Limited Site Investigation

Ute Highway Water Treatment Plant

4651 & 4652 Ute Highway

Boulder County, Colorado

February 15, 2016

Terracon Project No. 22157002

Prepared for:

City of Longmont

Public Works & Natural Resources

Longmont, Colorado

Prepared by:

Terracon Consultants, Inc.

Fort Collins, Colorado

Terracon

February 15, 2016

Mr. Larry Wyeno
Public Works & Natural Resources
385 Kimbark Street
Longmont, Colorado 80501

Telephone: (303) 651-8628
E-mail: larry.wyeno@longmontcolorado.gov

Re: Limited Site Investigation
Ute Highway Water Treatment Plant
4651 & 4652 Ute Highway
Boulder County, Colorado
Terracon Project No. 22157002

Dear Mr. Wyeno:

Terracon Consultants, Inc. (Terracon) is pleased to submit our report of the Limited Site Investigation (LSI) activities performed at the site referenced above. The report presents data from recent field activities that included the completion of soil borings and the collection of soil and groundwater samples for chemical analysis. The activities were performed to prepare a Colorado Department of Public Health and Environment (CDPHE) State of Colorado Voluntary Clean-up Program (VCUP) Application (Application) for the Ute Highway Water Treatment plant. The intent of the Application is to determine what further action, if any, may be required at the subject property in order to receive a No Action Determination (NAD) ("Comfort Letter") from the CDPHE. Terracon conducted the LSI in general accordance with our proposal (P20150225) dated January 6, 2016.

Terracon appreciates this opportunity to provide environmental engineering services to The City of Longmont. Should you have any questions or require additional information, please do not hesitate to contact our office.

Sincerely,
Terracon Consultants, Inc.

Craig L. Nelson
Staff Geologist

FOR
Lawrence R. Keefe
Principal

for
John A. Skogman, P.E.
Department Manager | Environmental Services

TABLE OF CONTENTS

LIMITED SITE INVESTIGATION
UTE HIGHWAY WATER TREATMENT PLANT
4651 & 4652 UTE HIGHWAY
BOULDER COUNTY, COLORADO

Terracon Project No. 22157002
February 15, 2016

1.0 SITE DESCRIPTION

The site is a former water treatment plant located at 4651 and 4652 Ute Highway, southeast of Lyons, Boulder County, Colorado. The water treatment plant facility is separated into two parcels that are divided by Ute Highway (SH 66) into the North Plant and South Plant, collectively referred to as the plant. The South Plant was built in 1934 with additions and renovations in the 1950's and 1970's. An equipment storage building was built at the South Plant in 2004. The North Plant was built in 1967 with two additional site buildings constructed in the 1970's and 1980's. Both water treatment plants ceased operations in 2005 and are now used for storage and equipment spare parts. Most of the facility' structures, containers, and equipment are still in place. A Topographic Map showing the site location is included as Exhibit 1 and a Site Diagram showing the area of interest for this investigation is included as Exhibit 2 in Appendix A.

1.1 Site Investigation History

Terracon performed a Phase I Environmental Site Assessment (ESA) of the Ute Highway Water Treatment Plant located at 4651 and 4652 Ute Highway in Boulder County, Colorado (final Phase I ESA report dated October 3, 2011, (Terracon Project No. 22117704). Terracon's Phase I ESA findings indicated:

- The historic operations of the treatment plant used large quantities of pH adjusters, flocculants, fluoride, and chlorine-source materials to produce drinking water from raw water of the St. Vrain Creek Watershed. Smaller quantities of hazardous substances and petroleum products were used to operate, maintain, and clean the equipment used to operate the plants. Reportedly, operations equipment was serviced at the Maintenance Building located in the eastern portion of the North Plant. Terracon observed a floor drain in the Maintenance Building which reportedly was connected to a site perimeter drain system. Based on the length of time the Maintenance Building has been in place, building use, possible presence and use of hazardous materials and petroleum products identified from MSDS information, and proximity of observed hazardous materials and petroleum products, discharges to the interior floor drain in the Maintenance Building at the North Plant are considered a recognized environmental condition (REC).

- The backwash ponds located on the North Plant are considered a REC due to the potential for naturally occurring elements and compounds to have been concentrated through the

backwash process and accumulated in the pond bottoms, due to the potential for process-added compounds to have accumulated in the pond bottoms, and due to the potential for leaching to occur under the ponds.

- Terracon observed staining on the concrete floor under an elevator hydraulic fluid reservoir in the South Plant filtration building. The elevator pit was not accessible for a visual assessment. Based on the age of the building, the hydraulic fluid used in the elevator system may have contained PCBs. Based on the staining observed and the potential for PCBs, this elevator is considered a REC.

Terracon performed a Limited Site Investigation (LSI) at the Ute Highway Water Treatment Plant located at 4651 and 4652 Ute Highway in Boulder County, Colorado (Final LSI report dated January 3, 2012, Terracon Project No. 22117004). The objective of the LSI was to conduct an initial assessment of subsurface soil and groundwater conditions in the vicinity of the RECs identified at the North Plant and to conduct an initial assessment for PCBs on concrete below the observed elevator hydraulic fluid release. Terracon's LSI findings indicated the following:

- Based on the field screening observations and results of soil and groundwater sampling from soil borings in the vicinity, the LSI did not identify evidence of releases of petroleum hydrocarbons, metals, or volatile organic compounds (VOCs) to the floor drain at the North Plant Maintenance Building.

- Based on results of soil and groundwater sampling at the backwash settling ponds, the LSI identified elevated metals in soils and groundwater under the ponds. Concentration of aluminum from shallow soil samples collected from each pond exceeded typical background and the Colorado guidance values for aluminum in soils. Dissolved manganese in groundwater samples from each pond exceeded the Colorado groundwater standard for manganese. It is unclear whether the use of a temporary well during sampling may have influenced the dissolved metals laboratory results; in order to further assess this potential influence, it would be necessary to install and develop permanent monitoring wells and re-sample.

As sample of the stained concrete slab in the South Plant Filtration Building indicated the presence of PCB Arochlor 1242. Although the PCB contamination was less than the EPA cleanup level, it does suggest that PCBs have been present in hydraulic fluids in the elevator system. Because Terracon was unable to access the interior of the elevator system to assess the potential for releases to have occurred to the building or subsurface, the presence of PCBs in the elevator's hydraulic fluid makes this limitation of the environmental assessment more significant.

2.0 SCOPE OF SERVICES

2.1 Objectives

The objective of this LSI was to collect additional soil and groundwater samples to evaluate the presence of selected chemicals of concern, at concentrations above relevant laboratory reporting limits in the on-site soils and groundwater as a result of potential releases from historic operations at the site. The investigation was performed in general accordance with Terracon's proposal (P20150225) dated January 6, 2016

Terracon, along with City of Longmont representatives, met with CDPHE representatives to discuss the VCUP application and assess the need to provide additional information. Based on discussions with CDPHE, additional site investigation activities were required to support the VCUP application and prior to requesting a No Action Determination (NAD) letter for the site. The scope of additional investigation activities included the following:

- Completion of seven soil borings completed as groundwater monitoring wells with one soil sample collected from each boring
- Groundwater monitoring and sampling of the seven new monitoring wells
- Completion of one shallow soil boring located in the sludge storage pad with two soil samples collected from boring
- Collection of shallow soil samples from four locations in the residual ponds with two soil samples collected from each location

2.2 Standard of Care

Terracon's services were performed in a manner consistent with generally accepted practices of the profession undertaken in similar studies in the same geographical area during the same time. Terracon makes no warranties, either express or implied, regarding the findings, conclusions, or recommendations. Please note that Terracon does not warrant the work of laboratories, regulatory agencies, or other third parties supplying information used in the preparation of the report. These LSI services were performed in accordance with the scope of work agreed with you, our client, as reflected in our proposal and were not restricted by ASTM E1903-11.

2.3 Additional Scope Limitations

Findings, conclusions, and recommendations resulting from these services are based upon information derived from the on-site activities and other services performed under this scope of work; such information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, nondetectable, or not present during these services. We cannot represent that the site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during this LSI. Subsurface conditions may vary from those encountered at specific borings or wells or during other surveys, tests, assessments,

investigations, or exploratory services. The data, interpretations, findings, and our recommendations are based solely upon data obtained at the time and within the scope of these services.

2.4 Reliance

This report has been prepared for the exclusive use of The City of Longmont and any authorization for use or reliance by any other party (except a governmental entity having jurisdiction over the site) is prohibited without the express written authorization of The City of Longmont and Terracon. Any unauthorized distribution or reuse is at the Campus West Carwash sole risk. Notwithstanding the foregoing, reliance by authorized parties will be subject to the terms, conditions, and limitations stated in the proposal, LSI report, and City of Longmont Authorization and Scope of Work and Rate Comparison for On-Call Services and City-Wide Awards dated December 11, 2015. The limitation of liability defined in the terms and conditions is the aggregate limit of Terracon's liability to The City of Longmont and all relying parties unless otherwise agreed in writing.

3.0 FIELD INVESTIGATION

3.1 Soil Borings

Terracon advanced seven soil borings at the site, completed as groundwater monitoring wells (B-1, B-2, B-3, B-4, B-6, B-7, B-8), on January 13th & 14th, 2016, utilizing hollow-stem auger (HSA) drilling methods to a maximum depth of approximately 19 feet below grade surface (bgs). In addition, Terracon advanced one shallow soil boring (B-5) to a depth of 7.5 feet bgs in the sludge storage pad area. Following the collection of soil samples, the shallow boring was backfilled using drill cuttings from the boring. The location of the soil borings are shown on the Site Diagram (Exhibit 2) in Appendix A.

Soil samples were collected at select intervals from a split-spoon sampler in the soil borings. Groundwater was encountered at approximately 8 to 12 feet bgs during drilling activities. Drilling equipment was cleaned using a high-pressure washer prior to beginning the project and before beginning each boring. Non-dedicated sampling equipment was cleaned using an Alconox® detergent wash and potable water rinse prior to commencement of the project and between collections of each sample.

A Terracon scientist reviewed the soils for type, color, grain size, and other soil characteristics. Soil samples were collected and observed to document soil lithology, color, moisture and sensory indications of potential environmental impact. The soil boring logs representing the observed and interpolated stratification boundaries of the site soils are included in Appendix B.

The monitoring wells were completed using the following methodology:

- Installation of 10 feet of 2-inch 0.010-inch machine slotted PVC well screen with a threaded bottom cap
- Installation of 2-inch diameter, threaded, flush joint PVC riser pipe to the surface
- Addition of a pre-sieved annular silica sand pack from the bottom of the boring to approximately 1 foot above the top of the well screen
- Addition of hydrated bentonite seal above the sand pack filter zone
- Installation of an 8-inch diameter, circular, bolt-down, steel, monitoring well cover with locking well cap inset in a flush-mount, concrete well pad

The monitoring wells were developed on January 18, 2016, by surging and removing groundwater with a new, disposable, polypropylene bailer. Approximately five well volumes of groundwater were removed from each well or the well was purged dry during development activities.

3.2.1 Soil Profile Description

The soil profile predominantly consisted of silty sand with gravel and cobbles from surface grade to the bottom of the borings. Soil boring logs are provided in Appendix B.

3.2.2 Hydrogeology

Terracon collected water level measurements from the monitoring wells on January 20, 2016. The water level measurements taken from the monitoring wells ranged from approximately 7 feet to 11 feet bgs. Groundwater measurements are reported on the Boring Logs provided in Appendix B, and a groundwater piezometric map for groundwater elevation measurements collected on January 20, 2016 is presented on Exhibit 3 in Appendix A. Based on groundwater measurements, groundwater generally appears to be flowing in a southerly direction.

3.2.3 ATH Field Screening Results

A Terracon scientist collected soil samples during advancement of the borings using a split-spoon sampler. Upon removal of the soil samples from the sampling devise, a portion of the soil was placed into a sealable plastic bag. This portion of the soil sample was screened for VOC vapors by the Ambient Temperature Headspace (ATH) method. The ATH soil screening method involves placing a representative soil sample from select sampling intervals into a sealable plastic bag, resealing the bag, and allowing the contents to equilibrate to the surrounding ambient conditions. A Mini-Rae photo-ionization detector (PID), equipped with a 10.6 electron-volt ultraviolet lamp source was used to detect for the presence volatile organic vapors in the soil. The probe of the PID was inserted into the bag and the highest measurement was recorded. The PID is and instrument capable of measuring VOC vapor concentrations in part per million (ppm). Terracon calibrated the PID in accordance with the manufacturer's recommendations before the field activities. Terracon observed the PID readings taken from the soil samples to range from below instrument detection limit (ND) to 5.9 ppm. The results from the ATH soil screenings for each boring are shown on the Boring Logs included in Appendix B.

3.3 Soil and Groundwater Sampling

Soil and groundwater samples were collected and placed into laboratory prepared containers, labeled, and stored on ice in a cooler for delivery to the laboratory. The samples and completed chain-of-custody forms were shipped to ESC Lab Sciences (ESC) in Mount Juliet, TN, for laboratory analysis.

3.3.1 Soil Sample Collection and Analyses

Soil samples were collected on January 13th and 14th, 2016 for laboratory analysis from borings B-1 through B-8 for analysis of VOCs by U.S. Environmental Protection Agency (EPA) Method 8260B, total extractable petroleum hydrocarbons (TEPH) and total volatile petroleum hydrocarbons (TVPH) by EPA Method 8015, and Resource Conservation and Recovery Act (RCRA) 8 Metals by EPA Method 6010.

In addition to the samples collected from the soil borings, Terracon collected shallow soil samples from four locations (B-9, B-10, B-11, B-12) in the residual ponds located at the north plant. Two soil samples were collected from each location at the approximate depths of 1.5 feet and 4.5 feet bgs. Terracon collected the samples by driving a new 2-inch diameter PVC pipe into the pond sludge until the pipe impacted solid material, indicative of the bottom of the pond. Terracon observed approximately 4 to 5 feet of sludge in the areas sampled. The samples collected from the residual ponds were analyzed for RCRA 8 Metals by EPA Method 6010. Sample locations are shown on the Site Diagram (Exhibit 2) in Appendix A.

3.3.2 Groundwater Sample Collection and Analyses

Groundwater samples were collected on January 20, 2016 from seven groundwater monitoring wells for laboratory analysis. Prior to sample collection, each monitoring well was purged of a minimum of three well casing volumes of groundwater. Subsequent to sufficient recharge, one groundwater sample was collected from each monitoring well utilizing a new, disposable, polyethylene bailer. The samples were analyzed for VOCs by EPA Method 8260B, TEPH/TVPH by EPA Method 8015 and dissolved RCRA 8 Metals by EPA method 6010.

4.0 SUMMARY OF ANALYTICAL RESULTS

The laboratory analytical reports and chain-of-custody record are attached in Appendix C. The following sections describe the results of the analytical testing.

4.1 Soil Sample Results

Concentrations of VOCs, TEPH and TVPH were not reported above laboratory detection limits. Concentrations of RCRA 8 metals in soils, with the exception of arsenic in the sample collected from boring B-1, were reported less than the Environmental Protection Agency (EPA) residential soil standard, Regional Screening Level (RSL) Summary Table dated November 2015 and/or the

average background concentrations reported in the Risk Management Guidance for Evaluating Arsenic Concentrations in Soil by CDPHE, revised July 2014. A summary of the soil analytical results for metals are presented below in Table 4-1.

Table 4-1 Summary of Soil Analytical Results – RCRA 8 Metals

Sample ID	Sample Date	Mercury (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
B-1-4	1/13/2016	<0.0028	**15.0**	78.6	<0.07	11.4	8.46	<0.74	<0.28
B-2-14	1/13/2016	<0.0028	<0.65	85.1	<0.07	17.2	3.8	<0.74	<0.28
B-3-4	1/13/2016	<0.0028	<0.65	44.7	<0.07	11.7	3.1	<0.74	<0.28
B-4-4	1/13/2016	<0.0028	3.0	77.9	<0.07	14.0	7.52	<0.74	<0.28
B-5-2	1/14/2016	<0.0028	3.95	124	<0.07	14.4	7.65	<0.74	<0.28
B-5-7	1/14/2016	<0.0028	<0.65	49.4	<0.07	15.5	3.36	<0.74	<0.28
B-6-9	1/14/2016	<0.0028	2.51	42.3	<0.07	20.9	5.24	<0.74	<0.28
B-7-9	1/14/2016	<0.0028	2.34	43.3	<0.07	25.7	5.88	<0.74	<0.28
B-8-4	1/14/2016	<0.0028	2.62	47.4	<0.07	10.8	11.2	<0.74	<0.28
B-9-1	1/14/2016	<0.0028	<0.65	7.01	<0.07	1.8	<0.19	<0.74	<0.28
B-9-4	1/14/2016	<0.0028	2.6	67.2	<0.07	15.7	6.41	<0.74	<0.28
B-10-1	1/14/2016	<0.0028	<0.65	8.43	<0.07	2.09	<0.19	<0.74	<0.28
B-10-4	1/14/2016	<0.0028	2.58	24.6	<0.07	5.14	<0.19	<0.74	<0.28
B-11-1	1/14/2016	<0.0028	<0.65	6.53	<0.07	1.65	<0.19	<0.74	<0.28
B-11-4	1/14/2016	<0.0028	<0.65	7.24	<0.07	1.92	<0.19	<0.74	<0.28
B-12-1	1/14/2016	<0.0028	<0.65	6.4	<0.07	1.29	<0.19	<0.74	<0.28
B-12-4	1/14/2016	<0.0028	<0.65	10.4	<0.07	2.46	<0.19	<0.74	<0.28
Residential Standard		9.4	0.68	15,000	71	NS	400	390	390
Background			11						

Bold indicates the reported level was above the residential standard and the typical background levels
NS = No cleanup level specified
Residential Standard = EPA Residential Soil Standard, RSL Summary Table dated November 2015
Background = Average background concentrations reported in the Risk Management Guidance for Evaluating Arsenic Concentrations in Soil by CDPHE, revised July 2014
mg/kg = milligrams per kilogram

4.2 Groundwater Sample Results

Concentrations of VOCs, TEPH and TVPH did not exceed the cleanup levels established by the Colorado Department of Public Health and Environment (CDPHE) Groundwater Protection

Values Soil Cleanup Table, Water Standard dated March 2014, or the EPA RSL Summary Table Maximum Contaminant Level (MCL) dated November 2015. Concentrations of arsenic, barium, cadmium, chromium, lead, and selenium were reported above the CDPE and/or EPA cleanup standards. A summary of the groundwater analytical results for metals are presented below in Table 4-2.

Table 4-2 Summary of Groundwater Analytical Results – RCRA 8 Metals

Sample ID	Sample Date	Mercury (µg/l)	Arsenic (µg/l)	Barium (µg/l)	Cadmium (µg/l)	Chromium (µg/l)	Lead (µg/l)	Selenium (µg/l)	Silver (µg/l)
B-1	1/20/2016	<0.2	**20.9**	**2,620**	<2.0	54.4	**162**	<10.0	<5.0
B-2	1/20/2016	<0.2	**16.8**	**2,700**	2.48	**139**	**137**	<10.0	<5.0
B-3	1/20/2016	<0.2	**21.6**	**3,850**	<2.0	**232**	**240**	10.7	<5.0
B-4	1/20/2016	<0.2	**14.9**	**3,000**	<2.0	**124**	**145**	<10.0	<5.0
B-6	1/20/2016	0.364	**56.3**	**6,130**	**6.17**	**281**	**367**	13.9	<5.0
B-7	1/20/2016	<0.2	<10	804	<2.0	53.9	**60.8**	<10.0	<5.0
B-8	1/20/2016	0.207	**24.0**	**12,000**	**11.5**	**472**	**353**	38.9	9.35
CGS Standard		2	10	2,000	5	100	50	20	50
MCL Standard		2	10	2,000	5	100	15	50	NS

Bold = Indicates the reported level was above the cleanup standard
NS = No cleanup level specified
CGS Standard = Groundwater Protection Values Soil Cleanup Table, Water Standard, dated March 2014
MCL Standard = EPA RSL Summary Table (TR=1E-6, HQ=1), MCL dated November 2015
µg/l = Micrograms per liter

5.0 CONCLUSIONS

Based on the scope of services described in this report and subject to the limitations described herein, Terracon concludes the following:

- Concentrations of VOCs, TVPH, and TEPH in soil and groundwater samples collected were reported below the established regulatory cleanup limits where applicable and/or laboratory detection limits.
- Concentrations of arsenic in soil from boring B-1 was reported above the EPA residential soil standard, RSL Summary Table dated November 2015 and the average background concentrations reported in the Risk Management Guidance for Evaluating Arsenic Concentrations in Soil by CDPHE, revised July 2014.
- Concentrations of arsenic, barium, cadmium, chromium, lead, and selenium were reported above the CDPE and/or EPA standard in groundwater sampled on-site.

6.0 RECOMMENDATIONS

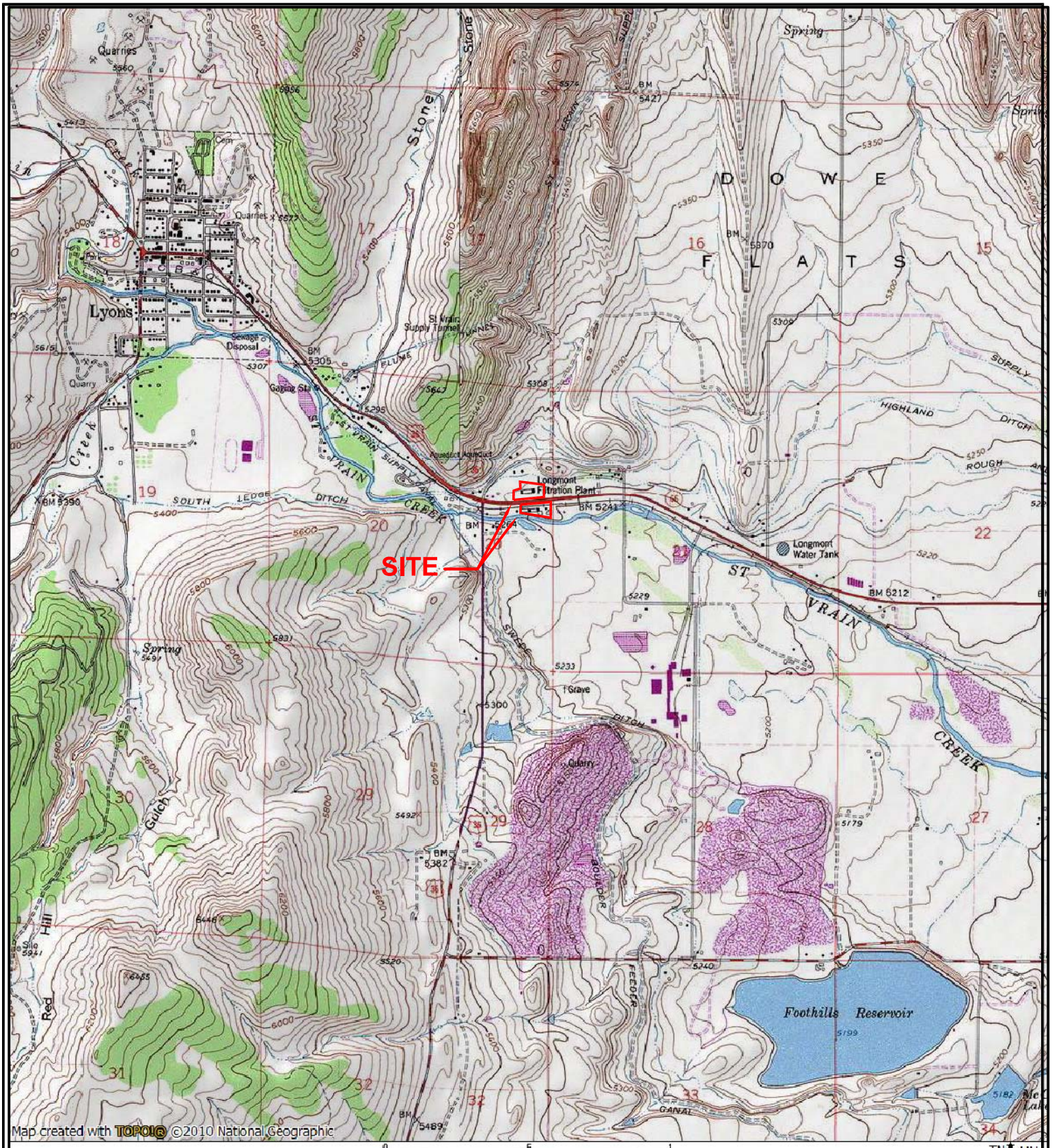
- Based on the information provided in this report, Terracon recommends the submittal of a Voluntary Clean-up Program (VCUP) application to the Colorado Department of Public Health and Environment (CDPHE) with the intent to receive a No Action Determination (NAD) letter from CDPHE for the subject property.

APPENDIX A – EXHIBITS

Exhibit 1 – Topographic Map

Exhibit 2 – Site Diagram

Exhibit 3 – Piezometric Site Diagram



Based on USGS 7.5–Minute Quadrangle Map: Hygiene, Colorado dated 1979

CONTOUR INTERVAL 10 FEET

Project Mngr:	CLN
Drawn By:	KDH
Checked By:	CLN
Approved By:	JCG

Project No.	22157002
Scale:	AS SHOWN
File No.	TOPO - 7002.dwg
Date:	February 5, 2016

Terracon
Consulting Engineers and Scientists
1901 Sharp Point Drive, Suite C Fort Collins, Colorado 80525
PH. (970) 484-0359 FAX. (970) 484-0454

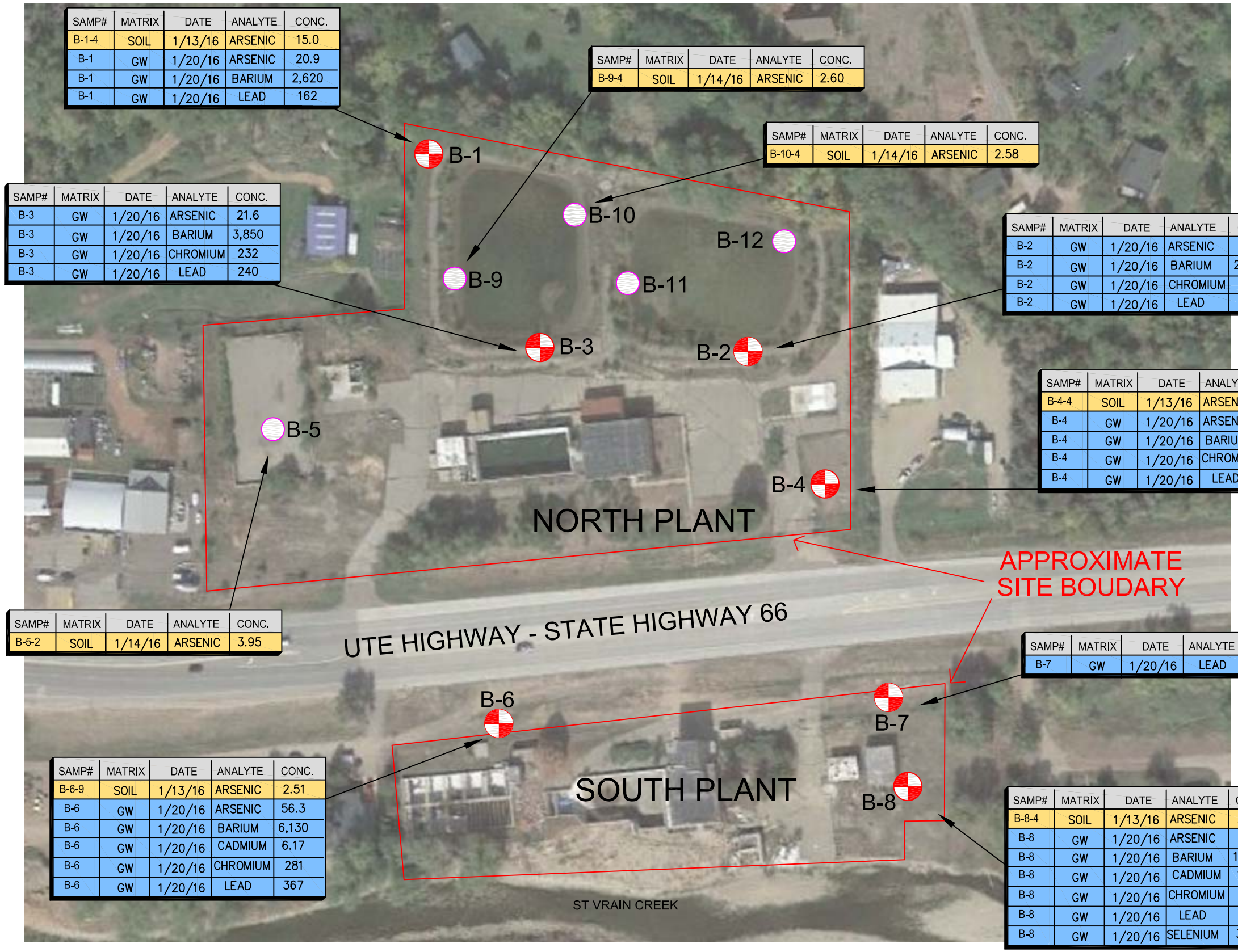
EXHIBIT 1: TOPOGRAPHIC MAP

UTE HIGHWAY WATER TREATMENT PLANT

4651 & 4652 Ute Highway
Boulder County, Colorado

Exhibit

1



SAMP#	MATRIX	DATE	ANALYTE	CONC.
B-1-4	SOIL	1/13/16	ARSENIC	15.0
B-1	GW	1/20/16	ARSENIC	20.9
B-1	GW	1/20/16	BARIUM	2,620
B-1	GW	1/20/16	LEAD	162

SAMP#	MATRIX	DATE	ANALYTE	CONC.
B-9-4	SOIL	1/14/16	ARSENIC	2.60

SAMP#	MATRIX	DATE	ANALYTE	CONC.
B-10-4	SOIL	1/14/16	ARSENIC	2.58

SAMP#	MATRIX	DATE	ANALYTE	CONC.
B-3	GW	1/20/16	ARSENIC	21.6
B-3	GW	1/20/16	BARIUM	3,850
B-3	GW	1/20/16	CHROMIUM	232
B-3	GW	1/20/16	LEAD	240

SAMP#	MATRIX	DATE	ANALYTE	CONC.
B-2	GW	1/20/16	ARSENIC	16.8
B-2	GW	1/20/16	BARIUM	2,700
B-2	GW	1/20/16	CHROMIUM	139
B-2	GW	1/20/16	LEAD	137

SAMP#	MATRIX	DATE	ANALYTE	CONC.
B-4-4	SOIL	1/13/16	ARSENIC	3.00
B-4	GW	1/20/16	ARSENIC	14.9
B-4	GW	1/20/16	BARIUM	3,000
B-4	GW	1/20/16	CHROMIUM	124
B-4	GW	1/20/16	LEAD	145

SAMP#	MATRIX	DATE	ANALYTE	CONC.
B-5-2	SOIL	1/14/16	ARSENIC	3.95

SAMP#	MATRIX	DATE	ANALYTE	CONC.
B-7	GW	1/20/16	LEAD	60.8

SAMP#	MATRIX	DATE	ANALYTE	CONC.
B-6-9	SOIL	1/13/16	ARSENIC	2.51
B-6	GW	1/20/16	ARSENIC	56.3
B-6	GW	1/20/16	BARIUM	6,130
B-6	GW	1/20/16	CADMIUM	6.17
B-6	GW	1/20/16	CHROMIUM	281
B-6	GW	1/20/16	LEAD	367

SAMP#	MATRIX	DATE	ANALYTE	CONC.
B-8-4	SOIL	1/13/16	ARSENIC	2.51
B-8	GW	1/20/16	ARSENIC	24
B-8	GW	1/20/16	BARIUM	12,000
B-8	GW	1/20/16	CADMIUM	11.5
B-8	GW	1/20/16	CHROMIUM	472
B-8	GW	1/20/16	LEAD	353
B-8	GW	1/20/16	SELENIUM	38.9

LEGEND

- APPROXIMATE LOCATION OF BORING/GROUNDWATER WELLS

- APPROXIMATE LOCATION OF BORING

SAMP#	MATRIX	DATE	ANALYTE	CONC.
B-1-4	SOIL	1/13/16	ARSENIC	15.0
B-1	GW	1/20/16	ARSENIC	20.9

WHERE:

SOIL = SOIL CONCENTRATIONS IN MILLIGRAMS PRE KILOGRAM (mg/kg)

GW = GROUNDWATER CONCENTRATION IN MICROGRAMS PER LITER (μg/L)

NOTE

SAMPLES COLLECTED WERE ANALYZED FOR ADDITIONAL PARAMETERS THAT ARE NOT SHOWN IN THE TABLES ON THIS FIGURE, BUT ARE HOWEVER PROVIDED IN THE ANALYTICAL REPORTS INCLUDED IN APPENDIX C.

N

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SCALE

Terracon
Consulting Engineers and Scientists
1901 SHARP POINT DRIVE, ST C FORT COLLINS, COLORADO 80525
PH. (970) 484-0359 FAX. (970) 484-0454

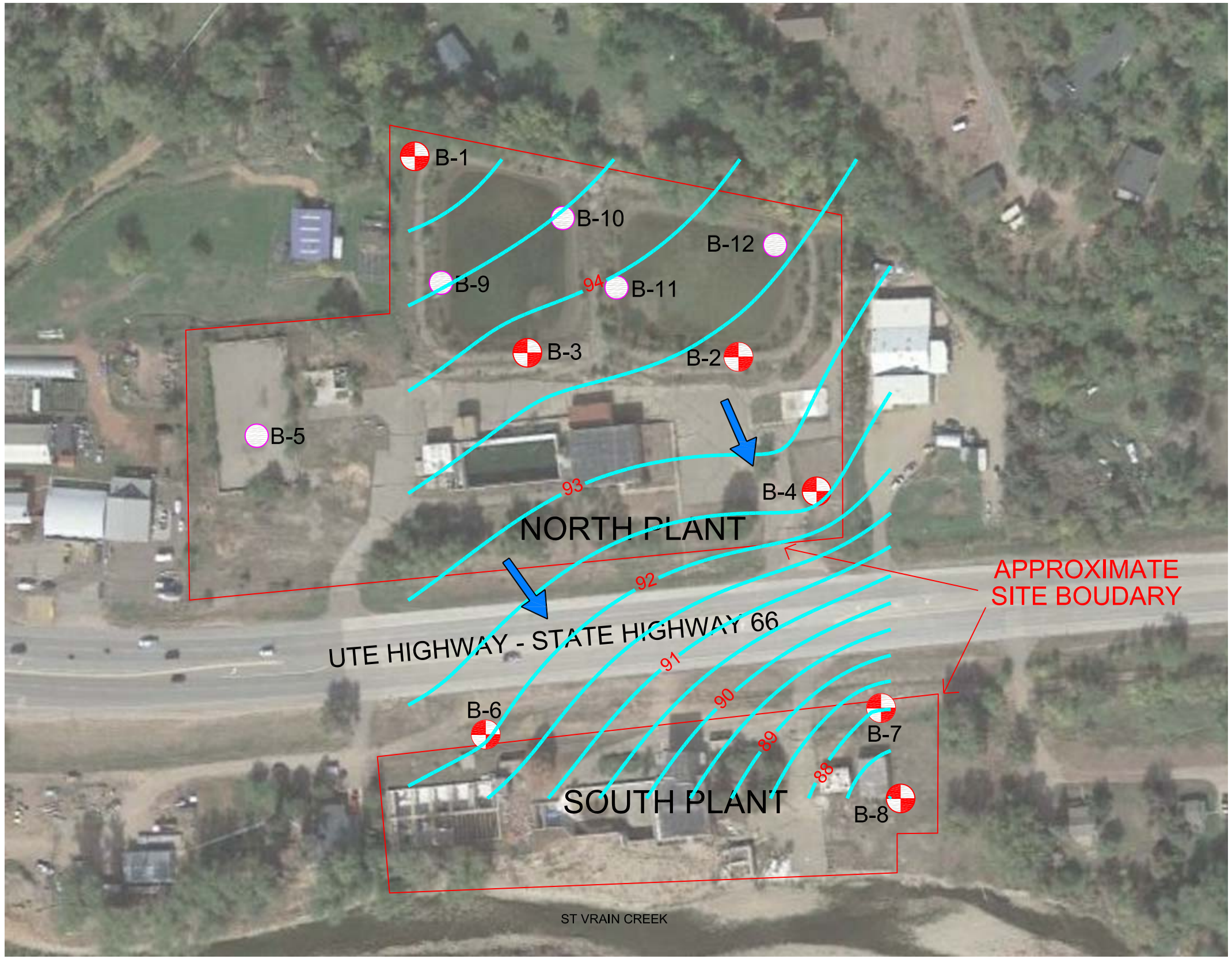
SITE DIAGRAM

UTE HIGHWAY WATER TREATMENT PLANT

4651 (NORTH) & 4652 (SOUTH) UTE HIGHWAY
BOULDER COUNTY, COLORADO

EXHIBIT #2

DESIGNED BY:	CLN
DRAWN BY:	KDH
APPVD. BY:	JCG
SCALE:	1" = 120'
DATE:	2/5/2016
JOB NO.	22157002
ACAD NO.	002
SHEET NO.:	2 OF 3



LEGEND

- APPROXIMATE LOCATION OF BORING/GROUNDWATER WELLS
- APPROXIMATE LOCATION OF BORING
- ESTIMATED DIRECTION OF GROUNDWATER FLOW
- 90 - ESTIMATED RELATIVE GROUNDWATER ELEVATION IN FEET

NOTE: GROUNDWATER CONTOURS WERE ESTIMATED USING THE "SURFER" PROGRAM FROM GOLDEN SOFTWARE BASED ON DATA COLLECTED IN JANUARY, 2016 ACTUAL CONDITIONS MAY VARY.

N

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SCALE

Terracon
Consulting Engineers and Scientists
1901 SHARP POINT DRIVE, ST C FORT COLLINS, COLORADO 80525
PH. (970) 484-0359 FAX. (970) 484-0454

PIEZOMETRIC SITE DIAGRAM

UTE HIGHWAY WATER TREATMENT PLANT

4651 (NORTH) & 4652 (SOUTH) UTE HIGHWAY
BOULDER COUNTY, COLORADO

EXHIBIT #3

DESIGNED BY:	CLN
DRAWN BY:	KDH
APPVD. BY:	JCG
SCALE:	1" = 120'
DATE:	2/8/2016
JOB NO.	22157002
ACAD NO.	003
SHEET NO.:	3 OF 3

APPENDIX B – SOIL BORING LOGS

Boring Logs for B-1 through B-8

WELL LOG NO. B-1

PROJECT: Ute Water Treatment Plant

CLIENT: City of Longmont
Longmont, CO

SITE: 4651 & 4652 Ute Higway
Longmont, CO

LOCATION See Exhibit 2

DEPTH	MATERIAL DESCRIPTION	INSTALLATION DETAILS
0.5	**SILTY SAND WITH GRAVEL (SM)**, medium grained, dark brown	Top cap
	SILT WITH GRAVEL (SM), trace cobbles, medium grained, brown	Bentonite chips with riser pipe
		Solid pipe in sand
		Screen pack in sand
14.0	***Boring Terminated at 14 Feet***	

Well Completion:

DEPTH (ft)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	SPT N-VALUE	PID (ppm)
5			5-3-4 N=7	ND
10			1-2-2 N=4	ND

The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method:
HSA

Abandonment Method:
Monitoring well constructed

Notes:
ND = Not Detected

WATER LEVEL OBSERVATIONS

8.5' During exploration

1/20/2016

Terracon
1901 Sharp Point Drive, Suite C
Fort Collins, Colorado

Well Started: 1/13/2016
Well Completed: 1/13/2016
Drill Rig: GEO PROBE
Driller: Terracon
Project No.: 22157002

WELL LOG NO. B-2

PROJECT: Ute Water Treatment Plant

CLIENT: City of Longmont
Longmont, CO

SITE: 4651 & 4652 Ute Higway
Longmont, CO

LOCATION See Exhibit 2

DEPTH	MATERIAL DESCRIPTION	INSTALLATION DETAILS
0.3	**SILTY SAND WITH GRAVEL (SM)**, with cobbles, medium grained, dark brown	Top cap; Bentonite chips with riser pipe; Solid pipe in sand
10.5	**SANDY LEAN CLAY WITH GRAVEL (CL)**, fine to medium grained, dark brown	
12.5	**SILTY SAND WITH GRAVEL (SM)**, with cobbles, medium grained, dark brown	Screen pack in sand
19.0	***Boring Terminated at 19 Feet***	

DEPTH (ft)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	SPT N-VALUE	PID (ppm)
5			10-11-23-27 N=34	1.6
10	▽		1-2-2-3 N=4	5.4
	▽			
15			9-18-50/5"	5.9

The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method:
HSA

Abandonment Method:
Monitoring well constructed

Notes:

WATER LEVEL OBSERVATIONS

▽ *12' During exploration*

▽ *1/20/2016*

Terracon
1901 Sharp Point Drive, Suite C
Fort Collins, Colorado

Well Started: 1/13/2016 | Well Completed: 1/13/2016

Drill Rig: GEO PROBE | Driller: Terracon

Project No.: 22157002

WELL LOG NO. B-3

PROJECT: Ute Water Treatment Plant

CLIENT: City of Longmont
Longmont, CO

SITE: 4651 & 4652 Ute Higway
Longmont, CO

LOCATION See Exhibit 2

DEPTH	MATERIAL DESCRIPTION	INSTALLATION DETAILS (Well Completion)	DEPTH (ft)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	SPT N-VALUE	PID (ppm)
0.3	**SILT WITH GRAVEL (SM)**, with cobbles, medium grained, dark brown	Top cap					
		Bentonite chips with riser pipe	5			6-5-4-10 N=9	1.3
		Solid pipe in sand	10			50/3"	0.9
		Screen pack in sand	15			50	1.1
19.0	***Boring Terminated at 19 Feet***						

The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method:
HSA

Abandonment Method:
Monitoring well constructed

Notes:

WATER LEVEL OBSERVATIONS

- *12' During exploration*
- *1/20/2016*

Terracon
1901 Sharp Point Drive, Suite C
Fort Collins, Colorado

Well Started: 1/13/2016
Well Completed: 1/13/2016
Drill Rig: GEO PROBE
Driller: Terracon
Project No.: 22157002

WELL LOG NO. B-4

PROJECT: Ute Water Treatment Plant

CLIENT: City of Longmont
Longmont, CO

SITE: 4651 & 4652 Ute Higway
Longmont, CO

LOCATION See Exhibit 2

DEPTH	MATERIAL DESCRIPTION	INSTALLATION DETAILS (Well Completion)	DEPTH (ft)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	SPT N-VALUE	PID (ppm)
1.0	**SILTY SAND WITH GRAVEL (SM)**, medium grained, dark brown	Top cap					
3.5	**WELL GRADED GRAVEL (GW)**, coarse grained, gray	Bentonite chips with riser pipe					
4.0	**SANDY LEAN CLAY (CL)**, fine grained, dark brown	Solid pipe in sand					
7.0	**SILTY SAND WITH GRAVEL (SM)**, medium grained, dark brown		5			4-5-14-24 N=19	ND
9.0	**SILTY SAND WITH GRAVEL (SM)**, with cobbles, medium grained, dark brown			▽			
14.0	**SILTY SAND WITH GRAVEL (SM)**, with cobbles, medium grained, brown	Screen pack in sand	10	▽		10-18-50/3"	ND
	Boring Terminated at 14 Feet						

The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method:
HSA

Abandonment Method:
Monitoring well constructed

Notes:
ND = Not Detected

WATER LEVEL OBSERVATIONS

▽ *8' During exploration*

▽ *1/20/2016*

Terracon
1901 Sharp Point Drive, Suite C
Fort Collins, Colorado

Well Started: 1/13/2016 | Well Completed: 1/13/2016

Drill Rig: GEO PROBE | Driller: Terracon

Project No.: 22157002

BORING LOG NO. B-5

PROJECT: Ute Water Treatment Plant

CLIENT: City of Longmont
Longmont, CO

SITE: 4651 & 4652 Ute Higway
Longmont, CO

LOCATION See Exhibit 2

DEPTH	MATERIAL DESCRIPTION	DEPTH (ft)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	SPT N-VALUE	PID (ppm)
0.3	**SANDY LEAN CLAY WITH GRAVEL (CL)**, fine to medium grained, dark brown					
					3-9-14-13 N=23	1.9
5.0	**SILTY SAND WITH GRAVEL (SM)**, with cobbles, medium grained, dark brown	5				
7.0						
7.5	**SILTY SAND WITH GRAVEL (SM)**, with cobbles, medium grained, brown				50/5"	1.0
	Boring Terminated at 7.5 Feet					

The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method:
HSA

Abandonment Method:
Boring backfilled with soil cuttings upon completion.

Notes:

WATER LEVEL OBSERVATIONS

Water was not observed

Terracon
1901 Sharp Point Drive, Suite C
Fort Collins, Colorado

Boring Started: 1/14/2016 | Boring Completed: 1/14/2016

Drill Rig: GEO PROBE | Driller: Terracon

Project No.: 22157002

WELL LOG NO. B-6

PROJECT: Ute Water Treatment Plant

CLIENT: City of Longmont
Longmont, CO

SITE: 4651 & 4652 Ute Higway
Longmont, CO

LOCATION See Exhibit 2

DEPTH	MATERIAL DESCRIPTION	INSTALLATION DETAILS
0.0	**SILTY SAND WITH GRAVEL (SM)**, with cobbles, medium grained, dark brown	Top cap; Bentonite chips with riser pipe; Solid pipe in sand
7.0	**SILTY SAND WITH GRAVEL (SM)**, with cobbles and interbedded clay layers, medium grained, dark brown	Screen pack in sand
14.0	***Boring Terminated at 14 Feet***	

Well Completion:

DEPTH (ft)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	SPT N-VALUE	PID (ppm)
5			50/3"	0.9
10	▽ ▽		1-4-9-3 N=13	1.3

The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method:
HSA

Abandonment Method:
Monitoring well constructed

Notes:

WATER LEVEL OBSERVATIONS

▽ *9' During exploration*

▽ *1/20/2016*

Terracon
1901 Sharp Point Drive, Suite C
Fort Collins, Colorado

Well Started: 1/14/2016
Well Completed: 1/14/2016
Drill Rig: GEO PROBE
Driller: Terracon
Project No.: 22157002

WELL LOG NO. B-7

PROJECT: Ute Water Treatment Plant

CLIENT: City of Longmont
Longmont, CO

SITE: 4651 & 4652 Ute Higway
Longmont, CO

LOCATION See Exhibit 2

DEPTH	MATERIAL DESCRIPTION	INSTALLATION DETAILS	DEPTH (ft)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	SPT N-VALUE	PID (ppm)
	SILTY SAND WITH GRAVEL (SM), with cobbles, medium grained, dark brown	Top cap; Bentonite chips with riser pipe; Solid pipe in sand	5			21-12-11-9 N=23	1.3
8.5							
	SILTY SAND WITH GRAVEL (SM), with cobbles and interbedded clay layers, medium grained, dark brown	Screen pack in sand	10			5-10-11-23 N=21	1.7
14.0							
	Boring Terminated at 14 Feet						

The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method:
HSA

Abandonment Method:
Monitoring well constructed

Notes:

WATER LEVEL OBSERVATIONS

8' During exploration

1/20/2016

Terracon
1901 Sharp Point Drive, Suite C
Fort Collins, Colorado

Well Started: 1/14/2016

Well Completed: 1/14/2016

Drill Rig: GEO PROBE

Driller: Terracon

Project No.: 22157002

WELL LOG NO. B-8

PROJECT: Ute Water Treatment Plant

CLIENT: City of Longmont
Longmont, CO

SITE: 4651 & 4652 Ute Higway
Longmont, CO

LOCATION See Exhibit 2

DEPTH	MATERIAL DESCRIPTION	INSTALLATION DETAILS	DEPTH (ft)	WATER LEVEL OBSERVATIONS	SAMPLE TYPE	SPT N-VALUE	PID (ppm)
	SILTY SAND WITH GRAVEL (SM), with cobbles and interbedded clay layers, medium grained, dark brown	Top cap Bentonite chips with riser pipe Solid pipe in sand Screen pack in sand	5			3-2-6-9 N=8	1.9
			10			11-28-43-50/-1"	0.8
14.0	***Boring Terminated at 14 Feet***						

The stratification lines represent the approximate transition between differing soil types and/or rock types; in-situ these transitions may be gradual or may occur at different depths than shown.

Advancement Method:
HSA

Abandonment Method:
Monitoring well constructed

Notes:

WATER LEVEL OBSERVATIONS

8.5' During exploration

1/20/2016

Terracon
1901 Sharp Point Drive, Suite C
Fort Collins, Colorado

Well Started: 1/14/2016
Well Completed: 1/14/2016
Drill Rig: GEO PROBE
Driller: Terracon
Project No.: 22157002

APPENDIX C – ANALYTICAL REPORTS AND CHAIN OF CUSTODY

ANALYTICAL REPORT

February 05, 2016

Terracon - Fort Collins

Sample Delivery Group:	L812501
Samples Received:	01/16/2016
Project Number:	22157002
Description:	Ute WTP

Report To: Craig Nelson
1901 Sharp Point Drive, Ste C
Fort Collins, CO 80525

Entire Report Reviewed By:

Daphne R Richards

Daphne Richards
Technical Service Representative

B-1-4 L812501-01 Solid

Collected by: Craig Nelson
Collected date/time: 01/13/16 09:00
Received date/time: 01/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG843417	1	01/21/16 07:00	01/21/16 09:38	JD
Metals (ICP) by Method 6010B	WG843082	1	01/19/16 12:37	01/21/16 16:56	JD
Semi-Volatile Organic Compounds (GC) by Method 3546/DRO	WG843001	1	01/19/16 12:51	01/19/16 19:41	CLG
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG843562	5	01/20/16 22:46	01/21/16 03:49	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG843055	5	01/18/16 10:41	01/18/16 20:32	JAH

B-2-14 L812501-02 Solid

Collected by: Craig Nelson
Collected date/time: 01/13/16 11:00
Received date/time: 01/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG843417	1	01/21/16 07:00	01/21/16 09:45	JD
Metals (ICP) by Method 6010B	WG843082	1	01/19/16 12:37	01/21/16 17:10	JD
Semi-Volatile Organic Compounds (GC) by Method 3546/DRO	WG843546	1	01/20/16 09:36	01/20/16 14:01	CLG
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG843562	5	01/20/16 22:46	01/21/16 04:10	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG843055	5	01/18/16 10:41	01/18/16 14:41	JAH

B-3-4 L812501-03 Solid

Collected by: Craig Nelson
Collected date/time: 01/13/16 14:15
Received date/time: 01/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG843417	1	01/21/16 07:00	01/21/16 09:48	JD
Metals (ICP) by Method 6010B	WG843082	1	01/19/16 12:37	01/21/16 17:12	JD
Semi-Volatile Organic Compounds (GC) by Method 3546/DRO	WG843001	1	01/19/16 12:51	01/19/16 20:03	CLG
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG843562	5	01/20/16 22:46	01/21/16 04:31	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG843055	5	01/18/16 10:41	01/18/16 20:49	JAH

B-4-4 L812501-04 Solid

Collected by: Craig Nelson
Collected date/time: 01/13/16 16:00
Received date/time: 01/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG843417	1	01/21/16 07:00	01/21/16 09:51	JD
Metals (ICP) by Method 6010B	WG843082	1	01/19/16 12:37	01/21/16 17:21	JD
Semi-Volatile Organic Compounds (GC) by Method 3546/DRO	WG843546	1	01/20/16 09:36	01/20/16 14:13	CLG
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG843562	5	01/20/16 22:46	01/21/16 04:52	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG843055	5	01/18/16 10:41	01/18/16 21:06	JAH

B-5-2 L812501-05 Solid

Collected by: Craig Nelson
Collected date/time: 01/14/16 09:00
Received date/time: 01/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG843417	1	01/21/16 07:00	01/21/16 09:53	JD
Metals (ICP) by Method 6010B	WG843082	1	01/19/16 12:37	01/21/16 17:24	JD

B-5-7 L812501-06 Solid

Collected by: Craig Nelson
Collected date/time: 01/14/16 09:00
Received date/time: 01/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG843417	1	01/21/16 07:00	01/21/16 10:01	JD
Metals (ICP) by Method 6010B	WG843082	1	01/19/16 12:37	01/21/16 17:27	JD

B-6-9 L812501-07 Solid

Collected by: Craig Nelson
Collected date/time: 01/14/16 11:00
Received date/time: 01/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG843417	1	01/21/16 07:00	01/21/16 10:03	JD
Metals (ICP) by Method 6010B	WG843082	1	01/19/16 12:37	01/21/16 17:30	JD
Semi-Volatile Organic Compounds (GC) by Method 3546/DRO	WG843001	1	01/19/16 12:51	01/19/16 20:26	CLG
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG843562	5	01/20/16 22:46	01/21/16 05:13	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG843055	5	01/18/16 10:41	01/18/16 21:23	JAH

B-7-9 L812501-08 Solid

Collected by: Craig Nelson
Collected date/time: 01/14/16 12:30
Received date/time: 01/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG843417	1	01/21/16 07:00	01/21/16 10:06	JD
Metals (ICP) by Method 6010B	WG843082	1	01/19/16 12:37	01/21/16 17:33	JD
Semi-Volatile Organic Compounds (GC) by Method 3546/DRO	WG843001	1	01/19/16 12:51	01/19/16 20:38	CLG
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG843562	5	01/20/16 22:46	01/21/16 05:34	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG843281	5	01/18/16 18:33	01/19/16 02:14	JAH

B-8-4 L812501-09 Solid

Collected by: Craig Nelson
Collected date/time: 01/14/16 14:30
Received date/time: 01/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG843417	1	01/21/16 07:00	01/21/16 10:08	JD
Metals (ICP) by Method 6010B	WG843082	1	01/19/16 12:37	01/21/16 17:36	JD
Semi-Volatile Organic Compounds (GC) by Method 3546/DRO	WG843001	5	01/19/16 12:51	01/19/16 21:58	CLG
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG843562	5	01/20/16 22:46	01/21/16 05:55	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG843281	5	01/18/16 18:33	01/19/16 02:35	JAH

B-9-1 L812501-10 Solid

Collected by: Craig Nelson
Collected date/time: 01/14/16 15:30
Received date/time: 01/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG843417	1	01/21/16 07:00	01/21/16 10:11	JD
Metals (ICP) by Method 6010B	WG843082	1	01/19/16 12:37	01/21/16 17:39	JD

B-9-4 L812501-11 Solid

Collected by: Craig Nelson
Collected date/time: 01/14/16 15:30
Received date/time: 01/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG843417	1	01/21/16 07:00	01/21/16 10:14	JD
Metals (ICP) by Method 6010B	WG843082	1	01/19/16 12:37	01/21/16 17:41	JD

B-10-1 L812501-12 Solid

Collected by: Craig Nelson
Collected date/time: 01/14/16 15:50
Received date/time: 01/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG843417	1	01/21/16 07:00	01/21/16 10:16	JD
Metals (ICP) by Method 6010B	WG843082	1	01/19/16 12:37	01/21/16 17:44	JD

B-10-4 L812501-13 Solid

Collected by: Craig Nelson
Collected date/time: 01/14/16 15:50
Received date/time: 01/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG843417	1	01/21/16 07:00	01/21/16 10:19	JD
Metals (ICP) by Method 6010B	WG843082	1	01/19/16 12:37	01/21/16 17:47	JD

B-11-1 L812501-14 Solid

Collected by: Craig Nelson
Collected date/time: 01/14/16 16:10
Received date/time: 01/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG843417	1	01/21/16 07:00	01/21/16 10:21	JD
Metals (ICP) by Method 6010B	WG843082	1	01/19/16 12:37	01/21/16 17:56	JD

B-11-4 L812501-15 Solid

Collected by: Craig Nelson
Collected date/time: 01/14/16 16:40
Received date/time: 01/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG843417	1	01/21/16 07:00	01/21/16 10:24	JD
Metals (ICP) by Method 6010B	WG843082	1	01/19/16 12:37	01/21/16 17:59	JD

B-12-1 L812501-16 Solid

Collected by: Craig Nelson
Collected date/time: 01/14/16 16:40
Received date/time: 01/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG843417	1	01/21/16 07:00	01/21/16 10:32	JD
Metals (ICP) by Method 6010B	WG843082	1	01/19/16 12:37	01/21/16 18:02	JD

B-12-4 L812501-18 Solid

Collected by: Craig Nelson
Collected date/time: 01/14/16 00:00
Received date/time: 01/16/16 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7471A	WG843417	1	01/21/16 07:00	01/21/16 10:34	JD
Metals (ICP) by Method 6010B	WG843308	1	01/19/16 14:20	01/21/16 12:20	JD

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. 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.

Daphne R Richards

Daphne Richards
Technical Service Representative

Mercury by Method 7471A

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Mercury	U		0.00280	0.0200	1	01/21/2016 09:38	WG843417

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	15.0		0.650	2.00	1	01/21/2016 16:56	WG843082
Barium	78.6	J3 J5	0.170	0.500	1	01/21/2016 16:56	WG843082
Cadmium	U		0.0700	0.500	1	01/21/2016 16:56	WG843082
Chromium	11.4		0.140	1.00	1	01/21/2016 16:56	WG843082
Lead	8.46		0.190	0.500	1	01/21/2016 16:56	WG843082
Selenium	U		0.740	2.00	1	01/21/2016 16:56	WG843082
Silver	U		0.280	1.00	1	01/21/2016 16:56	WG843082

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.108	0.500	5	01/21/2016 03:49	WG843562
(S) a,a,a-Trifluorotoluene(FID)	*99.6*			*59.0-128*		*01/21/2016 03:49*	WG843562

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Acetone	U		0.0500	0.250	5	01/18/2016 20:32	WG843055
Acrylonitrile	U		0.00895	0.0500	5	01/18/2016 20:32	WG843055
Benzene	U		0.00135	0.00500	5	01/18/2016 20:32	WG843055
Bromobenzene	U		0.00142	0.00500	5	01/18/2016 20:32	WG843055
Bromodichloromethane	U		0.00127	0.00500	5	01/18/2016 20:32	WG843055
Bromoform	U		0.00212	0.00500	5	01/18/2016 20:32	WG843055
Bromomethane	U		0.00670	0.0250	5	01/18/2016 20:32	WG843055
n-Butylbenzene	U		0.00129	0.00500	5	01/18/2016 20:32	WG843055
sec-Butylbenzene	U		0.00100	0.00500	5	01/18/2016 20:32	WG843055
tert-Butylbenzene	U		0.00103	0.00500	5	01/18/2016 20:32	WG843055
Carbon tetrachloride	U		0.00164	0.00500	5	01/18/2016 20:32	WG843055
Chlorobenzene	U		0.00106	0.00500	5	01/18/2016 20:32	WG843055
Chlorodibromomethane	U		0.00186	0.00500	5	01/18/2016 20:32	WG843055
Chloroethane	U		0.00473	0.0250	5	01/18/2016 20:32	WG843055
2-Chloroethyl vinyl ether	U		0.0117	0.250	5	01/18/2016 20:32	WG843055
Chloroform	U		0.00114	0.0250	5	01/18/2016 20:32	WG843055
Chloromethane	U		0.00188	0.0125	5	01/18/2016 20:32	WG843055
2-Chlorotoluene	U	J4	0.00150	0.00500	5	01/18/2016 20:32	WG843055
4-Chlorotoluene	U		0.00120	0.00500	5	01/18/2016 20:32	WG843055
1,2-Dibromo-3-Chloropropane	U		0.00525	0.0250	5	01/18/2016 20:32	WG843055
1,2-Dibromoethane	U		0.00172	0.00500	5	01/18/2016 20:32	WG843055
Dibromomethane	U		0.00191	0.00500	5	01/18/2016 20:32	WG843055
1,2-Dichlorobenzene	U		0.00152	0.00500	5	01/18/2016 20:32	WG843055
1,3-Dichlorobenzene	U		0.00120	0.00500	5	01/18/2016 20:32	WG843055
1,4-Dichlorobenzene	U		0.00113	0.00500	5	01/18/2016 20:32	WG843055
Dichlorodifluoromethane	U		0.00356	0.0250	5	01/18/2016 20:32	WG843055
1,1-Dichloroethane	U		0.000995	0.00500	5	01/18/2016 20:32	WG843055
1,2-Dichloroethane	U		0.00132	0.00500	5	01/18/2016 20:32	WG843055
1,1-Dichloroethene	U		0.00152	0.00500	5	01/18/2016 20:32	WG843055
cis-1,2-Dichloroethene	U		0.00118	0.00500	5	01/18/2016 20:32	WG843055
trans-1,2-Dichloroethene	U		0.00132	0.00500	5	01/18/2016 20:32	WG843055
1,2-Dichloropropane	U		0.00179	0.00500	5	01/18/2016 20:32	WG843055

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloropropene	U		0.00158	0.00500	5	01/18/2016 20:32	WG843055
1,3-Dichloropropane	U		0.00104	0.00500	5	01/18/2016 20:32	WG843055
cis-1,3-Dichloropropene	U		0.00131	0.00500	5	01/18/2016 20:32	WG843055
trans-1,3-Dichloropropene	U		0.00134	0.00500	5	01/18/2016 20:32	WG843055
2,2-Dichloropropane	U		0.00140	0.00500	5	01/18/2016 20:32	WG843055
Di-isopropyl ether	U		0.00124	0.00500	5	01/18/2016 20:32	WG843055
Ethylbenzene	U		0.00148	0.00500	5	01/18/2016 20:32	WG843055
Hexachloro-1,3-butadiene	U		0.00171	0.00500	5	01/18/2016 20:32	WG843055
Isopropylbenzene	U		0.00122	0.00500	5	01/18/2016 20:32	WG843055
p-Isopropyltoluene	U		0.00102	0.00500	5	01/18/2016 20:32	WG843055
2-Butanone (MEK)	U		0.0234	0.0500	5	01/18/2016 20:32	WG843055
Methylene Chloride	U		0.00500	0.0250	5	01/18/2016 20:32	WG843055
4-Methyl-2-pentanone (MIBK)	U		0.00940	0.0500	5	01/18/2016 20:32	WG843055
Methyl tert-butyl ether	U		0.00106	0.00500	5	01/18/2016 20:32	WG843055
Naphthalene	U		0.00500	0.0250	5	01/18/2016 20:32	WG843055
n-Propylbenzene	U		0.00103	0.00500	5	01/18/2016 20:32	WG843055
Styrene	U		0.00117	0.00500	5	01/18/2016 20:32	WG843055
1,1,1,2-Tetrachloroethane	U		0.00132	0.00500	5	01/18/2016 20:32	WG843055
1,1,2,2-Tetrachloroethane	U		0.00182	0.00500	5	01/18/2016 20:32	WG843055
1,1,2-Trichlorotrifluoroethane	U		0.00182	0.00500	5	01/18/2016 20:32	WG843055
Tetrachloroethene	U		0.00138	0.00500	5	01/18/2016 20:32	WG843055
Toluene	U		0.00217	0.0250	5	01/18/2016 20:32	WG843055
1,2,3-Trichlorobenzene	U		0.00153	0.00500	5	01/18/2016 20:32	WG843055
1,2,4-Trichlorobenzene	U		0.00194	0.00500	5	01/18/2016 20:32	WG843055
1,1,1-Trichloroethane	U		0.00143	0.00500	5	01/18/2016 20:32	WG843055
1,1,2-Trichloroethane	U		0.00138	0.00500	5	01/18/2016 20:32	WG843055
Trichloroethene	U		0.00140	0.00500	5	01/18/2016 20:32	WG843055
Trichlorofluoromethane	U		0.00191	0.0250	5	01/18/2016 20:32	WG843055
1,2,3-Trichloropropane	U		0.00370	0.0125	5	01/18/2016 20:32	WG843055
1,2,4-Trimethylbenzene	U		0.00106	0.00500	5	01/18/2016 20:32	WG843055
1,2,3-Trimethylbenzene	U		0.00144	0.00500	5	01/18/2016 20:32	WG843055
Vinyl chloride	U		0.00146	0.00500	5	01/18/2016 20:32	WG843055
1,3,5-Trimethylbenzene	U		0.00133	0.00500	5	01/18/2016 20:32	WG843055
Xylenes, Total	U		0.00349	0.0150	5	01/18/2016 20:32	WG843055
(S) Toluene-d8	*102*			*88.7-115*		*01/18/2016 20:32*	WG843055
(S) Dibromofluoromethane	*104*			*76.3-123*		*01/18/2016 20:32*	WG843055
(S) 4-Bromofluorobenzene	*104*			*69.7-129*		*01/18/2016 20:32*	WG843055

Semi-Volatile Organic Compounds (GC) by Method 3546/DRO

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.769	4.00	1	01/19/2016 19:41	WG843001
(S) o-Terphenyl	*71.7*			*50.0-150*		*01/19/2016 19:41*	WG843001

Mercury by Method 7471A

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Mercury	U		0.00280	0.0200	1	01/21/2016 09:45	WG843417

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	1.86	J	0.650	2.00	1	01/21/2016 17:10	WG843082
Barium	85.1		0.170	0.500	1	01/21/2016 17:10	WG843082
Cadmium	U		0.0700	0.500	1	01/21/2016 17:10	WG843082
Chromium	17.2		0.140	1.00	1	01/21/2016 17:10	WG843082
Lead	3.80		0.190	0.500	1	01/21/2016 17:10	WG843082
Selenium	U		0.740	2.00	1	01/21/2016 17:10	WG843082
Silver	U		0.280	1.00	1	01/21/2016 17:10	WG843082

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.108	0.500	5	01/21/2016 04:10	WG843562
(S) a,a,a-Trifluorotoluene(FID)	*99.7*			*59.0-128*		*01/21/2016 04:10*	WG843562

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Acetone	U		0.0500	0.250	5	01/18/2016 14:41	WG843055
Acrylonitrile	U		0.00895	0.0500	5	01/18/2016 14:41	WG843055
Benzene	U		0.00135	0.00500	5	01/18/2016 14:41	WG843055
Bromobenzene	U		0.00142	0.00500	5	01/18/2016 14:41	WG843055
Bromodichloromethane	U		0.00127	0.00500	5	01/18/2016 14:41	WG843055
Bromoform	U		0.00212	0.00500	5	01/18/2016 14:41	WG843055
Bromomethane	U		0.00670	0.0250	5	01/18/2016 14:41	WG843055
n-Butylbenzene	U		0.00129	0.00500	5	01/18/2016 14:41	WG843055
sec-Butylbenzene	U		0.00100	0.00500	5	01/18/2016 14:41	WG843055
tert-Butylbenzene	U		0.00103	0.00500	5	01/18/2016 14:41	WG843055
Carbon tetrachloride	U		0.00164	0.00500	5	01/18/2016 14:41	WG843055
Chlorobenzene	U		0.00106	0.00500	5	01/18/2016 14:41	WG843055
Chlorodibromomethane	U		0.00186	0.00500	5	01/18/2016 14:41	WG843055
Chloroethane	U		0.00473	0.0250	5	01/18/2016 14:41	WG843055
2-Chloroethyl vinyl ether	U		0.0117	0.250	5	01/18/2016 14:41	WG843055
Chloroform	U		0.00114	0.0250	5	01/18/2016 14:41	WG843055
Chloromethane	U		0.00188	0.0125	5	01/18/2016 14:41	WG843055
2-Chlorotoluene	U	J4	0.00150	0.00500	5	01/18/2016 14:41	WG843055
4-Chlorotoluene	U		0.00120	0.00500	5	01/18/2016 14:41	WG843055
1,2-Dibromo-3-Chloropropane	U		0.00525	0.0250	5	01/18/2016 14:41	WG843055
1,2-Dibromoethane	U		0.00172	0.00500	5	01/18/2016 14:41	WG843055
Dibromomethane	U		0.00191	0.00500	5	01/18/2016 14:41	WG843055
1,2-Dichlorobenzene	U		0.00152	0.00500	5	01/18/2016 14:41	WG843055
1,3-Dichlorobenzene	U		0.00120	0.00500	5	01/18/2016 14:41	WG843055
1,4-Dichlorobenzene	U		0.00113	0.00500	5	01/18/2016 14:41	WG843055
Dichlorodifluoromethane	U		0.00356	0.0250	5	01/18/2016 14:41	WG843055
1,1-Dichloroethane	U		0.000995	0.00500	5	01/18/2016 14:41	WG843055
1,2-Dichloroethane	U		0.00132	0.00500	5	01/18/2016 14:41	WG843055
1,1-Dichloroethene	U		0.00152	0.00500	5	01/18/2016 14:41	WG843055
cis-1,2-Dichloroethene	U		0.00118	0.00500	5	01/18/2016 14:41	WG843055
trans-1,2-Dichloroethene	U		0.00132	0.00500	5	01/18/2016 14:41	WG843055
1,2-Dichloropropane	U		0.00179	0.00500	5	01/18/2016 14:41	WG843055

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloropropene	U		0.00158	0.00500	5	01/18/2016 14:41	WG843055
1,3-Dichloropropane	U		0.00104	0.00500	5	01/18/2016 14:41	WG843055
cis-1,3-Dichloropropene	U		0.00131	0.00500	5	01/18/2016 14:41	WG843055
trans-1,3-Dichloropropene	U		0.00134	0.00500	5	01/18/2016 14:41	WG843055
2,2-Dichloropropane	U		0.00140	0.00500	5	01/18/2016 14:41	WG843055
Di-isopropyl ether	U		0.00124	0.00500	5	01/18/2016 14:41	WG843055
Ethylbenzene	U		0.00148	0.00500	5	01/18/2016 14:41	WG843055
Hexachloro-1,3-butadiene	U		0.00171	0.00500	5	01/18/2016 14:41	WG843055
Isopropylbenzene	U		0.00122	0.00500	5	01/18/2016 14:41	WG843055
p-Isopropyltoluene	U		0.00102	0.00500	5	01/18/2016 14:41	WG843055
2-Butanone (MEK)	U		0.0234	0.0500	5	01/18/2016 14:41	WG843055
Methylene Chloride	U		0.00500	0.0250	5	01/18/2016 14:41	WG843055
4-Methyl-2-pentanone (MIBK)	U		0.00940	0.0500	5	01/18/2016 14:41	WG843055
Methyl tert-butyl ether	U		0.00106	0.00500	5	01/18/2016 14:41	WG843055
Naphthalene	U		0.00500	0.0250	5	01/18/2016 14:41	WG843055
n-Propylbenzene	U		0.00103	0.00500	5	01/18/2016 14:41	WG843055
Styrene	U		0.00117	0.00500	5	01/18/2016 14:41	WG843055
1,1,1,2-Tetrachloroethane	U		0.00132	0.00500	5	01/18/2016 14:41	WG843055
1,1,2,2-Tetrachloroethane	U		0.00182	0.00500	5	01/18/2016 14:41	WG843055
1,1,2-Trichlorotrifluoroethane	U		0.00182	0.00500	5	01/18/2016 14:41	WG843055
Tetrachloroethene	U		0.00138	0.00500	5	01/18/2016 14:41	WG843055
Toluene	U		0.00217	0.0250	5	01/18/2016 14:41	WG843055
1,2,3-Trichlorobenzene	U		0.00153	0.00500	5	01/18/2016 14:41	WG843055
1,2,4-Trichlorobenzene	U		0.00194	0.00500	5	01/18/2016 14:41	WG843055
1,1,1-Trichloroethane	U		0.00143	0.00500	5	01/18/2016 14:41	WG843055
1,1,2-Trichloroethane	U		0.00138	0.00500	5	01/18/2016 14:41	WG843055
Trichloroethene	U		0.00140	0.00500	5	01/18/2016 14:41	WG843055
Trichlorofluoromethane	U		0.00191	0.0250	5	01/18/2016 14:41	WG843055
1,2,3-Trichloropropane	U		0.00370	0.0125	5	01/18/2016 14:41	WG843055
1,2,4-Trimethylbenzene	U		0.00106	0.00500	5	01/18/2016 14:41	WG843055
1,2,3-Trimethylbenzene	U		0.00144	0.00500	5	01/18/2016 14:41	WG843055
Vinyl chloride	U		0.00146	0.00500	5	01/18/2016 14:41	WG843055
1,3,5-Trimethylbenzene	U		0.00133	0.00500	5	01/18/2016 14:41	WG843055
Xylenes, Total	U		0.00349	0.0150	5	01/18/2016 14:41	WG843055
(S) Toluene-d8	*103*			*88.7-115*		*01/18/2016 14:41*	WG843055
(S) Dibromofluoromethane	*101*			*76.3-123*		*01/18/2016 14:41*	WG843055
(S) 4-Bromofluorobenzene	*103*			*69.7-129*		*01/18/2016 14:41*	WG843055

Semi-Volatile Organic Compounds (GC) by Method 3546/DRO

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	2.15	J	0.769	4.00	1	01/20/2016 14:01	WG843546
(S) o-Terphenyl	*91.6*			*50.0-150*		*01/20/2016 14:01*	WG843546

Mercury by Method 7471A

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Mercury	U		0.00280	0.0200	1	01/21/2016 09:48	WG843417

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	1.13	J	0.650	2.00	1	01/21/2016 17:12	WG843082
Barium	44.7		0.170	0.500	1	01/21/2016 17:12	WG843082
Cadmium	U		0.0700	0.500	1	01/21/2016 17:12	WG843082
Chromium	11.7		0.140	1.00	1	01/21/2016 17:12	WG843082
Lead	3.10		0.190	0.500	1	01/21/2016 17:12	WG843082
Selenium	U		0.740	2.00	1	01/21/2016 17:12	WG843082
Silver	U		0.280	1.00	1	01/21/2016 17:12	WG843082

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.108	0.500	5	01/21/2016 04:31	WG843562
(S) a,a,a-Trifluorotoluene(FID)	*99.8*			*59.0-128*		*01/21/2016 04:31*	WG843562

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Acetone	U		0.0500	0.250	5	01/18/2016 20:49	WG843055
Acrylonitrile	U		0.00895	0.0500	5	01/18/2016 20:49	WG843055
Benzene	U		0.00135	0.00500	5	01/18/2016 20:49	WG843055
Bromobenzene	U		0.00142	0.00500	5	01/18/2016 20:49	WG843055
Bromodichloromethane	U		0.00127	0.00500	5	01/18/2016 20:49	WG843055
Bromoform	U		0.00212	0.00500	5	01/18/2016 20:49	WG843055
Bromomethane	U		0.00670	0.0250	5	01/18/2016 20:49	WG843055
n-Butylbenzene	U		0.00129	0.00500	5	01/18/2016 20:49	WG843055
sec-Butylbenzene	U		0.00100	0.00500	5	01/18/2016 20:49	WG843055
tert-Butylbenzene	U		0.00103	0.00500	5	01/18/2016 20:49	WG843055
Carbon tetrachloride	U		0.00164	0.00500	5	01/18/2016 20:49	WG843055
Chlorobenzene	U		0.00106	0.00500	5	01/18/2016 20:49	WG843055
Chlorodibromomethane	U		0.00186	0.00500	5	01/18/2016 20:49	WG843055
Chloroethane	U		0.00473	0.0250	5	01/18/2016 20:49	WG843055
2-Chloroethyl vinyl ether	U		0.0117	0.250	5	01/18/2016 20:49	WG843055
Chloroform	U		0.00114	0.0250	5	01/18/2016 20:49	WG843055
Chloromethane	U		0.00188	0.0125	5	01/18/2016 20:49	WG843055
2-Chlorotoluene	U	J4	0.00150	0.00500	5	01/18/2016 20:49	WG843055
4-Chlorotoluene	U		0.00120	0.00500	5	01/18/2016 20:49	WG843055
1,2-Dibromo-3-Chloropropane	U		0.00525	0.0250	5	01/18/2016 20:49	WG843055
1,2-Dibromoethane	U		0.00172	0.00500	5	01/18/2016 20:49	WG843055
Dibromomethane	U		0.00191	0.00500	5	01/18/2016 20:49	WG843055
1,2-Dichlorobenzene	U		0.00152	0.00500	5	01/18/2016 20:49	WG843055
1,3-Dichlorobenzene	U		0.00120	0.00500	5	01/18/2016 20:49	WG843055
1,4-Dichlorobenzene	U		0.00113	0.00500	5	01/18/2016 20:49	WG843055
Dichlorodifluoromethane	U		0.00356	0.0250	5	01/18/2016 20:49	WG843055
1,1-Dichloroethane	U		0.000995	0.00500	5	01/18/2016 20:49	WG843055
1,2-Dichloroethane	U		0.00132	0.00500	5	01/18/2016 20:49	WG843055
1,1-Dichloroethene	U		0.00152	0.00500	5	01/18/2016 20:49	WG843055
cis-1,2-Dichloroethene	U		0.00118	0.00500	5	01/18/2016 20:49	WG843055
trans-1,2-Dichloroethene	U		0.00132	0.00500	5	01/18/2016 20:49	WG843055
1,2-Dichloropropane	U		0.00179	0.00500	5	01/18/2016 20:49	WG843055

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloropropene	U		0.00158	0.00500	5	01/18/2016 20:49	WG843055
1,3-Dichloropropane	U		0.00104	0.00500	5	01/18/2016 20:49	WG843055
cis-1,3-Dichloropropene	U		0.00131	0.00500	5	01/18/2016 20:49	WG843055
trans-1,3-Dichloropropene	U		0.00134	0.00500	5	01/18/2016 20:49	WG843055
2,2-Dichloropropane	U		0.00140	0.00500	5	01/18/2016 20:49	WG843055
Di-isopropyl ether	U		0.00124	0.00500	5	01/18/2016 20:49	WG843055
Ethylbenzene	U		0.00148	0.00500	5	01/18/2016 20:49	WG843055
Hexachloro-1,3-butadiene	U		0.00171	0.00500	5	01/18/2016 20:49	WG843055
Isopropylbenzene	U		0.00122	0.00500	5	01/18/2016 20:49	WG843055
p-Isopropyltoluene	U		0.00102	0.00500	5	01/18/2016 20:49	WG843055
2-Butanone (MEK)	U		0.0234	0.0500	5	01/18/2016 20:49	WG843055
Methylene Chloride	U		0.00500	0.0250	5	01/18/2016 20:49	WG843055
4-Methyl-2-pentanone (MIBK)	U		0.00940	0.0500	5	01/18/2016 20:49	WG843055
Methyl tert-butyl ether	U		0.00106	0.00500	5	01/18/2016 20:49	WG843055
Naphthalene	U		0.00500	0.0250	5	01/18/2016 20:49	WG843055
n-Propylbenzene	U		0.00103	0.00500	5	01/18/2016 20:49	WG843055
Styrene	U		0.00117	0.00500	5	01/18/2016 20:49	WG843055
1,1,1,2-Tetrachloroethane	U		0.00132	0.00500	5	01/18/2016 20:49	WG843055
1,1,2,2-Tetrachloroethane	U		0.00182	0.00500	5	01/18/2016 20:49	WG843055
1,1,2-Trichlorotrifluoroethane	U		0.00182	0.00500	5	01/18/2016 20:49	WG843055
Tetrachloroethene	U		0.00138	0.00500	5	01/18/2016 20:49	WG843055
Toluene	U		0.00217	0.0250	5	01/18/2016 20:49	WG843055
1,2,3-Trichlorobenzene	U		0.00153	0.00500	5	01/18/2016 20:49	WG843055
1,2,4-Trichlorobenzene	U		0.00194	0.00500	5	01/18/2016 20:49	WG843055
1,1,1-Trichloroethane	U		0.00143	0.00500	5	01/18/2016 20:49	WG843055
1,1,2-Trichloroethane	U		0.00138	0.00500	5	01/18/2016 20:49	WG843055
Trichloroethene	U		0.00140	0.00500	5	01/18/2016 20:49	WG843055
Trichlorofluoromethane	U		0.00191	0.0250	5	01/18/2016 20:49	WG843055
1,2,3-Trichloropropane	U		0.00370	0.0125	5	01/18/2016 20:49	WG843055
1,2,4-Trimethylbenzene	U		0.00106	0.00500	5	01/18/2016 20:49	WG843055
1,2,3-Trimethylbenzene	U		0.00144	0.00500	5	01/18/2016 20:49	WG843055
Vinyl chloride	U		0.00146	0.00500	5	01/18/2016 20:49	WG843055
1,3,5-Trimethylbenzene	U		0.00133	0.00500	5	01/18/2016 20:49	WG843055
Xylenes, Total	U		0.00349	0.0150	5	01/18/2016 20:49	WG843055
(S) Toluene-d8	*102*			*88.7-115*		*01/18/2016 20:49*	WG843055
(S) Dibromofluoromethane	*100*			*76.3-123*		*01/18/2016 20:49*	WG843055
(S) 4-Bromofluorobenzene	*102*			*69.7-129*		*01/18/2016 20:49*	WG843055

Semi-Volatile Organic Compounds (GC) by Method 3546/DRO

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.769	4.00	1	01/19/2016 20:03	WG843001
(S) o-Terphenyl	*61.9*			*50.0-150*		*01/19/2016 20:03*	WG843001

Mercury by Method 7471A

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Mercury	0.00364	J	0.00280	0.0200	1	01/21/2016 09:51	WG843417

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	3.00		0.650	2.00	1	01/21/2016 17:21	WG843082
Barium	77.9		0.170	0.500	1	01/21/2016 17:21	WG843082
Cadmium	U		0.0700	0.500	1	01/21/2016 17:21	WG843082
Chromium	14.0		0.140	1.00	1	01/21/2016 17:21	WG843082
Lead	7.52		0.190	0.500	1	01/21/2016 17:21	WG843082
Selenium	U		0.740	2.00	1	01/21/2016 17:21	WG843082
Silver	U		0.280	1.00	1	01/21/2016 17:21	WG843082

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.108	0.500	5	01/21/2016 04:52	WG843562
(S) a,a,a-Trifluorotoluene(FID)	*99.7*			*59.0-128*		*01/21/2016 04:52*	WG843562

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Acetone	0.0632	J	0.0500	0.250	5	01/18/2016 21:06	WG843055
Acrylonitrile	U		0.00895	0.0500	5	01/18/2016 21:06	WG843055
Benzene	U		0.00135	0.00500	5	01/18/2016 21:06	WG843055
Bromobenzene	U		0.00142	0.00500	5	01/18/2016 21:06	WG843055
Bromodichloromethane	U		0.00127	0.00500	5	01/18/2016 21:06	WG843055
Bromoform	U		0.00212	0.00500	5	01/18/2016 21:06	WG843055
Bromomethane	U		0.00670	0.0250	5	01/18/2016 21:06	WG843055
n-Butylbenzene	U		0.00129	0.00500	5	01/18/2016 21:06	WG843055
sec-Butylbenzene	U		0.00100	0.00500	5	01/18/2016 21:06	WG843055
tert-Butylbenzene	U		0.00103	0.00500	5	01/18/2016 21:06	WG843055
Carbon tetrachloride	U		0.00164	0.00500	5	01/18/2016 21:06	WG843055
Chlorobenzene	U		0.00106	0.00500	5	01/18/2016 21:06	WG843055
Chlorodibromomethane	U		0.00186	0.00500	5	01/18/2016 21:06	WG843055
Chloroethane	U		0.00473	0.0250	5	01/18/2016 21:06	WG843055
2-Chloroethyl vinyl ether	U		0.0117	0.250	5	01/18/2016 21:06	WG843055
Chloroform	U		0.00114	0.0250	5	01/18/2016 21:06	WG843055
Chloromethane	U		0.00188	0.0125	5	01/18/2016 21:06	WG843055
2-Chlorotoluene	U	J4	0.00150	0.00500	5	01/18/2016 21:06	WG843055
4-Chlorotoluene	U		0.00120	0.00500	5	01/18/2016 21:06	WG843055
1,2-Dibromo-3-Chloropropane	U		0.00525	0.0250	5	01/18/2016 21:06	WG843055
1,2-Dibromoethane	U		0.00172	0.00500	5	01/18/2016 21:06	WG843055
Dibromomethane	U		0.00191	0.00500	5	01/18/2016 21:06	WG843055
1,2-Dichlorobenzene	U		0.00152	0.00500	5	01/18/2016 21:06	WG843055
1,3-Dichlorobenzene	U		0.00120	0.00500	5	01/18/2016 21:06	WG843055
1,4-Dichlorobenzene	U		0.00113	0.00500	5	01/18/2016 21:06	WG843055
Dichlorodifluoromethane	U		0.00356	0.0250	5	01/18/2016 21:06	WG843055
1,1-Dichloroethane	U		0.000995	0.00500	5	01/18/2016 21:06	WG843055
1,2-Dichloroethane	U		0.00132	0.00500	5	01/18/2016 21:06	WG843055
1,1-Dichloroethene	U		0.00152	0.00500	5	01/18/2016 21:06	WG843055
cis-1,2-Dichloroethene	U		0.00118	0.00500	5	01/18/2016 21:06	WG843055
trans-1,2-Dichloroethene	U		0.00132	0.00500	5	01/18/2016 21:06	WG843055
1,2-Dichloropropane	U		0.00179	0.00500	5	01/18/2016 21:06	WG843055

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloropropene	U		0.00158	0.00500	5	01/18/2016 21:06	WG843055
1,3-Dichloropropane	U		0.00104	0.00500	5	01/18/2016 21:06	WG843055
cis-1,3-Dichloropropene	U		0.00131	0.00500	5	01/18/2016 21:06	WG843055
trans-1,3-Dichloropropene	U		0.00134	0.00500	5	01/18/2016 21:06	WG843055
2,2-Dichloropropane	U		0.00140	0.00500	5	01/18/2016 21:06	WG843055
Di-isopropyl ether	U		0.00124	0.00500	5	01/18/2016 21:06	WG843055
Ethylbenzene	U		0.00148	0.00500	5	01/18/2016 21:06	WG843055
Hexachloro-1,3-butadiene	U		0.00171	0.00500	5	01/18/2016 21:06	WG843055
Isopropylbenzene	U		0.00122	0.00500	5	01/18/2016 21:06	WG843055
p-Isopropyltoluene	U		0.00102	0.00500	5	01/18/2016 21:06	WG843055
2-Butanone (MEK)	U		0.0234	0.0500	5	01/18/2016 21:06	WG843055
Methylene Chloride	U		0.00500	0.0250	5	01/18/2016 21:06	WG843055
4-Methyl-2-pentanone (MIBK)	U		0.00940	0.0500	5	01/18/2016 21:06	WG843055
Methyl tert-butyl ether	U		0.00106	0.00500	5	01/18/2016 21:06	WG843055
Naphthalene	U		0.00500	0.0250	5	01/18/2016 21:06	WG843055
n-Propylbenzene	U		0.00103	0.00500	5	01/18/2016 21:06	WG843055
Styrene	U		0.00117	0.00500	5	01/18/2016 21:06	WG843055
1,1,1,2-Tetrachloroethane	U		0.00132	0.00500	5	01/18/2016 21:06	WG843055
1,1,2,2-Tetrachloroethane	U		0.00182	0.00500	5	01/18/2016 21:06	WG843055
1,1,2-Trichlorotrifluoroethane	U		0.00182	0.00500	5	01/18/2016 21:06	WG843055
Tetrachloroethene	U		0.00138	0.00500	5	01/18/2016 21:06	WG843055
Toluene	U		0.00217	0.0250	5	01/18/2016 21:06	WG843055
1,2,3-Trichlorobenzene	U		0.00153	0.00500	5	01/18/2016 21:06	WG843055
1,2,4-Trichlorobenzene	U		0.00194	0.00500	5	01/18/2016 21:06	WG843055
1,1,1-Trichloroethane	U		0.00143	0.00500	5	01/18/2016 21:06	WG843055
1,1,2-Trichloroethane	U		0.00138	0.00500	5	01/18/2016 21:06	WG843055
Trichloroethene	U		0.00140	0.00500	5	01/18/2016 21:06	WG843055
Trichlorofluoromethane	U		0.00191	0.0250	5	01/18/2016 21:06	WG843055
1,2,3-Trichloropropane	U		0.00370	0.0125	5	01/18/2016 21:06	WG843055
1,2,4-Trimethylbenzene	U		0.00106	0.00500	5	01/18/2016 21:06	WG843055
1,2,3-Trimethylbenzene	U		0.00144	0.00500	5	01/18/2016 21:06	WG843055
Vinyl chloride	U		0.00146	0.00500	5	01/18/2016 21:06	WG843055
1,3,5-Trimethylbenzene	U		0.00133	0.00500	5	01/18/2016 21:06	WG843055
Xylenes, Total	U		0.00349	0.0150	5	01/18/2016 21:06	WG843055
(S) Toluene-d8	*103*			*88.7-115*		*01/18/2016 21:06*	WG843055
(S) Dibromofluoromethane	*103*			*76.3-123*		*01/18/2016 21:06*	WG843055
(S) 4-Bromofluorobenzene	*102*			*69.7-129*		*01/18/2016 21:06*	WG843055

Semi-Volatile Organic Compounds (GC) by Method 3546/DRO

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	2.05	J	0.769	4.00	1	01/20/2016 14:13	WG843546
(S) o-Terphenyl	*86.5*			*50.0-150*		*01/20/2016 14:13*	WG843546

Mercury by Method 7471A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.0106	J	0.00280	0.0200	1	01/21/2016 09:53	WG843417

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	3.95		0.650	2.00	1	01/21/2016 17:24	WG843082
Barium	124		0.170	0.500	1	01/21/2016 17:24	WG843082
Cadmium	0.220	J	0.0700	0.500	1	01/21/2016 17:24	WG843082
Chromium	14.4		0.140	1.00	1	01/21/2016 17:24	WG843082
Lead	7.65		0.190	0.500	1	01/21/2016 17:24	WG843082
Selenium	U		0.740	2.00	1	01/21/2016 17:24	WG843082
Silver	U		0.280	1.00	1	01/21/2016 17:24	WG843082

Mercury by Method 7471A

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Mercury	U		0.00280	0.0200	1	01/21/2016 10:01	WG843417

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.00	J	0.650	2.00	1	01/21/2016 17:27	WG843082
Barium	49.4		0.170	0.500	1	01/21/2016 17:27	WG843082
Cadmium	U		0.0700	0.500	1	01/21/2016 17:27	WG843082
Chromium	15.5		0.140	1.00	1	01/21/2016 17:27	WG843082
Lead	3.36		0.190	0.500	1	01/21/2016 17:27	WG843082
Selenium	U		0.740	2.00	1	01/21/2016 17:27	WG843082
Silver	U		0.280	1.00	1	01/21/2016 17:27	WG843082

Mercury by Method 7471A

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Mercury	U		0.00280	0.0200	1	01/21/2016 10:03	WG843417

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.51		0.650	2.00	1	01/21/2016 17:30	WG843082
Barium	42.3		0.170	0.500	1	01/21/2016 17:30	WG843082
Cadmium	U		0.0700	0.500	1	01/21/2016 17:30	WG843082
Chromium	20.9		0.140	1.00	1	01/21/2016 17:30	WG843082
Lead	5.24		0.190	0.500	1	01/21/2016 17:30	WG843082
Selenium	U		0.740	2.00	1	01/21/2016 17:30	WG843082
Silver	U		0.280	1.00	1	01/21/2016 17:30	WG843082

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.108	0.500	5	01/21/2016 05:13	WG843562
(S) a,a,a-Trifluorotoluene(FID)	*99.9*			*59.0-128*		*01/21/2016 05:13*	WG843562

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Acetone	U		0.0500	0.250	5	01/18/2016 21:23	WG843055
Acrylonitrile	U		0.00895	0.0500	5	01/18/2016 21:23	WG843055
Benzene	U		0.00135	0.00500	5	01/18/2016 21:23	WG843055
Bromobenzene	U		0.00142	0.00500	5	01/18/2016 21:23	WG843055
Bromodichloromethane	U		0.00127	0.00500	5	01/18/2016 21:23	WG843055
Bromoform	U		0.00212	0.00500	5	01/18/2016 21:23	WG843055
Bromomethane	U		0.00670	0.0250	5	01/18/2016 21:23	WG843055
n-Butylbenzene	U		0.00129	0.00500	5	01/18/2016 21:23	WG843055
sec-Butylbenzene	U		0.00100	0.00500	5	01/18/2016 21:23	WG843055
tert-Butylbenzene	U		0.00103	0.00500	5	01/18/2016 21:23	WG843055
Carbon tetrachloride	U		0.00164	0.00500	5	01/18/2016 21:23	WG843055
Chlorobenzene	U		0.00106	0.00500	5	01/18/2016 21:23	WG843055
Chlorodibromomethane	U		0.00186	0.00500	5	01/18/2016 21:23	WG843055
Chloroethane	U		0.00473	0.0250	5	01/18/2016 21:23	WG843055
2-Chloroethyl vinyl ether	U		0.0117	0.250	5	01/18/2016 21:23	WG843055
Chloroform	U		0.00114	0.0250	5	01/18/2016 21:23	WG843055
Chloromethane	U		0.00188	0.0125	5	01/18/2016 21:23	WG843055
2-Chlorotoluene	U	J4	0.00150	0.00500	5	01/18/2016 21:23	WG843055
4-Chlorotoluene	U		0.00120	0.00500	5	01/18/2016 21:23	WG843055
1,2-Dibromo-3-Chloropropane	U		0.00525	0.0250	5	01/18/2016 21:23	WG843055
1,2-Dibromoethane	U		0.00172	0.00500	5	01/18/2016 21:23	WG843055
Dibromomethane	U		0.00191	0.00500	5	01/18/2016 21:23	WG843055
1,2-Dichlorobenzene	U		0.00152	0.00500	5	01/18/2016 21:23	WG843055
1,3-Dichlorobenzene	U		0.00120	0.00500	5	01/18/2016 21:23	WG843055
1,4-Dichlorobenzene	U		0.00113	0.00500	5	01/18/2016 21:23	WG843055
Dichlorodifluoromethane	U		0.00356	0.0250	5	01/18/2016 21:23	WG843055
1,1-Dichloroethane	U		0.000995	0.00500	5	01/18/2016 21:23	WG843055
1,2-Dichloroethane	U		0.00132	0.00500	5	01/18/2016 21:23	WG843055
1,1-Dichloroethene	U		0.00152	0.00500	5	01/18/2016 21:23	WG843055
cis-1,2-Dichloroethene	U		0.00118	0.00500	5	01/18/2016 21:23	WG843055
trans-1,2-Dichloroethene	U		0.00132	0.00500	5	01/18/2016 21:23	WG843055
1,2-Dichloropropane	U		0.00179	0.00500	5	01/18/2016 21:23	WG843055

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloropropene	U		0.00158	0.00500	5	01/18/2016 21:23	WG843055
1,3-Dichloropropane	U		0.00104	0.00500	5	01/18/2016 21:23	WG843055
cis-1,3-Dichloropropene	U		0.00131	0.00500	5	01/18/2016 21:23	WG843055
trans-1,3-Dichloropropene	U		0.00134	0.00500	5	01/18/2016 21:23	WG843055
2,2-Dichloropropane	U		0.00140	0.00500	5	01/18/2016 21:23	WG843055
Di-isopropyl ether	U		0.00124	0.00500	5	01/18/2016 21:23	WG843055
Ethylbenzene	U		0.00148	0.00500	5	01/18/2016 21:23	WG843055
Hexachloro-1,3-butadiene	U		0.00171	0.00500	5	01/18/2016 21:23	WG843055
Isopropylbenzene	U		0.00122	0.00500	5	01/18/2016 21:23	WG843055
p-Isopropyltoluene	U		0.00102	0.00500	5	01/18/2016 21:23	WG843055
2-Butanone (MEK)	U		0.0234	0.0500	5	01/18/2016 21:23	WG843055
Methylene Chloride	U		0.00500	0.0250	5	01/18/2016 21:23	WG843055
4-Methyl-2-pentanone (MIBK)	U		0.00940	0.0500	5	01/18/2016 21:23	WG843055
Methyl tert-butyl ether	U		0.00106	0.00500	5	01/18/2016 21:23	WG843055
Naphthalene	U		0.00500	0.0250	5	01/18/2016 21:23	WG843055
n-Propylbenzene	U		0.00103	0.00500	5	01/18/2016 21:23	WG843055
Styrene	U		0.00117	0.00500	5	01/18/2016 21:23	WG843055
1,1,1,2-Tetrachloroethane	U		0.00132	0.00500	5	01/18/2016 21:23	WG843055
1,1,2,2-Tetrachloroethane	U		0.00182	0.00500	5	01/18/2016 21:23	WG843055
1,1,2-Trichlorotrifluoroethane	U		0.00182	0.00500	5	01/18/2016 21:23	WG843055
Tetrachloroethene	U		0.00138	0.00500	5	01/18/2016 21:23	WG843055
Toluene	U		0.00217	0.0250	5	01/18/2016 21:23	WG843055
1,2,3-Trichlorobenzene	U		0.00153	0.00500	5	01/18/2016 21:23	WG843055
1,2,4-Trichlorobenzene	U		0.00194	0.00500	5	01/18/2016 21:23	WG843055
1,1,1-Trichloroethane	U		0.00143	0.00500	5	01/18/2016 21:23	WG843055
1,1,2-Trichloroethane	U		0.00138	0.00500	5	01/18/2016 21:23	WG843055
Trichloroethene	U		0.00140	0.00500	5	01/18/2016 21:23	WG843055
Trichlorofluoromethane	U		0.00191	0.0250	5	01/18/2016 21:23	WG843055
1,2,3-Trichloropropane	U		0.00370	0.0125	5	01/18/2016 21:23	WG843055
1,2,4-Trimethylbenzene	U		0.00106	0.00500	5	01/18/2016 21:23	WG843055
1,2,3-Trimethylbenzene	U		0.00144	0.00500	5	01/18/2016 21:23	WG843055
Vinyl chloride	U		0.00146	0.00500	5	01/18/2016 21:23	WG843055
1,3,5-Trimethylbenzene	U		0.00133	0.00500	5	01/18/2016 21:23	WG843055
Xylenes, Total	U		0.00349	0.0150	5	01/18/2016 21:23	WG843055
(S) Toluene-d8	*103*			*88.7-115*		*01/18/2016 21:23*	WG843055
(S) Dibromofluoromethane	*103*			*76.3-123*		*01/18/2016 21:23*	WG843055
(S) 4-Bromofluorobenzene	*102*			*69.7-129*		*01/18/2016 21:23*	WG843055

Semi-Volatile Organic Compounds (GC) by Method 3546/DRO

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.769	4.00	1	01/19/2016 20:26	WG843001
(S) o-Terphenyl	*69.8*			*50.0-150*		*01/19/2016 20:26*	WG843001

Mercury by Method 7471A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	U		0.00280	0.0200	1	01/21/2016 10:06	WG843417

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	2.34		0.650	2.00	1	01/21/2016 17:33	WG843082
Barium	43.3		0.170	0.500	1	01/21/2016 17:33	WG843082
Cadmium	U		0.0700	0.500	1	01/21/2016 17:33	WG843082
Chromium	25.7		0.140	1.00	1	01/21/2016 17:33	WG843082
Lead	5.88		0.190	0.500	1	01/21/2016 17:33	WG843082
Selenium	U		0.740	2.00	1	01/21/2016 17:33	WG843082
Silver	U		0.280	1.00	1	01/21/2016 17:33	WG843082

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.108	0.500	5	01/21/2016 05:34	WG843562
(S) a,a,a-Trifluorotoluene(FID)	*99.7*			*59.0-128*		*01/21/2016 05:34*	WG843562

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Acetone	U		0.0500	0.250	5	01/19/2016 02:14	WG843281
Acrylonitrile	U		0.00895	0.0500	5	01/19/2016 02:14	WG843281
Benzene	U		0.00135	0.00500	5	01/19/2016 02:14	WG843281
Bromobenzene	U		0.00142	0.00500	5	01/19/2016 02:14	WG843281
Bromodichloromethane	U		0.00127	0.00500	5	01/19/2016 02:14	WG843281
Bromoform	U		0.00212	0.00500	5	01/19/2016 02:14	WG843281
Bromomethane	U		0.00670	0.0250	5	01/19/2016 02:14	WG843281
n-Butylbenzene	U		0.00129	0.00500	5	01/19/2016 02:14	WG843281
sec-Butylbenzene	U		0.00100	0.00500	5	01/19/2016 02:14	WG843281
tert-Butylbenzene	U		0.00103	0.00500	5	01/19/2016 02:14	WG843281
Carbon tetrachloride	U		0.00164	0.00500	5	01/19/2016 02:14	WG843281
Chlorobenzene	U		0.00106	0.00500	5	01/19/2016 02:14	WG843281
Chlorodibromomethane	U		0.00186	0.00500	5	01/19/2016 02:14	WG843281
Chloroethane	U		0.00473	0.0250	5	01/19/2016 02:14	WG843281
2-Chloroethyl vinyl ether	U		0.0117	0.250	5	01/19/2016 02:14	WG843281
Chloroform	U		0.00114	0.0250	5	01/19/2016 02:14	WG843281
Chloromethane	U		0.00188	0.0125	5	01/19/2016 02:14	WG843281
2-Chlorotoluene	U		0.00150	0.00500	5	01/19/2016 02:14	WG843281
4-Chlorotoluene	U		0.00120	0.00500	5	01/19/2016 02:14	WG843281
1,2-Dibromo-3-Chloropropane	U		0.00525	0.0250	5	01/19/2016 02:14	WG843281
1,2-Dibromoethane	U		0.00172	0.00500	5	01/19/2016 02:14	WG843281
Dibromomethane	U		0.00191	0.00500	5	01/19/2016 02:14	WG843281
1,2-Dichlorobenzene	U		0.00152	0.00500	5	01/19/2016 02:14	WG843281
1,3-Dichlorobenzene	U		0.00120	0.00500	5	01/19/2016 02:14	WG843281
1,4-Dichlorobenzene	U		0.00113	0.00500	5	01/19/2016 02:14	WG843281
Dichlorodifluoromethane	U		0.00356	0.0250	5	01/19/2016 02:14	WG843281
1,1-Dichloroethane	U		0.000995	0.00500	5	01/19/2016 02:14	WG843281
1,2-Dichloroethane	U		0.00132	0.00500	5	01/19/2016 02:14	WG843281
1,1-Dichloroethene	U		0.00152	0.00500	5	01/19/2016 02:14	WG843281
cis-1,2-Dichloroethene	U		0.00118	0.00500	5	01/19/2016 02:14	WG843281
trans-1,2-Dichloroethene	U		0.00132	0.00500	5	01/19/2016 02:14	WG843281
1,2-Dichloropropane	U		0.00179	0.00500	5	01/19/2016 02:14	WG843281

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloropropene	U		0.00158	0.00500	5	01/19/2016 02:14	WG843281
1,3-Dichloropropane	U		0.00104	0.00500	5	01/19/2016 02:14	WG843281
cis-1,3-Dichloropropene	U		0.00131	0.00500	5	01/19/2016 02:14	WG843281
trans-1,3-Dichloropropene	U		0.00134	0.00500	5	01/19/2016 02:14	WG843281
2,2-Dichloropropane	U		0.00140	0.00500	5	01/19/2016 02:14	WG843281
Di-isopropyl ether	U		0.00124	0.00500	5	01/19/2016 02:14	WG843281
Ethylbenzene	U		0.00148	0.00500	5	01/19/2016 02:14	WG843281
Hexachloro-1,3-butadiene	U		0.00171	0.00500	5	01/19/2016 02:14	WG843281
Isopropylbenzene	U		0.00122	0.00500	5	01/19/2016 02:14	WG843281
p-Isopropyltoluene	U		0.00102	0.00500	5	01/19/2016 02:14	WG843281
2-Butanone (MEK)	U		0.0234	0.0500	5	01/19/2016 02:14	WG843281
Methylene Chloride	U		0.00500	0.0250	5	01/19/2016 02:14	WG843281
4-Methyl-2-pentanone (MIBK)	U		0.00940	0.0500	5	01/19/2016 02:14	WG843281
Methyl tert-butyl ether	U		0.00106	0.00500	5	01/19/2016 02:14	WG843281
Naphthalene	U		0.00500	0.0250	5	01/19/2016 02:14	WG843281
n-Propylbenzene	U		0.00103	0.00500	5	01/19/2016 02:14	WG843281
Styrene	U		0.00117	0.00500	5	01/19/2016 02:14	WG843281
1,1,1,2-Tetrachloroethane	U		0.00132	0.00500	5	01/19/2016 02:14	WG843281
1,1,2,2-Tetrachloroethane	U		0.00182	0.00500	5	01/19/2016 02:14	WG843281
1,1,2-Trichlorotrifluoroethane	U		0.00182	0.00500	5	01/19/2016 02:14	WG843281
Tetrachloroethene	U		0.00138	0.00500	5	01/19/2016 02:14	WG843281
Toluene	U		0.00217	0.0250	5	01/19/2016 02:14	WG843281
1,2,3-Trichlorobenzene	U		0.00153	0.00500	5	01/19/2016 02:14	WG843281
1,2,4-Trichlorobenzene	U		0.00194	0.00500	5	01/19/2016 02:14	WG843281
1,1,1-Trichloroethane	U		0.00143	0.00500	5	01/19/2016 02:14	WG843281
1,1,2-Trichloroethane	U		0.00138	0.00500	5	01/19/2016 02:14	WG843281
Trichloroethene	U		0.00140	0.00500	5	01/19/2016 02:14	WG843281
Trichlorofluoromethane	U		0.00191	0.0250	5	01/19/2016 02:14	WG843281
1,2,3-Trichloropropane	U		0.00370	0.0125	5	01/19/2016 02:14	WG843281
1,2,4-Trimethylbenzene	U		0.00106	0.00500	5	01/19/2016 02:14	WG843281
1,2,3-Trimethylbenzene	U		0.00144	0.00500	5	01/19/2016 02:14	WG843281
Vinyl chloride	U		0.00146	0.00500	5	01/19/2016 02:14	WG843281
1,3,5-Trimethylbenzene	U		0.00133	0.00500	5	01/19/2016 02:14	WG843281
Xylenes, Total	U		0.00349	0.0150	5	01/19/2016 02:14	WG843281
(S) Toluene-d8	*103*			*88.7-115*		*01/19/2016 02:14*	WG843281
(S) Dibromofluoromethane	*99.2*			*76.3-123*		*01/19/2016 02:14*	WG843281
(S) 4-Bromofluorobenzene	*102*			*69.7-129*		*01/19/2016 02:14*	WG843281

Semi-Volatile Organic Compounds (GC) by Method 3546/DRO

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	1.37	J	0.769	4.00	1	01/19/2016 20:38	WG843001
(S) o-Terphenyl	*80.4*			*50.0-150*		*01/19/2016 20:38*	WG843001

Mercury by Method 7471A

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Mercury	0.00328	J	0.00280	0.0200	1	01/21/2016 10:08	WG843417

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.62		0.650	2.00	1	01/21/2016 17:36	WG843082
Barium	47.4		0.170	0.500	1	01/21/2016 17:36	WG843082
Cadmium	0.156	J	0.0700	0.500	1	01/21/2016 17:36	WG843082
Chromium	10.8		0.140	1.00	1	01/21/2016 17:36	WG843082
Lead	11.2		0.190	0.500	1	01/21/2016 17:36	WG843082
Selenium	U		0.740	2.00	1	01/21/2016 17:36	WG843082
Silver	U		0.280	1.00	1	01/21/2016 17:36	WG843082

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.108	0.500	5	01/21/2016 05:55	WG843562
(S) a,a,a-Trifluorotoluene(FID)	*99.8*			*59.0-128*		*01/21/2016 05:55*	WG843562

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Acetone	U		0.0500	0.250	5	01/19/2016 02:35	WG843281
Acrylonitrile	U		0.00895	0.0500	5	01/19/2016 02:35	WG843281
Benzene	U		0.00135	0.00500	5	01/19/2016 02:35	WG843281
Bromobenzene	U		0.00142	0.00500	5	01/19/2016 02:35	WG843281
Bromodichloromethane	U		0.00127	0.00500	5	01/19/2016 02:35	WG843281
Bromoform	U		0.00212	0.00500	5	01/19/2016 02:35	WG843281
Bromomethane	U		0.00670	0.0250	5	01/19/2016 02:35	WG843281
n-Butylbenzene	U		0.00129	0.00500	5	01/19/2016 02:35	WG843281
sec-Butylbenzene	U		0.00100	0.00500	5	01/19/2016 02:35	WG843281
tert-Butylbenzene	U		0.00103	0.00500	5	01/19/2016 02:35	WG843281
Carbon tetrachloride	U		0.00164	0.00500	5	01/19/2016 02:35	WG843281
Chlorobenzene	U		0.00106	0.00500	5	01/19/2016 02:35	WG843281
Chlorodibromomethane	U		0.00186	0.00500	5	01/19/2016 02:35	WG843281
Chloroethane	U		0.00473	0.0250	5	01/19/2016 02:35	WG843281
2-Chloroethyl vinyl ether	U		0.0117	0.250	5	01/19/2016 02:35	WG843281
Chloroform	U		0.00114	0.0250	5	01/19/2016 02:35	WG843281
Chloromethane	U		0.00188	0.0125	5	01/19/2016 02:35	WG843281
2-Chlorotoluene	U		0.00150	0.00500	5	01/19/2016 02:35	WG843281
4-Chlorotoluene	U		0.00120	0.00500	5	01/19/2016 02:35	WG843281
1,2-Dibromo-3-Chloropropane	U		0.00525	0.0250	5	01/19/2016 02:35	WG843281
1,2-Dibromoethane	U		0.00172	0.00500	5	01/19/2016 02:35	WG843281
Dibromomethane	U		0.00191	0.00500	5	01/19/2016 02:35	WG843281
1,2-Dichlorobenzene	U		0.00152	0.00500	5	01/19/2016 02:35	WG843281
1,3-Dichlorobenzene	U		0.00120	0.00500	5	01/19/2016 02:35	WG843281
1,4-Dichlorobenzene	U		0.00113	0.00500	5	01/19/2016 02:35	WG843281
Dichlorodifluoromethane	U		0.00356	0.0250	5	01/19/2016 02:35	WG843281
1,1-Dichloroethane	U		0.000995	0.00500	5	01/19/2016 02:35	WG843281
1,2-Dichloroethane	U		0.00132	0.00500	5	01/19/2016 02:35	WG843281
1,1-Dichloroethene	U		0.00152	0.00500	5	01/19/2016 02:35	WG843281
cis-1,2-Dichloroethene	U		0.00118	0.00500	5	01/19/2016 02:35	WG843281
trans-1,2-Dichloroethene	U		0.00132	0.00500	5	01/19/2016 02:35	WG843281
1,2-Dichloropropane	U		0.00179	0.00500	5	01/19/2016 02:35	WG843281

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
1,1-Dichloropropene	U		0.00158	0.00500	5	01/19/2016 02:35	WG843281
1,3-Dichloropropane	U		0.00104	0.00500	5	01/19/2016 02:35	WG843281
cis-1,3-Dichloropropene	U		0.00131	0.00500	5	01/19/2016 02:35	WG843281
trans-1,3-Dichloropropene	U		0.00134	0.00500	5	01/19/2016 02:35	WG843281
2,2-Dichloropropane	U		0.00140	0.00500	5	01/19/2016 02:35	WG843281
Di-isopropyl ether	U		0.00124	0.00500	5	01/19/2016 02:35	WG843281
Ethylbenzene	U		0.00148	0.00500	5	01/19/2016 02:35	WG843281
Hexachloro-1,3-butadiene	U		0.00171	0.00500	5	01/19/2016 02:35	WG843281
Isopropylbenzene	U		0.00122	0.00500	5	01/19/2016 02:35	WG843281
p-Isopropyltoluene	U		0.00102	0.00500	5	01/19/2016 02:35	WG843281
2-Butanone (MEK)	U		0.0234	0.0500	5	01/19/2016 02:35	WG843281
Methylene Chloride	U		0.00500	0.0250	5	01/19/2016 02:35	WG843281
4-Methyl-2-pentanone (MIBK)	U		0.00940	0.0500	5	01/19/2016 02:35	WG843281
Methyl tert-butyl ether	U		0.00106	0.00500	5	01/19/2016 02:35	WG843281
Naphthalene	U		0.00500	0.0250	5	01/19/2016 02:35	WG843281
n-Propylbenzene	U		0.00103	0.00500	5	01/19/2016 02:35	WG843281
Styrene	U		0.00117	0.00500	5	01/19/2016 02:35	WG843281
1,1,1,2-Tetrachloroethane	U		0.00132	0.00500	5	01/19/2016 02:35	WG843281
1,1,2,2-Tetrachloroethane	U		0.00182	0.00500	5	01/19/2016 02:35	WG843281
1,1,2-Trichlorotrifluoroethane	U		0.00182	0.00500	5	01/19/2016 02:35	WG843281
Tetrachloroethene	U		0.00138	0.00500	5	01/19/2016 02:35	WG843281
Toluene	U		0.00217	0.0250	5	01/19/2016 02:35	WG843281
1,2,3-Trichlorobenzene	U		0.00153	0.00500	5	01/19/2016 02:35	WG843281
1,2,4-Trichlorobenzene	U		0.00194	0.00500	5	01/19/2016 02:35	WG843281
1,1,1-Trichloroethane	U		0.00143	0.00500	5	01/19/2016 02:35	WG843281
1,1,2-Trichloroethane	U		0.00138	0.00500	5	01/19/2016 02:35	WG843281
Trichloroethene	U		0.00140	0.00500	5	01/19/2016 02:35	WG843281
Trichlorofluoromethane	U		0.00191	0.0250	5	01/19/2016 02:35	WG843281
1,2,3-Trichloropropane	U		0.00370	0.0125	5	01/19/2016 02:35	WG843281
1,2,4-Trimethylbenzene	U		0.00106	0.00500	5	01/19/2016 02:35	WG843281
1,2,3-Trimethylbenzene	U		0.00144	0.00500	5	01/19/2016 02:35	WG843281
Vinyl chloride	U		0.00146	0.00500	5	01/19/2016 02:35	WG843281
1,3,5-Trimethylbenzene	U		0.00133	0.00500	5	01/19/2016 02:35	WG843281
Xylenes, Total	U		0.00349	0.0150	5	01/19/2016 02:35	WG843281
(S) Toluene-d8	*103*			*88.7-115*		*01/19/2016 02:35*	WG843281
(S) Dibromofluoromethane	*101*			*76.3-123*		*01/19/2016 02:35*	WG843281
(S) 4-Bromofluorobenzene	*104*			*69.7-129*		*01/19/2016 02:35*	WG843281

Semi-Volatile Organic Compounds (GC) by Method 3546/DRO

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		3.84	20.0	5	01/19/2016 21:58	WG843001
(S) o-Terphenyl	*51.9*			*50.0-150*		*01/19/2016 21:58*	WG843001

Sample Narrative:

3546/DRO L812501-09 WG843001: Cannot run at lower dilution due to viscosity of extract

Mercury by Method 7471A

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Mercury	0.00306	J	0.00280	0.0200	1	01/21/2016 10:11	WG843417

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	0.818	J	0.650	2.00	1	01/21/2016 17:39	WG843082
Barium	7.01		0.170	0.500	1	01/21/2016 17:39	WG843082
Cadmium	U		0.0700	0.500	1	01/21/2016 17:39	WG843082
Chromium	1.80		0.140	1.00	1	01/21/2016 17:39	WG843082
Lead	U		0.190	0.500	1	01/21/2016 17:39	WG843082
Selenium	U		0.740	2.00	1	01/21/2016 17:39	WG843082
Silver	U		0.280	1.00	1	01/21/2016 17:39	WG843082

Mercury by Method 7471A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.00546	J	0.00280	0.0200	1	01/21/2016 10:14	WG843417

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	2.60		0.650	2.00	1	01/21/2016 17:41	WG843082
Barium	67.2		0.170	0.500	1	01/21/2016 17:41	WG843082
Cadmium	U		0.0700	0.500	1	01/21/2016 17:41	WG843082
Chromium	15.7		0.140	1.00	1	01/21/2016 17:41	WG843082
Lead	6.41		0.190	0.500	1	01/21/2016 17:41	WG843082
Selenium	U		0.740	2.00	1	01/21/2016 17:41	WG843082
Silver	U		0.280	1.00	1	01/21/2016 17:41	WG843082

Mercury by Method 7471A

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Mercury	0.00396	J	0.00280	0.0200	1	01/21/2016 10:16	WG843417

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	0.991	J	0.650	2.00	1	01/21/2016 17:44	WG843082
Barium	8.43		0.170	0.500	1	01/21/2016 17:44	WG843082
Cadmium	U		0.0700	0.500	1	01/21/2016 17:44	WG843082
Chromium	2.09		0.140	1.00	1	01/21/2016 17:44	WG843082
Lead	U		0.190	0.500	1	01/21/2016 17:44	WG843082
Selenium	U		0.740	2.00	1	01/21/2016 17:44	WG843082
Silver	U		0.280	1.00	1	01/21/2016 17:44	WG843082

Mercury by Method 7471A

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Mercury	0.0161	J	0.00280	0.0200	1	01/21/2016 10:19	WG843417

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	2.58		0.650	2.00	1	01/21/2016 17:47	WG843082
Barium	24.6		0.170	0.500	1	01/21/2016 17:47	WG843082
Cadmium	U		0.0700	0.500	1	01/21/2016 17:47	WG843082
Chromium	5.14		0.140	1.00	1	01/21/2016 17:47	WG843082
Lead	U		0.190	0.500	1	01/21/2016 17:47	WG843082
Selenium	U		0.740	2.00	1	01/21/2016 17:47	WG843082
Silver	U		0.280	1.00	1	01/21/2016 17:47	WG843082

Mercury by Method 7471A

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Mercury	0.00328	J	0.00280	0.0200	1	01/21/2016 10:21	WG843417

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	0.836	J	0.650	2.00	1	01/21/2016 17:56	WG843082
Barium	6.53		0.170	0.500	1	01/21/2016 17:56	WG843082
Cadmium	U		0.0700	0.500	1	01/21/2016 17:56	WG843082
Chromium	1.65		0.140	1.00	1	01/21/2016 17:56	WG843082
Lead	U		0.190	0.500	1	01/21/2016 17:56	WG843082
Selenium	U		0.740	2.00	1	01/21/2016 17:56	WG843082
Silver	U		0.280	1.00	1	01/21/2016 17:56	WG843082

Mercury by Method 7471A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Mercury	0.00386	J	0.00280	0.0200	1	01/21/2016 10:24	WG843417

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Arsenic	0.687	J	0.650	2.00	1	01/21/2016 17:59	WG843082
Barium	7.25		0.170	0.500	1	01/21/2016 17:59	WG843082
Cadmium	U		0.0700	0.500	1	01/21/2016 17:59	WG843082
Chromium	1.93		0.140	1.00	1	01/21/2016 17:59	WG843082
Lead	U		0.190	0.500	1	01/21/2016 17:59	WG843082
Selenium	U		0.740	2.00	1	01/21/2016 17:59	WG843082
Silver	U		0.280	1.00	1	01/21/2016 17:59	WG843082

Mercury by Method 7471A

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Mercury	U		0.00280	0.0200	1	01/21/2016 10:32	WG843417

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	0.731	J	0.650	2.00	1	01/21/2016 18:02	WG843082
Barium	6.40		0.170	0.500	1	01/21/2016 18:02	WG843082
Cadmium	U		0.0700	0.500	1	01/21/2016 18:02	WG843082
Chromium	1.29		0.140	1.00	1	01/21/2016 18:02	WG843082
Lead	U		0.190	0.500	1	01/21/2016 18:02	WG843082
Selenium	U		0.740	2.00	1	01/21/2016 18:02	WG843082
Silver	U		0.280	1.00	1	01/21/2016 18:02	WG843082

Mercury by Method 7471A

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Mercury	0.00691	J	0.00280	0.0200	1	01/21/2016 10:34	WG843417

Metals (ICP) by Method 6010B

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
Arsenic	1.33	J	0.650	2.00	1	01/21/2016 12:20	WG843308
Barium	10.4		0.170	0.500	1	01/21/2016 12:20	WG843308
Cadmium	U		0.0700	0.500	1	01/21/2016 12:20	WG843308
Chromium	2.46		0.140	1.00	1	01/21/2016 12:20	WG843308
Lead	U		0.190	0.500	1	01/21/2016 12:20	WG843308
Selenium	U		0.740	2.00	1	01/21/2016 12:20	WG843308
Silver	U		0.280	1.00	1	01/21/2016 12:20	WG843308

Method Blank (MB)

(MB) 01/21/16 09:30

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Mercury	U		0.0028	0.0200

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

(LCS) 01/21/16 09:33 • (LCSD) 01/21/16 09:35

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 %
Mercury	0.300	0.279	0.297	93	99	80-120			6	20

L812501-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 01/21/16 09:38 • (MS) 01/21/16 09:40 • (MSD) 01/21/16 09:43

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	0.300	ND	0.304	0.255	101	85	1	75-125			18	20

Method Blank (MB)

(MB) 01/21/16 16:47

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.65	2.00
Barium	U		0.17	0.500
Cadmium	U		0.07	0.500
Chromium	U		0.14	1.00
Lead	U		0.19	0.500
Selenium	U		0.74	2.00
Silver	U		0.28	1.00

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

(LCS) 01/21/16 16:50 • (LCSD) 01/21/16 16:53

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 %
Arsenic	100	101	95.1	101	95	80-120			6	20
Barium	100	101	96.1	101	96	80-120			5	20
Cadmium	100	102	96.4	102	96	80-120			5	20
Chromium	100	99.2	94.6	99	95	80-120			5	20
Lead	100	101	96.1	101	96	80-120			5	20
Selenium	100	103	97.5	103	97	80-120			5	20
Silver	100	99.6	95.4	100	95	80-120			4	20

L812501-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 01/21/16 16:56 • (MS) 01/21/16 17:04 • (MSD) 01/21/16 17:07

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	15.0	103	105	88	90	1	75-125			2	20
Barium	100	78.6	174	220	95	142	1	75-125		J3 J5	24	20
Cadmium	100	0.0559	103	104	102	104	1	75-125			1	20
Chromium	100	11.4	109	110	98	99	1	75-125			1	20
Lead	100	8.46	111	114	103	106	1	75-125			3	20
Selenium	100	ND	103	104	103	104	1	75-125			1	20
Silver	100	ND	101	103	101	103	1	75-125			2	20

Method Blank (MB)

(MB) 01/21/16 11:56

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Arsenic	U		0.65	2.00
Barium	0.227		0.17	0.500
Cadmium	U		0.07	0.500
Chromium	U		0.14	1.00
Lead	U		0.19	0.500
Selenium	U		0.74	2.00
Silver	U		0.28	1.00

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

(LCS) 01/21/16 11:59 • (LCSD) 01/21/16 12:02

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 %
Arsenic	100	105	102	105	102	80-120			3	20
Barium	100	108	105	108	105	80-120			3	20
Cadmium	100	106	103	106	103	80-120			3	20
Chromium	100	102	99.8	102	100	80-120			2	20
Lead	100	105	102	105	102	80-120			3	20
Selenium	100	107	105	107	105	80-120			2	20
Silver	100	101	98.6	101	99	80-120			2	20

L812526-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 01/21/16 12:05 • (MS) 01/21/16 12:14 • (MSD) 01/21/16 12:17

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	100	3.55	107	112	103	109	1	75-125			5	20
Barium	100	103	203	187	100	84	1	75-125			8	20
Cadmium	100	1.16	103	110	102	109	1	75-125			6	20
Chromium	100	12.6	106	108	93	95	1	75-125			2	20
Lead	100	63.7	189	209	125	145	1	75-125		J5	10	20
Selenium	100	ND	105	111	105	111	1	75-125			5	20
Silver	100	ND	102	110	102	110	1	75-125			7	20

Method Blank (MB)

(MB) 01/20/16 16:18

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	U		0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*100*			*59.0-128*

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

(LCS) 01/20/16 15:15 • (LCSD) 01/20/16 15:36

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.50	6.67	6.68	121	121	63.5-137			0.0400	20
(S) a,a,a-Trifluorotoluene(FID)				*103*	*103*	*59.0-128*				

L812702-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 01/21/16 03:28 • (MS) 01/21/16 00:40 • (MSD) 01/21/16 01:01

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 %
TPH (GC/FID) Low Fraction	5.50	ND	12.5	9.30	45.6	33.8	5	28.5-138		J3	29.7	23.6
(S) a,a,a-Trifluorotoluene(FID)					*98.1*	*98.5*		*59.0-128*				

Method Blank (MB)

(MB) 01/18/16 09:20

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0100	0.0500
Acrylonitrile	U		0.00179	0.0100
Benzene	U		0.000270	0.00100
Bromobenzene	U		0.000284	0.00100
Bromodichloromethane	U		0.000254	0.00100
Bromoform	U		0.000424	0.00100
Bromomethane	U		0.00134	0.00500
n-Butylbenzene	U		0.000258	0.00100
sec-Butylbenzene	U		0.000201	0.00100
tert-Butylbenzene	U		0.000206	0.00100
Carbon tetrachloride	U		0.000328	0.00100
Chlorobenzene	U		0.000212	0.00100
Chlorodibromomethane	U		0.000373	0.00100
Chloroethane	U		0.000946	0.00500
2-Chloroethyl vinyl ether	U		0.00234	0.0500
Chloroform	U		0.000229	0.00500
Chloromethane	U		0.000375	0.00250
2-Chlorotoluene	U		0.000301	0.00100
4-Chlorotoluene	U		0.000240	0.00100
1,2-Dibromo-3-Chloropropane	U		0.00105	0.00500
1,2-Dibromoethane	U		0.000343	0.00100
Dibromomethane	U		0.000382	0.00100
1,2-Dichlorobenzene	U		0.000305	0.00100
1,3-Dichlorobenzene	U		0.000239	0.00100
1,4-Dichlorobenzene	U		0.000226	0.00100
Dichlorodifluoromethane	U		0.000713	0.00500
1,1-Dichloroethane	U		0.000199	0.00100
1,2-Dichloroethane	U		0.000265	0.00100
1,1-Dichloroethene	U		0.000303	0.00100
cis-1,2-Dichloroethene	U		0.000235	0.00100
trans-1,2-Dichloroethene	U		0.000264	0.00100
1,2-Dichloropropane	U		0.000358	0.00100
1,1-Dichloropropene	U		0.000317	0.00100
1,3-Dichloropropane	U		0.000207	0.00100
cis-1,3-Dichloropropene	U		0.000262	0.00100
trans-1,3-Dichloropropene	U		0.000267	0.00100

Method Blank (MB)

(MB) 01/18/16 09:20

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
2,2-Dichloropropane	U		0.000279	0.00100
Di-isopropyl ether	U		0.000248	0.00100
Ethylbenzene	U		0.000297	0.00100
Hexachloro-1,3-butadiene	U		0.000342	0.00100
Isopropylbenzene	U		0.000243	0.00100
p-Isopropyltoluene	U		0.000204	0.00100
2-Butanone (MEK)	U		0.00468	0.0100
Methylene Chloride	U		0.00100	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.00188	0.0100
Methyl tert-butyl ether	U		0.000212	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.000206	0.00100
Styrene	U		0.000234	0.00100
1,1,1,2-Tetrachloroethane	U		0.000264	0.00100
1,1,2,2-Tetrachloroethane	U		0.000365	0.00100
Tetrachloroethene	U		0.000276	0.00100
Toluene	U		0.000434	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000365	0.00100
1,2,3-Trichlorobenzene	U		0.000306	0.00100
1,2,4-Trichlorobenzene	U		0.000388	0.00100
1,1,1-Trichloroethane	U		0.000286	0.00100
1,1,2-Trichloroethane	U		0.000277	0.00100
Trichloroethene	U		0.000279	0.00100
Trichlorofluoromethane	U		0.000382	0.00500
1,2,3-Trichloropropane	U		0.000741	0.00250
1,2,3-Trimethylbenzene	U		0.000287	0.00100
1,2,4-Trimethylbenzene	U		0.000211	0.00100
1,3,5-Trimethylbenzene	U		0.000266	0.00100
Vinyl chloride	U		0.000291	0.00100
Xylenes, Total	U		0.000698	0.00300
(S) Toluene-d8	*102*			*88.7-115*
(S) Dibromofluoromethane	*99.0*			*76.3-123*
(S) 4-Bromofluorobenzene	*103*			*69.7-129*

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

(LCS) 01/18/16 08:15 • (LCSD) 01/18/16 11:27

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	0.125	0.178	0.204	142	163	25.3-178			13.7	22.9
Acrylonitrile	0.125	0.130	0.131	104	105	57.8-143			0.720	20
Benzene	0.0250	0.0260	0.0269	104	108	72.6-120			3.44	20
Bromobenzene	0.0250	0.0268	0.0252	107	101	80.3-115			6.11	20
Bromodichloromethane	0.0250	0.0284	0.0275	114	110	75.3-119			3.31	20
Bromoform	0.0250	0.0292	0.0274	117	110	69.1-135			6.30	20
Bromomethane	0.0250	0.0258	0.0287	103	115	23.0-191			10.9	20
n-Butylbenzene	0.0250	0.0270	0.0270	108	108	74.2-134			0.0100	20
sec-Butylbenzene	0.0250	0.0266	0.0253	107	101	77.8-129			5.00	20
tert-Butylbenzene	0.0250	0.0268	0.0258	107	103	77.2-129			4.11	20
Carbon tetrachloride	0.0250	0.0250	0.0261	99.9	104	69.4-129			4.24	20
Chlorobenzene	0.0250	0.0269	0.0256	108	102	78.9-122			4.98	20
Chlorodibromomethane	0.0250	0.0296	0.0276	118	110	76.4-126			7.07	20
Chloroethane	0.0250	0.0248	0.0273	99.3	109	47.2-147			9.59	20
2-Chloroethyl vinyl ether	0.125	0.152	0.152	121	122	16.7-162			0.460	23.7
Chloroform	0.0250	0.0274	0.0274	110	109	73.3-122			0.120	20
Chloromethane	0.0250	0.0219	0.0254	87.7	102	53.1-135			14.6	20
2-Chlorotoluene	0.0250	0.0193	0.0173	77.3	69.4	74.6-127		J4	10.8	20
4-Chlorotoluene	0.0250	0.0275	0.0258	110	103	79.5-123			6.45	20
1,2-Dibromo-3-Chloropropane	0.0250	0.0283	0.0283	113	113	64.9-131			0.0800	20
1,2-Dibromoethane	0.0250	0.0270	0.0262	108	105	78.7-123			3.35	20
Dibromomethane	0.0250	0.0277	0.0270	111	108	78.5-117			2.44	20
1,2-Dichlorobenzene	0.0250	0.0277	0.0266	111	107	83.6-119			4.11	20
1,3-Dichlorobenzene	0.0250	0.0269	0.0244	107	97.6	75.9-129			9.61	20
1,4-Dichlorobenzene	0.0250	0.0271	0.0262	108	105	81.0-115			3.42	20
Dichlorodifluoromethane	0.0250	0.0218	0.0250	87.1	99.9	50.9-139			13.6	20
1,1-Dichloroethane	0.0250	0.0267	0.0272	107	109	71.7-125			1.75	20
1,2-Dichloroethane	0.0250	0.0276	0.0279	110	111	67.2-121			0.940	20
1,1-Dichloroethene	0.0250	0.0255	0.0277	102	111	60.6-133			8.25	20
cis-1,2-Dichloroethene	0.0250	0.0282	0.0280	113	112	76.1-121			0.630	20
trans-1,2-Dichloroethene	0.0250	0.0255	0.0273	102	109	70.7-124			6.89	20
1,2-Dichloropropane	0.0250	0.0275	0.0274	110	110	76.9-123			0.150	20
1,1-Dichloropropene	0.0250	0.0258	0.0282	103	113	71.2-126			8.85	20
1,3-Dichloropropane	0.0250	0.0271	0.0259	108	104	80.3-114			4.43	20
cis-1,3-Dichloropropene	0.0250	0.0288	0.0289	115	115	77.3-123			0.340	20
trans-1,3-Dichloropropene	0.0250	0.0278	0.0279	111	112	73.0-127			0.330	20

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

(LCS) 01/18/16 08:15 • (LCSD) 01/18/16 11:27

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 %
2,2-Dichloropropane	0.0250	0.0272	0.0271	109	109	61.9-132			0.230	20
Di-isopropyl ether	0.0250	0.0274	0.0274	110	110	67.2-131			0.0900	20
Ethylbenzene	0.0250	0.0266	0.0258	106	103	78.6-124			2.78	20
Hexachloro-1,3-butadiene	0.0250	0.0269	0.0260	107	104	69.2-136			3.09	20
Isopropylbenzene	0.0250	0.0264	0.0257	106	103	79.4-126			2.93	20
p-Isopropyltoluene	0.0250	0.0279	0.0263	112	105	75.4-132			5.87	20
2-Butanone (MEK)	0.125	0.123	0.136	98.4	109	44.5-154			9.93	21.3
Methylene Chloride	0.0250	0.0267	0.0269	107	108	68.2-119			0.890	20
4-Methyl-2-pentanone (MIBK)	0.125	0.136	0.136	109	109	61.1-138			0.0600	20
Methyl tert-butyl ether	0.0250	0.0272	0.0264	109	106	70.2-122			2.81	20
Naphthalene	0.0250	0.0273	0.0271	109	108	69.9-132			0.850	20
n-Propylbenzene	0.0250	0.0267	0.0258	107	103	80.2-124			3.18	20
Styrene	0.0250	0.0279	0.0261	111	104	79.4-124			6.45	20
1,1,1,2-Tetrachloroethane	0.0250	0.0284	0.0266	114	106	76.7-127			6.84	20
1,1,2,2-Tetrachloroethane	0.0250	0.0270	0.0247	108	98.8	78.8-124			8.78	20
Tetrachloroethene	0.0250	0.0255	0.0254	102	102	71.1-133			0.470	20
Toluene	0.0250	0.0271	0.0273	109	109	76.7-116			0.730	20
1,1,2-Trichlorotrifluoroethane	0.0250	0.0261	0.0273	104	109	62.6-138			4.38	20
1,2,3-Trichlorobenzene	0.0250	0.0276	0.0264	110	105	72.5-137			4.50	20
1,2,4-Trichlorobenzene	0.0250	0.0291	0.0277	117	111	74.0-137			5.14	20
1,1,1-Trichloroethane	0.0250	0.0266	0.0274	107	110	69.9-127			2.95	20
1,1,2-Trichloroethane	0.0250	0.0271	0.0258	109	103	81.9-119			5.16	20
Trichloroethene	0.0250	0.0260	0.0265	104	106	77.2-122			1.87	20
Trichlorofluoromethane	0.0250	0.0244	0.0266	97.5	106	51.5-151			8.77	20
1,2,3-Trichloropropane	0.0250	0.0280	0.0260	112	104	74.0-124			7.47	20
1,2,3-Trimethylbenzene	0.0250	0.0260	0.0260	104	104	79.4-118			0.0700	20
1,2,4-Trimethylbenzene	0.0250	0.0275	0.0258	110	103	77.1-124			6.41	20
1,3,5-Trimethylbenzene	0.0250	0.0271	0.0257	108	103	79.0-125			5.14	20
Vinyl chloride	0.0250	0.0232	0.0262	92.7	105	58.4-134			12.3	20
Xylenes, Total	0.0750	0.0799	0.0775	107	103	78.1-123			2.99	20
(S) Toluene-d8				*103*	*102*	*88.7-115*				
(S) Dibromofluoromethane				*101*	*102*	*76.3-123*				
(S) 4-Bromofluorobenzene				*99.6*	*96.2*	*69.7-129*				

L812501-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 01/18/16 14:41 • (MS) 01/18/16 12:40 • (MSD) 01/18/16 12:57

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	0.125	0.0156	0.727	0.724	114	113	5	10.0-130			0.370	31.5
Acrylonitrile	0.125	ND	0.537	0.542	86.0	86.7	5	39.3-152			0.860	27.2
Benzene	0.0250	ND	0.124	0.113	99.4	90.1	5	47.8-131			9.77	22.8
Bromobenzene	0.0250	ND	0.126	0.112	101	90.0	5	40.0-130			11.5	27.4
Bromodichloromethane	0.0250	ND	0.127	0.119	101	95.5	5	50.6-128			5.92	22.8
Bromoform	0.0250	ND	0.128	0.121	102	96.7	5	43.3-139			5.75	25.9
Bromomethane	0.0250	ND	0.129	0.124	103	99.6	5	5.00-189			3.55	26.7
n-Butylbenzene	0.0250	ND	0.119	0.107	95.1	85.6	5	23.6-146			10.6	39.2
sec-Butylbenzene	0.0250	ND	0.121	0.108	96.8	86.4	5	31.0-142			11.3	34.7
tert-Butylbenzene	0.0250	ND	0.125	0.111	99.9	89.1	5	36.9-142			11.4	31.7
Carbon tetrachloride	0.0250	ND	0.113	0.106	90.7	84.7	5	46.0-140			6.82	27.2
Chlorobenzene	0.0250	ND	0.128	0.114	102	91.3	5	44.1-134			11.3	25.7
Chlorodibromomethane	0.0250	ND	0.133	0.123	107	98.1	5	49.7-134			8.48	24
Chloroethane	0.0250	ND	0.121	0.117	96.8	93.3	5	5.00-164			3.59	28.4
2-Chloroethyl vinyl ether	0.125	ND	0.681	0.655	109	105	5	5.00-159			3.94	40
Chloroform	0.0250	ND	0.126	0.117	100	93.2	5	51.2-133			7.48	22.8
Chloromethane	0.0250	ND	0.115	0.106	91.9	84.5	5	31.4-141			8.40	24.6
2-Chlorotoluene	0.0250	ND	0.0961	0.0866	76.9	69.3	5	36.1-137			10.4	28.9
4-Chlorotoluene	0.0250	ND	0.129	0.114	103	91.6	5	35.4-137			11.7	29.8
1,2-Dibromo-3-Chloropropane	0.0250	ND	0.117	0.118	93.9	94.6	5	40.4-138			0.800	30.8
1,2-Dibromoethane	0.0250	ND	0.128	0.116	103	93.1	5	50.2-133			9.67	23.6
Dibromomethane	0.0250	ND	0.124	0.118	99.5	94.6	5	52.4-128			5.07	23
1,2-Dichlorobenzene	0.0250	ND	0.127	0.115	102	92.1	5	34.6-139			9.84	29.9
1,3-Dichlorobenzene	0.0250	ND	0.122	0.111	97.9	88.8	5	28.4-142			9.76	31.2
1,4-Dichlorobenzene	0.0250	ND	0.123	0.111	98.6	88.9	5	35.0-133			10.4	31.1
Dichlorodifluoromethane	0.0250	ND	0.108	0.101	86.4	80.9	5	31.2-144			6.47	30.2
1,1-Dichloroethane	0.0250	ND	0.125	0.115	100	91.9	5	49.1-136			8.42	22.9
1,2-Dichloroethane	0.0250	ND	0.126	0.116	101	93.0	5	47.1-129			7.73	22.7
1,1-Dichloroethene	0.0250	ND	0.124	0.113	99.0	90.6	5	36.1-142			8.85	25.6
cis-1,2-Dichloroethene	0.0250	ND	0.130	0.121	104	96.5	5	50.6-133			7.71	23
trans-1,2-Dichloroethene	0.0250	ND	0.124	0.115	98.9	92.2	5	43.8-135			7.05	24.8
1,2-Dichloropropane	0.0250	ND	0.128	0.119	103	94.9	5	50.3-134			7.99	22.7
1,1-Dichloropropene	0.0250	ND	0.122	0.110	97.8	88.2	5	43.0-137			10.4	26.4
1,3-Dichloropropane	0.0250	ND	0.127	0.115	102	92.4	5	51.4-127			9.87	23.1
cis-1,3-Dichloropropene	0.0250	ND	0.132	0.121	106	96.7	5	48.4-134			9.09	23.6
trans-1,3-Dichloropropene	0.0250	ND	0.129	0.119	104	95.1	5	46.6-135			8.53	25.3

L812501-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 01/18/16 14:41 • (MS) 01/18/16 12:40 • (MSD) 01/18/16 12:57

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 %
2,2-Dichloropropane	0.0250	ND	0.129	0.118	103	94.7	5	45.2-141			8.31	26.6
Di-isopropyl ether	0.0250	ND	0.126	0.117	101	93.6	5	46.7-140			7.61	23.5
Ethylbenzene	0.0250	ND	0.126	0.111	100	89.2	5	44.8-135			11.9	26.9
Hexachloro-1,3-butadiene	0.0250	ND	0.105	0.0980	83.9	78.4	5	10.0-149			6.75	40
Isopropylbenzene	0.0250	ND	0.124	0.111	99.5	88.5	5	41.9-139			11.7	29.3
p-Isopropyltoluene	0.0250	ND	0.127	0.113	101	90.7	5	27.3-146			11.0	35.1
2-Butanone (MEK)	0.125	ND	0.538	0.535	86.1	85.6	5	23.9-170			0.560	28.3
Methylene Chloride	0.0250	0.000917	0.126	0.117	100	93.0	5	46.7-125			7.36	22.2
4-Methyl-2-pentanone (MIBK)	0.125	ND	0.580	0.586	92.8	93.7	5	42.4-146			1.02	26.7
Methyl tert-butyl ether	0.0250	ND	0.121	0.117	96.6	93.5	5	50.4-131			3.25	24.8
Naphthalene	0.0250	0.000301	0.114	0.114	91.3	91.3	5	18.4-145			0.0200	34
n-Propylbenzene	0.0250	ND	0.124	0.109	99.4	87.6	5	35.2-139			12.7	31.9
Styrene	0.0250	ND	0.131	0.116	105	93.1	5	39.7-137			12.0	28.2
1,1,1,2-Tetrachloroethane	0.0250	ND	0.130	0.119	104	95.1	5	48.8-136			8.85	25.5
1,1,2,2-Tetrachloroethane	0.0250	ND	0.120	0.114	96.1	91.2	5	45.7-140			5.27	26.4
Tetrachloroethene	0.0250	ND	0.120	0.106	95.7	84.8	5	37.7-140			12.0	29.2
Toluene	0.0250	ND	0.128	0.116	102	92.7	5	47.8-127			9.56	24.3
1,1,2-Trichlorotrifluoroethane	0.0250	ND	0.120	0.110	95.8	88.1	5	35.7-146			8.33	28.8
1,2,3-Trichlorobenzene	0.0250	ND	0.112	0.111	89.9	88.5	5	10.0-150			1.50	38.5
1,2,4-Trichlorobenzene	0.0250	ND	0.121	0.113	97.1	90.5	5	10.0-153			7.06	39.3
1,1,1-Trichloroethane	0.0250	ND	0.125	0.114	99.9	91.5	5	49.0-138			8.82	25.3
1,1,2-Trichloroethane	0.0250	ND	0.125	0.115	100	91.9	5	52.3-132			8.63	23.4
Trichloroethene	0.0250	ND	0.121	0.111	97.2	88.6	5	48.0-132			9.18	24.8
Trichlorofluoromethane	0.0250	ND	0.118	0.109	94.2	86.8	5	12.8-169			8.11	29.7
1,2,3-Trichloropropane	0.0250	ND	0.124	0.118	99.6	94.2	5	44.4-138			5.50	26.3
1,2,3-Trimethylbenzene	0.0250	ND	0.124	0.111	99.2	88.8	5	41.0-133			11.0	27.6
1,2,4-Trimethylbenzene	0.0250	ND	0.127	0.113	101	90.7	5	32.9-139			11.0	30.6
1,3,5-Trimethylbenzene	0.0250	ND	0.126	0.113	101	90.1	5	37.1-138			11.1	30.6
Vinyl chloride	0.0250	ND	0.121	0.110	96.5	88.1	5	32.0-146			9.08	26.3
Xylenes, Total	0.0750	ND	0.379	0.338	101	90.1	5	42.7-135			11.5	26.6
(S) Toluene-d8					*102*	*103*		*88.7-115*				
(S) Dibromofluoromethane					*98.7*	*101*		*76.3-123*				
(S) 4-Bromofluorobenzene					*100*	*100*		*69.7-129*				

Method Blank (MB)

(MB) 01/18/16 21:31

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0100	0.0500
Acrylonitrile	U		0.00179	0.0100
Benzene	U		0.000270	0.00100
Bromobenzene	U		0.000284	0.00100
Bromodichloromethane	U		0.000254	0.00100
Bromoform	U		0.000424	0.00100
Bromomethane	U		0.00134	0.00500
n-Butylbenzene	U		0.000258	0.00100
sec-Butylbenzene	U		0.000201	0.00100
tert-Butylbenzene	U		0.000206	0.00100
Carbon tetrachloride	U		0.000328	0.00100
Chlorobenzene	U		0.000212	0.00100
Chlorodibromomethane	U		0.000373	0.00100
Chloroethane	U		0.000946	0.00500
2-Chloroethyl vinyl ether	U		0.00234	0.0500
Chloroform	U		0.000229	0.00500
Chloromethane	U		0.000375	0.00250
2-Chlorotoluene	U		0.000301	0.00100
4-Chlorotoluene	U		0.000240	0.00100
1,2-Dibromo-3-Chloropropane	U		0.00105	0.00500
1,2-Dibromoethane	U		0.000343	0.00100
Dibromomethane	U		0.000382	0.00100
1,2-Dichlorobenzene	U		0.000305	0.00100
1,3-Dichlorobenzene	U		0.000239	0.00100
1,4-Dichlorobenzene	U		0.000226	0.00100
Dichlorodifluoromethane	U		0.000713	0.00500
1,1-Dichloroethane	U		0.000199	0.00100
1,2-Dichloroethane	U		0.000265	0.00100
1,1-Dichloroethene	U		0.000303	0.00100
cis-1,2-Dichloroethene	U		0.000235	0.00100
trans-1,2-Dichloroethene	U		0.000264	0.00100
1,2-Dichloropropane	U		0.000358	0.00100
1,1-Dichloropropene	U		0.000317	0.00100
1,3-Dichloropropane	U		0.000207	0.00100
cis-1,3-Dichloropropene	U		0.000262	0.00100
trans-1,3-Dichloropropene	U		0.000267	0.00100

Method Blank (MB)

(MB) 01/18/16 21:31

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
2,2-Dichloropropane	U		0.000279	0.00100
Di-isopropyl ether	U		0.000248	0.00100
Ethylbenzene	U		0.000297	0.00100
Hexachloro-1,3-butadiene	U		0.000342	0.00100
Isopropylbenzene	U		0.000243	0.00100
2-Butanone (MEK)	U		0.00468	0.0100
p-Isopropyltoluene	U		0.000204	0.00100
Methylene Chloride	U		0.00100	0.00500
4-Methyl-2-pentanone (MIBK)	U		0.00188	0.0100
Methyl tert-butyl ether	U		0.000212	0.00100
Naphthalene	U		0.00100	0.00500
Styrene	U		0.000234	0.00100
1,1,2,2-Tetrachloroethane	U		0.000365	0.00100
Tetrachloroethene	U		0.000276	0.00100
n-Propylbenzene	U		0.000206	0.00100
Toluene	U		0.000434	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000365	0.00100
1,1,1,2-Tetrachloroethane	U		0.000264	0.00100
1,2,3-Trichlorobenzene	U		0.000306	0.00100
1,2,4-Trichlorobenzene	U		0.000388	0.00100
1,1,1-Trichloroethane	U		0.000286	0.00100
1,1,2-Trichloroethane	U		0.000277	0.00100
Trichloroethene	U		0.000279	0.00100
Trichlorofluoromethane	U		0.000382	0.00500
1,2,3-Trichloropropane	U		0.000741	0.00250
Vinyl chloride	U		0.000291	0.00100
1,2,3-Trimethylbenzene	U		0.000287	0.00100
Xylenes, Total	U		0.000698	0.00300
1,2,4-Trimethylbenzene	U		0.000211	0.00100
1,3,5-Trimethylbenzene	U		0.000266	0.00100
(S) Toluene-d8	*104*			*88.7-115*
(S) Dibromofluoromethane	*98.7*			*76.3-123*
(S) 4-Bromofluorobenzene	*102*			*69.7-129*

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

(LCS) 01/18/16 19:43 • (LCSD) 01/18/16 20:05

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	0.125	0.114	0.109	91.2	87.4	25.3-178			4.30	22.9
Acrylonitrile	0.125	0.120	0.121	96.1	96.5	57.8-143			0.380	20
Bromobenzene	0.0250	0.0230	0.0225	92.2	90.1	80.3-115			2.26	20
Benzene	0.0250	0.0214	0.0213	85.6	85.0	72.6-120			0.650	20
Bromodichloromethane	0.0250	0.0236	0.0235	94.4	93.8	75.3-119			0.660	20
Bromoform	0.0250	0.0254	0.0246	102	98.2	69.1-135			3.43	20
n-Butylbenzene	0.0250	0.0237	0.0239	95.0	95.7	74.2-134			0.730	20
Bromomethane	0.0250	0.0229	0.0229	91.8	91.5	23.0-191			0.280	20
sec-Butylbenzene	0.0250	0.0250	0.0242	100	96.9	77.8-129			3.21	20
tert-Butylbenzene	0.0250	0.0249	0.0244	99.8	97.6	77.2-129			2.16	20
Carbon tetrachloride	0.0250	0.0219	0.0219	87.6	87.6	69.4-129			0.0100	20
Chlorobenzene	0.0250	0.0236	0.0232	94.4	92.7	78.9-122			1.80	20
Chlorodibromomethane	0.0250	0.0244	0.0238	97.7	95.1	76.4-126			2.76	20
2-Chloroethyl vinyl ether	0.125	0.133	0.120	107	96.3	16.7-162			10.2	23.7
Chloroethane	0.0250	0.0226	0.0227	90.6	90.9	47.2-147			0.330	20
2-Chlorotoluene	0.0250	0.0241	0.0236	96.4	94.5	74.6-127			2.02	20
Chloroform	0.0250	0.0226	0.0226	90.6	90.4	73.3-122			0.230	20
Chloromethane	0.0250	0.0197	0.0197	78.8	78.8	53.1-135			0.0200	20
4-Chlorotoluene	0.0250	0.0248	0.0240	99.4	96.1	79.5-123			3.38	20
1,2-Dibromo-3-Chloropropane	0.0250	0.0250	0.0259	99.9	104	64.9-131			3.55	20
Dibromomethane	0.0250	0.0235	0.0233	94.0	93.3	78.5-117			0.820	20
1,2-Dibromoethane	0.0250	0.0237	0.0234	94.7	93.6	78.7-123			1.16	20
1,2-Dichlorobenzene	0.0250	0.0235	0.0233	94.0	93.3	83.6-119			0.710	20
1,3-Dichlorobenzene	0.0250	0.0238	0.0229	95.3	91.6	75.9-129			3.92	20
1,4-Dichlorobenzene	0.0250	0.0227	0.0226	90.8	90.6	81.0-115			0.270	20
Dichlorodifluoromethane	0.0250	0.0210	0.0215	83.9	86.0	50.9-139			2.55	20
1,1-Dichloroethane	0.0250	0.0227	0.0227	90.7	90.7	71.7-125			0.0100	20
1,2-Dichloroethane	0.0250	0.0230	0.0227	92.1	90.7	67.2-121			1.50	20
1,1-Dichloroethene	0.0250	0.0226	0.0227	90.6	90.7	60.6-133			0.150	20
cis-1,2-Dichloroethene	0.0250	0.0233	0.0233	93.2	93.2	76.1-121			0.0200	20
trans-1,2-Dichloroethene	0.0250	0.0227	0.0229	90.9	91.6	70.7-124			0.660	20
1,1-Dichloropropene	0.0250	0.0240	0.0242	95.8	97.0	71.2-126			1.18	20
1,2-Dichloropropane	0.0250	0.0232	0.0229	92.7	91.7	76.9-123			1.14	20
1,3-Dichloropropane	0.0250	0.0236	0.0231	94.5	92.2	80.3-114			2.46	20
2,2-Dichloropropane	0.0250	0.0236	0.0242	94.6	96.8	61.9-132			2.33	20
cis-1,3-Dichloropropene	0.0250	0.0244	0.0240	97.4	96.0	77.3-123			1.51	20

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

(LCS) 01/18/16 19:43 • (LCSD) 01/18/16 20:05

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 %
trans-1,3-Dichloropropene	0.0250	0.0241	0.0238	96.5	95.0	73.0-127			1.51	20
Di-isopropyl ether	0.0250	0.0226	0.0222	90.4	88.6	67.2-131			1.93	20
Ethylbenzene	0.0250	0.0239	0.0234	95.6	93.5	78.6-124			2.21	20
Hexachloro-1,3-butadiene	0.0250	0.0246	0.0256	98.6	102	69.2-136			3.83	20
p-Isopropyltoluene	0.0250	0.0262	0.0257	105	103	75.4-132			1.64	20
Isopropylbenzene	0.0250	0.0247	0.0242	98.7	96.7	79.4-126			2.04	20
2-Butanone (MEK)	0.125	0.115	0.111	92.2	88.8	44.5-154			3.72	21.3
Methylene Chloride	0.0250	0.0226	0.0221	90.4	88.6	68.2-119			2.01	20
4-Methyl-2-pentanone (MIBK)	0.125	0.120	0.117	96.4	93.9	61.1-138			2.60	20
Methyl tert-butyl ether	0.0250	0.0231	0.0222	92.3	88.6	70.2-122			4.01	20
Naphthalene	0.0250	0.0245	0.0249	97.8	99.6	69.9-132			1.80	20
n-Propylbenzene	0.0250	0.0244	0.0239	97.6	95.6	80.2-124			2.05	20
1,1,1,2-Tetrachloroethane	0.0250	0.0245	0.0235	98.2	93.8	76.7-127			4.53	20
Styrene	0.0250	0.0248	0.0243	99.2	97.4	79.4-124			1.85	20
1,1,2,2-Tetrachloroethane	0.0250	0.0236	0.0227	94.3	90.8	78.8-124			3.82	20
Tetrachloroethene	0.0250	0.0236	0.0231	94.5	92.3	71.1-133			2.35	20
Toluene	0.0250	0.0221	0.0221	88.5	88.4	76.7-116			0.150	20
1,1,2-Trichlorotrifluoroethane	0.0250	0.0237	0.0237	94.8	94.8	62.6-138			0.0200	20
1,2,3-Trichlorobenzene	0.0250	0.0253	0.0259	101	103	72.5-137			2.27	20
1,2,4-Trichlorobenzene	0.0250	0.0246	0.0251	98.3	100	74.0-137			1.95	20
1,1,1-Trichloroethane	0.0250	0.0225	0.0226	90.1	90.4	69.9-127			0.360	20
1,1,2-Trichloroethane	0.0250	0.0233	0.0224	93.2	89.7	81.9-119			3.83	20
Trichloroethene	0.0250	0.0225	0.0228	90.1	91.0	77.2-122			0.960	20
1,2,3-Trichloropropane	0.0250	0.0241	0.0237	96.4	94.9	74.0-124			1.56	20
1,2,3-Trimethylbenzene	0.0250	0.0230	0.0230	92.0	92.0	79.4-118			0.0100	20
Trichlorofluoromethane	0.0250	0.0228	0.0230	91.1	92.1	51.5-151			1.10	20
1,2,4-Trimethylbenzene	0.0250	0.0245	0.0238	98.2	95.2	77.1-124			3.07	20
1,3,5-Trimethylbenzene	0.0250	0.0243	0.0239	97.1	95.5	79.0-125			1.67	20
Vinyl chloride	0.0250	0.0231	0.0233	92.3	93.2	58.4-134			1.04	20
Xylenes, Total	0.0750	0.0712	0.0698	94.9	93.0	78.1-123			2.04	20
(S) Toluene-d8				*103*	*103*	*88.7-115*				
(S) Dibromofluoromethane				*98.4*	*98.1*	*76.3-123*				
(S) 4-Bromofluorobenzene				*103*	*101*	*69.7-129*				

L812581-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 01/18/16 23:19 • (MS) 01/18/16 22:15 • (MSD) 01/18/16 22:36

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 %
Acrylonitrile	0.125	ND	0.145	0.120	116	96.1	1	39.3-152			18.8	27.2
Acetone	0.125	0.00220	0.0595	0.0533	45.9	40.9	1	10.0-130			11.0	31.5
Bromobenzene	0.0250	ND	0.0295	0.0187	118	74.8	1	40.0-130		J3	45.0	27.4
Benzene	0.0250	ND	0.0227	0.0178	90.8	71.2	1	47.8-131		J3	24.2	22.8
Bromodichloromethane	0.0250	ND	0.0310	0.0194	124	77.5	1	50.6-128		J3	46.1	22.8
Bromoform	0.0250	ND	0.0327	0.0211	131	84.3	1	43.3-139		J3	43.2	25.9
n-Butylbenzene	0.0250	ND	0.0293	0.0188	117	75.3	1	23.6-146		J3	43.5	39.2
Bromomethane	0.0250	ND	0.0166	0.0171	66.4	68.6	1	5.00-189			3.27	26.7
sec-Butylbenzene	0.0250	ND	0.0312	0.0205	125	82.0	1	31.0-142		J3	41.5	34.7
tert-Butylbenzene	0.0250	ND	0.0315	0.0208	126	83.2	1	36.9-142		J3	40.9	31.7
Carbon tetrachloride	0.0250	ND	0.0231	0.0192	92.3	76.7	1	46.0-140			18.4	27.2
Chlorobenzene	0.0250	ND	0.0297	0.0182	119	73.0	1	44.1-134		J3	47.7	25.7
2-Chloroethyl vinyl ether	0.125	ND	0.167	0.0508	134	40.6	1	5.00-159		J3	107	40
Chlorodibromomethane	0.0250	ND	0.0317	0.0188	127	75.2	1	49.7-134		J3	51.1	24
Chloroethane	0.0250	ND	0.0181	0.0183	72.3	73.0	1	5.00-164			0.900	28.4
2-Chlorotoluene	0.0250	ND	0.0311	0.0197	124	79.0	1	36.1-137		J3	44.7	28.9
Chloroform	0.0250	ND	0.0272	0.0199	109	79.7	1	51.2-133		J3	30.9	22.8
Chloromethane	0.0250	0.000179	0.0146	0.0167	57.8	66.2	1	31.4-141			13.4	24.6
4-Chlorotoluene	0.0250	ND	0.0310	0.0196	124	78.6	1	35.4-137		J3	44.8	29.8
Dibromomethane	0.0250	ND	0.0293	0.0199	117	79.6	1	52.4-128		J3	38.3	23
1,2-Dibromo-3-Chloropropane	0.0250	ND	0.0336	0.0240	134	95.8	1	40.4-138		J3	33.6	30.8
1,2-Dibromoethane	0.0250	ND	0.0305	0.0190	122	76.1	1	50.2-133		J3	46.3	23.6
1,2-Dichlorobenzene	0.0250	ND	0.0306	0.0191	122	76.5	1	34.6-139		J3	46.1	29.9
1,3-Dichlorobenzene	0.0250	ND	0.0293	0.0191	117	76.6	1	28.4-142		J3	42.1	31.2
1,4-Dichlorobenzene	0.0250	ND	0.0289	0.0179	116	71.8	1	35.0-133		J3	46.9	31.1
Dichlorodifluoromethane	0.0250	ND	0.0174	0.0181	69.7	72.5	1	31.2-144			3.95	30.2
1,1-Dichloroethane	0.0250	ND	0.0234	0.0196	93.4	78.3	1	49.1-136			17.6	22.9
1,2-Dichloroethane	0.0250	ND	0.0274	0.0191	110	76.5	1	47.1-129		J3	35.6	22.7
1,1-Dichloroethene	0.0250	ND	0.0191	0.0193	76.6	77.2	1	36.1-142			0.830	25.6
cis-1,2-Dichloroethene	0.0250	0.000140	0.0260	0.0203	103	80.8	1	50.6-133		J3	24.4	23
trans-1,2-Dichloroethene	0.0250	ND	0.0199	0.0190	79.8	76.1	1	43.8-135			4.70	24.8
1,1-Dichloropropene	0.0250	ND	0.0235	0.0195	94.0	77.9	1	43.0-137			18.8	26.4
1,3-Dichloropropane	0.0250	ND	0.0306	0.0188	123	75.2	1	51.4-127		J3	47.9	23.1
1,2-Dichloropropane	0.0250	ND	0.0286	0.0189	114	75.7	1	50.3-134		J3	40.6	22.7
cis-1,3-Dichloropropene	0.0250	ND	0.0313	0.0191	125	76.4	1	48.4-134		J3	48.4	23.6
2,2-Dichloropropane	0.0250	ND	0.0258	0.0275	103	110	1	45.2-141			6.27	26.6

L812581-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 01/18/16 23:19 • (MS) 01/18/16 22:15 • (MSD) 01/18/16 22:36

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 %
trans-1,3-Dichloropropene	0.0250	ND	0.0318	0.0196	127	78.4	1	46.6-135		J3	47.5	25.3
Di-isopropyl ether	0.0250	ND	0.0262	0.0192	105	76.7	1	46.7-140		J3	31.0	23.5
Ethylbenzene	0.0250	ND	0.0294	0.0189	118	75.6	1	44.8-135		J3	43.6	26.9
Hexachloro-1,3-butadiene	0.0250	ND	0.0286	0.0202	114	80.7	1	10.0-149			34.6	40
p-Isopropyltoluene	0.0250	ND	0.0322	0.0212	129	84.9	1	27.3-146		J3	40.9	35.1
Isopropylbenzene	0.0250	ND	0.0312	0.0196	125	78.5	1	41.9-139		J3	45.6	29.3
2-Butanone (MEK)	0.125	0.000352	0.0995	0.0797	79.3	63.5	1	23.9-170			22.1	28.3
Methylene Chloride	0.0250	ND	0.0210	0.0187	84.1	74.9	1	46.7-125			11.6	22.2
4-Methyl-2-pentanone (MIBK)	0.125	0.000149	0.158	0.119	127	95.2	1	42.4-146		J3	28.2	26.7
Methyl tert-butyl ether	0.0250	ND	0.0257	0.0209	103	83.8	1	50.4-131			20.4	24.8
Naphthalene	0.0250	0.000217	0.0315	0.0216	125	85.6	1	18.4-145		J3	37.4	34
n-Propylbenzene	0.0250	ND	0.0301	0.0195	121	77.8	1	35.2-139		J3	43.1	31.9
1,1,1,2-Tetrachloroethane	0.0250	ND	0.0311	0.0190	124	76.2	1	48.8-136		J3	48.0	25.5
Styrene	0.0250	ND	0.0297	0.0165	119	66.1	1	39.7-137		J3	56.9	28.2
1,1,2,2-Tetrachloroethane	0.0250	ND	0.0313	0.0217	125	86.8	1	45.7-140		J3	36.1	26.4
Tetrachloroethene	0.0250	ND	0.0263	0.0181	105	72.4	1	37.7-140		J3	37.0	29.2
Toluene	0.0250	ND	0.0264	0.0183	106	73.2	1	47.8-127		J3	36.3	24.3
1,1,2-Trichlorotrifluoroethane	0.0250	ND	0.0209	0.0211	83.5	84.4	1	35.7-146			1.07	28.8
1,2,3-Trichlorobenzene	0.0250	0.000169	0.0321	0.0218	128	86.5	1	10.0-150			38.2	38.5
1,2,4-Trichlorobenzene	0.0250	ND	0.0309	0.0202	124	80.9	1	10.0-153		J3	41.8	39.3
1,1,1-Trichloroethane	0.0250	ND	0.0252	0.0208	101	83.1	1	49.0-138			19.3	25.3
1,1,2-Trichloroethane	0.0250	ND	0.0306	0.0182	122	72.9	1	52.3-132		J3	50.5	23.4
1,2,3-Trichloropropane	0.0250	ND	0.0318	0.0218	127	87.2	1	44.4-138		J3	37.4	26.3
Trichloroethene	0.0250	ND	0.0255	0.0186	102	74.5	1	48.0-132		J3	31.3	24.8
Trichlorofluoromethane	0.0250	ND	0.0195	0.0202	78.0	80.9	1	12.8-169			3.59	29.7
1,2,3-Trimethylbenzene	0.0250	ND	0.0295	0.0187	118	74.7	1	41.0-133		J3	45.0	27.6
1,2,4-Trimethylbenzene	0.0250	ND	0.0301	0.0195	120	78.1	1	32.9-139		J3	42.5	30.6
1,3,5-Trimethylbenzene	0.0250	ND	0.0303	0.0195	121	78.2	1	37.1-138		J3	43.1	30.6
Vinyl chloride	0.0250	ND	0.0173	0.0183	69.1	73.1	1	32.0-146			5.54	26.3
Xylenes, Total	0.0750	ND	0.0875	0.0559	117	74.5	1	42.7-135		J3	44.1	26.6
(S) Toluene-d8					*103*	*105*		*88.7-115*				
(S) Dibromofluoromethane					*99.9*	*104*		*76.3-123*				
(S) 4-Bromofluorobenzene					*102*	*104*		*69.7-129*				

Method Blank (MB)

(MB) 01/19/16 19:06

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) High Fraction	U		0.769	4.00
(S) o-Terphenyl	*72.6*			*50.0-150*

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

(LCS) 01/19/16 19:18 • (LCSD) 01/19/16 19:29

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	60.0	48.2	51.2	80.3	85.4	50.0-150			6.11	20
(S) o-Terphenyl				*82.5*	*88.7*	*50.0-150*				

L812541-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 01/19/16 21:23 • (MS) 01/19/16 21:35 • (MSD) 01/19/16 21:46

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 %
TPH (GC/FID) High Fraction	60.0	0.437	47.3	48.8	78.0	80.7	1	50.0-150			3.31	20
(S) o-Terphenyl					*79.0*	*76.6*		*50.0-150*				

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

Method Blank (MB)

(MB) 01/20/16 13:19

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) High Fraction	U		0.769	4.00
(S) o-Terphenyl	*86.2*			*50.0-150*

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND,U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
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.
(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.
Rec.	Recovery.
SDL	Sample Detection Limit.
MQL	Method Quantitation Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.

Qualifier	Description
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.

ACCREDITATIONS & LOCATIONS

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* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

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Kentucky [2]	16	Tennessee [1 4]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

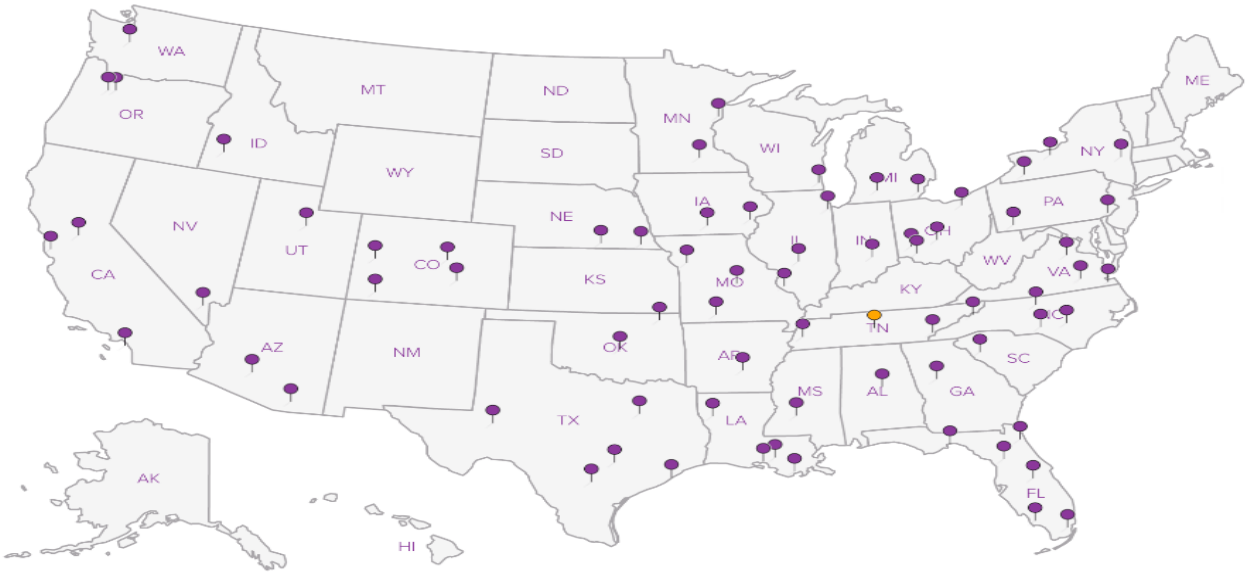
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

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

Our Locations

ESC Lab Sciences 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. **ESC Lab Sciences performs all testing at our central laboratory.**



Chain of Custody Page ___ of ___

ESC LABS — YOUR LAB OF CHOICE

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 812501

E102

Table

Acctnum:

Template:

Prelogin:

TSR:

PB:

Shipped Via:

Company Name/Address:	Billing Information:
Terracon 1901 Sharp Point Dr, Suite C Fort Collins, CO 80525	SAME

Report to:	Email To:
Craig Nelson	craig.nelson@terracon.com

Project Description:	City/State Collected:
Ute WTP	Longmont, CO

Phone: 970-484-0359 Fax:	Client Project #	Lab Project #
	22157002	

Collected by (print):	Site/Facility ID #	P.O. #
Craig Nelson		

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? X No ___ Yes
FAX? ___ No ___ Yes

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	VOCs	TEPH	TVPH	RCRA 8 metals							Rem./Contaminant	Sample # (lab only)
B-1-4	Grab	SS		1-13-16	0900	3	X	X	X	X								01
B-2-14					1100	3	X	X	X	X								02
B-3-4					1415	3	X	X	X	X								03
B-4-4					1600	3	X	X	X	X								04
B-5-2				1-14-16	0900	1 3				X								05
B-5-7					0900	1				X								06
B-6-9					1100	3	X	X	X	X								07
B-7-9					1230	2 3	X	X	X	X								08
B-8-4					1430	3	X	X	X	X								09
B-9-1		OT			1530	1 FC				X								10

* Matrix: **SS** - Soil **GW** - Groundwater **WW** - WasteWater **DW** - Drinking Water **OT** - Other Sludge from wastewater retention ponds

pH ___ Temp ___

Flow ___ Other ___

Remarks:

Hold #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	1-15-16	1600	6803 7150 5768
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
			Forest Hamell

Samples returned via: ☐ UPS ☒ FedEx ☐ Courier ☐ ____

Temp: 3.2 °C Bottles Received: 32402

Date: 1/16/16 Time: 0900

Condition: (lab use only) OK MP

COC Seal Intact: ___ Y ___ N ___ NA

pH Checked: NCF: X

Company Name/Address: Terracon, 1901 Sharp Point Dr, Suite C, Fort Collins, CO 80525

Billing Information: SAME

Report to: Craig Nelson

Email To: craig.nelson@terracon.com

Project Description: Ute WTP

City/State Collected: Longmont, CO

Phone: 970-484-0359 Fax:

Client Project # 22157002

Lab Project #

Collected by (print): Craig Nelson

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No ___Yes
FAX? ___No ___Yes

Analysis / Container / Preservative: RCRA 8 Metals

Chain of Custody Page ___ of ___

ESC LABORATORY SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L # 812501

Table #

Acctnum:

Template:

Prelogin:

TSR:

PB:

Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	RCRA 8 Metals	Rem./Contaminant	Sample # (lab only)
B-9-4	Grab	OT		1-14-16	1530	1	X		11
B-10-1	"	"		"	1550	1	"		12
B-10-4	"	"		"	1550	1	"		13
B-11-1	"	"		"	1610	1	"		14
B-11-4	"	"		"	1640	1	"		15
B-12-1	"	"		"	1640	1	"		16
B-12-4									

* Matrix: **SS** - Soil **GW** - Groundwater **WW** - WasteWater **DW** - Drinking Water **OT** - Other Sludge from wastewater retension ponds

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Hold #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	1-15-16	1600	620720508
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
			Forrest Hall

Samples returned via: ☐ UPS ☒ FedEx ☐ Courier ☐ ____

Temp: 3.2 °C Bottles Received: 32=4oz

Date: 1/16/16 Time: 0900

Condition: (lab use only) NC

COC Seal Intact: ___Y ___N ___NA

pH Checked: NCF: X

Andy Vann

ESC Lab Sciences
Non-Conformance Form

Login #L812501	Client: TERRAFCO	Date:1/16/16	Evaluated by:Matt S

Non-Conformance (check applicable items)

	Sample Integrity		Chain of Custody Clarification		
	Parameter(s) past holding time		Login Clarification Needed		**If Broken Container:**
	Improper temperature		Chain of custody is incomplete		Insufficient packing material around container
	Improper container type		Please specify Metals requested.		Insufficient packing material inside cooler
	Improper preservation		Please specify TCLP requested.		Improper handling by carrier (FedEx / UPS / Couri
	Insufficient sample volume.		Received additional samples not listed on coc.		Sample was frozen
	Sample is biphasic.		Sample ids on containers do not match ids on coc		Container lid not intact
	Vials received with headspace.		Trip Blank not received.		**If no Chain of Custody:**
	Broken container	x	Client did not "X" analysis.		Received by:
	Broken container:		Chain of Custody is missing		Date/Time:
	Sufficient sample remains				Temp./Cont. Rec./pH:
					Carrier:
					Tracking#

Login Comments: B-12-4 not X'ed for analysis.

Client informed by:		Call		Email		Voice Mail		Date: 01/18	Time: 10:55
TSR Initials: DR	Client Contact:								

Login Instructions:

Run for MRCRA8

ANALYTICAL REPORT

February 08, 2016

Terracon - Fort Collins

Sample Delivery Group:	L813450
Samples Received:	01/25/2016
Project Number:	22157002
Description:	Ute WTP

Report To: Craig Nelson
1901 Sharp Point Drive, Ste C
Fort Collins, CO 80525

Entire Report Reviewed By:

Daphne R Richards

Daphne Richards
Technical Service Representative

B-1 L813450-01 GW

Collected by: Craig Nelson
Collected date/time: 01/20/16 13:00
Received date/time: 01/25/16 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7470A	WG844576	1	01/26/16 12:39	01/27/16 12:47	JD
Metals (ICP) by Method 6010B	WG844690	1	01/26/16 17:59	01/27/16 03:14	JD
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG844460	1	01/26/16 21:57	01/27/16 17:06	CLG
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG844809	1	01/28/16 19:10	01/28/16 19:10	JAH

B-2 L813450-02 GW

Collected by: Craig Nelson
Collected date/time: 01/20/16 14:00
Received date/time: 01/25/16 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7470A	WG844576	1	01/26/16 12:39	01/27/16 12:50	JD
Metals (ICP) by Method 6010B	WG844690	1	01/26/16 17:59	01/27/16 03:17	JD
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG844460	1	01/26/16 21:57	01/27/16 17:26	CLG
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG844809	1	01/28/16 19:35	01/28/16 19:35	JAH

B-3 L813450-03 GW

Collected by: Craig Nelson
Collected date/time: 01/20/16 13:30
Received date/time: 01/25/16 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7470A	WG844576	1	01/26/16 12:39	01/27/16 12:52	JD
Metals (ICP) by Method 6010B	WG844690	1	01/26/16 17:59	01/27/16 03:20	JD
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG844460	1	01/26/16 21:57	01/27/16 17:46	CLG
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG844809	1	01/28/16 20:00	01/28/16 20:00	JAH

B-4 L813450-04 GW

Collected by: Craig Nelson
Collected date/time: 01/20/16 14:30
Received date/time: 01/25/16 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7470A	WG844576	1	01/26/16 12:39	01/27/16 12:55	JD
Metals (ICP) by Method 6010B	WG844690	1	01/26/16 17:59	01/27/16 03:23	JD
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG844460	1	01/26/16 21:57	01/27/16 18:07	CLG
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG844809	1	01/28/16 20:25	01/28/16 20:25	JAH

B-6 L813450-05 GW

Collected by: Craig Nelson
Collected date/time: 01/20/16 15:30
Received date/time: 01/25/16 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7470A	WG844576	1	01/26/16 12:39	01/27/16 12:58	JD
Metals (ICP) by Method 6010B	WG844690	1	01/26/16 17:59	01/27/16 03:26	JD
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG844460	1	01/26/16 21:57	01/27/16 18:27	CLG
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG844809	1	01/28/16 20:50	01/28/16 20:50	JAH

B-7 L813450-06 GW

Collected by: Craig Nelson
Collected date/time: 01/20/16 16:00
Received date/time: 01/25/16 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7470A	WG844576	1	01/26/16 12:39	01/27/16 13:28	JD
Metals (ICP) by Method 6010B	WG844690	1	01/26/16 17:59	01/27/16 03:29	JD
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG844460	1	01/26/16 21:57	01/27/16 20:28	CLG
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG844809	1	01/28/16 21:16	01/28/16 21:16	JAH

B-8 L813450-07 GW

Collected by: Craig Nelson
Collected date/time: 01/20/16 15:00
Received date/time: 01/25/16 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7470A	WG844576	1	01/26/16 12:39	01/27/16 12:12	JD
Metals (ICP) by Method 6010B	WG844690	1	01/26/16 17:59	01/27/16 03:38	JD
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG844460	1	01/26/16 21:57	01/27/16 20:49	CLG
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG844809	1	01/28/16 21:41	01/28/16 21:41	JAH

TRIP BLANK L813450-08 GW

Collected by: Craig Nelson
Collected date/time: 01/20/16 13:00
Received date/time: 01/25/16 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG844809	1	01/28/16 17:04	01/28/16 17:04	JAH

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. 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.

Daphne R Richards

Daphne Richards
Technical Service Representative

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.0000490	0.000200	1	01/27/2016 12:47	WG844576

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Arsenic	0.0209		0.00650	0.0100	1	01/27/2016 03:14	WG844690
Barium	2.62		0.00170	0.00500	1	01/27/2016 03:14	WG844690
Cadmium	0.00152	J	0.000700	0.00200	1	01/27/2016 03:14	WG844690
Chromium	0.0545		0.00140	0.0100	1	01/27/2016 03:14	WG844690
Lead	0.162		0.00190	0.00500	1	01/27/2016 03:14	WG844690
Selenium	U		0.00740	0.0100	1	01/27/2016 03:14	WG844690
Silver	U		0.00280	0.00500	1	01/27/2016 03:14	WG844690

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	01/28/2016 19:10	WG844809
(S) a,a,a-Trifluorotoluene(FID)	*98.2*			*62.0-128*		*01/28/2016 19:10*	WG844809

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) High Fraction	U		0.0247	0.100	1	01/27/2016 17:06	WG844460
(S) o-Terphenyl	*74.4*			*50.0-150*		*01/27/2016 17:06*	WG844460

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	0.0000646	J	0.0000490	0.000200	1	01/27/2016 12:50	WG844576

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Arsenic	0.0168		0.00650	0.0100	1	01/27/2016 03:17	WG844690
Barium	2.70		0.00170	0.00500	1	01/27/2016 03:17	WG844690
Cadmium	0.00248		0.000700	0.00200	1	01/27/2016 03:17	WG844690
Chromium	0.139		0.00140	0.0100	1	01/27/2016 03:17	WG844690
Lead	0.137		0.00190	0.00500	1	01/27/2016 03:17	WG844690
Selenium	U		0.00740	0.0100	1	01/27/2016 03:17	WG844690
Silver	U		0.00280	0.00500	1	01/27/2016 03:17	WG844690

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	01/28/2016 19:35	WG844809
(S) a,a,a-Trifluorotoluene(FID)	*97.8*			*62.0-128*		*01/28/2016 19:35*	WG844809

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) High Fraction	U		0.0247	0.100	1	01/27/2016 17:26	WG844460
(S) o-Terphenyl	*78.9*			*50.0-150*		*01/27/2016 17:26*	WG844460

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	0.000170	J	0.0000490	0.000200	1	01/27/2016 12:52	WG844576

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Arsenic	0.0217		0.00650	0.0100	1	01/27/2016 03:20	WG844690
Barium	3.85		0.00170	0.00500	1	01/27/2016 03:20	WG844690
Cadmium	0.00124	J	0.000700	0.00200	1	01/27/2016 03:20	WG844690
Chromium	0.232		0.00140	0.0100	1	01/27/2016 03:20	WG844690
Lead	0.240		0.00190	0.00500	1	01/27/2016 03:20	WG844690
Selenium	0.0107		0.00740	0.0100	1	01/27/2016 03:20	WG844690
Silver	U		0.00280	0.00500	1	01/27/2016 03:20	WG844690

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	01/28/2016 20:00	WG844809
(S) a,a,a-Trifluorotoluene(FID)	*98.3*			*62.0-128*		*01/28/2016 20:00*	WG844809

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) High Fraction	U		0.0247	0.100	1	01/27/2016 17:46	WG844460
(S) o-Terphenyl	*78.9*			*50.0-150*		*01/27/2016 17:46*	WG844460

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.0000490	0.000200	1	01/27/2016 12:55	WG844576

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Arsenic	0.0149		0.00650	0.0100	1	01/27/2016 03:23	WG844690
Barium	3.00		0.00170	0.00500	1	01/27/2016 03:23	WG844690
Cadmium	0.00162	J	0.000700	0.00200	1	01/27/2016 03:23	WG844690
Chromium	0.124		0.00140	0.0100	1	01/27/2016 03:23	WG844690
Lead	0.145		0.00190	0.00500	1	01/27/2016 03:23	WG844690
Selenium	U		0.00740	0.0100	1	01/27/2016 03:23	WG844690
Silver	U		0.00280	0.00500	1	01/27/2016 03:23	WG844690

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	01/28/2016 20:25	WG844809
(S) a,a,a-Trifluorotoluene(FID)	*98.4*			*62.0-128*		*01/28/2016 20:25*	WG844809

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) High Fraction	U		0.0247	0.100	1	01/27/2016 18:07	WG844460
(S) o-Terphenyl	*78.3*			*50.0-150*		*01/27/2016 18:07*	WG844460

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	0.000364		0.0000490	0.000200	1	01/27/2016 12:58	WG844576

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Arsenic	0.0563		0.00650	0.0100	1	01/27/2016 03:26	WG844690
Barium	6.13		0.00170	0.00500	1	01/27/2016 03:26	WG844690
Cadmium	0.00617		0.000700	0.00200	1	01/27/2016 03:26	WG844690
Chromium	0.281		0.00140	0.0100	1	01/27/2016 03:26	WG844690
Lead	0.367		0.00190	0.00500	1	01/27/2016 03:26	WG844690
Selenium	0.0139		0.00740	0.0100	1	01/27/2016 03:26	WG844690
Silver	U		0.00280	0.00500	1	01/27/2016 03:26	WG844690

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	01/28/2016 20:50	WG844809
(S) a,a,a-Trifluorotoluene(FID)	*98.9*			*62.0-128*		*01/28/2016 20:50*	WG844809

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) High Fraction	0.160		0.0247	0.100	1	01/27/2016 18:27	WG844460
(S) o-Terphenyl	*83.1*			*50.0-150*		*01/27/2016 18:27*	WG844460

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

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	U		0.0000490	0.000200	1	01/27/2016 13:28	WG844576

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Arsenic	0.00746	J	0.00650	0.0100	1	01/27/2016 03:29	WG844690
Barium	0.805		0.00170	0.00500	1	01/27/2016 03:29	WG844690
Cadmium	U		0.000700	0.00200	1	01/27/2016 03:29	WG844690
Chromium	0.0539		0.00140	0.0100	1	01/27/2016 03:29	WG844690
Lead	0.0608		0.00190	0.00500	1	01/27/2016 03:29	WG844690
Selenium	U		0.00740	0.0100	1	01/27/2016 03:29	WG844690
Silver	U		0.00280	0.00500	1	01/27/2016 03:29	WG844690

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	01/28/2016 21:16	WG844809
(S) a,a,a-Trifluorotoluene(FID)	*98.5*			*62.0-128*		*01/28/2016 21:16*	WG844809

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) High Fraction	U		0.0247	0.100	1	01/27/2016 20:28	WG844460
(S) o-Terphenyl	*79.4*			*50.0-150*		*01/27/2016 20:28*	WG844460

Mercury by Method 7470A

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Mercury	0.000207		0.0000490	0.000200	1	01/27/2016 12:12	WG844576

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Arsenic	0.0240		0.00650	0.0100	1	01/27/2016 03:38	WG844690
Barium	12.0		0.00170	0.00500	1	01/27/2016 03:38	WG844690
Cadmium	0.0115		0.000700	0.00200	1	01/27/2016 03:38	WG844690
Chromium	0.472		0.00140	0.0100	1	01/27/2016 03:38	WG844690
Lead	0.353		0.00190	0.00500	1	01/27/2016 03:38	WG844690
Selenium	0.0389		0.00740	0.0100	1	01/27/2016 03:38	WG844690
Silver	0.00935		0.00280	0.00500	1	01/27/2016 03:38	WG844690

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	01/28/2016 21:41	WG844809
(S) a,a,a-Trifluorotoluene(FID)	*98.0*			*62.0-128*		*01/28/2016 21:41*	WG844809

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) High Fraction	U		0.0247	0.100	1	01/27/2016 20:49	WG844460
(S) o-Terphenyl	*79.3*			*50.0-150*		*01/27/2016 20:49*	WG844460

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	01/28/2016 17:04	WG844809
(S) a,a,a-Trifluorotoluene(FID)	*98.6*			*62.0-128*		*01/28/2016 17:04*	WG844809

Method Blank (MB)

(MB) 01/27/16 12:04

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Mercury	U		0.000049	0.000200

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

(LCS) 01/27/16 12:07 • (LCSD) 01/27/16 12:09

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 %
Mercury	0.00300	0.00297	0.00303	99	101	80-120			2	20

L813450-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 01/27/16 12:12 • (MS) 01/27/16 12:14 • (MSD) 01/27/16 12:17

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 %
Mercury	0.00300	0.000207	0.00313	0.00318	97	99	1	75-125			2	20

Method Blank (MB)

(MB) 01/27/16 02:25

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Arsenic	U		0.0065	0.0100
Barium	U		0.0017	0.00500
Cadmium	U		0.0007	0.00200
Chromium	U		0.0014	0.0100
Lead	U		0.0019	0.00500
Selenium	U		0.0074	0.0100
Silver	U		0.0028	0.00500

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

(LCS) 01/27/16 02:28 • (LCSD) 01/27/16 02:30

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 %
Arsenic	1.00	1.07	1.07	107	107	80-120			0	20
Barium	1.00	1.11	1.11	111	111	80-120			0	20
Cadmium	1.00	1.08	1.08	108	108	80-120			0	20
Chromium	1.00	1.07	1.08	107	108	80-120			0	20
Lead	1.00	1.08	1.08	108	108	80-120			0	20
Selenium	1.00	1.08	1.08	108	108	80-120			0	20
Silver	1.00	1.03	1.04	103	104	80-120			0	20

L813621-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 01/27/16 02:34 • (MS) 01/27/16 02:40 • (MSD) 01/27/16 02:42

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 %
Arsenic	1.00	0.00207	1.10	1.11	110	111	1	75-125			1	20
Barium	1.00	0.434	1.55	1.56	112	113	1	75-125			1	20
Cadmium	1.00	ND	1.10	1.11	110	111	1	75-125			1	20
Chromium	1.00	0.000283	1.06	1.08	106	108	1	75-125			2	20
Lead	1.00	0.0112	1.09	1.10	108	109	1	75-125			1	20
Selenium	1.00	0.00422	1.13	1.14	113	114	1	75-125			1	20
Silver	1.00	0.000171	1.05	1.06	105	106	1	75-125			1	20

Method Blank (MB)

(MB) 01/28/16 15:19

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*98.7*			*62.0-128*

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

(LCS) 01/28/16 14:04 • (LCSD) 01/28/16 14:29

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 %
TPH (GC/FID) Low Fraction	5.50	5.92	6.05	108	110	67.0-132			2.29	20
(S) a,a,a-Trifluorotoluene(FID)				*106*	*106*	*62.0-128*				

L813714-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 01/28/16 17:29 • (MS) 01/28/16 17:54 • (MSD) 01/28/16 18:20

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 %
TPH (GC/FID) Low Fraction	5.50	0.0535	6.06	5.95	109	107	1	50.0-143			1.80	20
(S) a,a,a-Trifluorotoluene(FID)					*106*	*106*		*62.0-128*				

Method Blank (MB)

(MB) 01/27/16 15:45

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) High Fraction	U		0.0247	0.100
(S) o-Terphenyl	*81.5*			*50.0-150*

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

(LCS) 01/27/16 16:05 • (LCSD) 01/27/16 16:25

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 %
TPH (GC/FID) High Fraction	1.50	1.40	1.40	93.2	93.0	50.0-150			0.250	20
(S) o-Terphenyl				*87.6*	*87.7*	*50.0-150*				

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND,U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
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.
(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.
Rec.	Recovery.
SDL	Sample Detection Limit.
MQL	Method Quantitation Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.

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

ACCREDITATIONS & LOCATIONS

ESC Lab Sciences 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.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Conneticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [1 4]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

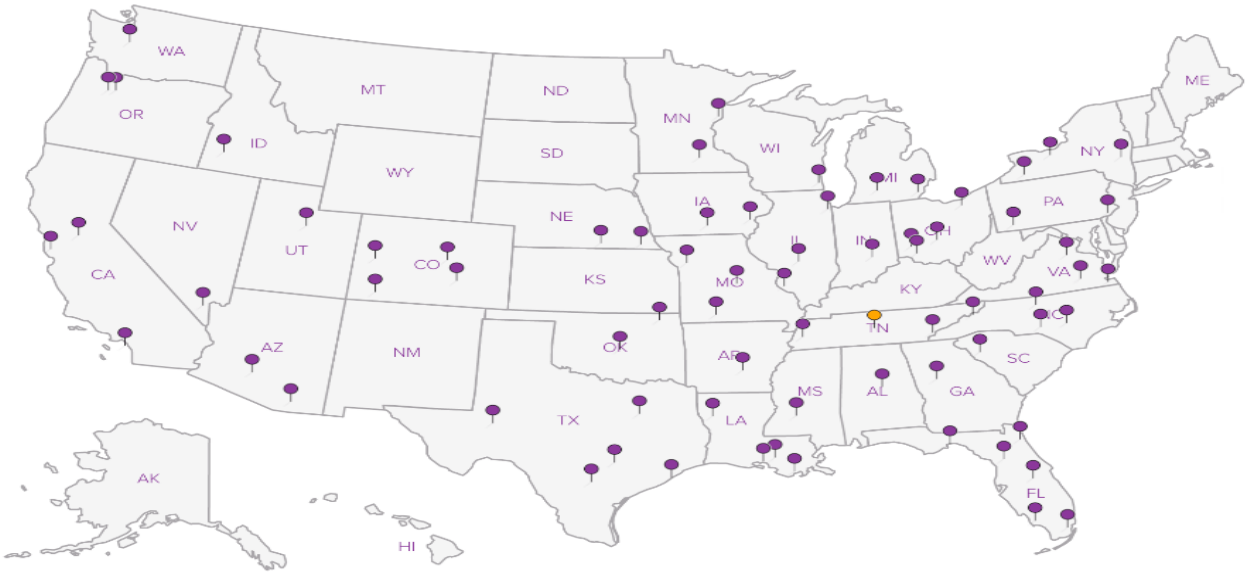
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

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

Our Locations

ESC Lab Sciences 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. **ESC Lab Sciences performs all testing at our central laboratory.**



Company Name/Address: Terracon, 1901 Sharp Point Dr., Suite C, Fort Collins, CO 80525

Billing Information: SAME

Report to: Craig Nelson

Email To: craig.nelson@terracon.com

Project Description: Ute WTP

City/State Collected: Longmont, CO

Phone: 970-484-0359 Fax:

Client Project # 22157002

Lab Project #

Collected by (print): Craig Nelson

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No ___Yes
FAX? ___No ___Yes

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	TVPH	TEPH	RCRA 8 Metals (Dissolved) Lab								Rem./Contaminant	Sample # (lab only)
B-1	Grab	COW		1/20/16	1300	7	X	X	X									01
B-2					1400	1												02
B-3					1330	1												03
B-4					1430	1												04
B-6					1530	1												05
B-7					1600	1												06
B-8					1500	1												07
Trip Blank						1	X											08

Chain of Custody Page ___ of ___

ESC LAB SCIENCES
YOUR LAB OF CHOICE
12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# 813450
G041

Acctnum:
Template:
Prelogin:
TSR:
PB:
Shipped Via:

599011364083

* Matrix: **SS** - Soil **GW** - Groundwater **WW** - WasteWater **DW** - Drinking Water **OT** - Other_____

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Hold #

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	1/21/16	1600	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
			Jeremy Hale

Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐ ____
Temp: 3.9 °C Bottles Received: 50
Date: 1/25/16 Time: 0930

Condition: (lab use only) DB10
COC Seal Intact: ___Y ___N ___NA
pH Checked: L2 NCF: X

Matt Shacklock

ESC Lab Sciences
Non-Conformance Form

Login #L813450	Client: TERRAFCO	Date:1/25/16	Evaluated by:Jeremy

Non-Conformance (check applicable items)

	Sample Integrity		Chain of Custody Clarification		
	Parameter(s) past holding time	x	Login Clarification Needed		**If Broken Container:**
	Improper temperature		Chain of custody is incomplete		Insufficient packing material around container
	Improper container type		Please specify Metals requested.		Insufficient packing material inside cooler
	Improper preservation		Please specify TCLP requested.		Improper handling by carrier (FedEx / UPS / Courie
	Insufficient sample volume.		Received additional samples not listed on coc.		Sample was frozen
	Sample is biphasic.		Sample ids on containers do not match ids on coc		Container lid not intact
	Vials received with headspace.		Trip Blank not received.		**If no Chain of Custody:**
	Broken container		Client did not "X" analysis.		Received by:
	Broken container:		Chain of Custody is missing		Date/Time:
	Sufficient sample remains				Temp./Cont. Rec./pH:
					Carrier:
					Tracking#

Login Comments: Client requesting dissolved metals, but container is preserved and not filtered. Sediment on the bottom of container

Client informed by:		Call	X	Email		Voice Mail		Date: 01/25	Time: 16:25
TSR Initials:DR	Client Contact: CN								

Login Instructions:

Run as total metals
Watch hold times for DRO

ANALYTICAL REPORT

February 09, 2016

Terracon - Fort Collins

Sample Delivery Group:	L815291
Samples Received:	01/25/2016
Project Number:	22157002
Description:	Ute WTP

Report To: Craig Nelson
1901 Sharp Point Drive, Ste C
Fort Collins, CO 80525

Entire Report Reviewed By:

Daphne R Richards

Daphne Richards
Technical Service Representative

TABLE OF CONTENTS

B-1 L815291-01 GW

Collected by: Craig Nelson
Collected date/time: 01/20/16 13:00
Received date/time: 01/25/16 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG846474	1	02/03/16 18:21	02/03/16 18:21	DWR

B-2 L815291-02 GW

Collected by: Craig Nelson
Collected date/time: 01/20/16 14:00
Received date/time: 01/25/16 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG846474	1	02/03/16 18:38	02/03/16 18:38	DWR

B-3 L815291-03 GW

Collected by: Craig Nelson
Collected date/time: 01/20/16 13:30
Received date/time: 01/25/16 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG846474	1	02/03/16 18:56	02/03/16 18:56	DWR

B-4 L815291-04 GW

Collected by: Craig Nelson
Collected date/time: 01/20/16 14:30
Received date/time: 01/25/16 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG846474	1	02/03/16 19:13	02/03/16 19:13	DWR

B-6 L815291-05 GW

Collected by: Craig Nelson
Collected date/time: 01/20/16 15:30
Received date/time: 01/25/16 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG846474	1	02/03/16 19:30	02/03/16 19:30	DWR

B-7 L815291-06 GW

Collected by: Craig Nelson
Collected date/time: 01/20/16 16:00
Received date/time: 01/25/16 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG846474	1	02/03/16 19:48	02/03/16 19:48	DWR

B-8 L815291-07 GW

Collected by: Craig Nelson
Collected date/time: 01/20/16 15:00
Received date/time: 01/25/16 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG846474	1	02/03/16 20:07	02/03/16 20:07	DWR

TRIP BLANK L815291-08 GW

Collected by: Craig Nelson
Collected date/time: 01/20/16 00:00
Received date/time: 01/25/16 09:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG846474	1	02/03/16 18:03	02/03/16 18:03	DWR

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. 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.

Daphne R Richards

Daphne Richards
Technical Service Representative

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Acetone	U		0.0100	0.0500	1	02/03/2016 18:21	WG846474
Acrolein	U		0.00887	0.0500	1	02/03/2016 18:21	WG846474
Acrylonitrile	U		0.00187	0.0100	1	02/03/2016 18:21	WG846474
Benzene	U		0.000331	0.00100	1	02/03/2016 18:21	WG846474
Bromobenzene	U		0.000352	0.00100	1	02/03/2016 18:21	WG846474
Bromodichloromethane	U		0.000380	0.00100	1	02/03/2016 18:21	WG846474
Bromoform	U		0.000469	0.00100	1	02/03/2016 18:21	WG846474
Bromomethane	U		0.000866	0.00500	1	02/03/2016 18:21	WG846474
n-Butylbenzene	U		0.000361	0.00100	1	02/03/2016 18:21	WG846474
sec-Butylbenzene	U		0.000365	0.00100	1	02/03/2016 18:21	WG846474
tert-Butylbenzene	U		0.000399	0.00100	1	02/03/2016 18:21	WG846474
Carbon tetrachloride	U		0.000379	0.00100	1	02/03/2016 18:21	WG846474
Chlorobenzene	U		0.000348	0.00100	1	02/03/2016 18:21	WG846474
Chlorodibromomethane	U		0.000327	0.00100	1	02/03/2016 18:21	WG846474
Chloroethane	U		0.000453	0.00500	1	02/03/2016 18:21	WG846474
2-Chloroethyl vinyl ether	U		0.00301	0.0500	1	02/03/2016 18:21	WG846474
Chloroform	U		0.000324	0.00500	1	02/03/2016 18:21	WG846474
Chloromethane	U		0.000276	0.00250	1	02/03/2016 18:21	WG846474
2-Chlorotoluene	U		0.000375	0.00100	1	02/03/2016 18:21	WG846474
4-Chlorotoluene	U		0.000351	0.00100	1	02/03/2016 18:21	WG846474
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	02/03/2016 18:21	WG846474
1,2-Dibromoethane	U		0.000381	0.00100	1	02/03/2016 18:21	WG846474
Dibromomethane	U		0.000346	0.00100	1	02/03/2016 18:21	WG846474
1,2-Dichlorobenzene	U		0.000349	0.00100	1	02/03/2016 18:21	WG846474
1,3-Dichlorobenzene	U		0.000220	0.00100	1	02/03/2016 18:21	WG846474
1,4-Dichlorobenzene	U		0.000274	0.00100	1	02/03/2016 18:21	WG846474
Dichlorodifluoromethane	U		0.000551	0.00500	1	02/03/2016 18:21	WG846474
1,1-Dichloroethane	U		0.000259	0.00100	1	02/03/2016 18:21	WG846474
1,2-Dichloroethane	U		0.000361	0.00100	1	02/03/2016 18:21	WG846474
1,1-Dichloroethene	U		0.000398	0.00100	1	02/03/2016 18:21	WG846474
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	02/03/2016 18:21	WG846474
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	02/03/2016 18:21	WG846474
1,2-Dichloropropane	U		0.000306	0.00100	1	02/03/2016 18:21	WG846474
1,1-Dichloropropene	U		0.000352	0.00100	1	02/03/2016 18:21	WG846474
1,3-Dichloropropane	U		0.000366	0.00100	1	02/03/2016 18:21	WG846474
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	02/03/2016 18:21	WG846474
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	02/03/2016 18:21	WG846474
2,2-Dichloropropane	U		0.000321	0.00100	1	02/03/2016 18:21	WG846474
Di-isopropyl ether	U		0.000320	0.00100	1	02/03/2016 18:21	WG846474
Ethylbenzene	U		0.000384	0.00100	1	02/03/2016 18:21	WG846474
Hexachloro-1,3-butadiene	U	J3	0.000256	0.00100	1	02/03/2016 18:21	WG846474
Isopropylbenzene	U		0.000326	0.00100	1	02/03/2016 18:21	WG846474
p-Isopropyltoluene	U		0.000350	0.00100	1	02/03/2016 18:21	WG846474
2-Butanone (MEK)	U		0.00393	0.0100	1	02/03/2016 18:21	WG846474
Methylene Chloride	U	J3	0.00100	0.00500	1	02/03/2016 18:21	WG846474
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	02/03/2016 18:21	WG846474
Methyl tert-butyl ether	U		0.000367	0.00100	1	02/03/2016 18:21	WG846474
Naphthalene	U	J3	0.00100	0.00500	1	02/03/2016 18:21	WG846474
n-Propylbenzene	U		0.000349	0.00100	1	02/03/2016 18:21	WG846474
Styrene	U		0.000307	0.00100	1	02/03/2016 18:21	WG846474
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	02/03/2016 18:21	WG846474
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	02/03/2016 18:21	WG846474
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	02/03/2016 18:21	WG846474
Tetrachloroethene	U		0.000372	0.00100	1	02/03/2016 18:21	WG846474
Toluene	U		0.000780	0.00500	1	02/03/2016 18:21	WG846474
1,2,3-Trichlorobenzene	U	J3 J4	0.000230	0.00100	1	02/03/2016 18:21	WG846474

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
1,2,4-Trichlorobenzene	U	J3	0.000355	0.00100	1	02/03/2016 18:21	WG846474
1,1,1-Trichloroethane	U		0.000319	0.00100	1	02/03/2016 18:21	WG846474
1,1,2-Trichloroethane	U		0.000383	0.00100	1	02/03/2016 18:21	WG846474
Trichloroethene	U		0.000398	0.00100	1	02/03/2016 18:21	WG846474
Trichlorofluoromethane	U		0.00120	0.00500	1	02/03/2016 18:21	WG846474
1,2,3-Trichloropropane	U		0.000807	0.00250	1	02/03/2016 18:21	WG846474
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	02/03/2016 18:21	WG846474
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	02/03/2016 18:21	WG846474
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	02/03/2016 18:21	WG846474
Vinyl chloride	U		0.000259	0.00100	1	02/03/2016 18:21	WG846474
Xylenes, Total	U		0.00106	0.00300	1	02/03/2016 18:21	WG846474
(S) Toluene-d8	*104*			*90.0-115*		*02/03/2016 18:21*	WG846474
(S) Dibromofluoromethane	*95.4*			*79.0-121*		*02/03/2016 18:21*	WG846474
(S) 4-Bromofluorobenzene	*104*			*80.1-120*		*02/03/2016 18:21*	WG846474

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Acetone	U		0.0100	0.0500	1	02/03/2016 18:38	WG846474
Acrolein	U		0.00887	0.0500	1	02/03/2016 18:38	WG846474
Acrylonitrile	U		0.00187	0.0100	1	02/03/2016 18:38	WG846474
Benzene	U		0.000331	0.00100	1	02/03/2016 18:38	WG846474
Bromobenzene	U		0.000352	0.00100	1	02/03/2016 18:38	WG846474
Bromodichloromethane	U		0.000380	0.00100	1	02/03/2016 18:38	WG846474
Bromoform	U		0.000469	0.00100	1	02/03/2016 18:38	WG846474
Bromomethane	U		0.000866	0.00500	1	02/03/2016 18:38	WG846474
n-Butylbenzene	U		0.000361	0.00100	1	02/03/2016 18:38	WG846474
sec-Butylbenzene	U		0.000365	0.00100	1	02/03/2016 18:38	WG846474
tert-Butylbenzene	U		0.000399	0.00100	1	02/03/2016 18:38	WG846474
Carbon tetrachloride	U		0.000379	0.00100	1	02/03/2016 18:38	WG846474
Chlorobenzene	U		0.000348	0.00100	1	02/03/2016 18:38	WG846474
Chlorodibromomethane	U		0.000327	0.00100	1	02/03/2016 18:38	WG846474
Chloroethane	U		0.000453	0.00500	1	02/03/2016 18:38	WG846474
2-Chloroethyl vinyl ether	U		0.00301	0.0500	1	02/03/2016 18:38	WG846474
Chloroform	U		0.000324	0.00500	1	02/03/2016 18:38	WG846474
Chloromethane	U		0.000276	0.00250	1	02/03/2016 18:38	WG846474
2-Chlorotoluene	U		0.000375	0.00100	1	02/03/2016 18:38	WG846474
4-Chlorotoluene	U		0.000351	0.00100	1	02/03/2016 18:38	WG846474
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	02/03/2016 18:38	WG846474
1,2-Dibromoethane	U		0.000381	0.00100	1	02/03/2016 18:38	WG846474
Dibromomethane	U		0.000346	0.00100	1	02/03/2016 18:38	WG846474
1,2-Dichlorobenzene	U		0.000349	0.00100	1	02/03/2016 18:38	WG846474
1,3-Dichlorobenzene	U		0.000220	0.00100	1	02/03/2016 18:38	WG846474
1,4-Dichlorobenzene	U		0.000274	0.00100	1	02/03/2016 18:38	WG846474
Dichlorodifluoromethane	U		0.000551	0.00500	1	02/03/2016 18:38	WG846474
1,1-Dichloroethane	U		0.000259	0.00100	1	02/03/2016 18:38	WG846474
1,2-Dichloroethane	U		0.000361	0.00100	1	02/03/2016 18:38	WG846474
1,1-Dichloroethene	U		0.000398	0.00100	1	02/03/2016 18:38	WG846474
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	02/03/2016 18:38	WG846474
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	02/03/2016 18:38	WG846474
1,2-Dichloropropane	U		0.000306	0.00100	1	02/03/2016 18:38	WG846474
1,1-Dichloropropene	U		0.000352	0.00100	1	02/03/2016 18:38	WG846474
1,3-Dichloropropane	U		0.000366	0.00100	1	02/03/2016 18:38	WG846474
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	02/03/2016 18:38	WG846474
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	02/03/2016 18:38	WG846474
2,2-Dichloropropane	U		0.000321	0.00100	1	02/03/2016 18:38	WG846474
Di-isopropyl ether	U		0.000320	0.00100	1	02/03/2016 18:38	WG846474
Ethylbenzene	U		0.000384	0.00100	1	02/03/2016 18:38	WG846474
Hexachloro-1,3-butadiene	U	J3	0.000256	0.00100	1	02/03/2016 18:38	WG846474
Isopropylbenzene	U		0.000326	0.00100	1	02/03/2016 18:38	WG846474
p-Isopropyltoluene	U		0.000350	0.00100	1	02/03/2016 18:38	WG846474
2-Butanone (MEK)	U		0.00393	0.0100	1	02/03/2016 18:38	WG846474
Methylene Chloride	U	J3	0.00100	0.00500	1	02/03/2016 18:38	WG846474
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	02/03/2016 18:38	WG846474
Methyl tert-butyl ether	U		0.000367	0.00100	1	02/03/2016 18:38	WG846474
Naphthalene	U	J3	0.00100	0.00500	1	02/03/2016 18:38	WG846474
n-Propylbenzene	U		0.000349	0.00100	1	02/03/2016 18:38	WG846474
Styrene	U		0.000307	0.00100	1	02/03/2016 18:38	WG846474
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	02/03/2016 18:38	WG846474
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	02/03/2016 18:38	WG846474
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	02/03/2016 18:38	WG846474
Tetrachloroethene	U		0.000372	0.00100	1	02/03/2016 18:38	WG846474
Toluene	U		0.000780	0.00500	1	02/03/2016 18:38	WG846474
1,2,3-Trichlorobenzene	U	J3 J4	0.000230	0.00100	1	02/03/2016 18:38	WG846474

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
1,2,4-Trichlorobenzene	U	J3	0.000355	0.00100	1	02/03/2016 18:38	WG846474
1,1,1-Trichloroethane	U		0.000319	0.00100	1	02/03/2016 18:38	WG846474
1,1,2-Trichloroethane	U		0.000383	0.00100	1	02/03/2016 18:38	WG846474
Trichloroethene	U		0.000398	0.00100	1	02/03/2016 18:38	WG846474
Trichlorofluoromethane	U		0.00120	0.00500	1	02/03/2016 18:38	WG846474
1,2,3-Trichloropropane	U		0.000807	0.00250	1	02/03/2016 18:38	WG846474
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	02/03/2016 18:38	WG846474
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	02/03/2016 18:38	WG846474
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	02/03/2016 18:38	WG846474
Vinyl chloride	U		0.000259	0.00100	1	02/03/2016 18:38	WG846474
Xylenes, Total	U		0.00106	0.00300	1	02/03/2016 18:38	WG846474
(S) Toluene-d8	*105*			*90.0-115*		*02/03/2016 18:38*	WG846474
(S) Dibromofluoromethane	*95.8*			*79.0-121*		*02/03/2016 18:38*	WG846474
(S) 4-Bromofluorobenzene	*101*			*80.1-120*		*02/03/2016 18:38*	WG846474

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Acetone	U		0.0100	0.0500	1	02/03/2016 18:56	WG846474
Acrolein	U		0.00887	0.0500	1	02/03/2016 18:56	WG846474
Acrylonitrile	U		0.00187	0.0100	1	02/03/2016 18:56	WG846474
Benzene	U		0.000331	0.00100	1	02/03/2016 18:56	WG846474
Bromobenzene	U		0.000352	0.00100	1	02/03/2016 18:56	WG846474
Bromodichloromethane	U		0.000380	0.00100	1	02/03/2016 18:56	WG846474
Bromoform	U		0.000469	0.00100	1	02/03/2016 18:56	WG846474
Bromomethane	U		0.000866	0.00500	1	02/03/2016 18:56	WG846474
n-Butylbenzene	U		0.000361	0.00100	1	02/03/2016 18:56	WG846474
sec-Butylbenzene	U		0.000365	0.00100	1	02/03/2016 18:56	WG846474
tert-Butylbenzene	U		0.000399	0.00100	1	02/03/2016 18:56	WG846474
Carbon tetrachloride	U		0.000379	0.00100	1	02/03/2016 18:56	WG846474
Chlorobenzene	U		0.000348	0.00100	1	02/03/2016 18:56	WG846474
Chlorodibromomethane	U		0.000327	0.00100	1	02/03/2016 18:56	WG846474
Chloroethane	U		0.000453	0.00500	1	02/03/2016 18:56	WG846474
2-Chloroethyl vinyl ether	U		0.00301	0.0500	1	02/03/2016 18:56	WG846474
Chloroform	U		0.000324	0.00500	1	02/03/2016 18:56	WG846474
Chloromethane	U		0.000276	0.00250	1	02/03/2016 18:56	WG846474
2-Chlorotoluene	U		0.000375	0.00100	1	02/03/2016 18:56	WG846474
4-Chlorotoluene	U		0.000351	0.00100	1	02/03/2016 18:56	WG846474
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	02/03/2016 18:56	WG846474
1,2-Dibromoethane	U		0.000381	0.00100	1	02/03/2016 18:56	WG846474
Dibromomethane	U		0.000346	0.00100	1	02/03/2016 18:56	WG846474
1,2-Dichlorobenzene	U		0.000349	0.00100	1	02/03/2016 18:56	WG846474
1,3-Dichlorobenzene	U		0.000220	0.00100	1	02/03/2016 18:56	WG846474
1,4-Dichlorobenzene	U		0.000274	0.00100	1	02/03/2016 18:56	WG846474
Dichlorodifluoromethane	U		0.000551	0.00500	1	02/03/2016 18:56	WG846474
1,1-Dichloroethane	U		0.000259	0.00100	1	02/03/2016 18:56	WG846474
1,2-Dichloroethane	U		0.000361	0.00100	1	02/03/2016 18:56	WG846474
1,1-Dichloroethene	U		0.000398	0.00100	1	02/03/2016 18:56	WG846474
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	02/03/2016 18:56	WG846474
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	02/03/2016 18:56	WG846474
1,2-Dichloropropane	U		0.000306	0.00100	1	02/03/2016 18:56	WG846474
1,1-Dichloropropene	U		0.000352	0.00100	1	02/03/2016 18:56	WG846474
1,3-Dichloropropane	U		0.000366	0.00100	1	02/03/2016 18:56	WG846474
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	02/03/2016 18:56	WG846474
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	02/03/2016 18:56	WG846474
2,2-Dichloropropane	U		0.000321	0.00100	1	02/03/2016 18:56	WG846474
Di-isopropyl ether	U		0.000320	0.00100	1	02/03/2016 18:56	WG846474
Ethylbenzene	U		0.000384	0.00100	1	02/03/2016 18:56	WG846474
Hexachloro-1,3-butadiene	U	J3	0.000256	0.00100	1	02/03/2016 18:56	WG846474
Isopropylbenzene	U		0.000326	0.00100	1	02/03/2016 18:56	WG846474
p-Isopropyltoluene	U		0.000350	0.00100	1	02/03/2016 18:56	WG846474
2-Butanone (MEK)	U		0.00393	0.0100	1	02/03/2016 18:56	WG846474
Methylene Chloride	U	J3	0.00100	0.00500	1	02/03/2016 18:56	WG846474
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	02/03/2016 18:56	WG846474
Methyl tert-butyl ether	U		0.000367	0.00100	1	02/03/2016 18:56	WG846474
Naphthalene	U	J3	0.00100	0.00500	1	02/03/2016 18:56	WG846474
n-Propylbenzene	U		0.000349	0.00100	1	02/03/2016 18:56	WG846474
Styrene	U		0.000307	0.00100	1	02/03/2016 18:56	WG846474
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	02/03/2016 18:56	WG846474
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	02/03/2016 18:56	WG846474
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	02/03/2016 18:56	WG846474
Tetrachloroethene	U		0.000372	0.00100	1	02/03/2016 18:56	WG846474
Toluene	U		0.000780	0.00500	1	02/03/2016 18:56	WG846474
1,2,3-Trichlorobenzene	U	J3 J4	0.000230	0.00100	1	02/03/2016 18:56	WG846474

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
1,2,4-Trichlorobenzene	U	J3	0.000355	0.00100	1	02/03/2016 18:56	WG846474
1,1,1-Trichloroethane	U		0.000319	0.00100	1	02/03/2016 18:56	WG846474
1,1,2-Trichloroethane	U		0.000383	0.00100	1	02/03/2016 18:56	WG846474
Trichloroethene	U		0.000398	0.00100	1	02/03/2016 18:56	WG846474
Trichlorofluoromethane	U		0.00120	0.00500	1	02/03/2016 18:56	WG846474
1,2,3-Trichloropropane	U		0.000807	0.00250	1	02/03/2016 18:56	WG846474
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	02/03/2016 18:56	WG846474
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	02/03/2016 18:56	WG846474
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	02/03/2016 18:56	WG846474
Vinyl chloride	U		0.000259	0.00100	1	02/03/2016 18:56	WG846474
Xylenes, Total	U		0.00106	0.00300	1	02/03/2016 18:56	WG846474
(S) Toluene-d8	*105*			*90.0-115*		*02/03/2016 18:56*	WG846474
(S) Dibromofluoromethane	*94.2*			*79.0-121*		*02/03/2016 18:56*	WG846474
(S) 4-Bromofluorobenzene	*101*			*80.1-120*		*02/03/2016 18:56*	WG846474

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Acetone	U		0.0100	0.0500	1	02/03/2016 19:13	WG846474
Acrolein	U		0.00887	0.0500	1	02/03/2016 19:13	WG846474
Acrylonitrile	U		0.00187	0.0100	1	02/03/2016 19:13	WG846474
Benzene	U		0.000331	0.00100	1	02/03/2016 19:13	WG846474
Bromobenzene	U		0.000352	0.00100	1	02/03/2016 19:13	WG846474
Bromodichloromethane	U		0.000380	0.00100	1	02/03/2016 19:13	WG846474
Bromoform	U		0.000469	0.00100	1	02/03/2016 19:13	WG846474
Bromomethane	U		0.000866	0.00500	1	02/03/2016 19:13	WG846474
n-Butylbenzene	U		0.000361	0.00100	1	02/03/2016 19:13	WG846474
sec-Butylbenzene	U		0.000365	0.00100	1	02/03/2016 19:13	WG846474
tert-Butylbenzene	U		0.000399	0.00100	1	02/03/2016 19:13	WG846474
Carbon tetrachloride	U		0.000379	0.00100	1	02/03/2016 19:13	WG846474
Chlorobenzene	U		0.000348	0.00100	1	02/03/2016 19:13	WG846474
Chlorodibromomethane	U		0.000327	0.00100	1	02/03/2016 19:13	WG846474
Chloroethane	U		0.000453	0.00500	1	02/03/2016 19:13	WG846474
2-Chloroethyl vinyl ether	U		0.00301	0.0500	1	02/03/2016 19:13	WG846474
Chloroform	U		0.000324	0.00500	1	02/03/2016 19:13	WG846474
Chloromethane	U		0.000276	0.00250	1	02/03/2016 19:13	WG846474
2-Chlorotoluene	U		0.000375	0.00100	1	02/03/2016 19:13	WG846474
4-Chlorotoluene	U		0.000351	0.00100	1	02/03/2016 19:13	WG846474
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	02/03/2016 19:13	WG846474
1,2-Dibromoethane	U		0.000381	0.00100	1	02/03/2016 19:13	WG846474
Dibromomethane	U		0.000346	0.00100	1	02/03/2016 19:13	WG846474
1,2-Dichlorobenzene	U		0.000349	0.00100	1	02/03/2016 19:13	WG846474
1,3-Dichlorobenzene	U		0.000220	0.00100	1	02/03/2016 19:13	WG846474
1,4-Dichlorobenzene	U		0.000274	0.00100	1	02/03/2016 19:13	WG846474
Dichlorodifluoromethane	U		0.000551	0.00500	1	02/03/2016 19:13	WG846474
1,1-Dichloroethane	U		0.000259	0.00100	1	02/03/2016 19:13	WG846474
1,2-Dichloroethane	U		0.000361	0.00100	1	02/03/2016 19:13	WG846474
1,1-Dichloroethene	U		0.000398	0.00100	1	02/03/2016 19:13	WG846474
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	02/03/2016 19:13	WG846474
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	02/03/2016 19:13	WG846474
1,2-Dichloropropane	U		0.000306	0.00100	1	02/03/2016 19:13	WG846474
1,1-Dichloropropene	U		0.000352	0.00100	1	02/03/2016 19:13	WG846474
1,3-Dichloropropane	U		0.000366	0.00100	1	02/03/2016 19:13	WG846474
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	02/03/2016 19:13	WG846474
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	02/03/2016 19:13	WG846474
2,2-Dichloropropane	U		0.000321	0.00100	1	02/03/2016 19:13	WG846474
Di-isopropyl ether	U		0.000320	0.00100	1	02/03/2016 19:13	WG846474
Ethylbenzene	U		0.000384	0.00100	1	02/03/2016 19:13	WG846474
Hexachloro-1,3-butadiene	U	J3	0.000256	0.00100	1	02/03/2016 19:13	WG846474
Isopropylbenzene	U		0.000326	0.00100	1	02/03/2016 19:13	WG846474
p-Isopropyltoluene	U		0.000350	0.00100	1	02/03/2016 19:13	WG846474
2-Butanone (MEK)	U		0.00393	0.0100	1	02/03/2016 19:13	WG846474
Methylene Chloride	U	J3	0.00100	0.00500	1	02/03/2016 19:13	WG846474
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	02/03/2016 19:13	WG846474
Methyl tert-butyl ether	U		0.000367	0.00100	1	02/03/2016 19:13	WG846474
Naphthalene	U	J3	0.00100	0.00500	1	02/03/2016 19:13	WG846474
n-Propylbenzene	U		0.000349	0.00100	1	02/03/2016 19:13	WG846474
Styrene	U		0.000307	0.00100	1	02/03/2016 19:13	WG846474
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	02/03/2016 19:13	WG846474
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	02/03/2016 19:13	WG846474
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	02/03/2016 19:13	WG846474
Tetrachloroethene	U		0.000372	0.00100	1	02/03/2016 19:13	WG846474
Toluene	U		0.000780	0.00500	1	02/03/2016 19:13	WG846474
1,2,3-Trichlorobenzene	U	J3 J4	0.000230	0.00100	1	02/03/2016 19:13	WG846474

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
1,2,4-Trichlorobenzene	U	J3	0.000355	0.00100	1	02/03/2016 19:13	WG846474
1,1,1-Trichloroethane	U		0.000319	0.00100	1	02/03/2016 19:13	WG846474
1,1,2-Trichloroethane	U		0.000383	0.00100	1	02/03/2016 19:13	WG846474
Trichloroethene	U		0.000398	0.00100	1	02/03/2016 19:13	WG846474
Trichlorofluoromethane	U		0.00120	0.00500	1	02/03/2016 19:13	WG846474
1,2,3-Trichloropropane	U		0.000807	0.00250	1	02/03/2016 19:13	WG846474
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	02/03/2016 19:13	WG846474
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	02/03/2016 19:13	WG846474
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	02/03/2016 19:13	WG846474
Vinyl chloride	U		0.000259	0.00100	1	02/03/2016 19:13	WG846474
Xylenes, Total	U		0.00106	0.00300	1	02/03/2016 19:13	WG846474
(S) Toluene-d8	*102*			*90.0-115*		*02/03/2016 19:13*	WG846474
(S) Dibromofluoromethane	*98.6*			*79.0-121*		*02/03/2016 19:13*	WG846474
(S) 4-Bromofluorobenzene	*103*			*80.1-120*		*02/03/2016 19:13*	WG846474

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Acetone	U		0.0100	0.0500	1	02/03/2016 19:30	WG846474
Acrolein	U		0.00887	0.0500	1	02/03/2016 19:30	WG846474
Acrylonitrile	U		0.00187	0.0100	1	02/03/2016 19:30	WG846474
Benzene	U		0.000331	0.00100	1	02/03/2016 19:30	WG846474
Bromobenzene	U		0.000352	0.00100	1	02/03/2016 19:30	WG846474
Bromodichloromethane	U		0.000380	0.00100	1	02/03/2016 19:30	WG846474
Bromoform	U		0.000469	0.00100	1	02/03/2016 19:30	WG846474
Bromomethane	U		0.000866	0.00500	1	02/03/2016 19:30	WG846474
n-Butylbenzene	U		0.000361	0.00100	1	02/03/2016 19:30	WG846474
sec-Butylbenzene	U		0.000365	0.00100	1	02/03/2016 19:30	WG846474
tert-Butylbenzene	U		0.000399	0.00100	1	02/03/2016 19:30	WG846474
Carbon tetrachloride	U		0.000379	0.00100	1	02/03/2016 19:30	WG846474
Chlorobenzene	U		0.000348	0.00100	1	02/03/2016 19:30	WG846474
Chlorodibromomethane	U		0.000327	0.00100	1	02/03/2016 19:30	WG846474
Chloroethane	U		0.000453	0.00500	1	02/03/2016 19:30	WG846474
2-Chloroethyl vinyl ether	U		0.00301	0.0500	1	02/03/2016 19:30	WG846474
Chloroform	U		0.000324	0.00500	1	02/03/2016 19:30	WG846474
Chloromethane	U		0.000276	0.00250	1	02/03/2016 19:30	WG846474
2-Chlorotoluene	U		0.000375	0.00100	1	02/03/2016 19:30	WG846474
4-Chlorotoluene	U		0.000351	0.00100	1	02/03/2016 19:30	WG846474
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	02/03/2016 19:30	WG846474
1,2-Dibromoethane	U		0.000381	0.00100	1	02/03/2016 19:30	WG846474
Dibromomethane	U		0.000346	0.00100	1	02/03/2016 19:30	WG846474
1,2-Dichlorobenzene	U		0.000349	0.00100	1	02/03/2016 19:30	WG846474
1,3-Dichlorobenzene	U		0.000220	0.00100	1	02/03/2016 19:30	WG846474
1,4-Dichlorobenzene	U		0.000274	0.00100	1	02/03/2016 19:30	WG846474
Dichlorodifluoromethane	U		0.000551	0.00500	1	02/03/2016 19:30	WG846474
1,1-Dichloroethane	U		0.000259	0.00100	1	02/03/2016 19:30	WG846474
1,2-Dichloroethane	U		0.000361	0.00100	1	02/03/2016 19:30	WG846474
1,1-Dichloroethene	U		0.000398	0.00100	1	02/03/2016 19:30	WG846474
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	02/03/2016 19:30	WG846474
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	02/03/2016 19:30	WG846474
1,2-Dichloropropane	U		0.000306	0.00100	1	02/03/2016 19:30	WG846474
1,1-Dichloropropene	U		0.000352	0.00100	1	02/03/2016 19:30	WG846474
1,3-Dichloropropane	U		0.000366	0.00100	1	02/03/2016 19:30	WG846474
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	02/03/2016 19:30	WG846474
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	02/03/2016 19:30	WG846474
2,2-Dichloropropane	U		0.000321	0.00100	1	02/03/2016 19:30	WG846474
Di-isopropyl ether	U		0.000320	0.00100	1	02/03/2016 19:30	WG846474
Ethylbenzene	U		0.000384	0.00100	1	02/03/2016 19:30	WG846474
Hexachloro-1,3-butadiene	U	J3	0.000256	0.00100	1	02/03/2016 19:30	WG846474
Isopropylbenzene	U		0.000326	0.00100	1	02/03/2016 19:30	WG846474
p-Isopropyltoluene	U		0.000350	0.00100	1	02/03/2016 19:30	WG846474
2-Butanone (MEK)	U		0.00393	0.0100	1	02/03/2016 19:30	WG846474
Methylene Chloride	U	J3	0.00100	0.00500	1	02/03/2016 19:30	WG846474
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	02/03/2016 19:30	WG846474
Methyl tert-butyl ether	U		0.000367	0.00100	1	02/03/2016 19:30	WG846474
Naphthalene	U	J3	0.00100	0.00500	1	02/03/2016 19:30	WG846474
n-Propylbenzene	U		0.000349	0.00100	1	02/03/2016 19:30	WG846474
Styrene	U		0.000307	0.00100	1	02/03/2016 19:30	WG846474
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	02/03/2016 19:30	WG846474
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	02/03/2016 19:30	WG846474
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	02/03/2016 19:30	WG846474
Tetrachloroethene	U		0.000372	0.00100	1	02/03/2016 19:30	WG846474
Toluene	U		0.000780	0.00500	1	02/03/2016 19:30	WG846474
1,2,3-Trichlorobenzene	U	J3 J4	0.000230	0.00100	1	02/03/2016 19:30	WG846474

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
1,2,4-Trichlorobenzene	U	J3	0.000355	0.00100	1	02/03/2016 19:30	WG846474
1,1,1-Trichloroethane	U		0.000319	0.00100	1	02/03/2016 19:30	WG846474
1,1,2-Trichloroethane	U		0.000383	0.00100	1	02/03/2016 19:30	WG846474
Trichloroethene	U		0.000398	0.00100	1	02/03/2016 19:30	WG846474
Trichlorofluoromethane	U		0.00120	0.00500	1	02/03/2016 19:30	WG846474
1,2,3-Trichloropropane	U		0.000807	0.00250	1	02/03/2016 19:30	WG846474
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	02/03/2016 19:30	WG846474
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	02/03/2016 19:30	WG846474
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	02/03/2016 19:30	WG846474
Vinyl chloride	U		0.000259	0.00100	1	02/03/2016 19:30	WG846474
Xylenes, Total	U		0.00106	0.00300	1	02/03/2016 19:30	WG846474
(S) Toluene-d8	*104*			*90.0-115*		*02/03/2016 19:30*	WG846474
(S) Dibromofluoromethane	*94.9*			*79.0-121*		*02/03/2016 19:30*	WG846474
(S) 4-Bromofluorobenzene	*107*			*80.1-120*		*02/03/2016 19:30*	WG846474

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Acetone	U		0.0100	0.0500	1	02/03/2016 19:48	WG846474
Acrolein	U		0.00887	0.0500	1	02/03/2016 19:48	WG846474
Acrylonitrile	U		0.00187	0.0100	1	02/03/2016 19:48	WG846474
Benzene	U		0.000331	0.00100	1	02/03/2016 19:48	WG846474
Bromobenzene	U		0.000352	0.00100	1	02/03/2016 19:48	WG846474
Bromodichloromethane	U		0.000380	0.00100	1	02/03/2016 19:48	WG846474
Bromoform	U		0.000469	0.00100	1	02/03/2016 19:48	WG846474
Bromomethane	U		0.000866	0.00500	1	02/03/2016 19:48	WG846474
n-Butylbenzene	U		0.000361	0.00100	1	02/03/2016 19:48	WG846474
sec-Butylbenzene	U		0.000365	0.00100	1	02/03/2016 19:48	WG846474
tert-Butylbenzene	U		0.000399	0.00100	1	02/03/2016 19:48	WG846474
Carbon tetrachloride	U		0.000379	0.00100	1	02/03/2016 19:48	WG846474
Chlorobenzene	U		0.000348	0.00100	1	02/03/2016 19:48	WG846474
Chlorodibromomethane	U		0.000327	0.00100	1	02/03/2016 19:48	WG846474
Chloroethane	U		0.000453	0.00500	1	02/03/2016 19:48	WG846474
2-Chloroethyl vinyl ether	U		0.00301	0.0500	1	02/03/2016 19:48	WG846474
Chloroform	U		0.000324	0.00500	1	02/03/2016 19:48	WG846474
Chloromethane	U		0.000276	0.00250	1	02/03/2016 19:48	WG846474
2-Chlorotoluene	U		0.000375	0.00100	1	02/03/2016 19:48	WG846474
4-Chlorotoluene	U		0.000351	0.00100	1	02/03/2016 19:48	WG846474
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	02/03/2016 19:48	WG846474
1,2-Dibromoethane	U		0.000381	0.00100	1	02/03/2016 19:48	WG846474
Dibromomethane	U		0.000346	0.00100	1	02/03/2016 19:48	WG846474
1,2-Dichlorobenzene	U		0.000349	0.00100	1	02/03/2016 19:48	WG846474
1,3-Dichlorobenzene	U		0.000220	0.00100	1	02/03/2016 19:48	WG846474
1,4-Dichlorobenzene	U		0.000274	0.00100	1	02/03/2016 19:48	WG846474
Dichlorodifluoromethane	U		0.000551	0.00500	1	02/03/2016 19:48	WG846474
1,1-Dichloroethane	U		0.000259	0.00100	1	02/03/2016 19:48	WG846474
1,2-Dichloroethane	U		0.000361	0.00100	1	02/03/2016 19:48	WG846474
1,1-Dichloroethene	U		0.000398	0.00100	1	02/03/2016 19:48	WG846474
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	02/03/2016 19:48	WG846474
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	02/03/2016 19:48	WG846474
1,2-Dichloropropane	U		0.000306	0.00100	1	02/03/2016 19:48	WG846474
1,1-Dichloropropene	U		0.000352	0.00100	1	02/03/2016 19:48	WG846474
1,3-Dichloropropane	U		0.000366	0.00100	1	02/03/2016 19:48	WG846474
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	02/03/2016 19:48	WG846474
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	02/03/2016 19:48	WG846474
2,2-Dichloropropane	U		0.000321	0.00100	1	02/03/2016 19:48	WG846474
Di-isopropyl ether	U		0.000320	0.00100	1	02/03/2016 19:48	WG846474
Ethylbenzene	U		0.000384	0.00100	1	02/03/2016 19:48	WG846474
Hexachloro-1,3-butadiene	U	J3	0.000256	0.00100	1	02/03/2016 19:48	WG846474
Isopropylbenzene	U		0.000326	0.00100	1	02/03/2016 19:48	WG846474
p-Isopropyltoluene	U		0.000350	0.00100	1	02/03/2016 19:48	WG846474
2-Butanone (MEK)	U		0.00393	0.0100	1	02/03/2016 19:48	WG846474
Methylene Chloride	U	J3	0.00100	0.00500	1	02/03/2016 19:48	WG846474
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	02/03/2016 19:48	WG846474
Methyl tert-butyl ether	U		0.000367	0.00100	1	02/03/2016 19:48	WG846474
Naphthalene	U	J3	0.00100	0.00500	1	02/03/2016 19:48	WG846474
n-Propylbenzene	U		0.000349	0.00100	1	02/03/2016 19:48	WG846474
Styrene	U		0.000307	0.00100	1	02/03/2016 19:48	WG846474
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	02/03/2016 19:48	WG846474
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	02/03/2016 19:48	WG846474
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	02/03/2016 19:48	WG846474
Tetrachloroethene	U		0.000372	0.00100	1	02/03/2016 19:48	WG846474
Toluene	U		0.000780	0.00500	1	02/03/2016 19:48	WG846474
1,2,3-Trichlorobenzene	U	J3 J4	0.000230	0.00100	1	02/03/2016 19:48	WG846474

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
1,2,4-Trichlorobenzene	U	J3	0.000355	0.00100	1	02/03/2016 19:48	WG846474
1,1,1-Trichloroethane	U		0.000319	0.00100	1	02/03/2016 19:48	WG846474
1,1,2-Trichloroethane	U		0.000383	0.00100	1	02/03/2016 19:48	WG846474
Trichloroethene	U		0.000398	0.00100	1	02/03/2016 19:48	WG846474
Trichlorofluoromethane	U		0.00120	0.00500	1	02/03/2016 19:48	WG846474
1,2,3-Trichloropropane	U		0.000807	0.00250	1	02/03/2016 19:48	WG846474
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	02/03/2016 19:48	WG846474
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	02/03/2016 19:48	WG846474
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	02/03/2016 19:48	WG846474
Vinyl chloride	U		0.000259	0.00100	1	02/03/2016 19:48	WG846474
Xylenes, Total	U		0.00106	0.00300	1	02/03/2016 19:48	WG846474
(S) Toluene-d8	*104*			*90.0-115*		*02/03/2016 19:48*	WG846474
(S) Dibromofluoromethane	*94.1*			*79.0-121*		*02/03/2016 19:48*	WG846474
(S) 4-Bromofluorobenzene	*103*			*80.1-120*		*02/03/2016 19:48*	WG846474

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
Acetone	U		0.0100	0.0500	1	02/03/2016 20:07	WG846474
Acrolein	U		0.00887	0.0500	1	02/03/2016 20:07	WG846474
Acrylonitrile	U		0.00187	0.0100	1	02/03/2016 20:07	WG846474
Benzene	U		0.000331	0.00100	1	02/03/2016 20:07	WG846474
Bromobenzene	U		0.000352	0.00100	1	02/03/2016 20:07	WG846474
Bromodichloromethane	U		0.000380	0.00100	1	02/03/2016 20:07	WG846474
Bromoform	U		0.000469	0.00100	1	02/03/2016 20:07	WG846474
Bromomethane	U		0.000866	0.00500	1	02/03/2016 20:07	WG846474
n-Butylbenzene	U		0.000361	0.00100	1	02/03/2016 20:07	WG846474
sec-Butylbenzene	U		0.000365	0.00100	1	02/03/2016 20:07	WG846474
tert-Butylbenzene	U		0.000399	0.00100	1	02/03/2016 20:07	WG846474
Carbon tetrachloride	U		0.000379	0.00100	1	02/03/2016 20:07	WG846474
Chlorobenzene	U		0.000348	0.00100	1	02/03/2016 20:07	WG846474
Chlorodibromomethane	U		0.000327	0.00100	1	02/03/2016 20:07	WG846474
Chloroethane	U		0.000453	0.00500	1	02/03/2016 20:07	WG846474
2-Chloroethyl vinyl ether	U		0.00301	0.0500	1	02/03/2016 20:07	WG846474
Chloroform	U		0.000324	0.00500	1	02/03/2016 20:07	WG846474
Chloromethane	U		0.000276	0.00250	1	02/03/2016 20:07	WG846474
2-Chlorotoluene	U		0.000375	0.00100	1	02/03/2016 20:07	WG846474
4-Chlorotoluene	U		0.000351	0.00100	1	02/03/2016 20:07	WG846474
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	02/03/2016 20:07	WG846474
1,2-Dibromoethane	U		0.000381	0.00100	1	02/03/2016 20:07	WG846474
Dibromomethane	U		0.000346	0.00100	1	02/03/2016 20:07	WG846474
1,2-Dichlorobenzene	U		0.000349	0.00100	1	02/03/2016 20:07	WG846474
1,3-Dichlorobenzene	U		0.000220	0.00100	1	02/03/2016 20:07	WG846474
1,4-Dichlorobenzene	U		0.000274	0.00100	1	02/03/2016 20:07	WG846474
Dichlorodifluoromethane	U		0.000551	0.00500	1	02/03/2016 20:07	WG846474
1,1-Dichloroethane	U		0.000259	0.00100	1	02/03/2016 20:07	WG846474
1,2-Dichloroethane	U		0.000361	0.00100	1	02/03/2016 20:07	WG846474
1,1-Dichloroethene	U		0.000398	0.00100	1	02/03/2016 20:07	WG846474
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	02/03/2016 20:07	WG846474
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	02/03/2016 20:07	WG846474
1,2-Dichloropropane	U		0.000306	0.00100	1	02/03/2016 20:07	WG846474
1,1-Dichloropropene	U		0.000352	0.00100	1	02/03/2016 20:07	WG846474
1,3-Dichloropropane	U		0.000366	0.00100	1	02/03/2016 20:07	WG846474
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	02/03/2016 20:07	WG846474
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	02/03/2016 20:07	WG846474
2,2-Dichloropropane	U		0.000321	0.00100	1	02/03/2016 20:07	WG846474
Di-isopropyl ether	U		0.000320	0.00100	1	02/03/2016 20:07	WG846474
Ethylbenzene	U		0.000384	0.00100	1	02/03/2016 20:07	WG846474
Hexachloro-1,3-butadiene	U	J3	0.000256	0.00100	1	02/03/2016 20:07	WG846474
Isopropylbenzene	U		0.000326	0.00100	1	02/03/2016 20:07	WG846474
p-Isopropyltoluene	U		0.000350	0.00100	1	02/03/2016 20:07	WG846474
2-Butanone (MEK)	U		0.00393	0.0100	1	02/03/2016 20:07	WG846474
Methylene Chloride	U	J3	0.00100	0.00500	1	02/03/2016 20:07	WG846474
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	02/03/2016 20:07	WG846474
Methyl tert-butyl ether	U		0.000367	0.00100	1	02/03/2016 20:07	WG846474
Naphthalene	U	J3	0.00100	0.00500	1	02/03/2016 20:07	WG846474
n-Propylbenzene	U		0.000349	0.00100	1	02/03/2016 20:07	WG846474
Styrene	U		0.000307	0.00100	1	02/03/2016 20:07	WG846474
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	02/03/2016 20:07	WG846474
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	02/03/2016 20:07	WG846474
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	02/03/2016 20:07	WG846474
Tetrachloroethene	U		0.000372	0.00100	1	02/03/2016 20:07	WG846474
Toluene	U		0.000780	0.00500	1	02/03/2016 20:07	WG846474
1,2,3-Trichlorobenzene	U	J3 J4	0.000230	0.00100	1	02/03/2016 20:07	WG846474

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
1,2,4-Trichlorobenzene	U	J3	0.000355	0.00100	1	02/03/2016 20:07	WG846474
1,1,1-Trichloroethane	U		0.000319	0.00100	1	02/03/2016 20:07	WG846474
1,1,2-Trichloroethane	U		0.000383	0.00100	1	02/03/2016 20:07	WG846474
Trichloroethene	U		0.000398	0.00100	1	02/03/2016 20:07	WG846474
Trichlorofluoromethane	U		0.00120	0.00500	1	02/03/2016 20:07	WG846474
1,2,3-Trichloropropane	U		0.000807	0.00250	1	02/03/2016 20:07	WG846474
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	02/03/2016 20:07	WG846474
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	02/03/2016 20:07	WG846474
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	02/03/2016 20:07	WG846474
Vinyl chloride	U		0.000259	0.00100	1	02/03/2016 20:07	WG846474
Xylenes, Total	U		0.00106	0.00300	1	02/03/2016 20:07	WG846474
(S) Toluene-d8	*104*			*90.0-115*		*02/03/2016 20:07*	WG846474
(S) Dibromofluoromethane	*97.4*			*79.0-121*		*02/03/2016 20:07*	WG846474
(S) 4-Bromofluorobenzene	*105*			*80.1-120*		*02/03/2016 20:07*	WG846474

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Acetone	U		0.0100	0.0500	1	02/03/2016 18:03	WG846474
Acrolein	U		0.00887	0.0500	1	02/03/2016 18:03	WG846474
Acrylonitrile	U		0.00187	0.0100	1	02/03/2016 18:03	WG846474
Benzene	U		0.000331	0.00100	1	02/03/2016 18:03	WG846474
Bromobenzene	U		0.000352	0.00100	1	02/03/2016 18:03	WG846474
Bromodichloromethane	U		0.000380	0.00100	1	02/03/2016 18:03	WG846474
Bromoform	U		0.000469	0.00100	1	02/03/2016 18:03	WG846474
Bromomethane	U		0.000866	0.00500	1	02/03/2016 18:03	WG846474
n-Butylbenzene	U		0.000361	0.00100	1	02/03/2016 18:03	WG846474
sec-Butylbenzene	U		0.000365	0.00100	1	02/03/2016 18:03	WG846474
tert-Butylbenzene	U		0.000399	0.00100	1	02/03/2016 18:03	WG846474
Carbon tetrachloride	U		0.000379	0.00100	1	02/03/2016 18:03	WG846474
Chlorobenzene	U		0.000348	0.00100	1	02/03/2016 18:03	WG846474
Chlorodibromomethane	U		0.000327	0.00100	1	02/03/2016 18:03	WG846474
Chloroethane	U		0.000453	0.00500	1	02/03/2016 18:03	WG846474
2-Chloroethyl vinyl ether	U		0.00301	0.0500	1	02/03/2016 18:03	WG846474
Chloroform	U		0.000324	0.00500	1	02/03/2016 18:03	WG846474
Chloromethane	U		0.000276	0.00250	1	02/03/2016 18:03	WG846474
2-Chlorotoluene	U		0.000375	0.00100	1	02/03/2016 18:03	WG846474
4-Chlorotoluene	U		0.000351	0.00100	1	02/03/2016 18:03	WG846474
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	02/03/2016 18:03	WG846474
1,2-Dibromoethane	U		0.000381	0.00100	1	02/03/2016 18:03	WG846474
Dibromomethane	U		0.000346	0.00100	1	02/03/2016 18:03	WG846474
1,2-Dichlorobenzene	U		0.000349	0.00100	1	02/03/2016 18:03	WG846474
1,3-Dichlorobenzene	U		0.000220	0.00100	1	02/03/2016 18:03	WG846474
1,4-Dichlorobenzene	U		0.000274	0.00100	1	02/03/2016 18:03	WG846474
Dichlorodifluoromethane	U		0.000551	0.00500	1	02/03/2016 18:03	WG846474
1,1-Dichloroethane	U		0.000259	0.00100	1	02/03/2016 18:03	WG846474
1,2-Dichloroethane	U		0.000361	0.00100	1	02/03/2016 18:03	WG846474
1,1-Dichloroethene	U		0.000398	0.00100	1	02/03/2016 18:03	WG846474
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	02/03/2016 18:03	WG846474
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	02/03/2016 18:03	WG846474
1,2-Dichloropropane	U		0.000306	0.00100	1	02/03/2016 18:03	WG846474
1,1-Dichloropropene	U		0.000352	0.00100	1	02/03/2016 18:03	WG846474
1,3-Dichloropropane	U		0.000366	0.00100	1	02/03/2016 18:03	WG846474
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	02/03/2016 18:03	WG846474
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	02/03/2016 18:03	WG846474
2,2-Dichloropropane	U		0.000321	0.00100	1	02/03/2016 18:03	WG846474
Di-isopropyl ether	U		0.000320	0.00100	1	02/03/2016 18:03	WG846474
Ethylbenzene	U		0.000384	0.00100	1	02/03/2016 18:03	WG846474
Hexachloro-1,3-butadiene	U	J3	0.000256	0.00100	1	02/03/2016 18:03	WG846474
Isopropylbenzene	U		0.000326	0.00100	1	02/03/2016 18:03	WG846474
p-Isopropyltoluene	U		0.000350	0.00100	1	02/03/2016 18:03	WG846474
2-Butanone (MEK)	U		0.00393	0.0100	1	02/03/2016 18:03	WG846474
Methylene Chloride	U	J3	0.00100	0.00500	1	02/03/2016 18:03	WG846474
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	02/03/2016 18:03	WG846474
Methyl tert-butyl ether	U		0.000367	0.00100	1	02/03/2016 18:03	WG846474
Naphthalene	U	J3	0.00100	0.00500	1	02/03/2016 18:03	WG846474
n-Propylbenzene	U		0.000349	0.00100	1	02/03/2016 18:03	WG846474
Styrene	U		0.000307	0.00100	1	02/03/2016 18:03	WG846474
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	02/03/2016 18:03	WG846474
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	02/03/2016 18:03	WG846474
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	02/03/2016 18:03	WG846474
Tetrachloroethene	U		0.000372	0.00100	1	02/03/2016 18:03	WG846474
Toluene	U		0.000780	0.00500	1	02/03/2016 18:03	WG846474
1,2,3-Trichlorobenzene	U	J3 J4	0.000230	0.00100	1	02/03/2016 18:03	WG846474

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

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l		date / time	
1,2,4-Trichlorobenzene	U	J3	0.000355	0.00100	1	02/03/2016 18:03	WG846474
1,1,1-Trichloroethane	U		0.000319	0.00100	1	02/03/2016 18:03	WG846474
1,1,2-Trichloroethane	U		0.000383	0.00100	1	02/03/2016 18:03	WG846474
Trichloroethene	U		0.000398	0.00100	1	02/03/2016 18:03	WG846474
Trichlorofluoromethane	U		0.00120	0.00500	1	02/03/2016 18:03	WG846474
1,2,3-Trichloropropane	U		0.000807	0.00250	1	02/03/2016 18:03	WG846474
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	02/03/2016 18:03	WG846474
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	02/03/2016 18:03	WG846474
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	02/03/2016 18:03	WG846474
Vinyl chloride	U		0.000259	0.00100	1	02/03/2016 18:03	WG846474
Xylenes, Total	U		0.00106	0.00300	1	02/03/2016 18:03	WG846474
(S) Toluene-d8	*103*			*90.0-115*		*02/03/2016 18:03*	WG846474
(S) Dibromofluoromethane	*94.7*			*79.0-121*		*02/03/2016 18:03*	WG846474
(S) 4-Bromofluorobenzene	*102*			*80.1-120*		*02/03/2016 18:03*	WG846474

Method Blank (MB)

(MB) 02/03/16 12:20

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0100	0.0500
Acrolein	U		0.00887	0.0500
Acrylonitrile	U		0.00187	0.0100
Benzene	U		0.000331	0.00100
Bromobenzene	U		0.000352	0.00100
Bromodichloromethane	U		0.000380	0.00100
Bromoform	U		0.000469	0.00100
Bromomethane	U		0.000866	0.00500
n-Butylbenzene	U		0.000361	0.00100
sec-Butylbenzene	U		0.000365	0.00100
tert-Butylbenzene	U		0.000399	0.00100
Carbon tetrachloride	U		0.000379	0.00100
Chlorobenzene	U		0.000348	0.00100
Chlorodibromomethane	U		0.000327	0.00100
Chloroethane	U		0.000453	0.00500
2-Chloroethyl vinyl ether	U		0.00301	0.0500
Chloroform	U		0.000324	0.00500
Chloromethane	U		0.000276	0.00250
2-Chlorotoluene	U		0.000375	0.00100
4-Chlorotoluene	U		0.000351	0.00100
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500
1,2-Dibromoethane	U		0.000381	0.00100
Dibromomethane	U		0.000346	0.00100
1,2-Dichlorobenzene	U		0.000349	0.00100
1,3-Dichlorobenzene	U		0.000220	0.00100
1,4-Dichlorobenzene	U		0.000274	0.00100
Dichlorodifluoromethane	U		0.000551	0.00500
1,1-Dichloroethane	U		0.000259	0.00100
1,2-Dichloroethane	U		0.000361	0.00100
1,1-Dichloroethene	U		0.000398	0.00100
cis-1,2-Dichloroethene	U		0.000260	0.00100
trans-1,2-Dichloroethene	U		0.000396	0.00100
1,2-Dichloropropane	U		0.000306	0.00100
1,1-Dichloropropene	U		0.000352	0.00100
1,3-Dichloropropane	U		0.000366	0.00100
cis-1,3-Dichloropropene	U		0.000418	0.00100

Method Blank (MB)

(MB) 02/03/16 12:20

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
trans-1,3-Dichloropropene	U		0.000419	0.00100
2,2-Dichloropropane	U		0.000321	0.00100
Di-isopropyl ether	U		0.000320	0.00100
Ethylbenzene	U		0.000384	0.00100
Hexachloro-1,3-butadiene	U		0.000256	0.00100
Isopropylbenzene	U		0.000326	0.00100
p-Isopropyltoluene	U		0.000350	0.00100
2-Butanone (MEK)	U		0.00393	0.0100
Methylene Chloride	U		0.00100	0.00500
Methyl tert-butyl ether	U		0.000367	0.00100
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100
Naphthalene	U		0.00100	0.00500
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100
n-Propylbenzene	U		0.000349	0.00100
Tetrachloroethene	U		0.000372	0.00100
Styrene	U		0.000307	0.00100
Toluene	U		0.000780	0.00500
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100
1,1,1-Trichloroethane	U		0.000319	0.00100
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100
1,1,2-Trichloroethane	U		0.000383	0.00100
1,2,3-Trichlorobenzene	U		0.000230	0.00100
Trichloroethene	U		0.000398	0.00100
Trichlorofluoromethane	U		0.00120	0.00500
1,2,4-Trichlorobenzene	U		0.000355	0.00100
1,2,3-Trichloropropane	U		0.000807	0.00250
1,2,3-Trimethylbenzene	U		0.000321	0.00100
Vinyl chloride	U		0.000259	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*103*			*90.0-115*
(S) Dibromofluoromethane	*94.2*			*79.0-121*
(S) 4-Bromofluorobenzene	*107*			*80.1-120*

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

(LCS) 02/03/16 10:53 • (LCSD) 02/03/16 11:10

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	0.125	0.0819	0.100	65.5	80.2	28.7-175			20.2	20.9
Acrolein	0.125	0.168	0.180	134	144	40.4-172			6.91	20
Benzene	0.0250	0.0233	0.0260	93.2	104	73.0-122			10.9	20
Acrylonitrile	0.125	0.123	0.137	98.5	110	58.2-145			10.8	20
Bromodichloromethane	0.0250	0.0213	0.0233	85.2	93.3	75.5-121			9.11	20
Bromobenzene	0.0250	0.0241	0.0270	96.3	108	81.5-115			11.5	20
Bromoform	0.0250	0.0225	0.0239	90.0	95.5	71.5-131			5.95	20
Bromomethane	0.0250	0.0234	0.0253	93.5	101	22.4-187			7.73	20
n-Butylbenzene	0.0250	0.0238	0.0279	95.2	111	75.9-134			15.7	20
sec-Butylbenzene	0.0250	0.0244	0.0274	97.7	109	80.6-126			11.4	20
tert-Butylbenzene	0.0250	0.0244	0.0274	97.6	110	79.3-127			11.6	20
Carbon tetrachloride	0.0250	0.0220	0.0251	87.8	100	70.9-129			13.4	20
Chlorobenzene	0.0250	0.0250	0.0280	100	112	79.7-122			11.3	20
Chlorodibromomethane	0.0250	0.0230	0.0254	91.9	101	78.2-124			9.94	20
Chloroethane	0.0250	0.0203	0.0220	81.3	88.0	41.2-153			7.93	20
2-Chloroethyl vinyl ether	0.125	0.124	0.132	99.4	105	23.4-162			5.78	23.5
Chloroform	0.0250	0.0220	0.0248	88.1	99.4	73.2-125			12.0	20
Chloromethane	0.0250	0.0263	0.0284	105	114	55.8-134			7.71	20
2-Chlorotoluene	0.0250	0.0252	0.0281	101	112	76.4-125			10.7	20
4-Chlorotoluene	0.0250	0.0241	0.0269	96.6	108	81.5-121			10.9	20
1,2-Dibromo-3-Chloropropane	0.0250	0.0193	0.0232	77.2	92.7	64.8-131			18.3	20
1,2-Dibromoethane	0.0250	0.0250	0.0287	100	115	79.8-122			13.6	20
1,2-Dichlorobenzene	0.0250	0.0235	0.0275	93.9	110	84.7-118			15.9	20
Dibromomethane	0.0250	0.0233	0.0264	93.3	105	79.5-118			12.3	20
1,3-Dichlorobenzene	0.0250	0.0248	0.0277	99.1	111	77.6-127			11.3	20
1,4-Dichlorobenzene	0.0250	0.0228	0.0270	91.2	108	82.2-114			16.8	20
Dichlorodifluoromethane	0.0250	0.0279	0.0324	112	130	56.0-134			14.9	20
1,1-Dichloroethane	0.0250	0.0227	0.0248	90.8	99.3	71.7-127			8.95	20
1,2-Dichloroethane	0.0250	0.0212	0.0240	84.8	96.1	65.3-126			12.5	20
1,1-Dichloroethene	0.0250	0.0227	0.0255	90.7	102	59.9-137			11.8	20
trans-1,2-Dichloroethene	0.0250	0.0209	0.0236	83.6	94.4	72.6-125			12.1	20
cis-1,2-Dichloroethene	0.0250	0.0228	0.0261	91.2	104	77.3-122			13.4	20
1,2-Dichloropropane	0.0250	0.0231	0.0255	92.2	102	77.4-125			9.98	20
1,1-Dichloropropene	0.0250	0.0244	0.0265	97.8	106	72.5-127			7.95	20
cis-1,3-Dichloropropene	0.0250	0.0226	0.0246	90.2	98.3	77.7-124			8.57	20
1,3-Dichloropropane	0.0250	0.0255	0.0286	102	115	80.6-115			11.6	20

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

(LCS) 02/03/16 10:53 • (LCSD) 02/03/16 11:10

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 %
trans-1,3-Dichloropropene	0.0250	0.0215	0.0237	85.9	95.0	73.5-127			10.0	20
2,2-Dichloropropane	0.0250	0.0185	0.0213	74.2	85.1	61.3-134			13.7	20
Di-isopropyl ether	0.0250	0.0215	0.0246	86.2	98.2	65.1-135			13.1	20
Ethylbenzene	0.0250	0.0259	0.0291	104	116	80.9-121			11.5	20
Hexachloro-1,3-butadiene	0.0250	0.0210	0.0262	84.1	105	73.7-133		J3	22.1	20
Isopropylbenzene	0.0250	0.0248	0.0279	99.3	112	81.6-124			11.8	20
p-Isopropyltoluene	0.0250	0.0244	0.0274	97.8	110	77.6-129			11.6	20
Methylene Chloride	0.0250	0.0201	0.0250	80.5	99.8	69.5-120		J3	21.5	20
2-Butanone (MEK)	0.125	0.101	0.114	81.0	91.5	46.4-155			12.1	20
4-Methyl-2-pentanone (MIBK)	0.125	0.114	0.123	91.4	98.3	63.3-138			7.21	20
Methyl tert-butyl ether	0.0250	0.0206	0.0231	82.4	92.4	70.1-125			11.4	20
Naphthalene	0.0250	0.0185	0.0237	73.8	94.6	69.7-134		J3	24.7	20
n-Propylbenzene	0.0250	0.0247	0.0276	98.9	110	81.9-122			11.0	20
Styrene	0.0250	0.0253	0.0284	101	114	79.9-124			11.6	20
1,1,1,2-Tetrachloroethane	0.0250	0.0231	0.0264	92.4	105	78.5-125			13.1	20
1,1,2,2-Tetrachloroethane	0.0250	0.0229	0.0253	91.4	101	79.3-123			10.2	20
Tetrachloroethene	0.0250	0.0272	0.0297	109	119	73.5-130			8.90	20
Toluene	0.0250	0.0233	0.0260	93.3	104	77.9-116			11.0	20
1,1,2-Trichlorotrifluoroethane	0.0250	0.0233	0.0236	93.1	94.5	62.0-141			1.56	20
1,2,3-Trichlorobenzene	0.0250	0.0183	0.0237	73.2	94.8	75.7-134	J4	J3	25.7	20
1,1,1-Trichloroethane	0.0250	0.0212	0.0245	84.9	98.0	71.1-129			14.3	20
1,2,4-Trichlorobenzene	0.0250	0.0208	0.0265	83.2	106	76.1-136		J3	24.2	20
1,1,2-Trichloroethane	0.0250	0.0240	0.0273	96.2	109	81.6-120			12.7	20
Trichloroethene	0.0250	0.0247	0.0282	98.9	113	79.5-121			13.1	20
Trichlorofluoromethane	0.0250	0.0197	0.0217	78.7	86.6	49.1-157			9.53	20
1,2,3-Trichloropropane	0.0250	0.0227	0.0263	90.7	105	74.9-124			14.8	20
1,2,3-Trimethylbenzene	0.0250	0.0223	0.0261	89.4	104	79.9-118			15.4	20
1,2,4-Trimethylbenzene	0.0250	0.0239	0.0265	95.4	106	79.0-122			10.7	20
1,3,5-Trimethylbenzene	0.0250	0.0241	0.0268	96.2	107	81.0-123			10.8	20
Vinyl chloride	0.0250	0.0238	0.0258	95.3	103	61.5-134			8.17	20
Xylenes, Total	0.0750	0.0755	0.0845	101	113	79.2-122			11.3	20
(S) Toluene-d8				*102*	*102*	*90.0-115*				
(S) Dibromofluoromethane				*96.1*	*95.7*	*79.0-121*				
(S) 4-Bromofluorobenzene				*105*	*102*	*80.1-120*				

L814979-22 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 02/03/16 15:44 • (MS) 02/03/16 13:25 • (MSD) 02/03/16 13:43

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 %
Acetone	0.125	0.00169	0.0607	0.0659	47.2	51.3	1	25.0-156			8.25	21.5
Acrolein	0.125	ND	0.242	0.237	193	190	1	34.0-194			1.94	21.5
Benzene	0.0250	ND	0.0278	0.0275	111	110	1	58.6-133			0.890	20
Acrylonitrile	0.125	ND	0.134	0.138	107	111	1	55.9-161			3.26	20
Bromobenzene	0.0250	ND	0.0280	0.0276	112	111	1	70.6-125			1.31	20
Bromodichloromethane	0.0250	ND	0.0240	0.0251	95.8	100	1	69.2-127			4.52	20
Bromoform	0.0250	ND	0.0247	0.0247	98.7	98.8	1	66.3-140			0.0700	20
Bromomethane	0.0250	ND	0.0282	0.0270	113	108	1	16.6-183			4.36	20.5
n-Butylbenzene	0.0250	ND	0.0309	0.0309	124	124	1	64.8-145			0.0700	20
sec-Butylbenzene	0.0250	ND	0.0309	0.0299	124	120	1	66.8-139			3.26	20
tert-Butylbenzene	0.0250	ND	0.0299	0.0291	120	116	1	67.1-138			2.78	20
Carbon tetrachloride	0.0250	ND	0.0269	0.0266	107	107	1	60.6-139			0.790	20
Chlorobenzene	0.0250	ND	0.0295	0.0292	118	117	1	70.1-130			1.16	20
Chlorodibromomethane	0.0250	ND	0.0265	0.0262	106	105	1	71.6-132			1.47	20
Chloroethane	0.0250	ND	0.0267	0.0240	107	96.1	1	33.3-155			10.5	20
2-Chloroethyl vinyl ether	0.125	ND	0.0479	0.0165	38.3	13.2	1	5.00-149		J3	97.5	40
Chloroform	0.0250	ND	0.0261	0.0257	104	103	1	66.1-133			1.26	20
Chloromethane	0.0250	ND	0.0320	0.0312	128	125	1	40.7-139			2.46	20
2-Chlorotoluene	0.0250	ND	0.0296	0.0294	118	118	1	66.9-134			0.440	20
4-Chlorotoluene	0.0250	ND	0.0293	0.0288	117	115	1	66.8-134			1.78	20
1,2-Dibromo-3-Chloropropane	0.0250	ND	0.0227	0.0236	90.6	94.5	1	63.9-142			4.16	20.2
1,2-Dibromoethane	0.0250	ND	0.0281	0.0284	112	114	1	73.8-131			1.35	20
Dibromomethane	0.0250	ND	0.0264	0.0272	105	109	1	72.8-127			2.95	20
1,2-Dichlorobenzene	0.0250	ND	0.0277	0.0287	111	115	1	77.4-127			3.63	20
1,3-Dichlorobenzene	0.0250	ND	0.0298	0.0297	119	119	1	67.9-136			0.300	20
1,4-Dichlorobenzene	0.0250	ND	0.0273	0.0282	109	113	1	74.4-123			3.14	20
Dichlorodifluoromethane	0.0250	ND	0.0404	0.0369	162	148	1	42.2-146	J5	J5	9.05	20
1,1-Dichloroethane	0.0250	ND	0.0260	0.0260	104	104	1	64.0-134			0.160	20
1,2-Dichloroethane	0.0250	ND	0.0239	0.0258	95.8	103	1	60.7-132			7.41	20
1,1-Dichloroethene	0.0250	ND	0.0276	0.0262	110	105	1	48.8-144			5.36	20
cis-1,2-Dichloroethene	0.0250	0.000235	0.0266	0.0270	105	107	1	60.6-136			1.57	20
trans-1,2-Dichloroethene	0.0250	ND	0.0259	0.0254	104	101	1	61.0-132			2.02	20
1,2-Dichloropropane	0.0250	ND	0.0263	0.0269	105	107	1	69.7-130			2.28	20
1,1-Dichloropropene	0.0250	ND	0.0297	0.0291	119	116	1	61.5-136			2.01	20
1,3-Dichloropropane	0.0250	ND	0.0290	0.0295	116	118	1	74.3-123			1.57	20
cis-1,3-Dichloropropene	0.0250	ND	0.0248	0.0258	99.2	103	1	71.1-129			3.98	20

L814979-22 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 02/03/16 15:44 • (MS) 02/03/16 13:25 • (MSD) 02/03/16 13:43

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 %
trans-1,3-Dichloropropene	0.0250	ND	0.0236	0.0255	94.5	102	1	66.3-136			7.56	20
2,2-Dichloropropane	0.0250	ND	0.0228	0.0226	91.4	90.4	1	54.9-142			1.14	20
Ethylbenzene	0.0250	ND	0.0310	0.0303	124	121	1	62.7-136			2.08	20
Di-isopropyl ether	0.0250	ND	0.0249	0.0252	99.7	101	1	59.9-140			1.30	20
Hexachloro-1,3-butadiene	0.0250	ND	0.0323	0.0339	129	136	1	61.1-144			4.69	20.1
Isopropylbenzene	0.0250	ND	0.0298	0.0292	119	117	1	67.4-136			2.19	20
p-Isopropyltoluene	0.0250	ND	0.0305	0.0298	122	119	1	62.8-143			2.15	20
Methylene Chloride	0.0250	ND	0.0237	0.0235	95.0	94.1	1	61.5-125			0.960	20
2-Butanone (MEK)	0.125	ND	0.0909	0.0965	72.7	77.2	1	45.0-156			5.96	20.8
Methyl tert-butyl ether	0.0250	ND	0.0224	0.0234	89.8	93.7	1	61.4-136			4.28	20
4-Methyl-2-pentanone (MIBK)	0.125	ND	0.117	0.128	93.7	103	1	60.7-150			9.14	20
Naphthalene	0.0250	ND	0.0251	0.0285	100	114	1	61.8-143			12.9	20
n-Propylbenzene	0.0250	ND	0.0308	0.0296	123	119	1	63.2-139			3.81	20
Styrene	0.0250	ND	0.0298	0.0294	119	118	1	68.2-133			1.43	20
1,1,1,2-Tetrachloroethane	0.0250	ND	0.0269	0.0264	108	105	1	70.5-132			2.19	20
1,1,2,2-Tetrachloroethane	0.0250	ND	0.0260	0.0260	104	104	1	64.9-145			0.180	20
Tetrachloroethene	0.0250	ND	0.0332	0.0312	133	125	1	57.4-141			6.11	20
Toluene	0.0250	0.00113	0.0279	0.0285	107	110	1	67.8-124			2.34	20
1,1,2-Trichlorotrifluoroethane	0.0250	ND	0.0332	0.0294	133	117	1	53.7-150			12.1	20
1,2,3-Trichlorobenzene	0.0250	ND	0.0281	0.0319	112	128	1	65.7-143			12.7	20
1,2,4-Trichlorobenzene	0.0250	ND	0.0304	0.0341	122	137	1	67.0-146			11.4	20
1,1,1-Trichloroethane	0.0250	ND	0.0253	0.0259	101	104	1	58.7-134			2.38	20
1,1,2-Trichloroethane	0.0250	ND	0.0272	0.0274	109	109	1	74.1-130			0.570	20
Trichloroethene	0.0250	ND	0.0294	0.0291	118	116	1	48.9-148			1.21	20
Trichlorofluoromethane	0.0250	ND	0.0272	0.0246	109	98.5	1	39.9-165			9.95	20
1,2,3-Trichloropropane	0.0250	ND	0.0258	0.0273	103	109	1	71.5-134			5.36	20
1,2,3-Trimethylbenzene	0.0250	ND	0.0264	0.0272	105	109	1	62.7-133			2.99	20
1,2,4-Trimethylbenzene	0.0250	ND	0.0288	0.0284	115	114	1	60.5-137			1.40	20
1,3,5-Trimethylbenzene	0.0250	ND	0.0288	0.0284	115	114	1	67.9-134			1.47	20
Vinyl chloride	0.0250	ND	0.0295	0.0279	118	112	1	44.3-143			5.50	20
Xylenes, Total	0.0750	0.000631	0.0920	0.0886	122	117	1	65.6-133			3.73	20
(S) Toluene-d8					*102*	*103*		*90.0-115*				
(S) Dibromofluoromethane					*97.1*	*94.1*		*79.0-121*				
(S) 4-Bromofluorobenzene					*105*	*100*		*80.1-120*				

Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND,U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
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.
(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.
Rec.	Recovery.
SDL	Sample Detection Limit.
MQL	Method Quantitation Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.

Qualifier	Description
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.

ACCREDITATIONS & LOCATIONS

ESC Lab Sciences 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.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey–NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Conneticut	PH-0197	North Carolina [1]	DW21704
Florida	E87487	North Carolina [2]	41
Georgia	NELAP	North Dakota	R-140
Georgia [1]	923	Ohio–VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky [1]	90010	South Dakota	n/a
Kentucky [2]	16	Tennessee [1 4]	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-OS-15-05		

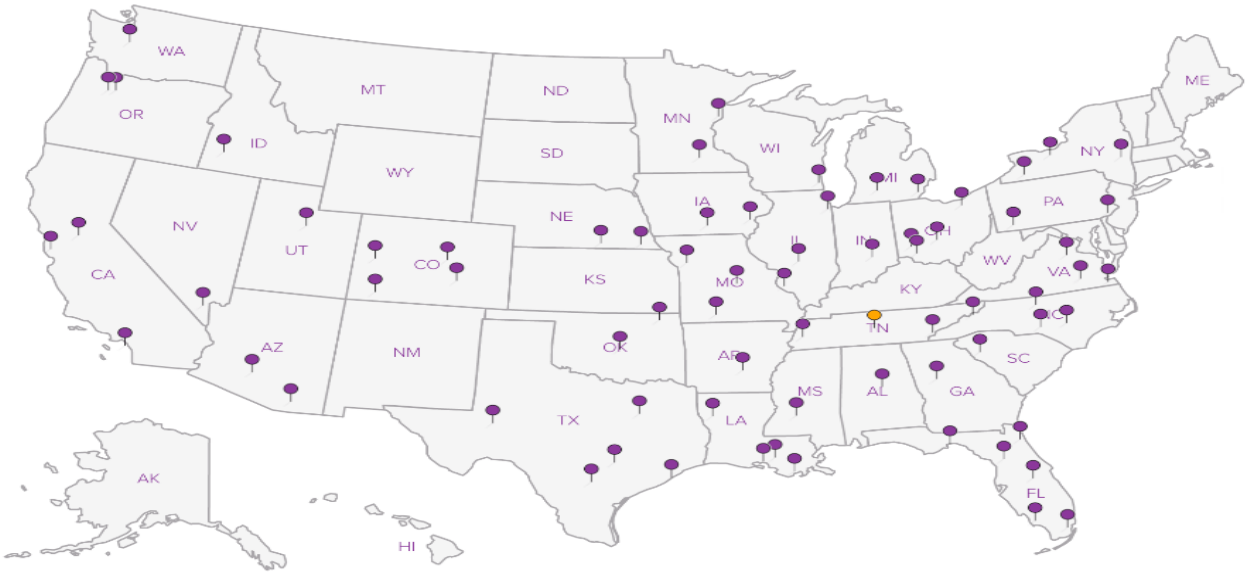
Third Party & Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	S-67674
EPA–Crypto	TN00003		

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

Our Locations

ESC Lab Sciences 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. **ESC Lab Sciences performs all testing at our central laboratory.**



Chain of Custody Page ___ of ___

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12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L817291

G041
L815291

Company Name/Address:
Terracon
1901 Sharp Point Dr, Suite C
Fort Collins, CO 80525

Billing Information:
SAME

Report to: Craig Nelson

Email To: Craig.Nelson@terracon.com

Project Description: Ute WTP

City/State Collected: Longmont, CO

Phone: 970-484-0359
Fax:

Client Project # 22157002

Lab Project #

Collected by (print): Craig Nelson

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day 200%
___ Next Day 100%
___ Two Day 50%
___ Three Day 25%

Date Results Needed

Email? ___No ___Yes
FAX? ___No ___Yes

Acctnum:
Template:
Prelogin:
TSR:
PB:
Shipped Via:

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	TVPH	TEPH	RCRA 8 Metals (Dissolved)	Rem./Contaminant	Sample # (lab only)
B-1	Grab	SOIL		1/20/16	1300	7	X	X	X		-01
B-2					1400						02
B-3					1330						03
B-4					1430						04
B-6					1530						05
B-7					1600						06
B-8					1500						07
Trip Blank						1	X				08

* Matrix: SS - Soil GW - Groundwater WW - WasteWater DW - Drinking Water OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

5990113644083

Hold #

Condition: (lab use only) DB10

Samples returned via: ☐ UPS ☑ FedEx ☐ Courier ☐ _____

Temp: 3.9 °C Bottles Received: 50

COC Seal Intact: ___Y ___N ___NA

pH Checked: L2 NCF: X

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	1/21/16	1600	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)
			Jenny Hale

Date: 1/25/16 Time: 0930

Andy Vann

From: Daphne Richards
Sent: Wednesday, February 03, 2016 2:12 PM
To: Login; Heidi Ferrell
Subject: Relog L813450 TERRAFCO OOH today

Importance: High

Please relog L813450 for V8260, all samples
Sample go OOH tonight

thanks

Daphne Richards
Technical Service Representative
E-mail: drichards@esclabsciences.com
Phone: 800-767-5859 Ext. 9662
Direct: 615-773-9662

ESC
L·A·B S·C·I·E·N·C·E·S