FIELD REPORT

SUPPLEMENTAL REMEDIAL INVESTIGATION

DUCK VALLEY INDIAN RESERVATION, OWYHEE, NEVADA

U.S. Bureau of Indian Affairs

Solicitation No: A16PS00132
Akana Project No. 16-005
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LIST OF ACRONYMS

amsl	Above mean sea level
AST	Aboveground storage tank
bgs	Below ground surface
BIA	U.S. Bureau of Indian Affairs
DRO	Diesel range organics
DVIR	Duck Valley Indian Reservation
ft	Foot/Feet
GRO	Gasoline range organics
PAH	Polycyclic aromatic hydrocarbon
PID	Photoionization detector
TPHd	Total petroleum hydrocarbons as diesel
TPHg	Total petroleum hydrocarbons as gasoline
TOC	Top of casing
USCS	Unified Soils Classification System
UST	Underground storage tank
VOC	Volatile organic compound

1.0 INTRODUCTION AND OBJECTIVE

This Supplemental Remedial Investigation Field Report (Field Report) includes the objectives of, and data from, field work completed in October 2018 at the former Roads Maintenance Shop and associated buildings and structures (Facility), owned and operated by the Bureau of Indian Affairs (BIA). The Facility is located in the community of Owyhee, Elko County, Nevada, on the Duck Valley Indian Reservation (DVIR).

The field work was conducted in accordance with the activities described in the Supplemental Remedial Investigation Work Plan (Work Plan), prepared by Akana in May 2018, and revisions described in the Contract Modifications letter dated 24 August 2018, also prepared by Akana. The primary objectives of the field work were to collect supplemental field and laboratory data and information to 1) evaluate current extent of presence of previously-detected compounds in soil and groundwater, and 2) allow an evaluation of the extent of natural attenuation of these compounds in groundwater.

The objective of this Field Report is to present the field and laboratory data without a significant level of data analysis. A complete analysis of the data will be presented in the Groundwater Assessment Report, which is scheduled to be completed after the quarterly groundwater monitoring events are conducted in 2019.

2.0 RESULTS

Field activities were conducted between 15 and 20 October 2018. Tailgate safety meetings were held each day. An example Daily Tailgate Safety Meeting Record is enclosed in Appendix A. Samples were shipped to Pace Analytical Laboratory, Mount Juliet, TN for analyses under chain-of-custody protocol. The field and laboratory data are presented herein and attached as appendices. The field activities are described below.

2.1 Monitoring Well Installation and Rehabilitation

Three new wells, designated MW-31, MW-32 and MW-33 were installed at the Facility. Well MW-31 was installed to provide upgradient location and provide background groundwater quality characteristics. The other two wells were installed downgradient of two known zones of hydrocarbon impact. Well MW-33 had to be moved from the planned location due to right-of-way problems. All three wells are intended to be sampled to allow evaluations of the extent of natural attenuation of hydrocarbons in groundwater.

Additionally, three existing wells MW-1, MW-8, and MW-30 could not be located or were significantly damaged. Replacement wells designated MW-1R, MW-8R, and MW-30R, respectively, were installed. Well MW-25, which was also planned to be replaced, was

rehabilitated successfully in the field and was determined to be suitable for sampling. The locations of the six new wells are shown on Figure 1.

The new wells were constructed in accordance with the ASTM *Standard Guide for Design and Installation of Groundwater Monitoring Wells* (D5092 -04), utilizing a truck-mounted, hollow stem auger to a maximum depth of 20 feet below grade (ft bgs). Boring log for MW-1R is attached in Appendix A. Boring logs for MW-8R and MW-30R were not produced since no soil samples were collected during auger advancement.

The new wells were two inches in diameter and constructed using flush-threaded, Schedule 40 polyvinyl chloride (PVC) casing and 0.020-inch machine-slotted PVC well screen. A sand filter pack was placed in the annular space surrounding well screens, extending to the top of the screens. A bentonite annular seal was placed above the filter pack to approximately 2 ft bgs and cemented to ground surface. The wellheads were completed at the ground surface with lockable, compression-type well caps and flush-mounted, traffic-rated, locking well vaults with bolt-down lids. Well construction details are attached in Appendix A.

Each well was developed by surging and bailing water from the well casing to remove sediment from the filter pack. A licensed public land surveyor, Summit Engineering Corp., Reno, NV, was retained to survey the northing, easting, and top-of-casing (TOC) elevations for the new and existing wells following completion. The well coordinates and elevation data will be presented in the upcoming Groundwater Assessment Report. The raw survey data are presented in Appendix A.

At each of the existing wells, the presence and condition of the sanitary seal, and of the well head and casing in general, was inspected. The wells were checked for proper wellhead seal, possible riser pipe additions, and replacement of their expansion caps. Wellheads which were observed to have a degraded seal were cleaned out and resealed. The repairs were performed prior to groundwater sample collection. Notes of specific rehabilitation activities of the wells are provided in Table 1.

2.2 Soil Sampling and Analysis for Petroleum Hydrocarbons

Soil samples were collected from the boreholes of the new wells MW-31, MW-32, and MW-33, and replacement well MW-1R to evaluate presence of petroleum hydrocarbons in soils before completing them as wells. Soil samples were classified according to the Unified Soil Classification System (USCS), and physical soil characteristics including moisture content, consistency, odor, color, drilling difficulty, sample recovery, and/or soil type were noted on the boring logs (Appendix A).

At each location, discrete soil samples were collected at five-foot intervals, at lithologic discontinuities, or at the water table interface. The collected samples were shipped to the

laboratory under chain-of-custody protocol for analysis of Total Petroleum Hydrocarbons as diesel (TPHd) and as gasoline (TPHg) using EPA Method 8015D. Specific samples were selected for laboratory analyses of volatile organic compounds (VOCs) using EPA Method 8260B based on field visual observations and/or highest concentration of VOCs using calibrated photoionization detector (PID). One sample per boring with the highest concentration of TPH or VOCs was also collected for analyses of Polycyclic Aromatic Hydrocarbons (PAHs) using EPA Method 8310/8270 SIM. Finally, one trip blank sample and one duplicate of the sample with the assumed highest TPH concentration were collected for laboratory analyses of VOCs. The chain-of-custody forms presenting samples, depths, and analyses are attached in Appendix B. Laboratory analytical reports for soil samples are presented in Appendix C.

2.3 Water Elevation Surveys

The depth to water was measured in the new and existing wells. The well head caps were removed to allow the well casing pressure to equilibrate to atmospheric pressure prior to measuring the static water levels. Depths to groundwater and total water column depth were measured relative to the well TOC. The field record of water level measurements is provided in Appendix D.

The elevations of several points across and along the adjacent irrigation canal were surveyed. The points represented top-of-canal and a high-water-mark points at four locations along the canal and a water level elevation at one of the locations. These locations were selected along a portion of the canal potentially downgradient of the groundwater zones of petroleum hydrocarbon impact. The surveyed locations are shown on Figure 1. The raw survey information is presented in Appendix A.

2.4 Quarterly Groundwater Monitoring

The existing and new monitoring wells were sampled for field and laboratory analyses as follows:

+ The new and existing monitoring wells were sampled for analyses of TPHg and TPHd, VOCs, and PAHs. Prior to sampling, wells were purged using a low flow peristaltic pump with dedicated tubing. Notes of well purging and field parameter measurements are provided in Appendix C. Chain-of-custody forms are included in Appendix B. Laboratory analytical reports for groundwater samples are provided in Appendix C.

+ Field analyses of samples from the new and existing wells was performed for dissolved oxygen, oxidation-reduction potential, conductivity, pH, and turbidity. The field meter was calibrated prior to field measurements, and a copy of the field calibration sheet is provided in Appendix C.

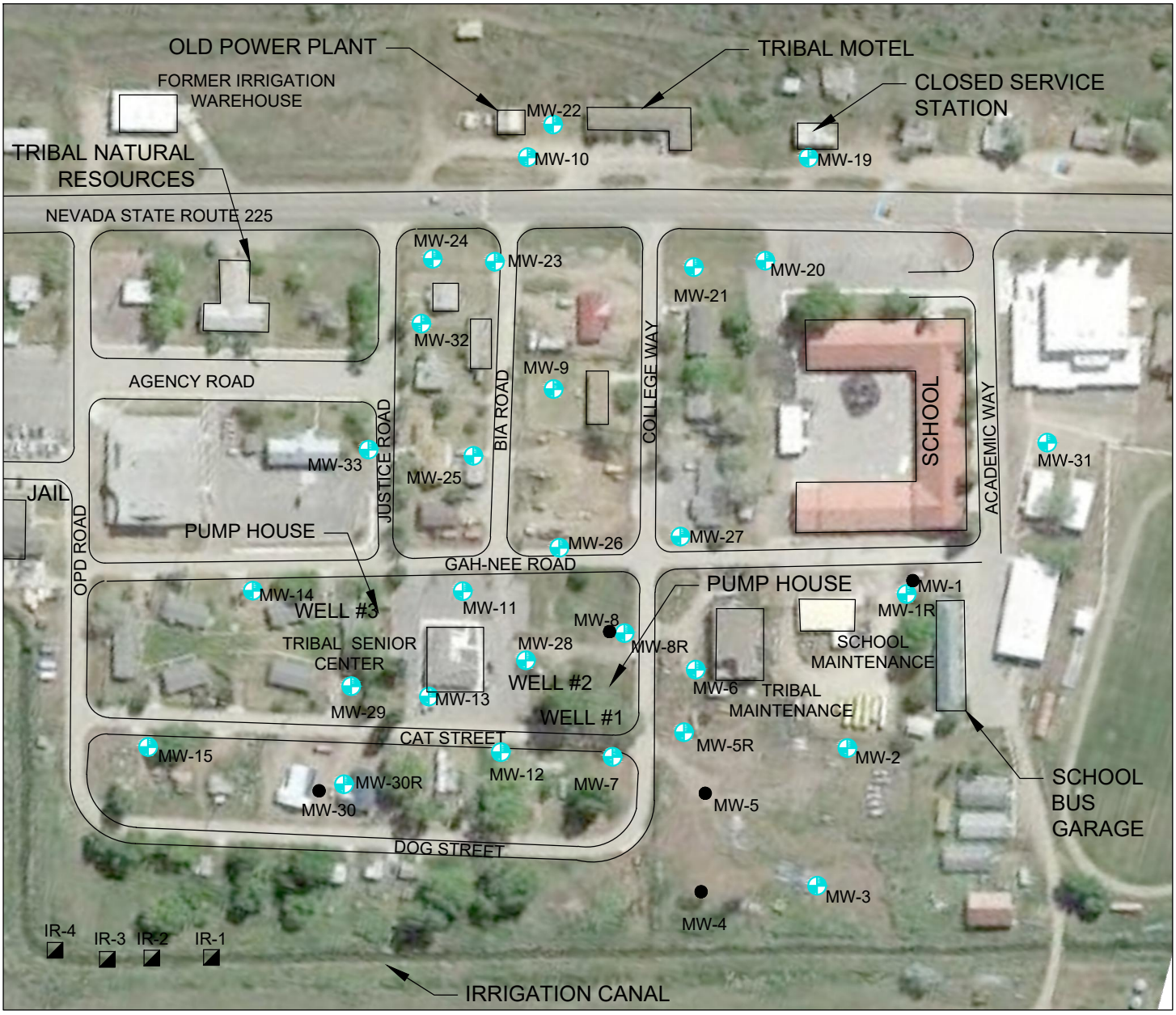
+ Samples were also collected from wells MW-1R, MW-15, MW-22, MW-23, MW-28, and MW-31 for laboratory analyses of indicators of natural attenuation of petroleum hydrocarbons including nitrate and sulfate using EPA Method 300.0, total alkalinity using Method 2320B, total dissolved solids using Method 2540C, and dissolved iron using Method 200.7. Laboratory analytical reports for groundwater samples are provided in Appendix C.

+ One trip blank sample was submitted to the laboratory for analyses of VOCs, and two duplicate samples were collected from MW-7 and MW-26 for laboratory analyses.

2.5 GPR Surveys

The firm of Ground Penetrating Radar Systems, Salt lake City, UT (GPRS) was retained to survey the location of the former Feather Lodge (shown on maps as Tribal Motel) for presence of heating oil underground storage tanks. The survey indicated potential presence of buried fuel pipes but no USTs were found. The GPRS report is attached in Appendix E. No further investigations are proposed at this location.

FIGURE



LEGEND

- EXISTING MONITORING WELL
- ABANDONED MONITORING WELL
- SURVEY POINTS - CANAL

GRAPHIC SCALE

200 0 200 400

(IN FEET)

LOCATIONS ARE APPROXIMATE

AKANA	BUREAU OF INDIAN AFFAIRS WESTERN REGIONAL OFFICE 2600 N CENTRAL AVENUE, PHOENIX, AZ 85004	SUPPLEMENTAL RI DATA REPORT DUCK VALLEY INDIAN RESERVATION, OWYHEE, NV SAMPLE LOCATIONS	JOB NO. 16-005 SHEET NO. FIG. 1

P:\PDX PROJECTS\2016\16-005 BIA Duck Valley Env. Investigation\01 Item 0010 Project Planning\05 Task 5 Project Work Plan\Field Report\CAD\FIGURE 1 OCT DATA RPT.dwg 6/27/2019 10:24 AM

TABLE

Table 1. Field Notes
Rehabilitation of Existing Wells, October 2018
Supplemental Remedial Investigation Data Report
Duck Valley Indian Reservation

MW 1/1R – MW-1 was damaged and therefore abandoned. Replaced with MW-1R.

MW-2: Good concrete seal, cleaned rubber seal, new gaskets

MW-3: Good concrete seal, dug out sand, extended 6 inches, replaced bolts, put stainless steel, new cap

MW-5R: completely buried in dirt, concrete seal with bentonite, no sand in annulus. Did not form seal when shut. Added 6" of riser, bring it to 4-6 inches. Missing bolts and neoprene washers. Replaced.

MW-6: bolted shut. bentonite seal good, new cap, 3" of sand, dirt in between steel cover and rubber seal. Cleaned.

MW-7: missing one bolt, no rubber seal on cover, 3" to bentonite, 4" riser, new cap installed, Steel flush mounted monument bolt ring broken off, had to break it out, installed new one, replaced concrete pad.

MW-8/8R: MW-8 was covered by new structures and was not accessible. MW-8R was installed as replacement well.

MW-9: Replaced pad and monument, roots in pad, pad totally cracked, dug to bentonite 1 ½ feet, vacuumed out, new cement, new cap and bolt gaskets

MW-10: pad was cracked and was replaced, bentonite seal is good, resealed with aggregate concrete mix with new flush steel monument, reset pad, replaced cap, new bolt gaskets.

MW-11: Cut down 2", cleaned out seal, new cap, gaskets, good cement seal

MW-12: Good cement seal, above ground monument, new cap, checked seal, sand inside

MW-13: Extended 3", good cement seal, cleaned out, new gaskets

MW-14: Replaced monument and pad, replaced bolt gaskets, added new cap

MW-15: cut PVC riser by 3", was hitting cover preventing seal. Added cement seal and 2" sand. Cleaned out seats, put on bolt gaskets.

MW-19: extended 5" inches, good cement seal, sand/bentonite mix 2-3", bent bolt, added new bolt, gaskets.

MW-20: Good concrete seal, added 3" riser

MW-21: Missing bolt, cap broken on cover, replaced entire monument and pad, cleaned out new bolt gaskets and raised 3" PVC, 3 bags high strength concrete.

MW-22: good condition, cleaned dirt around rubber cover seal, new bolt gaskets, cleaned out 3” sediment/sand, mixed in 2” of cement, concrete seal in well good.

MW-23: Mixed in 3” of concrete, 4” of sand, concrete seal good, replaced cap, new bolt gaskets.

MW-24: same as others, new cap, gaskets, etc

MW-25: 8” extension, good concrete to seal, mix in 2-3” of concrete, cleaned out seals

MW-26: concrete seal ok, added 6” riser and a new cap, cleaned out loose sediment. Cleaned gasket around. Added 3” of concrete. Added bolt gaskets.

MW-27: new cap, new O-rings and bolts, seal good, concrete seal, no sand. Cleaned out dirt by hand. No bolts on cover, cracked cover. Replaced cover and bolts.

MW-28: cut down 2”, good cement seal, bentonite/sand 2” to concrete seal

MW-29: extended 2”, new cap, bolt gaskets, good cement seal.

MW-30/30R: MW-30 was covered by new structures and was not accessible. MW-30R was installed as replacement well.

APPENDIX A

Daily Tailgate Safety Meeting Record Example
Boring Logs
Well Construction Details
Raw Survey Data

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Daily Tailgate Safety Meeting Record

10/15/18

Time 8:30

Facility DVIR

Location Owyhee, NV

Client Name BIA

Meeting Led By: Brent Hamil

General Activities To Be Performed This Day:

- [x] Soil Sampling - Drill Rig/GeoProbe
- [ ] Soil Sampling - by hand
- [x] Well Installation
- [ ] Excavations (pits, trenches, etc)
- [ ] Groundwater Sampling - bailing
- [x] Groundwater Sampling - pumps
- [ ] Groundwater Sampling - passive (no-purge)
- [ ] Mapping/Surveying
- [x] Inspections
- [ ] Other

Discussion Topics for Todays Safety Meeting:

- [x] Tasks to be performed today and task assignments
- [x] Weather Conditions anticipated for today
- [x] PPE and other requirements for today's activities
- [x] Actual and/or Potential safety issues from previous day
- [x] Any possible and/or anticipated safety issues for today
- [x] Anticipated Work Hours
- [x] If in several locations, means of communication and contact information

Other and/or Project-Specific Topics Discussed:

Notes

Today's Participants

Print Name	Signature	Company
Peter Van Zandt	Peter Van Zandt	Akana
Muddy Waters	[illegible]	Cascade
Steve Vibbard	Steve Vibbard	CDLP
Dax Moslock	[illegible]	CDLP
David McQuisten	David McQuisten	CDLP
Jack Clark	Jack Clark	CDLP
Brent [illegible]	[illegible]	

SOIL BORING LOG

Client	BIA	Top Grade		Site Coordinate		Boring No.	**MW-1R**
Job No.	16-005 Hydrocarbon Assessment Duck Valley Reservation Owynee, NV	Drill Rig Model	CME 85	Total Depth	20	Time Start	**14:30**
Logged By:	Brent Hamil	Sampling Method	H.S.	Top Saturation	17.5	Time Finish	**16:00**
Driller & Lic. No.	Muddy Waters	Water Sampled?	[ ]YES [X]NO	Static Water Level	Ft-TOC Date/Time	Date(s) Drilled	**10/15/2018**

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Footage	Sample No.	Sample Depth (ft.)	Lab ID No.	OVM/PID Reading	USCS Symbol	LITHOLOGIC DESCRIPTION
0		**0-18'**		**0**		Dirt - Asphalt
		18-30'		**0**	**ML**	Clayey, silt, sand with gravel, D. Brown MOIST
		3-4.5		**4.4**	**CL**	Clay - sandy and silty - pour sorting, v. moist - soft
5		**4.5-6**		**0.7**		Inc. moisture
		6-7.5		**0**		
		7.5-9				Wet @ 7.5, gravel and sand - slightly silty and clayey, brown, soft-wet
						No sample 6/6
10						Litho from cuttings - cobbles and boulders
15						end @ 20
						5' riser 15' Screen
20						
25						
30						
35						**Total Depth - Borehole = 20-ft**
40						
45						
50						

SOIL BORING LOG

Client	BIA	Top Grade		Site Coordinate		Boring No.	MW-31
Job No.	16-005 Hydrocarbon Assessment Duck Valley Reservation	Drill Rig Model	CME 85	Total Depth	20	Time Start	11:00
Logged By:	Brent Hamil	Sampling Method	H.S.	Top Saturation	12-13'	Time Finish	13:00
Driller & Lic. No.	Muddy Waters	Water Sampled?	[ ]YES [X]NO	Static Water Level	Ft-TOC / Date/Time	Date(s) Drilled	10/15/2018

AKANA

Footage	Sample No.	Sample Depth (ft.)	Lab ID No.	OVM/PID Reading	USCS Symbol	LITHOLOGIC DESCRIPTION
0		0-1.5		0		Gravel, parking lot. 1-5"
		1.5-3		0	ML	Clayey, silt, sands, gravel, dry med. Dense (ML)
5	1	4.5-6		0	GM-ML	Gravel, cobbles and boulders w/ silt (GM + ML), brown, dry, v. hard
		6.0-7.0		0		
		7.0-8.0		0		
		8.0-10		0	CL, SM	Clay, sandy and silty, poor sorting, dry -brown
10					GM-CL, SM-SC	Gravel and sand, brown - silty, sandy, s. moist, loose (GM-Cl SM-SC)
		10.0-11		0		
	No 2	(11.0-12)		0		Same Wet @ 12.5' Inc Clay
		(12.0-13)		12		Same - Wet, gravel w/ sand silt and clay - med-
		13-15		0		
15					GM-GC	Boulders, no recovery 15-17
		17-18		0		18 - cobbles and boulder, moist, brown (GM and GC)
		18-20		0		Same, increasing clay
20						**END @ 20 ' 5' riser 15' screen**
25						
30						
35						**Total Depth - Borehole = 20-ft**
40						
45						
50						

SOIL BORING LOG

Client	BIA	Top Grade		Site Coordinate		Boring No.	**MW-32**
Job No.	16-005 Hydrocarbon Assessment Duck Valley Reservation	Drill Rig Model	CME 85	Total Depth	22	Time Start	**9:00**
Logged By:	Brent Hamil	Sampling Method	H.S.Split Spoon	Top Saturation	10.5	Time Finish	**12:00**
Driller & Lic. No.	Muddy Waters	Water Sampled?	[ ]YES [X]NO	Static Water Level	Ft-TOC / Date/Time	Date(s) Drilled	**10/16/2018**

AKANA

Footage	Sample No.	Sample Depth (ft.)	Lab ID No.	OVM/PID Reading	USCS Symbol	LITHOLOGIC DESCRIPTION
0						
		0-18"		**0**	**CL, ML**	Grass - top soil
						Clay - brown, silty low placticity - v. hard
		1.5-3		**0**		80% rec
		3-4.5		**0**		
5		**4.5-6**		**0**	**SW**	Sand w/ clay brown dry - gravel
					SC	
		6-7.5		**0**		Sand w/ gravel, loose, moist
					SW	
		7.5-9		**0**		Same
10		**9-10.5**		**5**		Same, moist
		10.5-12		**0.2**		10.5-11 v. moist to wet
		12-13.5		**0**		wet at 13'
15						
						Wet - no samples or lithology collected over drill to 22'
						end @ 22 5' Riser 15' screen well @ 20' TD
20						
25						
30						
						Total Depth - Borehole = 20-ft
35						
40						
45						
50						

SOIL BORING LOG

Client	BIA	Top Grade		Site Coordinate		Boring No.	**MW-33**
Job No.	16-005 Hydrocarbon Assessment Duck Valley Reservation	Drill Rig Model	CME 85	Total Depth	22	Time Start	**12:00**
Logged By:	Brent Hamil	Sampling Method	HS Split Spoon	Top Saturation	12	Time Finish	**14:00**
Driller & Lic. No.	Muddy Waters	Water Sampled?	[ ]YES [X]NO	Static Water Level	Ft-TOC / Date/Time	Date(s) Drilled	**10/16/2018**

AKANA

Footage	Sample No.	Sample Depth (ft.)	Lab ID No.	OVM/PID Reading	USCS Symbol	LITHOLOGIC DESCRIPTION
0						
		0-1.5		**0**		Grass topsoil - 6-8"
					CL	Clay w/ gravel, brown, dry, dense
		1.5-3		**0**		1.5-3 poor recovery 60%
		3-4.5		**0**		Loose, incl. gravel
5		**4.5-6**		**0**	**GP**	
						Gravel and cobbles and clay - brown and loose, dry
		6-7.5		**0**	**GC**	
						Gravel w/ sand - v. moist - loose - cobble, brown
		7.5-9		**0**	**GW**	
10		**9.0-11**		**0**	**GM**	Same, moist
					GC	
		11-12.5		**0.6**		Gravel and sand, moist and wet, loose, slightly layer
					SM	poor sorting
		12.5-14		**0**	**SC**	incl. clay - wet
15						
						Agu. Only SAA
						End @ 22 - over drill 22' set 5' Riser 15' Screen
20						
25						
30						
						Total Depth - Borehole = 20-ft
35						
40						
45						
50						

WELL INSTALLATION FIELD DATA RECORD

LOCATION - GPS FIELD COORDINATES

N 28876019.886 ~~W~~ E 516203.744

Client BIA	Job No. 16-005
Original Boring No. MW-1R	Location Duck Valley Reservation, Owyhee, NV
Field	Date Installed 10/18/2018
Tech/ Geologist Brent Hamil	Type Rig CME 85
Top Saturation	Type of Drilling [ ] Hollow Stem [ ] Push [ ] Solid Stem [ ] Sonic [ ] Rotary ⇨ [ ] Air [ ] Water [ ] Mud
Drilling Method Hollow Stem -Split Spoon	Total Depth Drilled 20 ft
Drilling Company Cascade Drilling	Driller Muddy Waters
Drilling Co. Location	Drill License #

INSTALLATION DEVELOPMENT

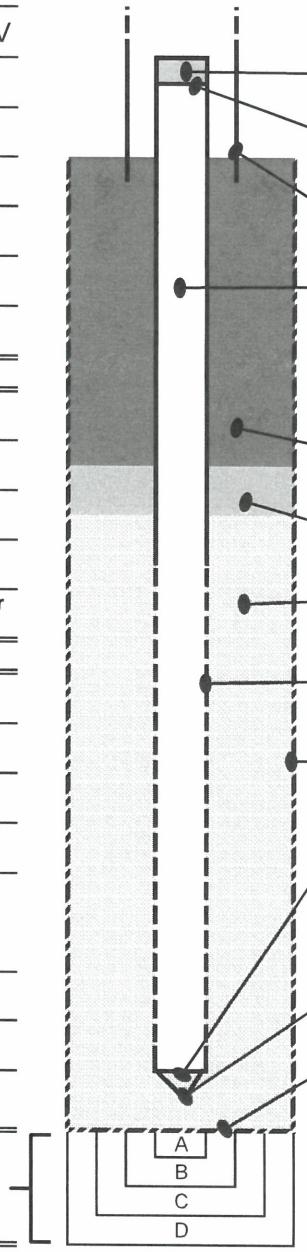
Method Used				
Began	Date & Time		Finish	Date & Time
Pre-Developme	pH	Turbidity	Specific Conduc.	Temp.
Post-Developme	pH	Turbidity	Specific Conduc.	Temp.
Volume Removed		Rate of Removal		**Use Well Development Form For Detailed Record**

MATERIALS USED

Filter Pack Sand	# Sacks	Sieve Size Range	Manufacturer	
Bentonite Pellets	# Pails	Pellet Size (inch)	Manufacturer	
Cement	# Sacks	Grade Type	Manufacturer	
Bentonite Powder	# Sacks	Grade Type	Manufacturer	
Blank Casing	# Feet	Diameter (inch)	Schedule	Manufacturer
Slotted Screen	# Feet	Diameter (inch)	Slot Size (inch)	
Surface Casing	# Feet	Diameter (inch)	Type [ ] PVC [ ] Stainless Steel [ ] Black Steel [ ] Fiberglass [ ] Other _____	
Surface Protection	[ ] Flush [ ] Stand	Dia. Of Pipe (inch)	Material	Locking [ ] YES [ ] NO
Surface Pad	cu yds cement	Type [ ] Sand base [ ] Gravel base	Pad Size (feet) LxW	Pad Thick. (inches)

A - Well/Screen Diameter (inch) 2 inch	B - Protective Pipe Diameter (inche)	C - Surface Casing Diameter (inch)	D - Borehole Diameter (inch)

WELL COMPLETION



Type of Well Cape	Expansion
Top of Well from Grade Level	Below
Protective Casing	0 to 18
Well Casing	0 to 5
Cement Grout	.5 to 2
Bentonite Pellets	2 to 4
Filter Pack Sand	4 to 20
Slotted Screen	5 to 20
Borehole	0 to 20
Bottom Cap	20 to 20.25
Cap Type	Threaded PVC
Total Well Depth	20
Total Borehole Depth	20

WELL NAME

MW-1R

WELL INSTALLATION FIELD DATA RECORD

LOCATION - GPS FIELD COORDINATES

N 2887589.986 ~~W~~ E 516437.981

Client BIA	Job No. 16-005
Original Boring No. MW-31	Location Duck Valley Reservation, Owyhee, NV
Field	Date Installed 10-15-18
Tech/ Geologist Brent Hamil	Type Rig CME 85
Top Saturation	Type of Drilling [ ] Hollow Stem [ ] Push [ ] Solid Stem [ ] Sonic [ ] Rotary ⇨ [ ] Air [ ] Water [ ] Mud
Drilling Method Hollow Stem - Split Spoon	Total Depth Drilled 20 ft
Drilling Company Cascade Drilling	Driller Muddy Waters
Drilling Co. Location	Drill License #

INSTALLATION DEVELOPMENT

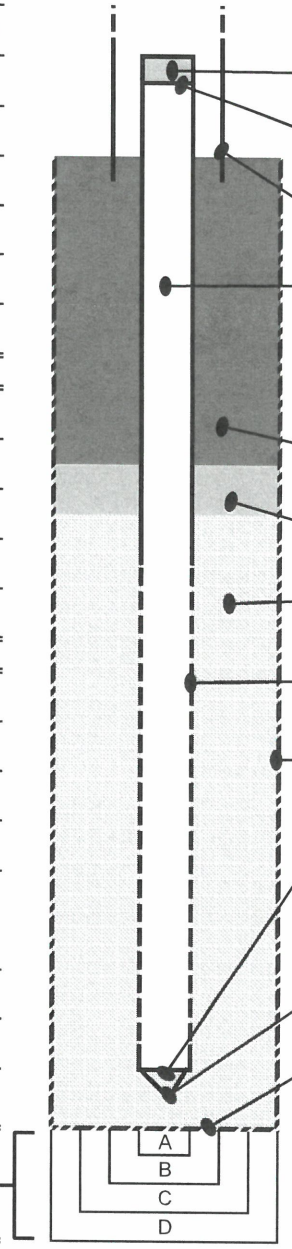
Method Used				
Began	Date & Time		Finish	Date & Time
Pre-Developme	pH	Turbidity	Specific Conduc.	Temp.
Post-Developme	pH	Turbidity	Specific Conduc.	Temp.
Volume Removed		Rate of Removal		**Use Well Development Form For Detailed Record**

MATERIALS USED

Filter Pack Sand	# Sacks	Sieve Size Range	Manufacturer	
Bentonite Pellets	# Pails	Pellet Size (inch)	Manufacturer	
Cement	# Sacks	Grade Type	Manufacturer	
Bentonite Powder	# Sacks	Grade Type	Manufacturer	
Blank Casing	# Feet	Diameter (inch)	Schedule	Manufacturer
Slotted Screen	# Feet	Diameter (inch)	Slot Size (inch)	
Surface Casing	# Feet	Diameter (inch)	Type [ ] PVC [ ] Stainless Steel [ ] Black Steel [ ] Fiberglass [ ] Other _____	
Surface Protection	[ ] Flush [ ] Stand	Dia. Of Pipe (inch)	Material	Locking [ ] YES [ ] NO
Surface Pad	cu yds cement	Type [ ] Sand base [ ] Gravel base	Pad Size (feet) LxW	Pad Thick. (inches)

A - Well/Screen Diameter (inch) 2 inch	B - Protective Pipe Diameter (inche)	C - Surface Casing Diameter (inch)	D - Borehole Diameter (inch)

WELL COMPLETION



Type of Well Cape	Expansion
Top of Well from Grade Level	Below
Protective Casing	0 to 18
Well Casing	0 to 5
Cement Grout	.5 to 2
Bentonite Pellets	2 to 4
Filter Pack Sand	4 to 20
Slotted Screen	5 to 20
Borehole	0 to 20
Bottom Cap	20 to 20.25
Cap Type	Threaded PVC
Total Well Depth	20
Total Borehole Depth	20

WELL NAME

MW-31

WELL INSTALLATION FIELD DATA RECORD

LOCATION - GPS FIELD COORDINATES

N 28876712.526 ~~W~~ E 516386.079

Client BIA	Job No. 16-005
Original Boring No. MW-32	Location Duck Valley Reservation, Owyhee, NV
Field	Date Installed 10-15-18
Tech/ Geologist Brent Hamil	Type Rig CME 85
Top Saturation	Type of Drilling [ ] Hollow Stem [ ] Push [ ] Solid Stem [ ] Sonic [ ] Rotary ⇨ [ ] Air [ ] Water [ ] Mud
Drilling Method Hollow Stem - Split Spoon	Total Depth Drilled 20 ft
Drilling Company Cascade Drilling	Driller Muddy Waters
Drilling Co. Location	Drill License #

INSTALLATION DEVELOPMENT

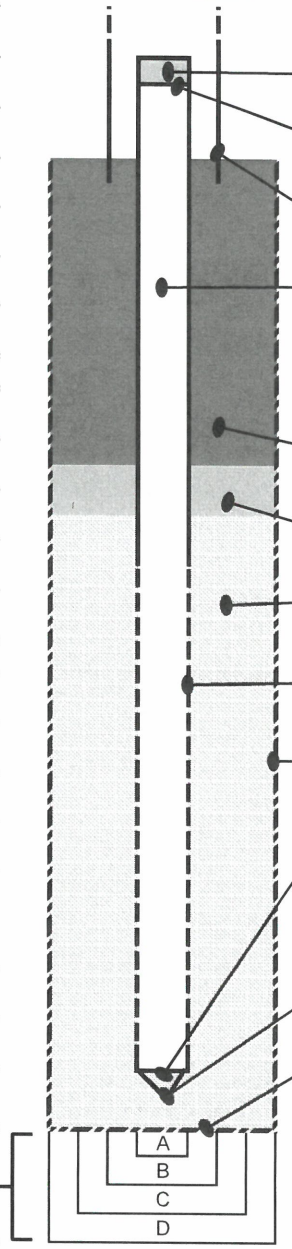
Method Used				
Began	Date & Time		Finish	Date & Time
Pre-Developme	pH	Turbidity	Specific Conduc.	Temp.
Post-Developme	pH	Turbidity	Specific Conduc.	Temp.
Volume Removed		Rate of Removal		**Use Well Development Form For Detailed Record**

MATERIALS USED

Filter Pack Sand	# Sacks	Sieve Size Range	Manufacturer	
Bentonite Pellets	# Pails	Pellet Size (inch)	Manufacturer	
Cement	# Sacks	Grade Type	Manufacturer	
Bentonite Powder	# Sacks	Grade Type	Manufacturer	
Blank Casing	# Feet	Diameter (inch)	Schedule	Manufacturer
Slotted Screen	# Feet	Diameter (inch)	Slot Size (inch)	
Surface Casing	# Feet	Diameter (inch)	Type [ ] PVC [ ] Stainless Steel [ ] Black Steel [ ] Fiberglass [ ] Other _____	
Surface Protection	[ ] Flush [ ] Stand	Dia. Of Pipe (inch)	Material	Locking [ ] YES [ ] NO
Surface Pad	cu yds cement	Type [ ] Sand base [ ] Gravel base	Pad Size (feet) LxW	Pad Thick. (inches)

A - Well/Screen Diameter (inch) 2 inch	B - Protective Pipe Diameter (inche)	C - Surface Casing Diameter (inch)	D - Borehole Diameter (inch)

WELL COMPLETION



Type of Well Cape	Expansion
Top of Well from Grade Level	Below
Protective Casing	0 to 18"
Well Casing	0 to 5'
Cement Grout	.5 to 2
Bentonite Pellets	2 to 4
Filter Pack Sand	4 to 20
Slotted Screen	5 to 20
Borehole	0 to 20
Bottom Cap	20 to 20.25
Cap Type	Threaded PVC
Total Well Depth	20
Total Borehole Depth	20

WELL NAME

MW-32

Basis of Bearings and Elevation

National Spatial Reference System (NSRS) NAD 83(2011) epoch 2010.00 per the National Geodetic Survey's (NGS) October 24, 2018 published latitude, longitude and ellipsoid height for NGS CORS P007 of North 41°43'27.10604", West 114°49'10.91391", and 1687.213 meters (5535.464 feet). The projection used for this site is Nevada State Plane, East Zone using U.S. Survey feet and scaling the State Plane grid coordinates by a combined grid to ground factor of 1.0003338. Orthometric elevations above mean sea level are derived using Geoid 12.

1000	28876612.12	516676.429	5404.483	MW PIPE 22
1001	28876612.6	516676.346	5405.244	MW N RIM 22
1002	28876613.31	516676.231	5405.154	GND N
1003	28876646.83	516684.092	5405.855	BLD COR
1004	28876639.76	516657.842	5405.297	BLD COR
1005	28876669.5	516649.594	5406.14	BLD COR
1006	28876630.57	516625.374	5404.213	MW 10 PIPE
1007	28876630.89	516625.3	5404.907	MW 10 RIM N
1008	28876631.52	516625.239	5404.804	GND N
1009	28876639.46	516487.237	5399.676	MW 23 PIPE
1010	28876639.85	516487.071	5399.934	MW 23 RIM N
1011	28876640.58	516486.922	5399.801	GND N
1012	28876717.98	516469.419	5399.484	MW 24 PIPE
1013	28876718.38	516469.293	5400.342	MW 24 RIM N
1014	28876719.34	516469.092	5400.259	GND N
1015	28876712.53	516386.079	5398.775	MW 32 PIPE
1016	28876712.83	516386.039	5399.117	MW 32 RIM N
1017	28876713.5	516385.937	5399.016	GND N
1018	28876753.9	516364.994	5400.614	TBC
1019	28876750.98	516353.497	5400.389	TBC PC
1020	28876750.46	516340.68	5400.341	TBC POC
1021	28876762.77	516326.251	5400.245	TBC PT
1022	28876779.34	516322.403	5400.304	TBC PT
1023	28876764.13	516268.219	5399.265	TBC
1024	28876753.45	516270.811	5399.304	TBC PC
1025	28876739.85	516270.766	5399.049	TBC POC
1026	28876727.3	516256.751	5398.772	TBC PT
1027	28876723	516239.499	5398.392	TBC
1028	28876698.98	516246.462	5398.324	TBC
1029	28876705.69	516273.678	5398.908	TBC
1030	28876712.81	516302.499	5399.522	TBC
1031	28876719.56	516330.011	5400.021	TBC
1032	28876724.07	516348.127	5400.335	TBC
1033	28876737.72	516211.856	5397.982	MW 33 PIPE
1034	28876737.99	516211.767	5398.331	MW 33 RIM N
1035	28876738.63	516211.978	5398.181	GND N
1036	28876836.68	515994.596	5395.514	MW 14 PIPE
1037	28876836.96	515994.528	5396.036	MW 14 RIM
1038	28876837.69	515994.651	5395.842	GND N
1039	28876917.97	515766.976	5391.432	MW 15 PIPE
1040	28876918.18	515766.916	5391.75	MW 15 RIM N
1041	28876918.64	515766.829	5391.808	GND N
1042	28876661.48	515786.573	5392.77	MW 30R PIPE
1043	28876661.81	515786.53	5393.237	MW 30R RIM N
1044	28876662.39	515786.681	5393.141	GND N
1045	28876683.64	515911.26	5393.925	MW 29 PIPE
1046	28876684.1	515911.182	5394.307	MW 29 RIM N

1047	28876685.06	515910.775	5394.272	GND N
1048	28876583.89	515919.649	5394.147	MW 13 PIPE
1049	28876584.21	515919.536	5394.412	MW 13 RIM N
1050	28876585.39	515919.278	5394.384	AC N
1051	28876475.85	515874.268	5395.2	MW 12 PIPE
1052	28876476.02	515874.263	5395.479	MW 12 N
1053	28876476.74	515874.292	5393.409	MW 12 GND N
1054	28876334.18	515902.277	5393.594	MW 7 PIPE
1055	28876334.48	515902.246	5394.006	MW 7 RIM N
1056	28876335.12	515902.198	5393.865	GND N
1057	28876039.14	515807.202	5392.503	MW 3 PIPE
1058	28876039.4	515807.181	5392.892	MW 3 RIM N
1059	28876040.16	515807.407	5392.864	GND N
1060	28876100.76	515866.961	5394.394	DF1
1061	28876105.96	515871.905	5394.369	DF2
1062	28876097.67	515872.882	5394.38	DF3
1063	28876103.85	515861.09	5394.465	DF4
1064	28876095.07	515862.086	5394.351	DF5
1065	28876044.45	515988.36	5394.417	MW 2 PIPE
1066	28876044.85	515988.317	5394.815	MW 2 RIM N
1067	28876046.15	515988.6	5394.857	GND N
1068	28876251.79	515961.55	5395.337	MW 5R PIPE
1069	28876252.16	515961.524	5395.836	MW 5R RIM N
1070	28876252.94	515961.488	5395.82	GND N
1071	28876258.97	516038.574	5396.137	MW 6 PIPE
1072	28876259.26	516038.564	5396.647	MW 6 RIM N
1073	28876260.22	516038.612	5396.617	GND N
1074	28876360.01	516064.899	5395.944	MW 8R PIPE
1075	28876360.33	516064.828	5396.244	MW 8R RIM N
1076	28876360.95	516064.683	5396.105	GND N
1077	28876019.89	516203.744	5396.257	MW 1R PIPE
1078	28876020.21	516203.769	5396.844	MW 1R RIM N
1079	28876020.96	516203.984	5396.817	GND N
1080	28875958.28	516308.27	5399.101	BLDG COR SCHOOL
1081	28875893.99	516437.986	5399.273	MW 31 PIPE
1082	28875894.21	516437.925	5399.561	MW 31 RIM N
1083	28875895.23	516437.9	5399.387	GND N
1084	28876029.31	516566.473	5400.372	BLDG COR SCHOOL
1085	28876282.77	516716.894	5403.85	MW 19 PIPE
1086	28876283.13	516716.66	5404.239	MW 19 RIM N
1087	28876283.54	516716.828	5404.455	AC N
1088	28876304.11	516573.741	5400.761	MW 20 PIPE
1089	28876304.55	516573.772	5401.289	MW 20 RIM N
1090	28876305.17	516573.681	5401.242	GND N
1091	28876389.95	516545.469	5400.145	MW 21 PIPE
1092	28876390.28	516545.495	5400.578	MW 21 RIM N
1093	28876391.31	516545.393	5400.379	GND N

1094	28876320.72	516203.115	5398.016	MW 27 PIPE
1095	28876321.17	516203.194	5398.538	MW 27 RIM N
1096	28876321.83	516203.644	5398.378	GND N
1097	28876468.78	516150.772	5395.419	MW 26 PIPE
1098	28876469.23	516150.79	5395.796	MW 26 RIM N
1099	28876469.8	516150.645	5395.669	GND N
1100	28876574.01	516060.572	5395.562	MW 11 PIPE
1101	28876574.34	516060.566	5395.887	MW 11 RIM N
1102	28876575.64	516060.678	5395.9	AC N
1103	28876471.39	515998.634	5394.842	MW 28 PIPE
1104	28876471.76	515998.697	5395.086	MW 28 RIM N
1105	28876472.76	515998.679	5395.109	AC N
1106	28876604.52	516238.42	5397.048	MW 25 PIPE
1107	28876604.96	516238.462	5397.418	MW 25 RIM N
1108	28876605.94	516238.372	5397.356	GND N
1109	28876524.74	516343.171	5397.212	MW 9 PIPE
1110	28876525.07	516343.17	5397.6	MW 9 RIM N
1111	28876525.9	516343.209	5397.324	GND N
1112	28876772.05	515527.584	5391.802	BANK TOP
1113	28876771.58	515524.572	5390.044	HWM
1114	28876844.48	515503.553	5390.253	HWM
1115	28876845.02	515507.659	5391.855	BANK TOP
1116	28876900.43	515491.133	5391.359	BANK TOP
1117	28876900.21	515488.843	5390.129	HWM
1118	28876967.16	515486.82	5391.836	BANK TOP
1119	28876968.77	515483.635	5390.121	H2O TOP
5000	28876857.62	517290.308	5533.699	60D NAIL
9007	28796786.58	864899.976	5587.321	DL7710

APPENDIX B

Chain-of-Custody Forms

Akana - Richardson, TX

1850 N. Greenville Ave.
Suite 170
Richardson, TX 75081

Billing Information:
Accounts Payable
6400 SE Lake Rd., Ste. 270
Portland, OR 97222

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Pace Analytical®
National Center for Testing & Innovation

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

Report to: Brent Hamil

Email To: brent.hamil@akana.us
SAID.Amali@Akana.us

Project Description: Duck Valley Indian Reservation

City/State Collected:

Phone: 214-676-2274
Fax:

Client Project # Akana-16-005

Lab Project # AKANARTX-16-005

L# L1036064

F101

Collected by (print): Brent Hamil

Site/Facility ID # OWYHEE, NV

P.O. # PO # (16-005 Task 6)

Collected by (signature): Brent Hamil

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ✓ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Immediately Packed on Ice N ___ Y ✓

Acctnum: AKANARTX
Template: T141538
Prelogin: P675981
TSR: 526 - Chris McCord
PB: 10/4/18
Shipped Via: FedEX Ground

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	DRO 4ozClr-NoPres	Dioxin/Furans 4ozClr-NoPres	GRO 2ozClr-NoPres	~~SV8141~~, SV8270PAHSIM 4ozClr-NoPres	V8260 40mlAmb/MeOH5ml/Syr	Remarks	Sample # (lab only)
MW-31	GRAB	SS	4.5-6	10-15-18	1240	2	X		X				-01
MW-31		SS	12-13	10-15-18	1300	4	X		X	X	X		02
MW-1R		SS	3-4.5	10-15-18	1530	5 4	X		X	X	X		03
MW-1R		SS	6-7.5	10-15-18	1540	2	X		X				04
MW-32		SS	3-4.5	10-16-18	1000	2	X		X				05
MW-32		SS	4.5-6	10-16-18	1010	2	X		X				06
MW-32		SS	9-10.5	10-16-18	1015	4	X		X	X	X		07
MW-33		SS	4.5-6	10-16-18	1305	2	X		X				08
MW-33		SS	11-12.5	10-16-18	1315	4	X		X	X	X		09
TRIP Blank		SS				3					X		10

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

Remarks:

RAD SCREEN: <0.5 mR/hr

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS X FedEx __ Courier _____

Tracking # 4624 2995 5971

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeOH TBR
Brent Hamil	10-17-18	800		3
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.8 °C Bottles Received: 42
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/18/18 Time: 845

If preservation required by Login: Date/Time

10-137

Condition: NCF / OK

Akana - Richardson, TX

1850 N. Greenville Ave.
Suite 170
Richardson, TX 75081

Billing Information:
Accounts Payable
6400 SE Lake Rd., Ste. 270
Portland, OR 97222

Report to: Brent Hamil

Email To: brent.hamil@akana.us
SAID. Anali @ Akana.us

Project Description: Duck Valley Indian Reservation

City/State Collected:

Phone: 214-676-2274
Fax:

Client Project #: Akana-16-005

Lab Project #: AKANARTX-16-005

Collected by (print): Brent Hamil

Site/Facility ID #: OWYHEE, NV

P.O. #: PO # (16-005 Task 6)

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Pres Chk

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	DRO 4ozClr-NoPres	Dioxin/Furans 4ozClr-NoPres	GRO 2ozClr-NoPres	SV8141,SV8270PAHSIM 4ozClr-NoPres	V8260 40mlAmb/MeOH5ml/Syr	Remarks	Sample # (lab only)
MW-32 Duplicate	Grab	SS	9-105	10-16-18	1015	3					X		-11
		SS											
		SS											
		SS											
		SS											
		SS											
		SS											
		SS											
		SS											
		SS											

Chain of Custody Page ___ of ___

Pace Analytical®
National Center for Testing & Innovation

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

L# L1036064

Table #

Acctnum: AKANARTX

Template: T141538

Prelogin: P675981

TSR: 526 - Chris McCord

PB: 10/4/18

Shipped Via: FedEx Ground

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

Remarks:

RAD SCREEN: <0.5 mR/hr

pH _____ Temp _____
Flow _____ Other _____

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

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeOH TBR
[signature]	10-17-18	800		3
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.8°C +.1 °C Bottles Received: 42
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/18/18 Time: 845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Akana - Richardson, TX

1850 N. Greenville Ave.
Suite 170
Richardson, TX 75081

Billing Information:
Accounts Payable
6400 SE Lake Rd., Ste. 270
Portland, OR 97222

Report to: Brent Hamil

Email To: brent.hamil@akana.us

Project Description: Duck Valley Indian Reservation

City/State Collected:

Phone: 214-676-2274
Fax:

Client Project # Akana-16-005

Lab Project # AKANARTX-16-005

Collected by (print): Peter Van Zandt

Site/Facility ID # OWYHEE, NV

P.O. # PO # (16-005 Task 6)

Collected by (signature): Peter Van Zandt

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

Pace Analytical® National Center for Testing & Innovation

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

L# L1035901

C211

Acctnum: AKANARTX
Template: T141536
Prelogin: P675969
TSR: 526 - Chris McCord
PB: 10/5/18 MG
Shipped Via: FedEX Ground

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	**NO3,SO4,ALK** 250mlHDPE-NoPres	DROLVI 40mlAmb-HCl-BT	FERUSFE 250mlAmb-HCl	GRO 40mlAmb HCl	PAHSIMLVI 40mlAmb-NoPres-WT	TDS 250mlHDPE-NoPres	V8260 40mlAmb-HCl	Remarks	Sample # (lab only)
MW-27	Grab	GW		10/16/18	9:15	9		X		X	X		X		-01
MW-6		GW		10/16/18	10:50	9									-02
MW-5		GW		10/16/18	11:55	9									-03
MW-7		GW		10/16/18	12:35	9									-04
* DUP-1		GW		10/16/18	12:35	9									
MW-10		GW		10/16/18	14:40	9									-05
MW-20		GW		10/16/18	16:10	9									-06
MW-26		GW		10/16/18	17:25	9									-07
* DUP-2		GW		10/16/18	17:25	9									
		GW													

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

Remarks: **NO3,SO4,ALK** has a 48hr hold time.

RAD El -R/hr

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: __ UPS ✓ FedEx __ Courier _____

Tracking # 4624 2995 6555

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: ✓Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeoH TBR
Peter Van Zandt	10/17/18	15:45		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C 1.7-0.2=1.5 Bottles Received: 119
				If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/18/18 Time: 845

10-129

Condition: NCF / OK

Akana - Richardson, TX

1850 N. Greenville Ave.
Suite 170
Richardson, TX 75081

Billing Information:
Accounts Payable
6400 SE Lake Rd., Ste. 270
Portland, OR 97222

Report to: Brent Hamil

Email To: brent.hamil@akana.us

Project Description: Duck Valley Indian Reservation

City/State Collected:

Phone: 214-676-2274
Fax:

Client Project #: Akana-16-005

Lab Project #: AKANARTX-16-005

Collected by (print): Peter Van Zandt

Site/Facility ID #: OWYHEE, NV

P.O. #: PO # (16-005 Task 6)

Collected by (signature): Peter Van Zandt

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Pres Chk: L2

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	**NO3,SO4,ALK** 250mlHDPE-NoPres	DROLVI 40mlAmb-HCl-BT	FERUSFE 250mlAmb-HCl	GRO 40mlAmb HCl	PAHSIMLVI 40mlAmb-NoPres-WT	TDS 250mlHDPE-NoPres	V8260 40mlAmb-HCl	Remarks	Sample # (lab only)
MW-15	Grab	GW		10/17/18	9:05	12	X	X	X	X	X	X	X		-08
MW-12	↓	GW		10/17/18	10:25	12	↓	↓	↓	↓	↓	↓	↓		-09
MW-23	↓	GW		10/17/18	11:40	12	↓	↓	↓	↓	↓	↓	↓		-10
		GW													
		GW													
		GW													
		GW													
		GW													
		GW													
		GW													

Chain of Custody Page ___ of ___

Pace Analytical®
National Center for Testing & Innovation

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

L# 4035901

Table #

Acctnum: AKANARTX

Template: T141536

Prelogin: P675969

TSR: 526 - Chris McCord

PB: 10/15/18 MW

Shipped Via: FedEx Ground

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

Remarks: **NO3,SO4,ALK** has a 48hr hold time.

RAD SCREEN

pH _____ Temp _____
Flow _____ Other _____

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

Tracking # 4624 2995 6555

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: ✓Y __N
Preservation Correct/Checked: ✓Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
Peter Van Zandt	10/17/18	15:45			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received: 1.7-0.2=1.5 ✓ 119	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/18/18 Time: 945	Hold: Condition: NCF / OK

Akana - Richardson, TX

1850 N. Greenville Ave.
Suite 170
Richardson, TX 75081

Billing Information:
Accounts Payable
6400 SE Lake Rd., Ste. 270
Portland, OR 97222

Email To: brent.hamil@akana.us

Report to: Brent Hamil

Project Description: Duck Valley Indian Reservation

City/State Collected:

Phone: 214-676-2274
Fax:

Client Project #: Akana-16-005

Lab Project #: AKANARTX-16-005

Collected by (print): Peter Van Zandt

Site/Facility ID #: OWYHEE, NV

P.O. #: PO # (16-005 Task 6)

Collected by (signature): Peter V Zandt

Quote #

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Pres Chk: ≤2

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	**NO3,SO4,ALK** 250mlHDPE-NoPres	DROLVI 40mlAmb-HCl-BT	FERUSFE 250mlAmb-HCl	GRO 40mlAmb HCl	PAHSIMLVI 40mlAmb-NoPres-WT	TDS 250mlHDPE-NoPres	V8260 40mlAmb-HCl	Remarks	Sample # (lab only)
MW-28	Grab	GW		10/18/18	19:05	12	X	X	X	X	X	X	X		-01
MW-31		GW			18:25	12	X	X	X	X	X	X	X		-02
MW-1R		GW			17:45	12	X	X	X	X	X	X	X		-03
MW-32					16:35	9		X		X	X		X		-04
MW-25					15:25										-05
MW-12					14:30										-06
MW-13					13:45										-07
MW-9					12:40										-08
MW-3					11:50										-09
MW-2					10:00										-10

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

Remarks: **NO3,SO4,ALK** has a 48hr hold time.

RAD SCREEN: <0.5 mR/hr

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: __UPS __FedEx ✓ Courier _____

Tracking # 4624 2995 6599

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Peter V Zandt	10/19/18	9:45	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCl / MeoH
TBR

Temp: °C 1.4+0.5-1.9°C Bottles Received: 187

Date: 10/20/18 Time: 845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: ✓Y __N
Preservation Correct/Checked: ✓Y __N

Chain of Custody Page ___ of ___

Pace Analytical®
National Center for Testing & Innovation

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

L# L1036655
C138

Acctnum: AKANARTX
Template: T141536
Prelogin: P675969
TSR: 526 - Chris McCord
PB: 10/5/18 MO
Shipped Via: FedEx Ground

Akana - Richardson, TX

1850 N. Greenville Ave.
Suite 170
Richardson, TX 75081

Billing Information:
Accounts Payable
6400 SE Lake Rd., Ste. 270
Portland, OR 97222

Report to: Brent Hamil

Email To: brent.hamil@akana.us

Project Description: Duck Valley Indian Reservation

City/State Collected:

Phone: 214-676-2274
Fax:

Client Project #: Akana-16-005

Lab Project #: AKANARTX-16-005

Collected by (print): Peter Van Zandt

Site/Facility ID #: OWYHEE, NV

P.O. #: PO # (16-005 Task 6)

Collected by (signature): Peter V Zandt

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

Pace Analytical®
National Center for Testing & Innovation

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

L# 4036655

Acctnum: AKANARTX
Template: T141536
Prelogin: P675969
TSR: 526 - Chris McCord
PB: 10/5/18 MG
Shipped Via: FedEx Ground

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	**NO3,SO4,ALK** 250mlHDPE-NoPres	DROLVI 40mlAmb-HCl-BT	FERUSFE 250mlAmb-HCl	GRO 40mlAmb HCl	PAHSIMLVI 40mlAmb-NoPres-WT	TDS 250mlHDPE-NoPres	V8260 40mlAmb-HCl				Remarks	Sample # (lab only)
MW-19	Grab	GW		10/18/18	9:00	9		X		X	X		X					-11
MW-21		GW			7:45													-12
MW-8R		GW			9:45													-13
MW-30R		GW			10:45													-14
MW-33		GW			11:25													-15
MW-11		GW			14:00													-16
MW-14		GW			15:05													-17
MW-24		GW			16:10													-18
MW-29		GW			17:10													-19
Trip Blank		GW		10/19/18	9:45								X					-20

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

Remarks: **NO3,SO4,ALK** has a 48hr hold time.

RAD SCREEN: <0.5 mR/hr

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: __ UPS __ FedEx ✓ Courier _____

Tracking # 4624 2995 6519 1662 5

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: ✓Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
Peter V Zandt	10/19/18	9:45			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C 1.4+0.5=1.9°C	Bottles Received: 187
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/20/18	Time: 845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

APPENDIX C

October 2018 Laboratory Analytical Reports
Field Parameter Measurements for Groundwater Samples
Field Calibration Sheet

ANALYTICAL REPORT

October 29, 2018

Akana - Richardson, TX

Sample Delivery Group:	L1036064
Samples Received:	10/18/2018
Project Number:	Akana-16-005
Description:	Duck Valley Indian Reservation
Site:	OWYHEE, NV
Report To:	Brent Hamil 1850 N. Greenville Ave. Suite 170 Richardson, TX 75081

Entire Report Reviewed By:

Chris McCord
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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MW-31 4.5-6 L1036064-01 Solid

Collected by	Collected date/time	Received date/time
Brent Hamil	10/15/18 12:40	10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184531	1	10/23/18 14:18	10/23/18 14:26	JD
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1185982	1	10/15/18 12:40	10/25/18 01:57	ACG
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1183267	1	10/19/18 07:18	10/19/18 15:28	DMW

MW-31 12-13 L1036064-02 Solid

Collected by	Collected date/time	Received date/time
Brent Hamil	10/15/18 13:00	10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184531	1	10/23/18 14:18	10/23/18 14:26	JD
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1185982	25	10/15/18 13:00	10/25/18 02:18	ACG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184225	1	10/15/18 13:00	10/21/18 18:57	DWR
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1183267	1	10/19/18 07:18	10/19/18 15:16	DMW
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1183912	1	10/20/18 14:46	10/21/18 06:49	DMG

MW-1R 3-4.5 L1036064-03 Solid

Collected by	Collected date/time	Received date/time
Brent Hamil	10/15/18 15:30	10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184531	1	10/23/18 14:18	10/23/18 14:26	JD
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1185982	25	10/15/18 15:30	10/25/18 02:38	ACG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184225	1	10/15/18 15:30	10/21/18 19:18	DWR
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1183267	1	10/19/18 07:18	10/19/18 15:04	DMW
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1183912	1	10/20/18 14:46	10/21/18 07:11	DMG

MW-1R 6-7.5 L1036064-04 Solid

Collected by	Collected date/time	Received date/time
Brent Hamil	10/16/18 15:40	10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184531	1	10/23/18 14:18	10/23/18 14:26	JD
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1185982	1	10/16/18 15:40	10/25/18 02:59	ACG
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1184164	1	10/21/18 17:11	10/21/18 23:59	TJD

MW-32 3-4.5 L1036064-05 Solid

Collected by	Collected date/time	Received date/time
Brent Hamil	10/16/18 10:00	10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184531	1	10/23/18 14:18	10/23/18 14:26	JD
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1185982	1	10/16/18 10:00	10/25/18 03:20	ACG
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1184164	1	10/21/18 17:11	10/22/18 00:45	TJD

MW-32 4.5-6 L1036064-06 Solid

Collected by	Collected date/time	Received date/time
Brent Hamil	10/16/18 10:10	10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184531	1	10/23/18 14:18	10/23/18 14:26	JD
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1185982	1	10/16/18 10:10	10/25/18 03:43	ACG
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1184164	1	10/21/18 17:11	10/22/18 00:56	TJD

MW-32 9-10.5 L1036064-07 Solid

Collected by	Collected date/time	Received date/time
Brent Hamil	10/16/18 10:15	10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184841	1	10/23/18 15:27	10/23/18 15:37	JD
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1185982	28.25	10/16/18 10:15	10/25/18 04:05	ACG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184225	1	10/16/18 10:15	10/21/18 19:38	DWR
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1184164	1	10/21/18 17:11	10/22/18 00:10	TJD
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1183912	1	10/20/18 14:46	10/21/18 07:32	DMG

MW-33 4.5-6 L1036064-08 Solid

Collected by	Collected date/time	Received date/time
Brent Hamil	10/16/18 13:05	10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184841	1	10/23/18 15:27	10/23/18 15:37	JD
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1185982	1	10/16/18 13:05	10/25/18 04:26	ACG
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1184164	1	10/21/18 17:11	10/22/18 00:22	TJD

MW-33 11-12.5 L1036064-09 Solid

Collected by	Collected date/time	Received date/time
Brent Hamil	10/16/18 13:15	10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184841	1	10/23/18 15:27	10/23/18 15:37	JD
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1185982	25	10/16/18 13:15	10/25/18 04:47	ACG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184299	1	10/16/18 13:15	10/22/18 12:39	JAH
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1184164	1	10/21/18 17:11	10/22/18 00:33	TJD
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1183912	1	10/20/18 14:46	10/21/18 07:53	DMG

TRIP BLANK L1036064-10 Solid

Collected by	Collected date/time	Received date/time
Brent Hamil	10/16/18 00:00	10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184299	1	10/16/18 00:00	10/22/18 13:18	JHH

MW-32 DUPLICATE L1036064-11 Solid

Collected by	Collected date/time	Received date/time
Brent Hamil	10/16/18 10:15	10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184841	1	10/23/18 15:27	10/23/18 15:37	JD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184299	1	10/16/18 10:15	10/22/18 13:38	JHH

DF-1 L1036064-12 Solid

Collected by	Collected date/time	Received date/time
Brent Hamil	10/16/18 16:15	10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184841	1	10/23/18 15:27	10/23/18 15:37	JD
Chlorinated Acid Herbicides (GC) by Method 8151	WG1184386	1	10/23/18 07:49	10/24/18 23:27	KLM

DF-2 L1036064-13 Solid

Collected by	Collected date/time	Received date/time
Brent Hamil	10/16/18 15:45	10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184841	1	10/23/18 15:27	10/23/18 15:37	JD
Chlorinated Acid Herbicides (GC) by Method 8151	WG1185291	1	10/25/18 14:27	10/26/18 16:05	KLM

DF-3 L1036064-14 Solid

Collected by	Collected date/time	Received date/time
Brent Hamil	10/16/18 16:00	10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184841	1	10/23/18 15:27	10/23/18 15:37	JD
Chlorinated Acid Herbicides (GC) by Method 8151	WG1185291	1	10/25/18 14:27	10/26/18 16:18	KLM

DF-4 L1036064-15 Solid

Collected by	Collected date/time	Received date/time
Brent Hamil	10/16/18 15:25	10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184841	1	10/23/18 15:27	10/23/18 15:37	JD
Chlorinated Acid Herbicides (GC) by Method 8151	WG1185291	1	10/25/18 14:27	10/26/18 16:32	KLM

DF-5 L1036064-16 Solid

Collected by	Collected date/time	Received date/time
Brent Hamil	10/16/18 16:30	10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184841	1	10/23/18 15:27	10/23/18 15:37	JD
Chlorinated Acid Herbicides (GC) by Method 8151	WG1185291	1	10/25/18 14:27	10/26/18 16:46	KLM

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

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

Chris McCord
Project Manager

Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	89.3		1	10/23/2018 14:26	WG1184531

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0373	J	0.0243	0.112	1	10/25/2018 01:57	WG1185982
(S) a,a,a-Trifluorotoluene(FID)	*98.2*			*77.0-120*		*10/25/2018 01:57*	WG1185982

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	2.03	J	0.861	4.48	1	10/19/2018 15:28	WG1183267
(S) o-Terphenyl	*68.0*			*18.0-148*		*10/19/2018 15:28*	WG1183267

Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	80.6		1	10/23/2018 14:26	WG1184531

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	1.68	J	0.672	3.10	25	10/25/2018 02:18	WG1185982
(S) a,a,a-Trifluorotoluene(FID)	*100*			*77.0-120*		*10/25/2018 02:18*	WG1185982

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acetone	U		0.0170	0.0310	1	10/21/2018 18:57	WG1184225
Acrylonitrile	U		0.00236	0.0155	1	10/21/2018 18:57	WG1184225
Benzene	U		0.000496	0.00124	1	10/21/2018 18:57	WG1184225
Bromobenzene	U		0.00130	0.0155	1	10/21/2018 18:57	WG1184225
Bromodichloromethane	U		0.000977	0.00310	1	10/21/2018 18:57	WG1184225
Bromoform	U		0.00742	0.0310	1	10/21/2018 18:57	WG1184225
Bromomethane	U		0.00459	0.0155	1	10/21/2018 18:57	WG1184225
n-Butylbenzene	U		0.00476	0.0155	1	10/21/2018 18:57	WG1184225
sec-Butylbenzene	U		0.00314	0.0155	1	10/21/2018 18:57	WG1184225
tert-Butylbenzene	U		0.00192	0.00620	1	10/21/2018 18:57	WG1184225
Carbon tetrachloride	U		0.00134	0.00620	1	10/21/2018 18:57	WG1184225
Chlorobenzene	U		0.000711	0.00310	1	10/21/2018 18:57	WG1184225
Chlorodibromomethane	U		0.000558	0.00310	1	10/21/2018 18:57	WG1184225
Chloroethane	U	J4	0.00134	0.00620	1	10/21/2018 18:57	WG1184225
Chloroform	0.000624	B J	0.000515	0.00310	1	10/21/2018 18:57	WG1184225
Chloromethane	U		0.00172	0.0155	1	10/21/2018 18:57	WG1184225
2-Chlorotoluene	U		0.00114	0.00310	1	10/21/2018 18:57	WG1184225
4-Chlorotoluene	U		0.00140	0.00620	1	10/21/2018 18:57	WG1184225
1,2-Dibromo-3-Chloropropane	U		0.00633	0.0310	1	10/21/2018 18:57	WG1184225
1,2-Dibromoethane	U		0.000651	0.00310	1	10/21/2018 18:57	WG1184225
Dibromomethane	U		0.00124	0.00620	1	10/21/2018 18:57	WG1184225
1,2-Dichlorobenzene	U		0.00180	0.00620	1	10/21/2018 18:57	WG1184225
1,3-Dichlorobenzene	U		0.00211	0.00620	1	10/21/2018 18:57	WG1184225
1,4-Dichlorobenzene	U		0.00244	0.00620	1	10/21/2018 18:57	WG1184225
Dichlorodifluoromethane	U		0.00101	0.00310	1	10/21/2018 18:57	WG1184225
1,1-Dichloroethane	U		0.000713	0.00310	1	10/21/2018 18:57	WG1184225
1,2-Dichloroethane	U		0.000589	0.00310	1	10/21/2018 18:57	WG1184225
1,1-Dichloroethene	U		0.000620	0.00310	1	10/21/2018 18:57	WG1184225
cis-1,2-Dichloroethene	U		0.000856	0.00310	1	10/21/2018 18:57	WG1184225
trans-1,2-Dichloroethene	U		0.00177	0.00620	1	10/21/2018 18:57	WG1184225
1,2-Dichloropropane	U		0.00158	0.00620	1	10/21/2018 18:57	WG1184225
1,1-Dichloropropene	U		0.000868	0.00310	1	10/21/2018 18:57	WG1184225
1,3-Dichloropropane	U		0.00217	0.00620	1	10/21/2018 18:57	WG1184225
cis-1,3-Dichloropropene	U		0.000841	0.00310	1	10/21/2018 18:57	WG1184225
trans-1,3-Dichloropropene	U		0.00190	0.00620	1	10/21/2018 18:57	WG1184225
2,2-Dichloropropane	U		0.000984	0.00310	1	10/21/2018 18:57	WG1184225
Di-isopropyl ether	U		0.000434	0.00124	1	10/21/2018 18:57	WG1184225
Ethylbenzene	U		0.000657	0.00310	1	10/21/2018 18:57	WG1184225
Hexachloro-1,3-butadiene	U		0.0158	0.0310	1	10/21/2018 18:57	WG1184225
Isopropylbenzene	U		0.00107	0.00310	1	10/21/2018 18:57	WG1184225
p-Isopropyltoluene	U		0.00289	0.00620	1	10/21/2018 18:57	WG1184225
2-Butanone (MEK)	U		0.0155	0.0310	1	10/21/2018 18:57	WG1184225
Methylene Chloride	U		0.00824	0.0310	1	10/21/2018 18:57	WG1184225

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
4-Methyl-2-pentanone (MIBK)	U		0.0124	0.0310	1	10/21/2018 18:57	WG1184225
Methyl tert-butyl ether	U		0.000366	0.00124	1	10/21/2018 18:57	WG1184225
Naphthalene	U		0.00387	0.0155	1	10/21/2018 18:57	WG1184225
n-Propylbenzene	U		0.00146	0.00620	1	10/21/2018 18:57	WG1184225
Styrene	U		0.00339	0.0155	1	10/21/2018 18:57	WG1184225
1,1,1,2-Tetrachloroethane	U		0.000620	0.00310	1	10/21/2018 18:57	WG1184225
1,1,2,2-Tetrachloroethane	U		0.000484	0.00310	1	10/21/2018 18:57	WG1184225
1,1,2-Trichlorotrifluoroethane	U		0.000837	0.00310	1	10/21/2018 18:57	WG1184225
Tetrachloroethene	U		0.000868	0.00310	1	10/21/2018 18:57	WG1184225
Toluene	U		0.00155	0.00620	1	10/21/2018 18:57	WG1184225
1,2,3-Trichlorobenzene	U		0.000775	0.00310	1	10/21/2018 18:57	WG1184225
1,2,4-Trichlorobenzene	U		0.00598	0.0155	1	10/21/2018 18:57	WG1184225
1,1,1-Trichloroethane	U		0.000341	0.00310	1	10/21/2018 18:57	WG1184225
1,1,2-Trichloroethane	U		0.00110	0.00310	1	10/21/2018 18:57	WG1184225
Trichloroethene	U		0.000496	0.00124	1	10/21/2018 18:57	WG1184225
Trichlorofluoromethane	U		0.000620	0.00310	1	10/21/2018 18:57	WG1184225
1,2,3-Trichloropropane	U		0.00633	0.0155	1	10/21/2018 18:57	WG1184225
1,2,4-Trimethylbenzene	U		0.00144	0.00620	1	10/21/2018 18:57	WG1184225
1,2,3-Trimethylbenzene	U		0.00143	0.00620	1	10/21/2018 18:57	WG1184225
1,3,5-Trimethylbenzene	U		0.00134	0.00620	1	10/21/2018 18:57	WG1184225
Vinyl chloride	U		0.000847	0.00310	1	10/21/2018 18:57	WG1184225
Xylenes, Total	U		0.00593	0.00806	1	10/21/2018 18:57	WG1184225
(S) Toluene-d8	*125*			*75.0-131*		*10/21/2018 18:57*	WG1184225
(S) Dibromofluoromethane	*79.7*			*65.0-129*		*10/21/2018 18:57*	WG1184225
(S) 4-Bromofluorobenzene	*92.8*			*67.0-138*		*10/21/2018 18:57*	WG1184225

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.954	4.96	1	10/19/2018 15:16	WG1183267
(S) o-Terphenyl	*44.9*			*18.0-148*		*10/19/2018 15:16*	WG1183267

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.000744	0.00744	1	10/21/2018 06:49	WG1183912
Acenaphthene	U		0.000744	0.00744	1	10/21/2018 06:49	WG1183912
Acenaphthylene	U		0.000744	0.00744	1	10/21/2018 06:49	WG1183912
Benzo(a)anthracene	U		0.000744	0.00744	1	10/21/2018 06:49	WG1183912
Benzo(a)pyrene	U		0.000744	0.00744	1	10/21/2018 06:49	WG1183912
Benzo(b)fluoranthene	U		0.000744	0.00744	1	10/21/2018 06:49	WG1183912
Benzo(g,h,i)perylene	U		0.000744	0.00744	1	10/21/2018 06:49	WG1183912
Benzo(k)fluoranthene	U		0.000744	0.00744	1	10/21/2018 06:49	WG1183912
Chrysene	U		0.000744	0.00744	1	10/21/2018 06:49	WG1183912
Dibenz(a,h)anthracene	U		0.000744	0.00744	1	10/21/2018 06:49	WG1183912
Dibenzofuran	U		0.000744	0.00744	1	10/21/2018 06:49	WG1183912
Fluoranthene	U		0.000744	0.00744	1	10/21/2018 06:49	WG1183912
Fluorene	U		0.000744	0.00744	1	10/21/2018 06:49	WG1183912
Indeno(1,2,3-cd)pyrene	U		0.000744	0.00744	1	10/21/2018 06:49	WG1183912
Naphthalene	U		0.00248	0.0248	1	10/21/2018 06:49	WG1183912
Phenanthrene	U		0.000744	0.00744	1	10/21/2018 06:49	WG1183912
Pyrene	U		0.000744	0.00744	1	10/21/2018 06:49	WG1183912
(S) Nitrobenzene-d5	*102*			*14.0-149*		*10/21/2018 06:49*	WG1183912
(S) 2-Fluorobiphenyl	*92.9*			*34.0-125*		*10/21/2018 06:49*	WG1183912
(S) p-Terphenyl-d14	*83.2*			*23.0-120*		*10/21/2018 06:49*	WG1183912

Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	80.5		1	10/23/2018 14:26	WG1184531

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	1.10	J	0.674	3.11	25	10/25/2018 02:38	WG1185982
(S) a,a,a-Trifluorotoluene(FID)	*107*			*77.0-120*		*10/25/2018 02:38*	WG1185982

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acetone	U		0.0170	0.0311	1	10/21/2018 19:18	WG1184225
Acrylonitrile	U		0.00236	0.0155	1	10/21/2018 19:18	WG1184225
Benzene	U		0.000497	0.00124	1	10/21/2018 19:18	WG1184225
Bromobenzene	U		0.00131	0.0155	1	10/21/2018 19:18	WG1184225
Bromodichloromethane	U		0.000979	0.00311	1	10/21/2018 19:18	WG1184225
Bromoform	U		0.00743	0.0311	1	10/21/2018 19:18	WG1184225
Bromomethane	U		0.00460	0.0155	1	10/21/2018 19:18	WG1184225
n-Butylbenzene	U		0.00477	0.0155	1	10/21/2018 19:18	WG1184225
sec-Butylbenzene	U		0.00314	0.0155	1	10/21/2018 19:18	WG1184225
tert-Butylbenzene	U		0.00193	0.00621	1	10/21/2018 19:18	WG1184225
Carbon tetrachloride	U		0.00134	0.00621	1	10/21/2018 19:18	WG1184225
Chlorobenzene	U		0.000712	0.00311	1	10/21/2018 19:18	WG1184225
Chlorodibromomethane	U		0.000559	0.00311	1	10/21/2018 19:18	WG1184225
Chloroethane	U	J4	0.00134	0.00621	1	10/21/2018 19:18	WG1184225
Chloroform	0.00140	B J	0.000516	0.00311	1	10/21/2018 19:18	WG1184225
Chloromethane	U		0.00173	0.0155	1	10/21/2018 19:18	WG1184225
2-Chlorotoluene	U		0.00114	0.00311	1	10/21/2018 19:18	WG1184225
4-Chlorotoluene	U		0.00140	0.00621	1	10/21/2018 19:18	WG1184225
1,2-Dibromo-3-Chloropropane	U		0.00634	0.0311	1	10/21/2018 19:18	WG1184225
1,2-Dibromoethane	U		0.000653	0.00311	1	10/21/2018 19:18	WG1184225
Dibromomethane	U		0.00124	0.00621	1	10/21/2018 19:18	WG1184225
1,2-Dichlorobenzene	U		0.00180	0.00621	1	10/21/2018 19:18	WG1184225
1,3-Dichlorobenzene	U		0.00211	0.00621	1	10/21/2018 19:18	WG1184225
1,4-Dichlorobenzene	U		0.00245	0.00621	1	10/21/2018 19:18	WG1184225
Dichlorodifluoromethane	U		0.00102	0.00311	1	10/21/2018 19:18	WG1184225
1,1-Dichloroethane	U		0.000715	0.00311	1	10/21/2018 19:18	WG1184225
1,2-Dichloroethane	U		0.000590	0.00311	1	10/21/2018 19:18	WG1184225
1,1-Dichloroethene	U		0.000621	0.00311	1	10/21/2018 19:18	WG1184225
cis-1,2-Dichloroethene	U		0.000858	0.00311	1	10/21/2018 19:18	WG1184225
trans-1,2-Dichloroethene	U		0.00178	0.00621	1	10/21/2018 19:18	WG1184225
1,2-Dichloropropane	U		0.00158	0.00621	1	10/21/2018 19:18	WG1184225
1,1-Dichloropropene	U		0.000870	0.00311	1	10/21/2018 19:18	WG1184225
1,3-Dichloropropane	U		0.00218	0.00621	1	10/21/2018 19:18	WG1184225
cis-1,3-Dichloropropene	U		0.000843	0.00311	1	10/21/2018 19:18	WG1184225
trans-1,3-Dichloropropene	U		0.00190	0.00621	1	10/21/2018 19:18	WG1184225
2,2-Dichloropropane	U		0.000986	0.00311	1	10/21/2018 19:18	WG1184225
Di-isopropyl ether	U		0.000435	0.00124	1	10/21/2018 19:18	WG1184225
Ethylbenzene	U		0.000659	0.00311	1	10/21/2018 19:18	WG1184225
Hexachloro-1,3-butadiene	U		0.0158	0.0311	1	10/21/2018 19:18	WG1184225
Isopropylbenzene	U		0.00107	0.00311	1	10/21/2018 19:18	WG1184225
p-Isopropyltoluene	U		0.00290	0.00621	1	10/21/2018 19:18	WG1184225
2-Butanone (MEK)	U		0.0155	0.0311	1	10/21/2018 19:18	WG1184225
Methylene Chloride	U		0.00825	0.0311	1	10/21/2018 19:18	WG1184225

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
4-Methyl-2-pentanone (MIBK)	U		0.0124	0.0311	1	10/21/2018 19:18	WG1184225
Methyl tert-butyl ether	U		0.000367	0.00124	1	10/21/2018 19:18	WG1184225
Naphthalene	U		0.00388	0.0155	1	10/21/2018 19:18	WG1184225
n-Propylbenzene	U		0.00147	0.00621	1	10/21/2018 19:18	WG1184225
Styrene	U		0.00339	0.0155	1	10/21/2018 19:18	WG1184225
1,1,1,2-Tetrachloroethane	U		0.000621	0.00311	1	10/21/2018 19:18	WG1184225
1,1,2,2-Tetrachloroethane	U		0.000485	0.00311	1	10/21/2018 19:18	WG1184225
1,1,2-Trichlorotrifluoroethane	U		0.000839	0.00311	1	10/21/2018 19:18	WG1184225
Tetrachloroethene	U		0.000870	0.00311	1	10/21/2018 19:18	WG1184225
Toluene	U		0.00155	0.00621	1	10/21/2018 19:18	WG1184225
1,2,3-Trichlorobenzene	U		0.000777	0.00311	1	10/21/2018 19:18	WG1184225
1,2,4-Trichlorobenzene	U		0.00599	0.0155	1	10/21/2018 19:18	WG1184225
1,1,1-Trichloroethane	U		0.000342	0.00311	1	10/21/2018 19:18	WG1184225
1,1,2-Trichloroethane	U		0.00110	0.00311	1	10/21/2018 19:18	WG1184225
Trichloroethene	U		0.000497	0.00124	1	10/21/2018 19:18	WG1184225
Trichlorofluoromethane	U		0.000621	0.00311	1	10/21/2018 19:18	WG1184225
1,2,3-Trichloropropane	U		0.00634	0.0155	1	10/21/2018 19:18	WG1184225
1,2,4-Trimethylbenzene	U		0.00144	0.00621	1	10/21/2018 19:18	WG1184225
1,2,3-Trimethylbenzene	U		0.00143	0.00621	1	10/21/2018 19:18	WG1184225
1,3,5-Trimethylbenzene	U		0.00134	0.00621	1	10/21/2018 19:18	WG1184225
Vinyl chloride	U		0.000849	0.00311	1	10/21/2018 19:18	WG1184225
Xylenes, Total	U		0.00594	0.00808	1	10/21/2018 19:18	WG1184225
(S) Toluene-d8	*127*			*75.0-131*		*10/21/2018 19:18*	WG1184225
(S) Dibromofluoromethane	*92.6*			*65.0-129*		*10/21/2018 19:18*	WG1184225
(S) 4-Bromofluorobenzene	*87.2*			*67.0-138*		*10/21/2018 19:18*	WG1184225

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	1.45	J	0.956	4.97	1	10/19/2018 15:04	WG1183267
(S) o-Terphenyl	*39.5*			*18.0-148*		*10/19/2018 15:04*	WG1183267

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.000746	0.00746	1	10/21/2018 07:11	WG1183912
Acenaphthene	U		0.000746	0.00746	1	10/21/2018 07:11	WG1183912
Acenaphthylene	U		0.000746	0.00746	1	10/21/2018 07:11	WG1183912
Benzo(a)anthracene	U		0.000746	0.00746	1	10/21/2018 07:11	WG1183912
Benzo(a)pyrene	U		0.000746	0.00746	1	10/21/2018 07:11	WG1183912
Benzo(b)fluoranthene	U		0.000746	0.00746	1	10/21/2018 07:11	WG1183912
Benzo(g,h,i)perylene	U		0.000746	0.00746	1	10/21/2018 07:11	WG1183912
Benzo(k)fluoranthene	U		0.000746	0.00746	1	10/21/2018 07:11	WG1183912
Chrysene	U		0.000746	0.00746	1	10/21/2018 07:11	WG1183912
Dibenz(a,h)anthracene	U		0.000746	0.00746	1	10/21/2018 07:11	WG1183912
Dibenzofuran	U		0.000746	0.00746	1	10/21/2018 07:11	WG1183912
Fluoranthene	U		0.000746	0.00746	1	10/21/2018 07:11	WG1183912
Fluorene	U		0.000746	0.00746	1	10/21/2018 07:11	WG1183912
Indeno(1,2,3-cd)pyrene	U		0.000746	0.00746	1	10/21/2018 07:11	WG1183912
Naphthalene	U		0.00249	0.0249	1	10/21/2018 07:11	WG1183912
Phenanthrene	U		0.000746	0.00746	1	10/21/2018 07:11	WG1183912
Pyrene	U		0.000746	0.00746	1	10/21/2018 07:11	WG1183912
(S) Nitrobenzene-d5	*97.2*			*14.0-149*		*10/21/2018 07:11*	WG1183912
(S) 2-Fluorobiphenyl	*87.1*			*34.0-125*		*10/21/2018 07:11*	WG1183912
(S) p-Terphenyl-d14	*76.0*			*23.0-120*		*10/21/2018 07:11*	WG1183912

Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	78.5		1	10/23/2018 14:26	WG1184531

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0292	J	0.0276	0.127	1	10/25/2018 02:59	WG1185982
(S) a,a,a-Trifluorotoluene(FID)	*97.9*			*77.0-120*		*10/25/2018 02:59*	WG1185982

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.979	5.09	1	10/21/2018 23:59	WG1184164
(S) o-Terphenyl	*70.8*			*18.0-148*		*10/21/2018 23:59*	WG1184164

Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	92.3		1	10/23/2018 14:26	WG1184531

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0508	J	0.0235	0.108	1	10/25/2018 03:20	WG1185982
(S) a,a,a-Trifluorotoluene(FID)	*99.4*			*77.0-120*		*10/25/2018 03:20*	WG1185982

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.884	J	0.833	4.34	1	10/22/2018 00:45	WG1184164
(S) o-Terphenyl	*69.6*			*18.0-148*		*10/22/2018 00:45*	WG1184164

Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	96.0		1	10/23/2018 14:26	WG1184531

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0376	J	0.0226	0.104	1	10/25/2018 03:43	WG1185982
(S) a,a,a-Trifluorotoluene(FID)	*97.6*			*77.0-120*		*10/25/2018 03:43*	WG1185982

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.801	4.17	1	10/22/2018 00:56	WG1184164
(S) o-Terphenyl	*64.5*			*18.0-148*		*10/22/2018 00:56*	WG1184164

Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	91.8		1	10/23/2018 15:37	WG1184841

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	1.30	J	0.668	3.08	28.25	10/25/2018 04:05	WG1185982
(S) a,a,a-Trifluorotoluene(FID)	*99.9*			*77.0-120*		*10/25/2018 04:05*	WG1185982

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acetone	U		0.0149	0.0272	1	10/21/2018 19:38	WG1184225
Acrylonitrile	U		0.00207	0.0136	1	10/21/2018 19:38	WG1184225
Benzene	U		0.000436	0.00109	1	10/21/2018 19:38	WG1184225
Bromobenzene	U		0.00114	0.0136	1	10/21/2018 19:38	WG1184225
Bromodichloromethane	U		0.000858	0.00272	1	10/21/2018 19:38	WG1184225
Bromoform	U		0.00651	0.0272	1	10/21/2018 19:38	WG1184225
Bromomethane	U		0.00403	0.0136	1	10/21/2018 19:38	WG1184225
n-Butylbenzene	U		0.00418	0.0136	1	10/21/2018 19:38	WG1184225
sec-Butylbenzene	U		0.00276	0.0136	1	10/21/2018 19:38	WG1184225
tert-Butylbenzene	U		0.00169	0.00545	1	10/21/2018 19:38	WG1184225
Carbon tetrachloride	U		0.00118	0.00545	1	10/21/2018 19:38	WG1184225
Chlorobenzene	U		0.000624	0.00272	1	10/21/2018 19:38	WG1184225
Chlorodibromomethane	U		0.000490	0.00272	1	10/21/2018 19:38	WG1184225
Chloroethane	U	J4	0.00118	0.00545	1	10/21/2018 19:38	WG1184225
Chloroform	0.00110	B J	0.000452	0.00272	1	10/21/2018 19:38	WG1184225
Chloromethane	U		0.00151	0.0136	1	10/21/2018 19:38	WG1184225
2-Chlorotoluene	U		0.00100	0.00272	1	10/21/2018 19:38	WG1184225
4-Chlorotoluene	U		0.00123	0.00545	1	10/21/2018 19:38	WG1184225
1,2-Dibromo-3-Chloropropane	U		0.00555	0.0272	1	10/21/2018 19:38	WG1184225
1,2-Dibromoethane	U		0.000572	0.00272	1	10/21/2018 19:38	WG1184225
Dibromomethane	U		0.00109	0.00545	1	10/21/2018 19:38	WG1184225
1,2-Dichlorobenzene	U		0.00158	0.00545	1	10/21/2018 19:38	WG1184225
1,3-Dichlorobenzene	U		0.00185	0.00545	1	10/21/2018 19:38	WG1184225
1,4-Dichlorobenzene	U		0.00215	0.00545	1	10/21/2018 19:38	WG1184225
Dichlorodifluoromethane	U		0.000891	0.00272	1	10/21/2018 19:38	WG1184225
1,1-Dichloroethane	U		0.000626	0.00272	1	10/21/2018 19:38	WG1184225
1,2-Dichloroethane	U		0.000517	0.00272	1	10/21/2018 19:38	WG1184225
1,1-Dichloroethene	U		0.000545	0.00272	1	10/21/2018 19:38	WG1184225
cis-1,2-Dichloroethene	U		0.000751	0.00272	1	10/21/2018 19:38	WG1184225
trans-1,2-Dichloroethene	U		0.00156	0.00545	1	10/21/2018 19:38	WG1184225
1,2-Dichloropropane	U		0.00138	0.00545	1	10/21/2018 19:38	WG1184225
1,1-Dichloropropene	U		0.000762	0.00272	1	10/21/2018 19:38	WG1184225
1,3-Dichloropropane	U		0.00191	0.00545	1	10/21/2018 19:38	WG1184225
cis-1,3-Dichloropropene	U		0.000738	0.00272	1	10/21/2018 19:38	WG1184225
trans-1,3-Dichloropropene	U		0.00167	0.00545	1	10/21/2018 19:38	WG1184225
2,2-Dichloropropane	U		0.000864	0.00272	1	10/21/2018 19:38	WG1184225
Di-isopropyl ether	U		0.000381	0.00109	1	10/21/2018 19:38	WG1184225
Ethylbenzene	U		0.000577	0.00272	1	10/21/2018 19:38	WG1184225
Hexachloro-1,3-butadiene	U		0.0138	0.0272	1	10/21/2018 19:38	WG1184225
Isopropylbenzene	U		0.000940	0.00272	1	10/21/2018 19:38	WG1184225
p-Isopropyltoluene	U		0.00254	0.00545	1	10/21/2018 19:38	WG1184225
2-Butanone (MEK)	U		0.0136	0.0272	1	10/21/2018 19:38	WG1184225
Methylene Chloride	U		0.00723	0.0272	1	10/21/2018 19:38	WG1184225

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
4-Methyl-2-pentanone (MIBK)	U		0.0109	0.0272	1	10/21/2018 19:38	WG1184225
Methyl tert-butyl ether	U		0.000321	0.00109	1	10/21/2018 19:38	WG1184225
Naphthalene	U		0.00340	0.0136	1	10/21/2018 19:38	WG1184225
n-Propylbenzene	U		0.00129	0.00545	1	10/21/2018 19:38	WG1184225
Styrene	U		0.00297	0.0136	1	10/21/2018 19:38	WG1184225
1,1,1,2-Tetrachloroethane	U		0.000545	0.00272	1	10/21/2018 19:38	WG1184225
1,1,2,2-Tetrachloroethane	U		0.000425	0.00272	1	10/21/2018 19:38	WG1184225
1,1,2-Trichlorotrifluoroethane	U		0.000735	0.00272	1	10/21/2018 19:38	WG1184225
Tetrachloroethene	U		0.000762	0.00272	1	10/21/2018 19:38	WG1184225
Toluene	U		0.00136	0.00545	1	10/21/2018 19:38	WG1184225
1,2,3-Trichlorobenzene	U		0.000681	0.00272	1	10/21/2018 19:38	WG1184225
1,2,4-Trichlorobenzene	U		0.00525	0.0136	1	10/21/2018 19:38	WG1184225
1,1,1-Trichloroethane	U		0.000299	0.00272	1	10/21/2018 19:38	WG1184225
1,1,2-Trichloroethane	U		0.000962	0.00272	1	10/21/2018 19:38	WG1184225
Trichloroethene	U		0.000436	0.00109	1	10/21/2018 19:38	WG1184225
Trichlorofluoromethane	U		0.000545	0.00272	1	10/21/2018 19:38	WG1184225
1,2,3-Trichloropropane	U		0.00555	0.0136	1	10/21/2018 19:38	WG1184225
1,2,4-Trimethylbenzene	U		0.00126	0.00545	1	10/21/2018 19:38	WG1184225
1,2,3-Trimethylbenzene	U		0.00125	0.00545	1	10/21/2018 19:38	WG1184225
1,3,5-Trimethylbenzene	U		0.00118	0.00545	1	10/21/2018 19:38	WG1184225
Vinyl chloride	U		0.000744	0.00272	1	10/21/2018 19:38	WG1184225
Xylenes, Total	U		0.00521	0.00708	1	10/21/2018 19:38	WG1184225
(S) Toluene-d8	*124*			*75.0-131*		*10/21/2018 19:38*	WG1184225
(S) Dibromofluoromethane	*88.9*			*65.0-129*		*10/21/2018 19:38*	WG1184225
(S) 4-Bromofluorobenzene	*90.0*			*67.0-138*		*10/21/2018 19:38*	WG1184225

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	1.06	J	0.837	4.36	1	10/22/2018 00:10	WG1184164
(S) o-Terphenyl	*74.3*			*18.0-148*		*10/22/2018 00:10*	WG1184164

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.000653	0.00653	1	10/21/2018 07:32	WG1183912
Acenaphthene	U		0.000653	0.00653	1	10/21/2018 07:32	WG1183912
Acenaphthylene	U		0.000653	0.00653	1	10/21/2018 07:32	WG1183912
Benzo(a)anthracene	U		0.000653	0.00653	1	10/21/2018 07:32	WG1183912
Benzo(a)pyrene	U		0.000653	0.00653	1	10/21/2018 07:32	WG1183912
Benzo(b)fluoranthene	U		0.000653	0.00653	1	10/21/2018 07:32	WG1183912
Benzo(g,h,i)perylene	U		0.000653	0.00653	1	10/21/2018 07:32	WG1183912
Benzo(k)fluoranthene	U		0.000653	0.00653	1	10/21/2018 07:32	WG1183912
Chrysene	U		0.000653	0.00653	1	10/21/2018 07:32	WG1183912
Dibenz(a,h)anthracene	U		0.000653	0.00653	1	10/21/2018 07:32	WG1183912
Dibenzofuran	U		0.000653	0.00653	1	10/21/2018 07:32	WG1183912
Fluoranthene	U		0.000653	0.00653	1	10/21/2018 07:32	WG1183912
Fluorene	U		0.000653	0.00653	1	10/21/2018 07:32	WG1183912
Indeno(1,2,3-cd)pyrene	U		0.000653	0.00653	1	10/21/2018 07:32	WG1183912
Naphthalene	U		0.00218	0.0218	1	10/21/2018 07:32	WG1183912
Phenanthrene	U		0.000653	0.00653	1	10/21/2018 07:32	WG1183912
Pyrene	U		0.000653	0.00653	1	10/21/2018 07:32	WG1183912
(S) Nitrobenzene-d5	*107*			*14.0-149*		*10/21/2018 07:32*	WG1183912
(S) 2-Fluorobiphenyl	*97.0*			*34.0-125*		*10/21/2018 07:32*	WG1183912
(S) p-Terphenyl-d14	*96.1*			*23.0-120*		*10/21/2018 07:32*	WG1183912

Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	93.9		1	10/23/2018 15:37	WG1184841

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0253	J	0.0231	0.106	1	10/25/2018 04:26	WG1185982
(S) a,a,a-Trifluorotoluene(FID)	*98.0*			*77.0-120*		*10/25/2018 04:26*	WG1185982

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.819	4.26	1	10/22/2018 00:22	WG1184164
(S) o-Terphenyl	*73.8*			*18.0-148*		*10/22/2018 00:22*	WG1184164

Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	81.0		1	10/23/2018 15:37	WG1184841

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	1.18	J	0.669	3.09	25	10/25/2018 04:47	WG1185982
(S) a,a,a-Trifluorotoluene(FID)	*100*			*77.0-120*		*10/25/2018 04:47*	WG1185982

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acetone	U		0.0169	0.0309	1	10/22/2018 12:39	WG1184299
Acrylonitrile	U		0.00235	0.0154	1	10/22/2018 12:39	WG1184299
Benzene	U		0.000494	0.00123	1	10/22/2018 12:39	WG1184299
Bromobenzene	U		0.00130	0.0154	1	10/22/2018 12:39	WG1184299
Bromodichloromethane	U		0.000973	0.00309	1	10/22/2018 12:39	WG1184299
Bromoform	U		0.00738	0.0309	1	10/22/2018 12:39	WG1184299
Bromomethane	U		0.00457	0.0154	1	10/22/2018 12:39	WG1184299
n-Butylbenzene	U		0.00474	0.0154	1	10/22/2018 12:39	WG1184299
sec-Butylbenzene	U		0.00312	0.0154	1	10/22/2018 12:39	WG1184299
tert-Butylbenzene	U		0.00191	0.00617	1	10/22/2018 12:39	WG1184299
Carbon tetrachloride	U		0.00133	0.00617	1	10/22/2018 12:39	WG1184299
Chlorobenzene	U		0.000708	0.00309	1	10/22/2018 12:39	WG1184299
Chlorodibromomethane	U		0.000556	0.00309	1	10/22/2018 12:39	WG1184299
Chloroethane	U		0.00133	0.00617	1	10/22/2018 12:39	WG1184299
Chloroform	U		0.000512	0.00309	1	10/22/2018 12:39	WG1184299
Chloromethane	U		0.00172	0.0154	1	10/22/2018 12:39	WG1184299
2-Chlorotoluene	U		0.00114	0.00309	1	10/22/2018 12:39	WG1184299
4-Chlorotoluene	U		0.00140	0.00617	1	10/22/2018 12:39	WG1184299
1,2-Dibromo-3-Chloropropane	U		0.00630	0.0309	1	10/22/2018 12:39	WG1184299
1,2-Dibromoethane	U		0.000648	0.00309	1	10/22/2018 12:39	WG1184299
Dibromomethane	U	J4	0.00123	0.00617	1	10/22/2018 12:39	WG1184299
1,2-Dichlorobenzene	U		0.00179	0.00617	1	10/22/2018 12:39	WG1184299
1,3-Dichlorobenzene	U		0.00210	0.00617	1	10/22/2018 12:39	WG1184299
1,4-Dichlorobenzene	U		0.00243	0.00617	1	10/22/2018 12:39	WG1184299
Dichlorodifluoromethane	U		0.00101	0.00309	1	10/22/2018 12:39	WG1184299
1,1-Dichloroethane	U		0.000710	0.00309	1	10/22/2018 12:39	WG1184299
1,2-Dichloroethane	U		0.000587	0.00309	1	10/22/2018 12:39	WG1184299
1,1-Dichloroethene	U		0.000617	0.00309	1	10/22/2018 12:39	WG1184299
cis-1,2-Dichloroethene	U		0.000852	0.00309	1	10/22/2018 12:39	WG1184299
trans-1,2-Dichloroethene	U		0.00177	0.00617	1	10/22/2018 12:39	WG1184299
1,2-Dichloropropane	U		0.00157	0.00617	1	10/22/2018 12:39	WG1184299
1,1-Dichloropropene	U		0.000864	0.00309	1	10/22/2018 12:39	WG1184299
1,3-Dichloropropane	U		0.00216	0.00617	1	10/22/2018 12:39	WG1184299
cis-1,3-Dichloropropene	U		0.000837	0.00309	1	10/22/2018 12:39	WG1184299
trans-1,3-Dichloropropene	U		0.00189	0.00617	1	10/22/2018 12:39	WG1184299
2,2-Dichloropropane	U		0.000979	0.00309	1	10/22/2018 12:39	WG1184299
Di-isopropyl ether	U		0.000432	0.00123	1	10/22/2018 12:39	WG1184299
Ethylbenzene	U		0.000654	0.00309	1	10/22/2018 12:39	WG1184299
Hexachloro-1,3-butadiene	U		0.0157	0.0309	1	10/22/2018 12:39	WG1184299
Isopropylbenzene	U		0.00107	0.00309	1	10/22/2018 12:39	WG1184299
p-Isopropyltoluene	U		0.00288	0.00617	1	10/22/2018 12:39	WG1184299
2-Butanone (MEK)	U		0.0154	0.0309	1	10/22/2018 12:39	WG1184299
Methylene Chloride	U		0.00820	0.0309	1	10/22/2018 12:39	WG1184299

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
4-Methyl-2-pentanone (MIBK)	U		0.0123	0.0309	1	10/22/2018 12:39	WG1184299
Methyl tert-butyl ether	U		0.000364	0.00123	1	10/22/2018 12:39	WG1184299
Naphthalene	U		0.00385	0.0154	1	10/22/2018 12:39	WG1184299
n-Propylbenzene	U		0.00146	0.00617	1	10/22/2018 12:39	WG1184299
Styrene	U		0.00337	0.0154	1	10/22/2018 12:39	WG1184299
1,1,1,2-Tetrachloroethane	U		0.000617	0.00309	1	10/22/2018 12:39	WG1184299
1,1,2,2-Tetrachloroethane	U		0.000482	0.00309	1	10/22/2018 12:39	WG1184299
1,1,2-Trichlorotrifluoroethane	U		0.000834	0.00309	1	10/22/2018 12:39	WG1184299
Tetrachloroethene	U	J4	0.000864	0.00309	1	10/22/2018 12:39	WG1184299
Toluene	U		0.00154	0.00617	1	10/22/2018 12:39	WG1184299
1,2,3-Trichlorobenzene	U		0.000772	0.00309	1	10/22/2018 12:39	WG1184299
1,2,4-Trichlorobenzene	U		0.00595	0.0154	1	10/22/2018 12:39	WG1184299
1,1,1-Trichloroethane	U		0.000340	0.00309	1	10/22/2018 12:39	WG1184299
1,1,2-Trichloroethane	U	J4	0.00109	0.00309	1	10/22/2018 12:39	WG1184299
Trichloroethene	U		0.000494	0.00123	1	10/22/2018 12:39	WG1184299
Trichlorofluoromethane	U		0.000617	0.00309	1	10/22/2018 12:39	WG1184299
1,2,3-Trichloropropane	U		0.00630	0.0154	1	10/22/2018 12:39	WG1184299
1,2,4-Trimethylbenzene	U	J4	0.00143	0.00617	1	10/22/2018 12:39	WG1184299
1,2,3-Trimethylbenzene	U		0.00142	0.00617	1	10/22/2018 12:39	WG1184299
1,3,5-Trimethylbenzene	U		0.00133	0.00617	1	10/22/2018 12:39	WG1184299
Vinyl chloride	U		0.000843	0.00309	1	10/22/2018 12:39	WG1184299
Xylenes, Total	U		0.00590	0.00803	1	10/22/2018 12:39	WG1184299
(S) Toluene-d8	*117*			*75.0-131*		*10/22/2018 12:39*	WG1184299
(S) Dibromofluoromethane	*74.0*			*65.0-129*		*10/22/2018 12:39*	WG1184299
(S) 4-Bromofluorobenzene	*88.0*			*67.0-138*		*10/22/2018 12:39*	WG1184299

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.950	4.94	1	10/22/2018 00:33	WG1184164
(S) o-Terphenyl	*62.3*			*18.0-148*		*10/22/2018 00:33*	WG1184164

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Anthracene	U		0.000741	0.00741	1	10/21/2018 07:53	WG1183912
Acenaphthene	U		0.000741	0.00741	1	10/21/2018 07:53	WG1183912
Acenaphthylene	U		0.000741	0.00741	1	10/21/2018 07:53	WG1183912
Benzo(a)anthracene	U		0.000741	0.00741	1	10/21/2018 07:53	WG1183912
Benzo(a)pyrene	U		0.000741	0.00741	1	10/21/2018 07:53	WG1183912
Benzo(b)fluoranthene	U		0.000741	0.00741	1	10/21/2018 07:53	WG1183912
Benzo(g,h,i)perylene	U		0.000741	0.00741	1	10/21/2018 07:53	WG1183912
Benzo(k)fluoranthene	U		0.000741	0.00741	1	10/21/2018 07:53	WG1183912
Chrysene	U		0.000741	0.00741	1	10/21/2018 07:53	WG1183912
Dibenz(a,h)anthracene	U		0.000741	0.00741	1	10/21/2018 07:53	WG1183912
Dibenzofuran	U		0.000741	0.00741	1	10/21/2018 07:53	WG1183912
Fluoranthene	U		0.000741	0.00741	1	10/21/2018 07:53	WG1183912
Fluorene	U		0.000741	0.00741	1	10/21/2018 07:53	WG1183912
Indeno(1,2,3-cd)pyrene	U		0.000741	0.00741	1	10/21/2018 07:53	WG1183912
Naphthalene	U		0.00247	0.0247	1	10/21/2018 07:53	WG1183912
Phenanthrene	U		0.000741	0.00741	1	10/21/2018 07:53	WG1183912
Pyrene	U		0.000741	0.00741	1	10/21/2018 07:53	WG1183912
(S) Nitrobenzene-d5	*102*			*14.0-149*		*10/21/2018 07:53*	WG1183912
(S) 2-Fluorobiphenyl	*92.4*			*34.0-125*		*10/21/2018 07:53*	WG1183912
(S) p-Terphenyl-d14	*85.7*			*23.0-120*		*10/21/2018 07:53*	WG1183912

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		0.0137	0.0250	1	10/22/2018 13:18	WG1184299
Acrylonitrile	U		0.00190	0.0125	1	10/22/2018 13:18	WG1184299
Benzene	U		0.000400	0.00100	1	10/22/2018 13:18	WG1184299
Bromobenzene	U		0.00105	0.0125	1	10/22/2018 13:18	WG1184299
Bromodichloromethane	U		0.000788	0.00250	1	10/22/2018 13:18	WG1184299
Bromoform	U		0.00598	0.0250	1	10/22/2018 13:18	WG1184299
Bromomethane	U		0.00370	0.0125	1	10/22/2018 13:18	WG1184299
n-Butylbenzene	U		0.00384	0.0125	1	10/22/2018 13:18	WG1184299
sec-Butylbenzene	U		0.00253	0.0125	1	10/22/2018 13:18	WG1184299
tert-Butylbenzene	U		0.00155	0.00500	1	10/22/2018 13:18	WG1184299
Carbon tetrachloride	U		0.00108	0.00500	1	10/22/2018 13:18	WG1184299
Chlorobenzene	U		0.000573	0.00250	1	10/22/2018 13:18	WG1184299
Chlorodibromomethane	U		0.000450	0.00250	1	10/22/2018 13:18	WG1184299
Chloroethane	U		0.00108	0.00500	1	10/22/2018 13:18	WG1184299
Chloroform	U		0.000415	0.00250	1	10/22/2018 13:18	WG1184299
Chloromethane	U		0.00139	0.0125	1	10/22/2018 13:18	WG1184299
2-Chlorotoluene	U		0.000920	0.00250	1	10/22/2018 13:18	WG1184299
4-Chlorotoluene	U		0.00113	0.00500	1	10/22/2018 13:18	WG1184299
1,2-Dibromo-3-Chloropropane	U		0.00510	0.0250	1	10/22/2018 13:18	WG1184299
1,2-Dibromoethane	U		0.000525	0.00250	1	10/22/2018 13:18	WG1184299
Dibromomethane	U	J4	0.00100	0.00500	1	10/22/2018 13:18	WG1184299
1,2-Dichlorobenzene	U		0.00145	0.00500	1	10/22/2018 13:18	WG1184299
1,3-Dichlorobenzene	U		0.00170	0.00500	1	10/22/2018 13:18	WG1184299
1,4-Dichlorobenzene	U		0.00197	0.00500	1	10/22/2018 13:18	WG1184299
Dichlorodifluoromethane	U		0.000818	0.00250	1	10/22/2018 13:18	WG1184299
1,1-Dichloroethane	U		0.000575	0.00250	1	10/22/2018 13:18	WG1184299
1,2-Dichloroethane	U		0.000475	0.00250	1	10/22/2018 13:18	WG1184299
1,1-Dichloroethene	U		0.000500	0.00250	1	10/22/2018 13:18	WG1184299
cis-1,2-Dichloroethene	U		0.000690	0.00250	1	10/22/2018 13:18	WG1184299
trans-1,2-Dichloroethene	U		0.00143	0.00500	1	10/22/2018 13:18	WG1184299
1,2-Dichloropropane	U		0.00127	0.00500	1	10/22/2018 13:18	WG1184299
1,1-Dichloropropene	U		0.000700	0.00250	1	10/22/2018 13:18	WG1184299
1,3-Dichloropropane	U		0.00175	0.00500	1	10/22/2018 13:18	WG1184299
cis-1,3-Dichloropropene	U		0.000678	0.00250	1	10/22/2018 13:18	WG1184299
trans-1,3-Dichloropropene	U		0.00153	0.00500	1	10/22/2018 13:18	WG1184299
2,2-Dichloropropane	U		0.000793	0.00250	1	10/22/2018 13:18	WG1184299
Di-isopropyl ether	U		0.000350	0.00100	1	10/22/2018 13:18	WG1184299
Ethylbenzene	0.00158	J	0.000530	0.00250	1	10/22/2018 13:18	WG1184299
Hexachloro-1,3-butadiene	U		0.0127	0.0250	1	10/22/2018 13:18	WG1184299
Isopropylbenzene	U		0.000863	0.00250	1	10/22/2018 13:18	WG1184299
p-Isopropyltoluene	U		0.00233	0.00500	1	10/22/2018 13:18	WG1184299
2-Butanone (MEK)	U		0.0125	0.0250	1	10/22/2018 13:18	WG1184299
Methylene Chloride	U		0.00664	0.0250	1	10/22/2018 13:18	WG1184299
4-Methyl-2-pentanone (MIBK)	U		0.0100	0.0250	1	10/22/2018 13:18	WG1184299
Methyl tert-butyl ether	U		0.000295	0.00100	1	10/22/2018 13:18	WG1184299
Naphthalene	U		0.00312	0.0125	1	10/22/2018 13:18	WG1184299
n-Propylbenzene	U		0.00118	0.00500	1	10/22/2018 13:18	WG1184299
Styrene	U		0.00273	0.0125	1	10/22/2018 13:18	WG1184299
1,1,1,2-Tetrachloroethane	U		0.000500	0.00250	1	10/22/2018 13:18	WG1184299
1,1,2,2-Tetrachloroethane	U		0.000390	0.00250	1	10/22/2018 13:18	WG1184299
1,1,2-Trichlorotrifluoroethane	U		0.000675	0.00250	1	10/22/2018 13:18	WG1184299
Tetrachloroethene	U	J4	0.000700	0.00250	1	10/22/2018 13:18	WG1184299
Toluene	0.00759		0.00125	0.00500	1	10/22/2018 13:18	WG1184299
1,2,3-Trichlorobenzene	U		0.000625	0.00250	1	10/22/2018 13:18	WG1184299
1,2,4-Trichlorobenzene	U		0.00482	0.0125	1	10/22/2018 13:18	WG1184299
1,1,1-Trichloroethane	U		0.000275	0.00250	1	10/22/2018 13:18	WG1184299

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

Analyte	Result mg/kg	Qualifier	MDL mg/kg	RDL mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichloroethane	U	J4	0.000883	0.00250	1	10/22/2018 13:18	WG1184299
Trichloroethene	U		0.000400	0.00100	1	10/22/2018 13:18	WG1184299
Trichlorofluoromethane	U		0.000500	0.00250	1	10/22/2018 13:18	WG1184299
1,2,3-Trichloropropane	U		0.00510	0.0125	1	10/22/2018 13:18	WG1184299
1,2,4-Trimethylbenzene	U	J4	0.00116	0.00500	1	10/22/2018 13:18	WG1184299
1,2,3-Trimethylbenzene	U		0.00115	0.00500	1	10/22/2018 13:18	WG1184299
1,3,5-Trimethylbenzene	U		0.00108	0.00500	1	10/22/2018 13:18	WG1184299
Vinyl chloride	U		0.000683	0.00250	1	10/22/2018 13:18	WG1184299
Xylenes, Total	U	J4	0.00478	0.00650	1	10/22/2018 13:18	WG1184299
(S) Toluene-d8	*114*			*75.0-131*		*10/22/2018 13:18*	WG1184299
(S) Dibromofluoromethane	*83.8*			*65.0-129*		*10/22/2018 13:18*	WG1184299
(S) 4-Bromofluorobenzene	*88.9*			*67.0-138*		*10/22/2018 13:18*	WG1184299

Total Solids by Method 2540 G-2011

Analyte	Result %	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	92.2		1	10/23/2018 15:37	WG1184841

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Acetone	U		0.0149	0.0271	1	10/22/2018 13:38	WG1184299
Acrylonitrile	U		0.00206	0.0136	1	10/22/2018 13:38	WG1184299
Benzene	U		0.000434	0.00108	1	10/22/2018 13:38	WG1184299
Bromobenzene	U		0.00114	0.0136	1	10/22/2018 13:38	WG1184299
Bromodichloromethane	U		0.000855	0.00271	1	10/22/2018 13:38	WG1184299
Bromoform	U		0.00649	0.0271	1	10/22/2018 13:38	WG1184299
Bromomethane	U		0.00401	0.0136	1	10/22/2018 13:38	WG1184299
n-Butylbenzene	U		0.00416	0.0136	1	10/22/2018 13:38	WG1184299
sec-Butylbenzene	U		0.00274	0.0136	1	10/22/2018 13:38	WG1184299
tert-Butylbenzene	U		0.00168	0.00542	1	10/22/2018 13:38	WG1184299
Carbon tetrachloride	U		0.00117	0.00542	1	10/22/2018 13:38	WG1184299
Chlorobenzene	U		0.000621	0.00271	1	10/22/2018 13:38	WG1184299
Chlorodibromomethane	U		0.000488	0.00271	1	10/22/2018 13:38	WG1184299
Chloroethane	U		0.00117	0.00542	1	10/22/2018 13:38	WG1184299
Chloroform	U		0.000450	0.00271	1	10/22/2018 13:38	WG1184299
Chloromethane	U		0.00151	0.0136	1	10/22/2018 13:38	WG1184299
2-Chlorotoluene	U		0.000998	0.00271	1	10/22/2018 13:38	WG1184299
4-Chlorotoluene	U		0.00123	0.00542	1	10/22/2018 13:38	WG1184299
1,2-Dibromo-3-Chloropropane	U		0.00553	0.0271	1	10/22/2018 13:38	WG1184299
1,2-Dibromoethane	U		0.000569	0.00271	1	10/22/2018 13:38	WG1184299
Dibromomethane	U	J4	0.00108	0.00542	1	10/22/2018 13:38	WG1184299
1,2-Dichlorobenzene	U		0.00157	0.00542	1	10/22/2018 13:38	WG1184299
1,3-Dichlorobenzene	U		0.00184	0.00542	1	10/22/2018 13:38	WG1184299
1,4-Dichlorobenzene	U		0.00214	0.00542	1	10/22/2018 13:38	WG1184299
Dichlorodifluoromethane	U		0.000887	0.00271	1	10/22/2018 13:38	WG1184299
1,1-Dichloroethane	U		0.000624	0.00271	1	10/22/2018 13:38	WG1184299
1,2-Dichloroethane	U		0.000515	0.00271	1	10/22/2018 13:38	WG1184299
1,1-Dichloroethene	U		0.000542	0.00271	1	10/22/2018 13:38	WG1184299
cis-1,2-Dichloroethene	U		0.000748	0.00271	1	10/22/2018 13:38	WG1184299
trans-1,2-Dichloroethene	U		0.00155	0.00542	1	10/22/2018 13:38	WG1184299
1,2-Dichloropropane	U		0.00138	0.00542	1	10/22/2018 13:38	WG1184299
1,1-Dichloropropene	U		0.000759	0.00271	1	10/22/2018 13:38	WG1184299
1,3-Dichloropropane	U		0.00190	0.00542	1	10/22/2018 13:38	WG1184299
cis-1,3-Dichloropropene	U		0.000735	0.00271	1	10/22/2018 13:38	WG1184299
trans-1,3-Dichloropropene	U		0.00166	0.00542	1	10/22/2018 13:38	WG1184299
2,2-Dichloropropane	U		0.000860	0.00271	1	10/22/2018 13:38	WG1184299
Di-isopropyl ether	U		0.000380	0.00108	1	10/22/2018 13:38	WG1184299
Ethylbenzene	U		0.000575	0.00271	1	10/22/2018 13:38	WG1184299
Hexachloro-1,3-butadiene	U		0.0138	0.0271	1	10/22/2018 13:38	WG1184299
Isopropylbenzene	U		0.000936	0.00271	1	10/22/2018 13:38	WG1184299
p-Isopropyltoluene	U		0.00253	0.00542	1	10/22/2018 13:38	WG1184299
2-Butanone (MEK)	U		0.0136	0.0271	1	10/22/2018 13:38	WG1184299
Methylene Chloride	U		0.00720	0.0271	1	10/22/2018 13:38	WG1184299
4-Methyl-2-pentanone (MIBK)	U		0.0108	0.0271	1	10/22/2018 13:38	WG1184299
Methyl tert-butyl ether	U		0.000320	0.00108	1	10/22/2018 13:38	WG1184299
Naphthalene	U		0.00338	0.0136	1	10/22/2018 13:38	WG1184299
n-Propylbenzene	U		0.00128	0.00542	1	10/22/2018 13:38	WG1184299
Styrene	U		0.00296	0.0136	1	10/22/2018 13:38	WG1184299
1,1,1,2-Tetrachloroethane	U		0.000542	0.00271	1	10/22/2018 13:38	WG1184299
1,1,2,2-Tetrachloroethane	U		0.000423	0.00271	1	10/22/2018 13:38	WG1184299

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

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
1,1,2-Trichlorotrifluoroethane	U		0.000732	0.00271	1	10/22/2018 13:38	WG1184299
Tetrachloroethene	U	J4	0.000759	0.00271	1	10/22/2018 13:38	WG1184299
Toluene	0.00229	J	0.00136	0.00542	1	10/22/2018 13:38	WG1184299
1,2,3-Trichlorobenzene	U		0.000678	0.00271	1	10/22/2018 13:38	WG1184299
1,2,4-Trichlorobenzene	U		0.00523	0.0136	1	10/22/2018 13:38	WG1184299
1,1,1-Trichloroethane	U		0.000298	0.00271	1	10/22/2018 13:38	WG1184299
1,1,2-Trichloroethane	U	J4	0.000958	0.00271	1	10/22/2018 13:38	WG1184299
Trichloroethene	U		0.000434	0.00108	1	10/22/2018 13:38	WG1184299
Trichlorofluoromethane	U		0.000542	0.00271	1	10/22/2018 13:38	WG1184299
1,2,3-Trichloropropane	U		0.00553	0.0136	1	10/22/2018 13:38	WG1184299
1,2,4-Trimethylbenzene	U	J4	0.00126	0.00542	1	10/22/2018 13:38	WG1184299
1,2,3-Trimethylbenzene	U		0.00125	0.00542	1	10/22/2018 13:38	WG1184299
1,3,5-Trimethylbenzene	U		0.00117	0.00542	1	10/22/2018 13:38	WG1184299
Vinyl chloride	U		0.000741	0.00271	1	10/22/2018 13:38	WG1184299
Xylenes, Total	U	J4	0.00518	0.00705	1	10/22/2018 13:38	WG1184299
(S) Toluene-d8	*117*			*75.0-131*		*10/22/2018 13:38*	WG1184299
(S) Dibromofluoromethane	*84.3*			*65.0-129*		*10/22/2018 13:38*	WG1184299
(S) 4-Bromofluorobenzene	*92.2*			*67.0-138*		*10/22/2018 13:38*	WG1184299

Method Blank (MB)

(MB) R3353329-1 10/23/18 14:26

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.000			

L1036064-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1036064-05 10/23/18 14:26 • (DUP) R3353329-3 10/23/18 14:26

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	92.3	94.0	1	1.88		10

Laboratory Control Sample (LCS)

(LCS) R3353329-2 10/23/18 14:26

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

Method Blank (MB)

(MB) R3353332-1 10/23/18 15:37

Analyte	MB Result %	MB Qualifier	MB MDL %	MB RDL %
Total Solids	0.00100			

L1036069-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1036069-01 10/23/18 15:37 • (DUP) R3353332-3 10/23/18 15:37

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	88.8	88.0	1	0.814		10

Laboratory Control Sample (LCS)

(LCS) R3353332-2 10/23/18 15:37

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

Method Blank (MB)

(MB) R3353722-3 10/24/18 21:15

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*			*77.0-120*

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

(LCS) R3353722-1 10/24/18 20:12 • (LCSD) R3353722-2 10/24/18 20:33

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	5.04	4.81	91.6	87.5	72.0-127			4.61	20
(S) a,a,a-Trifluorotoluene(FID)				*101*	*101*	*77.0-120*				

L1037479-11 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1037479-11 10/24/18 23:52 • (MS) R3353722-4 10/25/18 05:08 • (MSD) R3353722-5 10/25/18 05:29

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	2880	3740	3830	31.4	34.5	500	10.0-151			2.31	28
(S) a,a,a-Trifluorotoluene(FID)					*84.3*	*85.8*		*77.0-120*				

Method Blank (MB)

(MB) R3352621-2 10/21/18 12:58

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0137	0.0250
Acrylonitrile	U		0.00190	0.0125
Benzene	U		0.000400	0.00100
Bromobenzene	U		0.00105	0.0125
Bromodichloromethane	U		0.000788	0.00250
Bromoform	U		0.00598	0.0250
Bromomethane	U		0.00370	0.0125
n-Butylbenzene	U		0.00384	0.0125
sec-Butylbenzene	U		0.00253	0.0125
tert-Butylbenzene	U		0.00155	0.00500
Carbon tetrachloride	U		0.00108	0.00500
Chlorobenzene	U		0.000573	0.00250
Chlorodibromomethane	U		0.000450	0.00250
Chloroethane	U		0.00108	0.00500
Chloroform	0.000931	J	0.000415	0.00250
Chloromethane	U		0.00139	0.0125
2-Chlorotoluene	U		0.000920	0.00250
4-Chlorotoluene	U		0.00113	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00510	0.0250
1,2-Dibromoethane	U		0.000525	0.00250
Dibromomethane	U		0.00100	0.00500
1,2-Dichlorobenzene	U		0.00145	0.00500
1,3-Dichlorobenzene	U		0.00170	0.00500
1,4-Dichlorobenzene	U		0.00197	0.00500
Dichlorodifluoromethane	U		0.000818	0.00250
1,1-Dichloroethane	U		0.000575	0.00250
1,2-Dichloroethane	U		0.000475	0.00250
1,1-Dichloroethene	U		0.000500	0.00250
cis-1,2-Dichloroethene	U		0.000690	0.00250
trans-1,2-Dichloroethene	U		0.00143	0.00500
1,2-Dichloropropane	U		0.00127	0.00500
1,1-Dichloropropene	U		0.000700	0.00250
1,3-Dichloropropane	U		0.00175	0.00500
cis-1,3-Dichloropropene	U		0.000678	0.00250
trans-1,3-Dichloropropene	U		0.00153	0.00500
2,2-Dichloropropane	U		0.000793	0.00250
Di-isopropyl ether	U		0.000350	0.00100
Ethylbenzene	U		0.000530	0.00250
Hexachloro-1,3-butadiene	U		0.0127	0.0250
Isopropylbenzene	U		0.000863	0.00250

Method Blank (MB)

(MB) R3352621-2 10/21/18 12:58

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
p-Isopropyltoluene	U		0.00233	0.00500
2-Butanone (MEK)	U		0.0125	0.0250
Methylene Chloride	0.0121	J	0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.0100	0.0250
Methyl tert-butyl ether	U		0.000295	0.00100
Naphthalene	U		0.00312	0.0125
n-Propylbenzene	U		0.00118	0.00500
Styrene	U		0.00273	0.0125
1,1,1,2-Tetrachloroethane	U		0.000500	0.00250
1,1,2,2-Tetrachloroethane	U		0.000390	0.00250
Tetrachloroethene	U		0.000700	0.00250
Toluene	U		0.00125	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000675	0.00250
1,2,3-Trichlorobenzene	U		0.000625	0.00250
1,2,4-Trichlorobenzene	U		0.00482	0.0125
1,1,1-Trichloroethane	U		0.000275	0.00250
1,1,2-Trichloroethane	U		0.000883	0.00250
Trichloroethene	U		0.000400	0.00100
Trichlorofluoromethane	U		0.000500	0.00250
1,2,3-Trichloropropane	U		0.00510	0.0125
1,2,3-Trimethylbenzene	U		0.00115	0.00500
1,2,4-Trimethylbenzene	U		0.00116	0.00500
1,3,5-Trimethylbenzene	U		0.00108	0.00500
Vinyl chloride	U		0.000683	0.00250
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	*128*			*75.0-131*
(S) Dibromofluoromethane	*87.7*			*65.0-129*
(S) 4-Bromofluorobenzene	*90.0*			*67.0-138*

Laboratory Control Sample (LCS)

(LCS) R3352621-1 10/21/18 11:48

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.625	0.590	94.4	10.0-160	
Acrylonitrile	0.625	0.518	83.0	45.0-153	
Benzene	0.125	0.128	103	70.0-123	
Bromobenzene	0.125	0.117	93.5	73.0-121	
Bromodichloromethane	0.125	0.125	100	73.0-121	

Laboratory Control Sample (LCS)

(LCS) R3352621-1 10/21/18 11:48

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Bromoform	0.125	0.0934	74.8	64.0-132	
Bromomethane	0.125	0.0835	66.8	56.0-147	
n-Butylbenzene	0.125	0.116	92.6	68.0-135	
sec-Butylbenzene	0.125	0.118	94.1	74.0-130	
tert-Butylbenzene	0.125	0.111	88.9	75.0-127	
Carbon tetrachloride	0.125	0.119	95.4	66.0-128	
Chlorobenzene	0.125	0.116	92.7	76.0-128	
Chlorodibromomethane	0.125	0.111	89.1	74.0-127	
Chloroethane	0.125	0.0704	56.3	61.0-134	J4
Chloroform	0.125	0.104	83.5	72.0-123	
Chloromethane	0.125	0.147	118	51.0-138	
2-Chlorotoluene	0.125	0.109	87.4	75.0-124	
4-Chlorotoluene	0.125	0.118	94.4	75.0-124	
1,2-Dibromo-3-Chloropropane	0.125	0.109	87.5	59.0-130	
1,2-Dibromoethane	0.125	0.124	99.5	74.0-128	
Dibromomethane	0.125	0.127	102	75.0-122	
1,2-Dichlorobenzene	0.125	0.127	102	76.0-124	
1,3-Dichlorobenzene	0.125	0.118	94.1	76.0-125	
1,4-Dichlorobenzene	0.125	0.118	94.1	77.0-121	
Dichlorodifluoromethane	0.125	0.185	148	43.0-156	
1,1-Dichloroethane	0.125	0.0974	77.9	70.0-127	
1,2-Dichloroethane	0.125	0.124	99.0	65.0-131	
1,1-Dichloroethene	0.125	0.0924	73.9	65.0-131	
cis-1,2-Dichloroethene	0.125	0.108	86.5	73.0-125	
trans-1,2-Dichloroethene	0.125	0.0958	76.7	71.0-125	
1,2-Dichloropropane	0.125	0.128	102	74.0-125	
1,1-Dichloropropene	0.125	0.129	103	73.0-125	
1,3-Dichloropropane	0.125	0.128	102	80.0-125	
cis-1,3-Dichloropropene	0.125	0.113	90.8	76.0-127	
trans-1,3-Dichloropropene	0.125	0.106	85.1	73.0-127	
2,2-Dichloropropane	0.125	0.0986	78.9	59.0-135	
Di-isopropyl ether	0.125	0.102	81.2	60.0-136	
Ethylbenzene	0.125	0.134	107	74.0-126	
Hexachloro-1,3-butadiene	0.125	0.121	96.5	57.0-150	
Isopropylbenzene	0.125	0.109	87.1	72.0-127	
p-Isopropyltoluene	0.125	0.123	98.5	72.0-133	
2-Butanone (MEK)	0.625	0.559	89.5	30.0-160	
Methylene Chloride	0.125	0.0962	76.9	68.0-123	
4-Methyl-2-pentanone (MIBK)	0.625	0.676	108	56.0-143	
Methyl tert-butyl ether	0.125	0.108	86.5	66.0-132	

Laboratory Control Sample (LCS)

(LCS) R3352621-1 10/21/18 11:48

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Naphthalene	0.125	0.118	94.2	59.0-130	
n-Propylbenzene	0.125	0.113	90.0	74.0-126	
Styrene	0.125	0.0953	76.2	72.0-127	
1,1,1,2-Tetrachloroethane	0.125	0.131	105	74.0-129	
1,1,2,2-Tetrachloroethane	0.125	0.109	86.8	68.0-128	
Tetrachloroethene	0.125	0.145	116	70.0-136	
Toluene	0.125	0.135	108	75.0-121	
1,1,2-Trichlorotrifluoroethane	0.125	0.0952	76.2	61.0-139	
1,2,3-Trichlorobenzene	0.125	0.144	115	59.0-139	
1,2,4-Trichlorobenzene	0.125	0.116	93.1	62.0-137	
1,1,1-Trichloroethane	0.125	0.111	88.9	69.0-126	
1,1,2-Trichloroethane	0.125	0.129	104	78.0-123	
Trichloroethene	0.125	0.108	86.3	76.0-126	
Trichlorofluoromethane	0.125	0.107	85.8	61.0-142	
1,2,3-Trichloropropane	0.125	0.126	101	67.0-129	
1,2,3-Trimethylbenzene	0.125	0.118	94.0	74.0-124	
1,2,4-Trimethylbenzene	0.125	0.112	89.5	70.0-126	
1,3,5-Trimethylbenzene	0.125	0.110	88.1	73.0-127	
Vinyl chloride	0.125	0.131	105	63.0-134	
Xylenes, Total	0.375	0.364	97.1	72.0-127	
(S) Toluene-d8			*110*	*75.0-131*	
(S) Dibromofluoromethane			*91.3*	*65.0-129*	
(S) 4-Bromofluorobenzene			*86.4*	*67.0-138*	

L1036671-26 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1036671-26 10/21/18 21:42 • (MS) R3352621-3 10/21/18 22:02 • (MSD) R3352621-4 10/21/18 22:23

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.625	ND	0.491	0.341	78.5	54.6	1	10.0-160			35.9	40
Acrylonitrile	0.625	ND	0.522	0.534	83.5	85.4	1	10.0-160			2.32	40
Benzene	0.125	ND	0.119	0.0710	95.3	56.8	1	10.0-149		J3	50.6	37
Bromobenzene	0.125	ND	0.133	0.0952	106	76.2	1	10.0-156			33.2	38
Bromodichloromethane	0.125	ND	0.130	0.0895	104	71.6	1	10.0-143			36.7	37
Bromoform	0.125	ND	0.0920	0.0796	73.6	63.7	1	10.0-146			14.4	36
Bromomethane	0.125	ND	0.0445	0.0277	35.6	22.1	1	10.0-149		J3	46.6	38
n-Butylbenzene	0.125	ND	0.142	0.0970	114	77.6	1	10.0-160			37.9	40
sec-Butylbenzene	0.125	ND	0.143	0.0917	114	73.4	1	10.0-159		J3	43.6	39
tert-Butylbenzene	0.125	ND	0.140	0.0882	112	70.5	1	10.0-156		J3	45.1	39

L1036671-26 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1036671-26 10/21/18 21:42 • (MS) R3352621-3 10/21/18 22:02 • (MSD) R3352621-4 10/21/18 22:23

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 %
Carbon tetrachloride	0.125	ND	0.112	0.0544	89.3	43.5	1	10.0-145		J3	68.9	37
Chlorobenzene	0.125	ND	0.139	0.0863	111	69.1	1	10.0-152		J3	46.5	39
Chlorodibromomethane	0.125	ND	0.119	0.0920	95.4	73.6	1	10.0-146			25.8	37
Chloroethane	0.125	ND	0.0458	0.0329	36.7	26.3	1	10.0-146			33.0	40
Chloroform	0.125	ND	0.133	0.0844	106	67.0	1	10.0-146		J3	44.8	37
Chloromethane	0.125	ND	0.0749	0.0354	59.9	28.3	1	10.0-159		J3	71.6	37
2-Chlorotoluene	0.125	ND	0.131	0.0835	104	66.8	1	10.0-159		J3	44.0	38
4-Chlorotoluene	0.125	ND	0.135	0.0882	108	70.6	1	10.0-155		J3	41.9	39
1,2-Dibromo-3-Chloropropane	0.125	ND	0.110	0.102	88.2	81.9	1	10.0-151			7.50	39
1,2-Dibromoethane	0.125	ND	0.138	0.108	111	86.0	1	10.0-148			25.0	34
Dibromomethane	0.125	ND	0.127	0.0993	102	79.4	1	10.0-147			24.8	35
1,2-Dichlorobenzene	0.125	ND	0.146	0.109	117	87.0	1	10.0-155			29.0	37
1,3-Dichlorobenzene	0.125	ND	0.137	0.0969	109	77.6	1	10.0-153			34.1	38
1,4-Dichlorobenzene	0.125	ND	0.131	0.0952	105	76.2	1	10.0-151			31.7	38
Dichlorodifluoromethane	0.125	ND	0.0949	0.0421	75.9	33.7	1	10.0-160		J3	77.0	35
1,1-Dichloroethane	0.125	ND	0.126	0.0734	100	58.7	1	10.0-147		J3	52.5	37
1,2-Dichloroethane	0.125	ND	0.127	0.0973	101	77.8	1	10.0-148			26.4	35
1,1-Dichloroethene	0.125	ND	0.103	0.0478	82.0	38.2	1	10.0-155		J3	72.9	37
cis-1,2-Dichloroethene	0.125	ND	0.122	0.0793	97.8	63.5	1	10.0-149		J3	42.6	37
trans-1,2-Dichloroethene	0.125	ND	0.103	0.0558	82.5	44.7	1	10.0-150		J3	59.6	37
1,2-Dichloropropane	0.125	ND	0.124	0.0812	99.5	64.9	1	10.0-148		J3	42.0	37
1,1-Dichloropropene	0.125	ND	0.117	0.0571	93.5	45.7	1	10.0-153		J3	68.7	35
1,3-Dichloropropane	0.125	ND	0.156	0.118	125	94.0	1	10.0-154			28.1	35
cis-1,3-Dichloropropene	0.125	ND	0.126	0.0887	101	70.9	1	10.0-151			34.8	37
trans-1,3-Dichloropropene	0.125	ND	0.121	0.0919	96.8	73.5	1	10.0-148			27.3	37
2,2-Dichloropropane	0.125	ND	0.114	0.0656	91.4	52.4	1	10.0-138		J3	54.1	36
Di-isopropyl ether	0.125	ND	0.128	0.0870	103	69.6	1	10.0-147		J3	38.4	36
Ethylbenzene	0.125	ND	0.155	0.0904	124	72.3	1	10.0-160		J3	52.6	38
Hexachloro-1,3-butadiene	0.125	ND	0.144	0.117	115	93.4	1	10.0-160			21.1	40
Isopropylbenzene	0.125	ND	0.129	0.0772	104	61.8	1	10.0-155		J3	50.5	38
p-Isopropyltoluene	0.125	ND	0.144	0.0940	115	75.2	1	10.0-160		J3	41.9	40
2-Butanone (MEK)	0.625	ND	0.646	0.671	103	107	1	10.0-160			3.80	40
Methylene Chloride	0.125	ND	0.115	0.0804	92.0	64.3	1	10.0-141			35.5	37
4-Methyl-2-pentanone (MIBK)	0.625	ND	0.753	0.692	120	111	1	10.0-160			8.42	35
Methyl tert-butyl ether	0.125	ND	0.124	0.103	99.5	82.8	1	11.0-147			18.4	35
Naphthalene	0.125	ND	0.132	0.121	105	96.9	1	10.0-160			8.43	36
n-Propylbenzene	0.125	ND	0.131	0.0797	105	63.8	1	10.0-158		J3	49.0	38
Styrene	0.125	ND	0.109	0.0722	87.0	57.8	1	10.0-160		J3	40.4	40
1,1,1,2-Tetrachloroethane	0.125	ND	0.150	0.100	120	80.3	1	10.0-149		J3	39.5	39
1,1,2,2-Tetrachloroethane	0.125	ND	0.121	0.104	96.8	83.4	1	10.0-160			14.9	35

L1036671-26 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1036671-26 10/21/18 21:42 • (MS) R3352621-3 10/21/18 22:02 • (MSD) R3352621-4 10/21/18 22:23

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 %
Tetrachloroethene	0.125	ND	0.163	0.0822	130	65.8	1	10.0-156		J3	65.9	39
Toluene	0.125	ND	0.152	0.0874	122	69.9	1	10.0-156		J3	54.0	38
1,1,2-Trichlorotrifluoroethane	0.125	ND	0.121	0.0581	96.9	46.5	1	10.0-160		J3	70.3	36
1,2,3-Trichlorobenzene	0.125	ND	0.161	0.133	129	106	1	10.0-160			19.4	40
1,2,4-Trichlorobenzene	0.125	ND	0.140	0.109	112	87.0	1	10.0-160			24.8	40
1,1,1-Trichloroethane	0.125	ND	0.114	0.0559	91.2	44.7	1	10.0-144		J3	68.4	35
1,1,2-Trichloroethane	0.125	ND	0.150	0.122	120	97.7	1	10.0-160			20.7	35
Trichloroethene	0.125	ND	0.109	0.0613	87.6	49.0	1	10.0-156		J3	56.4	38
Trichlorofluoromethane	0.125	ND	0.116	0.0406	92.5	32.5	1	10.0-160		J3	96.1	40
1,2,3-Trichloropropane	0.125	ND	0.131	0.121	105	97.0	1	10.0-156			8.13	35
1,2,3-Trimethylbenzene	0.125	ND	0.139	0.0957	111	76.6	1	10.0-160		J3	36.7	36
1,2,4-Trimethylbenzene	0.125	ND	0.131	0.0882	105	70.6	1	10.0-160		J3	38.9	36
1,3,5-Trimethylbenzene	0.125	ND	0.128	0.0823	103	65.9	1	10.0-160		J3	43.6	38
Vinyl chloride	0.125	ND	0.0494	0.0285	39.5	22.8	1	10.0-160		J3	53.7	37
Xylenes, Total	0.375	ND	0.421	0.245	112	65.2	1	10.0-160		J3	53.0	38
(S) Toluene-d8					*118*	*116*		*75.0-131*				
(S) Dibromofluoromethane					*95.9*	*95.2*		*65.0-129*				
(S) 4-Bromofluorobenzene					*86.3*	*87.2*		*67.0-138*				

Method Blank (MB)

(MB) R3352733-2 10/22/18 09:53

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Acetone	U		0.0137	0.0250
Acrylonitrile	U		0.00190	0.0125
Benzene	U		0.000400	0.00100
Bromobenzene	U		0.00105	0.0125
Bromodichloromethane	U		0.000788	0.00250
Bromoform	U		0.00598	0.0250
Bromomethane	U		0.00370	0.0125
n-Butylbenzene	U		0.00384	0.0125
sec-Butylbenzene	U		0.00253	0.0125
tert-Butylbenzene	U		0.00155	0.00500
Carbon tetrachloride	U		0.00108	0.00500
Chlorobenzene	U		0.000573	0.00250
Chlorodibromomethane	U		0.000450	0.00250
Chloroethane	U		0.00108	0.00500
Chloroform	U		0.000415	0.00250
Chloromethane	U		0.00139	0.0125
2-Chlorotoluene	U		0.000920	0.00250
4-Chlorotoluene	U		0.00113	0.00500
1,2-Dibromo-3-Chloropropane	U		0.00510	0.0250
1,2-Dibromoethane	U		0.000525	0.00250
Dibromomethane	U		0.00100	0.00500
1,2-Dichlorobenzene	U		0.00145	0.00500
1,3-Dichlorobenzene	U		0.00170	0.00500
1,4-Dichlorobenzene	U		0.00197	0.00500
Dichlorodifluoromethane	U		0.000818	0.00250
1,1-Dichloroethane	U		0.000575	0.00250
1,2-Dichloroethane	U		0.000475	0.00250
1,1-Dichloroethene	U		0.000500	0.00250
cis-1,2-Dichloroethene	U		0.000690	0.00250
trans-1,2-Dichloroethene	U		0.00143	0.00500
1,2-Dichloropropane	U		0.00127	0.00500
1,1-Dichloropropene	U		0.000700	0.00250
1,3-Dichloropropane	U		0.00175	0.00500
cis-1,3-Dichloropropene	U		0.000678	0.00250
trans-1,3-Dichloropropene	U		0.00153	0.00500
2,2-Dichloropropane	U		0.000793	0.00250
Di-isopropyl ether	U		0.000350	0.00100
Ethylbenzene	U		0.000530	0.00250
Hexachloro-1,3-butadiene	U		0.0127	0.0250
Isopropylbenzene	U		0.000863	0.00250

Method Blank (MB)

(MB) R3352733-2 10/22/18 09:53

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
p-Isopropyltoluene	U		0.00233	0.00500
2-Butanone (MEK)	U		0.0125	0.0250
Methylene Chloride	U		0.00664	0.0250
4-Methyl-2-pentanone (MIBK)	U		0.0100	0.0250
Methyl tert-butyl ether	U		0.000295	0.00100
Naphthalene	U		0.00312	0.0125
n-Propylbenzene	U		0.00118	0.00500
Styrene	U		0.00273	0.0125
1,1,1,2-Tetrachloroethane	U		0.000500	0.00250
1,1,2,2-Tetrachloroethane	U		0.000390	0.00250
Tetrachloroethene	U		0.000700	0.00250
Toluene	U		0.00125	0.00500
1,1,2-Trichlorotrifluoroethane	U		0.000675	0.00250
1,2,3-Trichlorobenzene	U		0.000625	0.00250
1,2,4-Trichlorobenzene	U		0.00482	0.0125
1,1,1-Trichloroethane	U		0.000275	0.00250
1,1,2-Trichloroethane	U		0.000883	0.00250
Trichloroethene	U		0.000400	0.00100
Trichlorofluoromethane	U		0.000500	0.00250
1,2,3-Trichloropropane	U		0.00510	0.0125
1,2,3-Trimethylbenzene	U		0.00115	0.00500
1,2,4-Trimethylbenzene	U		0.00116	0.00500
1,3,5-Trimethylbenzene	U		0.00108	0.00500
Vinyl chloride	U		0.000683	0.00250
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	*113*			*75.0-131*
(S) Dibromofluoromethane	*79.5*			*65.0-129*
(S) 4-Bromofluorobenzene	*94.4*			*67.0-138*

Laboratory Control Sample (LCS)

(LCS) R3352733-1 10/22/18 08:54

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Acetone	0.625	0.316	50.6	10.0-160	
Acrylonitrile	0.625	0.628	100	45.0-153	
Benzene	0.125	0.134	108	70.0-123	
Bromobenzene	0.125	0.124	99.3	73.0-121	
Bromodichloromethane	0.125	0.151	121	73.0-121	

Laboratory Control Sample (LCS)

(LCS) R3352733-1 10/22/18 08:54

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Bromoform	0.125	0.0939	75.1	64.0-132	
Bromomethane	0.125	0.121	96.5	56.0-147	
n-Butylbenzene	0.125	0.116	92.6	68.0-135	
sec-Butylbenzene	0.125	0.117	93.9	74.0-130	
tert-Butylbenzene	0.125	0.108	86.7	75.0-127	
Carbon tetrachloride	0.125	0.156	125	66.0-128	
Chlorobenzene	0.125	0.129	103	76.0-128	
Chlorodibromomethane	0.125	0.0964	77.1	74.0-127	
Chloroethane	0.125	0.135	108	61.0-134	
Chloroform	0.125	0.102	81.3	72.0-123	
Chloromethane	0.125	0.134	107	51.0-138	
2-Chlorotoluene	0.125	0.0973	77.9	75.0-124	
4-Chlorotoluene	0.125	0.121	97.2	75.0-124	
1,2-Dibromo-3-Chloropropane	0.125	0.0762	60.9	59.0-130	
1,2-Dibromoethane	0.125	0.115	92.1	74.0-128	
Dibromomethane	0.125	0.163	130	75.0-122	J4
1,2-Dichlorobenzene	0.125	0.118	94.0	76.0-124	
1,3-Dichlorobenzene	0.125	0.114	91.4	76.0-125	
1,4-Dichlorobenzene	0.125	0.105	83.7	77.0-121	
Dichlorodifluoromethane	0.125	0.141	113	43.0-156	
1,1-Dichloroethane	0.125	0.138	111	70.0-127	
1,2-Dichloroethane	0.125	0.112	89.5	65.0-131	
1,1-Dichloroethene	0.125	0.116	93.1	65.0-131	
cis-1,2-Dichloroethene	0.125	0.144	115	73.0-125	
trans-1,2-Dichloroethene	0.125	0.141	113	71.0-125	
1,2-Dichloropropane	0.125	0.103	82.4	74.0-125	
1,1-Dichloropropene	0.125	0.118	94.1	73.0-125	
1,3-Dichloropropane	0.125	0.150	120	80.0-125	
cis-1,3-Dichloropropene	0.125	0.141	113	76.0-127	
trans-1,3-Dichloropropene	0.125	0.139	111	73.0-127	
2,2-Dichloropropane	0.125	0.135	108	59.0-135	
Di-isopropyl ether	0.125	0.119	95.2	60.0-136	
Ethylbenzene	0.125	0.0947	75.7	74.0-126	
Hexachloro-1,3-butadiene	0.125	0.112	89.6	57.0-150	
Isopropylbenzene	0.125	0.0928	74.2	72.0-127	
p-Isopropyltoluene	0.125	0.111	88.4	72.0-133	
2-Butanone (MEK)	0.625	0.542	86.8	30.0-160	
Methylene Chloride	0.125	0.133	106	68.0-123	
4-Methyl-2-pentanone (MIBK)	0.625	0.645	103	56.0-143	
Methyl tert-butyl ether	0.125	0.0943	75.4	66.0-132	

Laboratory Control Sample (LCS)

(LCS) R3352733-1 10/22/18 08:54

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Naphthalene	0.125	0.0782	62.6	59.0-130	
n-Propylbenzene	0.125	0.105	84.3	74.0-126	
Styrene	0.125	0.0920	73.6	72.0-127	
1,1,1,2-Tetrachloroethane	0.125	0.111	89.2	74.0-129	
1,1,2,2-Tetrachloroethane	0.125	0.133	106	68.0-128	
Tetrachloroethene	0.125	0.173	138	70.0-136	J4
Toluene	0.125	0.119	95.2	75.0-121	
1,1,2-Trichlorotrifluoroethane	0.125	0.153	123	61.0-139	
1,2,3-Trichlorobenzene	0.125	0.0819	65.5	59.0-139	
1,2,4-Trichlorobenzene	0.125	0.0806	64.5	62.0-137	
1,1,1-Trichloroethane	0.125	0.136	108	69.0-126	
1,1,2-Trichloroethane	0.125	0.176	141	78.0-123	J4
Trichloroethene	0.125	0.118	94.1	76.0-126	
Trichlorofluoromethane	0.125	0.146	117	61.0-142	
1,2,3-Trichloropropane	0.125	0.0882	70.6	67.0-129	
1,2,3-Trimethylbenzene	0.125	0.111	89.1	74.0-124	
1,2,4-Trimethylbenzene	0.125	0.0780	62.4	70.0-126	J4
1,3,5-Trimethylbenzene	0.125	0.102	81.5	73.0-127	
Vinyl chloride	0.125	0.115	92.1	63.0-134	
Xylenes, Total	0.375	0.291	77.6	72.0-127	
(S) Toluene-d8			*105*	*75.0-131*	
(S) Dibromofluoromethane			*94.5*	*65.0-129*	
(S) 4-Bromofluorobenzene			*90.6*	*67.0-138*	

L1036089-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1036089-04 10/22/18 18:29 • (MS) R3352733-3 10/22/18 18:49 • (MSD) R3352733-4 10/22/18 19:08

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Acetone	0.717	ND	181	184	1260	1280	20	10.0-160	E J5	E J5	1.67	40
Acrylonitrile	0.717	ND	5.61	9.17	39.1	63.9	20	10.0-160		J3	48.2	40
Benzene	0.143	1.57	3.38	2.42	63.1	29.5	20	10.0-149			33.2	37
Bromobenzene	0.143	ND	3.32	2.01	116	70.0	20	10.0-156		J3	49.3	38
Bromodichloromethane	0.143	ND	ND	ND	0.000	0.000	20	10.0-143	J6	J6	0.000	37
Bromoform	0.143	ND	2.46	1.95	85.6	68.0	20	10.0-146			22.8	36
Bromomethane	0.143	ND	1.26	0.470	43.9	16.4	20	10.0-149		J3	91.3	38
n-Butylbenzene	0.143	12.6	19.3	17.7	235	181	20	10.0-160	V	V	8.47	40
sec-Butylbenzene	0.143	2.86	6.83	4.96	138	73.4	20	10.0-159			31.7	39
tert-Butylbenzene	0.143	ND	3.24	1.41	113	49.0	20	10.0-156		J3	78.9	39

L1036089-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1036089-04 10/22/18 18:29 • (MS) R3352733-3 10/22/18 18:49 • (MSD) R3352733-4 10/22/18 19:08

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Carbon tetrachloride	0.143	ND	2.41	0.732	84.0	25.5	20	10.0-145		J3	107	37
Chlorobenzene	0.143	ND	4.75	2.95	165	103	20	10.0-152	J5	J3	46.8	39
Chlorodibromomethane	0.143	ND	2.15	1.40	74.9	48.9	20	10.0-146		J3	41.9	37
Chloroethane	0.143	ND	1.73	0.654	60.1	22.8	20	10.0-146		J3	90.1	40
Chloroform	0.143	ND	1.86	1.01	64.9	35.2	20	10.0-146		J3	59.4	37
Chloromethane	0.143	ND	1.43	0.624	49.8	21.7	20	10.0-159		J3	78.5	37
2-Chlorotoluene	0.143	ND	2.55	1.25	88.9	43.6	20	10.0-159		J3	68.3	38
4-Chlorotoluene	0.143	ND	2.63	1.38	91.8	48.2	20	10.0-155		J3	62.3	39
1,2-Dibromo-3-Chloropropane	0.143	ND	2.24	2.07	78.1	72.2	20	10.0-151			7.84	39
1,2-Dibromoethane	0.143	ND	2.85	1.97	99.3	68.8	20	10.0-148		J3	36.3	34
Dibromomethane	0.143	ND	2.43	1.83	84.5	63.9	20	10.0-147			27.8	35
1,2-Dichlorobenzene	0.143	ND	3.14	1.99	109	69.3	20	10.0-155		J3	44.8	37
1,3-Dichlorobenzene	0.143	ND	2.92	1.66	102	57.9	20	10.0-153		J3	54.8	38
1,4-Dichlorobenzene	0.143	ND	2.67	1.63	93.0	57.0	20	10.0-151		J3	48.1	38
Dichlorodifluoromethane	0.143	ND	1.52	0.359	53.0	12.5	20	10.0-160		J3	124	35
1,1-Dichloroethane	0.143	ND	2.31	1.11	80.6	38.6	20	10.0-147		J3	70.5	37
1,2-Dichloroethane	0.143	ND	1.74	1.29	60.8	44.8	20	10.0-148			30.3	35
1,1-Dichloroethene	0.143	ND	1.78	0.606	62.1	21.1	20	10.0-155		J3	98.5	37
cis-1,2-Dichloroethene	0.143	ND	2.42	1.24	84.2	43.4	20	10.0-149		J3	64.1	37
trans-1,2-Dichloroethene	0.143	ND	2.05	0.838	71.3	29.2	20	10.0-150		J3	83.8	37
1,2-Dichloropropane	0.143	ND	2.12	1.25	73.9	43.5	20	10.0-148		J3	51.8	37
1,1-Dichloropropene	0.143	ND	1.93	0.609	67.3	21.2	20	10.0-153		J3	104	35
1,3-Dichloropropane	0.143	ND	3.62	2.27	126	79.0	20	10.0-154		J3	45.9	35
cis-1,3-Dichloropropene	0.143	ND	3.09	1.70	108	59.1	20	10.0-151		J3	58.2	37
trans-1,3-Dichloropropene	0.143	ND	3.13	1.84	109	64.0	20	10.0-148		J3	52.2	37
2,2-Dichloropropane	0.143	ND	1.99	0.916	69.2	31.9	20	10.0-138		J3	73.8	36
Di-isopropyl ether	0.143	ND	1.85	1.23	64.5	43.0	20	10.0-147		J3	40.1	36
Ethylbenzene	0.143	30.8	32.5	28.6	59.4	0.000	20	10.0-160		V	12.7	38
Hexachloro-1,3-butadiene	0.143	ND	3.34	1.59	116	55.3	20	10.0-160		J3	71.2	40
Isopropylbenzene	0.143	4.05	7.44	6.14	118	72.9	20	10.0-155			19.1	38
p-Isopropyltoluene	0.143	2.14	5.70	3.83	124	59.0	20	10.0-160			39.3	40
2-Butanone (MEK)	0.717	ND	57.0	55.9	397	390	20	10.0-160	J5	J5	1.92	40
Methylene Chloride	0.143	ND	2.03	1.13	70.6	39.4	20	10.0-141		J3	56.8	37
4-Methyl-2-pentanone (MIBK)	0.717	ND	17.5	17.2	122	120	20	10.0-160			1.39	35
Methyl tert-butyl ether	0.143	ND	1.47	1.33	51.4	46.5	20	11.0-147			10.0	35
Naphthalene	0.143	19.8	27.6	28.8	271	314	20	10.0-160	V	V	4.33	36
n-Propylbenzene	0.143	17.5	24.0	23.5	228	208	20	10.0-158	V	V	2.37	38
Styrene	0.143	ND	3.12	1.80	109	62.7	20	10.0-160		J3	53.5	40
1,1,1,2-Tetrachloroethane	0.143	ND	2.73	1.39	95.1	48.3	20	10.0-149		J3	65.2	39

L1036089-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1036089-04 10/22/18 18:29 • (MS) R3352733-3 10/22/18 18:49 • (MSD) R3352733-4 10/22/18 19:08

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
1,1,2,2-Tetrachloroethane	0.143	ND	4.87	4.54	170	158	20	10.0-160	J5		6.98	35
Tetrachloroethene	0.143	ND	3.77	1.21	131	42.2	20	10.0-156		J3	103	39
Toluene	0.143	1.01	3.70	2.02	93.7	35.2	20	10.0-156		J3	58.7	38
1,1,2-Trichlorotrifluoroethane	0.143	ND	2.59	0.588	90.3	20.5	20	10.0-160		J3	126	36
1,2,3-Trichlorobenzene	0.143	ND	2.48	1.73	86.4	60.3	20	10.0-160			35.6	40
1,2,4-Trichlorobenzene	0.143	ND	2.52	1.66	87.7	57.9	20	10.0-160		J3	41.0	40
1,1,1-Trichloroethane	0.143	ND	2.43	0.913	84.8	31.8	20	10.0-144		J3	90.8	35
1,1,2-Trichloroethane	0.143	ND	7.04	3.66	245	128	20	10.0-160	J5	J3	63.0	35
Trichloroethene	0.143	ND	2.17	0.988	75.5	34.4	20	10.0-156		J3	74.7	38
Trichlorofluoromethane	0.143	ND	2.24	0.556	78.0	19.4	20	10.0-160		J3	120	40
1,2,3-Trichloropropane	0.143	ND	1.99	1.70	69.4	59.2	20	10.0-156			15.9	35
1,2,3-Trimethylbenzene	0.143	21.8	28.4	27.9	230	212	20	10.0-160	V	V	1.77	36
1,2,4-Trimethylbenzene	0.143	26.1	34.5	34.7	293	299	20	10.0-160	V	V	0.501	36
1,3,5-Trimethylbenzene	0.143	11.4	16.9	15.7	191	148	20	10.0-160	J5		7.45	38
Vinyl chloride	0.143	ND	0.970	0.314	33.8	11.0	20	10.0-160		J3	102	37
Xylenes, Total	0.430	25.9	33.0	26.6	81.5	7.60	20	10.0-160		J3 J6 V	21.3	38
(S) Toluene-d8					*129*	*120*		*75.0-131*				
(S) Dibromofluoromethane					*87.8*	*90.8*		*65.0-129*				
(S) 4-Bromofluorobenzene					*108*	*113*		*67.0-138*				

Method Blank (MB)

(MB) R3352164-1 10/19/18 10:35

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	*75.1*			*18.0-148*

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

(LCS) R3352164-2 10/19/18 10:47 • (LCSD) R3352164-3 10/19/18 10:59

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	50.0	33.4	36.7	66.8	73.4	50.0-150			9.42	20
(S) o-Terphenyl				*86.0*	*95.9*	*18.0-148*				

L1036040-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1036040-01 10/19/18 11:10 • (MS) R3352164-4 10/19/18 11:22 • (MSD) R3352164-5 10/19/18 11:34

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	50.0	U	28.7	14.0	57.4	28.0	1	50.0-150		J3 J6	68.9	20
(S) o-Terphenyl					*74.0*	*40.7*		*18.0-148*				

Method Blank (MB)

(MB) R3352564-1 10/21/18 23:25

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	*71.5*			*18.0-148*

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

(LCS) R3352564-2 10/21/18 23:36 • (LCSD) R3352564-3 10/21/18 23:47

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	50.0	39.8	36.0	79.6	72.0	50.0-150			10.0	20
(S) o-Terphenyl				*97.7*	*88.9*	*18.0-148*				

Method Blank (MB)

(MB) R3352596-3 10/21/18 04:34

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Anthracene	U		0.000600	0.00600
Acenaphthene	U		0.000600	0.00600
Acenaphthylene	U		0.000600	0.00600
Benzo(a)anthracene	U		0.000600	0.00600
Benzo(a)pyrene	U		0.000600	0.00600
Benzo(b)fluoranthene	U		0.000600	0.00600
Benzo(g,h,i)perylene	U		0.000600	0.00600
Benzo(k)fluoranthene	U		0.000600	0.00600
Chrysene	U		0.000600	0.00600
Dibenz(a,h)anthracene	U		0.000600	0.00600
Fluoranthene	U		0.000600	0.00600
Fluorene	U		0.000600	0.00600
Indeno(1,2,3-cd)pyrene	U		0.000600	0.00600
Naphthalene	U		0.00200	0.0200
Phenanthrene	U		0.000600	0.00600
Pyrene	U		0.000600	0.00600
Dibenzofuran	U		0.000600	0.00600
(S) Nitrobenzene-d5	*86.2*			*14.0-149*
(S) 2-Fluorobiphenyl	*77.7*			*34.0-125*
(S) p-Terphenyl-d14	*77.2*			*23.0-120*

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

(LCS) R3352596-1 10/21/18 03:51 • (LCSD) R3352596-2 10/21/18 04:13

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 %
Anthracene	0.0800	0.0834	0.0814	104	102	50.0-126			2.43	20
Acenaphthene	0.0800	0.0832	0.0813	104	102	50.0-120			2.31	20
Acenaphthylene	0.0800	0.0851	0.0802	106	100	50.0-120			5.93	20
Benzo(a)anthracene	0.0800	0.0789	0.0779	98.6	97.4	45.0-120			1.28	20
Benzo(a)pyrene	0.0800	0.0753	0.0726	94.1	90.8	42.0-120			3.65	20
Benzo(b)fluoranthene	0.0800	0.0737	0.0709	92.1	88.6	42.0-121			3.87	20
Benzo(g,h,i)perylene	0.0800	0.0767	0.0754	95.9	94.3	45.0-125			1.71	20
Benzo(k)fluoranthene	0.0800	0.0780	0.0772	97.5	96.5	49.0-125			1.03	20
Chrysene	0.0800	0.0817	0.0803	102	100	49.0-122			1.73	20
Dibenz(a,h)anthracene	0.0800	0.0812	0.0786	102	98.2	47.0-125			3.25	20
Fluoranthene	0.0800	0.0797	0.0798	99.6	99.8	49.0-129			0.125	20
Fluorene	0.0800	0.0838	0.0816	105	102	49.0-120			2.66	20
Indeno(1,2,3-cd)pyrene	0.0800	0.0792	0.0772	99.0	96.5	46.0-125			2.56	20

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

(LCS) R3352596-1 10/21/18 03:51 • (LCSD) R3352596-2 10/21/18 04:13

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Naphthalene	0.0800	0.0788	0.0768	98.5	96.0	50.0-120			2.57	20
Phenanthrene	0.0800	0.0804	0.0792	101	99.0	47.0-120			1.50	20
Pyrene	0.0800	0.0775	0.0761	96.9	95.1	43.0-123			1.82	20
Dibenzofuran	0.0800	0.0728	0.0708	91.0	88.5	52.0-120			2.79	20
(S) Nitrobenzene-d5				*99.0*	*97.7*	*14.0-149*				
(S) 2-Fluorobiphenyl				*88.2*	*86.9*	*34.0-125*				
(S) p-Terphenyl-d14				*88.0*	*85.4*	*23.0-120*				

L1036053-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1036053-01 10/21/18 11:24 • (MS) R3352596-4 10/21/18 11:45 • (MSD) R3352596-5 10/21/18 12:06

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Anthracene	0.0916	ND	0.0925	0.0863	98.7	92.4	1	10.0-145			6.91	30
Acenaphthene	0.0916	ND	0.0916	0.0850	100	93.2	1	14.0-127			7.52	27
Acenaphthylene	0.0916	ND	0.0981	0.0914	107	100	1	21.0-124			7.13	25
Benzo(a)anthracene	0.0916	0.00807	0.0926	0.0852	92.3	84.6	1	10.0-139			8.37	30
Benzo(a)pyrene	0.0916	0.0117	0.0852	0.0770	80.3	71.6	1	10.0-141			10.2	31
Benzo(b)fluoranthene	0.0916	0.0166	0.0931	0.0807	83.5	70.4	1	10.0-140			14.2	36
Benzo(g,h,i)perylene	0.0916	0.0228	0.0810	0.0689	63.5	50.6	1	10.0-140			16.0	33
Benzo(k)fluoranthene	0.0916	ND	0.0788	0.0745	81.5	77.3	1	10.0-137			5.53	31
Chrysene	0.0916	0.0103	0.0968	0.0918	94.4	89.4	1	10.0-145			5.22	30
Dibenz(a,h)anthracene	0.0916	ND	0.0732	0.0636	79.9	69.7	1	10.0-132			14.1	31
Fluoranthene	0.0916	0.0153	0.108	0.103	101	95.9	1	10.0-153			4.79	33
Fluorene	0.0916	ND	0.0939	0.0882	101	95.3	1	11.0-130			6.29	29
Indeno(1,2,3-cd)pyrene	0.0916	0.00830	0.0753	0.0653	73.2	62.5	1	10.0-137			14.3	32
Naphthalene	0.0916	ND	0.0877	0.0835	87.1	82.9	1	10.0-135			4.95	27
Phenanthrene	0.0916	ND	0.0933	0.0875	95.0	89.0	1	10.0-144			6.46	31
Pyrene	0.0916	0.0251	0.0964	0.0931	77.9	74.6	1	10.0-148			3.50	35
Dibenzofuran	0.0916	ND	0.0827	0.0766	90.3	84.0	1	26.0-120			7.62	25
(S) Nitrobenzene-d5					*101*	*86.3*		*14.0-149*				
(S) 2-Fluorobiphenyl					*89.9*	*76.6*		*34.0-125*				
(S) p-Terphenyl-d14					*86.7*	*76.3*		*23.0-120*				

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

Guide to Reading and Understanding Your Laboratory Report

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

Abbreviations and Definitions

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

Qualifier	Description
B	The same analyte is found in the associated blank.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J4	The associated batch QC was outside the established quality control range for accuracy.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
P	RPD between the primary and confirmatory analysis exceeded 40%.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

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

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

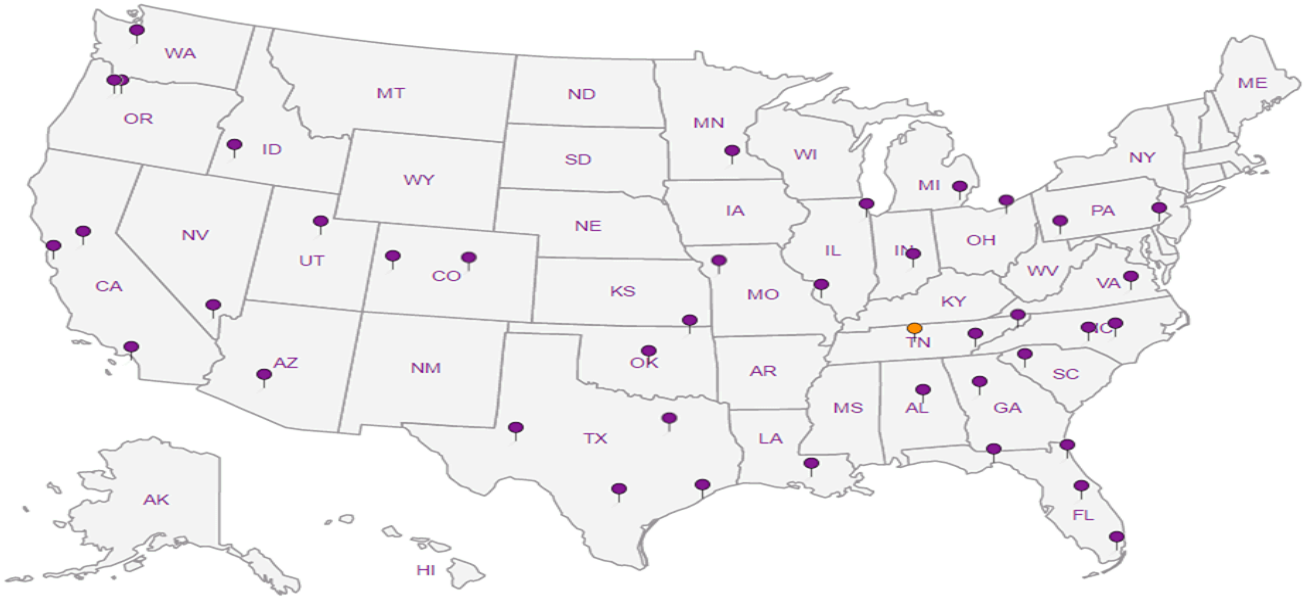
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

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

Our Locations

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



Akana - Richardson, TX

1850 N. Greenville Ave.
Suite 170
Richardson, TX 75081

Billing Information:
Accounts Payable
6400 SE Lake Rd., Ste. 270
Portland, OR 97222

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Pace Analytical®
National Center for Testing & Innovation

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

Report to: Brent Hamil

Email To: brent.hamil@akana.us
SAID.Amali@Akana.us

Project Description: Duck Valley Indian Reservation

City/State Collected:

Phone: 214-676-2274
Fax:

Client Project # Akana-16-005

Lab Project # AKANARTX-16-005

L# L1036064

F101

Collected by (print): Brent Hamil

Site/Facility ID # OWYHEE, NV

P.O. # PO # (16-005 Task 6)

Collected by (signature): Brent Hamil

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ✓ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Immediately Packed on Ice N ___ Y ✓

Acctnum: AKANARTX
Template: T141538
Prelogin: P675981
TSR: 526 - Chris McCord
PB: 10/4/18
Shipped Via: FedEX Ground

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	DRO 4ozClr-NoPres	Dioxin/Furans 4ozClr-NoPres	GRO 2ozClr-NoPres	~~SV8141~~, SV8270PAHSIM 4ozClr-NoPres	V8260 40mlAmb/MeOH5ml/Syr	Remarks	Sample # (lab only)
MW-31	GRAB	SS	4.5-6	10-15-18	1240	2	X		X				-01
MW-31		SS	12-13	10-15-18	1300	4	X		X	X	X		02
MW-1R		SS	3-4.5	10-15-18	1530	5 4	X		X	X	X		03
MW-1R		SS	6-7.5	10-15-18	1540	2	X		X				04
MW-32		SS	3-4.5	10-16-18	1000	2	X		X				05
MW-32		SS	4.5-6	10-16-18	1010	2	X		X				06
MW-32		SS	9-10.5	10-16-18	1015	4	X		X	X	X		07
MW-33		SS	4.5-6	10-16-18	1305	2	X		X				08
MW-33		SS	11-12.5	10-16-18	1315	4	X		X	X	X		09
TRIP Blank		SS				3					X		10

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

Remarks:

RAD SCREEN: <0.5 mR/hr

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS X FedEx __ Courier _____

Tracking # 4624 2995 5971

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeOH TBR
Brent Hamil	10-17-18	800		3
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.8 °C Bottles Received: 42
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/18/18 Time: 845

If preservation required by Login: Date/Time

10-137

Condition: NCF / OK

Akana - Richardson, TX

1850 N. Greenville Ave.
Suite 170
Richardson, TX 75081

Billing Information:
Accounts Payable
6400 SE Lake Rd., Ste. 270
Portland, OR 97222

Report to: Brent Hamil

Email To: brent.hamil@akana.us
SAID. Anali @ Akana.us

Project Description: Duck Valley Indian Reservation

City/State Collected:

Phone: 214-676-2274
Fax:

Client Project #: Akana-16-005

Lab Project #: AKANARTX-16-005

Collected by (print): Brent Hamil

Site/Facility ID #: OWYHEE, NV

P.O. #: PO # (16-005 Task 6)

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Pres Chk

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	DRO 4ozClr-NoPres	Dioxin/Furans 4ozClr-NoPres	GRO 2ozClr-NoPres	SV8141,SV8270PAHSIM 4ozClr-NoPres	V8260 40mlAmb/MeOH5ml/Syr	Remarks	Sample # (lab only)
MW-32 Duplicate	Grab	SS	9-105	10-16-18	1015	3					X		-11
		SS											
		SS											
		SS											
		SS											
		SS											
		SS											
		SS											
		SS											
		SS											

Chain of Custody Page ___ of ___

Pace Analytical®
National Center for Testing & Innovation

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

L# L1036064

Table #

Acctnum: AKANARTX

Template: T141538

Prelogin: P675981

TSR: 526 - Chris McCord

PB: 10/4/18

Shipped Via: FedEx Ground

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

Remarks:

RAD SCREEN: <0.5 mR/hr

pH _____ Temp _____
Flow _____ Other _____

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

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeOH TBR
[signature]	10-17-18	800		3
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 1.8°C +.1 °C Bottles Received: 42
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/18/18 Time: 845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

ANALYTICAL REPORT

October 26, 2018

Akana - Richardson, TX

Sample Delivery Group:	L1035901
Samples Received:	10/18/2018
Project Number:	Akana-16-005
Description:	Duck Valley Indian Reservation
Site:	OWYHEE, NV
Report To:	Brent Hamil 1850 N. Greenville Ave. Suite 170 Richardson, TX 75081

Entire Report Reviewed By:

Chris McCord
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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MW-27 L1035901-01 GW

Collected by	Collected date/time	Received date/time
PVZ	10/16/18 09:15	10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1183381	1	10/23/18 21:03	10/23/18 21:03	ACG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1182883	1	10/18/18 17:13	10/18/18 17:13	JSD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184730	1	10/22/18 23:00	10/22/18 23:00	DWR
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1182988	1	10/22/18 01:03	10/22/18 14:16	TH
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1183007	1	10/19/18 16:32	10/20/18 14:00	CJR

MW-6 L1035901-02 GW

Collected by	Collected date/time	Received date/time
PVZ	10/16/18 10:50	10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1183381	1	10/23/18 21:25	10/23/18 21:25	ACG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1182883	1	10/18/18 17:34	10/18/18 17:34	JSD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184730	1	10/22/18 23:20	10/22/18 23:20	DWR
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1182988	1	10/22/18 01:03	10/22/18 14:38	TH
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1183007	1	10/19/18 16:32	10/20/18 14:23	CJR

MW-5 L1035901-03 GW

Collected by	Collected date/time	Received date/time
PVZ	10/16/18 11:55	10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1183381	1	10/23/18 21:48	10/23/18 21:48	ACG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1182883	1	10/18/18 17:54	10/18/18 17:54	JSD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184730	1	10/22/18 23:40	10/22/18 23:40	DWR
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1182988	1	10/22/18 01:03	10/22/18 15:00	TH
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1183007	1	10/19/18 16:32	10/20/18 14:46	CJR

MW-7 L1035901-04 GW

Collected by	Collected date/time	Received date/time
PVZ	10/16/18 12:35	10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1183381	1	10/23/18 22:11	10/23/18 22:11	ACG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1182883	1	10/18/18 18:14	10/18/18 18:14	JSD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184730	1	10/23/18 00:01	10/23/18 00:01	DWR
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1182988	1	10/22/18 01:03	10/22/18 15:22	TH
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1183007	1	10/19/18 16:32	10/20/18 15:09	CJR

MW-10 L1035901-05 GW

Collected by	Collected date/time	Received date/time
PVZ	10/16/18 14:40	10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1183381	1	10/23/18 22:34	10/23/18 22:34	ACG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1182883	1	10/18/18 18:34	10/18/18 18:34	JSD
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184730	1	10/23/18 00:21	10/23/18 00:21	DWR
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1182988	2	10/22/18 01:03	10/22/18 15:44	TH
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1183007	1	10/19/18 16:32	10/20/18 15:32	CJR

MW-20 L1035901-06 GW

Collected by	Collected date/time	Received date/time
PVZ	10/16/18 16:10	10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1183381	1	10/23/18 22:56	10/23/18 22:56	ACG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1182883	1	10/18/18 18:55	10/18/18 18:55	JSD
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1182988	2	10/22/18 01:03	10/22/18 16:06	TH
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1183007	1	10/19/18 16:32	10/20/18 15:55	CJR

MW-26 L1035901-07 GW

Collected by	Collected date/time	Received date/time
PVZ	10/16/18 17:15	10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1183381	1	10/23/18 23:19	10/23/18 23:19	ACG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1182883	1	10/18/18 19:15	10/18/18 19:15	JSD
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1182988	1	10/22/18 01:03	10/22/18 16:28	TH
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1183007	1	10/19/18 16:32	10/20/18 16:18	CJR

MW-15 L1035901-08 GW

Collected by	Collected date/time	Received date/time
PVZ	10/17/18 09:05	10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Gravimetric Analysis by Method 2540 C-2011	WG1184691	1	10/24/18 18:27	10/24/18 18:51	JER
Wet Chemistry by Method 2320 B-2011	WG1184740	1	10/23/18 17:02	10/23/18 17:02	GB
Wet Chemistry by Method 3500Fe B-2011	WG1183577	1	10/19/18 14:33	10/19/18 14:33	MLW
Wet Chemistry by Method 9056A	WG1182875	1	10/18/18 21:42	10/18/18 21:42	MAJ
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1183381	1	10/23/18 23:42	10/23/18 23:42	ACG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1182883	1	10/18/18 19:35	10/18/18 19:35	JSD
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1182988	1	10/22/18 01:03	10/22/18 16:50	TH
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1183007	1	10/19/18 16:32	10/20/18 16:41	CJR

MW-12 L1035901-09 GW

Collected by	Collected date/time	Received date/time
PVZ	10/17/18 10:25	10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Gravimetric Analysis by Method 2540 C-2011	WG1184691	1	10/24/18 18:27	10/24/18 18:51	JER
Wet Chemistry by Method 2320 B-2011	WG1184740	1	10/23/18 17:08	10/23/18 17:08	GB
Wet Chemistry by Method 3500Fe B-2011	WG1183577	25	10/19/18 14:34	10/19/18 14:34	MLW
Wet Chemistry by Method 9056A	WG1182875	1	10/18/18 22:28	10/18/18 22:28	MAJ
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1183381	1	10/24/18 00:04	10/24/18 00:04	ACG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1182883	1	10/18/18 19:56	10/18/18 19:56	JSD
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1184190	1	10/20/18 00:48	10/21/18 21:43	SHG
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1183525	1	10/19/18 13:52	10/19/18 18:03	AO

MW-23 L1035901-10 GW

Collected by	Collected date/time	Received date/time
PVZ	10/17/18 11:40	10/18/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Gravimetric Analysis by Method 2540 C-2011	WG1184691	1	10/24/18 18:27	10/24/18 18:51	JER
Wet Chemistry by Method 2320 B-2011	WG1184740	1	10/23/18 17:16	10/23/18 17:16	GB
Wet Chemistry by Method 3500Fe B-2011	WG1183577	25	10/19/18 14:36	10/19/18 14:36	MLW
Wet Chemistry by Method 9056A	WG1182875	1	10/18/18 22:44	10/18/18 22:44	MAJ
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1183381	1	10/24/18 00:27	10/24/18 00:27	ACG
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1183250	1	10/19/18 04:40	10/19/18 04:40	GLN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1184190	1	10/20/18 00:48	10/21/18 22:05	SHG
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1183525	1	10/19/18 13:52	10/19/18 18:25	AO

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

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

Chris McCord
Project Manager

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/23/2018 21:03	WG1183381
(S) a,a,a-Trifluorotoluene(FID)	*111*			*78.0-120*		*10/23/2018 21:03*	WG1183381

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	1.00	1	10/18/2018 17:13	WG1182883
Acrolein	U		0.00887	0.0500	1	10/18/2018 17:13	WG1182883
Acrylonitrile	U		0.00187	0.0100	1	10/18/2018 17:13	WG1182883
Benzene	U		0.000331	0.00100	1	10/18/2018 17:13	WG1182883
Bromobenzene	U		0.000352	0.00100	1	10/18/2018 17:13	WG1182883
Bromodichloromethane	U		0.000380	0.00125	1	10/18/2018 17:13	WG1182883
Bromoform	U		0.000469	0.00100	1	10/18/2018 17:13	WG1182883
Bromomethane	U		0.000866	0.00500	1	10/18/2018 17:13	WG1182883
n-Butylbenzene	U		0.000361	0.00100	1	10/18/2018 17:13	WG1182883
sec-Butylbenzene	U		0.000365	0.00100	1	10/18/2018 17:13	WG1182883
tert-Butylbenzene	U		0.000399	0.00100	1	10/18/2018 17:13	WG1182883
Carbon tetrachloride	U		0.000379	0.00100	1	10/18/2018 17:13	WG1182883
Chlorobenzene	U		0.000348	0.00100	1	10/18/2018 17:13	WG1182883
Chlorodibromomethane	U		0.000327	0.00100	1	10/18/2018 17:13	WG1182883
Chloroethane	U		0.000453	0.00500	1	10/18/2018 17:13	WG1182883
Chloroform	U		0.000324	0.00500	1	10/18/2018 17:13	WG1182883
Chloromethane	U		0.000276	0.00250	1	10/18/2018 17:13	WG1182883
2-Chlorotoluene	U		0.000375	0.00100	1	10/18/2018 17:13	WG1182883
4-Chlorotoluene	U		0.000351	0.00100	1	10/18/2018 17:13	WG1182883
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	10/18/2018 17:13	WG1182883
1,2-Dibromoethane	U		0.000381	0.00100	1	10/18/2018 17:13	WG1182883
Dibromomethane	U		0.000346	0.00100	1	10/18/2018 17:13	WG1182883
1,2-Dichlorobenzene	U		0.000349	0.00100	1	10/18/2018 17:13	WG1182883
1,3-Dichlorobenzene	U		0.000220	0.00100	1	10/18/2018 17:13	WG1182883
1,4-Dichlorobenzene	U		0.000274	0.00100	1	10/18/2018 17:13	WG1182883
Dichlorodifluoromethane	U		0.000551	0.00500	1	10/18/2018 17:13	WG1182883
1,1-Dichloroethane	U		0.000259	0.00100	1	10/18/2018 17:13	WG1182883
1,2-Dichloroethane	U		0.000361	0.00100	1	10/18/2018 17:13	WG1182883
1,1-Dichloroethene	U		0.000398	0.00100	1	10/18/2018 17:13	WG1182883
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	10/22/2018 23:00	WG1184730
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	10/18/2018 17:13	WG1182883
1,2-Dichloropropane	U		0.000306	0.00100	1	10/18/2018 17:13	WG1182883
1,1-Dichloropropene	U		0.000352	0.00100	1	10/18/2018 17:13	WG1182883
1,3-Dichloropropane	U		0.000366	0.00100	1	10/18/2018 17:13	WG1182883
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	10/18/2018 17:13	WG1182883
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	10/18/2018 17:13	WG1182883
2,2-Dichloropropane	U		0.000321	0.00100	1	10/18/2018 17:13	WG1182883
Di-isopropyl ether	U		0.000320	0.00100	1	10/18/2018 17:13	WG1182883
Ethylbenzene	U		0.000384	0.00100	1	10/18/2018 17:13	WG1182883
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	10/18/2018 17:13	WG1182883
Isopropylbenzene	U		0.000326	0.00100	1	10/18/2018 17:13	WG1182883
p-Isopropyltoluene	U		0.000350	0.00100	1	10/18/2018 17:13	WG1182883
2-Butanone (MEK)	U		0.00393	0.0100	1	10/18/2018 17:13	WG1182883
Methylene Chloride	U		0.00100	0.00500	1	10/18/2018 17:13	WG1182883
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	10/18/2018 17:13	WG1182883
Methyl tert-butyl ether	U		0.000367	0.00100	1	10/18/2018 17:13	WG1182883
Naphthalene	U		0.00100	0.00500	1	10/18/2018 17:13	WG1182883
n-Propylbenzene	U		0.000349	0.00100	1	10/18/2018 17:13	WG1182883
Styrene	U		0.000307	0.00100	1	10/18/2018 17:13	WG1182883

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	10/18/2018 17:13	WG1182883
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	10/18/2018 17:13	WG1182883
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	10/18/2018 17:13	WG1182883
Tetrachloroethene	U		0.000372	0.00100	1	10/18/2018 17:13	WG1182883
Toluene	U		0.000412	0.00100	1	10/18/2018 17:13	WG1182883
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	10/18/2018 17:13	WG1182883
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	10/18/2018 17:13	WG1182883
1,1,1-Trichloroethane	U		0.000319	0.00100	1	10/18/2018 17:13	WG1182883
1,1,2-Trichloroethane	U		0.000383	0.00100	1	10/18/2018 17:13	WG1182883
Trichloroethene	U		0.000398	0.00100	1	10/18/2018 17:13	WG1182883
Trichlorofluoromethane	U		0.00120	0.00500	1	10/18/2018 17:13	WG1182883
1,2,3-Trichloropropane	U		0.000807	0.00250	1	10/18/2018 17:13	WG1182883
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	10/18/2018 17:13	WG1182883
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	10/18/2018 17:13	WG1182883
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	10/18/2018 17:13	WG1182883
Vinyl chloride	U		0.000259	0.00100	1	10/18/2018 17:13	WG1182883
Xylenes, Total	U		0.00106	0.00300	1	10/18/2018 17:13	WG1182883
(S) Toluene-d8	*111*			*80.0-120*		*10/18/2018 17:13*	WG1182883
(S) Toluene-d8	*94.4*			*80.0-120*		*10/22/2018 23:00*	WG1184730
(S) Dibromofluoromethane	*103*			*75.0-120*		*10/18/2018 17:13*	WG1182883
(S) Dibromofluoromethane	*113*			*75.0-120*		*10/22/2018 23:00*	WG1184730
(S) 4-Bromofluorobenzene	*97.8*			*77.0-126*		*10/18/2018 17:13*	WG1182883
(S) 4-Bromofluorobenzene	*90.5*			*77.0-126*		*10/22/2018 23:00*	WG1184730

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0759	J	0.0247	0.100	1	10/22/2018 14:16	WG1182988
(S) o-Terphenyl	*78.4*			*31.0-160*		*10/22/2018 14:16*	WG1182988

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0000140	0.0000500	1	10/20/2018 14:00	WG1183007
Acenaphthene	U		0.0000100	0.0000500	1	10/20/2018 14:00	WG1183007
Acenaphthylene	U		0.0000120	0.0000500	1	10/20/2018 14:00	WG1183007
Benzo(a)anthracene	U		0.00000410	0.0000500	1	10/20/2018 14:00	WG1183007
Benzo(a)pyrene	U		0.0000116	0.0000500	1	10/20/2018 14:00	WG1183007
Benzo(b)fluoranthene	U		0.00000212	0.0000500	1	10/20/2018 14:00	WG1183007
Benzo(g,h,i)perylene	U		0.00000227	0.0000500	1	10/20/2018 14:00	WG1183007
Benzo(k)fluoranthene	U		0.0000136	0.0000500	1	10/20/2018 14:00	WG1183007
Chrysene	U		0.0000108	0.0000500	1	10/20/2018 14:00	WG1183007
Dibenz(a,h)anthracene	U		0.00000396	0.0000500	1	10/20/2018 14:00	WG1183007
Dibenzofuran	U		0.00000105	0.0000500	1	10/20/2018 14:00	WG1183007
Fluoranthene	U		0.0000157	0.0000500	1	10/20/2018 14:00	WG1183007
Fluorene	U		0.00000850	0.0000500	1	10/20/2018 14:00	WG1183007
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500	1	10/20/2018 14:00	WG1183007
Naphthalene	0.0000204	J	0.0000198	0.000250	1	10/20/2018 14:00	WG1183007
Phenanthrene	U		0.00000820	0.0000500	1	10/20/2018 14:00	WG1183007
Pyrene	U		0.0000117	0.0000500	1	10/20/2018 14:00	WG1183007
(S) Nitrobenzene-d5	*92.6*			*31.0-160*		*10/20/2018 14:00*	WG1183007
(S) 2-Fluorobiphenyl	*96.3*			*48.0-148*		*10/20/2018 14:00*	WG1183007
(S) p-Terphenyl-d14	*95.8*			*37.0-146*		*10/20/2018 14:00*	WG1183007

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/23/2018 21:25	WG1183381
(S) a,a,a-Trifluorotoluene(FID)	*111*			*78.0-120*		*10/23/2018 21:25*	WG1183381

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	1.00	1	10/18/2018 17:34	WG1182883
Acrolein	U		0.00887	0.0500	1	10/18/2018 17:34	WG1182883
Acrylonitrile	U		0.00187	0.0100	1	10/18/2018 17:34	WG1182883
Benzene	U		0.000331	0.00100	1	10/18/2018 17:34	WG1182883
Bromobenzene	U		0.000352	0.00100	1	10/18/2018 17:34	WG1182883
Bromodichloromethane	U		0.000380	0.00125	1	10/18/2018 17:34	WG1182883
Bromoform	U		0.000469	0.00100	1	10/18/2018 17:34	WG1182883
Bromomethane	U		0.000866	0.00500	1	10/18/2018 17:34	WG1182883
n-Butylbenzene	0.00150		0.000361	0.00100	1	10/18/2018 17:34	WG1182883
sec-Butylbenzene	U		0.000365	0.00100	1	10/18/2018 17:34	WG1182883
tert-Butylbenzene	0.000545	J	0.000399	0.00100	1	10/18/2018 17:34	WG1182883
Carbon tetrachloride	U		0.000379	0.00100	1	10/18/2018 17:34	WG1182883
Chlorobenzene	U		0.000348	0.00100	1	10/18/2018 17:34	WG1182883
Chlorodibromomethane	U		0.000327	0.00100	1	10/18/2018 17:34	WG1182883
Chloroethane	U		0.000453	0.00500	1	10/18/2018 17:34	WG1182883
Chloroform	U		0.000324	0.00500	1	10/18/2018 17:34	WG1182883
Chloromethane	U		0.000276	0.00250	1	10/18/2018 17:34	WG1182883
2-Chlorotoluene	U		0.000375	0.00100	1	10/18/2018 17:34	WG1182883
4-Chlorotoluene	U		0.000351	0.00100	1	10/18/2018 17:34	WG1182883
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	10/18/2018 17:34	WG1182883
1,2-Dibromoethane	U		0.000381	0.00100	1	10/18/2018 17:34	WG1182883
Dibromomethane	U		0.000346	0.00100	1	10/18/2018 17:34	WG1182883
1,2-Dichlorobenzene	U		0.000349	0.00100	1	10/18/2018 17:34	WG1182883
1,3-Dichlorobenzene	U		0.000220	0.00100	1	10/18/2018 17:34	WG1182883
1,4-Dichlorobenzene	U		0.000274	0.00100	1	10/18/2018 17:34	WG1182883
Dichlorodifluoromethane	U		0.000551	0.00500	1	10/18/2018 17:34	WG1182883
1,1-Dichloroethane	U		0.000259	0.00100	1	10/18/2018 17:34	WG1182883
1,2-Dichloroethane	U		0.000361	0.00100	1	10/18/2018 17:34	WG1182883
1,1-Dichloroethene	U		0.000398	0.00100	1	10/18/2018 17:34	WG1182883
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	10/22/2018 23:20	WG1184730
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	10/18/2018 17:34	WG1182883
1,2-Dichloropropane	U		0.000306	0.00100	1	10/18/2018 17:34	WG1182883
1,1-Dichloropropene	U		0.000352	0.00100	1	10/18/2018 17:34	WG1182883
1,3-Dichloropropane	U		0.000366	0.00100	1	10/18/2018 17:34	WG1182883
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	10/18/2018 17:34	WG1182883
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	10/18/2018 17:34	WG1182883
2,2-Dichloropropane	U		0.000321	0.00100	1	10/18/2018 17:34	WG1182883
Di-isopropyl ether	U		0.000320	0.00100	1	10/18/2018 17:34	WG1182883
Ethylbenzene	U		0.000384	0.00100	1	10/18/2018 17:34	WG1182883
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	10/18/2018 17:34	WG1182883
Isopropylbenzene	U		0.000326	0.00100	1	10/18/2018 17:34	WG1182883
p-Isopropyltoluene	U		0.000350	0.00100	1	10/18/2018 17:34	WG1182883
2-Butanone (MEK)	U		0.00393	0.0100	1	10/18/2018 17:34	WG1182883
Methylene Chloride	U		0.00100	0.00500	1	10/18/2018 17:34	WG1182883
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	10/18/2018 17:34	WG1182883
Methyl tert-butyl ether	U		0.000367	0.00100	1	10/18/2018 17:34	WG1182883
Naphthalene	U		0.00100	0.00500	1	10/18/2018 17:34	WG1182883
n-Propylbenzene	U		0.000349	0.00100	1	10/18/2018 17:34	WG1182883
Styrene	U		0.000307	0.00100	1	10/18/2018 17:34	WG1182883

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	10/18/2018 17:34	WG1182883
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	10/18/2018 17:34	WG1182883
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	10/18/2018 17:34	WG1182883
Tetrachloroethene	U		0.000372	0.00100	1	10/18/2018 17:34	WG1182883
Toluene	U		0.000412	0.00100	1	10/18/2018 17:34	WG1182883
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	10/18/2018 17:34	WG1182883
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	10/18/2018 17:34	WG1182883
1,1,1-Trichloroethane	U		0.000319	0.00100	1	10/18/2018 17:34	WG1182883
1,1,2-Trichloroethane	U		0.000383	0.00100	1	10/18/2018 17:34	WG1182883
Trichloroethene	U		0.000398	0.00100	1	10/18/2018 17:34	WG1182883
Trichlorofluoromethane	U		0.00120	0.00500	1	10/18/2018 17:34	WG1182883
1,2,3-Trichloropropane	U		0.000807	0.00250	1	10/18/2018 17:34	WG1182883
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	10/18/2018 17:34	WG1182883
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	10/18/2018 17:34	WG1182883
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	10/18/2018 17:34	WG1182883
Vinyl chloride	U		0.000259	0.00100	1	10/18/2018 17:34	WG1182883
Xylenes, Total	U		0.00106	0.00300	1	10/18/2018 17:34	WG1182883
(S) Toluene-d8	*108*			*80.0-120*		*10/18/2018 17:34*	WG1182883
(S) Toluene-d8	*94.7*			*80.0-120*		*10/22/2018 23:20*	WG1184730
(S) Dibromofluoromethane	*101*			*75.0-120*		*10/18/2018 17:34*	WG1182883
(S) Dibromofluoromethane	*113*			*75.0-120*		*10/22/2018 23:20*	WG1184730
(S) 4-Bromofluorobenzene	*99.2*			*77.0-126*		*10/18/2018 17:34*	WG1182883
(S) 4-Bromofluorobenzene	*89.9*			*77.0-126*		*10/22/2018 23:20*	WG1184730

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.692		0.0247	0.100	1	10/22/2018 14:38	WG1182988
(S) o-Terphenyl	*100*			*31.0-160*		*10/22/2018 14:38*	WG1182988

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	0.000617		0.0000140	0.0000500	1	10/20/2018 14:23	WG1183007
Acenaphthene	0.00313		0.0000100	0.0000500	1	10/20/2018 14:23	WG1183007
Acenaphthylene	U		0.0000120	0.0000500	1	10/20/2018 14:23	WG1183007
Benzo(a)anthracene	U		0.00000410	0.0000500	1	10/20/2018 14:23	WG1183007
Benzo(a)pyrene	U		0.0000116	0.0000500	1	10/20/2018 14:23	WG1183007
Benzo(b)fluoranthene	U		0.00000212	0.0000500	1	10/20/2018 14:23	WG1183007
Benzo(g,h,i)perylene	U		0.00000227	0.0000500	1	10/20/2018 14:23	WG1183007
Benzo(k)fluoranthene	U		0.0000136	0.0000500	1	10/20/2018 14:23	WG1183007
Chrysene	U		0.0000108	0.0000500	1	10/20/2018 14:23	WG1183007
Dibenz(a,h)anthracene	U		0.00000396	0.0000500	1	10/20/2018 14:23	WG1183007
Dibenzofuran	0.00216		0.00000105	0.0000500	1	10/20/2018 14:23	WG1183007
Fluoranthene	0.0000235	J	0.0000157	0.0000500	1	10/20/2018 14:23	WG1183007
Fluorene	0.00372		0.00000850	0.0000500	1	10/20/2018 14:23	WG1183007
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500	1	10/20/2018 14:23	WG1183007
Naphthalene	U		0.0000198	0.000250	1	10/20/2018 14:23	WG1183007
Phenanthrene	0.00166		0.00000820	0.0000500	1	10/20/2018 14:23	WG1183007
Pyrene	0.0000707		0.0000117	0.0000500	1	10/20/2018 14:23	WG1183007
(S) Nitrobenzene-d5	*94.7*			*31.0-160*		*10/20/2018 14:23*	WG1183007
(S) 2-Fluorobiphenyl	*96.3*			*48.0-148*		*10/20/2018 14:23*	WG1183007
(S) p-Terphenyl-d14	*106*			*37.0-146*		*10/20/2018 14:23*	WG1183007

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/23/2018 21:48	WG1183381
(S) a,a,a-Trifluorotoluene(FID)	*111*			*78.0-120*		*10/23/2018 21:48*	WG1183381

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	1.00	1	10/18/2018 17:54	WG1182883
Acrolein	U		0.00887	0.0500	1	10/18/2018 17:54	WG1182883
Acrylonitrile	U		0.00187	0.0100	1	10/18/2018 17:54	WG1182883
Benzene	U		0.000331	0.00100	1	10/18/2018 17:54	WG1182883
Bromobenzene	U		0.000352	0.00100	1	10/18/2018 17:54	WG1182883
Bromodichloromethane	U		0.000380	0.00125	1	10/18/2018 17:54	WG1182883
Bromoform	U		0.000469	0.00100	1	10/18/2018 17:54	WG1182883
Bromomethane	U		0.000866	0.00500	1	10/18/2018 17:54	WG1182883
n-Butylbenzene	U		0.000361	0.00100	1	10/18/2018 17:54	WG1182883
sec-Butylbenzene	U		0.000365	0.00100	1	10/18/2018 17:54	WG1182883
tert-Butylbenzene	U		0.000399	0.00100	1	10/18/2018 17:54	WG1182883
Carbon tetrachloride	U		0.000379	0.00100	1	10/18/2018 17:54	WG1182883
Chlorobenzene	U		0.000348	0.00100	1	10/18/2018 17:54	WG1182883
Chlorodibromomethane	U		0.000327	0.00100	1	10/18/2018 17:54	WG1182883
Chloroethane	U		0.000453	0.00500	1	10/18/2018 17:54	WG1182883
Chloroform	U		0.000324	0.00500	1	10/18/2018 17:54	WG1182883
Chloromethane	U		0.000276	0.00250	1	10/18/2018 17:54	WG1182883
2-Chlorotoluene	U		0.000375	0.00100	1	10/18/2018 17:54	WG1182883
4-Chlorotoluene	U		0.000351	0.00100	1	10/18/2018 17:54	WG1182883
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	10/18/2018 17:54	WG1182883
1,2-Dibromoethane	U		0.000381	0.00100	1	10/18/2018 17:54	WG1182883
Dibromomethane	U		0.000346	0.00100	1	10/18/2018 17:54	WG1182883
1,2-Dichlorobenzene	U		0.000349	0.00100	1	10/18/2018 17:54	WG1182883
1,3-Dichlorobenzene	U		0.000220	0.00100	1	10/18/2018 17:54	WG1182883
1,4-Dichlorobenzene	U		0.000274	0.00100	1	10/18/2018 17:54	WG1182883
Dichlorodifluoromethane	U		0.000551	0.00500	1	10/18/2018 17:54	WG1182883
1,1-Dichloroethane	U		0.000259	0.00100	1	10/18/2018 17:54	WG1182883
1,2-Dichloroethane	U		0.000361	0.00100	1	10/18/2018 17:54	WG1182883
1,1-Dichloroethene	U		0.000398	0.00100	1	10/18/2018 17:54	WG1182883
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	10/22/2018 23:40	WG1184730
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	10/18/2018 17:54	WG1182883
1,2-Dichloropropane	U		0.000306	0.00100	1	10/18/2018 17:54	WG1182883
1,1-Dichloropropene	U		0.000352	0.00100	1	10/18/2018 17:54	WG1182883
1,3-Dichloropropane	U		0.000366	0.00100	1	10/18/2018 17:54	WG1182883
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	10/18/2018 17:54	WG1182883
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	10/18/2018 17:54	WG1182883
2,2-Dichloropropane	U		0.000321	0.00100	1	10/18/2018 17:54	WG1182883
Di-isopropyl ether	U		0.000320	0.00100	1	10/18/2018 17:54	WG1182883
Ethylbenzene	U		0.000384	0.00100	1	10/18/2018 17:54	WG1182883
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	10/18/2018 17:54	WG1182883
Isopropylbenzene	U		0.000326	0.00100	1	10/18/2018 17:54	WG1182883
p-Isopropyltoluene	U		0.000350	0.00100	1	10/18/2018 17:54	WG1182883
2-Butanone (MEK)	U		0.00393	0.0100	1	10/18/2018 17:54	WG1182883
Methylene Chloride	U		0.00100	0.00500	1	10/18/2018 17:54	WG1182883
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	10/18/2018 17:54	WG1182883
Methyl tert-butyl ether	U		0.000367	0.00100	1	10/18/2018 17:54	WG1182883
Naphthalene	U		0.00100	0.00500	1	10/18/2018 17:54	WG1182883
n-Propylbenzene	U		0.000349	0.00100	1	10/18/2018 17:54	WG1182883
Styrene	U		0.000307	0.00100	1	10/18/2018 17:54	WG1182883

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	10/18/2018 17:54	WG1182883
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	10/18/2018 17:54	WG1182883
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	10/18/2018 17:54	WG1182883
Tetrachloroethene	U		0.000372	0.00100	1	10/18/2018 17:54	WG1182883
Toluene	U		0.000412	0.00100	1	10/18/2018 17:54	WG1182883
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	10/18/2018 17:54	WG1182883
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	10/18/2018 17:54	WG1182883
1,1,1-Trichloroethane	U		0.000319	0.00100	1	10/18/2018 17:54	WG1182883
1,1,2-Trichloroethane	U		0.000383	0.00100	1	10/18/2018 17:54	WG1182883
Trichloroethene	U		0.000398	0.00100	1	10/18/2018 17:54	WG1182883
Trichlorofluoromethane	U		0.00120	0.00500	1	10/18/2018 17:54	WG1182883
1,2,3-Trichloropropane	U		0.000807	0.00250	1	10/18/2018 17:54	WG1182883
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	10/18/2018 17:54	WG1182883
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	10/18/2018 17:54	WG1182883
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	10/18/2018 17:54	WG1182883
Vinyl chloride	U		0.000259	0.00100	1	10/18/2018 17:54	WG1182883
Xylenes, Total	U		0.00106	0.00300	1	10/18/2018 17:54	WG1182883
(S) Toluene-d8	*112*			*80.0-120*		*10/18/2018 17:54*	WG1182883
(S) Toluene-d8	*94.2*			*80.0-120*		*10/22/2018 23:40*	WG1184730
(S) Dibromofluoromethane	*99.9*			*75.0-120*		*10/18/2018 17:54*	WG1182883
(S) Dibromofluoromethane	*108*			*75.0-120*		*10/22/2018 23:40*	WG1184730
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*10/18/2018 17:54*	WG1182883
(S) 4-Bromofluorobenzene	*92.1*			*77.0-126*		*10/22/2018 23:40*	WG1184730

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.102		0.0247	0.100	1	10/22/2018 15:00	WG1182988
(S) o-Terphenyl	*92.6*			*31.0-160*		*10/22/2018 15:00*	WG1182988

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0000140	0.0000500	1	10/20/2018 14:46	WG1183007
Acenaphthene	U		0.0000100	0.0000500	1	10/20/2018 14:46	WG1183007
Acenaphthylene	U		0.0000120	0.0000500	1	10/20/2018 14:46	WG1183007
Benzo(a)anthracene	U		0.00000410	0.0000500	1	10/20/2018 14:46	WG1183007
Benzo(a)pyrene	U		0.0000116	0.0000500	1	10/20/2018 14:46	WG1183007
Benzo(b)fluoranthene	U		0.00000212	0.0000500	1	10/20/2018 14:46	WG1183007
Benzo(g,h,i)perylene	U		0.00000227	0.0000500	1	10/20/2018 14:46	WG1183007
Benzo(k)fluoranthene	U		0.0000136	0.0000500	1	10/20/2018 14:46	WG1183007
Chrysene	U		0.0000108	0.0000500	1	10/20/2018 14:46	WG1183007
Dibenz(a,h)anthracene	U		0.00000396	0.0000500	1	10/20/2018 14:46	WG1183007
Dibenzofuran	0.00000283	B J	0.00000105	0.0000500	1	10/20/2018 14:46	WG1183007
Fluoranthene	U		0.0000157	0.0000500	1	10/20/2018 14:46	WG1183007
Fluorene	U		0.00000850	0.0000500	1	10/20/2018 14:46	WG1183007
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500	1	10/20/2018 14:46	WG1183007
Naphthalene	U		0.0000198	0.000250	1	10/20/2018 14:46	WG1183007
Phenanthrene	U		0.00000820	0.0000500	1	10/20/2018 14:46	WG1183007
Pyrene	U		0.0000117	0.0000500	1	10/20/2018 14:46	WG1183007
(S) Nitrobenzene-d5	*106*			*31.0-160*		*10/20/2018 14:46*	WG1183007
(S) 2-Fluorobiphenyl	*111*			*48.0-148*		*10/20/2018 14:46*	WG1183007
(S) p-Terphenyl-d14	*111*			*37.0-146*		*10/20/2018 14:46*	WG1183007

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/23/2018 22:11	WG1183381
(S) a,a,a-Trifluorotoluene(FID)	*111*			*78.0-120*		*10/23/2018 22:11*	WG1183381

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	1.00	1	10/18/2018 18:14	WG1182883
Acrolein	U		0.00887	0.0500	1	10/18/2018 18:14	WG1182883
Acrylonitrile	U		0.00187	0.0100	1	10/18/2018 18:14	WG1182883
Benzene	U		0.000331	0.00100	1	10/18/2018 18:14	WG1182883
Bromobenzene	U		0.000352	0.00100	1	10/18/2018 18:14	WG1182883
Bromodichloromethane	U		0.000380	0.00125	1	10/18/2018 18:14	WG1182883
Bromoform	U		0.000469	0.00100	1	10/18/2018 18:14	WG1182883
Bromomethane	U		0.000866	0.00500	1	10/18/2018 18:14	WG1182883
n-Butylbenzene	U		0.000361	0.00100	1	10/18/2018 18:14	WG1182883
sec-Butylbenzene	U		0.000365	0.00100	1	10/18/2018 18:14	WG1182883
tert-Butylbenzene	U		0.000399	0.00100	1	10/18/2018 18:14	WG1182883
Carbon tetrachloride	U		0.000379	0.00100	1	10/18/2018 18:14	WG1182883
Chlorobenzene	U		0.000348	0.00100	1	10/18/2018 18:14	WG1182883
Chlorodibromomethane	U		0.000327	0.00100	1	10/18/2018 18:14	WG1182883
Chloroethane	U		0.000453	0.00500	1	10/18/2018 18:14	WG1182883
Chloroform	U		0.000324	0.00500	1	10/18/2018 18:14	WG1182883
Chloromethane	U		0.000276	0.00250	1	10/18/2018 18:14	WG1182883
2-Chlorotoluene	U		0.000375	0.00100	1	10/18/2018 18:14	WG1182883
4-Chlorotoluene	U		0.000351	0.00100	1	10/18/2018 18:14	WG1182883
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	10/18/2018 18:14	WG1182883
1,2-Dibromoethane	U		0.000381	0.00100	1	10/18/2018 18:14	WG1182883
Dibromomethane	U		0.000346	0.00100	1	10/18/2018 18:14	WG1182883
1,2-Dichlorobenzene	U		0.000349	0.00100	1	10/18/2018 18:14	WG1182883
1,3-Dichlorobenzene	U		0.000220	0.00100	1	10/18/2018 18:14	WG1182883
1,4-Dichlorobenzene	U		0.000274	0.00100	1	10/18/2018 18:14	WG1182883
Dichlorodifluoromethane	U		0.000551	0.00500	1	10/18/2018 18:14	WG1182883
1,1-Dichloroethane	U		0.000259	0.00100	1	10/18/2018 18:14	WG1182883
1,2-Dichloroethane	U		0.000361	0.00100	1	10/18/2018 18:14	WG1182883
1,1-Dichloroethene	U		0.000398	0.00100	1	10/18/2018 18:14	WG1182883
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	10/23/2018 00:01	WG1184730
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	10/18/2018 18:14	WG1182883
1,2-Dichloropropane	U		0.000306	0.00100	1	10/18/2018 18:14	WG1182883
1,1-Dichloropropene	U		0.000352	0.00100	1	10/18/2018 18:14	WG1182883
1,3-Dichloropropane	U		0.000366	0.00100	1	10/18/2018 18:14	WG1182883
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	10/18/2018 18:14	WG1182883
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	10/18/2018 18:14	WG1182883
2,2-Dichloropropane	U		0.000321	0.00100	1	10/18/2018 18:14	WG1182883
Di-isopropyl ether	U		0.000320	0.00100	1	10/18/2018 18:14	WG1182883
Ethylbenzene	U		0.000384	0.00100	1	10/18/2018 18:14	WG1182883
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	10/18/2018 18:14	WG1182883
Isopropylbenzene	U		0.000326	0.00100	1	10/18/2018 18:14	WG1182883
p-Isopropyltoluene	U		0.000350	0.00100	1	10/18/2018 18:14	WG1182883
2-Butanone (MEK)	U		0.00393	0.0100	1	10/18/2018 18:14	WG1182883
Methylene Chloride	U		0.00100	0.00500	1	10/18/2018 18:14	WG1182883
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	10/18/2018 18:14	WG1182883
Methyl tert-butyl ether	U		0.000367	0.00100	1	10/18/2018 18:14	WG1182883
Naphthalene	U		0.00100	0.00500	1	10/18/2018 18:14	WG1182883
n-Propylbenzene	U		0.000349	0.00100	1	10/18/2018 18:14	WG1182883
Styrene	U		0.000307	0.00100	1	10/18/2018 18:14	WG1182883

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	10/18/2018 18:14	WG1182883
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	10/18/2018 18:14	WG1182883
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	10/18/2018 18:14	WG1182883
Tetrachloroethene	U		0.000372	0.00100	1	10/18/2018 18:14	WG1182883
Toluene	U		0.000412	0.00100	1	10/18/2018 18:14	WG1182883
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	10/18/2018 18:14	WG1182883
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	10/18/2018 18:14	WG1182883
1,1,1-Trichloroethane	U		0.000319	0.00100	1	10/18/2018 18:14	WG1182883
1,1,2-Trichloroethane	U		0.000383	0.00100	1	10/18/2018 18:14	WG1182883
Trichloroethene	U		0.000398	0.00100	1	10/18/2018 18:14	WG1182883
Trichlorofluoromethane	U		0.00120	0.00500	1	10/18/2018 18:14	WG1182883
1,2,3-Trichloropropane	U		0.000807	0.00250	1	10/18/2018 18:14	WG1182883
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	10/18/2018 18:14	WG1182883
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	10/18/2018 18:14	WG1182883
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	10/18/2018 18:14	WG1182883
Vinyl chloride	U		0.000259	0.00100	1	10/18/2018 18:14	WG1182883
Xylenes, Total	U		0.00106	0.00300	1	10/18/2018 18:14	WG1182883
(S) Toluene-d8	*108*			*80.0-120*		*10/18/2018 18:14*	WG1182883
(S) Toluene-d8	*91.2*			*80.0-120*		*10/23/2018 00:01*	WG1184730
(S) Dibromofluoromethane	*101*			*75.0-120*		*10/18/2018 18:14*	WG1182883
(S) Dibromofluoromethane	*113*			*75.0-120*		*10/23/2018 00:01*	WG1184730
(S) 4-Bromofluorobenzene	*99.1*			*77.0-126*		*10/18/2018 18:14*	WG1182883
(S) 4-Bromofluorobenzene	*87.2*			*77.0-126*		*10/23/2018 00:01*	WG1184730

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.0247	0.100	1	10/22/2018 15:22	WG1182988
(S) o-Terphenyl	*78.4*			*31.0-160*		*10/22/2018 15:22*	WG1182988

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0000140	0.0000500	1	10/20/2018 15:09	WG1183007
Acenaphthene	U		0.0000100	0.0000500	1	10/20/2018 15:09	WG1183007
Acenaphthylene	U		0.0000120	0.0000500	1	10/20/2018 15:09	WG1183007
Benzo(a)anthracene	U		0.00000410	0.0000500	1	10/20/2018 15:09	WG1183007
Benzo(a)pyrene	U		0.0000116	0.0000500	1	10/20/2018 15:09	WG1183007
Benzo(b)fluoranthene	U		0.00000212	0.0000500	1	10/20/2018 15:09	WG1183007
Benzo(g,h,i)perylene	U		0.00000227	0.0000500	1	10/20/2018 15:09	WG1183007
Benzo(k)fluoranthene	U		0.0000136	0.0000500	1	10/20/2018 15:09	WG1183007
Chrysene	U		0.0000108	0.0000500	1	10/20/2018 15:09	WG1183007
Dibenz(a,h)anthracene	U		0.00000396	0.0000500	1	10/20/2018 15:09	WG1183007
Dibenzofuran	U		0.00000105	0.0000500	1	10/20/2018 15:09	WG1183007
Fluoranthene	U		0.0000157	0.0000500	1	10/20/2018 15:09	WG1183007
Fluorene	U		0.00000850	0.0000500	1	10/20/2018 15:09	WG1183007
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500	1	10/20/2018 15:09	WG1183007
Naphthalene	U		0.0000198	0.000250	1	10/20/2018 15:09	WG1183007
Phenanthrene	U		0.00000820	0.0000500	1	10/20/2018 15:09	WG1183007
Pyrene	U		0.0000117	0.0000500	1	10/20/2018 15:09	WG1183007
(S) Nitrobenzene-d5	*97.9*			*31.0-160*		*10/20/2018 15:09*	WG1183007
(S) 2-Fluorobiphenyl	*102*			*48.0-148*		*10/20/2018 15:09*	WG1183007
(S) p-Terphenyl-d14	*100*			*37.0-146*		*10/20/2018 15:09*	WG1183007

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/23/2018 22:34	WG1183381
(S) a,a,a-Trifluorotoluene(FID)	*111*			*78.0-120*		*10/23/2018 22:34*	WG1183381

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	1.00	1	10/18/2018 18:34	WG1182883
Acrolein	U		0.00887	0.0500	1	10/18/2018 18:34	WG1182883
Acrylonitrile	U		0.00187	0.0100	1	10/18/2018 18:34	WG1182883
Benzene	U		0.000331	0.00100	1	10/18/2018 18:34	WG1182883
Bromobenzene	U		0.000352	0.00100	1	10/18/2018 18:34	WG1182883
Bromodichloromethane	U		0.000380	0.00125	1	10/18/2018 18:34	WG1182883
Bromoform	U		0.000469	0.00100	1	10/18/2018 18:34	WG1182883
Bromomethane	U		0.000866	0.00500	1	10/18/2018 18:34	WG1182883
n-Butylbenzene	U		0.000361	0.00100	1	10/18/2018 18:34	WG1182883
sec-Butylbenzene	U		0.000365	0.00100	1	10/18/2018 18:34	WG1182883
tert-Butylbenzene	U		0.000399	0.00100	1	10/18/2018 18:34	WG1182883
Carbon tetrachloride	U		0.000379	0.00100	1	10/18/2018 18:34	WG1182883
Chlorobenzene	U		0.000348	0.00100	1	10/18/2018 18:34	WG1182883
Chlorodibromomethane	U		0.000327	0.00100	1	10/18/2018 18:34	WG1182883
Chloroethane	U		0.000453	0.00500	1	10/18/2018 18:34	WG1182883
Chloroform	U		0.000324	0.00500	1	10/18/2018 18:34	WG1182883
Chloromethane	U		0.000276	0.00250	1	10/18/2018 18:34	WG1182883
2-Chlorotoluene	U		0.000375	0.00100	1	10/18/2018 18:34	WG1182883
4-Chlorotoluene	U		0.000351	0.00100	1	10/18/2018 18:34	WG1182883
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	10/18/2018 18:34	WG1182883
1,2-Dibromoethane	U		0.000381	0.00100	1	10/18/2018 18:34	WG1182883
Dibromomethane	U		0.000346	0.00100	1	10/18/2018 18:34	WG1182883
1,2-Dichlorobenzene	U		0.000349	0.00100	1	10/18/2018 18:34	WG1182883
1,3-Dichlorobenzene	U		0.000220	0.00100	1	10/18/2018 18:34	WG1182883
1,4-Dichlorobenzene	U		0.000274	0.00100	1	10/18/2018 18:34	WG1182883
Dichlorodifluoromethane	U		0.000551	0.00500	1	10/18/2018 18:34	WG1182883
1,1-Dichloroethane	U		0.000259	0.00100	1	10/18/2018 18:34	WG1182883
1,2-Dichloroethane	U		0.000361	0.00100	1	10/18/2018 18:34	WG1182883
1,1-Dichloroethene	U		0.000398	0.00100	1	10/18/2018 18:34	WG1182883
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	10/23/2018 00:21	WG1184730
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	10/18/2018 18:34	WG1182883
1,2-Dichloropropane	U		0.000306	0.00100	1	10/18/2018 18:34	WG1182883
1,1-Dichloropropene	U		0.000352	0.00100	1	10/18/2018 18:34	WG1182883
1,3-Dichloropropane	U		0.000366	0.00100	1	10/18/2018 18:34	WG1182883
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	10/18/2018 18:34	WG1182883
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	10/18/2018 18:34	WG1182883
2,2-Dichloropropane	U		0.000321	0.00100	1	10/18/2018 18:34	WG1182883
Di-isopropyl ether	U		0.000320	0.00100	1	10/18/2018 18:34	WG1182883
Ethylbenzene	U		0.000384	0.00100	1	10/18/2018 18:34	WG1182883
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	10/18/2018 18:34	WG1182883
Isopropylbenzene	U		0.000326	0.00100	1	10/18/2018 18:34	WG1182883
p-Isopropyltoluene	U		0.000350	0.00100	1	10/18/2018 18:34	WG1182883
2-Butanone (MEK)	U		0.00393	0.0100	1	10/18/2018 18:34	WG1182883
Methylene Chloride	U		0.00100	0.00500	1	10/18/2018 18:34	WG1182883
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	10/18/2018 18:34	WG1182883
Methyl tert-butyl ether	U		0.000367	0.00100	1	10/18/2018 18:34	WG1182883
Naphthalene	U		0.00100	0.00500	1	10/18/2018 18:34	WG1182883
n-Propylbenzene	U		0.000349	0.00100	1	10/18/2018 18:34	WG1182883
Styrene	U		0.000307	0.00100	1	10/18/2018 18:34	WG1182883

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	10/18/2018 18:34	WG1182883
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	10/18/2018 18:34	WG1182883
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	10/18/2018 18:34	WG1182883
Tetrachloroethene	U		0.000372	0.00100	1	10/18/2018 18:34	WG1182883
Toluene	U		0.000412	0.00100	1	10/18/2018 18:34	WG1182883
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	10/18/2018 18:34	WG1182883
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	10/18/2018 18:34	WG1182883
1,1,1-Trichloroethane	U		0.000319	0.00100	1	10/18/2018 18:34	WG1182883
1,1,2-Trichloroethane	U		0.000383	0.00100	1	10/18/2018 18:34	WG1182883
Trichloroethene	0.000730	J	0.000398	0.00100	1	10/18/2018 18:34	WG1182883
Trichlorofluoromethane	U		0.00120	0.00500	1	10/18/2018 18:34	WG1182883
1,2,3-Trichloropropane	U		0.000807	0.00250	1	10/18/2018 18:34	WG1182883
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	10/18/2018 18:34	WG1182883
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	10/18/2018 18:34	WG1182883
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	10/18/2018 18:34	WG1182883
Vinyl chloride	U		0.000259	0.00100	1	10/18/2018 18:34	WG1182883
Xylenes, Total	U		0.00106	0.00300	1	10/18/2018 18:34	WG1182883
(S) Toluene-d8	*106*			*80.0-120*		*10/18/2018 18:34*	WG1182883
(S) Toluene-d8	*93.0*			*80.0-120*		*10/23/2018 00:21*	WG1184730
(S) Dibromofluoromethane	*100*			*75.0-120*		*10/18/2018 18:34*	WG1182883
(S) Dibromofluoromethane	*109*			*75.0-120*		*10/23/2018 00:21*	WG1184730
(S) 4-Bromofluorobenzene	*99.0*			*77.0-126*		*10/18/2018 18:34*	WG1182883
(S) 4-Bromofluorobenzene	*87.8*			*77.0-126*		*10/23/2018 00:21*	WG1184730

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.223		0.0494	0.200	2	10/22/2018 15:44	WG1182988
(S) o-Terphenyl	*57.9*			*31.0-160*		*10/22/2018 15:44*	WG1182988

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	0.0000168	J	0.0000140	0.0000500	1	10/20/2018 15:32	WG1183007
Acenaphthene	0.0000288	J	0.0000100	0.0000500	1	10/20/2018 15:32	WG1183007
Acenaphthylene	U		0.0000120	0.0000500	1	10/20/2018 15:32	WG1183007
Benzo(a)anthracene	U		0.00000410	0.0000500	1	10/20/2018 15:32	WG1183007
Benzo(a)pyrene	U		0.0000116	0.0000500	1	10/20/2018 15:32	WG1183007
Benzo(b)fluoranthene	U		0.00000212	0.0000500	1	10/20/2018 15:32	WG1183007
Benzo(g,h,i)perylene	U		0.00000227	0.0000500	1	10/20/2018 15:32	WG1183007
Benzo(k)fluoranthene	U		0.0000136	0.0000500	1	10/20/2018 15:32	WG1183007
Chrysene	U		0.0000108	0.0000500	1	10/20/2018 15:32	WG1183007
Dibenz(a,h)anthracene	U		0.00000396	0.0000500	1	10/20/2018 15:32	WG1183007
Dibenzofuran	0.0000625		0.00000105	0.0000500	1	10/20/2018 15:32	WG1183007
Fluoranthene	U		0.0000157	0.0000500	1	10/20/2018 15:32	WG1183007
Fluorene	U		0.00000850	0.0000500	1	10/20/2018 15:32	WG1183007
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500	1	10/20/2018 15:32	WG1183007
Naphthalene	U		0.0000198	0.000250	1	10/20/2018 15:32	WG1183007
Phenanthrene	0.0000296	J	0.00000820	0.0000500	1	10/20/2018 15:32	WG1183007
Pyrene	U		0.0000117	0.0000500	1	10/20/2018 15:32	WG1183007
(S) Nitrobenzene-d5	*91.6*			*31.0-160*		*10/20/2018 15:32*	WG1183007
(S) 2-Fluorobiphenyl	*98.9*			*48.0-148*		*10/20/2018 15:32*	WG1183007
(S) p-Terphenyl-d14	*92.6*			*37.0-146*		*10/20/2018 15:32*	WG1183007

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/23/2018 22:56	WG1183381
(S) a,a,a-Trifluorotoluene(FID)	*111*			*78.0-120*		*10/23/2018 22:56*	WG1183381

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	1.00	1	10/18/2018 18:55	WG1182883
Acrolein	U		0.00887	0.0500	1	10/18/2018 18:55	WG1182883
Acrylonitrile	U		0.00187	0.0100	1	10/18/2018 18:55	WG1182883
Benzene	U		0.000331	0.00100	1	10/18/2018 18:55	WG1182883
Bromobenzene	U		0.000352	0.00100	1	10/18/2018 18:55	WG1182883
Bromodichloromethane	U		0.000380	0.00125	1	10/18/2018 18:55	WG1182883
Bromoform	U		0.000469	0.00100	1	10/18/2018 18:55	WG1182883
Bromomethane	U		0.000866	0.00500	1	10/18/2018 18:55	WG1182883
n-Butylbenzene	U		0.000361	0.00100	1	10/18/2018 18:55	WG1182883
sec-Butylbenzene	U		0.000365	0.00100	1	10/18/2018 18:55	WG1182883
tert-Butylbenzene	U		0.000399	0.00100	1	10/18/2018 18:55	WG1182883
Carbon tetrachloride	U		0.000379	0.00100	1	10/18/2018 18:55	WG1182883
Chlorobenzene	U		0.000348	0.00100	1	10/18/2018 18:55	WG1182883
Chlorodibromomethane	U		0.000327	0.00100	1	10/18/2018 18:55	WG1182883
Chloroethane	U		0.000453	0.00500	1	10/18/2018 18:55	WG1182883
Chloroform	U		0.000324	0.00500	1	10/18/2018 18:55	WG1182883
Chloromethane	U		0.000276	0.00250	1	10/18/2018 18:55	WG1182883
2-Chlorotoluene	U		0.000375	0.00100	1	10/18/2018 18:55	WG1182883
4-Chlorotoluene	U		0.000351	0.00100	1	10/18/2018 18:55	WG1182883
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	10/18/2018 18:55	WG1182883
1,2-Dibromoethane	U		0.000381	0.00100	1	10/18/2018 18:55	WG1182883
Dibromomethane	U		0.000346	0.00100	1	10/18/2018 18:55	WG1182883
1,2-Dichlorobenzene	U		0.000349	0.00100	1	10/18/2018 18:55	WG1182883
1,3-Dichlorobenzene	U		0.000220	0.00100	1	10/18/2018 18:55	WG1182883
1,4-Dichlorobenzene	U		0.000274	0.00100	1	10/18/2018 18:55	WG1182883
Dichlorodifluoromethane	U		0.000551	0.00500	1	10/18/2018 18:55	WG1182883
1,1-Dichloroethane	U		0.000259	0.00100	1	10/18/2018 18:55	WG1182883
1,2-Dichloroethane	U		0.000361	0.00100	1	10/18/2018 18:55	WG1182883
1,1-Dichloroethene	U		0.000398	0.00100	1	10/18/2018 18:55	WG1182883
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	10/18/2018 18:55	WG1182883
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	10/18/2018 18:55	WG1182883
1,2-Dichloropropane	U		0.000306	0.00100	1	10/18/2018 18:55	WG1182883
1,1-Dichloropropene	U		0.000352	0.00100	1	10/18/2018 18:55	WG1182883
1,3-Dichloropropane	U		0.000366	0.00100	1	10/18/2018 18:55	WG1182883
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	10/18/2018 18:55	WG1182883
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	10/18/2018 18:55	WG1182883
2,2-Dichloropropane	U		0.000321	0.00100	1	10/18/2018 18:55	WG1182883
Di-isopropyl ether	U		0.000320	0.00100	1	10/18/2018 18:55	WG1182883
Ethylbenzene	U		0.000384	0.00100	1	10/18/2018 18:55	WG1182883
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	10/18/2018 18:55	WG1182883
Isopropylbenzene	U		0.000326	0.00100	1	10/18/2018 18:55	WG1182883
p-Isopropyltoluene	U		0.000350	0.00100	1	10/18/2018 18:55	WG1182883
2-Butanone (MEK)	U		0.00393	0.0100	1	10/18/2018 18:55	WG1182883
Methylene Chloride	U		0.00100	0.00500	1	10/18/2018 18:55	WG1182883
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	10/18/2018 18:55	WG1182883
Methyl tert-butyl ether	U		0.000367	0.00100	1	10/18/2018 18:55	WG1182883
Naphthalene	U		0.00100	0.00500	1	10/18/2018 18:55	WG1182883
n-Propylbenzene	U		0.000349	0.00100	1	10/18/2018 18:55	WG1182883
Styrene	U		0.000307	0.00100	1	10/18/2018 18:55	WG1182883

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	10/18/2018 18:55	WG1182883
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	10/18/2018 18:55	WG1182883
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	10/18/2018 18:55	WG1182883
Tetrachloroethene	U		0.000372	0.00100	1	10/18/2018 18:55	WG1182883
Toluene	U		0.000412	0.00100	1	10/18/2018 18:55	WG1182883
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	10/18/2018 18:55	WG1182883
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	10/18/2018 18:55	WG1182883
1,1,1-Trichloroethane	U		0.000319	0.00100	1	10/18/2018 18:55	WG1182883
1,1,2-Trichloroethane	U		0.000383	0.00100	1	10/18/2018 18:55	WG1182883
Trichloroethene	U		0.000398	0.00100	1	10/18/2018 18:55	WG1182883
Trichlorofluoromethane	U		0.00120	0.00500	1	10/18/2018 18:55	WG1182883
1,2,3-Trichloropropane	U		0.000807	0.00250	1	10/18/2018 18:55	WG1182883
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	10/18/2018 18:55	WG1182883
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	10/18/2018 18:55	WG1182883
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	10/18/2018 18:55	WG1182883
Vinyl chloride	U		0.000259	0.00100	1	10/18/2018 18:55	WG1182883
Xylenes, Total	U		0.00106	0.00300	1	10/18/2018 18:55	WG1182883
(S) Toluene-d8	*107*			*80.0-120*		*10/18/2018 18:55*	WG1182883
(S) Dibromofluoromethane	*104*			*75.0-120*		*10/18/2018 18:55*	WG1182883
(S) 4-Bromofluorobenzene	*99.9*			*77.0-126*		*10/18/2018 18:55*	WG1182883

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.0494	0.200	2	10/22/2018 16:06	WG1182988
(S) o-Terphenyl	*37.5*			*31.0-160*		*10/22/2018 16:06*	WG1182988

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0000140	0.0000500	1	10/20/2018 15:55	WG1183007
Acenaphthene	U		0.0000100	0.0000500	1	10/20/2018 15:55	WG1183007
Acenaphthylene	U		0.0000120	0.0000500	1	10/20/2018 15:55	WG1183007
Benzo(a)anthracene	U		0.00000410	0.0000500	1	10/20/2018 15:55	WG1183007
Benzo(a)pyrene	U		0.0000116	0.0000500	1	10/20/2018 15:55	WG1183007
Benzo(b)fluoranthene	U		0.00000212	0.0000500	1	10/20/2018 15:55	WG1183007
Benzo(g,h,i)perylene	U		0.00000227	0.0000500	1	10/20/2018 15:55	WG1183007
Benzo(k)fluoranthene	U		0.0000136	0.0000500	1	10/20/2018 15:55	WG1183007
Chrysene	U		0.0000108	0.0000500	1	10/20/2018 15:55	WG1183007
Dibenz(a,h)anthracene	U		0.00000396	0.0000500	1	10/20/2018 15:55	WG1183007
Dibenzofuran	0.00000228	B J	0.00000105	0.0000500	1	10/20/2018 15:55	WG1183007
Fluoranthene	U		0.0000157	0.0000500	1	10/20/2018 15:55	WG1183007
Fluorene	U		0.00000850	0.0000500	1	10/20/2018 15:55	WG1183007
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500	1	10/20/2018 15:55	WG1183007
Naphthalene	U		0.0000198	0.000250	1	10/20/2018 15:55	WG1183007
Phenanthrene	U		0.00000820	0.0000500	1	10/20/2018 15:55	WG1183007
Pyrene	U		0.0000117	0.0000500	1	10/20/2018 15:55	WG1183007
(S) Nitrobenzene-d5	*98.9*			*31.0-160*		*10/20/2018 15:55*	WG1183007
(S) 2-Fluorobiphenyl	*106*			*48.0-148*		*10/20/2018 15:55*	WG1183007
(S) p-Terphenyl-d14	*102*			*37.0-146*		*10/20/2018 15:55*	WG1183007

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/23/2018 23:19	WG1183381
(S) a,a,a-Trifluorotoluene(FID)	*111*			*78.0-120*		*10/23/2018 23:19*	WG1183381

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	1.00	1	10/18/2018 19:15	WG1182883
Acrolein	U		0.00887	0.0500	1	10/18/2018 19:15	WG1182883
Acrylonitrile	U		0.00187	0.0100	1	10/18/2018 19:15	WG1182883
Benzene	U		0.000331	0.00100	1	10/18/2018 19:15	WG1182883
Bromobenzene	U		0.000352	0.00100	1	10/18/2018 19:15	WG1182883
Bromodichloromethane	U		0.000380	0.00125	1	10/18/2018 19:15	WG1182883
Bromoform	U		0.000469	0.00100	1	10/18/2018 19:15	WG1182883
Bromomethane	U		0.000866	0.00500	1	10/18/2018 19:15	WG1182883
n-Butylbenzene	U		0.000361	0.00100	1	10/18/2018 19:15	WG1182883
sec-Butylbenzene	U		0.000365	0.00100	1	10/18/2018 19:15	WG1182883
tert-Butylbenzene	U		0.000399	0.00100	1	10/18/2018 19:15	WG1182883
Carbon tetrachloride	U		0.000379	0.00100	1	10/18/2018 19:15	WG1182883
Chlorobenzene	U		0.000348	0.00100	1	10/18/2018 19:15	WG1182883
Chlorodibromomethane	U		0.000327	0.00100	1	10/18/2018 19:15	WG1182883
Chloroethane	U		0.000453	0.00500	1	10/18/2018 19:15	WG1182883
Chloroform	U		0.000324	0.00500	1	10/18/2018 19:15	WG1182883
Chloromethane	U		0.000276	0.00250	1	10/18/2018 19:15	WG1182883
2-Chlorotoluene	U		0.000375	0.00100	1	10/18/2018 19:15	WG1182883
4-Chlorotoluene	U		0.000351	0.00100	1	10/18/2018 19:15	WG1182883
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	10/18/2018 19:15	WG1182883
1,2-Dibromoethane	U		0.000381	0.00100	1	10/18/2018 19:15	WG1182883
Dibromomethane	U		0.000346	0.00100	1	10/18/2018 19:15	WG1182883
1,2-Dichlorobenzene	U		0.000349	0.00100	1	10/18/2018 19:15	WG1182883
1,3-Dichlorobenzene	U		0.000220	0.00100	1	10/18/2018 19:15	WG1182883
1,4-Dichlorobenzene	U		0.000274	0.00100	1	10/18/2018 19:15	WG1182883
Dichlorodifluoromethane	U		0.000551	0.00500	1	10/18/2018 19:15	WG1182883
1,1-Dichloroethane	U		0.000259	0.00100	1	10/18/2018 19:15	WG1182883
1,2-Dichloroethane	U		0.000361	0.00100	1	10/18/2018 19:15	WG1182883
1,1-Dichloroethene	U		0.000398	0.00100	1	10/18/2018 19:15	WG1182883
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	10/18/2018 19:15	WG1182883
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	10/18/2018 19:15	WG1182883
1,2-Dichloropropane	U		0.000306	0.00100	1	10/18/2018 19:15	WG1182883
1,1-Dichloropropene	U		0.000352	0.00100	1	10/18/2018 19:15	WG1182883
1,3-Dichloropropane	U		0.000366	0.00100	1	10/18/2018 19:15	WG1182883
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	10/18/2018 19:15	WG1182883
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	10/18/2018 19:15	WG1182883
2,2-Dichloropropane	U		0.000321	0.00100	1	10/18/2018 19:15	WG1182883
Di-isopropyl ether	U		0.000320	0.00100	1	10/18/2018 19:15	WG1182883
Ethylbenzene	U		0.000384	0.00100	1	10/18/2018 19:15	WG1182883
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	10/18/2018 19:15	WG1182883
Isopropylbenzene	U		0.000326	0.00100	1	10/18/2018 19:15	WG1182883
p-Isopropyltoluene	U		0.000350	0.00100	1	10/18/2018 19:15	WG1182883
2-Butanone (MEK)	U		0.00393	0.0100	1	10/18/2018 19:15	WG1182883
Methylene Chloride	U		0.00100	0.00500	1	10/18/2018 19:15	WG1182883
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	10/18/2018 19:15	WG1182883
Methyl tert-butyl ether	U		0.000367	0.00100	1	10/18/2018 19:15	WG1182883
Naphthalene	U		0.00100	0.00500	1	10/18/2018 19:15	WG1182883
n-Propylbenzene	U		0.000349	0.00100	1	10/18/2018 19:15	WG1182883
Styrene	U		0.000307	0.00100	1	10/18/2018 19:15	WG1182883

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	10/18/2018 19:15	WG1182883
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	10/18/2018 19:15	WG1182883
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	10/18/2018 19:15	WG1182883
Tetrachloroethene	U		0.000372	0.00100	1	10/18/2018 19:15	WG1182883
Toluene	U		0.000412	0.00100	1	10/18/2018 19:15	WG1182883
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	10/18/2018 19:15	WG1182883
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	10/18/2018 19:15	WG1182883
1,1,1-Trichloroethane	U		0.000319	0.00100	1	10/18/2018 19:15	WG1182883
1,1,2-Trichloroethane	U		0.000383	0.00100	1	10/18/2018 19:15	WG1182883
Trichloroethene	U		0.000398	0.00100	1	10/18/2018 19:15	WG1182883
Trichlorofluoromethane	U		0.00120	0.00500	1	10/18/2018 19:15	WG1182883
1,2,3-Trichloropropane	U		0.000807	0.00250	1	10/18/2018 19:15	WG1182883
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	10/18/2018 19:15	WG1182883
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	10/18/2018 19:15	WG1182883
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	10/18/2018 19:15	WG1182883
Vinyl chloride	U		0.000259	0.00100	1	10/18/2018 19:15	WG1182883
Xylenes, Total	U		0.00106	0.00300	1	10/18/2018 19:15	WG1182883
(S) Toluene-d8	*110*			*80.0-120*		*10/18/2018 19:15*	WG1182883
(S) Dibromofluoromethane	*103*			*75.0-120*		*10/18/2018 19:15*	WG1182883
(S) 4-Bromofluorobenzene	*99.3*			*77.0-126*		*10/18/2018 19:15*	WG1182883

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.340		0.0247	0.100	1	10/22/2018 16:28	WG1182988
(S) o-Terphenyl	*83.7*			*31.0-160*		*10/22/2018 16:28*	WG1182988

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0000140	0.0000500	1	10/20/2018 16:18	WG1183007
Acenaphthene	U		0.0000100	0.0000500	1	10/20/2018 16:18	WG1183007
Acenaphthylene	U		0.0000120	0.0000500	1	10/20/2018 16:18	WG1183007
Benzo(a)anthracene	U		0.00000410	0.0000500	1	10/20/2018 16:18	WG1183007
Benzo(a)pyrene	U		0.0000116	0.0000500	1	10/20/2018 16:18	WG1183007
Benzo(b)fluoranthene	U		0.00000212	0.0000500	1	10/20/2018 16:18	WG1183007
Benzo(g,h,i)perylene	U		0.00000227	0.0000500	1	10/20/2018 16:18	WG1183007
Benzo(k)fluoranthene	U		0.0000136	0.0000500	1	10/20/2018 16:18	WG1183007
Chrysene	U		0.0000108	0.0000500	1	10/20/2018 16:18	WG1183007
Dibenz(a,h)anthracene	U		0.00000396	0.0000500	1	10/20/2018 16:18	WG1183007
Dibenzofuran	U		0.00000105	0.0000500	1	10/20/2018 16:18	WG1183007
Fluoranthene	U		0.0000157	0.0000500	1	10/20/2018 16:18	WG1183007
Fluorene	U		0.00000850	0.0000500	1	10/20/2018 16:18	WG1183007
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500	1	10/20/2018 16:18	WG1183007
Naphthalene	U		0.0000198	0.000250	1	10/20/2018 16:18	WG1183007
Phenanthrene	U		0.00000820	0.0000500	1	10/20/2018 16:18	WG1183007
Pyrene	U		0.0000117	0.0000500	1	10/20/2018 16:18	WG1183007
(S) Nitrobenzene-d5	*98.9*			*31.0-160*		*10/20/2018 16:18*	WG1183007
(S) 2-Fluorobiphenyl	*104*			*48.0-148*		*10/20/2018 16:18*	WG1183007
(S) p-Terphenyl-d14	*104*			*37.0-146*		*10/20/2018 16:18*	WG1183007

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	197	J3	2.82	10.0	1	10/24/2018 18:51	WG1184691

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity	130		2.71	20.0	1	10/23/2018 17:02	WG1184740

Sample Narrative:

L1035901-08 WG1184740: Endpoint pH 4.5 HEADSPACE

Wet Chemistry by Method 3500Fe B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Ferrous Iron	U	J6 T8	0.0150	0.0500	1	10/19/2018 14:33	WG1183577

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	0.194		0.0227	0.100	1	10/18/2018 21:42	WG1182875
Sulfate	8.14		0.0774	5.00	1	10/18/2018 21:42	WG1182875

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/23/2018 23:42	WG1183381
(S) a,a,a-Trifluorotoluene(FID)	*112*			*78.0-120*		*10/23/2018 23:42*	WG1183381

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	1.00	1	10/18/2018 19:35	WG1182883
Acrolein	U		0.00887	0.0500	1	10/18/2018 19:35	WG1182883
Acrylonitrile	U		0.00187	0.0100	1	10/18/2018 19:35	WG1182883
Benzene	U		0.000331	0.00100	1	10/18/2018 19:35	WG1182883
Bromobenzene	U		0.000352	0.00100	1	10/18/2018 19:35	WG1182883
Bromodichloromethane	U		0.000380	0.00125	1	10/18/2018 19:35	WG1182883
Bromoform	U		0.000469	0.00100	1	10/18/2018 19:35	WG1182883
Bromomethane	U		0.000866	0.00500	1	10/18/2018 19:35	WG1182883
n-Butylbenzene	U		0.000361	0.00100	1	10/18/2018 19:35	WG1182883
sec-Butylbenzene	U		0.000365	0.00100	1	10/18/2018 19:35	WG1182883
tert-Butylbenzene	U		0.000399	0.00100	1	10/18/2018 19:35	WG1182883
Carbon tetrachloride	U		0.000379	0.00100	1	10/18/2018 19:35	WG1182883
Chlorobenzene	U		0.000348	0.00100	1	10/18/2018 19:35	WG1182883
Chlorodibromomethane	U		0.000327	0.00100	1	10/18/2018 19:35	WG1182883
Chloroethane	U		0.000453	0.00500	1	10/18/2018 19:35	WG1182883
Chloroform	U		0.000324	0.00500	1	10/18/2018 19:35	WG1182883
Chloromethane	U		0.000276	0.00250	1	10/18/2018 19:35	WG1182883
2-Chlorotoluene	U		0.000375	0.00100	1	10/18/2018 19:35	WG1182883
4-Chlorotoluene	U		0.000351	0.00100	1	10/18/2018 19:35	WG1182883
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	10/18/2018 19:35	WG1182883
1,2-Dibromoethane	U		0.000381	0.00100	1	10/18/2018 19:35	WG1182883
Dibromomethane	U		0.000346	0.00100	1	10/18/2018 19:35	WG1182883
1,2-Dichlorobenzene	U		0.000349	0.00100	1	10/18/2018 19:35	WG1182883

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,3-Dichlorobenzene	U		0.000220	0.00100	1	10/18/2018 19:35	WG1182883
1,4-Dichlorobenzene	U		0.000274	0.00100	1	10/18/2018 19:35	WG1182883
Dichlorodifluoromethane	U		0.000551	0.00500	1	10/18/2018 19:35	WG1182883
1,1-Dichloroethane	U		0.000259	0.00100	1	10/18/2018 19:35	WG1182883
1,2-Dichloroethane	U		0.000361	0.00100	1	10/18/2018 19:35	WG1182883
1,1-Dichloroethene	U		0.000398	0.00100	1	10/18/2018 19:35	WG1182883
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	10/18/2018 19:35	WG1182883
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	10/18/2018 19:35	WG1182883
1,2-Dichloropropane	U		0.000306	0.00100	1	10/18/2018 19:35	WG1182883
1,1-Dichloropropene	U		0.000352	0.00100	1	10/18/2018 19:35	WG1182883
1,3-Dichloropropane	U		0.000366	0.00100	1	10/18/2018 19:35	WG1182883
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	10/18/2018 19:35	WG1182883
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	10/18/2018 19:35	WG1182883
2,2-Dichloropropane	U		0.000321	0.00100	1	10/18/2018 19:35	WG1182883
Di-isopropyl ether	U		0.000320	0.00100	1	10/18/2018 19:35	WG1182883
Ethylbenzene	U		0.000384	0.00100	1	10/18/2018 19:35	WG1182883
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	10/18/2018 19:35	WG1182883
Isopropylbenzene	U		0.000326	0.00100	1	10/18/2018 19:35	WG1182883
p-Isopropyltoluene	U		0.000350	0.00100	1	10/18/2018 19:35	WG1182883
2-Butanone (MEK)	U		0.00393	0.0100	1	10/18/2018 19:35	WG1182883
Methylene Chloride	U		0.00100	0.00500	1	10/18/2018 19:35	WG1182883
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	10/18/2018 19:35	WG1182883
Methyl tert-butyl ether	U		0.000367	0.00100	1	10/18/2018 19:35	WG1182883
Naphthalene	U		0.00100	0.00500	1	10/18/2018 19:35	WG1182883
n-Propylbenzene	U		0.000349	0.00100	1	10/18/2018 19:35	WG1182883
Styrene	U		0.000307	0.00100	1	10/18/2018 19:35	WG1182883
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	10/18/2018 19:35	WG1182883
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	10/18/2018 19:35	WG1182883
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	10/18/2018 19:35	WG1182883
Tetrachloroethene	U		0.000372	0.00100	1	10/18/2018 19:35	WG1182883
Toluene	U		0.000412	0.00100	1	10/18/2018 19:35	WG1182883
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	10/18/2018 19:35	WG1182883
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	10/18/2018 19:35	WG1182883
1,1,1-Trichloroethane	U		0.000319	0.00100	1	10/18/2018 19:35	WG1182883
1,1,2-Trichloroethane	U		0.000383	0.00100	1	10/18/2018 19:35	WG1182883
Trichloroethene	U		0.000398	0.00100	1	10/18/2018 19:35	WG1182883
Trichlorofluoromethane	U		0.00120	0.00500	1	10/18/2018 19:35	WG1182883
1,2,3-Trichloropropane	U		0.000807	0.00250	1	10/18/2018 19:35	WG1182883
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	10/18/2018 19:35	WG1182883
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	10/18/2018 19:35	WG1182883
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	10/18/2018 19:35	WG1182883
Vinyl chloride	U		0.000259	0.00100	1	10/18/2018 19:35	WG1182883
Xylenes, Total	U		0.00106	0.00300	1	10/18/2018 19:35	WG1182883
(S) Toluene-d8	*110*			*80.0-120*		*10/18/2018 19:35*	WG1182883
(S) Dibromofluoromethane	*101*			*75.0-120*		*10/18/2018 19:35*	WG1182883
(S) 4-Bromofluorobenzene	*99.1*			*77.0-126*		*10/18/2018 19:35*	WG1182883

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0471	J	0.0247	0.100	1	10/22/2018 16:50	WG1182988
(S) o-Terphenyl	*67.4*			*31.0-160*		*10/22/2018 16:50*	WG1182988

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0000140	0.0000500	1	10/20/2018 16:41	WG1183007
Acenaphthene	U		0.0000100	0.0000500	1	10/20/2018 16:41	WG1183007
Acenaphthylene	U		0.0000120	0.0000500	1	10/20/2018 16:41	WG1183007
Benzo(a)anthracene	U		0.00000410	0.0000500	1	10/20/2018 16:41	WG1183007
Benzo(a)pyrene	U		0.0000116	0.0000500	1	10/20/2018 16:41	WG1183007
Benzo(b)fluoranthene	U		0.00000212	0.0000500	1	10/20/2018 16:41	WG1183007
Benzo(g,h,i)perylene	U		0.00000227	0.0000500	1	10/20/2018 16:41	WG1183007
Benzo(k)fluoranthene	U		0.0000136	0.0000500	1	10/20/2018 16:41	WG1183007
Chrysene	U		0.0000108	0.0000500	1	10/20/2018 16:41	WG1183007
Dibenz(a,h)anthracene	U		0.00000396	0.0000500	1	10/20/2018 16:41	WG1183007
Dibenzofuran	U		0.00000105	0.0000500	1	10/20/2018 16:41	WG1183007
Fluoranthene	U		0.0000157	0.0000500	1	10/20/2018 16:41	WG1183007
Fluorene	U		0.00000850	0.0000500	1	10/20/2018 16:41	WG1183007
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500	1	10/20/2018 16:41	WG1183007
Naphthalene	U		0.0000198	0.000250	1	10/20/2018 16:41	WG1183007
Phenanthrene	U		0.00000820	0.0000500	1	10/20/2018 16:41	WG1183007
Pyrene	U		0.0000117	0.0000500	1	10/20/2018 16:41	WG1183007
(S) Nitrobenzene-d5	*101*			*31.0-160*		*10/20/2018 16:41*	WG1183007
(S) 2-Fluorobiphenyl	*107*			*48.0-148*		*10/20/2018 16:41*	WG1183007
(S) p-Terphenyl-d14	*104*			*37.0-146*		*10/20/2018 16:41*	WG1183007

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	421		2.82	10.0	1	10/24/2018 18:51	WG1184691

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity	410		2.71	20.0	1	10/23/2018 17:08	WG1184740

Sample Narrative:

L1035901-09 WG1184740: Endpoint pH 4.5 HEADSPACE

Wet Chemistry by Method 3500Fe B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Ferrous Iron	13.7	T8	0.375	1.25	25	10/19/2018 14:34	WG1183577

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	U		0.0227	0.100	1	10/18/2018 22:28	WG1182875
Sulfate	U		0.0774	5.00	1	10/18/2018 22:28	WG1182875

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/24/2018 00:04	WG1183381
(S) a,a,a-Trifluorotoluene(FID)	*111*			*78.0-120*		*10/24/2018 00:04*	WG1183381

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	1.00	1	10/18/2018 19:56	WG1182883
Acrolein	U		0.00887	0.0500	1	10/18/2018 19:56	WG1182883
Acrylonitrile	U		0.00187	0.0100	1	10/18/2018 19:56	WG1182883
Benzene	U		0.000331	0.00100	1	10/18/2018 19:56	WG1182883
Bromobenzene	U		0.000352	0.00100	1	10/18/2018 19:56	WG1182883
Bromodichloromethane	U		0.000380	0.00125	1	10/18/2018 19:56	WG1182883
Bromoform	U		0.000469	0.00100	1	10/18/2018 19:56	WG1182883
Bromomethane	U		0.000866	0.00500	1	10/18/2018 19:56	WG1182883
n-Butylbenzene	U		0.000361	0.00100	1	10/18/2018 19:56	WG1182883
sec-Butylbenzene	U		0.000365	0.00100	1	10/18/2018 19:56	WG1182883
tert-Butylbenzene	0.000505	J	0.000399	0.00100	1	10/18/2018 19:56	WG1182883
Carbon tetrachloride	U		0.000379	0.00100	1	10/18/2018 19:56	WG1182883
Chlorobenzene	U		0.000348	0.00100	1	10/18/2018 19:56	WG1182883
Chlorodibromomethane	U		0.000327	0.00100	1	10/18/2018 19:56	WG1182883
Chloroethane	U		0.000453	0.00500	1	10/18/2018 19:56	WG1182883
Chloroform	U		0.000324	0.00500	1	10/18/2018 19:56	WG1182883
Chloromethane	U		0.000276	0.00250	1	10/18/2018 19:56	WG1182883
2-Chlorotoluene	U		0.000375	0.00100	1	10/18/2018 19:56	WG1182883
4-Chlorotoluene	U		0.000351	0.00100	1	10/18/2018 19:56	WG1182883
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	10/18/2018 19:56	WG1182883
1,2-Dibromoethane	U		0.000381	0.00100	1	10/18/2018 19:56	WG1182883
Dibromomethane	U		0.000346	0.00100	1	10/18/2018 19:56	WG1182883
1,2-Dichlorobenzene	U		0.000349	0.00100	1	10/18/2018 19:56	WG1182883

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,3-Dichlorobenzene	U		0.000220	0.00100	1	10/18/2018 19:56	WG1182883
1,4-Dichlorobenzene	U		0.000274	0.00100	1	10/18/2018 19:56	WG1182883
Dichlorodifluoromethane	U		0.000551	0.00500	1	10/18/2018 19:56	WG1182883
1,1-Dichloroethane	U		0.000259	0.00100	1	10/18/2018 19:56	WG1182883
1,2-Dichloroethane	U		0.000361	0.00100	1	10/18/2018 19:56	WG1182883
1,1-Dichloroethene	U		0.000398	0.00100	1	10/18/2018 19:56	WG1182883
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	10/18/2018 19:56	WG1182883
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	10/18/2018 19:56	WG1182883
1,2-Dichloropropane	U		0.000306	0.00100	1	10/18/2018 19:56	WG1182883
1,1-Dichloropropene	U		0.000352	0.00100	1	10/18/2018 19:56	WG1182883
1,3-Dichloropropane	U		0.000366	0.00100	1	10/18/2018 19:56	WG1182883
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	10/18/2018 19:56	WG1182883
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	10/18/2018 19:56	WG1182883
2,2-Dichloropropane	U		0.000321	0.00100	1	10/18/2018 19:56	WG1182883
Di-isopropyl ether	U		0.000320	0.00100	1	10/18/2018 19:56	WG1182883
Ethylbenzene	U		0.000384	0.00100	1	10/18/2018 19:56	WG1182883
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	10/18/2018 19:56	WG1182883
Isopropylbenzene	U		0.000326	0.00100	1	10/18/2018 19:56	WG1182883
p-Isopropyltoluene	U		0.000350	0.00100	1	10/18/2018 19:56	WG1182883
2-Butanone (MEK)	U		0.00393	0.0100	1	10/18/2018 19:56	WG1182883
Methylene Chloride	U		0.00100	0.00500	1	10/18/2018 19:56	WG1182883
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	10/18/2018 19:56	WG1182883
Methyl tert-butyl ether	U		0.000367	0.00100	1	10/18/2018 19:56	WG1182883
Naphthalene	0.00123	J	0.00100	0.00500	1	10/18/2018 19:56	WG1182883
n-Propylbenzene	U		0.000349	0.00100	1	10/18/2018 19:56	WG1182883
Styrene	U		0.000307	0.00100	1	10/18/2018 19:56	WG1182883
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	10/18/2018 19:56	WG1182883
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	10/18/2018 19:56	WG1182883
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	10/18/2018 19:56	WG1182883
Tetrachloroethene	U		0.000372	0.00100	1	10/18/2018 19:56	WG1182883
Toluene	U		0.000412	0.00100	1	10/18/2018 19:56	WG1182883
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	10/18/2018 19:56	WG1182883
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	10/18/2018 19:56	WG1182883
1,1,1-Trichloroethane	U		0.000319	0.00100	1	10/18/2018 19:56	WG1182883
1,1,2-Trichloroethane	U		0.000383	0.00100	1	10/18/2018 19:56	WG1182883
Trichloroethene	U		0.000398	0.00100	1	10/18/2018 19:56	WG1182883
Trichlorofluoromethane	U		0.00120	0.00500	1	10/18/2018 19:56	WG1182883
1,2,3-Trichloropropane	U		0.000807	0.00250	1	10/18/2018 19:56	WG1182883
1,2,4-Trimethylbenzene	0.000658	J	0.000373	0.00100	1	10/18/2018 19:56	WG1182883
1,2,3-Trimethylbenzene	0.000638	J	0.000321	0.00100	1	10/18/2018 19:56	WG1182883
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	10/18/2018 19:56	WG1182883
Vinyl chloride	U		0.000259	0.00100	1	10/18/2018 19:56	WG1182883
Xylenes, Total	U		0.00106	0.00300	1	10/18/2018 19:56	WG1182883
(S) Toluene-d8	*112*			*80.0-120*		*10/18/2018 19:56*	WG1182883
(S) Dibromofluoromethane	*102*			*75.0-120*		*10/18/2018 19:56*	WG1182883
(S) 4-Bromofluorobenzene	*95.6*			*77.0-126*		*10/18/2018 19:56*	WG1182883

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	2.10		0.0247	0.100	1	10/21/2018 21:43	WG1184190
(S) o-Terphenyl	*92.1*			*31.0-160*		*10/21/2018 21:43*	WG1184190

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	0.0000743		0.0000140	0.0000500	1	10/19/2018 18:03	WG1183525
Acenaphthene	0.000151		0.0000100	0.0000500	1	10/19/2018 18:03	WG1183525
Acenaphthylene	U		0.0000120	0.0000500	1	10/19/2018 18:03	WG1183525
Benzo(a)anthracene	U		0.00000410	0.0000500	1	10/19/2018 18:03	WG1183525
Benzo(a)pyrene	U		0.0000116	0.0000500	1	10/19/2018 18:03	WG1183525
Benzo(b)fluoranthene	U		0.00000212	0.0000500	1	10/19/2018 18:03	WG1183525
Benzo(g,h,i)perylene	U		0.00000227	0.0000500	1	10/19/2018 18:03	WG1183525
Benzo(k)fluoranthene	U		0.0000136	0.0000500	1	10/19/2018 18:03	WG1183525
Chrysene	U		0.0000108	0.0000500	1	10/19/2018 18:03	WG1183525
Dibenz(a,h)anthracene	U		0.00000396	0.0000500	1	10/19/2018 18:03	WG1183525
Dibenzofuran	0.00230		0.00000105	0.0000500	1	10/19/2018 18:03	WG1183525
Fluoranthene	U		0.0000157	0.0000500	1	10/19/2018 18:03	WG1183525
Fluorene	0.000422		0.00000850	0.0000500	1	10/19/2018 18:03	WG1183525
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500	1	10/19/2018 18:03	WG1183525
Naphthalene	0.00187		0.0000198	0.000250	1	10/19/2018 18:03	WG1183525
Phenanthrene	0.000344		0.00000820	0.0000500	1	10/19/2018 18:03	WG1183525
Pyrene	U		0.0000117	0.0000500	1	10/19/2018 18:03	WG1183525
(S) Nitrobenzene-d5	*53.0*			*31.0-160*		*10/19/2018 18:03*	WG1183525
(S) 2-Fluorobiphenyl	*80.0*			*48.0-148*		*10/19/2018 18:03*	WG1183525
(S) p-Terphenyl-d14	*91.5*			*37.0-146*		*10/19/2018 18:03*	WG1183525

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	557		2.82	10.0	1	10/24/2018 18:51	WG1184691

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity	385		2.71	20.0	1	10/23/2018 17:16	WG1184740

Sample Narrative:

L1035901-10 WG1184740: Endpoint pH 4.5 HEADSPACE

Wet Chemistry by Method 3500Fe B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Ferrous Iron	20.1	T8	0.375	1.25	25	10/19/2018 14:36	WG1183577

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	U		0.0227	0.100	1	10/18/2018 22:44	WG1182875
Sulfate	U		0.0774	5.00	1	10/18/2018 22:44	WG1182875

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.346		0.0314	0.100	1	10/24/2018 00:27	WG1183381
(S) a,a,a-Trifluorotoluene(FID)	*112*			*78.0-120*		*10/24/2018 00:27*	WG1183381

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	1.00	1	10/19/2018 04:40	WG1183250
Acrolein	U		0.00887	0.0500	1	10/19/2018 04:40	WG1183250
Acrylonitrile	U		0.00187	0.0100	1	10/19/2018 04:40	WG1183250
Benzene	0.000725	J	0.000331	0.00100	1	10/19/2018 04:40	WG1183250
Bromobenzene	U		0.000352	0.00100	1	10/19/2018 04:40	WG1183250
Bromodichloromethane	U		0.000380	0.00125	1	10/19/2018 04:40	WG1183250
Bromoform	U		0.000469	0.00100	1	10/19/2018 04:40	WG1183250
Bromomethane	U		0.000866	0.00500	1	10/19/2018 04:40	WG1183250
n-Butylbenzene	0.00155		0.000361	0.00100	1	10/19/2018 04:40	WG1183250
sec-Butylbenzene	0.00613		0.000365	0.00100	1	10/19/2018 04:40	WG1183250
tert-Butylbenzene	0.00188		0.000399	0.00100	1	10/19/2018 04:40	WG1183250
Carbon tetrachloride	U		0.000379	0.00100	1	10/19/2018 04:40	WG1183250
Chlorobenzene	U		0.000348	0.00100	1	10/19/2018 04:40	WG1183250
Chlorodibromomethane	U		0.000327	0.00100	1	10/19/2018 04:40	WG1183250
Chloroethane	U		0.000453	0.00500	1	10/19/2018 04:40	WG1183250
Chloroform	U		0.000324	0.00500	1	10/19/2018 04:40	WG1183250
Chloromethane	U		0.000276	0.00250	1	10/19/2018 04:40	WG1183250
2-Chlorotoluene	U		0.000375	0.00100	1	10/19/2018 04:40	WG1183250
4-Chlorotoluene	U		0.000351	0.00100	1	10/19/2018 04:40	WG1183250
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	10/19/2018 04:40	WG1183250
1,2-Dibromoethane	U		0.000381	0.00100	1	10/19/2018 04:40	WG1183250
Dibromomethane	U		0.000346	0.00100	1	10/19/2018 04:40	WG1183250
1,2-Dichlorobenzene	U		0.000349	0.00100	1	10/19/2018 04:40	WG1183250

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,3-Dichlorobenzene	U		0.000220	0.00100	1	10/19/2018 04:40	WG1183250
1,4-Dichlorobenzene	U		0.000274	0.00100	1	10/19/2018 04:40	WG1183250
Dichlorodifluoromethane	U		0.000551	0.00500	1	10/19/2018 04:40	WG1183250
1,1-Dichloroethane	U		0.000259	0.00100	1	10/19/2018 04:40	WG1183250
1,2-Dichloroethane	U		0.000361	0.00100	1	10/19/2018 04:40	WG1183250
1,1-Dichloroethene	U		0.000398	0.00100	1	10/19/2018 04:40	WG1183250
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	10/19/2018 04:40	WG1183250
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	10/19/2018 04:40	WG1183250
1,2-Dichloropropane	U		0.000306	0.00100	1	10/19/2018 04:40	WG1183250
1,1-Dichloropropene	U		0.000352	0.00100	1	10/19/2018 04:40	WG1183250
1,3-Dichloropropane	U		0.000366	0.00100	1	10/19/2018 04:40	WG1183250
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	10/19/2018 04:40	WG1183250
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	10/19/2018 04:40	WG1183250
2,2-Dichloropropane	U		0.000321	0.00100	1	10/19/2018 04:40	WG1183250
Di-isopropyl ether	U		0.000320	0.00100	1	10/19/2018 04:40	WG1183250
Ethylbenzene	0.0123		0.000384	0.00100	1	10/19/2018 04:40	WG1183250
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	10/19/2018 04:40	WG1183250
Isopropylbenzene	0.00803		0.000326	0.00100	1	10/19/2018 04:40	WG1183250
p-Isopropyltoluene	0.00156		0.000350	0.00100	1	10/19/2018 04:40	WG1183250
2-Butanone (MEK)	U		0.00393	0.0100	1	10/19/2018 04:40	WG1183250
Methylene Chloride	U		0.00100	0.00500	1	10/19/2018 04:40	WG1183250
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	10/19/2018 04:40	WG1183250
Methyl tert-butyl ether	U		0.000367	0.00100	1	10/19/2018 04:40	WG1183250
Naphthalene	0.0889		0.00100	0.00500	1	10/19/2018 04:40	WG1183250
n-Propylbenzene	0.0107		0.000349	0.00100	1	10/19/2018 04:40	WG1183250
Styrene	U		0.000307	0.00100	1	10/19/2018 04:40	WG1183250
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	10/19/2018 04:40	WG1183250
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	10/19/2018 04:40	WG1183250
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	10/19/2018 04:40	WG1183250
Tetrachloroethene	U		0.000372	0.00100	1	10/19/2018 04:40	WG1183250
Toluene	U		0.000412	0.00100	1	10/19/2018 04:40	WG1183250
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	10/19/2018 04:40	WG1183250
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	10/19/2018 04:40	WG1183250
1,1,1-Trichloroethane	U		0.000319	0.00100	1	10/19/2018 04:40	WG1183250
1,1,2-Trichloroethane	U		0.000383	0.00100	1	10/19/2018 04:40	WG1183250
Trichloroethene	U		0.000398	0.00100	1	10/19/2018 04:40	WG1183250
Trichlorofluoromethane	U		0.00120	0.00500	1	10/19/2018 04:40	WG1183250
1,2,3-Trichloropropane	U		0.000807	0.00250	1	10/19/2018 04:40	WG1183250
1,2,4-Trimethylbenzene	0.117		0.000373	0.00100	1	10/19/2018 04:40	WG1183250
1,2,3-Trimethylbenzene	0.0400		0.000321	0.00100	1	10/19/2018 04:40	WG1183250
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	10/19/2018 04:40	WG1183250
Vinyl chloride	U		0.000259	0.00100	1	10/19/2018 04:40	WG1183250
Xylenes, Total	0.0509		0.00106	0.00300	1	10/19/2018 04:40	WG1183250
(S) Toluene-d8	*103*			*80.0-120*		*10/19/2018 04:40*	WG1183250
(S) Dibromofluoromethane	*92.2*			*75.0-120*		*10/19/2018 04:40*	WG1183250
(S) 4-Bromofluorobenzene	*98.8*			*77.0-126*		*10/19/2018 04:40*	WG1183250

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	5.14		0.0247	0.100	1	10/21/2018 22:05	WG1184190
(S) o-Terphenyl	*99.5*			*31.0-160*		*10/21/2018 22:05*	WG1184190

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0000140	0.0000500	1	10/19/2018 18:25	WG1183525
Acenaphthene	0.00326		0.0000100	0.0000500	1	10/19/2018 18:25	WG1183525
Acenaphthylene	U		0.0000120	0.0000500	1	10/19/2018 18:25	WG1183525
Benzo(a)anthracene	U		0.00000410	0.0000500	1	10/19/2018 18:25	WG1183525
Benzo(a)pyrene	U		0.0000116	0.0000500	1	10/19/2018 18:25	WG1183525
Benzo(b)fluoranthene	U		0.00000212	0.0000500	1	10/19/2018 18:25	WG1183525
Benzo(g,h,i)perylene	U		0.00000227	0.0000500	1	10/19/2018 18:25	WG1183525
Benzo(k)fluoranthene	U		0.0000136	0.0000500	1	10/19/2018 18:25	WG1183525
Chrysene	U		0.0000108	0.0000500	1	10/19/2018 18:25	WG1183525
Dibenz(a,h)anthracene	U		0.00000396	0.0000500	1	10/19/2018 18:25	WG1183525
Dibenzofuran	0.00389		0.00000105	0.0000500	1	10/19/2018 18:25	WG1183525
Fluoranthene	U		0.0000157	0.0000500	1	10/19/2018 18:25	WG1183525
Fluorene	0.00485		0.00000850	0.0000500	1	10/19/2018 18:25	WG1183525
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500	1	10/19/2018 18:25	WG1183525
Naphthalene	0.0850		0.0000198	0.000250	1	10/19/2018 18:25	WG1183525
Phenanthrene	0.00724		0.00000820	0.0000500	1	10/19/2018 18:25	WG1183525
Pyrene	0.0000724		0.0000117	0.0000500	1	10/19/2018 18:25	WG1183525
(S) Nitrobenzene-d5	*52.5*			*31.0-160*		*10/19/2018 18:25*	WG1183525
(S) 2-Fluorobiphenyl	*68.0*			*48.0-148*		*10/19/2018 18:25*	WG1183525
(S) p-Terphenyl-d14	*87.0*			*37.0-146*		*10/19/2018 18:25*	WG1183525

Method Blank (MB)

(MB) R3354029-1 10/24/18 18:51

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		2.82	10.0

L1035901-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1035901-08 10/24/18 18:51 • (DUP) R3354029-3 10/24/18 18:51

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	197	174	1	12.4	J3	5

Laboratory Control Sample (LCS)

(LCS) R3354029-2 10/24/18 18:51

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8480	96.4	85.0-115	

Method Blank (MB)

(MB) R3353526-1 10/23/18 14:59

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Alkalinity	U		2.71	20.0

Sample Narrative:

BLANK: Endpoint pH 4.5

L1035383-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1035383-01 10/23/18 15:06 • (DUP) R3353526-2 10/23/18 15:13

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity	757	752	1	0.610		20

Sample Narrative:

OS: Endpoint pH 4.5 HEADSPACE

DUP: Endpoint pH 4.5

L1036005-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1036005-07 10/23/18 18:28 • (DUP) R3353526-5 10/23/18 18:35

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity	408	407	1	0.397		20

Sample Narrative:

OS: Endpoint pH 4.5 HEADSPACE

DUP: Endpoint pH 4.5

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

(LCS) R3353526-3 10/23/18 16:34 • (LCSD) R3353526-4 10/23/18 17:58

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Alkalinity	100	109	105	109	105	85.0-115			3.86	20

Sample Narrative:

LCS: Endpoint pH 4.5

LCSD: Endpoint pH 4.5

Method Blank (MB)

(MB) R3352257-1 10/19/18 14:31

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ferrous Iron	U		0.0150	0.0500

L1035901-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1035901-09 10/19/18 14:34 • (DUP) R3352257-6 10/19/18 14:35

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ferrous Iron	13.7	13.7	25	0.285		20

L1036308-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1036308-01 10/19/18 14:48 • (DUP) R3352257-7 10/19/18 14:48

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ferrous Iron	ND	0.000	1	0.000		20

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

(LCS) R3352257-2 10/19/18 14:32 • (LCSD) R3352257-3 10/19/18 14:32

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 %
Ferrous Iron	1.00	1.02	1.05	102	105	85.0-115			3.38	20

L1035901-08 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1035901-08 10/19/18 14:33 • (MS) R3352257-4 10/19/18 14:33 • (MSD) R3352257-5 10/19/18 14:34

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Ferrous Iron	1.50	U	1.02	1.02	68.1	67.8	1	80.0-120	J6	J6	0.490	20

Method Blank (MB)

(MB) R3352020-1 10/18/18 12:58

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate	U		0.0227	0.100
Sulfate	U		0.0774	5.00

L1035874-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1035874-06 10/18/18 18:22 • (DUP) R3352020-4 10/18/18 18:37

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	0.654	0.662	1	1.34		15
Sulfate	11.2	11.1	1	0.922		15

L1035901-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1035901-08 10/18/18 21:42 • (DUP) R3352020-7 10/18/18 21:58

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	0.194	0.189	1	2.35		15
Sulfate	8.14	8.02	1	1.53		15

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

(LCS) R3352020-2 10/18/18 16:03 • (LCSD) R3352020-3 10/18/18 16:18

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 %
Nitrate	8.00	8.03	8.05	100	101	80.0-120			0.190	15
Sulfate	40.0	40.4	40.5	101	101	80.0-120			0.192	15

L1035874-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1035874-06 10/18/18 18:22 • (MS) R3352020-5 10/18/18 18:53 • (MSD) R3352020-6 10/18/18 19:08

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate	5.00	0.654	5.62	5.64	99.2	99.7	1	80.0-120			0.389	15
Sulfate	50.0	11.2	60.2	60.3	98.0	98.3	1	80.0-120			0.306	15

L1035901-08 Original Sample (OS) • Matrix Spike (MS)

(OS) L1035901-08 10/18/18 21:42 • (MS) R3352020-8 10/18/18 22:13

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate	5.00	0.194	5.11	98.4	1	80.0-120	
Sulfate	50.0	8.14	56.8	97.3	1	80.0-120	

Method Blank (MB)

(MB) R3353387-3 10/23/18 17:49

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)	*110*			*78.0-120*

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

(LCS) R3353387-2 10/23/18 17:03 • (LCSD) R3353387-1 10/23/18 16:34

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.50	4.94	4.69	89.9	85.3	72.0-127			5.30	20
(S) a,a,a-Trifluorotoluene(FID)				*116*	*116*	*78.0-120*				

Method Blank (MB)

(MB) R3352876-4 10/18/18 11:09

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0100	1.00
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	0.00125
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
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
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

Method Blank (MB)

(MB) R3352876-4 10/18/18 11:09

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
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
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100
Methyl tert-butyl ether	U		0.000367	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.000349	0.00100
Styrene	U		0.000307	0.00100
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100
Tetrachloroethene	U		0.000372	0.00100
Toluene	U		0.000412	0.00100
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100
1,2,3-Trichlorobenzene	U		0.000230	0.00100
1,2,4-Trichlorobenzene	U		0.000355	0.00100
1,1,1-Trichloroethane	U		0.000319	0.00100
1,1,2-Trichloroethane	U		0.000383	0.00100
Trichloroethene	U		0.000398	0.00100
Trichlorofluoromethane	U		0.00120	0.00500
1,2,3-Trichloropropane	U		0.000807	0.00250
1,2,3-Trimethylbenzene	U		0.000321	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Vinyl chloride	U		0.000259	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*99.1*			*80.0-120*
(S) Dibromofluoromethane	*115*			*75.0-120*
(S) 4-Bromofluorobenzene	*114*			*77.0-126*

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

(LCS) R3352876-1 10/18/18 09:48 • (LCSD) R3352876-2 10/18/18 10:08

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.125	0.135	0.137	108	110	19.0-160			1.67	27
Acrolein	0.125	0.143	0.145	115	116	10.0-160			1.54	26
Acrylonitrile	0.125	0.117	0.118	93.9	94.7	55.0-149			0.816	20
Benzene	0.0250	0.0256	0.0258	102	103	70.0-123			0.679	20

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

(LCS) R3352876-1 10/18/18 09:48 • (LCSD) R3352876-2 10/18/18 10:08

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromobenzene	0.0250	0.0250	0.0261	100	104	73.0-121			4.10	20
Bromodichloromethane	0.0250	0.0271	0.0272	108	109	75.0-120			0.443	20
Bromoform	0.0250	0.0255	0.0270	102	108	68.0-132			5.74	20
Bromomethane	0.0250	0.00911	0.00964	36.4	38.6	10.0-160			5.73	25
n-Butylbenzene	0.0250	0.0223	0.0233	89.4	93.2	73.0-125			4.14	20
sec-Butylbenzene	0.0250	0.0227	0.0237	90.9	94.7	75.0-125			4.07	20
tert-Butylbenzene	0.0250	0.0228	0.0238	91.1	95.1	76.0-124			4.27	20
Carbon tetrachloride	0.0250	0.0277	0.0269	111	108	68.0-126			2.83	20
Chlorobenzene	0.0250	0.0240	0.0225	95.9	90.2	80.0-121			6.13	20
Chlorodibromomethane	0.0250	0.0259	0.0254	104	102	77.0-125			1.90	20
Chloroethane	0.0250	0.0165	0.0152	66.1	60.8	47.0-150			8.29	20
Chloroform	0.0250	0.0283	0.0281	113	112	73.0-120			0.836	20
Chloromethane	0.0250	0.0209	0.0202	83.5	80.9	41.0-142			3.19	20
2-Chlorotoluene	0.0250	0.0232	0.0251	92.9	100	76.0-123			7.75	20
4-Chlorotoluene	0.0250	0.0231	0.0247	92.4	98.9	75.0-122			6.73	20
1,2-Dibromo-3-Chloropropane	0.0250	0.0211	0.0215	84.3	85.9	58.0-134			1.91	20
1,2-Dibromoethane	0.0250	0.0249	0.0235	99.6	93.9	80.0-122			5.90	20
Dibromomethane	0.0250	0.0277	0.0266	111	106	80.0-120			4.31	20
1,2-Dichlorobenzene	0.0250	0.0229	0.0241	91.6	96.5	79.0-121			5.24	20
1,3-Dichlorobenzene	0.0250	0.0231	0.0234	92.3	93.7	79.0-120			1.55	20
1,4-Dichlorobenzene	0.0250	0.0229	0.0234	91.5	93.7	79.0-120			2.44	20
Dichlorodifluoromethane	0.0250	0.0242	0.0245	97.0	97.8	51.0-149			0.862	20
1,1-Dichloroethane	0.0250	0.0276	0.0278	110	111	70.0-126			0.957	20
1,2-Dichloroethane	0.0250	0.0311	0.0305	125	122	70.0-128			1.99	20
1,1-Dichloroethene	0.0250	0.0246	0.0255	98.4	102	71.0-124			3.54	20
cis-1,2-Dichloroethene	0.0250	0.0258	0.0261	103	105	73.0-120			1.37	20
trans-1,2-Dichloroethene	0.0250	0.0263	0.0255	105	102	73.0-120			2.86	20
1,2-Dichloropropane	0.0250	0.0257	0.0259	103	104	77.0-125			0.989	20
1,1-Dichloropropene	0.0250	0.0261	0.0265	104	106	74.0-126			1.51	20
1,3-Dichloropropane	0.0250	0.0247	0.0241	98.8	96.3	80.0-120			2.57	20
cis-1,3-Dichloropropene	0.0250	0.0229	0.0239	91.7	95.6	80.0-123			4.17	20
trans-1,3-Dichloropropene	0.0250	0.0249	0.0251	99.8	100	78.0-124			0.570	20
2,2-Dichloropropane	0.0250	0.0234	0.0239	93.6	95.4	58.0-130			1.91	20
Di-isopropyl ether	0.0250	0.0263	0.0263	105	105	58.0-138			0.00106	20
Ethylbenzene	0.0250	0.0229	0.0217	91.6	86.9	79.0-123			5.28	20
Hexachloro-1,3-butadiene	0.0250	0.0203	0.0214	81.3	85.7	54.0-138			5.27	20
Isopropylbenzene	0.0250	0.0239	0.0243	95.4	97.2	76.0-127			1.81	20
p-Isopropyltoluene	0.0250	0.0221	0.0233	88.5	93.4	76.0-125			5.29	20
2-Butanone (MEK)	0.125	0.119	0.120	95.1	95.7	44.0-160			0.621	20
Methylene Chloride	0.0250	0.0254	0.0251	102	100	67.0-120			1.40	20

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

(LCS) R3352876-1 10/18/18 09:48 • (LCSD) R3352876-2 10/18/18 10:08

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
4-Methyl-2-pentanone (MIBK)	0.125	0.109	0.112	86.9	89.5	68.0-142			3.04	20
Methyl tert-butyl ether	0.0250	0.0265	0.0264	106	106	68.0-125			0.395	20
Naphthalene	0.0250	0.0195	0.0226	78.2	90.4	54.0-135			14.5	20
n-Propylbenzene	0.0250	0.0232	0.0245	93.0	97.9	77.0-124			5.23	20
Styrene	0.0250	0.0242	0.0244	96.7	97.7	73.0-130			1.09	20
1,1,1,2-Tetrachloroethane	0.0250	0.0240	0.0235	95.9	93.9	75.0-125			2.19	20
1,1,2,2-Tetrachloroethane	0.0250	0.0227	0.0245	90.9	98.1	65.0-130			7.53	20
Tetrachloroethene	0.0250	0.0229	0.0221	91.4	88.4	72.0-132			3.39	20
Toluene	0.0250	0.0213	0.0226	85.1	90.2	79.0-120			5.83	20
1,1,2-Trichlorotrifluoroethane	0.0250	0.0270	0.0271	108	108	69.0-132			0.227	20
1,2,3-Trichlorobenzene	0.0250	0.0212	0.0258	84.8	103	50.0-138			19.6	20
1,2,4-Trichlorobenzene	0.0250	0.0220	0.0232	88.1	92.9	57.0-137			5.38	20
1,1,1-Trichloroethane	0.0250	0.0287	0.0283	115	113	73.0-124			1.58	20
1,1,2-Trichloroethane	0.0250	0.0248	0.0233	99.0	93.4	80.0-120			5.85	20
Trichloroethene	0.0250	0.0256	0.0255	102	102	78.0-124			0.447	20
Trichlorofluoromethane	0.0250	0.0283	0.0248	113	99.4	59.0-147			13.2	20
1,2,3-Trichloropropane	0.0250	0.0236	0.0261	94.3	104	73.0-130			10.3	20
1,2,3-Trimethylbenzene	0.0250	0.0227	0.0242	90.7	96.8	77.0-120			6.52	20
1,2,4-Trimethylbenzene	0.0250	0.0231	0.0247	92.5	98.7	76.0-121			6.41	20
1,3,5-Trimethylbenzene	0.0250	0.0227	0.0242	90.8	96.8	76.0-122			6.42	20
Vinyl chloride	0.0250	0.0202	0.0205	80.6	82.1	67.0-131			1.77	20
Xylenes, Total	0.0750	0.0676	0.0650	90.1	86.7	79.0-123			3.92	20
(S) Toluene-d8				*89.8*	*96.0*	*80.0-120*				
(S) Dibromofluoromethane				*115*	*115*	*75.0-120*				
(S) 4-Bromofluorobenzene				*104*	*111*	*77.0-126*				

Method Blank (MB)

(MB) R3352691-4 10/18/18 22:27

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0100	1.00
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	0.00125
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
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
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

Method Blank (MB)

(MB) R3352691-4 10/18/18 22:27

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
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
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100
Methyl tert-butyl ether	U		0.000367	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.000349	0.00100
Styrene	U		0.000307	0.00100
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100
Tetrachloroethene	U		0.000372	0.00100
Toluene	U		0.000412	0.00100
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100
1,2,3-Trichlorobenzene	U		0.000230	0.00100
1,2,4-Trichlorobenzene	U		0.000355	0.00100
1,1,1-Trichloroethane	U		0.000319	0.00100
1,1,2-Trichloroethane	U		0.000383	0.00100
Trichloroethene	U		0.000398	0.00100
Trichlorofluoromethane	U		0.00120	0.00500
1,2,3-Trichloropropane	U		0.000807	0.00250
1,2,3-Trimethylbenzene	U		0.000321	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Vinyl chloride	U		0.000259	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*102*			*80.0-120*
(S) Dibromofluoromethane	*90.5*			*75.0-120*
(S) 4-Bromofluorobenzene	*97.0*			*77.0-126*

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

(LCS) R3352691-1 10/18/18 21:10 • (LCSD) R3352691-2 10/18/18 21:29

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 %
Acetone	0.125	0.0954	0.0944	76.3	75.5	19.0-160			1.04	27
Acrolein	0.125	0.128	0.123	102	98.6	10.0-160			3.58	26
Acrylonitrile	0.125	0.113	0.111	90.5	88.9	55.0-149			1.78	20
Benzene	0.0250	0.0241	0.0237	96.5	94.7	70.0-123			1.92	20

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

(LCS) R3352691-1 10/18/18 21:10 • (LCSD) R3352691-2 10/18/18 21:29

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 %
Bromobenzene	0.0250	0.0250	0.0249	100	99.7	73.0-121			0.296	20
Bromodichloromethane	0.0250	0.0243	0.0237	97.3	94.6	75.0-120			2.76	20
Bromoform	0.0250	0.0278	0.0279	111	112	68.0-132			0.609	20
Bromomethane	0.0250	0.0219	0.0198	87.6	79.3	10.0-160			10.0	25
n-Butylbenzene	0.0250	0.0220	0.0219	88.0	87.6	73.0-125			0.521	20
sec-Butylbenzene	0.0250	0.0252	0.0246	101	98.3	75.0-125			2.46	20
tert-Butylbenzene	0.0250	0.0265	0.0262	106	105	76.0-124			1.15	20
Carbon tetrachloride	0.0250	0.0238	0.0229	95.0	91.4	68.0-126			3.87	20
Chlorobenzene	0.0250	0.0278	0.0269	111	108	80.0-121			3.35	20
Chlorodibromomethane	0.0250	0.0278	0.0266	111	106	77.0-125			4.32	20
Chloroethane	0.0250	0.0201	0.0188	80.4	75.2	47.0-150			6.67	20
Chloroform	0.0250	0.0238	0.0230	95.4	92.1	73.0-120			3.49	20
Chloromethane	0.0250	0.0164	0.0144	65.8	57.6	41.0-142			13.2	20
2-Chlorotoluene	0.0250	0.0263	0.0259	105	104	76.0-123			1.50	20
4-Chlorotoluene	0.0250	0.0259	0.0259	104	104	75.0-122			0.0695	20
1,2-Dibromo-3-Chloropropane	0.0250	0.0251	0.0253	100	101	58.0-134			0.783	20
1,2-Dibromoethane	0.0250	0.0269	0.0264	108	106	80.0-122			1.79	20
Dibromomethane	0.0250	0.0252	0.0242	101	96.9	80.0-120			4.08	20
1,2-Dichlorobenzene	0.0250	0.0248	0.0248	99.3	99.1	79.0-121			0.227	20
1,3-Dichlorobenzene	0.0250	0.0259	0.0253	104	101	79.0-120			2.20	20
1,4-Dichlorobenzene	0.0250	0.0254	0.0254	102	102	79.0-120			0.254	20
Dichlorodifluoromethane	0.0250	0.0177	0.0165	70.8	66.1	51.0-149			6.91	20
1,1-Dichloroethane	0.0250	0.0231	0.0227	92.5	90.6	70.0-126			2.12	20
1,2-Dichloroethane	0.0250	0.0209	0.0206	83.8	82.4	70.0-128			1.61	20
1,1-Dichloroethene	0.0250	0.0265	0.0251	106	100	71.0-124			5.35	20
cis-1,2-Dichloroethene	0.0250	0.0255	0.0252	102	101	73.0-120			1.24	20
trans-1,2-Dichloroethene	0.0250	0.0247	0.0244	98.6	97.8	73.0-120			0.874	20
1,2-Dichloropropane	0.0250	0.0247	0.0239	99.0	95.7	77.0-125			3.36	20
1,1-Dichloropropene	0.0250	0.0238	0.0231	95.4	92.4	74.0-126			3.23	20
1,3-Dichloropropane	0.0250	0.0258	0.0252	103	101	80.0-120			2.46	20
cis-1,3-Dichloropropene	0.0250	0.0258	0.0249	103	99.8	80.0-123			3.47	20
trans-1,3-Dichloropropene	0.0250	0.0250	0.0241	100	96.5	78.0-124			3.53	20
2,2-Dichloropropane	0.0250	0.0217	0.0208	86.8	83.1	58.0-130			4.36	20
Di-isopropyl ether	0.0250	0.0221	0.0215	88.3	86.0	58.0-138			2.61	20
Ethylbenzene	0.0250	0.0275	0.0268	110	107	79.0-123			2.35	20
Hexachloro-1,3-butadiene	0.0250	0.0234	0.0234	93.7	93.4	54.0-138			0.234	20
Isopropylbenzene	0.0250	0.0269	0.0263	108	105	76.0-127			2.07	20
p-Isopropyltoluene	0.0250	0.0247	0.0246	98.9	98.2	76.0-125			0.706	20
2-Butanone (MEK)	0.125	0.101	0.101	80.9	80.7	44.0-160			0.296	20
Methylene Chloride	0.0250	0.0251	0.0240	100	96.1	67.0-120			4.40	20

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

(LCS) R3352691-1 10/18/18 21:10 • (LCSD) R3352691-2 10/18/18 21:29

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 %
4-Methyl-2-pentanone (MIBK)	0.125	0.113	0.111	90.6	88.5	68.0-142			2.38	20
Methyl tert-butyl ether	0.0250	0.0236	0.0225	94.3	90.1	68.0-125			4.57	20
Naphthalene	0.0250	0.0237	0.0242	94.9	96.9	54.0-135			2.09	20
n-Propylbenzene	0.0250	0.0256	0.0256	103	102	77.0-124			0.296	20
Styrene	0.0250	0.0277	0.0279	111	112	73.0-130			0.866	20
1,1,1,2-Tetrachloroethane	0.0250	0.0287	0.0273	115	109	75.0-125			5.09	20
1,1,2,2-Tetrachloroethane	0.0250	0.0262	0.0260	105	104	65.0-130			0.448	20
Tetrachloroethene	0.0250	0.0289	0.0280	116	112	72.0-132			2.94	20
Toluene	0.0250	0.0263	0.0256	105	103	79.0-120			2.47	20
1,1,2-Trichlorotrifluoroethane	0.0250	0.0268	0.0235	107	94.2	69.0-132			12.9	20
1,2,3-Trichlorobenzene	0.0250	0.0239	0.0240	95.6	95.8	50.0-138			0.246	20
1,2,4-Trichlorobenzene	0.0250	0.0247	0.0242	98.8	96.7	57.0-137			2.15	20
1,1,1-Trichloroethane	0.0250	0.0240	0.0237	96.0	94.6	73.0-124			1.47	20
1,1,2-Trichloroethane	0.0250	0.0267	0.0263	107	105	80.0-120			1.44	20
Trichloroethene	0.0250	0.0276	0.0270	110	108	78.0-124			2.17	20
Trichlorofluoromethane	0.0250	0.0223	0.0211	89.2	84.2	59.0-147			5.74	20
1,2,3-Trichloropropane	0.0250	0.0270	0.0274	108	109	73.0-130			1.15	20
1,2,3-Trimethylbenzene	0.0250	0.0241	0.0238	96.5	95.3	77.0-120			1.23	20
1,2,4-Trimethylbenzene	0.0250	0.0257	0.0255	103	102	76.0-121			0.693	20
1,3,5-Trimethylbenzene	0.0250	0.0263	0.0262	105	105	76.0-122			0.587	20
Vinyl chloride	0.0250	0.0211	0.0197	84.4	78.8	67.0-131			6.81	20
Xylenes, Total	0.0750	0.0814	0.0787	109	105	79.0-123			3.37	20
(S) Toluene-d8				*101*	*99.5*	*80.0-120*				
(S) Dibromofluoromethane				*91.0*	*91.0*	*75.0-120*				
(S) 4-Bromofluorobenzene				*95.4*	*96.5*	*77.0-126*				

Method Blank (MB)

(MB) R3353151-2 10/22/18 18:30

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
cis-1,2-Dichloroethene	U		0.000260	0.00100
(S) Toluene-d8	*91.3*			*80.0-120*
(S) Dibromofluoromethane	*104*			*75.0-120*
(S) 4-Bromofluorobenzene	*95.4*			*77.0-126*

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

(LCS) R3353151-1 10/22/18 17:50 • (LCSD) R3353151-3 10/22/18 19:00

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 %
cis-1,2-Dichloroethene	0.0250	0.0267	0.0261	107	105	73.0-120			2.34	20
(S) Toluene-d8				*91.2*	*90.2*	*80.0-120*				
(S) Dibromofluoromethane				*105*	*105*	*75.0-120*				
(S) 4-Bromofluorobenzene				*97.0*	*97.3*	*77.0-126*				

Method Blank (MB)

(MB) R3352999-1 10/22/18 12:47

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	*57.0*			*31.0-160*

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

(LCS) R3352999-2 10/22/18 13:09 • (LCSD) R3352999-3 10/22/18 13:32

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	1.29	1.29	86.0	86.0	50.0-150			0.000	20
(S) o-Terphenyl				*109*	*110*	*31.0-160*				

Method Blank (MB)

(MB) R3352743-1 10/21/18 20:14

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	*77.5*			*31.0-160*

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

(LCS) R3352743-2 10/21/18 20:37 • (LCSD) R3352743-3 10/21/18 20:59

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	1.42	1.54	94.7	103	50.0-150			8.11	20
(S) o-Terphenyl				*109*	*109*	*31.0-160*				

Method Blank (MB)

(MB) R3352772-3 10/20/18 09:00

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Anthracene	U		0.0000140	0.0000500
Acenaphthene	U		0.0000100	0.0000500
Acenaphthylene	U		0.0000120	0.0000500
Benzo(a)anthracene	0.00000875	J	0.00000410	0.0000500
Benzo(a)pyrene	U		0.0000116	0.0000500
Benzo(b)fluoranthene	0.00000257	J	0.00000212	0.0000500
Benzo(g,h,i)perylene	U		0.00000227	0.0000500
Benzo(k)fluoranthene	U		0.0000136	0.0000500
Chrysene	U		0.0000108	0.0000500
Dibenz(a,h)anthracene	U		0.00000396	0.0000500
Fluoranthene	U		0.0000157	0.0000500
Fluorene	U		0.00000850	0.0000500
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500
Naphthalene	U		0.0000198	0.000250
Phenanthrene	U		0.00000820	0.0000500
Pyrene	U		0.0000117	0.0000500
Dibenzofuran	0.00000285	J	0.00000105	0.0000500
(S) Nitrobenzene-d5	*114*			*31.0-160*
(S) 2-Fluorobiphenyl	*120*			*48.0-148*
(S) p-Terphenyl-d14	*119*			*37.0-146*

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

(LCS) R3352772-1 10/20/18 08:14 • (LCSD) R3352772-2 10/20/18 08:37

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Dibenzofuran	0.00200	0.00199	0.00202	99.5	101	67.0-134			1.50	20
Anthracene	0.00200	0.00195	0.00200	97.5	100	67.0-150			2.53	20
Acenaphthene	0.00200	0.00187	0.00189	93.5	94.5	65.0-138			1.06	20
Acenaphthylene	0.00200	0.00184	0.00186	92.0	93.0	66.0-140			1.08	20
Benzo(a)anthracene	0.00200	0.00201	0.00204	100	102	61.0-140			1.48	20
Benzo(a)pyrene	0.00200	0.00197	0.00200	98.5	100	60.0-143			1.51	20
Benzo(b)fluoranthene	0.00200	0.00203	0.00191	102	95.5	58.0-141			6.09	20
Benzo(g,h,i)perylene	0.00200	0.00236	0.00241	118	120	52.0-153			2.10	20
Benzo(k)fluoranthene	0.00200	0.00183	0.00205	91.5	102	58.0-148			11.3	20
Chrysene	0.00200	0.00199	0.00203	99.5	102	64.0-144			1.99	20
Dibenz(a,h)anthracene	0.00200	0.00233	0.00239	117	119	52.0-155			2.54	20
Fluoranthene	0.00200	0.00198	0.00203	99.0	102	69.0-153			2.49	20
Fluorene	0.00200	0.00189	0.00192	94.5	96.0	64.0-136			1.57	20

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

(LCS) R3352772-1 10/20/18 08:14 • (LCSD) R3352772-2 10/20/18 08:37

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Indeno(1,2,3-cd)pyrene	0.00200	0.00236	0.00243	118	122	54.0-153			2.92	20
Naphthalene	0.00200	0.00143	0.00145	71.5	72.5	61.0-137			1.39	20
Phenanthrene	0.00200	0.00176	0.00182	88.0	91.0	62.0-137			3.35	20
Pyrene	0.00200	0.00194	0.00198	97.0	99.0	60.0-142			2.04	20
(S) Nitrobenzene-d5				*100*	*105*	*31.0-160*				
(S) 2-Fluorobiphenyl				*108*	*110*	*48.0-148*				
(S) p-Terphenyl-d14				*108*	*110*	*37.0-146*				

Method Blank (MB)

(MB) R3352394-3 10/19/18 17:41

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Anthracene	U		0.0000140	0.0000500
Acenaphthene	U		0.0000100	0.0000500
Acenaphthylene	U		0.0000120	0.0000500
Benzo(a)anthracene	U		0.00000410	0.0000500
Benzo(a)pyrene	U		0.0000116	0.0000500
Benzo(b)fluoranthene	U		0.00000212	0.0000500
Benzo(g,h,i)perylene	U		0.00000227	0.0000500
Benzo(k)fluoranthene	U		0.0000136	0.0000500
Chrysene	U		0.0000108	0.0000500
Dibenz(a,h)anthracene	U		0.00000396	0.0000500
Fluoranthene	U		0.0000157	0.0000500
Fluorene	U		0.00000850	0.0000500
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500
Naphthalene	0.0000202	J	0.0000198	0.000250
Phenanthrene	U		0.00000820	0.0000500
Pyrene	U		0.0000117	0.0000500
Dibenzofuran	U		0.00000105	0.0000500
(S) Nitrobenzene-d5	*62.5*			*31.0-160*
(S) 2-Fluorobiphenyl	*102*			*48.0-148*
(S) p-Terphenyl-d14	*108*			*37.0-146*

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

(LCS) R3352394-1 10/19/18 16:58 • (LCSD) R3352394-2 10/19/18 17:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Dibenzofuran	0.00200	0.00176	0.00180	88.0	90.0	67.0-134			2.25	20
Anthracene	0.00200	0.00197	0.00202	98.5	101	67.0-150			2.51	20
Acenaphthene	0.00200	0.00181	0.00185	90.5	92.5	65.0-138			2.19	20
Acenaphthylene	0.00200	0.00187	0.00191	93.5	95.5	66.0-140			2.12	20
Benzo(a)anthracene	0.00200	0.00169	0.00171	84.5	85.5	61.0-140			1.18	20
Benzo(a)pyrene	0.00200	0.00182	0.00186	91.0	93.0	60.0-143			2.17	20
Benzo(b)fluoranthene	0.00200	0.00178	0.00177	89.0	88.5	58.0-141			0.563	20
Benzo(g,h,i)perylene	0.00200	0.00201	0.00204	100	102	52.0-153			1.48	20
Benzo(k)fluoranthene	0.00200	0.00170	0.00176	85.0	88.0	58.0-148			3.47	20
Chrysene	0.00200	0.00203	0.00206	102	103	64.0-144			1.47	20
Dibenz(a,h)anthracene	0.00200	0.00197	0.00199	98.5	99.5	52.0-155			1.01	20
Fluoranthene	0.00200	0.00195	0.00198	97.5	99.0	69.0-153			1.53	20
Fluorene	0.00200	0.00173	0.00179	86.5	89.5	64.0-136			3.41	20

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

(LCS) R3352394-1 10/19/18 16:58 • (LCSD) R3352394-2 10/19/18 17:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Indeno(1,2,3-cd)pyrene	0.00200	0.00195	0.00198	97.5	99.0	54.0-153			1.53	20
Naphthalene	0.00200	0.00172	0.00175	86.0	87.5	61.0-137			1.73	20
Phenanthrene	0.00200	0.00180	0.00185	90.0	92.5	62.0-137			2.74	20
Pyrene	0.00200	0.00177	0.00181	88.5	90.5	60.0-142			2.23	20
(S) Nitrobenzene-d5				*54.0*	*54.0*	*31.0-160*				
(S) 2-Fluorobiphenyl				*88.5*	*88.0*	*48.0-148*				
(S) p-Terphenyl-d14				*90.5*	*90.5*	*37.0-146*				

L1036029-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1036029-12 10/19/18 18:47 • (MS) R3352394-4 10/19/18 19:08 • (MSD) R3352394-5 10/19/18 19:30

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Anthracene	0.00200	U	0.00196	0.00190	98.0	95.0	1	56.0-156			3.11	20
Acenaphthene	0.00200	U	0.00181	0.00179	90.5	89.5	1	44.0-153			1.11	20
Acenaphthylene	0.00200	U	0.00187	0.00186	93.5	93.0	1	53.0-150			0.536	20
Benzo(a)anthracene	0.00200	U	0.00179	0.00179	89.5	89.5	1	47.0-151			0.000	20
Benzo(a)pyrene	0.00200	U	0.00180	0.00179	90.0	89.5	1	45.0-146			0.557	20
Benzo(b)fluoranthene	0.00200	U	0.00166	0.00169	83.0	84.5	1	43.0-142			1.79	20
Benzo(g,h,i)perylene	0.00200	U	0.00190	0.00191	95.0	95.5	1	40.0-147			0.525	20
Benzo(k)fluoranthene	0.00200	U	0.00181	0.00181	90.5	90.5	1	43.0-148			0.000	21
Chrysene	0.00200	U	0.00189	0.00189	94.5	94.5	1	50.0-148			0.000	20
Dibenz(a,h)anthracene	0.00200	U	0.00188	0.00189	94.0	94.5	1	37.0-151			0.531	20
Fluoranthene	0.00200	0.0000256	0.00198	0.00201	97.7	99.2	1	56.0-157			1.50	20
Fluorene	0.00200	U	0.00175	0.00175	87.5	87.5	1	48.0-148			0.000	20
Indeno(1,2,3-cd)pyrene	0.00200	U	0.00187	0.00187	93.5	93.5	1	41.0-148			0.000	20
Naphthalene	0.00200	0.0000228	0.00173	0.00170	85.4	83.9	1	10.0-160			1.75	20
Phenanthrene	0.00200	0.0000102	0.00181	0.00181	90.0	90.0	1	47.0-147			0.000	20
Pyrene	0.00200	0.0000149	0.00179	0.00177	88.8	87.8	1	51.0-148			1.12	20
Dibenzofuran	0.00200	U	0.00176	0.00175	88.0	87.5	1	48.0-138			0.570	20
(S) Nitrobenzene-d5					*52.5*	*54.0*		*31.0-160*				
(S) 2-Fluorobiphenyl					*87.0*	*88.0*		*48.0-148*				
(S) p-Terphenyl-d14					*89.0*	*88.0*		*37.0-146*				

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

Guide to Reading and Understanding Your Laboratory Report

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

Abbreviations and Definitions

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

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
T8	Sample(s) received past/too close to holding time expiration.

ACCREDITATIONS & LOCATIONS

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

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

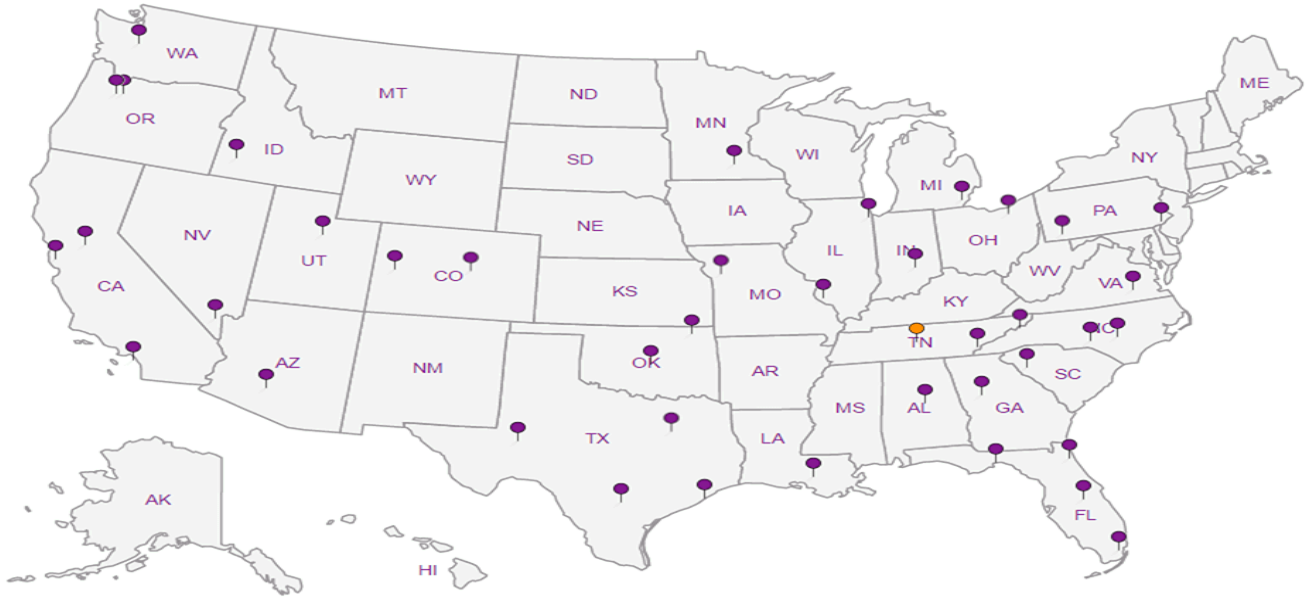
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

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

Our Locations

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



Akana - Richardson, TX

1850 N. Greenville Ave.
Suite 170
Richardson, TX 75081

Billing Information:
Accounts Payable
6400 SE Lake Rd., Ste. 270
Portland, OR 97222

Report to: Brent Hamil

Email To: brent.hamil@akana.us

Project Description: Duck Valley Indian Reservation

City/State Collected:

Phone: 214-676-2274
Fax:

Client Project # Akana-16-005

Lab Project # AKANARTX-16-005

Collected by (print): Peter Van Zandt

Site/Facility ID # OWYHEE, NV

P.O. # PO # (16-005 Task 6)

Collected by (signature): Peter Van Zandt

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

Pace Analytical® National Center for Testing & Innovation

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

L# L1035901

C211

Acctnum: AKANARTX
Template: T141536
Prelogin: P675969
TSR: 526 - Chris McCord
PB: 10/5/18 MG
Shipped Via: FedEX Ground

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	**NO3,SO4,ALK** 250mlHDPE-NoPres	DROLVI 40mlAmb-HCl-BT	FERUSFE 250mlAmb-HCl	GRO 40mlAmb HCl	PAHSIMLVI 40mlAmb-NoPres-WT	TDS 250mlHDPE-NoPres	V8260 40mlAmb-HCl	Remarks	Sample # (lab only)
MW-27	Grab	GW		10/16/18	9:15	9		X		X	X		X		-01
MW-6		GW		10/16/18	10:50	9									-02
MW-5		GW		10/16/18	11:55	9									-03
MW-7		GW		10/16/18	12:35	9									-04
* DUP-1		GW		10/16/18	12:35	9									
MW-10		GW		10/16/18	14:40	9									-05
MW-20		GW		10/16/18	16:10	9									-06
MW-26		GW		10/16/18	17:25	9									-07
* DUP-2		GW		10/16/18	17:25	9									
		GW													

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

Remarks: **NO3,SO4,ALK** has a 48hr hold time.

RAD El -R/hr

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: __ UPS ✓ FedEx __ Courier _____

Tracking # 4624 2995 6555

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: ✓Y __N
Preservation Correct/Checked: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCl / MeoH TBR
Peter Van Zandt	10/17/18	15:45		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C 1.7-0.2=1.5 Bottles Received: 119
				If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/18/18 Time: 845

10-129

Condition: NCF / OK

Akana - Richardson, TX

1850 N. Greenville Ave.
Suite 170
Richardson, TX 75081

Billing Information:
Accounts Payable
6400 SE Lake Rd., Ste. 270
Portland, OR 97222

Report to: Brent Hamil

Email To: brent.hamil@akana.us

Project Description: Duck Valley Indian Reservation

City/State Collected:

Phone: 214-676-2274
Fax:

Client Project #: Akana-16-005

Lab Project #: AKANARTX-16-005

Collected by (print): Peter Van Zandt

Site/Facility ID #: OWYHEE, NV

P.O. #: PO # (16-005 Task 6)

Collected by (signature): Peter V Zandt

Quote #

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

Pace Analytical®
National Center for Testing & Innovation

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

L # 4035901

Table #

Acctnum: AKANARTX

Template: T141536

Prelogin: P675969

TSR: 526 - Chris McCord

PB: 10/5/18 MW

Shipped Via: FedEX Ground

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	**NO3,SO4,ALK** 250mlHDPE-NoPres	DROLVI 40mlAmb-HCl-BT	FERUSFE 250mlAmb-HCl	GRO 40mlAmb HCl	PAHSIMLVI 40mlAmb-NoPres-WT	TDS 250mlHDPE-NoPres	V8260 40mlAmb-HCl				Remarks	Sample # (lab only)
MW-15	Grab	GW		10/17/18	9:05	12	X	X	X	X	X	X	X					-08
MW-~~13~~ 22	↓	GW		10/17/18	10:25	12	↓	↓	↓	↓	↓	↓	↓					-09
MW-23 SA	↓	GW		10/17/18	11:40	12	↓	↓	↓	↓	↓	↓	↓					-10
		GW																
		GW																
		GW																
		GW																
		GW																
		GW																
		GW																

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

Remarks: **NO3,SO4,ALK** has a 48hr hold time.

RAD SCREEN

pH _____ Temp _____
Flow _____ Other _____

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

Tracking # 4624 2995 6555

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: ✓Y __N
Preservation Correct/Checked: ✓Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
Peter V Zandt	10/17/18	15:45			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received: 1.7-0.2-1.5 1194	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/18/18 Time: 745	Hold: / Condition: NCF / OK

ANALYTICAL REPORT

October 30, 2018

Akana - Richardson, TX

Sample Delivery Group:	L1036655
Samples Received:	10/20/2018
Project Number:	Akana-16-005
Description:	Duck Valley Indian Reservation
Site:	OWYHEE, NV
Report To:	Brent Hamil 1850 N. Greenville Ave. Suite 170 Richardson, TX 75081

Entire Report Reviewed By:

Chris McCord
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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MW-28 L1036655-01 GW

Collected by: Pete Van Zandt | Collected date/time: 10/18/18 19:05 | Received date/time: 10/20/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Gravimetric Analysis by Method 2540 C-2011	WG1185272	1	10/25/18 15:37	10/25/18 16:23	AJS
Wet Chemistry by Method 2320 B-2011	WG1186646	1	10/26/18 20:26	10/26/18 20:26	GB
Wet Chemistry by Method 3500Fe B-2011	WG1187292	5	10/27/18 11:45	10/27/18 11:45	MLW
Wet Chemistry by Method 9056A	WG1183881	1	10/20/18 12:50	10/20/18 12:50	MCG
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1186106	1	10/25/18 16:29	10/25/18 16:29	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184096	1	10/20/18 22:44	10/20/18 22:44	TJJ
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1184260	1	10/23/18 01:30	10/23/18 14:29	MTJ
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1186125	1	10/25/18 14:39	10/27/18 08:48	CJR

MW-31 L1036655-02 GW

Collected by: Pete Van Zandt | Collected date/time: 10/18/18 18:25 | Received date/time: 10/20/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Gravimetric Analysis by Method 2540 C-2011	WG1185272	1	10/25/18 15:37	10/25/18 16:23	AJS
Wet Chemistry by Method 2320 B-2011	WG1186646	1	10/26/18 20:33	10/26/18 20:33	GB
Wet Chemistry by Method 3500Fe B-2011	WG1187292	1	10/27/18 11:46	10/27/18 11:46	MLW
Wet Chemistry by Method 9056A	WG1183881	5	10/20/18 15:43	10/20/18 15:43	MCG
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1186106	1	10/25/18 16:53	10/25/18 16:53	BMB
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184096	1	10/20/18 23:04	10/20/18 23:04	TJJ
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1184260	1	10/23/18 01:30	10/23/18 14:46	MTJ
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1186125	1	10/25/18 14:39	10/27/18 09:09	CJR

MW-1R L1036655-03 GW

Collected by: Pete Van Zandt | Collected date/time: 10/18/18 17:45 | Received date/time: 10/20/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Gravimetric Analysis by Method 2540 C-2011	WG1185272	1	10/25/18 15:37	10/25/18 16:23	AJS
Wet Chemistry by Method 2320 B-2011	WG1186646	1	10/26/18 20:40	10/26/18 20:40	GB
Wet Chemistry by Method 3500Fe B-2011	WG1187292	1	10/27/18 11:47	10/27/18 11:47	MLW
Wet Chemistry by Method 9056A	WG1183881	1	10/20/18 13:19	10/20/18 13:19	MCG
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1186515	1	10/25/18 16:30	10/25/18 16:30	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184096	1	10/20/18 23:25	10/20/18 23:25	TJJ
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1184260	1	10/23/18 01:30	10/23/18 15:04	MTJ
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1186125	1	10/25/18 14:39	10/27/18 09:30	CJR

MW-32 L1036655-04 GW

Collected by: Pete Van Zandt | Collected date/time: 10/18/18 16:35 | Received date/time: 10/20/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1186515	1	10/25/18 16:52	10/25/18 16:52	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184096	1	10/20/18 23:45	10/20/18 23:45	TJJ
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1184260	1	10/23/18 01:30	10/23/18 15:21	MTJ
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1186125	1	10/25/18 14:39	10/27/18 09:51	CJR

MW-25 L1036655-05 GW

Collected by: Pete Van Zandt | Collected date/time: 10/18/18 15:25 | Received date/time: 10/20/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1186515	1	10/25/18 17:14	10/25/18 17:14	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184096	1	10/21/18 00:06	10/21/18 00:06	TJJ
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1184260	1	10/23/18 01:30	10/23/18 15:38	MTJ
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1186125	1	10/25/18 14:39	10/27/18 10:12	CJR

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

MW-12 L1036655-06 GW

Collected by: Pete Van Zandt | Collected date/time: 10/18/18 14:30 | Received date/time: 10/20/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1186515	1	10/25/18 17:36	10/25/18 17:36	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184096	1	10/21/18 00:26	10/21/18 00:26	TJJ
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1184260	1	10/23/18 01:30	10/23/18 15:56	MTJ
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1186125	1	10/25/18 14:39	10/27/18 10:33	CJR

MW-13 L1036655-07 GW

Collected by: Pete Van Zandt | Collected date/time: 10/18/18 13:45 | Received date/time: 10/20/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1186515	1	10/25/18 17:58	10/25/18 17:58	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184096	1	10/21/18 00:47	10/21/18 00:47	TJJ
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1184260	1	10/23/18 01:30	10/23/18 16:13	MTJ
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1186125	1	10/25/18 14:39	10/27/18 11:15	CJR

MW-9 L1036655-08 GW

Collected by: Pete Van Zandt | Collected date/time: 10/18/18 12:40 | Received date/time: 10/20/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1186515	1	10/25/18 18:21	10/25/18 18:21	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184096	1	10/21/18 01:07	10/21/18 01:07	TJJ
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1184260	1	10/23/18 01:30	10/23/18 16:31	MTJ
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1186125	1	10/25/18 14:39	10/27/18 11:35	CJR

MW-3 L1036655-09 GW

Collected by: Pete Van Zandt | Collected date/time: 10/18/18 11:50 | Received date/time: 10/20/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1186515	1	10/25/18 18:43	10/25/18 18:43	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184096	1	10/21/18 01:27	10/21/18 01:27	TJJ
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1184260	1	10/23/18 01:30	10/23/18 16:48	MTJ
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1186125	1	10/25/18 14:39	10/27/18 12:17	CJR

MW-2 L1036655-10 GW

Collected by: Pete Van Zandt | Collected date/time: 10/18/18 10:00 | Received date/time: 10/20/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1186515	1	10/25/18 19:05	10/25/18 19:05	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184096	1	10/21/18 01:48	10/21/18 01:48	TJJ
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1184260	1	10/23/18 01:30	10/23/18 17:05	MTJ
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1186125	1	10/25/18 14:39	10/27/18 12:59	CJR

MW-19 L1036655-11 GW

Collected by: Pete Van Zandt | Collected date/time: 10/18/18 09:00 | Received date/time: 10/20/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1186515	1	10/25/18 19:27	10/25/18 19:27	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184096	1	10/21/18 02:08	10/21/18 02:08	TJJ
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1184260	1	10/23/18 01:30	10/23/18 17:23	MTJ
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1186125	1	10/25/18 14:39	10/27/18 13:20	CJR

MW-21 L1036655-12 GW

Collected by: Pete Van Zandt | Collected date/time: 10/18/18 07:45 | Received date/time: 10/20/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1186515	1	10/25/18 19:50	10/25/18 19:50	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184096	1	10/21/18 02:28	10/21/18 02:28	TJJ
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1184260	2	10/23/18 01:30	10/23/18 17:40	MTJ
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1186125	1	10/25/18 14:39	10/27/18 13:42	CJR

MW-8R L1036655-13 GW

Collected by: Pete Van Zandt | Collected date/time: 10/18/18 09:45 | Received date/time: 10/20/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1186515	1	10/25/18 20:12	10/25/18 20:12	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184096	1	10/21/18 02:49	10/21/18 02:49	TJJ
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1186127	1	10/25/18 14:42	10/26/18 07:40	TH
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1186125	1	10/25/18 14:39	10/27/18 14:03	CJR
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1186125	10	10/25/18 14:39	10/29/18 12:42	CJR

MW-30R L1036655-14 GW

Collected by: Pete Van Zandt | Collected date/time: 10/18/18 10:45 | Received date/time: 10/20/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1186515	1	10/25/18 20:34	10/25/18 20:34	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184096	1	10/21/18 03:09	10/21/18 03:09	TJJ
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1186127	1	10/25/18 14:42	10/26/18 07:58	TH
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1186125	1	10/25/18 14:39	10/27/18 14:24	CJR

MW-33 L1036655-15 GW

Collected by: Pete Van Zandt | Collected date/time: 10/18/18 11:25 | Received date/time: 10/20/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1186515	1	10/25/18 20:57	10/25/18 20:57	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184096	1	10/21/18 03:29	10/21/18 03:29	TJJ
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1186127	1	10/25/18 14:42	10/26/18 08:15	TH
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1186125	1	10/25/18 14:39	10/27/18 14:45	CJR
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1186125	10	10/25/18 14:39	10/29/18 13:04	CJR

MW-11 L1036655-16 GW

Collected by: Pete Van Zandt | Collected date/time: 10/18/18 14:00 | Received date/time: 10/20/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1187991	1	10/29/18 16:26	10/29/18 16:26	JAH
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184096	1	10/21/18 03:50	10/21/18 03:50	TJJ
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1186127	10	10/25/18 14:42	10/26/18 12:54	TH
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1186125	2	10/25/18 14:39	10/27/18 15:06	CJR
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1186125	40	10/25/18 14:39	10/29/18 14:12	CJR

MW-14 L1036655-17 GW

Collected by: Pete Van Zandt | Collected date/time: 10/18/18 15:05 | Received date/time: 10/20/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1186690	1	10/26/18 04:12	10/26/18 04:12	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184096	1	10/21/18 04:10	10/21/18 04:10	TJJ
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1186127	1	10/25/18 14:42	10/26/18 08:50	TH

MW-14 L1036655-17 GW

Collected by	Collected date/time	Received date/time
Pete Van Zandt	10/18/18 15:05	10/20/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1186125	1	10/25/18 14:39	10/27/18 15:27	CJR

MW-24 L1036655-18 GW

Collected by	Collected date/time	Received date/time
Pete Van Zandt	10/18/18 16:10	10/20/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1186690	1	10/26/18 04:35	10/26/18 04:35	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184096	1	10/21/18 04:30	10/21/18 04:30	TJJ
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1185262	5	10/23/18 21:27	10/23/18 21:27	TJJ
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1186127	5	10/25/18 14:42	10/26/18 13:12	TH
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1186125	1	10/25/18 14:39	10/27/18 15:48	CJR
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1186125	10	10/25/18 14:39	10/29/18 13:26	CJR

MW-29 L1036655-19 GW

Collected by	Collected date/time	Received date/time
Pete Van Zandt	10/18/18 17:10	10/20/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1186690	1	10/26/18 04:58	10/26/18 04:58	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184096	1	10/21/18 04:51	10/21/18 04:51	TJJ
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1185262	1	10/23/18 21:47	10/23/18 21:47	TJJ
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG1186127	1	10/25/18 14:42	10/26/18 09:25	TH
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1186125	1	10/25/18 14:39	10/27/18 16:09	CJR

TRIP BLANK L1036655-20 GW

Collected by	Collected date/time	Received date/time
Pete Van Zandt	10/19/18 09:45	10/20/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1184096	1	10/20/18 22:24	10/20/18 22:24	TJJ

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

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

Chris McCord
Project Manager

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	284		2.82	10.0	1	10/25/2018 16:23	WG1185272

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity	170		2.71	20.0	1	10/26/2018 20:26	WG1186646

Sample Narrative:

L1036655-01 WG1186646: Endpoint pH 4.5 headspace

Wet Chemistry by Method 3500Fe B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Ferrous Iron	5.90	T8	0.0750	0.250	5	10/27/2018 11:45	WG1187292

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	0.0657	J	0.0227	0.100	1	10/20/2018 12:50	WG1183881
Sulfate	0.731	J	0.0774	5.00	1	10/20/2018 12:50	WG1183881

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0396	J	0.0314	0.100	1	10/25/2018 16:29	WG1186106
(S) a,a,a-Trifluorotoluene(FID)	*104*			*78.0-120*		*10/25/2018 16:29*	WG1186106

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	1.00	1	10/20/2018 22:44	WG1184096
Acrolein	U		0.00887	0.0500	1	10/20/2018 22:44	WG1184096
Acrylonitrile	U		0.00187	0.0100	1	10/20/2018 22:44	WG1184096
Benzene	U		0.000331	0.00100	1	10/20/2018 22:44	WG1184096
Bromobenzene	U		0.000352	0.00100	1	10/20/2018 22:44	WG1184096
Bromodichloromethane	U		0.000380	0.00125	1	10/20/2018 22:44	WG1184096
Bromoform	U		0.000469	0.00100	1	10/20/2018 22:44	WG1184096
Bromomethane	U		0.000866	0.00500	1	10/20/2018 22:44	WG1184096
n-Butylbenzene	U		0.000361	0.00100	1	10/20/2018 22:44	WG1184096
sec-Butylbenzene	0.000665	J	0.000365	0.00100	1	10/20/2018 22:44	WG1184096
tert-Butylbenzene	U		0.000399	0.00100	1	10/20/2018 22:44	WG1184096
Carbon tetrachloride	U		0.000379	0.00100	1	10/20/2018 22:44	WG1184096
Chlorobenzene	U		0.000348	0.00100	1	10/20/2018 22:44	WG1184096
Chlorodibromomethane	U		0.000327	0.00100	1	10/20/2018 22:44	WG1184096
Chloroethane	U		0.000453	0.00500	1	10/20/2018 22:44	WG1184096
Chloroform	U		0.000324	0.00500	1	10/20/2018 22:44	WG1184096
Chloromethane	U		0.000276	0.00250	1	10/20/2018 22:44	WG1184096
2-Chlorotoluene	U		0.000375	0.00100	1	10/20/2018 22:44	WG1184096
4-Chlorotoluene	U		0.000351	0.00100	1	10/20/2018 22:44	WG1184096
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	10/20/2018 22:44	WG1184096
1,2-Dibromoethane	U		0.000381	0.00100	1	10/20/2018 22:44	WG1184096
Dibromomethane	U		0.000346	0.00100	1	10/20/2018 22:44	WG1184096
1,2-Dichlorobenzene	U		0.000349	0.00100	1	10/20/2018 22:44	WG1184096

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,3-Dichlorobenzene	U		0.000220	0.00100	1	10/20/2018 22:44	WG1184096
1,4-Dichlorobenzene	U		0.000274	0.00100	1	10/20/2018 22:44	WG1184096
Dichlorodifluoromethane	U		0.000551	0.00500	1	10/20/2018 22:44	WG1184096
1,1-Dichloroethane	U		0.000259	0.00100	1	10/20/2018 22:44	WG1184096
1,2-Dichloroethane	U		0.000361	0.00100	1	10/20/2018 22:44	WG1184096
1,1-Dichloroethene	U		0.000398	0.00100	1	10/20/2018 22:44	WG1184096
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	10/20/2018 22:44	WG1184096
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	10/20/2018 22:44	WG1184096
1,2-Dichloropropane	U		0.000306	0.00100	1	10/20/2018 22:44	WG1184096
1,1-Dichloropropene	U		0.000352	0.00100	1	10/20/2018 22:44	WG1184096
1,3-Dichloropropane	U		0.000366	0.00100	1	10/20/2018 22:44	WG1184096
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	10/20/2018 22:44	WG1184096
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	10/20/2018 22:44	WG1184096
2,2-Dichloropropane	U		0.000321	0.00100	1	10/20/2018 22:44	WG1184096
Di-isopropyl ether	U		0.000320	0.00100	1	10/20/2018 22:44	WG1184096
Ethylbenzene	U		0.000384	0.00100	1	10/20/2018 22:44	WG1184096
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	10/20/2018 22:44	WG1184096
Isopropylbenzene	U		0.000326	0.00100	1	10/20/2018 22:44	WG1184096
p-Isopropyltoluene	U		0.000350	0.00100	1	10/20/2018 22:44	WG1184096
2-Butanone (MEK)	U		0.00393	0.0100	1	10/20/2018 22:44	WG1184096
Methylene Chloride	U		0.00100	0.00500	1	10/20/2018 22:44	WG1184096
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	10/20/2018 22:44	WG1184096
Methyl tert-butyl ether	U		0.000367	0.00100	1	10/20/2018 22:44	WG1184096
Naphthalene	U		0.00100	0.00500	1	10/20/2018 22:44	WG1184096
n-Propylbenzene	U		0.000349	0.00100	1	10/20/2018 22:44	WG1184096
Styrene	U		0.000307	0.00100	1	10/20/2018 22:44	WG1184096
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	10/20/2018 22:44	WG1184096
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	10/20/2018 22:44	WG1184096
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	10/20/2018 22:44	WG1184096
Tetrachloroethene	U		0.000372	0.00100	1	10/20/2018 22:44	WG1184096
Toluene	U		0.000412	0.00100	1	10/20/2018 22:44	WG1184096
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	10/20/2018 22:44	WG1184096
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	10/20/2018 22:44	WG1184096
1,1,1-Trichloroethane	U		0.000319	0.00100	1	10/20/2018 22:44	WG1184096
1,1,2-Trichloroethane	U		0.000383	0.00100	1	10/20/2018 22:44	WG1184096
Trichloroethene	U		0.000398	0.00100	1	10/20/2018 22:44	WG1184096
Trichlorofluoromethane	U		0.00120	0.00500	1	10/20/2018 22:44	WG1184096
1,2,3-Trichloropropane	U		0.000807	0.00250	1	10/20/2018 22:44	WG1184096
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	10/20/2018 22:44	WG1184096
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	10/20/2018 22:44	WG1184096
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	10/20/2018 22:44	WG1184096
Vinyl chloride	U		0.000259	0.00100	1	10/20/2018 22:44	WG1184096
Xylenes, Total	U		0.00106	0.00300	1	10/20/2018 22:44	WG1184096
(S) Toluene-d8	*109*			*80.0-120*		*10/20/2018 22:44*	WG1184096
(S) Dibromofluoromethane	*93.8*			*75.0-120*		*10/20/2018 22:44*	WG1184096
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*10/20/2018 22:44*	WG1184096

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.720		0.0247	0.100	1	10/23/2018 14:29	WG1184260
(S) o-Terphenyl	*90.0*			*31.0-160*		*10/23/2018 14:29*	WG1184260

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	0.000385		0.0000140	0.0000500	1	10/27/2018 08:48	WG1186125
Acenaphthene	0.00188		0.0000100	0.0000500	1	10/27/2018 08:48	WG1186125
Acenaphthylene	U		0.0000120	0.0000500	1	10/27/2018 08:48	WG1186125
Benzo(a)anthracene	U		0.00000410	0.0000500	1	10/27/2018 08:48	WG1186125
Benzo(a)pyrene	U		0.0000116	0.0000500	1	10/27/2018 08:48	WG1186125
Benzo(b)fluoranthene	U		0.00000212	0.0000500	1	10/27/2018 08:48	WG1186125
Benzo(g,h,i)perylene	U		0.00000227	0.0000500	1	10/27/2018 08:48	WG1186125
Benzo(k)fluoranthene	U		0.0000136	0.0000500	1	10/27/2018 08:48	WG1186125
Chrysene	U		0.0000108	0.0000500	1	10/27/2018 08:48	WG1186125
Dibenz(a,h)anthracene	U		0.00000396	0.0000500	1	10/27/2018 08:48	WG1186125
Dibenzofuran	0.00178		0.00000105	0.0000500	1	10/27/2018 08:48	WG1186125
Fluoranthene	U		0.0000157	0.0000500	1	10/27/2018 08:48	WG1186125
Fluorene	0.00238		0.00000850	0.0000500	1	10/27/2018 08:48	WG1186125
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500	1	10/27/2018 08:48	WG1186125
Naphthalene	U		0.0000198	0.000250	1	10/27/2018 08:48	WG1186125
Phenanthrene	0.00296		0.00000820	0.0000500	1	10/27/2018 08:48	WG1186125
Pyrene	0.0000497	J	0.0000117	0.0000500	1	10/27/2018 08:48	WG1186125
(S) Nitrobenzene-d5	*104*			*31.0-160*		*10/27/2018 08:48*	WG1186125
(S) 2-Fluorobiphenyl	*97.9*			*48.0-148*		*10/27/2018 08:48*	WG1186125
(S) p-Terphenyl-d14	*105*			*37.0-146*		*10/27/2018 08:48*	WG1186125

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	1650		7.05	25.0	1	10/25/2018 16:23	WG1185272

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity	160		2.71	20.0	1	10/26/2018 20:33	WG1186646

Sample Narrative:

L1036655-02 WG1186646: Endpoint pH 4.5 headspace

Wet Chemistry by Method 3500Fe B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Ferrous Iron	U	T8	0.0150	0.0500	1	10/27/2018 11:46	WG1187292

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	11.7		0.114	0.500	5	10/20/2018 15:43	WG1183881
Sulfate	191		0.387	25.0	5	10/20/2018 15:43	WG1183881

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/25/2018 16:53	WG1186106
(S) a,a,a-Trifluorotoluene(FID)	*104*			*78.0-120*		*10/25/2018 16:53*	WG1186106

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	1.00	1	10/20/2018 23:04	WG1184096
Acrolein	U		0.00887	0.0500	1	10/20/2018 23:04	WG1184096
Acrylonitrile	U		0.00187	0.0100	1	10/20/2018 23:04	WG1184096
Benzene	U		0.000331	0.00100	1	10/20/2018 23:04	WG1184096
Bromobenzene	U		0.000352	0.00100	1	10/20/2018 23:04	WG1184096
Bromodichloromethane	U		0.000380	0.00125	1	10/20/2018 23:04	WG1184096
Bromoform	U		0.000469	0.00100	1	10/20/2018 23:04	WG1184096
Bromomethane	U		0.000866	0.00500	1	10/20/2018 23:04	WG1184096
n-Butylbenzene	U		0.000361	0.00100	1	10/20/2018 23:04	WG1184096
sec-Butylbenzene	U		0.000365	0.00100	1	10/20/2018 23:04	WG1184096
tert-Butylbenzene	U		0.000399	0.00100	1	10/20/2018 23:04	WG1184096
Carbon tetrachloride	U		0.000379	0.00100	1	10/20/2018 23:04	WG1184096
Chlorobenzene	U		0.000348	0.00100	1	10/20/2018 23:04	WG1184096
Chlorodibromomethane	U		0.000327	0.00100	1	10/20/2018 23:04	WG1184096
Chloroethane	U		0.000453	0.00500	1	10/20/2018 23:04	WG1184096
Chloroform	U		0.000324	0.00500	1	10/20/2018 23:04	WG1184096
Chloromethane	U		0.000276	0.00250	1	10/20/2018 23:04	WG1184096
2-Chlorotoluene	U		0.000375	0.00100	1	10/20/2018 23:04	WG1184096
4-Chlorotoluene	U		0.000351	0.00100	1	10/20/2018 23:04	WG1184096
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	10/20/2018 23:04	WG1184096
1,2-Dibromoethane	U		0.000381	0.00100	1	10/20/2018 23:04	WG1184096
Dibromomethane	U		0.000346	0.00100	1	10/20/2018 23:04	WG1184096
1,2-Dichlorobenzene	U		0.000349	0.00100	1	10/20/2018 23:04	WG1184096

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,3-Dichlorobenzene	U		0.000220	0.00100	1	10/20/2018 23:04	WG1184096
1,4-Dichlorobenzene	U		0.000274	0.00100	1	10/20/2018 23:04	WG1184096
Dichlorodifluoromethane	U		0.000551	0.00500	1	10/20/2018 23:04	WG1184096
1,1-Dichloroethane	U		0.000259	0.00100	1	10/20/2018 23:04	WG1184096
1,2-Dichloroethane	U		0.000361	0.00100	1	10/20/2018 23:04	WG1184096
1,1-Dichloroethene	U		0.000398	0.00100	1	10/20/2018 23:04	WG1184096
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	10/20/2018 23:04	WG1184096
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	10/20/2018 23:04	WG1184096
1,2-Dichloropropane	U		0.000306	0.00100	1	10/20/2018 23:04	WG1184096
1,1-Dichloropropene	U		0.000352	0.00100	1	10/20/2018 23:04	WG1184096
1,3-Dichloropropane	U		0.000366	0.00100	1	10/20/2018 23:04	WG1184096
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	10/20/2018 23:04	WG1184096
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	10/20/2018 23:04	WG1184096
2,2-Dichloropropane	U		0.000321	0.00100	1	10/20/2018 23:04	WG1184096
Di-isopropyl ether	U		0.000320	0.00100	1	10/20/2018 23:04	WG1184096
Ethylbenzene	U		0.000384	0.00100	1	10/20/2018 23:04	WG1184096
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	10/20/2018 23:04	WG1184096
Isopropylbenzene	U		0.000326	0.00100	1	10/20/2018 23:04	WG1184096
p-Isopropyltoluene	U		0.000350	0.00100	1	10/20/2018 23:04	WG1184096
2-Butanone (MEK)	U		0.00393	0.0100	1	10/20/2018 23:04	WG1184096
Methylene Chloride	U		0.00100	0.00500	1	10/20/2018 23:04	WG1184096
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	10/20/2018 23:04	WG1184096
Methyl tert-butyl ether	U		0.000367	0.00100	1	10/20/2018 23:04	WG1184096
Naphthalene	U		0.00100	0.00500	1	10/20/2018 23:04	WG1184096
n-Propylbenzene	U		0.000349	0.00100	1	10/20/2018 23:04	WG1184096
Styrene	U		0.000307	0.00100	1	10/20/2018 23:04	WG1184096
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	10/20/2018 23:04	WG1184096
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	10/20/2018 23:04	WG1184096
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	10/20/2018 23:04	WG1184096
Tetrachloroethene	U		0.000372	0.00100	1	10/20/2018 23:04	WG1184096
Toluene	U		0.000412	0.00100	1	10/20/2018 23:04	WG1184096
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	10/20/2018 23:04	WG1184096
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	10/20/2018 23:04	WG1184096
1,1,1-Trichloroethane	U		0.000319	0.00100	1	10/20/2018 23:04	WG1184096
1,1,2-Trichloroethane	U		0.000383	0.00100	1	10/20/2018 23:04	WG1184096
Trichloroethene	U		0.000398	0.00100	1	10/20/2018 23:04	WG1184096
Trichlorofluoromethane	U		0.00120	0.00500	1	10/20/2018 23:04	WG1184096
1,2,3-Trichloropropane	U		0.000807	0.00250	1	10/20/2018 23:04	WG1184096
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	10/20/2018 23:04	WG1184096
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	10/20/2018 23:04	WG1184096
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	10/20/2018 23:04	WG1184096
Vinyl chloride	U		0.000259	0.00100	1	10/20/2018 23:04	WG1184096
Xylenes, Total	U		0.00106	0.00300	1	10/20/2018 23:04	WG1184096
(S) Toluene-d8	*108*			*80.0-120*		*10/20/2018 23:04*	WG1184096
(S) Dibromofluoromethane	*93.2*			*75.0-120*		*10/20/2018 23:04*	WG1184096
(S) 4-Bromofluorobenzene	*102*			*77.0-126*		*10/20/2018 23:04*	WG1184096

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.290		0.0247	0.100	1	10/23/2018 14:46	WG1184260
(S) o-Terphenyl	*85.3*			*31.0-160*		*10/23/2018 14:46*	WG1184260

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0000140	0.0000500	1	10/27/2018 09:09	WG1186125
Acenaphthene	U		0.0000100	0.0000500	1	10/27/2018 09:09	WG1186125
Acenaphthylene	U		0.0000120	0.0000500	1	10/27/2018 09:09	WG1186125
Benzo(a)anthracene	U		0.00000410	0.0000500	1	10/27/2018 09:09	WG1186125
Benzo(a)pyrene	U		0.0000116	0.0000500	1	10/27/2018 09:09	WG1186125
Benzo(b)fluoranthene	U		0.00000212	0.0000500	1	10/27/2018 09:09	WG1186125
Benzo(g,h,i)perylene	U		0.00000227	0.0000500	1	10/27/2018 09:09	WG1186125
Benzo(k)fluoranthene	U		0.0000136	0.0000500	1	10/27/2018 09:09	WG1186125
Chrysene	U		0.0000108	0.0000500	1	10/27/2018 09:09	WG1186125
Dibenz(a,h)anthracene	U		0.00000396	0.0000500	1	10/27/2018 09:09	WG1186125
Dibenzofuran	U		0.00000105	0.0000500	1	10/27/2018 09:09	WG1186125
Fluoranthene	U		0.0000157	0.0000500	1	10/27/2018 09:09	WG1186125
Fluorene	U		0.00000850	0.0000500	1	10/27/2018 09:09	WG1186125
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500	1	10/27/2018 09:09	WG1186125
Naphthalene	0.0000620	B J	0.0000198	0.000250	1	10/27/2018 09:09	WG1186125
Phenanthrene	0.0000190	J	0.00000820	0.0000500	1	10/27/2018 09:09	WG1186125
Pyrene	U		0.0000117	0.0000500	1	10/27/2018 09:09	WG1186125
(S) Nitrobenzene-d5	*106*			*31.0-160*		*10/27/2018 09:09*	WG1186125
(S) 2-Fluorobiphenyl	*103*			*48.0-148*		*10/27/2018 09:09*	WG1186125
(S) p-Terphenyl-d14	*94.7*			*37.0-146*		*10/27/2018 09:09*	WG1186125

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	282		2.82	10.0	1	10/25/2018 16:23	WG1185272

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity	151		2.71	20.0	1	10/26/2018 20:40	WG1186646

Sample Narrative:

L1036655-03 WG1186646: Endpoint pH 4.5 headspace

Wet Chemistry by Method 3500Fe B-2011

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Ferrous Iron	U	J6 T8	0.0150	0.0500	1	10/27/2018 11:47	WG1187292

Wet Chemistry by Method 9056A

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Nitrate	0.153		0.0227	0.100	1	10/20/2018 13:19	WG1183881
Sulfate	11.4		0.0774	5.00	1	10/20/2018 13:19	WG1183881

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/25/2018 16:30	WG1186515
(S) a,a,a-Trifluorotoluene(FID)	*98.5*			*78.0-120*		*10/25/2018 16:30*	WG1186515

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	1.00	1	10/20/2018 23:25	WG1184096
Acrolein	U		0.00887	0.0500	1	10/20/2018 23:25	WG1184096
Acrylonitrile	U		0.00187	0.0100	1	10/20/2018 23:25	WG1184096
Benzene	U		0.000331	0.00100	1	10/20/2018 23:25	WG1184096
Bromobenzene	U		0.000352	0.00100	1	10/20/2018 23:25	WG1184096
Bromodichloromethane	U		0.000380	0.00125	1	10/20/2018 23:25	WG1184096
Bromoform	U		0.000469	0.00100	1	10/20/2018 23:25	WG1184096
Bromomethane	U		0.000866	0.00500	1	10/20/2018 23:25	WG1184096
n-Butylbenzene	U		0.000361	0.00100	1	10/20/2018 23:25	WG1184096
sec-Butylbenzene	U		0.000365	0.00100	1	10/20/2018 23:25	WG1184096
tert-Butylbenzene	U		0.000399	0.00100	1	10/20/2018 23:25	WG1184096
Carbon tetrachloride	U		0.000379	0.00100	1	10/20/2018 23:25	WG1184096
Chlorobenzene	U		0.000348	0.00100	1	10/20/2018 23:25	WG1184096
Chlorodibromomethane	U		0.000327	0.00100	1	10/20/2018 23:25	WG1184096
Chloroethane	U		0.000453	0.00500	1	10/20/2018 23:25	WG1184096
Chloroform	U		0.000324	0.00500	1	10/20/2018 23:25	WG1184096
Chloromethane	U		0.000276	0.00250	1	10/20/2018 23:25	WG1184096
2-Chlorotoluene	U		0.000375	0.00100	1	10/20/2018 23:25	WG1184096
4-Chlorotoluene	U		0.000351	0.00100	1	10/20/2018 23:25	WG1184096
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	10/20/2018 23:25	WG1184096
1,2-Dibromoethane	U		0.000381	0.00100	1	10/20/2018 23:25	WG1184096
Dibromomethane	U		0.000346	0.00100	1	10/20/2018 23:25	WG1184096
1,2-Dichlorobenzene	U		0.000349	0.00100	1	10/20/2018 23:25	WG1184096

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,3-Dichlorobenzene	U		0.000220	0.00100	1	10/20/2018 23:25	WG1184096
1,4-Dichlorobenzene	U		0.000274	0.00100	1	10/20/2018 23:25	WG1184096
Dichlorodifluoromethane	U		0.000551	0.00500	1	10/20/2018 23:25	WG1184096
1,1-Dichloroethane	U		0.000259	0.00100	1	10/20/2018 23:25	WG1184096
1,2-Dichloroethane	U		0.000361	0.00100	1	10/20/2018 23:25	WG1184096
1,1-Dichloroethene	U		0.000398	0.00100	1	10/20/2018 23:25	WG1184096
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	10/20/2018 23:25	WG1184096
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	10/20/2018 23:25	WG1184096
1,2-Dichloropropane	U		0.000306	0.00100	1	10/20/2018 23:25	WG1184096
1,1-Dichloropropene	U		0.000352	0.00100	1	10/20/2018 23:25	WG1184096
1,3-Dichloropropane	U		0.000366	0.00100	1	10/20/2018 23:25	WG1184096
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	10/20/2018 23:25	WG1184096
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	10/20/2018 23:25	WG1184096
2,2-Dichloropropane	U		0.000321	0.00100	1	10/20/2018 23:25	WG1184096
Di-isopropyl ether	U		0.000320	0.00100	1	10/20/2018 23:25	WG1184096
Ethylbenzene	U		0.000384	0.00100	1	10/20/2018 23:25	WG1184096
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	10/20/2018 23:25	WG1184096
Isopropylbenzene	U		0.000326	0.00100	1	10/20/2018 23:25	WG1184096
p-Isopropyltoluene	U		0.000350	0.00100	1	10/20/2018 23:25	WG1184096
2-Butanone (MEK)	U		0.00393	0.0100	1	10/20/2018 23:25	WG1184096
Methylene Chloride	U		0.00100	0.00500	1	10/20/2018 23:25	WG1184096
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	10/20/2018 23:25	WG1184096
Methyl tert-butyl ether	U		0.000367	0.00100	1	10/20/2018 23:25	WG1184096
Naphthalene	U		0.00100	0.00500	1	10/20/2018 23:25	WG1184096
n-Propylbenzene	U		0.000349	0.00100	1	10/20/2018 23:25	WG1184096
Styrene	U		0.000307	0.00100	1	10/20/2018 23:25	WG1184096
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	10/20/2018 23:25	WG1184096
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	10/20/2018 23:25	WG1184096
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	10/20/2018 23:25	WG1184096
Tetrachloroethene	U		0.000372	0.00100	1	10/20/2018 23:25	WG1184096
Toluene	U		0.000412	0.00100	1	10/20/2018 23:25	WG1184096
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	10/20/2018 23:25	WG1184096
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	10/20/2018 23:25	WG1184096
1,1,1-Trichloroethane	U		0.000319	0.00100	1	10/20/2018 23:25	WG1184096
1,1,2-Trichloroethane	U		0.000383	0.00100	1	10/20/2018 23:25	WG1184096
Trichloroethene	U		0.000398	0.00100	1	10/20/2018 23:25	WG1184096
Trichlorofluoromethane	U		0.00120	0.00500	1	10/20/2018 23:25	WG1184096
1,2,3-Trichloropropane	U		0.000807	0.00250	1	10/20/2018 23:25	WG1184096
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	10/20/2018 23:25	WG1184096
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	10/20/2018 23:25	WG1184096
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	10/20/2018 23:25	WG1184096
Vinyl chloride	U		0.000259	0.00100	1	10/20/2018 23:25	WG1184096
Xylenes, Total	U		0.00106	0.00300	1	10/20/2018 23:25	WG1184096
(S) Toluene-d8	*106*			*80.0-120*		*10/20/2018 23:25*	WG1184096
(S) Dibromofluoromethane	*94.4*			*75.0-120*		*10/20/2018 23:25*	WG1184096
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*10/20/2018 23:25*	WG1184096

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.0247	0.100	1	10/23/2018 15:04	WG1184260
(S) o-Terphenyl	*88.4*			*31.0-160*		*10/23/2018 15:04*	WG1184260

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0000140	0.0000500	1	10/27/2018 09:30	WG1186125
Acenaphthene	U		0.0000100	0.0000500	1	10/27/2018 09:30	WG1186125
Acenaphthylene	U		0.0000120	0.0000500	1	10/27/2018 09:30	WG1186125
Benzo(a)anthracene	U		0.00000410	0.0000500	1	10/27/2018 09:30	WG1186125
Benzo(a)pyrene	U		0.0000116	0.0000500	1	10/27/2018 09:30	WG1186125
Benzo(b)fluoranthene	U		0.00000212	0.0000500	1	10/27/2018 09:30	WG1186125
Benzo(g,h,i)perylene	U		0.00000227	0.0000500	1	10/27/2018 09:30	WG1186125
Benzo(k)fluoranthene	U		0.0000136	0.0000500	1	10/27/2018 09:30	WG1186125
Chrysene	U		0.0000108	0.0000500	1	10/27/2018 09:30	WG1186125
Dibenz(a,h)anthracene	U		0.00000396	0.0000500	1	10/27/2018 09:30	WG1186125
Dibenzofuran	U		0.00000105	0.0000500	1	10/27/2018 09:30	WG1186125
Fluoranthene	U		0.0000157	0.0000500	1	10/27/2018 09:30	WG1186125
Fluorene	U		0.00000850	0.0000500	1	10/27/2018 09:30	WG1186125
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500	1	10/27/2018 09:30	WG1186125
Naphthalene	0.0000396	B J	0.0000198	0.000250	1	10/27/2018 09:30	WG1186125
Phenanthrene	U		0.00000820	0.0000500	1	10/27/2018 09:30	WG1186125
Pyrene	U		0.0000117	0.0000500	1	10/27/2018 09:30	WG1186125
(S) Nitrobenzene-d5	*95.8*			*31.0-160*		*10/27/2018 09:30*	WG1186125
(S) 2-Fluorobiphenyl	*98.9*			*48.0-148*		*10/27/2018 09:30*	WG1186125
(S) p-Terphenyl-d14	*98.9*			*37.0-146*		*10/27/2018 09:30*	WG1186125

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/25/2018 16:52	WG1186515
(S) a,a,a-Trifluorotoluene(FID)	*98.5*			*78.0-120*		*10/25/2018 16:52*	WG1186515

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	1.00	1	10/20/2018 23:45	WG1184096
Acrolein	U		0.00887	0.0500	1	10/20/2018 23:45	WG1184096
Acrylonitrile	U		0.00187	0.0100	1	10/20/2018 23:45	WG1184096
Benzene	U		0.000331	0.00100	1	10/20/2018 23:45	WG1184096
Bromobenzene	U		0.000352	0.00100	1	10/20/2018 23:45	WG1184096
Bromodichloromethane	U		0.000380	0.00125	1	10/20/2018 23:45	WG1184096
Bromoform	U		0.000469	0.00100	1	10/20/2018 23:45	WG1184096
Bromomethane	U		0.000866	0.00500	1	10/20/2018 23:45	WG1184096
n-Butylbenzene	U		0.000361	0.00100	1	10/20/2018 23:45	WG1184096
sec-Butylbenzene	U		0.000365	0.00100	1	10/20/2018 23:45	WG1184096
tert-Butylbenzene	U		0.000399	0.00100	1	10/20/2018 23:45	WG1184096
Carbon tetrachloride	U		0.000379	0.00100	1	10/20/2018 23:45	WG1184096
Chlorobenzene	U		0.000348	0.00100	1	10/20/2018 23:45	WG1184096
Chlorodibromomethane	U		0.000327	0.00100	1	10/20/2018 23:45	WG1184096
Chloroethane	U		0.000453	0.00500	1	10/20/2018 23:45	WG1184096
Chloroform	U		0.000324	0.00500	1	10/20/2018 23:45	WG1184096
Chloromethane	U		0.000276	0.00250	1	10/20/2018 23:45	WG1184096
2-Chlorotoluene	U		0.000375	0.00100	1	10/20/2018 23:45	WG1184096
4-Chlorotoluene	U		0.000351	0.00100	1	10/20/2018 23:45	WG1184096
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	10/20/2018 23:45	WG1184096
1,2-Dibromoethane	U		0.000381	0.00100	1	10/20/2018 23:45	WG1184096
Dibromomethane	U		0.000346	0.00100	1	10/20/2018 23:45	WG1184096
1,2-Dichlorobenzene	U		0.000349	0.00100	1	10/20/2018 23:45	WG1184096
1,3-Dichlorobenzene	U		0.000220	0.00100	1	10/20/2018 23:45	WG1184096
1,4-Dichlorobenzene	U		0.000274	0.00100	1	10/20/2018 23:45	WG1184096
Dichlorodifluoromethane	U		0.000551	0.00500	1	10/20/2018 23:45	WG1184096
1,1-Dichloroethane	U		0.000259	0.00100	1	10/20/2018 23:45	WG1184096
1,2-Dichloroethane	U		0.000361	0.00100	1	10/20/2018 23:45	WG1184096
1,1-Dichloroethene	U		0.000398	0.00100	1	10/20/2018 23:45	WG1184096
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	10/20/2018 23:45	WG1184096
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	10/20/2018 23:45	WG1184096
1,2-Dichloropropane	U		0.000306	0.00100	1	10/20/2018 23:45	WG1184096
1,1-Dichloropropene	U		0.000352	0.00100	1	10/20/2018 23:45	WG1184096
1,3-Dichloropropane	U		0.000366	0.00100	1	10/20/2018 23:45	WG1184096
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	10/20/2018 23:45	WG1184096
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	10/20/2018 23:45	WG1184096
2,2-Dichloropropane	U		0.000321	0.00100	1	10/20/2018 23:45	WG1184096
Di-isopropyl ether	U		0.000320	0.00100	1	10/20/2018 23:45	WG1184096
Ethylbenzene	U		0.000384	0.00100	1	10/20/2018 23:45	WG1184096
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	10/20/2018 23:45	WG1184096
Isopropylbenzene	U		0.000326	0.00100	1	10/20/2018 23:45	WG1184096
p-Isopropyltoluene	U		0.000350	0.00100	1	10/20/2018 23:45	WG1184096
2-Butanone (MEK)	U		0.00393	0.0100	1	10/20/2018 23:45	WG1184096
Methylene Chloride	U		0.00100	0.00500	1	10/20/2018 23:45	WG1184096
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	10/20/2018 23:45	WG1184096
Methyl tert-butyl ether	U		0.000367	0.00100	1	10/20/2018 23:45	WG1184096
Naphthalene	U		0.00100	0.00500	1	10/20/2018 23:45	WG1184096
n-Propylbenzene	U		0.000349	0.00100	1	10/20/2018 23:45	WG1184096
Styrene	U		0.000307	0.00100	1	10/20/2018 23:45	WG1184096

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	10/20/2018 23:45	WG1184096
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	10/20/2018 23:45	WG1184096
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	10/20/2018 23:45	WG1184096
Tetrachloroethene	U		0.000372	0.00100	1	10/20/2018 23:45	WG1184096
Toluene	U		0.000412	0.00100	1	10/20/2018 23:45	WG1184096
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	10/20/2018 23:45	WG1184096
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	10/20/2018 23:45	WG1184096
1,1,1-Trichloroethane	U		0.000319	0.00100	1	10/20/2018 23:45	WG1184096
1,1,2-Trichloroethane	U		0.000383	0.00100	1	10/20/2018 23:45	WG1184096
Trichloroethene	U		0.000398	0.00100	1	10/20/2018 23:45	WG1184096
Trichlorofluoromethane	U		0.00120	0.00500	1	10/20/2018 23:45	WG1184096
1,2,3-Trichloropropane	U		0.000807	0.00250	1	10/20/2018 23:45	WG1184096
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	10/20/2018 23:45	WG1184096
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	10/20/2018 23:45	WG1184096
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	10/20/2018 23:45	WG1184096
Vinyl chloride	U		0.000259	0.00100	1	10/20/2018 23:45	WG1184096
Xylenes, Total	U		0.00106	0.00300	1	10/20/2018 23:45	WG1184096
(S) Toluene-d8	*109*			*80.0-120*		*10/20/2018 23:45*	WG1184096
(S) Dibromofluoromethane	*94.7*			*75.0-120*		*10/20/2018 23:45*	WG1184096
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*10/20/2018 23:45*	WG1184096

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	1.10		0.0247	0.100	1	10/23/2018 15:21	WG1184260
(S) o-Terphenyl	*89.5*			*31.0-160*		*10/23/2018 15:21*	WG1184260

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0000140	0.0000500	1	10/27/2018 09:51	WG1186125
Acenaphthene	U		0.0000100	0.0000500	1	10/27/2018 09:51	WG1186125
Acenaphthylene	U		0.0000120	0.0000500	1	10/27/2018 09:51	WG1186125
Benzo(a)anthracene	U		0.00000410	0.0000500	1	10/27/2018 09:51	WG1186125
Benzo(a)pyrene	U		0.0000116	0.0000500	1	10/27/2018 09:51	WG1186125
Benzo(b)fluoranthene	U		0.00000212	0.0000500	1	10/27/2018 09:51	WG1186125
Benzo(g,h,i)perylene	U		0.00000227	0.0000500	1	10/27/2018 09:51	WG1186125
Benzo(k)fluoranthene	U		0.0000136	0.0000500	1	10/27/2018 09:51	WG1186125
Chrysene	U		0.0000108	0.0000500	1	10/27/2018 09:51	WG1186125
Dibenz(a,h)anthracene	U		0.00000396	0.0000500	1	10/27/2018 09:51	WG1186125
Dibenzofuran	U		0.00000105	0.0000500	1	10/27/2018 09:51	WG1186125
Fluoranthene	U		0.0000157	0.0000500	1	10/27/2018 09:51	WG1186125
Fluorene	U		0.00000850	0.0000500	1	10/27/2018 09:51	WG1186125
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500	1	10/27/2018 09:51	WG1186125
Naphthalene	0.0000489	B J	0.0000198	0.000250	1	10/27/2018 09:51	WG1186125
Phenanthrene	U		0.00000820	0.0000500	1	10/27/2018 09:51	WG1186125
Pyrene	U		0.0000117	0.0000500	1	10/27/2018 09:51	WG1186125
(S) Nitrobenzene-d5	*101*			*31.0-160*		*10/27/2018 09:51*	WG1186125
(S) 2-Fluorobiphenyl	*103*			*48.0-148*		*10/27/2018 09:51*	WG1186125
(S) p-Terphenyl-d14	*99.5*			*37.0-146*		*10/27/2018 09:51*	WG1186125

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/25/2018 17:14	WG1186515
(S) a,a,a-Trifluorotoluene(FID)	*98.7*			*78.0-120*		*10/25/2018 17:14*	WG1186515

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	1.00	1	10/21/2018 00:06	WG1184096
Acrolein	U		0.00887	0.0500	1	10/21/2018 00:06	WG1184096
Acrylonitrile	U		0.00187	0.0100	1	10/21/2018 00:06	WG1184096
Benzene	U		0.000331	0.00100	1	10/21/2018 00:06	WG1184096
Bromobenzene	U		0.000352	0.00100	1	10/21/2018 00:06	WG1184096
Bromodichloromethane	U		0.000380	0.00125	1	10/21/2018 00:06	WG1184096
Bromoform	U		0.000469	0.00100	1	10/21/2018 00:06	WG1184096
Bromomethane	U		0.000866	0.00500	1	10/21/2018 00:06	WG1184096
n-Butylbenzene	U		0.000361	0.00100	1	10/21/2018 00:06	WG1184096
sec-Butylbenzene	U		0.000365	0.00100	1	10/21/2018 00:06	WG1184096
tert-Butylbenzene	U		0.000399	0.00100	1	10/21/2018 00:06	WG1184096
Carbon tetrachloride	U		0.000379	0.00100	1	10/21/2018 00:06	WG1184096
Chlorobenzene	U		0.000348	0.00100	1	10/21/2018 00:06	WG1184096
Chlorodibromomethane	U		0.000327	0.00100	1	10/21/2018 00:06	WG1184096
Chloroethane	U		0.000453	0.00500	1	10/21/2018 00:06	WG1184096
Chloroform	U		0.000324	0.00500	1	10/21/2018 00:06	WG1184096
Chloromethane	U		0.000276	0.00250	1	10/21/2018 00:06	WG1184096
2-Chlorotoluene	U		0.000375	0.00100	1	10/21/2018 00:06	WG1184096
4-Chlorotoluene	U		0.000351	0.00100	1	10/21/2018 00:06	WG1184096
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	10/21/2018 00:06	WG1184096
1,2-Dibromoethane	U		0.000381	0.00100	1	10/21/2018 00:06	WG1184096
Dibromomethane	U		0.000346	0.00100	1	10/21/2018 00:06	WG1184096
1,2-Dichlorobenzene	U		0.000349	0.00100	1	10/21/2018 00:06	WG1184096
1,3-Dichlorobenzene	U		0.000220	0.00100	1	10/21/2018 00:06	WG1184096
1,4-Dichlorobenzene	U		0.000274	0.00100	1	10/21/2018 00:06	WG1184096
Dichlorodifluoromethane	U		0.000551	0.00500	1	10/21/2018 00:06	WG1184096
1,1-Dichloroethane	U		0.000259	0.00100	1	10/21/2018 00:06	WG1184096
1,2-Dichloroethane	U		0.000361	0.00100	1	10/21/2018 00:06	WG1184096
1,1-Dichloroethene	U		0.000398	0.00100	1	10/21/2018 00:06	WG1184096
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	10/21/2018 00:06	WG1184096
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	10/21/2018 00:06	WG1184096
1,2-Dichloropropane	U		0.000306	0.00100	1	10/21/2018 00:06	WG1184096
1,1-Dichloropropene	U		0.000352	0.00100	1	10/21/2018 00:06	WG1184096
1,3-Dichloropropane	U		0.000366	0.00100	1	10/21/2018 00:06	WG1184096
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	10/21/2018 00:06	WG1184096
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	10/21/2018 00:06	WG1184096
2,2-Dichloropropane	U		0.000321	0.00100	1	10/21/2018 00:06	WG1184096
Di-isopropyl ether	U		0.000320	0.00100	1	10/21/2018 00:06	WG1184096
Ethylbenzene	U		0.000384	0.00100	1	10/21/2018 00:06	WG1184096
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	10/21/2018 00:06	WG1184096
Isopropylbenzene	U		0.000326	0.00100	1	10/21/2018 00:06	WG1184096
p-Isopropyltoluene	U		0.000350	0.00100	1	10/21/2018 00:06	WG1184096
2-Butanone (MEK)	U		0.00393	0.0100	1	10/21/2018 00:06	WG1184096
Methylene Chloride	U		0.00100	0.00500	1	10/21/2018 00:06	WG1184096
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	10/21/2018 00:06	WG1184096
Methyl tert-butyl ether	U		0.000367	0.00100	1	10/21/2018 00:06	WG1184096
Naphthalene	U		0.00100	0.00500	1	10/21/2018 00:06	WG1184096
n-Propylbenzene	U		0.000349	0.00100	1	10/21/2018 00:06	WG1184096
Styrene	U		0.000307	0.00100	1	10/21/2018 00:06	WG1184096

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	10/21/2018 00:06	WG1184096
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	10/21/2018 00:06	WG1184096
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	10/21/2018 00:06	WG1184096
Tetrachloroethene	U		0.000372	0.00100	1	10/21/2018 00:06	WG1184096
Toluene	U		0.000412	0.00100	1	10/21/2018 00:06	WG1184096
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	10/21/2018 00:06	WG1184096
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	10/21/2018 00:06	WG1184096
1,1,1-Trichloroethane	U		0.000319	0.00100	1	10/21/2018 00:06	WG1184096
1,1,2-Trichloroethane	U		0.000383	0.00100	1	10/21/2018 00:06	WG1184096
Trichloroethene	U		0.000398	0.00100	1	10/21/2018 00:06	WG1184096
Trichlorofluoromethane	U		0.00120	0.00500	1	10/21/2018 00:06	WG1184096
1,2,3-Trichloropropane	U		0.000807	0.00250	1	10/21/2018 00:06	WG1184096
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	10/21/2018 00:06	WG1184096
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	10/21/2018 00:06	WG1184096
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	10/21/2018 00:06	WG1184096
Vinyl chloride	U		0.000259	0.00100	1	10/21/2018 00:06	WG1184096
Xylenes, Total	U		0.00106	0.00300	1	10/21/2018 00:06	WG1184096
(S) Toluene-d8	*107*			*80.0-120*		*10/21/2018 00:06*	WG1184096
(S) Dibromofluoromethane	*94.0*			*75.0-120*		*10/21/2018 00:06*	WG1184096
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*10/21/2018 00:06*	WG1184096

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0394	J	0.0247	0.100	1	10/23/2018 15:38	WG1184260
(S) o-Terphenyl	*93.2*			*31.0-160*		*10/23/2018 15:38*	WG1184260

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0000140	0.0000500	1	10/27/2018 10:12	WG1186125
Acenaphthene	U		0.0000100	0.0000500	1	10/27/2018 10:12	WG1186125
Acenaphthylene	U		0.0000120	0.0000500	1	10/27/2018 10:12	WG1186125
Benzo(a)anthracene	U		0.00000410	0.0000500	1	10/27/2018 10:12	WG1186125
Benzo(a)pyrene	U		0.0000116	0.0000500	1	10/27/2018 10:12	WG1186125
Benzo(b)fluoranthene	U		0.00000212	0.0000500	1	10/27/2018 10:12	WG1186125
Benzo(g,h,i)perylene	U		0.00000227	0.0000500	1	10/27/2018 10:12	WG1186125
Benzo(k)fluoranthene	U		0.0000136	0.0000500	1	10/27/2018 10:12	WG1186125
Chrysene	U		0.0000108	0.0000500	1	10/27/2018 10:12	WG1186125
Dibenz(a,h)anthracene	U		0.00000396	0.0000500	1	10/27/2018 10:12	WG1186125
Dibenzofuran	U		0.00000105	0.0000500	1	10/27/2018 10:12	WG1186125
Fluoranthene	U		0.0000157	0.0000500	1	10/27/2018 10:12	WG1186125
Fluorene	U		0.00000850	0.0000500	1	10/27/2018 10:12	WG1186125
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500	1	10/27/2018 10:12	WG1186125
Naphthalene	0.0000474	B J	0.0000198	0.000250	1	10/27/2018 10:12	WG1186125
Phenanthrene	U		0.00000820	0.0000500	1	10/27/2018 10:12	WG1186125
Pyrene	U		0.0000117	0.0000500	1	10/27/2018 10:12	WG1186125
(S) Nitrobenzene-d5	*108*			*31.0-160*		*10/27/2018 10:12*	WG1186125
(S) 2-Fluorobiphenyl	*100*			*48.0-148*		*10/27/2018 10:12*	WG1186125
(S) p-Terphenyl-d14	*103*			*37.0-146*		*10/27/2018 10:12*	WG1186125

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0351	B J	0.0314	0.100	1	10/25/2018 17:36	WG1186515
(S) a,a,a-Trifluorotoluene(FID)	*98.7*			*78.0-120*		*10/25/2018 17:36*	WG1186515

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	1.00	1	10/21/2018 00:26	WG1184096
Acrolein	U		0.00887	0.0500	1	10/21/2018 00:26	WG1184096
Acrylonitrile	U		0.00187	0.0100	1	10/21/2018 00:26	WG1184096
Benzene	U		0.000331	0.00100	1	10/21/2018 00:26	WG1184096
Bromobenzene	U		0.000352	0.00100	1	10/21/2018 00:26	WG1184096
Bromodichloromethane	U		0.000380	0.00125	1	10/21/2018 00:26	WG1184096
Bromoform	U		0.000469	0.00100	1	10/21/2018 00:26	WG1184096
Bromomethane	U		0.000866	0.00500	1	10/21/2018 00:26	WG1184096
n-Butylbenzene	U		0.000361	0.00100	1	10/21/2018 00:26	WG1184096
sec-Butylbenzene	U		0.000365	0.00100	1	10/21/2018 00:26	WG1184096
tert-Butylbenzene	U		0.000399	0.00100	1	10/21/2018 00:26	WG1184096
Carbon tetrachloride	U		0.000379	0.00100	1	10/21/2018 00:26	WG1184096
Chlorobenzene	U		0.000348	0.00100	1	10/21/2018 00:26	WG1184096
Chlorodibromomethane	U		0.000327	0.00100	1	10/21/2018 00:26	WG1184096
Chloroethane	U		0.000453	0.00500	1	10/21/2018 00:26	WG1184096
Chloroform	U		0.000324	0.00500	1	10/21/2018 00:26	WG1184096
Chloromethane	U		0.000276	0.00250	1	10/21/2018 00:26	WG1184096
2-Chlorotoluene	U		0.000375	0.00100	1	10/21/2018 00:26	WG1184096
4-Chlorotoluene	U		0.000351	0.00100	1	10/21/2018 00:26	WG1184096
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	10/21/2018 00:26	WG1184096
1,2-Dibromoethane	U		0.000381	0.00100	1	10/21/2018 00:26	WG1184096
Dibromomethane	U		0.000346	0.00100	1	10/21/2018 00:26	WG1184096
1,2-Dichlorobenzene	U		0.000349	0.00100	1	10/21/2018 00:26	WG1184096
1,3-Dichlorobenzene	U		0.000220	0.00100	1	10/21/2018 00:26	WG1184096
1,4-Dichlorobenzene	U		0.000274	0.00100	1	10/21/2018 00:26	WG1184096
Dichlorodifluoromethane	U		0.000551	0.00500	1	10/21/2018 00:26	WG1184096
1,1-Dichloroethane	U		0.000259	0.00100	1	10/21/2018 00:26	WG1184096
1,2-Dichloroethane	U		0.000361	0.00100	1	10/21/2018 00:26	WG1184096
1,1-Dichloroethene	U		0.000398	0.00100	1	10/21/2018 00:26	WG1184096
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	10/21/2018 00:26	WG1184096
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	10/21/2018 00:26	WG1184096
1,2-Dichloropropane	U		0.000306	0.00100	1	10/21/2018 00:26	WG1184096
1,1-Dichloropropene	U		0.000352	0.00100	1	10/21/2018 00:26	WG1184096
1,3-Dichloropropane	U		0.000366	0.00100	1	10/21/2018 00:26	WG1184096
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	10/21/2018 00:26	WG1184096
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	10/21/2018 00:26	WG1184096
2,2-Dichloropropane	U		0.000321	0.00100	1	10/21/2018 00:26	WG1184096
Di-isopropyl ether	U		0.000320	0.00100	1	10/21/2018 00:26	WG1184096
Ethylbenzene	U		0.000384	0.00100	1	10/21/2018 00:26	WG1184096
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	10/21/2018 00:26	WG1184096
Isopropylbenzene	U		0.000326	0.00100	1	10/21/2018 00:26	WG1184096
p-Isopropyltoluene	U		0.000350	0.00100	1	10/21/2018 00:26	WG1184096
2-Butanone (MEK)	U		0.00393	0.0100	1	10/21/2018 00:26	WG1184096
Methylene Chloride	U		0.00100	0.00500	1	10/21/2018 00:26	WG1184096
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	10/21/2018 00:26	WG1184096
Methyl tert-butyl ether	U		0.000367	0.00100	1	10/21/2018 00:26	WG1184096
Naphthalene	U		0.00100	0.00500	1	10/21/2018 00:26	WG1184096
n-Propylbenzene	U		0.000349	0.00100	1	10/21/2018 00:26	WG1184096
Styrene	U		0.000307	0.00100	1	10/21/2018 00:26	WG1184096

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	10/21/2018 00:26	WG1184096
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	10/21/2018 00:26	WG1184096
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	10/21/2018 00:26	WG1184096
Tetrachloroethene	U		0.000372	0.00100	1	10/21/2018 00:26	WG1184096
Toluene	U		0.000412	0.00100	1	10/21/2018 00:26	WG1184096
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	10/21/2018 00:26	WG1184096
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	10/21/2018 00:26	WG1184096
1,1,1-Trichloroethane	U		0.000319	0.00100	1	10/21/2018 00:26	WG1184096
1,1,2-Trichloroethane	U		0.000383	0.00100	1	10/21/2018 00:26	WG1184096
Trichloroethene	U		0.000398	0.00100	1	10/21/2018 00:26	WG1184096
Trichlorofluoromethane	U		0.00120	0.00500	1	10/21/2018 00:26	WG1184096
1,2,3-Trichloropropane	U		0.000807	0.00250	1	10/21/2018 00:26	WG1184096
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	10/21/2018 00:26	WG1184096
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	10/21/2018 00:26	WG1184096
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	10/21/2018 00:26	WG1184096
Vinyl chloride	U		0.000259	0.00100	1	10/21/2018 00:26	WG1184096
Xylenes, Total	U		0.00106	0.00300	1	10/21/2018 00:26	WG1184096
(S) Toluene-d8	*107*			*80.0-120*		*10/21/2018 00:26*	WG1184096
(S) Dibromofluoromethane	*93.9*			*75.0-120*		*10/21/2018 00:26*	WG1184096
(S) 4-Bromofluorobenzene	*104*			*77.0-126*		*10/21/2018 00:26*	WG1184096

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.0247	0.100	1	10/23/2018 15:56	WG1184260
(S) o-Terphenyl	*90.0*			*31.0-160*		*10/23/2018 15:56*	WG1184260

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0000140	0.0000500	1	10/27/2018 10:33	WG1186125
Acenaphthene	U		0.0000100	0.0000500	1	10/27/2018 10:33	WG1186125
Acenaphthylene	U		0.0000120	0.0000500	1	10/27/2018 10:33	WG1186125
Benzo(a)anthracene	U		0.00000410	0.0000500	1	10/27/2018 10:33	WG1186125
Benzo(a)pyrene	U		0.0000116	0.0000500	1	10/27/2018 10:33	WG1186125
Benzo(b)fluoranthene	U		0.00000212	0.0000500	1	10/27/2018 10:33	WG1186125
Benzo(g,h,i)perylene	U		0.00000227	0.0000500	1	10/27/2018 10:33	WG1186125
Benzo(k)fluoranthene	U		0.0000136	0.0000500	1	10/27/2018 10:33	WG1186125
Chrysene	U		0.0000108	0.0000500	1	10/27/2018 10:33	WG1186125
Dibenz(a,h)anthracene	U		0.00000396	0.0000500	1	10/27/2018 10:33	WG1186125
Dibenzofuran	U		0.00000105	0.0000500	1	10/27/2018 10:33	WG1186125
Fluoranthene	U		0.0000157	0.0000500	1	10/27/2018 10:33	WG1186125
Fluorene	U		0.00000850	0.0000500	1	10/27/2018 10:33	WG1186125
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500	1	10/27/2018 10:33	WG1186125
Naphthalene	0.0000431	B J	0.0000198	0.000250	1	10/27/2018 10:33	WG1186125
Phenanthrene	U		0.00000820	0.0000500	1	10/27/2018 10:33	WG1186125
Pyrene	U		0.0000117	0.0000500	1	10/27/2018 10:33	WG1186125
(S) Nitrobenzene-d5	*95.8*			*31.0-160*		*10/27/2018 10:33*	WG1186125
(S) 2-Fluorobiphenyl	*103*			*48.0-148*		*10/27/2018 10:33*	WG1186125
(S) p-Terphenyl-d14	*103*			*37.0-146*		*10/27/2018 10:33*	WG1186125

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0384	B J	0.0314	0.100	1	10/25/2018 17:58	WG1186515
(S) a,a,a-Trifluorotoluene(FID)	*97.4*			*78.0-120*		*10/25/2018 17:58*	WG1186515

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	1.00	1	10/21/2018 00:47	WG1184096
Acrolein	U		0.00887	0.0500	1	10/21/2018 00:47	WG1184096
Acrylonitrile	U		0.00187	0.0100	1	10/21/2018 00:47	WG1184096
Benzene	U		0.000331	0.00100	1	10/21/2018 00:47	WG1184096
Bromobenzene	U		0.000352	0.00100	1	10/21/2018 00:47	WG1184096
Bromodichloromethane	U		0.000380	0.00125	1	10/21/2018 00:47	WG1184096
Bromoform	U		0.000469	0.00100	1	10/21/2018 00:47	WG1184096
Bromomethane	U		0.000866	0.00500	1	10/21/2018 00:47	WG1184096
n-Butylbenzene	U		0.000361	0.00100	1	10/21/2018 00:47	WG1184096
sec-Butylbenzene	U		0.000365	0.00100	1	10/21/2018 00:47	WG1184096
tert-Butylbenzene	U		0.000399	0.00100	1	10/21/2018 00:47	WG1184096
Carbon tetrachloride	U		0.000379	0.00100	1	10/21/2018 00:47	WG1184096
Chlorobenzene	U		0.000348	0.00100	1	10/21/2018 00:47	WG1184096
Chlorodibromomethane	U		0.000327	0.00100	1	10/21/2018 00:47	WG1184096
Chloroethane	U		0.000453	0.00500	1	10/21/2018 00:47	WG1184096
Chloroform	U		0.000324	0.00500	1	10/21/2018 00:47	WG1184096
Chloromethane	U		0.000276	0.00250	1	10/21/2018 00:47	WG1184096
2-Chlorotoluene	U		0.000375	0.00100	1	10/21/2018 00:47	WG1184096
4-Chlorotoluene	U		0.000351	0.00100	1	10/21/2018 00:47	WG1184096
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	10/21/2018 00:47	WG1184096
1,2-Dibromoethane	U		0.000381	0.00100	1	10/21/2018 00:47	WG1184096
Dibromomethane	U		0.000346	0.00100	1	10/21/2018 00:47	WG1184096
1,2-Dichlorobenzene	U		0.000349	0.00100	1	10/21/2018 00:47	WG1184096
1,3-Dichlorobenzene	U		0.000220	0.00100	1	10/21/2018 00:47	WG1184096
1,4-Dichlorobenzene	U		0.000274	0.00100	1	10/21/2018 00:47	WG1184096
Dichlorodifluoromethane	U		0.000551	0.00500	1	10/21/2018 00:47	WG1184096
1,1-Dichloroethane	U		0.000259	0.00100	1	10/21/2018 00:47	WG1184096
1,2-Dichloroethane	U		0.000361	0.00100	1	10/21/2018 00:47	WG1184096
1,1-Dichloroethene	U		0.000398	0.00100	1	10/21/2018 00:47	WG1184096
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	10/21/2018 00:47	WG1184096
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	10/21/2018 00:47	WG1184096
1,2-Dichloropropane	U		0.000306	0.00100	1	10/21/2018 00:47	WG1184096
1,1-Dichloropropene	U		0.000352	0.00100	1	10/21/2018 00:47	WG1184096
1,3-Dichloropropane	U		0.000366	0.00100	1	10/21/2018 00:47	WG1184096
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	10/21/2018 00:47	WG1184096
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	10/21/2018 00:47	WG1184096
2,2-Dichloropropane	U		0.000321	0.00100	1	10/21/2018 00:47	WG1184096
Di-isopropyl ether	U		0.000320	0.00100	1	10/21/2018 00:47	WG1184096
Ethylbenzene	U		0.000384	0.00100	1	10/21/2018 00:47	WG1184096
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	10/21/2018 00:47	WG1184096
Isopropylbenzene	U		0.000326	0.00100	1	10/21/2018 00:47	WG1184096
p-Isopropyltoluene	U		0.000350	0.00100	1	10/21/2018 00:47	WG1184096
2-Butanone (MEK)	U		0.00393	0.0100	1	10/21/2018 00:47	WG1184096
Methylene Chloride	U		0.00100	0.00500	1	10/21/2018 00:47	WG1184096
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	10/21/2018 00:47	WG1184096
Methyl tert-butyl ether	U		0.000367	0.00100	1	10/21/2018 00:47	WG1184096
Naphthalene	U		0.00100	0.00500	1	10/21/2018 00:47	WG1184096
n-Propylbenzene	U		0.000349	0.00100	1	10/21/2018 00:47	WG1184096
Styrene	U		0.000307	0.00100	1	10/21/2018 00:47	WG1184096

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	10/21/2018 00:47	WG1184096
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	10/21/2018 00:47	WG1184096
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	10/21/2018 00:47	WG1184096
Tetrachloroethene	U		0.000372	0.00100	1	10/21/2018 00:47	WG1184096
Toluene	U		0.000412	0.00100	1	10/21/2018 00:47	WG1184096
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	10/21/2018 00:47	WG1184096
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	10/21/2018 00:47	WG1184096
1,1,1-Trichloroethane	U		0.000319	0.00100	1	10/21/2018 00:47	WG1184096
1,1,2-Trichloroethane	U		0.000383	0.00100	1	10/21/2018 00:47	WG1184096
Trichloroethene	U		0.000398	0.00100	1	10/21/2018 00:47	WG1184096
Trichlorofluoromethane	U		0.00120	0.00500	1	10/21/2018 00:47	WG1184096
1,2,3-Trichloropropane	U		0.000807	0.00250	1	10/21/2018 00:47	WG1184096
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	10/21/2018 00:47	WG1184096
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	10/21/2018 00:47	WG1184096
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	10/21/2018 00:47	WG1184096
Vinyl chloride	U		0.000259	0.00100	1	10/21/2018 00:47	WG1184096
Xylenes, Total	U		0.00106	0.00300	1	10/21/2018 00:47	WG1184096
(S) Toluene-d8	*110*			*80.0-120*		*10/21/2018 00:47*	WG1184096
(S) Dibromofluoromethane	*94.8*			*75.0-120*		*10/21/2018 00:47*	WG1184096
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*10/21/2018 00:47*	WG1184096

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.210		0.0247	0.100	1	10/23/2018 16:13	WG1184260
(S) o-Terphenyl	*88.4*			*31.0-160*		*10/23/2018 16:13*	WG1184260

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	0.000357		0.0000140	0.0000500	1	10/27/2018 11:15	WG1186125
Acenaphthene	0.000324		0.0000100	0.0000500	1	10/27/2018 11:15	WG1186125
Acenaphthylene	U		0.0000120	0.0000500	1	10/27/2018 11:15	WG1186125
Benzo(a)anthracene	U		0.00000410	0.0000500	1	10/27/2018 11:15	WG1186125
Benzo(a)pyrene	U		0.0000116	0.0000500	1	10/27/2018 11:15	WG1186125
Benzo(b)fluoranthene	U		0.00000212	0.0000500	1	10/27/2018 11:15	WG1186125
Benzo(g,h,i)perylene	U		0.00000227	0.0000500	1	10/27/2018 11:15	WG1186125
Benzo(k)fluoranthene	U		0.0000136	0.0000500	1	10/27/2018 11:15	WG1186125
Chrysene	U		0.0000108	0.0000500	1	10/27/2018 11:15	WG1186125
Dibenz(a,h)anthracene	U		0.00000396	0.0000500	1	10/27/2018 11:15	WG1186125
Dibenzofuran	0.000435		0.00000105	0.0000500	1	10/27/2018 11:15	WG1186125
Fluoranthene	U		0.0000157	0.0000500	1	10/27/2018 11:15	WG1186125
Fluorene	0.000799		0.00000850	0.0000500	1	10/27/2018 11:15	WG1186125
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500	1	10/27/2018 11:15	WG1186125
Naphthalene	0.000204	B J	0.0000198	0.000250	1	10/27/2018 11:15	WG1186125
Phenanthrene	0.000190		0.00000820	0.0000500	1	10/27/2018 11:15	WG1186125
Pyrene	0.0000393	J	0.0000117	0.0000500	1	10/27/2018 11:15	WG1186125
(S) Nitrobenzene-d5	*104*			*31.0-160*		*10/27/2018 11:15*	WG1186125
(S) 2-Fluorobiphenyl	*103*			*48.0-148*		*10/27/2018 11:15*	WG1186125
(S) p-Terphenyl-d14	*97.4*			*37.0-146*		*10/27/2018 11:15*	WG1186125

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/25/2018 18:21	WG1186515
(S) a,a,a-Trifluorotoluene(FID)	*98.6*			*78.0-120*		*10/25/2018 18:21*	WG1186515

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	1.00	1	10/21/2018 01:07	WG1184096
Acrolein	U		0.00887	0.0500	1	10/21/2018 01:07	WG1184096
Acrylonitrile	U		0.00187	0.0100	1	10/21/2018 01:07	WG1184096
Benzene	U		0.000331	0.00100	1	10/21/2018 01:07	WG1184096
Bromobenzene	U		0.000352	0.00100	1	10/21/2018 01:07	WG1184096
Bromodichloromethane	U		0.000380	0.00125	1	10/21/2018 01:07	WG1184096
Bromoform	U		0.000469	0.00100	1	10/21/2018 01:07	WG1184096
Bromomethane	U		0.000866	0.00500	1	10/21/2018 01:07	WG1184096
n-Butylbenzene	U		0.000361	0.00100	1	10/21/2018 01:07	WG1184096
sec-Butylbenzene	U		0.000365	0.00100	1	10/21/2018 01:07	WG1184096
tert-Butylbenzene	U		0.000399	0.00100	1	10/21/2018 01:07	WG1184096
Carbon tetrachloride	U		0.000379	0.00100	1	10/21/2018 01:07	WG1184096
Chlorobenzene	U		0.000348	0.00100	1	10/21/2018 01:07	WG1184096
Chlorodibromomethane	U		0.000327	0.00100	1	10/21/2018 01:07	WG1184096
Chloroethane	U		0.000453	0.00500	1	10/21/2018 01:07	WG1184096
Chloroform	U		0.000324	0.00500	1	10/21/2018 01:07	WG1184096
Chloromethane	U		0.000276	0.00250	1	10/21/2018 01:07	WG1184096
2-Chlorotoluene	U		0.000375	0.00100	1	10/21/2018 01:07	WG1184096
4-Chlorotoluene	U		0.000351	0.00100	1	10/21/2018 01:07	WG1184096
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	10/21/2018 01:07	WG1184096
1,2-Dibromoethane	U		0.000381	0.00100	1	10/21/2018 01:07	WG1184096
Dibromomethane	U		0.000346	0.00100	1	10/21/2018 01:07	WG1184096
1,2-Dichlorobenzene	U		0.000349	0.00100	1	10/21/2018 01:07	WG1184096
1,3-Dichlorobenzene	U		0.000220	0.00100	1	10/21/2018 01:07	WG1184096
1,4-Dichlorobenzene	U		0.000274	0.00100	1	10/21/2018 01:07	WG1184096
Dichlorodifluoromethane	U		0.000551	0.00500	1	10/21/2018 01:07	WG1184096
1,1-Dichloroethane	U		0.000259	0.00100	1	10/21/2018 01:07	WG1184096
1,2-Dichloroethane	U		0.000361	0.00100	1	10/21/2018 01:07	WG1184096
1,1-Dichloroethene	U		0.000398	0.00100	1	10/21/2018 01:07	WG1184096
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	10/21/2018 01:07	WG1184096
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	10/21/2018 01:07	WG1184096
1,2-Dichloropropane	U		0.000306	0.00100	1	10/21/2018 01:07	WG1184096
1,1-Dichloropropene	U		0.000352	0.00100	1	10/21/2018 01:07	WG1184096
1,3-Dichloropropane	U		0.000366	0.00100	1	10/21/2018 01:07	WG1184096
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	10/21/2018 01:07	WG1184096
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	10/21/2018 01:07	WG1184096
2,2-Dichloropropane	U		0.000321	0.00100	1	10/21/2018 01:07	WG1184096
Di-isopropyl ether	U		0.000320	0.00100	1	10/21/2018 01:07	WG1184096
Ethylbenzene	U		0.000384	0.00100	1	10/21/2018 01:07	WG1184096
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	10/21/2018 01:07	WG1184096
Isopropylbenzene	U		0.000326	0.00100	1	10/21/2018 01:07	WG1184096
p-Isopropyltoluene	U		0.000350	0.00100	1	10/21/2018 01:07	WG1184096
2-Butanone (MEK)	U		0.00393	0.0100	1	10/21/2018 01:07	WG1184096
Methylene Chloride	U		0.00100	0.00500	1	10/21/2018 01:07	WG1184096
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	10/21/2018 01:07	WG1184096
Methyl tert-butyl ether	U		0.000367	0.00100	1	10/21/2018 01:07	WG1184096
Naphthalene	U		0.00100	0.00500	1	10/21/2018 01:07	WG1184096
n-Propylbenzene	U		0.000349	0.00100	1	10/21/2018 01:07	WG1184096
Styrene	U		0.000307	0.00100	1	10/21/2018 01:07	WG1184096

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	10/21/2018 01:07	WG1184096
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	10/21/2018 01:07	WG1184096
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	10/21/2018 01:07	WG1184096
Tetrachloroethene	U		0.000372	0.00100	1	10/21/2018 01:07	WG1184096
Toluene	U		0.000412	0.00100	1	10/21/2018 01:07	WG1184096
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	10/21/2018 01:07	WG1184096
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	10/21/2018 01:07	WG1184096
1,1,1-Trichloroethane	U		0.000319	0.00100	1	10/21/2018 01:07	WG1184096
1,1,2-Trichloroethane	U		0.000383	0.00100	1	10/21/2018 01:07	WG1184096
Trichloroethene	U		0.000398	0.00100	1	10/21/2018 01:07	WG1184096
Trichlorofluoromethane	U		0.00120	0.00500	1	10/21/2018 01:07	WG1184096
1,2,3-Trichloropropane	U		0.000807	0.00250	1	10/21/2018 01:07	WG1184096
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	10/21/2018 01:07	WG1184096
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	10/21/2018 01:07	WG1184096
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	10/21/2018 01:07	WG1184096
Vinyl chloride	U		0.000259	0.00100	1	10/21/2018 01:07	WG1184096
Xylenes, Total	U		0.00106	0.00300	1	10/21/2018 01:07	WG1184096
(S) Toluene-d8	*106*			*80.0-120*		*10/21/2018 01:07*	WG1184096
(S) Dibromofluoromethane	*95.5*			*75.0-120*		*10/21/2018 01:07*	WG1184096
(S) 4-Bromofluorobenzene	*102*			*77.0-126*		*10/21/2018 01:07*	WG1184096

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	2.06		0.0247	0.100	1	10/23/2018 16:31	WG1184260
(S) o-Terphenyl	*85.8*			*31.0-160*		*10/23/2018 16:31*	WG1184260

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	0.0000368	J	0.0000140	0.0000500	1	10/27/2018 11:35	WG1186125
Acenaphthene	U		0.0000100	0.0000500	1	10/27/2018 11:35	WG1186125
Acenaphthylene	U		0.0000120	0.0000500	1	10/27/2018 11:35	WG1186125
Benzo(a)anthracene	U		0.00000410	0.0000500	1	10/27/2018 11:35	WG1186125
Benzo(a)pyrene	U		0.0000116	0.0000500	1	10/27/2018 11:35	WG1186125
Benzo(b)fluoranthene	U		0.00000212	0.0000500	1	10/27/2018 11:35	WG1186125
Benzo(g,h,i)perylene	U		0.00000227	0.0000500	1	10/27/2018 11:35	WG1186125
Benzo(k)fluoranthene	U		0.0000136	0.0000500	1	10/27/2018 11:35	WG1186125
Chrysene	U		0.0000108	0.0000500	1	10/27/2018 11:35	WG1186125
Dibenz(a,h)anthracene	U		0.00000396	0.0000500	1	10/27/2018 11:35	WG1186125
Dibenzofuran	U		0.00000105	0.0000500	1	10/27/2018 11:35	WG1186125
Fluoranthene	U		0.0000157	0.0000500	1	10/27/2018 11:35	WG1186125
Fluorene	U		0.00000850	0.0000500	1	10/27/2018 11:35	WG1186125
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500	1	10/27/2018 11:35	WG1186125
Naphthalene	0.0000599	B J	0.0000198	0.000250	1	10/27/2018 11:35	WG1186125
Phenanthrene	U		0.00000820	0.0000500	1	10/27/2018 11:35	WG1186125
Pyrene	U		0.0000117	0.0000500	1	10/27/2018 11:35	WG1186125
(S) Nitrobenzene-d5	*109*			*31.0-160*		*10/27/2018 11:35*	WG1186125
(S) 2-Fluorobiphenyl	*104*			*48.0-148*		*10/27/2018 11:35*	WG1186125
(S) p-Terphenyl-d14	*105*			*37.0-146*		*10/27/2018 11:35*	WG1186125

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/25/2018 18:43	WG1186515
(S) a,a,a-Trifluorotoluene(FID)	*98.7*			*78.0-120*		*10/25/2018 18:43*	WG1186515

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	1.00	1	10/21/2018 01:27	WG1184096
Acrolein	U		0.00887	0.0500	1	10/21/2018 01:27	WG1184096
Acrylonitrile	U		0.00187	0.0100	1	10/21/2018 01:27	WG1184096
Benzene	U		0.000331	0.00100	1	10/21/2018 01:27	WG1184096
Bromobenzene	U		0.000352	0.00100	1	10/21/2018 01:27	WG1184096
Bromodichloromethane	U		0.000380	0.00125	1	10/21/2018 01:27	WG1184096
Bromoform	U		0.000469	0.00100	1	10/21/2018 01:27	WG1184096
Bromomethane	U		0.000866	0.00500	1	10/21/2018 01:27	WG1184096
n-Butylbenzene	U		0.000361	0.00100	1	10/21/2018 01:27	WG1184096
sec-Butylbenzene	U		0.000365	0.00100	1	10/21/2018 01:27	WG1184096
tert-Butylbenzene	U		0.000399	0.00100	1	10/21/2018 01:27	WG1184096
Carbon tetrachloride	U		0.000379	0.00100	1	10/21/2018 01:27	WG1184096
Chlorobenzene	U		0.000348	0.00100	1	10/21/2018 01:27	WG1184096
Chlorodibromomethane	U		0.000327	0.00100	1	10/21/2018 01:27	WG1184096
Chloroethane	U		0.000453	0.00500	1	10/21/2018 01:27	WG1184096
Chloroform	U		0.000324	0.00500	1	10/21/2018 01:27	WG1184096
Chloromethane	U		0.000276	0.00250	1	10/21/2018 01:27	WG1184096
2-Chlorotoluene	U		0.000375	0.00100	1	10/21/2018 01:27	WG1184096
4-Chlorotoluene	U		0.000351	0.00100	1	10/21/2018 01:27	WG1184096
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	10/21/2018 01:27	WG1184096
1,2-Dibromoethane	U		0.000381	0.00100	1	10/21/2018 01:27	WG1184096
Dibromomethane	U		0.000346	0.00100	1	10/21/2018 01:27	WG1184096
1,2-Dichlorobenzene	U		0.000349	0.00100	1	10/21/2018 01:27	WG1184096
1,3-Dichlorobenzene	U		0.000220	0.00100	1	10/21/2018 01:27	WG1184096
1,4-Dichlorobenzene	U		0.000274	0.00100	1	10/21/2018 01:27	WG1184096
Dichlorodifluoromethane	U		0.000551	0.00500	1	10/21/2018 01:27	WG1184096
1,1-Dichloroethane	U		0.000259	0.00100	1	10/21/2018 01:27	WG1184096
1,2-Dichloroethane	U		0.000361	0.00100	1	10/21/2018 01:27	WG1184096
1,1-Dichloroethene	U		0.000398	0.00100	1	10/21/2018 01:27	WG1184096
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	10/21/2018 01:27	WG1184096
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	10/21/2018 01:27	WG1184096
1,2-Dichloropropane	U		0.000306	0.00100	1	10/21/2018 01:27	WG1184096
1,1-Dichloropropene	U		0.000352	0.00100	1	10/21/2018 01:27	WG1184096
1,3-Dichloropropane	U		0.000366	0.00100	1	10/21/2018 01:27	WG1184096
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	10/21/2018 01:27	WG1184096
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	10/21/2018 01:27	WG1184096
2,2-Dichloropropane	U		0.000321	0.00100	1	10/21/2018 01:27	WG1184096
Di-isopropyl ether	U		0.000320	0.00100	1	10/21/2018 01:27	WG1184096
Ethylbenzene	U		0.000384	0.00100	1	10/21/2018 01:27	WG1184096
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	10/21/2018 01:27	WG1184096
Isopropylbenzene	U		0.000326	0.00100	1	10/21/2018 01:27	WG1184096
p-Isopropyltoluene	U		0.000350	0.00100	1	10/21/2018 01:27	WG1184096
2-Butanone (MEK)	U		0.00393	0.0100	1	10/21/2018 01:27	WG1184096
Methylene Chloride	U		0.00100	0.00500	1	10/21/2018 01:27	WG1184096
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	10/21/2018 01:27	WG1184096
Methyl tert-butyl ether	U		0.000367	0.00100	1	10/21/2018 01:27	WG1184096
Naphthalene	U		0.00100	0.00500	1	10/21/2018 01:27	WG1184096
n-Propylbenzene	U		0.000349	0.00100	1	10/21/2018 01:27	WG1184096
Styrene	U		0.000307	0.00100	1	10/21/2018 01:27	WG1184096

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	10/21/2018 01:27	WG1184096
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	10/21/2018 01:27	WG1184096
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	10/21/2018 01:27	WG1184096
Tetrachloroethene	U		0.000372	0.00100	1	10/21/2018 01:27	WG1184096
Toluene	U		0.000412	0.00100	1	10/21/2018 01:27	WG1184096
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	10/21/2018 01:27	WG1184096
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	10/21/2018 01:27	WG1184096
1,1,1-Trichloroethane	U		0.000319	0.00100	1	10/21/2018 01:27	WG1184096
1,1,2-Trichloroethane	U		0.000383	0.00100	1	10/21/2018 01:27	WG1184096
Trichloroethene	U		0.000398	0.00100	1	10/21/2018 01:27	WG1184096
Trichlorofluoromethane	U		0.00120	0.00500	1	10/21/2018 01:27	WG1184096
1,2,3-Trichloropropane	U		0.000807	0.00250	1	10/21/2018 01:27	WG1184096
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	10/21/2018 01:27	WG1184096
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	10/21/2018 01:27	WG1184096
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	10/21/2018 01:27	WG1184096
Vinyl chloride	U		0.000259	0.00100	1	10/21/2018 01:27	WG1184096
Xylenes, Total	U		0.00106	0.00300	1	10/21/2018 01:27	WG1184096
(S) Toluene-d8	*108*			*80.0-120*		*10/21/2018 01:27*	WG1184096
(S) Dibromofluoromethane	*96.0*			*75.0-120*		*10/21/2018 01:27*	WG1184096
(S) 4-Bromofluorobenzene	*102*			*77.0-126*		*10/21/2018 01:27*	WG1184096

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.0247	0.100	1	10/23/2018 16:48	WG1184260
(S) o-Terphenyl	*89.5*			*31.0-160*		*10/23/2018 16:48*	WG1184260

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0000140	0.0000500	1	10/27/2018 12:17	WG1186125
Acenaphthene	U		0.0000100	0.0000500	1	10/27/2018 12:17	WG1186125
Acenaphthylene	U		0.0000120	0.0000500	1	10/27/2018 12:17	WG1186125
Benzo(a)anthracene	U		0.00000410	0.0000500	1	10/27/2018 12:17	WG1186125
Benzo(a)pyrene	U		0.0000116	0.0000500	1	10/27/2018 12:17	WG1186125
Benzo(b)fluoranthene	U		0.00000212	0.0000500	1	10/27/2018 12:17	WG1186125
Benzo(g,h,i)perylene	U		0.00000227	0.0000500	1	10/27/2018 12:17	WG1186125
Benzo(k)fluoranthene	U		0.0000136	0.0000500	1	10/27/2018 12:17	WG1186125
Chrysene	U		0.0000108	0.0000500	1	10/27/2018 12:17	WG1186125
Dibenz(a,h)anthracene	U		0.00000396	0.0000500	1	10/27/2018 12:17	WG1186125
Dibenzofuran	U		0.00000105	0.0000500	1	10/27/2018 12:17	WG1186125
Fluoranthene	U		0.0000157	0.0000500	1	10/27/2018 12:17	WG1186125
Fluorene	U		0.00000850	0.0000500	1	10/27/2018 12:17	WG1186125
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500	1	10/27/2018 12:17	WG1186125
Naphthalene	0.0000324	B J	0.0000198	0.000250	1	10/27/2018 12:17	WG1186125
Phenanthrene	U		0.00000820	0.0000500	1	10/27/2018 12:17	WG1186125
Pyrene	U		0.0000117	0.0000500	1	10/27/2018 12:17	WG1186125
(S) Nitrobenzene-d5	*109*			*31.0-160*		*10/27/2018 12:17*	WG1186125
(S) 2-Fluorobiphenyl	*101*			*48.0-148*		*10/27/2018 12:17*	WG1186125
(S) p-Terphenyl-d14	*105*			*37.0-146*		*10/27/2018 12:17*	WG1186125

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0323	B J	0.0314	0.100	1	10/25/2018 19:05	WG1186515
(S) a,a,a-Trifluorotoluene(FID)	*98.8*			*78.0-120*		*10/25/2018 19:05*	WG1186515

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	1.00	1	10/21/2018 01:48	WG1184096
Acrolein	U		0.00887	0.0500	1	10/21/2018 01:48	WG1184096
Acrylonitrile	U		0.00187	0.0100	1	10/21/2018 01:48	WG1184096
Benzene	U		0.000331	0.00100	1	10/21/2018 01:48	WG1184096
Bromobenzene	U		0.000352	0.00100	1	10/21/2018 01:48	WG1184096
Bromodichloromethane	U		0.000380	0.00125	1	10/21/2018 01:48	WG1184096
Bromoform	U		0.000469	0.00100	1	10/21/2018 01:48	WG1184096
Bromomethane	U		0.000866	0.00500	1	10/21/2018 01:48	WG1184096
n-Butylbenzene	U		0.000361	0.00100	1	10/21/2018 01:48	WG1184096
sec-Butylbenzene	U		0.000365	0.00100	1	10/21/2018 01:48	WG1184096
tert-Butylbenzene	U		0.000399	0.00100	1	10/21/2018 01:48	WG1184096
Carbon tetrachloride	U		0.000379	0.00100	1	10/21/2018 01:48	WG1184096
Chlorobenzene	U		0.000348	0.00100	1	10/21/2018 01:48	WG1184096
Chlorodibromomethane	U		0.000327	0.00100	1	10/21/2018 01:48	WG1184096
Chloroethane	U		0.000453	0.00500	1	10/21/2018 01:48	WG1184096
Chloroform	U		0.000324	0.00500	1	10/21/2018 01:48	WG1184096
Chloromethane	U		0.000276	0.00250	1	10/21/2018 01:48	WG1184096
2-Chlorotoluene	U		0.000375	0.00100	1	10/21/2018 01:48	WG1184096
4-Chlorotoluene	U		0.000351	0.00100	1	10/21/2018 01:48	WG1184096
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	10/21/2018 01:48	WG1184096
1,2-Dibromoethane	U		0.000381	0.00100	1	10/21/2018 01:48	WG1184096
Dibromomethane	U		0.000346	0.00100	1	10/21/2018 01:48	WG1184096
1,2-Dichlorobenzene	U		0.000349	0.00100	1	10/21/2018 01:48	WG1184096
1,3-Dichlorobenzene	U		0.000220	0.00100	1	10/21/2018 01:48	WG1184096
1,4-Dichlorobenzene	U		0.000274	0.00100	1	10/21/2018 01:48	WG1184096
Dichlorodifluoromethane	U		0.000551	0.00500	1	10/21/2018 01:48	WG1184096
1,1-Dichloroethane	U		0.000259	0.00100	1	10/21/2018 01:48	WG1184096
1,2-Dichloroethane	U		0.000361	0.00100	1	10/21/2018 01:48	WG1184096
1,1-Dichloroethene	U		0.000398	0.00100	1	10/21/2018 01:48	WG1184096
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	10/21/2018 01:48	WG1184096
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	10/21/2018 01:48	WG1184096
1,2-Dichloropropane	U		0.000306	0.00100	1	10/21/2018 01:48	WG1184096
1,1-Dichloropropene	U		0.000352	0.00100	1	10/21/2018 01:48	WG1184096
1,3-Dichloropropane	U		0.000366	0.00100	1	10/21/2018 01:48	WG1184096
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	10/21/2018 01:48	WG1184096
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	10/21/2018 01:48	WG1184096
2,2-Dichloropropane	U		0.000321	0.00100	1	10/21/2018 01:48	WG1184096
Di-isopropyl ether	U		0.000320	0.00100	1	10/21/2018 01:48	WG1184096
Ethylbenzene	U		0.000384	0.00100	1	10/21/2018 01:48	WG1184096
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	10/21/2018 01:48	WG1184096
Isopropylbenzene	U		0.000326	0.00100	1	10/21/2018 01:48	WG1184096
p-Isopropyltoluene	U		0.000350	0.00100	1	10/21/2018 01:48	WG1184096
2-Butanone (MEK)	U		0.00393	0.0100	1	10/21/2018 01:48	WG1184096
Methylene Chloride	U		0.00100	0.00500	1	10/21/2018 01:48	WG1184096
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	10/21/2018 01:48	WG1184096
Methyl tert-butyl ether	U		0.000367	0.00100	1	10/21/2018 01:48	WG1184096
Naphthalene	U		0.00100	0.00500	1	10/21/2018 01:48	WG1184096
n-Propylbenzene	U		0.000349	0.00100	1	10/21/2018 01:48	WG1184096
Styrene	U		0.000307	0.00100	1	10/21/2018 01:48	WG1184096

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	10/21/2018 01:48	WG1184096
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	10/21/2018 01:48	WG1184096
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	10/21/2018 01:48	WG1184096
Tetrachloroethene	U		0.000372	0.00100	1	10/21/2018 01:48	WG1184096
Toluene	U		0.000412	0.00100	1	10/21/2018 01:48	WG1184096
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	10/21/2018 01:48	WG1184096
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	10/21/2018 01:48	WG1184096
1,1,1-Trichloroethane	U		0.000319	0.00100	1	10/21/2018 01:48	WG1184096
1,1,2-Trichloroethane	U		0.000383	0.00100	1	10/21/2018 01:48	WG1184096
Trichloroethene	U		0.000398	0.00100	1	10/21/2018 01:48	WG1184096
Trichlorofluoromethane	U		0.00120	0.00500	1	10/21/2018 01:48	WG1184096
1,2,3-Trichloropropane	U		0.000807	0.00250	1	10/21/2018 01:48	WG1184096
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	10/21/2018 01:48	WG1184096
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	10/21/2018 01:48	WG1184096
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	10/21/2018 01:48	WG1184096
Vinyl chloride	U		0.000259	0.00100	1	10/21/2018 01:48	WG1184096
Xylenes, Total	U		0.00106	0.00300	1	10/21/2018 01:48	WG1184096
(S) Toluene-d8	*108*			*80.0-120*		*10/21/2018 01:48*	WG1184096
(S) Dibromofluoromethane	*96.4*			*75.0-120*		*10/21/2018 01:48*	WG1184096
(S) 4-Bromofluorobenzene	*103*			*77.0-126*		*10/21/2018 01:48*	WG1184096

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	U		0.0247	0.100	1	10/23/2018 17:05	WG1184260
(S) o-Terphenyl	*86.8*			*31.0-160*		*10/23/2018 17:05*	WG1184260

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0000140	0.0000500	1	10/27/2018 12:59	WG1186125
Acenaphthene	U		0.0000100	0.0000500	1	10/27/2018 12:59	WG1186125
Acenaphthylene	U		0.0000120	0.0000500	1	10/27/2018 12:59	WG1186125
Benzo(a)anthracene	U		0.00000410	0.0000500	1	10/27/2018 12:59	WG1186125
Benzo(a)pyrene	U		0.0000116	0.0000500	1	10/27/2018 12:59	WG1186125
Benzo(b)fluoranthene	U		0.00000212	0.0000500	1	10/27/2018 12:59	WG1186125
Benzo(g,h,i)perylene	U		0.00000227	0.0000500	1	10/27/2018 12:59	WG1186125
Benzo(k)fluoranthene	U		0.0000136	0.0000500	1	10/27/2018 12:59	WG1186125
Chrysene	U		0.0000108	0.0000500	1	10/27/2018 12:59	WG1186125
Dibenz(a,h)anthracene	U		0.00000396	0.0000500	1	10/27/2018 12:59	WG1186125
Dibenzofuran	U		0.00000105	0.0000500	1	10/27/2018 12:59	WG1186125
Fluoranthene	U		0.0000157	0.0000500	1	10/27/2018 12:59	WG1186125
Fluorene	U		0.00000850	0.0000500	1	10/27/2018 12:59	WG1186125
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500	1	10/27/2018 12:59	WG1186125
Naphthalene	0.0000425	B J	0.0000198	0.000250	1	10/27/2018 12:59	WG1186125
Phenanthrene	U		0.00000820	0.0000500	1	10/27/2018 12:59	WG1186125
Pyrene	U		0.0000117	0.0000500	1	10/27/2018 12:59	WG1186125
(S) Nitrobenzene-d5	*108*			*31.0-160*		*10/27/2018 12:59*	WG1186125
(S) 2-Fluorobiphenyl	*102*			*48.0-148*		*10/27/2018 12:59*	WG1186125
(S) p-Terphenyl-d14	*101*			*37.0-146*		*10/27/2018 12:59*	WG1186125

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.627		0.0314	0.100	1	10/25/2018 19:27	WG1186515
(S) a,a,a-Trifluorotoluene(FID)	*99.0*			*78.0-120*		*10/25/2018 19:27*	WG1186515

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	0.0167	J	0.0100	1.00	1	10/21/2018 02:08	WG1184096
Acrolein	U		0.00887	0.0500	1	10/21/2018 02:08	WG1184096
Acrylonitrile	U		0.00187	0.0100	1	10/21/2018 02:08	WG1184096
Benzene	U		0.000331	0.00100	1	10/21/2018 02:08	WG1184096
Bromobenzene	U		0.000352	0.00100	1	10/21/2018 02:08	WG1184096
Bromodichloromethane	U		0.000380	0.00125	1	10/21/2018 02:08	WG1184096
Bromoform	U		0.000469	0.00100	1	10/21/2018 02:08	WG1184096
Bromomethane	U		0.000866	0.00500	1	10/21/2018 02:08	WG1184096
n-Butylbenzene	0.00115		0.000361	0.00100	1	10/21/2018 02:08	WG1184096
sec-Butylbenzene	0.00106		0.000365	0.00100	1	10/21/2018 02:08	WG1184096
tert-Butylbenzene	U		0.000399	0.00100	1	10/21/2018 02:08	WG1184096
Carbon tetrachloride	U		0.000379	0.00100	1	10/21/2018 02:08	WG1184096
Chlorobenzene	U		0.000348	0.00100	1	10/21/2018 02:08	WG1184096
Chlorodibromomethane	U		0.000327	0.00100	1	10/21/2018 02:08	WG1184096
Chloroethane	U		0.000453	0.00500	1	10/21/2018 02:08	WG1184096
Chloroform	U		0.000324	0.00500	1	10/21/2018 02:08	WG1184096
Chloromethane	U		0.000276	0.00250	1	10/21/2018 02:08	WG1184096
2-Chlorotoluene	U		0.000375	0.00100	1	10/21/2018 02:08	WG1184096
4-Chlorotoluene	U		0.000351	0.00100	1	10/21/2018 02:08	WG1184096
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	10/21/2018 02:08	WG1184096
1,2-Dibromoethane	U		0.000381	0.00100	1	10/21/2018 02:08	WG1184096
Dibromomethane	U		0.000346	0.00100	1	10/21/2018 02:08	WG1184096
1,2-Dichlorobenzene	U		0.000349	0.00100	1	10/21/2018 02:08	WG1184096
1,3-Dichlorobenzene	U		0.000220	0.00100	1	10/21/2018 02:08	WG1184096
1,4-Dichlorobenzene	U		0.000274	0.00100	1	10/21/2018 02:08	WG1184096
Dichlorodifluoromethane	U		0.000551	0.00500	1	10/21/2018 02:08	WG1184096
1,1-Dichloroethane	U		0.000259	0.00100	1	10/21/2018 02:08	WG1184096
1,2-Dichloroethane	U		0.000361	0.00100	1	10/21/2018 02:08	WG1184096
1,1-Dichloroethene	U		0.000398	0.00100	1	10/21/2018 02:08	WG1184096
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	10/21/2018 02:08	WG1184096
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	10/21/2018 02:08	WG1184096
1,2-Dichloropropane	U		0.000306	0.00100	1	10/21/2018 02:08	WG1184096
1,1-Dichloropropene	U		0.000352	0.00100	1	10/21/2018 02:08	WG1184096
1,3-Dichloropropane	U		0.000366	0.00100	1	10/21/2018 02:08	WG1184096
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	10/21/2018 02:08	WG1184096
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	10/21/2018 02:08	WG1184096
2,2-Dichloropropane	U		0.000321	0.00100	1	10/21/2018 02:08	WG1184096
Di-isopropyl ether	U		0.000320	0.00100	1	10/21/2018 02:08	WG1184096
Ethylbenzene	U		0.000384	0.00100	1	10/21/2018 02:08	WG1184096
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	10/21/2018 02:08	WG1184096
Isopropylbenzene	U		0.000326	0.00100	1	10/21/2018 02:08	WG1184096
p-Isopropyltoluene	0.000710	J	0.000350	0.00100	1	10/21/2018 02:08	WG1184096
2-Butanone (MEK)	U		0.00393	0.0100	1	10/21/2018 02:08	WG1184096
Methylene Chloride	U		0.00100	0.00500	1	10/21/2018 02:08	WG1184096
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	10/21/2018 02:08	WG1184096
Methyl tert-butyl ether	U		0.000367	0.00100	1	10/21/2018 02:08	WG1184096
Naphthalene	U		0.00100	0.00500	1	10/21/2018 02:08	WG1184096
n-Propylbenzene	0.000368	J	0.000349	0.00100	1	10/21/2018 02:08	WG1184096
Styrene	U		0.000307	0.00100	1	10/21/2018 02:08	WG1184096

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	10/21/2018 02:08	WG1184096
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	10/21/2018 02:08	WG1184096
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	10/21/2018 02:08	WG1184096
Tetrachloroethene	U		0.000372	0.00100	1	10/21/2018 02:08	WG1184096
Toluene	U		0.000412	0.00100	1	10/21/2018 02:08	WG1184096
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	10/21/2018 02:08	WG1184096
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	10/21/2018 02:08	WG1184096
1,1,1-Trichloroethane	U		0.000319	0.00100	1	10/21/2018 02:08	WG1184096
1,1,2-Trichloroethane	U		0.000383	0.00100	1	10/21/2018 02:08	WG1184096
Trichloroethene	U		0.000398	0.00100	1	10/21/2018 02:08	WG1184096
Trichlorofluoromethane	U		0.00120	0.00500	1	10/21/2018 02:08	WG1184096
1,2,3-Trichloropropane	U		0.000807	0.00250	1	10/21/2018 02:08	WG1184096
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	10/21/2018 02:08	WG1184096
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	10/21/2018 02:08	WG1184096
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	10/21/2018 02:08	WG1184096
Vinyl chloride	U		0.000259	0.00100	1	10/21/2018 02:08	WG1184096
Xylenes, Total	U		0.00106	0.00300	1	10/21/2018 02:08	WG1184096
(S) Toluene-d8	*107*			*80.0-120*		*10/21/2018 02:08*	WG1184096
(S) Dibromofluoromethane	*93.3*			*75.0-120*		*10/21/2018 02:08*	WG1184096
(S) 4-Bromofluorobenzene	*104*			*77.0-126*		*10/21/2018 02:08*	WG1184096

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.183		0.0247	0.100	1	10/23/2018 17:23	WG1184260
(S) o-Terphenyl	*85.8*			*31.0-160*		*10/23/2018 17:23*	WG1184260

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0000140	0.0000500	1	10/27/2018 13:20	WG1186125
Acenaphthene	U		0.0000100	0.0000500	1	10/27/2018 13:20	WG1186125
Acenaphthylene	U		0.0000120	0.0000500	1	10/27/2018 13:20	WG1186125
Benzo(a)anthracene	U		0.00000410	0.0000500	1	10/27/2018 13:20	WG1186125
Benzo(a)pyrene	U		0.0000116	0.0000500	1	10/27/2018 13:20	WG1186125
Benzo(b)fluoranthene	U		0.00000212	0.0000500	1	10/27/2018 13:20	WG1186125
Benzo(g,h,i)perylene	U		0.00000227	0.0000500	1	10/27/2018 13:20	WG1186125
Benzo(k)fluoranthene	U		0.0000136	0.0000500	1	10/27/2018 13:20	WG1186125
Chrysene	U		0.0000108	0.0000500	1	10/27/2018 13:20	WG1186125
Dibenz(a,h)anthracene	U		0.00000396	0.0000500	1	10/27/2018 13:20	WG1186125
Dibenzofuran	U		0.00000105	0.0000500	1	10/27/2018 13:20	WG1186125
Fluoranthene	U		0.0000157	0.0000500	1	10/27/2018 13:20	WG1186125
Fluorene	U		0.00000850	0.0000500	1	10/27/2018 13:20	WG1186125
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500	1	10/27/2018 13:20	WG1186125
Naphthalene	U		0.0000198	0.000250	1	10/27/2018 13:20	WG1186125
Phenanthrene	0.0000353	J	0.00000820	0.0000500	1	10/27/2018 13:20	WG1186125
Pyrene	U		0.0000117	0.0000500	1	10/27/2018 13:20	WG1186125
(S) Nitrobenzene-d5	*97.4*			*31.0-160*		*10/27/2018 13:20*	WG1186125
(S) 2-Fluorobiphenyl	*93.7*			*48.0-148*		*10/27/2018 13:20*	WG1186125
(S) p-Terphenyl-d14	*98.9*			*37.0-146*		*10/27/2018 13:20*	WG1186125

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/25/2018 19:50	WG1186515
(S) a,a,a-Trifluorotoluene(FID)	*98.7*			*78.0-120*		*10/25/2018 19:50*	WG1186515

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	1.00	1	10/21/2018 02:28	WG1184096
Acrolein	U		0.00887	0.0500	1	10/21/2018 02:28	WG1184096
Acrylonitrile	U		0.00187	0.0100	1	10/21/2018 02:28	WG1184096
Benzene	U		0.000331	0.00100	1	10/21/2018 02:28	WG1184096
Bromobenzene	U		0.000352	0.00100	1	10/21/2018 02:28	WG1184096
Bromodichloromethane	U		0.000380	0.00125	1	10/21/2018 02:28	WG1184096
Bromoform	U		0.000469	0.00100	1	10/21/2018 02:28	WG1184096
Bromomethane	U		0.000866	0.00500	1	10/21/2018 02:28	WG1184096
n-Butylbenzene	U		0.000361	0.00100	1	10/21/2018 02:28	WG1184096
sec-Butylbenzene	U		0.000365	0.00100	1	10/21/2018 02:28	WG1184096
tert-Butylbenzene	U		0.000399	0.00100	1	10/21/2018 02:28	WG1184096
Carbon tetrachloride	U		0.000379	0.00100	1	10/21/2018 02:28	WG1184096
Chlorobenzene	U		0.000348	0.00100	1	10/21/2018 02:28	WG1184096
Chlorodibromomethane	U		0.000327	0.00100	1	10/21/2018 02:28	WG1184096
Chloroethane	U		0.000453	0.00500	1	10/21/2018 02:28	WG1184096
Chloroform	U		0.000324	0.00500	1	10/21/2018 02:28	WG1184096
Chloromethane	U		0.000276	0.00250	1	10/21/2018 02:28	WG1184096
2-Chlorotoluene	U		0.000375	0.00100	1	10/21/2018 02:28	WG1184096
4-Chlorotoluene	U		0.000351	0.00100	1	10/21/2018 02:28	WG1184096
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	10/21/2018 02:28	WG1184096
1,2-Dibromoethane	U		0.000381	0.00100	1	10/21/2018 02:28	WG1184096
Dibromomethane	U		0.000346	0.00100	1	10/21/2018 02:28	WG1184096
1,2-Dichlorobenzene	U		0.000349	0.00100	1	10/21/2018 02:28	WG1184096
1,3-Dichlorobenzene	U		0.000220	0.00100	1	10/21/2018 02:28	WG1184096
1,4-Dichlorobenzene	U		0.000274	0.00100	1	10/21/2018 02:28	WG1184096
Dichlorodifluoromethane	U		0.000551	0.00500	1	10/21/2018 02:28	WG1184096
1,1-Dichloroethane	U		0.000259	0.00100	1	10/21/2018 02:28	WG1184096
1,2-Dichloroethane	U		0.000361	0.00100	1	10/21/2018 02:28	WG1184096
1,1-Dichloroethene	U		0.000398	0.00100	1	10/21/2018 02:28	WG1184096
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	10/21/2018 02:28	WG1184096
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	10/21/2018 02:28	WG1184096
1,2-Dichloropropane	U		0.000306	0.00100	1	10/21/2018 02:28	WG1184096
1,1-Dichloropropene	U		0.000352	0.00100	1	10/21/2018 02:28	WG1184096
1,3-Dichloropropane	U		0.000366	0.00100	1	10/21/2018 02:28	WG1184096
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	10/21/2018 02:28	WG1184096
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	10/21/2018 02:28	WG1184096
2,2-Dichloropropane	U		0.000321	0.00100	1	10/21/2018 02:28	WG1184096
Di-isopropyl ether	U		0.000320	0.00100	1	10/21/2018 02:28	WG1184096
Ethylbenzene	U		0.000384	0.00100	1	10/21/2018 02:28	WG1184096
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	10/21/2018 02:28	WG1184096
Isopropylbenzene	U		0.000326	0.00100	1	10/21/2018 02:28	WG1184096
p-Isopropyltoluene	U		0.000350	0.00100	1	10/21/2018 02:28	WG1184096
2-Butanone (MEK)	U		0.00393	0.0100	1	10/21/2018 02:28	WG1184096
Methylene Chloride	U		0.00100	0.00500	1	10/21/2018 02:28	WG1184096
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	10/21/2018 02:28	WG1184096
Methyl tert-butyl ether	U		0.000367	0.00100	1	10/21/2018 02:28	WG1184096
Naphthalene	U		0.00100	0.00500	1	10/21/2018 02:28	WG1184096
n-Propylbenzene	U		0.000349	0.00100	1	10/21/2018 02:28	WG1184096
Styrene	U		0.000307	0.00100	1	10/21/2018 02:28	WG1184096

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	10/21/2018 02:28	WG1184096
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	10/21/2018 02:28	WG1184096
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	10/21/2018 02:28	WG1184096
Tetrachloroethene	U		0.000372	0.00100	1	10/21/2018 02:28	WG1184096
Toluene	U		0.000412	0.00100	1	10/21/2018 02:28	WG1184096
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	10/21/2018 02:28	WG1184096
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	10/21/2018 02:28	WG1184096
1,1,1-Trichloroethane	U		0.000319	0.00100	1	10/21/2018 02:28	WG1184096
1,1,2-Trichloroethane	U		0.000383	0.00100	1	10/21/2018 02:28	WG1184096
Trichloroethene	U		0.000398	0.00100	1	10/21/2018 02:28	WG1184096
Trichlorofluoromethane	U		0.00120	0.00500	1	10/21/2018 02:28	WG1184096
1,2,3-Trichloropropane	U		0.000807	0.00250	1	10/21/2018 02:28	WG1184096
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	10/21/2018 02:28	WG1184096
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	10/21/2018 02:28	WG1184096
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	10/21/2018 02:28	WG1184096
Vinyl chloride	U		0.000259	0.00100	1	10/21/2018 02:28	WG1184096
Xylenes, Total	U		0.00106	0.00300	1	10/21/2018 02:28	WG1184096
(S) Toluene-d8	*109*			*80.0-120*		*10/21/2018 02:28*	WG1184096
(S) Dibromofluoromethane	*93.6*			*75.0-120*		*10/21/2018 02:28*	WG1184096
(S) 4-Bromofluorobenzene	*104*			*77.0-126*		*10/21/2018 02:28*	WG1184096

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0740	J	0.0494	0.200	2	10/23/2018 17:40	WG1184260
(S) o-Terphenyl	*76.4*			*31.0-160*		*10/23/2018 17:40*	WG1184260

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0000140	0.0000500	1	10/27/2018 13:42	WG1186125
Acenaphthene	U		0.0000100	0.0000500	1	10/27/2018 13:42	WG1186125
Acenaphthylene	U		0.0000120	0.0000500	1	10/27/2018 13:42	WG1186125
Benzo(a)anthracene	U		0.00000410	0.0000500	1	10/27/2018 13:42	WG1186125
Benzo(a)pyrene	U		0.0000116	0.0000500	1	10/27/2018 13:42	WG1186125
Benzo(b)fluoranthene	U		0.00000212	0.0000500	1	10/27/2018 13:42	WG1186125
Benzo(g,h,i)perylene	U		0.00000227	0.0000500	1	10/27/2018 13:42	WG1186125
Benzo(k)fluoranthene	U		0.0000136	0.0000500	1	10/27/2018 13:42	WG1186125
Chrysene	U		0.0000108	0.0000500	1	10/27/2018 13:42	WG1186125
Dibenz(a,h)anthracene	U		0.00000396	0.0000500	1	10/27/2018 13:42	WG1186125
Dibenzofuran	U		0.00000105	0.0000500	1	10/27/2018 13:42	WG1186125
Fluoranthene	U		0.0000157	0.0000500	1	10/27/2018 13:42	WG1186125
Fluorene	0.0000153	J	0.00000850	0.0000500	1	10/27/2018 13:42	WG1186125
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500	1	10/27/2018 13:42	WG1186125
Naphthalene	0.0000839	B J	0.0000198	0.000250	1	10/27/2018 13:42	WG1186125
Phenanthrene	0.0000344	J	0.00000820	0.0000500	1	10/27/2018 13:42	WG1186125
Pyrene	U		0.0000117	0.0000500	1	10/27/2018 13:42	WG1186125
(S) Nitrobenzene-d5	*108*			*31.0-160*		*10/27/2018 13:42*	WG1186125
(S) 2-Fluorobiphenyl	*94.7*			*48.0-148*		*10/27/2018 13:42*	WG1186125
(S) p-Terphenyl-d14	*94.7*			*37.0-146*		*10/27/2018 13:42*	WG1186125

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.662		0.0314	0.100	1	10/25/2018 20:12	WG1186515
(S) a,a,a-Trifluorotoluene(FID)	*97.8*			*78.0-120*		*10/25/2018 20:12*	WG1186515

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	1.00	1	10/21/2018 02:49	WG1184096
Acrolein	U		0.00887	0.0500	1	10/21/2018 02:49	WG1184096
Acrylonitrile	U		0.00187	0.0100	1	10/21/2018 02:49	WG1184096
Benzene	U		0.000331	0.00100	1	10/21/2018 02:49	WG1184096
Bromobenzene	U		0.000352	0.00100	1	10/21/2018 02:49	WG1184096
Bromodichloromethane	U		0.000380	0.00125	1	10/21/2018 02:49	WG1184096
Bromoform	U		0.000469	0.00100	1	10/21/2018 02:49	WG1184096
Bromomethane	U		0.000866	0.00500	1	10/21/2018 02:49	WG1184096
n-Butylbenzene	0.00672		0.000361	0.00100	1	10/21/2018 02:49	WG1184096
sec-Butylbenzene	0.00448		0.000365	0.00100	1	10/21/2018 02:49	WG1184096
tert-Butylbenzene	0.00194		0.000399	0.00100	1	10/21/2018 02:49	WG1184096
Carbon tetrachloride	U		0.000379	0.00100	1	10/21/2018 02:49	WG1184096
Chlorobenzene	U		0.000348	0.00100	1	10/21/2018 02:49	WG1184096
Chlorodibromomethane	U		0.000327	0.00100	1	10/21/2018 02:49	WG1184096
Chloroethane	U		0.000453	0.00500	1	10/21/2018 02:49	WG1184096
Chloroform	U		0.000324	0.00500	1	10/21/2018 02:49	WG1184096
Chloromethane	U		0.000276	0.00250	1	10/21/2018 02:49	WG1184096
2-Chlorotoluene	U		0.000375	0.00100	1	10/21/2018 02:49	WG1184096
4-Chlorotoluene	U		0.000351	0.00100	1	10/21/2018 02:49	WG1184096
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	10/21/2018 02:49	WG1184096
1,2-Dibromoethane	U		0.000381	0.00100	1	10/21/2018 02:49	WG1184096
Dibromomethane	U		0.000346	0.00100	1	10/21/2018 02:49	WG1184096
1,2-Dichlorobenzene	U		0.000349	0.00100	1	10/21/2018 02:49	WG1184096
1,3-Dichlorobenzene	U		0.000220	0.00100	1	10/21/2018 02:49	WG1184096
1,4-Dichlorobenzene	U		0.000274	0.00100	1	10/21/2018 02:49	WG1184096
Dichlorodifluoromethane	U		0.000551	0.00500	1	10/21/2018 02:49	WG1184096
1,1-Dichloroethane	U		0.000259	0.00100	1	10/21/2018 02:49	WG1184096
1,2-Dichloroethane	U		0.000361	0.00100	1	10/21/2018 02:49	WG1184096
1,1-Dichloroethene	U		0.000398	0.00100	1	10/21/2018 02:49	WG1184096
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	10/21/2018 02:49	WG1184096
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	10/21/2018 02:49	WG1184096
1,2-Dichloropropane	U		0.000306	0.00100	1	10/21/2018 02:49	WG1184096
1,1-Dichloropropene	U		0.000352	0.00100	1	10/21/2018 02:49	WG1184096
1,3-Dichloropropane	U		0.000366	0.00100	1	10/21/2018 02:49	WG1184096
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	10/21/2018 02:49	WG1184096
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	10/21/2018 02:49	WG1184096
2,2-Dichloropropane	U		0.000321	0.00100	1	10/21/2018 02:49	WG1184096
Di-isopropyl ether	U		0.000320	0.00100	1	10/21/2018 02:49	WG1184096
Ethylbenzene	0.0102		0.000384	0.00100	1	10/21/2018 02:49	WG1184096
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	10/21/2018 02:49	WG1184096
Isopropylbenzene	0.00350		0.000326	0.00100	1	10/21/2018 02:49	WG1184096
p-Isopropyltoluene	0.00400		0.000350	0.00100	1	10/21/2018 02:49	WG1184096
2-Butanone (MEK)	U		0.00393	0.0100	1	10/21/2018 02:49	WG1184096
Methylene Chloride	U		0.00100	0.00500	1	10/21/2018 02:49	WG1184096
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	10/21/2018 02:49	WG1184096
Methyl tert-butyl ether	U		0.000367	0.00100	1	10/21/2018 02:49	WG1184096
Naphthalene	0.129		0.00100	0.00500	1	10/21/2018 02:49	WG1184096
n-Propylbenzene	0.0117		0.000349	0.00100	1	10/21/2018 02:49	WG1184096
Styrene	U		0.000307	0.00100	1	10/21/2018 02:49	WG1184096

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	10/21/2018 02:49	WG1184096
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	10/21/2018 02:49	WG1184096
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	10/21/2018 02:49	WG1184096
Tetrachloroethene	U		0.000372	0.00100	1	10/21/2018 02:49	WG1184096
Toluene	0.000416	J	0.000412	0.00100	1	10/21/2018 02:49	WG1184096
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	10/21/2018 02:49	WG1184096
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	10/21/2018 02:49	WG1184096
1,1,1-Trichloroethane	U		0.000319	0.00100	1	10/21/2018 02:49	WG1184096
1,1,2-Trichloroethane	U		0.000383	0.00100	1	10/21/2018 02:49	WG1184096
Trichloroethene	U		0.000398	0.00100	1	10/21/2018 02:49	WG1184096
Trichlorofluoromethane	U		0.00120	0.00500	1	10/21/2018 02:49	WG1184096
1,2,3-Trichloropropane	U		0.000807	0.00250	1	10/21/2018 02:49	WG1184096
1,2,4-Trimethylbenzene	0.174		0.000373	0.00100	1	10/21/2018 02:49	WG1184096
1,2,3-Trimethylbenzene	0.0436		0.000321	0.00100	1	10/21/2018 02:49	WG1184096
1,3,5-Trimethylbenzene	0.0336		0.000387	0.00100	1	10/21/2018 02:49	WG1184096
Vinyl chloride	U		0.000259	0.00100	1	10/21/2018 02:49	WG1184096
Xylenes, Total	0.0336		0.00106	0.00300	1	10/21/2018 02:49	WG1184096
(S) Toluene-d8	*107*			*80.0-120*		*10/21/2018 02:49*	WG1184096
(S) Dibromofluoromethane	*93.5*			*75.0-120*		*10/21/2018 02:49*	WG1184096
(S) 4-Bromofluorobenzene	*98.5*			*77.0-126*		*10/21/2018 02:49*	WG1184096

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	2.46		0.0247	0.100	1	10/26/2018 07:40	WG1186127
(S) o-Terphenyl	*94.7*			*31.0-160*		*10/26/2018 07:40*	WG1186127

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	0.000786		0.0000140	0.0000500	1	10/27/2018 14:03	WG1186125
Acenaphthene	0.00535		0.0000100	0.0000500	1	10/27/2018 14:03	WG1186125
Acenaphthylene	U		0.0000120	0.0000500	1	10/27/2018 14:03	WG1186125
Benzo(a)anthracene	U		0.00000410	0.0000500	1	10/27/2018 14:03	WG1186125
Benzo(a)pyrene	U		0.0000116	0.0000500	1	10/27/2018 14:03	WG1186125
Benzo(b)fluoranthene	U		0.00000212	0.0000500	1	10/27/2018 14:03	WG1186125
Benzo(g,h,i)perylene	U		0.00000227	0.0000500	1	10/27/2018 14:03	WG1186125
Benzo(k)fluoranthene	U		0.0000136	0.0000500	1	10/27/2018 14:03	WG1186125
Chrysene	U		0.0000108	0.0000500	1	10/27/2018 14:03	WG1186125
Dibenz(a,h)anthracene	U		0.00000396	0.0000500	1	10/27/2018 14:03	WG1186125
Dibenzofuran	0.00477		0.00000105	0.0000500	1	10/27/2018 14:03	WG1186125
Fluoranthene	0.0000241	J	0.0000157	0.0000500	1	10/27/2018 14:03	WG1186125
Fluorene	0.00764		0.00000850	0.0000500	1	10/27/2018 14:03	WG1186125
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500	1	10/27/2018 14:03	WG1186125
Naphthalene	0.0932		0.000198	0.00250	10	10/29/2018 12:42	WG1186125
Phenanthrene	0.0143		0.00000820	0.0000500	1	10/27/2018 14:03	WG1186125
Pyrene	0.0000787		0.0000117	0.0000500	1	10/27/2018 14:03	WG1186125
(S) Nitrobenzene-d5	*98.9*			*31.0-160*		*10/27/2018 14:03*	WG1186125
(S) Nitrobenzene-d5	*69.5*			*31.0-160*		*10/29/2018 12:42*	WG1186125
(S) 2-Fluorobiphenyl	*82.6*			*48.0-148*		*10/27/2018 14:03*	WG1186125
(S) 2-Fluorobiphenyl	*101*			*48.0-148*		*10/29/2018 12:42*	WG1186125
(S) p-Terphenyl-d14	*99.5*			*37.0-146*		*10/29/2018 12:42*	WG1186125
(S) p-Terphenyl-d14	*98.9*			*37.0-146*		*10/27/2018 14:03*	WG1186125

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.0338	B J	0.0314	0.100	1	10/25/2018 20:34	WG1186515
(S) a,a,a-Trifluorotoluene(FID)	*99.0*			*78.0-120*		*10/25/2018 20:34*	WG1186515

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	1.00	1	10/21/2018 03:09	WG1184096
Acrolein	U		0.00887	0.0500	1	10/21/2018 03:09	WG1184096
Acrylonitrile	U		0.00187	0.0100	1	10/21/2018 03:09	WG1184096
Benzene	U		0.000331	0.00100	1	10/21/2018 03:09	WG1184096
Bromobenzene	U		0.000352	0.00100	1	10/21/2018 03:09	WG1184096
Bromodichloromethane	U		0.000380	0.00125	1	10/21/2018 03:09	WG1184096
Bromoform	U		0.000469	0.00100	1	10/21/2018 03:09	WG1184096
Bromomethane	U		0.000866	0.00500	1	10/21/2018 03:09	WG1184096
n-Butylbenzene	U		0.000361	0.00100	1	10/21/2018 03:09	WG1184096
sec-Butylbenzene	U		0.000365	0.00100	1	10/21/2018 03:09	WG1184096
tert-Butylbenzene	U		0.000399	0.00100	1	10/21/2018 03:09	WG1184096
Carbon tetrachloride	U		0.000379	0.00100	1	10/21/2018 03:09	WG1184096
Chlorobenzene	U		0.000348	0.00100	1	10/21/2018 03:09	WG1184096
Chlorodibromomethane	U		0.000327	0.00100	1	10/21/2018 03:09	WG1184096
Chloroethane	U		0.000453	0.00500	1	10/21/2018 03:09	WG1184096
Chloroform	U		0.000324	0.00500	1	10/21/2018 03:09	WG1184096
Chloromethane	U		0.000276	0.00250	1	10/21/2018 03:09	WG1184096
2-Chlorotoluene	U		0.000375	0.00100	1	10/21/2018 03:09	WG1184096
4-Chlorotoluene	U		0.000351	0.00100	1	10/21/2018 03:09	WG1184096
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	10/21/2018 03:09	WG1184096
1,2-Dibromoethane	U		0.000381	0.00100	1	10/21/2018 03:09	WG1184096
Dibromomethane	U		0.000346	0.00100	1	10/21/2018 03:09	WG1184096
1,2-Dichlorobenzene	U		0.000349	0.00100	1	10/21/2018 03:09	WG1184096
1,3-Dichlorobenzene	U		0.000220	0.00100	1	10/21/2018 03:09	WG1184096
1,4-Dichlorobenzene	U		0.000274	0.00100	1	10/21/2018 03:09	WG1184096
Dichlorodifluoromethane	U		0.000551	0.00500	1	10/21/2018 03:09	WG1184096
1,1-Dichloroethane	U		0.000259	0.00100	1	10/21/2018 03:09	WG1184096
1,2-Dichloroethane	U		0.000361	0.00100	1	10/21/2018 03:09	WG1184096
1,1-Dichloroethene	U		0.000398	0.00100	1	10/21/2018 03:09	WG1184096
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	10/21/2018 03:09	WG1184096
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	10/21/2018 03:09	WG1184096
1,2-Dichloropropane	U		0.000306	0.00100	1	10/21/2018 03:09	WG1184096
1,1-Dichloropropene	U		0.000352	0.00100	1	10/21/2018 03:09	WG1184096
1,3-Dichloropropane	U		0.000366	0.00100	1	10/21/2018 03:09	WG1184096
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	10/21/2018 03:09	WG1184096
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	10/21/2018 03:09	WG1184096
2,2-Dichloropropane	U		0.000321	0.00100	1	10/21/2018 03:09	WG1184096
Di-isopropyl ether	U		0.000320	0.00100	1	10/21/2018 03:09	WG1184096
Ethylbenzene	U		0.000384	0.00100	1	10/21/2018 03:09	WG1184096
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	10/21/2018 03:09	WG1184096
Isopropylbenzene	U		0.000326	0.00100	1	10/21/2018 03:09	WG1184096
p-Isopropyltoluene	U		0.000350	0.00100	1	10/21/2018 03:09	WG1184096
2-Butanone (MEK)	U		0.00393	0.0100	1	10/21/2018 03:09	WG1184096
Methylene Chloride	U		0.00100	0.00500	1	10/21/2018 03:09	WG1184096
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	10/21/2018 03:09	WG1184096
Methyl tert-butyl ether	U		0.000367	0.00100	1	10/21/2018 03:09	WG1184096
Naphthalene	0.00489	J	0.00100	0.00500	1	10/21/2018 03:09	WG1184096
n-Propylbenzene	U		0.000349	0.00100	1	10/21/2018 03:09	WG1184096
Styrene	U		0.000307	0.00100	1	10/21/2018 03:09	WG1184096

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	10/21/2018 03:09	WG1184096
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	10/21/2018 03:09	WG1184096
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	10/21/2018 03:09	WG1184096
Tetrachloroethene	U		0.000372	0.00100	1	10/21/2018 03:09	WG1184096
Toluene	U		0.000412	0.00100	1	10/21/2018 03:09	WG1184096
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	10/21/2018 03:09	WG1184096
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	10/21/2018 03:09	WG1184096
1,1,1-Trichloroethane	U		0.000319	0.00100	1	10/21/2018 03:09	WG1184096
1,1,2-Trichloroethane	U		0.000383	0.00100	1	10/21/2018 03:09	WG1184096
Trichloroethene	U		0.000398	0.00100	1	10/21/2018 03:09	WG1184096
Trichlorofluoromethane	U		0.00120	0.00500	1	10/21/2018 03:09	WG1184096
1,2,3-Trichloropropane	U		0.000807	0.00250	1	10/21/2018 03:09	WG1184096
1,2,4-Trimethylbenzene	0.00134		0.000373	0.00100	1	10/21/2018 03:09	WG1184096
1,2,3-Trimethylbenzene	0.000392	J	0.000321	0.00100	1	10/21/2018 03:09	WG1184096
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	10/21/2018 03:09	WG1184096
Vinyl chloride	U		0.000259	0.00100	1	10/21/2018 03:09	WG1184096
Xylenes, Total	U		0.00106	0.00300	1	10/21/2018 03:09	WG1184096
(S) Toluene-d8	*109*			*80.0-120*		*10/21/2018 03:09*	WG1184096
(S) Dibromofluoromethane	*94.5*			*75.0-120*		*10/21/2018 03:09*	WG1184096
(S) 4-Bromofluorobenzene	*102*			*77.0-126*		*10/21/2018 03:09*	WG1184096

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0751	J	0.0247	0.100	1	10/26/2018 07:58	WG1186127
(S) o-Terphenyl	*77.4*			*31.0-160*		*10/26/2018 07:58*	WG1186127

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0000140	0.0000500	1	10/27/2018 14:24	WG1186125
Acenaphthene	0.0000148	J	0.0000100	0.0000500	1	10/27/2018 14:24	WG1186125
Acenaphthylene	U		0.0000120	0.0000500	1	10/27/2018 14:24	WG1186125
Benzo(a)anthracene	U		0.00000410	0.0000500	1	10/27/2018 14:24	WG1186125
Benzo(a)pyrene	U		0.0000116	0.0000500	1	10/27/2018 14:24	WG1186125
Benzo(b)fluoranthene	U		0.00000212	0.0000500	1	10/27/2018 14:24	WG1186125
Benzo(g,h,i)perylene	U		0.00000227	0.0000500	1	10/27/2018 14:24	WG1186125
Benzo(k)fluoranthene	U		0.0000136	0.0000500	1	10/27/2018 14:24	WG1186125
Chrysene	U		0.0000108	0.0000500	1	10/27/2018 14:24	WG1186125
Dibenz(a,h)anthracene	U		0.00000396	0.0000500	1	10/27/2018 14:24	WG1186125
Dibenzofuran	0.0000144	J	0.00000105	0.0000500	1	10/27/2018 14:24	WG1186125
Fluoranthene	U		0.0000157	0.0000500	1	10/27/2018 14:24	WG1186125
Fluorene	0.0000216	J	0.00000850	0.0000500	1	10/27/2018 14:24	WG1186125
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500	1	10/27/2018 14:24	WG1186125
Naphthalene	0.0000740	B J	0.0000198	0.000250	1	10/27/2018 14:24	WG1186125
Phenanthrene	0.0000531		0.00000820	0.0000500	1	10/27/2018 14:24	WG1186125
Pyrene	U		0.0000117	0.0000500	1	10/27/2018 14:24	WG1186125
(S) Nitrobenzene-d5	*102*			*31.0-160*		*10/27/2018 14:24*	WG1186125
(S) 2-Fluorobiphenyl	*101*			*48.0-148*		*10/27/2018 14:24*	WG1186125
(S) p-Terphenyl-d14	*100*			*37.0-146*		*10/27/2018 14:24*	WG1186125

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/25/2018 20:57	WG1186515
(S) a,a,a-Trifluorotoluene(FID)	*98.8*			*78.0-120*		*10/25/2018 20:57*	WG1186515

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	1.00	1	10/21/2018 03:29	WG1184096
Acrolein	U		0.00887	0.0500	1	10/21/2018 03:29	WG1184096
Acrylonitrile	U		0.00187	0.0100	1	10/21/2018 03:29	WG1184096
Benzene	U		0.000331	0.00100	1	10/21/2018 03:29	WG1184096
Bromobenzene	U		0.000352	0.00100	1	10/21/2018 03:29	WG1184096
Bromodichloromethane	U		0.000380	0.00125	1	10/21/2018 03:29	WG1184096
Bromoform	U		0.000469	0.00100	1	10/21/2018 03:29	WG1184096
Bromomethane	U		0.000866	0.00500	1	10/21/2018 03:29	WG1184096
n-Butylbenzene	U		0.000361	0.00100	1	10/21/2018 03:29	WG1184096
sec-Butylbenzene	U		0.000365	0.00100	1	10/21/2018 03:29	WG1184096
tert-Butylbenzene	U		0.000399	0.00100	1	10/21/2018 03:29	WG1184096
Carbon tetrachloride	U		0.000379	0.00100	1	10/21/2018 03:29	WG1184096
Chlorobenzene	U		0.000348	0.00100	1	10/21/2018 03:29	WG1184096
Chlorodibromomethane	U		0.000327	0.00100	1	10/21/2018 03:29	WG1184096
Chloroethane	U		0.000453	0.00500	1	10/21/2018 03:29	WG1184096
Chloroform	U		0.000324	0.00500	1	10/21/2018 03:29	WG1184096
Chloromethane	U		0.000276	0.00250	1	10/21/2018 03:29	WG1184096
2-Chlorotoluene	U		0.000375	0.00100	1	10/21/2018 03:29	WG1184096
4-Chlorotoluene	U		0.000351	0.00100	1	10/21/2018 03:29	WG1184096
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	10/21/2018 03:29	WG1184096
1,2-Dibromoethane	U		0.000381	0.00100	1	10/21/2018 03:29	WG1184096
Dibromomethane	U		0.000346	0.00100	1	10/21/2018 03:29	WG1184096
1,2-Dichlorobenzene	U		0.000349	0.00100	1	10/21/2018 03:29	WG1184096
1,3-Dichlorobenzene	U		0.000220	0.00100	1	10/21/2018 03:29	WG1184096
1,4-Dichlorobenzene	U		0.000274	0.00100	1	10/21/2018 03:29	WG1184096
Dichlorodifluoromethane	U		0.000551	0.00500	1	10/21/2018 03:29	WG1184096
1,1-Dichloroethane	U		0.000259	0.00100	1	10/21/2018 03:29	WG1184096
1,2-Dichloroethane	U		0.000361	0.00100	1	10/21/2018 03:29	WG1184096
1,1-Dichloroethene	U		0.000398	0.00100	1	10/21/2018 03:29	WG1184096
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	10/21/2018 03:29	WG1184096
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	10/21/2018 03:29	WG1184096
1,2-Dichloropropane	U		0.000306	0.00100	1	10/21/2018 03:29	WG1184096
1,1-Dichloropropene	U		0.000352	0.00100	1	10/21/2018 03:29	WG1184096
1,3-Dichloropropane	U		0.000366	0.00100	1	10/21/2018 03:29	WG1184096
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	10/21/2018 03:29	WG1184096
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	10/21/2018 03:29	WG1184096
2,2-Dichloropropane	U		0.000321	0.00100	1	10/21/2018 03:29	WG1184096
Di-isopropyl ether	U		0.000320	0.00100	1	10/21/2018 03:29	WG1184096
Ethylbenzene	U		0.000384	0.00100	1	10/21/2018 03:29	WG1184096
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	10/21/2018 03:29	WG1184096
Isopropylbenzene	U		0.000326	0.00100	1	10/21/2018 03:29	WG1184096
p-Isopropyltoluene	U		0.000350	0.00100	1	10/21/2018 03:29	WG1184096
2-Butanone (MEK)	U		0.00393	0.0100	1	10/21/2018 03:29	WG1184096
Methylene Chloride	U		0.00100	0.00500	1	10/21/2018 03:29	WG1184096
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	10/21/2018 03:29	WG1184096
Methyl tert-butyl ether	U		0.000367	0.00100	1	10/21/2018 03:29	WG1184096
Naphthalene	U		0.00100	0.00500	1	10/21/2018 03:29	WG1184096
n-Propylbenzene	U		0.000349	0.00100	1	10/21/2018 03:29	WG1184096
Styrene	U		0.000307	0.00100	1	10/21/2018 03:29	WG1184096

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	10/21/2018 03:29	WG1184096
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	10/21/2018 03:29	WG1184096
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	10/21/2018 03:29	WG1184096
Tetrachloroethene	U		0.000372	0.00100	1	10/21/2018 03:29	WG1184096
Toluene	U		0.000412	0.00100	1	10/21/2018 03:29	WG1184096
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	10/21/2018 03:29	WG1184096
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	10/21/2018 03:29	WG1184096
1,1,1-Trichloroethane	U		0.000319	0.00100	1	10/21/2018 03:29	WG1184096
1,1,2-Trichloroethane	U		0.000383	0.00100	1	10/21/2018 03:29	WG1184096
Trichloroethene	U		0.000398	0.00100	1	10/21/2018 03:29	WG1184096
Trichlorofluoromethane	U		0.00120	0.00500	1	10/21/2018 03:29	WG1184096
1,2,3-Trichloropropane	U		0.000807	0.00250	1	10/21/2018 03:29	WG1184096
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	10/21/2018 03:29	WG1184096
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	10/21/2018 03:29	WG1184096
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	10/21/2018 03:29	WG1184096
Vinyl chloride	U		0.000259	0.00100	1	10/21/2018 03:29	WG1184096
Xylenes, Total	U		0.00106	0.00300	1	10/21/2018 03:29	WG1184096
(S) Toluene-d8	*108*			*80.0-120*		*10/21/2018 03:29*	WG1184096
(S) Dibromofluoromethane	*94.7*			*75.0-120*		*10/21/2018 03:29*	WG1184096
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*10/21/2018 03:29*	WG1184096

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.191		0.0247	0.100	1	10/26/2018 08:15	WG1186127
(S) o-Terphenyl	*83.7*			*31.0-160*		*10/26/2018 08:15*	WG1186127

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0000140	0.0000500	1	10/27/2018 14:45	WG1186125
Acenaphthene	U		0.0000100	0.0000500	1	10/27/2018 14:45	WG1186125
Acenaphthylene	U		0.0000120	0.0000500	1	10/27/2018 14:45	WG1186125
Benzo(a)anthracene	U		0.00000410	0.0000500	1	10/27/2018 14:45	WG1186125
Benzo(a)pyrene	U		0.0000116	0.0000500	1	10/27/2018 14:45	WG1186125
Benzo(b)fluoranthene	U		0.00000212	0.0000500	1	10/27/2018 14:45	WG1186125
Benzo(g,h,i)perylene	U		0.00000227	0.0000500	1	10/27/2018 14:45	WG1186125
Benzo(k)fluoranthene	U		0.0000136	0.0000500	1	10/27/2018 14:45	WG1186125
Chrysene	U		0.0000108	0.0000500	1	10/27/2018 14:45	WG1186125
Dibenz(a,h)anthracene	U		0.00000396	0.0000500	1	10/27/2018 14:45	WG1186125
Dibenzofuran	U		0.00000105	0.0000500	1	10/27/2018 14:45	WG1186125
Fluoranthene	U		0.0000157	0.0000500	1	10/27/2018 14:45	WG1186125
Fluorene	U		0.00000850	0.0000500	1	10/27/2018 14:45	WG1186125
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500	1	10/27/2018 14:45	WG1186125
Naphthalene	0.00133	B J	0.000198	0.00250	10	10/29/2018 13:04	WG1186125
Phenanthrene	U		0.00000820	0.0000500	1	10/27/2018 14:45	WG1186125
Pyrene	U		0.0000117	0.0000500	1	10/27/2018 14:45	WG1186125
(S) Nitrobenzene-d5	*50.0*			*31.0-160*		*10/27/2018 14:45*	WG1186125
(S) Nitrobenzene-d5	*48.1*			*31.0-160*		*10/29/2018 13:04*	WG1186125
(S) 2-Fluorobiphenyl	*97.4*			*48.0-148*		*10/27/2018 14:45*	WG1186125
(S) 2-Fluorobiphenyl	*101*			*48.0-148*		*10/29/2018 13:04*	WG1186125
(S) p-Terphenyl-d14	*86.3*			*37.0-146*		*10/29/2018 13:04*	WG1186125
(S) p-Terphenyl-d14	*92.1*			*37.0-146*		*10/27/2018 14:45*	WG1186125

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	0.206	B	0.0314	0.100	1	10/29/2018 16:26	WG1187991
(S) a,a,a-Trifluorotoluene(FID)	*96.4*			*78.0-120*		*10/29/2018 16:26*	WG1187991

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	1.00	1	10/21/2018 03:50	WG1184096
Acrolein	U		0.00887	0.0500	1	10/21/2018 03:50	WG1184096
Acrylonitrile	U		0.00187	0.0100	1	10/21/2018 03:50	WG1184096
Benzene	U		0.000331	0.00100	1	10/21/2018 03:50	WG1184096
Bromobenzene	U		0.000352	0.00100	1	10/21/2018 03:50	WG1184096
Bromodichloromethane	U		0.000380	0.00125	1	10/21/2018 03:50	WG1184096
Bromoform	U		0.000469	0.00100	1	10/21/2018 03:50	WG1184096
Bromomethane	U		0.000866	0.00500	1	10/21/2018 03:50	WG1184096
n-Butylbenzene	0.00255		0.000361	0.00100	1	10/21/2018 03:50	WG1184096
sec-Butylbenzene	0.00474		0.000365	0.00100	1	10/21/2018 03:50	WG1184096
tert-Butylbenzene	0.00109		0.000399	0.00100	1	10/21/2018 03:50	WG1184096
Carbon tetrachloride	U		0.000379	0.00100	1	10/21/2018 03:50	WG1184096
Chlorobenzene	U		0.000348	0.00100	1	10/21/2018 03:50	WG1184096
Chlorodibromomethane	U		0.000327	0.00100	1	10/21/2018 03:50	WG1184096
Chloroethane	U		0.000453	0.00500	1	10/21/2018 03:50	WG1184096
Chloroform	U		0.000324	0.00500	1	10/21/2018 03:50	WG1184096
Chloromethane	U		0.000276	0.00250	1	10/21/2018 03:50	WG1184096
2-Chlorotoluene	U		0.000375	0.00100	1	10/21/2018 03:50	WG1184096
4-Chlorotoluene	U		0.000351	0.00100	1	10/21/2018 03:50	WG1184096
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	10/21/2018 03:50	WG1184096
1,2-Dibromoethane	U		0.000381	0.00100	1	10/21/2018 03:50	WG1184096
Dibromomethane	U		0.000346	0.00100	1	10/21/2018 03:50	WG1184096
1,2-Dichlorobenzene	U		0.000349	0.00100	1	10/21/2018 03:50	WG1184096
1,3-Dichlorobenzene	U		0.000220	0.00100	1	10/21/2018 03:50	WG1184096
1,4-Dichlorobenzene	U		0.000274	0.00100	1	10/21/2018 03:50	WG1184096
Dichlorodifluoromethane	U		0.000551	0.00500	1	10/21/2018 03:50	WG1184096
1,1-Dichloroethane	U		0.000259	0.00100	1	10/21/2018 03:50	WG1184096
1,2-Dichloroethane	U		0.000361	0.00100	1	10/21/2018 03:50	WG1184096
1,1-Dichloroethene	U		0.000398	0.00100	1	10/21/2018 03:50	WG1184096
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	10/21/2018 03:50	WG1184096
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	10/21/2018 03:50	WG1184096
1,2-Dichloropropane	U		0.000306	0.00100	1	10/21/2018 03:50	WG1184096
1,1-Dichloropropene	U		0.000352	0.00100	1	10/21/2018 03:50	WG1184096
1,3-Dichloropropane	U		0.000366	0.00100	1	10/21/2018 03:50	WG1184096
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	10/21/2018 03:50	WG1184096
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	10/21/2018 03:50	WG1184096
2,2-Dichloropropane	U		0.000321	0.00100	1	10/21/2018 03:50	WG1184096
Di-isopropyl ether	U		0.000320	0.00100	1	10/21/2018 03:50	WG1184096
Ethylbenzene	U		0.000384	0.00100	1	10/21/2018 03:50	WG1184096
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	10/21/2018 03:50	WG1184096
Isopropylbenzene	U		0.000326	0.00100	1	10/21/2018 03:50	WG1184096
p-Isopropyltoluene	U		0.000350	0.00100	1	10/21/2018 03:50	WG1184096
2-Butanone (MEK)	U		0.00393	0.0100	1	10/21/2018 03:50	WG1184096
Methylene Chloride	U		0.00100	0.00500	1	10/21/2018 03:50	WG1184096
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	10/21/2018 03:50	WG1184096
Methyl tert-butyl ether	U		0.000367	0.00100	1	10/21/2018 03:50	WG1184096
Naphthalene	0.00277	J	0.00100	0.00500	1	10/21/2018 03:50	WG1184096
n-Propylbenzene	0.000657	J	0.000349	0.00100	1	10/21/2018 03:50	WG1184096
Styrene	U		0.000307	0.00100	1	10/21/2018 03:50	WG1184096

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	10/21/2018 03:50	WG1184096
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	10/21/2018 03:50	WG1184096
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	10/21/2018 03:50	WG1184096
Tetrachloroethene	U		0.000372	0.00100	1	10/21/2018 03:50	WG1184096
Toluene	U		0.000412	0.00100	1	10/21/2018 03:50	WG1184096
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	10/21/2018 03:50	WG1184096
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	10/21/2018 03:50	WG1184096
1,1,1-Trichloroethane	U		0.000319	0.00100	1	10/21/2018 03:50	WG1184096
1,1,2-Trichloroethane	U		0.000383	0.00100	1	10/21/2018 03:50	WG1184096
Trichloroethene	U		0.000398	0.00100	1	10/21/2018 03:50	WG1184096
Trichlorofluoromethane	U		0.00120	0.00500	1	10/21/2018 03:50	WG1184096
1,2,3-Trichloropropane	U		0.000807	0.00250	1	10/21/2018 03:50	WG1184096
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	10/21/2018 03:50	WG1184096
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	10/21/2018 03:50	WG1184096
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	10/21/2018 03:50	WG1184096
Vinyl chloride	U		0.000259	0.00100	1	10/21/2018 03:50	WG1184096
Xylenes, Total	U		0.00106	0.00300	1	10/21/2018 03:50	WG1184096
(S) Toluene-d8	*107*			*80.0-120*		*10/21/2018 03:50*	WG1184096
(S) Dibromofluoromethane	*93.4*			*75.0-120*		*10/21/2018 03:50*	WG1184096
(S) 4-Bromofluorobenzene	*104*			*77.0-126*		*10/21/2018 03:50*	WG1184096

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	86.5		0.247	1.00	10	10/26/2018 12:54	WG1186127
(S) o-Terphenyl	*3.18*	J2		*31.0-160*		*10/26/2018 12:54*	WG1186127

Sample Narrative:

L1036655-16 WG1186127: Surrogate failure due to matrix interference

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	0.0241		0.0000280	0.000100	2	10/27/2018 15:06	WG1186125
Acenaphthene	0.0225		0.000400	0.00200	40	10/29/2018 14:12	WG1186125
Acenaphthylene	U		0.000480	0.00200	40	10/29/2018 14:12	WG1186125
Benzo(a)anthracene	0.0000500	J	0.00000820	0.000100	2	10/27/2018 15:06	WG1186125
Benzo(a)pyrene	U		0.0000232	0.000100	2	10/27/2018 15:06	WG1186125
Benzo(b)fluoranthene	U		0.00000424	0.000100	2	10/27/2018 15:06	WG1186125
Benzo(g,h,i)perylene	U		0.00000454	0.000100	2	10/27/2018 15:06	WG1186125
Benzo(k)fluoranthene	U		0.0000272	0.000100	2	10/27/2018 15:06	WG1186125
Chrysene	0.000149		0.0000216	0.000100	2	10/27/2018 15:06	WG1186125
Dibenz(a,h)anthracene	U		0.00000792	0.000100	2	10/27/2018 15:06	WG1186125
Dibenzofuran	0.0113		0.0000420	0.00200	40	10/29/2018 14:12	WG1186125
Fluoranthene	0.000416		0.0000314	0.000100	2	10/27/2018 15:06	WG1186125
Fluorene	0.0292		0.000340	0.00200	40	10/29/2018 14:12	WG1186125
Indeno(1,2,3-cd)pyrene	U		0.0000296	0.000100	2	10/27/2018 15:06	WG1186125
Naphthalene	0.0188		0.000792	0.0100	40	10/29/2018 14:12	WG1186125
Phenanthrene	0.0783		0.0000164	0.000100	2	10/27/2018 15:06	WG1186125
Pyrene	0.00636		0.0000234	0.000100	2	10/27/2018 15:06	WG1186125
(S) Nitrobenzene-d5	*942*	J1		*31.0-160*		*10/27/2018 15:06*	WG1186125
(S) Nitrobenzene-d5	*9.16*	J7		*31.0-160*		*10/29/2018 14:12*	WG1186125
(S) 2-Fluorobiphenyl	*209*	J1		*48.0-148*		*10/27/2018 15:06*	WG1186125
(S) 2-Fluorobiphenyl	*60.5*	J7		*48.0-148*		*10/29/2018 14:12*	WG1186125
(S) p-Terphenyl-d14	*44.7*	J7		*37.0-146*		*10/29/2018 14:12*	WG1186125

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
(S) p-Terphenyl-d14	*40.7*			*37.0-146*		*10/27/2018 15:06*	WG1186125

Sample Narrative:

L1036655-16 WG1186125: Dilution due to matrix impact during extraction procedure

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/26/2018 04:12	WG1186690
(S) a,a,a-Trifluorotoluene(FID)	*101*			*78.0-120*		*10/26/2018 04:12*	WG1186690

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	1.00	1	10/21/2018 04:10	WG1184096
Acrolein	U		0.00887	0.0500	1	10/21/2018 04:10	WG1184096
Acrylonitrile	U		0.00187	0.0100	1	10/21/2018 04:10	WG1184096
Benzene	U		0.000331	0.00100	1	10/21/2018 04:10	WG1184096
Bromobenzene	U		0.000352	0.00100	1	10/21/2018 04:10	WG1184096
Bromodichloromethane	U		0.000380	0.00125	1	10/21/2018 04:10	WG1184096
Bromoform	U		0.000469	0.00100	1	10/21/2018 04:10	WG1184096
Bromomethane	U		0.000866	0.00500	1	10/21/2018 04:10	WG1184096
n-Butylbenzene	U		0.000361	0.00100	1	10/21/2018 04:10	WG1184096
sec-Butylbenzene	U		0.000365	0.00100	1	10/21/2018 04:10	WG1184096
tert-Butylbenzene	U		0.000399	0.00100	1	10/21/2018 04:10	WG1184096
Carbon tetrachloride	U		0.000379	0.00100	1	10/21/2018 04:10	WG1184096
Chlorobenzene	U		0.000348	0.00100	1	10/21/2018 04:10	WG1184096
Chlorodibromomethane	U		0.000327	0.00100	1	10/21/2018 04:10	WG1184096
Chloroethane	U		0.000453	0.00500	1	10/21/2018 04:10	WG1184096
Chloroform	U		0.000324	0.00500	1	10/21/2018 04:10	WG1184096
Chloromethane	U		0.000276	0.00250	1	10/21/2018 04:10	WG1184096
2-Chlorotoluene	U		0.000375	0.00100	1	10/21/2018 04:10	WG1184096
4-Chlorotoluene	U		0.000351	0.00100	1	10/21/2018 04:10	WG1184096
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	10/21/2018 04:10	WG1184096
1,2-Dibromoethane	U		0.000381	0.00100	1	10/21/2018 04:10	WG1184096
Dibromomethane	U		0.000346	0.00100	1	10/21/2018 04:10	WG1184096
1,2-Dichlorobenzene	U		0.000349	0.00100	1	10/21/2018 04:10	WG1184096
1,3-Dichlorobenzene	U		0.000220	0.00100	1	10/21/2018 04:10	WG1184096
1,4-Dichlorobenzene	U		0.000274	0.00100	1	10/21/2018 04:10	WG1184096
Dichlorodifluoromethane	U		0.000551	0.00500	1	10/21/2018 04:10	WG1184096
1,1-Dichloroethane	U		0.000259	0.00100	1	10/21/2018 04:10	WG1184096
1,2-Dichloroethane	U		0.000361	0.00100	1	10/21/2018 04:10	WG1184096
1,1-Dichloroethene	U		0.000398	0.00100	1	10/21/2018 04:10	WG1184096
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	10/21/2018 04:10	WG1184096
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	10/21/2018 04:10	WG1184096
1,2-Dichloropropane	U		0.000306	0.00100	1	10/21/2018 04:10	WG1184096
1,1-Dichloropropene	U		0.000352	0.00100	1	10/21/2018 04:10	WG1184096
1,3-Dichloropropane	U		0.000366	0.00100	1	10/21/2018 04:10	WG1184096
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	10/21/2018 04:10	WG1184096
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	10/21/2018 04:10	WG1184096
2,2-Dichloropropane	U		0.000321	0.00100	1	10/21/2018 04:10	WG1184096
Di-isopropyl ether	U		0.000320	0.00100	1	10/21/2018 04:10	WG1184096
Ethylbenzene	U		0.000384	0.00100	1	10/21/2018 04:10	WG1184096
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	10/21/2018 04:10	WG1184096
Isopropylbenzene	U		0.000326	0.00100	1	10/21/2018 04:10	WG1184096
p-Isopropyltoluene	U		0.000350	0.00100	1	10/21/2018 04:10	WG1184096
2-Butanone (MEK)	U		0.00393	0.0100	1	10/21/2018 04:10	WG1184096
Methylene Chloride	U		0.00100	0.00500	1	10/21/2018 04:10	WG1184096
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	10/21/2018 04:10	WG1184096
Methyl tert-butyl ether	U		0.000367	0.00100	1	10/21/2018 04:10	WG1184096
Naphthalene	U		0.00100	0.00500	1	10/21/2018 04:10	WG1184096
n-Propylbenzene	U		0.000349	0.00100	1	10/21/2018 04:10	WG1184096
Styrene	U		0.000307	0.00100	1	10/21/2018 04:10	WG1184096

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	10/21/2018 04:10	WG1184096
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	10/21/2018 04:10	WG1184096
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	10/21/2018 04:10	WG1184096
Tetrachloroethene	U		0.000372	0.00100	1	10/21/2018 04:10	WG1184096
Toluene	U		0.000412	0.00100	1	10/21/2018 04:10	WG1184096
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	10/21/2018 04:10	WG1184096
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	10/21/2018 04:10	WG1184096
1,1,1-Trichloroethane	U		0.000319	0.00100	1	10/21/2018 04:10	WG1184096
1,1,2-Trichloroethane	U		0.000383	0.00100	1	10/21/2018 04:10	WG1184096
Trichloroethene	U		0.000398	0.00100	1	10/21/2018 04:10	WG1184096
Trichlorofluoromethane	U		0.00120	0.00500	1	10/21/2018 04:10	WG1184096
1,2,3-Trichloropropane	U		0.000807	0.00250	1	10/21/2018 04:10	WG1184096
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	10/21/2018 04:10	WG1184096
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	10/21/2018 04:10	WG1184096
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	10/21/2018 04:10	WG1184096
Vinyl chloride	U		0.000259	0.00100	1	10/21/2018 04:10	WG1184096
Xylenes, Total	U		0.00106	0.00300	1	10/21/2018 04:10	WG1184096
(S) Toluene-d8	*109*			*80.0-120*		*10/21/2018 04:10*	WG1184096
(S) Dibromofluoromethane	*92.1*			*75.0-120*		*10/21/2018 04:10*	WG1184096
(S) 4-Bromofluorobenzene	*99.5*			*77.0-126*		*10/21/2018 04:10*	WG1184096

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.0331	J	0.0247	0.100	1	10/26/2018 08:50	WG1186127
(S) o-Terphenyl	*86.8*			*31.0-160*		*10/26/2018 08:50*	WG1186127

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0000140	0.0000500	1	10/27/2018 15:27	WG1186125
Acenaphthene	U		0.0000100	0.0000500	1	10/27/2018 15:27	WG1186125
Acenaphthylene	U		0.0000120	0.0000500	1	10/27/2018 15:27	WG1186125
Benzo(a)anthracene	U		0.00000410	0.0000500	1	10/27/2018 15:27	WG1186125
Benzo(a)pyrene	U		0.0000116	0.0000500	1	10/27/2018 15:27	WG1186125
Benzo(b)fluoranthene	U		0.00000212	0.0000500	1	10/27/2018 15:27	WG1186125
Benzo(g,h,i)perylene	U		0.00000227	0.0000500	1	10/27/2018 15:27	WG1186125
Benzo(k)fluoranthene	U		0.0000136	0.0000500	1	10/27/2018 15:27	WG1186125
Chrysene	U		0.0000108	0.0000500	1	10/27/2018 15:27	WG1186125
Dibenz(a,h)anthracene	U		0.00000396	0.0000500	1	10/27/2018 15:27	WG1186125
Dibenzofuran	U		0.00000105	0.0000500	1	10/27/2018 15:27	WG1186125
Fluoranthene	U		0.0000157	0.0000500	1	10/27/2018 15:27	WG1186125
Fluorene	U		0.00000850	0.0000500	1	10/27/2018 15:27	WG1186125
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500	1	10/27/2018 15:27	WG1186125
Naphthalene	0.0000527	B J	0.0000198	0.000250	1	10/27/2018 15:27	WG1186125
Phenanthrene	U		0.00000820	0.0000500	1	10/27/2018 15:27	WG1186125
Pyrene	U		0.0000117	0.0000500	1	10/27/2018 15:27	WG1186125
(S) Nitrobenzene-d5	*107*			*31.0-160*		*10/27/2018 15:27*	WG1186125
(S) 2-Fluorobiphenyl	*96.8*			*48.0-148*		*10/27/2018 15:27*	WG1186125
(S) p-Terphenyl-d14	*101*			*37.0-146*		*10/27/2018 15:27*	WG1186125

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	1.47		0.0314	0.100	1	10/26/2018 04:35	WG1186690
(S) a,a,a-Trifluorotoluene(FID)	*99.6*			*78.0-120*		*10/26/2018 04:35*	WG1186690

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	1.00	1	10/21/2018 04:30	WG1184096
Acrolein	U		0.00887	0.0500	1	10/21/2018 04:30	WG1184096
Acrylonitrile	U		0.00187	0.0100	1	10/21/2018 04:30	WG1184096
Benzene	0.0176		0.000331	0.00100	1	10/21/2018 04:30	WG1184096
Bromobenzene	U		0.000352	0.00100	1	10/21/2018 04:30	WG1184096
Bromodichloromethane	U		0.000380	0.00125	1	10/21/2018 04:30	WG1184096
Bromoform	U		0.000469	0.00100	1	10/21/2018 04:30	WG1184096
Bromomethane	U		0.000866	0.00500	1	10/21/2018 04:30	WG1184096
n-Butylbenzene	0.00469		0.000361	0.00100	1	10/21/2018 04:30	WG1184096
sec-Butylbenzene	0.00468		0.000365	0.00100	1	10/21/2018 04:30	WG1184096
tert-Butylbenzene	U		0.000399	0.00100	1	10/21/2018 04:30	WG1184096
Carbon tetrachloride	U		0.000379	0.00100	1	10/21/2018 04:30	WG1184096
Chlorobenzene	U		0.000348	0.00100	1	10/21/2018 04:30	WG1184096
Chlorodibromomethane	U		0.000327	0.00100	1	10/21/2018 04:30	WG1184096
Chloroethane	U		0.000453	0.00500	1	10/21/2018 04:30	WG1184096
Chloroform	U		0.000324	0.00500	1	10/21/2018 04:30	WG1184096
Chloromethane	U		0.000276	0.00250	1	10/21/2018 04:30	WG1184096
2-Chlorotoluene	U		0.000375	0.00100	1	10/21/2018 04:30	WG1184096
4-Chlorotoluene	U		0.000351	0.00100	1	10/21/2018 04:30	WG1184096
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	10/21/2018 04:30	WG1184096
1,2-Dibromoethane	U		0.000381	0.00100	1	10/21/2018 04:30	WG1184096
Dibromomethane	U		0.000346	0.00100	1	10/21/2018 04:30	WG1184096
1,2-Dichlorobenzene	U		0.000349	0.00100	1	10/21/2018 04:30	WG1184096
1,3-Dichlorobenzene	U		0.000220	0.00100	1	10/21/2018 04:30	WG1184096
1,4-Dichlorobenzene	U		0.000274	0.00100	1	10/21/2018 04:30	WG1184096
Dichlorodifluoromethane	U		0.000551	0.00500	1	10/21/2018 04:30	WG1184096
1,1-Dichloroethane	U		0.000259	0.00100	1	10/21/2018 04:30	WG1184096
1,2-Dichloroethane	U		0.000361	0.00100	1	10/21/2018 04:30	WG1184096
1,1-Dichloroethene	U		0.000398	0.00100	1	10/21/2018 04:30	WG1184096
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	10/21/2018 04:30	WG1184096
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	10/21/2018 04:30	WG1184096
1,2-Dichloropropane	U		0.000306	0.00100	1	10/21/2018 04:30	WG1184096
1,1-Dichloropropene	U		0.000352	0.00100	1	10/21/2018 04:30	WG1184096
1,3-Dichloropropane	U		0.000366	0.00100	1	10/21/2018 04:30	WG1184096
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	10/21/2018 04:30	WG1184096
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	10/21/2018 04:30	WG1184096
2,2-Dichloropropane	U		0.000321	0.00100	1	10/21/2018 04:30	WG1184096
Di-isopropyl ether	U		0.000320	0.00100	1	10/21/2018 04:30	WG1184096
Ethylbenzene	0.0628		0.000384	0.00100	1	10/21/2018 04:30	WG1184096
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	10/21/2018 04:30	WG1184096
Isopropylbenzene	0.00990		0.000326	0.00100	1	10/21/2018 04:30	WG1184096
p-Isopropyltoluene	0.00379		0.000350	0.00100	1	10/21/2018 04:30	WG1184096
2-Butanone (MEK)	U		0.00393	0.0100	1	10/21/2018 04:30	WG1184096
Methylene Chloride	U		0.00100	0.00500	1	10/21/2018 04:30	WG1184096
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	10/21/2018 04:30	WG1184096
Methyl tert-butyl ether	U		0.000367	0.00100	1	10/21/2018 04:30	WG1184096
Naphthalene	0.326		0.00500	0.0250	5	10/23/2018 21:27	WG1185262
n-Propylbenzene	0.0156		0.000349	0.00100	1	10/21/2018 04:30	WG1184096
Styrene	U		0.000307	0.00100	1	10/21/2018 04:30	WG1184096

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	10/21/2018 04:30	WG1184096
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	10/21/2018 04:30	WG1184096
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	10/21/2018 04:30	WG1184096
Tetrachloroethene	U		0.000372	0.00100	1	10/21/2018 04:30	WG1184096
Toluene	0.000802	J	0.000412	0.00100	1	10/21/2018 04:30	WG1184096
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	10/21/2018 04:30	WG1184096
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	10/21/2018 04:30	WG1184096
1,1,1-Trichloroethane	U		0.000319	0.00100	1	10/21/2018 04:30	WG1184096
1,1,2-Trichloroethane	U		0.000383	0.00100	1	10/21/2018 04:30	WG1184096
Trichloroethene	U		0.000398	0.00100	1	10/21/2018 04:30	WG1184096
Trichlorofluoromethane	U		0.00120	0.00500	1	10/21/2018 04:30	WG1184096
1,2,3-Trichloropropane	U		0.000807	0.00250	1	10/21/2018 04:30	WG1184096
1,2,4-Trimethylbenzene	0.248		0.00186	0.00500	5	10/23/2018 21:27	WG1185262
1,2,3-Trimethylbenzene	0.0871		0.000321	0.00100	1	10/21/2018 04:30	WG1184096
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	10/21/2018 04:30	WG1184096
Vinyl chloride	U		0.000259	0.00100	1	10/21/2018 04:30	WG1184096
Xylenes, Total	0.175		0.00106	0.00300	1	10/21/2018 04:30	WG1184096
(S) Toluene-d8	*107*			*80.0-120*		*10/21/2018 04:30*	WG1184096
(S) Toluene-d8	*97.8*			*80.0-120*		*10/23/2018 21:27*	WG1185262
(S) Dibromofluoromethane	*92.2*			*75.0-120*		*10/21/2018 04:30*	WG1184096
(S) Dibromofluoromethane	*97.2*			*75.0-120*		*10/23/2018 21:27*	WG1185262
(S) 4-Bromofluorobenzene	*97.6*			*77.0-126*		*10/21/2018 04:30*	WG1184096
(S) 4-Bromofluorobenzene	*95.8*			*77.0-126*		*10/23/2018 21:27*	WG1185262

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	20.9		0.123	0.500	5	10/26/2018 13:12	WG1186127
(S) o-Terphenyl	*92.1*			*31.0-160*		*10/26/2018 13:12*	WG1186127

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	0.000568		0.0000140	0.0000500	1	10/27/2018 15:48	WG1186125
Acenaphthene	0.00283		0.0000100	0.0000500	1	10/27/2018 15:48	WG1186125
Acenaphthylene	U		0.0000120	0.0000500	1	10/27/2018 15:48	WG1186125
Benzo(a)anthracene	U		0.00000410	0.0000500	1	10/27/2018 15:48	WG1186125
Benzo(a)pyrene	U		0.0000116	0.0000500	1	10/27/2018 15:48	WG1186125
Benzo(b)fluoranthene	U		0.00000212	0.0000500	1	10/27/2018 15:48	WG1186125
Benzo(g,h,i)perylene	U		0.00000227	0.0000500	1	10/27/2018 15:48	WG1186125
Benzo(k)fluoranthene	U		0.0000136	0.0000500	1	10/27/2018 15:48	WG1186125
Chrysene	U		0.0000108	0.0000500	1	10/27/2018 15:48	WG1186125
Dibenz(a,h)anthracene	U		0.00000396	0.0000500	1	10/27/2018 15:48	WG1186125
Dibenzofuran	0.00301		0.00000105	0.0000500	1	10/27/2018 15:48	WG1186125
Fluoranthene	U		0.0000157	0.0000500	1	10/27/2018 15:48	WG1186125
Fluorene	0.00444		0.00000850	0.0000500	1	10/27/2018 15:48	WG1186125
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500	1	10/27/2018 15:48	WG1186125
Naphthalene	0.250		0.000198	0.00250	10	10/29/2018 13:26	WG1186125
Phenanthrene	0.00817		0.00000820	0.0000500	1	10/27/2018 15:48	WG1186125
Pyrene	0.000149		0.0000117	0.0000500	1	10/27/2018 15:48	WG1186125
(S) Nitrobenzene-d5	*55.3*			*31.0-160*		*10/29/2018 13:26*	WG1186125
(S) Nitrobenzene-d5	*107*			*31.0-160*		*10/27/2018 15:48*	WG1186125
(S) 2-Fluorobiphenyl	*65.3*			*48.0-148*		*10/27/2018 15:48*	WG1186125
(S) 2-Fluorobiphenyl	*100*			*48.0-148*		*10/29/2018 13:26*	WG1186125
(S) p-Terphenyl-d14	*86.3*			*37.0-146*		*10/27/2018 15:48*	WG1186125

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
(S) p-Terphenyl-d14	*86.3*			*37.0-146*		*10/29/2018 13:26*	WG1186125

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0314	0.100	1	10/26/2018 04:58	WG1186690
(S) a,a,a-Trifluorotoluene(FID)	*101*			*78.0-120*		*10/26/2018 04:58*	WG1186690

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	1.00	1	10/21/2018 04:51	WG1184096
Acrolein	U		0.00887	0.0500	1	10/21/2018 04:51	WG1184096
Acrylonitrile	U		0.00187	0.0100	1	10/21/2018 04:51	WG1184096
Benzene	U		0.000331	0.00100	1	10/21/2018 04:51	WG1184096
Bromobenzene	U		0.000352	0.00100	1	10/21/2018 04:51	WG1184096
Bromodichloromethane	U		0.000380	0.00125	1	10/21/2018 04:51	WG1184096
Bromoform	U		0.000469	0.00100	1	10/21/2018 04:51	WG1184096
Bromomethane	U		0.000866	0.00500	1	10/21/2018 04:51	WG1184096
n-Butylbenzene	U		0.000361	0.00100	1	10/21/2018 04:51	WG1184096
sec-Butylbenzene	U		0.000365	0.00100	1	10/21/2018 04:51	WG1184096
tert-Butylbenzene	U		0.000399	0.00100	1	10/21/2018 04:51	WG1184096
Carbon tetrachloride	U		0.000379	0.00100	1	10/21/2018 04:51	WG1184096
Chlorobenzene	U		0.000348	0.00100	1	10/21/2018 04:51	WG1184096
Chlorodibromomethane	U		0.000327	0.00100	1	10/21/2018 04:51	WG1184096
Chloroethane	U		0.000453	0.00500	1	10/21/2018 04:51	WG1184096
Chloroform	U		0.000324	0.00500	1	10/21/2018 04:51	WG1184096
Chloromethane	U		0.000276	0.00250	1	10/21/2018 04:51	WG1184096
2-Chlorotoluene	U		0.000375	0.00100	1	10/21/2018 04:51	WG1184096
4-Chlorotoluene	U		0.000351	0.00100	1	10/21/2018 04:51	WG1184096
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	10/21/2018 04:51	WG1184096
1,2-Dibromoethane	U		0.000381	0.00100	1	10/21/2018 04:51	WG1184096
Dibromomethane	U		0.000346	0.00100	1	10/21/2018 04:51	WG1184096
1,2-Dichlorobenzene	U		0.000349	0.00100	1	10/21/2018 04:51	WG1184096
1,3-Dichlorobenzene	U		0.000220	0.00100	1	10/21/2018 04:51	WG1184096
1,4-Dichlorobenzene	U		0.000274	0.00100	1	10/21/2018 04:51	WG1184096
Dichlorodifluoromethane	U		0.000551	0.00500	1	10/21/2018 04:51	WG1184096
1,1-Dichloroethane	U		0.000259	0.00100	1	10/21/2018 04:51	WG1184096
1,2-Dichloroethane	U		0.000361	0.00100	1	10/21/2018 04:51	WG1184096
1,1-Dichloroethene	U		0.000398	0.00100	1	10/21/2018 04:51	WG1184096
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	10/21/2018 04:51	WG1184096
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	10/21/2018 04:51	WG1184096
1,2-Dichloropropane	U		0.000306	0.00100	1	10/21/2018 04:51	WG1184096
1,1-Dichloropropene	U		0.000352	0.00100	1	10/21/2018 04:51	WG1184096
1,3-Dichloropropane	U		0.000366	0.00100	1	10/21/2018 04:51	WG1184096
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	10/21/2018 04:51	WG1184096
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	10/21/2018 04:51	WG1184096
2,2-Dichloropropane	U		0.000321	0.00100	1	10/21/2018 04:51	WG1184096
Di-isopropyl ether	U		0.000320	0.00100	1	10/21/2018 04:51	WG1184096
Ethylbenzene	U		0.000384	0.00100	1	10/21/2018 04:51	WG1184096
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	10/21/2018 04:51	WG1184096
Isopropylbenzene	U		0.000326	0.00100	1	10/21/2018 04:51	WG1184096
p-Isopropyltoluene	U		0.000350	0.00100	1	10/21/2018 04:51	WG1184096
2-Butanone (MEK)	U		0.00393	0.0100	1	10/21/2018 04:51	WG1184096
Methylene Chloride	U		0.00100	0.00500	1	10/21/2018 04:51	WG1184096
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	10/21/2018 04:51	WG1184096
Methyl tert-butyl ether	U		0.000367	0.00100	1	10/21/2018 04:51	WG1184096
Naphthalene	0.00189	J	0.00100	0.00500	1	10/23/2018 21:47	WG1185262
n-Propylbenzene	U		0.000349	0.00100	1	10/21/2018 04:51	WG1184096
Styrene	U		0.000307	0.00100	1	10/21/2018 04:51	WG1184096

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	10/21/2018 04:51	WG1184096
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	10/21/2018 04:51	WG1184096
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	10/21/2018 04:51	WG1184096
Tetrachloroethene	U		0.000372	0.00100	1	10/21/2018 04:51	WG1184096
Toluene	U		0.000412	0.00100	1	10/21/2018 04:51	WG1184096
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	10/21/2018 04:51	WG1184096
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	10/21/2018 04:51	WG1184096
1,1,1-Trichloroethane	U		0.000319	0.00100	1	10/21/2018 04:51	WG1184096
1,1,2-Trichloroethane	U		0.000383	0.00100	1	10/21/2018 04:51	WG1184096
Trichloroethene	U		0.000398	0.00100	1	10/21/2018 04:51	WG1184096
Trichlorofluoromethane	U		0.00120	0.00500	1	10/21/2018 04:51	WG1184096
1,2,3-Trichloropropane	U		0.000807	0.00250	1	10/21/2018 04:51	WG1184096
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	10/23/2018 21:47	WG1185262
1,2,3-Trimethylbenzene	0.000787	J	0.000321	0.00100	1	10/21/2018 04:51	WG1184096
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	10/21/2018 04:51	WG1184096
Vinyl chloride	U		0.000259	0.00100	1	10/21/2018 04:51	WG1184096
Xylenes, Total	U		0.00106	0.00300	1	10/21/2018 04:51	WG1184096
(S) Toluene-d8	*109*			*80.0-120*		*10/21/2018 04:51*	WG1184096
(S) Toluene-d8	*101*			*80.0-120*		*10/23/2018 21:47*	WG1185262
(S) Dibromofluoromethane	*91.5*			*75.0-120*		*10/21/2018 04:51*	WG1184096
(S) Dibromofluoromethane	*98.9*			*75.0-120*		*10/23/2018 21:47*	WG1185262
(S) 4-Bromofluorobenzene	*102*			*77.0-126*		*10/21/2018 04:51*	WG1184096
(S) 4-Bromofluorobenzene	*94.5*			*77.0-126*		*10/23/2018 21:47*	WG1185262

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.450		0.0247	0.100	1	10/26/2018 09:25	WG1186127
(S) o-Terphenyl	*84.7*			*31.0-160*		*10/26/2018 09:25*	WG1186127

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
Anthracene	0.0000802		0.0000140	0.0000500	1	10/27/2018 16:09	WG1186125
Acenaphthene	0.000353		0.0000100	0.0000500	1	10/27/2018 16:09	WG1186125
Acenaphthylene	0.0000197	J	0.0000120	0.0000500	1	10/27/2018 16:09	WG1186125
Benzo(a)anthracene	U		0.00000410	0.0000500	1	10/27/2018 16:09	WG1186125
Benzo(a)pyrene	U		0.0000116	0.0000500	1	10/27/2018 16:09	WG1186125
Benzo(b)fluoranthene	U		0.00000212	0.0000500	1	10/27/2018 16:09	WG1186125
Benzo(g,h,i)perylene	U		0.00000227	0.0000500	1	10/27/2018 16:09	WG1186125
Benzo(k)fluoranthene	U		0.0000136	0.0000500	1	10/27/2018 16:09	WG1186125
Chrysene	U		0.0000108	0.0000500	1	10/27/2018 16:09	WG1186125
Dibenz(a,h)anthracene	U		0.00000396	0.0000500	1	10/27/2018 16:09	WG1186125
Dibenzofuran	0.000486		0.00000105	0.0000500	1	10/27/2018 16:09	WG1186125
Fluoranthene	U		0.0000157	0.0000500	1	10/27/2018 16:09	WG1186125
Fluorene	0.000422		0.00000850	0.0000500	1	10/27/2018 16:09	WG1186125
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500	1	10/27/2018 16:09	WG1186125
Naphthalene	0.000268	B	0.0000198	0.000250	1	10/27/2018 16:09	WG1186125
Phenanthrene	0.000114		0.00000820	0.0000500	1	10/27/2018 16:09	WG1186125
Pyrene	U		0.0000117	0.0000500	1	10/27/2018 16:09	WG1186125
(S) Nitrobenzene-d5	*111*			*31.0-160*		*10/27/2018 16:09*	WG1186125
(S) 2-Fluorobiphenyl	*103*			*48.0-148*		*10/27/2018 16:09*	WG1186125
(S) p-Terphenyl-d14	*106*			*37.0-146*		*10/27/2018 16:09*	WG1186125

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	1.00	1	10/20/2018 22:24	WG1184096
Acrolein	U		0.00887	0.0500	1	10/20/2018 22:24	WG1184096
Acrylonitrile	U		0.00187	0.0100	1	10/20/2018 22:24	WG1184096
Benzene	U		0.000331	0.00100	1	10/20/2018 22:24	WG1184096
Bromobenzene	U		0.000352	0.00100	1	10/20/2018 22:24	WG1184096
Bromodichloromethane	U		0.000380	0.00125	1	10/20/2018 22:24	WG1184096
Bromoform	U		0.000469	0.00100	1	10/20/2018 22:24	WG1184096
Bromomethane	U		0.000866	0.00500	1	10/20/2018 22:24	WG1184096
n-Butylbenzene	U		0.000361	0.00100	1	10/20/2018 22:24	WG1184096
sec-Butylbenzene	U		0.000365	0.00100	1	10/20/2018 22:24	WG1184096
tert-Butylbenzene	U		0.000399	0.00100	1	10/20/2018 22:24	WG1184096
Carbon tetrachloride	U		0.000379	0.00100	1	10/20/2018 22:24	WG1184096
Chlorobenzene	U		0.000348	0.00100	1	10/20/2018 22:24	WG1184096
Chlorodibromomethane	U		0.000327	0.00100	1	10/20/2018 22:24	WG1184096
Chloroethane	U		0.000453	0.00500	1	10/20/2018 22:24	WG1184096
Chloroform	U		0.000324	0.00500	1	10/20/2018 22:24	WG1184096
Chloromethane	U		0.000276	0.00250	1	10/20/2018 22:24	WG1184096
2-Chlorotoluene	U		0.000375	0.00100	1	10/20/2018 22:24	WG1184096
4-Chlorotoluene	U		0.000351	0.00100	1	10/20/2018 22:24	WG1184096
1,2-Dibromo-3-Chloropropane	U		0.00133	0.00500	1	10/20/2018 22:24	WG1184096
1,2-Dibromoethane	U		0.000381	0.00100	1	10/20/2018 22:24	WG1184096
Dibromomethane	U		0.000346	0.00100	1	10/20/2018 22:24	WG1184096
1,2-Dichlorobenzene	U		0.000349	0.00100	1	10/20/2018 22:24	WG1184096
1,3-Dichlorobenzene	U		0.000220	0.00100	1	10/20/2018 22:24	WG1184096
1,4-Dichlorobenzene	U		0.000274	0.00100	1	10/20/2018 22:24	WG1184096
Dichlorodifluoromethane	U		0.000551	0.00500	1	10/20/2018 22:24	WG1184096
1,1-Dichloroethane	U		0.000259	0.00100	1	10/20/2018 22:24	WG1184096
1,2-Dichloroethane	U		0.000361	0.00100	1	10/20/2018 22:24	WG1184096
1,1-Dichloroethene	U		0.000398	0.00100	1	10/20/2018 22:24	WG1184096
cis-1,2-Dichloroethene	U		0.000260	0.00100	1	10/20/2018 22:24	WG1184096
trans-1,2-Dichloroethene	U		0.000396	0.00100	1	10/20/2018 22:24	WG1184096
1,2-Dichloropropane	U		0.000306	0.00100	1	10/20/2018 22:24	WG1184096
1,1-Dichloropropene	U		0.000352	0.00100	1	10/20/2018 22:24	WG1184096
1,3-Dichloropropane	U		0.000366	0.00100	1	10/20/2018 22:24	WG1184096
cis-1,3-Dichloropropene	U		0.000418	0.00100	1	10/20/2018 22:24	WG1184096
trans-1,3-Dichloropropene	U		0.000419	0.00100	1	10/20/2018 22:24	WG1184096
2,2-Dichloropropane	U		0.000321	0.00100	1	10/20/2018 22:24	WG1184096
Di-isopropyl ether	U		0.000320	0.00100	1	10/20/2018 22:24	WG1184096
Ethylbenzene	U		0.000384	0.00100	1	10/20/2018 22:24	WG1184096
Hexachloro-1,3-butadiene	U		0.000256	0.00100	1	10/20/2018 22:24	WG1184096
Isopropylbenzene	U		0.000326	0.00100	1	10/20/2018 22:24	WG1184096
p-Isopropyltoluene	U		0.000350	0.00100	1	10/20/2018 22:24	WG1184096
2-Butanone (MEK)	U		0.00393	0.0100	1	10/20/2018 22:24	WG1184096
Methylene Chloride	U		0.00100	0.00500	1	10/20/2018 22:24	WG1184096
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100	1	10/20/2018 22:24	WG1184096
Methyl tert-butyl ether	U		0.000367	0.00100	1	10/20/2018 22:24	WG1184096
Naphthalene	U		0.00100	0.00500	1	10/20/2018 22:24	WG1184096
n-Propylbenzene	U		0.000349	0.00100	1	10/20/2018 22:24	WG1184096
Styrene	U		0.000307	0.00100	1	10/20/2018 22:24	WG1184096
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100	1	10/20/2018 22:24	WG1184096
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100	1	10/20/2018 22:24	WG1184096
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100	1	10/20/2018 22:24	WG1184096
Tetrachloroethene	U		0.000372	0.00100	1	10/20/2018 22:24	WG1184096
Toluene	U		0.000412	0.00100	1	10/20/2018 22:24	WG1184096
1,2,3-Trichlorobenzene	U		0.000230	0.00100	1	10/20/2018 22:24	WG1184096
1,2,4-Trichlorobenzene	U		0.000355	0.00100	1	10/20/2018 22:24	WG1184096

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

Analyte	Result mg/l	Qualifier	MDL mg/l	RDL mg/l	Dilution	Analysis date / time	Batch
1,1,1-Trichloroethane	U		0.000319	0.00100	1	10/20/2018 22:24	WG1184096
1,1,2-Trichloroethane	U		0.000383	0.00100	1	10/20/2018 22:24	WG1184096
Trichloroethene	U		0.000398	0.00100	1	10/20/2018 22:24	WG1184096
Trichlorofluoromethane	U		0.00120	0.00500	1	10/20/2018 22:24	WG1184096
1,2,3-Trichloropropane	U		0.000807	0.00250	1	10/20/2018 22:24	WG1184096
1,2,4-Trimethylbenzene	U		0.000373	0.00100	1	10/20/2018 22:24	WG1184096
1,2,3-Trimethylbenzene	U		0.000321	0.00100	1	10/20/2018 22:24	WG1184096
1,3,5-Trimethylbenzene	U		0.000387	0.00100	1	10/20/2018 22:24	WG1184096
Vinyl chloride	U		0.000259	0.00100	1	10/20/2018 22:24	WG1184096
Xylenes, Total	U		0.00106	0.00300	1	10/20/2018 22:24	WG1184096
(S) Toluene-d8	*108*			*80.0-120*		*10/20/2018 22:24*	WG1184096
(S) Dibromofluoromethane	*91.2*			*75.0-120*		*10/20/2018 22:24*	WG1184096
(S) 4-Bromofluorobenzene	*101*			*77.0-126*		*10/20/2018 22:24*	WG1184096

Method Blank (MB)

(MB) R3354834-1 10/25/18 16:23

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		2.82	10.0

L1036621-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1036621-01 10/25/18 16:23 • (DUP) R3354834-3 10/25/18 16:23

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	331	323	1	2.45		5

Laboratory Control Sample (LCS)

(LCS) R3354834-2 10/25/18 16:23

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8540	97.0	85.0-115	

Method Blank (MB)

(MB) R3354459-1 10/26/18 17:58

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Alkalinity	U		2.71	20.0

Sample Narrative:

BLANK: Endpoint pH 4.5

L1035831-13 Original Sample (OS) • Duplicate (DUP)

(OS) L1035831-13 10/26/18 18:39 • (DUP) R3354459-3 10/26/18 18:48

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity	135	135	1	0.0570		20

Sample Narrative:

OS: Endpoint pH 4.5 headspace

DUP: Endpoint pH 4.5

L1037486-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1037486-01 10/26/18 21:25 • (DUP) R3354459-6 10/26/18 21:33

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity	518	518	1	0.0421		20

Sample Narrative:

OS: Endpoint pH 4.5 headspace

DUP: Endpoint pH 4.5

Laboratory Control Sample (LCS)

(LCS) R3354459-5 10/26/18 19:47

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Alkalinity	100	105	105	85.0-115	

Sample Narrative:

LCS: Endpoint pH 4.5

Method Blank (MB)

(MB) R3354428-1 10/27/18 11:44

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ferrous Iron	U		0.0150	0.0500

L1036754-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1036754-01 10/27/18 11:47 • (DUP) R3354428-5 10/27/18 11:49

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ferrous Iron	0.911	0.947	1	3.88		20

L1038302-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1038302-07 10/27/18 11:55 • (DUP) R3354428-6 10/27/18 11:56

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ferrous Iron	U	0.000	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3354428-2 10/27/18 11:45

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ferrous Iron	1.00	1.01	101	85.0-115	

L1036655-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1036655-03 10/27/18 11:47 • (MS) R3354428-3 10/27/18 11:47 • (MSD) R3354428-4 10/27/18 11:47

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Ferrous Iron	1.50	U	1.09	1.06	72.3	70.7	1	80.0-120	J6	J6	2.33	20

Method Blank (MB)

(MB) R3352475-1 10/19/18 22:21

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Nitrate	U		0.0227	0.100
Sulfate	U		0.0774	5.00

L1036655-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1036655-02 10/20/18 15:43 • (DUP) R3352475-7 10/20/18 15:57

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	11.7	11.9	5	1.46		15
Sulfate	191	193	5	1.19		15

L1036633-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1036633-09 10/20/18 17:24 • (DUP) R3352475-9 10/20/18 17:53

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Nitrate	0.0280	0.0235	1	17.5	J P1	15
Sulfate	U	0.000	1	0.000		15

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

(LCS) R3352475-2 10/19/18 22:35 • (LCSD) R3352475-3 10/19/18 22:50

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 %
Nitrate	8.00	8.11	8.10	101	101	80.0-120			0.141	15
Sulfate	40.0	39.3	39.1	98.4	97.7	80.0-120			0.646	15

L1036655-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1036655-01 10/20/18 12:50 • (MS) R3352475-4 10/20/18 13:33 • (MSD) R3352475-5 10/20/18 13:48

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Nitrate	5.00	0.0657	4.87	4.82	96.2	95.1	1	80.0-120			1.15	15
Sulfate	50.0	0.731	48.3	48.5	95.2	95.6	1	80.0-120			0.443	15

L1036633-07 Original Sample (OS) • Matrix Spike (MS)

(OS) L1036633-07 10/20/18 16:55 • (MS) R3352475-8 10/20/18 17:38

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Nitrate	5.00	3.85	8.73	97.6	1	80.0-120	
Sulfate	50.0	37.3	83.0	91.5	1	80.0-120	

Method Blank (MB)

(MB) R3353788-3 10/25/18 08:21

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)	*103*			*78.0-120*

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

(LCS) R3353788-1 10/25/18 07:09 • (LCSD) R3353788-2 10/25/18 07:33

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.50	5.99	5.96	109	108	72.0-127			0.416	20
(S) a,a,a-Trifluorotoluene(FID)				*108*	*108*	*78.0-120*				

L1036029-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1036029-12 10/25/18 10:03 • (MS) R3353788-4 10/25/18 17:17 • (MSD) R3353788-5 10/25/18 17:42

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 %
TPH (GC/FID) Low Fraction	5.50	U	5.33	5.24	96.9	95.2	1	10.0-160			1.77	22
(S) a,a,a-Trifluorotoluene(FID)					*108*	*108*		*78.0-120*				

Method Blank (MB)

(MB) R3354550-3 10/25/18 14:37

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	0.0322	J	0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*99.3*			*78.0-120*

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

(LCS) R3354550-1 10/25/18 13:05 • (LCSD) R3354550-2 10/25/18 13:27

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.50	6.16	6.05	112	110	72.0-127			1.74	20
(S) a,a,a-Trifluorotoluene(FID)				*105*	*104*	*78.0-120*				

L1036655-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1036655-03 10/25/18 16:30 • (MS) R3354550-4 10/25/18 22:04 • (MSD) R3354550-5 10/25/18 22:26

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.50	U	4.62	5.14	84.0	93.4	1	10.0-160			10.6	22
(S) a,a,a-Trifluorotoluene(FID)					*101*	*101*		*78.0-120*				

Method Blank (MB)

(MB) R3354309-3 10/26/18 03:27

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	0.0322	J	0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*101*			*78.0-120*

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

(LCS) R3354309-1 10/26/18 02:19 • (LCSD) R3354309-2 10/26/18 02:42

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.50	5.32	5.65	96.7	103	72.0-127			6.01	20
(S) a,a,a-Trifluorotoluene(FID)				*105*	*106*	*78.0-120*				

Method Blank (MB)

(MB) R3354844-3 10/29/18 15:07

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	0.0369	J	0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*96.6*			*78.0-120*

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

(LCS) R3354844-1 10/29/18 13:51 • (LCSD) R3354844-2 10/29/18 14:22

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	5.31	5.40	96.5	98.3	72.0-127			1.84	20
(S) a,a,a-Trifluorotoluene(FID)				*102*	*102*	*78.0-120*				

Method Blank (MB)

(MB) R3353210-5 10/20/18 22:03

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Acetone	U		0.0100	1.00
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	0.00125
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
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
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

Method Blank (MB)

(MB) R3353210-5 10/20/18 22:03

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
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
4-Methyl-2-pentanone (MIBK)	U		0.00214	0.0100
Methyl tert-butyl ether	U		0.000367	0.00100
Naphthalene	U		0.00100	0.00500
n-Propylbenzene	U		0.000349	0.00100
Styrene	U		0.000307	0.00100
1,1,1,2-Tetrachloroethane	U		0.000385	0.00100
1,1,2,2-Tetrachloroethane	U		0.000130	0.00100
Tetrachloroethene	U		0.000372	0.00100
Toluene	U		0.000412	0.00100
1,1,2-Trichlorotrifluoroethane	U		0.000303	0.00100
1,2,3-Trichlorobenzene	U		0.000230	0.00100
1,2,4-Trichlorobenzene	U		0.000355	0.00100
1,1,1-Trichloroethane	U		0.000319	0.00100
1,1,2-Trichloroethane	U		0.000383	0.00100
Trichloroethene	U		0.000398	0.00100
Trichlorofluoromethane	U		0.00120	0.00500
1,2,3-Trichloropropane	U		0.000807	0.00250
1,2,3-Trimethylbenzene	U		0.000321	0.00100
1,2,4-Trimethylbenzene	U		0.000373	0.00100
1,3,5-Trimethylbenzene	U		0.000387	0.00100
Vinyl chloride	U		0.000259	0.00100
Xylenes, Total	U		0.00106	0.00300
(S) Toluene-d8	*111*			*80.0-120*
(S) Dibromofluoromethane	*93.8*			*75.0-120*
(S) 4-Bromofluorobenzene	*101*			*77.0-126*

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

(LCS) R3353210-1 10/20/18 20:22 • (LCSD) R3353210-2 10/20/18 20:42

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Acetone	0.125	0.101	0.103	81.0	82.0	19.0-160			1.29	27
Acrolein	0.125	0.0731	0.0772	58.5	61.8	10.0-160			5.52	26
Acrylonitrile	0.125	0.128	0.122	102	97.9	55.0-149			4.40	20
Benzene	0.0250	0.0234	0.0220	93.6	87.9	70.0-123			6.30	20

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

(LCS) R3353210-1 10/20/18 20:22 • (LCSD) R3353210-2 10/20/18 20:42

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Bromobenzene	0.0250	0.0239	0.0235	95.7	94.1	73.0-121			1.68	20
Bromodichloromethane	0.0250	0.0234	0.0228	93.4	91.1	75.0-120			2.57	20
Bromoform	0.0250	0.0254	0.0258	102	103	68.0-132			1.34	20
Bromomethane	0.0250	0.0179	0.0184	71.6	73.6	10.0-160			2.71	25
n-Butylbenzene	0.0250	0.0258	0.0247	103	98.8	73.0-125			4.47	20
sec-Butylbenzene	0.0250	0.0243	0.0234	97.1	93.8	75.0-125			3.52	20
tert-Butylbenzene	0.0250	0.0240	0.0230	95.9	91.9	76.0-124			4.24	20
Carbon tetrachloride	0.0250	0.0214	0.0198	85.5	79.4	68.0-126			7.41	20
Chlorobenzene	0.0250	0.0240	0.0238	96.1	95.3	80.0-121			0.924	20
Chlorodibromomethane	0.0250	0.0223	0.0229	89.3	91.4	77.0-125			2.35	20
Chloroethane	0.0250	0.0233	0.0219	93.2	87.5	47.0-150			6.28	20
Chloroform	0.0250	0.0218	0.0208	87.4	83.1	73.0-120			5.00	20
Chloromethane	0.0250	0.0252	0.0237	101	94.8	41.0-142			6.14	20
2-Chlorotoluene	0.0250	0.0252	0.0247	101	98.7	76.0-123			2.08	20
4-Chlorotoluene	0.0250	0.0244	0.0235	97.6	94.1	75.0-122			3.68	20
1,2-Dibromo-3-Chloropropane	0.0250	0.0224	0.0222	89.6	88.7	58.0-134			0.957	20
1,2-Dibromoethane	0.0250	0.0227	0.0227	90.9	90.7	80.0-122			0.227	20
Dibromomethane	0.0250	0.0238	0.0233	95.4	93.2	80.0-120			2.34	20
1,2-Dichlorobenzene	0.0250	0.0251	0.0244	100	97.6	79.0-121			2.75	20
1,3-Dichlorobenzene	0.0250	0.0244	0.0235	97.4	94.1	79.0-120			3.45	20
1,4-Dichlorobenzene	0.0250	0.0243	0.0230	97.2	92.1	79.0-120			5.39	20
Dichlorodifluoromethane	0.0250	0.0271	0.0239	109	95.7	51.0-149			12.6	20
1,1-Dichloroethane	0.0250	0.0243	0.0229	97.2	91.6	70.0-126			5.98	20
1,2-Dichloroethane	0.0250	0.0235	0.0223	94.1	89.3	70.0-128			5.22	20
1,1-Dichloroethene	0.0250	0.0237	0.0227	94.7	90.8	71.0-124			4.24	20
cis-1,2-Dichloroethene	0.0250	0.0225	0.0218	90.1	87.1	73.0-120			3.31	20
trans-1,2-Dichloroethene	0.0250	0.0234	0.0216	93.5	86.5	73.0-120			7.78	20
1,2-Dichloropropane	0.0250	0.0255	0.0253	102	101	77.0-125			0.660	20
1,1-Dichloropropene	0.0250	0.0235	0.0222	94.2	88.6	74.0-126			6.05	20
1,3-Dichloropropane	0.0250	0.0234	0.0231	93.6	92.3	80.0-120			1.39	20
cis-1,3-Dichloropropene	0.0250	0.0244	0.0244	97.5	97.6	80.0-123			0.0526	20
trans-1,3-Dichloropropene	0.0250	0.0216	0.0217	86.5	86.8	78.0-124			0.289	20
2,2-Dichloropropane	0.0250	0.0223	0.0205	89.4	82.0	58.0-130			8.60	20
Di-isopropyl ether	0.0250	0.0258	0.0247	103	99.0	58.0-138			4.28	20
Ethylbenzene	0.0250	0.0250	0.0242	99.8	96.9	79.0-123			2.98	20
Hexachloro-1,3-butadiene	0.0250	0.0234	0.0236	93.7	94.3	54.0-138			0.680	20
Isopropylbenzene	0.0250	0.0254	0.0240	102	95.8	76.0-127			5.96	20
p-Isopropyltoluene	0.0250	0.0237	0.0230	95.0	92.0	76.0-125			3.17	20
2-Butanone (MEK)	0.125	0.124	0.121	99.6	96.4	44.0-160			3.23	20
Methylene Chloride	0.0250	0.0226	0.0217	90.4	86.8	67.0-120			4.08	20

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

(LCS) R3353210-1 10/20/18 20:22 • (LCSD) R3353210-2 10/20/18 20:42

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
4-Methyl-2-pentanone (MIBK)	0.125	0.137	0.137	109	109	68.0-142			0.0897	20
Methyl tert-butyl ether	0.0250	0.0225	0.0214	90.0	85.6	68.0-125			5.07	20
Naphthalene	0.0250	0.0193	0.0202	77.1	80.9	54.0-135			4.79	20
n-Propylbenzene	0.0250	0.0250	0.0236	99.8	94.5	77.0-124			5.51	20
Styrene	0.0250	0.0264	0.0260	106	104	73.0-130			1.59	20
1,1,1,2-Tetrachloroethane	0.0250	0.0237	0.0239	94.8	95.4	75.0-125			0.646	20
1,1,2,2-Tetrachloroethane	0.0250	0.0242	0.0229	97.0	91.4	65.0-130			5.91	20
Tetrachloroethene	0.0250	0.0242	0.0236	97.0	94.6	72.0-132			2.49	20
Toluene	0.0250	0.0232	0.0229	92.8	91.4	79.0-120			1.54	20
1,1,2-Trichlorotrifluoroethane	0.0250	0.0248	0.0221	99.2	88.6	69.0-132			11.3	20
1,2,3-Trichlorobenzene	0.0250	0.0218	0.0222	87.2	88.8	50.0-138			1.81	20
1,2,4-Trichlorobenzene	0.0250	0.0242	0.0251	96.7	100	57.0-137			3.63	20
1,1,1-Trichloroethane	0.0250	0.0220	0.0214	87.9	85.7	73.0-124			2.54	20
1,1,2-Trichloroethane	0.0250	0.0237	0.0239	94.9	95.8	80.0-120			0.895	20
Trichloroethene	0.0250	0.0241	0.0230	96.4	92.1	78.0-124			4.62	20
Trichlorofluoromethane	0.0250	0.0208	0.0184	83.3	73.5	59.0-147			12.6	20
1,2,3-Trichloropropane	0.0250	0.0240	0.0234	96.1	93.6	73.0-130			2.55	20
1,2,3-Trimethylbenzene	0.0250	0.0250	0.0241	99.9	96.5	77.0-120			3.46	20
1,2,4-Trimethylbenzene	0.0250	0.0250	0.0242	100	96.8	76.0-121			3.44	20
1,3,5-Trimethylbenzene	0.0250	0.0240	0.0231	95.8	92.3	76.0-122			3.77	20
Vinyl chloride	0.0250	0.0281	0.0265	112	106	67.0-131			6.00	20
Xylenes, Total	0.0750	0.0719	0.0700	95.9	93.3	79.0-123			2.68	20
(S) Toluene-d8				*104*	*107*	*80.0-120*				
(S) Dibromofluoromethane				*92.2*	*93.3*	*75.0-120*				
(S) 4-Bromofluorobenzene				*101*	*101*	*77.0-126*				

Method Blank (MB)

(MB) R3354015-3 10/23/18 20:08

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Naphthalene	U		0.00100	0.00500
1,2,4-Trimethylbenzene	U		0.000373	0.00100
(S) Toluene-d8	*101*			*80.0-120*
(S) Dibromofluoromethane	*97.0*			*75.0-120*
(S) 4-Bromofluorobenzene	*97.1*			*77.0-126*

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

(LCS) R3354015-1 10/23/18 19:08 • (LCSD) R3354015-2 10/23/18 19:28

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Naphthalene	0.0250	0.0206	0.0219	82.5	87.7	54.0-135			6.14	20
1,2,4-Trimethylbenzene	0.0250	0.0240	0.0245	96.0	98.0	76.0-121			2.08	20
(S) Toluene-d8				*101*	*97.9*	*80.0-120*				
(S) Dibromofluoromethane				*96.5*	*98.9*	*75.0-120*				
(S) 4-Bromofluorobenzene				*94.1*	*97.7*	*77.0-126*				

Method Blank (MB)

(MB) R3353288-1 10/23/18 11:17

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	*86.0*			*31.0-160*

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

(LCS) R3353288-2 10/23/18 11:35 • (LCSD) R3353288-3 10/23/18 11:52

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	1.31	1.30	87.3	86.7	50.0-150			0.766	20
(S) o-Terphenyl				*90.5*	*88.0*	*31.0-160*				

Method Blank (MB)

(MB) R3354249-1 10/26/18 01:16

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	*81.0*			*31.0-160*

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

(LCS) R3354249-2 10/26/18 01:34 • (LCSD) R3354249-3 10/26/18 01:51

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	1.50	1.31	1.41	87.3	94.0	50.0-150			7.35	20
(S) o-Terphenyl				*111*	*108*	*31.0-160*				

Method Blank (MB)

(MB) R3354600-3 10/27/18 08:27

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Anthracene	U		0.0000140	0.0000500
Acenaphthene	U		0.0000100	0.0000500
Acenaphthylene	U		0.0000120	0.0000500
Benzo(a)anthracene	U		0.00000410	0.0000500
Benzo(a)pyrene	U		0.0000116	0.0000500
Benzo(b)fluoranthene	U		0.00000212	0.0000500
Benzo(g,h,i)perylene	U		0.00000227	0.0000500
Benzo(k)fluoranthene	U		0.0000136	0.0000500
Chrysene	U		0.0000108	0.0000500
Dibenz(a,h)anthracene	U		0.00000396	0.0000500
Fluoranthene	U		0.0000157	0.0000500
Fluorene	U		0.00000850	0.0000500
Indeno(1,2,3-cd)pyrene	U		0.0000148	0.0000500
Naphthalene	0.0000354	J	0.0000198	0.000250
Phenanthrene	U		0.00000820	0.0000500
Pyrene	U		0.0000117	0.0000500
Dibenzofuran	U		0.00000105	0.0000500
(S) Nitrobenzene-d5	*110*			*31.0-160*
(S) 2-Fluorobiphenyl	*94.5*			*48.0-148*
(S) p-Terphenyl-d14	*104*			*37.0-146*

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

(LCS) R3354600-1 10/27/18 07:46 • (LCSD) R3354600-2 10/27/18 08:06

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Dibenzofuran	0.00200	0.00191	0.00198	95.5	99.0	67.0-134			3.60	20
Anthracene	0.00200	0.00188	0.00192	94.0	96.0	67.0-150			2.11	20
Acenaphthene	0.00200	0.00185	0.00193	92.5	96.5	65.0-138			4.23	20
Acenaphthylene	0.00200	0.00182	0.00189	91.0	94.5	66.0-140			3.77	20
Benzo(a)anthracene	0.00200	0.00173	0.00177	86.5	88.5	61.0-140			2.29	20
Benzo(a)pyrene	0.00200	0.00175	0.00178	87.5	89.0	60.0-143			1.70	20
Benzo(b)fluoranthene	0.00200	0.00172	0.00165	86.0	82.5	58.0-141			4.15	20
Benzo(g,h,i)perylene	0.00200	0.00174	0.00176	87.0	88.0	52.0-153			1.14	20
Benzo(k)fluoranthene	0.00200	0.00197	0.00212	98.5	106	58.0-148			7.33	20
Chrysene	0.00200	0.00210	0.00214	105	107	64.0-144			1.89	20
Dibenz(a,h)anthracene	0.00200	0.00175	0.00179	87.5	89.5	52.0-155			2.26	20
Fluoranthene	0.00200	0.00196	0.00202	98.0	101	69.0-153			3.02	20
Fluorene	0.00200	0.00192	0.00199	96.0	99.5	64.0-136			3.58	20

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

(LCS) R3354600-1 10/27/18 07:46 • (LCSD) R3354600-2 10/27/18 08:06

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Indeno(1,2,3-cd)pyrene	0.00200	0.00178	0.00182	89.0	91.0	54.0-153			2.22	20
Naphthalene	0.00200	0.00165	0.00173	82.5	86.5	61.0-137			4.73	20
Phenanthrene	0.00200	0.00195	0.00203	97.5	102	62.0-137			4.02	20
Pyrene	0.00200	0.00183	0.00189	91.5	94.5	60.0-142			3.23	20
(S) Nitrobenzene-d5				*107*	*108*	*31.0-160*				
(S) 2-Fluorobiphenyl				*99.0*	*97.0*	*48.0-148*				
(S) p-Terphenyl-d14				*99.5*	*101*	*37.0-146*				

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

Guide to Reading and Understanding Your Laboratory Report

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

Abbreviations and Definitions

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

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.
T8	Sample(s) received past/too close to holding time expiration.

ACCREDITATIONS & LOCATIONS

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

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T 104704245-17-14
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

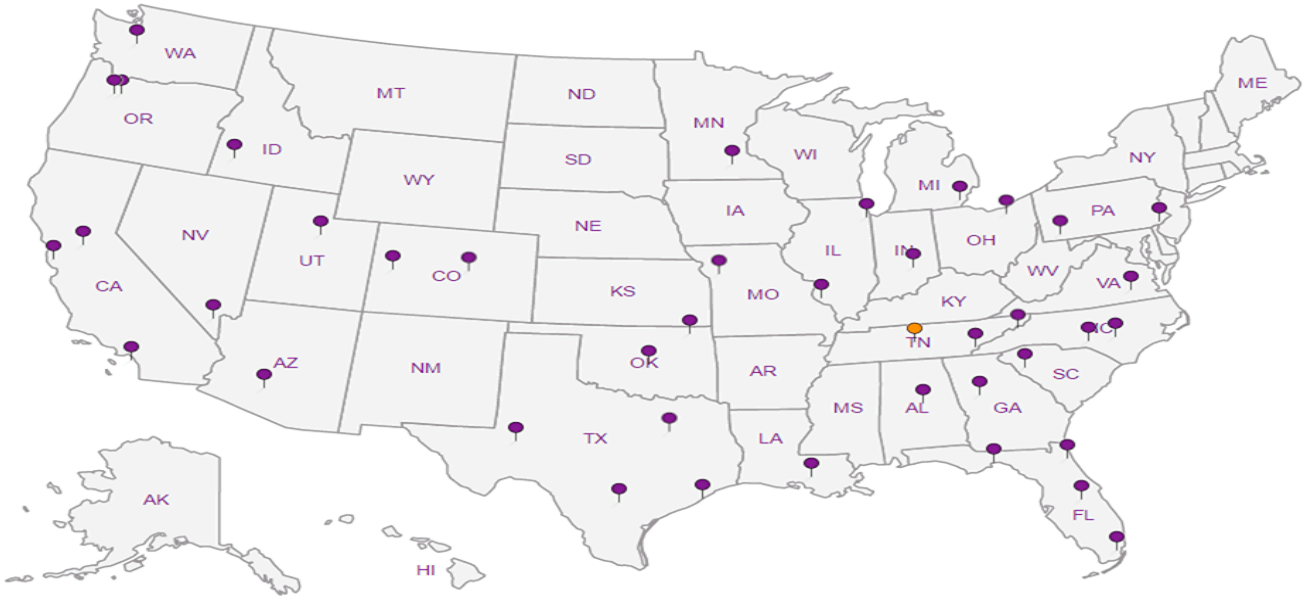
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

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

Our Locations

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



Akana - Richardson, TX

1850 N. Greenville Ave.
Suite 170
Richardson, TX 75081

Billing Information:
Accounts Payable
6400 SE Lake Rd., Ste. 270
Portland, OR 97222

Email To: brent.hamil@akana.us

Report to: Brent Hamil

Project Description: Duck Valley Indian Reservation

City/State Collected:

Phone: 214-676-2274
Fax:

Client Project #: Akana-16-005

Lab Project #: AKANARTX-16-005

Collected by (print): Peter Van Zandt

Site/Facility ID #: OWYHEE, NV

P.O. #: PO # (16-005 Task 6)

Collected by (signature): Peter V Zandt

Quote #

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Pres Chk: ≤2

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	**NO3,SO4,ALK** 250mlHDPE-NoPres	DROLVI 40mlAmb-HCl-BT	FERUSFE 250mlAmb-HCl	GRO 40mlAmb HCl	PAHSIMLVI 40mlAmb-NoPres-WT	TDS 250mlHDPE-NoPres	V8260 40mlAmb-HCl	Remarks	Sample # (lab only)
MW-28	Grab	GW		10/18/18	19:05	12	X	X	X	X	X	X	X		-01
MW-31		GW			18:25	12	X	X	X	X	X	X	X		-02
MW-1R		GW			17:45	12	X	X	X	X	X	X	X		-03
MW-32					16:35	9		X		X	X		X		-04
MW-25					15:25										-05
MW-12					14:30										-06
MW-13					13:45										-07
MW-9					12:40										-08
MW-3					11:50										-09
MW-2					10:00										-10

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

Remarks: **NO3,SO4,ALK** has a 48hr hold time.

RAD SCREEN: <0.5 mR/hr

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: __UPS __FedEx ✓ Courier _____

Tracking # 4624 2995 6599

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Peter V Zandt	10/19/18	9:45	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCl / MeoH
TBR

Temp: °C 1.4+0.5-1.9°C Bottles Received: 187

Date: 10/20/18 Time: 845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: ✓Y __N
Preservation Correct/Checked: ✓Y __N

Chain of Custody Page ___ of ___

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National Center for Testing & Innovation

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

L# L1036655
C138

Acctnum: AKANARTX
Template: T141536
Prelogin: P675969
TSR: 526 - Chris McCord
PB: 10/5/18 MO
Shipped Via: FedEx Ground

Akana - Richardson, TX

1850 N. Greenville Ave.
Suite 170
Richardson, TX 75081

Billing Information:
Accounts Payable
6400 SE Lake Rd., Ste. 270
Portland, OR 97222

Report to: Brent Hamil

Email To: brent.hamil@akana.us

Project Description: Duck Valley Indian Reservation

City/State Collected:

Phone: 214-676-2274
Fax:

Client Project #: Akana-16-005

Lab Project #: AKANARTX-16-005

Collected by (print): Peter Van Zandt

Site/Facility ID #: OWYHEE, NV

P.O. #: PO # (16-005 Task 6)

Collected by (signature): Peter V Zandt

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

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National Center for Testing & Innovation

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

L# 4036655

Acctnum: AKANARTX
Template: T141536
Prelogin: P675969
TSR: 526 - Chris McCord
PB: 10/5/18 MG
Shipped Via: FedEx Ground

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	**NO3,SO4,ALK** 250mlHDPE-NoPres	DROLVI 40mlAmb-HCl-BT	FERUSFE 250mlAmb-HCl	GRO 40mlAmb HCl	PAHSIMLVI 40mlAmb-NoPres-WT	TDS 250mlHDPE-NoPres	V8260 40mlAmb-HCl				Remarks	Sample # (lab only)
MW-19	Grab	GW		10/18/18	9:00	9		X		X	X		X					-11
MW-21		GW			7:45													-12
MW-8R		GW			9:45													-13
MW-30R		GW			10:45													-14
MW-33		GW			11:25													-15
MW-11		GW			14:00													-16
MW-14		GW			15:05													-17
MW-24		GW			16:10													-18
MW-29		GW			17:10													-19
Trip Blank		GW		10/19/18	9:45								X					-20

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

Remarks: **NO3,SO4,ALK** has a 48hr hold time.

RAD SCREEN: <0.5 mR/hr

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: __ UPS __ FedEx ✓ Courier _____

Tracking # 4624 2995 6519 1662 5

Sample Receipt Checklist
COC Seal Present/Intact: __NP ✓Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: ✓Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
Peter V Zandt	10/19/18	9:45			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C 1.4+0.5=1.9°C	Bottles Received: 187
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 10/20/18	Time: 845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

APPENDIX D

October 2018 Well Water Level Measurements

AKANA

FLUID LEVEL MEASUREMENTS

Duck Valley Investigation

Well Number	Top of LNAPL Ft-TOC	Top of Water Ft-TOC	Date	Time	By (initials)
~~MW-1~~	~~—~~	~~11.38~~	~~10/18/18~~	~~17:20~~	~~PVZ~~
MW-5R	—	9.85	10/16/18	11:20	PVZ
MW-6	—	10.49	10/16/18	10:25	PVZ
MW-7	—	8.50	10/16/18	12:20	PVZ
MW-8R	—	10.97	10/18/18	9:15	BH
MW-9	—	13.21	10/18/18	12:20	PVZ
MW-10	—	20.28	10/16/18	14:25	PVZ
MW-11	—	11.14	10/18/18	14:00	BH
MW-12	—	10.11	10/18/18	14:10	PVZ
MW-14	—	12.05	10/18/18	14:45	BH
MW-15	—	8.37	10/17/18	8:45	PVZ
MW-19	—	19.43	10/18/18	8:40	PVZ
MW-20	—	16.43	10/16/18	15:50	PVZ
MW-21	—	15.94	10/18/18	7:30	PVZ
MW-22	—	20.44	10/17/18	10:10	PVZ
MW-23	—	15.64	10/17/18	11:20	PVZ
MW-24	—	15.50	10/18/18	15:45	BH
MW-25	—	13.09	10/18/18	15:10	PVZ
MW-26	—	11.37	10/16/18	16:55	PVZ
MW-27	—	13.80	10/16/18	8:55	PVZ
MW-28	—	9.94	10/18/18	18:45	PVZ
MW-13	—	9.55	10/18/18	13:25	PVZ

See IR next page. SA

AKANA

FLUID LEVEL MEASUREMENTS

Duck Valley Investigation

Well Number	Top of LNAPL Ft-TOC	Top of Water Ft-TOC	Date	Time	By (initials)
~~MW-29~~	~~—~~	~~9.69~~	~~10/18/18~~	~~16:55~~	~~BH~~
MW-30R	—	8.20	10/18/18	18:25	BH
MW-31	—	15.90	10/18/18	18:05	PVZ
MW-1R	—	11.38	10/18/18	17:20	PVZ
MW-2	—	8.33	10/18/18	9:40	PVZ
MW-3	—	6.70	10/18/18	11:35	PVZ
MW-32	—	15.04	10/18/18	16:15	PVZ
MW-33	—	14.25	10/18/18	11:00	PVZ

APPENDIX E

GPRS Report

GPRS SUBSURFACE SCANNING SOLUTIONS

Subsurface Investigation for Storage Tanks

Prepared For: Brent Hamil

Prepared By:
Mitchel Griffiths
Project Manager – Salt Lake City, UT
10/17/2018

GPRS SUBSURFACE SCANNING SOLUTIONS

October 17, 2018

Akana
Attn: Brent Hamil
Site: Duck Valley Indian Reserve

We appreciate the opportunity to provide this report for our work completed on 10/17/18 at the above address in Owyhee, NV.

PURPOSE

The purpose of this project was to search for any underground storage tanks (USTs) remaining on the properties. According to the client, the properties may have USTs in the area with no record of removal.

EQUIPMENT

- **350 MHz GPR Antenna.** The antenna is mounted in a stroller frame which rolls over the surface. The surface needs to be reasonably smooth and unobstructed in order to obtain readable scans. Obstructions such as curbs, landscaping, and vegetation will limit the feasibility of GPR. The data is displayed on a screen and marked in the field in real time. GPR works by sending pulses of energy into a material and recording the strength and the time required for the return of the reflected signal. Reflections are produced when the energy pulses enter into a material with different electrical properties from the material it left. The strength of the reflection is determined by the contrast in signal speed between the two materials. The total depth achieved can be as much as 8' or more with this antenna but can vary widely depending on the conductivity of the materials. Depths provided should always be treated as estimates as their accuracy can be affected by multiple factors. For more information, please visit: Link
- **Electromagnetic Pipe Locator.** The EM locator can detect the electromagnetic fields from live power or radio frequency signals. It can also be used in conjunction with a transmitter to connect directly to accessible, metallic pipes, risers, or tracer wires. A current is sent through the pipe or tracer wire at a specific frequency and the resulting EM field can then be detected by the receiver. The receiver is moved over the surface without coming in contact with the ground so it is not affected by terrain. Depths provided should always be treated as estimates as their accuracy can be affected by multiple factors. Depths achieved can be as much as 20' depending on the type of signal being traced or methods used. For more information, please visit: Link
- **Magnetometer.** The magnetometer detects the magnetic field of a ferromagnetic object. It responds to the difference in the magnetic field between two sensors. It is interpreted in the field by listening to changes in frequency as emitted by a speaker on the device. For more information, please visit: Link

PROCESS

Initial GPR scans were collected in order to evaluate the data and calibrate the equipment. Based on these findings, a scanning strategy is formed, typically consisting of scanning the entire area in a grid with 3'-5' scan spacing in order to locate any potential USTs that may remain at the site. The GPR data is interpreted in real time and anomalies in the data are located and marked on the surface along with their depths using spray paint, pin flags, etc. Depths are dependent on the dielectric of the materials being scanned so depth accuracy can vary throughout a site. Relevant scan examples were saved and will be provided in this report.

LIMITATIONS

Please keep in mind that there are limitations to any subsurface investigation. The equipment may not achieve maximum effectiveness due to soil conditions, above ground obstructions, reinforced concrete, and a variety of other factors. No subsurface investigation or equipment can provide a complete image of what lies below. Our results should always be used in conjunction with as many methods as possible including consulting existing plans and drawings, exploratory excavation or potholing, visual inspection of above ground features, and utilization of services such as One Call/811.

At this site, our scans were limited by debris in the areas, around buildings, and curbs in the area.

FINDINGS

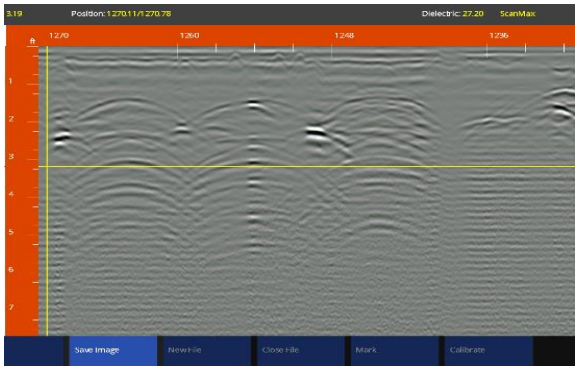
We found that the soil allowed for maximum GPR depth penetration of 2-3' in most areas. There was a potential UST located on the Wild Horse Reservoir however there were obstructions to get thorough scans of the area.

The following pages will provide photos and further explanation of our findings.

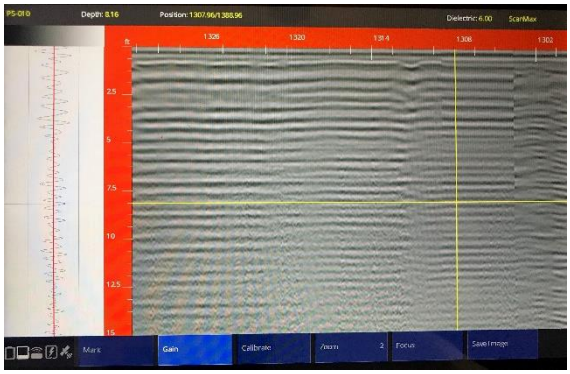
Scan Area Outlined in Yellow	N	Duck Valley Motel, Owyhee, NV	GPRS

R

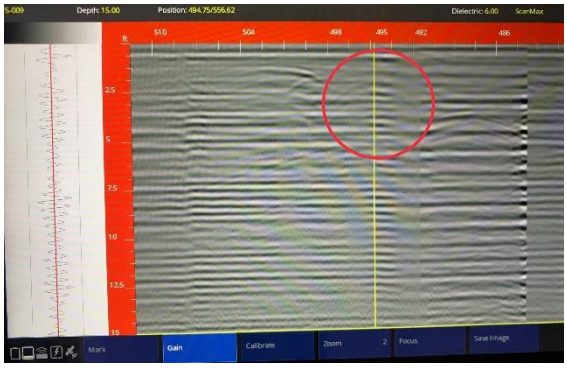
Scan Area Outlined in Yellow	N	Wild Horse Reservoir, Owyhee, NV	GPRS



Pictured above is a sample data signature on what USTs appear like and what we are searching for with the GPR.



Pictured is roughly what the data looked like at this site.



Circled in red is a potential UST

GPR Data Screenshots and Photos	Duck Valley Indian Reserve, Owyhee, NV	GPRS

Obstructions around UST location	Wild Horse Reservoir, Owyhee Nevada	GPRS

CLOSING

GPRS, Inc. has been in business since 2001, specializing in underground storage tank location, concrete scanning, utility locating, and shallow void detection for projects throughout the United States. I encourage you to visit our website (www.gprsinc.com) and contact any of the numerous references listed.

GPRS appreciates the opportunity to offer our services, and we look forward to continuing to work with you on future projects. Please feel free to contact us for additional information or with any questions you may have regarding this report.

Signed,

Mitchel Griffiths
Project manager, Salt Lake City, UT

GPRS SUBSURFACE SCANNING SOLUTIONS

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