/15/2022 00:20*	WG1848912
(S) 4-Bromofluorobenzene	*104*		*77.0-126*		*04/15/2022 00:20*	WG1848912
(S) 1,2-Dichloroethane-d4	*105*		*70.0-130*		*04/15/2022 00:20*	WG1848912

Method Blank (MB)

(MB) R3782327-1 04/14/22 17:08

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1481152-23 Original Sample (OS) • Duplicate (DUP)

(OS) L1481152-23 04/14/22 17:08 • (DUP) R3782327-3 04/14/22 17:08

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	692	699	1	0.959		5

L1481743-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1481743-04 04/14/22 17:08 • (DUP) R3782327-4 04/14/22 17:08

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	788	789	1	0.169		5

Laboratory Control Sample (LCS)

(LCS) R3782327-2 04/14/22 17:08

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8460	96.1	77.4-123	

Method Blank (MB)

(MB) R3782351-1 04/14/22 15:38

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1481743-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1481743-02 04/14/22 15:38 • (DUP) R3782351-3 04/14/22 15:38

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	640	641	1	0.156		5

L1481793-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1481793-04 04/14/22 15:38 • (DUP) R3782351-4 04/14/22 15:38

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	903	900	1	0.296		5

Laboratory Control Sample (LCS)

(LCS) R3782351-2 04/14/22 15:38

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8560	97.3	77.4-123	

Method Blank (MB)

(MB) R3782143-1 04/14/22 18:45

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1481152-29 Original Sample (OS) • Duplicate (DUP)

(OS) L1481152-29 04/14/22 18:45 • (DUP) R3782143-3 04/14/22 18:45

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	763	777	1	1.90		5

L1482314-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1482314-02 04/14/22 18:45 • (DUP) R3782143-4 04/14/22 18:45

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	2090	1640	1	24.4	R8	5

Laboratory Control Sample (LCS)

(LCS) R3782143-2 04/14/22 18:45

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8450	96.0	77.4-123	

Method Blank (MB)

(MB) R3781234-1 04/13/22 09:46

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate	U		0.0480	0.100
Nitrite	U		0.0420	0.100

L1481219-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1481219-01 04/13/22 12:53 • (DUP) R3781234-3 04/13/22 13:06

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	0.435	0.498	1	13.4		15
Nitrite	ND	ND	1	0.000		15

L1481743-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1481743-01 04/13/22 17:07 • (DUP) R3781234-5 04/13/22 17:47

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	2.66	2.66	1	0.0640		15
Nitrite	ND	ND	1	0.000		15

Laboratory Control Sample (LCS)

(LCS) R3781234-2 04/13/22 09:59

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate	8.00	8.05	101	80.0-120	
Nitrite	8.00	8.23	103	80.0-120	

L1481219-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1481219-01 04/13/22 12:53 • (MS) R3781234-4 04/13/22 13:20

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate	5.00	0.435	5.57	103	1	80.0-120	
Nitrite	5.00	ND	5.22	104	1	80.0-120	

L1481743-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1481743-01 04/13/22 17:07 • (MS) R3781234-6 04/13/22 18:01 • (MSD) R3781234-7 04/13/22 18:14

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 %
Nitrate	5.00	2.66	7.83	7.76	104	102	1	80.0-120			0.990	15
Nitrite	5.00	ND	5.26	5.23	105	105	1	80.0-120			0.675	15

Method Blank (MB)

(MB) R3781832-1 04/13/22 11:38

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate	U		0.0480	0.100
Nitrite	U		0.0420	0.100

L1481152-16 Original Sample (OS) • Duplicate (DUP)

(OS) L1481152-16 04/13/22 15:46 • (DUP) R3781832-3 04/13/22 15:58

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	ND	ND	1	0.000		15

L1481743-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1481743-05 04/13/22 17:00 • (DUP) R3781832-5 04/13/22 17:13

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	0.544	ND	1	200	R8	15
Nitrite	ND	ND	1	0.000		15

Laboratory Control Sample (LCS)

(LCS) R3781832-2 04/13/22 11:50

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate	8.00	7.89	98.7	80.0-120	
Nitrite	8.00	7.95	99.3	80.0-120	

L1481152-16 Original Sample (OS) • Matrix Spike (MS)

(OS) L1481152-16 04/13/22 15:46 • (MS) R3781832-4 04/13/22 16:11

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate	5.00	ND	5.69	114	1	80.0-120	

L1481743-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1481743-05 04/13/22 17:00 • (MS) R3781832-6 04/13/22 17:50 • (MSD) R3781832-7 04/13/22 18:03

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 %
Nitrate	5.00	0.544	5.42	5.54	97.5	100	1	80.0-120			2.29	15
Nitrite	5.00	ND	5.17	5.25	103	105	1	80.0-120			1.52	15

Method Blank (MB)

(MB) R3781534-1 04/15/22 02:19

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Sulfate	U		0.594	5.00

L1482619-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1482619-01 04/15/22 02:57 • (DUP) R3781534-3 04/15/22 03:10

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfate	50.0	50.3	1	0.666		15

L1482443-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1482443-04 04/15/22 05:18 • (DUP) R3781534-4 04/15/22 05:31

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfate	ND	ND	1	3.93		15

Laboratory Control Sample (LCS)

(LCS) R3781534-2 04/15/22 02:32

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Sulfate	40.0	41.3	103	80.0-120	

L1482443-04 Original Sample (OS) • Matrix Spike (MS)

(OS) L1482443-04 04/15/22 05:18 • (MS) R3781534-5 04/15/22 05:44

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Sulfate	50.0	ND	52.7	101	1	80.0-120	

L1481743-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1481743-01 04/15/22 07:39 • (MS) R3781534-6 04/15/22 07:52 • (MSD) R3781534-7 04/15/22 08:05

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 %
Sulfate	50.0	219	259	259	80.6	79.8	1	80.0-120	E1	E1 M3	0.165	15

Method Blank (MB)

(MB) R3782764-1 04/17/22 21:18

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Sulfate	U		0.594	5.00

L1481502-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1481502-07 04/17/22 22:43 • (DUP) R3782764-3 04/17/22 22:55

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfate	160	160	5	0.0834		15

L1483298-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1483298-01 04/18/22 06:24 • (DUP) R3782764-6 04/18/22 06:36

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfate	ND	ND	1	0.476		15

Laboratory Control Sample (LCS)

(LCS) R3782764-2 04/17/22 21:30

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Sulfate	40.0	40.4	101	80.0-120	

L1482654-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1482654-08 04/17/22 23:58 • (MS) R3782764-4 04/18/22 00:10 • (MSD) R3782764-5 04/18/22 00:47

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 %
Sulfate	50.0	97.5	144	144	93.1	93.4	1	80.0-120	E1	E1	0.119	15

L1483298-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1483298-01 04/18/22 06:24 • (MS) R3782764-7 04/18/22 06:48

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Sulfate	50.0	ND	52.9	99.1	1	80.0-120	

Method Blank (MB)

(MB) R3782962-1 04/19/22 23:01

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Iron	0.0373	E4	0.0180	0.100

Laboratory Control Sample (LCS)

(LCS) R3782962-2 04/19/22 23:03

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Iron	10.0	9.63	96.3	80.0-120	

L1481743-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1481743-01 04/19/22 23:06 • (MS) R3782962-4 04/19/22 23:11 • (MSD) R3782962-5 04/19/22 23:14

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 %
Iron	10.0	0.750	10.3	10.2	95.9	94.7	1	75.0-125			1.19	20

QUALITY CONTROL SUMMARY

L1481743-04,05

Method Blank (MB)

(MB) R3784838-1 04/25/22 14:33

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Iron	0.0233	E4	0.0180	0.100

Laboratory Control Sample (LCS)

(LCS) R3784838-2 04/25/22 14:35

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Iron	10.0	9.63	96.3	80.0-120	

L1481743-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1481743-04 04/25/22 14:38 • (MS) R3784838-4 04/25/22 14:43 • (MSD) R3784838-5 04/25/22 14:46

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 %
Iron	10.0	ND	9.54	9.46	94.9	94.0	1	75.0-125			0.845	20

Method Blank (MB)

(MB) R3783077-2 04/20/22 08:57

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Methane	U		0.00291	0.0100
Ethane	U		0.00407	0.0130
Ethene	U		0.00426	0.0130

L1481505-47 Original Sample (OS) • Duplicate (DUP)

(OS) L1481505-47 04/20/22 09:22 • (DUP) R3783077-3 04/20/22 10:35

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	ND	ND	1	0.000		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20

L1481743-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1481743-02 04/20/22 11:09 • (DUP) R3783077-4 04/20/22 11:29

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	ND	ND	1	0.000		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20

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

(LCS) R3783077-1 04/20/22 08:52 • (LCSD) R3783077-7 04/20/22 11:38

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Methane	0.0678	0.0759	0.0700	112	103	85.0-115			8.09	20
Ethane	0.129	0.131	0.127	102	98.4	85.0-115			3.10	20
Ethene	0.127	0.133	0.128	105	101	85.0-115			3.83	20

L1481743-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1481743-01 04/20/22 11:07 • (MS) R3783077-5 04/20/22 11:33 • (MSD) R3783077-6 04/20/22 11:36

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 %
Methane	0.0678	ND	0.0927	0.0901	137	133	1	50.0-150			2.84	20
Ethane	0.129	ND	0.140	0.146	109	113	1	50.0-150			4.20	20
Ethene	0.127	ND	0.142	0.148	112	117	1	50.0-150			4.14	20

Method Blank (MB)

(MB) R3781918-3 04/14/22 20:30

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Acrylonitrile	U		0.000671	0.0100
Benzene	U		0.0000941	0.00100
Bromobenzene	U		0.000118	0.00100
Bromochloromethane	U		0.000128	0.00100
Bromodichloromethane	U		0.000136	0.00100
Bromoform	U		0.000129	0.00100
Bromomethane	U		0.000605	0.00500
n-Butylbenzene	0.000478	E4	0.000157	0.00100
sec-Butylbenzene	0.000174	E4	0.000125	0.00100
tert-Butylbenzene	U		0.000127	0.00100
Carbon tetrachloride	U		0.000128	0.00100
Carbon disulfide	U		0.0000962	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
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	0.000330	E4	0.000110	0.00100
1,4-Dichlorobenzene	U		0.000120	0.00100
trans-1,4-Dichloro-2-butene	U		0.000467	0.00250
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
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
Hexachloro-1,3-butadiene	0.000485	E4	0.000337	0.00100
2-Hexanone	U		0.000787	0.0100
2-Butanone (MEK)	U		0.00119	0.0100
Iodomethane	U		0.00600	0.0100
Methylene Chloride	U		0.000430	0.00500

Method Blank (MB)

(MB) R3781918-3 04/14/22 20:30

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	0.000438	E4	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
1,1,2-Trichlorotrifluoroethane	U		0.000180	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	0.000310	E4	0.000278	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
1,2,4-Trimethylbenzene	0.000339	E4	0.000322	0.00100
1,3,5-Trimethylbenzene	0.000401	E4	0.000104	0.00100
Vinyl acetate	U		0.000692	0.0100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	0.000437	E4	0.000174	0.00300
Di-isopropyl ether	U		0.000105	0.00100
Ethanol	U		0.0420	0.100
Ethyl tert-butyl ether	U		0.000101	0.00100
Methyl tert-butyl ether	U		0.000101	0.00100
tert-Butyl alcohol	U		0.00406	0.00500
tert-Amyl Methyl Ether	U		0.000195	0.00100
(S) Toluene-d8	*107*			*80.0-120*
(S) 4-Bromofluorobenzene	*100*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*

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

(LCS) R3781918-1 04/14/22 19:29 • (LCSD) R3781918-2 04/14/22 19:49

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	0.0292	0.0313	117	125	19.0-160			6.94	27
Acrylonitrile	0.0250	0.0289	0.0324	116	130	55.0-149			11.4	20
Benzene	0.00500	0.00518	0.00562	104	112	70.0-123			8.15	20
Bromobenzene	0.00500	0.00474	0.00483	94.8	96.6	73.0-121			1.88	20

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

(LCS) R3781918-1 04/14/22 19:29 • (LCSD) R3781918-2 04/14/22 19:49

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromochloromethane	0.00500	0.00489	0.00499	97.8	99.8	76.0-122			2.02	20
Bromodichloromethane	0.00500	0.00495	0.00517	99.0	103	75.0-120			4.35	20
Bromoform	0.00500	0.00385	0.00422	77.0	84.4	68.0-132			9.17	20
Bromomethane	0.00500	0.00548	0.00606	110	121	10.0-160			10.1	25
n-Butylbenzene	0.00500	0.00447	0.00500	89.4	100	73.0-125			11.2	20
sec-Butylbenzene	0.00500	0.00447	0.00490	89.4	98.0	75.0-125			9.18	20
tert-Butylbenzene	0.00500	0.00474	0.00485	94.8	97.0	76.0-124			2.29	20
Carbon tetrachloride	0.00500	0.00439	0.00474	87.8	94.8	68.0-126			7.67	20
Carbon disulfide	0.00500	0.00464	0.00507	92.8	101	61.0-128			8.86	20
Chlorobenzene	0.00500	0.00484	0.00518	96.8	104	80.0-121			6.79	20
Chlorodibromomethane	0.00500	0.00412	0.00450	82.4	90.0	77.0-125			8.82	20
Chloroethane	0.00500	0.00589	0.00668	118	134	47.0-150			12.6	20
Chloroform	0.00500	0.00522	0.00560	104	112	73.0-120			7.02	20
Chloromethane	0.00500	0.00568	0.00621	114	124	41.0-142			8.92	20
1,2-Dibromo-3-Chloropropane	0.00500	0.00491	0.00498	98.2	99.6	58.0-134			1.42	20
1,2-Dibromoethane	0.00500	0.00462	0.00497	92.4	99.4	80.0-122			7.30	20
Dibromomethane	0.00500	0.00451	0.00476	90.2	95.2	80.0-120			5.39	20
1,2-Dichlorobenzene	0.00500	0.00508	0.00549	102	110	79.0-121			7.76	20
1,3-Dichlorobenzene	0.00500	0.00472	0.00500	94.4	100	79.0-120			5.76	20
1,4-Dichlorobenzene	0.00500	0.00468	0.00508	93.6	102	79.0-120			8.20	20
trans-1,4-Dichloro-2-butene	0.00500	0.00234	0.00307	46.8	61.4	33.0-144		R7	27.0	20
Dichlorodifluoromethane	0.00500	0.00484	0.00511	96.8	102	51.0-149			5.43	20
1,1-Dichloroethane	0.00500	0.00538	0.00569	108	114	70.0-126			5.60	20
1,2-Dichloroethane	0.00500	0.00546	0.00574	109	115	70.0-128			5.00	20
1,1-Dichloroethene	0.00500	0.00444	0.00536	88.8	107	71.0-124			18.8	20
cis-1,2-Dichloroethene	0.00500	0.00487	0.00543	97.4	109	73.0-120			10.9	20
trans-1,2-Dichloroethene	0.00500	0.00491	0.00536	98.2	107	73.0-120			8.76	20
1,2-Dichloropropane	0.00500	0.00524	0.00559	105	112	77.0-125			6.46	20
cis-1,3-Dichloropropene	0.00500	0.00437	0.00504	87.4	101	80.0-123			14.2	20
trans-1,3-Dichloropropene	0.00500	0.00495	0.00512	99.0	102	78.0-124			3.38	20
Ethylbenzene	0.00500	0.00508	0.00536	102	107	79.0-123			5.36	20
Hexachloro-1,3-butadiene	0.00500	0.00408	0.00455	81.6	91.0	54.0-138			10.9	20
2-Hexanone	0.0250	0.0252	0.0274	101	110	67.0-149			8.37	20
2-Butanone (MEK)	0.0250	0.0268	0.0315	107	126	44.0-160			16.1	20
Iodomethane	0.0250	0.0237	0.0250	94.8	100	33.0-147			5.34	26
Methylene Chloride	0.00500	0.00534	0.00568	107	114	67.0-120			6.17	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.0281	0.0308	112	123	68.0-142			9.17	20
Naphthalene	0.00500	0.00477	0.00516	95.4	103	54.0-135			7.85	20
n-Propylbenzene	0.00500	0.00457	0.00487	91.4	97.4	77.0-124			6.36	20
Styrene	0.00500	0.00420	0.00478	84.0	95.6	73.0-130			12.9	20

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

(LCS) R3781918-1 04/14/22 19:29 • (LCSD) R3781918-2 04/14/22 19:49

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,1,1,2-Tetrachloroethane	0.00500	0.00495	0.00518	99.0	104	75.0-125			4.54	20
1,1,2,2-Tetrachloroethane	0.00500	0.00505	0.00521	101	104	65.0-130			3.12	20
1,1,2-Trichlorotrifluoroethane	0.00500	0.00470	0.00531	94.0	106	69.0-132			12.2	20
Tetrachloroethene	0.00500	0.00482	0.00552	96.4	110	72.0-132			13.5	20
Toluene	0.00500	0.00542	0.00569	108	114	79.0-120			4.86	20
1,2,4-Trichlorobenzene	0.00500	0.00387	0.00455	77.4	91.0	57.0-137			16.2	20
1,1,1-Trichloroethane	0.00500	0.00457	0.00523	91.4	105	73.0-124			13.5	20
1,1,2-Trichloroethane	0.00500	0.00472	0.00537	94.4	107	80.0-120			12.9	20
Trichloroethene	0.00500	0.00413	0.00469	82.6	93.8	78.0-124			12.7	20
Trichlorofluoromethane	0.00500	0.00476	0.00538	95.2	108	59.0-147			12.2	20
1,2,3-Trichloropropane	0.00500	0.00504	0.00559	101	112	73.0-130			10.3	20
1,2,4-Trimethylbenzene	0.00500	0.00542	0.00568	108	114	76.0-121			4.68	20
1,3,5-Trimethylbenzene	0.00500	0.00519	0.00557	104	111	76.0-122			7.06	20
Vinyl acetate	0.0250	0.0287	0.0291	115	116	11.0-160			1.38	20
Vinyl chloride	0.00500	0.00523	0.00594	105	119	67.0-131			12.7	20
Xylenes, Total	0.0150	0.0152	0.0164	101	109	79.0-123			7.59	20
Di-isopropyl ether	0.00500	0.00551	0.00596	110	119	58.0-138			7.85	20
ethanol	0.250	0.244	0.278	97.6	111	10.0-160			13.0	30
Ethyl tert-butyl ether	0.00500	0.00523	0.00570	105	114	63.0-138			8.60	20
Methyl tert-butyl ether	0.00500	0.00488	0.00521	97.6	104	68.0-125			6.54	20
tert-Butyl alcohol	0.0250	0.0269	0.0303	108	121	27.0-160			11.9	30
tert-Amyl Methyl Ether	0.00500	0.00524	0.00540	105	108	66.0-125			3.01	20
(S) Toluene-d8				*102*	*104*	*80.0-120*				
(S) 4-Bromofluorobenzene				*97.5*	*102*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*100*	*101*	*70.0-130*				

L1481743-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1481743-01 04/15/22 05:02 • (MS) R3781918-4 04/15/22 06:44 • (MSD) R3781918-5 04/15/22 07:04

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 %
Acetone	0.0250	ND	ND	ND	163	148	1	10.0-160	M1		9.79	35
Acrylonitrile	0.0250	ND	0.0401	0.0366	160	146	1	21.0-160			9.13	32
Benzene	0.00500	ND	0.00733	0.00684	147	137	1	17.0-158			6.92	27
Bromobenzene	0.00500	ND	0.00664	0.00590	133	118	1	30.0-149			11.8	28
Bromochloromethane	0.00500	ND	0.00646	0.00587	129	117	1	38.0-142			9.57	26
Bromodichloromethane	0.00500	ND	0.00712	0.00661	142	132	1	31.0-150			7.43	27
Bromoform	0.00500	ND	0.00558	0.00512	112	102	1	29.0-150			8.60	29
Bromomethane	0.00500	ND	0.00802	0.00717	160	143	1	10.0-160			11.2	38

L1481743-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1481743-01 04/15/22 05:02 • (MS) R3781918-4 04/15/22 06:44 • (MSD) R3781918-5 04/15/22 07:04

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 %
n-Butylbenzene	0.00500	ND	0.00691	0.00591	138	118	1	31.0-150			15.6	30
sec-Butylbenzene	0.00500	ND	0.00655	0.00600	131	120	1	33.0-155			8.76	29
tert-Butylbenzene	0.00500	ND	0.00675	0.00606	135	121	1	34.0-153			10.8	28
Carbon tetrachloride	0.00500	ND	0.00656	0.00618	131	124	1	23.0-159			5.97	28
Carbon disulfide	0.00500	ND	0.00644	0.00596	129	119	1	10.0-156			7.74	28
Chlorobenzene	0.00500	ND	0.00717	0.00626	143	125	1	33.0-152			13.6	27
Chlorodibromomethane	0.00500	ND	0.00584	0.00529	117	106	1	37.0-149			9.88	27
Chloroethane	0.00500	ND	0.00851	0.00782	170	156	1	10.0-160	M1		8.45	30
Chloroform	0.00500	ND	0.00736	0.00663	147	133	1	29.0-154			10.4	28
Chloromethane	0.00500	ND	0.00768	0.00710	154	142	1	10.0-160			7.85	29
1,2-Dibromo-3-Chloropropane	0.00500	ND	0.00648	0.00572	130	114	1	22.0-151			12.5	34
1,2-Dibromoethane	0.00500	ND	0.00664	0.00585	133	117	1	34.0-147			12.7	27
Dibromomethane	0.00500	ND	0.00640	0.00561	128	112	1	30.0-151			13.2	27
1,2-Dichlorobenzene	0.00500	ND	0.00709	0.00631	142	126	1	34.0-149			11.6	28
1,3-Dichlorobenzene	0.00500	ND	0.00629	0.00582	126	116	1	36.0-146			7.76	27
1,4-Dichlorobenzene	0.00500	ND	0.00668	0.00575	134	115	1	35.0-142			15.0	27
trans-1,4-Dichloro-2-butene	0.00500	ND	0.00465	0.00410	93.0	82.0	1	10.0-157			12.6	37
Dichlorodifluoromethane	0.00500	ND	0.00686	0.00603	137	121	1	10.0-160			12.9	29
1,1-Dichloroethane	0.00500	ND	0.00766	0.00695	153	139	1	25.0-158			9.72	27
1,2-Dichloroethane	0.00500	ND	0.00773	0.00683	155	137	1	29.0-151	M1		12.4	27
1,1-Dichloroethene	0.00500	ND	0.00656	0.00622	131	124	1	11.0-160			5.32	29
cis-1,2-Dichloroethene	0.00500	ND	0.00683	0.00645	137	129	1	10.0-160			5.72	27
trans-1,2-Dichloroethene	0.00500	ND	0.00715	0.00658	143	132	1	17.0-153			8.30	27
1,2-Dichloropropane	0.00500	ND	0.00700	0.00679	140	136	1	30.0-156			3.05	27
cis-1,3-Dichloropropene	0.00500	ND	0.00621	0.00576	124	115	1	34.0-149			7.52	28
trans-1,3-Dichloropropene	0.00500	ND	0.00685	0.00613	137	123	1	32.0-149			11.1	28
Ethylbenzene	0.00500	ND	0.00709	0.00610	142	122	1	30.0-155			15.0	27
Hexachloro-1,3-butadiene	0.00500	ND	0.00642	0.00503	128	101	1	20.0-154			24.3	34
2-Hexanone	0.0250	ND	0.0342	0.0315	137	126	1	21.0-160			8.22	29
2-Butanone (MEK)	0.0250	ND	0.0372	0.0349	149	140	1	10.0-160			6.38	32
Iodomethane	0.0250	ND	0.0323	0.0297	129	119	1	10.0-160			8.39	40
Methylene Chloride	0.00500	ND	0.00730	0.00682	146	136	1	23.0-144	M1		6.80	28
4-Methyl-2-pentanone (MIBK)	0.0250	ND	0.0381	0.0353	152	141	1	29.0-160			7.63	29
Naphthalene	0.00500	ND	0.00594	0.00504	119	101	1	12.0-156			16.4	35
n-Propylbenzene	0.00500	ND	0.00668	0.00564	134	113	1	31.0-154			16.9	28
Styrene	0.00500	ND	0.00598	0.00530	120	106	1	33.0-155			12.1	28
1,1,1,2-Tetrachloroethane	0.00500	ND	0.00706	0.00609	141	122	1	36.0-151			14.8	29
1,1,2,2-Tetrachloroethane	0.00500	ND	0.00732	0.00659	146	132	1	33.0-150			10.5	28
1,1,2-Trichlorotrifluoroethane	0.00500	ND	0.00702	0.00608	140	122	1	23.0-160			14.4	30
Tetrachloroethene	0.00500	ND	0.00741	0.00591	148	118	1	10.0-160			22.5	27

L1481743-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1481743-01 04/15/22 05:02 • (MS) R3781918-4 04/15/22 06:44 • (MSD) R3781918-5 04/15/22 07:04

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 %
Toluene	0.00500	ND	0.00673	0.00630	135	126	1	26.0-154			6.60	28
1,2,4-Trichlorobenzene	0.00500	ND	0.00597	0.00484	119	96.8	1	24.0-150			20.9	33
1,1,1-Trichloroethane	0.00500	ND	0.00673	0.00625	135	125	1	23.0-160			7.40	28
1,1,2-Trichloroethane	0.00500	ND	0.00703	0.00632	141	126	1	35.0-147			10.6	27
Trichloroethene	0.00500	ND	0.00595	0.00545	119	109	1	10.0-160			8.77	25
Trichlorofluoromethane	0.00500	ND	0.00685	0.00635	137	127	1	17.0-160			7.58	31
1,2,3-Trichloropropane	0.00500	ND	0.00703	0.00696	141	139	1	34.0-151			1.00	29
1,2,4-Trimethylbenzene	0.00500	ND	0.00699	0.00620	140	124	1	26.0-154			12.0	27
1,3,5-Trimethylbenzene	0.00500	ND	0.00697	0.00633	139	127	1	28.0-153			9.62	27
Vinyl acetate	0.0250	ND	0.0547	0.0501	219	200	1	12.0-160	M1	M1	8.78	31
Vinyl chloride	0.00500	ND	0.00788	0.00732	158	146	1	10.0-160			7.37	27
Xylenes, Total	0.0150	ND	0.0210	0.0186	140	124	1	29.0-154			12.1	28
Di-isopropyl ether	0.00500	ND	0.00765	0.00712	153	142	1	21.0-160			7.18	28
ethanol	0.250	ND	0.261	0.264	104	106	1	50.0-150			1.14	20
Ethyl tert-butyl ether	0.00500	ND	0.00736	0.00665	147	133	1	10.0-160			10.1	37
Methyl tert-butyl ether	0.00500	0.00103	0.00784	0.00737	136	127	1	28.0-150			6.18	29
tert-Butyl alcohol	0.0250	ND	0.0376	0.0345	150	138	1	50.0-150			8.60	20
tert-Amyl Methyl Ether	0.00500	ND	0.00714	0.00653	143	131	1	10.0-160			8.92	37
(S) Toluene-d8					*97.8*	*101*		*80.0-120*				
(S) 4-Bromofluorobenzene					*103*	*101*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*106*	*107*		*70.0-130*				

INTERNAL STANDARD SUMMARY

Instrument: VOCMS16 • File ID: 0414_33

04/14/22 19:29

Sample ID	File ID	8260-FLUOROBENZENE Response	8260-CHLOROBENZENE-D5 Response	8260-1,4-DICHLOROBENZENE-D4 Response
Standard	0414_33	428005	180099	163718
Upper Limit		856010	360198	327436
Lower Limit		214003	90050	81859
LCS R3781918-1 WG1848912 1x	0414_33LCSA	428005	180099	163718
LCSD R3781918-2 WG1848912 1x	0414_34A	399892	166341	156981
BLANK R3781918-3 WG1848912 1x	0414_36	399042	157012	149664
L1481743-07 WG1848912 1x	0414_46	361103	144254	145372
L1481743-06 WG1848912 1x	0414_49	346723	141945	140119
L1481743-01 WG1848912 1x	0414_60	406006	165638	152892
L1481743-03 WG1848912 1x	0414_61	423892	168440	146635
L1481743-02 WG1848912 10x	0414_62	389737	161893	152966
L1481743-04 WG1848912 250x	0414_63	400516	160353	150601
L1481743-05 WG1848912 1000x	0414_64	378839	152227	150556
MS R3781918-4 WG1848912 1x	0414_65	375657	163590	145168
MSD R3781918-5 WG1848912 1x	0414_66	387031	165180	154766

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

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	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
B1	Target analyte detected in method blank at or above the method reporting limit.
E1	Concentration estimated. Analyte exceeded calibration range. Reanalysis not possible due to insufficient sample.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike recovery was acceptable.
R7	LFB/LFBD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.
R8	Sample RPD exceeded the method acceptance limit.

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	LAO000356
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:
Kinder Morgan - Rocklin, CA-AZ Work

410 N.44th Street
Suite 1000
Phoenix. AZ 85008

Billing Information:
Accounts Payable- Alan Van Antwerp
9950 SAN DIEGO MISSION RD.
SAN DIEGO, CA 92108

Pres Chk

Report to: **Bob Forsberg**

Email To: bob.forsberg@arcadis-us.com;sascha.arnold@arcadis.com

Project Description: **KMEP Silvercroft Wash**

City/State Collected: Tucson, AZ

Please Circle: PT (MT) CT ET

Phone: **602-438-0883**

Client Project # **30113573.01**

Lab Project # **KINARCPAZ-SILVERCROF**

Collected by (print): MAT / SXA

Site/Facility ID # **SILVERCROFT WASH**

P.O. # **WD876456**

Collected by (signature): M. Tarin

Immediately Packed on Ice N ___ Y X

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: STD TURN

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	*NO2,NO3,SO4 125mlHDPE-NoPres	EEM RSK175 40mlAmb HCl	HOLD - NO2+NO3 250mlHDPE-H2SO4	TDS 1L-HDPE NoPres	Total Fe 6010 250mlHDPE-HNO3	VOCs+OXYs 8260 40mlAmb-HCl	Remarks	Sample # (lab only)
MW-1M	G	GW	199	4/12/22	0902	18	X	X	X	X	X	X	MS/MSD	-01
MW-2M		GW	197		1023	9	X	X	X	X	X	X		-02
MW-29M		GW	199		1152	9	X	X	X	X	X	X		-03
MW-29S		GW	172		1307	9	X	X	X	X	X	X		-04
MW-2S		GW	172		1418	9	X	X	X	X	X	X		-05
		GW												
		GW												
		GW												
Equipment Blank-2	G	~~GW~~ AQ	—	4/12/22	0808	3						X		-06
Trip Blank	—	~~GW~~ AQ	—	4/12/22	—	1						X		-07

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1481743
E126

Acctnum: **KINARCPAZ**
Template: **T190237**
Prelogin: **P914772**
PM: **110 - Brian Ford**
PB:

Shipped Via:

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:*NO2,NO3 have a 48 hour holding time.

pH _____ Temp _____

Flow _____ Other _____

Samples returned via: __ UPS __ FedEx __ Courier _____

Tracking # 561153770223 (FedEx)

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

	Date:	Time:	
Relinquished by : (Signature) M. Tarin	4/12/22	1530	Received by: (Signature) Ship & Mail Express
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No (HCl / MeoH) TBR
1

Temp: 0.2+0.2 °C Bottles Received: 54

Date: 04/13/22 Time: 0945

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

ANALYTICAL REPORT

May 13, 2022

Kinder Morgan - Rocklin, CA-AZ Work

Sample Delivery Group:	L1489212
Samples Received:	05/04/2022
Project Number:	30113573.01
Description:	KMEP Silvercroft Wash
Site:	SILVERCROFT WASH
Report To:	Bob Forsberg 410 N.44th Street Suite 1000 Phoenix, AZ 85008

Entire Report Reviewed By:

Brian Ford

Project Manager

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

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

MW-29D L1489212-01 GW

Collected by: MT/SXA | Collected date/time: 05/03/22 09:52 | Received date/time: 05/04/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1861438	1	05/10/22 13:24	05/10/22 14:22	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1858660	1	05/05/22 04:13	05/05/22 04:13	KEG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1858660	10	05/05/22 04:26	05/05/22 04:26	KEG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1861229	1	05/10/22 20:40	05/13/22 00:32	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1860821	1	05/10/22 11:06	05/10/22 11:06	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1858955	1	05/05/22 23:22	05/05/22 23:22	JAH	Mt. Juliet, TN

MW-1D L1489212-02 GW

Collected by: MT/SXA | Collected date/time: 05/03/22 11:22 | Received date/time: 05/04/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1861438	1	05/10/22 13:24	05/10/22 14:22	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1858660	1	05/05/22 05:30	05/05/22 05:30	KEG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1858660	10	05/05/22 05:43	05/05/22 05:43	KEG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1861147	1	05/10/22 04:37	05/11/22 00:14	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1860821	1	05/10/22 11:08	05/10/22 11:08	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1858955	1	05/05/22 23:42	05/05/22 23:42	JAH	Mt. Juliet, TN

MW-2D L1489212-03 GW

Collected by: MT/SXA | Collected date/time: 05/03/22 12:47 | Received date/time: 05/04/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1861435	1	05/10/22 10:05	05/10/22 15:19	MEU	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1858857	1	05/04/22 21:01	05/04/22 21:01	KEG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1858857	5	05/04/22 21:16	05/04/22 21:16	KEG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1861147	1	05/10/22 04:37	05/11/22 00:17	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1860821	1	05/10/22 11:25	05/10/22 11:25	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1858955	1	05/06/22 00:03	05/06/22 00:03	JAH	Mt. Juliet, TN

MW-1M L1489212-04 GW

Collected by: MT/SXA | Collected date/time: 05/03/22 13:53 | Received date/time: 05/04/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1861438	1	05/10/22 13:24	05/10/22 14:22	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1858857	1	05/04/22 21:32	05/04/22 21:32	KEG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1858857	5	05/04/22 21:48	05/04/22 21:48	KEG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1861147	1	05/10/22 04:37	05/11/22 00:20	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1861160	1	05/11/22 08:51	05/11/22 08:51	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1858955	1	05/06/22 00:24	05/06/22 00:24	JAH	Mt. Juliet, TN

MW-29M L1489212-05 GW

Collected by: MT/SXA | Collected date/time: 05/03/22 15:07 | Received date/time: 05/04/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1861438	1	05/10/22 13:24	05/10/22 14:22	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1858857	1	05/04/22 22:04	05/04/22 22:04	KEG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1858857	5	05/04/22 22:30	05/04/22 22:30	KEG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1861147	1	05/10/22 04:37	05/11/22 00:29	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1861160	1	05/11/22 08:54	05/11/22 08:54	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1858955	1	05/06/22 00:44	05/06/22 00:44	JAH	Mt. Juliet, TN

EQUIPMENT BLANK L1489212-06 GW

Collected by	Collected date/time	Received date/time
MT/SXA	05/03/22 08:35	05/04/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1858955	1	05/05/22 21:19	05/05/22 21:19	JAH	Mt. Juliet, TN

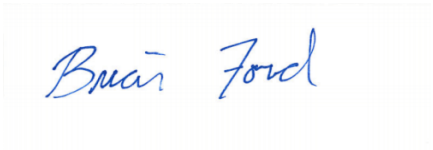
TRIP BLANK L1489212-07 GW

Collected by	Collected date/time	Received date/time
MT/SXA	05/03/22 00:00	05/04/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1858955	1	05/05/22 20:45	05/05/22 20:45	JAH	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.



Brian Ford
Project Manager

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	661		13.3	1	05/10/2022 14:22	WG1861438

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	3.11		0.100	1	05/05/2022 04:13	WG1858660
Nitrite	ND		0.100	1	05/05/2022 04:13	WG1858660
Sulfate	252	M3	50.0	10	05/05/2022 04:26	WG1858660

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	0.126		0.100	1	05/13/2022 00:32	WG1861229

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	05/10/2022 11:06	WG1860821
Ethane	ND		0.0130	1	05/10/2022 11:06	WG1860821
Ethene	ND		0.0130	1	05/10/2022 11:06	WG1860821

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	05/05/2022 23:22	WG1858955
Acrylonitrile	ND		0.0100	1	05/05/2022 23:22	WG1858955
Benzene	ND		0.00100	1	05/05/2022 23:22	WG1858955
Bromobenzene	ND		0.00100	1	05/05/2022 23:22	WG1858955
Bromochloromethane	ND		0.00100	1	05/05/2022 23:22	WG1858955
Bromodichloromethane	ND		0.00100	1	05/05/2022 23:22	WG1858955
Bromoform	ND		0.00100	1	05/05/2022 23:22	WG1858955
Bromomethane	ND		0.00500	1	05/05/2022 23:22	WG1858955
n-Butylbenzene	ND		0.00100	1	05/05/2022 23:22	WG1858955
sec-Butylbenzene	ND		0.00100	1	05/05/2022 23:22	WG1858955
tert-Butylbenzene	ND		0.00100	1	05/05/2022 23:22	WG1858955
Carbon tetrachloride	ND		0.00100	1	05/05/2022 23:22	WG1858955
Carbon disulfide	ND		0.00100	1	05/05/2022 23:22	WG1858955
Chlorobenzene	ND		0.00100	1	05/05/2022 23:22	WG1858955
Chlorodibromomethane	ND		0.00100	1	05/05/2022 23:22	WG1858955
Chloroethane	ND		0.00500	1	05/05/2022 23:22	WG1858955
Chloroform	ND		0.00500	1	05/05/2022 23:22	WG1858955
Chloromethane	ND	M1	0.00250	1	05/05/2022 23:22	WG1858955
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	05/05/2022 23:22	WG1858955
1,2-Dibromoethane	ND		0.00100	1	05/05/2022 23:22	WG1858955
Dibromomethane	ND		0.00100	1	05/05/2022 23:22	WG1858955
1,2-Dichlorobenzene	ND		0.00100	1	05/05/2022 23:22	WG1858955
1,3-Dichlorobenzene	ND		0.00100	1	05/05/2022 23:22	WG1858955
1,4-Dichlorobenzene	ND		0.00100	1	05/05/2022 23:22	WG1858955
trans-1,4-Dichloro-2-butene	ND	L2	0.00250	1	05/05/2022 23:22	WG1858955
Dichlorodifluoromethane	ND		0.00500	1	05/05/2022 23:22	WG1858955
1,1-Dichloroethane	ND		0.00100	1	05/05/2022 23:22	WG1858955
1,2-Dichloroethane	ND		0.00100	1	05/05/2022 23:22	WG1858955
1,1-Dichloroethene	ND		0.00100	1	05/05/2022 23:22	WG1858955
cis-1,2-Dichloroethene	ND		0.00100	1	05/05/2022 23:22	WG1858955

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.00100	1	05/05/2022 23:22	WG1858955
1,2-Dichloropropane	ND		0.00100	1	05/05/2022 23:22	WG1858955
cis-1,3-Dichloropropene	ND		0.00100	1	05/05/2022 23:22	WG1858955
trans-1,3-Dichloropropene	ND		0.00100	1	05/05/2022 23:22	WG1858955
Ethylbenzene	ND		0.00100	1	05/05/2022 23:22	WG1858955
Hexachloro-1,3-butadiene	ND		0.00100	1	05/05/2022 23:22	WG1858955
2-Hexanone	ND		0.0100	1	05/05/2022 23:22	WG1858955
2-Butanone (MEK)	ND		0.0100	1	05/05/2022 23:22	WG1858955
Iodomethane	ND		0.0100	1	05/05/2022 23:22	WG1858955
Methylene Chloride	ND		0.00500	1	05/05/2022 23:22	WG1858955
4-Methyl-2-pentanone (MIBK)	ND	M1	0.0100	1	05/05/2022 23:22	WG1858955
Naphthalene	ND		0.00500	1	05/05/2022 23:22	WG1858955
n-Propylbenzene	ND		0.00100	1	05/05/2022 23:22	WG1858955
Styrene	ND		0.00100	1	05/05/2022 23:22	WG1858955
1,1,1,2-Tetrachloroethane	ND		0.00100	1	05/05/2022 23:22	WG1858955
1,1,2,2-Tetrachloroethane	ND	M1	0.00100	1	05/05/2022 23:22	WG1858955
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	05/05/2022 23:22	WG1858955
Tetrachloroethene	ND		0.00100	1	05/05/2022 23:22	WG1858955
Toluene	ND		0.00100	1	05/05/2022 23:22	WG1858955
1,2,4-Trichlorobenzene	ND		0.00100	1	05/05/2022 23:22	WG1858955
1,1,1-Trichloroethane	ND		0.00100	1	05/05/2022 23:22	WG1858955
1,1,2-Trichloroethane	ND		0.00100	1	05/05/2022 23:22	WG1858955
Trichloroethene	ND		0.00100	1	05/05/2022 23:22	WG1858955
Trichlorofluoromethane	ND		0.00500	1	05/05/2022 23:22	WG1858955
1,2,3-Trichloropropane	ND		0.00250	1	05/05/2022 23:22	WG1858955
1,2,4-Trimethylbenzene	ND		0.00100	1	05/05/2022 23:22	WG1858955
1,3,5-Trimethylbenzene	ND		0.00100	1	05/05/2022 23:22	WG1858955
Vinyl acetate	ND	M1	0.0100	1	05/05/2022 23:22	WG1858955
Vinyl chloride	ND		0.00100	1	05/05/2022 23:22	WG1858955
Xylenes, Total	ND		0.00300	1	05/05/2022 23:22	WG1858955
Di-isopropyl ether	ND	M1	0.00100	1	05/05/2022 23:22	WG1858955
Ethanol	ND	M1 R5	0.100	1	05/05/2022 23:22	WG1858955
Ethyl tert-butyl ether	ND		0.00100	1	05/05/2022 23:22	WG1858955
Methyl tert-butyl ether	ND		0.00100	1	05/05/2022 23:22	WG1858955
tert-Butyl alcohol	ND	R5	0.00500	1	05/05/2022 23:22	WG1858955
tert-Amyl Methyl Ether	ND		0.00100	1	05/05/2022 23:22	WG1858955
(S) Toluene-d8	*114*		*80.0-120*		*05/05/2022 23:22*	WG1858955
(S) 4-Bromofluorobenzene	*91.0*		*77.0-126*		*05/05/2022 23:22*	WG1858955
(S) 1,2-Dichloroethane-d4	*88.0*		*70.0-130*		*05/05/2022 23:22*	WG1858955

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	759		13.3	1	05/10/2022 14:22	WG1861438

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	4.00		0.100	1	05/05/2022 05:30	WG1858660
Nitrite	ND		0.100	1	05/05/2022 05:30	WG1858660
Sulfate	276		50.0	10	05/05/2022 05:43	WG1858660

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	0.146		0.100	1	05/11/2022 00:14	WG1861147

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	05/10/2022 11:08	WG1860821
Ethane	ND		0.0130	1	05/10/2022 11:08	WG1860821
Ethene	ND		0.0130	1	05/10/2022 11:08	WG1860821

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	05/05/2022 23:42	WG1858955
Acrylonitrile	ND		0.0100	1	05/05/2022 23:42	WG1858955
Benzene	ND		0.00100	1	05/05/2022 23:42	WG1858955
Bromobenzene	ND		0.00100	1	05/05/2022 23:42	WG1858955
Bromochloromethane	ND		0.00100	1	05/05/2022 23:42	WG1858955
Bromodichloromethane	ND		0.00100	1	05/05/2022 23:42	WG1858955
Bromoform	ND		0.00100	1	05/05/2022 23:42	WG1858955
Bromomethane	ND		0.00500	1	05/05/2022 23:42	WG1858955
n-Butylbenzene	ND		0.00100	1	05/05/2022 23:42	WG1858955
sec-Butylbenzene	ND		0.00100	1	05/05/2022 23:42	WG1858955
tert-Butylbenzene	ND		0.00100	1	05/05/2022 23:42	WG1858955
Carbon tetrachloride	ND		0.00100	1	05/05/2022 23:42	WG1858955
Carbon disulfide	ND		0.00100	1	05/05/2022 23:42	WG1858955
Chlorobenzene	ND		0.00100	1	05/05/2022 23:42	WG1858955
Chlorodibromomethane	ND		0.00100	1	05/05/2022 23:42	WG1858955
Chloroethane	ND		0.00500	1	05/05/2022 23:42	WG1858955
Chloroform	ND		0.00500	1	05/05/2022 23:42	WG1858955
Chloromethane	ND		0.00250	1	05/05/2022 23:42	WG1858955
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	05/05/2022 23:42	WG1858955
1,2-Dibromoethane	ND		0.00100	1	05/05/2022 23:42	WG1858955
Dibromomethane	ND		0.00100	1	05/05/2022 23:42	WG1858955
1,2-Dichlorobenzene	ND		0.00100	1	05/05/2022 23:42	WG1858955
1,3-Dichlorobenzene	ND		0.00100	1	05/05/2022 23:42	WG1858955
1,4-Dichlorobenzene	ND		0.00100	1	05/05/2022 23:42	WG1858955
trans-1,4-Dichloro-2-butene	ND	L2 R7	0.00250	1	05/05/2022 23:42	WG1858955
Dichlorodifluoromethane	ND		0.00500	1	05/05/2022 23:42	WG1858955
1,1-Dichloroethane	ND		0.00100	1	05/05/2022 23:42	WG1858955
1,2-Dichloroethane	ND		0.00100	1	05/05/2022 23:42	WG1858955
1,1-Dichloroethene	ND		0.00100	1	05/05/2022 23:42	WG1858955
cis-1,2-Dichloroethene	ND		0.00100	1	05/05/2022 23:42	WG1858955

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.00100	1	05/05/2022 23:42	WG1858955
1,2-Dichloropropane	ND		0.00100	1	05/05/2022 23:42	WG1858955
cis-1,3-Dichloropropene	ND		0.00100	1	05/05/2022 23:42	WG1858955
trans-1,3-Dichloropropene	ND		0.00100	1	05/05/2022 23:42	WG1858955
Ethylbenzene	ND		0.00100	1	05/05/2022 23:42	WG1858955
Hexachloro-1,3-butadiene	ND		0.00100	1	05/05/2022 23:42	WG1858955
2-Hexanone	ND		0.0100	1	05/05/2022 23:42	WG1858955
2-Butanone (MEK)	ND		0.0100	1	05/05/2022 23:42	WG1858955
Iodomethane	ND		0.0100	1	05/05/2022 23:42	WG1858955
Methylene Chloride	ND		0.00500	1	05/05/2022 23:42	WG1858955
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	05/05/2022 23:42	WG1858955
Naphthalene	ND		0.00500	1	05/05/2022 23:42	WG1858955
n-Propylbenzene	ND		0.00100	1	05/05/2022 23:42	WG1858955
Styrene	ND		0.00100	1	05/05/2022 23:42	WG1858955
1,1,1,2-Tetrachloroethane	ND		0.00100	1	05/05/2022 23:42	WG1858955
1,1,2,2-Tetrachloroethane	ND		0.00100	1	05/05/2022 23:42	WG1858955
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	05/05/2022 23:42	WG1858955
Tetrachloroethene	ND		0.00100	1	05/05/2022 23:42	WG1858955
Toluene	ND		0.00100	1	05/05/2022 23:42	WG1858955
1,2,4-Trichlorobenzene	ND		0.00100	1	05/05/2022 23:42	WG1858955
1,1,1-Trichloroethane	ND		0.00100	1	05/05/2022 23:42	WG1858955
1,1,2-Trichloroethane	ND		0.00100	1	05/05/2022 23:42	WG1858955
Trichloroethene	ND		0.00100	1	05/05/2022 23:42	WG1858955
Trichlorofluoromethane	ND		0.00500	1	05/05/2022 23:42	WG1858955
1,2,3-Trichloropropane	ND		0.00250	1	05/05/2022 23:42	WG1858955
1,2,4-Trimethylbenzene	ND		0.00100	1	05/05/2022 23:42	WG1858955
1,3,5-Trimethylbenzene	ND		0.00100	1	05/05/2022 23:42	WG1858955
Vinyl acetate	ND		0.0100	1	05/05/2022 23:42	WG1858955
Vinyl chloride	ND		0.00100	1	05/05/2022 23:42	WG1858955
Xylenes, Total	ND		0.00300	1	05/05/2022 23:42	WG1858955
Di-isopropyl ether	ND		0.00100	1	05/05/2022 23:42	WG1858955
Ethanol	ND	R5	0.100	1	05/05/2022 23:42	WG1858955
Ethyl tert-butyl ether	ND		0.00100	1	05/05/2022 23:42	WG1858955
Methyl tert-butyl ether	ND		0.00100	1	05/05/2022 23:42	WG1858955
tert-Butyl alcohol	ND		0.00500	1	05/05/2022 23:42	WG1858955
tert-Amyl Methyl Ether	ND		0.00100	1	05/05/2022 23:42	WG1858955
(S) Toluene-d8	*113*		*80.0-120*		*05/05/2022 23:42*	WG1858955
(S) 4-Bromofluorobenzene	*90.9*		*77.0-126*		*05/05/2022 23:42*	WG1858955
(S) 1,2-Dichloroethane-d4	*89.7*		*70.0-130*		*05/05/2022 23:42*	WG1858955

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	783		13.3	1	05/10/2022 15:19	WG1861435

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Nitrate	3.11		0.100	1	05/04/2022 21:01	WG1858857
Nitrite	ND		0.100	1	05/04/2022 21:01	WG1858857
Sulfate	268		25.0	5	05/04/2022 21:16	WG1858857

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Iron	ND		0.100	1	05/11/2022 00:17	WG1861147

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Methane	ND		0.0100	1	05/10/2022 11:25	WG1860821
Ethane	ND		0.0130	1	05/10/2022 11:25	WG1860821
Ethene	ND		0.0130	1	05/10/2022 11:25	WG1860821

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Acetone	ND		0.0500	1	05/06/2022 00:03	WG1858955
Acrylonitrile	ND		0.0100	1	05/06/2022 00:03	WG1858955
Benzene	ND		0.00100	1	05/06/2022 00:03	WG1858955
Bromobenzene	ND		0.00100	1	05/06/2022 00:03	WG1858955
Bromochloromethane	ND		0.00100	1	05/06/2022 00:03	WG1858955
Bromodichloromethane	ND		0.00100	1	05/06/2022 00:03	WG1858955
Bromoform	ND		0.00100	1	05/06/2022 00:03	WG1858955
Bromomethane	ND		0.00500	1	05/06/2022 00:03	WG1858955
n-Butylbenzene	ND		0.00100	1	05/06/2022 00:03	WG1858955
sec-Butylbenzene	ND		0.00100	1	05/06/2022 00:03	WG1858955
tert-Butylbenzene	ND		0.00100	1	05/06/2022 00:03	WG1858955
Carbon tetrachloride	ND		0.00100	1	05/06/2022 00:03	WG1858955
Carbon disulfide	ND		0.00100	1	05/06/2022 00:03	WG1858955
Chlorobenzene	ND		0.00100	1	05/06/2022 00:03	WG1858955
Chlorodibromomethane	ND		0.00100	1	05/06/2022 00:03	WG1858955
Chloroethane	ND		0.00500	1	05/06/2022 00:03	WG1858955
Chloroform	ND		0.00500	1	05/06/2022 00:03	WG1858955
Chloromethane	ND		0.00250	1	05/06/2022 00:03	WG1858955
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	05/06/2022 00:03	WG1858955
1,2-Dibromoethane	ND		0.00100	1	05/06/2022 00:03	WG1858955
Dibromomethane	ND		0.00100	1	05/06/2022 00:03	WG1858955
1,2-Dichlorobenzene	ND		0.00100	1	05/06/2022 00:03	WG1858955
1,3-Dichlorobenzene	ND		0.00100	1	05/06/2022 00:03	WG1858955
1,4-Dichlorobenzene	ND		0.00100	1	05/06/2022 00:03	WG1858955
trans-1,4-Dichloro-2-butene	ND	L2 R7	0.00250	1	05/06/2022 00:03	WG1858955
Dichlorodifluoromethane	ND		0.00500	1	05/06/2022 00:03	WG1858955
1,1-Dichloroethane	ND		0.00100	1	05/06/2022 00:03	WG1858955
1,2-Dichloroethane	ND		0.00100	1	05/06/2022 00:03	WG1858955
1,1-Dichloroethene	ND		0.00100	1	05/06/2022 00:03	WG1858955
cis-1,2-Dichloroethene	ND		0.00100	1	05/06/2022 00:03	WG1858955

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

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.00100	1	05/06/2022 00:03	WG1858955
1,2-Dichloropropane	ND		0.00100	1	05/06/2022 00:03	WG1858955
cis-1,3-Dichloropropene	ND		0.00100	1	05/06/2022 00:03	WG1858955
trans-1,3-Dichloropropene	ND		0.00100	1	05/06/2022 00:03	WG1858955
Ethylbenzene	ND		0.00100	1	05/06/2022 00:03	WG1858955
Hexachloro-1,3-butadiene	ND		0.00100	1	05/06/2022 00:03	WG1858955
2-Hexanone	ND		0.0100	1	05/06/2022 00:03	WG1858955
2-Butanone (MEK)	ND		0.0100	1	05/06/2022 00:03	WG1858955
Iodomethane	ND		0.0100	1	05/06/2022 00:03	WG1858955
Methylene Chloride	ND		0.00500	1	05/06/2022 00:03	WG1858955
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	05/06/2022 00:03	WG1858955
Naphthalene	ND		0.00500	1	05/06/2022 00:03	WG1858955
n-Propylbenzene	ND		0.00100	1	05/06/2022 00:03	WG1858955
Styrene	ND		0.00100	1	05/06/2022 00:03	WG1858955
1,1,1,2-Tetrachloroethane	ND		0.00100	1	05/06/2022 00:03	WG1858955
1,1,2,2-Tetrachloroethane	ND		0.00100	1	05/06/2022 00:03	WG1858955
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	05/06/2022 00:03	WG1858955
Tetrachloroethene	ND		0.00100	1	05/06/2022 00:03	WG1858955
Toluene	ND		0.00100	1	05/06/2022 00:03	WG1858955
1,2,4-Trichlorobenzene	ND		0.00100	1	05/06/2022 00:03	WG1858955
1,1,1-Trichloroethane	ND		0.00100	1	05/06/2022 00:03	WG1858955
1,1,2-Trichloroethane	ND		0.00100	1	05/06/2022 00:03	WG1858955
Trichloroethene	ND		0.00100	1	05/06/2022 00:03	WG1858955
Trichlorofluoromethane	ND		0.00500	1	05/06/2022 00:03	WG1858955
1,2,3-Trichloropropane	ND		0.00250	1	05/06/2022 00:03	WG1858955
1,2,4-Trimethylbenzene	ND		0.00100	1	05/06/2022 00:03	WG1858955
1,3,5-Trimethylbenzene	ND		0.00100	1	05/06/2022 00:03	WG1858955
Vinyl acetate	ND		0.0100	1	05/06/2022 00:03	WG1858955
Vinyl chloride	ND		0.00100	1	05/06/2022 00:03	WG1858955
Xylenes, Total	ND		0.00300	1	05/06/2022 00:03	WG1858955
Di-isopropyl ether	ND		0.00100	1	05/06/2022 00:03	WG1858955
Ethanol	ND	R5	0.100	1	05/06/2022 00:03	WG1858955
Ethyl tert-butyl ether	ND		0.00100	1	05/06/2022 00:03	WG1858955
Methyl tert-butyl ether	0.135		0.00100	1	05/06/2022 00:03	WG1858955
tert-Butyl alcohol	ND		0.00500	1	05/06/2022 00:03	WG1858955
tert-Amyl Methyl Ether	0.00880		0.00100	1	05/06/2022 00:03	WG1858955
(S) Toluene-d8	*113*		*80.0-120*		*05/06/2022 00:03*	WG1858955
(S) 4-Bromofluorobenzene	*88.8*		*77.0-126*		*05/06/2022 00:03*	WG1858955
(S) 1,2-Dichloroethane-d4	*85.0*		*70.0-130*		*05/06/2022 00:03*	WG1858955

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	612		10.0	1	05/10/2022 14:22	WG1861438

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Nitrate	2.67		0.100	1	05/04/2022 21:32	WG1858857
Nitrite	ND		0.100	1	05/04/2022 21:32	WG1858857
Sulfate	220		25.0	5	05/04/2022 21:48	WG1858857

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Iron	0.832		0.100	1	05/11/2022 00:20	WG1861147

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Methane	ND		0.0100	1	05/11/2022 08:51	WG1861160
Ethane	ND		0.0130	1	05/11/2022 08:51	WG1861160
Ethene	ND		0.0130	1	05/11/2022 08:51	WG1861160

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Acetone	ND		0.0500	1	05/06/2022 00:24	WG1858955
Acrylonitrile	ND		0.0100	1	05/06/2022 00:24	WG1858955
Benzene	ND		0.00100	1	05/06/2022 00:24	WG1858955
Bromobenzene	ND		0.00100	1	05/06/2022 00:24	WG1858955
Bromochloromethane	ND		0.00100	1	05/06/2022 00:24	WG1858955
Bromodichloromethane	ND		0.00100	1	05/06/2022 00:24	WG1858955
Bromoform	ND		0.00100	1	05/06/2022 00:24	WG1858955
Bromomethane	ND		0.00500	1	05/06/2022 00:24	WG1858955
n-Butylbenzene	ND		0.00100	1	05/06/2022 00:24	WG1858955
sec-Butylbenzene	ND		0.00100	1	05/06/2022 00:24	WG1858955
tert-Butylbenzene	ND		0.00100	1	05/06/2022 00:24	WG1858955
Carbon tetrachloride	ND		0.00100	1	05/06/2022 00:24	WG1858955
Carbon disulfide	ND		0.00100	1	05/06/2022 00:24	WG1858955
Chlorobenzene	ND		0.00100	1	05/06/2022 00:24	WG1858955
Chlorodibromomethane	ND		0.00100	1	05/06/2022 00:24	WG1858955
Chloroethane	ND		0.00500	1	05/06/2022 00:24	WG1858955
Chloroform	ND		0.00500	1	05/06/2022 00:24	WG1858955
Chloromethane	ND		0.00250	1	05/06/2022 00:24	WG1858955
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	05/06/2022 00:24	WG1858955
1,2-Dibromoethane	ND		0.00100	1	05/06/2022 00:24	WG1858955
Dibromomethane	ND		0.00100	1	05/06/2022 00:24	WG1858955
1,2-Dichlorobenzene	ND		0.00100	1	05/06/2022 00:24	WG1858955
1,3-Dichlorobenzene	ND		0.00100	1	05/06/2022 00:24	WG1858955
1,4-Dichlorobenzene	ND		0.00100	1	05/06/2022 00:24	WG1858955
trans-1,4-Dichloro-2-butene	ND	L2 R7	0.00250	1	05/06/2022 00:24	WG1858955
Dichlorodifluoromethane	ND		0.00500	1	05/06/2022 00:24	WG1858955
1,1-Dichloroethane	ND		0.00100	1	05/06/2022 00:24	WG1858955
1,2-Dichloroethane	ND		0.00100	1	05/06/2022 00:24	WG1858955
1,1-Dichloroethene	ND		0.00100	1	05/06/2022 00:24	WG1858955
cis-1,2-Dichloroethene	ND		0.00100	1	05/06/2022 00:24	WG1858955

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.00100	1	05/06/2022 00:24	WG1858955
1,2-Dichloropropane	ND		0.00100	1	05/06/2022 00:24	WG1858955
cis-1,3-Dichloropropene	ND		0.00100	1	05/06/2022 00:24	WG1858955
trans-1,3-Dichloropropene	ND		0.00100	1	05/06/2022 00:24	WG1858955
Ethylbenzene	ND		0.00100	1	05/06/2022 00:24	WG1858955
Hexachloro-1,3-butadiene	ND		0.00100	1	05/06/2022 00:24	WG1858955
2-Hexanone	ND		0.0100	1	05/06/2022 00:24	WG1858955
2-Butanone (MEK)	ND		0.0100	1	05/06/2022 00:24	WG1858955
Iodomethane	ND		0.0100	1	05/06/2022 00:24	WG1858955
Methylene Chloride	ND		0.00500	1	05/06/2022 00:24	WG1858955
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	05/06/2022 00:24	WG1858955
Naphthalene	ND		0.00500	1	05/06/2022 00:24	WG1858955
n-Propylbenzene	ND		0.00100	1	05/06/2022 00:24	WG1858955
Styrene	ND		0.00100	1	05/06/2022 00:24	WG1858955
1,1,1,2-Tetrachloroethane	ND		0.00100	1	05/06/2022 00:24	WG1858955
1,1,2,2-Tetrachloroethane	ND		0.00100	1	05/06/2022 00:24	WG1858955
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	05/06/2022 00:24	WG1858955
Tetrachloroethene	ND		0.00100	1	05/06/2022 00:24	WG1858955
Toluene	ND		0.00100	1	05/06/2022 00:24	WG1858955
1,2,4-Trichlorobenzene	ND		0.00100	1	05/06/2022 00:24	WG1858955
1,1,1-Trichloroethane	ND		0.00100	1	05/06/2022 00:24	WG1858955
1,1,2-Trichloroethane	ND		0.00100	1	05/06/2022 00:24	WG1858955
Trichloroethene	ND		0.00100	1	05/06/2022 00:24	WG1858955
Trichlorofluoromethane	ND		0.00500	1	05/06/2022 00:24	WG1858955
1,2,3-Trichloropropane	ND		0.00250	1	05/06/2022 00:24	WG1858955
1,2,4-Trimethylbenzene	ND		0.00100	1	05/06/2022 00:24	WG1858955
1,3,5-Trimethylbenzene	ND		0.00100	1	05/06/2022 00:24	WG1858955
Vinyl acetate	ND		0.0100	1	05/06/2022 00:24	WG1858955
Vinyl chloride	ND		0.00100	1	05/06/2022 00:24	WG1858955
Xylenes, Total	ND		0.00300	1	05/06/2022 00:24	WG1858955
Di-isopropyl ether	ND		0.00100	1	05/06/2022 00:24	WG1858955
Ethanol	ND	R5	0.100	1	05/06/2022 00:24	WG1858955
Ethyl tert-butyl ether	ND		0.00100	1	05/06/2022 00:24	WG1858955
Methyl tert-butyl ether	ND		0.00100	1	05/06/2022 00:24	WG1858955
tert-Butyl alcohol	ND		0.00500	1	05/06/2022 00:24	WG1858955
tert-Amyl Methyl Ether	ND		0.00100	1	05/06/2022 00:24	WG1858955
(S) Toluene-d8	*113*		*80.0-120*		*05/06/2022 00:24*	WG1858955
(S) 4-Bromofluorobenzene	*90.4*		*77.0-126*		*05/06/2022 00:24*	WG1858955
(S) 1,2-Dichloroethane-d4	*89.9*		*70.0-130*		*05/06/2022 00:24*	WG1858955

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	680		13.3	1	05/10/2022 14:22	WG1861438

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Nitrate	2.17		0.100	1	05/04/2022 22:04	WG1858857
Nitrite	ND		0.100	1	05/04/2022 22:04	WG1858857
Sulfate	240		25.0	5	05/04/2022 22:30	WG1858857

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Iron	0.314		0.100	1	05/11/2022 00:29	WG1861147

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Methane	ND		0.0100	1	05/11/2022 08:54	WG1861160
Ethane	ND		0.0130	1	05/11/2022 08:54	WG1861160
Ethene	ND		0.0130	1	05/11/2022 08:54	WG1861160

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Acetone	ND		0.0500	1	05/06/2022 00:44	WG1858955
Acrylonitrile	ND		0.0100	1	05/06/2022 00:44	WG1858955
Benzene	ND		0.00100	1	05/06/2022 00:44	WG1858955
Bromobenzene	ND		0.00100	1	05/06/2022 00:44	WG1858955
Bromochloromethane	ND		0.00100	1	05/06/2022 00:44	WG1858955
Bromodichloromethane	ND		0.00100	1	05/06/2022 00:44	WG1858955
Bromoform	ND		0.00100	1	05/06/2022 00:44	WG1858955
Bromomethane	ND		0.00500	1	05/06/2022 00:44	WG1858955
n-Butylbenzene	ND		0.00100	1	05/06/2022 00:44	WG1858955
sec-Butylbenzene	ND		0.00100	1	05/06/2022 00:44	WG1858955
tert-Butylbenzene	ND		0.00100	1	05/06/2022 00:44	WG1858955
Carbon tetrachloride	ND		0.00100	1	05/06/2022 00:44	WG1858955
Carbon disulfide	ND		0.00100	1	05/06/2022 00:44	WG1858955
Chlorobenzene	ND		0.00100	1	05/06/2022 00:44	WG1858955
Chlorodibromomethane	ND		0.00100	1	05/06/2022 00:44	WG1858955
Chloroethane	ND		0.00500	1	05/06/2022 00:44	WG1858955
Chloroform	ND		0.00500	1	05/06/2022 00:44	WG1858955
Chloromethane	ND		0.00250	1	05/06/2022 00:44	WG1858955
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	05/06/2022 00:44	WG1858955
1,2-Dibromoethane	ND		0.00100	1	05/06/2022 00:44	WG1858955
Dibromomethane	ND		0.00100	1	05/06/2022 00:44	WG1858955
1,2-Dichlorobenzene	ND		0.00100	1	05/06/2022 00:44	WG1858955
1,3-Dichlorobenzene	ND		0.00100	1	05/06/2022 00:44	WG1858955
1,4-Dichlorobenzene	ND		0.00100	1	05/06/2022 00:44	WG1858955
trans-1,4-Dichloro-2-butene	ND	L2 R7	0.00250	1	05/06/2022 00:44	WG1858955
Dichlorodifluoromethane	ND		0.00500	1	05/06/2022 00:44	WG1858955
1,1-Dichloroethane	ND		0.00100	1	05/06/2022 00:44	WG1858955
1,2-Dichloroethane	ND		0.00100	1	05/06/2022 00:44	WG1858955
1,1-Dichloroethene	ND		0.00100	1	05/06/2022 00:44	WG1858955
cis-1,2-Dichloroethene	ND		0.00100	1	05/06/2022 00:44	WG1858955

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

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.00100	1	05/06/2022 00:44	WG1858955
1,2-Dichloropropane	ND		0.00100	1	05/06/2022 00:44	WG1858955
cis-1,3-Dichloropropene	ND		0.00100	1	05/06/2022 00:44	WG1858955
trans-1,3-Dichloropropene	ND		0.00100	1	05/06/2022 00:44	WG1858955
Ethylbenzene	ND		0.00100	1	05/06/2022 00:44	WG1858955
Hexachloro-1,3-butadiene	ND		0.00100	1	05/06/2022 00:44	WG1858955
2-Hexanone	ND		0.0100	1	05/06/2022 00:44	WG1858955
2-Butanone (MEK)	ND		0.0100	1	05/06/2022 00:44	WG1858955
Iodomethane	ND		0.0100	1	05/06/2022 00:44	WG1858955
Methylene Chloride	ND		0.00500	1	05/06/2022 00:44	WG1858955
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	05/06/2022 00:44	WG1858955
Naphthalene	ND		0.00500	1	05/06/2022 00:44	WG1858955
n-Propylbenzene	ND		0.00100	1	05/06/2022 00:44	WG1858955
Styrene	ND		0.00100	1	05/06/2022 00:44	WG1858955
1,1,1,2-Tetrachloroethane	ND		0.00100	1	05/06/2022 00:44	WG1858955
1,1,2,2-Tetrachloroethane	ND		0.00100	1	05/06/2022 00:44	WG1858955
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	05/06/2022 00:44	WG1858955
Tetrachloroethene	ND		0.00100	1	05/06/2022 00:44	WG1858955
Toluene	ND		0.00100	1	05/06/2022 00:44	WG1858955
1,2,4-Trichlorobenzene	ND		0.00100	1	05/06/2022 00:44	WG1858955
1,1,1-Trichloroethane	ND		0.00100	1	05/06/2022 00:44	WG1858955
1,1,2-Trichloroethane	ND		0.00100	1	05/06/2022 00:44	WG1858955
Trichloroethene	ND		0.00100	1	05/06/2022 00:44	WG1858955
Trichlorofluoromethane	ND		0.00500	1	05/06/2022 00:44	WG1858955
1,2,3-Trichloropropane	ND		0.00250	1	05/06/2022 00:44	WG1858955
1,2,4-Trimethylbenzene	ND		0.00100	1	05/06/2022 00:44	WG1858955
1,3,5-Trimethylbenzene	ND		0.00100	1	05/06/2022 00:44	WG1858955
Vinyl acetate	ND		0.0100	1	05/06/2022 00:44	WG1858955
Vinyl chloride	ND		0.00100	1	05/06/2022 00:44	WG1858955
Xylenes, Total	ND		0.00300	1	05/06/2022 00:44	WG1858955
Di-isopropyl ether	ND		0.00100	1	05/06/2022 00:44	WG1858955
Ethanol	ND	R5	0.100	1	05/06/2022 00:44	WG1858955
Ethyl tert-butyl ether	ND		0.00100	1	05/06/2022 00:44	WG1858955
Methyl tert-butyl ether	0.168		0.00100	1	05/06/2022 00:44	WG1858955
tert-Butyl alcohol	ND		0.00500	1	05/06/2022 00:44	WG1858955
tert-Amyl Methyl Ether	0.0228		0.00100	1	05/06/2022 00:44	WG1858955
(S) Toluene-d8	*112*		*80.0-120*		*05/06/2022 00:44*	WG1858955
(S) 4-Bromofluorobenzene	*88.8*		*77.0-126*		*05/06/2022 00:44*	WG1858955
(S) 1,2-Dichloroethane-d4	*88.9*		*70.0-130*		*05/06/2022 00:44*	WG1858955

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	05/05/2022 21:19	WG1858955
Acrylonitrile	ND		0.0100	1	05/05/2022 21:19	WG1858955
Benzene	ND		0.00100	1	05/05/2022 21:19	WG1858955
Bromobenzene	ND		0.00100	1	05/05/2022 21:19	WG1858955
Bromochloromethane	ND		0.00100	1	05/05/2022 21:19	WG1858955
Bromodichloromethane	ND		0.00100	1	05/05/2022 21:19	WG1858955
Bromoform	ND		0.00100	1	05/05/2022 21:19	WG1858955
Bromomethane	ND		0.00500	1	05/05/2022 21:19	WG1858955
n-Butylbenzene	ND		0.00100	1	05/05/2022 21:19	WG1858955
sec-Butylbenzene	ND		0.00100	1	05/05/2022 21:19	WG1858955
tert-Butylbenzene	ND		0.00100	1	05/05/2022 21:19	WG1858955
Carbon tetrachloride	ND		0.00100	1	05/05/2022 21:19	WG1858955
Carbon disulfide	ND		0.00100	1	05/05/2022 21:19	WG1858955
Chlorobenzene	ND		0.00100	1	05/05/2022 21:19	WG1858955
Chlorodibromomethane	ND		0.00100	1	05/05/2022 21:19	WG1858955
Chloroethane	ND		0.00500	1	05/05/2022 21:19	WG1858955
Chloroform	ND		0.00500	1	05/05/2022 21:19	WG1858955
Chloromethane	ND		0.00250	1	05/05/2022 21:19	WG1858955
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	05/05/2022 21:19	WG1858955
1,2-Dibromoethane	ND		0.00100	1	05/05/2022 21:19	WG1858955
Dibromomethane	ND		0.00100	1	05/05/2022 21:19	WG1858955
1,2-Dichlorobenzene	ND		0.00100	1	05/05/2022 21:19	WG1858955
1,3-Dichlorobenzene	ND		0.00100	1	05/05/2022 21:19	WG1858955
1,4-Dichlorobenzene	ND		0.00100	1	05/05/2022 21:19	WG1858955
trans-1,4-Dichloro-2-butene	ND	L2 R7	0.00250	1	05/05/2022 21:19	WG1858955
Dichlorodifluoromethane	ND		0.00500	1	05/05/2022 21:19	WG1858955
1,1-Dichloroethane	ND		0.00100	1	05/05/2022 21:19	WG1858955
1,2-Dichloroethane	ND		0.00100	1	05/05/2022 21:19	WG1858955
1,1-Dichloroethene	ND		0.00100	1	05/05/2022 21:19	WG1858955
cis-1,2-Dichloroethene	ND		0.00100	1	05/05/2022 21:19	WG1858955
trans-1,2-Dichloroethene	ND		0.00100	1	05/05/2022 21:19	WG1858955
1,2-Dichloropropane	ND		0.00100	1	05/05/2022 21:19	WG1858955
cis-1,3-Dichloropropene	ND		0.00100	1	05/05/2022 21:19	WG1858955
trans-1,3-Dichloropropene	ND		0.00100	1	05/05/2022 21:19	WG1858955
Ethylbenzene	ND		0.00100	1	05/05/2022 21:19	WG1858955
Hexachloro-1,3-butadiene	ND		0.00100	1	05/05/2022 21:19	WG1858955
2-Hexanone	ND		0.0100	1	05/05/2022 21:19	WG1858955
2-Butanone (MEK)	ND		0.0100	1	05/05/2022 21:19	WG1858955
Iodomethane	ND		0.0100	1	05/05/2022 21:19	WG1858955
Methylene Chloride	ND		0.00500	1	05/05/2022 21:19	WG1858955
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	05/05/2022 21:19	WG1858955
Naphthalene	ND		0.00500	1	05/05/2022 21:19	WG1858955
n-Propylbenzene	ND		0.00100	1	05/05/2022 21:19	WG1858955
Styrene	ND		0.00100	1	05/05/2022 21:19	WG1858955
1,1,1,2-Tetrachloroethane	ND		0.00100	1	05/05/2022 21:19	WG1858955
1,1,2,2-Tetrachloroethane	ND		0.00100	1	05/05/2022 21:19	WG1858955
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	05/05/2022 21:19	WG1858955
Tetrachloroethene	ND		0.00100	1	05/05/2022 21:19	WG1858955
Toluene	ND		0.00100	1	05/05/2022 21:19	WG1858955
1,2,4-Trichlorobenzene	ND		0.00100	1	05/05/2022 21:19	WG1858955
1,1,1-Trichloroethane	ND		0.00100	1	05/05/2022 21:19	WG1858955
1,1,2-Trichloroethane	ND		0.00100	1	05/05/2022 21:19	WG1858955
Trichloroethene	ND		0.00100	1	05/05/2022 21:19	WG1858955
Trichlorofluoromethane	ND		0.00500	1	05/05/2022 21:19	WG1858955
1,2,3-Trichloropropane	ND		0.00250	1	05/05/2022 21:19	WG1858955
1,2,4-Trimethylbenzene	ND		0.00100	1	05/05/2022 21:19	WG1858955

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
1,3,5-Trimethylbenzene	ND		0.00100	1	05/05/2022 21:19	WG1858955
Vinyl acetate	ND		0.0100	1	05/05/2022 21:19	WG1858955
Vinyl chloride	ND		0.00100	1	05/05/2022 21:19	WG1858955
Xylenes, Total	ND		0.00300	1	05/05/2022 21:19	WG1858955
Di-isopropyl ether	ND		0.00100	1	05/05/2022 21:19	WG1858955
Ethanol	ND	R5	0.100	1	05/05/2022 21:19	WG1858955
Ethyl tert-butyl ether	ND		0.00100	1	05/05/2022 21:19	WG1858955
Methyl tert-butyl ether	ND		0.00100	1	05/05/2022 21:19	WG1858955
tert-Butyl alcohol	ND		0.00500	1	05/05/2022 21:19	WG1858955
tert-Amyl Methyl Ether	ND		0.00100	1	05/05/2022 21:19	WG1858955
(S) Toluene-d8	*115*		*80.0-120*		*05/05/2022 21:19*	WG1858955
(S) 4-Bromofluorobenzene	*92.7*		*77.0-126*		*05/05/2022 21:19*	WG1858955
(S) 1,2-Dichloroethane-d4	*86.7*		*70.0-130*		*05/05/2022 21:19*	WG1858955

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	05/05/2022 20:45	WG1858955
Acrylonitrile	ND		0.0100	1	05/05/2022 20:45	WG1858955
Benzene	ND		0.00100	1	05/05/2022 20:45	WG1858955
Bromobenzene	ND		0.00100	1	05/05/2022 20:45	WG1858955
Bromochloromethane	ND		0.00100	1	05/05/2022 20:45	WG1858955
Bromodichloromethane	ND		0.00100	1	05/05/2022 20:45	WG1858955
Bromoform	ND		0.00100	1	05/05/2022 20:45	WG1858955
Bromomethane	ND		0.00500	1	05/05/2022 20:45	WG1858955
n-Butylbenzene	ND		0.00100	1	05/05/2022 20:45	WG1858955
sec-Butylbenzene	ND		0.00100	1	05/05/2022 20:45	WG1858955
tert-Butylbenzene	ND		0.00100	1	05/05/2022 20:45	WG1858955
Carbon tetrachloride	ND		0.00100	1	05/05/2022 20:45	WG1858955
Carbon disulfide	ND		0.00100	1	05/05/2022 20:45	WG1858955
Chlorobenzene	ND		0.00100	1	05/05/2022 20:45	WG1858955
Chlorodibromomethane	ND		0.00100	1	05/05/2022 20:45	WG1858955
Chloroethane	ND		0.00500	1	05/05/2022 20:45	WG1858955
Chloroform	ND		0.00500	1	05/05/2022 20:45	WG1858955
Chloromethane	ND		0.00250	1	05/05/2022 20:45	WG1858955
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	05/05/2022 20:45	WG1858955
1,2-Dibromoethane	ND		0.00100	1	05/05/2022 20:45	WG1858955
Dibromomethane	ND		0.00100	1	05/05/2022 20:45	WG1858955
1,2-Dichlorobenzene	ND		0.00100	1	05/05/2022 20:45	WG1858955
1,3-Dichlorobenzene	ND		0.00100	1	05/05/2022 20:45	WG1858955
1,4-Dichlorobenzene	ND		0.00100	1	05/05/2022 20:45	WG1858955
trans-1,4-Dichloro-2-butene	ND	L2 R7	0.00250	1	05/05/2022 20:45	WG1858955
Dichlorodifluoromethane	ND		0.00500	1	05/05/2022 20:45	WG1858955
1,1-Dichloroethane	ND		0.00100	1	05/05/2022 20:45	WG1858955
1,2-Dichloroethane	ND		0.00100	1	05/05/2022 20:45	WG1858955
1,1-Dichloroethene	ND		0.00100	1	05/05/2022 20:45	WG1858955
cis-1,2-Dichloroethene	ND		0.00100	1	05/05/2022 20:45	WG1858955
trans-1,2-Dichloroethene	ND		0.00100	1	05/05/2022 20:45	WG1858955
1,2-Dichloropropane	ND		0.00100	1	05/05/2022 20:45	WG1858955
cis-1,3-Dichloropropene	ND		0.00100	1	05/05/2022 20:45	WG1858955
trans-1,3-Dichloropropene	ND		0.00100	1	05/05/2022 20:45	WG1858955
Ethylbenzene	ND		0.00100	1	05/05/2022 20:45	WG1858955
Hexachloro-1,3-butadiene	ND		0.00100	1	05/05/2022 20:45	WG1858955
2-Hexanone	ND		0.0100	1	05/05/2022 20:45	WG1858955
2-Butanone (MEK)	ND		0.0100	1	05/05/2022 20:45	WG1858955
Iodomethane	ND		0.0100	1	05/05/2022 20:45	WG1858955
Methylene Chloride	ND		0.00500	1	05/05/2022 20:45	WG1858955
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	05/05/2022 20:45	WG1858955
Naphthalene	ND		0.00500	1	05/05/2022 20:45	WG1858955
n-Propylbenzene	ND		0.00100	1	05/05/2022 20:45	WG1858955
Styrene	ND		0.00100	1	05/05/2022 20:45	WG1858955
1,1,1,2-Tetrachloroethane	ND		0.00100	1	05/05/2022 20:45	WG1858955
1,1,2,2-Tetrachloroethane	ND		0.00100	1	05/05/2022 20:45	WG1858955
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	05/05/2022 20:45	WG1858955
Tetrachloroethene	ND		0.00100	1	05/05/2022 20:45	WG1858955
Toluene	ND		0.00100	1	05/05/2022 20:45	WG1858955
1,2,4-Trichlorobenzene	ND		0.00100	1	05/05/2022 20:45	WG1858955
1,1,1-Trichloroethane	ND		0.00100	1	05/05/2022 20:45	WG1858955
1,1,2-Trichloroethane	ND		0.00100	1	05/05/2022 20:45	WG1858955
Trichloroethene	ND		0.00100	1	05/05/2022 20:45	WG1858955
Trichlorofluoromethane	ND		0.00500	1	05/05/2022 20:45	WG1858955
1,2,3-Trichloropropane	ND		0.00250	1	05/05/2022 20:45	WG1858955
1,2,4-Trimethylbenzene	ND		0.00100	1	05/05/2022 20:45	WG1858955

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
1,3,5-Trimethylbenzene	ND		0.00100	1	05/05/2022 20:45	WG1858955
Vinyl acetate	ND		0.0100	1	05/05/2022 20:45	WG1858955
Vinyl chloride	ND		0.00100	1	05/05/2022 20:45	WG1858955
Xylenes, Total	ND		0.00300	1	05/05/2022 20:45	WG1858955
Di-isopropyl ether	ND		0.00100	1	05/05/2022 20:45	WG1858955
Ethanol	ND	R5	0.100	1	05/05/2022 20:45	WG1858955
Ethyl tert-butyl ether	ND		0.00100	1	05/05/2022 20:45	WG1858955
Methyl tert-butyl ether	ND		0.00100	1	05/05/2022 20:45	WG1858955
tert-Butyl alcohol	ND		0.00500	1	05/05/2022 20:45	WG1858955
tert-Amyl Methyl Ether	ND		0.00100	1	05/05/2022 20:45	WG1858955
(S) Toluene-d8	*112*		*80.0-120*		*05/05/2022 20:45*	WG1858955
(S) 4-Bromofluorobenzene	*86.9*		*77.0-126*		*05/05/2022 20:45*	WG1858955
(S) 1,2-Dichloroethane-d4	*88.3*		*70.0-130*		*05/05/2022 20:45*	WG1858955

Method Blank (MB)

(MB) R3791379-1 05/10/22 15:19

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1489063-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1489063-02 05/10/22 15:19 • (DUP) R3791379-3 05/10/22 15:19

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	824	846	1	2.63		5

L1489212-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1489212-03 05/10/22 15:19 • (DUP) R3791379-4 05/10/22 15:19

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	783	791	1	1.02		5

Laboratory Control Sample (LCS)

(LCS) R3791379-2 05/10/22 15:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	2460	2430	98.8	81.7-118	

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

L1489089-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1489089-01 05/10/22 14:22 • (DUP) R3791234-3 05/10/22 14:22

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Dissolved Solids	1920	2010	1	4.33		5

L1489181-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1489181-01 05/10/22 14:22 • (DUP) R3791234-4 05/10/22 14:22

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	mg/l	mg/l		%		%
Dissolved Solids	665	681	1	2.38		5

Laboratory Control Sample (LCS)

(LCS) R3791234-2 05/10/22 14:22

	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Dissolved Solids	2460	2430	98.8	81.7-118	

Method Blank (MB)

(MB) R3789776-1 05/04/22 21:23

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate	U		0.0480	0.100
Nitrite	U		0.0420	0.100
Sulfate	U		0.594	5.00

L1488605-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1488605-01 05/04/22 21:48 • (DUP) R3789776-3 05/04/22 22:01

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	ND	ND	1	0.000		15
Nitrite	ND	ND	1	0.000		15
Sulfate	37.5	37.9	1	1.11		15

L1489156-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1489156-01 05/05/22 03:47 • (DUP) R3789776-8 05/05/22 04:00

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	ND	ND	1	0.000		15
Nitrite	ND	ND	1	0.000		15
Sulfate	8.80	9.08	1	3.04		15

Laboratory Control Sample (LCS)

(LCS) R3789776-2 05/04/22 21:35

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate	8.00	8.04	101	80.0-120	
Nitrite	8.00	8.22	103	80.0-120	
Sulfate	40.0	41.0	102	80.0-120	

L1488605-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1488605-01 05/04/22 21:48 • (MS) R3789776-4 05/04/22 22:14 • (MSD) R3789776-5 05/04/22 22:27

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 %
Nitrate	5.00	ND	5.60	5.54	112	111	1	80.0-120			1.09	15
Nitrite	5.00	ND	5.55	5.49	111	110	1	80.0-120			1.11	15
Sulfate	50.0	37.5	89.5	89.7	104	104	1	80.0-120			0.205	15

L1489092-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1489092-01 05/05/22 01:39 • (MS) R3789776-6 05/05/22 01:52 • (MSD) R3789776-7 05/05/22 02:30

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 %
Nitrate	5.00	ND	ND	ND	100	0.000	100	80.0-120		M2 R5	200	15
Nitrite	5.00	28.8	ND	ND	0.000	0.000	100	80.0-120	M3	M3	4.60	15
Sulfate	50.0	ND	ND	ND	75.9	67.5	100	80.0-120	M3	M3	1.24	15

Sample Narrative:

OS: Dilution due to matrix.

L1489212-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1489212-01 05/05/22 04:13 • (MS) R3789776-9 05/05/22 05:04 • (MSD) R3789776-10 05/05/22 05:17

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 %
Nitrate	5.00	3.11	7.91	7.90	96.0	95.8	1	80.0-120			0.0924	15
Nitrite	5.00	ND	5.24	5.26	105	105	1	80.0-120			0.261	15

Method Blank (MB)

(MB) R3788373-1 05/04/22 12:38

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate	U		0.0480	0.100
Nitrite	U		0.0420	0.100
Sulfate	U		0.594	5.00

L1489295-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1489295-01 05/04/22 23:49 • (DUP) R3788373-3 05/05/22 00:05

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	3.81	3.77	1	1.12		15
Nitrite	ND	ND	1	0.000		15
Sulfate	10.5	10.2	1	2.53		15

L1485553-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1485553-01 05/05/22 03:32 • (DUP) R3788373-5 05/05/22 03:48

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	0.233	0.233	1	0.129		15
Nitrite	ND	ND	1	0.000		15
Sulfate	86.3	86.4	1	0.0798		15

Laboratory Control Sample (LCS)

(LCS) R3788373-2 05/04/22 12:55

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate	8.00	8.13	102	80.0-120	
Nitrite	8.00	8.44	106	80.0-120	
Sulfate	40.0	39.6	99.0	80.0-120	

L1489295-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1489295-01 05/04/22 23:49 • (MS) R3788373-4 05/05/22 00:21

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate	5.00	3.81	8.94	102	1	80.0-120	
Nitrite	5.00	ND	5.12	102	1	80.0-120	
Sulfate	50.0	10.5	60.3	99.7	1	80.0-120	

L1485553-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1485553-01 05/05/22 03:32 • (MS) R3788373-6 05/05/22 04:04 • (MSD) R3788373-7 05/05/22 04:20

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 %
Nitrate	5.00	0.233	4.96	4.99	94.5	95.1	1	80.0-120			0.533	15
Nitrite	5.00	ND	4.93	4.99	98.6	99.8	1	80.0-120			1.16	15
Sulfate	50.0	86.3	131	131	88.3	89.1	1	80.0-120	E1	E1	0.287	15

Method Blank (MB)

(MB) R3790390-1 05/10/22 23:17

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Iron	U		0.0180	0.100

Laboratory Control Sample (LCS)

(LCS) R3790390-2 05/10/22 23:20

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Iron	10.0	9.87	98.7	80.0-120	

L1489092-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1489092-01 05/10/22 23:23 • (MS) R3790390-4 05/10/22 23:29 • (MSD) R3790390-5 05/10/22 23:32

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 %
Iron	10.0	ND	9.79	9.69	97.1	96.1	1	75.0-125			1.03	20

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

Method Blank (MB)

(MB) R3791423-1 05/13/22 00:27

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Iron	U		0.0180	0.100

Laboratory Control Sample (LCS)

(LCS) R3791423-2 05/13/22 00:29

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Iron	10.0	9.49	94.9	80.0-120	

L1489212-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1489212-01 05/13/22 00:32 • (MS) R3791423-4 05/13/22 00:38 • (MSD) R3791423-5 05/13/22 00:40

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 %
Iron	10.0	0.126	9.59	9.26	94.6	91.3	1	75.0-125			3.49	20

Method Blank (MB)

(MB) R3790210-2 05/10/22 09:21

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Methane	U		0.00291	0.0100
Ethane	U		0.00407	0.0130
Ethene	U		0.00426	0.0130

L1489092-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1489092-01 05/10/22 10:52 • (DUP) R3790210-3 05/10/22 10:56

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	6.07	6.19	1	1.96		20
Ethane	0.0202	0.0226	1	11.2		20
Ethene	ND	ND	1	200		20

L1489245-20 Original Sample (OS) • Duplicate (DUP)

(OS) L1489245-20 05/10/22 12:21 • (DUP) R3790210-4 05/10/22 12:24

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	5.97	6.12	1	2.48		20
Ethane	0.287	0.296	1	3.09		20
Ethene	2.25	2.33	1	3.49		20

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

(LCS) R3790210-1 05/10/22 09:14 • (LCSD) R3790210-11 05/10/22 14:49

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Methane	0.0678	0.0648	0.0675	95.6	99.6	85.0-115			4.08	20
Ethane	0.129	0.118	0.115	91.5	89.1	85.0-115			2.58	20
Ethene	0.127	0.119	0.115	93.7	90.6	85.0-115			3.42	20

L1489092-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1489092-01 05/10/22 10:52 • (MS) R3790210-5 05/10/22 12:28 • (MSD) R3790210-6 05/10/22 12:34

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 %
Methane	0.0678	6.07	6.76	6.97	1020	1330	1	50.0-150	M3	E1 M3	3.06	20
Ethane	0.129	0.0202	0.145	0.153	96.7	103	1	50.0-150			5.37	20
Ethene	0.127	ND	0.127	0.135	100	106	1	50.0-150			6.11	20

L1489212-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1489212-01 05/10/22 11:06 • (MS) R3790210-7 05/10/22 13:25 • (MSD) R3790210-8 05/10/22 13:32

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 %
Methane	0.0678	ND	0.0731	0.0745	108	110	1	50.0-150			1.90	20
Ethane	0.129	ND	0.125	0.130	96.9	101	1	50.0-150			3.92	20
Ethene	0.127	ND	0.126	0.132	99.2	104	1	50.0-150			4.65	20

L1489245-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1489245-08 05/10/22 11:43 • (MS) R3790210-9 05/10/22 13:35 • (MSD) R3790210-10 05/10/22 14:29

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 %
Methane	0.0678	9.65	10.4	10.5	1110	1250	1	50.0-150	E1 M3	E1 M3	0.957	20
Ethane	0.129	0.742	0.900	0.911	122	131	1	50.0-150			1.21	20
Ethene	0.127	82.5	87.9	88.9	4250	5040	1	50.0-150	E1 M3	E1 M3	1.13	20

Method Blank (MB)

(MB) R3790689-2 05/11/22 08:48

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Methane	U		0.00291	0.0100
Ethane	U		0.00407	0.0130
Ethene	U		0.00426	0.0130

L1489295-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1489295-02 05/11/22 09:24 • (DUP) R3790689-3 05/11/22 09:26

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	0.0947	0.0930	1	1.81		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20

L1490043-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1490043-02 05/11/22 09:49 • (DUP) R3790689-4 05/11/22 12:53

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	0.173	0.191	1	9.89		20
Ethane	ND	ND	1	3.28	R8	20
Ethene	ND	ND	1	3.45		20

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

(LCS) R3790689-1 05/11/22 08:45 • (LCSD) R3790689-5 05/11/22 12:58

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Methane	0.0678	0.0684	0.0669	101	98.7	85.0-115			2.22	20
Ethane	0.129	0.115	0.118	89.1	91.5	85.0-115			2.58	20
Ethene	0.127	0.116	0.119	91.3	93.7	85.0-115			2.55	20

L1487832-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1487832-03 05/11/22 10:51 • (MS) R3790689-6 05/11/22 15:00 • (MSD) R3790689-7 05/11/22 15:04

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 %
Methane	0.0678	0.0232	0.0958	0.0962	107	108	1	50.0-150			0.417	20
Ethane	0.129	ND	0.128	0.131	98.8	101	1	50.0-150			2.32	20
Ethene	0.127	ND	0.133	0.136	102	104	1	50.0-150			2.23	20

Method Blank (MB)

(MB) R3789765-3 05/05/22 20:08

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Acrylonitrile	U		0.000671	0.0100
Benzene	U		0.0000941	0.00100
Bromobenzene	U		0.000118	0.00100
Bromochloromethane	U		0.000128	0.00100
Bromodichloromethane	U		0.000136	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 tetrachloride	U		0.000128	0.00100
Carbon disulfide	U		0.0000962	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
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
trans-1,4-Dichloro-2-butene	U		0.000467	0.00250
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
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
Hexachloro-1,3-butadiene	U		0.000337	0.00100
2-Hexanone	U		0.000787	0.0100
2-Butanone (MEK)	U		0.00119	0.0100
Iodomethane	U		0.00600	0.0100
Methylene Chloride	U		0.000430	0.00500

Method Blank (MB)

(MB) R3789765-3 05/05/22 20:08

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
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
1,1,2-Trichlorotrifluoroethane	U		0.000180	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	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
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl acetate	U		0.000692	0.0100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
Di-isopropyl ether	U		0.000105	0.00100
Ethanol	U		0.0420	0.100
Ethyl tert-butyl ether	U		0.000101	0.00100
Methyl tert-butyl ether	U		0.000101	0.00100
tert-Butyl alcohol	U		0.00406	0.00500
tert-Amyl Methyl Ether	U		0.000195	0.00100
(S) Toluene-d8	*115*			*80.0-120*
(S) 4-Bromofluorobenzene	*89.4*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*88.6*			*70.0-130*

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

(LCS) R3789765-1 05/05/22 19:01 • (LCSD) R3789765-2 05/05/22 19:21

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	0.0335	0.0314	134	126	19.0-160			6.47	27
Acrylonitrile	0.0250	0.0308	0.0315	123	126	55.0-149			2.25	20
Benzene	0.00500	0.00481	0.00515	96.2	103	70.0-123			6.83	20
Bromobenzene	0.00500	0.00497	0.00490	99.4	98.0	73.0-121			1.42	20

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

(LCS) R3789765-1 05/05/22 19:01 • (LCSD) R3789765-2 05/05/22 19:21

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromochloromethane	0.00500	0.00442	0.00470	88.4	94.0	76.0-122			6.14	20
Bromodichloromethane	0.00500	0.00437	0.00485	87.4	97.0	75.0-120			10.4	20
Bromoform	0.00500	0.00477	0.00477	95.4	95.4	68.0-132			0.000	20
Bromomethane	0.00500	0.00470	0.00490	94.0	98.0	10.0-160			4.17	25
n-Butylbenzene	0.00500	0.00462	0.00466	92.4	93.2	73.0-125			0.862	20
sec-Butylbenzene	0.00500	0.00449	0.00487	89.8	97.4	75.0-125			8.12	20
tert-Butylbenzene	0.00500	0.00467	0.00481	93.4	96.2	76.0-124			2.95	20
Carbon tetrachloride	0.00500	0.00410	0.00436	82.0	87.2	68.0-126			6.15	20
Carbon disulfide	0.00500	0.00402	0.00415	80.4	83.0	61.0-128			3.18	20
Chlorobenzene	0.00500	0.00527	0.00568	105	114	80.0-121			7.49	20
Chlorodibromomethane	0.00500	0.00440	0.00469	88.0	93.8	77.0-125			6.38	20
Chloroethane	0.00500	0.00499	0.00541	99.8	108	47.0-150			8.08	20
Chloroform	0.00500	0.00455	0.00486	91.0	97.2	73.0-120			6.59	20
Chloromethane	0.00500	0.00573	0.00588	115	118	41.0-142			2.58	20
1,2-Dibromo-3-Chloropropane	0.00500	0.00563	0.00549	113	110	58.0-134			2.52	20
1,2-Dibromoethane	0.00500	0.00501	0.00534	100	107	80.0-122			6.38	20
Dibromomethane	0.00500	0.00434	0.00441	86.8	88.2	80.0-120			1.60	20
1,2-Dichlorobenzene	0.00500	0.00507	0.00526	101	105	79.0-121			3.68	20
1,3-Dichlorobenzene	0.00500	0.00475	0.00492	95.0	98.4	79.0-120			3.52	20
1,4-Dichlorobenzene	0.00500	0.00485	0.00516	97.0	103	79.0-120			6.19	20
trans-1,4-Dichloro-2-butene	0.00500	0.00221	0.00158	44.2	31.6	33.0-144		L2 R7	33.2	20
Dichlorodifluoromethane	0.00500	0.00408	0.00446	81.6	89.2	51.0-149			8.90	20
1,1-Dichloroethane	0.00500	0.00484	0.00520	96.8	104	70.0-126			7.17	20
1,2-Dichloroethane	0.00500	0.00418	0.00449	83.6	89.8	70.0-128			7.15	20
1,1-Dichloroethene	0.00500	0.00437	0.00450	87.4	90.0	71.0-124			2.93	20
cis-1,2-Dichloroethene	0.00500	0.00454	0.00492	90.8	98.4	73.0-120			8.03	20
trans-1,2-Dichloroethene	0.00500	0.00475	0.00461	95.0	92.2	73.0-120			2.99	20
1,2-Dichloropropane	0.00500	0.00495	0.00538	99.0	108	77.0-125			8.33	20
cis-1,3-Dichloropropene	0.00500	0.00412	0.00439	82.4	87.8	80.0-123			6.35	20
trans-1,3-Dichloropropene	0.00500	0.00450	0.00487	90.0	97.4	78.0-124			7.90	20
Ethylbenzene	0.00500	0.00482	0.00535	96.4	107	79.0-123			10.4	20
Hexachloro-1,3-butadiene	0.00500	0.00448	0.00456	89.6	91.2	54.0-138			1.77	20
2-Hexanone	0.0250	0.0263	0.0276	105	110	67.0-149			4.82	20
2-Butanone (MEK)	0.0250	0.0281	0.0293	112	117	44.0-160			4.18	20
Iodomethane	0.0250	0.0219	0.0241	87.6	96.4	33.0-147			9.57	26
Methylene Chloride	0.00500	0.00500	0.00537	100	107	67.0-120			7.14	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.0313	0.0330	125	132	68.0-142			5.29	20
Naphthalene	0.00500	0.00447	0.00410	89.4	82.0	54.0-135			8.63	20
n-Propylbenzene	0.00500	0.00484	0.00522	96.8	104	77.0-124			7.55	20
Styrene	0.00500	0.00460	0.00491	92.0	98.2	73.0-130			6.52	20

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

(LCS) R3789765-1 05/05/22 19:01 • (LCSD) R3789765-2 05/05/22 19:21

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,1,1,2-Tetrachloroethane	0.00500	0.00525	0.00560	105	112	75.0-125			6.45	20
1,1,2,2-Tetrachloroethane	0.00500	0.00555	0.00580	111	116	65.0-130			4.41	20
1,1,2-Trichlorotrifluoroethane	0.00500	0.00393	0.00467	78.6	93.4	69.0-132			17.2	20
Tetrachloroethene	0.00500	0.00530	0.00589	106	118	72.0-132			10.5	20
Toluene	0.00500	0.00491	0.00561	98.2	112	79.0-120			13.3	20
1,2,4-Trichlorobenzene	0.00500	0.00436	0.00386	87.2	77.2	57.0-137			12.2	20
1,1,1-Trichloroethane	0.00500	0.00417	0.00451	83.4	90.2	73.0-124			7.83	20
1,1,2-Trichloroethane	0.00500	0.00525	0.00549	105	110	80.0-120			4.47	20
Trichloroethene	0.00500	0.00433	0.00455	86.6	91.0	78.0-124			4.95	20
Trichlorofluoromethane	0.00500	0.00405	0.00446	81.0	89.2	59.0-147			9.64	20
1,2,3-Trichloropropane	0.00500	0.00567	0.00601	113	120	73.0-130			5.82	20
1,2,4-Trimethylbenzene	0.00500	0.00481	0.00497	96.2	99.4	76.0-121			3.27	20
1,3,5-Trimethylbenzene	0.00500	0.00517	0.00512	103	102	76.0-122			0.972	20
Vinyl acetate	0.0250	0.0279	0.0288	112	115	11.0-160			3.17	20
Vinyl chloride	0.00500	0.00428	0.00492	85.6	98.4	67.0-131			13.9	20
Xylenes, Total	0.0150	0.0149	0.0165	99.3	110	79.0-123			10.2	20
Di-isopropyl ether	0.00500	0.00548	0.00584	110	117	58.0-138			6.36	20
ethanol	0.250	0.339	0.218	136	87.2	10.0-160		R7	43.4	30
Ethyl tert-butyl ether	0.00500	0.00465	0.00489	93.0	97.8	63.0-138			5.03	20
Methyl tert-butyl ether	0.00500	0.00427	0.00447	85.4	89.4	68.0-125			4.58	20
tert-Butyl alcohol	0.0250	0.0269	0.0255	108	102	27.0-160			5.34	30
tert-Amyl Methyl Ether	0.00500	0.00452	0.00463	90.4	92.6	66.0-125			2.40	20
(S) Toluene-d8				*109*	*112*	*80.0-120*				
(S) 4-Bromofluorobenzene				*89.2*	*91.7*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*85.1*	*90.0*	*70.0-130*				

L1489211-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1489211-12 05/05/22 22:41 • (MS) R3789765-4 05/06/22 03:48 • (MSD) R3789765-5 05/06/22 04:08

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 %
Acetone	0.0250	ND	ND	ND	153	148	1	10.0-160			3.46	35
Acrylonitrile	0.0250	ND	0.0417	0.0380	167	152	1	21.0-160	M1		9.28	32
Benzene	0.00500	ND	0.00653	0.00651	131	130	1	17.0-158			0.307	27
Bromobenzene	0.00500	ND	0.00682	0.00630	136	126	1	30.0-149			7.93	28
Bromochloromethane	0.00500	ND	0.00610	0.00565	122	113	1	38.0-142			7.66	26
Bromodichloromethane	0.00500	ND	0.00631	0.00572	126	114	1	31.0-150			9.81	27
Bromoform	0.00500	ND	0.00610	0.00558	122	112	1	29.0-150			8.90	29
Bromomethane	0.00500	ND	0.00600	0.00593	120	119	1	10.0-160			1.17	38

L1489211-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1489211-12 05/05/22 22:41 • (MS) R3789765-4 05/06/22 03:48 • (MSD) R3789765-5 05/06/22 04:08

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 %
n-Butylbenzene	0.00500	ND	0.00668	0.00646	134	129	1	31.0-150			3.35	30
sec-Butylbenzene	0.00500	ND	0.00686	0.00612	131	117	1	33.0-155			11.4	29
tert-Butylbenzene	0.00500	ND	0.00674	0.00624	135	125	1	34.0-153			7.70	28
Carbon tetrachloride	0.00500	ND	0.00575	0.00553	115	111	1	23.0-159			3.90	28
Carbon disulfide	0.00500	ND	0.00567	0.00547	113	109	1	10.0-156			3.59	28
Chlorobenzene	0.00500	ND	0.00719	0.00696	144	139	1	33.0-152			3.25	27
Chlorodibromomethane	0.00500	ND	0.00622	0.00544	124	109	1	37.0-149			13.4	27
Chloroethane	0.00500	ND	0.00694	0.00669	139	134	1	10.0-160			3.67	30
Chloroform	0.00500	ND	0.00635	0.00588	127	118	1	29.0-154			7.69	28
Chloromethane	0.00500	ND	0.00809	0.00757	162	151	1	10.0-160	M1		6.64	29
1,2-Dibromo-3-Chloropropane	0.00500	ND	0.00743	0.00675	149	135	1	22.0-151			9.59	34
1,2-Dibromoethane	0.00500	ND	0.00683	0.00651	137	130	1	34.0-147			4.80	27
Dibromomethane	0.00500	ND	0.00559	0.00552	112	110	1	30.0-151			1.26	27
1,2-Dichlorobenzene	0.00500	ND	0.00720	0.00682	144	136	1	34.0-149			5.42	28
1,3-Dichlorobenzene	0.00500	ND	0.00629	0.00603	126	121	1	36.0-146			4.22	27
1,4-Dichlorobenzene	0.00500	ND	0.00660	0.00643	132	129	1	35.0-142			2.61	27
trans-1,4-Dichloro-2-butene	0.00500	ND	ND	ND	28.2	32.6	1	10.0-157			14.5	37
Dichlorodifluoromethane	0.00500	ND	0.00584	0.00534	117	107	1	10.0-160			8.94	29
1,1-Dichloroethane	0.00500	ND	0.00679	0.00645	136	129	1	25.0-158			5.14	27
1,2-Dichloroethane	0.00500	ND	0.00598	0.00566	120	113	1	29.0-151			5.50	27
1,1-Dichloroethene	0.00500	ND	0.00630	0.00603	126	121	1	11.0-160			4.38	29
cis-1,2-Dichloroethene	0.00500	ND	0.00674	0.00630	135	126	1	10.0-160			6.75	27
trans-1,2-Dichloroethene	0.00500	ND	0.00655	0.00607	131	121	1	17.0-153			7.61	27
1,2-Dichloropropane	0.00500	ND	0.00704	0.00633	141	127	1	30.0-156			10.6	27
cis-1,3-Dichloropropene	0.00500	ND	0.00516	0.00490	103	98.0	1	34.0-149			5.17	28
trans-1,3-Dichloropropene	0.00500	ND	0.00616	0.00582	123	116	1	32.0-149			5.68	28
Ethylbenzene	0.00500	ND	0.00703	0.00661	141	132	1	30.0-155			6.16	27
Hexachloro-1,3-butadiene	0.00500	ND	0.00528	0.00540	106	108	1	20.0-154			2.25	34
2-Hexanone	0.0250	ND	0.0371	0.0343	137	126	1	21.0-160			7.84	29
2-Butanone (MEK)	0.0250	ND	0.0365	0.0362	146	145	1	10.0-160			0.825	32
Iodomethane	0.0250	ND	0.0314	0.0297	126	119	1	10.0-160			5.56	40
Methylene Chloride	0.00500	ND	0.00649	0.00604	130	121	1	23.0-144			7.18	28
4-Methyl-2-pentanone (MIBK)	0.0250	ND	0.0443	0.0406	177	162	1	29.0-160	M1	M1	8.72	29
Naphthalene	0.00500	ND	0.00537	0.00581	107	116	1	12.0-156			7.87	35
n-Propylbenzene	0.00500	ND	0.00716	0.00652	132	119	1	31.0-154			9.36	28
Styrene	0.00500	ND	0.00619	0.00569	124	114	1	33.0-155			8.42	28
1,1,1,2-Tetrachloroethane	0.00500	ND	0.00750	0.00672	150	134	1	36.0-151			11.0	29
1,1,2,2-Tetrachloroethane	0.00500	ND	0.00835	0.00761	167	152	1	33.0-150	M1	M1	9.27	28
1,1,2-Trichlorotrifluoroethane	0.00500	ND	0.00621	0.00614	124	123	1	23.0-160			1.13	30
Tetrachloroethene	0.00500	ND	0.00763	0.00740	153	148	1	10.0-160			3.06	27

L1489211-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1489211-12 05/05/22 22:41 • (MS) R3789765-4 05/06/22 03:48 • (MSD) R3789765-5 05/06/22 04:08

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 %
Toluene	0.00500	ND	0.00740	0.00678	148	136	1	26.0-154			8.74	28
1,2,4-Trichlorobenzene	0.00500	ND	0.00491	0.00529	98.2	106	1	24.0-150			7.45	33
1,1,1-Trichloroethane	0.00500	ND	0.00592	0.00588	118	118	1	23.0-160			0.678	28
1,1,2-Trichloroethane	0.00500	ND	0.00721	0.00679	144	136	1	35.0-147			6.00	27
Trichloroethene	0.00500	ND	0.00577	0.00558	115	112	1	10.0-160			3.35	25
Trichlorofluoromethane	0.00500	ND	0.00587	0.00558	117	112	1	17.0-160			5.07	31
1,2,3-Trichloropropane	0.00500	ND	0.00789	0.00748	158	150	1	34.0-151	M1		5.34	29
1,2,4-Trimethylbenzene	0.00500	ND	0.00649	0.00643	130	129	1	26.0-154			0.929	27
1,3,5-Trimethylbenzene	0.00500	ND	0.00696	0.00639	139	128	1	28.0-153			8.54	27
Vinyl acetate	0.0250	ND	0.0465	0.0452	186	181	1	12.0-160	M1	M1	2.84	31
Vinyl chloride	0.00500	ND	0.00632	0.00606	126	121	1	10.0-160			4.20	27
Xylenes, Total	0.0150	ND	0.0222	0.0208	145	135	1	29.0-154			6.51	28
Di-isopropyl ether	0.00500	ND	0.00754	0.00737	151	147	1	21.0-160			2.28	28
ethanol	0.250	ND	0.258	0.404	103	162	1	50.0-150		M1 R5	44.1	20
Ethyl tert-butyl ether	0.00500	ND	0.00620	0.00609	124	122	1	10.0-160			1.79	37
Methyl tert-butyl ether	0.00500	ND	0.00563	0.00571	113	114	1	28.0-150			1.41	29
tert-Butyl alcohol	0.0250	ND	0.0322	0.0326	129	130	1	50.0-150			1.23	20
tert-Amyl Methyl Ether	0.00500	ND	0.00601	0.00567	120	113	1	10.0-160			5.82	37
(S) Toluene-d8					*114*	*110*		*80.0-120*				
(S) 4-Bromofluorobenzene					*94.0*	*91.9*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*88.4*	*90.4*		*70.0-130*				

L1489212-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1489212-01 05/05/22 23:22 • (MS) R3789765-6 05/06/22 04:29 • (MSD) R3789765-7 05/06/22 04:49

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 %
Acetone	0.0250	ND	ND	ND	137	157	1	10.0-160			13.6	35
Acrylonitrile	0.0250	ND	0.0372	0.0400	149	160	1	21.0-160			7.25	32
Benzene	0.00500	ND	0.00616	0.00655	123	131	1	17.0-158			6.14	27
Bromobenzene	0.00500	ND	0.00643	0.00651	129	130	1	30.0-149			1.24	28
Bromochloromethane	0.00500	ND	0.00534	0.00645	107	129	1	38.0-142			18.8	26
Bromodichloromethane	0.00500	ND	0.00572	0.00629	114	126	1	31.0-150			9.49	27
Bromoform	0.00500	ND	0.00556	0.00578	111	116	1	29.0-150			3.88	29
Bromomethane	0.00500	ND	0.00589	0.00671	118	134	1	10.0-160			13.0	38
n-Butylbenzene	0.00500	ND	0.00576	0.00608	115	122	1	31.0-150			5.41	30
sec-Butylbenzene	0.00500	ND	0.00611	0.00630	122	126	1	33.0-155			3.06	29
tert-Butylbenzene	0.00500	ND	0.00619	0.00654	124	131	1	34.0-153			5.50	28
Carbon tetrachloride	0.00500	ND	0.00553	0.00583	111	117	1	23.0-159			5.28	28

L1489212-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1489212-01 05/05/22 23:22 • (MS) R3789765-6 05/06/22 04:29 • (MSD) R3789765-7 05/06/22 04:49

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 %
Carbon disulfide	0.00500	ND	0.00538	0.00581	108	116	1	10.0-156			7.69	28
Chlorobenzene	0.00500	ND	0.00700	0.00737	140	147	1	33.0-152			5.15	27
Chlorodibromomethane	0.00500	ND	0.00567	0.00584	113	117	1	37.0-149			2.95	27
Chloroethane	0.00500	ND	0.00636	0.00723	127	145	1	10.0-160			12.8	30
Chloroform	0.00500	ND	0.00597	0.00641	119	128	1	29.0-154			7.11	28
Chloromethane	0.00500	ND	0.00813	0.00835	163	167	1	10.0-160	M1	M1	2.67	29
1,2-Dibromo-3-Chloropropane	0.00500	ND	0.00663	0.00678	133	136	1	22.0-151			2.24	34
1,2-Dibromoethane	0.00500	ND	0.00661	0.00684	132	137	1	34.0-147			3.42	27
Dibromomethane	0.00500	ND	0.00503	0.00561	101	112	1	30.0-151			10.9	27
1,2-Dichlorobenzene	0.00500	ND	0.00664	0.00694	133	139	1	34.0-149			4.42	28
1,3-Dichlorobenzene	0.00500	ND	0.00605	0.00617	121	123	1	36.0-146			1.96	27
1,4-Dichlorobenzene	0.00500	ND	0.00667	0.00649	133	130	1	35.0-142			2.74	27
trans-1,4-Dichloro-2-butene	0.00500	ND	ND	ND	25.2	34.8	1	10.0-157			32.0	37
Dichlorodifluoromethane	0.00500	ND	0.00584	0.00589	117	118	1	10.0-160			0.853	29
1,1-Dichloroethane	0.00500	ND	0.00625	0.00689	125	138	1	25.0-158			9.74	27
1,2-Dichloroethane	0.00500	ND	0.00539	0.00577	108	115	1	29.0-151			6.81	27
1,1-Dichloroethene	0.00500	ND	0.00596	0.00638	119	128	1	11.0-160			6.81	29
cis-1,2-Dichloroethene	0.00500	ND	0.00594	0.00656	119	131	1	10.0-160			9.92	27
trans-1,2-Dichloroethene	0.00500	ND	0.00660	0.00691	132	138	1	17.0-153			4.59	27
1,2-Dichloropropane	0.00500	ND	0.00640	0.00652	128	130	1	30.0-156			1.86	27
cis-1,3-Dichloropropene	0.00500	ND	0.00462	0.00519	92.4	104	1	34.0-149			11.6	28
trans-1,3-Dichloropropene	0.00500	ND	0.00573	0.00630	115	126	1	32.0-149			9.48	28
Ethylbenzene	0.00500	ND	0.00693	0.00734	139	147	1	30.0-155			5.75	27
Hexachloro-1,3-butadiene	0.00500	ND	0.00545	0.00596	109	119	1	20.0-154			8.94	34
2-Hexanone	0.0250	ND	0.0332	0.0356	133	142	1	21.0-160			6.98	29
2-Butanone (MEK)	0.0250	ND	0.0354	0.0375	142	150	1	10.0-160			5.76	32
Iodomethane	0.0250	ND	0.0301	0.0325	120	130	1	10.0-160			7.67	40
Methylene Chloride	0.00500	ND	0.00674	0.00695	135	139	1	23.0-144			3.07	28
4-Methyl-2-pentanone (MIBK)	0.0250	ND	0.0411	0.0420	164	168	1	29.0-160	M1	M1	2.17	29
Naphthalene	0.00500	ND	0.00541	0.00618	108	124	1	12.0-156			13.3	35
n-Propylbenzene	0.00500	ND	0.00637	0.00655	127	131	1	31.0-154			2.79	28
Styrene	0.00500	ND	0.00565	0.00607	113	121	1	33.0-155			7.17	28
1,1,1,2-Tetrachloroethane	0.00500	ND	0.00688	0.00725	138	145	1	36.0-151			5.24	29
1,1,2,2-Tetrachloroethane	0.00500	ND	0.00737	0.00776	147	155	1	33.0-150		M1	5.16	28
1,1,2-Trichlorotrifluoroethane	0.00500	ND	0.00595	0.00631	119	126	1	23.0-160			5.87	30
Tetrachloroethene	0.00500	ND	0.00739	0.00755	148	151	1	10.0-160			2.14	27
Toluene	0.00500	ND	0.00672	0.00702	134	140	1	26.0-154			4.37	28
1,2,4-Trichlorobenzene	0.00500	ND	0.00485	0.00524	97.0	105	1	24.0-150			7.73	33
1,1,1-Trichloroethane	0.00500	ND	0.00559	0.00573	112	115	1	23.0-160			2.47	28
1,1,2-Trichloroethane	0.00500	ND	0.00652	0.00729	130	146	1	35.0-147			11.2	27

L1489212-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1489212-01 05/05/22 23:22 • (MS) R3789765-6 05/06/22 04:29 • (MSD) R3789765-7 05/06/22 04:49

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 %
Trichloroethene	0.00500	ND	0.00536	0.00580	107	116	1	10.0-160			7.89	25
Trichlorofluoromethane	0.00500	ND	0.00559	0.00602	112	120	1	17.0-160			7.41	31
1,2,3-Trichloropropane	0.00500	ND	0.00750	0.00746	150	149	1	34.0-151			0.535	29
1,2,4-Trimethylbenzene	0.00500	ND	0.00623	0.00644	125	129	1	26.0-154			3.31	27
1,3,5-Trimethylbenzene	0.00500	ND	0.00660	0.00660	132	132	1	28.0-153			0.000	27
Vinyl acetate	0.0250	ND	0.0442	0.0497	177	199	1	12.0-160	M1	M1	11.7	31
Vinyl chloride	0.00500	ND	0.00639	0.00670	128	134	1	10.0-160			4.74	27
Xylenes, Total	0.0150	ND	0.0203	0.0225	135	150	1	29.0-154			10.3	28
Di-isopropyl ether	0.00500	ND	0.00717	0.00809	143	162	1	21.0-160		M1	12.1	28
ethanol	0.250	ND	0.258	0.457	103	183	1	50.0-150		M1 R5	55.7	20
Ethyl tert-butyl ether	0.00500	ND	0.00565	0.00643	113	129	1	10.0-160			12.9	37
Methyl tert-butyl ether	0.00500	ND	0.00582	0.00619	116	124	1	28.0-150			6.16	29
tert-Butyl alcohol	0.0250	ND	0.0290	0.0373	116	149	1	50.0-150		R5	25.0	20
tert-Amyl Methyl Ether	0.00500	ND	0.00554	0.00593	111	119	1	10.0-160			6.80	37
(S) Toluene-d8					*111*	*111*		*80.0-120*				
(S) 4-Bromofluorobenzene					*95.4*	*91.8*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*88.1*	*88.7*		*70.0-130*				

INTERNAL STANDARD SUMMARY

Instrument: VOCMS16 • File ID: 0505_27

05/05/22 19:01

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0505_27	294612	113031	89247
Upper Limit		589224	226062	178494
Lower Limit		147306	56516	44624
LCS R3789765-1 WG1858955 1x	0505_27LCS	294612	113031	89247
LCSD R3789765-2 WG1858955 1x	0505_28	288871	107681	86335
BLANK R3789765-3 WG1858955 1x	0505_30	278752	102471	77596
L1489212-07 WG1858955 1x	0505_31	294922	108795	86906
L1489212-06 WG1858955 1x	0505_32	287747	104010	81979
L1489212-01 WG1858955 1x	0505_38	286667	103706	80177
L1489212-02 WG1858955 1x	0505_39	284844	104559	77560
L1489212-03 WG1858955 1x	0505_40	281323	102730	77812
L1489212-04 WG1858955 1x	0505_41	278255	102350	77159
L1489212-05 WG1858955 1x	0505_42	298511	108402	80757
MS R3789765-4 WG1858955 1x	0505_51	289847	107284	82640
MSD R3789765-5 WG1858955 1x	0505_52	302920	114353	90557
MS R3789765-6 WG1858955 1x	0505_53	295601	107578	83784
MSD R3789765-7 WG1858955 1x	0505_54	284558	105800	87589

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

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	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
E1	Concentration estimated. Analyte exceeded calibration range. Reanalysis not possible due to insufficient sample.
L2	The associated blank spike recovery was below laboratory acceptance limits.
M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike recovery was acceptable.
R5	MS/MSD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.
R7	LFB/LFBD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.
R8	Sample RPD exceeded the method acceptance limit.

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	LAO000356
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:
Kinder Morgan - Rocklin, CA-AZ Work

1110 N.44th Street
Suite 1000
Phoenix. AZ 85008

Report to:
Bob Forsberg

Billing Information:
Accounts Payable- Alan Van Antwerp
9950 SAN DIEGO MISSION RD.
SAN DIEGO, CA 92108

Pres Chk

Email To: **bob.forsberg@arcadis-us.com;sascha.arnold@arcadis.com**

Project Description:
KMEP Silvercroft Wash

City/State Collected: Tucson, AZ

Please Circle: PT (MT) CT ET

Phone: **602-438-0883**

Client Project #
30113573.01

Lab Project #
KINARCPAZ-SILVERCROF

Collected by (print):
M. Tarr/SKA

Site/Facility ID #
SILVERCROFT WASH

P.O. #
WD876456

Collected by (signature):
M. Tarr

Immediately Packed on Ice N ___ Y X

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: STD TURN

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	*NO2,NO3,SO4 125mlHDPE-NoPres	EEM RSK175 40mlAmb HCl	HOLD - NO2+NO3 250mlHDPE-H2SO4	TDS 1L-HDPE NoPres	Total Fe 6010 250mlHDPE-HNO3	VOCs+OXYs 8260 40mlAmb-HCl					Remarks	Sample # (lab only)
							<2		<2									
MW-29D	G	GW	235	5/3/22	0952	18	X	X	X	X	X	X					Rm MS/MSD	-4
MW-1D	|	GW	235	|	1122	9	X	X	X	X	X	X						-5
MW-2D	|	GW	235	|	1247	9	X	X	X	X	X	X						-6
MW-1M	|	GW	199	|	1353	9	X	X	X	X	X	X						-7
MW-29M	↓	GW	199	↓	1507	9	X	X	X	X	X	X						-8
		GW																
		GW																
		GW																
Equipment Blank	G	GW	—	5/3/22	0835	3						X						-9
Trip Blank	—	GW	—	5/3/22	—	1						X						-10

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1489212
F111

Acctnum: **KINARCPAZ**
Template: **T190237**
Prelogin: **P921920**
PM: **110 - Brian Ford**
PB:

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:*NO2,NO3 have a 48 hour holding time.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeoH TBR	If preservation required by Login: Date/Time
M. Tarr	5/3/22	1545	Ship-n-mail xpress (FedEx)	2	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: DRAFT °C 5.5+0=5.5 Bottles Received: 54	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 5/4/22 Time: 930	Hold: Condition: NCF / OK

ANALYTICAL REPORT

May 16, 2022

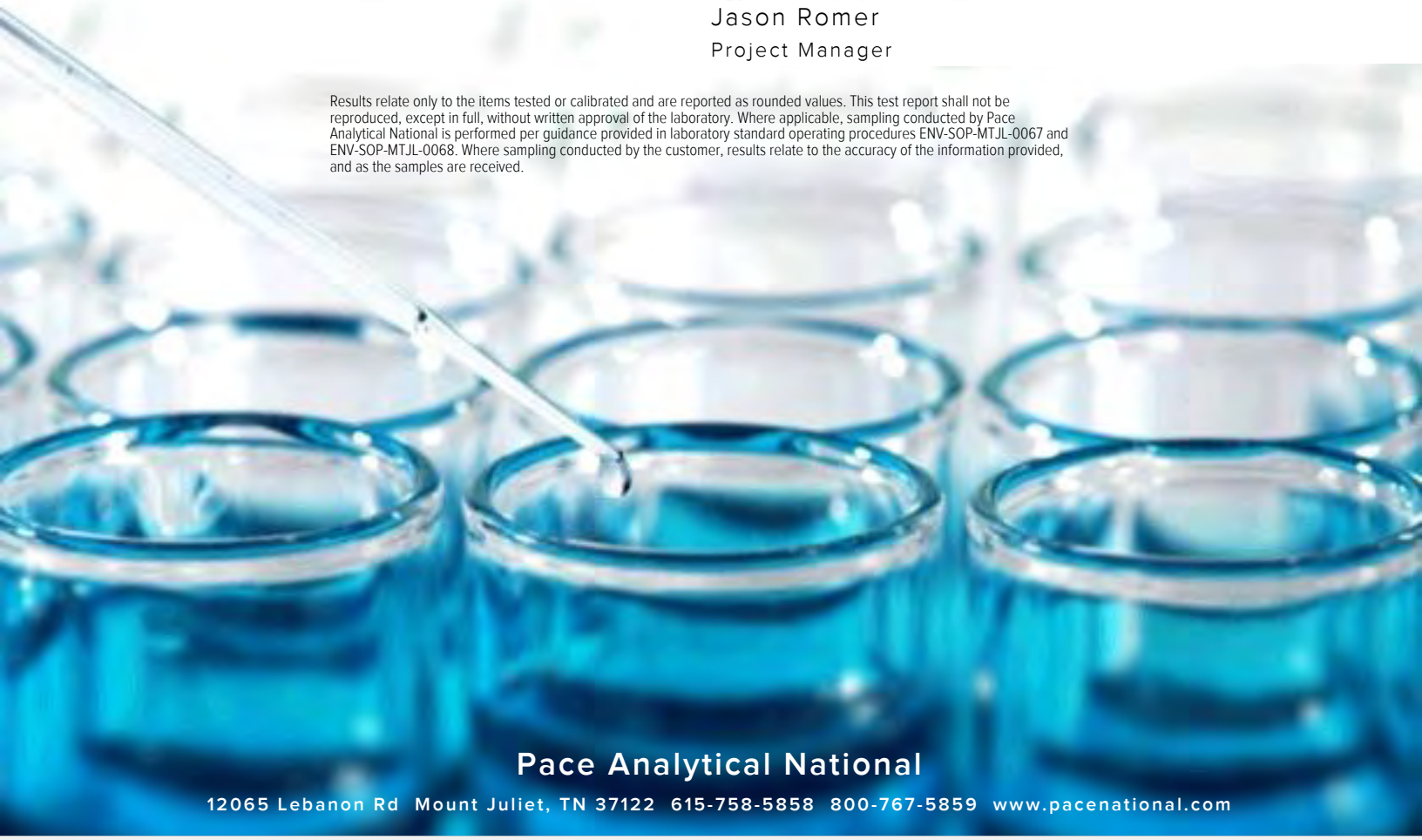
Kinder Morgan - Rocklin, CA-AZ Work

Sample Delivery Group:	L1489662
Samples Received:	05/05/2022
Project Number:	30113573.01
Description:	KMEP Silvercroft Wash
Site:	SILVERCROFT WASH
Report To:	Bob Forsberg 410 N.44th Street Suite 1000 Phoenix, AZ 85008

Entire Report Reviewed By:

Jason Romer
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

TABLE OF CONTENTS

MW-2M L1489662-01 GW

Collected by: MAT/SXA | Collected date/time: 05/04/22 09:57 | Received date/time: 05/05/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1862436	1	05/11/22 17:18	05/11/22 18:02	SJF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1859306	1	05/05/22 20:21	05/05/22 20:21	KEG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1859306	5	05/05/22 20:59	05/05/22 20:59	KEG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1861233	1	05/11/22 13:43	05/13/22 18:59	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1862736	1	05/12/22 11:25	05/12/22 11:25	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1860123	10	05/06/22 21:03	05/06/22 21:03	JAH	Mt. Juliet, TN

MW-2S L1489662-02 GW

Collected by: MAT/SXA | Collected date/time: 05/04/22 11:17 | Received date/time: 05/05/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1862436	1	05/11/22 17:18	05/11/22 18:02	SJF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1859306	1	05/05/22 19:07	05/05/22 19:07	KEG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1859306	10	05/05/22 19:19	05/05/22 19:19	KEG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1861983	1	05/11/22 21:05	05/13/22 16:17	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1862736	1	05/12/22 11:33	05/12/22 11:33	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1860123	1000	05/06/22 21:25	05/06/22 21:25	JAH	Mt. Juliet, TN

MW-29S L1489662-03 GW

Collected by: MAT/SXA | Collected date/time: 05/04/22 12:38 | Received date/time: 05/05/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1862436	1	05/11/22 17:18	05/11/22 18:02	SJF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1859306	1	05/05/22 19:31	05/05/22 19:31	KEG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1862183	5	05/11/22 21:10	05/11/22 21:10	KEG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1861233	1	05/11/22 13:43	05/13/22 19:31	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1862736	1	05/12/22 11:53	05/12/22 11:53	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1860123	250	05/06/22 21:47	05/06/22 21:47	JAH	Mt. Juliet, TN

MW-29S-DUP L1489662-04 GW

Collected by: MAT/SXA | Collected date/time: 05/04/22 12:43 | Received date/time: 05/05/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1862436	1	05/11/22 17:18	05/11/22 18:02	SJF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1859306	1	05/05/22 19:56	05/05/22 19:56	KEG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1859306	20	05/05/22 20:09	05/05/22 20:09	KEG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1861233	1	05/11/22 13:43	05/13/22 19:34	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1862736	1	05/12/22 11:56	05/12/22 11:56	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1860123	250	05/06/22 22:09	05/06/22 22:09	JAH	Mt. Juliet, TN

TRIP BLANK L1489662-05 GW

Collected by: MAT/SXA | Collected date/time: 05/04/22 00:00 | Received date/time: 05/05/22 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1860123	1	05/06/22 17:06	05/06/22 17:06	JAH	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.

Jason Romer
Project Manager

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	606		10.0	1	05/11/2022 18:02	WG1862436

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	2.65		0.100	1	05/05/2022 20:21	WG1859306
Nitrite	ND		0.100	1	05/05/2022 20:21	WG1859306
Sulfate	210		25.0	5	05/05/2022 20:59	WG1859306

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	ND		0.100	1	05/13/2022 18:59	WG1861233

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	05/12/2022 11:25	WG1862736
Ethane	ND		0.0130	1	05/12/2022 11:25	WG1862736
Ethene	ND		0.0130	1	05/12/2022 11:25	WG1862736

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.500	10	05/06/2022 21:03	WG1860123
Acrylonitrile	ND		0.100	10	05/06/2022 21:03	WG1860123
Benzene	ND		0.0100	10	05/06/2022 21:03	WG1860123
Bromobenzene	ND		0.0100	10	05/06/2022 21:03	WG1860123
Bromochloromethane	ND	M1	0.0100	10	05/06/2022 21:03	WG1860123
Bromodichloromethane	ND		0.0100	10	05/06/2022 21:03	WG1860123
Bromoform	ND		0.0100	10	05/06/2022 21:03	WG1860123
Bromomethane	ND	M1	0.0500	10	05/06/2022 21:03	WG1860123
n-Butylbenzene	ND	M1	0.0100	10	05/06/2022 21:03	WG1860123
sec-Butylbenzene	ND		0.0100	10	05/06/2022 21:03	WG1860123
tert-Butylbenzene	ND		0.0100	10	05/06/2022 21:03	WG1860123
Carbon tetrachloride	ND		0.0100	10	05/06/2022 21:03	WG1860123
Carbon disulfide	ND		0.0100	10	05/06/2022 21:03	WG1860123
Chlorobenzene	ND		0.0100	10	05/06/2022 21:03	WG1860123
Chlorodibromomethane	ND		0.0100	10	05/06/2022 21:03	WG1860123
Chloroethane	ND	L1 M1	0.0500	10	05/06/2022 21:03	WG1860123
Chloroform	ND		0.0500	10	05/06/2022 21:03	WG1860123
Chloromethane	ND		0.0250	10	05/06/2022 21:03	WG1860123
1,2-Dibromo-3-Chloropropane	ND		0.0500	10	05/06/2022 21:03	WG1860123
1,2-Dibromoethane	ND		0.0100	10	05/06/2022 21:03	WG1860123
Dibromomethane	ND		0.0100	10	05/06/2022 21:03	WG1860123
1,2-Dichlorobenzene	ND		0.0100	10	05/06/2022 21:03	WG1860123
1,3-Dichlorobenzene	ND		0.0100	10	05/06/2022 21:03	WG1860123
1,4-Dichlorobenzene	ND		0.0100	10	05/06/2022 21:03	WG1860123
trans-1,4-Dichloro-2-butene	ND		0.0250	10	05/06/2022 21:03	WG1860123
Dichlorodifluoromethane	ND		0.0500	10	05/06/2022 21:03	WG1860123
1,1-Dichloroethane	ND		0.0100	10	05/06/2022 21:03	WG1860123
1,2-Dichloroethane	ND		0.0100	10	05/06/2022 21:03	WG1860123
1,1-Dichloroethene	ND		0.0100	10	05/06/2022 21:03	WG1860123
cis-1,2-Dichloroethene	ND		0.0100	10	05/06/2022 21:03	WG1860123

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.0100	10	05/06/2022 21:03	WG1860123
1,2-Dichloropropane	ND		0.0100	10	05/06/2022 21:03	WG1860123
cis-1,3-Dichloropropene	ND		0.0100	10	05/06/2022 21:03	WG1860123
trans-1,3-Dichloropropene	ND		0.0100	10	05/06/2022 21:03	WG1860123
Ethylbenzene	ND		0.0100	10	05/06/2022 21:03	WG1860123
Hexachloro-1,3-butadiene	ND	M1	0.0100	10	05/06/2022 21:03	WG1860123
2-Hexanone	ND		0.100	10	05/06/2022 21:03	WG1860123
2-Butanone (MEK)	ND		0.100	10	05/06/2022 21:03	WG1860123
Iodomethane	ND		0.100	10	05/06/2022 21:03	WG1860123
Methylene Chloride	ND		0.0500	10	05/06/2022 21:03	WG1860123
4-Methyl-2-pentanone (MIBK)	ND		0.100	10	05/06/2022 21:03	WG1860123
Naphthalene	ND		0.0500	10	05/06/2022 21:03	WG1860123
n-Propylbenzene	ND		0.0100	10	05/06/2022 21:03	WG1860123
Styrene	ND		0.0100	10	05/06/2022 21:03	WG1860123
1,1,1,2-Tetrachloroethane	ND		0.0100	10	05/06/2022 21:03	WG1860123
1,1,2,2-Tetrachloroethane	ND		0.0100	10	05/06/2022 21:03	WG1860123
1,1,2-Trichlorotrifluoroethane	ND		0.0100	10	05/06/2022 21:03	WG1860123
Tetrachloroethene	ND		0.0100	10	05/06/2022 21:03	WG1860123
Toluene	ND		0.0100	10	05/06/2022 21:03	WG1860123
1,2,4-Trichlorobenzene	ND		0.0100	10	05/06/2022 21:03	WG1860123
1,1,1-Trichloroethane	ND		0.0100	10	05/06/2022 21:03	WG1860123
1,1,2-Trichloroethane	ND		0.0100	10	05/06/2022 21:03	WG1860123
Trichloroethene	ND		0.0100	10	05/06/2022 21:03	WG1860123
Trichlorofluoromethane	ND		0.0500	10	05/06/2022 21:03	WG1860123
1,2,3-Trichloropropane	ND		0.0250	10	05/06/2022 21:03	WG1860123
1,2,4-Trimethylbenzene	ND		0.0100	10	05/06/2022 21:03	WG1860123
1,3,5-Trimethylbenzene	ND		0.0100	10	05/06/2022 21:03	WG1860123
Vinyl acetate	ND	M1	0.100	10	05/06/2022 21:03	WG1860123
Vinyl chloride	ND		0.0100	10	05/06/2022 21:03	WG1860123
Xylenes, Total	ND		0.0300	10	05/06/2022 21:03	WG1860123
Di-isopropyl ether	ND		0.0100	10	05/06/2022 21:03	WG1860123
Ethanol	ND	R5	1.00	10	05/06/2022 21:03	WG1860123
Ethyl tert-butyl ether	ND		0.0100	10	05/06/2022 21:03	WG1860123
Methyl tert-butyl ether	0.234		0.0100	10	05/06/2022 21:03	WG1860123
tert-Butyl alcohol	ND		0.0500	10	05/06/2022 21:03	WG1860123
tert-Amyl Methyl Ether	0.0350		0.0100	10	05/06/2022 21:03	WG1860123
(S) Toluene-d8	*110*		*80.0-120*		*05/06/2022 21:03*	WG1860123
(S) 4-Bromofluorobenzene	*110*		*77.0-126*		*05/06/2022 21:03*	WG1860123
(S) 1,2-Dichloroethane-d4	*104*		*70.0-130*		*05/06/2022 21:03*	WG1860123

Sample Narrative:

L1489662-01 WG1860123: Target compounds too high to run at a lower dilution.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	745		13.3	1	05/11/2022 18:02	WG1862436

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	ND		0.100	1	05/05/2022 19:07	WG1859306
Nitrite	ND		0.100	1	05/05/2022 19:07	WG1859306
Sulfate	290		50.0	10	05/05/2022 19:19	WG1859306

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	ND		0.100	1	05/13/2022 16:17	WG1861983

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	05/12/2022 11:33	WG1862736
Ethane	ND		0.0130	1	05/12/2022 11:33	WG1862736
Ethene	ND		0.0130	1	05/12/2022 11:33	WG1862736

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		50.0	1000	05/06/2022 21:25	WG1860123
Acrylonitrile	ND		10.0	1000	05/06/2022 21:25	WG1860123
Benzene	ND		1.00	1000	05/06/2022 21:25	WG1860123
Bromobenzene	ND		1.00	1000	05/06/2022 21:25	WG1860123
Bromochloromethane	ND		1.00	1000	05/06/2022 21:25	WG1860123
Bromodichloromethane	ND		1.00	1000	05/06/2022 21:25	WG1860123
Bromoform	ND		1.00	1000	05/06/2022 21:25	WG1860123
Bromomethane	ND		5.00	1000	05/06/2022 21:25	WG1860123
n-Butylbenzene	ND		1.00	1000	05/06/2022 21:25	WG1860123
sec-Butylbenzene	ND		1.00	1000	05/06/2022 21:25	WG1860123
tert-Butylbenzene	ND		1.00	1000	05/06/2022 21:25	WG1860123
Carbon tetrachloride	ND		1.00	1000	05/06/2022 21:25	WG1860123
Carbon disulfide	ND		1.00	1000	05/06/2022 21:25	WG1860123
Chlorobenzene	ND		1.00	1000	05/06/2022 21:25	WG1860123
Chlorodibromomethane	ND		1.00	1000	05/06/2022 21:25	WG1860123
Chloroethane	ND	L1	5.00	1000	05/06/2022 21:25	WG1860123
Chloroform	ND		5.00	1000	05/06/2022 21:25	WG1860123
Chloromethane	ND		2.50	1000	05/06/2022 21:25	WG1860123
1,2-Dibromo-3-Chloropropane	ND		5.00	1000	05/06/2022 21:25	WG1860123
1,2-Dibromoethane	ND		1.00	1000	05/06/2022 21:25	WG1860123
Dibromomethane	ND		1.00	1000	05/06/2022 21:25	WG1860123
1,2-Dichlorobenzene	ND		1.00	1000	05/06/2022 21:25	WG1860123
1,3-Dichlorobenzene	ND		1.00	1000	05/06/2022 21:25	WG1860123
1,4-Dichlorobenzene	ND		1.00	1000	05/06/2022 21:25	WG1860123
trans-1,4-Dichloro-2-butene	ND		2.50	1000	05/06/2022 21:25	WG1860123
Dichlorodifluoromethane	ND		5.00	1000	05/06/2022 21:25	WG1860123
1,1-Dichloroethane	ND		1.00	1000	05/06/2022 21:25	WG1860123
1,2-Dichloroethane	ND		1.00	1000	05/06/2022 21:25	WG1860123
1,1-Dichloroethene	ND		1.00	1000	05/06/2022 21:25	WG1860123
cis-1,2-Dichloroethene	ND		1.00	1000	05/06/2022 21:25	WG1860123

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		1.00	1000	05/06/2022 21:25	WG1860123
1,2-Dichloropropane	ND		1.00	1000	05/06/2022 21:25	WG1860123
cis-1,3-Dichloropropene	ND		1.00	1000	05/06/2022 21:25	WG1860123
trans-1,3-Dichloropropene	ND		1.00	1000	05/06/2022 21:25	WG1860123
Ethylbenzene	ND		1.00	1000	05/06/2022 21:25	WG1860123
Hexachloro-1,3-butadiene	ND		1.00	1000	05/06/2022 21:25	WG1860123
2-Hexanone	ND		10.0	1000	05/06/2022 21:25	WG1860123
2-Butanone (MEK)	ND		10.0	1000	05/06/2022 21:25	WG1860123
Iodomethane	ND		10.0	1000	05/06/2022 21:25	WG1860123
Methylene Chloride	ND		5.00	1000	05/06/2022 21:25	WG1860123
4-Methyl-2-pentanone (MIBK)	ND		10.0	1000	05/06/2022 21:25	WG1860123
Naphthalene	ND		5.00	1000	05/06/2022 21:25	WG1860123
n-Propylbenzene	ND		1.00	1000	05/06/2022 21:25	WG1860123
Styrene	ND		1.00	1000	05/06/2022 21:25	WG1860123
1,1,1,2-Tetrachloroethane	ND		1.00	1000	05/06/2022 21:25	WG1860123
1,1,2,2-Tetrachloroethane	ND		1.00	1000	05/06/2022 21:25	WG1860123
1,1,2-Trichlorotrifluoroethane	ND		1.00	1000	05/06/2022 21:25	WG1860123
Tetrachloroethene	ND		1.00	1000	05/06/2022 21:25	WG1860123
Toluene	ND		1.00	1000	05/06/2022 21:25	WG1860123
1,2,4-Trichlorobenzene	ND		1.00	1000	05/06/2022 21:25	WG1860123
1,1,1-Trichloroethane	ND		1.00	1000	05/06/2022 21:25	WG1860123
1,1,2-Trichloroethane	ND		1.00	1000	05/06/2022 21:25	WG1860123
Trichloroethene	ND		1.00	1000	05/06/2022 21:25	WG1860123
Trichlorofluoromethane	ND		5.00	1000	05/06/2022 21:25	WG1860123
1,2,3-Trichloropropane	ND		2.50	1000	05/06/2022 21:25	WG1860123
1,2,4-Trimethylbenzene	ND		1.00	1000	05/06/2022 21:25	WG1860123
1,3,5-Trimethylbenzene	ND		1.00	1000	05/06/2022 21:25	WG1860123
Vinyl acetate	ND		10.0	1000	05/06/2022 21:25	WG1860123
Vinyl chloride	ND		1.00	1000	05/06/2022 21:25	WG1860123
Xylenes, Total	ND		3.00	1000	05/06/2022 21:25	WG1860123
Di-isopropyl ether	ND		1.00	1000	05/06/2022 21:25	WG1860123
Ethanol	ND		100	1000	05/06/2022 21:25	WG1860123
Ethyl tert-butyl ether	ND		1.00	1000	05/06/2022 21:25	WG1860123
Methyl tert-butyl ether	63.5		1.00	1000	05/06/2022 21:25	WG1860123
tert-Butyl alcohol	ND		5.00	1000	05/06/2022 21:25	WG1860123
tert-Amyl Methyl Ether	8.90		1.00	1000	05/06/2022 21:25	WG1860123
(S) Toluene-d8	*108*		*80.0-120*		*05/06/2022 21:25*	WG1860123
(S) 4-Bromofluorobenzene	*108*		*77.0-126*		*05/06/2022 21:25*	WG1860123
(S) 1,2-Dichloroethane-d4	*103*		*70.0-130*		*05/06/2022 21:25*	WG1860123

Sample Narrative:

L1489662-02 WG1860123: Target compounds too high to run at a lower dilution.

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

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	757	R8	13.3	1	05/11/2022 18:02	WG1862436

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	0.211		0.100	1	05/05/2022 19:31	WG1859306
Nitrite	ND		0.100	1	05/05/2022 19:31	WG1859306
Sulfate	347		25.0	5	05/11/2022 21:10	WG1862183

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	ND		0.100	1	05/13/2022 19:31	WG1861233

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	05/12/2022 11:53	WG1862736
Ethane	ND		0.0130	1	05/12/2022 11:53	WG1862736
Ethene	ND		0.0130	1	05/12/2022 11:53	WG1862736

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		12.5	250	05/06/2022 21:47	WG1860123
Acrylonitrile	ND		2.50	250	05/06/2022 21:47	WG1860123
Benzene	ND		0.250	250	05/06/2022 21:47	WG1860123
Bromobenzene	ND		0.250	250	05/06/2022 21:47	WG1860123
Bromochloromethane	ND		0.250	250	05/06/2022 21:47	WG1860123
Bromodichloromethane	ND		0.250	250	05/06/2022 21:47	WG1860123
Bromoform	ND		0.250	250	05/06/2022 21:47	WG1860123
Bromomethane	ND		1.25	250	05/06/2022 21:47	WG1860123
n-Butylbenzene	ND		0.250	250	05/06/2022 21:47	WG1860123
sec-Butylbenzene	ND		0.250	250	05/06/2022 21:47	WG1860123
tert-Butylbenzene	ND		0.250	250	05/06/2022 21:47	WG1860123
Carbon tetrachloride	ND		0.250	250	05/06/2022 21:47	WG1860123
Carbon disulfide	ND		0.250	250	05/06/2022 21:47	WG1860123
Chlorobenzene	ND		0.250	250	05/06/2022 21:47	WG1860123
Chlorodibromomethane	ND		0.250	250	05/06/2022 21:47	WG1860123
Chloroethane	ND	L1	1.25	250	05/06/2022 21:47	WG1860123
Chloroform	ND		1.25	250	05/06/2022 21:47	WG1860123
Chloromethane	ND		0.625	250	05/06/2022 21:47	WG1860123
1,2-Dibromo-3-Chloropropane	ND		1.25	250	05/06/2022 21:47	WG1860123
1,2-Dibromoethane	ND		0.250	250	05/06/2022 21:47	WG1860123
Dibromomethane	ND		0.250	250	05/06/2022 21:47	WG1860123
1,2-Dichlorobenzene	ND		0.250	250	05/06/2022 21:47	WG1860123
1,3-Dichlorobenzene	ND		0.250	250	05/06/2022 21:47	WG1860123
1,4-Dichlorobenzene	ND		0.250	250	05/06/2022 21:47	WG1860123
trans-1,4-Dichloro-2-butene	ND		0.625	250	05/06/2022 21:47	WG1860123
Dichlorodifluoromethane	ND		1.25	250	05/06/2022 21:47	WG1860123
1,1-Dichloroethane	ND		0.250	250	05/06/2022 21:47	WG1860123
1,2-Dichloroethane	ND		0.250	250	05/06/2022 21:47	WG1860123
1,1-Dichloroethene	ND		0.250	250	05/06/2022 21:47	WG1860123
cis-1,2-Dichloroethene	ND		0.250	250	05/06/2022 21:47	WG1860123

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.250	250	05/06/2022 21:47	WG1860123
1,2-Dichloropropane	ND		0.250	250	05/06/2022 21:47	WG1860123
cis-1,3-Dichloropropene	ND		0.250	250	05/06/2022 21:47	WG1860123
trans-1,3-Dichloropropene	ND		0.250	250	05/06/2022 21:47	WG1860123
Ethylbenzene	ND		0.250	250	05/06/2022 21:47	WG1860123
Hexachloro-1,3-butadiene	ND		0.250	250	05/06/2022 21:47	WG1860123
2-Hexanone	ND		2.50	250	05/06/2022 21:47	WG1860123
2-Butanone (MEK)	ND		2.50	250	05/06/2022 21:47	WG1860123
Iodomethane	ND		2.50	250	05/06/2022 21:47	WG1860123
Methylene Chloride	ND		1.25	250	05/06/2022 21:47	WG1860123
4-Methyl-2-pentanone (MIBK)	ND		2.50	250	05/06/2022 21:47	WG1860123
Naphthalene	ND		1.25	250	05/06/2022 21:47	WG1860123
n-Propylbenzene	ND		0.250	250	05/06/2022 21:47	WG1860123
Styrene	ND		0.250	250	05/06/2022 21:47	WG1860123
1,1,1,2-Tetrachloroethane	ND		0.250	250	05/06/2022 21:47	WG1860123
1,1,2,2-Tetrachloroethane	ND		0.250	250	05/06/2022 21:47	WG1860123
1,1,2-Trichlorotrifluoroethane	ND		0.250	250	05/06/2022 21:47	WG1860123
Tetrachloroethene	ND		0.250	250	05/06/2022 21:47	WG1860123
Toluene	ND		0.250	250	05/06/2022 21:47	WG1860123
1,2,4-Trichlorobenzene	ND		0.250	250	05/06/2022 21:47	WG1860123
1,1,1-Trichloroethane	ND		0.250	250	05/06/2022 21:47	WG1860123
1,1,2-Trichloroethane	ND		0.250	250	05/06/2022 21:47	WG1860123
Trichloroethene	ND		0.250	250	05/06/2022 21:47	WG1860123
Trichlorofluoromethane	ND		1.25	250	05/06/2022 21:47	WG1860123
1,2,3-Trichloropropane	ND		0.625	250	05/06/2022 21:47	WG1860123
1,2,4-Trimethylbenzene	ND		0.250	250	05/06/2022 21:47	WG1860123
1,3,5-Trimethylbenzene	ND		0.250	250	05/06/2022 21:47	WG1860123
Vinyl acetate	ND		2.50	250	05/06/2022 21:47	WG1860123
Vinyl chloride	ND		0.250	250	05/06/2022 21:47	WG1860123
Xylenes, Total	ND		0.750	250	05/06/2022 21:47	WG1860123
Di-isopropyl ether	ND		0.250	250	05/06/2022 21:47	WG1860123
Ethanol	ND		25.0	250	05/06/2022 21:47	WG1860123
Ethyl tert-butyl ether	ND		0.250	250	05/06/2022 21:47	WG1860123
Methyl tert-butyl ether	10.4		0.250	250	05/06/2022 21:47	WG1860123
tert-Butyl alcohol	ND		1.25	250	05/06/2022 21:47	WG1860123
tert-Amyl Methyl Ether	1.34		0.250	250	05/06/2022 21:47	WG1860123
(S) Toluene-d8	*109*		*80.0-120*		*05/06/2022 21:47*	WG1860123
(S) 4-Bromofluorobenzene	*107*		*77.0-126*		*05/06/2022 21:47*	WG1860123
(S) 1,2-Dichloroethane-d4	*102*		*70.0-130*		*05/06/2022 21:47*	WG1860123

Sample Narrative:

L1489662-03 WG1860123: Target compounds too high to run at a lower dilution.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	732		13.3	1	05/11/2022 18:02	WG1862436

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	0.221		0.100	1	05/05/2022 19:56	WG1859306
Nitrite	ND		0.100	1	05/05/2022 19:56	WG1859306
Sulfate	333		100	20	05/05/2022 20:09	WG1859306

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	ND		0.100	1	05/13/2022 19:34	WG1861233

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	05/12/2022 11:56	WG1862736
Ethane	ND		0.0130	1	05/12/2022 11:56	WG1862736
Ethene	ND		0.0130	1	05/12/2022 11:56	WG1862736

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		12.5	250	05/06/2022 22:09	WG1860123
Acrylonitrile	ND		2.50	250	05/06/2022 22:09	WG1860123
Benzene	ND		0.250	250	05/06/2022 22:09	WG1860123
Bromobenzene	ND		0.250	250	05/06/2022 22:09	WG1860123
Bromochloromethane	ND		0.250	250	05/06/2022 22:09	WG1860123
Bromodichloromethane	ND		0.250	250	05/06/2022 22:09	WG1860123
Bromoform	ND		0.250	250	05/06/2022 22:09	WG1860123
Bromomethane	ND		1.25	250	05/06/2022 22:09	WG1860123
n-Butylbenzene	ND		0.250	250	05/06/2022 22:09	WG1860123
sec-Butylbenzene	ND		0.250	250	05/06/2022 22:09	WG1860123
tert-Butylbenzene	ND		0.250	250	05/06/2022 22:09	WG1860123
Carbon tetrachloride	ND		0.250	250	05/06/2022 22:09	WG1860123
Carbon disulfide	ND		0.250	250	05/06/2022 22:09	WG1860123
Chlorobenzene	ND		0.250	250	05/06/2022 22:09	WG1860123
Chlorodibromomethane	ND		0.250	250	05/06/2022 22:09	WG1860123
Chloroethane	ND	L1	1.25	250	05/06/2022 22:09	WG1860123
Chloroform	ND		1.25	250	05/06/2022 22:09	WG1860123
Chloromethane	ND		0.625	250	05/06/2022 22:09	WG1860123
1,2-Dibromo-3-Chloropropane	ND		1.25	250	05/06/2022 22:09	WG1860123
1,2-Dibromoethane	ND		0.250	250	05/06/2022 22:09	WG1860123
Dibromomethane	ND		0.250	250	05/06/2022 22:09	WG1860123
1,2-Dichlorobenzene	ND		0.250	250	05/06/2022 22:09	WG1860123
1,3-Dichlorobenzene	ND		0.250	250	05/06/2022 22:09	WG1860123
1,4-Dichlorobenzene	ND		0.250	250	05/06/2022 22:09	WG1860123
trans-1,4-Dichloro-2-butene	ND		0.625	250	05/06/2022 22:09	WG1860123
Dichlorodifluoromethane	ND		1.25	250	05/06/2022 22:09	WG1860123
1,1-Dichloroethane	ND		0.250	250	05/06/2022 22:09	WG1860123
1,2-Dichloroethane	ND		0.250	250	05/06/2022 22:09	WG1860123
1,1-Dichloroethene	ND		0.250	250	05/06/2022 22:09	WG1860123
cis-1,2-Dichloroethene	ND		0.250	250	05/06/2022 22:09	WG1860123

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.250	250	05/06/2022 22:09	WG1860123
1,2-Dichloropropane	ND		0.250	250	05/06/2022 22:09	WG1860123
cis-1,3-Dichloropropene	ND		0.250	250	05/06/2022 22:09	WG1860123
trans-1,3-Dichloropropene	ND		0.250	250	05/06/2022 22:09	WG1860123
Ethylbenzene	ND		0.250	250	05/06/2022 22:09	WG1860123
Hexachloro-1,3-butadiene	ND		0.250	250	05/06/2022 22:09	WG1860123
2-Hexanone	ND		2.50	250	05/06/2022 22:09	WG1860123
2-Butanone (MEK)	ND		2.50	250	05/06/2022 22:09	WG1860123
Iodomethane	ND		2.50	250	05/06/2022 22:09	WG1860123
Methylene Chloride	ND		1.25	250	05/06/2022 22:09	WG1860123
4-Methyl-2-pentanone (MIBK)	ND		2.50	250	05/06/2022 22:09	WG1860123
Naphthalene	ND		1.25	250	05/06/2022 22:09	WG1860123
n-Propylbenzene	ND		0.250	250	05/06/2022 22:09	WG1860123
Styrene	ND		0.250	250	05/06/2022 22:09	WG1860123
1,1,1,2-Tetrachloroethane	ND		0.250	250	05/06/2022 22:09	WG1860123
1,1,2,2-Tetrachloroethane	ND		0.250	250	05/06/2022 22:09	WG1860123
1,1,2-Trichlorotrifluoroethane	ND		0.250	250	05/06/2022 22:09	WG1860123
Tetrachloroethene	ND		0.250	250	05/06/2022 22:09	WG1860123
Toluene	ND		0.250	250	05/06/2022 22:09	WG1860123
1,2,4-Trichlorobenzene	ND		0.250	250	05/06/2022 22:09	WG1860123
1,1,1-Trichloroethane	ND		0.250	250	05/06/2022 22:09	WG1860123
1,1,2-Trichloroethane	ND		0.250	250	05/06/2022 22:09	WG1860123
Trichloroethene	ND		0.250	250	05/06/2022 22:09	WG1860123
Trichlorofluoromethane	ND		1.25	250	05/06/2022 22:09	WG1860123
1,2,3-Trichloropropane	ND		0.625	250	05/06/2022 22:09	WG1860123
1,2,4-Trimethylbenzene	ND		0.250	250	05/06/2022 22:09	WG1860123
1,3,5-Trimethylbenzene	ND		0.250	250	05/06/2022 22:09	WG1860123
Vinyl acetate	ND		2.50	250	05/06/2022 22:09	WG1860123
Vinyl chloride	ND		0.250	250	05/06/2022 22:09	WG1860123
Xylenes, Total	ND		0.750	250	05/06/2022 22:09	WG1860123
Di-isopropyl ether	ND		0.250	250	05/06/2022 22:09	WG1860123
Ethanol	ND		25.0	250	05/06/2022 22:09	WG1860123
Ethyl tert-butyl ether	ND		0.250	250	05/06/2022 22:09	WG1860123
Methyl tert-butyl ether	10.6		0.250	250	05/06/2022 22:09	WG1860123
tert-Butyl alcohol	ND		1.25	250	05/06/2022 22:09	WG1860123
tert-Amyl Methyl Ether	1.39		0.250	250	05/06/2022 22:09	WG1860123
(S) Toluene-d8	*108*		*80.0-120*		*05/06/2022 22:09*	WG1860123
(S) 4-Bromofluorobenzene	*106*		*77.0-126*		*05/06/2022 22:09*	WG1860123
(S) 1,2-Dichloroethane-d4	*104*		*70.0-130*		*05/06/2022 22:09*	WG1860123

Sample Narrative:

L1489662-04 WG1860123: Target compounds too high to run at a lower dilution.

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	05/06/2022 17:06	WG1860123
Acrylonitrile	ND		0.0100	1	05/06/2022 17:06	WG1860123
Benzene	ND		0.00100	1	05/06/2022 17:06	WG1860123
Bromobenzene	ND		0.00100	1	05/06/2022 17:06	WG1860123
Bromochloromethane	ND		0.00100	1	05/06/2022 17:06	WG1860123
Bromodichloromethane	ND		0.00100	1	05/06/2022 17:06	WG1860123
Bromoform	ND		0.00100	1	05/06/2022 17:06	WG1860123
Bromomethane	ND		0.00500	1	05/06/2022 17:06	WG1860123
n-Butylbenzene	ND		0.00100	1	05/06/2022 17:06	WG1860123
sec-Butylbenzene	ND		0.00100	1	05/06/2022 17:06	WG1860123
tert-Butylbenzene	ND		0.00100	1	05/06/2022 17:06	WG1860123
Carbon tetrachloride	ND		0.00100	1	05/06/2022 17:06	WG1860123
Carbon disulfide	ND		0.00100	1	05/06/2022 17:06	WG1860123
Chlorobenzene	ND		0.00100	1	05/06/2022 17:06	WG1860123
Chlorodibromomethane	ND		0.00100	1	05/06/2022 17:06	WG1860123
Chloroethane	ND	L1	0.00500	1	05/06/2022 17:06	WG1860123
Chloroform	ND		0.00500	1	05/06/2022 17:06	WG1860123
Chloromethane	ND		0.00250	1	05/06/2022 17:06	WG1860123
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	05/06/2022 17:06	WG1860123
1,2-Dibromoethane	ND		0.00100	1	05/06/2022 17:06	WG1860123
Dibromomethane	ND		0.00100	1	05/06/2022 17:06	WG1860123
1,2-Dichlorobenzene	ND		0.00100	1	05/06/2022 17:06	WG1860123
1,3-Dichlorobenzene	ND		0.00100	1	05/06/2022 17:06	WG1860123
1,4-Dichlorobenzene	ND		0.00100	1	05/06/2022 17:06	WG1860123
trans-1,4-Dichloro-2-butene	ND		0.00250	1	05/06/2022 17:06	WG1860123
Dichlorodifluoromethane	ND		0.00500	1	05/06/2022 17:06	WG1860123
1,1-Dichloroethane	ND		0.00100	1	05/06/2022 17:06	WG1860123
1,2-Dichloroethane	ND		0.00100	1	05/06/2022 17:06	WG1860123
1,1-Dichloroethene	ND		0.00100	1	05/06/2022 17:06	WG1860123
cis-1,2-Dichloroethene	ND		0.00100	1	05/06/2022 17:06	WG1860123
trans-1,2-Dichloroethene	ND		0.00100	1	05/06/2022 17:06	WG1860123
1,2-Dichloropropane	ND		0.00100	1	05/06/2022 17:06	WG1860123
cis-1,3-Dichloropropene	ND		0.00100	1	05/06/2022 17:06	WG1860123
trans-1,3-Dichloropropene	ND		0.00100	1	05/06/2022 17:06	WG1860123
Ethylbenzene	ND		0.00100	1	05/06/2022 17:06	WG1860123
Hexachloro-1,3-butadiene	ND		0.00100	1	05/06/2022 17:06	WG1860123
2-Hexanone	ND		0.0100	1	05/06/2022 17:06	WG1860123
2-Butanone (MEK)	ND		0.0100	1	05/06/2022 17:06	WG1860123
Iodomethane	ND		0.0100	1	05/06/2022 17:06	WG1860123
Methylene Chloride	ND		0.00500	1	05/06/2022 17:06	WG1860123
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	05/06/2022 17:06	WG1860123
Naphthalene	ND		0.00500	1	05/06/2022 17:06	WG1860123
n-Propylbenzene	ND		0.00100	1	05/06/2022 17:06	WG1860123
Styrene	ND		0.00100	1	05/06/2022 17:06	WG1860123
1,1,1,2-Tetrachloroethane	ND		0.00100	1	05/06/2022 17:06	WG1860123
1,1,2,2-Tetrachloroethane	ND		0.00100	1	05/06/2022 17:06	WG1860123
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	05/06/2022 17:06	WG1860123
Tetrachloroethene	ND		0.00100	1	05/06/2022 17:06	WG1860123
Toluene	ND		0.00100	1	05/06/2022 17:06	WG1860123
1,2,4-Trichlorobenzene	ND		0.00100	1	05/06/2022 17:06	WG1860123
1,1,1-Trichloroethane	ND		0.00100	1	05/06/2022 17:06	WG1860123
1,1,2-Trichloroethane	ND		0.00100	1	05/06/2022 17:06	WG1860123
Trichloroethene	ND		0.00100	1	05/06/2022 17:06	WG1860123
Trichlorofluoromethane	ND		0.00500	1	05/06/2022 17:06	WG1860123
1,2,3-Trichloropropane	ND		0.00250	1	05/06/2022 17:06	WG1860123
1,2,4-Trimethylbenzene	ND		0.00100	1	05/06/2022 17:06	WG1860123

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
1,3,5-Trimethylbenzene	ND		0.00100	1	05/06/2022 17:06	WG1860123
Vinyl acetate	ND		0.0100	1	05/06/2022 17:06	WG1860123
Vinyl chloride	ND		0.00100	1	05/06/2022 17:06	WG1860123
Xylenes, Total	ND		0.00300	1	05/06/2022 17:06	WG1860123
Di-isopropyl ether	ND		0.00100	1	05/06/2022 17:06	WG1860123
Ethanol	ND		0.100	1	05/06/2022 17:06	WG1860123
Ethyl tert-butyl ether	ND		0.00100	1	05/06/2022 17:06	WG1860123
Methyl tert-butyl ether	ND		0.00100	1	05/06/2022 17:06	WG1860123
tert-Butyl alcohol	ND		0.00500	1	05/06/2022 17:06	WG1860123
tert-Amyl Methyl Ether	ND		0.00100	1	05/06/2022 17:06	WG1860123
(S) Toluene-d8	*110*		*80.0-120*		*05/06/2022 17:06*	WG1860123
(S) 4-Bromofluorobenzene	*106*		*77.0-126*		*05/06/2022 17:06*	WG1860123
(S) 1,2-Dichloroethane-d4	*99.5*		*70.0-130*		*05/06/2022 17:06*	WG1860123

Method Blank (MB)

(MB) R3791830-1 05/11/22 18:02

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1489662-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1489662-02 05/11/22 18:02 • (DUP) R3791830-3 05/11/22 18:02

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	745	776	1	4.03		5

L1489662-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1489662-03 05/11/22 18:02 • (DUP) R3791830-4 05/11/22 18:02

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	757	809	1	6.64	R8	5

Laboratory Control Sample (LCS)

(LCS) R3791830-2 05/11/22 18:02

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	2460	2310	93.9	81.7-118	

Method Blank (MB)

(MB) R3790193-1 05/05/22 10:00

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate	U		0.0480	0.100
Nitrite	U		0.0420	0.100
Sulfate	U		0.594	5.00

L1489675-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1489675-03 05/05/22 14:50 • (DUP) R3790193-3 05/05/22 15:02

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	0.116	0.116	1	0.431		15
Nitrite	ND	ND	1	3.86		15

L1487320-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1487320-01 05/05/22 21:48 • (DUP) R3790193-8 05/05/22 22:01

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	ND	ND	1	29.2	R8	15
Nitrite	ND	ND	1	0.000		15
Sulfate	ND	ND	1	2.06		15

L1489675-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1489675-03 05/05/22 22:38 • (DUP) R3790193-9 05/05/22 22:51

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfate	122	119	5	2.49		15

Laboratory Control Sample (LCS)

(LCS) R3790193-2 05/05/22 10:13

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate	8.00	8.06	101	80.0-120	
Nitrite	8.00	8.47	106	80.0-120	
Sulfate	40.0	40.1	100	80.0-120	

L1489675-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1489675-03 05/05/22 14:50 • (MS) R3790193-4 05/05/22 15:40 • (MSD) R3790193-5 05/05/22 15:52

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 %
Nitrate	5.00	0.116	5.14	5.10	100	99.7	1	80.0-120			0.720	15
Nitrite	5.00	ND	5.53	5.45	109	108	1	80.0-120			1.42	15
Sulfate	50.0	123	170	168	93.8	90.9	1	80.0-120	E1	E1	0.865	15

L1489662-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1489662-01 05/05/22 20:21 • (MS) R3790193-6 05/05/22 21:11 • (MSD) R3790193-7 05/05/22 21:23

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 %
Nitrate	5.00	2.65	8.09	7.96	109	106	1	80.0-120			1.70	15
Nitrite	5.00	ND	5.46	5.42	109	108	1	80.0-120			0.644	15
Sulfate	50.0	217	266	262	98.8	90.6	1	80.0-120	E1	E1	1.53	15

Method Blank (MB)

(MB) R3791540-1 05/11/22 10:16

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Sulfate	U		0.594	5.00

L1489832-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1489832-07 05/11/22 13:30 • (DUP) R3791540-3 05/11/22 13:45

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfate	ND	ND	1	0.000		15

L1491958-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1491958-02 05/11/22 18:15 • (DUP) R3791540-6 05/11/22 18:31

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfate	8.98	9.26	1	3.04		15

Laboratory Control Sample (LCS)

(LCS) R3791540-2 05/11/22 10:32

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Sulfate	40.0	40.8	102	80.0-120	

L1489832-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1489832-07 05/11/22 13:30 • (MS) R3791540-4 05/11/22 14:01 • (MSD) R3791540-5 05/11/22 14:17

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 %
Sulfate	50.0	ND	51.2	50.2	102	100	1	80.0-120			1.82	15

L1491958-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1491958-02 05/11/22 18:15 • (MS) R3791540-7 05/11/22 19:19

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Sulfate	50.0	8.98	59.5	101	1	80.0-120	

QUALITY CONTROL SUMMARY

L1489662-01,03,04

Method Blank (MB)

(MB) R3791984-1 05/13/22 18:54

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Iron	U		0.0180	0.100

Laboratory Control Sample (LCS)

(LCS) R3791984-2 05/13/22 18:57

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Iron	10.0	9.81	98.1	80.0-120	

L1489662-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1489662-01 05/13/22 18:59 • (MS) R3791984-4 05/13/22 19:05 • (MSD) R3791984-5 05/13/22 19:07

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 %
Iron	10.0	ND	9.67	9.92	96.3	98.9	1	75.0-125			2.60	20

Method Blank (MB)

(MB) R3791953-1 05/13/22 16:11

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Iron	U		0.0180	0.100

Laboratory Control Sample (LCS)

(LCS) R3791953-2 05/13/22 16:14

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Iron	10.0	9.46	94.6	80.0-120	

L1489662-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1489662-02 05/13/22 16:17 • (MS) R3791953-4 05/13/22 16:23 • (MSD) R3791953-5 05/13/22 16:25

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 %
Iron	10.0	ND	9.40	9.21	94.0	92.1	1	75.0-125			2.06	20

Method Blank (MB)

(MB) R3791166-2 05/12/22 11:07

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Methane	U		0.00291	0.0100
Ethane	U		0.00407	0.0130
Ethene	U		0.00426	0.0130

L1489832-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1489832-08 05/12/22 12:26 • (DUP) R3791166-3 05/12/22 12:31

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	0.104	0.112	1	7.41		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20

L1490098-17 Original Sample (OS) • Duplicate (DUP)

(OS) L1490098-17 05/12/22 13:34 • (DUP) R3791166-6 05/12/22 14:08

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	ND	ND	1	0.000		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20

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

(LCS) R3791166-1 05/12/22 10:52 • (LCSD) R3791166-7 05/12/22 14:11

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Methane	0.0678	0.0680	0.0690	100	102	85.0-115			1.46	20
Ethane	0.129	0.117	0.118	90.7	91.5	85.0-115			0.851	20
Ethene	0.127	0.119	0.119	93.7	93.7	85.0-115			0.000	20

L1489662-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1489662-01 05/12/22 11:25 • (MS) R3791166-4 05/12/22 13:37 • (MSD) R3791166-5 05/12/22 13:54

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 %
Methane	0.0678	ND	0.0705	0.0708	104	104	1	50.0-150			0.425	20
Ethane	0.129	ND	0.130	0.119	101	92.2	1	50.0-150			8.84	20
Ethene	0.127	ND	0.132	0.121	104	95.3	1	50.0-150			8.70	20

Method Blank (MB)

(MB) R3789338-3 05/06/22 16:45

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Acrylonitrile	U		0.000671	0.0100
Benzene	U		0.0000941	0.00100
Bromobenzene	U		0.000118	0.00100
Bromochloromethane	U		0.000128	0.00100
Bromodichloromethane	U		0.000136	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 tetrachloride	U		0.000128	0.00100
Carbon disulfide	U		0.0000962	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
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
trans-1,4-Dichloro-2-butene	U		0.000467	0.00250
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
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
Hexachloro-1,3-butadiene	U		0.000337	0.00100
2-Hexanone	U		0.000787	0.0100
2-Butanone (MEK)	U		0.00119	0.0100
Iodomethane	U		0.00600	0.0100
Methylene Chloride	U		0.000430	0.00500

Method Blank (MB)

(MB) R3789338-3 05/06/22 16:45

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
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
1,1,2-Trichlorotrifluoroethane	U		0.000180	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	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
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl acetate	U		0.000692	0.0100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
Di-isopropyl ether	U		0.000105	0.00100
Ethanol	U		0.0420	0.100
Ethyl tert-butyl ether	U		0.000101	0.00100
Methyl tert-butyl ether	U		0.000101	0.00100
tert-Butyl alcohol	U		0.00406	0.00500
tert-Amyl Methyl Ether	U		0.000195	0.00100
(S) Toluene-d8	*108*			*80.0-120*
(S) 4-Bromofluorobenzene	*104*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*99.4*			*70.0-130*

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

(LCS) R3789338-1 05/06/22 15:15 • (LCSD) R3789338-2 05/06/22 15:37

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	0.0220	0.0227	88.0	90.8	19.0-160			3.13	27
Acrylonitrile	0.0250	0.0234	0.0237	93.6	94.8	55.0-149			1.27	20
Benzene	0.00500	0.00512	0.00536	102	107	70.0-123			4.58	20
Bromobenzene	0.00500	0.00514	0.00524	103	105	73.0-121			1.93	20

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

(LCS) R3789338-1 05/06/22 15:15 • (LCSD) R3789338-2 05/06/22 15:37

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromochloromethane	0.00500	0.00536	0.00600	107	120	76.0-122			11.3	20
Bromodichloromethane	0.00500	0.00481	0.00497	96.2	99.4	75.0-120			3.27	20
Bromoform	0.00500	0.00417	0.00402	83.4	80.4	68.0-132			3.66	20
Bromomethane	0.00500	0.00589	0.00606	118	121	10.0-160			2.85	25
n-Butylbenzene	0.00500	0.00537	0.00562	107	112	73.0-125			4.55	20
sec-Butylbenzene	0.00500	0.00538	0.00556	108	111	75.0-125			3.29	20
tert-Butylbenzene	0.00500	0.00519	0.00535	104	107	76.0-124			3.04	20
Carbon tetrachloride	0.00500	0.00530	0.00499	106	99.8	68.0-126			6.03	20
Carbon disulfide	0.00500	0.00525	0.00529	105	106	61.0-128			0.759	20
Chlorobenzene	0.00500	0.00526	0.00520	105	104	80.0-121			1.15	20
Chlorodibromomethane	0.00500	0.00440	0.00430	88.0	86.0	77.0-125			2.30	20
Chloroethane	0.00500	0.00843	0.00858	169	172	47.0-150	L1	L1	1.76	20
Chloroform	0.00500	0.00542	0.00547	108	109	73.0-120			0.918	20
Chloromethane	0.00500	0.00430	0.00438	86.0	87.6	41.0-142			1.84	20
1,2-Dibromo-3-Chloropropane	0.00500	0.00407	0.00386	81.4	77.2	58.0-134			5.30	20
1,2-Dibromoethane	0.00500	0.00519	0.00484	104	96.8	80.0-122			6.98	20
Dibromomethane	0.00500	0.00508	0.00534	102	107	80.0-120			4.99	20
1,2-Dichlorobenzene	0.00500	0.00554	0.00558	111	112	79.0-121			0.719	20
1,3-Dichlorobenzene	0.00500	0.00550	0.00558	110	112	79.0-120			1.44	20
1,4-Dichlorobenzene	0.00500	0.00512	0.00522	102	104	79.0-120			1.93	20
trans-1,4-Dichloro-2-butene	0.00500	0.00305	0.00305	61.0	61.0	33.0-144			0.000	20
Dichlorodifluoromethane	0.00500	0.00473	0.00488	94.6	97.6	51.0-149			3.12	20
1,1-Dichloroethane	0.00500	0.00490	0.00509	98.0	102	70.0-126			3.80	20
1,2-Dichloroethane	0.00500	0.00485	0.00494	97.0	98.8	70.0-128			1.84	20
1,1-Dichloroethene	0.00500	0.00520	0.00540	104	108	71.0-124			3.77	20
cis-1,2-Dichloroethene	0.00500	0.00498	0.00499	99.6	99.8	73.0-120			0.201	20
trans-1,2-Dichloroethene	0.00500	0.00494	0.00492	98.8	98.4	73.0-120			0.406	20
1,2-Dichloropropane	0.00500	0.00474	0.00513	94.8	103	77.0-125			7.90	20
cis-1,3-Dichloropropene	0.00500	0.00488	0.00512	97.6	102	80.0-123			4.80	20
trans-1,3-Dichloropropene	0.00500	0.00472	0.00465	94.4	93.0	78.0-124			1.49	20
Ethylbenzene	0.00500	0.00539	0.00543	108	109	79.0-123			0.739	20
Hexachloro-1,3-butadiene	0.00500	0.00547	0.00552	109	110	54.0-138			0.910	20
2-Hexanone	0.0250	0.0251	0.0240	100	96.0	67.0-149			4.48	20
2-Butanone (MEK)	0.0250	0.0220	0.0247	88.0	98.8	44.0-160			11.6	20
Iodomethane	0.0250	0.0199	0.0214	79.6	85.6	33.0-147			7.26	26
Methylene Chloride	0.00500	0.00483	0.00490	96.6	98.0	67.0-120			1.44	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.0257	0.0247	103	98.8	68.0-142			3.97	20
Naphthalene	0.00500	0.00468	0.00502	93.6	100	54.0-135			7.01	20
n-Propylbenzene	0.00500	0.00561	0.00555	112	111	77.0-124			1.08	20
Styrene	0.00500	0.00519	0.00495	104	99.0	73.0-130			4.73	20

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

(LCS) R3789338-1 05/06/22 15:15 • (LCSD) R3789338-2 05/06/22 15:37

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,1,1,2-Tetrachloroethane	0.00500	0.00477	0.00460	95.4	92.0	75.0-125			3.63	20
1,1,2,2-Tetrachloroethane	0.00500	0.00492	0.00476	98.4	95.2	65.0-130			3.31	20
1,1,2-Trichlorotrifluoroethane	0.00500	0.00596	0.00589	119	118	69.0-132			1.18	20
Tetrachloroethene	0.00500	0.00568	0.00563	114	113	72.0-132			0.884	20
Toluene	0.00500	0.00550	0.00538	110	108	79.0-120			2.21	20
1,2,4-Trichlorobenzene	0.00500	0.00497	0.00544	99.4	109	57.0-137			9.03	20
1,1,1-Trichloroethane	0.00500	0.00520	0.00510	104	102	73.0-124			1.94	20
1,1,2-Trichloroethane	0.00500	0.00473	0.00465	94.6	93.0	80.0-120			1.71	20
Trichloroethene	0.00500	0.00536	0.00503	107	101	78.0-124			6.35	20
Trichlorofluoromethane	0.00500	0.00533	0.00542	107	108	59.0-147			1.67	20
1,2,3-Trichloropropane	0.00500	0.00497	0.00451	99.4	90.2	73.0-130			9.70	20
1,2,4-Trimethylbenzene	0.00500	0.00516	0.00536	103	107	76.0-121			3.80	20
1,3,5-Trimethylbenzene	0.00500	0.00539	0.00531	108	106	76.0-122			1.50	20
Vinyl acetate	0.0250	0.0369	0.0352	148	141	11.0-160			4.72	20
Vinyl chloride	0.00500	0.00498	0.00486	99.6	97.2	67.0-131			2.44	20
Xylenes, Total	0.0150	0.0165	0.0163	110	109	79.0-123			1.22	20
Di-isopropyl ether	0.00500	0.00446	0.00459	89.2	91.8	58.0-138			2.87	20
ethanol	0.250	0.169	0.212	67.6	84.8	10.0-160			22.6	30
Ethyl tert-butyl ether	0.00500	0.00480	0.00475	96.0	95.0	63.0-138			1.05	20
Methyl tert-butyl ether	0.00500	0.00476	0.00493	95.2	98.6	68.0-125			3.51	20
tert-Butyl alcohol	0.0250	0.0240	0.0204	96.0	81.6	27.0-160			16.2	30
tert-Amyl Methyl Ether	0.00500	0.00481	0.00490	96.2	98.0	66.0-125			1.85	20
(S) Toluene-d8				*108*	*107*	*80.0-120*				
(S) 4-Bromofluorobenzene				*106*	*107*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*104*	*103*	*70.0-130*				

L1489662-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1489662-01 05/06/22 21:03 • (MS) R3789338-4 05/06/22 18:33 • (MSD) R3789338-5 05/06/22 18:54

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 %
Acetone	0.250	ND	ND	ND	102	110	10	10.0-160			6.79	35
Acrylonitrile	0.250	ND	0.279	0.300	112	120	10	21.0-160			7.25	32
Benzene	0.0500	ND	0.0648	0.0731	130	146	10	17.0-158			12.0	27
Bromobenzene	0.0500	ND	0.0627	0.0678	125	136	10	30.0-149			7.82	28
Bromochloromethane	0.0500	ND	0.0689	0.0744	138	149	10	38.0-142		M1	7.68	26
Bromodichloromethane	0.0500	ND	0.0628	0.0648	126	130	10	31.0-150			3.13	27
Bromoform	0.0500	ND	0.0474	0.0514	94.8	103	10	29.0-150			8.10	29
Bromomethane	0.0500	ND	0.0781	0.0833	156	167	10	10.0-160		M1	6.44	38

L1489662-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1489662-01 05/06/22 21:03 • (MS) R3789338-4 05/06/22 18:33 • (MSD) R3789338-5 05/06/22 18:54

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 %
n-Butylbenzene	0.0500	ND	0.0713	0.0765	143	153	10	31.0-150		M1	7.04	30
sec-Butylbenzene	0.0500	ND	0.0697	0.0769	139	154	10	33.0-155			9.82	29
tert-Butylbenzene	0.0500	ND	0.0641	0.0712	128	142	10	34.0-153			10.5	28
Carbon tetrachloride	0.0500	ND	0.0668	0.0682	134	136	10	23.0-159			2.07	28
Carbon disulfide	0.0500	ND	0.0634	0.0685	127	137	10	10.0-156			7.73	28
Chlorobenzene	0.0500	ND	0.0648	0.0700	130	140	10	33.0-152			7.72	27
Chlorodibromomethane	0.0500	ND	0.0534	0.0572	107	114	10	37.0-149			6.87	27
Chloroethane	0.0500	ND	0.0747	0.0870	149	174	10	10.0-160		M1	15.2	30
Chloroform	0.0500	ND	0.0685	0.0708	137	142	10	29.0-154			3.30	28
Chloromethane	0.0500	ND	0.0528	0.0571	106	114	10	10.0-160			7.83	29
1,2-Dibromo-3-Chloropropane	0.0500	ND	ND	0.0504	96.0	101	10	22.0-151			4.88	34
1,2-Dibromoethane	0.0500	ND	0.0608	0.0653	122	131	10	34.0-147			7.14	27
Dibromomethane	0.0500	ND	0.0608	0.0640	122	128	10	30.0-151			5.13	27
1,2-Dichlorobenzene	0.0500	ND	0.0671	0.0717	134	143	10	34.0-149			6.63	28
1,3-Dichlorobenzene	0.0500	ND	0.0701	0.0709	140	142	10	36.0-146			1.13	27
1,4-Dichlorobenzene	0.0500	ND	0.0616	0.0667	123	133	10	35.0-142			7.95	27
trans-1,4-Dichloro-2-butene	0.0500	ND	0.0301	0.0324	60.2	64.8	10	10.0-157			7.36	37
Dichlorodifluoromethane	0.0500	ND	0.0589	0.0649	118	130	10	10.0-160			9.69	29
1,1-Dichloroethane	0.0500	ND	0.0615	0.0650	123	130	10	25.0-158			5.53	27
1,2-Dichloroethane	0.0500	ND	0.0622	0.0613	124	123	10	29.0-151			1.46	27
1,1-Dichloroethene	0.0500	ND	0.0672	0.0698	134	140	10	11.0-160			3.80	29
cis-1,2-Dichloroethene	0.0500	ND	0.0598	0.0639	120	128	10	10.0-160			6.63	27
trans-1,2-Dichloroethene	0.0500	ND	0.0613	0.0672	123	134	10	17.0-153			9.18	27
1,2-Dichloropropane	0.0500	ND	0.0639	0.0640	128	128	10	30.0-156			0.156	27
cis-1,3-Dichloropropene	0.0500	ND	0.0606	0.0637	121	127	10	34.0-149			4.99	28
trans-1,3-Dichloropropene	0.0500	ND	0.0567	0.0608	113	122	10	32.0-149			6.98	28
Ethylbenzene	0.0500	ND	0.0659	0.0720	132	144	10	30.0-155			8.85	27
Hexachloro-1,3-butadiene	0.0500	ND	0.0685	0.0789	137	158	10	20.0-154		M1	14.1	34
2-Hexanone	0.250	ND	0.289	0.308	116	123	10	21.0-160			6.37	29
2-Butanone (MEK)	0.250	ND	0.244	0.268	97.6	107	10	10.0-160			9.38	32
Iodomethane	0.250	ND	0.280	0.322	112	129	10	10.0-160			14.0	40
Methylene Chloride	0.0500	ND	0.0581	0.0623	116	125	10	23.0-144			6.98	28
4-Methyl-2-pentanone (MIBK)	0.250	ND	0.298	0.316	119	126	10	29.0-160			5.86	29
Naphthalene	0.0500	ND	0.0563	0.0572	113	114	10	12.0-156			1.59	35
n-Propylbenzene	0.0500	ND	0.0686	0.0729	137	146	10	31.0-154			6.08	28
Styrene	0.0500	ND	0.0603	0.0682	121	136	10	33.0-155			12.3	28
1,1,1,2-Tetrachloroethane	0.0500	ND	0.0578	0.0615	116	123	10	36.0-151			6.20	29
1,1,2,2-Tetrachloroethane	0.0500	ND	0.0588	0.0604	118	121	10	33.0-150			2.68	28
1,1,2-Trichlorotrifluoroethane	0.0500	ND	0.0732	0.0798	146	160	10	23.0-160			8.63	30
Tetrachloroethene	0.0500	ND	0.0731	0.0756	146	151	10	10.0-160			3.36	27

L1489662-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1489662-01 05/06/22 21:03 • (MS) R3789338-4 05/06/22 18:33 • (MSD) R3789338-5 05/06/22 18:54

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 %
Toluene	0.0500	ND	0.0668	0.0691	134	138	10	26.0-154			3.38	28
1,2,4-Trichlorobenzene	0.0500	ND	0.0632	0.0665	126	133	10	24.0-150			5.09	33
1,1,1-Trichloroethane	0.0500	ND	0.0638	0.0695	128	139	10	23.0-160			8.55	28
1,1,2-Trichloroethane	0.0500	ND	0.0561	0.0586	112	117	10	35.0-147			4.36	27
Trichloroethene	0.0500	ND	0.0647	0.0707	129	141	10	10.0-160			8.86	25
Trichlorofluoromethane	0.0500	ND	0.0689	0.0775	138	155	10	17.0-160			11.7	31
1,2,3-Trichloropropane	0.0500	ND	0.0592	0.0592	118	118	10	34.0-151			0.000	29
1,2,4-Trimethylbenzene	0.0500	ND	0.0653	0.0679	131	136	10	26.0-154			3.90	27
1,3,5-Trimethylbenzene	0.0500	ND	0.0647	0.0699	129	140	10	28.0-153			7.73	27
Vinyl acetate	0.250	ND	0.483	0.519	193	208	10	12.0-160	M1	M1	7.19	31
Vinyl chloride	0.0500	ND	0.0613	0.0681	123	136	10	10.0-160			10.5	27
Xylenes, Total	0.150	ND	0.199	0.213	133	142	10	29.0-154			6.80	28
Di-isopropyl ether	0.0500	ND	0.0551	0.0573	110	115	10	21.0-160			3.91	28
ethanol	2.50	ND	2.08	2.86	83.2	114	10	50.0-150		R5	31.6	20
Ethyl tert-butyl ether	0.0500	ND	0.0591	0.0616	118	123	10	10.0-160			4.14	37
Methyl tert-butyl ether	0.0500	0.234	0.280	0.284	92.0	100	10	28.0-150			1.42	29
tert-Butyl alcohol	0.250	ND	0.253	0.265	101	106	10	50.0-150			4.63	20
tert-Amyl Methyl Ether	0.0500	0.0350	0.0934	0.0966	117	123	10	10.0-160			3.37	37
(S) Toluene-d8					*104*	*107*		*80.0-120*				
(S) 4-Bromofluorobenzene					*106*	*106*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*105*	*102*		*70.0-130*				

Sample Narrative:

OS: Target compounds too high to run at a lower dilution.

INTERNAL STANDARD SUMMARY

Instrument: VOCMS21 • File ID: 0506_27

05/06/22 15:15

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0506_27	247470	108686	114468
Upper Limit		494940	217372	228936
Lower Limit		123735	54343	57234
LCS R3789338-1 WG1860123 1x	0506_27LCS	247470	108686	114468
LCSD R3789338-2 WG1860123 1x	0506_28	246338	111078	116354
BLANK R3789338-3 WG1860123 1x	0506_30	252513	110255	114581
L1489662-05 WG1860123 1x	0506_31	246193	106739	111548
MS R3789338-4 WG1860123 10x	0506_35	246018	110168	115855
MSD R3789338-5 WG1860123 10x	0506_36	250903	113258	120183
L1489662-01 WG1860123 10x	0506_42	236364	102077	106627
L1489662-02 WG1860123 1000x	0506_43	241769	106388	107082
L1489662-03 WG1860123 250x	0506_44	237707	102048	104893
L1489662-04 WG1860123 250x	0506_45	240984	106460	109062

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

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	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
E1	Concentration estimated. Analyte exceeded calibration range. Reanalysis not possible due to insufficient sample.
L1	The associated blank spike recovery was above laboratory acceptance limits.
M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
R5	MS/MSD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.
R8	Sample RPD exceeded the method acceptance limit.

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:
Kinder Morgan - Rocklin, CA-AZ Work

410 N.44th Street
Suite 1000
Phoenix. AZ 85008

Billing Information:
Accounts Payable- Alan Van Antwerp
9950 SAN DIEGO MISSION RD.
SAN DIEGO, CA 92108

Pres Chk

Report to:
Bob Forsberg

Email To: bob.forsberg@arcadis-us.com;sascha.arnold@arcadis.com

Project Description: KMEP Silvercroft Wash

City/State Collected: Tucson, AZ

Please Circle: PT MT CT ET

Phone: 602-438-0883

Client Project # 30113573.01

Lab Project # KINARCPAZ-SILVERCROF

Collected by (print): MRT / SXA

Site/Facility ID # SILVERCROFT WASH

P.O. # WD876456

Collected by (signature): M. Tani

Immediately Packed on Ice N ___ Y X

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: STD TURN

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	*NO2,NO3,SO4 125mlHDPE-NoPres	EEM RSK175 40mlAmb HCl	HOLD - NO2+NO3 250mlHDPE-H2SO4	TDS 1L-HDPE NoPres	Total Fe 6010 250mlHDPE-HNO3	VOCs+OXYs 8260 40mlAmb-HCl	Remarks	Sample # (lab only)
MW-2M	G	GW	199	5/4/22	0957	18	X	X	X	X	X	X	Rm MS/MSD	01
MW-2S		GW	172		1117	9	X	X	X	X	X	X		02
MW-29S		GW	172		1238	9	X	X	X	X	X	X		03
MW-29S-DUP		GW	172		1243	9	X	X	X	X	X	X		04
Trip Blank	—	Aq	—	5/4/22	—	1						X		05

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L148962
G232

Acctnum: KINARCPAZ
Template: T190237
Prelogin: P921920
PM: 110 - Brian Ford
PB:

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks: *NO2,NO3 have a 48 hour holding time.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 5155 8086 9475

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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
M. Tani	5/4/22	1506	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	5/4/22	1800	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCl / MeoH
TBR
1

Temp: PRN °C Bottles Received: 45
1.8 to 2.5

Date: 5/5/22 Time: 930

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

ANALYTICAL REPORT

June 08, 2022

Kinder Morgan - Rocklin, CA-AZ Work

Sample Delivery Group:	L1496911
Samples Received:	05/24/2022
Project Number:	30113573.01
Description:	KMEP Silvercroft Wash
Site:	SILVERCROFT WASH
Report To:	Bob Forsberg 410 N.44th Street Suite 1000 Phoenix, AZ 85008

Entire Report Reviewed By:

Brian Ford

Project Manager

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

MW-29D L1496911-01 GW

Collected by: SXA / MAT
Collected date/time: 05/23/22 12:12
Received date/time: 05/24/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1871445	1	05/29/22 14:42	05/29/22 15:31	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1868712	1	05/24/22 17:47	05/24/22 17:47	KEG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1868712	10	05/24/22 18:02	05/24/22 18:02	KEG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1873003	1	06/05/22 22:58	06/08/22 00:03	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1871505	1	05/30/22 11:40	05/30/22 11:40	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1871520	1	05/30/22 02:01	05/30/22 02:01	JHH	Mt. Juliet, TN

MW-31D L1496911-02 GW

Collected by: SXA / MAT
Collected date/time: 05/23/22 13:42
Received date/time: 05/24/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1871445	1	05/29/22 14:42	05/29/22 15:31	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1868712	1	05/24/22 18:48	05/24/22 18:48	KEG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1868712	10	05/24/22 19:03	05/24/22 19:03	KEG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1872698	1	06/01/22 16:46	06/02/22 10:01	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1871505	1	05/30/22 11:42	05/30/22 11:42	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1871520	1	05/30/22 02:21	05/30/22 02:21	JHH	Mt. Juliet, TN

MW-32D L1496911-03 GW

Collected by: SXA / MAT
Collected date/time: 05/23/22 15:12
Received date/time: 05/24/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1871445	1	05/29/22 14:42	05/29/22 15:31	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1868712	1	05/24/22 19:19	05/24/22 19:19	KEG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1868712	10	05/24/22 19:34	05/24/22 19:34	KEG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1872698	1	06/01/22 16:46	06/02/22 10:03	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1871510	1	05/30/22 14:10	05/30/22 14:10	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1871520	1	05/30/22 02:42	05/30/22 02:42	JHH	Mt. Juliet, TN

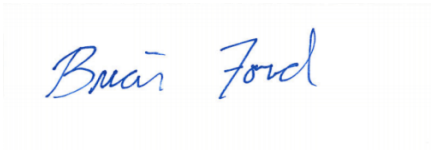
TRIP BLANK L1496911-04 GW

Collected by: SXA / MAT
Collected date/time: 05/23/22 00:00
Received date/time: 05/24/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1871520	1	05/30/22 00:58	05/30/22 00:58	JHH	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.



Brian Ford
Project Manager

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	763		13.3	1	05/29/2022 15:31	WG1871445

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	2.82		0.100	1	05/24/2022 17:47	WG1868712
Nitrite	ND		0.100	1	05/24/2022 17:47	WG1868712
Sulfate	259	M3	50.0	10	05/24/2022 18:02	WG1868712

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	ND		0.100	1	06/08/2022 00:03	WG1873003

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	05/30/2022 11:40	WG1871505
Ethane	ND		0.0130	1	05/30/2022 11:40	WG1871505
Ethene	ND		0.0130	1	05/30/2022 11:40	WG1871505

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	05/30/2022 02:01	WG1871520
Acrylonitrile	ND		0.0100	1	05/30/2022 02:01	WG1871520
Benzene	ND		0.00100	1	05/30/2022 02:01	WG1871520
Bromobenzene	ND		0.00100	1	05/30/2022 02:01	WG1871520
Bromochloromethane	ND		0.00100	1	05/30/2022 02:01	WG1871520
Bromodichloromethane	ND		0.00100	1	05/30/2022 02:01	WG1871520
Bromoform	ND		0.00100	1	05/30/2022 02:01	WG1871520
Bromomethane	ND		0.00500	1	05/30/2022 02:01	WG1871520
n-Butylbenzene	ND		0.00100	1	05/30/2022 02:01	WG1871520
sec-Butylbenzene	ND		0.00100	1	05/30/2022 02:01	WG1871520
tert-Butylbenzene	ND		0.00100	1	05/30/2022 02:01	WG1871520
Carbon tetrachloride	ND		0.00100	1	05/30/2022 02:01	WG1871520
Carbon disulfide	ND		0.00100	1	05/30/2022 02:01	WG1871520
Chlorobenzene	ND		0.00100	1	05/30/2022 02:01	WG1871520
Chlorodibromomethane	ND		0.00100	1	05/30/2022 02:01	WG1871520
Chloroethane	ND		0.00500	1	05/30/2022 02:01	WG1871520
Chloroform	ND		0.00500	1	05/30/2022 02:01	WG1871520
Chloromethane	ND		0.00250	1	05/30/2022 02:01	WG1871520
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	05/30/2022 02:01	WG1871520
1,2-Dibromoethane	ND		0.00100	1	05/30/2022 02:01	WG1871520
Dibromomethane	ND		0.00100	1	05/30/2022 02:01	WG1871520
1,2-Dichlorobenzene	ND		0.00100	1	05/30/2022 02:01	WG1871520
1,3-Dichlorobenzene	ND		0.00100	1	05/30/2022 02:01	WG1871520
1,4-Dichlorobenzene	ND		0.00100	1	05/30/2022 02:01	WG1871520
trans-1,4-Dichloro-2-butene	ND		0.00250	1	05/30/2022 02:01	WG1871520
Dichlorodifluoromethane	ND		0.00500	1	05/30/2022 02:01	WG1871520
1,1-Dichloroethane	ND		0.00100	1	05/30/2022 02:01	WG1871520
1,2-Dichloroethane	ND		0.00100	1	05/30/2022 02:01	WG1871520
1,1-Dichloroethene	ND		0.00100	1	05/30/2022 02:01	WG1871520
cis-1,2-Dichloroethene	ND		0.00100	1	05/30/2022 02:01	WG1871520

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.00100	1	05/30/2022 02:01	WG1871520
1,2-Dichloropropane	ND		0.00100	1	05/30/2022 02:01	WG1871520
cis-1,3-Dichloropropene	ND		0.00100	1	05/30/2022 02:01	WG1871520
trans-1,3-Dichloropropene	ND		0.00100	1	05/30/2022 02:01	WG1871520
Ethylbenzene	ND		0.00100	1	05/30/2022 02:01	WG1871520
Hexachloro-1,3-butadiene	ND		0.00100	1	05/30/2022 02:01	WG1871520
2-Hexanone	ND		0.0100	1	05/30/2022 02:01	WG1871520
2-Butanone (MEK)	ND		0.0100	1	05/30/2022 02:01	WG1871520
Iodomethane	ND	L2	0.0100	1	05/30/2022 02:01	WG1871520
Methylene Chloride	ND		0.00500	1	05/30/2022 02:01	WG1871520
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	05/30/2022 02:01	WG1871520
Naphthalene	ND		0.00500	1	05/30/2022 02:01	WG1871520
n-Propylbenzene	ND		0.00100	1	05/30/2022 02:01	WG1871520
Styrene	ND		0.00100	1	05/30/2022 02:01	WG1871520
1,1,1,2-Tetrachloroethane	ND		0.00100	1	05/30/2022 02:01	WG1871520
1,1,2,2-Tetrachloroethane	ND		0.00100	1	05/30/2022 02:01	WG1871520
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	05/30/2022 02:01	WG1871520
Tetrachloroethene	ND		0.00100	1	05/30/2022 02:01	WG1871520
Toluene	ND		0.00100	1	05/30/2022 02:01	WG1871520
1,2,4-Trichlorobenzene	ND		0.00100	1	05/30/2022 02:01	WG1871520
1,1,1-Trichloroethane	ND		0.00100	1	05/30/2022 02:01	WG1871520
1,1,2-Trichloroethane	ND		0.00100	1	05/30/2022 02:01	WG1871520
Trichloroethene	ND		0.00100	1	05/30/2022 02:01	WG1871520
Trichlorofluoromethane	ND		0.00500	1	05/30/2022 02:01	WG1871520
1,2,3-Trichloropropane	ND		0.00250	1	05/30/2022 02:01	WG1871520
1,2,4-Trimethylbenzene	ND		0.00100	1	05/30/2022 02:01	WG1871520
1,3,5-Trimethylbenzene	ND		0.00100	1	05/30/2022 02:01	WG1871520
Vinyl acetate	ND		0.0100	1	05/30/2022 02:01	WG1871520
Vinyl chloride	ND		0.00100	1	05/30/2022 02:01	WG1871520
Xylenes, Total	ND		0.00300	1	05/30/2022 02:01	WG1871520
Di-isopropyl ether	ND		0.00100	1	05/30/2022 02:01	WG1871520
Ethanol	ND		0.100	1	05/30/2022 02:01	WG1871520
Ethyl tert-butyl ether	ND		0.00100	1	05/30/2022 02:01	WG1871520
Methyl tert-butyl ether	ND		0.00100	1	05/30/2022 02:01	WG1871520
tert-Butyl alcohol	ND		0.00500	1	05/30/2022 02:01	WG1871520
tert-Amyl Methyl Ether	ND		0.00100	1	05/30/2022 02:01	WG1871520
(S) Toluene-d8	*113*		*80.0-120*		*05/30/2022 02:01*	WG1871520
(S) 4-Bromofluorobenzene	*94.1*		*77.0-126*		*05/30/2022 02:01*	WG1871520
(S) 1,2-Dichloroethane-d4	*121*		*70.0-130*		*05/30/2022 02:01*	WG1871520

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

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	653		13.3	1	05/29/2022 15:31	WG1871445

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Nitrate	2.82		0.100	1	05/24/2022 18:48	WG1868712
Nitrite	ND		0.100	1	05/24/2022 18:48	WG1868712
Sulfate	252		50.0	10	05/24/2022 19:03	WG1868712

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Iron	0.146		0.100	1	06/02/2022 10:01	WG1872698

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Methane	ND		0.0100	1	05/30/2022 11:42	WG1871505
Ethane	ND		0.0130	1	05/30/2022 11:42	WG1871505
Ethene	ND		0.0130	1	05/30/2022 11:42	WG1871505

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Acetone	ND		0.0500	1	05/30/2022 02:21	WG1871520
Acrylonitrile	ND		0.0100	1	05/30/2022 02:21	WG1871520
Benzene	ND		0.00100	1	05/30/2022 02:21	WG1871520
Bromobenzene	ND		0.00100	1	05/30/2022 02:21	WG1871520
Bromochloromethane	ND		0.00100	1	05/30/2022 02:21	WG1871520
Bromodichloromethane	ND		0.00100	1	05/30/2022 02:21	WG1871520
Bromoform	ND		0.00100	1	05/30/2022 02:21	WG1871520
Bromomethane	ND		0.00500	1	05/30/2022 02:21	WG1871520
n-Butylbenzene	ND		0.00100	1	05/30/2022 02:21	WG1871520
sec-Butylbenzene	ND		0.00100	1	05/30/2022 02:21	WG1871520
tert-Butylbenzene	ND		0.00100	1	05/30/2022 02:21	WG1871520
Carbon tetrachloride	ND		0.00100	1	05/30/2022 02:21	WG1871520
Carbon disulfide	ND		0.00100	1	05/30/2022 02:21	WG1871520
Chlorobenzene	ND		0.00100	1	05/30/2022 02:21	WG1871520
Chlorodibromomethane	ND		0.00100	1	05/30/2022 02:21	WG1871520
Chloroethane	ND		0.00500	1	05/30/2022 02:21	WG1871520
Chloroform	ND		0.00500	1	05/30/2022 02:21	WG1871520
Chloromethane	ND		0.00250	1	05/30/2022 02:21	WG1871520
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	05/30/2022 02:21	WG1871520
1,2-Dibromoethane	ND		0.00100	1	05/30/2022 02:21	WG1871520
Dibromomethane	ND		0.00100	1	05/30/2022 02:21	WG1871520
1,2-Dichlorobenzene	ND		0.00100	1	05/30/2022 02:21	WG1871520
1,3-Dichlorobenzene	ND		0.00100	1	05/30/2022 02:21	WG1871520
1,4-Dichlorobenzene	ND		0.00100	1	05/30/2022 02:21	WG1871520
trans-1,4-Dichloro-2-butene	ND		0.00250	1	05/30/2022 02:21	WG1871520
Dichlorodifluoromethane	ND		0.00500	1	05/30/2022 02:21	WG1871520
1,1-Dichloroethane	ND		0.00100	1	05/30/2022 02:21	WG1871520
1,2-Dichloroethane	ND		0.00100	1	05/30/2022 02:21	WG1871520
1,1-Dichloroethene	ND		0.00100	1	05/30/2022 02:21	WG1871520
cis-1,2-Dichloroethene	ND		0.00100	1	05/30/2022 02:21	WG1871520

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.00100	1	05/30/2022 02:21	WG1871520
1,2-Dichloropropane	ND		0.00100	1	05/30/2022 02:21	WG1871520
cis-1,3-Dichloropropene	ND		0.00100	1	05/30/2022 02:21	WG1871520
trans-1,3-Dichloropropene	ND		0.00100	1	05/30/2022 02:21	WG1871520
Ethylbenzene	ND		0.00100	1	05/30/2022 02:21	WG1871520
Hexachloro-1,3-butadiene	ND		0.00100	1	05/30/2022 02:21	WG1871520
2-Hexanone	ND		0.0100	1	05/30/2022 02:21	WG1871520
2-Butanone (MEK)	ND		0.0100	1	05/30/2022 02:21	WG1871520
Iodomethane	ND	L2	0.0100	1	05/30/2022 02:21	WG1871520
Methylene Chloride	ND		0.00500	1	05/30/2022 02:21	WG1871520
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	05/30/2022 02:21	WG1871520
Naphthalene	ND	R7	0.00500	1	05/30/2022 02:21	WG1871520
n-Propylbenzene	ND		0.00100	1	05/30/2022 02:21	WG1871520
Styrene	ND		0.00100	1	05/30/2022 02:21	WG1871520
1,1,1,2-Tetrachloroethane	ND		0.00100	1	05/30/2022 02:21	WG1871520
1,1,2,2-Tetrachloroethane	ND		0.00100	1	05/30/2022 02:21	WG1871520
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	05/30/2022 02:21	WG1871520
Tetrachloroethene	ND		0.00100	1	05/30/2022 02:21	WG1871520
Toluene	ND		0.00100	1	05/30/2022 02:21	WG1871520
1,2,4-Trichlorobenzene	ND		0.00100	1	05/30/2022 02:21	WG1871520
1,1,1-Trichloroethane	ND		0.00100	1	05/30/2022 02:21	WG1871520
1,1,2-Trichloroethane	ND		0.00100	1	05/30/2022 02:21	WG1871520
Trichloroethene	ND		0.00100	1	05/30/2022 02:21	WG1871520
Trichlorofluoromethane	ND		0.00500	1	05/30/2022 02:21	WG1871520
1,2,3-Trichloropropane	ND		0.00250	1	05/30/2022 02:21	WG1871520
1,2,4-Trimethylbenzene	ND		0.00100	1	05/30/2022 02:21	WG1871520
1,3,5-Trimethylbenzene	ND		0.00100	1	05/30/2022 02:21	WG1871520
Vinyl acetate	ND		0.0100	1	05/30/2022 02:21	WG1871520
Vinyl chloride	ND		0.00100	1	05/30/2022 02:21	WG1871520
Xylenes, Total	ND		0.00300	1	05/30/2022 02:21	WG1871520
Di-isopropyl ether	ND		0.00100	1	05/30/2022 02:21	WG1871520
Ethanol	ND		0.100	1	05/30/2022 02:21	WG1871520
Ethyl tert-butyl ether	ND		0.00100	1	05/30/2022 02:21	WG1871520
Methyl tert-butyl ether	ND		0.00100	1	05/30/2022 02:21	WG1871520
tert-Butyl alcohol	ND		0.00500	1	05/30/2022 02:21	WG1871520
tert-Amyl Methyl Ether	ND		0.00100	1	05/30/2022 02:21	WG1871520
(S) Toluene-d8	*113*		*80.0-120*		*05/30/2022 02:21*	WG1871520
(S) 4-Bromofluorobenzene	*94.4*		*77.0-126*		*05/30/2022 02:21*	WG1871520
(S) 1,2-Dichloroethane-d4	*122*		*70.0-130*		*05/30/2022 02:21*	WG1871520

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

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	755		13.3	1	05/29/2022 15:31	WG1871445

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	3.27		0.100	1	05/24/2022 19:19	WG1868712
Nitrite	ND		0.100	1	05/24/2022 19:19	WG1868712
Sulfate	276		50.0	10	05/24/2022 19:34	WG1868712

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	ND		0.100	1	06/02/2022 10:03	WG1872698

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	05/30/2022 14:10	WG1871510
Ethane	ND		0.0130	1	05/30/2022 14:10	WG1871510
Ethene	ND		0.0130	1	05/30/2022 14:10	WG1871510

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	05/30/2022 02:42	WG1871520
Acrylonitrile	ND		0.0100	1	05/30/2022 02:42	WG1871520
Benzene	ND		0.00100	1	05/30/2022 02:42	WG1871520
Bromobenzene	ND		0.00100	1	05/30/2022 02:42	WG1871520
Bromochloromethane	ND		0.00100	1	05/30/2022 02:42	WG1871520
Bromodichloromethane	ND		0.00100	1	05/30/2022 02:42	WG1871520
Bromoform	ND		0.00100	1	05/30/2022 02:42	WG1871520
Bromomethane	ND		0.00500	1	05/30/2022 02:42	WG1871520
n-Butylbenzene	ND		0.00100	1	05/30/2022 02:42	WG1871520
sec-Butylbenzene	ND		0.00100	1	05/30/2022 02:42	WG1871520
tert-Butylbenzene	ND		0.00100	1	05/30/2022 02:42	WG1871520
Carbon tetrachloride	ND		0.00100	1	05/30/2022 02:42	WG1871520
Carbon disulfide	ND		0.00100	1	05/30/2022 02:42	WG1871520
Chlorobenzene	ND		0.00100	1	05/30/2022 02:42	WG1871520
Chlorodibromomethane	ND		0.00100	1	05/30/2022 02:42	WG1871520
Chloroethane	ND		0.00500	1	05/30/2022 02:42	WG1871520
Chloroform	ND		0.00500	1	05/30/2022 02:42	WG1871520
Chloromethane	ND		0.00250	1	05/30/2022 02:42	WG1871520
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	05/30/2022 02:42	WG1871520
1,2-Dibromoethane	ND		0.00100	1	05/30/2022 02:42	WG1871520
Dibromomethane	ND		0.00100	1	05/30/2022 02:42	WG1871520
1,2-Dichlorobenzene	ND		0.00100	1	05/30/2022 02:42	WG1871520
1,3-Dichlorobenzene	ND		0.00100	1	05/30/2022 02:42	WG1871520
1,4-Dichlorobenzene	ND		0.00100	1	05/30/2022 02:42	WG1871520
trans-1,4-Dichloro-2-butene	ND		0.00250	1	05/30/2022 02:42	WG1871520
Dichlorodifluoromethane	ND		0.00500	1	05/30/2022 02:42	WG1871520
1,1-Dichloroethane	ND		0.00100	1	05/30/2022 02:42	WG1871520
1,2-Dichloroethane	ND		0.00100	1	05/30/2022 02:42	WG1871520
1,1-Dichloroethene	ND		0.00100	1	05/30/2022 02:42	WG1871520
cis-1,2-Dichloroethene	ND		0.00100	1	05/30/2022 02:42	WG1871520

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.00100	1	05/30/2022 02:42	WG1871520
1,2-Dichloropropane	ND		0.00100	1	05/30/2022 02:42	WG1871520
cis-1,3-Dichloropropene	ND		0.00100	1	05/30/2022 02:42	WG1871520
trans-1,3-Dichloropropene	ND		0.00100	1	05/30/2022 02:42	WG1871520
Ethylbenzene	ND		0.00100	1	05/30/2022 02:42	WG1871520
Hexachloro-1,3-butadiene	ND		0.00100	1	05/30/2022 02:42	WG1871520
2-Hexanone	ND		0.0100	1	05/30/2022 02:42	WG1871520
2-Butanone (MEK)	ND		0.0100	1	05/30/2022 02:42	WG1871520
Iodomethane	ND	L2	0.0100	1	05/30/2022 02:42	WG1871520
Methylene Chloride	ND		0.00500	1	05/30/2022 02:42	WG1871520
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	05/30/2022 02:42	WG1871520
Naphthalene	ND	R7	0.00500	1	05/30/2022 02:42	WG1871520
n-Propylbenzene	ND		0.00100	1	05/30/2022 02:42	WG1871520
Styrene	ND		0.00100	1	05/30/2022 02:42	WG1871520
1,1,1,2-Tetrachloroethane	ND		0.00100	1	05/30/2022 02:42	WG1871520
1,1,2,2-Tetrachloroethane	ND		0.00100	1	05/30/2022 02:42	WG1871520
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	05/30/2022 02:42	WG1871520
Tetrachloroethene	ND		0.00100	1	05/30/2022 02:42	WG1871520
Toluene	ND		0.00100	1	05/30/2022 02:42	WG1871520
1,2,4-Trichlorobenzene	ND		0.00100	1	05/30/2022 02:42	WG1871520
1,1,1-Trichloroethane	ND		0.00100	1	05/30/2022 02:42	WG1871520
1,1,2-Trichloroethane	ND		0.00100	1	05/30/2022 02:42	WG1871520
Trichloroethene	ND		0.00100	1	05/30/2022 02:42	WG1871520
Trichlorofluoromethane	ND		0.00500	1	05/30/2022 02:42	WG1871520
1,2,3-Trichloropropane	ND		0.00250	1	05/30/2022 02:42	WG1871520
1,2,4-Trimethylbenzene	ND		0.00100	1	05/30/2022 02:42	WG1871520
1,3,5-Trimethylbenzene	ND		0.00100	1	05/30/2022 02:42	WG1871520
Vinyl acetate	ND		0.0100	1	05/30/2022 02:42	WG1871520
Vinyl chloride	ND		0.00100	1	05/30/2022 02:42	WG1871520
Xylenes, Total	ND		0.00300	1	05/30/2022 02:42	WG1871520
Di-isopropyl ether	ND		0.00100	1	05/30/2022 02:42	WG1871520
Ethanol	ND		0.100	1	05/30/2022 02:42	WG1871520
Ethyl tert-butyl ether	ND		0.00100	1	05/30/2022 02:42	WG1871520
Methyl tert-butyl ether	0.0325		0.00100	1	05/30/2022 02:42	WG1871520
tert-Butyl alcohol	ND		0.00500	1	05/30/2022 02:42	WG1871520
tert-Amyl Methyl Ether	0.00264		0.00100	1	05/30/2022 02:42	WG1871520
(S) Toluene-d8	*114*		*80.0-120*		*05/30/2022 02:42*	WG1871520
(S) 4-Bromofluorobenzene	*95.4*		*77.0-126*		*05/30/2022 02:42*	WG1871520
(S) 1,2-Dichloroethane-d4	*119*		*70.0-130*		*05/30/2022 02:42*	WG1871520

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	05/30/2022 00:58	WG1871520
Acrylonitrile	ND		0.0100	1	05/30/2022 00:58	WG1871520
Benzene	ND		0.00100	1	05/30/2022 00:58	WG1871520
Bromobenzene	ND		0.00100	1	05/30/2022 00:58	WG1871520
Bromochloromethane	ND		0.00100	1	05/30/2022 00:58	WG1871520
Bromodichloromethane	ND		0.00100	1	05/30/2022 00:58	WG1871520
Bromoform	ND		0.00100	1	05/30/2022 00:58	WG1871520
Bromomethane	ND		0.00500	1	05/30/2022 00:58	WG1871520
n-Butylbenzene	ND		0.00100	1	05/30/2022 00:58	WG1871520
sec-Butylbenzene	ND		0.00100	1	05/30/2022 00:58	WG1871520
tert-Butylbenzene	ND		0.00100	1	05/30/2022 00:58	WG1871520
Carbon tetrachloride	ND		0.00100	1	05/30/2022 00:58	WG1871520
Carbon disulfide	ND		0.00100	1	05/30/2022 00:58	WG1871520
Chlorobenzene	ND		0.00100	1	05/30/2022 00:58	WG1871520
Chlorodibromomethane	ND		0.00100	1	05/30/2022 00:58	WG1871520
Chloroethane	ND		0.00500	1	05/30/2022 00:58	WG1871520
Chloroform	ND		0.00500	1	05/30/2022 00:58	WG1871520
Chloromethane	ND		0.00250	1	05/30/2022 00:58	WG1871520
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	05/30/2022 00:58	WG1871520
1,2-Dibromoethane	ND		0.00100	1	05/30/2022 00:58	WG1871520
Dibromomethane	ND		0.00100	1	05/30/2022 00:58	WG1871520
1,2-Dichlorobenzene	ND		0.00100	1	05/30/2022 00:58	WG1871520
1,3-Dichlorobenzene	ND		0.00100	1	05/30/2022 00:58	WG1871520
1,4-Dichlorobenzene	ND		0.00100	1	05/30/2022 00:58	WG1871520
trans-1,4-Dichloro-2-butene	ND		0.00250	1	05/30/2022 00:58	WG1871520
Dichlorodifluoromethane	ND		0.00500	1	05/30/2022 00:58	WG1871520
1,1-Dichloroethane	ND		0.00100	1	05/30/2022 00:58	WG1871520
1,2-Dichloroethane	ND		0.00100	1	05/30/2022 00:58	WG1871520
1,1-Dichloroethene	ND		0.00100	1	05/30/2022 00:58	WG1871520
cis-1,2-Dichloroethene	ND		0.00100	1	05/30/2022 00:58	WG1871520
trans-1,2-Dichloroethene	ND		0.00100	1	05/30/2022 00:58	WG1871520
1,2-Dichloropropane	ND		0.00100	1	05/30/2022 00:58	WG1871520
cis-1,3-Dichloropropene	ND		0.00100	1	05/30/2022 00:58	WG1871520
trans-1,3-Dichloropropene	ND		0.00100	1	05/30/2022 00:58	WG1871520
Ethylbenzene	ND		0.00100	1	05/30/2022 00:58	WG1871520
Hexachloro-1,3-butadiene	ND		0.00100	1	05/30/2022 00:58	WG1871520
2-Hexanone	ND		0.0100	1	05/30/2022 00:58	WG1871520
2-Butanone (MEK)	ND		0.0100	1	05/30/2022 00:58	WG1871520
Iodomethane	ND	L2	0.0100	1	05/30/2022 00:58	WG1871520
Methylene Chloride	ND		0.00500	1	05/30/2022 00:58	WG1871520
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	05/30/2022 00:58	WG1871520
Naphthalene	ND	R7	0.00500	1	05/30/2022 00:58	WG1871520
n-Propylbenzene	ND		0.00100	1	05/30/2022 00:58	WG1871520
Styrene	ND		0.00100	1	05/30/2022 00:58	WG1871520
1,1,1,2-Tetrachloroethane	ND		0.00100	1	05/30/2022 00:58	WG1871520
1,1,2,2-Tetrachloroethane	ND		0.00100	1	05/30/2022 00:58	WG1871520
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	05/30/2022 00:58	WG1871520
Tetrachloroethene	ND		0.00100	1	05/30/2022 00:58	WG1871520
Toluene	ND		0.00100	1	05/30/2022 00:58	WG1871520
1,2,4-Trichlorobenzene	ND		0.00100	1	05/30/2022 00:58	WG1871520
1,1,1-Trichloroethane	ND		0.00100	1	05/30/2022 00:58	WG1871520
1,1,2-Trichloroethane	ND		0.00100	1	05/30/2022 00:58	WG1871520
Trichloroethene	ND		0.00100	1	05/30/2022 00:58	WG1871520
Trichlorofluoromethane	ND		0.00500	1	05/30/2022 00:58	WG1871520
1,2,3-Trichloropropane	ND		0.00250	1	05/30/2022 00:58	WG1871520
1,2,4-Trimethylbenzene	ND		0.00100	1	05/30/2022 00:58	WG1871520

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
1,3,5-Trimethylbenzene	ND		0.00100	1	05/30/2022 00:58	WG1871520
Vinyl acetate	ND		0.0100	1	05/30/2022 00:58	WG1871520
Vinyl chloride	ND		0.00100	1	05/30/2022 00:58	WG1871520
Xylenes, Total	ND		0.00300	1	05/30/2022 00:58	WG1871520
Di-isopropyl ether	ND		0.00100	1	05/30/2022 00:58	WG1871520
Ethanol	ND		0.100	1	05/30/2022 00:58	WG1871520
Ethyl tert-butyl ether	ND		0.00100	1	05/30/2022 00:58	WG1871520
Methyl tert-butyl ether	ND		0.00100	1	05/30/2022 00:58	WG1871520
tert-Butyl alcohol	ND		0.00500	1	05/30/2022 00:58	WG1871520
tert-Amyl Methyl Ether	ND		0.00100	1	05/30/2022 00:58	WG1871520
(S) Toluene-d8	*113*		*80.0-120*		*05/30/2022 00:58*	WG1871520
(S) 4-Bromofluorobenzene	*95.7*		*77.0-126*		*05/30/2022 00:58*	WG1871520
(S) 1,2-Dichloroethane-d4	*123*		*70.0-130*		*05/30/2022 00:58*	WG1871520

Method Blank (MB)

(MB) R3797867-1 05/29/22 15:31

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1496911-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1496911-01 05/29/22 15:31 • (DUP) R3797867-3 05/29/22 15:31

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	763	789	1	3.44		5

L1496911-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1496911-02 05/29/22 15:31 • (DUP) R3797867-4 05/29/22 15:31

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	653	673	1	3.02		5

Laboratory Control Sample (LCS)

(LCS) R3797867-2 05/29/22 15:31

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	2460	2430	98.8	81.7-118	

Method Blank (MB)

(MB) R3795627-1 05/24/22 16:18

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate	U		0.0480	0.100
Nitrite	U		0.0420	0.100
Sulfate	U		0.594	5.00

L1497104-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1497104-01 05/24/22 20:20 • (DUP) R3795627-5 05/24/22 20:36

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	ND	ND	1	0.000		15
Nitrite	ND	ND	1	0.000		15
Sulfate	ND	ND	1	1.39		15

L1490098-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1490098-10 05/24/22 23:10 • (DUP) R3795627-6 05/24/22 23:25

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	5.67	5.67	1	0.0459		15
Nitrite	ND	ND	1	0.000		15
Sulfate	186	186	1	0.00333	E1	15

Laboratory Control Sample (LCS)

(LCS) R3795627-2 05/24/22 16:34

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate	8.00	8.24	103	80.0-120	
Nitrite	8.00	8.21	103	80.0-120	
Sulfate	40.0	41.2	103	80.0-120	

L1496911-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1496911-01 05/24/22 17:47 • (MS) R3795627-3 05/24/22 18:17 • (MSD) R3795627-4 05/24/22 18:32

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 %
Nitrate	5.00	2.82	8.08	8.06	105	105	1	80.0-120			0.284	15
Nitrite	5.00	ND	5.14	5.11	103	102	1	80.0-120			0.536	15
Sulfate	50.0	261	278	278	35.4	34.5	1	80.0-120	E1 M3	E1 M3	0.167	15

L1490098-10 Original Sample (OS) • Matrix Spike (MS)

(OS) L1490098-10 05/24/22 23:10 • (MS) R3795627-7 05/24/22 23:41

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate	5.00	5.67	10.9	104	1	80.0-120	E1
Nitrite	5.00	ND	5.16	103	1	80.0-120	
Sulfate	50.0	186	216	60.5	1	80.0-120	E1 M2

QUALITY CONTROL SUMMARY

L1496911-02,03

Method Blank (MB)

(MB) R3798755-1 06/02/22 09:10

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Iron	U		0.0180	0.100

Laboratory Control Sample (LCS)

(LCS) R3798755-2 06/02/22 09:12

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Iron	10.0	9.38	93.8	80.0-120	

L1496688-20 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1496688-20 06/02/22 09:15 • (MS) R3798755-4 06/02/22 09:20 • (MSD) R3798755-5 06/02/22 09:23

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 %
Iron	10.0	ND	9.42	9.35	94.2	93.5	1	75.0-125			0.832	20

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

Method Blank (MB)

(MB) R3800641-1 06/07/22 23:58

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Iron	U		0.0180	0.100

Laboratory Control Sample (LCS)

(LCS) R3800641-2 06/08/22 00:01

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Iron	10.0	10.2	102	80.0-120	

L1496911-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1496911-01 06/08/22 00:03 • (MS) R3800641-4 06/08/22 00:09 • (MSD) R3800641-5 06/08/22 00:12

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 %
Iron	10.0	ND	9.91	9.91	98.4	98.5	1	75.0-125			0.0541	20

Method Blank (MB)

(MB) R3797435-2 05/30/22 11:29

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Methane	U		0.00291	0.0100
Ethane	U		0.00407	0.0130
Ethene	U		0.00426	0.0130

L1497301-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1497301-09 05/30/22 12:01 • (DUP) R3797435-3 05/30/22 12:04

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	6.22	6.28	1	0.960		20
Ethane	ND	ND	1	3.46		20
Ethene	ND	ND	1	0.000		20

L1497633-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1497633-04 05/30/22 13:10 • (DUP) R3797435-4 05/30/22 13:13

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	0.284	0.298	1	4.81		20
Ethane	ND	ND	1	0.000		20
Ethene	0.160	0.168	1	4.88		20

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

(LCS) R3797435-1 05/30/22 11:26 • (LCSD) R3797435-7 05/30/22 13:53

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Methane	0.0678	0.0667	0.0657	98.4	96.9	85.0-115			1.51	20
Ethane	0.129	0.116	0.116	89.9	89.9	85.0-115			0.000	20
Ethene	0.127	0.116	0.117	91.3	92.1	85.0-115			0.858	20

L1496911-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1496911-01 05/30/22 11:40 • (MS) R3797435-5 05/30/22 13:17 • (MSD) R3797435-6 05/30/22 13:20

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 %
Methane	0.0678	ND	0.0722	0.0735	106	108	1	50.0-150			1.78	20
Ethane	0.129	ND	0.125	0.129	96.9	100	1	50.0-150			3.15	20
Ethene	0.127	ND	0.126	0.130	99.2	102	1	50.0-150			3.12	20

Method Blank (MB)

(MB) R3797457-2 05/30/22 14:08

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Methane	U		0.00291	0.0100
Ethane	U		0.00407	0.0130
Ethene	U		0.00426	0.0130

L1497495-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1497495-03 05/30/22 14:48 • (DUP) R3797457-3 05/30/22 14:51

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	0.0720	0.0770	1	6.71		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	200	R8	20

L1497903-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1497903-01 05/30/22 15:38 • (DUP) R3797457-4 05/30/22 15:41

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	ND	ND	1	0.000		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20

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

(LCS) R3797457-1 05/30/22 14:06 • (LCSD) R3797457-7 05/30/22 15:51

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Methane	0.0678	0.0656	0.0768	96.8	113	85.0-115			15.7	20
Ethane	0.129	0.116	0.130	89.9	101	85.0-115			11.4	20
Ethene	0.127	0.117	0.131	92.1	103	85.0-115			11.3	20

L1497516-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1497516-02 05/30/22 14:58 • (MS) R3797457-5 05/30/22 15:44 • (MSD) R3797457-6 05/30/22 15:47

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 %
Methane	0.0678	ND	0.0739	0.0748	109	110	1	50.0-150			1.21	20
Ethane	0.129	ND	0.128	0.129	99.2	100	1	50.0-150			0.778	20
Ethene	0.127	ND	0.129	0.130	102	102	1	50.0-150			0.772	20

Method Blank (MB)

(MB) R3797759-4 05/29/22 23:27

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Acrylonitrile	U		0.000671	0.0100
Benzene	U		0.0000941	0.00100
Bromobenzene	U		0.000118	0.00100
Bromochloromethane	U		0.000128	0.00100
Bromodichloromethane	U		0.000136	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 tetrachloride	U		0.000128	0.00100
Carbon disulfide	U		0.0000962	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
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
trans-1,4-Dichloro-2-butene	U		0.000467	0.00250
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
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
Hexachloro-1,3-butadiene	U		0.000337	0.00100
2-Hexanone	U		0.000787	0.0100
2-Butanone (MEK)	U		0.00119	0.0100
Iodomethane	U		0.00600	0.0100
Methylene Chloride	U		0.000430	0.00500

Method Blank (MB)

(MB) R3797759-4 05/29/22 23:27

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
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
1,1,2-Trichlorotrifluoroethane	U		0.000180	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	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
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl acetate	U		0.000692	0.0100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
Di-isopropyl ether	U		0.000105	0.00100
Ethanol	U		0.0420	0.100
Ethyl tert-butyl ether	U		0.000101	0.00100
Methyl tert-butyl ether	U		0.000101	0.00100
tert-Butyl alcohol	U		0.00406	0.00500
tert-Amyl Methyl Ether	U		0.000195	0.00100
(S) Toluene-d8	*116*			*80.0-120*
(S) 4-Bromofluorobenzene	*96.0*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*121*			*70.0-130*

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

(LCS) R3797759-1 05/29/22 22:04 • (LCSD) R3797759-2 05/29/22 22:25

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	0.0274	0.0266	110	106	19.0-160			2.96	27
Acrylonitrile	0.0250	0.0267	0.0257	107	103	55.0-149			3.82	20
Benzene	0.00500	0.00447	0.00451	89.4	90.2	70.0-123			0.891	20
Bromobenzene	0.00500	0.00505	0.00484	101	96.8	73.0-121			4.25	20

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

(LCS) R3797759-1 05/29/22 22:04 • (LCSD) R3797759-2 05/29/22 22:25

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromochloromethane	0.00500	0.00491	0.00479	98.2	95.8	76.0-122			2.47	20
Bromodichloromethane	0.00500	0.00458	0.00456	91.6	91.2	75.0-120			0.438	20
Bromoform	0.00500	0.00439	0.00439	87.8	87.8	68.0-132			0.000	20
Bromomethane	0.00500	0.00158	0.00168	31.6	33.6	10.0-160			6.13	25
n-Butylbenzene	0.00500	0.00456	0.00423	91.2	84.6	73.0-125			7.51	20
sec-Butylbenzene	0.00500	0.00500	0.00496	100	99.2	75.0-125			0.803	20
tert-Butylbenzene	0.00500	0.00469	0.00457	93.8	91.4	76.0-124			2.59	20
Carbon tetrachloride	0.00500	0.00519	0.00485	104	97.0	68.0-126			6.77	20
Carbon disulfide	0.00500	0.00449	0.00434	89.8	86.8	61.0-128			3.40	20
Chlorobenzene	0.00500	0.00511	0.00489	102	97.8	80.0-121			4.40	20
Chlorodibromomethane	0.00500	0.00470	0.00466	94.0	93.2	77.0-125			0.855	20
Chloroethane	0.00500	0.00483	0.00452	96.6	90.4	47.0-150			6.63	20
Chloroform	0.00500	0.00494	0.00483	98.8	96.6	73.0-120			2.25	20
Chloromethane	0.00500	0.00534	0.00495	107	99.0	41.0-142			7.58	20
1,2-Dibromo-3-Chloropropane	0.00500	0.00358	0.00365	71.6	73.0	58.0-134			1.94	20
1,2-Dibromoethane	0.00500	0.00473	0.00494	94.6	98.8	80.0-122			4.34	20
Dibromomethane	0.00500	0.00464	0.00436	92.8	87.2	80.0-120			6.22	20
1,2-Dichlorobenzene	0.00500	0.00546	0.00531	109	106	79.0-121			2.79	20
1,3-Dichlorobenzene	0.00500	0.00499	0.00493	99.8	98.6	79.0-120			1.21	20
1,4-Dichlorobenzene	0.00500	0.00485	0.00470	97.0	94.0	79.0-120			3.14	20
trans-1,4-Dichloro-2-butene	0.00500	0.00337	0.00320	67.4	64.0	33.0-144			5.18	20
Dichlorodifluoromethane	0.00500	0.00466	0.00444	93.2	88.8	51.0-149			4.84	20
1,1-Dichloroethane	0.00500	0.00551	0.00519	110	104	70.0-126			5.98	20
1,2-Dichloroethane	0.00500	0.00528	0.00506	106	101	70.0-128			4.26	20
1,1-Dichloroethene	0.00500	0.00439	0.00397	87.8	79.4	71.0-124			10.0	20
cis-1,2-Dichloroethene	0.00500	0.00461	0.00450	92.2	90.0	73.0-120			2.41	20
trans-1,2-Dichloroethene	0.00500	0.00461	0.00432	92.2	86.4	73.0-120			6.49	20
1,2-Dichloropropane	0.00500	0.00492	0.00493	98.4	98.6	77.0-125			0.203	20
cis-1,3-Dichloropropene	0.00500	0.00456	0.00447	91.2	89.4	80.0-123			1.99	20
trans-1,3-Dichloropropene	0.00500	0.00501	0.00488	100	97.6	78.0-124			2.63	20
Ethylbenzene	0.00500	0.00484	0.00498	96.8	99.6	79.0-123			2.85	20
Hexachloro-1,3-butadiene	0.00500	0.00550	0.00545	110	109	54.0-138			0.913	20
2-Hexanone	0.0250	0.0248	0.0238	99.2	95.2	67.0-149			4.12	20
2-Butanone (MEK)	0.0250	0.0269	0.0261	108	104	44.0-160			3.02	20
Iodomethane	0.0250	0.00767	0.00904	30.7	36.2	33.0-147	L2		16.4	26
Methylene Chloride	0.00500	0.00482	0.00480	96.4	96.0	67.0-120			0.416	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.0308	0.0302	123	121	68.0-142			1.97	20
Naphthalene	0.00500	0.00383	0.00494	76.6	98.8	54.0-135		R7	25.3	20
n-Propylbenzene	0.00500	0.00509	0.00488	102	97.6	77.0-124			4.21	20
Styrene	0.00500	0.00435	0.00415	87.0	83.0	73.0-130			4.71	20

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

(LCS) R3797759-1 05/29/22 22:04 • (LCSD) R3797759-2 05/29/22 22:25

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,1,1,2-Tetrachloroethane	0.00500	0.00500	0.00493	100	98.6	75.0-125			1.41	20
1,1,2,2-Tetrachloroethane	0.00500	0.00455	0.00443	91.0	88.6	65.0-130			2.67	20
1,1,2-Trichlorotrifluoroethane	0.00500	0.00513	0.00490	103	98.0	69.0-132			4.59	20
Tetrachloroethene	0.00500	0.00548	0.00552	110	110	72.0-132			0.727	20
Toluene	0.00500	0.00505	0.00500	101	100	79.0-120			0.995	20
1,2,4-Trichlorobenzene	0.00500	0.00404	0.00483	80.8	96.6	57.0-137			17.8	20
1,1,1-Trichloroethane	0.00500	0.00523	0.00462	105	92.4	73.0-124			12.4	20
1,1,2-Trichloroethane	0.00500	0.00476	0.00489	95.2	97.8	80.0-120			2.69	20
Trichloroethene	0.00500	0.00510	0.00474	102	94.8	78.0-124			7.32	20
Trichlorofluoromethane	0.00500	0.00496	0.00461	99.2	92.2	59.0-147			7.31	20
1,2,3-Trichloropropane	0.00500	0.00507	0.00493	101	98.6	73.0-130			2.80	20
1,2,4-Trimethylbenzene	0.00500	0.00473	0.00461	94.6	92.2	76.0-121			2.57	20
1,3,5-Trimethylbenzene	0.00500	0.00508	0.00507	102	101	76.0-122			0.197	20
Vinyl acetate	0.0250	0.0364	0.0341	146	136	11.0-160			6.52	20
Vinyl chloride	0.00500	0.00489	0.00447	97.8	89.4	67.0-131			8.97	20
Xylenes, Total	0.0150	0.0145	0.0142	96.7	94.7	79.0-123			2.09	20
Di-isopropyl ether	0.00500	0.00545	0.00522	109	104	58.0-138			4.31	20
Ethanol	0.250	0.290	0.290	116	116	10.0-160			0.000	30
Ethyl tert-butyl ether	0.00500	0.00517	0.00513	103	103	63.0-138			0.777	20
Methyl tert-butyl ether	0.00500	0.00465	0.00441	93.0	88.2	68.0-125			5.30	20
tert-Butyl alcohol	0.0250	0.0228	0.0231	91.2	92.4	27.0-160			1.31	30
tert-Amyl Methyl Ether	0.00500	0.00440	0.00437	88.0	87.4	66.0-125			0.684	20
(S) Toluene-d8				*110*	*110*	*80.0-120*				
(S) 4-Bromofluorobenzene				*99.5*	*98.4*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*123*	*124*	*70.0-130*				

L1496911-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1496911-01 05/30/22 02:01 • (MS) R3797759-5 05/30/22 07:55 • (MSD) R3797759-6 05/30/22 08:15

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 %
Acetone	0.0250	ND	ND	ND	108	101	1	10.0-160			6.53	35
Acrylonitrile	0.0250	ND	0.0268	0.0258	107	103	1	21.0-160			3.80	32
Benzene	0.00500	ND	0.00464	0.00437	92.8	87.4	1	17.0-158			5.99	27
Bromobenzene	0.00500	ND	0.00462	0.00442	92.4	88.4	1	30.0-149			4.42	28
Bromochloromethane	0.00500	ND	0.00480	0.00451	96.0	90.2	1	38.0-142			6.23	26
Bromodichloromethane	0.00500	ND	0.00426	0.00431	85.2	86.2	1	31.0-150			1.17	27
Bromoform	0.00500	ND	0.00428	0.00405	85.6	81.0	1	29.0-150			5.52	29
Bromomethane	0.00500	ND	ND	ND	35.2	33.6	1	10.0-160			4.65	38

L1496911-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1496911-01 05/30/22 02:01 • (MS) R3797759-5 05/30/22 07:55 • (MSD) R3797759-6 05/30/22 08:15

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 %
n-Butylbenzene	0.00500	ND	0.00342	0.00336	68.4	67.2	1	31.0-150			1.77	30
sec-Butylbenzene	0.00500	ND	0.00463	0.00434	92.6	86.8	1	33.0-155			6.47	29
tert-Butylbenzene	0.00500	ND	0.00450	0.00452	90.0	90.4	1	34.0-153			0.443	28
Carbon tetrachloride	0.00500	ND	0.00517	0.00500	103	100	1	23.0-159			3.34	28
Carbon disulfide	0.00500	ND	0.00414	0.00405	82.8	81.0	1	10.0-156			2.20	28
Chlorobenzene	0.00500	ND	0.00470	0.00454	94.0	90.8	1	33.0-152			3.46	27
Chlorodibromomethane	0.00500	ND	0.00456	0.00449	91.2	89.8	1	37.0-149			1.55	27
Chloroethane	0.00500	ND	ND	ND	97.0	95.0	1	10.0-160			2.08	30
Chloroform	0.00500	ND	0.00501	ND	100	93.4	1	29.0-154			7.02	28
Chloromethane	0.00500	ND	0.00521	0.00508	104	102	1	10.0-160			2.53	29
1,2-Dibromo-3-Chloropropane	0.00500	ND	ND	ND	72.2	68.4	1	22.0-151			5.41	34
1,2-Dibromoethane	0.00500	ND	0.00455	0.00426	91.0	85.2	1	34.0-147			6.58	27
Dibromomethane	0.00500	ND	0.00468	0.00418	93.6	83.6	1	30.0-151			11.3	27
1,2-Dichlorobenzene	0.00500	ND	0.00478	0.00477	95.6	95.4	1	34.0-149			0.209	28
1,3-Dichlorobenzene	0.00500	ND	0.00438	0.00417	87.6	83.4	1	36.0-146			4.91	27
1,4-Dichlorobenzene	0.00500	ND	0.00462	0.00452	92.4	90.4	1	35.0-142			2.19	27
trans-1,4-Dichloro-2-butene	0.00500	ND	0.00336	0.00270	67.2	54.0	1	10.0-157			21.8	37
Dichlorodifluoromethane	0.00500	ND	ND	ND	84.2	86.8	1	10.0-160			3.04	29
1,1-Dichloroethane	0.00500	ND	0.00527	0.00511	105	102	1	25.0-158			3.08	27
1,2-Dichloroethane	0.00500	ND	0.00512	0.00478	102	95.6	1	29.0-151			6.87	27
1,1-Dichloroethene	0.00500	ND	0.00463	0.00448	92.6	89.6	1	11.0-160			3.29	29
cis-1,2-Dichloroethene	0.00500	ND	0.00467	0.00446	93.4	89.2	1	10.0-160			4.60	27
trans-1,2-Dichloroethene	0.00500	ND	0.00432	0.00439	86.4	87.8	1	17.0-153			1.61	27
1,2-Dichloropropane	0.00500	ND	0.00480	0.00447	96.0	89.4	1	30.0-156			7.12	27
cis-1,3-Dichloropropene	0.00500	ND	0.00412	0.00389	82.4	77.8	1	34.0-149			5.74	28
trans-1,3-Dichloropropene	0.00500	ND	0.00438	0.00412	87.6	82.4	1	32.0-149			6.12	28
Ethylbenzene	0.00500	ND	0.00468	0.00436	93.6	87.2	1	30.0-155			7.08	27
Hexachloro-1,3-butadiene	0.00500	ND	0.00476	0.00475	95.2	95.0	1	20.0-154			0.210	34
2-Hexanone	0.0250	ND	0.0231	0.0223	92.4	89.2	1	21.0-160			3.52	29
2-Butanone (MEK)	0.0250	ND	0.0266	0.0252	106	101	1	10.0-160			5.41	32
Iodomethane	0.0250	ND	ND	ND	29.0	34.5	1	10.0-160			17.4	40
Methylene Chloride	0.00500	ND	ND	ND	92.2	87.4	1	23.0-144			5.35	28
4-Methyl-2-pentanone (MIBK)	0.0250	ND	0.0287	0.0271	115	108	1	29.0-160			5.73	29
Naphthalene	0.00500	ND	ND	ND	73.4	80.6	1	12.0-156			9.35	35
n-Propylbenzene	0.00500	ND	0.00462	0.00443	92.4	88.6	1	31.0-154			4.20	28
Styrene	0.00500	ND	0.00389	0.00381	77.8	76.2	1	33.0-155			2.08	28
1,1,1,2-Tetrachloroethane	0.00500	ND	0.00469	0.00454	93.8	90.8	1	36.0-151			3.25	29
1,1,2,2-Tetrachloroethane	0.00500	ND	0.00433	0.00431	86.6	86.2	1	33.0-150			0.463	28
1,1,2-Trichlorotrifluoroethane	0.00500	ND	0.00445	0.00427	89.0	85.4	1	23.0-160			4.13	30
Tetrachloroethene	0.00500	ND	0.00509	0.00479	102	95.8	1	10.0-160			6.07	27

L1496911-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1496911-01 05/30/22 02:01 • (MS) R3797759-5 05/30/22 07:55 • (MSD) R3797759-6 05/30/22 08:15

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 %
Toluene	0.00500	ND	0.00486	0.00457	97.2	91.4	1	26.0-154			6.15	28
1,2,4-Trichlorobenzene	0.00500	ND	0.00342	0.00361	68.4	72.2	1	24.0-150			5.41	33
1,1,1-Trichloroethane	0.00500	ND	0.00511	0.00481	102	96.2	1	23.0-160			6.05	28
1,1,2-Trichloroethane	0.00500	ND	0.00460	0.00443	92.0	88.6	1	35.0-147			3.77	27
Trichloroethene	0.00500	ND	0.00478	0.00440	95.6	88.0	1	10.0-160			8.28	25
Trichlorofluoromethane	0.00500	ND	ND	ND	95.8	97.0	1	17.0-160			1.24	31
1,2,3-Trichloropropane	0.00500	ND	0.00462	0.00441	92.4	88.2	1	34.0-151			4.65	29
1,2,4-Trimethylbenzene	0.00500	ND	0.00435	0.00398	87.0	79.6	1	26.0-154			8.88	27
1,3,5-Trimethylbenzene	0.00500	ND	0.00478	0.00449	95.6	89.8	1	28.0-153			6.26	27
Vinyl acetate	0.0250	ND	0.0345	0.0327	138	131	1	12.0-160			5.36	31
Vinyl chloride	0.00500	ND	0.00481	0.00475	96.2	95.0	1	10.0-160			1.26	27
Xylenes, Total	0.0150	ND	0.0133	0.0129	88.7	86.0	1	29.0-154			3.05	28
Di-isopropyl ether	0.00500	ND	0.00524	0.00492	105	98.4	1	21.0-160			6.30	28
ethanol	0.250	ND	0.288	0.276	115	110	1	50.0-150			4.26	20
Ethyl tert-butyl ether	0.00500	ND	0.00489	0.00475	97.8	95.0	1	10.0-160			2.90	37
Methyl tert-butyl ether	0.00500	ND	0.00440	0.00402	88.0	80.4	1	28.0-150			9.03	29
tert-Butyl alcohol	0.0250	ND	0.0229	0.0237	91.6	94.8	1	50.0-150			3.43	20
tert-Amyl Methyl Ether	0.00500	ND	0.00416	0.00385	83.2	77.0	1	10.0-160			7.74	37
(S) Toluene-d8					*107*	*109*		*80.0-120*				
(S) 4-Bromofluorobenzene					*97.6*	*98.2*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*121*	*124*		*70.0-130*				

INTERNAL STANDARD SUMMARY

Instrument: VOCMS23 • File ID: 0529_34

05/29/22 22:04

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0529_34	362754	151488	138810
Upper Limit		725508	302976	277620
Lower Limit		181377	75744	69405
LCS R3797759-1 WG1871520 1x	0529_34LCS	362754	151488	138810
LCSD R3797759-2 WG1871520 1x	0529_35	378066	155525	143685
BLANK R3797759-4 WG1871520 1x	0529_38A	352222	131815	111479
L1496911-04 WG1871520 1x	0529_42	373604	148862	121451
L1496911-01 WG1871520 1x	0529_45	375382	151530	125197
L1496911-02 WG1871520 1x	0529_46	362285	144588	114557
L1496911-03 WG1871520 1x	0529_47	376735	147726	120837
MS R3797759-5 WG1871520 1x	0529_62	386453	163073	148449
MSD R3797759-6 WG1871520 1x	0529_63	382368	159957	143822

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

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	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
E1	Concentration estimated. Analyte exceeded calibration range. Reanalysis not possible due to insufficient sample.
L2	The associated blank spike recovery was below laboratory acceptance limits.
M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike recovery was acceptable.
R7	LFB/LFBD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.
R8	Sample RPD exceeded the method acceptance limit.

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	LAO000356
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:
Kinder Morgan - Rocklin, CA-AZ Work

410 N.44th Street
Suite 1000
Phoenix. AZ 85008

Billing Information:
Accounts Payable- Alan Van Antwerp
9950 SAN DIEGO MISSION RD.
SAN DIEGO, CA 92108

Pres Chk

Report to: **Bob Forsberg**

Email To: bob.forsberg@arcadis-us.com;sascha.arnold@arcadis.com

Project Description: **KMEP Silvercroft Wash**

City/State Collected: Tucson, AZ

Please Circle: PT (MT) CT ET

Phone: **602-438-0883**

Client Project # **30113573.01**

Lab Project # **KINARCPAZ-SILVERCROF**

Collected by (print): SXA / MAT

Site/Facility ID # **SILVERCROFT WASH**

P.O. # **WD876456**

Collected by (signature): M. Tani

Immediately Packed on Ice N ___ Y X

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: STD TURN

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	*NO2,NO3,SO4 125mlHDPE-NoPres	EEM RSK175 40mlAmb HCl	HOLD - NO2+NO3 250mlHDPE-H2SO4	TDS 1L-HDPE NoPres	Total Fe 6010 250mlHDPE-HNO3	VOCs+OXYs 8260 40mlAmb-HCl	Remarks	Sample # (lab only)
MW-29D	G	GW	235	5/23/22	1212	18	X	X	X	X	X	X	Rem MS/MSD	01
MW-31D	"	GW	235	"	1342	9	X	X	X	X	X	X		02
MW-32D	"	GW	235	"	1529	9	X	X	X	X	X	X		03
		GW												
Trip Blank	—	Aq	—	5/23/22	—	1						X		

Chain of Custody Page 1 of 1

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN
12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1496911

1133

Acctnum:

Template: **T190237**

Prelogin: **P925259**

PM: **110 - Brian Ford**

PB:

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:*NO2,NO3 have a 48 hour holding time.

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 575580915721

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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received:	If preservation required by Login: Date/Time
M. Tani	5/23/22	1600	Ship / Mail FedEx Express	1 (Yes / No) HCL / MeoH TBR	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.4 +0=1.4 °C	Bottles Received:
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 5/24/22	Time: 9:00 MT	Hold:	Condition: NCF / OK
			Kyla Tallman		

ANALYTICAL REPORT

June 09, 2022

Kinder Morgan - Rocklin, CA-AZ Work

Sample Delivery Group:	L1497516
Samples Received:	05/25/2022
Project Number:	30113573.01
Description:	KMEP Silvercroft Wash
Site:	SILVERCROFT WASH
Report To:	Bob Forsberg 410 N.44th Street Suite 1000 Phoenix, AZ 85008

Entire Report Reviewed By:

Brian Ford

Project Manager

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

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

MW-29M L1497516-01 GW

Collected by: MAT / SXA | Collected date/time: 05/24/22 08:42 | Received date/time: 05/25/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1871649	1	05/30/22 12:35	05/30/22 13:25	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1869454	1	05/25/22 18:32	05/25/22 18:32	KEG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1869454	5	05/25/22 18:44	05/25/22 18:44	KEG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1873006	1	06/02/22 18:44	06/09/22 01:43	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1871510	1	05/30/22 14:55	05/30/22 14:55	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1872218	1	06/01/22 01:49	06/01/22 01:49	ACG	Mt. Juliet, TN

MW-31M L1497516-02 GW

Collected by: MAT / SXA | Collected date/time: 05/24/22 10:07 | Received date/time: 05/25/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1871649	1	05/30/22 12:35	05/30/22 13:25	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1869454	1	05/25/22 18:57	05/25/22 18:57	KEG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1869454	5	05/25/22 19:10	05/25/22 19:10	KEG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1873006	1	06/02/22 18:44	06/09/22 00:51	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1871510	1	05/30/22 14:58	05/30/22 14:58	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1872218	1	06/01/22 02:11	06/01/22 02:11	ACG	Mt. Juliet, TN

MW-32M L1497516-03 GW

Collected by: MAT / SXA | Collected date/time: 05/24/22 11:32 | Received date/time: 05/25/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1871649	1	05/30/22 12:35	05/30/22 13:25	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1869454	1	05/25/22 19:49	05/25/22 19:49	KEG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1869454	5	05/25/22 20:27	05/25/22 20:27	KEG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1873006	1	06/02/22 18:44	06/09/22 01:46	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1871510	1	05/30/22 15:02	05/30/22 15:02	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1871107	1	05/29/22 20:22	05/29/22 20:22	DWR	Mt. Juliet, TN

MW-32S L1497516-04 GW

Collected by: MAT / SXA | Collected date/time: 05/24/22 13:07 | Received date/time: 05/25/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1871614	1	05/30/22 08:35	05/30/22 10:59	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1869454	1	05/25/22 20:40	05/25/22 20:40	KEG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1869454	5	05/25/22 20:53	05/25/22 20:53	KEG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1873006	1	06/02/22 18:44	06/09/22 01:54	ZSA	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1871510	1	05/30/22 15:05	05/30/22 15:05	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1871107	1	05/29/22 20:43	05/29/22 20:43	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1872013	200	05/31/22 14:41	05/31/22 14:41	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1872590	2000	06/01/22 17:57	06/01/22 17:57	ADM	Mt. Juliet, TN

EQUIPMENT BLANK L1497516-05 GW

Collected by: MAT / SXA | Collected date/time: 05/24/22 07:55 | Received date/time: 05/25/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1871107	1	05/29/22 13:56	05/29/22 13:56	DWR	Mt. Juliet, TN

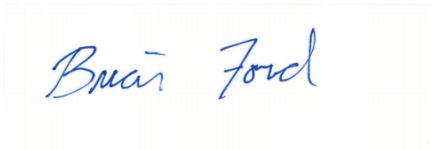
TRIP BLANK L1497516-06 GW

Collected by	Collected date/time	Received date/time
MAT / SXA	05/24/22 00:00	05/25/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1871107	1	05/29/22 12:51	05/29/22 12:51	DWR	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.



Brian Ford
Project Manager

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	667		13.3	1	05/30/2022 13:25	WG1871649

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	2.56		0.100	1	05/25/2022 18:32	WG1869454
Nitrite	ND		0.100	1	05/25/2022 18:32	WG1869454
Sulfate	231		25.0	5	05/25/2022 18:44	WG1869454

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	ND		0.100	1	06/09/2022 01:43	WG1873006

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	05/30/2022 14:55	WG1871510
Ethane	ND		0.0130	1	05/30/2022 14:55	WG1871510
Ethene	ND		0.0130	1	05/30/2022 14:55	WG1871510

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	06/01/2022 01:49	WG1872218
Acrylonitrile	ND		0.0100	1	06/01/2022 01:49	WG1872218
Benzene	ND		0.00100	1	06/01/2022 01:49	WG1872218
Bromobenzene	ND		0.00100	1	06/01/2022 01:49	WG1872218
Bromochloromethane	ND		0.00100	1	06/01/2022 01:49	WG1872218
Bromodichloromethane	ND		0.00100	1	06/01/2022 01:49	WG1872218
Bromoform	ND		0.00100	1	06/01/2022 01:49	WG1872218
Bromomethane	ND		0.00500	1	06/01/2022 01:49	WG1872218
n-Butylbenzene	ND		0.00100	1	06/01/2022 01:49	WG1872218
sec-Butylbenzene	ND		0.00100	1	06/01/2022 01:49	WG1872218
tert-Butylbenzene	ND		0.00100	1	06/01/2022 01:49	WG1872218
Carbon tetrachloride	ND		0.00100	1	06/01/2022 01:49	WG1872218
Carbon disulfide	ND		0.00100	1	06/01/2022 01:49	WG1872218
Chlorobenzene	ND		0.00100	1	06/01/2022 01:49	WG1872218
Chlorodibromomethane	ND		0.00100	1	06/01/2022 01:49	WG1872218
Chloroethane	ND		0.00500	1	06/01/2022 01:49	WG1872218
Chloroform	ND		0.00500	1	06/01/2022 01:49	WG1872218
Chloromethane	ND	L1	0.00250	1	06/01/2022 01:49	WG1872218
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	06/01/2022 01:49	WG1872218
1,2-Dibromoethane	ND		0.00100	1	06/01/2022 01:49	WG1872218
Dibromomethane	ND		0.00100	1	06/01/2022 01:49	WG1872218
1,2-Dichlorobenzene	ND		0.00100	1	06/01/2022 01:49	WG1872218
1,3-Dichlorobenzene	ND		0.00100	1	06/01/2022 01:49	WG1872218
1,4-Dichlorobenzene	ND		0.00100	1	06/01/2022 01:49	WG1872218
trans-1,4-Dichloro-2-butene	ND		0.00250	1	06/01/2022 01:49	WG1872218
Dichlorodifluoromethane	ND		0.00500	1	06/01/2022 01:49	WG1872218
1,1-Dichloroethane	ND		0.00100	1	06/01/2022 01:49	WG1872218
1,2-Dichloroethane	ND		0.00100	1	06/01/2022 01:49	WG1872218
1,1-Dichloroethene	ND		0.00100	1	06/01/2022 01:49	WG1872218
cis-1,2-Dichloroethene	ND	L1	0.00100	1	06/01/2022 01:49	WG1872218

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.00100	1	06/01/2022 01:49	WG1872218
1,2-Dichloropropane	ND		0.00100	1	06/01/2022 01:49	WG1872218
cis-1,3-Dichloropropene	ND		0.00100	1	06/01/2022 01:49	WG1872218
trans-1,3-Dichloropropene	ND		0.00100	1	06/01/2022 01:49	WG1872218
Ethylbenzene	ND		0.00100	1	06/01/2022 01:49	WG1872218
Hexachloro-1,3-butadiene	ND		0.00100	1	06/01/2022 01:49	WG1872218
2-Hexanone	ND		0.0100	1	06/01/2022 01:49	WG1872218
2-Butanone (MEK)	ND		0.0100	1	06/01/2022 01:49	WG1872218
Iodomethane	ND		0.0100	1	06/01/2022 01:49	WG1872218
Methylene Chloride	ND	L1 R7	0.00500	1	06/01/2022 01:49	WG1872218
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	06/01/2022 01:49	WG1872218
Naphthalene	ND		0.00500	1	06/01/2022 01:49	WG1872218
n-Propylbenzene	ND		0.00100	1	06/01/2022 01:49	WG1872218
Styrene	ND		0.00100	1	06/01/2022 01:49	WG1872218
1,1,1,2-Tetrachloroethane	ND		0.00100	1	06/01/2022 01:49	WG1872218
1,1,2,2-Tetrachloroethane	ND		0.00100	1	06/01/2022 01:49	WG1872218
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	06/01/2022 01:49	WG1872218
Tetrachloroethene	ND		0.00100	1	06/01/2022 01:49	WG1872218
Toluene	ND		0.00100	1	06/01/2022 01:49	WG1872218
1,2,4-Trichlorobenzene	ND		0.00100	1	06/01/2022 01:49	WG1872218
1,1,1-Trichloroethane	ND		0.00100	1	06/01/2022 01:49	WG1872218
1,1,2-Trichloroethane	ND		0.00100	1	06/01/2022 01:49	WG1872218
Trichloroethene	ND		0.00100	1	06/01/2022 01:49	WG1872218
Trichlorofluoromethane	ND		0.00500	1	06/01/2022 01:49	WG1872218
1,2,3-Trichloropropane	ND		0.00250	1	06/01/2022 01:49	WG1872218
1,2,4-Trimethylbenzene	ND		0.00100	1	06/01/2022 01:49	WG1872218
1,3,5-Trimethylbenzene	ND		0.00100	1	06/01/2022 01:49	WG1872218
Vinyl acetate	ND		0.0100	1	06/01/2022 01:49	WG1872218
Vinyl chloride	ND		0.00100	1	06/01/2022 01:49	WG1872218
Xylenes, Total	ND		0.00300	1	06/01/2022 01:49	WG1872218
Di-isopropyl ether	ND		0.00100	1	06/01/2022 01:49	WG1872218
Ethanol	ND		0.100	1	06/01/2022 01:49	WG1872218
Ethyl tert-butyl ether	ND		0.00100	1	06/01/2022 01:49	WG1872218
Methyl tert-butyl ether	0.112		0.00100	1	06/01/2022 01:49	WG1872218
tert-Butyl alcohol	ND		0.00500	1	06/01/2022 01:49	WG1872218
tert-Amyl Methyl Ether	0.0150		0.00100	1	06/01/2022 01:49	WG1872218
(S) Toluene-d8	*106*		*80.0-120*		*06/01/2022 01:49*	WG1872218
(S) 4-Bromofluorobenzene	*106*		*77.0-126*		*06/01/2022 01:49*	WG1872218
(S) 1,2-Dichloroethane-d4	*101*		*70.0-130*		*06/01/2022 01:49*	WG1872218

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

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	617		10.0	1	05/30/2022 13:25	WG1871649

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	2.90		0.100	1	05/25/2022 18:57	WG1869454
Nitrite	ND		0.100	1	05/25/2022 18:57	WG1869454
Sulfate	221	M3	25.0	5	05/25/2022 19:10	WG1869454

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	0.790		0.100	1	06/09/2022 00:51	WG1873006

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	05/30/2022 14:58	WG1871510
Ethane	ND		0.0130	1	05/30/2022 14:58	WG1871510
Ethene	ND		0.0130	1	05/30/2022 14:58	WG1871510

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	06/01/2022 02:11	WG1872218
Acrylonitrile	ND		0.0100	1	06/01/2022 02:11	WG1872218
Benzene	ND		0.00100	1	06/01/2022 02:11	WG1872218
Bromobenzene	ND		0.00100	1	06/01/2022 02:11	WG1872218
Bromochloromethane	ND		0.00100	1	06/01/2022 02:11	WG1872218
Bromodichloromethane	ND		0.00100	1	06/01/2022 02:11	WG1872218
Bromoform	ND		0.00100	1	06/01/2022 02:11	WG1872218
Bromomethane	ND		0.00500	1	06/01/2022 02:11	WG1872218
n-Butylbenzene	ND		0.00100	1	06/01/2022 02:11	WG1872218
sec-Butylbenzene	ND		0.00100	1	06/01/2022 02:11	WG1872218
tert-Butylbenzene	ND		0.00100	1	06/01/2022 02:11	WG1872218
Carbon tetrachloride	ND		0.00100	1	06/01/2022 02:11	WG1872218
Carbon disulfide	ND		0.00100	1	06/01/2022 02:11	WG1872218
Chlorobenzene	ND		0.00100	1	06/01/2022 02:11	WG1872218
Chlorodibromomethane	ND		0.00100	1	06/01/2022 02:11	WG1872218
Chloroethane	ND		0.00500	1	06/01/2022 02:11	WG1872218
Chloroform	ND		0.00500	1	06/01/2022 02:11	WG1872218
Chloromethane	ND	L1 M1	0.00250	1	06/01/2022 02:11	WG1872218
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	06/01/2022 02:11	WG1872218
1,2-Dibromoethane	ND		0.00100	1	06/01/2022 02:11	WG1872218
Dibromomethane	ND		0.00100	1	06/01/2022 02:11	WG1872218
1,2-Dichlorobenzene	ND		0.00100	1	06/01/2022 02:11	WG1872218
1,3-Dichlorobenzene	ND		0.00100	1	06/01/2022 02:11	WG1872218
1,4-Dichlorobenzene	ND		0.00100	1	06/01/2022 02:11	WG1872218
trans-1,4-Dichloro-2-butene	ND		0.00250	1	06/01/2022 02:11	WG1872218
Dichlorodifluoromethane	ND		0.00500	1	06/01/2022 02:11	WG1872218
1,1-Dichloroethane	ND		0.00100	1	06/01/2022 02:11	WG1872218
1,2-Dichloroethane	ND		0.00100	1	06/01/2022 02:11	WG1872218
1,1-Dichloroethene	ND		0.00100	1	06/01/2022 02:11	WG1872218
cis-1,2-Dichloroethene	ND	L1	0.00100	1	06/01/2022 02:11	WG1872218

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

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.00100	1	06/01/2022 02:11	WG1872218
1,2-Dichloropropane	ND		0.00100	1	06/01/2022 02:11	WG1872218
cis-1,3-Dichloropropene	ND		0.00100	1	06/01/2022 02:11	WG1872218
trans-1,3-Dichloropropene	ND		0.00100	1	06/01/2022 02:11	WG1872218
Ethylbenzene	ND		0.00100	1	06/01/2022 02:11	WG1872218
Hexachloro-1,3-butadiene	ND		0.00100	1	06/01/2022 02:11	WG1872218
2-Hexanone	ND		0.0100	1	06/01/2022 02:11	WG1872218
2-Butanone (MEK)	ND		0.0100	1	06/01/2022 02:11	WG1872218
Iodomethane	ND		0.0100	1	06/01/2022 02:11	WG1872218
Methylene Chloride	ND	L1	0.00500	1	06/01/2022 02:11	WG1872218
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	06/01/2022 02:11	WG1872218
Naphthalene	ND		0.00500	1	06/01/2022 02:11	WG1872218
n-Propylbenzene	ND		0.00100	1	06/01/2022 02:11	WG1872218
Styrene	ND	R5	0.00100	1	06/01/2022 02:11	WG1872218
1,1,1,2-Tetrachloroethane	ND		0.00100	1	06/01/2022 02:11	WG1872218
1,1,2,2-Tetrachloroethane	ND		0.00100	1	06/01/2022 02:11	WG1872218
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	06/01/2022 02:11	WG1872218
Tetrachloroethene	ND		0.00100	1	06/01/2022 02:11	WG1872218
Toluene	ND		0.00100	1	06/01/2022 02:11	WG1872218
1,2,4-Trichlorobenzene	ND		0.00100	1	06/01/2022 02:11	WG1872218
1,1,1-Trichloroethane	ND		0.00100	1	06/01/2022 02:11	WG1872218
1,1,2-Trichloroethane	ND		0.00100	1	06/01/2022 02:11	WG1872218
Trichloroethene	ND		0.00100	1	06/01/2022 02:11	WG1872218
Trichlorofluoromethane	ND		0.00500	1	06/01/2022 02:11	WG1872218
1,2,3-Trichloropropane	ND		0.00250	1	06/01/2022 02:11	WG1872218
1,2,4-Trimethylbenzene	ND		0.00100	1	06/01/2022 02:11	WG1872218
1,3,5-Trimethylbenzene	ND		0.00100	1	06/01/2022 02:11	WG1872218
Vinyl acetate	ND	R5	0.0100	1	06/01/2022 02:11	WG1872218
Vinyl chloride	ND		0.00100	1	06/01/2022 02:11	WG1872218
Xylenes, Total	ND		0.00300	1	06/01/2022 02:11	WG1872218
Di-isopropyl ether	ND		0.00100	1	06/01/2022 02:11	WG1872218
Ethanol	ND	M2 R5	0.100	1	06/01/2022 02:11	WG1872218
Ethyl tert-butyl ether	ND		0.00100	1	06/01/2022 02:11	WG1872218
Methyl tert-butyl ether	0.0101		0.00100	1	06/01/2022 02:11	WG1872218
tert-Butyl alcohol	ND		0.00500	1	06/01/2022 02:11	WG1872218
tert-Amyl Methyl Ether	ND		0.00100	1	06/01/2022 02:11	WG1872218
(S) Toluene-d8	*105*		*80.0-120*		*06/01/2022 02:11*	WG1872218
(S) 4-Bromofluorobenzene	*105*		*77.0-126*		*06/01/2022 02:11*	WG1872218
(S) 1,2-Dichloroethane-d4	*97.8*		*70.0-130*		*06/01/2022 02:11*	WG1872218

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

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	622		10.0	1	05/30/2022 13:25	WG1871649

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Nitrate	2.77		0.100	1	05/25/2022 19:49	WG1869454
Nitrite	ND		0.100	1	05/25/2022 19:49	WG1869454
Sulfate	222		25.0	5	05/25/2022 20:27	WG1869454

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Iron	ND		0.100	1	06/09/2022 01:46	WG1873006

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Methane	ND		0.0100	1	05/30/2022 15:02	WG1871510
Ethane	ND		0.0130	1	05/30/2022 15:02	WG1871510
Ethene	ND		0.0130	1	05/30/2022 15:02	WG1871510

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Acetone	ND		0.0500	1	05/29/2022 20:22	WG1871107
Acrylonitrile	ND		0.0100	1	05/29/2022 20:22	WG1871107
Benzene	ND		0.00100	1	05/29/2022 20:22	WG1871107
Bromobenzene	ND		0.00100	1	05/29/2022 20:22	WG1871107
Bromochloromethane	ND		0.00100	1	05/29/2022 20:22	WG1871107
Bromodichloromethane	ND		0.00100	1	05/29/2022 20:22	WG1871107
Bromoform	ND		0.00100	1	05/29/2022 20:22	WG1871107
Bromomethane	ND		0.00500	1	05/29/2022 20:22	WG1871107
n-Butylbenzene	ND		0.00100	1	05/29/2022 20:22	WG1871107
sec-Butylbenzene	ND		0.00100	1	05/29/2022 20:22	WG1871107
tert-Butylbenzene	ND		0.00100	1	05/29/2022 20:22	WG1871107
Carbon tetrachloride	ND		0.00100	1	05/29/2022 20:22	WG1871107
Carbon disulfide	ND		0.00100	1	05/29/2022 20:22	WG1871107
Chlorobenzene	ND		0.00100	1	05/29/2022 20:22	WG1871107
Chlorodibromomethane	ND		0.00100	1	05/29/2022 20:22	WG1871107
Chloroethane	ND		0.00500	1	05/29/2022 20:22	WG1871107
Chloroform	ND		0.00500	1	05/29/2022 20:22	WG1871107
Chloromethane	ND		0.00250	1	05/29/2022 20:22	WG1871107
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	05/29/2022 20:22	WG1871107
1,2-Dibromoethane	ND		0.00100	1	05/29/2022 20:22	WG1871107
Dibromomethane	ND		0.00100	1	05/29/2022 20:22	WG1871107
1,2-Dichlorobenzene	ND		0.00100	1	05/29/2022 20:22	WG1871107
1,3-Dichlorobenzene	ND		0.00100	1	05/29/2022 20:22	WG1871107
1,4-Dichlorobenzene	ND		0.00100	1	05/29/2022 20:22	WG1871107
trans-1,4-Dichloro-2-butene	ND		0.00250	1	05/29/2022 20:22	WG1871107
Dichlorodifluoromethane	ND		0.00500	1	05/29/2022 20:22	WG1871107
1,1-Dichloroethane	ND		0.00100	1	05/29/2022 20:22	WG1871107
1,2-Dichloroethane	ND		0.00100	1	05/29/2022 20:22	WG1871107
1,1-Dichloroethene	ND		0.00100	1	05/29/2022 20:22	WG1871107
cis-1,2-Dichloroethene	ND		0.00100	1	05/29/2022 20:22	WG1871107

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.00100	1	05/29/2022 20:22	WG1871107
1,2-Dichloropropane	ND		0.00100	1	05/29/2022 20:22	WG1871107
cis-1,3-Dichloropropene	ND		0.00100	1	05/29/2022 20:22	WG1871107
trans-1,3-Dichloropropene	ND		0.00100	1	05/29/2022 20:22	WG1871107
Ethylbenzene	ND		0.00100	1	05/29/2022 20:22	WG1871107
Hexachloro-1,3-butadiene	ND		0.00100	1	05/29/2022 20:22	WG1871107
2-Hexanone	ND		0.0100	1	05/29/2022 20:22	WG1871107
2-Butanone (MEK)	ND		0.0100	1	05/29/2022 20:22	WG1871107
Iodomethane	ND		0.0100	1	05/29/2022 20:22	WG1871107
Methylene Chloride	ND		0.00500	1	05/29/2022 20:22	WG1871107
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	05/29/2022 20:22	WG1871107
Naphthalene	ND	R5	0.00500	1	05/29/2022 20:22	WG1871107
n-Propylbenzene	ND		0.00100	1	05/29/2022 20:22	WG1871107
Styrene	ND		0.00100	1	05/29/2022 20:22	WG1871107
1,1,1,2-Tetrachloroethane	ND		0.00100	1	05/29/2022 20:22	WG1871107
1,1,2,2-Tetrachloroethane	ND		0.00100	1	05/29/2022 20:22	WG1871107
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	05/29/2022 20:22	WG1871107
Tetrachloroethene	ND		0.00100	1	05/29/2022 20:22	WG1871107
Toluene	ND		0.00100	1	05/29/2022 20:22	WG1871107
1,2,4-Trichlorobenzene	ND	R5	0.00100	1	05/29/2022 20:22	WG1871107
1,1,1-Trichloroethane	ND		0.00100	1	05/29/2022 20:22	WG1871107
1,1,2-Trichloroethane	ND		0.00100	1	05/29/2022 20:22	WG1871107
Trichloroethene	ND		0.00100	1	05/29/2022 20:22	WG1871107
Trichlorofluoromethane	ND		0.00500	1	05/29/2022 20:22	WG1871107
1,2,3-Trichloropropane	ND		0.00250	1	05/29/2022 20:22	WG1871107
1,2,4-Trimethylbenzene	ND		0.00100	1	05/29/2022 20:22	WG1871107
1,3,5-Trimethylbenzene	ND		0.00100	1	05/29/2022 20:22	WG1871107
Vinyl acetate	ND		0.0100	1	05/29/2022 20:22	WG1871107
Vinyl chloride	ND		0.00100	1	05/29/2022 20:22	WG1871107
Xylenes, Total	ND		0.00300	1	05/29/2022 20:22	WG1871107
Di-isopropyl ether	ND		0.00100	1	05/29/2022 20:22	WG1871107
Ethanol	ND		0.100	1	05/29/2022 20:22	WG1871107
Ethyl tert-butyl ether	ND		0.00100	1	05/29/2022 20:22	WG1871107
Methyl tert-butyl ether	0.0492		0.00100	1	05/29/2022 20:22	WG1871107
tert-Butyl alcohol	ND		0.00500	1	05/29/2022 20:22	WG1871107
tert-Amyl Methyl Ether	0.00125		0.00100	1	05/29/2022 20:22	WG1871107
(S) Toluene-d8	*102*		*80.0-120*		*05/29/2022 20:22*	WG1871107
(S) 4-Bromofluorobenzene	*89.9*		*77.0-126*		*05/29/2022 20:22*	WG1871107
(S) 1,2-Dichloroethane-d4	*86.8*		*70.0-130*		*05/29/2022 20:22*	WG1871107

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Dissolved Solids	791		13.3	1	05/30/2022 10:59	WG1871614

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Nitrate	ND		0.100	1	05/25/2022 20:40	WG1869454
Nitrite	ND		0.100	1	05/25/2022 20:40	WG1869454
Sulfate	293		25.0	5	05/25/2022 20:53	WG1869454

Metals (ICP) by Method 6010D

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Iron	ND		0.100	1	06/09/2022 01:54	WG1873006

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Methane	ND		0.0100	1	05/30/2022 15:05	WG1871510
Ethane	ND		0.0130	1	05/30/2022 15:05	WG1871510
Ethene	ND		0.0130	1	05/30/2022 15:05	WG1871510

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

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Acetone	ND		0.0500	1	05/29/2022 20:43	WG1871107
Acrylonitrile	ND		0.0100	1	05/29/2022 20:43	WG1871107
Benzene	ND		0.00100	1	05/29/2022 20:43	WG1871107
Bromobenzene	ND		0.00100	1	05/29/2022 20:43	WG1871107
Bromochloromethane	ND		0.00100	1	05/29/2022 20:43	WG1871107
Bromodichloromethane	ND		0.00100	1	05/29/2022 20:43	WG1871107
Bromoform	ND		0.00100	1	05/29/2022 20:43	WG1871107
Bromomethane	ND		0.00500	1	05/29/2022 20:43	WG1871107
n-Butylbenzene	ND		0.00100	1	05/29/2022 20:43	WG1871107
sec-Butylbenzene	ND		0.00100	1	05/29/2022 20:43	WG1871107
tert-Butylbenzene	ND		0.00100	1	05/29/2022 20:43	WG1871107
Carbon tetrachloride	ND		0.00100	1	05/29/2022 20:43	WG1871107
Carbon disulfide	ND		0.00100	1	05/29/2022 20:43	WG1871107
Chlorobenzene	ND		0.00100	1	05/29/2022 20:43	WG1871107
Chlorodibromomethane	ND		0.00100	1	05/29/2022 20:43	WG1871107
Chloroethane	ND		0.00500	1	05/29/2022 20:43	WG1871107
Chloroform	ND		0.00500	1	05/29/2022 20:43	WG1871107
Chloromethane	ND		0.00250	1	05/29/2022 20:43	WG1871107
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	05/29/2022 20:43	WG1871107
1,2-Dibromoethane	ND		0.00100	1	05/29/2022 20:43	WG1871107
Dibromomethane	ND		0.00100	1	05/29/2022 20:43	WG1871107
1,2-Dichlorobenzene	ND		0.00100	1	05/29/2022 20:43	WG1871107
1,3-Dichlorobenzene	ND		0.00100	1	05/29/2022 20:43	WG1871107
1,4-Dichlorobenzene	ND		0.00100	1	05/29/2022 20:43	WG1871107
trans-1,4-Dichloro-2-butene	ND		0.00250	1	05/29/2022 20:43	WG1871107
Dichlorodifluoromethane	ND		0.00500	1	05/29/2022 20:43	WG1871107
1,1-Dichloroethane	ND		0.00100	1	05/29/2022 20:43	WG1871107
1,2-Dichloroethane	ND		0.00100	1	05/29/2022 20:43	WG1871107
1,1-Dichloroethene	ND		0.00100	1	05/29/2022 20:43	WG1871107
cis-1,2-Dichloroethene	ND		0.00100	1	05/29/2022 20:43	WG1871107

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.00100	1	05/29/2022 20:43	WG1871107
1,2-Dichloropropane	ND		0.00100	1	05/29/2022 20:43	WG1871107
cis-1,3-Dichloropropene	ND		0.00100	1	05/29/2022 20:43	WG1871107
trans-1,3-Dichloropropene	ND		0.00100	1	05/29/2022 20:43	WG1871107
Ethylbenzene	ND		0.00100	1	05/29/2022 20:43	WG1871107
Hexachloro-1,3-butadiene	ND		0.00100	1	05/29/2022 20:43	WG1871107
2-Hexanone	ND		0.0100	1	05/29/2022 20:43	WG1871107
2-Butanone (MEK)	ND		0.0100	1	05/29/2022 20:43	WG1871107
Iodomethane	ND		0.0100	1	05/29/2022 20:43	WG1871107
Methylene Chloride	ND		0.00500	1	05/29/2022 20:43	WG1871107
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	05/29/2022 20:43	WG1871107
Naphthalene	ND	R5	0.00500	1	05/29/2022 20:43	WG1871107
n-Propylbenzene	ND		0.00100	1	05/29/2022 20:43	WG1871107
Styrene	ND		0.00100	1	05/29/2022 20:43	WG1871107
1,1,1,2-Tetrachloroethane	ND		0.00100	1	05/29/2022 20:43	WG1871107
1,1,2,2-Tetrachloroethane	ND		0.00100	1	05/29/2022 20:43	WG1871107
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	05/29/2022 20:43	WG1871107
Tetrachloroethene	ND		0.00100	1	05/29/2022 20:43	WG1871107
Toluene	ND		0.00100	1	05/29/2022 20:43	WG1871107
1,2,4-Trichlorobenzene	ND	R5	0.00100	1	05/29/2022 20:43	WG1871107
1,1,1-Trichloroethane	ND		0.00100	1	05/29/2022 20:43	WG1871107
1,1,2-Trichloroethane	ND		0.00100	1	05/29/2022 20:43	WG1871107
Trichloroethene	ND		0.00100	1	05/29/2022 20:43	WG1871107
Trichlorofluoromethane	ND		0.00500	1	05/29/2022 20:43	WG1871107
1,2,3-Trichloropropane	ND		0.00250	1	05/29/2022 20:43	WG1871107
1,2,4-Trimethylbenzene	ND		0.00100	1	05/29/2022 20:43	WG1871107
1,3,5-Trimethylbenzene	ND		0.00100	1	05/29/2022 20:43	WG1871107
Vinyl acetate	ND		0.0100	1	05/29/2022 20:43	WG1871107
Vinyl chloride	ND		0.00100	1	05/29/2022 20:43	WG1871107
Xylenes, Total	ND		0.00300	1	05/29/2022 20:43	WG1871107
Di-isopropyl ether	ND		0.00100	1	05/29/2022 20:43	WG1871107
Ethanol	ND		0.100	1	05/29/2022 20:43	WG1871107
Ethyl tert-butyl ether	ND		0.00100	1	05/29/2022 20:43	WG1871107
Methyl tert-butyl ether	68.1		2.00	2000	06/01/2022 17:57	WG1872590
tert-Butyl alcohol	33.5	E1	0.00500	1	05/29/2022 20:43	WG1871107
tert-Amyl Methyl Ether	10.7		0.200	200	05/31/2022 14:41	WG1872013
(S) Toluene-d8	*110*		*80.0-120*		*05/29/2022 20:43*	WG1871107
(S) Toluene-d8	*115*		*80.0-120*		*05/31/2022 14:41*	WG1872013
(S) Toluene-d8	*101*		*80.0-120*		*06/01/2022 17:57*	WG1872590
(S) 4-Bromofluorobenzene	*96.1*		*77.0-126*		*05/29/2022 20:43*	WG1871107
(S) 4-Bromofluorobenzene	*101*		*77.0-126*		*05/31/2022 14:41*	WG1872013
(S) 4-Bromofluorobenzene	*103*		*77.0-126*		*06/01/2022 17:57*	WG1872590
(S) 1,2-Dichloroethane-d4	*78.0*		*70.0-130*		*05/29/2022 20:43*	WG1871107
(S) 1,2-Dichloroethane-d4	*83.4*		*70.0-130*		*05/31/2022 14:41*	WG1872013
(S) 1,2-Dichloroethane-d4	*103*		*70.0-130*		*06/01/2022 17:57*	WG1872590

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	05/29/2022 13:56	WG1871107
Acrylonitrile	ND		0.0100	1	05/29/2022 13:56	WG1871107
Benzene	ND		0.00100	1	05/29/2022 13:56	WG1871107
Bromobenzene	ND		0.00100	1	05/29/2022 13:56	WG1871107
Bromochloromethane	ND		0.00100	1	05/29/2022 13:56	WG1871107
Bromodichloromethane	ND		0.00100	1	05/29/2022 13:56	WG1871107
Bromoform	ND		0.00100	1	05/29/2022 13:56	WG1871107
Bromomethane	ND		0.00500	1	05/29/2022 13:56	WG1871107
n-Butylbenzene	ND		0.00100	1	05/29/2022 13:56	WG1871107
sec-Butylbenzene	ND		0.00100	1	05/29/2022 13:56	WG1871107
tert-Butylbenzene	ND		0.00100	1	05/29/2022 13:56	WG1871107
Carbon tetrachloride	ND		0.00100	1	05/29/2022 13:56	WG1871107
Carbon disulfide	ND		0.00100	1	05/29/2022 13:56	WG1871107
Chlorobenzene	ND		0.00100	1	05/29/2022 13:56	WG1871107
Chlorodibromomethane	ND		0.00100	1	05/29/2022 13:56	WG1871107
Chloroethane	ND		0.00500	1	05/29/2022 13:56	WG1871107
Chloroform	ND		0.00500	1	05/29/2022 13:56	WG1871107
Chloromethane	ND		0.00250	1	05/29/2022 13:56	WG1871107
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	05/29/2022 13:56	WG1871107
1,2-Dibromoethane	ND		0.00100	1	05/29/2022 13:56	WG1871107
Dibromomethane	ND		0.00100	1	05/29/2022 13:56	WG1871107
1,2-Dichlorobenzene	ND		0.00100	1	05/29/2022 13:56	WG1871107
1,3-Dichlorobenzene	ND		0.00100	1	05/29/2022 13:56	WG1871107
1,4-Dichlorobenzene	ND		0.00100	1	05/29/2022 13:56	WG1871107
trans-1,4-Dichloro-2-butene	ND		0.00250	1	05/29/2022 13:56	WG1871107
Dichlorodifluoromethane	ND		0.00500	1	05/29/2022 13:56	WG1871107
1,1-Dichloroethane	ND		0.00100	1	05/29/2022 13:56	WG1871107
1,2-Dichloroethane	ND		0.00100	1	05/29/2022 13:56	WG1871107
1,1-Dichloroethene	ND		0.00100	1	05/29/2022 13:56	WG1871107
cis-1,2-Dichloroethene	ND		0.00100	1	05/29/2022 13:56	WG1871107
trans-1,2-Dichloroethene	ND		0.00100	1	05/29/2022 13:56	WG1871107
1,2-Dichloropropane	ND		0.00100	1	05/29/2022 13:56	WG1871107
cis-1,3-Dichloropropene	ND		0.00100	1	05/29/2022 13:56	WG1871107
trans-1,3-Dichloropropene	ND		0.00100	1	05/29/2022 13:56	WG1871107
Ethylbenzene	ND		0.00100	1	05/29/2022 13:56	WG1871107
Hexachloro-1,3-butadiene	ND		0.00100	1	05/29/2022 13:56	WG1871107
2-Hexanone	ND		0.0100	1	05/29/2022 13:56	WG1871107
2-Butanone (MEK)	ND		0.0100	1	05/29/2022 13:56	WG1871107
Iodomethane	ND		0.0100	1	05/29/2022 13:56	WG1871107
Methylene Chloride	ND		0.00500	1	05/29/2022 13:56	WG1871107
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	05/29/2022 13:56	WG1871107
Naphthalene	ND	R5	0.00500	1	05/29/2022 13:56	WG1871107
n-Propylbenzene	ND		0.00100	1	05/29/2022 13:56	WG1871107
Styrene	ND		0.00100	1	05/29/2022 13:56	WG1871107
1,1,1,2-Tetrachloroethane	ND		0.00100	1	05/29/2022 13:56	WG1871107
1,1,2,2-Tetrachloroethane	ND		0.00100	1	05/29/2022 13:56	WG1871107
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	05/29/2022 13:56	WG1871107
Tetrachloroethene	ND		0.00100	1	05/29/2022 13:56	WG1871107
Toluene	ND		0.00100	1	05/29/2022 13:56	WG1871107
1,2,4-Trichlorobenzene	ND	R5	0.00100	1	05/29/2022 13:56	WG1871107
1,1,1-Trichloroethane	ND		0.00100	1	05/29/2022 13:56	WG1871107
1,1,2-Trichloroethane	ND		0.00100	1	05/29/2022 13:56	WG1871107
Trichloroethene	ND		0.00100	1	05/29/2022 13:56	WG1871107
Trichlorofluoromethane	ND		0.00500	1	05/29/2022 13:56	WG1871107
1,2,3-Trichloropropane	ND		0.00250	1	05/29/2022 13:56	WG1871107
1,2,4-Trimethylbenzene	ND		0.00100	1	05/29/2022 13:56	WG1871107

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
1,3,5-Trimethylbenzene	ND		0.00100	1	05/29/2022 13:56	WG1871107
Vinyl acetate	ND		0.0100	1	05/29/2022 13:56	WG1871107
Vinyl chloride	ND		0.00100	1	05/29/2022 13:56	WG1871107
Xylenes, Total	ND		0.00300	1	05/29/2022 13:56	WG1871107
Di-isopropyl ether	ND		0.00100	1	05/29/2022 13:56	WG1871107
Ethanol	ND		0.100	1	05/29/2022 13:56	WG1871107
Ethyl tert-butyl ether	ND		0.00100	1	05/29/2022 13:56	WG1871107
Methyl tert-butyl ether	ND		0.00100	1	05/29/2022 13:56	WG1871107
tert-Butyl alcohol	ND		0.00500	1	05/29/2022 13:56	WG1871107
tert-Amyl Methyl Ether	ND		0.00100	1	05/29/2022 13:56	WG1871107
(S) Toluene-d8	*99.1*		*80.0-120*		*05/29/2022 13:56*	WG1871107
(S) 4-Bromofluorobenzene	*92.8*		*77.0-126*		*05/29/2022 13:56*	WG1871107
(S) 1,2-Dichloroethane-d4	*86.5*		*70.0-130*		*05/29/2022 13:56*	WG1871107

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	05/29/2022 12:51	WG1871107
Acrylonitrile	ND		0.0100	1	05/29/2022 12:51	WG1871107
Benzene	ND		0.00100	1	05/29/2022 12:51	WG1871107
Bromobenzene	ND		0.00100	1	05/29/2022 12:51	WG1871107
Bromochloromethane	ND		0.00100	1	05/29/2022 12:51	WG1871107
Bromodichloromethane	ND		0.00100	1	05/29/2022 12:51	WG1871107
Bromoform	ND		0.00100	1	05/29/2022 12:51	WG1871107
Bromomethane	ND		0.00500	1	05/29/2022 12:51	WG1871107
n-Butylbenzene	ND		0.00100	1	05/29/2022 12:51	WG1871107
sec-Butylbenzene	ND		0.00100	1	05/29/2022 12:51	WG1871107
tert-Butylbenzene	ND		0.00100	1	05/29/2022 12:51	WG1871107
Carbon tetrachloride	ND		0.00100	1	05/29/2022 12:51	WG1871107
Carbon disulfide	ND		0.00100	1	05/29/2022 12:51	WG1871107
Chlorobenzene	ND		0.00100	1	05/29/2022 12:51	WG1871107
Chlorodibromomethane	ND		0.00100	1	05/29/2022 12:51	WG1871107
Chloroethane	ND		0.00500	1	05/29/2022 12:51	WG1871107
Chloroform	ND		0.00500	1	05/29/2022 12:51	WG1871107
Chloromethane	ND		0.00250	1	05/29/2022 12:51	WG1871107
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	05/29/2022 12:51	WG1871107
1,2-Dibromoethane	ND		0.00100	1	05/29/2022 12:51	WG1871107
Dibromomethane	ND		0.00100	1	05/29/2022 12:51	WG1871107
1,2-Dichlorobenzene	ND		0.00100	1	05/29/2022 12:51	WG1871107
1,3-Dichlorobenzene	ND		0.00100	1	05/29/2022 12:51	WG1871107
1,4-Dichlorobenzene	ND		0.00100	1	05/29/2022 12:51	WG1871107
trans-1,4-Dichloro-2-butene	ND		0.00250	1	05/29/2022 12:51	WG1871107
Dichlorodifluoromethane	ND		0.00500	1	05/29/2022 12:51	WG1871107
1,1-Dichloroethane	ND		0.00100	1	05/29/2022 12:51	WG1871107
1,2-Dichloroethane	ND		0.00100	1	05/29/2022 12:51	WG1871107
1,1-Dichloroethene	ND		0.00100	1	05/29/2022 12:51	WG1871107
cis-1,2-Dichloroethene	ND		0.00100	1	05/29/2022 12:51	WG1871107
trans-1,2-Dichloroethene	ND		0.00100	1	05/29/2022 12:51	WG1871107
1,2-Dichloropropane	ND		0.00100	1	05/29/2022 12:51	WG1871107
cis-1,3-Dichloropropene	ND		0.00100	1	05/29/2022 12:51	WG1871107
trans-1,3-Dichloropropene	ND		0.00100	1	05/29/2022 12:51	WG1871107
Ethylbenzene	ND		0.00100	1	05/29/2022 12:51	WG1871107
Hexachloro-1,3-butadiene	ND		0.00100	1	05/29/2022 12:51	WG1871107
2-Hexanone	ND		0.0100	1	05/29/2022 12:51	WG1871107
2-Butanone (MEK)	ND		0.0100	1	05/29/2022 12:51	WG1871107
Iodomethane	ND		0.0100	1	05/29/2022 12:51	WG1871107
Methylene Chloride	ND		0.00500	1	05/29/2022 12:51	WG1871107
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	05/29/2022 12:51	WG1871107
Naphthalene	ND	R5	0.00500	1	05/29/2022 12:51	WG1871107
n-Propylbenzene	ND		0.00100	1	05/29/2022 12:51	WG1871107
Styrene	ND		0.00100	1	05/29/2022 12:51	WG1871107
1,1,1,2-Tetrachloroethane	ND		0.00100	1	05/29/2022 12:51	WG1871107
1,1,2,2-Tetrachloroethane	ND		0.00100	1	05/29/2022 12:51	WG1871107
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	05/29/2022 12:51	WG1871107
Tetrachloroethene	ND		0.00100	1	05/29/2022 12:51	WG1871107
Toluene	ND		0.00100	1	05/29/2022 12:51	WG1871107
1,2,4-Trichlorobenzene	ND	R5	0.00100	1	05/29/2022 12:51	WG1871107
1,1,1-Trichloroethane	ND		0.00100	1	05/29/2022 12:51	WG1871107
1,1,2-Trichloroethane	ND		0.00100	1	05/29/2022 12:51	WG1871107
Trichloroethene	ND		0.00100	1	05/29/2022 12:51	WG1871107
Trichlorofluoromethane	ND		0.00500	1	05/29/2022 12:51	WG1871107
1,2,3-Trichloropropane	ND		0.00250	1	05/29/2022 12:51	WG1871107
1,2,4-Trimethylbenzene	ND		0.00100	1	05/29/2022 12:51	WG1871107

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
1,3,5-Trimethylbenzene	ND		0.00100	1	05/29/2022 12:51	WG1871107
Vinyl acetate	ND		0.0100	1	05/29/2022 12:51	WG1871107
Vinyl chloride	ND		0.00100	1	05/29/2022 12:51	WG1871107
Xylenes, Total	ND		0.00300	1	05/29/2022 12:51	WG1871107
Di-isopropyl ether	ND		0.00100	1	05/29/2022 12:51	WG1871107
Ethanol	ND		0.100	1	05/29/2022 12:51	WG1871107
Ethyl tert-butyl ether	ND		0.00100	1	05/29/2022 12:51	WG1871107
Methyl tert-butyl ether	ND		0.00100	1	05/29/2022 12:51	WG1871107
tert-Butyl alcohol	ND		0.00500	1	05/29/2022 12:51	WG1871107
tert-Amyl Methyl Ether	ND		0.00100	1	05/29/2022 12:51	WG1871107
(S) Toluene-d8	*107*		*80.0-120*		*05/29/2022 12:51*	WG1871107
(S) 4-Bromofluorobenzene	*97.8*		*77.0-126*		*05/29/2022 12:51*	WG1871107
(S) 1,2-Dichloroethane-d4	*87.3*		*70.0-130*		*05/29/2022 12:51*	WG1871107

Method Blank (MB)

(MB) R3798551-1 05/30/22 10:59

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1497516-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1497516-04 05/30/22 10:59 • (DUP) R3798551-3 05/30/22 10:59

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	791	815	1	2.99		5

L1498875-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1498875-02 05/30/22 10:59 • (DUP) R3798551-4 05/30/22 10:59

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	887	889	1	0.300		5

Laboratory Control Sample (LCS)

(LCS) R3798551-2 05/30/22 10:59

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	2460	2630	107	81.7-118	

Method Blank (MB)

(MB) R3798530-1 05/30/22 13:25

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1497413-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1497413-01 05/30/22 13:25 • (DUP) R3798530-3 05/30/22 13:25

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	994	1040	1	4.91		5

L1497516-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1497516-01 05/30/22 13:25 • (DUP) R3798530-4 05/30/22 13:25

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	667	693	1	3.92		5

Laboratory Control Sample (LCS)

(LCS) R3798530-2 05/30/22 13:25

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	2460	2470	100	81.7-118	

Method Blank (MB)

(MB) R3796837-1 05/25/22 10:03

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate	U		0.0480	0.100
Nitrite	U		0.0420	0.100
Sulfate	U		0.594	5.00

L1497495-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1497495-03 05/25/22 16:36 • (DUP) R3796837-3 05/25/22 16:49

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	ND	ND	1	0.000		15
Nitrite	ND	ND	1	0.000		15
Sulfate	81.2	81.2	1	0.0720		15

L1497513-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1497513-01 05/25/22 21:05 • (DUP) R3796837-8 05/25/22 21:18

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	4.77	4.82	1	1.12		15
Nitrite	ND	ND	1	0.000		15
Sulfate	27.8	28.1	1	1.16		15

Laboratory Control Sample (LCS)

(LCS) R3796837-2 05/25/22 10:16

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate	8.00	8.12	101	80.0-120	
Nitrite	8.00	8.30	104	80.0-120	
Sulfate	40.0	41.2	103	80.0-120	

L1497495-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1497495-03 05/25/22 16:36 • (MS) R3796837-4 05/25/22 17:02 • (MSD) R3796837-5 05/25/22 17:15

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 %
Nitrate	5.00	ND	5.07	5.06	101	101	1	80.0-120			0.0533	15
Nitrite	5.00	ND	5.31	5.32	106	106	1	80.0-120			0.132	15
Sulfate	50.0	81.2	128	128	93.8	93.6	1	80.0-120	E1	E1	0.0840	15

L1497516-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1497516-02 05/25/22 18:57 • (MS) R3796837-6 05/25/22 19:23 • (MSD) R3796837-7 05/25/22 19:36

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 %
Nitrate	5.00	2.90	7.75	7.93	96.9	101	1	80.0-120			2.30	15
Nitrite	5.00	ND	5.25	5.38	105	108	1	80.0-120			2.44	15
Sulfate	50.0	214	253	255	77.0	80.4	1	80.0-120	E1 M3	E1	0.674	15

Method Blank (MB)

(MB) R3801078-1 06/09/22 00:45

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Iron	0.0682	E4	0.0180	0.100

Laboratory Control Sample (LCS)

(LCS) R3801078-2 06/09/22 00:48

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Iron	10.0	9.85	98.5	80.0-120	

L1497516-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1497516-02 06/09/22 00:51 • (MS) R3801078-4 06/09/22 00:56 • (MSD) R3801078-5 06/09/22 00:59

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 %
Iron	10.0	0.790	10.4	10.5	96.5	96.7	1	75.0-125			0.232	20

Method Blank (MB)

(MB) R3797457-2 05/30/22 14:08

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Methane	U		0.00291	0.0100
Ethane	U		0.00407	0.0130
Ethene	U		0.00426	0.0130

L1497495-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1497495-03 05/30/22 14:48 • (DUP) R3797457-3 05/30/22 14:51

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	0.0720	0.0770	1	6.71		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	200	R8	20

L1497903-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1497903-01 05/30/22 15:38 • (DUP) R3797457-4 05/30/22 15:41

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	ND	ND	1	0.000		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20

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

(LCS) R3797457-1 05/30/22 14:06 • (LCSD) R3797457-7 05/30/22 15:51

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Methane	0.0678	0.0656	0.0768	96.8	113	85.0-115			15.7	20
Ethane	0.129	0.116	0.130	89.9	101	85.0-115			11.4	20
Ethene	0.127	0.117	0.131	92.1	103	85.0-115			11.3	20

L1497516-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1497516-02 05/30/22 14:58 • (MS) R3797457-5 05/30/22 15:44 • (MSD) R3797457-6 05/30/22 15:47

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 %
Methane	0.0678	ND	0.0739	0.0748	109	110	1	50.0-150			1.21	20
Ethane	0.129	ND	0.128	0.129	99.2	100	1	50.0-150			0.778	20
Ethene	0.127	ND	0.129	0.130	102	102	1	50.0-150			0.772	20

Method Blank (MB)

(MB) R3797667-3 05/29/22 11:51

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Acrylonitrile	U		0.000671	0.0100
Benzene	0.000102	E4	0.0000941	0.00100
Bromobenzene	U		0.000118	0.00100
Bromochloromethane	U		0.000128	0.00100
Bromodichloromethane	U		0.000136	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 tetrachloride	U		0.000128	0.00100
Carbon disulfide	U		0.0000962	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
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
trans-1,4-Dichloro-2-butene	U		0.000467	0.00250
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
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
Hexachloro-1,3-butadiene	U		0.000337	0.00100
2-Hexanone	U		0.000787	0.0100
2-Butanone (MEK)	U		0.00119	0.0100
Iodomethane	U		0.00600	0.0100
Methylene Chloride	U		0.000430	0.00500

Method Blank (MB)

(MB) R3797667-3 05/29/22 11:51

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
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
1,1,2-Trichlorotrifluoroethane	U		0.000180	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	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
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl acetate	U		0.000692	0.0100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
Di-isopropyl ether	U		0.000105	0.00100
Ethanol	U		0.0420	0.100
Ethyl tert-butyl ether	U		0.000101	0.00100
Methyl tert-butyl ether	U		0.000101	0.00100
tert-Butyl alcohol	U		0.00406	0.00500
tert-Amyl Methyl Ether	U		0.000195	0.00100
(S) Toluene-d8	*102*			*80.0-120*
(S) 4-Bromofluorobenzene	*96.5*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*89.9*			*70.0-130*

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

(LCS) R3797667-1 05/29/22 10:14 • (LCSD) R3797667-2 05/29/22 10:36

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	0.0209	0.0193	83.6	77.2	19.0-160			7.96	27
Acrylonitrile	0.0250	0.0223	0.0199	89.2	79.6	55.0-149			11.4	20
Benzene	0.00500	0.00441	0.00464	88.2	92.8	70.0-123			5.08	20
Bromobenzene	0.00500	0.00465	0.00458	93.0	91.6	73.0-121			1.52	20

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

(LCS) R3797667-1 05/29/22 10:14 • (LCSD) R3797667-2 05/29/22 10:36

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromochloromethane	0.00500	0.00564	0.00534	113	107	76.0-122			5.46	20
Bromodichloromethane	0.00500	0.00434	0.00456	86.8	91.2	75.0-120			4.94	20
Bromoform	0.00500	0.00445	0.00462	89.0	92.4	68.0-132			3.75	20
Bromomethane	0.00500	0.00346	0.00304	69.2	60.8	10.0-160			12.9	25
n-Butylbenzene	0.00500	0.00434	0.00413	86.8	82.6	73.0-125			4.96	20
sec-Butylbenzene	0.00500	0.00484	0.00445	96.8	89.0	75.0-125			8.40	20
tert-Butylbenzene	0.00500	0.00485	0.00453	97.0	90.6	76.0-124			6.82	20
Carbon tetrachloride	0.00500	0.00446	0.00424	89.2	84.8	68.0-126			5.06	20
Carbon disulfide	0.00500	0.00519	0.00513	104	103	61.0-128			1.16	20
Chlorobenzene	0.00500	0.00461	0.00472	92.2	94.4	80.0-121			2.36	20
Chlorodibromomethane	0.00500	0.00468	0.00451	93.6	90.2	77.0-125			3.70	20
Chloroethane	0.00500	0.00535	0.00535	107	107	47.0-150			0.000	20
Chloroform	0.00500	0.00447	0.00468	89.4	93.6	73.0-120			4.59	20
Chloromethane	0.00500	0.00320	0.00355	64.0	71.0	41.0-142			10.4	20
1,2-Dibromo-3-Chloropropane	0.00500	0.00427	0.00476	85.4	95.2	58.0-134			10.9	20
1,2-Dibromoethane	0.00500	0.00486	0.00500	97.2	100	80.0-122			2.84	20
Dibromomethane	0.00500	0.00480	0.00431	96.0	86.2	80.0-120			10.8	20
1,2-Dichlorobenzene	0.00500	0.00480	0.00440	96.0	88.0	79.0-121			8.70	20
1,3-Dichlorobenzene	0.00500	0.00479	0.00452	95.8	90.4	79.0-120			5.80	20
1,4-Dichlorobenzene	0.00500	0.00424	0.00432	84.8	86.4	79.0-120			1.87	20
trans-1,4-Dichloro-2-butene	0.00500	0.00434	0.00426	86.8	85.2	33.0-144			1.86	20
Dichlorodifluoromethane	0.00500	0.00380	0.00376	76.0	75.2	51.0-149			1.06	20
1,1-Dichloroethane	0.00500	0.00422	0.00444	84.4	88.8	70.0-126			5.08	20
1,2-Dichloroethane	0.00500	0.00401	0.00422	80.2	84.4	70.0-128			5.10	20
1,1-Dichloroethene	0.00500	0.00509	0.00516	102	103	71.0-124			1.37	20
cis-1,2-Dichloroethene	0.00500	0.00474	0.00487	94.8	97.4	73.0-120			2.71	20
trans-1,2-Dichloroethene	0.00500	0.00488	0.00488	97.6	97.6	73.0-120			0.000	20
1,2-Dichloropropane	0.00500	0.00447	0.00492	89.4	98.4	77.0-125			9.58	20
cis-1,3-Dichloropropene	0.00500	0.00478	0.00464	95.6	92.8	80.0-123			2.97	20
trans-1,3-Dichloropropene	0.00500	0.00445	0.00465	89.0	93.0	78.0-124			4.40	20
Ethylbenzene	0.00500	0.00459	0.00450	91.8	90.0	79.0-123			1.98	20
Hexachloro-1,3-butadiene	0.00500	0.00360	0.00370	72.0	74.0	54.0-138			2.74	20
2-Hexanone	0.0250	0.0215	0.0216	86.0	86.4	67.0-149			0.464	20
2-Butanone (MEK)	0.0250	0.0216	0.0210	86.4	84.0	44.0-160			2.82	20
Iodomethane	0.0250	0.0163	0.0202	65.2	80.8	33.0-147			21.4	26
Methylene Chloride	0.00500	0.00449	0.00467	89.8	93.4	67.0-120			3.93	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.0231	0.0220	92.4	88.0	68.0-142			4.88	20
Naphthalene	0.00500	0.00319	0.00504	63.8	101	54.0-135		R7	45.0	20
n-Propylbenzene	0.00500	0.00452	0.00445	90.4	89.0	77.0-124			1.56	20
Styrene	0.00500	0.00439	0.00466	87.8	93.2	73.0-130			5.97	20

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

(LCS) R3797667-1 05/29/22 10:14 • (LCSD) R3797667-2 05/29/22 10:36

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,1,1,2-Tetrachloroethane	0.00500	0.00497	0.00477	99.4	95.4	75.0-125			4.11	20
1,1,2,2-Tetrachloroethane	0.00500	0.00463	0.00448	92.6	89.6	65.0-130			3.29	20
1,1,2-Trichlorotrifluoroethane	0.00500	0.00532	0.00551	106	110	69.0-132			3.51	20
Tetrachloroethene	0.00500	0.00491	0.00477	98.2	95.4	72.0-132			2.89	20
Toluene	0.00500	0.00489	0.00460	97.8	92.0	79.0-120			6.11	20
1,2,4-Trichlorobenzene	0.00500	0.00324	0.00410	64.8	82.0	57.0-137		R7	23.4	20
1,1,1-Trichloroethane	0.00500	0.00446	0.00445	89.2	89.0	73.0-124			0.224	20
1,1,2-Trichloroethane	0.00500	0.00464	0.00484	92.8	96.8	80.0-120			4.22	20
Trichloroethene	0.00500	0.00446	0.00479	89.2	95.8	78.0-124			7.14	20
Trichlorofluoromethane	0.00500	0.00411	0.00420	82.2	84.0	59.0-147			2.17	20
1,2,3-Trichloropropane	0.00500	0.00432	0.00462	86.4	92.4	73.0-130			6.71	20
1,2,4-Trimethylbenzene	0.00500	0.00461	0.00452	92.2	90.4	76.0-121			1.97	20
1,3,5-Trimethylbenzene	0.00500	0.00469	0.00446	93.8	89.2	76.0-122			5.03	20
Vinyl acetate	0.0250	0.0315	0.0301	126	120	11.0-160			4.55	20
Vinyl chloride	0.00500	0.00427	0.00455	85.4	91.0	67.0-131			6.35	20
Xylenes, Total	0.0150	0.0143	0.0142	95.3	94.7	79.0-123			0.702	20
Di-isopropyl ether	0.00500	0.00473	0.00475	94.6	95.0	58.0-138			0.422	20
ethanol	0.250	0.266	0.247	106	98.8	10.0-160			7.41	30
Ethyl tert-butyl ether	0.00500	0.00459	0.00474	91.8	94.8	63.0-138			3.22	20
Methyl tert-butyl ether	0.00500	0.00503	0.00482	101	96.4	68.0-125			4.26	20
tert-Butyl alcohol	0.0250	0.0220	0.0208	88.0	83.2	27.0-160			5.61	30
tert-Amyl Methyl Ether	0.00500	0.00477	0.00490	95.4	98.0	66.0-125			2.69	20
(S) Toluene-d8				*100*	*97.1*	*80.0-120*				
(S) 4-Bromofluorobenzene				*98.1*	*96.6*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*86.4*	*85.3*	*70.0-130*				

L1497133-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1497133-01 05/29/22 19:17 • (MS) R3797667-4 05/29/22 21:26 • (MSD) R3797667-5 05/29/22 21:47

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 %
Acetone	0.0250	ND	ND	ND	105	97.2	1	10.0-160			7.91	35
Acrylonitrile	0.0250	ND	0.0207	0.0222	82.8	88.8	1	21.0-160			6.99	32
Benzene	0.00500	ND	0.00459	0.00473	86.2	89.0	1	17.0-158			3.00	27
Bromobenzene	0.00500	ND	0.00399	0.00445	79.8	89.0	1	30.0-149			10.9	28
Bromochloromethane	0.00500	ND	0.00584	0.00622	117	124	1	38.0-142			6.30	26
Bromodichloromethane	0.00500	ND	0.00464	0.00489	92.8	97.8	1	31.0-150			5.25	27
Bromoform	0.00500	ND	0.00440	0.00464	88.0	92.8	1	29.0-150			5.31	29
Bromomethane	0.00500	ND	ND	ND	56.4	66.6	1	10.0-160			16.6	38

L1497133-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1497133-01 05/29/22 19:17 • (MS) R3797667-4 05/29/22 21:26 • (MSD) R3797667-5 05/29/22 21:47

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 %
n-Butylbenzene	0.00500	ND	0.00366	0.00397	55.5	61.7	1	31.0-150			8.13	30
sec-Butylbenzene	0.00500	ND	0.00412	0.00425	79.3	81.9	1	33.0-155			3.11	29
tert-Butylbenzene	0.00500	ND	0.00447	0.00457	89.4	91.4	1	34.0-153			2.21	28
Carbon tetrachloride	0.00500	ND	0.00458	0.00494	91.6	98.8	1	23.0-159			7.56	28
Carbon disulfide	0.00500	ND	0.00564	0.00522	113	104	1	10.0-156			7.73	28
Chlorobenzene	0.00500	ND	0.00453	0.00493	90.6	98.6	1	33.0-152			8.46	27
Chlorodibromomethane	0.00500	ND	0.00435	0.00491	87.0	98.2	1	37.0-149			12.1	27
Chloroethane	0.00500	ND	0.00536	0.00547	107	109	1	10.0-160			2.03	30
Chloroform	0.00500	ND	ND	ND	96.4	98.2	1	29.0-154			1.85	28
Chloromethane	0.00500	ND	0.00433	0.00440	86.6	88.0	1	10.0-160			1.60	29
1,2-Dibromo-3-Chloropropane	0.00500	ND	ND	ND	83.0	91.6	1	22.0-151			9.85	34
1,2-Dibromoethane	0.00500	ND	0.00477	0.00493	95.4	98.6	1	34.0-147			3.30	27
Dibromomethane	0.00500	ND	0.00461	0.00473	92.2	94.6	1	30.0-151			2.57	27
1,2-Dichlorobenzene	0.00500	ND	0.00398	0.00459	79.6	91.8	1	34.0-149			14.2	28
1,3-Dichlorobenzene	0.00500	ND	0.00402	0.00462	80.4	92.4	1	36.0-146			13.9	27
1,4-Dichlorobenzene	0.00500	ND	0.00417	0.00444	83.4	88.8	1	35.0-142			6.27	27
trans-1,4-Dichloro-2-butene	0.00500	ND	0.00355	0.00349	71.0	69.8	1	10.0-157			1.70	37
Dichlorodifluoromethane	0.00500	ND	ND	ND	73.4	82.8	1	10.0-160			12.0	29
1,1-Dichloroethane	0.00500	ND	0.00430	0.00464	86.0	92.8	1	25.0-158			7.61	27
1,2-Dichloroethane	0.00500	ND	0.00422	0.00431	84.4	86.2	1	29.0-151			2.11	27
1,1-Dichloroethene	0.00500	ND	0.00619	0.00564	124	113	1	11.0-160			9.30	29
cis-1,2-Dichloroethene	0.00500	ND	0.00520	0.00545	104	109	1	10.0-160			4.69	27
trans-1,2-Dichloroethene	0.00500	ND	0.00549	0.00516	110	103	1	17.0-153			6.20	27
1,2-Dichloropropane	0.00500	ND	0.00479	0.00495	95.8	99.0	1	30.0-156			3.29	27
cis-1,3-Dichloropropene	0.00500	ND	0.00445	0.00483	89.0	96.6	1	34.0-149			8.19	28
trans-1,3-Dichloropropene	0.00500	ND	0.00424	0.00452	84.8	90.4	1	32.0-149			6.39	28
Ethylbenzene	0.00500	ND	0.00422	0.00464	80.7	89.1	1	30.0-155			9.48	27
Hexachloro-1,3-butadiene	0.00500	ND	0.00280	0.00390	56.0	78.0	1	20.0-154			32.8	34
2-Hexanone	0.0250	ND	0.0235	0.0251	68.6	75.0	1	21.0-160			6.58	29
2-Butanone (MEK)	0.0250	ND	0.0196	0.0197	78.4	78.8	1	10.0-160			0.509	32
Iodomethane	0.0250	ND	0.0162	0.0190	64.8	76.0	1	10.0-160			15.9	40
Methylene Chloride	0.00500	ND	0.00563	0.00515	113	103	1	23.0-144			8.91	28
4-Methyl-2-pentanone (MIBK)	0.0250	ND	0.0206	0.0219	82.4	87.6	1	29.0-160			6.12	29
Naphthalene	0.00500	0.0638	ND	ND	0.000	0.000	1	12.0-156	M3	M3 R5	44.8	35
n-Propylbenzene	0.00500	ND	0.00397	0.00435	68.8	76.4	1	31.0-154			9.13	28
Styrene	0.00500	ND	0.00415	0.00456	83.0	91.2	1	33.0-155			9.41	28
1,1,1,2-Tetrachloroethane	0.00500	ND	0.00504	0.00522	101	104	1	36.0-151			3.51	29
1,1,2,2-Tetrachloroethane	0.00500	ND	0.00399	0.00432	79.8	86.4	1	33.0-150			7.94	28
1,1,2-Trichlorotrifluoroethane	0.00500	ND	0.00553	0.00578	111	116	1	23.0-160			4.42	30
Tetrachloroethene	0.00500	ND	0.00423	0.00494	84.6	98.8	1	10.0-160			15.5	27

L1497133-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1497133-01 05/29/22 19:17 • (MS) R3797667-4 05/29/22 21:26 • (MSD) R3797667-5 05/29/22 21:47

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 %
Toluene	0.00500	ND	0.00470	0.00500	94.0	100	1	26.0-154			6.19	28
1,2,4-Trichlorobenzene	0.00500	ND	0.00277	0.00402	55.4	80.4	1	24.0-150		R5	36.8	33
1,1,1-Trichloroethane	0.00500	ND	0.00463	0.00492	92.6	98.4	1	23.0-160			6.07	28
1,1,2-Trichloroethane	0.00500	ND	0.00465	0.00482	93.0	96.4	1	35.0-147			3.59	27
Trichloroethene	0.00500	ND	0.00477	0.00504	95.4	101	1	10.0-160			5.50	25
Trichlorofluoromethane	0.00500	ND	ND	ND	81.6	93.0	1	17.0-160			13.1	31
1,2,3-Trichloropropane	0.00500	ND	0.00418	0.00439	83.6	87.8	1	34.0-151			4.90	29
1,2,4-Trimethylbenzene	0.00500	0.00186	0.00410	0.00431	44.8	49.0	1	26.0-154			4.99	27
1,3,5-Trimethylbenzene	0.00500	ND	0.00413	0.00435	73.4	77.8	1	28.0-153			5.19	27
Vinyl acetate	0.0250	ND	0.0286	0.0296	114	118	1	12.0-160			3.44	31
Vinyl chloride	0.00500	ND	0.00426	0.00459	85.2	91.8	1	10.0-160			7.46	27
Xylenes, Total	0.0150	ND	0.0138	0.0144	89.8	93.8	1	29.0-154			4.26	28
Di-isopropyl ether	0.00500	ND	0.00421	0.00477	84.2	95.4	1	21.0-160			12.5	28
ethanol	0.250	ND	0.252	0.278	101	111	1	50.0-150			9.81	20
Ethyl tert-butyl ether	0.00500	ND	0.00433	0.00467	86.6	93.4	1	10.0-160			7.56	37
Methyl tert-butyl ether	0.00500	ND	0.00593	0.00561	119	112	1	28.0-150			5.55	29
tert-Butyl alcohol	0.0250	ND	0.0261	0.0247	104	98.8	1	50.0-150			5.51	20
tert-Amyl Methyl Ether	0.00500	ND	0.00484	0.00501	96.8	100	1	10.0-160			3.45	37
(S) Toluene-d8					*99.6*	*100*		*80.0-120*				
(S) 4-Bromofluorobenzene					*100*	*98.7*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*90.6*	*91.0*		*70.0-130*				

L1497133-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1497133-02 05/29/22 19:39 • (MS) R3797667-6 05/29/22 22:09 • (MSD) R3797667-7 05/29/22 22:30

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 %
Acetone	0.0250	ND	ND	ND	82.0	86.0	1	10.0-160			2.66	35
Acrylonitrile	0.0250	ND	0.0230	0.0244	92.0	97.6	1	21.0-160			5.91	32
Benzene	0.00500	ND	0.00528	0.00561	106	112	1	17.0-158			6.06	27
Bromobenzene	0.00500	ND	0.00476	0.00517	95.2	103	1	30.0-149			8.26	28
Bromochloromethane	0.00500	ND	0.00642	0.00703	128	141	1	38.0-142			9.07	26
Bromodichloromethane	0.00500	ND	0.00511	0.00550	102	110	1	31.0-150			7.35	27
Bromoform	0.00500	ND	0.00492	0.00535	98.4	107	1	29.0-150			8.37	29
Bromomethane	0.00500	ND	ND	ND	67.6	68.8	1	10.0-160			1.76	38
n-Butylbenzene	0.00500	ND	0.00430	0.00465	86.0	93.0	1	31.0-150			7.82	30
sec-Butylbenzene	0.00500	ND	0.00440	0.00492	88.0	98.4	1	33.0-155			11.2	29
tert-Butylbenzene	0.00500	ND	0.00467	0.00521	93.4	104	1	34.0-153			10.9	28
Carbon tetrachloride	0.00500	ND	0.00554	0.00563	111	113	1	23.0-159			1.61	28

L1497133-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1497133-02 05/29/22 19:39 • (MS) R3797667-6 05/29/22 22:09 • (MSD) R3797667-7 05/29/22 22:30

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 %
Carbon disulfide	0.00500	ND	0.00566	0.00600	113	120	1	10.0-156			5.83	28
Chlorobenzene	0.00500	ND	0.00521	0.00553	104	111	1	33.0-152			5.96	27
Chlorodibromomethane	0.00500	ND	0.00521	0.00570	104	114	1	37.0-149			8.98	27
Chloroethane	0.00500	ND	0.00631	0.00675	126	135	1	10.0-160			6.74	30
Chloroform	0.00500	ND	0.00530	0.00584	106	117	1	29.0-154			9.69	28
Chloromethane	0.00500	ND	0.00444	0.00480	88.8	96.0	1	10.0-160			7.79	29
1,2-Dibromo-3-Chloropropane	0.00500	ND	0.00542	0.00596	108	119	1	22.0-151			9.49	34
1,2-Dibromoethane	0.00500	ND	0.00534	0.00602	107	120	1	34.0-147			12.0	27
Dibromomethane	0.00500	ND	0.00481	0.00543	96.2	109	1	30.0-151			12.1	27
1,2-Dichlorobenzene	0.00500	ND	0.00459	0.00498	91.8	99.6	1	34.0-149			8.15	28
1,3-Dichlorobenzene	0.00500	ND	0.00461	0.00539	92.2	108	1	36.0-146			15.6	27
1,4-Dichlorobenzene	0.00500	ND	0.00477	0.00535	95.4	107	1	35.0-142			11.5	27
trans-1,4-Dichloro-2-butene	0.00500	ND	0.00436	0.00506	87.2	101	1	10.0-157			14.9	37
Dichlorodifluoromethane	0.00500	ND	ND	ND	88.6	94.0	1	10.0-160			5.91	29
1,1-Dichloroethane	0.00500	ND	0.00512	0.00530	102	106	1	25.0-158			3.45	27
1,2-Dichloroethane	0.00500	ND	0.00462	0.00498	92.4	99.6	1	29.0-151			7.50	27
1,1-Dichloroethene	0.00500	ND	0.00562	0.00631	112	126	1	11.0-160			11.6	29
cis-1,2-Dichloroethene	0.00500	ND	0.00564	0.00598	113	120	1	10.0-160			5.85	27
trans-1,2-Dichloroethene	0.00500	ND	0.00536	0.00613	107	123	1	17.0-153			13.4	27
1,2-Dichloropropane	0.00500	ND	0.00500	0.00562	100	112	1	30.0-156			11.7	27
cis-1,3-Dichloropropene	0.00500	ND	0.00522	0.00551	104	110	1	34.0-149			5.41	28
trans-1,3-Dichloropropene	0.00500	ND	0.00499	0.00536	99.8	107	1	32.0-149			7.15	28
Ethylbenzene	0.00500	ND	0.00488	0.00507	97.6	101	1	30.0-155			3.82	27
Hexachloro-1,3-butadiene	0.00500	ND	0.00416	0.00498	83.2	99.6	1	20.0-154			17.9	34
2-Hexanone	0.0250	0.0176	0.0392	0.0405	86.4	91.6	1	21.0-160			3.26	29
2-Butanone (MEK)	0.0250	ND	0.0234	0.0251	93.6	100	1	10.0-160			7.01	32
Iodomethane	0.0250	ND	0.0211	0.0234	84.4	93.6	1	10.0-160			10.3	40
Methylene Chloride	0.00500	ND	0.00592	0.00562	118	112	1	23.0-144			5.20	28
4-Methyl-2-pentanone (MIBK)	0.0250	ND	0.0244	0.0270	97.6	108	1	29.0-160			10.1	29
Naphthalene	0.00500	0.0119	0.00570	0.00601	0.000	0.000	1	12.0-156	M2	M2	5.29	35
n-Propylbenzene	0.00500	ND	0.00449	0.00489	89.8	97.8	1	31.0-154			8.53	28
Styrene	0.00500	ND	0.00462	0.00495	92.4	99.0	1	33.0-155			6.90	28
1,1,1,2-Tetrachloroethane	0.00500	ND	0.00534	0.00589	107	118	1	36.0-151			9.80	29
1,1,2,2-Tetrachloroethane	0.00500	ND	0.00511	0.00527	102	105	1	33.0-150			3.08	28
1,1,2-Trichlorotrifluoroethane	0.00500	ND	0.00580	0.00653	116	131	1	23.0-160			11.8	30
Tetrachloroethene	0.00500	ND	0.00517	0.00565	103	113	1	10.0-160			8.87	27
Toluene	0.00500	ND	0.00560	0.00605	106	115	1	26.0-154			7.73	28
1,2,4-Trichlorobenzene	0.00500	ND	0.00426	0.00488	85.2	97.6	1	24.0-150			13.6	33
1,1,1-Trichloroethane	0.00500	ND	0.00522	0.00551	104	110	1	23.0-160			5.41	28
1,1,2-Trichloroethane	0.00500	ND	0.00530	0.00576	106	115	1	35.0-147			8.32	27

L1497133-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1497133-02 05/29/22 19:39 • (MS) R3797667-6 05/29/22 22:09 • (MSD) R3797667-7 05/29/22 22:30

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 %
Trichloroethene	0.00500	ND	0.00574	0.00602	115	120	1	10.0-160			4.76	25
Trichlorofluoromethane	0.00500	ND	ND	0.00551	94.6	110	1	17.0-160			15.2	31
1,2,3-Trichloropropane	0.00500	ND	0.00490	0.00593	98.0	119	1	34.0-151			19.0	29
1,2,4-Trimethylbenzene	0.00500	ND	0.00464	0.00510	92.8	102	1	26.0-154			9.45	27
1,3,5-Trimethylbenzene	0.00500	ND	0.00451	0.00521	90.2	104	1	28.0-153			14.4	27
Vinyl acetate	0.0250	ND	0.0342	0.0347	137	139	1	12.0-160			1.45	31
Vinyl chloride	0.00500	ND	0.00482	0.00528	96.4	106	1	10.0-160			9.11	27
Xylenes, Total	0.0150	ND	0.0151	0.0160	101	107	1	29.0-154			5.79	28
Di-isopropyl ether	0.00500	ND	0.00510	0.00521	102	104	1	21.0-160			2.13	28
ethanol	0.250	ND	0.274	0.317	110	127	1	50.0-150			14.6	20
Ethyl tert-butyl ether	0.00500	ND	0.00500	0.00540	100	108	1	10.0-160			7.69	37
Methyl tert-butyl ether	0.00500	ND	0.00573	0.00599	115	120	1	28.0-150			4.44	29
tert-Butyl alcohol	0.0250	ND	0.0309	0.0269	124	108	1	50.0-150			13.8	20
tert-Amyl Methyl Ether	0.00500	ND	0.00530	0.00583	106	117	1	10.0-160			9.52	37
(S) Toluene-d8					*102*	*99.4*		*80.0-120*				
(S) 4-Bromofluorobenzene					*98.9*	*99.1*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*90.9*	*88.5*		*70.0-130*				

L1497133-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1497133-03 05/29/22 20:00 • (MS) R3797667-8 05/29/22 22:52 • (MSD) R3797667-9 05/29/22 23:13

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 %
Acetone	0.0250	ND	ND	ND	114	126	1	10.0-160			10.0	35
Acrylonitrile	0.0250	ND	0.0228	0.0282	91.2	113	1	21.0-160			21.2	32
Benzene	0.00500	ND	0.00509	0.00601	94.6	113	1	17.0-158			16.6	27
Bromobenzene	0.00500	ND	0.00419	0.00552	83.8	110	1	30.0-149			27.4	28
Bromochloromethane	0.00500	ND	0.00613	0.00698	123	140	1	38.0-142			13.0	26
Bromodichloromethane	0.00500	ND	0.00482	0.00550	96.4	110	1	31.0-150			13.2	27
Bromoform	0.00500	ND	0.00470	0.00570	94.0	114	1	29.0-150			19.2	29
Bromomethane	0.00500	ND	ND	ND	59.4	72.8	1	10.0-160			20.3	38
n-Butylbenzene	0.00500	ND	0.00366	0.00472	73.2	94.4	1	31.0-150			25.3	30
sec-Butylbenzene	0.00500	ND	0.00459	0.00581	82.5	107	1	33.0-155			23.5	29
tert-Butylbenzene	0.00500	ND	0.00442	0.00577	88.4	115	1	34.0-153			26.5	28
Carbon tetrachloride	0.00500	ND	0.00479	0.00586	95.8	117	1	23.0-159			20.1	28
Carbon disulfide	0.00500	ND	0.00528	0.00645	106	129	1	10.0-156			19.9	28
Chlorobenzene	0.00500	ND	0.00505	0.00596	101	119	1	33.0-152			16.5	27
Chlorodibromomethane	0.00500	ND	0.00508	0.00593	102	119	1	37.0-149			15.4	27
Chloroethane	0.00500	ND	ND	0.00607	98.6	121	1	10.0-160			20.7	30

L1497133-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1497133-03 05/29/22 20:00 • (MS) R3797667-8 05/29/22 22:52 • (MSD) R3797667-9 05/29/22 23:13

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 %
Chloroform	0.00500	ND	0.00519	0.00620	104	124	1	29.0-154			17.7	28
Chloromethane	0.00500	ND	0.00436	0.00474	87.2	94.8	1	10.0-160			8.35	29
1,2-Dibromo-3-Chloropropane	0.00500	ND	0.00516	0.00629	103	126	1	22.0-151			19.7	34
1,2-Dibromoethane	0.00500	ND	0.00548	0.00632	110	126	1	34.0-147			14.2	27
Dibromomethane	0.00500	ND	0.00516	0.00596	103	119	1	30.0-151			14.4	27
1,2-Dichlorobenzene	0.00500	ND	0.00448	0.00548	89.6	110	1	34.0-149			20.1	28
1,3-Dichlorobenzene	0.00500	ND	0.00421	0.00535	84.2	107	1	36.0-146			23.8	27
1,4-Dichlorobenzene	0.00500	ND	0.00393	0.00567	78.6	113	1	35.0-142		R5	36.2	27
trans-1,4-Dichloro-2-butene	0.00500	ND	0.00374	0.00486	52.2	74.6	1	10.0-157			26.0	37
Dichlorodifluoromethane	0.00500	ND	ND	ND	71.6	92.8	1	10.0-160			25.8	29
1,1-Dichloroethane	0.00500	ND	0.00470	0.00556	94.0	111	1	25.0-158			16.8	27
1,2-Dichloroethane	0.00500	0.00904	0.0137	0.0140	93.2	99.2	1	29.0-151			2.17	27
1,1-Dichloroethene	0.00500	ND	0.00598	0.00746	120	149	1	11.0-160			22.0	29
cis-1,2-Dichloroethene	0.00500	ND	0.00509	0.00602	102	120	1	10.0-160			16.7	27
trans-1,2-Dichloroethene	0.00500	ND	0.00500	0.00581	100	116	1	17.0-153			15.0	27
1,2-Dichloropropane	0.00500	ND	0.00516	0.00602	103	120	1	30.0-156			15.4	27
cis-1,3-Dichloropropene	0.00500	ND	0.00454	0.00582	90.8	116	1	34.0-149			24.7	28
trans-1,3-Dichloropropene	0.00500	ND	0.00483	0.00576	96.6	115	1	32.0-149			17.6	28
Ethylbenzene	0.00500	ND	0.00458	0.00586	91.6	117	1	30.0-155			24.5	27
Hexachloro-1,3-butadiene	0.00500	ND	0.00378	0.00482	75.6	96.4	1	20.0-154			24.2	34
2-Hexanone	0.0250	ND	0.0285	0.0331	84.1	102	1	21.0-160			14.9	29
2-Butanone (MEK)	0.0250	ND	0.0253	0.0279	101	112	1	10.0-160			9.77	32
Iodomethane	0.0250	ND	0.0208	0.0245	83.2	98.0	1	10.0-160			16.3	40
Methylene Chloride	0.00500	ND	0.00518	0.00573	104	115	1	23.0-144			10.1	28
4-Methyl-2-pentanone (MIBK)	0.0250	ND	0.0233	0.0296	93.2	118	1	29.0-160			23.8	29
Naphthalene	0.00500	ND	0.00579	0.00679	52.8	72.8	1	12.0-156			15.9	35
n-Propylbenzene	0.00500	ND	0.00398	0.00524	79.6	105	1	31.0-154			27.3	28
Styrene	0.00500	ND	0.00449	0.00563	89.8	113	1	33.0-155			22.5	28
1,1,1,2-Tetrachloroethane	0.00500	ND	0.00525	0.00663	105	133	1	36.0-151			23.2	29
1,1,2,2-Tetrachloroethane	0.00500	ND	0.00502	0.00637	100	127	1	33.0-150			23.7	28
1,1,2-Trichlorotrifluoroethane	0.00500	ND	0.00519	0.00751	104	150	1	23.0-160		R5	36.5	30
Tetrachloroethene	0.00500	ND	0.00440	0.00562	88.0	112	1	10.0-160			24.4	27
Toluene	0.00500	ND	0.00509	0.00627	102	125	1	26.0-154			20.8	28
1,2,4-Trichlorobenzene	0.00500	ND	0.00403	0.00474	80.6	94.8	1	24.0-150			16.2	33
1,1,1-Trichloroethane	0.00500	ND	0.00481	0.00583	96.2	117	1	23.0-160			19.2	28
1,1,2-Trichloroethane	0.00500	ND	0.00496	0.00633	99.2	127	1	35.0-147			24.3	27
Trichloroethene	0.00500	ND	0.00511	0.00583	102	117	1	10.0-160			13.2	25
Trichlorofluoromethane	0.00500	ND	ND	0.00510	78.4	102	1	17.0-160			26.2	31
1,2,3-Trichloropropane	0.00500	ND	0.00490	0.00650	98.0	130	1	34.0-151			28.1	29
1,2,4-Trimethylbenzene	0.00500	0.00110	0.00527	0.00667	83.4	111	1	26.0-154			23.5	27

L1497133-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1497133-03 05/29/22 20:00 • (MS) R3797667-8 05/29/22 22:52 • (MSD) R3797667-9 05/29/22 23:13

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 %
1,3,5-Trimethylbenzene	0.00500	ND	0.00493	0.00630	80.9	108	1	28.0-153			24.4	27
Vinyl acetate	0.0250	ND	0.0303	0.0362	121	145	1	12.0-160			17.7	31
Vinyl chloride	0.00500	ND	0.00467	0.00518	93.4	104	1	10.0-160			10.4	27
Xylenes, Total	0.0150	ND	0.0139	0.0179	92.7	119	1	29.0-154			25.2	28
Di-isopropyl ether	0.00500	ND	0.00585	0.00688	117	138	1	21.0-160			16.2	28
ethanol	0.250	ND	0.300	0.355	120	142	1	50.0-150			16.8	20
Ethyl tert-butyl ether	0.00500	ND	0.00466	0.00561	93.2	112	1	10.0-160			18.5	37
Methyl tert-butyl ether	0.00500	0.678	0.643	0.650	0.000	0.000	1	28.0-150	E1 M3	E1 M3	1.08	29
tert-Butyl alcohol	0.0250	ND	0.119	0.122	476	488	1	50.0-150	M1	M1	2.49	20
tert-Amyl Methyl Ether	0.00500	0.00158	0.00690	0.00807	106	130	1	10.0-160			15.6	37
(S) Toluene-d8					*99.9*	*103*		*80.0-120*				
(S) 4-Bromofluorobenzene					*102*	*98.1*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*94.7*	*94.6*		*70.0-130*				

Method Blank (MB)

(MB) R3798092-3 05/31/22 11:07

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
tert-Amyl Methyl Ether	U		0.000195	0.00100
(S) Toluene-d8	*115*			*80.0-120*
(S) 4-Bromofluorobenzene	*99.7*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*86.6*			*70.0-130*

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

(LCS) R3798092-1 05/31/22 10:09 • (LCSD) R3798092-2 05/31/22 10:28

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
tert-Amyl Methyl Ether	0.00500	0.00514	0.00507	103	101	66.0-125			1.37	20
(S) Toluene-d8				*113*	*114*	*80.0-120*				
(S) 4-Bromofluorobenzene				*102*	*101*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*87.1*	*86.9*	*70.0-130*				

Method Blank (MB)

(MB) R3798317-3 05/31/22 23:18

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Acrylonitrile	U		0.000671	0.0100
Benzene	U		0.0000941	0.00100
Bromobenzene	U		0.000118	0.00100
Bromochloromethane	U		0.000128	0.00100
Bromodichloromethane	U		0.000136	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 tetrachloride	U		0.000128	0.00100
Carbon disulfide	U		0.0000962	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
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
trans-1,4-Dichloro-2-butene	U		0.000467	0.00250
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	0.000516	E4	0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
Hexachloro-1,3-butadiene	U		0.000337	0.00100
2-Hexanone	U		0.000787	0.0100
2-Butanone (MEK)	U		0.00119	0.0100
Iodomethane	U		0.00600	0.0100
Methylene Chloride	0.00218	E4	0.000430	0.00500

Method Blank (MB)

(MB) R3798317-3 05/31/22 23:18

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
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
1,1,2-Trichlorotrifluoroethane	U		0.000180	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	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
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl acetate	U		0.000692	0.0100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
Di-isopropyl ether	U		0.000105	0.00100
Ethanol	U		0.0420	0.100
Ethyl tert-butyl ether	U		0.000101	0.00100
Methyl tert-butyl ether	U		0.000101	0.00100
tert-Butyl alcohol	U		0.00406	0.00500
tert-Amyl Methyl Ether	U		0.000195	0.00100
(S) Toluene-d8	*106*			*80.0-120*
(S) 4-Bromofluorobenzene	*105*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*

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

(LCS) R3798317-1 05/31/22 22:03 • (LCSD) R3798317-2 05/31/22 22:35

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	0.0181	0.0183	72.4	73.2	19.0-160			1.10	27
Acrylonitrile	0.0250	0.0201	0.0192	80.4	76.8	55.0-149			4.58	20
Benzene	0.00500	0.00506	0.00511	101	102	70.0-123			0.983	20
Bromobenzene	0.00500	0.00491	0.00489	98.2	97.8	73.0-121			0.408	20

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

(LCS) R3798317-1 05/31/22 22:03 • (LCSD) R3798317-2 05/31/22 22:35

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromochloromethane	0.00500	0.00541	0.00531	108	106	76.0-122			1.87	20
Bromodichloromethane	0.00500	0.00454	0.00448	90.8	89.6	75.0-120			1.33	20
Bromoform	0.00500	0.00350	0.00355	70.0	71.0	68.0-132			1.42	20
Bromomethane	0.00500	0.00517	0.00525	103	105	10.0-160			1.54	25
n-Butylbenzene	0.00500	0.00513	0.00522	103	104	73.0-125			1.74	20
sec-Butylbenzene	0.00500	0.00497	0.00488	99.4	97.6	75.0-125			1.83	20
tert-Butylbenzene	0.00500	0.00479	0.00482	95.8	96.4	76.0-124			0.624	20
Carbon tetrachloride	0.00500	0.00430	0.00413	86.0	82.6	68.0-126			4.03	20
Carbon disulfide	0.00500	0.00485	0.00494	97.0	98.8	61.0-128			1.84	20
Chlorobenzene	0.00500	0.00490	0.00493	98.0	98.6	80.0-121			0.610	20
Chlorodibromomethane	0.00500	0.00399	0.00403	79.8	80.6	77.0-125			0.998	20
Chloroethane	0.00500	0.00459	0.00417	91.8	83.4	47.0-150			9.59	20
Chloroform	0.00500	0.00513	0.00514	103	103	73.0-120			0.195	20
Chloromethane	0.00500	0.00813	0.00851	163	170	41.0-142	L1	L1	4.57	20
1,2-Dibromo-3-Chloropropane	0.00500	0.00299	0.00304	59.8	60.8	58.0-134			1.66	20
1,2-Dibromoethane	0.00500	0.00470	0.00501	94.0	100	80.0-122			6.39	20
Dibromomethane	0.00500	0.00476	0.00466	95.2	93.2	80.0-120			2.12	20
1,2-Dichlorobenzene	0.00500	0.00523	0.00512	105	102	79.0-121			2.13	20
1,3-Dichlorobenzene	0.00500	0.00532	0.00523	106	105	79.0-120			1.71	20
1,4-Dichlorobenzene	0.00500	0.00533	0.00475	107	95.0	79.0-120			11.5	20
trans-1,4-Dichloro-2-butene	0.00500	0.00358	0.00355	71.6	71.0	33.0-144			0.842	20
Dichlorodifluoromethane	0.00500	0.00407	0.00417	81.4	83.4	51.0-149			2.43	20
1,1-Dichloroethane	0.00500	0.00461	0.00456	92.2	91.2	70.0-126			1.09	20
1,2-Dichloroethane	0.00500	0.00466	0.00468	93.2	93.6	70.0-128			0.428	20
1,1-Dichloroethene	0.00500	0.00477	0.00476	95.4	95.2	71.0-124			0.210	20
cis-1,2-Dichloroethene	0.00500	0.00585	0.00640	117	128	73.0-120		L1	8.98	20
trans-1,2-Dichloroethene	0.00500	0.00436	0.00471	87.2	94.2	73.0-120			7.72	20
1,2-Dichloropropane	0.00500	0.00465	0.00452	93.0	90.4	77.0-125			2.84	20
cis-1,3-Dichloropropene	0.00500	0.00475	0.00474	95.0	94.8	80.0-123			0.211	20
trans-1,3-Dichloropropene	0.00500	0.00448	0.00451	89.6	90.2	78.0-124			0.667	20
Ethylbenzene	0.00500	0.00494	0.00496	98.8	99.2	79.0-123			0.404	20
Hexachloro-1,3-butadiene	0.00500	0.00459	0.00458	91.8	91.6	54.0-138			0.218	20
2-Hexanone	0.0250	0.0216	0.0217	86.4	86.8	67.0-149			0.462	20
2-Butanone (MEK)	0.0250	0.0177	0.0174	70.8	69.6	44.0-160			1.71	20
Iodomethane	0.0250	0.0251	0.0242	100	96.8	33.0-147			3.65	26
Methylene Chloride	0.00500	0.00794	0.0110	159	220	67.0-120	L1	L1 R7	32.3	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.0225	0.0233	90.0	93.2	68.0-142			3.49	20
Naphthalene	0.00500	0.00349	0.00323	69.8	64.6	54.0-135			7.74	20
n-Propylbenzene	0.00500	0.00500	0.00494	100	98.8	77.0-124			1.21	20
Styrene	0.00500	0.00478	0.00483	95.6	96.6	73.0-130			1.04	20

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

(LCS) R3798317-1 05/31/22 22:03 • (LCSD) R3798317-2 05/31/22 22:35

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,1,1,2-Tetrachloroethane	0.00500	0.00424	0.00431	84.8	86.2	75.0-125			1.64	20
1,1,2,2-Tetrachloroethane	0.00500	0.00456	0.00461	91.2	92.2	65.0-130			1.09	20
1,1,2-Trichlorotrifluoroethane	0.00500	0.00491	0.00513	98.2	103	69.0-132			4.38	20
Tetrachloroethene	0.00500	0.00535	0.00521	107	104	72.0-132			2.65	20
Toluene	0.00500	0.00511	0.00525	102	105	79.0-120			2.70	20
1,2,4-Trichlorobenzene	0.00500	0.00412	0.00407	82.4	81.4	57.0-137			1.22	20
1,1,1-Trichloroethane	0.00500	0.00466	0.00469	93.2	93.8	73.0-124			0.642	20
1,1,2-Trichloroethane	0.00500	0.00446	0.00448	89.2	89.6	80.0-120			0.447	20
Trichloroethene	0.00500	0.00523	0.00540	105	108	78.0-124			3.20	20
Trichlorofluoromethane	0.00500	0.00454	0.00466	90.8	93.2	59.0-147			2.61	20
1,2,3-Trichloropropane	0.00500	0.00457	0.00444	91.4	88.8	73.0-130			2.89	20
1,2,4-Trimethylbenzene	0.00500	0.00479	0.00484	95.8	96.8	76.0-121			1.04	20
1,3,5-Trimethylbenzene	0.00500	0.00481	0.00476	96.2	95.2	76.0-122			1.04	20
Vinyl acetate	0.0250	0.0319	0.0316	128	126	11.0-160			0.945	20
Vinyl chloride	0.00500	0.00506	0.00513	101	103	67.0-131			1.37	20
Xylenes, Total	0.0150	0.0149	0.0151	99.3	101	79.0-123			1.33	20
Di-isopropyl ether	0.00500	0.00405	0.00418	81.0	83.6	58.0-138			3.16	20
ethanol	0.250	0.0949	0.101	38.0	40.4	10.0-160			6.23	30
Ethyl tert-butyl ether	0.00500	0.00458	0.00467	91.6	93.4	63.0-138			1.95	20
Methyl tert-butyl ether	0.00500	0.00442	0.00457	88.4	91.4	68.0-125			3.34	20
tert-Butyl alcohol	0.0250	0.0141	0.0151	56.4	60.4	27.0-160			6.85	30
tert-Amyl Methyl Ether	0.00500	0.00464	0.00461	92.8	92.2	66.0-125			0.649	20
(S) Toluene-d8				*106*	*107*	*80.0-120*				
(S) 4-Bromofluorobenzene				*108*	*107*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*99.9*	*105*	*70.0-130*				

L1497516-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1497516-02 06/01/22 02:11 • (MS) R3798317-4 06/01/22 07:13 • (MSD) R3798317-5 06/01/22 07:34

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 %
Acetone	0.0250	ND	ND	ND	60.4	64.4	1	10.0-160			6.41	35
Acrylonitrile	0.0250	ND	0.0170	0.0199	68.0	79.6	1	21.0-160			15.7	32
Benzene	0.00500	ND	0.00439	0.00506	87.8	101	1	17.0-158			14.2	27
Bromobenzene	0.00500	ND	0.00437	0.00499	87.4	99.8	1	30.0-149			13.2	28
Bromochloromethane	0.00500	ND	0.00472	0.00509	94.4	102	1	38.0-142			7.54	26
Bromodichloromethane	0.00500	ND	0.00420	0.00461	84.0	92.2	1	31.0-150			9.31	27
Bromoform	0.00500	ND	0.00309	0.00324	61.8	64.8	1	29.0-150			4.74	29
Bromomethane	0.00500	ND	ND	ND	96.6	96.8	1	10.0-160			0.207	38

L1497516-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1497516-02 06/01/22 02:11 • (MS) R3798317-4 06/01/22 07:13 • (MSD) R3798317-5 06/01/22 07:34

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 %
n-Butylbenzene	0.00500	ND	0.00412	0.00509	82.4	102	1	31.0-150			21.1	30
sec-Butylbenzene	0.00500	ND	0.00435	0.00529	87.0	106	1	33.0-155			19.5	29
tert-Butylbenzene	0.00500	ND	0.00442	0.00558	88.4	112	1	34.0-153			23.2	28
Carbon tetrachloride	0.00500	ND	0.00398	0.00440	79.6	88.0	1	23.0-159			10.0	28
Carbon disulfide	0.00500	ND	0.00337	0.00397	67.4	79.4	1	10.0-156			16.3	28
Chlorobenzene	0.00500	ND	0.00438	0.00493	87.6	98.6	1	33.0-152			11.8	27
Chlorodibromomethane	0.00500	ND	0.00365	0.00388	73.0	77.6	1	37.0-149			6.11	27
Chloroethane	0.00500	ND	ND	0.00531	90.4	106	1	10.0-160			16.1	30
Chloroform	0.00500	ND	ND	0.00521	89.6	104	1	29.0-154			15.1	28
Chloromethane	0.00500	ND	0.00805	0.00793	161	159	1	10.0-160	M1		1.50	29
1,2-Dibromo-3-Chloropropane	0.00500	ND	ND	ND	57.8	62.8	1	22.0-151			8.29	34
1,2-Dibromoethane	0.00500	ND	0.00426	0.00460	85.2	92.0	1	34.0-147			7.67	27
Dibromomethane	0.00500	ND	0.00414	0.00476	82.8	95.2	1	30.0-151			13.9	27
1,2-Dichlorobenzene	0.00500	ND	0.00454	0.00502	90.8	100	1	34.0-149			10.0	28
1,3-Dichlorobenzene	0.00500	ND	0.00442	0.00521	88.4	104	1	36.0-146			16.4	27
1,4-Dichlorobenzene	0.00500	ND	0.00420	0.00484	84.0	96.8	1	35.0-142			14.2	27
trans-1,4-Dichloro-2-butene	0.00500	ND	0.00277	0.00290	55.4	58.0	1	10.0-157			4.59	37
Dichlorodifluoromethane	0.00500	ND	ND	ND	78.8	94.6	1	10.0-160			18.2	29
1,1-Dichloroethane	0.00500	ND	0.00409	0.00455	81.8	91.0	1	25.0-158			10.6	27
1,2-Dichloroethane	0.00500	ND	0.00423	0.00467	84.6	93.4	1	29.0-151			9.89	27
1,1-Dichloroethene	0.00500	ND	0.00423	0.00473	84.6	94.6	1	11.0-160			11.2	29
cis-1,2-Dichloroethene	0.00500	ND	0.00400	0.00461	80.0	92.2	1	10.0-160			14.2	27
trans-1,2-Dichloroethene	0.00500	ND	0.00364	0.00436	72.8	87.2	1	17.0-153			18.0	27
1,2-Dichloropropane	0.00500	ND	0.00406	0.00492	81.2	98.4	1	30.0-156			19.2	27
cis-1,3-Dichloropropene	0.00500	ND	0.00367	0.00411	73.4	82.2	1	34.0-149			11.3	28
trans-1,3-Dichloropropene	0.00500	ND	0.00392	0.00414	78.4	82.8	1	32.0-149			5.46	28
Ethylbenzene	0.00500	ND	0.00450	0.00536	90.0	107	1	30.0-155			17.4	27
Hexachloro-1,3-butadiene	0.00500	ND	0.00386	0.00489	77.2	97.8	1	20.0-154			23.5	34
2-Hexanone	0.0250	ND	0.0199	0.0224	79.6	89.6	1	21.0-160			11.8	29
2-Butanone (MEK)	0.0250	ND	0.0185	0.0169	74.0	67.6	1	10.0-160			9.04	32
Iodomethane	0.0250	ND	0.0135	0.0162	54.0	64.8	1	10.0-160			18.2	40
Methylene Chloride	0.00500	ND	ND	0.00503	87.8	101	1	23.0-144			13.6	28
4-Methyl-2-pentanone (MIBK)	0.0250	ND	0.0213	0.0229	85.2	91.6	1	29.0-160			7.24	29
Naphthalene	0.00500	ND	ND	ND	51.8	67.8	1	12.0-156			26.8	35
n-Propylbenzene	0.00500	ND	0.00444	0.00528	88.8	106	1	31.0-154			17.3	28
Styrene	0.00500	ND	0.00346	0.00477	69.2	95.4	1	33.0-155		R5	31.8	28
1,1,1,2-Tetrachloroethane	0.00500	ND	0.00403	0.00434	80.6	86.8	1	36.0-151			7.41	29
1,1,2,2-Tetrachloroethane	0.00500	ND	0.00424	0.00465	84.8	93.0	1	33.0-150			9.22	28
1,1,2-Trichlorotrifluoroethane	0.00500	ND	0.00497	0.00611	99.4	122	1	23.0-160			20.6	30
Tetrachloroethene	0.00500	ND	0.00448	0.00553	89.6	111	1	10.0-160			21.0	27

L1497516-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1497516-02 06/01/22 02:11 • (MS) R3798317-4 06/01/22 07:13 • (MSD) R3798317-5 06/01/22 07:34

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 %
Toluene	0.00500	ND	0.00461	0.00516	92.2	103	1	26.0-154			11.3	28
1,2,4-Trichlorobenzene	0.00500	ND	0.00292	0.00380	58.4	76.0	1	24.0-150			26.2	33
1,1,1-Trichloroethane	0.00500	ND	0.00457	0.00522	91.4	104	1	23.0-160			13.3	28
1,1,2-Trichloroethane	0.00500	ND	0.00407	0.00450	81.4	90.0	1	35.0-147			10.0	27
Trichloroethene	0.00500	ND	0.00428	0.00499	85.6	99.8	1	10.0-160			15.3	25
Trichlorofluoromethane	0.00500	ND	ND	0.00517	89.4	103	1	17.0-160			14.5	31
1,2,3-Trichloropropane	0.00500	ND	0.00435	0.00447	87.0	89.4	1	34.0-151			2.72	29
1,2,4-Trimethylbenzene	0.00500	ND	0.00407	0.00484	81.4	96.8	1	26.0-154			17.3	27
1,3,5-Trimethylbenzene	0.00500	ND	0.00414	0.00494	82.8	98.8	1	28.0-153			17.6	27
Vinyl acetate	0.0250	ND	0.0232	0.0333	92.8	133	1	12.0-160		R5	35.8	31
Vinyl chloride	0.00500	ND	0.00394	0.00455	78.8	91.0	1	10.0-160			14.4	27
Xylenes, Total	0.0150	ND	0.0130	0.0153	86.7	102	1	29.0-154			16.3	28
Di-isopropyl ether	0.00500	ND	0.00382	0.00432	76.4	86.4	1	21.0-160			12.3	28
ethanol	0.250	ND	0.104	0.133	41.6	53.2	1	50.0-150	M2	R5	24.5	20
Ethyl tert-butyl ether	0.00500	ND	0.00408	0.00466	81.6	93.2	1	10.0-160			13.3	37
Methyl tert-butyl ether	0.00500	0.0101	0.0141	0.0148	80.0	94.0	1	28.0-150			4.84	29
tert-Butyl alcohol	0.0250	ND	0.0149	0.0174	59.6	69.6	1	50.0-150			15.5	20
tert-Amyl Methyl Ether	0.00500	ND	0.00485	0.00541	97.0	108	1	10.0-160			10.9	37
(S) Toluene-d8					*107*	*104*		*80.0-120*				
(S) 4-Bromofluorobenzene					*108*	*106*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*104*	*103*		*70.0-130*				

Method Blank (MB)

(MB) R3798502-3 06/01/22 09:09

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Methyl tert-butyl ether	U		0.000101	0.00100
(S) Toluene-d8	*104*			*80.0-120*
(S) 4-Bromofluorobenzene	*107*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*

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

(LCS) R3798502-1 06/01/22 07:45 • (LCSD) R3798502-2 06/01/22 08:06

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Methyl tert-butyl ether	0.00500	0.00494	0.00524	98.8	105	68.0-125			5.89	20
(S) Toluene-d8				*100*	*99.2*	*80.0-120*				
(S) 4-Bromofluorobenzene				*108*	*104*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*107*	*106*	*70.0-130*				

INTERNAL STANDARD SUMMARY

Instrument: VOCMS6 • File ID: 0529_02

05/29/22 10:14

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0529_02	153234	66041	59101
Upper Limit		306468	132082	118202
Lower Limit		76617	33021	29551
LCS R3797667-1 WG1871107 1x	0529_02LCS	153234	66041	59101
LCSD R3797667-2 WG1871107 1x	0529_03	149140	66439	60965
BLANK R3797667-3 WG1871107 1x	0529_06	148117	64388	56348
L1497516-06 WG1871107 1x	0529_08	145258	58889	52204
L1497516-05 WG1871107 1x	0529_11	121403	55769	46757
L1497516-03 WG1871107 1x	0529_29	124401	61689	55169
L1497516-04 WG1871107 1x	0529_30	144044	64939	58605
MS R3797667-4 WG1871107 1x	0529_32	122771	55490	51912
MSD R3797667-5 WG1871107 1x	0529_33	122361	55000	52466
MS R3797667-6 WG1871107 1x	0529_34	119259	53944	51220
MSD R3797667-7 WG1871107 1x	0529_35	119881	53834	50083
MS R3797667-8 WG1871107 1x	0529_36	123888	54263	52277
MSD R3797667-9 WG1871107 1x	0529_37	120873	53135	49789

Instrument: VOCMS21 • File ID: 0531_35

05/31/22 22:03

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0531_35	272873	120438	129784
Upper Limit		545746	240876	259568
Lower Limit		136437	60219	64892
LCS R3798317-1 WG1872218 1x	0531_35LCS	272873	120438	129784
LCSD R3798317-2 WG1872218 1x	0531_36	283123	122516	131089
BLANK R3798317-3 WG1872218 1x	0531_38	276871	119282	122920
L1497516-01 WG1872218 1x	0531_45	267474	114916	121413
L1497516-02 WG1872218 1x	0531_46	272658	117127	123280
MS R3798317-4 WG1872218 1x	0531_60	274202	118489	128890
MSD R3798317-5 WG1872218 1x	0531_61	279075	122085	130220

INTERNAL STANDARD SUMMARY

Instrument: VOCMS32 • File ID: 0531_02

05/31/22 10:09

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0531_02	286443	107217	65229
Upper Limit		572886	214434	130458
Lower Limit		143222	53609	32615
LCS R3798092-1 WG1872013 1x	0531_02LCSB	286443	107217	65229
LCSD R3798092-2 WG1872013 1x	0531_03B	282406	106479	65656
BLANK R3798092-3 WG1872013 1x	0531_05B	277593	104586	61668
L1497516-04 WG1872013 200x	0531_15	276105	98010	58501

Instrument: VOCMS33 • File ID: 0601_02

06/01/22 07:45

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0601_02	371019	173503	135390
Upper Limit		742038	347006	270780
Lower Limit		185510	86752	67695
LCS R3798502-1 WG1872590 1x	0601_02LCS_D	371019	173503	135390
LCSD R3798502-2 WG1872590 1x	0601_03D	361884	165270	123472
BLANK R3798502-3 WG1872590 1x	0601_06D	401738	174937	128225
L1497516-04 WG1872590 2000x	0601_31	334952	151790	110816

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

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	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
E1	Concentration estimated. Analyte exceeded calibration range. Reanalysis not possible due to insufficient sample.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
L1	The associated blank spike recovery was above laboratory acceptance limits.
M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike recovery was acceptable.
R5	MS/MSD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.
R7	LFB/LFBD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.
R8	Sample RPD exceeded the method acceptance limit.

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:
Kinder Morgan - Rocklin, CA-AZ Work

410 N.44th Street
Suite 1000
Phoenix. AZ 85008

Billing Information:
Accounts Payable- Alan Van Antwerp
9950 SAN DIEGO MISSION RD.
SAN DIEGO, CA 92108

Pres Chk

Report to: **Bob Forsberg**

Email To: bob.forsberg@arcadis-us.com;sascha.arnold@arcadis.com

Project Description: **KMEP Silvercroft Wash**

City/State Collected: Tucson, AZ

Please Circle: PT MT CT ET

Phone: **602-438-0883**

Client Project # **30113573.01**

Lab Project # **KINARCPAZ-SILVERCROF**

Collected by (print): MAT / SXA

Site/Facility ID # **SILVERCROFT WASH**

P.O. # **WD876456**

Collected by (signature): M. Tarr

Immediately Packed on Ice N ___ Y X

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: STD TURN

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	*NO2,NO3,SO4 125mlHDPE-NoPres	EEM RSK175 40mlAmb HCl	HOLD - NO2+NO3 250mlHDPE-H2SO4	TDS 1L-HDPE NoPres	Total Fe 6010 250mlHDPE-HNO3	VOCs+OXYs 8260 40mlAmb-HCl	Remarks	Sample # (lab only)
MW-29M	G	GW	199	5/24/22	0842	9	X	X	X	X	X	X		-01
MW-32M		GW	199			18	X	X	X	X	X	X	MS/MSD	
MW-31M	G	GW	199	5/24/22	1007	18	X	X	X	X	X	X	MS/MSD	-02
MW-32M	G	GW	199	5/24/22	1132	9	X	X	X	X	X	X		-03
MW-31M		GW												
MW-32S	G	GW	173	5/24/22	1307	9	X	X	X	X	X	X		-04
		GW												
		GW												
Equipment Blank	G	GW	—	5/24/22	0755	3						X		-05
Trip Blank	—	GW	—	5/24/22	—	1						X		-06

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:*NO2,NO3 have a 48 hour holding time.

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
M. Tarr	5/24/22	1500	Ship & Mail Express (FedEx)
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: (Yes) / No
(HCL) / MeoH
TBR

Temp: DRAFT 2.2+0=2.2

Bottles Received: 48

Date: 5/25/22 Time: 900

If preservation required by Login: Date/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

Chain of Custody Page 1 of 1

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1497516
F174

Acctnum: **KINARCPAZ**
Template: **T190237**
Prelogin: **P925259**
PM: **110 - Brian Ford**
PB:
Shipped Via:

ANALYTICAL REPORT

June 17, 2022

Kinder Morgan - Rocklin, CA-AZ Work

Sample Delivery Group:	L1498029
Samples Received:	05/26/2022
Project Number:	30113573.01
Description:	KMEP Silvercroft Wash
Site:	SILVERCROFT WASH
Report To:	Bob Forsberg 410 N.44th Street Suite 1000 Phoenix, AZ 85008

Entire Report Reviewed By:

Brian Ford

Project Manager

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

MW-29S L1498029-01 GW

Collected by	Collected date/time	Received date/time
MAT	05/25/22 09:37	05/26/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1872279	1	05/31/22 18:21	05/31/22 18:41	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1870156	1	05/26/22 15:42	05/26/22 15:42	KEG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1870156	10	05/26/22 15:55	05/26/22 15:55	KEG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1875291	1	06/09/22 12:41	06/16/22 20:25	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1871955	1	06/01/22 09:05	06/01/22 09:05	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1872895	200	06/02/22 06:23	06/02/22 06:23	JHH	Mt. Juliet, TN

MW-29S-DUP L1498029-02 GW

Collected by	Collected date/time	Received date/time
MAT	05/25/22 09:42	05/26/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1872279	1	05/31/22 18:21	05/31/22 18:41	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1870156	1	05/26/22 16:34	05/26/22 16:34	KEG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1870156	10	05/26/22 16:47	05/26/22 16:47	KEG	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1875291	1	06/09/22 12:41	06/16/22 21:00	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1871955	1	06/01/22 09:09	06/01/22 09:09	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1872218	1	06/01/22 05:25	06/01/22 05:25	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1873353	50	06/02/22 20:16	06/02/22 20:16	BMB	Mt. Juliet, TN

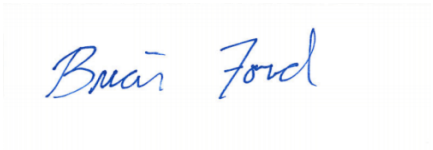
TRIP BLANK L1498029-03 GW

Collected by	Collected date/time	Received date/time
MAT	05/25/22 00:00	05/26/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1872218	1	06/01/22 00:45	06/01/22 00:45	ACG	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.



Brian Ford
Project Manager

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	777		10.0	1	05/31/2022 18:41	WG1872279

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	ND		0.100	1	05/26/2022 15:42	WG1870156
Nitrite	ND		0.100	1	05/26/2022 15:42	WG1870156
Sulfate	369	M3	50.0	10	05/26/2022 15:55	WG1870156

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	ND		0.100	1	06/16/2022 20:25	WG1875291

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	06/01/2022 09:05	WG1871955
Ethane	ND		0.0130	1	06/01/2022 09:05	WG1871955
Ethene	ND		0.0130	1	06/01/2022 09:05	WG1871955

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		10.0	200	06/02/2022 06:23	WG1872895
Acrylonitrile	ND		2.00	200	06/02/2022 06:23	WG1872895
Benzene	ND		0.200	200	06/02/2022 06:23	WG1872895
Bromobenzene	ND		0.200	200	06/02/2022 06:23	WG1872895
Bromochloromethane	ND		0.200	200	06/02/2022 06:23	WG1872895
Bromodichloromethane	ND		0.200	200	06/02/2022 06:23	WG1872895
Bromoform	ND		0.200	200	06/02/2022 06:23	WG1872895
Bromomethane	ND		1.00	200	06/02/2022 06:23	WG1872895
n-Butylbenzene	ND		0.200	200	06/02/2022 06:23	WG1872895
sec-Butylbenzene	ND		0.200	200	06/02/2022 06:23	WG1872895
tert-Butylbenzene	ND		0.200	200	06/02/2022 06:23	WG1872895
Carbon tetrachloride	ND		0.200	200	06/02/2022 06:23	WG1872895
Carbon disulfide	ND		0.200	200	06/02/2022 06:23	WG1872895
Chlorobenzene	ND		0.200	200	06/02/2022 06:23	WG1872895
Chlorodibromomethane	ND		0.200	200	06/02/2022 06:23	WG1872895
Chloroethane	ND		1.00	200	06/02/2022 06:23	WG1872895
Chloroform	ND		1.00	200	06/02/2022 06:23	WG1872895
Chloromethane	ND		0.500	200	06/02/2022 06:23	WG1872895
1,2-Dibromo-3-Chloropropane	ND		1.00	200	06/02/2022 06:23	WG1872895
1,2-Dibromoethane	ND		0.200	200	06/02/2022 06:23	WG1872895
Dibromomethane	ND		0.200	200	06/02/2022 06:23	WG1872895
1,2-Dichlorobenzene	ND		0.200	200	06/02/2022 06:23	WG1872895
1,3-Dichlorobenzene	ND		0.200	200	06/02/2022 06:23	WG1872895
1,4-Dichlorobenzene	ND		0.200	200	06/02/2022 06:23	WG1872895
trans-1,4-Dichloro-2-butene	ND		0.500	200	06/02/2022 06:23	WG1872895
Dichlorodifluoromethane	ND	R5	1.00	200	06/02/2022 06:23	WG1872895
1,1-Dichloroethane	ND		0.200	200	06/02/2022 06:23	WG1872895
1,2-Dichloroethane	ND	M2 R5	0.200	200	06/02/2022 06:23	WG1872895
1,1-Dichloroethene	ND		0.200	200	06/02/2022 06:23	WG1872895
cis-1,2-Dichloroethene	ND		0.200	200	06/02/2022 06:23	WG1872895

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

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.200	200	06/02/2022 06:23	WG1872895
1,2-Dichloropropane	ND		0.200	200	06/02/2022 06:23	WG1872895
cis-1,3-Dichloropropene	ND		0.200	200	06/02/2022 06:23	WG1872895
trans-1,3-Dichloropropene	ND		0.200	200	06/02/2022 06:23	WG1872895
Ethylbenzene	ND		0.200	200	06/02/2022 06:23	WG1872895
Hexachloro-1,3-butadiene	ND		0.200	200	06/02/2022 06:23	WG1872895
2-Hexanone	ND		2.00	200	06/02/2022 06:23	WG1872895
2-Butanone (MEK)	ND		2.00	200	06/02/2022 06:23	WG1872895
Iodomethane	ND	L2 M2	2.00	200	06/02/2022 06:23	WG1872895
Methylene Chloride	ND		1.00	200	06/02/2022 06:23	WG1872895
4-Methyl-2-pentanone (MIBK)	ND		2.00	200	06/02/2022 06:23	WG1872895
Naphthalene	ND		1.00	200	06/02/2022 06:23	WG1872895
n-Propylbenzene	ND		0.200	200	06/02/2022 06:23	WG1872895
Styrene	ND		0.200	200	06/02/2022 06:23	WG1872895
1,1,1,2-Tetrachloroethane	ND		0.200	200	06/02/2022 06:23	WG1872895
1,1,2,2-Tetrachloroethane	ND		0.200	200	06/02/2022 06:23	WG1872895
1,1,2-Trichlorotrifluoroethane	ND	R5	0.200	200	06/02/2022 06:23	WG1872895
Tetrachloroethene	ND		0.200	200	06/02/2022 06:23	WG1872895
Toluene	ND		0.200	200	06/02/2022 06:23	WG1872895
1,2,4-Trichlorobenzene	ND		0.200	200	06/02/2022 06:23	WG1872895
1,1,1-Trichloroethane	ND		0.200	200	06/02/2022 06:23	WG1872895
1,1,2-Trichloroethane	ND		0.200	200	06/02/2022 06:23	WG1872895
Trichloroethene	ND		0.200	200	06/02/2022 06:23	WG1872895
Trichlorofluoromethane	ND	R5	1.00	200	06/02/2022 06:23	WG1872895
1,2,3-Trichloropropane	ND		0.500	200	06/02/2022 06:23	WG1872895
1,2,4-Trimethylbenzene	ND		0.200	200	06/02/2022 06:23	WG1872895
1,3,5-Trimethylbenzene	ND		0.200	200	06/02/2022 06:23	WG1872895
Vinyl acetate	ND		2.00	200	06/02/2022 06:23	WG1872895
Vinyl chloride	ND		0.200	200	06/02/2022 06:23	WG1872895
Xylenes, Total	ND		0.600	200	06/02/2022 06:23	WG1872895
Di-isopropyl ether	ND		0.200	200	06/02/2022 06:23	WG1872895
Ethanol	ND	R5	20.0	200	06/02/2022 06:23	WG1872895
Ethyl tert-butyl ether	ND		0.200	200	06/02/2022 06:23	WG1872895
Methyl tert-butyl ether	7.98		0.200	200	06/02/2022 06:23	WG1872895
tert-Butyl alcohol	ND	R5	1.00	200	06/02/2022 06:23	WG1872895
tert-Amyl Methyl Ether	0.938		0.200	200	06/02/2022 06:23	WG1872895
(S) Toluene-d8	*110*		*80.0-120*		*06/02/2022 06:23*	WG1872895
(S) 4-Bromofluorobenzene	*97.2*		*77.0-126*		*06/02/2022 06:23*	WG1872895
(S) 1,2-Dichloroethane-d4	*125*		*70.0-130*		*06/02/2022 06:23*	WG1872895

Sample Narrative:

L1498029-01 WG1872895: Target compounds too high to run at a lower dilution.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	775		10.0	1	05/31/2022 18:41	WG1872279

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	ND		0.100	1	05/26/2022 16:34	WG1870156
Nitrite	ND		0.100	1	05/26/2022 16:34	WG1870156
Sulfate	345		50.0	10	05/26/2022 16:47	WG1870156

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	ND		0.100	1	06/16/2022 21:00	WG1875291

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	06/01/2022 09:09	WG1871955
Ethane	ND		0.0130	1	06/01/2022 09:09	WG1871955
Ethene	ND		0.0130	1	06/01/2022 09:09	WG1871955

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	06/01/2022 05:25	WG1872218
Acrylonitrile	ND		0.0100	1	06/01/2022 05:25	WG1872218
Benzene	ND		0.00100	1	06/01/2022 05:25	WG1872218
Bromobenzene	ND		0.00100	1	06/01/2022 05:25	WG1872218
Bromochloromethane	ND		0.00100	1	06/01/2022 05:25	WG1872218
Bromodichloromethane	ND		0.00100	1	06/01/2022 05:25	WG1872218
Bromoform	ND		0.00100	1	06/01/2022 05:25	WG1872218
Bromomethane	ND		0.00500	1	06/01/2022 05:25	WG1872218
n-Butylbenzene	ND		0.00100	1	06/01/2022 05:25	WG1872218
sec-Butylbenzene	ND		0.00100	1	06/01/2022 05:25	WG1872218
tert-Butylbenzene	ND		0.00100	1	06/01/2022 05:25	WG1872218
Carbon tetrachloride	ND		0.00100	1	06/01/2022 05:25	WG1872218
Carbon disulfide	ND		0.00100	1	06/01/2022 05:25	WG1872218
Chlorobenzene	ND		0.00100	1	06/01/2022 05:25	WG1872218
Chlorodibromomethane	ND		0.00100	1	06/01/2022 05:25	WG1872218
Chloroethane	ND		0.00500	1	06/01/2022 05:25	WG1872218
Chloroform	ND		0.00500	1	06/01/2022 05:25	WG1872218
Chloromethane	ND	L1	0.00250	1	06/01/2022 05:25	WG1872218
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	06/01/2022 05:25	WG1872218
1,2-Dibromoethane	ND		0.00100	1	06/01/2022 05:25	WG1872218
Dibromomethane	ND		0.00100	1	06/01/2022 05:25	WG1872218
1,2-Dichlorobenzene	ND		0.00100	1	06/01/2022 05:25	WG1872218
1,3-Dichlorobenzene	ND		0.00100	1	06/01/2022 05:25	WG1872218
1,4-Dichlorobenzene	ND		0.00100	1	06/01/2022 05:25	WG1872218
trans-1,4-Dichloro-2-butene	ND		0.00250	1	06/01/2022 05:25	WG1872218
Dichlorodifluoromethane	ND		0.00500	1	06/01/2022 05:25	WG1872218
1,1-Dichloroethane	ND		0.00100	1	06/01/2022 05:25	WG1872218
1,2-Dichloroethane	ND		0.00100	1	06/01/2022 05:25	WG1872218
1,1-Dichloroethene	ND		0.00100	1	06/01/2022 05:25	WG1872218
cis-1,2-Dichloroethene	ND	L1	0.00100	1	06/01/2022 05:25	WG1872218

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.00100	1	06/01/2022 05:25	WG1872218
1,2-Dichloropropane	ND		0.00100	1	06/01/2022 05:25	WG1872218
cis-1,3-Dichloropropene	ND		0.00100	1	06/01/2022 05:25	WG1872218
trans-1,3-Dichloropropene	ND		0.00100	1	06/01/2022 05:25	WG1872218
Ethylbenzene	ND		0.00100	1	06/01/2022 05:25	WG1872218
Hexachloro-1,3-butadiene	ND		0.00100	1	06/01/2022 05:25	WG1872218
2-Hexanone	ND		0.0100	1	06/01/2022 05:25	WG1872218
2-Butanone (MEK)	ND		0.0100	1	06/01/2022 05:25	WG1872218
Iodomethane	ND		0.0100	1	06/01/2022 05:25	WG1872218
Methylene Chloride	ND	L1 R7	0.00500	1	06/01/2022 05:25	WG1872218
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	06/01/2022 05:25	WG1872218
Naphthalene	ND		0.00500	1	06/01/2022 05:25	WG1872218
n-Propylbenzene	ND		0.00100	1	06/01/2022 05:25	WG1872218
Styrene	ND		0.00100	1	06/01/2022 05:25	WG1872218
1,1,1,2-Tetrachloroethane	ND		0.00100	1	06/01/2022 05:25	WG1872218
1,1,2,2-Tetrachloroethane	ND		0.00100	1	06/01/2022 05:25	WG1872218
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	06/01/2022 05:25	WG1872218
Tetrachloroethene	ND		0.00100	1	06/01/2022 05:25	WG1872218
Toluene	ND		0.00100	1	06/01/2022 05:25	WG1872218
1,2,4-Trichlorobenzene	ND		0.00100	1	06/01/2022 05:25	WG1872218
1,1,1-Trichloroethane	ND		0.00100	1	06/01/2022 05:25	WG1872218
1,1,2-Trichloroethane	ND		0.00100	1	06/01/2022 05:25	WG1872218
Trichloroethene	ND		0.00100	1	06/01/2022 05:25	WG1872218
Trichlorofluoromethane	ND		0.00500	1	06/01/2022 05:25	WG1872218
1,2,3-Trichloropropane	ND		0.00250	1	06/01/2022 05:25	WG1872218
1,2,4-Trimethylbenzene	ND		0.00100	1	06/01/2022 05:25	WG1872218
1,3,5-Trimethylbenzene	ND		0.00100	1	06/01/2022 05:25	WG1872218
Vinyl acetate	ND		0.0100	1	06/01/2022 05:25	WG1872218
Vinyl chloride	ND		0.00100	1	06/01/2022 05:25	WG1872218
Xylenes, Total	ND		0.00300	1	06/01/2022 05:25	WG1872218
Di-isopropyl ether	ND		0.00100	1	06/01/2022 05:25	WG1872218
Ethanol	ND		0.100	1	06/01/2022 05:25	WG1872218
Ethyl tert-butyl ether	ND		0.00100	1	06/01/2022 05:25	WG1872218
Methyl tert-butyl ether	8.89		0.0500	50	06/02/2022 20:16	WG1873353
tert-Butyl alcohol	ND		0.00500	1	06/01/2022 05:25	WG1872218
tert-Amyl Methyl Ether	1.17		0.0500	50	06/02/2022 20:16	WG1873353
(S) Toluene-d8	*107*		*80.0-120*		*06/01/2022 05:25*	WG1872218
(S) Toluene-d8	*114*		*80.0-120*		*06/02/2022 20:16*	WG1873353
(S) 4-Bromofluorobenzene	*107*		*77.0-126*		*06/01/2022 05:25*	WG1872218
(S) 4-Bromofluorobenzene	*97.9*		*77.0-126*		*06/02/2022 20:16*	WG1873353
(S) 1,2-Dichloroethane-d4	*103*		*70.0-130*		*06/01/2022 05:25*	WG1872218
(S) 1,2-Dichloroethane-d4	*85.8*		*70.0-130*		*06/02/2022 20:16*	WG1873353

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	06/01/2022 00:45	WG1872218
Acrylonitrile	ND		0.0100	1	06/01/2022 00:45	WG1872218
Benzene	ND		0.00100	1	06/01/2022 00:45	WG1872218
Bromobenzene	ND		0.00100	1	06/01/2022 00:45	WG1872218
Bromochloromethane	ND		0.00100	1	06/01/2022 00:45	WG1872218
Bromodichloromethane	ND		0.00100	1	06/01/2022 00:45	WG1872218
Bromoform	ND		0.00100	1	06/01/2022 00:45	WG1872218
Bromomethane	ND		0.00500	1	06/01/2022 00:45	WG1872218
n-Butylbenzene	ND		0.00100	1	06/01/2022 00:45	WG1872218
sec-Butylbenzene	ND		0.00100	1	06/01/2022 00:45	WG1872218
tert-Butylbenzene	ND		0.00100	1	06/01/2022 00:45	WG1872218
Carbon tetrachloride	ND		0.00100	1	06/01/2022 00:45	WG1872218
Carbon disulfide	ND		0.00100	1	06/01/2022 00:45	WG1872218
Chlorobenzene	ND		0.00100	1	06/01/2022 00:45	WG1872218
Chlorodibromomethane	ND		0.00100	1	06/01/2022 00:45	WG1872218
Chloroethane	ND		0.00500	1	06/01/2022 00:45	WG1872218
Chloroform	ND		0.00500	1	06/01/2022 00:45	WG1872218
Chloromethane	ND	L1	0.00250	1	06/01/2022 00:45	WG1872218
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	06/01/2022 00:45	WG1872218
1,2-Dibromoethane	ND		0.00100	1	06/01/2022 00:45	WG1872218
Dibromomethane	ND		0.00100	1	06/01/2022 00:45	WG1872218
1,2-Dichlorobenzene	ND		0.00100	1	06/01/2022 00:45	WG1872218
1,3-Dichlorobenzene	ND		0.00100	1	06/01/2022 00:45	WG1872218
1,4-Dichlorobenzene	ND		0.00100	1	06/01/2022 00:45	WG1872218
trans-1,4-Dichloro-2-butene	ND		0.00250	1	06/01/2022 00:45	WG1872218
Dichlorodifluoromethane	ND		0.00500	1	06/01/2022 00:45	WG1872218
1,1-Dichloroethane	ND		0.00100	1	06/01/2022 00:45	WG1872218
1,2-Dichloroethane	ND		0.00100	1	06/01/2022 00:45	WG1872218
1,1-Dichloroethene	ND		0.00100	1	06/01/2022 00:45	WG1872218
cis-1,2-Dichloroethene	ND	L1	0.00100	1	06/01/2022 00:45	WG1872218
trans-1,2-Dichloroethene	ND		0.00100	1	06/01/2022 00:45	WG1872218
1,2-Dichloropropane	ND		0.00100	1	06/01/2022 00:45	WG1872218
cis-1,3-Dichloropropene	ND		0.00100	1	06/01/2022 00:45	WG1872218
trans-1,3-Dichloropropene	ND		0.00100	1	06/01/2022 00:45	WG1872218
Ethylbenzene	ND		0.00100	1	06/01/2022 00:45	WG1872218
Hexachloro-1,3-butadiene	ND		0.00100	1	06/01/2022 00:45	WG1872218
2-Hexanone	ND		0.0100	1	06/01/2022 00:45	WG1872218
2-Butanone (MEK)	ND		0.0100	1	06/01/2022 00:45	WG1872218
Iodomethane	ND		0.0100	1	06/01/2022 00:45	WG1872218
Methylene Chloride	ND	L1 R7	0.00500	1	06/01/2022 00:45	WG1872218
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	06/01/2022 00:45	WG1872218
Naphthalene	ND		0.00500	1	06/01/2022 00:45	WG1872218
n-Propylbenzene	ND		0.00100	1	06/01/2022 00:45	WG1872218
Styrene	ND		0.00100	1	06/01/2022 00:45	WG1872218
1,1,1,2-Tetrachloroethane	ND		0.00100	1	06/01/2022 00:45	WG1872218
1,1,2,2-Tetrachloroethane	ND		0.00100	1	06/01/2022 00:45	WG1872218
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	06/01/2022 00:45	WG1872218
Tetrachloroethene	ND		0.00100	1	06/01/2022 00:45	WG1872218
Toluene	ND		0.00100	1	06/01/2022 00:45	WG1872218
1,2,4-Trichlorobenzene	ND		0.00100	1	06/01/2022 00:45	WG1872218
1,1,1-Trichloroethane	ND		0.00100	1	06/01/2022 00:45	WG1872218
1,1,2-Trichloroethane	ND		0.00100	1	06/01/2022 00:45	WG1872218
Trichloroethene	ND		0.00100	1	06/01/2022 00:45	WG1872218
Trichlorofluoromethane	ND		0.00500	1	06/01/2022 00:45	WG1872218
1,2,3-Trichloropropane	ND		0.00250	1	06/01/2022 00:45	WG1872218
1,2,4-Trimethylbenzene	ND		0.00100	1	06/01/2022 00:45	WG1872218

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
1,3,5-Trimethylbenzene	ND		0.00100	1	06/01/2022 00:45	WG1872218
Vinyl acetate	ND		0.0100	1	06/01/2022 00:45	WG1872218
Vinyl chloride	ND		0.00100	1	06/01/2022 00:45	WG1872218
Xylenes, Total	ND		0.00300	1	06/01/2022 00:45	WG1872218
Di-isopropyl ether	ND		0.00100	1	06/01/2022 00:45	WG1872218
Ethanol	ND		0.100	1	06/01/2022 00:45	WG1872218
Ethyl tert-butyl ether	ND		0.00100	1	06/01/2022 00:45	WG1872218
Methyl tert-butyl ether	ND		0.00100	1	06/01/2022 00:45	WG1872218
tert-Butyl alcohol	ND		0.00500	1	06/01/2022 00:45	WG1872218
tert-Amyl Methyl Ether	ND		0.00100	1	06/01/2022 00:45	WG1872218
(S) Toluene-d8	*106*		*80.0-120*		*06/01/2022 00:45*	WG1872218
(S) 4-Bromofluorobenzene	*107*		*77.0-126*		*06/01/2022 00:45*	WG1872218
(S) 1,2-Dichloroethane-d4	*101*		*70.0-130*		*06/01/2022 00:45*	WG1872218

Method Blank (MB)

(MB) R3798765-1 05/31/22 18:41

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1498041-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1498041-01 05/31/22 18:41 • (DUP) R3798765-3 05/31/22 18:41

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1070	1130	1	5.27	R8	5

Laboratory Control Sample (LCS)

(LCS) R3798765-2 05/31/22 18:41

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	2460	2390	97.2	81.7-118	

Method Blank (MB)

(MB) R3796875-1 05/26/22 13:10

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate	U		0.0480	0.100
Nitrite	U		0.0420	0.100
Sulfate	U		0.594	5.00

L1497975-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1497975-05 05/26/22 15:17 • (DUP) R3796875-3 05/26/22 15:30

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	ND	ND	1	7.78		15
Nitrite	ND	ND	1	0.000		15
Sulfate	16.3	16.3	1	0.466		15

L1497104-32 Original Sample (OS) • Duplicate (DUP)

(OS) L1497104-32 05/27/22 00:20 • (DUP) R3796875-6 05/27/22 00:33

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	0.810	0.803	1	0.856		15
Nitrite	ND	ND	1	0.000		15
Sulfate	ND	ND	1	2.56		15

Laboratory Control Sample (LCS)

(LCS) R3796875-2 05/26/22 13:23

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate	8.00	8.18	102	80.0-120	
Nitrite	8.00	8.36	104	80.0-120	
Sulfate	40.0	42.0	105	80.0-120	

L1498029-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1498029-01 05/26/22 15:42 • (MS) R3796875-4 05/26/22 16:08 • (MSD) R3796875-5 05/26/22 16:21

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 %
Nitrate	5.00	ND	5.16	5.17	102	102	1	80.0-120			0.281	15
Nitrite	5.00	ND	5.35	5.39	107	108	1	80.0-120			0.781	15
Sulfate	50.0	348	368	370	40.4	45.5	1	80.0-120	E1 M3	E1 M3	0.692	15

L1497104-32 Original Sample (OS) • Matrix Spike (MS)

(OS) L1497104-32 05/27/22 00:20 • (MS) R3796875-7 05/27/22 00:46

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate	5.00	0.810	5.87	101	1	80.0-120	
Nitrite	5.00	ND	5.33	107	1	80.0-120	
Sulfate	50.0	ND	54.0	101	1	80.0-120	

Method Blank (MB)

(MB) R3804183-1 06/16/22 20:09

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Iron	U		0.0180	0.100

Laboratory Control Sample (LCS)

(LCS) R3804183-2 06/16/22 20:11

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Iron	10.0	10.1	101	80.0-120	

L1497947-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1497947-03 06/16/22 20:14 • (MS) R3804183-4 06/16/22 20:20 • (MSD) R3804183-5 06/16/22 20:22

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 %
Iron	10.0	0.302	10.8	10.5	105	102	1	75.0-125			2.42	20

L1498029-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1498029-01 06/16/22 20:25 • (MS) R3804183-6 06/16/22 20:28 • (MSD) R3804183-7 06/16/22 20:31

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 %
Iron	10.0	ND	10.2	10.2	102	101	1	75.0-125			0.615	20

Method Blank (MB)

(MB) R3798059-2 06/01/22 08:56

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Methane	U		0.00291	0.0100
Ethane	U		0.00407	0.0130
Ethene	U		0.00426	0.0130

L1498216-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1498216-05 06/01/22 09:25 • (DUP) R3798059-3 06/01/22 09:27

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	0.307	0.300	1	2.31		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20

L1498216-16 Original Sample (OS) • Duplicate (DUP)

(OS) L1498216-16 06/01/22 09:57 • (DUP) R3798059-4 06/01/22 10:01

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	0.0775	0.0758	1	2.22		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20

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

(LCS) R3798059-1 06/01/22 08:53 • (LCSD) R3798059-7 06/01/22 10:33

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Methane	0.0678	0.0665	0.0678	98.1	100	85.0-115			1.94	20
Ethane	0.129	0.117	0.114	90.7	88.4	85.0-115			2.60	20
Ethene	0.127	0.118	0.115	92.9	90.6	85.0-115			2.58	20

L1498029-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1498029-01 06/01/22 09:05 • (MS) R3798059-5 06/01/22 10:05 • (MSD) R3798059-6 06/01/22 10:07

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 %
Methane	0.0678	ND	0.0761	0.0714	112	105	1	50.0-150			6.37	20
Ethane	0.129	ND	0.128	0.125	99.2	96.9	1	50.0-150			2.37	20
Ethene	0.127	ND	0.129	0.126	102	99.2	1	50.0-150			2.35	20

Method Blank (MB)

(MB) R3798317-3 05/31/22 23:18

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Acrylonitrile	U		0.000671	0.0100
Benzene	U		0.0000941	0.00100
Bromobenzene	U		0.000118	0.00100
Bromochloromethane	U		0.000128	0.00100
Bromodichloromethane	U		0.000136	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 tetrachloride	U		0.000128	0.00100
Carbon disulfide	U		0.0000962	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
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
trans-1,4-Dichloro-2-butene	U		0.000467	0.00250
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	0.000516	E4	0.000126	0.00100
trans-1,2-Dichloroethene	U		0.000149	0.00100
1,2-Dichloropropane	U		0.000149	0.00100
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
Hexachloro-1,3-butadiene	U		0.000337	0.00100
2-Hexanone	U		0.000787	0.0100
2-Butanone (MEK)	U		0.00119	0.0100
Iodomethane	U		0.00600	0.0100
Methylene Chloride	0.00218	E4	0.000430	0.00500

Method Blank (MB)

(MB) R3798317-3 05/31/22 23:18

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
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
1,1,2-Trichlorotrifluoroethane	U		0.000180	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	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
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl acetate	U		0.000692	0.0100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
Di-isopropyl ether	U		0.000105	0.00100
Ethanol	U		0.0420	0.100
Ethyl tert-butyl ether	U		0.000101	0.00100
Methyl tert-butyl ether	U		0.000101	0.00100
tert-Butyl alcohol	U		0.00406	0.00500
tert-Amyl Methyl Ether	U		0.000195	0.00100
(S) Toluene-d8	*106*			*80.0-120*
(S) 4-Bromofluorobenzene	*105*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*

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

(LCS) R3798317-1 05/31/22 22:03 • (LCSD) R3798317-2 05/31/22 22:35

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	0.0181	0.0183	72.4	73.2	19.0-160			1.10	27
Acrylonitrile	0.0250	0.0201	0.0192	80.4	76.8	55.0-149			4.58	20
Benzene	0.00500	0.00506	0.00511	101	102	70.0-123			0.983	20
Bromobenzene	0.00500	0.00491	0.00489	98.2	97.8	73.0-121			0.408	20

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

(LCS) R3798317-1 05/31/22 22:03 • (LCSD) R3798317-2 05/31/22 22:35

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromochloromethane	0.00500	0.00541	0.00531	108	106	76.0-122			1.87	20
Bromodichloromethane	0.00500	0.00454	0.00448	90.8	89.6	75.0-120			1.33	20
Bromoform	0.00500	0.00350	0.00355	70.0	71.0	68.0-132			1.42	20
Bromomethane	0.00500	0.00517	0.00525	103	105	10.0-160			1.54	25
n-Butylbenzene	0.00500	0.00513	0.00522	103	104	73.0-125			1.74	20
sec-Butylbenzene	0.00500	0.00497	0.00488	99.4	97.6	75.0-125			1.83	20
tert-Butylbenzene	0.00500	0.00479	0.00482	95.8	96.4	76.0-124			0.624	20
Carbon tetrachloride	0.00500	0.00430	0.00413	86.0	82.6	68.0-126			4.03	20
Carbon disulfide	0.00500	0.00485	0.00494	97.0	98.8	61.0-128			1.84	20
Chlorobenzene	0.00500	0.00490	0.00493	98.0	98.6	80.0-121			0.610	20
Chlorodibromomethane	0.00500	0.00399	0.00403	79.8	80.6	77.0-125			0.998	20
Chloroethane	0.00500	0.00459	0.00417	91.8	83.4	47.0-150			9.59	20
Chloroform	0.00500	0.00513	0.00514	103	103	73.0-120			0.195	20
Chloromethane	0.00500	0.00813	0.00851	163	170	41.0-142	L1	L1	4.57	20
1,2-Dibromo-3-Chloropropane	0.00500	0.00299	0.00304	59.8	60.8	58.0-134			1.66	20
1,2-Dibromoethane	0.00500	0.00470	0.00501	94.0	100	80.0-122			6.39	20
Dibromomethane	0.00500	0.00476	0.00466	95.2	93.2	80.0-120			2.12	20
1,2-Dichlorobenzene	0.00500	0.00523	0.00512	105	102	79.0-121			2.13	20
1,3-Dichlorobenzene	0.00500	0.00532	0.00523	106	105	79.0-120			1.71	20
1,4-Dichlorobenzene	0.00500	0.00533	0.00475	107	95.0	79.0-120			11.5	20
trans-1,4-Dichloro-2-butene	0.00500	0.00358	0.00355	71.6	71.0	33.0-144			0.842	20
Dichlorodifluoromethane	0.00500	0.00407	0.00417	81.4	83.4	51.0-149			2.43	20
1,1-Dichloroethane	0.00500	0.00461	0.00456	92.2	91.2	70.0-126			1.09	20
1,2-Dichloroethane	0.00500	0.00466	0.00468	93.2	93.6	70.0-128			0.428	20
1,1-Dichloroethene	0.00500	0.00477	0.00476	95.4	95.2	71.0-124			0.210	20
cis-1,2-Dichloroethene	0.00500	0.00585	0.00640	117	128	73.0-120		L1	8.98	20
trans-1,2-Dichloroethene	0.00500	0.00436	0.00471	87.2	94.2	73.0-120			7.72	20
1,2-Dichloropropane	0.00500	0.00465	0.00452	93.0	90.4	77.0-125			2.84	20
cis-1,3-Dichloropropene	0.00500	0.00475	0.00474	95.0	94.8	80.0-123			0.211	20
trans-1,3-Dichloropropene	0.00500	0.00448	0.00451	89.6	90.2	78.0-124			0.667	20
Ethylbenzene	0.00500	0.00494	0.00496	98.8	99.2	79.0-123			0.404	20
Hexachloro-1,3-butadiene	0.00500	0.00459	0.00458	91.8	91.6	54.0-138			0.218	20
2-Hexanone	0.0250	0.0216	0.0217	86.4	86.8	67.0-149			0.462	20
2-Butanone (MEK)	0.0250	0.0177	0.0174	70.8	69.6	44.0-160			1.71	20
Iodomethane	0.0250	0.0251	0.0242	100	96.8	33.0-147			3.65	26
Methylene Chloride	0.00500	0.00794	0.0110	159	220	67.0-120	L1	L1 R7	32.3	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.0225	0.0233	90.0	93.2	68.0-142			3.49	20
Naphthalene	0.00500	0.00349	0.00323	69.8	64.6	54.0-135			7.74	20
n-Propylbenzene	0.00500	0.00500	0.00494	100	98.8	77.0-124			1.21	20
Styrene	0.00500	0.00478	0.00483	95.6	96.6	73.0-130			1.04	20

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

(LCS) R3798317-1 05/31/22 22:03 • (LCSD) R3798317-2 05/31/22 22:35

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,1,1,2-Tetrachloroethane	0.00500	0.00424	0.00431	84.8	86.2	75.0-125			1.64	20
1,1,2,2-Tetrachloroethane	0.00500	0.00456	0.00461	91.2	92.2	65.0-130			1.09	20
1,1,2-Trichlorotrifluoroethane	0.00500	0.00491	0.00513	98.2	103	69.0-132			4.38	20
Tetrachloroethene	0.00500	0.00535	0.00521	107	104	72.0-132			2.65	20
Toluene	0.00500	0.00511	0.00525	102	105	79.0-120			2.70	20
1,2,4-Trichlorobenzene	0.00500	0.00412	0.00407	82.4	81.4	57.0-137			1.22	20
1,1,1-Trichloroethane	0.00500	0.00466	0.00469	93.2	93.8	73.0-124			0.642	20
1,1,2-Trichloroethane	0.00500	0.00446	0.00448	89.2	89.6	80.0-120			0.447	20
Trichloroethene	0.00500	0.00523	0.00540	105	108	78.0-124			3.20	20
Trichlorofluoromethane	0.00500	0.00454	0.00466	90.8	93.2	59.0-147			2.61	20
1,2,3-Trichloropropane	0.00500	0.00457	0.00444	91.4	88.8	73.0-130			2.89	20
1,2,4-Trimethylbenzene	0.00500	0.00479	0.00484	95.8	96.8	76.0-121			1.04	20
1,3,5-Trimethylbenzene	0.00500	0.00481	0.00476	96.2	95.2	76.0-122			1.04	20
Vinyl acetate	0.0250	0.0319	0.0316	128	126	11.0-160			0.945	20
Vinyl chloride	0.00500	0.00506	0.00513	101	103	67.0-131			1.37	20
Xylenes, Total	0.0150	0.0149	0.0151	99.3	101	79.0-123			1.33	20
Di-isopropyl ether	0.00500	0.00405	0.00418	81.0	83.6	58.0-138			3.16	20
ethanol	0.250	0.0949	0.101	38.0	40.4	10.0-160			6.23	30
Ethyl tert-butyl ether	0.00500	0.00458	0.00467	91.6	93.4	63.0-138			1.95	20
Methyl tert-butyl ether	0.00500	0.00442	0.00457	88.4	91.4	68.0-125			3.34	20
tert-Butyl alcohol	0.0250	0.0141	0.0151	56.4	60.4	27.0-160			6.85	30
tert-Amyl Methyl Ether	0.00500	0.00464	0.00461	92.8	92.2	66.0-125			0.649	20
(S) Toluene-d8				*106*	*107*	*80.0-120*				
(S) 4-Bromofluorobenzene				*108*	*107*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*99.9*	*105*	*70.0-130*				

L1497516-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1497516-02 06/01/22 02:11 • (MS) R3798317-4 06/01/22 07:13 • (MSD) R3798317-5 06/01/22 07:34

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 %
Acetone	0.0250	ND	ND	ND	60.4	64.4	1	10.0-160			6.41	35
Acrylonitrile	0.0250	ND	0.0170	0.0199	68.0	79.6	1	21.0-160			15.7	32
Benzene	0.00500	ND	0.00439	0.00506	87.8	101	1	17.0-158			14.2	27
Bromobenzene	0.00500	ND	0.00437	0.00499	87.4	99.8	1	30.0-149			13.2	28
Bromochloromethane	0.00500	ND	0.00472	0.00509	94.4	102	1	38.0-142			7.54	26
Bromodichloromethane	0.00500	ND	0.00420	0.00461	84.0	92.2	1	31.0-150			9.31	27
Bromoform	0.00500	ND	0.00309	0.00324	61.8	64.8	1	29.0-150			4.74	29
Bromomethane	0.00500	ND	ND	ND	96.6	96.8	1	10.0-160			0.207	38

L1497516-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1497516-02 06/01/22 02:11 • (MS) R3798317-4 06/01/22 07:13 • (MSD) R3798317-5 06/01/22 07:34

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 %
n-Butylbenzene	0.00500	ND	0.00412	0.00509	82.4	102	1	31.0-150			21.1	30
sec-Butylbenzene	0.00500	ND	0.00435	0.00529	87.0	106	1	33.0-155			19.5	29
tert-Butylbenzene	0.00500	ND	0.00442	0.00558	88.4	112	1	34.0-153			23.2	28
Carbon tetrachloride	0.00500	ND	0.00398	0.00440	79.6	88.0	1	23.0-159			10.0	28
Carbon disulfide	0.00500	ND	0.00337	0.00397	67.4	79.4	1	10.0-156			16.3	28
Chlorobenzene	0.00500	ND	0.00438	0.00493	87.6	98.6	1	33.0-152			11.8	27
Chlorodibromomethane	0.00500	ND	0.00365	0.00388	73.0	77.6	1	37.0-149			6.11	27
Chloroethane	0.00500	ND	ND	0.00531	90.4	106	1	10.0-160			16.1	30
Chloroform	0.00500	ND	ND	0.00521	89.6	104	1	29.0-154			15.1	28
Chloromethane	0.00500	ND	0.00805	0.00793	161	159	1	10.0-160	M1		1.50	29
1,2-Dibromo-3-Chloropropane	0.00500	ND	ND	ND	57.8	62.8	1	22.0-151			8.29	34
1,2-Dibromoethane	0.00500	ND	0.00426	0.00460	85.2	92.0	1	34.0-147			7.67	27
Dibromomethane	0.00500	ND	0.00414	0.00476	82.8	95.2	1	30.0-151			13.9	27
1,2-Dichlorobenzene	0.00500	ND	0.00454	0.00502	90.8	100	1	34.0-149			10.0	28
1,3-Dichlorobenzene	0.00500	ND	0.00442	0.00521	88.4	104	1	36.0-146			16.4	27
1,4-Dichlorobenzene	0.00500	ND	0.00420	0.00484	84.0	96.8	1	35.0-142			14.2	27
trans-1,4-Dichloro-2-butene	0.00500	ND	0.00277	0.00290	55.4	58.0	1	10.0-157			4.59	37
Dichlorodifluoromethane	0.00500	ND	ND	ND	78.8	94.6	1	10.0-160			18.2	29
1,1-Dichloroethane	0.00500	ND	0.00409	0.00455	81.8	91.0	1	25.0-158			10.6	27
1,2-Dichloroethane	0.00500	ND	0.00423	0.00467	84.6	93.4	1	29.0-151			9.89	27
1,1-Dichloroethene	0.00500	ND	0.00423	0.00473	84.6	94.6	1	11.0-160			11.2	29
cis-1,2-Dichloroethene	0.00500	ND	0.00400	0.00461	80.0	92.2	1	10.0-160			14.2	27
trans-1,2-Dichloroethene	0.00500	ND	0.00364	0.00436	72.8	87.2	1	17.0-153			18.0	27
1,2-Dichloropropane	0.00500	ND	0.00406	0.00492	81.2	98.4	1	30.0-156			19.2	27
cis-1,3-Dichloropropene	0.00500	ND	0.00367	0.00411	73.4	82.2	1	34.0-149			11.3	28
trans-1,3-Dichloropropene	0.00500	ND	0.00392	0.00414	78.4	82.8	1	32.0-149			5.46	28
Ethylbenzene	0.00500	ND	0.00450	0.00536	90.0	107	1	30.0-155			17.4	27
Hexachloro-1,3-butadiene	0.00500	ND	0.00386	0.00489	77.2	97.8	1	20.0-154			23.5	34
2-Hexanone	0.0250	ND	0.0199	0.0224	79.6	89.6	1	21.0-160			11.8	29
2-Butanone (MEK)	0.0250	ND	0.0185	0.0169	74.0	67.6	1	10.0-160			9.04	32
Iodomethane	0.0250	ND	0.0135	0.0162	54.0	64.8	1	10.0-160			18.2	40
Methylene Chloride	0.00500	ND	ND	0.00503	87.8	101	1	23.0-144			13.6	28
4-Methyl-2-pentanone (MIBK)	0.0250	ND	0.0213	0.0229	85.2	91.6	1	29.0-160			7.24	29
Naphthalene	0.00500	ND	ND	ND	51.8	67.8	1	12.0-156			26.8	35
n-Propylbenzene	0.00500	ND	0.00444	0.00528	88.8	106	1	31.0-154			17.3	28
Styrene	0.00500	ND	0.00346	0.00477	69.2	95.4	1	33.0-155		R5	31.8	28
1,1,1,2-Tetrachloroethane	0.00500	ND	0.00403	0.00434	80.6	86.8	1	36.0-151			7.41	29
1,1,2,2-Tetrachloroethane	0.00500	ND	0.00424	0.00465	84.8	93.0	1	33.0-150			9.22	28
1,1,2-Trichlorotrifluoroethane	0.00500	ND	0.00497	0.00611	99.4	122	1	23.0-160			20.6	30
Tetrachloroethene	0.00500	ND	0.00448	0.00553	89.6	111	1	10.0-160			21.0	27

L1497516-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1497516-02 06/01/22 02:11 • (MS) R3798317-4 06/01/22 07:13 • (MSD) R3798317-5 06/01/22 07:34

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 %
Toluene	0.00500	ND	0.00461	0.00516	92.2	103	1	26.0-154			11.3	28
1,2,4-Trichlorobenzene	0.00500	ND	0.00292	0.00380	58.4	76.0	1	24.0-150			26.2	33
1,1,1-Trichloroethane	0.00500	ND	0.00457	0.00522	91.4	104	1	23.0-160			13.3	28
1,1,2-Trichloroethane	0.00500	ND	0.00407	0.00450	81.4	90.0	1	35.0-147			10.0	27
Trichloroethene	0.00500	ND	0.00428	0.00499	85.6	99.8	1	10.0-160			15.3	25
Trichlorofluoromethane	0.00500	ND	ND	0.00517	89.4	103	1	17.0-160			14.5	31
1,2,3-Trichloropropane	0.00500	ND	0.00435	0.00447	87.0	89.4	1	34.0-151			2.72	29
1,2,4-Trimethylbenzene	0.00500	ND	0.00407	0.00484	81.4	96.8	1	26.0-154			17.3	27
1,3,5-Trimethylbenzene	0.00500	ND	0.00414	0.00494	82.8	98.8	1	28.0-153			17.6	27
Vinyl acetate	0.0250	ND	0.0232	0.0333	92.8	133	1	12.0-160		R5	35.8	31
Vinyl chloride	0.00500	ND	0.00394	0.00455	78.8	91.0	1	10.0-160			14.4	27
Xylenes, Total	0.0150	ND	0.0130	0.0153	86.7	102	1	29.0-154			16.3	28
Di-isopropyl ether	0.00500	ND	0.00382	0.00432	76.4	86.4	1	21.0-160			12.3	28
ethanol	0.250	ND	0.104	0.133	41.6	53.2	1	50.0-150	M2	R5	24.5	20
Ethyl tert-butyl ether	0.00500	ND	0.00408	0.00466	81.6	93.2	1	10.0-160			13.3	37
Methyl tert-butyl ether	0.00500	0.0101	0.0141	0.0148	80.0	94.0	1	28.0-150			4.84	29
tert-Butyl alcohol	0.0250	ND	0.0149	0.0174	59.6	69.6	1	50.0-150			15.5	20
tert-Amyl Methyl Ether	0.00500	ND	0.00485	0.00541	97.0	108	1	10.0-160			10.9	37
(S) Toluene-d8					*107*	*104*		*80.0-120*				
(S) 4-Bromofluorobenzene					*108*	*106*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*104*	*103*		*70.0-130*				

Method Blank (MB)

(MB) R3798629-3 06/01/22 21:35

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Acrylonitrile	U		0.000671	0.0100
Benzene	U		0.0000941	0.00100
Bromobenzene	U		0.000118	0.00100
Bromochloromethane	U		0.000128	0.00100
Bromodichloromethane	U		0.000136	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 tetrachloride	U		0.000128	0.00100
Carbon disulfide	U		0.0000962	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
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
trans-1,4-Dichloro-2-butene	U		0.000467	0.00250
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
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
Hexachloro-1,3-butadiene	U		0.000337	0.00100
2-Hexanone	U		0.000787	0.0100
2-Butanone (MEK)	U		0.00119	0.0100
Iodomethane	U		0.00600	0.0100
Methylene Chloride	U		0.000430	0.00500

Method Blank (MB)

(MB) R3798629-3 06/01/22 21:35

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
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
1,1,2-Trichlorotrifluoroethane	U		0.000180	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	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
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl acetate	U		0.000692	0.0100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
Di-isopropyl ether	U		0.000105	0.00100
Ethanol	U		0.0420	0.100
Ethyl tert-butyl ether	U		0.000101	0.00100
Methyl tert-butyl ether	U		0.000101	0.00100
tert-Butyl alcohol	U		0.00406	0.00500
tert-Amyl Methyl Ether	U		0.000195	0.00100
(S) Toluene-d8	*111*			*80.0-120*
(S) 4-Bromofluorobenzene	*95.5*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*120*			*70.0-130*

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

(LCS) R3798629-1 06/01/22 20:33 • (LCSD) R3798629-2 06/01/22 20:53

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	0.0284	0.0288	114	115	19.0-160			1.40	27
Acrylonitrile	0.0250	0.0243	0.0263	97.2	105	55.0-149			7.91	20
Benzene	0.00500	0.00466	0.00456	93.2	91.2	70.0-123			2.17	20
Bromobenzene	0.00500	0.00477	0.00492	95.4	98.4	73.0-121			3.10	20

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

(LCS) R3798629-1 06/01/22 20:33 • (LCSD) R3798629-2 06/01/22 20:53

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromochloromethane	0.00500	0.00475	0.00481	95.0	96.2	76.0-122			1.26	20
Bromodichloromethane	0.00500	0.00461	0.00466	92.2	93.2	75.0-120			1.08	20
Bromoform	0.00500	0.00454	0.00444	90.8	88.8	68.0-132			2.23	20
Bromomethane	0.00500	0.00105	0.00131	21.0	26.2	10.0-160			22.0	25
n-Butylbenzene	0.00500	0.00407	0.00430	81.4	86.0	73.0-125			5.50	20
sec-Butylbenzene	0.00500	0.00472	0.00492	94.4	98.4	75.0-125			4.15	20
tert-Butylbenzene	0.00500	0.00457	0.00468	91.4	93.6	76.0-124			2.38	20
Carbon tetrachloride	0.00500	0.00521	0.00497	104	99.4	68.0-126			4.72	20
Carbon disulfide	0.00500	0.00443	0.00445	88.6	89.0	61.0-128			0.450	20
Chlorobenzene	0.00500	0.00488	0.00482	97.6	96.4	80.0-121			1.24	20
Chlorodibromomethane	0.00500	0.00485	0.00460	97.0	92.0	77.0-125			5.29	20
Chloroethane	0.00500	0.00471	0.00484	94.2	96.8	47.0-150			2.72	20
Chloroform	0.00500	0.00486	0.00490	97.2	98.0	73.0-120			0.820	20
Chloromethane	0.00500	0.00496	0.00501	99.2	100	41.0-142			1.00	20
1,2-Dibromo-3-Chloropropane	0.00500	0.00344	0.00394	68.8	78.8	58.0-134			13.6	20
1,2-Dibromoethane	0.00500	0.00485	0.00476	97.0	95.2	80.0-122			1.87	20
Dibromomethane	0.00500	0.00475	0.00424	95.0	84.8	80.0-120			11.3	20
1,2-Dichlorobenzene	0.00500	0.00517	0.00528	103	106	79.0-121			2.11	20
1,3-Dichlorobenzene	0.00500	0.00487	0.00492	97.4	98.4	79.0-120			1.02	20
1,4-Dichlorobenzene	0.00500	0.00481	0.00503	96.2	101	79.0-120			4.47	20
trans-1,4-Dichloro-2-butene	0.00500	0.00380	0.00360	76.0	72.0	33.0-144			5.41	20
Dichlorodifluoromethane	0.00500	0.00460	0.00451	92.0	90.2	51.0-149			1.98	20
1,1-Dichloroethane	0.00500	0.00532	0.00529	106	106	70.0-126			0.566	20
1,2-Dichloroethane	0.00500	0.00535	0.00518	107	104	70.0-128			3.23	20
1,1-Dichloroethene	0.00500	0.00459	0.00443	91.8	88.6	71.0-124			3.55	20
cis-1,2-Dichloroethene	0.00500	0.00462	0.00451	92.4	90.2	73.0-120			2.41	20
trans-1,2-Dichloroethene	0.00500	0.00442	0.00439	88.4	87.8	73.0-120			0.681	20
1,2-Dichloropropane	0.00500	0.00494	0.00456	98.8	91.2	77.0-125			8.00	20
cis-1,3-Dichloropropene	0.00500	0.00460	0.00444	92.0	88.8	80.0-123			3.54	20
trans-1,3-Dichloropropene	0.00500	0.00477	0.00460	95.4	92.0	78.0-124			3.63	20
Ethylbenzene	0.00500	0.00479	0.00478	95.8	95.6	79.0-123			0.209	20
Hexachloro-1,3-butadiene	0.00500	0.00537	0.00615	107	123	54.0-138			13.5	20
2-Hexanone	0.0250	0.0231	0.0234	92.4	93.6	67.0-149			1.29	20
2-Butanone (MEK)	0.0250	0.0257	0.0259	103	104	44.0-160			0.775	20
Iodomethane	0.0250	0.00650	0.00907	26.0	36.3	33.0-147	L2	R7	33.0	26
Methylene Chloride	0.00500	0.00466	0.00475	93.2	95.0	67.0-120			1.91	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.0301	0.0296	120	118	68.0-142			1.68	20
Naphthalene	0.00500	0.00433	0.00458	86.6	91.6	54.0-135			5.61	20
n-Propylbenzene	0.00500	0.00475	0.00491	95.0	98.2	77.0-124			3.31	20
Styrene	0.00500	0.00417	0.00429	83.4	85.8	73.0-130			2.84	20

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

(LCS) R3798629-1 06/01/22 20:33 • (LCSD) R3798629-2 06/01/22 20:53

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,1,1,2-Tetrachloroethane	0.00500	0.00499	0.00472	99.8	94.4	75.0-125			5.56	20
1,1,2,2-Tetrachloroethane	0.00500	0.00431	0.00432	86.2	86.4	65.0-130			0.232	20
1,1,2-Trichlorotrifluoroethane	0.00500	0.00507	0.00486	101	97.2	69.0-132			4.23	20
Tetrachloroethene	0.00500	0.00533	0.00532	107	106	72.0-132			0.188	20
Toluene	0.00500	0.00490	0.00484	98.0	96.8	79.0-120			1.23	20
1,2,4-Trichlorobenzene	0.00500	0.00434	0.00423	86.8	84.6	57.0-137			2.57	20
1,1,1-Trichloroethane	0.00500	0.00520	0.00496	104	99.2	73.0-124			4.72	20
1,1,2-Trichloroethane	0.00500	0.00465	0.00477	93.0	95.4	80.0-120			2.55	20
Trichloroethene	0.00500	0.00519	0.00523	104	105	78.0-124			0.768	20
Trichlorofluoromethane	0.00500	0.00493	0.00509	98.6	102	59.0-147			3.19	20
1,2,3-Trichloropropane	0.00500	0.00484	0.00482	96.8	96.4	73.0-130			0.414	20
1,2,4-Trimethylbenzene	0.00500	0.00449	0.00465	89.8	93.0	76.0-121			3.50	20
1,3,5-Trimethylbenzene	0.00500	0.00491	0.00504	98.2	101	76.0-122			2.61	20
Vinyl acetate	0.0250	0.0220	0.0205	88.0	82.0	11.0-160			7.06	20
Vinyl chloride	0.00500	0.00466	0.00494	93.2	98.8	67.0-131			5.83	20
Xylenes, Total	0.0150	0.0136	0.0138	90.7	92.0	79.0-123			1.46	20
Di-isopropyl ether	0.00500	0.00516	0.00541	103	108	58.0-138			4.73	20
ethanol	0.250	0.156	0.239	62.4	95.6	10.0-160		R7	42.0	30
Ethyl tert-butyl ether	0.00500	0.00535	0.00514	107	103	63.0-138			4.00	20
Methyl tert-butyl ether	0.00500	0.00479	0.00428	95.8	85.6	68.0-125			11.2	20
tert-Butyl alcohol	0.0250	0.0204	0.0212	81.6	84.8	27.0-160			3.85	30
tert-Amyl Methyl Ether	0.00500	0.00462	0.00434	92.4	86.8	66.0-125			6.25	20
(S) Toluene-d8				*110*	*109*	*80.0-120*				
(S) 4-Bromofluorobenzene				*100*	*99.0*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*124*	*121*	*70.0-130*				

L1498029-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1498029-01 06/02/22 06:23 • (MS) R3798629-4 06/02/22 07:47 • (MSD) R3798629-5 06/02/22 08:08

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 %
Acetone	5.00	ND	ND	ND	98.2	110	200	10.0-160			11.5	35
Acrylonitrile	5.00	ND	4.75	5.75	95.0	115	200	21.0-160			19.0	32
Benzene	1.00	ND	0.748	0.617	74.8	61.7	200	17.0-158			19.2	27
Bromobenzene	1.00	ND	0.825	0.734	82.5	73.4	200	30.0-149			11.7	28
Bromochloromethane	1.00	ND	0.841	0.785	84.1	78.5	200	38.0-142			6.89	26
Bromodichloromethane	1.00	ND	0.831	0.767	83.1	76.7	200	31.0-150			8.01	27
Bromoform	1.00	ND	0.831	0.896	83.1	89.6	200	29.0-150			7.53	29
Bromomethane	1.00	ND	ND	ND	15.0	17.4	200	10.0-160			14.8	38

L1498029-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1498029-01 06/02/22 06:23 • (MS) R3798629-4 06/02/22 07:47 • (MSD) R3798629-5 06/02/22 08:08

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 %
n-Butylbenzene	1.00	ND	0.677	0.610	67.7	61.0	200	31.0-150			10.4	30
sec-Butylbenzene	1.00	ND	0.799	0.707	79.9	70.7	200	33.0-155			12.2	29
tert-Butylbenzene	1.00	ND	0.724	0.649	72.4	64.9	200	34.0-153			10.9	28
Carbon tetrachloride	1.00	ND	0.848	0.649	84.8	64.9	200	23.0-159			26.6	28
Carbon disulfide	1.00	ND	0.607	0.484	60.7	48.4	200	10.0-156			22.5	28
Chlorobenzene	1.00	ND	0.793	0.730	79.3	73.0	200	33.0-152			8.27	27
Chlorodibromomethane	1.00	ND	0.833	0.867	83.3	86.7	200	37.0-149			4.00	27
Chloroethane	1.00	ND	ND	ND	67.8	56.4	200	10.0-160			18.4	30
Chloroform	1.00	ND	ND	ND	79.0	70.3	200	29.0-154			11.7	28
Chloromethane	1.00	ND	0.722	0.611	72.2	61.1	200	10.0-160			16.7	29
1,2-Dibromo-3-Chloropropane	1.00	ND	ND	ND	69.2	76.9	200	22.0-151			10.5	34
1,2-Dibromoethane	1.00	ND	0.849	0.905	84.9	90.5	200	34.0-147			6.39	27
Dibromomethane	1.00	ND	0.803	0.807	80.3	80.7	200	30.0-151			0.497	27
1,2-Dichlorobenzene	1.00	ND	0.891	0.837	89.1	83.7	200	34.0-149			6.25	28
1,3-Dichlorobenzene	1.00	ND	0.797	0.781	79.7	78.1	200	36.0-146			2.03	27
1,4-Dichlorobenzene	1.00	ND	0.838	0.798	83.8	79.8	200	35.0-142			4.89	27
trans-1,4-Dichloro-2-butene	1.00	ND	0.574	0.670	57.4	67.0	200	10.0-157			15.4	37
Dichlorodifluoromethane	1.00	ND	ND	ND	73.6	53.5	200	10.0-160		R5	31.6	29
1,1-Dichloroethane	1.00	ND	0.861	0.709	86.1	70.9	200	25.0-158			19.4	27
1,2-Dichloroethane	1.00	ND	0.949	ND	94.9	14.4	200	29.0-151		M2 R5	147	27
1,1-Dichloroethene	1.00	ND	0.724	0.564	72.4	56.4	200	11.0-160			24.8	29
cis-1,2-Dichloroethene	1.00	ND	0.782	0.626	78.2	62.6	200	10.0-160			22.2	27
trans-1,2-Dichloroethene	1.00	ND	0.673	0.568	67.3	56.8	200	17.0-153			16.9	27
1,2-Dichloropropane	1.00	ND	0.816	0.765	81.6	76.5	200	30.0-156			6.45	27
cis-1,3-Dichloropropene	1.00	ND	0.765	0.726	76.5	72.6	200	34.0-149			5.23	28
trans-1,3-Dichloropropene	1.00	ND	0.796	0.822	79.6	82.2	200	32.0-149			3.21	28
Ethylbenzene	1.00	ND	0.804	0.642	80.4	64.2	200	30.0-155			22.4	27
Hexachloro-1,3-butadiene	1.00	ND	0.997	0.938	99.7	93.8	200	20.0-154			6.10	34
2-Hexanone	5.00	ND	4.53	5.24	90.6	105	200	21.0-160			14.5	29
2-Butanone (MEK)	5.00	ND	5.15	5.67	103	113	200	10.0-160			9.61	32
Iodomethane	5.00	ND	ND	ND	0.000	0.000	200	10.0-160	M2	M2	0.000	40
Methylene Chloride	1.00	ND	ND	ND	79.8	70.2	200	23.0-144			12.8	28
4-Methyl-2-pentanone (MIBK)	5.00	ND	5.70	6.34	114	127	200	29.0-160			10.6	29
Naphthalene	1.00	ND	ND	ND	75.8	98.8	200	12.0-156			26.3	35
n-Propylbenzene	1.00	ND	0.789	0.680	78.9	68.0	200	31.0-154			14.8	28
Styrene	1.00	ND	0.702	0.624	70.2	62.4	200	33.0-155			11.8	28
1,1,1,2-Tetrachloroethane	1.00	ND	0.815	0.745	81.5	74.5	200	36.0-151			8.97	29
1,1,2,2-Tetrachloroethane	1.00	ND	0.864	0.902	86.4	90.2	200	33.0-150			4.30	28
1,1,2-Trichlorotrifluoroethane	1.00	ND	0.845	0.624	84.5	62.4	200	23.0-160		R5	30.1	30
Tetrachloroethene	1.00	ND	0.863	0.684	86.3	68.4	200	10.0-160			23.1	27

L1498029-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1498029-01 06/02/22 06:23 • (MS) R3798629-4 06/02/22 07:47 • (MSD) R3798629-5 06/02/22 08:08

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 %
Toluene	1.00	ND	0.799	0.637	79.9	63.7	200	26.0-154			22.6	28
1,2,4-Trichlorobenzene	1.00	ND	0.617	0.809	61.7	80.9	200	24.0-150			26.9	33
1,1,1-Trichloroethane	1.00	ND	0.850	0.665	85.0	66.5	200	23.0-160			24.4	28
1,1,2-Trichloroethane	1.00	ND	0.879	0.868	87.9	86.8	200	35.0-147			1.26	27
Trichloroethene	1.00	ND	0.760	0.611	76.0	61.1	200	10.0-160			21.7	25
Trichlorofluoromethane	1.00	ND	ND	ND	86.7	62.4	200	17.0-160		R5	32.6	31
1,2,3-Trichloropropane	1.00	ND	0.927	1.06	92.7	106	200	34.0-151			13.4	29
1,2,4-Trimethylbenzene	1.00	ND	0.772	0.666	77.2	66.6	200	26.0-154			14.7	27
1,3,5-Trimethylbenzene	1.00	ND	0.810	0.708	81.0	70.8	200	28.0-153			13.4	27
Vinyl acetate	5.00	ND	6.64	7.08	133	142	200	12.0-160			6.41	31
Vinyl chloride	1.00	ND	0.725	0.575	72.5	57.5	200	10.0-160			23.1	27
Xylenes, Total	3.00	ND	2.25	1.90	75.0	63.3	200	29.0-154			16.9	28
Di-isopropyl ether	1.00	ND	0.922	0.898	92.2	89.8	200	21.0-160			2.64	28
ethanol	50.0	ND	37.9	48.2	75.8	96.4	200	50.0-150		R5	23.9	20
Ethyl tert-butyl ether	1.00	ND	0.921	0.900	92.1	90.0	200	10.0-160			2.31	37
Methyl tert-butyl ether	1.00	7.98	8.60	9.20	62.0	122	200	28.0-150			6.74	29
tert-Butyl alcohol	5.00	ND	4.48	5.74	89.6	115	200	50.0-150		R5	24.7	20
tert-Amyl Methyl Ether	1.00	0.938	1.78	1.83	84.2	89.2	200	10.0-160			2.77	37
(S) Toluene-d8					*108*	*107*		*80.0-120*				
(S) 4-Bromofluorobenzene					*96.8*	*98.1*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*123*	*120*		*70.0-130*				

Sample Narrative:

OS: Target compounds too high to run at a lower dilution.

Method Blank (MB)

(MB) R3798938-3 06/02/22 12:33

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Methyl tert-butyl ether	U		0.000101	0.00100
tert-Amyl Methyl Ether	U		0.000195	0.00100
(S) Toluene-d8	*117*			*80.0-120*
(S) 4-Bromofluorobenzene	*99.6*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*88.3*			*70.0-130*

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

(LCS) R3798938-1 06/02/22 11:35 • (LCSD) R3798938-2 06/02/22 11:54

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Methyl tert-butyl ether	0.00500	0.00464	0.00481	92.8	96.2	68.0-125			3.60	20
tert-Amyl Methyl Ether	0.00500	0.00481	0.00475	96.2	95.0	66.0-125			1.26	20
(S) Toluene-d8				*114*	*117*	*80.0-120*				
(S) 4-Bromofluorobenzene				*99.5*	*102*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*87.5*	*86.8*	*70.0-130*				

INTERNAL STANDARD SUMMARY

Instrument: VOCMS21 • File ID: 0531_35

05/31/22 22:03

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0531_35	272873	120438	129784
Upper Limit		545746	240876	259568
Lower Limit		136437	60219	64892
LCS R3798317-1 WG1872218 1x	0531_35LCS	272873	120438	129784
LCSD R3798317-2 WG1872218 1x	0531_36	283123	122516	131089
BLANK R3798317-3 WG1872218 1x	0531_38	276871	119282	122920
L1498029-03 WG1872218 1x	0531_42	271079	116428	122505
L1498029-02 WG1872218 1x	0531_55	284111	121147	130499
MS R3798317-4 WG1872218 1x	0531_60	274202	118489	128890
MSD R3798317-5 WG1872218 1x	0531_61	279075	122085	130220

Instrument: VOCMS23 • File ID: 0601_36

06/01/22 20:33

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0601_36	363765	155885	145141
Upper Limit		727530	311770	290282
Lower Limit		181883	77943	72571
LCS R3798629-1 WG1872895 1x	0601_36LCS	363765	155885	145141
LCSD R3798629-2 WG1872895 1x	0601_37	378862	161802	146101
BLANK R3798629-3 WG1872895 1x	0601_39	361662	148021	124811
L1498029-01 WG1872895 200x	0601_63	370588	149831	123656
MS R3798629-4 WG1872895 200x	0601_67	375715	159097	145180
MSD R3798629-5 WG1872895 200x	0601_68	375342	160258	146297

Instrument: VOCMS32 • File ID: 0602_29

06/02/22 11:35

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0602_29	250876	94333	57266
Upper Limit		501752	188666	114532
Lower Limit		125438	47167	28633

INTERNAL STANDARD SUMMARY

Instrument: VOCMS32 • File ID: 0602_29

06/02/22 11:35

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
LCS R3798938-1 WG1873353 1x	0602_29LCSC	250876	94333	57266
LCSD R3798938-2 WG1873353 1x	0602_30C	251464	92375	57284
BLANK R3798938-3 WG1873353 1x	0602_32C	242604	87067	50873
L1498029-02 WG1873353 50x	0602_54	366006	134868	76626

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.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	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
E1	Concentration estimated. Analyte exceeded calibration range. Reanalysis not possible due to insufficient sample.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
L1	The associated blank spike recovery was above laboratory acceptance limits.
L2	The associated blank spike recovery was below laboratory acceptance limits.
M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike recovery was acceptable.
R5	MS/MSD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.
R7	LFB/LFBD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.
R8	Sample RPD exceeded the method acceptance limit.

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	LAO000356
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:
Kinder Morgan - Rocklin, CA-AZ Work

410 N.44th Street
Suite 1000
Phoenix. AZ 85008

Billing Information:
Accounts Payable- Alan Van Antwerp
9950 SAN DIEGO MISSION RD.
SAN DIEGO, CA 92108

Report to: **Bob Forsberg**

Email To: bob.forsberg@arcadis-us.com;sascha.arnold@arcadis.com

Project Description: **KMEP Silvercroft Wash**

City/State Collected: Tucson, AZ

Please Circle: PT (MT) CT ET

Phone: **602-438-0883**

Client Project # **30113573.01**

Lab Project # **KINARCPAZ-SILVERCROF**

Collected by (print): MAT

Site/Facility ID # **SILVERCROFT WASH**

P.O. # **WD876456**

Collected by (signature): M. Tarn

Immediately Packed on Ice N ___ Y X

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: STD TURN

Pres Chk

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	*NO2,NO3,SO4 125mlHDPE-NoPres	EEM RSK175 40mlAmb HCl	HOLD - NO2+NO3 250mlHDPE-H2SO4	TDS 1L-HDPE NoPres	Total Fe 6010 250mlHDPE-HNO3	VOCs+OXYs 8260 40mlAmb-HCl				Remarks	Sample # (lab only)
MW-29S	G	GW	173	5/25/22	0937	18	X	X	X	X	X	X				Rm MS/MSD	-01
MW-29S-DUP	R	GW	173	5/25/22	0942	9	X	X	X	X	X	X					-02
		GW															
		GW															
		GW															
		GW															
		GW															
		GW															
		GW															
		GW															
Trip Blank	—	GW	—	5/25/22	—	1						1					

Chain of Custody Page 1 of 1

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1498029

E168

...tion#: KINARCPAZ
Template: T190237
Prelogin: P914772
PM: 110 - Brian Ford
PB:

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:*NO2,NO3 have a 48 hour holding time.

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 5755 8091 7297

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

Relinquished by : (Signature) M. Tarn	Date: 5/25/22	Time: 1603	Received by: (Signature)	Trip Blank Received: (Yes) / No (HCl) / MeoH TBR 1
Relinquished by : (Signature)	Date: 5/25/22	Time: 1800	Received by: (Signature)	Temp: RNA °C +0.1 Bottles Received: 27
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 5/26/22 Time: 09:00

If preservation required by Login: Date/Time

Hold:

Condition: NCF / (OK)

DNPA 7

ANALYTICAL REPORT

July 12, 2022

Kinder Morgan - Rocklin, CA-AZ Work

Sample Delivery Group:	L1504998
Samples Received:	06/15/2022
Project Number:	30113573.01
Description:	KMEP Silvercroft Wash
Site:	SILVERCROFT WASH
Report To:	Bob Forsberg 410 N.44th Street Suite 1000 Phoenix, AZ 85008

Entire Report Reviewed By:

Brian Ford

Project Manager

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

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

MW-29D L1504998-01 GW

Collected by: MAT / SXA | Collected date/time: 06/14/22 09:32 | Received date/time: 06/15/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1882814	1	06/21/22 15:30	06/21/22 16:10	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1879790	1	06/16/22 04:34	06/16/22 04:34	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1879790	10	06/16/22 05:42	06/16/22 05:42	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1883985	1	06/29/22 15:23	07/05/22 23:51	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1881370	1	06/18/22 12:55	06/18/22 12:55	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1883793	1	06/23/22 07:49	06/23/22 07:49	JCP	Mt. Juliet, TN

MW-31D L1504998-02 GW

Collected by: MAT / SXA | Collected date/time: 06/14/22 11:13 | Received date/time: 06/15/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1882719	1	06/21/22 09:56	06/21/22 14:23	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1879790	1	06/16/22 05:56	06/16/22 05:56	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1879790	10	06/16/22 06:10	06/16/22 06:10	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1883985	1	06/29/22 15:23	07/06/22 00:52	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1881370	1	06/18/22 13:02	06/18/22 13:02	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1883793	1	06/23/22 08:10	06/23/22 08:10	JCP	Mt. Juliet, TN

MW-32D L1504998-03 GW

Collected by: MAT / SXA | Collected date/time: 06/14/22 12:47 | Received date/time: 06/15/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1882814	1	06/21/22 15:30	06/21/22 16:10	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1879790	1	06/16/22 06:23	06/16/22 06:23	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1879790	10	06/16/22 06:37	06/16/22 06:37	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1883985	1	06/29/22 15:23	07/06/22 00:55	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1881370	1	06/18/22 13:21	06/18/22 13:21	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1883793	1	06/23/22 08:31	06/23/22 08:31	JCP	Mt. Juliet, TN

MW-31M L1504998-04 GW

Collected by: MAT / SXA | Collected date/time: 06/14/22 13:42 | Received date/time: 06/15/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1882719	1	06/21/22 09:56	06/21/22 14:23	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1879790	1	06/16/22 06:50	06/16/22 06:50	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1879790	10	06/16/22 07:04	06/16/22 07:04	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1883985	1	06/29/22 15:23	07/06/22 00:58	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1881370	1	06/18/22 13:24	06/18/22 13:24	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1883793	1	06/23/22 08:51	06/23/22 08:51	JCP	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1884685	10	06/24/22 02:23	06/24/22 02:23	DWR	Mt. Juliet, TN

MW-29M L1504998-05 GW

Collected by: MAT / SXA | Collected date/time: 06/14/22 15:17 | Received date/time: 06/15/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1882719	1	06/21/22 09:56	06/21/22 14:23	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1879790	1	06/16/22 07:18	06/16/22 07:18	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1879790	10	06/16/22 07:58	06/16/22 07:58	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1883985	1	06/29/22 15:23	07/06/22 01:00	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1881370	1	06/18/22 13:29	06/18/22 13:29	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1883793	1	06/23/22 09:12	06/23/22 09:12	JCP	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1884685	10	06/24/22 02:43	06/24/22 02:43	DWR	Mt. Juliet, TN

EQUIPMENT BLANK L1504998-06 GW

Collected by	Collected date/time	Received date/time
MAT / SXA	06/14/22 08:10	06/15/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1883793	1	06/23/22 03:22	06/23/22 03:22	JCP	Mt. Juliet, TN

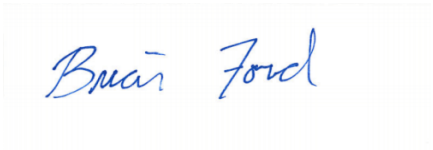
TRIP BLANK L1504998-07 GW

Collected by	Collected date/time	Received date/time
MAT / SXA	06/14/22 00:00	06/15/22 09:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1883793	1	06/23/22 03:02	06/23/22 03:02	JCP	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.



Brian Ford
Project Manager

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	641		13.3	1	06/21/2022 16:10	WG1882814

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	2.93		0.100	1	06/16/2022 04:34	WG1879790
Nitrite	ND		0.100	1	06/16/2022 04:34	WG1879790
Sulfate	234	M3	50.0	10	06/16/2022 05:42	WG1879790

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	0.178	B1	0.100	1	07/05/2022 23:51	WG1883985

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	06/18/2022 12:55	WG1881370
Ethane	ND		0.0130	1	06/18/2022 12:55	WG1881370
Ethene	ND		0.0130	1	06/18/2022 12:55	WG1881370

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND	L1 M1	0.0500	1	06/23/2022 07:49	WG1883793
Acrylonitrile	ND		0.0100	1	06/23/2022 07:49	WG1883793
Benzene	ND		0.00100	1	06/23/2022 07:49	WG1883793
Bromobenzene	ND		0.00100	1	06/23/2022 07:49	WG1883793
Bromochloromethane	ND		0.00100	1	06/23/2022 07:49	WG1883793
Bromodichloromethane	ND		0.00100	1	06/23/2022 07:49	WG1883793
Bromoform	ND	L2	0.00100	1	06/23/2022 07:49	WG1883793
Bromomethane	ND		0.00500	1	06/23/2022 07:49	WG1883793
n-Butylbenzene	ND	R5	0.00100	1	06/23/2022 07:49	WG1883793
sec-Butylbenzene	ND		0.00100	1	06/23/2022 07:49	WG1883793
tert-Butylbenzene	ND		0.00100	1	06/23/2022 07:49	WG1883793
Carbon tetrachloride	ND	L2	0.00100	1	06/23/2022 07:49	WG1883793
Carbon disulfide	ND		0.00100	1	06/23/2022 07:49	WG1883793
Chlorobenzene	ND		0.00100	1	06/23/2022 07:49	WG1883793
Chlorodibromomethane	ND	L2	0.00100	1	06/23/2022 07:49	WG1883793
Chloroethane	ND		0.00500	1	06/23/2022 07:49	WG1883793
Chloroform	ND		0.00500	1	06/23/2022 07:49	WG1883793
Chloromethane	ND		0.00250	1	06/23/2022 07:49	WG1883793
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	06/23/2022 07:49	WG1883793
1,2-Dibromoethane	ND		0.00100	1	06/23/2022 07:49	WG1883793
Dibromomethane	ND		0.00100	1	06/23/2022 07:49	WG1883793
1,2-Dichlorobenzene	ND		0.00100	1	06/23/2022 07:49	WG1883793
1,3-Dichlorobenzene	ND		0.00100	1	06/23/2022 07:49	WG1883793
1,4-Dichlorobenzene	ND		0.00100	1	06/23/2022 07:49	WG1883793
trans-1,4-Dichloro-2-butene	ND		0.00250	1	06/23/2022 07:49	WG1883793
Dichlorodifluoromethane	ND	R5	0.00500	1	06/23/2022 07:49	WG1883793
1,1-Dichloroethane	ND		0.00100	1	06/23/2022 07:49	WG1883793
1,2-Dichloroethane	ND		0.00100	1	06/23/2022 07:49	WG1883793
1,1-Dichloroethene	ND		0.00100	1	06/23/2022 07:49	WG1883793
cis-1,2-Dichloroethene	ND		0.00100	1	06/23/2022 07:49	WG1883793

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.00100	1	06/23/2022 07:49	WG1883793
1,2-Dichloropropane	ND		0.00100	1	06/23/2022 07:49	WG1883793
cis-1,3-Dichloropropene	ND		0.00100	1	06/23/2022 07:49	WG1883793
trans-1,3-Dichloropropene	ND		0.00100	1	06/23/2022 07:49	WG1883793
Ethylbenzene	ND		0.00100	1	06/23/2022 07:49	WG1883793
Hexachloro-1,3-butadiene	ND		0.00100	1	06/23/2022 07:49	WG1883793
2-Hexanone	ND		0.0100	1	06/23/2022 07:49	WG1883793
2-Butanone (MEK)	ND		0.0100	1	06/23/2022 07:49	WG1883793
Iodomethane	ND		0.0100	1	06/23/2022 07:49	WG1883793
Methylene Chloride	ND		0.00500	1	06/23/2022 07:49	WG1883793
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	06/23/2022 07:49	WG1883793
Naphthalene	ND	L2	0.00500	1	06/23/2022 07:49	WG1883793
n-Propylbenzene	ND		0.00100	1	06/23/2022 07:49	WG1883793
Styrene	ND		0.00100	1	06/23/2022 07:49	WG1883793
1,1,1,2-Tetrachloroethane	ND		0.00100	1	06/23/2022 07:49	WG1883793
1,1,2,2-Tetrachloroethane	ND		0.00100	1	06/23/2022 07:49	WG1883793
1,1,2-Trichlorotrifluoroethane	ND	R5	0.00100	1	06/23/2022 07:49	WG1883793
Tetrachloroethene	ND		0.00100	1	06/23/2022 07:49	WG1883793
Toluene	ND		0.00100	1	06/23/2022 07:49	WG1883793
1,2,4-Trichlorobenzene	ND		0.00100	1	06/23/2022 07:49	WG1883793
1,1,1-Trichloroethane	ND		0.00100	1	06/23/2022 07:49	WG1883793
1,1,2-Trichloroethane	ND		0.00100	1	06/23/2022 07:49	WG1883793
Trichloroethene	ND		0.00100	1	06/23/2022 07:49	WG1883793
Trichlorofluoromethane	ND		0.00500	1	06/23/2022 07:49	WG1883793
1,2,3-Trichloropropane	ND		0.00250	1	06/23/2022 07:49	WG1883793
1,2,4-Trimethylbenzene	ND		0.00100	1	06/23/2022 07:49	WG1883793
1,3,5-Trimethylbenzene	ND		0.00100	1	06/23/2022 07:49	WG1883793
Vinyl acetate	ND		0.0100	1	06/23/2022 07:49	WG1883793
Vinyl chloride	ND		0.00100	1	06/23/2022 07:49	WG1883793
Xylenes, Total	ND		0.00300	1	06/23/2022 07:49	WG1883793
Di-isopropyl ether	ND		0.00100	1	06/23/2022 07:49	WG1883793
Ethanol	ND		0.100	1	06/23/2022 07:49	WG1883793
Ethyl tert-butyl ether	ND		0.00100	1	06/23/2022 07:49	WG1883793
Methyl tert-butyl ether	ND		0.00100	1	06/23/2022 07:49	WG1883793
tert-Butyl alcohol	ND		0.00500	1	06/23/2022 07:49	WG1883793
tert-Amyl Methyl Ether	ND		0.00100	1	06/23/2022 07:49	WG1883793
(S) Toluene-d8	*106*		*80.0-120*		*06/23/2022 07:49*	WG1883793
(S) 4-Bromofluorobenzene	*100*		*77.0-126*		*06/23/2022 07:49*	WG1883793
(S) 1,2-Dichloroethane-d4	*101*		*70.0-130*		*06/23/2022 07:49*	WG1883793

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

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	804		13.3	1	06/21/2022 14:23	WG1882719

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	3.92		0.100	1	06/16/2022 05:56	WG1879790
Nitrite	ND		0.100	1	06/16/2022 05:56	WG1879790
Sulfate	255		50.0	10	06/16/2022 06:10	WG1879790

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	ND		0.100	1	07/06/2022 00:52	WG1883985

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	06/18/2022 13:02	WG1881370
Ethane	ND		0.0130	1	06/18/2022 13:02	WG1881370
Ethene	ND		0.0130	1	06/18/2022 13:02	WG1881370

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND	L1 R5	0.0500	1	06/23/2022 08:10	WG1883793
Acrylonitrile	ND		0.0100	1	06/23/2022 08:10	WG1883793
Benzene	ND		0.00100	1	06/23/2022 08:10	WG1883793
Bromobenzene	ND		0.00100	1	06/23/2022 08:10	WG1883793
Bromochloromethane	ND		0.00100	1	06/23/2022 08:10	WG1883793
Bromodichloromethane	ND		0.00100	1	06/23/2022 08:10	WG1883793
Bromoform	ND	L2	0.00100	1	06/23/2022 08:10	WG1883793
Bromomethane	ND		0.00500	1	06/23/2022 08:10	WG1883793
n-Butylbenzene	ND		0.00100	1	06/23/2022 08:10	WG1883793
sec-Butylbenzene	ND		0.00100	1	06/23/2022 08:10	WG1883793
tert-Butylbenzene	ND		0.00100	1	06/23/2022 08:10	WG1883793
Carbon tetrachloride	ND	L2	0.00100	1	06/23/2022 08:10	WG1883793
Carbon disulfide	ND		0.00100	1	06/23/2022 08:10	WG1883793
Chlorobenzene	ND		0.00100	1	06/23/2022 08:10	WG1883793
Chlorodibromomethane	ND	L2	0.00100	1	06/23/2022 08:10	WG1883793
Chloroethane	ND		0.00500	1	06/23/2022 08:10	WG1883793
Chloroform	ND		0.00500	1	06/23/2022 08:10	WG1883793
Chloromethane	ND	R7	0.00250	1	06/23/2022 08:10	WG1883793
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	06/23/2022 08:10	WG1883793
1,2-Dibromoethane	ND		0.00100	1	06/23/2022 08:10	WG1883793
Dibromomethane	ND		0.00100	1	06/23/2022 08:10	WG1883793
1,2-Dichlorobenzene	ND		0.00100	1	06/23/2022 08:10	WG1883793
1,3-Dichlorobenzene	ND		0.00100	1	06/23/2022 08:10	WG1883793
1,4-Dichlorobenzene	ND		0.00100	1	06/23/2022 08:10	WG1883793
trans-1,4-Dichloro-2-butene	ND		0.00250	1	06/23/2022 08:10	WG1883793
Dichlorodifluoromethane	ND		0.00500	1	06/23/2022 08:10	WG1883793
1,1-Dichloroethane	ND		0.00100	1	06/23/2022 08:10	WG1883793
1,2-Dichloroethane	ND		0.00100	1	06/23/2022 08:10	WG1883793
1,1-Dichloroethene	ND		0.00100	1	06/23/2022 08:10	WG1883793
cis-1,2-Dichloroethene	ND		0.00100	1	06/23/2022 08:10	WG1883793

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.00100	1	06/23/2022 08:10	WG1883793
1,2-Dichloropropane	ND		0.00100	1	06/23/2022 08:10	WG1883793
cis-1,3-Dichloropropene	ND		0.00100	1	06/23/2022 08:10	WG1883793
trans-1,3-Dichloropropene	ND		0.00100	1	06/23/2022 08:10	WG1883793
Ethylbenzene	ND		0.00100	1	06/23/2022 08:10	WG1883793
Hexachloro-1,3-butadiene	ND		0.00100	1	06/23/2022 08:10	WG1883793
2-Hexanone	ND		0.0100	1	06/23/2022 08:10	WG1883793
2-Butanone (MEK)	ND		0.0100	1	06/23/2022 08:10	WG1883793
Iodomethane	ND	R7	0.0100	1	06/23/2022 08:10	WG1883793
Methylene Chloride	ND		0.00500	1	06/23/2022 08:10	WG1883793
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	06/23/2022 08:10	WG1883793
Naphthalene	ND	L2	0.00500	1	06/23/2022 08:10	WG1883793
n-Propylbenzene	ND		0.00100	1	06/23/2022 08:10	WG1883793
Styrene	ND		0.00100	1	06/23/2022 08:10	WG1883793
1,1,1,2-Tetrachloroethane	ND		0.00100	1	06/23/2022 08:10	WG1883793
1,1,2,2-Tetrachloroethane	ND		0.00100	1	06/23/2022 08:10	WG1883793
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	06/23/2022 08:10	WG1883793
Tetrachloroethene	ND		0.00100	1	06/23/2022 08:10	WG1883793
Toluene	ND		0.00100	1	06/23/2022 08:10	WG1883793
1,2,4-Trichlorobenzene	ND		0.00100	1	06/23/2022 08:10	WG1883793
1,1,1-Trichloroethane	ND		0.00100	1	06/23/2022 08:10	WG1883793
1,1,2-Trichloroethane	ND		0.00100	1	06/23/2022 08:10	WG1883793
Trichloroethene	ND		0.00100	1	06/23/2022 08:10	WG1883793
Trichlorofluoromethane	ND		0.00500	1	06/23/2022 08:10	WG1883793
1,2,3-Trichloropropane	ND		0.00250	1	06/23/2022 08:10	WG1883793
1,2,4-Trimethylbenzene	ND		0.00100	1	06/23/2022 08:10	WG1883793
1,3,5-Trimethylbenzene	ND		0.00100	1	06/23/2022 08:10	WG1883793
Vinyl acetate	ND		0.0100	1	06/23/2022 08:10	WG1883793
Vinyl chloride	ND		0.00100	1	06/23/2022 08:10	WG1883793
Xylenes, Total	ND		0.00300	1	06/23/2022 08:10	WG1883793
Di-isopropyl ether	ND		0.00100	1	06/23/2022 08:10	WG1883793
Ethanol	ND	R7	0.100	1	06/23/2022 08:10	WG1883793
Ethyl tert-butyl ether	ND		0.00100	1	06/23/2022 08:10	WG1883793
Methyl tert-butyl ether	ND		0.00100	1	06/23/2022 08:10	WG1883793
tert-Butyl alcohol	ND	R7	0.00500	1	06/23/2022 08:10	WG1883793
tert-Amyl Methyl Ether	ND		0.00100	1	06/23/2022 08:10	WG1883793
(S) Toluene-d8	*104*		*80.0-120*		*06/23/2022 08:10*	WG1883793
(S) 4-Bromofluorobenzene	*98.4*		*77.0-126*		*06/23/2022 08:10*	WG1883793
(S) 1,2-Dichloroethane-d4	*100*		*70.0-130*		*06/23/2022 08:10*	WG1883793

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

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	764		13.3	1	06/21/2022 16:10	WG1882814

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	3.30		0.100	1	06/16/2022 06:23	WG1879790
Nitrite	ND		0.100	1	06/16/2022 06:23	WG1879790
Sulfate	265		50.0	10	06/16/2022 06:37	WG1879790

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	ND		0.100	1	07/06/2022 00:55	WG1883985

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	06/18/2022 13:21	WG1881370
Ethane	ND		0.0130	1	06/18/2022 13:21	WG1881370
Ethene	ND		0.0130	1	06/18/2022 13:21	WG1881370

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND	L1 R5	0.0500	1	06/23/2022 08:31	WG1883793
Acrylonitrile	ND		0.0100	1	06/23/2022 08:31	WG1883793
Benzene	ND		0.00100	1	06/23/2022 08:31	WG1883793
Bromobenzene	ND		0.00100	1	06/23/2022 08:31	WG1883793
Bromochloromethane	ND		0.00100	1	06/23/2022 08:31	WG1883793
Bromodichloromethane	ND		0.00100	1	06/23/2022 08:31	WG1883793
Bromoform	ND	L2	0.00100	1	06/23/2022 08:31	WG1883793
Bromomethane	ND		0.00500	1	06/23/2022 08:31	WG1883793
n-Butylbenzene	ND		0.00100	1	06/23/2022 08:31	WG1883793
sec-Butylbenzene	ND		0.00100	1	06/23/2022 08:31	WG1883793
tert-Butylbenzene	ND		0.00100	1	06/23/2022 08:31	WG1883793
Carbon tetrachloride	ND	L2	0.00100	1	06/23/2022 08:31	WG1883793
Carbon disulfide	ND		0.00100	1	06/23/2022 08:31	WG1883793
Chlorobenzene	ND		0.00100	1	06/23/2022 08:31	WG1883793
Chlorodibromomethane	ND	L2	0.00100	1	06/23/2022 08:31	WG1883793
Chloroethane	ND		0.00500	1	06/23/2022 08:31	WG1883793
Chloroform	ND		0.00500	1	06/23/2022 08:31	WG1883793
Chloromethane	ND	R7	0.00250	1	06/23/2022 08:31	WG1883793
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	06/23/2022 08:31	WG1883793
1,2-Dibromoethane	ND		0.00100	1	06/23/2022 08:31	WG1883793
Dibromomethane	ND		0.00100	1	06/23/2022 08:31	WG1883793
1,2-Dichlorobenzene	ND		0.00100	1	06/23/2022 08:31	WG1883793
1,3-Dichlorobenzene	ND		0.00100	1	06/23/2022 08:31	WG1883793
1,4-Dichlorobenzene	ND		0.00100	1	06/23/2022 08:31	WG1883793
trans-1,4-Dichloro-2-butene	ND		0.00250	1	06/23/2022 08:31	WG1883793
Dichlorodifluoromethane	ND		0.00500	1	06/23/2022 08:31	WG1883793
1,1-Dichloroethane	ND		0.00100	1	06/23/2022 08:31	WG1883793
1,2-Dichloroethane	ND		0.00100	1	06/23/2022 08:31	WG1883793
1,1-Dichloroethene	ND		0.00100	1	06/23/2022 08:31	WG1883793
cis-1,2-Dichloroethene	ND		0.00100	1	06/23/2022 08:31	WG1883793

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.00100	1	06/23/2022 08:31	WG1883793
1,2-Dichloropropane	ND		0.00100	1	06/23/2022 08:31	WG1883793
cis-1,3-Dichloropropene	ND		0.00100	1	06/23/2022 08:31	WG1883793
trans-1,3-Dichloropropene	ND		0.00100	1	06/23/2022 08:31	WG1883793
Ethylbenzene	ND		0.00100	1	06/23/2022 08:31	WG1883793
Hexachloro-1,3-butadiene	ND		0.00100	1	06/23/2022 08:31	WG1883793
2-Hexanone	ND		0.0100	1	06/23/2022 08:31	WG1883793
2-Butanone (MEK)	ND		0.0100	1	06/23/2022 08:31	WG1883793
Iodomethane	ND	R7	0.0100	1	06/23/2022 08:31	WG1883793
Methylene Chloride	ND		0.00500	1	06/23/2022 08:31	WG1883793
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	06/23/2022 08:31	WG1883793
Naphthalene	ND	L2	0.00500	1	06/23/2022 08:31	WG1883793
n-Propylbenzene	ND		0.00100	1	06/23/2022 08:31	WG1883793
Styrene	ND		0.00100	1	06/23/2022 08:31	WG1883793
1,1,1,2-Tetrachloroethane	ND		0.00100	1	06/23/2022 08:31	WG1883793
1,1,2,2-Tetrachloroethane	ND		0.00100	1	06/23/2022 08:31	WG1883793
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	06/23/2022 08:31	WG1883793
Tetrachloroethene	ND		0.00100	1	06/23/2022 08:31	WG1883793
Toluene	ND		0.00100	1	06/23/2022 08:31	WG1883793
1,2,4-Trichlorobenzene	ND		0.00100	1	06/23/2022 08:31	WG1883793
1,1,1-Trichloroethane	ND		0.00100	1	06/23/2022 08:31	WG1883793
1,1,2-Trichloroethane	ND		0.00100	1	06/23/2022 08:31	WG1883793
Trichloroethene	ND		0.00100	1	06/23/2022 08:31	WG1883793
Trichlorofluoromethane	ND		0.00500	1	06/23/2022 08:31	WG1883793
1,2,3-Trichloropropane	ND		0.00250	1	06/23/2022 08:31	WG1883793
1,2,4-Trimethylbenzene	ND		0.00100	1	06/23/2022 08:31	WG1883793
1,3,5-Trimethylbenzene	ND		0.00100	1	06/23/2022 08:31	WG1883793
Vinyl acetate	ND		0.0100	1	06/23/2022 08:31	WG1883793
Vinyl chloride	ND		0.00100	1	06/23/2022 08:31	WG1883793
Xylenes, Total	ND		0.00300	1	06/23/2022 08:31	WG1883793
Di-isopropyl ether	ND		0.00100	1	06/23/2022 08:31	WG1883793
Ethanol	ND	R7	0.100	1	06/23/2022 08:31	WG1883793
Ethyl tert-butyl ether	ND		0.00100	1	06/23/2022 08:31	WG1883793
Methyl tert-butyl ether	0.0628		0.00100	1	06/23/2022 08:31	WG1883793
tert-Butyl alcohol	ND	R7	0.00500	1	06/23/2022 08:31	WG1883793
tert-Amyl Methyl Ether	0.00569		0.00100	1	06/23/2022 08:31	WG1883793
(S) Toluene-d8	*105*		*80.0-120*		*06/23/2022 08:31*	WG1883793
(S) 4-Bromofluorobenzene	*98.0*		*77.0-126*		*06/23/2022 08:31*	WG1883793
(S) 1,2-Dichloroethane-d4	*100*		*70.0-130*		*06/23/2022 08:31*	WG1883793

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

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	639		13.3	1	06/21/2022 14:23	WG1882719

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	2.64		0.100	1	06/16/2022 06:50	WG1879790
Nitrite	ND		0.100	1	06/16/2022 06:50	WG1879790
Sulfate	208		50.0	10	06/16/2022 07:04	WG1879790

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	0.947		0.100	1	07/06/2022 00:58	WG1883985

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	06/18/2022 13:24	WG1881370
Ethane	ND		0.0130	1	06/18/2022 13:24	WG1881370
Ethene	ND		0.0130	1	06/18/2022 13:24	WG1881370

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND	L1 R5	0.0500	1	06/23/2022 08:51	WG1883793
Acrylonitrile	ND		0.0100	1	06/23/2022 08:51	WG1883793
Benzene	ND		0.00100	1	06/23/2022 08:51	WG1883793
Bromobenzene	ND		0.00100	1	06/23/2022 08:51	WG1883793
Bromochloromethane	ND		0.00100	1	06/23/2022 08:51	WG1883793
Bromodichloromethane	ND		0.00100	1	06/23/2022 08:51	WG1883793
Bromoform	ND	L2	0.00100	1	06/23/2022 08:51	WG1883793
Bromomethane	ND		0.00500	1	06/23/2022 08:51	WG1883793
n-Butylbenzene	ND		0.00100	1	06/23/2022 08:51	WG1883793
sec-Butylbenzene	ND		0.00100	1	06/23/2022 08:51	WG1883793
tert-Butylbenzene	ND		0.00100	1	06/23/2022 08:51	WG1883793
Carbon tetrachloride	ND	L2	0.00100	1	06/23/2022 08:51	WG1883793
Carbon disulfide	ND		0.00100	1	06/23/2022 08:51	WG1883793
Chlorobenzene	ND		0.00100	1	06/23/2022 08:51	WG1883793
Chlorodibromomethane	ND	L2	0.00100	1	06/23/2022 08:51	WG1883793
Chloroethane	ND		0.00500	1	06/23/2022 08:51	WG1883793
Chloroform	ND		0.00500	1	06/23/2022 08:51	WG1883793
Chloromethane	ND	R7	0.00250	1	06/23/2022 08:51	WG1883793
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	06/23/2022 08:51	WG1883793
1,2-Dibromoethane	ND		0.00100	1	06/23/2022 08:51	WG1883793
Dibromomethane	ND		0.00100	1	06/23/2022 08:51	WG1883793
1,2-Dichlorobenzene	ND		0.00100	1	06/23/2022 08:51	WG1883793
1,3-Dichlorobenzene	ND		0.00100	1	06/23/2022 08:51	WG1883793
1,4-Dichlorobenzene	ND		0.00100	1	06/23/2022 08:51	WG1883793
trans-1,4-Dichloro-2-butene	ND		0.00250	1	06/23/2022 08:51	WG1883793
Dichlorodifluoromethane	ND		0.00500	1	06/23/2022 08:51	WG1883793
1,1-Dichloroethane	ND		0.00100	1	06/23/2022 08:51	WG1883793
1,2-Dichloroethane	ND		0.00100	1	06/23/2022 08:51	WG1883793
1,1-Dichloroethene	ND		0.00100	1	06/23/2022 08:51	WG1883793
cis-1,2-Dichloroethene	ND		0.00100	1	06/23/2022 08:51	WG1883793

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.00100	1	06/23/2022 08:51	WG1883793
1,2-Dichloropropane	ND		0.00100	1	06/23/2022 08:51	WG1883793
cis-1,3-Dichloropropene	ND		0.00100	1	06/23/2022 08:51	WG1883793
trans-1,3-Dichloropropene	ND		0.00100	1	06/23/2022 08:51	WG1883793
Ethylbenzene	ND		0.00100	1	06/23/2022 08:51	WG1883793
Hexachloro-1,3-butadiene	ND		0.00100	1	06/23/2022 08:51	WG1883793
2-Hexanone	ND		0.0100	1	06/23/2022 08:51	WG1883793
2-Butanone (MEK)	ND		0.0100	1	06/23/2022 08:51	WG1883793
Iodomethane	ND	R7	0.0100	1	06/23/2022 08:51	WG1883793
Methylene Chloride	ND		0.00500	1	06/23/2022 08:51	WG1883793
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	06/23/2022 08:51	WG1883793
Naphthalene	ND	L2	0.00500	1	06/23/2022 08:51	WG1883793
n-Propylbenzene	ND		0.00100	1	06/23/2022 08:51	WG1883793
Styrene	ND		0.00100	1	06/23/2022 08:51	WG1883793
1,1,1,2-Tetrachloroethane	ND		0.00100	1	06/23/2022 08:51	WG1883793
1,1,2,2-Tetrachloroethane	ND		0.00100	1	06/23/2022 08:51	WG1883793
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	06/23/2022 08:51	WG1883793
Tetrachloroethene	ND		0.00100	1	06/23/2022 08:51	WG1883793
Toluene	ND		0.00100	1	06/23/2022 08:51	WG1883793
1,2,4-Trichlorobenzene	ND		0.00100	1	06/23/2022 08:51	WG1883793
1,1,1-Trichloroethane	ND		0.00100	1	06/23/2022 08:51	WG1883793
1,1,2-Trichloroethane	ND		0.00100	1	06/23/2022 08:51	WG1883793
Trichloroethene	ND		0.00100	1	06/23/2022 08:51	WG1883793
Trichlorofluoromethane	ND		0.00500	1	06/23/2022 08:51	WG1883793
1,2,3-Trichloropropane	ND		0.00250	1	06/23/2022 08:51	WG1883793
1,2,4-Trimethylbenzene	ND		0.00100	1	06/23/2022 08:51	WG1883793
1,3,5-Trimethylbenzene	ND		0.00100	1	06/23/2022 08:51	WG1883793
Vinyl acetate	ND		0.0100	1	06/23/2022 08:51	WG1883793
Vinyl chloride	ND		0.00100	1	06/23/2022 08:51	WG1883793
Xylenes, Total	ND		0.00300	1	06/23/2022 08:51	WG1883793
Di-isopropyl ether	ND		0.00100	1	06/23/2022 08:51	WG1883793
Ethanol	ND	R7	0.100	1	06/23/2022 08:51	WG1883793
Ethyl tert-butyl ether	ND		0.00100	1	06/23/2022 08:51	WG1883793
Methyl tert-butyl ether	0.384		0.0100	10	06/24/2022 02:23	WG1884685
tert-Butyl alcohol	ND	R7	0.00500	1	06/23/2022 08:51	WG1883793
tert-Amyl Methyl Ether	0.0392		0.00100	1	06/23/2022 08:51	WG1883793
(S) Toluene-d8	*106*		*80.0-120*		*06/23/2022 08:51*	WG1883793
(S) Toluene-d8	*98.5*		*80.0-120*		*06/24/2022 02:23*	WG1884685
(S) 4-Bromofluorobenzene	*99.0*		*77.0-126*		*06/23/2022 08:51*	WG1883793
(S) 4-Bromofluorobenzene	*94.2*		*77.0-126*		*06/24/2022 02:23*	WG1884685
(S) 1,2-Dichloroethane-d4	*100*		*70.0-130*		*06/23/2022 08:51*	WG1883793
(S) 1,2-Dichloroethane-d4	*109*		*70.0-130*		*06/24/2022 02:23*	WG1884685

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	685		13.3	1	06/21/2022 14:23	WG1882719

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	2.09		0.100	1	06/16/2022 07:18	WG1879790
Nitrite	ND		0.100	1	06/16/2022 07:18	WG1879790
Sulfate	225		50.0	10	06/16/2022 07:58	WG1879790

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	ND		0.100	1	07/06/2022 01:00	WG1883985

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	06/18/2022 13:29	WG1881370
Ethane	ND		0.0130	1	06/18/2022 13:29	WG1881370
Ethene	ND		0.0130	1	06/18/2022 13:29	WG1881370

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND	L1 R5	0.0500	1	06/23/2022 09:12	WG1883793
Acrylonitrile	ND		0.0100	1	06/23/2022 09:12	WG1883793
Benzene	ND		0.00100	1	06/23/2022 09:12	WG1883793
Bromobenzene	ND		0.00100	1	06/23/2022 09:12	WG1883793
Bromochloromethane	ND		0.00100	1	06/23/2022 09:12	WG1883793
Bromodichloromethane	ND		0.00100	1	06/23/2022 09:12	WG1883793
Bromoform	ND	L2	0.00100	1	06/23/2022 09:12	WG1883793
Bromomethane	ND		0.00500	1	06/23/2022 09:12	WG1883793
n-Butylbenzene	ND		0.00100	1	06/23/2022 09:12	WG1883793
sec-Butylbenzene	ND		0.00100	1	06/23/2022 09:12	WG1883793
tert-Butylbenzene	ND		0.00100	1	06/23/2022 09:12	WG1883793
Carbon tetrachloride	ND	L2	0.00100	1	06/23/2022 09:12	WG1883793
Carbon disulfide	ND		0.00100	1	06/23/2022 09:12	WG1883793
Chlorobenzene	ND		0.00100	1	06/23/2022 09:12	WG1883793
Chlorodibromomethane	ND	L2	0.00100	1	06/23/2022 09:12	WG1883793
Chloroethane	ND		0.00500	1	06/23/2022 09:12	WG1883793
Chloroform	ND		0.00500	1	06/23/2022 09:12	WG1883793
Chloromethane	ND	R7	0.00250	1	06/23/2022 09:12	WG1883793
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	06/23/2022 09:12	WG1883793
1,2-Dibromoethane	ND		0.00100	1	06/23/2022 09:12	WG1883793
Dibromomethane	ND		0.00100	1	06/23/2022 09:12	WG1883793
1,2-Dichlorobenzene	ND		0.00100	1	06/23/2022 09:12	WG1883793
1,3-Dichlorobenzene	ND		0.00100	1	06/23/2022 09:12	WG1883793
1,4-Dichlorobenzene	ND		0.00100	1	06/23/2022 09:12	WG1883793
trans-1,4-Dichloro-2-butene	ND		0.00250	1	06/23/2022 09:12	WG1883793
Dichlorodifluoromethane	ND		0.00500	1	06/23/2022 09:12	WG1883793
1,1-Dichloroethane	ND		0.00100	1	06/23/2022 09:12	WG1883793
1,2-Dichloroethane	ND		0.00100	1	06/23/2022 09:12	WG1883793
1,1-Dichloroethene	ND		0.00100	1	06/23/2022 09:12	WG1883793
cis-1,2-Dichloroethene	ND		0.00100	1	06/23/2022 09:12	WG1883793

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.00100	1	06/23/2022 09:12	WG1883793
1,2-Dichloropropane	ND		0.00100	1	06/23/2022 09:12	WG1883793
cis-1,3-Dichloropropene	ND		0.00100	1	06/23/2022 09:12	WG1883793
trans-1,3-Dichloropropene	ND		0.00100	1	06/23/2022 09:12	WG1883793
Ethylbenzene	ND		0.00100	1	06/23/2022 09:12	WG1883793
Hexachloro-1,3-butadiene	ND		0.00100	1	06/23/2022 09:12	WG1883793
2-Hexanone	ND		0.0100	1	06/23/2022 09:12	WG1883793
2-Butanone (MEK)	ND		0.0100	1	06/23/2022 09:12	WG1883793
Iodomethane	ND	R7	0.0100	1	06/23/2022 09:12	WG1883793
Methylene Chloride	ND		0.00500	1	06/23/2022 09:12	WG1883793
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	06/23/2022 09:12	WG1883793
Naphthalene	ND	L2	0.00500	1	06/23/2022 09:12	WG1883793
n-Propylbenzene	ND		0.00100	1	06/23/2022 09:12	WG1883793
Styrene	ND		0.00100	1	06/23/2022 09:12	WG1883793
1,1,1,2-Tetrachloroethane	ND		0.00100	1	06/23/2022 09:12	WG1883793
1,1,2,2-Tetrachloroethane	ND		0.00100	1	06/23/2022 09:12	WG1883793
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	06/23/2022 09:12	WG1883793
Tetrachloroethene	ND		0.00100	1	06/23/2022 09:12	WG1883793
Toluene	ND		0.00100	1	06/23/2022 09:12	WG1883793
1,2,4-Trichlorobenzene	ND		0.00100	1	06/23/2022 09:12	WG1883793
1,1,1-Trichloroethane	ND		0.00100	1	06/23/2022 09:12	WG1883793
1,1,2-Trichloroethane	ND		0.00100	1	06/23/2022 09:12	WG1883793
Trichloroethene	ND		0.00100	1	06/23/2022 09:12	WG1883793
Trichlorofluoromethane	ND		0.00500	1	06/23/2022 09:12	WG1883793
1,2,3-Trichloropropane	ND		0.00250	1	06/23/2022 09:12	WG1883793
1,2,4-Trimethylbenzene	ND		0.00100	1	06/23/2022 09:12	WG1883793
1,3,5-Trimethylbenzene	ND		0.00100	1	06/23/2022 09:12	WG1883793
Vinyl acetate	ND		0.0100	1	06/23/2022 09:12	WG1883793
Vinyl chloride	ND		0.00100	1	06/23/2022 09:12	WG1883793
Xylenes, Total	ND		0.00300	1	06/23/2022 09:12	WG1883793
Di-isopropyl ether	ND		0.00100	1	06/23/2022 09:12	WG1883793
Ethanol	ND	R7	0.100	1	06/23/2022 09:12	WG1883793
Ethyl tert-butyl ether	ND		0.00100	1	06/23/2022 09:12	WG1883793
Methyl tert-butyl ether	0.551		0.0100	10	06/24/2022 02:43	WG1884685
tert-Butyl alcohol	ND	R7	0.00500	1	06/23/2022 09:12	WG1883793
tert-Amyl Methyl Ether	0.0485		0.00100	1	06/23/2022 09:12	WG1883793
(S) Toluene-d8	*106*		*80.0-120*		*06/23/2022 09:12*	WG1883793
(S) Toluene-d8	*115*		*80.0-120*		*06/24/2022 02:43*	WG1884685
(S) 4-Bromofluorobenzene	*98.9*		*77.0-126*		*06/23/2022 09:12*	WG1883793
(S) 4-Bromofluorobenzene	*107*		*77.0-126*		*06/24/2022 02:43*	WG1884685
(S) 1,2-Dichloroethane-d4	*99.1*		*70.0-130*		*06/23/2022 09:12*	WG1883793
(S) 1,2-Dichloroethane-d4	*105*		*70.0-130*		*06/24/2022 02:43*	WG1884685

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND	L1 R5	0.0500	1	06/23/2022 03:22	WG1883793
Acrylonitrile	ND		0.0100	1	06/23/2022 03:22	WG1883793
Benzene	ND		0.00100	1	06/23/2022 03:22	WG1883793
Bromobenzene	ND		0.00100	1	06/23/2022 03:22	WG1883793
Bromochloromethane	ND		0.00100	1	06/23/2022 03:22	WG1883793
Bromodichloromethane	ND		0.00100	1	06/23/2022 03:22	WG1883793
Bromoform	ND	L2	0.00100	1	06/23/2022 03:22	WG1883793
Bromomethane	ND		0.00500	1	06/23/2022 03:22	WG1883793
n-Butylbenzene	ND		0.00100	1	06/23/2022 03:22	WG1883793
sec-Butylbenzene	ND		0.00100	1	06/23/2022 03:22	WG1883793
tert-Butylbenzene	ND		0.00100	1	06/23/2022 03:22	WG1883793
Carbon tetrachloride	ND	L2	0.00100	1	06/23/2022 03:22	WG1883793
Carbon disulfide	ND		0.00100	1	06/23/2022 03:22	WG1883793
Chlorobenzene	ND		0.00100	1	06/23/2022 03:22	WG1883793
Chlorodibromomethane	ND	L2	0.00100	1	06/23/2022 03:22	WG1883793
Chloroethane	ND		0.00500	1	06/23/2022 03:22	WG1883793
Chloroform	ND		0.00500	1	06/23/2022 03:22	WG1883793
Chloromethane	ND	R7	0.00250	1	06/23/2022 03:22	WG1883793
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	06/23/2022 03:22	WG1883793
1,2-Dibromoethane	ND		0.00100	1	06/23/2022 03:22	WG1883793
Dibromomethane	ND		0.00100	1	06/23/2022 03:22	WG1883793
1,2-Dichlorobenzene	ND		0.00100	1	06/23/2022 03:22	WG1883793
1,3-Dichlorobenzene	ND		0.00100	1	06/23/2022 03:22	WG1883793
1,4-Dichlorobenzene	ND		0.00100	1	06/23/2022 03:22	WG1883793
trans-1,4-Dichloro-2-butene	ND		0.00250	1	06/23/2022 03:22	WG1883793
Dichlorodifluoromethane	ND		0.00500	1	06/23/2022 03:22	WG1883793
1,1-Dichloroethane	ND		0.00100	1	06/23/2022 03:22	WG1883793
1,2-Dichloroethane	ND		0.00100	1	06/23/2022 03:22	WG1883793
1,1-Dichloroethene	ND		0.00100	1	06/23/2022 03:22	WG1883793
cis-1,2-Dichloroethene	ND		0.00100	1	06/23/2022 03:22	WG1883793
trans-1,2-Dichloroethene	ND		0.00100	1	06/23/2022 03:22	WG1883793
1,2-Dichloropropane	ND		0.00100	1	06/23/2022 03:22	WG1883793
cis-1,3-Dichloropropene	ND		0.00100	1	06/23/2022 03:22	WG1883793
trans-1,3-Dichloropropene	ND		0.00100	1	06/23/2022 03:22	WG1883793
Ethylbenzene	ND		0.00100	1	06/23/2022 03:22	WG1883793
Hexachloro-1,3-butadiene	ND		0.00100	1	06/23/2022 03:22	WG1883793
2-Hexanone	ND		0.0100	1	06/23/2022 03:22	WG1883793
2-Butanone (MEK)	ND		0.0100	1	06/23/2022 03:22	WG1883793
Iodomethane	ND	R7	0.0100	1	06/23/2022 03:22	WG1883793
Methylene Chloride	ND		0.00500	1	06/23/2022 03:22	WG1883793
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	06/23/2022 03:22	WG1883793
Naphthalene	ND	L2	0.00500	1	06/23/2022 03:22	WG1883793
n-Propylbenzene	ND		0.00100	1	06/23/2022 03:22	WG1883793
Styrene	ND		0.00100	1	06/23/2022 03:22	WG1883793
1,1,1,2-Tetrachloroethane	ND		0.00100	1	06/23/2022 03:22	WG1883793
1,1,2,2-Tetrachloroethane	ND		0.00100	1	06/23/2022 03:22	WG1883793
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	06/23/2022 03:22	WG1883793
Tetrachloroethene	ND		0.00100	1	06/23/2022 03:22	WG1883793
Toluene	ND		0.00100	1	06/23/2022 03:22	WG1883793
1,2,4-Trichlorobenzene	ND		0.00100	1	06/23/2022 03:22	WG1883793
1,1,1-Trichloroethane	ND		0.00100	1	06/23/2022 03:22	WG1883793
1,1,2-Trichloroethane	ND		0.00100	1	06/23/2022 03:22	WG1883793
Trichloroethene	ND		0.00100	1	06/23/2022 03:22	WG1883793
Trichlorofluoromethane	ND		0.00500	1	06/23/2022 03:22	WG1883793
1,2,3-Trichloropropane	ND		0.00250	1	06/23/2022 03:22	WG1883793
1,2,4-Trimethylbenzene	ND		0.00100	1	06/23/2022 03:22	WG1883793

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

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
1,3,5-Trimethylbenzene	ND		0.00100	1	06/23/2022 03:22	WG1883793
Vinyl acetate	ND		0.0100	1	06/23/2022 03:22	WG1883793
Vinyl chloride	ND		0.00100	1	06/23/2022 03:22	WG1883793
Xylenes, Total	ND		0.00300	1	06/23/2022 03:22	WG1883793
Di-isopropyl ether	ND		0.00100	1	06/23/2022 03:22	WG1883793
Ethanol	ND	R7	0.100	1	06/23/2022 03:22	WG1883793
Ethyl tert-butyl ether	ND		0.00100	1	06/23/2022 03:22	WG1883793
Methyl tert-butyl ether	ND		0.00100	1	06/23/2022 03:22	WG1883793
tert-Butyl alcohol	ND	R7	0.00500	1	06/23/2022 03:22	WG1883793
tert-Amyl Methyl Ether	ND		0.00100	1	06/23/2022 03:22	WG1883793
(S) Toluene-d8	*103*		*80.0-120*		*06/23/2022 03:22*	WG1883793
(S) 4-Bromofluorobenzene	*98.7*		*77.0-126*		*06/23/2022 03:22*	WG1883793
(S) 1,2-Dichloroethane-d4	*102*		*70.0-130*		*06/23/2022 03:22*	WG1883793

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND	L1 R5	0.0500	1	06/23/2022 03:02	WG1883793
Acrylonitrile	ND		0.0100	1	06/23/2022 03:02	WG1883793
Benzene	ND		0.00100	1	06/23/2022 03:02	WG1883793
Bromobenzene	ND		0.00100	1	06/23/2022 03:02	WG1883793
Bromochloromethane	ND		0.00100	1	06/23/2022 03:02	WG1883793
Bromodichloromethane	ND		0.00100	1	06/23/2022 03:02	WG1883793
Bromoform	ND	L2	0.00100	1	06/23/2022 03:02	WG1883793
Bromomethane	ND		0.00500	1	06/23/2022 03:02	WG1883793
n-Butylbenzene	ND		0.00100	1	06/23/2022 03:02	WG1883793
sec-Butylbenzene	ND		0.00100	1	06/23/2022 03:02	WG1883793
tert-Butylbenzene	ND		0.00100	1	06/23/2022 03:02	WG1883793
Carbon tetrachloride	ND	L2	0.00100	1	06/23/2022 03:02	WG1883793
Carbon disulfide	ND		0.00100	1	06/23/2022 03:02	WG1883793
Chlorobenzene	ND		0.00100	1	06/23/2022 03:02	WG1883793
Chlorodibromomethane	ND	L2	0.00100	1	06/23/2022 03:02	WG1883793
Chloroethane	ND		0.00500	1	06/23/2022 03:02	WG1883793
Chloroform	ND		0.00500	1	06/23/2022 03:02	WG1883793
Chloromethane	ND	R7	0.00250	1	06/23/2022 03:02	WG1883793
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	06/23/2022 03:02	WG1883793
1,2-Dibromoethane	ND		0.00100	1	06/23/2022 03:02	WG1883793
Dibromomethane	ND		0.00100	1	06/23/2022 03:02	WG1883793
1,2-Dichlorobenzene	ND		0.00100	1	06/23/2022 03:02	WG1883793
1,3-Dichlorobenzene	ND		0.00100	1	06/23/2022 03:02	WG1883793
1,4-Dichlorobenzene	ND		0.00100	1	06/23/2022 03:02	WG1883793
trans-1,4-Dichloro-2-butene	ND		0.00250	1	06/23/2022 03:02	WG1883793
Dichlorodifluoromethane	ND		0.00500	1	06/23/2022 03:02	WG1883793
1,1-Dichloroethane	ND		0.00100	1	06/23/2022 03:02	WG1883793
1,2-Dichloroethane	ND		0.00100	1	06/23/2022 03:02	WG1883793
1,1-Dichloroethene	ND		0.00100	1	06/23/2022 03:02	WG1883793
cis-1,2-Dichloroethene	ND		0.00100	1	06/23/2022 03:02	WG1883793
trans-1,2-Dichloroethene	ND		0.00100	1	06/23/2022 03:02	WG1883793
1,2-Dichloropropane	ND		0.00100	1	06/23/2022 03:02	WG1883793
cis-1,3-Dichloropropene	ND		0.00100	1	06/23/2022 03:02	WG1883793
trans-1,3-Dichloropropene	ND		0.00100	1	06/23/2022 03:02	WG1883793
Ethylbenzene	ND		0.00100	1	06/23/2022 03:02	WG1883793
Hexachloro-1,3-butadiene	ND		0.00100	1	06/23/2022 03:02	WG1883793
2-Hexanone	ND		0.0100	1	06/23/2022 03:02	WG1883793
2-Butanone (MEK)	ND		0.0100	1	06/23/2022 03:02	WG1883793
Iodomethane	ND	R7	0.0100	1	06/23/2022 03:02	WG1883793
Methylene Chloride	ND		0.00500	1	06/23/2022 03:02	WG1883793
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	06/23/2022 03:02	WG1883793
Naphthalene	ND	L2	0.00500	1	06/23/2022 03:02	WG1883793
n-Propylbenzene	ND		0.00100	1	06/23/2022 03:02	WG1883793
Styrene	ND		0.00100	1	06/23/2022 03:02	WG1883793
1,1,1,2-Tetrachloroethane	ND		0.00100	1	06/23/2022 03:02	WG1883793
1,1,2,2-Tetrachloroethane	ND		0.00100	1	06/23/2022 03:02	WG1883793
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	06/23/2022 03:02	WG1883793
Tetrachloroethene	ND		0.00100	1	06/23/2022 03:02	WG1883793
Toluene	ND		0.00100	1	06/23/2022 03:02	WG1883793
1,2,4-Trichlorobenzene	ND		0.00100	1	06/23/2022 03:02	WG1883793
1,1,1-Trichloroethane	ND		0.00100	1	06/23/2022 03:02	WG1883793
1,1,2-Trichloroethane	ND		0.00100	1	06/23/2022 03:02	WG1883793
Trichloroethene	ND		0.00100	1	06/23/2022 03:02	WG1883793
Trichlorofluoromethane	ND		0.00500	1	06/23/2022 03:02	WG1883793
1,2,3-Trichloropropane	ND		0.00250	1	06/23/2022 03:02	WG1883793
1,2,4-Trimethylbenzene	ND		0.00100	1	06/23/2022 03:02	WG1883793

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
1,3,5-Trimethylbenzene	ND		0.00100	1	06/23/2022 03:02	WG1883793
Vinyl acetate	ND		0.0100	1	06/23/2022 03:02	WG1883793
Vinyl chloride	ND		0.00100	1	06/23/2022 03:02	WG1883793
Xylenes, Total	ND		0.00300	1	06/23/2022 03:02	WG1883793
Di-isopropyl ether	ND		0.00100	1	06/23/2022 03:02	WG1883793
Ethanol	ND	R7	0.100	1	06/23/2022 03:02	WG1883793
Ethyl tert-butyl ether	ND		0.00100	1	06/23/2022 03:02	WG1883793
Methyl tert-butyl ether	ND		0.00100	1	06/23/2022 03:02	WG1883793
tert-Butyl alcohol	ND	R7	0.00500	1	06/23/2022 03:02	WG1883793
tert-Amyl Methyl Ether	ND		0.00100	1	06/23/2022 03:02	WG1883793
(S) Toluene-d8	*104*		*80.0-120*		*06/23/2022 03:02*	WG1883793
(S) 4-Bromofluorobenzene	*98.1*		*77.0-126*		*06/23/2022 03:02*	WG1883793
(S) 1,2-Dichloroethane-d4	*100*		*70.0-130*		*06/23/2022 03:02*	WG1883793

Method Blank (MB)

(MB) R3807924-1 06/21/22 14:23

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1504970-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1504970-03 06/21/22 14:23 • (DUP) R3807924-3 06/21/22 14:23

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	653	645	1	1.23		5

L1504998-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1504998-02 06/21/22 14:23 • (DUP) R3807924-4 06/21/22 14:23

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	804	785	1	2.35		5

Laboratory Control Sample (LCS)

(LCS) R3807924-2 06/21/22 14:23

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	2440	2620	107	81.5-118	

Method Blank (MB)

(MB) R3806785-1 06/21/22 16:10

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1504970-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1504970-01 06/21/22 16:10 • (DUP) R3806785-3 06/21/22 16:10

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	532	564	1	5.84	R8	5

L1504998-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1504998-01 06/21/22 16:10 • (DUP) R3806785-4 06/21/22 16:10

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	641	669	1	4.27		5

Laboratory Control Sample (LCS)

(LCS) R3806785-2 06/21/22 16:10

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	2440	2330	95.5	81.5-118	

Method Blank (MB)

(MB) R3804028-1 06/15/22 23:18

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate	U		0.0480	0.100
Nitrite	U		0.0420	0.100
Sulfate	U		0.594	5.00

L1504979-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1504979-02 06/16/22 02:32 • (DUP) R3804028-3 06/16/22 02:46

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	0.132	0.132	1	0.531		15
Nitrite	ND	ND	1	0.000		15
Sulfate	ND	ND	1	1.75		15

L1505010-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1505010-01 06/16/22 08:12 • (DUP) R3804028-7 06/16/22 08:25

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	0.225	0.229	1	1.81		15
Nitrite	ND	ND	1	0.000		15
Sulfate	12.2	12.8	1	4.44		15

Laboratory Control Sample (LCS)

(LCS) R3804028-2 06/15/22 23:31

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate	8.00	8.14	102	80.0-120	
Nitrite	8.00	8.17	102	80.0-120	
Sulfate	40.0	40.5	101	80.0-120	

L1504979-02 Original Sample (OS) • Matrix Spike (MS)

(OS) L1504979-02 06/16/22 02:32 • (MS) R3804028-4 06/16/22 02:59

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate	5.00	0.132	5.06	98.6	1	80.0-120	
Nitrite	5.00	ND	5.17	103	1	80.0-120	
Sulfate	50.0	ND	52.1	101	1	80.0-120	

L1504998-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1504998-01 06/16/22 04:34 • (MS) R3804028-5 06/16/22 05:15 • (MSD) R3804028-6 06/16/22 05:29

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 %
Nitrate	5.00	2.93	8.11	8.17	103	105	1	80.0-120			0.763	15
Nitrite	5.00	ND	5.15	5.19	103	104	1	80.0-120			0.764	15
Sulfate	50.0	247	286	289	78.8	85.0	1	80.0-120	E1 M3	E1	1.08	15

Method Blank (MB)

(MB) R3811118-1 07/05/22 23:46

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Iron	0.0197	E4	0.0180	0.100

Laboratory Control Sample (LCS)

(LCS) R3811118-2 07/05/22 23:48

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Iron	10.0	10.0	100	80.0-120	

L1504998-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1504998-01 07/05/22 23:51 • (MS) R3811118-4 07/05/22 23:56 • (MSD) R3811118-5 07/05/22 23:59

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 %
Iron	10.0	0.178	10.2	10.2	101	100	1	75.0-125			0.196	20

Method Blank (MB)

(MB) R3804638-2 06/18/22 10:03

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Methane	U		0.00291	0.0100
Ethane	U		0.00407	0.0130
Ethene	U		0.00426	0.0130

L1504979-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1504979-06 06/18/22 11:03 • (DUP) R3804638-3 06/18/22 11:09

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	ND	ND	1	0.000		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20

L1505000-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1505000-05 06/18/22 13:53 • (DUP) R3804638-4 06/18/22 13:56

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	0.130	0.130	1	0.000		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20

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

(LCS) R3804638-1 06/18/22 10:00 • (LCSD) R3804638-7 06/18/22 14:06

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Methane	0.0678	0.0703	0.0740	104	109	85.0-115			5.13	20
Ethane	0.129	0.123	0.127	95.3	98.4	85.0-115			3.20	20
Ethene	0.127	0.123	0.128	96.9	101	85.0-115			3.98	20

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

L1504998-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1504998-01 06/18/22 12:55 • (MS) R3804638-5 06/18/22 14:00 • (MSD) R3804638-6 06/18/22 14:03

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 %
Methane	0.0678	ND	0.0738	0.0720	109	106	1	50.0-150			2.47	20
Ethane	0.129	ND	0.127	0.128	98.4	99.2	1	50.0-150			0.784	20
Ethene	0.127	ND	0.128	0.129	101	102	1	50.0-150			0.778	20

Method Blank (MB)

(MB) R3806901-2 06/23/22 02:41

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	0.0352	E4	0.0113	0.0500
Acrylonitrile	U		0.000671	0.0100
Benzene	U		0.0000941	0.00100
Bromobenzene	U		0.000118	0.00100
Bromochloromethane	U		0.000128	0.00100
Bromodichloromethane	U		0.000136	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 tetrachloride	U		0.000128	0.00100
Carbon disulfide	0.000116	E4	0.0000962	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
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
trans-1,4-Dichloro-2-butene	U		0.000467	0.00250
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
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
Hexachloro-1,3-butadiene	U		0.000337	0.00100
2-Hexanone	U		0.000787	0.0100
2-Butanone (MEK)	U		0.00119	0.0100
Iodomethane	U		0.00600	0.0100
Methylene Chloride	0.000827	E4	0.000430	0.00500

Method Blank (MB)

(MB) R3806901-2 06/23/22 02:41

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
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
1,1,2-Trichlorotrifluoroethane	U		0.000180	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	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
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl acetate	U		0.000692	0.0100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
Di-isopropyl ether	U		0.000105	0.00100
Ethanol	U		0.0420	0.100
Ethyl tert-butyl ether	U		0.000101	0.00100
Methyl tert-butyl ether	U		0.000101	0.00100
tert-Butyl alcohol	U		0.00406	0.00500
tert-Amyl Methyl Ether	U		0.000195	0.00100
(S) Toluene-d8	*104*			*80.0-120*
(S) 4-Bromofluorobenzene	*97.7*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*

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

(LCS) R3806901-1 06/23/22 02:00 • (LCSD) R3806901-3 06/23/22 06:48

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	0.0579	0.0420	232	168	19.0-160	L1	L1 R7	31.8	27
Acrylonitrile	0.0250	0.0238	0.0236	95.2	94.4	55.0-149			0.844	20
Benzene	0.00500	0.00463	0.00505	92.6	101	70.0-123			8.68	20
Bromobenzene	0.00500	0.00488	0.00510	97.6	102	73.0-121			4.41	20

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

(LCS) R3806901-1 06/23/22 02:00 • (LCSD) R3806901-3 06/23/22 06:48

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromochloromethane	0.00500	0.00453	0.00477	90.6	95.4	76.0-122			5.16	20
Bromodichloromethane	0.00500	0.00410	0.00441	82.0	88.2	75.0-120			7.29	20
Bromoform	0.00500	0.00315	0.00361	63.0	72.2	68.0-132	L2		13.6	20
Bromomethane	0.00500	0.00291	0.00281	58.2	56.2	10.0-160			3.50	25
n-Butylbenzene	0.00500	0.00440	0.00462	88.0	92.4	73.0-125			4.88	20
sec-Butylbenzene	0.00500	0.00457	0.00477	91.4	95.4	75.0-125			4.28	20
tert-Butylbenzene	0.00500	0.00453	0.00475	90.6	95.0	76.0-124			4.74	20
Carbon tetrachloride	0.00500	0.00293	0.00356	58.6	71.2	68.0-126	L2		19.4	20
Carbon disulfide	0.00500	0.00468	0.00529	93.6	106	61.0-128			12.2	20
Chlorobenzene	0.00500	0.00439	0.00463	87.8	92.6	80.0-121			5.32	20
Chlorodibromomethane	0.00500	0.00364	0.00387	72.8	77.4	77.0-125	L2		6.13	20
Chloroethane	0.00500	0.00490	0.00509	98.0	102	47.0-150			3.80	20
Chloroform	0.00500	0.00452	0.00487	90.4	97.4	73.0-120			7.45	20
Chloromethane	0.00500	0.00608	0.00423	122	84.6	41.0-142		R7	35.9	20
1,2-Dibromo-3-Chloropropane	0.00500	0.00409	0.00397	81.8	79.4	58.0-134			2.98	20
1,2-Dibromoethane	0.00500	0.00440	0.00442	88.0	88.4	80.0-122			0.454	20
Dibromomethane	0.00500	0.00470	0.00490	94.0	98.0	80.0-120			4.17	20
1,2-Dichlorobenzene	0.00500	0.00483	0.00503	96.6	101	79.0-121			4.06	20
1,3-Dichlorobenzene	0.00500	0.00473	0.00494	94.6	98.8	79.0-120			4.34	20
1,4-Dichlorobenzene	0.00500	0.00451	0.00482	90.2	96.4	79.0-120			6.65	20
trans-1,4-Dichloro-2-butene	0.00500	0.00479	0.00491	95.8	98.2	33.0-144			2.47	20
Dichlorodifluoromethane	0.00500	0.00592	0.00631	118	126	51.0-149			6.38	20
1,1-Dichloroethane	0.00500	0.00457	0.00487	91.4	97.4	70.0-126			6.36	20
1,2-Dichloroethane	0.00500	0.00489	0.00508	97.8	102	70.0-128			3.81	20
1,1-Dichloroethene	0.00500	0.00508	0.00531	102	106	71.0-124			4.43	20
cis-1,2-Dichloroethene	0.00500	0.00477	0.00511	95.4	102	73.0-120			6.88	20
trans-1,2-Dichloroethene	0.00500	0.00461	0.00498	92.2	99.6	73.0-120			7.72	20
1,2-Dichloropropane	0.00500	0.00485	0.00499	97.0	99.8	77.0-125			2.85	20
cis-1,3-Dichloropropene	0.00500	0.00447	0.00486	89.4	97.2	80.0-123			8.36	20
trans-1,3-Dichloropropene	0.00500	0.00418	0.00428	83.6	85.6	78.0-124			2.36	20
Ethylbenzene	0.00500	0.00448	0.00454	89.6	90.8	79.0-123			1.33	20
Hexachloro-1,3-butadiene	0.00500	0.00381	0.00424	76.2	84.8	54.0-138			10.7	20
2-Hexanone	0.0250	0.0239	0.0245	95.6	98.0	67.0-149			2.48	20
2-Butanone (MEK)	0.0250	0.0256	0.0247	102	98.8	44.0-160			3.58	20
Iodomethane	0.0250	0.0116	0.0191	46.4	76.4	33.0-147		R7	48.9	26
Methylene Chloride	0.00500	0.00497	0.00514	99.4	103	67.0-120			3.36	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.0242	0.0249	96.8	99.6	68.0-142			2.85	20
Naphthalene	0.00500	0.00226	0.00238	45.2	47.6	54.0-135	L2	L2	5.17	20
n-Propylbenzene	0.00500	0.00471	0.00488	94.2	97.6	77.0-124			3.55	20
Styrene	0.00500	0.00457	0.00473	91.4	94.6	73.0-130			3.44	20

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

(LCS) R3806901-1 06/23/22 02:00 • (LCSD) R3806901-3 06/23/22 06:48

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,1,1,2-Tetrachloroethane	0.00500	0.00412	0.00438	82.4	87.6	75.0-125			6.12	20
1,1,2,2-Tetrachloroethane	0.00500	0.00499	0.00527	99.8	105	65.0-130			5.46	20
1,1,2-Trichlorotrifluoroethane	0.00500	0.00498	0.00529	99.6	106	69.0-132			6.04	20
Tetrachloroethene	0.00500	0.00461	0.00491	92.2	98.2	72.0-132			6.30	20
Toluene	0.00500	0.00459	0.00472	91.8	94.4	79.0-120			2.79	20
1,2,4-Trichlorobenzene	0.00500	0.00368	0.00368	73.6	73.6	57.0-137			0.000	20
1,1,1-Trichloroethane	0.00500	0.00481	0.00512	96.2	102	73.0-124			6.24	20
1,1,2-Trichloroethane	0.00500	0.00480	0.00501	96.0	100	80.0-120			4.28	20
Trichloroethene	0.00500	0.00456	0.00499	91.2	99.8	78.0-124			9.01	20
Trichlorofluoromethane	0.00500	0.00529	0.00558	106	112	59.0-147			5.34	20
1,2,3-Trichloropropane	0.00500	0.00483	0.00527	96.6	105	73.0-130			8.71	20
1,2,4-Trimethylbenzene	0.00500	0.00445	0.00468	89.0	93.6	76.0-121			5.04	20
1,3,5-Trimethylbenzene	0.00500	0.00459	0.00489	91.8	97.8	76.0-122			6.33	20
Vinyl acetate	0.0250	0.0289	0.0307	116	123	11.0-160			6.04	20
Vinyl chloride	0.00500	0.00472	0.00494	94.4	98.8	67.0-131			4.55	20
Xylenes, Total	0.0150	0.0133	0.0138	88.7	92.0	79.0-123			3.69	20
Di-isopropyl ether	0.00500	0.00478	0.00505	95.6	101	58.0-138			5.49	20
ethanol	0.250	0.221	0.0857	88.4	34.3	10.0-160		R7	88.2	30
Ethyl tert-butyl ether	0.00500	0.00457	0.00474	91.4	94.8	63.0-138			3.65	20
Methyl tert-butyl ether	0.00500	0.00455	0.00480	91.0	96.0	68.0-125			5.35	20
tert-Butyl alcohol	0.0250	0.0240	0.0172	96.0	68.8	27.0-160		R7	33.0	30
tert-Amyl Methyl Ether	0.00500	0.00479	0.00499	95.8	99.8	66.0-125			4.09	20
(S) Toluene-d8				*104*	*103*	*80.0-120*				
(S) 4-Bromofluorobenzene				*97.8*	*98.3*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*101*	*101*	*70.0-130*				

L1504998-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1504998-01 06/23/22 07:49 • (MS) R3806901-4 06/23/22 10:49 • (MSD) R3806901-5 06/23/22 11:10

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 %
Acetone	0.0250	ND	ND	0.0550	196	220	1	10.0-160	M1	M1	11.5	35
Acrylonitrile	0.0250	ND	0.0291	0.0325	116	130	1	21.0-160			11.0	32
Benzene	0.00500	ND	0.00529	0.00618	106	124	1	17.0-158			15.5	27
Bromobenzene	0.00500	ND	0.00531	0.00630	106	126	1	30.0-149			17.1	28
Bromochloromethane	0.00500	ND	0.00490	0.00569	98.0	114	1	38.0-142			14.9	26
Bromodichloromethane	0.00500	ND	0.00477	0.00556	95.4	111	1	31.0-150			15.3	27
Bromoform	0.00500	ND	0.00389	0.00466	77.8	93.2	1	29.0-150			18.0	29
Bromomethane	0.00500	ND	ND	ND	57.0	74.0	1	10.0-160			26.0	38

L1504998-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1504998-01 06/23/22 07:49 • (MS) R3806901-4 06/23/22 10:49 • (MSD) R3806901-5 06/23/22 11:10

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 %
n-Butylbenzene	0.00500	ND	0.00384	0.00549	76.8	110	1	31.0-150		R5	35.4	30
sec-Butylbenzene	0.00500	ND	0.00478	0.00606	95.6	121	1	33.0-155			23.6	29
tert-Butylbenzene	0.00500	ND	0.00504	0.00613	101	123	1	34.0-153			19.5	28
Carbon tetrachloride	0.00500	ND	0.00380	0.00465	76.0	93.0	1	23.0-159			20.1	28
Carbon disulfide	0.00500	ND	0.00479	0.00582	95.8	116	1	10.0-156			19.4	28
Chlorobenzene	0.00500	ND	0.00492	0.00580	98.4	116	1	33.0-152			16.4	27
Chlorodibromomethane	0.00500	ND	0.00430	0.00492	86.0	98.4	1	37.0-149			13.4	27
Chloroethane	0.00500	ND	0.00605	0.00693	121	139	1	10.0-160			13.6	30
Chloroform	0.00500	ND	0.00522	0.00624	104	125	1	29.0-154			17.8	28
Chloromethane	0.00500	ND	0.00526	0.00659	105	132	1	10.0-160			22.4	29
1,2-Dibromo-3-Chloropropane	0.00500	ND	ND	0.00510	92.0	102	1	22.0-151			10.3	34
1,2-Dibromoethane	0.00500	ND	0.00499	0.00557	99.8	111	1	34.0-147			11.0	27
Dibromomethane	0.00500	ND	0.00534	0.00609	107	122	1	30.0-151			13.1	27
1,2-Dichlorobenzene	0.00500	ND	0.00516	0.00622	103	124	1	34.0-149			18.6	28
1,3-Dichlorobenzene	0.00500	ND	0.00479	0.00607	95.8	121	1	36.0-146			23.6	27
1,4-Dichlorobenzene	0.00500	ND	0.00461	0.00579	92.2	116	1	35.0-142			22.7	27
trans-1,4-Dichloro-2-butene	0.00500	ND	0.00528	0.00615	106	123	1	10.0-157			15.2	37
Dichlorodifluoromethane	0.00500	ND	ND	0.00677	93.6	135	1	10.0-160		R5	36.5	29
1,1-Dichloroethane	0.00500	ND	0.00540	0.00618	108	124	1	25.0-158			13.5	27
1,2-Dichloroethane	0.00500	ND	0.00552	0.00629	110	126	1	29.0-151			13.0	27
1,1-Dichloroethene	0.00500	ND	0.00575	0.00692	115	138	1	11.0-160			18.5	29
cis-1,2-Dichloroethene	0.00500	ND	0.00544	0.00644	109	129	1	10.0-160			16.8	27
trans-1,2-Dichloroethene	0.00500	ND	0.00501	0.00611	100	122	1	17.0-153			19.8	27
1,2-Dichloropropane	0.00500	ND	0.00553	0.00624	111	125	1	30.0-156			12.1	27
cis-1,3-Dichloropropene	0.00500	ND	0.00497	0.00572	99.4	114	1	34.0-149			14.0	28
trans-1,3-Dichloropropene	0.00500	ND	0.00463	0.00537	92.6	107	1	32.0-149			14.8	28
Ethylbenzene	0.00500	ND	0.00478	0.00578	95.6	116	1	30.0-155			18.9	27
Hexachloro-1,3-butadiene	0.00500	ND	0.00347	0.00483	69.4	96.6	1	20.0-154			32.8	34
2-Hexanone	0.0250	ND	0.0278	0.0303	111	121	1	21.0-160			8.61	29
2-Butanone (MEK)	0.0250	ND	0.0295	0.0330	118	132	1	10.0-160			11.2	32
Iodomethane	0.0250	ND	0.0117	0.0157	46.8	62.8	1	10.0-160			29.2	40
Methylene Chloride	0.00500	ND	0.00540	0.00618	108	124	1	23.0-144			13.5	28
4-Methyl-2-pentanone (MIBK)	0.0250	ND	0.0274	0.0303	110	121	1	29.0-160			10.1	29
Naphthalene	0.00500	ND	ND	ND	53.2	62.8	1	12.0-156			16.6	35
n-Propylbenzene	0.00500	ND	0.00470	0.00611	94.0	122	1	31.0-154			26.1	28
Styrene	0.00500	ND	0.00490	0.00585	98.0	117	1	33.0-155			17.7	28
1,1,1,2-Tetrachloroethane	0.00500	ND	0.00467	0.00545	93.4	109	1	36.0-151			15.4	29
1,1,2,2-Tetrachloroethane	0.00500	ND	0.00592	0.00651	118	130	1	33.0-150			9.49	28
1,1,2-Trichlorotrifluoroethane	0.00500	ND	0.00437	0.00665	87.4	133	1	23.0-160		R5	41.4	30
Tetrachloroethene	0.00500	ND	0.00455	0.00592	91.0	118	1	10.0-160			26.2	27

L1504998-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1504998-01 06/23/22 07:49 • (MS) R3806901-4 06/23/22 10:49 • (MSD) R3806901-5 06/23/22 11:10

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 %
Toluene	0.00500	ND	0.00505	0.00590	101	118	1	26.0-154			15.5	28
1,2,4-Trichlorobenzene	0.00500	ND	0.00331	0.00447	66.2	89.4	1	24.0-150			29.8	33
1,1,1-Trichloroethane	0.00500	ND	0.00574	0.00668	115	134	1	23.0-160			15.1	28
1,1,2-Trichloroethane	0.00500	ND	0.00526	0.00627	105	125	1	35.0-147			17.5	27
Trichloroethene	0.00500	ND	0.00509	0.00598	102	120	1	10.0-160			16.1	25
Trichlorofluoromethane	0.00500	ND	0.00569	0.00720	114	144	1	17.0-160			23.4	31
1,2,3-Trichloropropane	0.00500	ND	0.00569	0.00642	114	128	1	34.0-151			12.1	29
1,2,4-Trimethylbenzene	0.00500	ND	0.00470	0.00573	94.0	115	1	26.0-154			19.8	27
1,3,5-Trimethylbenzene	0.00500	ND	0.00485	0.00590	97.0	118	1	28.0-153			19.5	27
Vinyl acetate	0.0250	ND	0.0316	0.0355	126	142	1	12.0-160			11.6	31
Vinyl chloride	0.00500	ND	0.00556	0.00652	111	130	1	10.0-160			15.9	27
Xylenes, Total	0.0150	ND	0.0143	0.0173	95.3	115	1	29.0-154			19.0	28
Di-isopropyl ether	0.00500	ND	0.00545	0.00620	109	124	1	21.0-160			12.9	28
ethanol	0.250	ND	0.262	0.297	105	119	1	50.0-150			12.5	20
Ethyl tert-butyl ether	0.00500	ND	0.00523	0.00598	105	120	1	10.0-160			13.4	37
Methyl tert-butyl ether	0.00500	ND	0.00531	0.00609	106	122	1	28.0-150			13.7	29
tert-Butyl alcohol	0.0250	ND	0.0260	0.0303	104	121	1	50.0-150			15.3	20
tert-Amyl Methyl Ether	0.00500	ND	0.00538	0.00610	108	122	1	10.0-160			12.5	37
(S) Toluene-d8					*103*	*103*		*80.0-120*				
(S) 4-Bromofluorobenzene					*98.3*	*97.8*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*101*	*101*		*70.0-130*				

Method Blank (MB)

(MB) R3807098-3 06/23/22 19:12

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Methyl tert-butyl ether	U		0.000101	0.00100
(S) Toluene-d8	*99.5*			*80.0-120*
(S) 4-Bromofluorobenzene	*94.8*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*

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

(LCS) R3807098-1 06/23/22 17:52 • (LCSD) R3807098-2 06/23/22 18:12

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Methyl tert-butyl ether	0.00500	0.00594	0.00559	119	112	68.0-125			6.07	20
(S) Toluene-d8				*96.8*	*98.6*	*80.0-120*				
(S) 4-Bromofluorobenzene				*93.5*	*95.5*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*105*	*108*	*70.0-130*				

INTERNAL STANDARD SUMMARY

Instrument: VOCMS4 • File ID: 0623_29

06/23/22 17:52

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0623_29	166189	72679	72119
Upper Limit		332378	145358	144238
Lower Limit		83095	36340	36060
LCS R3807098-1 WG1884685 1x	0623_29LCS	166189	72679	72119
LCSD R3807098-2 WG1884685 1x	0623_30	170546	73292	70930
BLANK R3807098-3 WG1884685 1x	0623_33	185540	80751	70247
L1504998-04 WG1884685 10x	0623_54	178421	75606	63023
L1504998-05 WG1884685 10x	0623_55	176400	66522	55814

Instrument: VOCMS36 • File ID: 0622a_28

06/23/22 01:39

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0622a_28	352331	161971	153996
Upper Limit		704662	323942	307992
Lower Limit		176166	80986	76998
LCS R3806901-1 WG1883793 1x	0622a_29	358153	162664	154203
BLANK R3806901-2 WG1883793 1x	0622a_31	345565	160405	146961
L1504998-07 WG1883793 1x	0622a_32	350737	160779	150396
L1504998-06 WG1883793 1x	0622a_33	336084	155688	145109
LCSD R3806901-3 WG1883793 1x	0622a_43	353729	165819	155419
L1504998-01 WG1883793 1x	0622a_46	352890	160395	154651
L1504998-02 WG1883793 1x	0622a_47	343776	158008	149023
L1504998-03 WG1883793 1x	0622a_48	371016	163975	154059
L1504998-04 WG1883793 1x	0622a_49	368303	162163	153468
L1504998-05 WG1883793 1x	0622a_50	367789	163269	153216
MS R3806901-4 WG1883793 1x	0622a_54	364329	166001	156098
MSD R3806901-5 WG1883793 1x	0622a_55	332900	152743	144182

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

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	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
B1	Target analyte detected in method blank at or above the method reporting limit.
E1	Concentration estimated. Analyte exceeded calibration range. Reanalysis not possible due to insufficient sample.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
L1	The associated blank spike recovery was above laboratory acceptance limits.
L2	The associated blank spike recovery was below laboratory acceptance limits.
M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike recovery was acceptable.
R5	MS/MSD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.
R7	LFB/LFBD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.
R8	Sample RPD exceeded the method acceptance limit.

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	LAO000356
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.

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

Company Name/Address:
Kinder Morgan - Rocklin, CA-AZ Work

410 N.44th Street
Suite 1000
Phoenix. AZ 85008

Billing Information:
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Pres Chk

Report to: **Bob Forsberg**

Email To: bob.forsberg@arcadis-us.com;sascha.arnold@arcadis.com

Project Description: **KMEP Silvercroft Wash**

City/State Collected: Tucson, AZ

Please Circle: PT (MT) CT ET

Phone: **602-438-0883**

Client Project # **30113573.01**

Lab Project # **KINARCPAZ-SILVERCROF**

Collected by (print): MAT / SXA

Site/Facility ID # **SILVERCROFT WASH**

P.O. # **WD876456**

Collected by (signature): M. Tarin

Immediately Packed on Ice N ___ Y X

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: STD TURN

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	*NO2,NO3,SO4 125mlHDPE-NoPres	EEM RSK175 40mlAmb HCl	HOLD - NO2+NO3 250mlHDPE-H2SO4	TDS 1L-HDPE NoPres	Total Fe 6010 250mlHDPE-HNO3	VOCs+OXYs 8260 40mlAmb-HCl	Remarks	Sample # (lab only)
MW-29D	G	GW	235	6/14/22	0932	18	X	X	X	X	X	X	RPIS/MSD	-01
MW-31D		GW	235		1113	9	X	X	X	X	X	X		-02
MW-32D		GW	235		1247	9	X	X	X	X	X	X		-03
MW-31M			199		1342	9	X	X	X	X	X	X		-04
MW-29M			199		1517	9	X	X	X	X	X	X		-05
Equipment Blank	G	Aq	—	6/14/22	0810	3						X		-06
Trip Blank	—	Aq	—	6/14/22	—	X2						X		-07

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:*NO2,NO3 have a 48 hour holding time.

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 567153804100

Trip Blank Received: Yes / No (HCL / MeoH / TBR)

Temp: 4.6 -0 =4.6 °C

Bottles Received: 57

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Sample Receipt Checklist
COC Seal Present/Intact: __NP X 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: __Y __N
RAD Screen <0.5 mR/hr: X Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
M. Tarin	6/14/22	1555	Ship & Mail Fed Ex Express
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Kyle Salmon

Date: 6/15/22 Time: 0945

Chain of Custody Page 1 of 1

Pace PEOPLE ADVANCING SCIENCE

MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # 1504998
1244

Acctnum: **KINARCPAZ**
Template: **T190237**
Prelogin: **P930973**
PM: **110 - Brian Ford**
PB:

Shipped Via:

ANALYTICAL REPORT

July 15, 2022

Kinder Morgan - Rocklin, CA-AZ Work

Sample Delivery Group:	L1505598
Samples Received:	06/16/2022
Project Number:	30113573.01
Description:	KMEP Silvercroft Wash
Site:	SILVERCROFT WASH
Report To:	Bob Forsberg 410 N.44th Street Suite 1000 Phoenix, AZ 85008

Entire Report Reviewed By:

Brian Ford

Project Manager

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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MW-32M L1505598-01 GW

Collected by: MAT/SXA | Collected date/time: 06/15/22 08:12 | Received date/time: 06/16/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1883415	1	06/22/22 09:12	06/22/22 14:52	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1880751	1	06/16/22 21:46	06/16/22 21:46	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1880751	5	06/16/22 22:01	06/16/22 22:01	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1883987	1	07/05/22 08:18	07/07/22 00:11	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1883395	1	06/23/22 10:15	06/23/22 10:15	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1885276	1	06/25/22 07:02	06/25/22 07:02	JAH	Mt. Juliet, TN

MW-32S L1505598-02 GW

Collected by: MAT/SXA | Collected date/time: 06/15/22 09:27 | Received date/time: 06/16/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1883415	1	06/22/22 09:12	06/22/22 14:52	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1880751	1	06/16/22 23:15	06/16/22 23:15	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1880751	5	06/16/22 23:30	06/16/22 23:30	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1883987	1	07/05/22 08:18	07/07/22 01:18	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1883395	1	06/23/22 10:18	06/23/22 10:18	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1885276	2000	06/25/22 11:43	06/25/22 11:43	JAH	Mt. Juliet, TN

MW-29S L1505598-03 GW

Collected by: MAT/SXA | Collected date/time: 06/15/22 10:42 | Received date/time: 06/16/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1883409	1	06/22/22 09:04	06/22/22 16:01	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1880751	1	06/16/22 23:45	06/16/22 23:45	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1880751	10	06/17/22 00:00	06/17/22 00:00	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1883987	1	07/05/22 08:18	07/07/22 01:21	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1883395	1	06/23/22 10:20	06/23/22 10:20	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1885276	200	06/25/22 12:05	06/25/22 12:05	JAH	Mt. Juliet, TN

MW-29S-DUP L1505598-04 GW

Collected by: MAT/SXA | Collected date/time: 06/15/22 10:47 | Received date/time: 06/16/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Gravimetric Analysis by Method 2540 C-2011	WG1883412	1	06/22/22 09:07	06/22/22 15:42	MMF	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1880751	1	06/17/22 00:15	06/17/22 00:15	ELN	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1880751	10	06/17/22 00:30	06/17/22 00:30	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010D	WG1883987	1	07/05/22 08:18	07/07/22 01:24	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG1883395	1	06/23/22 10:22	06/23/22 10:22	CMS	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1885276	1	06/25/22 07:24	06/25/22 07:24	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1886355	200	06/28/22 06:10	06/28/22 06:10	JHH	Mt. Juliet, TN

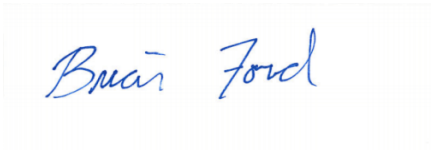
TRIP BLANK L1505598-05 GW

Collected by: MAT/SXA | Collected date/time: 06/15/22 00:00 | Received date/time: 06/16/22 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1885276	1	06/25/22 05:13	06/25/22 05:13	JAH	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.



Brian Ford
Project Manager

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	646	L1	10.0	1	06/22/2022 14:52	WG1883415

Sample Narrative:

L1505598-01 WG1883415: In hold analysis confirmed with OOH analysis with passing QC.

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	2.57		0.100	1	06/16/2022 21:46	WG1880751
Nitrite	ND		0.100	1	06/16/2022 21:46	WG1880751
Sulfate	220		25.0	5	06/16/2022 22:01	WG1880751

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	ND		0.100	1	07/07/2022 00:11	WG1883987

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	06/23/2022 10:15	WG1883395
Ethane	ND		0.0130	1	06/23/2022 10:15	WG1883395
Ethene	ND		0.0130	1	06/23/2022 10:15	WG1883395

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	06/25/2022 07:02	WG1885276
Acrylonitrile	ND		0.0100	1	06/25/2022 07:02	WG1885276
Benzene	ND		0.00100	1	06/25/2022 07:02	WG1885276
Bromobenzene	ND		0.00100	1	06/25/2022 07:02	WG1885276
Bromochloromethane	ND		0.00100	1	06/25/2022 07:02	WG1885276
Bromodichloromethane	ND		0.00100	1	06/25/2022 07:02	WG1885276
Bromoform	ND		0.00100	1	06/25/2022 07:02	WG1885276
Bromomethane	ND	R5	0.00500	1	06/25/2022 07:02	WG1885276
n-Butylbenzene	ND		0.00100	1	06/25/2022 07:02	WG1885276
sec-Butylbenzene	ND		0.00100	1	06/25/2022 07:02	WG1885276
tert-Butylbenzene	ND		0.00100	1	06/25/2022 07:02	WG1885276
Carbon tetrachloride	ND		0.00100	1	06/25/2022 07:02	WG1885276
Carbon disulfide	ND		0.00100	1	06/25/2022 07:02	WG1885276
Chlorobenzene	ND		0.00100	1	06/25/2022 07:02	WG1885276
Chlorodibromomethane	ND		0.00100	1	06/25/2022 07:02	WG1885276
Chloroethane	ND		0.00500	1	06/25/2022 07:02	WG1885276
Chloroform	ND		0.00500	1	06/25/2022 07:02	WG1885276
Chloromethane	ND		0.00250	1	06/25/2022 07:02	WG1885276
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	06/25/2022 07:02	WG1885276
1,2-Dibromoethane	ND		0.00100	1	06/25/2022 07:02	WG1885276
Dibromomethane	ND		0.00100	1	06/25/2022 07:02	WG1885276
1,2-Dichlorobenzene	ND		0.00100	1	06/25/2022 07:02	WG1885276
1,3-Dichlorobenzene	ND		0.00100	1	06/25/2022 07:02	WG1885276
1,4-Dichlorobenzene	ND		0.00100	1	06/25/2022 07:02	WG1885276
trans-1,4-Dichloro-2-butene	ND		0.00250	1	06/25/2022 07:02	WG1885276
Dichlorodifluoromethane	ND		0.00500	1	06/25/2022 07:02	WG1885276
1,1-Dichloroethane	ND		0.00100	1	06/25/2022 07:02	WG1885276

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	ND		0.00100	1	06/25/2022 07:02	WG1885276
1,1-Dichloroethene	ND		0.00100	1	06/25/2022 07:02	WG1885276
cis-1,2-Dichloroethene	ND		0.00100	1	06/25/2022 07:02	WG1885276
trans-1,2-Dichloroethene	ND		0.00100	1	06/25/2022 07:02	WG1885276
1,2-Dichloropropane	ND		0.00100	1	06/25/2022 07:02	WG1885276
cis-1,3-Dichloropropene	ND		0.00100	1	06/25/2022 07:02	WG1885276
trans-1,3-Dichloropropene	ND		0.00100	1	06/25/2022 07:02	WG1885276
Ethylbenzene	ND		0.00100	1	06/25/2022 07:02	WG1885276
Hexachloro-1,3-butadiene	ND		0.00100	1	06/25/2022 07:02	WG1885276
2-Hexanone	ND		0.0100	1	06/25/2022 07:02	WG1885276
2-Butanone (MEK)	ND		0.0100	1	06/25/2022 07:02	WG1885276
Iodomethane	ND	R5	0.0100	1	06/25/2022 07:02	WG1885276
Methylene Chloride	ND		0.00500	1	06/25/2022 07:02	WG1885276
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	06/25/2022 07:02	WG1885276
Naphthalene	ND		0.00500	1	06/25/2022 07:02	WG1885276
n-Propylbenzene	ND		0.00100	1	06/25/2022 07:02	WG1885276
Styrene	ND		0.00100	1	06/25/2022 07:02	WG1885276
1,1,1,2-Tetrachloroethane	ND		0.00100	1	06/25/2022 07:02	WG1885276
1,1,2,2-Tetrachloroethane	ND		0.00100	1	06/25/2022 07:02	WG1885276
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	06/25/2022 07:02	WG1885276
Tetrachloroethene	ND		0.00100	1	06/25/2022 07:02	WG1885276
Toluene	ND		0.00100	1	06/25/2022 07:02	WG1885276
1,2,4-Trichlorobenzene	ND		0.00100	1	06/25/2022 07:02	WG1885276
1,1,1-Trichloroethane	ND		0.00100	1	06/25/2022 07:02	WG1885276
1,1,2-Trichloroethane	ND		0.00100	1	06/25/2022 07:02	WG1885276
Trichloroethene	ND		0.00100	1	06/25/2022 07:02	WG1885276
Trichlorofluoromethane	ND		0.00500	1	06/25/2022 07:02	WG1885276
1,2,3-Trichloropropane	ND		0.00250	1	06/25/2022 07:02	WG1885276
1,2,4-Trimethylbenzene	ND		0.00100	1	06/25/2022 07:02	WG1885276
1,3,5-Trimethylbenzene	ND		0.00100	1	06/25/2022 07:02	WG1885276
Vinyl acetate	ND		0.0100	1	06/25/2022 07:02	WG1885276
Vinyl chloride	ND		0.00100	1	06/25/2022 07:02	WG1885276
Xylenes, Total	ND		0.00300	1	06/25/2022 07:02	WG1885276
Di-isopropyl ether	ND		0.00100	1	06/25/2022 07:02	WG1885276
Ethanol	ND		0.100	1	06/25/2022 07:02	WG1885276
Ethyl tert-butyl ether	ND		0.00100	1	06/25/2022 07:02	WG1885276
Methyl tert-butyl ether	ND		0.00100	1	06/25/2022 07:02	WG1885276
tert-Butyl alcohol	ND		0.00500	1	06/25/2022 07:02	WG1885276
tert-Amyl Methyl Ether	ND		0.00100	1	06/25/2022 07:02	WG1885276
(S) Toluene-d8	*105*		*80.0-120*		*06/25/2022 07:02*	WG1885276
(S) 4-Bromofluorobenzene	*99.5*		*77.0-126*		*06/25/2022 07:02*	WG1885276
(S) 1,2-Dichloroethane-d4	*109*		*70.0-130*		*06/25/2022 07:02*	WG1885276

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	784	L1 R8	13.3	1	06/22/2022 14:52	WG1883415

Sample Narrative:

L1505598-02 WG1883415: In hold analysis confirmed with OOH analysis with passing QC.

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	ND		0.100	1	06/16/2022 23:15	WG1880751
Nitrite	ND		0.100	1	06/16/2022 23:15	WG1880751
Sulfate	302		25.0	5	06/16/2022 23:30	WG1880751

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	ND		0.100	1	07/07/2022 01:18	WG1883987

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	06/23/2022 10:18	WG1883395
Ethane	ND		0.0130	1	06/23/2022 10:18	WG1883395
Ethene	ND		0.0130	1	06/23/2022 10:18	WG1883395

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		100	2000	06/25/2022 11:43	WG1885276
Acrylonitrile	ND		20.0	2000	06/25/2022 11:43	WG1885276
Benzene	ND		2.00	2000	06/25/2022 11:43	WG1885276
Bromobenzene	ND		2.00	2000	06/25/2022 11:43	WG1885276
Bromochloromethane	ND		2.00	2000	06/25/2022 11:43	WG1885276
Bromodichloromethane	ND		2.00	2000	06/25/2022 11:43	WG1885276
Bromoform	ND		2.00	2000	06/25/2022 11:43	WG1885276
Bromomethane	ND		10.0	2000	06/25/2022 11:43	WG1885276
n-Butylbenzene	ND		2.00	2000	06/25/2022 11:43	WG1885276
sec-Butylbenzene	ND		2.00	2000	06/25/2022 11:43	WG1885276
tert-Butylbenzene	ND		2.00	2000	06/25/2022 11:43	WG1885276
Carbon tetrachloride	ND		2.00	2000	06/25/2022 11:43	WG1885276
Carbon disulfide	ND		2.00	2000	06/25/2022 11:43	WG1885276
Chlorobenzene	ND		2.00	2000	06/25/2022 11:43	WG1885276
Chlorodibromomethane	ND		2.00	2000	06/25/2022 11:43	WG1885276
Chloroethane	ND		10.0	2000	06/25/2022 11:43	WG1885276
Chloroform	ND		10.0	2000	06/25/2022 11:43	WG1885276
Chloromethane	ND		5.00	2000	06/25/2022 11:43	WG1885276
1,2-Dibromo-3-Chloropropane	ND		10.0	2000	06/25/2022 11:43	WG1885276
1,2-Dibromoethane	ND		2.00	2000	06/25/2022 11:43	WG1885276
Dibromomethane	ND		2.00	2000	06/25/2022 11:43	WG1885276
1,2-Dichlorobenzene	ND		2.00	2000	06/25/2022 11:43	WG1885276
1,3-Dichlorobenzene	ND		2.00	2000	06/25/2022 11:43	WG1885276
1,4-Dichlorobenzene	ND		2.00	2000	06/25/2022 11:43	WG1885276
trans-1,4-Dichloro-2-butene	ND		5.00	2000	06/25/2022 11:43	WG1885276
Dichlorodifluoromethane	ND		10.0	2000	06/25/2022 11:43	WG1885276
1,1-Dichloroethane	ND		2.00	2000	06/25/2022 11:43	WG1885276

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
1,2-Dichloroethane	ND		2.00	2000	06/25/2022 11:43	WG1885276
1,1-Dichloroethene	ND		2.00	2000	06/25/2022 11:43	WG1885276
cis-1,2-Dichloroethene	ND		2.00	2000	06/25/2022 11:43	WG1885276
trans-1,2-Dichloroethene	ND		2.00	2000	06/25/2022 11:43	WG1885276
1,2-Dichloropropane	ND		2.00	2000	06/25/2022 11:43	WG1885276
cis-1,3-Dichloropropene	ND		2.00	2000	06/25/2022 11:43	WG1885276
trans-1,3-Dichloropropene	ND		2.00	2000	06/25/2022 11:43	WG1885276
Ethylbenzene	ND		2.00	2000	06/25/2022 11:43	WG1885276
Hexachloro-1,3-butadiene	ND		2.00	2000	06/25/2022 11:43	WG1885276
2-Hexanone	ND		20.0	2000	06/25/2022 11:43	WG1885276
2-Butanone (MEK)	ND		20.0	2000	06/25/2022 11:43	WG1885276
Iodomethane	ND	R5	20.0	2000	06/25/2022 11:43	WG1885276
Methylene Chloride	ND		10.0	2000	06/25/2022 11:43	WG1885276
4-Methyl-2-pentanone (MIBK)	ND		20.0	2000	06/25/2022 11:43	WG1885276
Naphthalene	ND		10.0	2000	06/25/2022 11:43	WG1885276
n-Propylbenzene	ND		2.00	2000	06/25/2022 11:43	WG1885276
Styrene	ND		2.00	2000	06/25/2022 11:43	WG1885276
1,1,1,2-Tetrachloroethane	ND		2.00	2000	06/25/2022 11:43	WG1885276
1,1,2,2-Tetrachloroethane	ND		2.00	2000	06/25/2022 11:43	WG1885276
1,1,2-Trichlorotrifluoroethane	ND		2.00	2000	06/25/2022 11:43	WG1885276
Tetrachloroethene	ND		2.00	2000	06/25/2022 11:43	WG1885276
Toluene	ND		2.00	2000	06/25/2022 11:43	WG1885276
1,2,4-Trichlorobenzene	ND		2.00	2000	06/25/2022 11:43	WG1885276
1,1,1-Trichloroethane	ND		2.00	2000	06/25/2022 11:43	WG1885276
1,1,2-Trichloroethane	ND		2.00	2000	06/25/2022 11:43	WG1885276
Trichloroethene	ND		2.00	2000	06/25/2022 11:43	WG1885276
Trichlorofluoromethane	ND		10.0	2000	06/25/2022 11:43	WG1885276
1,2,3-Trichloropropane	ND		5.00	2000	06/25/2022 11:43	WG1885276
1,2,4-Trimethylbenzene	ND		2.00	2000	06/25/2022 11:43	WG1885276
1,3,5-Trimethylbenzene	ND		2.00	2000	06/25/2022 11:43	WG1885276
Vinyl acetate	ND		20.0	2000	06/25/2022 11:43	WG1885276
Vinyl chloride	ND		2.00	2000	06/25/2022 11:43	WG1885276
Xylenes, Total	ND		6.00	2000	06/25/2022 11:43	WG1885276
Di-isopropyl ether	ND		2.00	2000	06/25/2022 11:43	WG1885276
Ethanol	ND		200	2000	06/25/2022 11:43	WG1885276
Ethyl tert-butyl ether	ND		2.00	2000	06/25/2022 11:43	WG1885276
Methyl tert-butyl ether	65.1		2.00	2000	06/25/2022 11:43	WG1885276
tert-Butyl alcohol	ND		10.0	2000	06/25/2022 11:43	WG1885276
tert-Amyl Methyl Ether	9.39		2.00	2000	06/25/2022 11:43	WG1885276
(S) Toluene-d8	*105*		*80.0-120*		*06/25/2022 11:43*	WG1885276
(S) 4-Bromofluorobenzene	*101*		*77.0-126*		*06/25/2022 11:43*	WG1885276
(S) 1,2-Dichloroethane-d4	*108*		*70.0-130*		*06/25/2022 11:43*	WG1885276

Sample Narrative:

L1505598-02 WG1885276: Target compounds too high to run at a lower dilution.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	771	R8	13.3	1	06/22/2022 16:01	WG1883409

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	ND		0.100	1	06/16/2022 23:45	WG1880751
Nitrite	ND		0.100	1	06/16/2022 23:45	WG1880751
Sulfate	362		50.0	10	06/17/2022 00:00	WG1880751

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	ND		0.100	1	07/07/2022 01:21	WG1883987

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	06/23/2022 10:20	WG1883395
Ethane	ND		0.0130	1	06/23/2022 10:20	WG1883395
Ethene	ND		0.0130	1	06/23/2022 10:20	WG1883395

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		10.0	200	06/25/2022 12:05	WG1885276
Acrylonitrile	ND		2.00	200	06/25/2022 12:05	WG1885276
Benzene	ND		0.200	200	06/25/2022 12:05	WG1885276
Bromobenzene	ND		0.200	200	06/25/2022 12:05	WG1885276
Bromochloromethane	ND		0.200	200	06/25/2022 12:05	WG1885276
Bromodichloromethane	ND		0.200	200	06/25/2022 12:05	WG1885276
Bromoform	ND		0.200	200	06/25/2022 12:05	WG1885276
Bromomethane	ND		1.00	200	06/25/2022 12:05	WG1885276
n-Butylbenzene	ND		0.200	200	06/25/2022 12:05	WG1885276
sec-Butylbenzene	ND		0.200	200	06/25/2022 12:05	WG1885276
tert-Butylbenzene	ND		0.200	200	06/25/2022 12:05	WG1885276
Carbon tetrachloride	ND		0.200	200	06/25/2022 12:05	WG1885276
Carbon disulfide	ND		0.200	200	06/25/2022 12:05	WG1885276
Chlorobenzene	ND		0.200	200	06/25/2022 12:05	WG1885276
Chlorodibromomethane	ND		0.200	200	06/25/2022 12:05	WG1885276
Chloroethane	ND		1.00	200	06/25/2022 12:05	WG1885276
Chloroform	ND		1.00	200	06/25/2022 12:05	WG1885276
Chloromethane	ND		0.500	200	06/25/2022 12:05	WG1885276
1,2-Dibromo-3-Chloropropane	ND		1.00	200	06/25/2022 12:05	WG1885276
1,2-Dibromoethane	ND		0.200	200	06/25/2022 12:05	WG1885276
Dibromomethane	ND		0.200	200	06/25/2022 12:05	WG1885276
1,2-Dichlorobenzene	ND		0.200	200	06/25/2022 12:05	WG1885276
1,3-Dichlorobenzene	ND		0.200	200	06/25/2022 12:05	WG1885276
1,4-Dichlorobenzene	ND		0.200	200	06/25/2022 12:05	WG1885276
trans-1,4-Dichloro-2-butene	ND		0.500	200	06/25/2022 12:05	WG1885276
Dichlorodifluoromethane	ND		1.00	200	06/25/2022 12:05	WG1885276
1,1-Dichloroethane	ND		0.200	200	06/25/2022 12:05	WG1885276
1,2-Dichloroethane	ND		0.200	200	06/25/2022 12:05	WG1885276
1,1-Dichloroethene	ND		0.200	200	06/25/2022 12:05	WG1885276
cis-1,2-Dichloroethene	ND		0.200	200	06/25/2022 12:05	WG1885276

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.200	200	06/25/2022 12:05	WG1885276
1,2-Dichloropropane	ND		0.200	200	06/25/2022 12:05	WG1885276
cis-1,3-Dichloropropene	ND		0.200	200	06/25/2022 12:05	WG1885276
trans-1,3-Dichloropropene	ND		0.200	200	06/25/2022 12:05	WG1885276
Ethylbenzene	ND		0.200	200	06/25/2022 12:05	WG1885276
Hexachloro-1,3-butadiene	ND		0.200	200	06/25/2022 12:05	WG1885276
2-Hexanone	ND		2.00	200	06/25/2022 12:05	WG1885276
2-Butanone (MEK)	ND		2.00	200	06/25/2022 12:05	WG1885276
Iodomethane	ND	R5	2.00	200	06/25/2022 12:05	WG1885276
Methylene Chloride	ND		1.00	200	06/25/2022 12:05	WG1885276
4-Methyl-2-pentanone (MIBK)	ND		2.00	200	06/25/2022 12:05	WG1885276
Naphthalene	ND		1.00	200	06/25/2022 12:05	WG1885276
n-Propylbenzene	ND		0.200	200	06/25/2022 12:05	WG1885276
Styrene	ND		0.200	200	06/25/2022 12:05	WG1885276
1,1,1,2-Tetrachloroethane	ND		0.200	200	06/25/2022 12:05	WG1885276
1,1,2,2-Tetrachloroethane	ND		0.200	200	06/25/2022 12:05	WG1885276
1,1,2-Trichlorotrifluoroethane	ND		0.200	200	06/25/2022 12:05	WG1885276
Tetrachloroethene	ND		0.200	200	06/25/2022 12:05	WG1885276
Toluene	ND		0.200	200	06/25/2022 12:05	WG1885276
1,2,4-Trichlorobenzene	ND		0.200	200	06/25/2022 12:05	WG1885276
1,1,1-Trichloroethane	ND		0.200	200	06/25/2022 12:05	WG1885276
1,1,2-Trichloroethane	ND		0.200	200	06/25/2022 12:05	WG1885276
Trichloroethene	ND		0.200	200	06/25/2022 12:05	WG1885276
Trichlorofluoromethane	ND		1.00	200	06/25/2022 12:05	WG1885276
1,2,3-Trichloropropane	ND		0.500	200	06/25/2022 12:05	WG1885276
1,2,4-Trimethylbenzene	ND		0.200	200	06/25/2022 12:05	WG1885276
1,3,5-Trimethylbenzene	ND		0.200	200	06/25/2022 12:05	WG1885276
Vinyl acetate	ND		2.00	200	06/25/2022 12:05	WG1885276
Vinyl chloride	ND		0.200	200	06/25/2022 12:05	WG1885276
Xylenes, Total	ND		0.600	200	06/25/2022 12:05	WG1885276
Di-isopropyl ether	ND		0.200	200	06/25/2022 12:05	WG1885276
Ethanol	ND		20.0	200	06/25/2022 12:05	WG1885276
Ethyl tert-butyl ether	ND		0.200	200	06/25/2022 12:05	WG1885276
Methyl tert-butyl ether	16.3		0.200	200	06/25/2022 12:05	WG1885276
tert-Butyl alcohol	ND		1.00	200	06/25/2022 12:05	WG1885276
tert-Amyl Methyl Ether	2.16		0.200	200	06/25/2022 12:05	WG1885276
(S) Toluene-d8	*105*		*80.0-120*		*06/25/2022 12:05*	WG1885276
(S) 4-Bromofluorobenzene	*102*		*77.0-126*		*06/25/2022 12:05*	WG1885276
(S) 1,2-Dichloroethane-d4	*106*		*70.0-130*		*06/25/2022 12:05*	WG1885276

Sample Narrative:

L1505598-03 WG1885276: Target compounds too high to run at a lower dilution.

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

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	787		13.3	1	06/22/2022 15:42	WG1883412

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	ND		0.100	1	06/17/2022 00:15	WG1880751
Nitrite	ND		0.100	1	06/17/2022 00:15	WG1880751
Sulfate	359		50.0	10	06/17/2022 00:30	WG1880751

Metals (ICP) by Method 6010D

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Iron	ND		0.100	1	07/07/2022 01:24	WG1883987

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Methane	ND		0.0100	1	06/23/2022 10:22	WG1883395
Ethane	ND		0.0130	1	06/23/2022 10:22	WG1883395
Ethene	ND		0.0130	1	06/23/2022 10:22	WG1883395

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	06/25/2022 07:24	WG1885276
Acrylonitrile	ND		0.0100	1	06/25/2022 07:24	WG1885276
Benzene	ND		0.00100	1	06/25/2022 07:24	WG1885276
Bromobenzene	ND		0.00100	1	06/25/2022 07:24	WG1885276
Bromochloromethane	ND		0.00100	1	06/25/2022 07:24	WG1885276
Bromodichloromethane	ND		0.00100	1	06/25/2022 07:24	WG1885276
Bromoform	ND		0.00100	1	06/25/2022 07:24	WG1885276
Bromomethane	ND		0.00500	1	06/25/2022 07:24	WG1885276
n-Butylbenzene	ND		0.00100	1	06/25/2022 07:24	WG1885276
sec-Butylbenzene	ND		0.00100	1	06/25/2022 07:24	WG1885276
tert-Butylbenzene	ND		0.00100	1	06/25/2022 07:24	WG1885276
Carbon tetrachloride	ND		0.00100	1	06/25/2022 07:24	WG1885276
Carbon disulfide	ND		0.00100	1	06/25/2022 07:24	WG1885276
Chlorobenzene	ND		0.00100	1	06/25/2022 07:24	WG1885276
Chlorodibromomethane	ND		0.00100	1	06/25/2022 07:24	WG1885276
Chloroethane	ND		0.00500	1	06/25/2022 07:24	WG1885276
Chloroform	ND		0.00500	1	06/25/2022 07:24	WG1885276
Chloromethane	ND		0.00250	1	06/25/2022 07:24	WG1885276
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	06/25/2022 07:24	WG1885276
1,2-Dibromoethane	ND		0.00100	1	06/25/2022 07:24	WG1885276
Dibromomethane	ND		0.00100	1	06/25/2022 07:24	WG1885276
1,2-Dichlorobenzene	ND		0.00100	1	06/25/2022 07:24	WG1885276
1,3-Dichlorobenzene	ND		0.00100	1	06/25/2022 07:24	WG1885276
1,4-Dichlorobenzene	ND		0.00100	1	06/25/2022 07:24	WG1885276
trans-1,4-Dichloro-2-butene	ND		0.00250	1	06/25/2022 07:24	WG1885276
Dichlorodifluoromethane	ND		0.00500	1	06/25/2022 07:24	WG1885276
1,1-Dichloroethane	ND		0.00100	1	06/25/2022 07:24	WG1885276
1,2-Dichloroethane	ND		0.00100	1	06/25/2022 07:24	WG1885276
1,1-Dichloroethene	ND		0.00100	1	06/25/2022 07:24	WG1885276
cis-1,2-Dichloroethene	ND		0.00100	1	06/25/2022 07:24	WG1885276

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
trans-1,2-Dichloroethene	ND		0.00100	1	06/25/2022 07:24	WG1885276
1,2-Dichloropropane	ND		0.00100	1	06/25/2022 07:24	WG1885276
cis-1,3-Dichloropropene	ND		0.00100	1	06/25/2022 07:24	WG1885276
trans-1,3-Dichloropropene	ND		0.00100	1	06/25/2022 07:24	WG1885276
Ethylbenzene	ND		0.00100	1	06/25/2022 07:24	WG1885276
Hexachloro-1,3-butadiene	ND		0.00100	1	06/25/2022 07:24	WG1885276
2-Hexanone	ND		0.0100	1	06/25/2022 07:24	WG1885276
2-Butanone (MEK)	ND		0.0100	1	06/25/2022 07:24	WG1885276
Iodomethane	ND	R5	0.0100	1	06/25/2022 07:24	WG1885276
Methylene Chloride	ND		0.00500	1	06/25/2022 07:24	WG1885276
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	06/25/2022 07:24	WG1885276
Naphthalene	ND		0.00500	1	06/25/2022 07:24	WG1885276
n-Propylbenzene	ND		0.00100	1	06/25/2022 07:24	WG1885276
Styrene	ND		0.00100	1	06/25/2022 07:24	WG1885276
1,1,1,2-Tetrachloroethane	ND		0.00100	1	06/25/2022 07:24	WG1885276
1,1,2,2-Tetrachloroethane	ND		0.00100	1	06/25/2022 07:24	WG1885276
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	06/25/2022 07:24	WG1885276
Tetrachloroethene	ND		0.00100	1	06/25/2022 07:24	WG1885276
Toluene	ND		0.00100	1	06/25/2022 07:24	WG1885276
1,2,4-Trichlorobenzene	ND		0.00100	1	06/25/2022 07:24	WG1885276
1,1,1-Trichloroethane	ND		0.00100	1	06/25/2022 07:24	WG1885276
1,1,2-Trichloroethane	ND		0.00100	1	06/25/2022 07:24	WG1885276
Trichloroethene	ND		0.00100	1	06/25/2022 07:24	WG1885276
Trichlorofluoromethane	ND		0.00500	1	06/25/2022 07:24	WG1885276
1,2,3-Trichloropropane	ND		0.00250	1	06/25/2022 07:24	WG1885276
1,2,4-Trimethylbenzene	ND		0.00100	1	06/25/2022 07:24	WG1885276
1,3,5-Trimethylbenzene	ND		0.00100	1	06/25/2022 07:24	WG1885276
Vinyl acetate	ND		0.0100	1	06/25/2022 07:24	WG1885276
Vinyl chloride	ND		0.00100	1	06/25/2022 07:24	WG1885276
Xylenes, Total	ND		0.00300	1	06/25/2022 07:24	WG1885276
Di-isopropyl ether	ND		0.00100	1	06/25/2022 07:24	WG1885276
Ethanol	ND		0.100	1	06/25/2022 07:24	WG1885276
Ethyl tert-butyl ether	ND		0.00100	1	06/25/2022 07:24	WG1885276
Methyl tert-butyl ether	13.6		0.200	200	06/28/2022 06:10	WG1886355
tert-Butyl alcohol	0.455		0.00500	1	06/25/2022 07:24	WG1885276
tert-Amyl Methyl Ether	1.90		0.200	200	06/28/2022 06:10	WG1886355
(S) Toluene-d8	*104*		*80.0-120*		*06/25/2022 07:24*	WG1885276
(S) Toluene-d8	*108*		*80.0-120*		*06/28/2022 06:10*	WG1886355
(S) 4-Bromofluorobenzene	*101*		*77.0-126*		*06/25/2022 07:24*	WG1885276
(S) 4-Bromofluorobenzene	*97.6*		*77.0-126*		*06/28/2022 06:10*	WG1886355
(S) 1,2-Dichloroethane-d4	*102*		*70.0-130*		*06/25/2022 07:24*	WG1885276
(S) 1,2-Dichloroethane-d4	*95.9*		*70.0-130*		*06/28/2022 06:10*	WG1886355

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	ND		0.0500	1	06/25/2022 05:13	WG1885276
Acrylonitrile	ND		0.0100	1	06/25/2022 05:13	WG1885276
Benzene	ND		0.00100	1	06/25/2022 05:13	WG1885276
Bromobenzene	ND		0.00100	1	06/25/2022 05:13	WG1885276
Bromochloromethane	ND		0.00100	1	06/25/2022 05:13	WG1885276
Bromodichloromethane	ND		0.00100	1	06/25/2022 05:13	WG1885276
Bromoform	ND		0.00100	1	06/25/2022 05:13	WG1885276
Bromomethane	ND		0.00500	1	06/25/2022 05:13	WG1885276
n-Butylbenzene	ND		0.00100	1	06/25/2022 05:13	WG1885276
sec-Butylbenzene	ND		0.00100	1	06/25/2022 05:13	WG1885276
tert-Butylbenzene	ND		0.00100	1	06/25/2022 05:13	WG1885276
Carbon tetrachloride	ND		0.00100	1	06/25/2022 05:13	WG1885276
Carbon disulfide	ND		0.00100	1	06/25/2022 05:13	WG1885276
Chlorobenzene	ND		0.00100	1	06/25/2022 05:13	WG1885276
Chlorodibromomethane	ND		0.00100	1	06/25/2022 05:13	WG1885276
Chloroethane	ND		0.00500	1	06/25/2022 05:13	WG1885276
Chloroform	ND		0.00500	1	06/25/2022 05:13	WG1885276
Chloromethane	ND		0.00250	1	06/25/2022 05:13	WG1885276
1,2-Dibromo-3-Chloropropane	ND		0.00500	1	06/25/2022 05:13	WG1885276
1,2-Dibromoethane	ND		0.00100	1	06/25/2022 05:13	WG1885276
Dibromomethane	ND		0.00100	1	06/25/2022 05:13	WG1885276
1,2-Dichlorobenzene	ND		0.00100	1	06/25/2022 05:13	WG1885276
1,3-Dichlorobenzene	ND		0.00100	1	06/25/2022 05:13	WG1885276
1,4-Dichlorobenzene	ND		0.00100	1	06/25/2022 05:13	WG1885276
trans-1,4-Dichloro-2-butene	ND		0.00250	1	06/25/2022 05:13	WG1885276
Dichlorodifluoromethane	ND		0.00500	1	06/25/2022 05:13	WG1885276
1,1-Dichloroethane	ND		0.00100	1	06/25/2022 05:13	WG1885276
1,2-Dichloroethane	ND		0.00100	1	06/25/2022 05:13	WG1885276
1,1-Dichloroethene	ND		0.00100	1	06/25/2022 05:13	WG1885276
cis-1,2-Dichloroethene	ND		0.00100	1	06/25/2022 05:13	WG1885276
trans-1,2-Dichloroethene	ND		0.00100	1	06/25/2022 05:13	WG1885276
1,2-Dichloropropane	ND		0.00100	1	06/25/2022 05:13	WG1885276
cis-1,3-Dichloropropene	ND		0.00100	1	06/25/2022 05:13	WG1885276
trans-1,3-Dichloropropene	ND		0.00100	1	06/25/2022 05:13	WG1885276
Ethylbenzene	ND		0.00100	1	06/25/2022 05:13	WG1885276
Hexachloro-1,3-butadiene	ND		0.00100	1	06/25/2022 05:13	WG1885276
2-Hexanone	ND		0.0100	1	06/25/2022 05:13	WG1885276
2-Butanone (MEK)	ND		0.0100	1	06/25/2022 05:13	WG1885276
Iodomethane	ND	R5	0.0100	1	06/25/2022 05:13	WG1885276
Methylene Chloride	ND		0.00500	1	06/25/2022 05:13	WG1885276
4-Methyl-2-pentanone (MIBK)	ND		0.0100	1	06/25/2022 05:13	WG1885276
Naphthalene	ND		0.00500	1	06/25/2022 05:13	WG1885276
n-Propylbenzene	ND		0.00100	1	06/25/2022 05:13	WG1885276
Styrene	ND		0.00100	1	06/25/2022 05:13	WG1885276
1,1,1,2-Tetrachloroethane	ND		0.00100	1	06/25/2022 05:13	WG1885276
1,1,2,2-Tetrachloroethane	ND		0.00100	1	06/25/2022 05:13	WG1885276
1,1,2-Trichlorotrifluoroethane	ND		0.00100	1	06/25/2022 05:13	WG1885276
Tetrachloroethene	ND		0.00100	1	06/25/2022 05:13	WG1885276
Toluene	ND		0.00100	1	06/25/2022 05:13	WG1885276
1,2,4-Trichlorobenzene	ND		0.00100	1	06/25/2022 05:13	WG1885276
1,1,1-Trichloroethane	ND		0.00100	1	06/25/2022 05:13	WG1885276
1,1,2-Trichloroethane	ND		0.00100	1	06/25/2022 05:13	WG1885276
Trichloroethene	ND		0.00100	1	06/25/2022 05:13	WG1885276
Trichlorofluoromethane	ND		0.00500	1	06/25/2022 05:13	WG1885276
1,2,3-Trichloropropane	ND		0.00250	1	06/25/2022 05:13	WG1885276
1,2,4-Trimethylbenzene	ND		0.00100	1	06/25/2022 05:13	WG1885276

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

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
1,3,5-Trimethylbenzene	ND		0.00100	1	06/25/2022 05:13	WG1885276
Vinyl acetate	ND		0.0100	1	06/25/2022 05:13	WG1885276
Vinyl chloride	ND		0.00100	1	06/25/2022 05:13	WG1885276
Xylenes, Total	ND		0.00300	1	06/25/2022 05:13	WG1885276
Di-isopropyl ether	ND		0.00100	1	06/25/2022 05:13	WG1885276
Ethanol	ND		0.100	1	06/25/2022 05:13	WG1885276
Ethyl tert-butyl ether	ND		0.00100	1	06/25/2022 05:13	WG1885276
Methyl tert-butyl ether	ND		0.00100	1	06/25/2022 05:13	WG1885276
tert-Butyl alcohol	ND		0.00500	1	06/25/2022 05:13	WG1885276
tert-Amyl Methyl Ether	ND		0.00100	1	06/25/2022 05:13	WG1885276
(S) Toluene-d8	*104*		*80.0-120*		*06/25/2022 05:13*	WG1885276
(S) 4-Bromofluorobenzene	*99.7*		*77.0-126*		*06/25/2022 05:13*	WG1885276
(S) 1,2-Dichloroethane-d4	*109*		*70.0-130*		*06/25/2022 05:13*	WG1885276

Method Blank (MB)

(MB) R3807897-1 06/22/22 16:01

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1505598-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1505598-03 06/22/22 16:01 • (DUP) R3807897-3 06/22/22 16:01

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	771	813	1	5.39	R8	5

L1505619-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1505619-02 06/22/22 16:01 • (DUP) R3807897-4 06/22/22 16:01

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	462	465	1	0.647		5

Laboratory Control Sample (LCS)

(LCS) R3807897-2 06/22/22 16:01

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	2440	2350	96.3	81.5-118	

Method Blank (MB)

(MB) R3807879-1 06/22/22 15:42

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1505281-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1505281-01 06/22/22 15:42 • (DUP) R3807879-3 06/22/22 15:42

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1060	1090	1	2.97		5

L1505281-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1505281-03 06/22/22 15:42 • (DUP) R3807879-4 06/22/22 15:42

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	1040	1110	1	6.87	R8	5

Laboratory Control Sample (LCS)

(LCS) R3807879-2 06/22/22 15:42

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	2440	2250	92.2	81.5-118	

Method Blank (MB)

(MB) R3807845-1 06/22/22 14:52

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1505598-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1505598-02 06/22/22 14:52 • (DUP) R3807845-3 06/22/22 14:52

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	784	744	1	5.24	R8	5

Sample Narrative:

OS: In hold analysis confirmed with OOH analysis with passing QC.

L1506281-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1506281-05 06/22/22 14:52 • (DUP) R3807845-4 06/22/22 14:52

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	707	688	1	2.68		5

Sample Narrative:

OS: Analysis was re-run to confirm.

Laboratory Control Sample (LCS)

(LCS) R3807845-2 06/22/22 14:52

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	2440	2990	123	81.5-118	L1

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

Method Blank (MB)

(MB) R3804350-1 06/16/22 15:11

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate	U		0.0480	0.100
Nitrite	U		0.0420	0.100
Sulfate	U		0.594	5.00

L1505566-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1505566-01 06/16/22 20:01 • (DUP) R3804350-3 06/16/22 20:16

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	ND	ND	1	6.46		15
Nitrite	ND	ND	1	0.000		15
Sulfate	27.7	27.8	1	0.329		15

L1505624-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1505624-05 06/17/22 01:59 • (DUP) R3804350-6 06/17/22 02:14

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	1.72	1.72	1	0.0815		15
Nitrite	ND	ND	1	0.000		15
Sulfate	ND	ND	1	0.392		15

Laboratory Control Sample (LCS)

(LCS) R3804350-2 06/16/22 15:26

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Nitrate	8.00	8.13	102	80.0-120	
Nitrite	8.00	8.44	106	80.0-120	
Sulfate	40.0	43.3	108	80.0-120	

L1505598-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1505598-01 06/16/22 21:46 • (MS) R3804350-4 06/16/22 22:45 • (MSD) R3804350-5 06/16/22 23:00

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate	5.00	2.57	7.57	7.79	100	104	1	80.0-120			2.84	15
Nitrite	5.00	ND	5.06	5.14	101	103	1	80.0-120			1.59	15
Sulfate	50.0	224	266	268	85.1	89.1	1	80.0-120	E1	E1	0.741	15

L1505624-05 Original Sample (OS) • Matrix Spike (MS)

(OS) L1505624-05 06/17/22 01:59 • (MS) R3804350-7 06/17/22 02:29

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate	5.00	1.72	6.79	101	1	80.0-120	
Nitrite	5.00	ND	5.14	103	1	80.0-120	
Sulfate	50.0	ND	56.2	106	1	80.0-120	

QUALITY CONTROL SUMMARY

L1505598-01,02,03,04

Method Blank (MB)

(MB) R3811727-1 07/07/22 00:06

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Iron	0.0254	E4	0.0180	0.100

Laboratory Control Sample (LCS)

(LCS) R3811727-2 07/07/22 00:09

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Iron	10.0	10.0	100	80.0-120	

L1505598-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1505598-01 07/07/22 00:11 • (MS) R3811727-4 07/07/22 00:17 • (MSD) R3811727-5 07/07/22 00:19

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 %
Iron	10.0	ND	10.1	10.0	100	99.6	1	75.0-125			0.674	20

Method Blank (MB)

(MB) R3806613-2 06/23/22 09:52

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Methane	U		0.00291	0.0100
Ethane	U		0.00407	0.0130
Ethene	U		0.00426	0.0130

L1505645-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1505645-02 06/23/22 10:34 • (DUP) R3806613-3 06/23/22 10:37

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	0.336	0.337	1	0.297		20
Ethane	0.161	0.168	1	4.26		20
Ethene	ND	ND	1	0.000		20

L1506005-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1506005-06 06/23/22 12:47 • (DUP) R3806613-4 06/23/22 12:51

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	2.99	2.94	1	1.69		20
Ethane	ND	ND	1	0.000		20
Ethene	0.0203	0.0197	1	3.00		20

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

(LCS) R3806613-1 06/23/22 09:48 • (LCSD) R3806613-9 06/23/22 13:12

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Methane	0.0678	0.0647	0.0671	95.4	99.0	85.0-115			3.64	20
Ethane	0.129	0.114	0.113	88.4	87.6	85.0-115			0.881	20
Ethene	0.127	0.116	0.112	91.3	88.2	85.0-115			3.51	20

L1505581-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1505581-06 06/23/22 09:57 • (MS) R3806613-5 06/23/22 12:54 • (MSD) R3806613-6 06/23/22 12:58

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 %
Methane	0.0678	0.220	0.326	0.310	156	133	1	50.0-150	M1		5.03	20
Ethane	0.129	ND	0.133	0.125	103	96.9	1	50.0-150			6.20	20
Ethene	0.127	ND	0.133	0.126	105	99.2	1	50.0-150			5.41	20

L1505598-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1505598-01 06/23/22 10:15 • (MS) R3806613-7 06/23/22 13:02 • (MSD) R3806613-8 06/23/22 13:07

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 %
Methane	0.0678	ND	0.0729	0.0763	108	113	1	50.0-150			4.56	20
Ethane	0.129	ND	0.129	0.129	100	100	1	50.0-150			0.000	20
Ethene	0.127	ND	0.129	0.130	102	102	1	50.0-150			0.772	20

Method Blank (MB)

(MB) R3808059-3 06/25/22 04:51

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0113	0.0500
Acrylonitrile	U		0.000671	0.0100
Benzene	U		0.0000941	0.00100
Bromobenzene	U		0.000118	0.00100
Bromochloromethane	U		0.000128	0.00100
Bromodichloromethane	U		0.000136	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 tetrachloride	U		0.000128	0.00100
Carbon disulfide	U		0.0000962	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
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
trans-1,4-Dichloro-2-butene	U		0.000467	0.00250
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
cis-1,3-Dichloropropene	U		0.000111	0.00100
trans-1,3-Dichloropropene	U		0.000118	0.00100
Ethylbenzene	U		0.000137	0.00100
Hexachloro-1,3-butadiene	U		0.000337	0.00100
2-Hexanone	U		0.000787	0.0100
2-Butanone (MEK)	U		0.00119	0.0100
Iodomethane	U		0.00600	0.0100
Methylene Chloride	U		0.000430	0.00500

Method Blank (MB)

(MB) R3808059-3 06/25/22 04:51

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
4-Methyl-2-pentanone (MIBK)	U		0.000478	0.0100
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
1,1,2-Trichlorotrifluoroethane	U		0.000180	0.00100
Tetrachloroethene	U		0.000300	0.00100
Toluene	U		0.000278	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
1,2,4-Trimethylbenzene	U		0.000322	0.00100
1,3,5-Trimethylbenzene	U		0.000104	0.00100
Vinyl acetate	U		0.000692	0.0100
Vinyl chloride	U		0.000234	0.00100
Xylenes, Total	U		0.000174	0.00300
Di-isopropyl ether	U		0.000105	0.00100
Ethanol	U		0.0420	0.100
Ethyl tert-butyl ether	U		0.000101	0.00100
Methyl tert-butyl ether	U		0.000101	0.00100
tert-Butyl alcohol	U		0.00406	0.00500
tert-Amyl Methyl Ether	U		0.000195	0.00100
(S) Toluene-d8	*106*			*80.0-120*
(S) 4-Bromofluorobenzene	*102*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*109*			*70.0-130*

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

(LCS) R3808059-1 06/25/22 03:46 • (LCSD) R3808059-2 06/25/22 04:08

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.0250	0.0292	0.0315	117	126	19.0-160			7.58	27
Acrylonitrile	0.0250	0.0244	0.0246	97.6	98.4	55.0-149			0.816	20
Benzene	0.00500	0.00496	0.00482	99.2	96.4	70.0-123			2.86	20
Bromobenzene	0.00500	0.00505	0.00490	101	98.0	73.0-121			3.02	20

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

(LCS) R3808059-1 06/25/22 03:46 • (LCSD) R3808059-2 06/25/22 04:08

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromochloromethane	0.00500	0.00519	0.00481	104	96.2	76.0-122			7.60	20
Bromodichloromethane	0.00500	0.00484	0.00494	96.8	98.8	75.0-120			2.04	20
Bromoform	0.00500	0.00502	0.00468	100	93.6	68.0-132			7.01	20
Bromomethane	0.00500	0.00392	0.00409	78.4	81.8	10.0-160			4.24	25
n-Butylbenzene	0.00500	0.00468	0.00456	93.6	91.2	73.0-125			2.60	20
sec-Butylbenzene	0.00500	0.00478	0.00480	95.6	96.0	75.0-125			0.418	20
tert-Butylbenzene	0.00500	0.00470	0.00516	94.0	103	76.0-124			9.33	20
Carbon tetrachloride	0.00500	0.00538	0.00539	108	108	68.0-126			0.186	20
Carbon disulfide	0.00500	0.00504	0.00497	101	99.4	61.0-128			1.40	20
Chlorobenzene	0.00500	0.00514	0.00504	103	101	80.0-121			1.96	20
Chlorodibromomethane	0.00500	0.00491	0.00493	98.2	98.6	77.0-125			0.406	20
Chloroethane	0.00500	0.00540	0.00520	108	104	47.0-150			3.77	20
Chloroform	0.00500	0.00530	0.00518	106	104	73.0-120			2.29	20
Chloromethane	0.00500	0.00244	0.00252	48.8	50.4	41.0-142			3.23	20
1,2-Dibromo-3-Chloropropane	0.00500	0.00480	0.00449	96.0	89.8	58.0-134			6.67	20
1,2-Dibromoethane	0.00500	0.00514	0.00502	103	100	80.0-122			2.36	20
Dibromomethane	0.00500	0.00519	0.00500	104	100	80.0-120			3.73	20
1,2-Dichlorobenzene	0.00500	0.00498	0.00475	99.6	95.0	79.0-121			4.73	20
1,3-Dichlorobenzene	0.00500	0.00483	0.00480	96.6	96.0	79.0-120			0.623	20
1,4-Dichlorobenzene	0.00500	0.00496	0.00478	99.2	95.6	79.0-120			3.70	20
trans-1,4-Dichloro-2-butene	0.00500	0.00439	0.00432	87.8	86.4	33.0-144			1.61	20
Dichlorodifluoromethane	0.00500	0.00550	0.00527	110	105	51.0-149			4.27	20
1,1-Dichloroethane	0.00500	0.00490	0.00511	98.0	102	70.0-126			4.20	20
1,2-Dichloroethane	0.00500	0.00561	0.00545	112	109	70.0-128			2.89	20
1,1-Dichloroethene	0.00500	0.00470	0.00506	94.0	101	71.0-124			7.38	20
cis-1,2-Dichloroethene	0.00500	0.00464	0.00473	92.8	94.6	73.0-120			1.92	20
trans-1,2-Dichloroethene	0.00500	0.00485	0.00473	97.0	94.6	73.0-120			2.51	20
1,2-Dichloropropane	0.00500	0.00479	0.00477	95.8	95.4	77.0-125			0.418	20
cis-1,3-Dichloropropene	0.00500	0.00475	0.00464	95.0	92.8	80.0-123			2.34	20
trans-1,3-Dichloropropene	0.00500	0.00467	0.00468	93.4	93.6	78.0-124			0.214	20
Ethylbenzene	0.00500	0.00481	0.00484	96.2	96.8	79.0-123			0.622	20
Hexachloro-1,3-butadiene	0.00500	0.00477	0.00489	95.4	97.8	54.0-138			2.48	20
2-Hexanone	0.0250	0.0244	0.0252	97.6	101	67.0-149			3.23	20
2-Butanone (MEK)	0.0250	0.0273	0.0259	109	104	44.0-160			5.26	20
Iodomethane	0.0250	0.00904	0.0118	36.2	47.2	33.0-147		R7	26.5	26
Methylene Chloride	0.00500	0.00521	0.00487	104	97.4	67.0-120			6.75	20
4-Methyl-2-pentanone (MIBK)	0.0250	0.0251	0.0259	100	104	68.0-142			3.14	20
Naphthalene	0.00500	0.00400	0.00409	80.0	81.8	54.0-135			2.22	20
n-Propylbenzene	0.00500	0.00501	0.00486	100	97.2	77.0-124			3.04	20
Styrene	0.00500	0.00469	0.00480	93.8	96.0	73.0-130			2.32	20

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

(LCS) R3808059-1 06/25/22 03:46 • (LCSD) R3808059-2 06/25/22 04:08

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
1,1,1,2-Tetrachloroethane	0.00500	0.00491	0.00490	98.2	98.0	75.0-125			0.204	20
1,1,2,2-Tetrachloroethane	0.00500	0.00471	0.00446	94.2	89.2	65.0-130			5.45	20
1,1,2-Trichlorotrifluoroethane	0.00500	0.00512	0.00489	102	97.8	69.0-132			4.60	20
Tetrachloroethene	0.00500	0.00530	0.00516	106	103	72.0-132			2.68	20
Toluene	0.00500	0.00478	0.00478	95.6	95.6	79.0-120			0.000	20
1,2,4-Trichlorobenzene	0.00500	0.00449	0.00441	89.8	88.2	57.0-137			1.80	20
1,1,1-Trichloroethane	0.00500	0.00537	0.00524	107	105	73.0-124			2.45	20
1,1,2-Trichloroethane	0.00500	0.00476	0.00485	95.2	97.0	80.0-120			1.87	20
Trichloroethene	0.00500	0.00530	0.00531	106	106	78.0-124			0.189	20
Trichlorofluoromethane	0.00500	0.00598	0.00598	120	120	59.0-147			0.000	20
1,2,3-Trichloropropane	0.00500	0.00532	0.00529	106	106	73.0-130			0.566	20
1,2,4-Trimethylbenzene	0.00500	0.00498	0.00474	99.6	94.8	76.0-121			4.94	20
1,3,5-Trimethylbenzene	0.00500	0.00492	0.00490	98.4	98.0	76.0-122			0.407	20
Vinyl acetate	0.0250	0.0145	0.0132	58.0	52.8	11.0-160			9.39	20
Vinyl chloride	0.00500	0.00503	0.00500	101	100	67.0-131			0.598	20
Xylenes, Total	0.0150	0.0143	0.0145	95.3	96.7	79.0-123			1.39	20
Di-isopropyl ether	0.00500	0.00491	0.00487	98.2	97.4	58.0-138			0.818	20
ethanol	0.250	0.243	0.272	97.2	109	10.0-160			11.3	30
Ethyl tert-butyl ether	0.00500	0.00497	0.00496	99.4	99.2	63.0-138			0.201	20
Methyl tert-butyl ether	0.00500	0.00502	0.00494	100	98.8	68.0-125			1.61	20
tert-Butyl alcohol	0.0250	0.0262	0.0295	105	118	27.0-160			11.8	30
tert-Amyl Methyl Ether	0.00500	0.00473	0.00483	94.6	96.6	66.0-125			2.09	20
(S) Toluene-d8				*104*	*106*	*80.0-120*				
(S) 4-Bromofluorobenzene				*100*	*102*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*110*	*106*	*70.0-130*				

L1505598-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1505598-01 06/25/22 07:02 • (MS) R3808059-4 06/25/22 12:26 • (MSD) R3808059-5 06/25/22 12:48

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 %
Acetone	0.0250	ND	ND	ND	99.6	110	1	10.0-160			9.92	35
Acrylonitrile	0.0250	ND	0.0224	0.0252	89.6	101	1	21.0-160			11.8	32
Benzene	0.00500	ND	0.00474	0.00514	94.8	103	1	17.0-158			8.10	27
Bromobenzene	0.00500	ND	0.00429	0.00456	85.8	91.2	1	30.0-149			6.10	28
Bromochloromethane	0.00500	ND	0.00492	0.00535	98.4	107	1	38.0-142			8.37	26
Bromodichloromethane	0.00500	ND	0.00463	0.00544	92.6	109	1	31.0-150			16.1	27
Bromoform	0.00500	ND	0.00445	0.00488	89.0	97.6	1	29.0-150			9.22	29
Bromomethane	0.00500	ND	ND	ND	43.0	66.4	1	10.0-160		R5	42.8	38

L1505598-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1505598-01 06/25/22 07:02 • (MS) R3808059-4 06/25/22 12:26 • (MSD) R3808059-5 06/25/22 12:48

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 %
n-Butylbenzene	0.00500	ND	0.00394	0.00318	78.8	63.6	1	31.0-150			21.3	30
sec-Butylbenzene	0.00500	ND	0.00444	0.00432	88.8	86.4	1	33.0-155			2.74	29
tert-Butylbenzene	0.00500	ND	0.00432	0.00500	86.4	100	1	34.0-153			14.6	28
Carbon tetrachloride	0.00500	ND	0.00543	0.00567	109	113	1	23.0-159			4.32	28
Carbon disulfide	0.00500	ND	0.00381	0.00410	76.2	82.0	1	10.0-156			7.33	28
Chlorobenzene	0.00500	ND	0.00458	0.00485	91.6	97.0	1	33.0-152			5.73	27
Chlorodibromomethane	0.00500	ND	0.00491	0.00519	98.2	104	1	37.0-149			5.54	27
Chloroethane	0.00500	ND	ND	0.00517	98.4	103	1	10.0-160			4.96	30
Chloroform	0.00500	ND	0.00503	0.00559	101	112	1	29.0-154			10.5	28
Chloromethane	0.00500	ND	ND	ND	37.4	45.4	1	10.0-160			19.3	29
1,2-Dibromo-3-Chloropropane	0.00500	ND	ND	ND	82.4	90.2	1	22.0-151			9.04	34
1,2-Dibromoethane	0.00500	ND	0.00469	0.00530	93.8	106	1	34.0-147			12.2	27
Dibromomethane	0.00500	ND	0.00465	0.00521	93.0	104	1	30.0-151			11.4	27
1,2-Dichlorobenzene	0.00500	ND	0.00428	0.00446	85.6	89.2	1	34.0-149			4.12	28
1,3-Dichlorobenzene	0.00500	ND	0.00439	0.00412	87.8	82.4	1	36.0-146			6.35	27
1,4-Dichlorobenzene	0.00500	ND	0.00428	0.00411	85.6	82.2	1	35.0-142			4.05	27
trans-1,4-Dichloro-2-butene	0.00500	ND	0.00382	0.00420	76.4	84.0	1	10.0-157			9.48	37
Dichlorodifluoromethane	0.00500	ND	0.00503	0.00509	101	102	1	10.0-160			1.19	29
1,1-Dichloroethane	0.00500	ND	0.00461	0.00533	92.2	107	1	25.0-158			14.5	27
1,2-Dichloroethane	0.00500	ND	0.00485	0.00585	97.0	117	1	29.0-151			18.7	27
1,1-Dichloroethene	0.00500	ND	0.00468	0.00488	93.6	97.6	1	11.0-160			4.18	29
cis-1,2-Dichloroethene	0.00500	ND	0.00445	0.00519	89.0	104	1	10.0-160			15.4	27
trans-1,2-Dichloroethene	0.00500	ND	0.00432	0.00468	86.4	93.6	1	17.0-153			8.00	27
1,2-Dichloropropane	0.00500	ND	0.00463	0.00504	92.6	101	1	30.0-156			8.48	27
cis-1,3-Dichloropropene	0.00500	ND	0.00444	0.00480	88.8	96.0	1	34.0-149			7.79	28
trans-1,3-Dichloropropene	0.00500	ND	0.00428	0.00494	85.6	98.8	1	32.0-149			14.3	28
Ethylbenzene	0.00500	ND	0.00445	0.00453	89.0	90.6	1	30.0-155			1.78	27
Hexachloro-1,3-butadiene	0.00500	ND	0.00395	0.00318	79.0	63.6	1	20.0-154			21.6	34
2-Hexanone	0.0250	ND	0.0222	0.0245	88.8	98.0	1	21.0-160			9.85	29
2-Butanone (MEK)	0.0250	ND	0.0214	0.0263	85.6	105	1	10.0-160			20.5	32
Iodomethane	0.0250	ND	ND	ND	25.4	39.4	1	10.0-160		R5	43.0	40
Methylene Chloride	0.00500	ND	ND	0.00503	86.8	101	1	23.0-144			14.7	28
4-Methyl-2-pentanone (MIBK)	0.0250	ND	0.0225	0.0254	90.0	102	1	29.0-160			12.1	29
Naphthalene	0.00500	ND	ND	ND	70.6	74.4	1	12.0-156			5.24	35
n-Propylbenzene	0.00500	ND	0.00435	0.00424	87.0	84.8	1	31.0-154			2.56	28
Styrene	0.00500	ND	0.00444	0.00460	88.8	92.0	1	33.0-155			3.54	28
1,1,1,2-Tetrachloroethane	0.00500	ND	0.00465	0.00532	93.0	106	1	36.0-151			13.4	29
1,1,2,2-Tetrachloroethane	0.00500	ND	0.00449	0.00516	89.8	103	1	33.0-150			13.9	28
1,1,2-Trichlorotrifluoroethane	0.00500	ND	0.00476	0.00409	95.2	81.8	1	23.0-160			15.1	30
Tetrachloroethene	0.00500	ND	0.00450	0.00399	90.0	79.8	1	10.0-160			12.0	27

L1505598-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1505598-01 06/25/22 07:02 • (MS) R3808059-4 06/25/22 12:26 • (MSD) R3808059-5 06/25/22 12:48

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 %
Toluene	0.00500	ND	0.00448	0.00479	89.6	95.8	1	26.0-154			6.69	28
1,2,4-Trichlorobenzene	0.00500	ND	0.00384	0.00323	76.8	64.6	1	24.0-150			17.3	33
1,1,1-Trichloroethane	0.00500	ND	0.00533	0.00578	107	116	1	23.0-160			8.10	28
1,1,2-Trichloroethane	0.00500	ND	0.00460	0.00515	92.0	103	1	35.0-147			11.3	27
Trichloroethene	0.00500	ND	0.00471	0.00491	94.2	98.2	1	10.0-160			4.16	25
Trichlorofluoromethane	0.00500	ND	0.00606	0.00644	121	129	1	17.0-160			6.08	31
1,2,3-Trichloropropane	0.00500	ND	0.00496	0.00531	99.2	106	1	34.0-151			6.82	29
1,2,4-Trimethylbenzene	0.00500	ND	0.00434	0.00432	86.8	86.4	1	26.0-154			0.462	27
1,3,5-Trimethylbenzene	0.00500	ND	0.00438	0.00428	87.6	85.6	1	28.0-153			2.31	27
Vinyl acetate	0.0250	ND	0.0245	0.0279	98.0	112	1	12.0-160			13.0	31
Vinyl chloride	0.00500	ND	0.00458	0.00492	91.6	98.4	1	10.0-160			7.16	27
Xylenes, Total	0.0150	ND	0.0135	0.0137	90.0	91.3	1	29.0-154			1.47	28
Di-isopropyl ether	0.00500	ND	0.00462	0.00520	92.4	104	1	21.0-160			11.8	28
ethanol	0.250	ND	0.235	0.258	94.0	103	1	50.0-150			9.33	20
Ethyl tert-butyl ether	0.00500	ND	0.00467	0.00552	93.4	110	1	10.0-160			16.7	37
Methyl tert-butyl ether	0.00500	ND	0.00548	0.00603	110	121	1	28.0-150			9.56	29
tert-Butyl alcohol	0.0250	ND	0.0260	0.0253	104	101	1	50.0-150			2.73	20
tert-Amyl Methyl Ether	0.00500	ND	0.00447	0.00506	89.4	101	1	10.0-160			12.4	37
(S) Toluene-d8					*105*	*104*		*80.0-120*				
(S) 4-Bromofluorobenzene					*103*	*103*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*106*	*110*		*70.0-130*				

L1505666-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1505666-02 06/25/22 08:07 • (MS) R3808059-6 06/25/22 13:10 • (MSD) R3808059-7 06/25/22 13:31

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 %
Acetone	0.0250	ND	ND	ND	105	116	1	10.0-160			9.80	35
Acrylonitrile	0.0250	ND	0.0229	0.0267	91.6	107	1	21.0-160			15.3	32
Benzene	0.00500	ND	0.00474	0.00540	94.8	108	1	17.0-158			13.0	27
Bromobenzene	0.00500	ND	0.00464	0.00520	92.8	104	1	30.0-149			11.4	28
Bromochloromethane	0.00500	ND	0.00508	0.00545	102	109	1	38.0-142			7.03	26
Bromodichloromethane	0.00500	ND	0.00481	0.00548	96.2	110	1	31.0-150			13.0	27
Bromoform	0.00500	ND	0.00439	0.00528	87.8	106	1	29.0-150			18.4	29
Bromomethane	0.00500	ND	ND	ND	63.0	82.6	1	10.0-160			26.9	38
n-Butylbenzene	0.00500	ND	0.00409	0.00449	81.8	89.8	1	31.0-150			9.32	30
sec-Butylbenzene	0.00500	ND	0.00463	0.00523	92.6	105	1	33.0-155			12.2	29
tert-Butylbenzene	0.00500	ND	0.00473	0.00511	94.6	102	1	34.0-153			7.72	28
Carbon tetrachloride	0.00500	ND	0.00566	0.00642	113	128	1	23.0-159			12.6	28

L1505666-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1505666-02 06/25/22 08:07 • (MS) R3808059-6 06/25/22 13:10 • (MSD) R3808059-7 06/25/22 13:31

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 %
Carbon disulfide	0.00500	ND	0.00389	0.00451	77.8	90.2	1	10.0-156			14.8	28
Chlorobenzene	0.00500	ND	0.00456	0.00536	91.2	107	1	33.0-152			16.1	27
Chlorodibromomethane	0.00500	ND	0.00468	0.00560	93.6	112	1	37.0-149			17.9	27
Chloroethane	0.00500	ND	ND	0.00580	97.4	116	1	10.0-160			17.4	30
Chloroform	0.00500	ND	0.00514	0.00574	103	115	1	29.0-154			11.0	28
Chloromethane	0.00500	ND	ND	ND	38.6	46.0	1	10.0-160			17.5	29
1,2-Dibromo-3-Chloropropane	0.00500	ND	ND	ND	82.2	89.8	1	22.0-151			8.84	34
1,2-Dibromoethane	0.00500	ND	0.00458	0.00517	91.6	103	1	34.0-147			12.1	27
Dibromomethane	0.00500	ND	0.00472	0.00500	94.4	100	1	30.0-151			5.76	27
1,2-Dichlorobenzene	0.00500	ND	0.00446	0.00518	89.2	104	1	34.0-149			14.9	28
1,3-Dichlorobenzene	0.00500	ND	0.00432	0.00494	86.4	98.8	1	36.0-146			13.4	27
1,4-Dichlorobenzene	0.00500	ND	0.00440	0.00501	88.0	100	1	35.0-142			13.0	27
trans-1,4-Dichloro-2-butene	0.00500	ND	0.00401	0.00441	80.2	88.2	1	10.0-157			9.50	37
Dichlorodifluoromethane	0.00500	ND	0.00545	0.00586	109	117	1	10.0-160			7.25	29
1,1-Dichloroethane	0.00500	ND	0.00479	0.00549	95.8	110	1	25.0-158			13.6	27
1,2-Dichloroethane	0.00500	ND	ND	0.00580	7.22	116	1	29.0-151	M2	R5	177	27
1,1-Dichloroethene	0.00500	ND	0.00462	0.00543	92.4	109	1	11.0-160			16.1	29
cis-1,2-Dichloroethene	0.00500	ND	0.00449	0.00525	89.8	105	1	10.0-160			15.6	27
trans-1,2-Dichloroethene	0.00500	ND	0.00439	0.00484	87.8	96.8	1	17.0-153			9.75	27
1,2-Dichloropropane	0.00500	ND	0.00441	0.00502	88.2	100	1	30.0-156			12.9	27
cis-1,3-Dichloropropene	0.00500	ND	0.00450	0.00505	90.0	101	1	34.0-149			11.5	28
trans-1,3-Dichloropropene	0.00500	ND	0.00435	0.00509	87.0	102	1	32.0-149			15.7	28
Ethylbenzene	0.00500	ND	0.00454	0.00519	90.8	104	1	30.0-155			13.4	27
Hexachloro-1,3-butadiene	0.00500	ND	0.00435	0.00447	87.0	89.4	1	20.0-154			2.72	34
2-Hexanone	0.0250	ND	0.0214	0.0250	85.6	100	1	21.0-160			15.5	29
2-Butanone (MEK)	0.0250	ND	0.0241	0.0274	96.4	110	1	10.0-160			12.8	32
Iodomethane	0.0250	ND	0.0102	0.0118	40.8	47.2	1	10.0-160			14.5	40
Methylene Chloride	0.00500	ND	ND	0.00559	85.1	98.3	1	23.0-144			12.5	28
4-Methyl-2-pentanone (MIBK)	0.0250	ND	0.0228	0.0265	91.2	106	1	29.0-160			15.0	29
Naphthalene	0.00500	ND	ND	ND	74.6	86.6	1	12.0-156			14.9	35
n-Propylbenzene	0.00500	ND	0.00458	0.00512	91.6	102	1	31.0-154			11.1	28
Styrene	0.00500	ND	0.00442	0.00501	88.4	100	1	33.0-155			12.5	28
1,1,1,2-Tetrachloroethane	0.00500	ND	0.00481	0.00563	96.2	113	1	36.0-151			15.7	29
1,1,2,2-Tetrachloroethane	0.00500	ND	0.00478	0.00549	95.6	110	1	33.0-150			13.8	28
1,1,2-Trichlorotrifluoroethane	0.00500	ND	0.00491	0.00543	98.2	109	1	23.0-160			10.1	30
Tetrachloroethene	0.00500	ND	0.00448	0.00506	89.6	101	1	10.0-160			12.2	27
Toluene	0.00500	ND	0.00448	0.00532	89.6	106	1	26.0-154			17.1	28
1,2,4-Trichlorobenzene	0.00500	ND	0.00379	0.00436	75.8	87.2	1	24.0-150			14.0	33
1,1,1-Trichloroethane	0.00500	ND	0.00502	0.00605	100	121	1	23.0-160			18.6	28
1,1,2-Trichloroethane	0.00500	ND	0.00443	0.00531	88.6	106	1	35.0-147			18.1	27

L1505666-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1505666-02 06/25/22 08:07 • (MS) R3808059-6 06/25/22 13:10 • (MSD) R3808059-7 06/25/22 13:31

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 %
Trichloroethene	0.00500	ND	0.00471	0.00540	94.2	108	1	10.0-160			13.6	25
Trichlorofluoromethane	0.00500	ND	0.00626	0.00714	125	143	1	17.0-160			13.1	31
1,2,3-Trichloropropane	0.00500	ND	0.00507	0.00553	101	111	1	34.0-151			8.68	29
1,2,4-Trimethylbenzene	0.00500	ND	0.00440	0.00503	88.0	101	1	26.0-154			13.4	27
1,3,5-Trimethylbenzene	0.00500	ND	0.00442	0.00501	88.4	100	1	28.0-153			12.5	27
Vinyl acetate	0.0250	ND	0.0248	0.0288	99.2	115	1	12.0-160			14.9	31
Vinyl chloride	0.00500	ND	0.00457	0.00536	91.4	107	1	10.0-160			15.9	27
Xylenes, Total	0.0150	ND	0.0136	0.0156	90.7	104	1	29.0-154			13.7	28
Di-isopropyl ether	0.00500	ND	0.00482	0.00540	96.4	108	1	21.0-160			11.4	28
ethanol	0.250	ND	0.368	0.242	147	96.8	1	50.0-150		R5	41.3	20
Ethyl tert-butyl ether	0.00500	ND	0.00476	0.00546	95.2	109	1	10.0-160			13.7	37
Methyl tert-butyl ether	0.00500	ND	0.00482	0.00550	92.8	106	1	28.0-150			13.2	29
tert-Butyl alcohol	0.0250	ND	0.0294	0.0313	118	125	1	50.0-150			6.26	20
tert-Amyl Methyl Ether	0.00500	ND	0.00434	0.00511	86.8	102	1	10.0-160			16.3	37
(S) Toluene-d8					*103*	*102*		*80.0-120*				
(S) 4-Bromofluorobenzene					*99.9*	*100*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*111*	*107*		*70.0-130*				

Method Blank (MB)

(MB) R3808981-3 06/27/22 23:27

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Methyl tert-butyl ether	U		0.000101	0.00100
tert-Amyl Methyl Ether	U		0.000195	0.00100
(S) Toluene-d8	*105*			*80.0-120*
(S) 4-Bromofluorobenzene	*96.0*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*95.6*			*70.0-130*

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

(LCS) R3808981-1 06/27/22 22:25 • (LCSD) R3808981-2 06/27/22 22:46

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Methyl tert-butyl ether	0.00500	0.00406	0.00401	81.2	80.2	68.0-125			1.24	20
tert-Amyl Methyl Ether	0.00500	0.00420	0.00406	84.0	81.2	66.0-125			3.39	20
(S) Toluene-d8				*106*	*104*	*80.0-120*				
(S) 4-Bromofluorobenzene				*97.0*	*93.1*	*77.0-126*				
(S) 1,2-Dichloroethane-d4				*98.2*	*96.4*	*70.0-130*				

INTERNAL STANDARD SUMMARY

Instrument: VOCMS30 • File ID: 0625_02

06/25/22 03:46

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0625_02	250577	105917	97830
Upper Limit		501154	211834	195660
Lower Limit		125289	52959	48915
LCS R3808059-1 WG1885276 1x	0625_02LCS	250577	105917	97830
LCSD R3808059-2 WG1885276 1x	0625_03	254188	105457	101751
BLANK R3808059-3 WG1885276 1x	0625_05	256083	106181	99610
L1505598-05 WG1885276 1x	0625_06	259129	109199	101460
L1505598-01 WG1885276 1x	0625_11	261133	110301	101629
L1505598-04 WG1885276 1x	0625_12	274531	114159	104504
L1505598-02 WG1885276 2000x	0625_24	283597	118453	111690
L1505598-03 WG1885276 200x	0625_25	274813	114721	105518
MS R3808059-4 WG1885276 1x	0625_26	267633	112213	107102
MSD R3808059-5 WG1885276 1x	0625_27	272483	115373	109950
MS R3808059-6 WG1885276 1x	0625_28	271112	116423	108427
MSD R3808059-7 WG1885276 1x	0625_29	265624	112419	106484

Instrument: VOCMS30 • File ID: 0625_02

06/26/22 02:03

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0625_02	251865	107687	103508
Upper Limit		503730	215374	207016
Lower Limit		125933	53844	51754
LCS R3808059-1 WG1885276 1x	0625_02LCS	250577	105917	97830
LCSD R3808059-2 WG1885276 1x	0625_03	254188	105457	101751
BLANK R3808059-3 WG1885276 1x	0625_05	256083	106181	99610
L1505598-05 WG1885276 1x	0625_06	259129	109199	101460
L1505598-01 WG1885276 1x	0625_11	261133	110301	101629
L1505598-04 WG1885276 1x	0625_12	274531	114159	104504
L1505598-02 WG1885276 2000x	0625_24	283597	118453	111690
L1505598-03 WG1885276 200x	0625_25	274813	114721	105518
MS R3808059-4 WG1885276 1x	0625_26	267633	112213	107102
MSD R3808059-5 WG1885276 1x	0625_27	272483	115373	109950
MS R3808059-6 WG1885276 1x	0625_28	271112	116423	108427
MSD R3808059-7 WG1885276 1x	0625_29	265624	112419	106484

INTERNAL STANDARD SUMMARY

Instrument: VOCMS36 • File ID: 0627_53

06/27/22 22:25

Sample ID	File ID	8260-FLUOROBENZENE	8260-CHLOROBENZENE-D5	8260-1,4-DICHLOROBENZENE-D4
		Response	Response	Response
Standard	0627_53	355663	156944	148272
Upper Limit		711326	313888	296544
Lower Limit		177832	78472	74136
LCS R3808981-1 WG1886355 1x	0627_53LCSA	355663	156944	148272
LCSD R3808981-2 WG1886355 1x	0627_54A	362761	160999	148704
BLANK R3808981-3 WG1886355 1x	0627_56A	352400	154494	139800
L1505598-04 WG1886355 200x	0627_75	364424	155743	142902

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

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	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
E1	Concentration estimated. Analyte exceeded calibration range. Reanalysis not possible due to insufficient sample.
E4	Concentration estimated. Analyte was detected below laboratory minimum reporting level (MRL) but above MDL.
L1	The associated blank spike recovery was above laboratory acceptance limits.
M1	Matrix spike recovery was high, the method control sample recovery was acceptable.
M2	Matrix spike recovery was low, the method control sample recovery was acceptable.
R5	MS/MSD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.
R7	LFB/LFBD RPD exceeded the laboratory acceptance limit. Recovery met acceptance criteria.
R8	Sample RPD exceeded the method acceptance limit.

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:
Kinder Morgan - Rocklin, CA-AZ Work

410 N.44th Street
Suite 1000
Phoenix. AZ 85008

Billing Information:
Accounts Payable- Alan Van Antwerp
9950 SAN DIEGO MISSION RD.
SAN DIEGO, CA 92108

Pres Chk

Report to: **Bob Forsberg**

Email To: bob.forsberg@arcadis-us.com;sascha.arnold@arcadis.com

Project Description: **KMEP Silvercroft Wash**

City/State Collected: Tucson, AZ

Please Circle: PT MT CT ET

Phone: **602-438-0883**

Client Project # **30113573.01**

Lab Project # **KINARCPAZ-SILVERCROF**

Collected by (print): MAT/SXA

Site/Facility ID # **SILVERCROFT WASH**

P.O. # **WD876456**

Collected by (signature): M. Tan

Immediately Packed on Ice N ___ Y X

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: STD TURN

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	*NO2,NO3,SO4 125mlHDPE-NoPres	EEM RSK175 40mlAmb HCl	HOLD - NO2+NO3 250mlHDPE-H2SO4	TDS 1L-HDPE NoPres	Total Fe 6010 250mlHDPE-HNO3	VOCs+OXYs 8260 40mlAmb-HCl	Remarks	Sample # (lab only)
MW-32M	G	GW	199	6/15/22	0812	18	X	X	X	X	X	X	RUSH/MSD	-01
MW-32S		GW	173		0927	9	X	X	X	X	X	X		-02
MW-29S		GW	173		1042	9	X	X	X	X	X	X		-03
MW-29S-DVP		GW	173		1047	9	X	X	X	X	X	X		-04
		GW												
		GW												
		GW												
		GW												
		GW												
Trip Blank	—	GW	—	6/15/22	—	1						X		-05

Chain of Custody Page 1 of 1

Pace
PEOPLE ADVANCING SCIENCE

MT JULIET, TN

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1505598
C035

Acctnum: **KINARCPAZ**
Template: **T190237**
Prelogin: **P930973**
PM: **110 - Brian Ford**
PB:

Shipped Via:

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:*NO2,NO3 have a 48 hour holding time.

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 5829 6696 9260

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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
M. Tan	6/15/22	1525	
	6-15-22	1800	
			D. Ramsey

Trip Blank Received: Yes / No
HCL / MeoH
TBR
1

Temp: 0.7 °C Bottles Received: 15
0.9+0=0.9

If preservation required by Login: Date/Time

Date: 6-16-22 Time: 900

Hold:

Condition: NCF / OK

Appendix K

Responsiveness Summary

Remedial Action Plan Responsiveness Summary

Silvercroft Wash Release Site
Tucson, Arizona
Site Code: 506521-00

Pursuant to the requirements of the Arizona Administrative Code (A.A.C.) R-18-16-406(H), Santa Fe Pacific Pipeline, L.P. (SFPP), an operating partnership of Kinder Morgan, Inc. (KM), has prepared this comprehensive responsiveness summary for comments received on the *Remedial Action Plan, Silvercroft Wash Release Site, Voluntary Remediation Program Site 506251-00, Tucson, Arizona* dated December 23, 2022. The comment period for the Draft Remedial Investigation report was opened on March 17, 2023 for 30 days.

The following comment was provided to the Arizona Department of Environmental Quality (ADEQ) dated March 24, 2023. A copy of the email correspondence is also included.

Comment:

This work plan is written in such a way that only people with specialized knowledge can understand it.

Also, the download was not compatible with Safari (which about 10% of Americans use as their browser); I needed to download it onto Chrome in order to be able to look at it.

When residents are affected, there should be a plain English explanation of less than four pages that explains what the plan is. I am a college graduate experienced in governmental processes, and there is no way I can understand this. For many of the area residents whose first language is not English and who have less academic and governmental experience, it would be even less understandable.

A plain English explanation should be mailed to the affected residents, and the comment period should be extended to a month after the mailing date so that residents can comment on something that affects them.

ADEQ Response:

Thank you for your comments. The VRP will take this under advisement when noticing future technical documents.

There is no action required by Kinder Morgan at this time.

ADEQ Arizona Department of Environmental Quality

PUBLIC NOTICE

NOTICE OF AVAILABILITY AND 30-DAY PUBLIC COMMENT PERIOD
SFPP, L.P. SILVERCROFT WASH RELEASE
VOLUNTARY REMEDIATION PROGRAM (VRP) SITE
WORK PLAN FOR REMEDIATION

The Arizona Department of Environmental Quality (ADEQ) has received a work plan for the SFPP, L.P. Silvercroft Wash Release VRP site. The work plan proposes implementation of in-situ air sparging to remediate groundwater and was submitted in accordance with Arizona Revised Statutes (A.R.S.) § 49-175 and § 176.

The SFPP, L.P. Silvercroft Wash Release VRP site consists of a groundwater plume located west of the I-10 Freeway, north of Grant Road, along the Silvercroft Wash in located in Tucson, Arizona. The plume is bounded approximately by the extension of Goret Road to the north, Silverbell Tree Drive to the south, Silver Island Way to the east, and Mountain Creek Way to the west. Contaminants of concern at the site are benzene, toluene, ethylbenzene, and total xylenes (collectively referred to as BTEX) and methyl tertiary-butyl ether (MTBE).

The work plan is available online at: http://azdeq.gov/notices, and at the ADEQ Records Center, 1110 W. Washington St., Phoenix, (602) 771-4380, or (800) 234-5677, ext. 6027714380; please call for hours of operation and to schedule an appointment.

PARTIES WISHING TO SUBMIT WRITTEN COMMENTS regarding the remedial work plan for the SFPP, L.P. Silvercroft Wash Release VRP site may do so to ADEQ, Attention: Nichole Osuch, Voluntary Remediation Program, 1110 W. Washington St., Phoenix, AZ 85007 or osuch.nichole@azdeq.gov and reference this listing. **Comments must be postmarked or received by ADEQ by close of business April 17, 2023.**

ADEQ will take reasonable measures to provide access to department services to individuals with limited ability to speak, write or understand English and/or to those with disabilities. Requests for language translation, ASL interpretation, CART captioning services or disability accommodations must be made at least 48 hours in advance by contacting the Title VI Nondiscrimination Coordinator, Leonard Drago, at 602-771-2288 or Drago.Leonard@azdeq.gov. For a TTY or other device, Telecommunications Relay Services are available by calling 711.

ADEQ tomará las medidas razonables para proveer acceso a los servicios del departamento a personas con capacidad limitada para hablar, escribir o entender inglés y/o para personas con discapacidades. Las solicitudes de servicios de traducción de idiomas, interpretación ASL (lengua de signos americano), subtitulado de CART, o adaptaciones por discapacidad deben realizarse con al menos 48 horas de anticipación comunicándose con el Coordinador de Anti-Discriminación del Título VI, Leonard Drago, al 602-771-2288 o Drago.Leonard@azdeq.gov. Para un TTY u otro dispositivo, los servicios de retransmisión de telecomunicaciones están disponible llamando al 711.

Dated this 17th day of March, 2023.

Gmail

Nichole Osuch <osuch.nichole@azdeq.gov>

Fwd: Silvercroft Wash Release VRP Work Plan

1 message

Kathleen Fullin <kathyfullin@gmail.com> Fri, Mar 24, 2023 at 10:07 AM
To: Osuch.Nichole@azdeq.gov

To clarify: these are meant to be my comments on the work plan

Begin forwarded message:

From: Kathleen Fullin <kathyfullin@gmail.com>
Subject: Silvercroft Wash Release VRP Work Plan
Date: March 24, 2023 at 9:55:44 AM MST
To: Osuch.Nichole@azdeq.gov

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Gmail

Nichole Osuch <osuch.nichole@azdeq.gov>

Re: Silvercroft Wash Release VRP Work Plan

1 message

Nichole Osuch <osuch.nichole@azdeq.gov> Fri, Apr 21, 2023 at 3:45 PM
To: kathyfullin@gmail.com

Thank you for your comments. The VRP will take this under advisement when noticing future technical documents.

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azdeq.gov

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On Fri, Mar 24, 2023 at 10:07 AM Kathleen Fullin <kathyfullin@gmail.com> wrote:

> To clarify: these are meant to be my comments on the work plan
>
> Begin forwarded message:
>
> **From:** Kathleen Fullin <kathyfullin@gmail.com>
> **Subject: Silvercroft Wash Release VRP Work Plan**
> **Date:** March 24, 2023 at 9:55:44 AM MST
> **To:** Osuch.Nichole@azdeq.gov
>
> This work plan is written in such a way that only people with specialized knowledge can understand it.
>
> Also, the download was not compatible with Safari (which about 10% of Americans use as their browser); I needed to download it onto Chrome in order to be able to look at it.
>
> When residents are affected, there should be a plain English explanation of less than four pages that explains what the plan is. I am a college graduate experienced in governmental processes, and there is no way I can understand this. For many of the area residents whose first language is not English and who have less academic and governmental experience, it would be even less understandable.
>
> A plain English explanation should be mailed to the affected residents, and the comment period should be extended to a month after the mailing date so that residents can comment on something that affects them.

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