



July 13, 2021

District Supervisor
Oil Conservation Division, District 1
1625 North French Drive
Hobbs, New Mexico 88240

**Re: REVISED
Release Characterization Results and Closure Request
ConocoPhillips
Zia Hills Federal Com 401H Release
Unit Letter B, Section 25, Township 26 South, Range 32 East
Lea County, New Mexico
1RP-5235
Incident ID NOY1828934361**

Sir or Madam:

Tetra Tech, Inc. (Tetra Tech) was contacted by ConocoPhillips to assess a release that occurred from an onsite tank at the Zia Hills 25E Fed Com 401H, located in the Public Land Survey System (PLSS) Unit Letter B, Section 25, Township 26 South, Range 32 East, in Lea County, New Mexico (Site). The Site is located at coordinates 32.019434°, -103.627633°, shown on Figures 1 and 2.

BACKGROUND

According to the State of New Mexico C-141 Initial Report (Appendix A), the release occurred on October 3, 2018. During drilling operations, an open hatch on a mud tank allowed water-based mud to flow out into secondary containment. Personnel conducting the fluid transfer failed to recognize two small tears in the secondary containment liner, which led to 60 bbls of fluid (water-based mud) to be released off the pad onto adjoining Bureau of Land Management (BLM) property. Approximately 43 bbls of fluid were recovered during initial response activities, predominantly from the secondary containment. The New Mexico Oil Conservation District (NMOCD) received the C-141 report form for the release on October 16, 2018, and subsequently assigned the Site the Remediation Permit (RP) number 1RP-5235 and Incident Identification (ID) NOY1828934361.

SITE CHARACTERIZATION

A site characterization was performed and no watercourses, sinkholes, residences, schools, hospitals, institutions, churches, springs, private domestic water wells, springs, playa lakes, wetlands, incorporated municipal boundaries, subsurface mines, or floodplains are located within the distances specified in 19.15.29 New Mexico Administrative Code (NMAC). This is an area of medium karst potential.

According to the New Mexico Office of the State Engineers (NMOSE) reporting system, there are no water wells within an 800-meter (approximately ½-mile) radius of the Site. The search radius had to be extended to 5,600 meters (approximately 3.5 miles) before any water wells (6) were encountered. Based on this dataset, the average depth to groundwater is 216 ft below ground surface (bgs). The site characterization data are shown in Appendix B.

Tetra Tech

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REGULATORY FRAMEWORK

Based upon the release footprint and in accordance with Subsection E of 19.15.29.12 NMAC, per 19.15.29.11 NMAC, the site characterization data was used to determine recommended remedial action levels (RRALs) for benzene, toluene, ethylbenzene, and xylene (collectively referred to as BTEX), total petroleum hydrocarbons (TPH), and chlorides in soil. Based on the site characterization and the medium potential for karst in the area, the RRALs for the Site are as follows:

- Benzene: 10 milligrams per kilogram (mg/kg);
- Total BTEX (sum of benzene, toluene, ethylbenzene, and xylene): 50 mg/kg;
- TPH (GRO + DRO + ORO): 100 mg/kg;
- Chloride: 600 mg/kg.

Material safety data sheets for the water-based mud provided by ConocoPhillips were used to identify sulfate, barium, and potassium as additional constituents of potential concern to be included in the soil assessment, per 19.15.29.11(A)(5)(e) NMAC. Tetra Tech identified soil screening levels for barium and potassium in the New Mexico environment department's *Risk Assessment Guidance for Site Investigations and Remediation Volume I* (Revision 2, June 19, 2019). Sulfate was not identified as a constituent in any of the sources provided in 19.15.29.11(A)(5)(e) NMAC. Based on the most stringent screening concentrations for each contaminant (the soil screening level for migration to groundwater pathway for barium, and the residential soil, noncancer pathway for potassium) ConocoPhillips proposes the following RRALs:

- Barium: 2.70E+03 mg/kg;
- Potassium: 1.56E+07 mg/kg.

INITIAL SOIL ASSESSMENT

The initial release extent was identified by COP personnel (Figure 3). In December of 2018, ConocoPhillips conducted an initial assessment and collected a total of seventeen (17) samples from ten (10) locations within the observed release footprint at four-inch and eight-inch depths. The samples were submitted to Xenco Laboratories in Midland, TX and analyzed for chloride using EPA Method 300.0. Six (6) of the samples were also analyzed for BTEX using EPA Method 8021B and TPH using EPA Method SW8015 Mod. These initial sample locations are indicated on Figure 3. A copy of the laboratory analytical report and chain-of-custody documentation are included in Appendix D.

ADDITIONAL SOIL ASSESSMENT

Additional soil assessment work was identified as necessary in order to confirm delineation of the full release extent and include additional constituents identified in the drilling mud. Tetra Tech personnel were onsite on May 14, 2020 to install a total of twelve borings and conduct soil sampling. Six borings (BH-1 through BH-6) were installed using an air rotary drilling rig within the release area footprint to depths of 9 ft bgs to confirm vertical delineation of the release. The remaining six (6) borings (AH-1 through AH-6) were installed using a hand auger on the perimeter of the release extent to the north, south, east, and west to depths of 3 ft bgs (with the exception of AH-4, which was installed to 5 ft bgs) to confirm horizontal delineation. Boring locations are shown in Figure 4. Boring logs are presented in Appendix C.

A total of forty-three samples were collected from the twelve borings and submitted to Pace Analytical National Center for Testing & Innovation in Nashville, Tennessee (Pace) to be analyzed for chloride via EPA Method 300.0, TPH via EPA Method 8015M, and BTEX via EPA Method 8021B. Due to the nature of the released fluid, the additional constituents of potential concern identified in the released drilling mud were analyzed per guidelines found within 19.15.29.11(A)(5)(e) NMAC. Barium and potassium were analyzed via EPA method 6010B, and sulfate via EPA method 9056A. A copy of the laboratory analytical report and chain-of-custody documentation are included in Appendix D.

ADDITIONAL DELINEATION

Tetra Tech returned to the Site on September 17, 2020 to complete vertical delineation for chloride in the area around BH-1. Two additional borings (BH-7 and BH-8) were installed within the release footprint upgradient (BH-7) and downgradient (BH-8) of BH-1, each to 20 ft bgs (see Figure 3). A total of fourteen (14) samples, seven (7) from each boring, were sent to Pace and analyzed for chlorides via EPA Method 300.0, TPH via EPA Method 8015M, and BTEX via EPA Method 8021B. A copy of the laboratory analytical report and chain-of-custody documentation are included in Appendix D.

SUMMARY OF ASSESSMENT RESULTS

Sample results from the December 2018 initial soil assessment are summarized in Table 1. Analytical results were non-detect for BTEX in the six analyzed samples. TPH was detected in only one sample and chlorides were detected in ten of the seventeen samples at levels far below the established RRALs of 100 mg/kg for TPH and 600 mg/kg for chlorides.

Results from the May and September 2020 soil sampling events in the expanded release footprint are summarized in Table 2. Analytical results from all samples were below the Site RRALs for TPH (100 mg/kg), or BTEX (50 mg/kg). Furthermore, analytical results for barium or potassium were below the proposed Site RRALs. Chloride results were below the Site RRAL of 600 mg/kg in all samples with the exception of soils in the 6 – 10 ft interval at adjacent boring locations BH-1 and BH-8 (see Table 2). Therefore, vertical and horizontal delineation of the release was confirmed following the assessment efforts.

INITIAL REPORT SUBMITTAL

A Report entitled *Release Characterization Results and Closure Request* was prepared by Tetra Tech and submitted to the NMOCD on January 12, 2021 with fee application payment PO Number QYGJ0-210112-C-1410. The report described the assessment activities and results. The report included a variance request for remediation of soils identified in the 6-10 ft bgs interval. The work plan was denied by Karen Collins of the NMOCD via email on June 29, 2021. The following reason for rejection was included in the email:

"What you are requesting doesn't necessarily meet a variance requirement. However, it appears you have met closure requirements for Table 1 of part 29."

DATA EVALUATION FOR CLOSURE

Thus, given that chloride results were well below the Site RRAL of 600 mg/kg in surface (0 – 4 ft) soils at all sampling locations, the chloride impacts identified in the 6 – 10 ft bgs interval are interpreted as unrelated to the reported release. Although chloride results in this interval are elevated above the Site RRAL, they do not pose a threat to fresh water, public health, or the environment for a number of reasons. The elevated chloride concentrations were isolated to two boring locations and selected subsurface intervals, constituting a small geographic area. Soils at this depth will not have contact with surface water, and it is highly unlikely that chlorides at this concentration (maximum encountered was 2,200 mg/kg) will migrate to the depth at which groundwater is encountered in the area (approximately 216 ft bgs). Furthermore, uniform vegetative cover was observed in the release footprint during Site assessment activities, indicating that the 1RP-5235 release did not negatively impact vegetative growth. Thus, the collected data indicates concentrations that have met the standards of Table I of 19.15.29.12 NMAC for closure.

CONCLUSION

Based on the analytical results of the assessment events, no remedial actions are proposed for this release in order to protect fresh water, public health, and the environment. Therefore, ConocoPhillips respectfully requests closure of this release with no further action.

REVISED Release Characterization Results and Closure Request
July 13, 2021

ConocoPhillips

The final C-141 forms are included in Appendix A. If you have any questions concerning the assessment activities performed at this Site, or the recommendations for the release, please call me at (512) 338-2861.

Sincerely,
Tetra Tech, Inc.

A handwritten signature in blue ink, appearing to read 'CLL', is positioned above the printed name of the sender.

Christian M. Llull, P.G.
Project Manager

cc:
Mr. Marvin Soriwei, RMR – ConocoPhillips
Mr. Charles Beauvais, GPBU – ConocoPhillips
Ms. Shelly Tucker, BLM

LIST OF ATTACHMENTS

Figures:

- Figure 1 – Overview Map
- Figure 2 – Site Location/Topographic Map
- Figure 3 – Initial Release Assessment Map
- Figure 4 – Additional Release Assessment Map

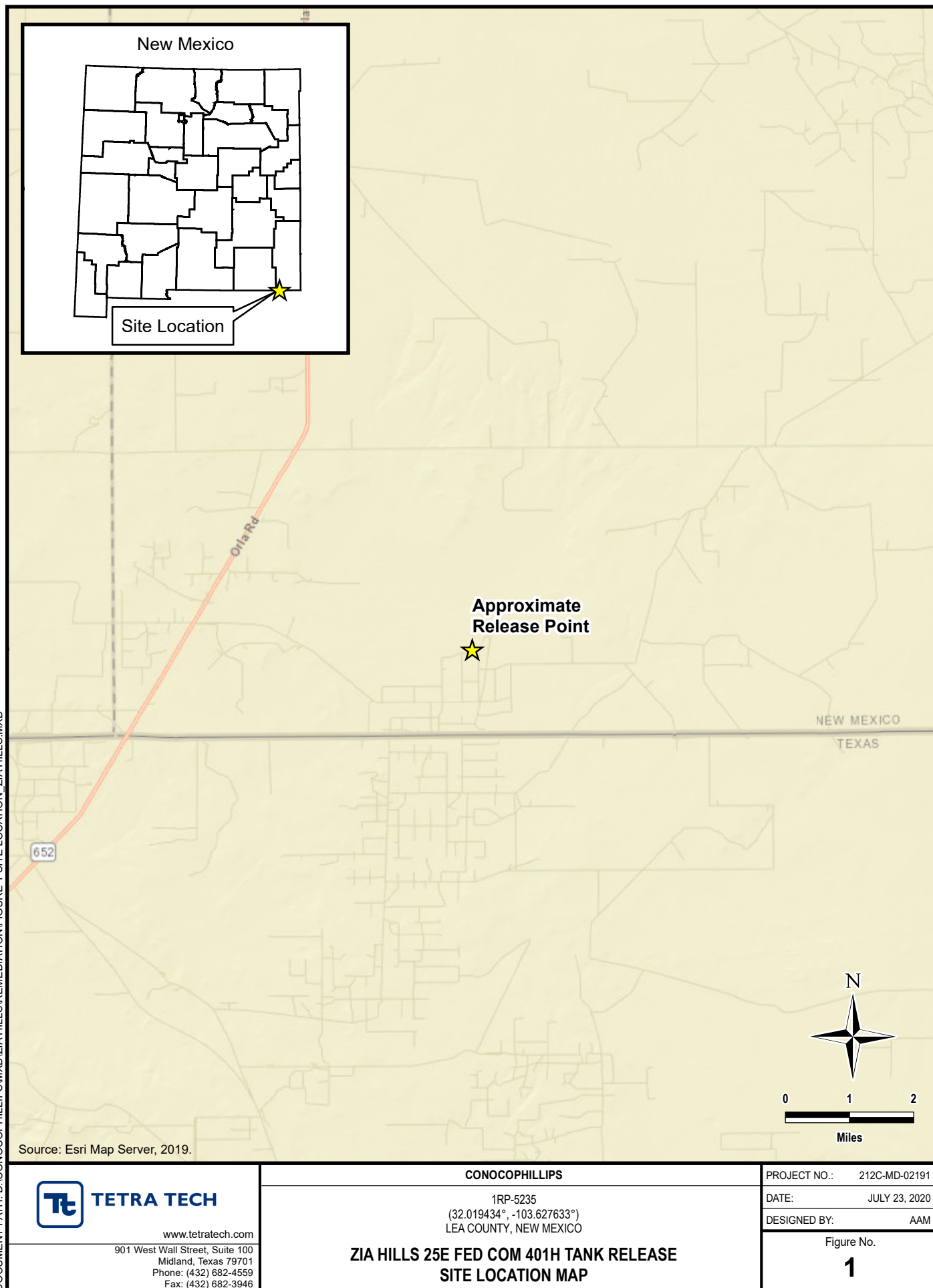
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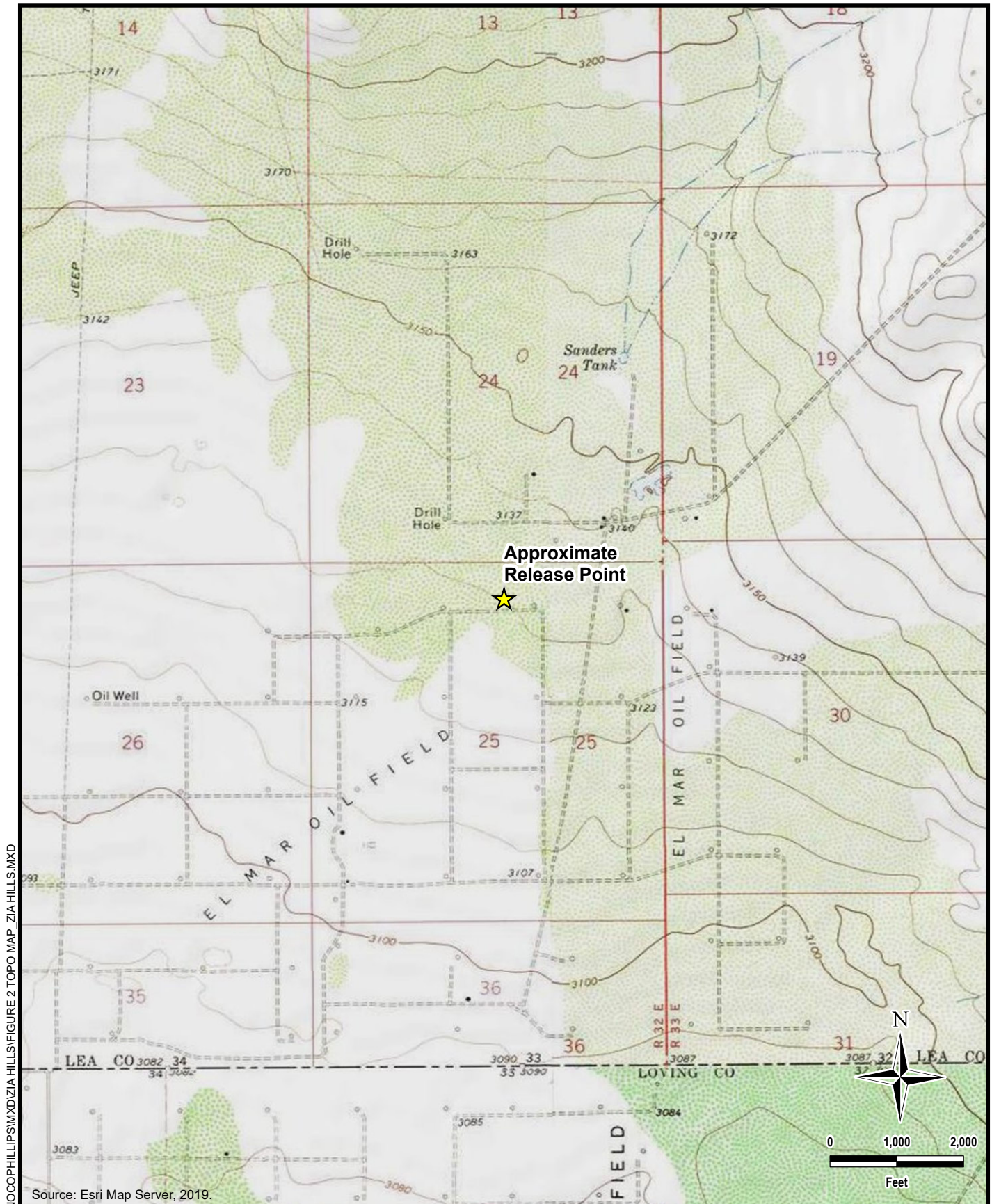
- Table 1 – Summary of Analytical Results – Initial Soil Assessment
- Table 2 – Summary of Analytical Results – Additional Soil Assessment

Appendices:

- Appendix A – C-141 Forms
- Appendix B – Site Characterization Data
- Appendix C – Boring Logs
- Appendix D – Laboratory Analytical Data

FIGURES





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CONOCOPHILLIPS

1RP-5235
(32.019434°, -103.627633°)
LEA COUNTY, NEW MEXICO

**ZIA HILLS 25E FED COM 401H TANK RELEASE
TOPOGRAPHIC MAP**

PROJECT NO.: 212C-MD-02191

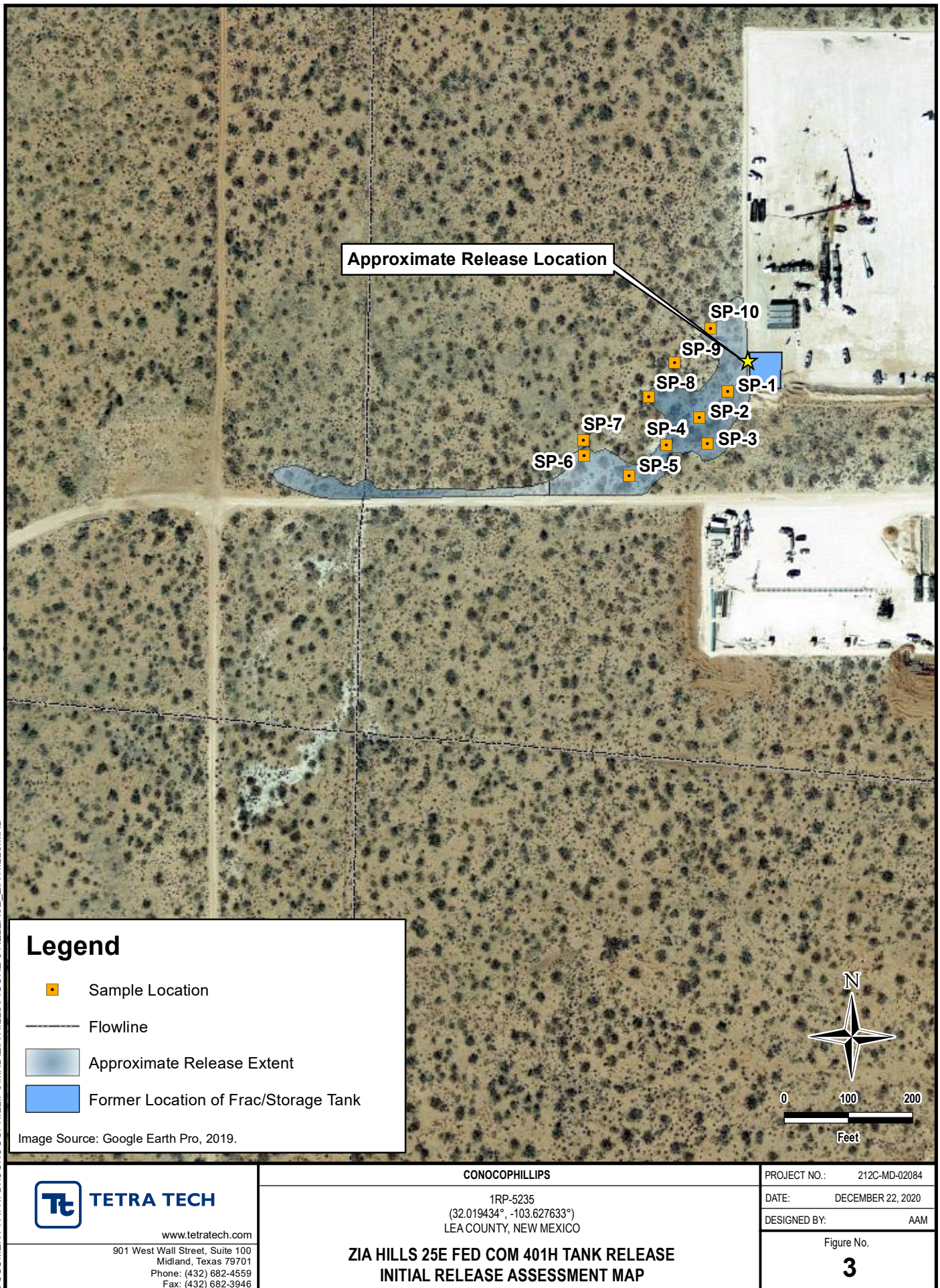
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DESIGNED BY: AAM

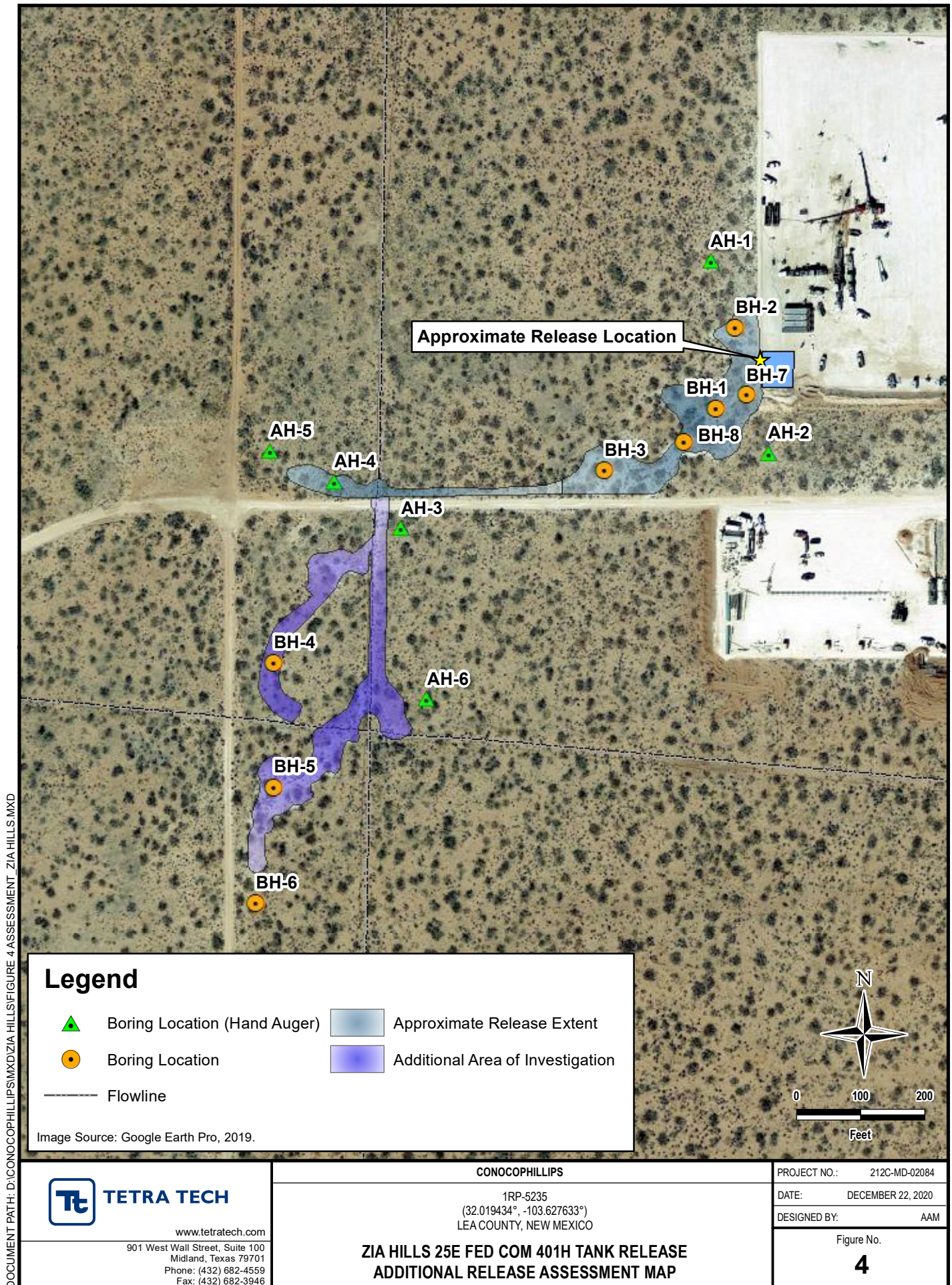
Figure No.

2

DOCUMENT PATH: D:\CONOCOPHILLIPS\MDX\ZIA HILLS\FIGURE 2 TOPO MAP_ZIA HILLS.MXD



DOCUMENT PATH: D:\CONOCOPHILLIPS\MD\ZIA HILLS\FIGURE 3 RELEASE_ZIA HILLS.MXD



TABLES

TABLE 1
SUMMARY OF ANALYTICAL RESULTS
INITIAL SOIL ASSESSMENT
CONOCOPHILLIPS
ZIA HILLS FED COM 401H
1RP-5235
LEA COUNTY, NM

Sample Location*	Sample ID*	Laboratory ID	Sample Date	Sample Interval	Chloride ¹		BTEX ²												TPH ³									
							Benzene		Toluene		Ethylbenzene		m,p-Xylenes		o-Xylenes		Total Xylenes		Total BTEX		GRO		DRO		MRO		TPH	
							in.	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg
SP-1	Sample 1	609765-001	12/20/18	4	11.9		< 0.00199		< 0.00199		< 0.00199		< 0.00398		< 0.00199		< 0.00199		< 0.00199		< 15.0		< 15.0		< 15.0		< 15.0	
	Sample 2	609765-002		8	32.5		< 0.00200		< 0.00200		< 0.00200		< 0.00400		< 0.00200		< 0.00200		< 0.00200		< 15.0		22.4		< 15.0		22.4	
SP-2	Sample 3	609765-003	12/20/18	4	7.30		< 0.00201		< 0.00201		< 0.00201		< 0.00402		< 0.00201		< 0.00201		< 0.00201		< 15.0		< 15.0		< 15.0		< 15.0	
	Sample 4	609765-004		8	< 4.95		< 0.00200		< 0.00200		< 0.00200		< 0.00401		< 0.00200		< 0.00200		< 0.00200		< 15.0		< 15.0		< 15.0		< 15.0	
SP-3	Sample 5	609765-005	12/20/18	4	12.5		< 0.00199		< 0.00199		< 0.00199		< 0.00398		< 0.00199		< 0.00199		< 0.00199		< 15.0		< 15.0		< 15.0		< 15.0	
	Sample 6	609765-006		8	6.19		< 0.00200		< 0.00200		< 0.00200		< 0.00399		< 0.00200		< 0.00200		< 0.00200		< 15.0		< 15.0		< 15.0		< 15.0	
SP-4	Sample 7	609765-007	12/20/18	4	< 4.97		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
	Sample 8	609765-008		8	11.4		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
SP-5	Sample 9	609765-009	12/20/18	4	14.5		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
	Sample 10	609765-010		8	7.06		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
SP-6 (Boundary Sample 1 & 2)	Sample 11	609765-011	12/20/18	4	< 4.98		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
	Sample 12	609765-012		8	< 4.99		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
SP-7 (Outside of Boundary)	Sample 13	609765-013	12/20/18	4	5.53		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
	Sample 14	609765-014		8	< 4.96		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
SP-8 (Boundary Sample 2)	Sample 15	609765-015	12/20/18	4	6.22		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
SP-9 (Boundary Sample 3)	Sample 16	609765-016	12/20/18	4	< 4.99		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	
SP-10 (Boundary Sample 4)	Sample 17	609765-017	12/20/18	NR	< 4.95		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA		NA	

* Sample locations are labeled such that they correspond to the provided sample location map.
(Labels in parentheses correspond to the Chain of Custody in the laboratory analytical report.)

NOTES:

- in.

Inches

1

Method 300.0
- ft.

Feet

2

Method 8021B
- bgs

Below ground surface

3

Method SW8015 Mod
- NR

Not recorded on COC
- NA

Not analyzed
- TPH

Total Petroleum Hydrocarbons
- GRO

Gasoline Range Hydrocarbons
- DRO

Diesel Range Hydrocarbons
- MRO

Motor Oil Range Hydrocarbons

TABLE 2
SUMMARY OF ANALYTICAL RESULTS
ADDITIONAL SOIL ASSESSMENT
CONOCOPHILLIPS
ZIA HILLS FED COM 401H
1RP-5235
LEA COUNTY, NM

Sample ID	Sample Date	Sample Depth Interval	Field Screening Results		Chloride ¹		Sulfate ²		Metals ³				BTEX ⁴										TPH ⁵						
									Barium		Potassium		Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTEX		GRO ⁶		DRO		ORO		Total TPH (GRO+DRO+ORO)
			Chloride	PID					mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	C ₃ - C ₁₀	Q	C ₁₀ - C ₂₈	Q	C ₂₈ - C ₄₀	Q	
AH-1	5/14/2020	ft. bgs	ppm		mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg
		0-1	74.3	1.9	< 20.2		< 50.5		21.9		569		< 0.00101		< 0.00505		< 0.00253		< 0.00657		-		< 0.101		2.12	J	2.00	J	4.12
		2-3	69.8	0.8	11.1	J	13.7	J	22.6		1000		< 0.00101		< 0.00506		< 0.00253		< 0.00658		-		< 0.101		< 4.05		2.69	J	2.69
AH-2	5/14/2020	0-1	84.1	0.6	< 21.0		16.5	J	24.6		1050		< 0.00105		< 0.00524		< 0.00262		< 0.00681		-		< 0.105		2.25	J	5.64		7.89
		2-3	65.3	0.8	< 20.3		< 50.8		23.1		1220		< 0.00102		< 0.00508		< 0.00254		< 0.00660		-		< 0.102		< 4.06		2.76	J	2.76
AH-3	5/14/2020	0-1	74.1	1.1	< 20.1		< 50.3		28.7		1110		< 0.00101		< 0.00503		< 0.00252		< 0.00654		-		< 0.101		2.50	J	2.80	J	5.30
		2-3	69.3	0.9	< 20.2		< 50.5		25.1		1070		< 0.00101		< 0.00505		< 0.00252		< 0.00656		-		< 0.101		2.89	J	3.57	J	6.46
AH-4	5/14/2020	0-1	101	0.6	< 20.3		< 50.7		39.9		751		< 0.00101		< 0.00507		< 0.00254		< 0.00660		-		< 0.101		4.42		9.78		14.2
		2-3	86.1	0.9	< 20.8		< 52.0		58.2		774		< 0.00104		< 0.00520		< 0.00260		< 0.00676		-		0.0229	J	1.77	J	4.89		6.68
		4-5	63.4	0.8	10.8	J	< 52.4		56.1		901		< 0.00105		< 0.00524		< 0.00262		< 0.00682		-		< 0.105		< 4.19		2.22	J	2.22
AH-5	5/14/2020	0-1	88.3	0.4	< 20.3		< 50.8		26.6		587		< 0.00102		< 0.00508		< 0.00254		< 0.00660		-		< 0.102		2.00	J	5.10		7.10
		2-3	71.5	0.9	13.1	J	14.9	J	18.6		499		< 0.00101		< 0.00506		< 0.00253		< 0.00658		-		0.0229	J	2.52	J	4.39		6.93
AH-6	5/14/2020	0-1	68.1	1.0	< 20.1		< 50.3		16.3		495		< 0.00101		< 0.00503		< 0.00252		< 0.00655		-		< 0.101		3.99	J	5.06		9.05
		2-3	65.5	0.8	< 20.3		< 50.8		17.1		566		< 0.00102		< 0.00508		< 0.00254		< 0.00660		-		< 0.102		< 4.06		2.72	J	2.72
BH-1	5/14/2020	0-1	101	0.9	16.6	J	17.6	J	35.9	O1	1070		< 0.00102		< 0.00509		< 0.00255		< 0.00662		-		0.0804	B J	4.27		5.90		10.2
		2-3	-	0.8	62.3		135		33.3		955		< 0.00106		< 0.00529		< 0.00264		< 0.00688		-		< 0.106		3.15	J	4.85		8.00
		4-5	121	1.4	120		67.6		67.1		966		< 0.00105		< 0.00525		< 0.00263		< 0.00683		-		< 0.105		3.12	J	7.46		10.6
		6-7	-	1.5	1980		46.4	J	164		584		< 0.00103		< 0.00517		< 0.00259		< 0.00672		-		< 0.103		2.46	J	1.57	J	4.03
		8-9	-	1.1	2200		51.8	J	126		538		< 0.00120		< 0.00602		< 0.00301		< 0.00783		-		< 0.012		2.17	J	1.57	J	3.74
BH-2	5/14/2020	0-1	86.4	2.1	11.6	J	62.0		77.5		1540		< 0.00102		< 0.00512		< 0.00256		< 0.00665		-		0.0414	B J	9.96		15.6		25.6
		2-3	-	0.9	29.4		40.3	J	29.3		401		< 0.00101		< 0.00504		< 0.00252		< 0.00655		-		0.0257	J	< 4.03		1.34	J	1.34
		4-5	78.1	1.6	13.3	J	34.4	J	33.7		512		< 0.00101		< 0.00504		< 0.00252		< 0.00655		-		< 0.101		2.13	J	0.467	J	2.60
		6-7	-	1.4	13.4	J	16.8	J	69.7	O1	904		< 0.00102		< 0.00509		< 0.00254		< 0.00661		-		< 0.102		< 4.07		1.55	J	1.55
		8-9	-	0.8	< 20.5		40.0	J	232		889		< 0.00102		< 0.00512		< 0.00256		< 0.00666		-		< 0.102	J3	2.87	J	2.80	J	5.67
BH-3	5/14/2020	0-1	109	1.1	36.9		36.8	J	27.9		492		< 0.00101		< 0.00507		< 0.00253		< 0.00659		-		< 0.101		2.80	J	4.88		7.68
		2-3	-	0.9	99.8		45.0	J	33.5		627		< 0.00103		< 0.00514		< 0.00257		< 0.00668		-		< 0.103		2.65	J	6.14		8.79
		4-5	101	1.4	97.8		30.1	J	27.6		938		< 0.00122		< 0.00612		< 0.00306		< 0.00796		-		< 0.122		< 4.90		1.02	J	1.02
		6-7	-	1.0	24.6		17.7	J	216		906		< 0.00101		< 0.00507		< 0.00253		< 0.00659		-		< 0.101		< 4.05		0.600	J	0.600
		8-9	-	0.8	111		52.2	J	123		430		< 0.00107		< 0.00536		< 0.00268		< 0.00696		-		< 0.107		2.22	J	0.800	J	3.02

TABLE 2
SUMMARY OF ANALYTICAL RESULTS
ADDITIONAL SOIL ASSESSMENT
CONOCOPHILLIPS
ZIA HILLS FED COM 401H
1RP-5235
LEA COUNTY, NM

Sample ID	Sample Date	Sample Depth Interval	Field Screening Results		Chloride ¹		Sulfate ²		Metals ³				BTEX ⁴										TPH ⁵							
									Barium		Potassium		Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTEX		GRO ⁶		DRO		ORO		Total TPH (GRO+DRO+ORO)	
			mg/kg	Q																			mg/kg	Q	mg/kg	Q	mg/kg	Q		mg/kg
BH-4	5/14/2020	0-1	55.1	1.5	< 20.5		< 51.2		42.4		837		< 0.00102	< 0.00512	< 0.00256	< 0.00665	-	< 0.102	1.72	J	3.01	J	4.73							
		2-3	-	1.1	< 20.8		16.8	J	48.3		1420		< 0.00104	< 0.00519	< 0.00259	< 0.00675	-	< 0.104	< 4.15		1.01	J	1.01							
		4-5	63.8	0.5	< 20.5		< 51.3		30.6		1360		< 0.00103	< 0.00513	< 0.00257	< 0.00667	-	< 0.103	< 4.11		1.25	J	1.25							
		6-7	-	0.6	10.6	J	66.0		120		1310		< 0.00104	< 0.00522	< 0.00261	< 0.00678	-	< 0.104	1.71	J	2.33	J	4.04							
		8-9	-	0.9	28.8		56.5	J	39.3	< 0.00298	828	< 0.00119	< 0.00596	< 0.00298	< 0.00775	-	< 0.119	< 4.77		0.575	J	0.575								
BH-5	5/14/2020	0-1	101	1.2	23.7		37.7	J	49.2		1050		< 0.00118	< 0.00588	< 0.00294	< 0.00765	-	< 0.118	5.54		3.86	J	9.40							
		2-3	-	1.1	< 20.1		< 50.3		26.4		973		< 0.00101	< 0.00503	< 0.00252	< 0.00654	-	< 0.101	< 4.03		1.18	J	1.18							
		4-5	86.2	0.9	22.6	J	35.0	J	23.9		552		< 0.00120	< 0.00602	< 0.00301	< 0.00783	-	< 0.120	< 4.82		1.43	J	1.43							
		6-7	-	1.6	< 20.4		14.1	J	51.6		398		< 0.00102	< 0.00509	< 0.00254	< 0.00662	-	< 0.102	< 4.07		< 4.07		-							
		8-9	-	1.2	< 20.6		21.2	J	88.3		749		< 0.00103	< 0.00514	< 0.00257	< 0.00669	-	< 0.103	< 4.12		0.619	J	0.619							
BH-6	5/14/2020	0-1	67.4	0.8	32.8		57.6	J	42.4		1160		< 0.00120	< 0.00599	< 0.00299	< 0.00778	-	< 0.120	5.96		9.96		15.9							
		2-3	-	1.2	25.4		41.1	J	21.0		908		< 0.00120	< 0.00600	< 0.00300	< 0.00781	-	< 0.120	4.09	J	2.20	J	6.29							
		4-5	79.2	1.1	< 20.9		19.1	J	40.0		1610		< 0.00104	< 0.00522	< 0.00261	< 0.00679	-	< 0.104	< 4.18		0.754	J	0.754							
		6-7	-	0.4	< 20.5		< 51.4		44.1		883		< 0.00103	< 0.00514	< 0.00257	< 0.00668	-	< 0.103	< 4.11		0.993	J	0.993							
		8-9	-	0.9	< 20.7		23.9	J	95.0		818		< 0.00103	< 0.00517	< 0.00259	< 0.00673	-	< 0.103	< 4.14		0.556	J	0.556							
BH-7	9/17/2020	0-1	94	-	15.4	J	NA		NA		NA		< 0.00148	< 0.00741	< 0.00370	< 0.00963	-	< 3.70	1.93	J	2.87	J	4.80							
		2-3	113	-	18.7	J	NA		NA		NA		< 0.00115	< 0.00573	< 0.00286	< 0.00745	-	< 2.86	< 4.09		2.03	J	2.03							
		4-5	163	-	18.4	J	NA		NA		NA		< 0.00108	< 0.00542	< 0.00271	< 0.00705	-	< 2.71	1.77	J	0.979	J	2.75							
		6-7	356	-	207		NA		NA		NA		< 0.00108	< 0.00540	< 0.00270	< 0.00702	-	< 2.70	< 4.14		0.485		0.485							
		9-10	179	-	101		NA		NA		NA		< 0.00107	< 0.00535	< 0.00268	< 0.00696	-	< 2.68	< 4.10		< 4.10		-							
		14-15	184	-	407		NA		NA		NA		< 0.00152	< 0.00758	< 0.00379	< 0.00985	-	< 3.79	< 4.30		< 4.30		-							
		19-20	112	-	27.6		NA		NA		NA		< 0.00104	< 0.00519	< 0.00260	< 0.00675	-	< 2.60	2.00	J	< 4.08		2.00							
BH-8	9/17/2020	0-1	111	-	12.0	J	NA		NA		NA		< 0.00104	< 0.00518	< 0.00259	< 0.00673	-	< 2.59	< 4.07		1.50	J	1.50							
		2-3	148	-	17.5	J	NA		NA		NA		< 0.00103	< 0.00514	< 0.00257	< 0.00668	-	< 2.57	3.25	J	2.96	J	6.21							
		4-5	144	-	29.6		NA		NA		NA		< 0.00104	< 0.00520	< 0.00260	< 0.00676	-	< 2.60	< 4.08		< 4.08		-							
		6-7	1100	-	814	J5	NA		NA		NA		< 0.00111	< 0.00557	< 0.00279	< 0.00724	-	< 2.79	2.37	J	3.36	J	5.73							
		9-10	1120	-	1200		NA		NA		NA		< 0.00112	< 0.00558	< 0.00279	< 0.00725	-	< 2.79	2.41	J	0.901	J	3.31							
		14-15	111	-	53.5		NA		NA		NA		< 0.00110	< 0.00549	< 0.00274	< 0.00713	-	< 2.74	< 4.18		< 4.18		-							
		19-20	94	-	21.3		NA		NA		NA		< 0.00105	< 0.00523	< 0.00261	< 0.00680	-	< 2.61	1.82	J	< 4.07		1.82							

NOTES:

- ft.

Feet
- bgs

Below ground surface
- ppm

Parts per million
- mg/kg

Milligrams per kilogram
- TPH

Total Petroleum Hydrocarbons
- GRO

Gasoline range organics
- DRO

Diesel range organics
- ORO

Oil range organics
- NA

Sample not analyzed for constituent
- 1

EPA Method 300.0
- 2

EPA Method 9056A
- 3

EPA Method 6010B
- 4

EPA Method 8260B
- 5

EPA Method 8015
- 6

EPA Method 8015D/GRO

- Bold and italicized values indicate exceedance of proposed RRALs**
- QUALIFIERS:
- 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.
- J5

The sample matrix interfered of the analyte is acceptable; the reported value is an estimate.
- O1

The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicated matrix interference.

APPENDIX A C-141 FORMS

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural
Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	NOY1828934361
District RP	1RP-5235
Facility ID	
Application ID	pOY1828933858

Release Notification

Responsible Party

Responsible Party: ConocoPhillips	OGRID: 217817
Contact Name: Matthew Oster	Contact Telephone: 575-745-1937
Contact email: Matthew.oster@conocophillips.com	Incident #: (assigned by OCD)
Contact mailing address: 15 West London Rd. Loving, NM 88256	

Location of Release Source

Latitude 32.011286 N Longitude 103.373820 W
(NAD 83 in decimal degrees to 5 decimal places)

32.02026,-103.627301

Site Name: Zia Hills Federal Com 401H	Site Type: Drilling
Date Release Discovered: 10/03/18	API# (if applicable) 30-025-42560-00-X1

Unit Letter	Section	Township	Range	County
B	25	26S	32E	LEA

Federal minerals

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (Name: _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☒ Other (describe)	Volume/Weight Released (provide units) 60 bbls of 9.3 ppg Water Based Mud (Brine)	Volume/Weight Recovered (provide units) In-process Approximately 43 bbls of 9.3 ppg WBM was recovered from containment

Cause of Release

Open hatch on mud tank allowed fluid to flow out of tank and into secondary containment. The fluid was 9.3 ppg Water Based Mud. WBM was being transferred from the drilling rig's mud pits to a mud tank in secondary containment. Approximately 180 bbls was transferred from the rig to the mud tank. The mud tank held 120 bbls of fluid before the fluid level reached the open hatch allowing 60 bbls to spill into the containment. Unbeknownst to the personnel conducting the fluid transfer, the fluid leaked out of the secondary containment through two small tears in the liner. This allowed the fluid to flow parallel to the backside of the containment while remaining on the drilling pad. Some fluid ran off the pad and onto the adjoining BLM property, flowing approximately 192 feet perpendicular to the pad. I used a Spill Volume Calculator (attached to email) that was provided to me by our Environmental Department to estimate the volume of fluid that flowed onto BLM property, at 4.28 bbls. 17.11 bbls

Incident ID	NOY1828934361
District RP	1RP-5235
Facility ID	
Application ID	pOY1828933858

Was this a major release as defined by 19.15.29.7(A) NMAC? ☒ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release? Volume of release exceeds 25 bbls
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? No	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

☒ The source of the release has been stopped. ☒ The impacted area has been secured to protect human health and the environment. ☒ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. ☐ All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why: All fluids on the drilling pad have been contained, however, the fluid that ran off of the pad and onto the BLM property has not yet been remediated. The fluid in the lined secondary containment has been recovered with a vac truck.	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: <u>Matthew Oster</u>	Title: <u>Sr. HSE Specialist</u>
Signature: <u>Matthew L Oster</u>	Date: <u>10/04/2018 11/08/18</u>
email: <u>Matthew.oster@conocophillips.com</u>	Telephone: <u>575-745-1937</u>
OCD Only Received by: RECEIVED By Olivia Yu at 9:03 am, Oct 16, 2018 Date: _____	

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	_____ (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☐ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☐ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☐ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☐ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☐ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☐ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☐ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☐ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☐ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☐ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☐ No
Did the release impact areas not on an exploration, development, production, or storage site?	☐ Yes ☐ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: Each of the following items must be included in the report.

- ☐ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☐ Field data
- ☐ Data table of soil contaminant concentration data
- ☐ Depth to water determination
- ☐ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☐ Boring or excavation logs
- ☐ Photographs including date and GIS information
- ☐ Topographic/Aerial maps
- ☐ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico
Oil Conservation Division

Page 4

Incident ID	
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: _____ Title: _____

Signature:  Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

Incident ID	NOY1828934361
District RP	1RP-5235
Facility ID	
Application ID	

Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

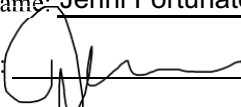
Closure Report Attachment Checklist: *Each of the following items must be included in the closure report.*

- ☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- ☐ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- ☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- ☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Jenni Fortunato

Title: Program Manager, Remediation

Signature: 

Date: 7/12/2021

email: jenni.fortunato@cop.com

Telephone: 832-486-2477

OCD Only

Received by: _____

Date: _____

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: Brittany Hall

Date: 09/14/2022

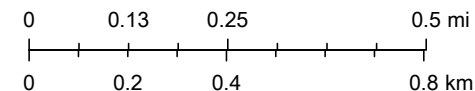
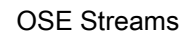
Printed Name: Brittany Hall

Title: Environmental Specialist

APPENDIX B SITE CHARACTERIZATION DATA

The map displays a grid of 10x10 cells. The grid is labeled with letters (A-J) and numbers (1-4) in the corners. The map is titled '26S 32E' in the center. A yellow star is located in the center-right of the map. A blue line is visible in the top-right corner, and another blue line is visible in the bottom-right corner. The map is titled '26S 32E' in the center.

1:18,056



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS,

New Mexico Oil Conservation Division

NM OCD Oil and Gas Map. <http://nm-emnrd.maps.arcgis.com/apps/webappviewer/index.html?id=4d017f2306164de29fd2fb9f8f35ca75>: New Mexico Oil Conservation Division

Karst Potential

Zia Hills Federal Com 401H Release

Legend

- High
- Low
- Medium
- Zia Hills Federal Com 401H Release

Carlsbad

32.02026°, -103.627301°

285

Google Earth

Image Landsat / Copernicus

© 2020 Google

Released to Imaging: 9/14/2022 9:25:03 AM

20 mi





New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 02273		CUB	LE	1	2	21	26S	33E		634549	3545134*	5175	160	120	40
C 02271	R	CUB	LE	2	3	21	26S	32E		624449	3544111*	5222	150	125	25
C 03595 POD1		CUB	LE	4	2	3	21	26S	32E	624423	3544045	5242	280	180	100
C 02271 POD2		CUB	LE	3	2	3	21	26S	32E	624348	3544010*	5312	270	250	20
C 02323		C	LE	3	2	3	21	26S	32E	624348	3544010*	5312	405	405	0
C 03537 POD1		CUB	LE	3	2	3	21	26S	32E	624250	3543985	5407	850		

Average Depth to Water: **216 feet**

Minimum Depth: **120 feet**

Maximum Depth: **405 feet**

Record Count: 6

UTMNAD83 Radius Search (in meters):

Easting (X): 629636.579

Northing (Y): 3543504.27

Radius: 5600

*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

10/15/20 11:42 AM

Page 1 of 1

WATER COLUMN/ AVERAGE
DEPTH TO WATER

APPENDIX C BORING LOGS

212C-MD-02191		TETRA TECH		LOG OF BORING AH-1				Page 1 of 1						
Project Name: ZIA HILLS FEDERAL COM 401H RELEASE														
Borehole Location: 32.019882°, -103.627930°					Surface Elevation: 3137 ft									
Borehole Number: AH-1				Borehole Diameter (in.): 3		Date Started: 5/14/2020		Date Finished: 5/14/2020						
DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm)	VOC FIELD SCREENING (ppm)	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT	PLASTICITY INDEX	MINUS NO. 200 (%)	GRAPHIC LOG	WATER LEVEL OBSERVATIONS While Drilling <u>▽</u> DRY ft Upon Completion of Drilling <u>▽</u> DRY ft Remarks:		
												MATERIAL DESCRIPTION		DEPTH (ft)
1	X	X	74.3	1.9							X	-SM- SILTY SAND - Brown, medium dense, dry, no odor, no staining.	1	AH-1 (0-1')
2	X	X	69.8	0.8							X		3	AH-1 (2-3')
Bottom of borehole at 3.0 feet.														
Sampler Types: ☒ Split Spoon ☐ Shelby ☐ Bulk Sample ☐ Grab Sample		☐ Acetate Liner ☐ Vane Shear ☒ California ☐ Test Pit		Operation Types: ☐ Mud Rotary ☐ Continuous Flight Auger ☐ Wash Rotary		☐ Hand Auger ☐ Air Rotary ☐ Direct Push ☐ Core Barrel		Notes: Surface elevation is an estimated value based on Google Earth. Laboratory analytical sample IDs and intervals are shown in the "Remarks" column.						
Logger: Joe Tyler				Drilling Equipment: Hand Auger				Driller: Tetra Tech						

212C-MD-02191	 TETRA TECH	LOG OF BORING AH-2	Page 1 of 1
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Project Name: ZIA HILLS FEDERAL COM 401H RELEASE

Borehole Location: 32.019059°, -103.627646°

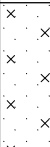
Surface Elevation: 3135 ft

Borehole Number: AH-2

Borehole
Diameter (in.): 3

Date Started: 5/14/2020

Date Finished: 5/14/2020

DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm)	VOC FIELD SCREENING (ppm)	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT	PLASTICITY INDEX	MINUS NO. 200 (%)	GRAPHIC LOG	WATER LEVEL OBSERVATIONS		DEPTH (ft)	REMARKS	
												While Drilling	Upon Completion of Drilling			
			ExStik	PID				LL	PI			WATER LEVEL OBSERVATIONS While Drilling <u>▽</u> DRY ft Upon Completion of Drilling <u>▽</u> DRY ft Remarks:				
			84.1	0.6									MATERIAL DESCRIPTION			
			65.3	0.8									-SM- SILTY SAND - Brown, medium dense, dry, no odor, no staining.			
														3	AH-2 (2-3')	

Bottom of borehole at 3.0 feet.

Sampler Types:  Split Spoon  Shelby  Bulk Sample  Grab Sample  Acetate Liner  Vane Shear  California  Test Pit	Operation Types:  Mud Rotary  Continuous Flight Auger  Wash Rotary  Hand Auger  Air Rotary  Direct Push  Core Barrel	Notes: Surface elevation is an estimated value based on Google Earth. Laboratory analytical sample IDs and intervals are shown in the "Remarks" column.
Logger: Joe Tyler	Drilling Equipment: Hand Auger	Driller: Tetra Tech

212C-MD-02191		TETRA TECH		LOG OF BORING AH-3				Page 1 of 1						
Project Name: ZIA HILLS FEDERAL COM 401H RELEASE														
Borehole Location: 32.018746°, -103.629498°					Surface Elevation: 3132 ft									
Borehole Number: AH-3				Borehole Diameter (in.): 3		Date Started: 5/14/2020		Date Finished: 5/14/2020						
DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm)	VOC FIELD SCREENING (ppm)	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT	PLASTICITY INDEX	MINUS NO. 200 (%)	GRAPHIC LOG	WATER LEVEL OBSERVATIONS While Drilling <u>▽</u> DRY ft Upon Completion of Drilling <u>▽</u> DRY ft Remarks:		
												MATERIAL DESCRIPTION		DEPTH (ft)
1	X	X	74.1	1.1							X	-SM- SILTY SAND - Brown, medium dense, dry, no odor, no staining.	0-1'	AH-3 (0-1')
3	X	X	69.3	0.9							X		3	
Bottom of borehole at 3.0 feet.														
Sampler Types: Split Spoon Shelby Bulk Sample Grab Sample		Acetate Liner Vane Shear California Test Pit		Operation Types: Mud Rotary Continuous Flight Auger Wash Rotary		Hand Auger Air Rotary Direct Push Core Barrel		Notes: Surface elevation is an estimated value based on Google Earth. Laboratory analytical sample IDs and intervals are shown in the "Remarks" column.						
Logger: Joe Tyler				Drilling Equipment: Hand Auger				Driller: Tetra Tech						

212C-MD-02191		TETRA TECH		LOG OF BORING AH-4				Page 1 of 1						
Project Name: ZIA HILLS FEDERAL COM 401H RELEASE														
Borehole Location: 32.018947°, -103.629830°					Surface Elevation: 3132 ft									
Borehole Number: AH-4				Borehole Diameter (in.): 3		Date Started: 5/14/2020		Date Finished: 5/14/2020						
DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm)	VOC FIELD SCREENING (ppm)	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT	PLASTICITY INDEX	MINUS NO. 200 (%)	GRAPHIC LOG	WATER LEVEL OBSERVATIONS While Drilling ☒ DRY ft Upon Completion of Drilling ☒ DRY ft Remarks:		
			ExStik	PID				LL	PI			MATERIAL DESCRIPTION	DEPTH (ft)	REMARKS
5	[Symbol]	X	101	0.6							X	-SM- SILTY SAND - Brown, medium dense, dry, no odor, no staining.	AH-4 (0-1')	
	[Symbol]	X	86.1	0.9							X		AH-4 (2-3')	
	[Symbol]	X	63.4	0.8							X		AH-4 (4-5')	

Bottom of borehole at 5.0 feet.

Sampler Types: ☒ Split Spoon ☒ Shelby ☒ Bulk Sample ☒ Grab Sample	☒ Acetate Liner ☒ Vane Shear ☒ California ☒ Test Pit	Operation Types: ☒ Mud Rotary ☒ Continuous Flight Auger ☒ Wash Rotary	☒ Hand Auger ☒ Air Rotary ☒ Direct Push ☒ Core Barrel	Notes: Surface elevation is an estimated value based on Google Earth. Laboratory analytical sample IDs and intervals are shown in the "Remarks" column.
Logger: Joe Tyler		Drilling Equipment: Hand Auger		Driller: Tetra Tech

212C-MD-02191	 TETRA TECH	LOG OF BORING AH-5	Page 1 of 1
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Project Name: ZIA HILLS FEDERAL COM 401H RELEASE

Borehole Location: 32.019080°, -103.630153°

Surface Elevation: 3132 ft

Borehole Number: AH-5

Borehole
Diameter (in.): 3

Date Started: 5/14/2020

Date Finished: 5/14/2020

DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm)	VOC FIELD SCREENING (ppm)	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT	PLASTICITY INDEX	MINUS NO. 200 (%)	GRAPHIC LOG	WATER LEVEL OBSERVATIONS		DEPTH (ft)	REMARKS
												While Drilling	Upon Completion of Drilling		
			ExStik	PID				LL	PI			REMARKS: While Drilling <u>▽ DRY</u> ft Upon Completion of Drilling <u>▽ DRY</u> ft			
												MATERIAL DESCRIPTION			
			88.3	0.4								-SM- SILTY SAND - Brown, medium dense, dry, no odor, no staining.			AH-5 (0-1')
			71.5	0.9										3	AH-5 (2-3')

Bottom of borehole at 3.0 feet.

Sampler Types:  Split Spoon  Shelby  Bulk Sample  Grab Sample	 Acetate Liner  Vane Shear  California  Test Pit	Operation Types:  Mud Rotary  Continuous Flight Auger  Wash Rotary	 Hand Auger  Air Rotary  Direct Push  Core Barrel	Notes: Surface elevation is an estimated value based on Google Earth. Laboratory analytical sample IDs and intervals are shown in the "Remarks" column.
Logger: Joe Tyler		Drilling Equipment: Hand Auger		Driller: Tetra Tech

212C-MD-02191	 TETRA TECH	LOG OF BORING AH-6	Page 1 of 1
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Project Name: ZIA HILLS FEDERAL COM 401H RELEASE

Borehole Location: 32.018014°, -103.629371°

Surface Elevation: 3131 ft

Borehole Number: AH-6

Borehole
Diameter (in.): 3

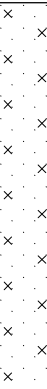
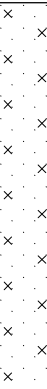
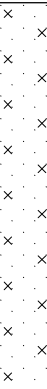
Date Started: 5/14/2020

Date Finished: 5/14/2020

DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm)	VOC FIELD SCREENING (ppm)	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT	PLASTICITY INDEX	MINUS NO. 200 (%)	GRAPHIC LOG	WATER LEVEL OBSERVATIONS		DEPTH (ft)	REMARKS
												While Drilling	Upon Completion of Drilling		
			ExStik	PID				LL	PI			REMARKS: While Drilling <u>▽</u> DRY ft Upon Completion of Drilling <u>▽</u> DRY ft			
												MATERIAL DESCRIPTION			
			68.1	1								-SM- SILTY SAND - Brown, medium dense, dry, no odor, no staining.			AH-6 (0-1')
			65.5	0.8										3	AH-6 (2-3')

Bottom of borehole at 3.0 feet.

Sampler Types:  Split Spoon  Shelby  Bulk Sample  Grab Sample  Acetate Liner  Vane Shear  California  Test Pit	Operation Types:  Mud Rotary  Continuous Flight Auger  Wash Rotary  Hand Auger  Air Rotary  Direct Push  Core Barrel	Notes: Surface elevation is an estimated value based on Google Earth. Laboratory analytical sample IDs and intervals are shown in the "Remarks" column.
Logger: Joe Tyler	Drilling Equipment: Hand Auger	Driller: Tetra Tech

212C-MD-02191		 TETRA TECH		LOG OF BORING BH-1			Page 1 of 1																																																																																																																											
Project Name: ZIA HILLS FEDERAL COM 401H RELEASE																																																																																																																																		
Borehole Location: 32.019252°, -103.627904°				Surface Elevation: 3135 ft																																																																																																																														
Borehole Number: BH-1				Borehole Diameter (in.): 5		Date Started: 5/14/2020		Date Finished: 5/14/2020																																																																																																																										
WATER LEVEL OBSERVATIONS While Drilling <u>▽ DRY</u> ft Upon Completion of Drilling <u>▽ DRY</u> ft Remarks:																																																																																																																																		
<table><thead><tr><th rowspan="2">DEPTH (ft)</th><th rowspan="2">OPERATION TYPE</th><th rowspan="2">SAMPLE</th><th>CHLORIDE FIELD SCREENING (ppm)</th><th>VOC FIELD SCREENING (ppm)</th><th rowspan="2">SAMPLE RECOVERY (%)</th><th rowspan="2">MOISTURE CONTENT (%)</th><th rowspan="2">DRY DENSITY (pcf)</th><th colspan="2">LIQUID LIMIT</th><th colspan="2">PLASTICITY INDEX</th><th rowspan="2">MINUS NO. 200 (%)</th><th rowspan="2">GRAPHIC LOG</th><th rowspan="2">MATERIAL DESCRIPTION</th><th rowspan="2">DEPTH (ft)</th><th rowspan="2">REMARKS</th></tr><tr><th>ExStik</th><th>PID</th><th>LL</th><th>PI</th></tr></thead><tbody><tr><td rowspan="5">5</td><td rowspan="5"></td><td rowspan="5"></td><td>101</td><td>0.9</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td rowspan="5"></td><td>-SM- SILTY SAND - Brown, dense, dry, no odor, no staining.</td><td></td><td></td></tr><tr><td></td><td>0.8</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>121</td><td>1.4</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td>1.5</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td>1.1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>-SM- SILTY SAND - Pale reddish brown and white, very dense, dry, with some gravel.</td><td>8</td><td></td></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>9</td><td>BH-1 (8-9')</td></tr></tbody></table>									DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm)	VOC FIELD SCREENING (ppm)	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT		PLASTICITY INDEX		MINUS NO. 200 (%)	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH (ft)	REMARKS	ExStik	PID	LL	PI	5			101	0.9										-SM- SILTY SAND - Brown, dense, dry, no odor, no staining.				0.8												121	1.4													1.5													1.1																									-SM- SILTY SAND - Pale reddish brown and white, very dense, dry, with some gravel.	8																9	BH-1 (8-9')
DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm)	VOC FIELD SCREENING (ppm)	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT				PLASTICITY INDEX					MINUS NO. 200 (%)	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH (ft)						REMARKS																																																																																																								
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Bottom of borehole at 9.0 feet.																																																																																																																																		
Sampler Types:  Split Spoon  Shelby  Bulk Sample  Grab Sample  Acetate Liner  Vane Shear  California  Test Pit Operation Types:  Mud Rotary  Continuous Flight Auger  Wash Rotary  Hand Auger  Air Rotary  Direct Push  Core Barrel Notes: Surface elevation is an estimated value based on Google Earth. Laboratory analytical sample IDs and intervals are shown in the "Remarks" column.																																																																																																																																		
Logger: Joe Tyler			Drilling Equipment: Air Rotary			Driller: Scarborough Drilling																																																																																																																												

212C-MD-02191		TETRA TECH		LOG OF BORING BH-2				Page 1 of 1								
Project Name: ZIA HILLS FEDERAL COM 401H RELEASE																
Borehole Location: 32.019598°, -103.627805°					Surface Elevation: 3136 ft											
Borehole Number: BH-2				Borehole Diameter (in.): 5		Date Started: 5/14/2020		Date Finished: 5/14/2020								
DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm)	VOC FIELD SCREENING (ppm)	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT	PLASTICITY INDEX	MINUS NO. 200 (%)	GRAPHIC LOG	WATER LEVEL OBSERVATIONS				
												While Drilling ☐ DRY ft Upon Completion of Drilling ☒ DRY ft Remarks:				
MATERIAL DESCRIPTION												DEPTH (ft)	REMARKS			
5	Wavy line indicating water level	X	86.4	2.1							x	-SM- SILTY SAND - Brown, dense, dry, no odor, no staining.	0-1'	BH-2 (0-1')		
				0.9					x	2-3'	BH-2 (2-3')					
				1.6					x	4-5'			BH-2 (4-5')			
				1.4					x	6-7'					BH-2 (6-7')	
				0.8					x	8						BH-2 (8-9')
						x	9									
-SM- SILTY SAND - Pale reddish brown and white, very dense, dry, with some gravel. Bottom of borehole at 9.0 feet.																

Sampler Types: ☒ Split Spoon ☒ Shelby ☒ Bulk Sample ☒ Grab Sample	☒ Acetate Liner ☒ Vane Shear ☒ California ☒ Test Pit	Operation Types: ☒ Mud Rotary ☒ Continuous Flight Auger ☒ Wash Rotary	☒ Hand Auger ☒ Air Rotary ☒ Direct Push ☒ Core Barrel	Notes: Surface elevation is an estimated value based on Google Earth. Laboratory analytical sample IDs and intervals are shown in the "Remarks" column.
Logger: Joe Tyler		Drilling Equipment: Air Rotary		Driller: Scarborough Drilling

212C-MD-02191		TETRA TECH		LOG OF BORING BH-3				Page 1 of 1							
Project Name: ZIA HILLS FEDERAL COM 401H RELEASE															
Borehole Location: 32.018992°, -103.628470°					Surface Elevation: 3134 ft										
Borehole Number: BH-3				Borehole Diameter (in.): 5		Date Started: 5/14/2020		Date Finished: 5/14/2020							
DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm)	VOC FIELD SCREENING (ppm)	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT	PLASTICITY INDEX	MINUS NO. 200 (%)	GRAPHIC LOG	WATER LEVEL OBSERVATIONS			
												While Drilling <u>▽</u> DRY ft Upon Completion of Drilling <u>▽</u> DRY ft Remarks:			
MATERIAL DESCRIPTION												DEPTH (ft)	REMARKS		
5	[Wavy Line]	[X]	109	1.1							x	[X]	-SM- SILTY SAND - Brown, dense, dry, no odor, no staining.		BH-3 (0-1')
				0.9					x	BH-3 (2-3')					
			78.1	1.6					x	BH-3 (4-5')					
				1.4					x	BH-3 (6-7')					
				0.8					x	BH-3 (8-9')					
-SM- SILTY SAND - Pale reddish brown and white, very dense, dry, with some gravel.												8			
Bottom of borehole at 9.0 feet.												9			

Sampler Types: Split Spoon Shelby Bulk Sample Grab Sample Acetate Liner Vane Shear California Test Pit	Operation Types: Mud Rotary Continuous Flight Auger Wash Rotary Hand Auger Air Rotary Direct Push Core Barrel	Notes: Surface elevation is an estimated value based on Google Earth. Laboratory analytical sample IDs and intervals are shown in the "Remarks" column.
Logger: Joe Tyler	Drilling Equipment: Air Rotary	Driller: Scarborough Drilling

212C-MD-02191		TETRA TECH		LOG OF BORING BH-4				Page 1 of 1								
Project Name: ZIA HILLS FEDERAL COM 401H RELEASE																
Borehole Location: 32.018176°, -103.630144°					Surface Elevation: 3132 ft											
Borehole Number: BH-4				Borehole Diameter (in.): 5		Date Started: 5/14/2020		Date Finished: 5/14/2020								
DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm)	VOC FIELD SCREENING (ppm)	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT	PLASTICITY INDEX	MINUS NO. 200 (%)	GRAPHIC LOG	WATER LEVEL OBSERVATIONS While Drilling <u>▽</u> DRY ft Upon Completion of Drilling <u>▽</u> DRY ft Remarks:				
			ExStik	PID				LL	PI			MATERIAL DESCRIPTION	DEPTH (ft)	REMARKS		
5			551	1.5									-SM- SILTY SAND - Brown, dense, dry, no odor, no staining.		BH-4 (0-1')	
				1.1										BH-4 (2-3')		
			63.8	0.5										BH-4 (4-5')		
				0.6										BH-4 (6-7')		
				0.9										BH-4 (8-9')		
-SM- SILTY SAND - Pale reddish brown and white, very dense, dry, with some gravel. Bottom of borehole at 9.0 feet.																

Sampler Types: Split Spoon Shelby Bulk Sample Grab Sample	Acetate Liner Vane Shear California Test Pit	Operation Types: Mud Rotary Continuous Flight Auger Wash Rotary	Hand Auger Air Rotary Direct Push Core Barrel	Notes: Surface elevation is an estimated value based on Google Earth. Laboratory analytical sample IDs and intervals are shown in the "Remarks" column.
Logger: Joe Tyler		Drilling Equipment: Air Rotary		Driller: Scarborough Drilling

212C-MD-02191		TETRA TECH		LOG OF BORING BH-5				Page 1 of 1									
Project Name: ZIA HILLS FEDERAL COM 401H RELEASE																	
Borehole Location: 32.017644°, -103.630148°					Surface Elevation: 3130 ft												
Borehole Number: BH-5				Borehole Diameter (in.): 5		Date Started: 5/14/2020		Date Finished: 5/14/2020									
DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm)	VOC FIELD SCREENING (ppm)	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT	PLASTICITY INDEX	MINUS NO. 200 (%)	GRAPHIC LOG	WATER LEVEL OBSERVATIONS While Drilling <u>▽</u> DRY ft Upon Completion of Drilling <u>▽</u> DRY ft Remarks:					
			ExStik	PID				LL	PI			MATERIAL DESCRIPTION	DEPTH (ft)	REMARKS			
5			101	1.2									-SM- SILTY SAND - Brown, dense, dry, no odor, no staining.		BH-5 (0-1')	8	
				1.1											BH-5 (2-3')		
			86.2	0.9											BH-5 (4-5')		
				1.6											BH-5 (6-7')		
				1.2											BH-5 (8-9')		
Bottom of borehole at 9.0 feet.																	

Sampler Types: Split Spoon Shelby Bulk Sample Grab Sample	Acetate Liner Vane Shear California Test Pit	Operation Types: Mud Rotary Continuous Flight Auger Wash Rotary	Hand Auger Air Rotary Direct Push Core Barrel	Notes: Surface elevation is an estimated value based on Google Earth. Laboratory analytical sample IDs and intervals are shown in the "Remarks" column.
Logger: Joe Tyler		Drilling Equipment: Air Rotary		Driller: Scarborough Drilling

212C-MD-02191		TETRA TECH		LOG OF BORING BH-6				Page 1 of 1								
Project Name: ZIA HILLS FEDERAL COM 401H RELEASE																
Borehole Location: 32.017148°, -103.630241°					Surface Elevation: 3131 ft											
Borehole Number: BH-6				Borehole Diameter (in.): 5		Date Started: 5/14/2020		Date Finished: 5/14/2020								
DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm)	VOC FIELD SCREENING (ppm)	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT	PLASTICITY INDEX	MINUS NO. 200 (%)	GRAPHIC LOG	WATER LEVEL OBSERVATIONS While Drilling <u>▽</u> DRY ft Upon Completion of Drilling <u>▽</u> DRY ft Remarks:				
			ExStik	PID				LL	PI			MATERIAL DESCRIPTION	DEPTH (ft)	REMARKS		
5	[Wavy Line]	[X]	67.4	0.8							x	[X]	-SM- SILTY SAND - Brown, dense, dry, no odor, no staining.		BH-6 (0-1')	
				1.2						x	BH-6 (2-3')					
			79.2	1.1						x	BH-6 (4-5')					
				1.4						x	BH-6 (6-7')					
				0.9						x		-SM- SILTY SAND - Pale reddish brown and white, very dense, dry, with some gravel.	8	BH-6 (8-9')		
Bottom of borehole at 9.0 feet.																

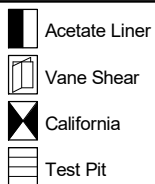
Sampler Types: Split Spoon Shelby Bulk Sample Grab Sample Acetate Liner Vane Shear California Test Pit	Operation Types: Mud Rotary Continuous Flight Auger Wash Rotary Hand Auger Air Rotary Direct Push Core Barrel	Notes: Surface elevation is an estimated value based on Google Earth. Laboratory analytical sample IDs and intervals are shown in the "Remarks" column.
Logger: Joe Tyler	Drilling Equipment: Air Rotary	Driller: Scarborough Drilling

Project Name: ZIA HILLS FEDERAL COM 401H RELEASE																																																																																																																																		
Borehole Location: 32.019336°, -103.627777°	Surface Elevation: 3135 ft																																																																																																																																	
Borehole Number: BH-7	Borehole Diameter (in.): 5	Date Started: 9/17/2020	Date Finished: 9/17/2020																																																																																																																															
WATER LEVEL OBSERVATIONS While Drilling ▾ DRY ft Upon Completion of Drilling ▾ DRY ft Remarks:																																																																																																																																		
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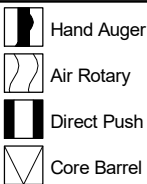
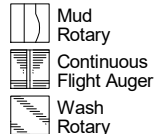
212C-MD-02191		TETRA TECH										LOG OF BORING BH-8															Page 1 of 1																																																																																																																																																																																																																																									
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Bottom of borehole at 20.0 feet.

Sampler Types:



Operation Types:



Notes:

Surface elevation is an estimated value based on Google Earth. Laboratory analytical sample IDs and intervals are shown in the "Remarks" column.

Logger: John Thurston

Drilling Equipment: Air Rotary

Driller: Scarborough Drilling

APPENDIX D LABORATORY ANALYTICAL DATA



Certificate of Analysis Summary 609765

ConocoPhillips-Lovington, Lovington, NM

Project Name: Zia Hills 401 H



Project Id: 401H
Contact: Matthew Oster
Project Location:

Date Received in Lab: Wed Dec-26-18 03:40 pm
Report Date: 04-JAN-19
Project Manager: Holly Taylor

<i>Analysis Requested</i>	<i>Lab Id:</i>	609765-001	609765-002	609765-003	609765-004	609765-005	609765-006
	<i>Field Id:</i>	Sample 1 Sample Point	Sample 2 Sample Point	Sample 3 Sample Point	Sample 4 Sample Point	Sample 5 Sample Point	Sample 6 Sample Point
	<i>Depth:</i>	4- In	8- In	4- In	8- In	4- In	8- In
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Dec-20-18 15:26	Dec-20-18 15:35	Dec-20-18 15:45	Dec-20-18 15:50	Dec-20-18 16:00	Dec-20-18 15:55
BTEX by EPA 8021B	<i>Extracted:</i>	Jan-02-19 08:30	Jan-02-19 08:30	Jan-02-19 08:30	Jan-02-19 08:30	Jan-02-19 08:30	Jan-02-19 08:30
	<i>Analyzed:</i>	Jan-02-19 12:11	Jan-02-19 12:32	Jan-02-19 12:54	Jan-02-19 13:15	Jan-02-19 13:37	Jan-02-19 13:58
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200
Toluene		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200
Ethylbenzene		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200
m,p-Xylenes		<0.00398 0.00398	<0.00400 0.00400	<0.00402 0.00402	<0.00401 0.00401	<0.00398 0.00398	<0.00399 0.00399
o-Xylene		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200
Total Xylenes		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200
Total BTEX		<0.00199 0.00199	<0.00200 0.00200	<0.00201 0.00201	<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200
Chloride by EPA 300	<i>Extracted:</i>	Jan-02-19 11:00	Jan-02-19 11:00	Jan-02-19 11:00	Jan-02-19 11:00	Jan-02-19 11:00	Jan-02-19 11:00
	<i>Analyzed:</i>	Jan-02-19 14:07	Jan-02-19 14:25	Jan-02-19 14:31	Jan-02-19 14:37	Jan-02-19 14:44	Jan-02-19 14:57
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		11.9 4.99	32.5 5.01	7.30 4.95	<4.95 4.95	12.5 4.95	6.19 5.00
TPH By SW8015 Mod	<i>Extracted:</i>	Jan-02-19 17:00	Jan-02-19 17:00	Jan-02-19 17:00	Jan-02-19 17:00	Jan-02-19 17:00	Jan-02-19 17:00
	<i>Analyzed:</i>	Jan-04-19 07:49	Jan-04-19 08:09	Jan-04-19 02:21	Jan-03-19 22:00	Jan-03-19 22:20	Jan-03-19 22:39
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Diesel Range Organics (DRO)		<15.0 15.0	22.4 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Motor Oil Range Hydrocarbons (MRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Total TPH		<15.0 15.0	22.4 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Brandi Ritcherson

Brandi Ritcherson
Project Manager



Certificate of Analysis Summary 609765

ConocoPhillips-Lovington, Lovington, NM

Project Name: Zia Hills 401 H



Project Id: 401H
Contact: Matthew Oster
Project Location:

Date Received in Lab: Wed Dec-26-18 03:40 pm
Report Date: 04-JAN-19
Project Manager: Holly Taylor

<i>Analysis Requested</i>	<i>Lab Id:</i>	609765-007	609765-008	609765-009	609765-010	609765-011	609765-012
	<i>Field Id:</i>	Sample 7 Sample Point	Sample 8 Sample Point	Sample 9 Sample Point	Sample 10 Sample Point	Boundary Sample 1	Boundary Sample 2
	<i>Depth:</i>	4- In	8- In	4- In	8- In	4- In	8- In
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Dec-20-18 16:05	Dec-20-18 16:10	Dec-20-18 16:15	Dec-20-18 16:20	Dec-20-18 16:23	Dec-20-18 16:30
Chloride by EPA 300	<i>Extracted:</i>	Jan-02-19 11:00	Jan-02-19 11:00	Jan-02-19 11:00	Jan-02-19 14:00	Jan-02-19 14:00	Jan-02-19 14:00
	<i>Analyzed:</i>	Jan-02-19 15:04	Jan-02-19 13:42	Jan-02-19 15:10	Jan-02-19 15:47	Jan-02-19 16:05	Jan-02-19 16:12
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		<4.97 4.97	11.4 4.99	14.5 4.95	7.06 4.95	<4.98 4.98	<4.99 4.99

This analytical report, and the entire data package it represents, has been made for your exclusive and confidential use. The interpretations and results expressed throughout this analytical report represent the best judgment of XENCO Laboratories. XENCO Laboratories assumes no responsibility and makes no warranty to the end use of the data hereby presented. Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Brandi Ritcherson
Project Manager



Certificate of Analysis Summary 609765

ConocoPhillips-Lovington, Lovington, NM

Project Name: Zia Hills 401 H



Project Id: 401H
Contact: Matthew Oster
Project Location:

Date Received in Lab: Wed Dec-26-18 03:40 pm
Report Date: 04-JAN-19
Project Manager: Holly Taylor

<i>Analysis Requested</i>	<i>Lab Id:</i>	609765-013	609765-014	609765-015	609765-016	609765-017	
	<i>Field Id:</i>	Outside of Boundary 1	Outside of Boundary 2	Boundary Sample (2) 1	Boundary Sample (3) 1	Boundary Sample (4) 1	
	<i>Depth:</i>	4- In	8- In	4- In	4- In		
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	
	<i>Sampled:</i>	Dec-20-18 16:35	Dec-20-18 16:40	Dec-20-18 16:48	Dec-20-18 00:00	Dec-20-18 00:00	
Chloride by EPA 300	<i>Extracted:</i>	Jan-02-19 14:00	Jan-02-19 14:00	Jan-02-19 14:00	Jan-02-19 14:00	Jan-02-19 14:00	
	<i>Analyzed:</i>	Jan-02-19 16:18	Jan-02-19 16:24	Jan-02-19 16:43	Jan-02-19 16:49	Jan-02-19 16:55	
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	
Chloride		5.53 4.99	<4.96 4.96	6.22 5.00	<4.99 4.99	<4.95 4.95	

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 Our liability is limited to the amount invoiced for this work order unless otherwise agreed to in writing.

Houston - Dallas - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Brandi Ritcherson
Project Manager

Analytical Report 609765

for
ConocoPhillips-Lovington

Project Manager: Matthew Oster

Zia Hills 401 H

401H

04-JAN-19

Collected By: Client



1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):

Texas (T104704215-18-28), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):

Texas (T104704295-18-17), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)

Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-18)

Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)

Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)

Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)

Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)

Xenco-Atlanta (LELAP Lab ID #04176)

Xenco-Tampa: Florida (E87429)

Xenco-Lakeland: Florida (E84098)



04-JAN-19

Project Manager: **Matthew Oster**
ConocoPhillips-Lovington
HC 60 Box 66
Lovington, NM 88260

Reference: XENCO Report No(s): **609765**
Zia Hills 401 H
Project Address:

Matthew Oster:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 609765. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

Unless otherwise noted in a Case Narrative, all data reported in this Analytical Report are in compliance with NELAC standards. The uncertainty of measurement associated with the results of analysis reported is available upon request. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 609765 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting XENCO Laboratories to serve your analytical needs. If you have any questions concerning this report, please feel free to contact us at any time.

Respectfully,

A handwritten signature in black ink that reads 'Brandi Ritcherson'.

Brandi Ritcherson

Project Manager

Recipient of the Prestigious Small Business Administration Award of Excellence in 1994.

Certified and approved by numerous States and Agencies.

A Small Business and Minority Status Company that delivers SERVICE and QUALITY

Houston - Dallas - Midland - San Antonio - Phoenix - Oklahoma - Latin America



Sample Cross Reference 609765

ConocoPhillips-Lovington, Lovington, NM

Zia Hills 401 H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Sample 1 Sample Point	S	12-20-18 15:26	4 In	609765-001
Sample 2 Sample Point	S	12-20-18 15:35	8 In	609765-002
Sample 3 Sample Point	S	12-20-18 15:45	4 In	609765-003
Sample 4 Sample Point	S	12-20-18 15:50	8 In	609765-004
Sample 5 Sample Point	S	12-20-18 16:00	4 In	609765-005
Sample 6 Sample Point	S	12-20-18 15:55	8 In	609765-006
Sample 7 Sample Point	S	12-20-18 16:05	4 In	609765-007
Sample 8 Sample Point	S	12-20-18 16:10	8 In	609765-008
Sample 9 Sample Point	S	12-20-18 16:15	4 In	609765-009
Sample 10 Sample Point	S	12-20-18 16:20	8 In	609765-010
Boundary Sample 1	S	12-20-18 16:23	4 In	609765-011
Boundary Sample 2	S	12-20-18 16:30	8 In	609765-012
Outside of Boundary 1	S	12-20-18 16:35	4 In	609765-013
Outside of Boundary 2	S	12-20-18 16:40	8 In	609765-014
Boundary Sample (2) 1	S	12-20-18 16:48	4 In	609765-015
Boundary Sample (3) 1	S	12-20-18 00:00	4 In	609765-016
Boundary Sample (4) 1	S	12-20-18 00:00		609765-017

**CASE NARRATIVE****Client Name: ConocoPhillips-Lovington****Project Name: Zia Hills 401 H**

Project ID: 401H
Work Order Number(s): 609765

Report Date: 04-JAN-19
Date Received: 12/26/2018

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3074614 BTEX by EPA 8021B

Lab Sample ID 609765-001 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). m,p-Xylenes recovered above QC limits in the Matrix Spike. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 609765-001, -002, -003, -004, -005, -006.

The Laboratory Control Sample for m,p-Xylenes is within laboratory Control Limits, therefore the data was accepted.

Soil samples were not received in Terracore kits and therefore were prepared by method 5030.

Batch: LBA-3074784 TPH By SW8015 Mod

Surrogate 1-Chlorooctane recovered above QC limits. Matrix interferences is suspected; data confirmed by re-analysis.

Samples affected are: 609634-040 S, 609634-040 SD.



Certificate of Analytical Results 609765



ConocoPhillips-Lovington, Lovington, NM

Zia Hills 401 H

Sample Id: **Sample 1 Sample Point**

Matrix: Soil

Date Received: 12.26.18 15.40

Lab Sample Id: 609765-001

Date Collected: 12.20.18 15.26

Sample Depth: 4 In

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: OJS

% Moisture:

Analyst: OJS

Date Prep: 01.02.19 11.00

Basis: Wet Weight

Seq Number: 3074605

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	11.9	4.99	mg/kg	01.02.19 14.07		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 01.02.19 17.00

Basis: Wet Weight

Seq Number: 3074784

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	01.04.19 07.49	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	01.04.19 07.49	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	01.04.19 07.49	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	01.04.19 07.49	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	99	%	70-135	01.04.19 07.49	
o-Terphenyl	84-15-1	100	%	70-135	01.04.19 07.49	



Certificate of Analytical Results 609765



ConocoPhillips-Lovington, Lovington, NM

Zia Hills 401 H

Sample Id: **Sample 1 Sample Point**

Matrix: Soil

Date Received: 12.26.18 15.40

Lab Sample Id: 609765-001

Date Collected: 12.20.18 15.26

Sample Depth: 4 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 01.02.19 08.30

Basis: Wet Weight

Seq Number: 3074614

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.02.19 12.11	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.02.19 12.11	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.02.19 12.11	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.02.19 12.11	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.02.19 12.11	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.02.19 12.11	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.02.19 12.11	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	109	%	70-130	01.02.19 12.11		
1,4-Difluorobenzene	540-36-3	85	%	70-130	01.02.19 12.11		



Certificate of Analytical Results 609765



ConocoPhillips-Lovington, Lovington, NM

Zia Hills 401 H

Sample Id: **Sample 2 Sample Point**

Matrix: Soil

Date Received: 12.26.18 15.40

Lab Sample Id: 609765-002

Date Collected: 12.20.18 15.35

Sample Depth: 8 In

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: OJS

% Moisture:

Analyst: OJS

Date Prep: 01.02.19 11.00

Basis: Wet Weight

Seq Number: 3074605

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	32.5	5.01	mg/kg	01.02.19 14.25		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 01.02.19 17.00

Basis: Wet Weight

Seq Number: 3074784

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	01.04.19 08.09	U	1
Diesel Range Organics (DRO)	C10C28DRO	22.4	15.0	mg/kg	01.04.19 08.09		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	01.04.19 08.09	U	1
Total TPH	PHC635	22.4	15.0	mg/kg	01.04.19 08.09		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	01.04.19 08.09	
o-Terphenyl	84-15-1	105	%	70-135	01.04.19 08.09	



Certificate of Analytical Results 609765



ConocoPhillips-Lovington, Lovington, NM

Zia Hills 401 H

Sample Id: **Sample 2 Sample Point**

Matrix: Soil

Date Received: 12.26.18 15.40

Lab Sample Id: 609765-002

Date Collected: 12.20.18 15.35

Sample Depth: 8 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 01.02.19 08.30

Basis: Wet Weight

Seq Number: 3074614

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.02.19 12.32	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.02.19 12.32	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.02.19 12.32	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	01.02.19 12.32	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.02.19 12.32	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.02.19 12.32	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.02.19 12.32	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	107	%	70-130	01.02.19 12.32		
1,4-Difluorobenzene	540-36-3	90	%	70-130	01.02.19 12.32		



Certificate of Analytical Results 609765



ConocoPhillips-Lovington, Lovington, NM

Zia Hills 401 H

Sample Id: **Sample 3 Sample Point**

Matrix: Soil

Date Received: 12.26.18 15.40

Lab Sample Id: 609765-003

Date Collected: 12.20.18 15.45

Sample Depth: 4 In

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: OJS

% Moisture:

Analyst: OJS

Date Prep: 01.02.19 11.00

Basis: Wet Weight

Seq Number: 3074605

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	7.30	4.95	mg/kg	01.02.19 14.31		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 01.02.19 17.00

Basis: Wet Weight

Seq Number: 3074784

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	01.04.19 02.21	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	01.04.19 02.21	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	01.04.19 02.21	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	01.04.19 02.21	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	100	%	70-135	01.04.19 02.21	
o-Terphenyl	84-15-1	103	%	70-135	01.04.19 02.21	



Certificate of Analytical Results 609765



ConocoPhillips-Lovington, Lovington, NM

Zia Hills 401 H

Sample Id: **Sample 3 Sample Point**

Matrix: Soil

Date Received: 12.26.18 15.40

Lab Sample Id: 609765-003

Date Collected: 12.20.18 15.45

Sample Depth: 4 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 01.02.19 08.30

Basis: Wet Weight

Seq Number: 3074614

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	01.02.19 12.54	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	01.02.19 12.54	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	01.02.19 12.54	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	01.02.19 12.54	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	01.02.19 12.54	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	01.02.19 12.54	U	1
Total BTEX		<0.00201	0.00201	mg/kg	01.02.19 12.54	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	99	%	70-130	01.02.19 12.54		
1,4-Difluorobenzene	540-36-3	80	%	70-130	01.02.19 12.54		



Certificate of Analytical Results 609765



ConocoPhillips-Lovington, Lovington, NM

Zia Hills 401 H

Sample Id: **Sample 4 Sample Point**

Matrix: Soil

Date Received: 12.26.18 15.40

Lab Sample Id: 609765-004

Date Collected: 12.20.18 15.50

Sample Depth: 8 In

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: OJS

% Moisture:

Analyst: OJS

Date Prep: 01.02.19 11.00

Basis: Wet Weight

Seq Number: 3074605

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.95	4.95	mg/kg	01.02.19 14.37	U	1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 01.02.19 17.00

Basis: Wet Weight

Seq Number: 3074784

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	01.03.19 22.00	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	01.03.19 22.00	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	01.03.19 22.00	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	01.03.19 22.00	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	101	%	70-135	01.03.19 22.00	
o-Terphenyl	84-15-1	102	%	70-135	01.03.19 22.00	



Certificate of Analytical Results 609765



ConocoPhillips-Lovington, Lovington, NM

Zia Hills 401 H

Sample Id: **Sample 4 Sample Point**

Matrix: Soil

Date Received: 12.26.18 15.40

Lab Sample Id: 609765-004

Date Collected: 12.20.18 15.50

Sample Depth: 8 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 01.02.19 08.30

Basis: Wet Weight

Seq Number: 3074614

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.02.19 13.15	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.02.19 13.15	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.02.19 13.15	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	01.02.19 13.15	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.02.19 13.15	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.02.19 13.15	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.02.19 13.15	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	106	%	70-130	01.02.19 13.15		
1,4-Difluorobenzene	540-36-3	89	%	70-130	01.02.19 13.15		



Certificate of Analytical Results 609765



ConocoPhillips-Lovington, Lovington, NM

Zia Hills 401 H

Sample Id: **Sample 5 Sample Point**

Matrix: Soil

Date Received: 12.26.18 15.40

Lab Sample Id: 609765-005

Date Collected: 12.20.18 16.00

Sample Depth: 4 In

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: OJS

% Moisture:

Analyst: OJS

Date Prep: 01.02.19 11.00

Basis: Wet Weight

Seq Number: 3074605

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	12.5	4.95	mg/kg	01.02.19 14.44		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 01.02.19 17.00

Basis: Wet Weight

Seq Number: 3074784

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	01.03.19 22.20	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	01.03.19 22.20	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	01.03.19 22.20	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	01.03.19 22.20	U	1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	118	%	70-135	01.03.19 22.20	
o-Terphenyl	84-15-1	120	%	70-135	01.03.19 22.20	



Certificate of Analytical Results 609765

ConocoPhillips-Lovington, Lovington, NM

Zia Hills 401 H

Sample Id: **Sample 5 Sample Point**

Matrix: Soil

Date Received: 12.26.18 15.40

Lab Sample Id: 609765-005

Date Collected: 12.20.18 16.00

Sample Depth: 4 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 01.02.19 08.30

Basis: Wet Weight

Seq Number: 3074614

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	01.02.19 13.37	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	01.02.19 13.37	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	01.02.19 13.37	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	01.02.19 13.37	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	01.02.19 13.37	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	01.02.19 13.37	U	1
Total BTEX		<0.00199	0.00199	mg/kg	01.02.19 13.37	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	105	%	70-130	01.02.19 13.37		
1,4-Difluorobenzene	540-36-3	88	%	70-130	01.02.19 13.37		



Certificate of Analytical Results 609765



ConocoPhillips-Lovington, Lovington, NM

Zia Hills 401 H

Sample Id: **Sample 6 Sample Point**

Matrix: Soil

Date Received: 12.26.18 15.40

Lab Sample Id: 609765-006

Date Collected: 12.20.18 15.55

Sample Depth: 8 In

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: OJS

% Moisture:

Analyst: OJS

Date Prep: 01.02.19 11.00

Basis: Wet Weight

Seq Number: 3074605

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	6.19	5.00	mg/kg	01.02.19 14.57		1

Analytical Method: TPH By SW8015 Mod

Prep Method: TX1005P

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 01.02.19 17.00

Basis: Wet Weight

Seq Number: 3074784

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	01.03.19 22.39	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	01.03.19 22.39	U	1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	01.03.19 22.39	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	01.03.19 22.39	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	108	%	70-135	01.03.19 22.39		
o-Terphenyl	84-15-1	110	%	70-135	01.03.19 22.39		



Certificate of Analytical Results 609765



ConocoPhillips-Lovington, Lovington, NM

Zia Hills 401 H

Sample Id: **Sample 6 Sample Point**

Matrix: Soil

Date Received: 12.26.18 15.40

Lab Sample Id: 609765-006

Date Collected: 12.20.18 15.55

Sample Depth: 8 In

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 01.02.19 08.30

Basis: Wet Weight

Seq Number: 3074614

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	01.02.19 13.58	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	01.02.19 13.58	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	01.02.19 13.58	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	01.02.19 13.58	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	01.02.19 13.58	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	01.02.19 13.58	U	1
Total BTEX		<0.00200	0.00200	mg/kg	01.02.19 13.58	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	75	%	70-130	01.02.19 13.58		
4-Bromofluorobenzene	460-00-4	103	%	70-130	01.02.19 13.58		



Certificate of Analytical Results 609765

ConocoPhillips-Lovington, Lovington, NM

Zia Hills 401 H

Sample Id: **Sample 7 Sample Point**

Matrix: Soil

Date Received: 12.26.18 15.40

Lab Sample Id: 609765-007

Date Collected: 12.20.18 16.05

Sample Depth: 4 In

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: OJS

% Moisture:

Analyst: OJS

Date Prep: 01.02.19 11.00

Basis: Wet Weight

Seq Number: 3074605

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.97	4.97	mg/kg	01.02.19 15.04	U	1



Certificate of Analytical Results 609765

ConocoPhillips-Lovington, Lovington, NM

Zia Hills 401 H

Sample Id: **Sample 8 Sample Point**

Matrix: Soil

Date Received: 12.26.18 15.40

Lab Sample Id: 609765-008

Date Collected: 12.20.18 16.10

Sample Depth: 8 In

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: OJS

% Moisture:

Analyst: OJS

Date Prep: 01.02.19 11.00

Basis: Wet Weight

Seq Number: 3074605

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	11.4	4.99	mg/kg	01.02.19 13.42		1



Certificate of Analytical Results 609765

ConocoPhillips-Lovington, Lovington, NM

Zia Hills 401 H

Sample Id: **Sample 9 Sample Point**

Matrix: Soil

Date Received: 12.26.18 15.40

Lab Sample Id: 609765-009

Date Collected: 12.20.18 16.15

Sample Depth: 4 In

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: OJS

% Moisture:

Analyst: OJS

Date Prep: 01.02.19 11.00

Basis: Wet Weight

Seq Number: 3074605

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	14.5	4.95	mg/kg	01.02.19 15.10		1



Certificate of Analytical Results 609765

ConocoPhillips-Lovington, Lovington, NM

Zia Hills 401 H

Sample Id: **Sample 10 Sample Point**

Matrix: Soil

Date Received: 12.26.18 15.40

Lab Sample Id: 609765-010

Date Collected: 12.20.18 16.20

Sample Depth: 8 In

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: OJS

% Moisture:

Analyst: OJS

Date Prep: 01.02.19 14.00

Basis: Wet Weight

Seq Number: 3074606

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	7.06	4.95	mg/kg	01.02.19 15.47		1



Certificate of Analytical Results 609765

ConocoPhillips-Lovington, Lovington, NM

Zia Hills 401 H

Sample Id: **Boundary Sample 1**

Matrix: Soil

Date Received: 12.26.18 15.40

Lab Sample Id: 609765-011

Date Collected: 12.20.18 16.23

Sample Depth: 4 In

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: OJS

% Moisture:

Analyst: OJS

Date Prep: 01.02.19 14.00

Basis: Wet Weight

Seq Number: 3074606

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.98	4.98	mg/kg	01.02.19 16.05	U	1



Certificate of Analytical Results 609765

ConocoPhillips-Lovington, Lovington, NM

Zia Hills 401 H

Sample Id: **Boundary Sample 2**

Matrix: Soil

Date Received: 12.26.18 15.40

Lab Sample Id: 609765-012

Date Collected: 12.20.18 16.30

Sample Depth: 8 In

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: OJS

% Moisture:

Analyst: OJS

Date Prep: 01.02.19 14.00

Basis: Wet Weight

Seq Number: 3074606

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.99	4.99	mg/kg	01.02.19 16.12	U	1



Certificate of Analytical Results 609765



ConocoPhillips-Lovington, Lovington, NM

Zia Hills 401 H

Sample Id: **Outside of Boundary 1**

Matrix: Soil

Date Received: 12.26.18 15.40

Lab Sample Id: 609765-013

Date Collected: 12.20.18 16.35

Sample Depth: 4 In

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: OJS

% Moisture:

Analyst: OJS

Date Prep: 01.02.19 14.00

Basis: Wet Weight

Seq Number: 3074606

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	5.53	4.99	mg/kg	01.02.19 16.18		1



Certificate of Analytical Results 609765



ConocoPhillips-Lovington, Lovington, NM

Zia Hills 401 H

Sample Id: **Outside of Boundary 2**

Matrix: Soil

Date Received: 12.26.18 15.40

Lab Sample Id: 609765-014

Date Collected: 12.20.18 16.40

Sample Depth: 8 In

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: OJS

% Moisture:

Analyst: OJS

Date Prep: 01.02.19 14.00

Basis: Wet Weight

Seq Number: 3074606

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.96	4.96	mg/kg	01.02.19 16.24	U	1



Certificate of Analytical Results 609765

ConocoPhillips-Lovington, Lovington, NM

Zia Hills 401 H

Sample Id: **Boundary Sample (2) 1**

Matrix: Soil

Date Received: 12.26.18 15.40

Lab Sample Id: 609765-015

Date Collected: 12.20.18 16.48

Sample Depth: 4 In

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: OJS

% Moisture:

Analyst: OJS

Date Prep: 01.02.19 14.00

Basis: Wet Weight

Seq Number: 3074606

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	6.22	5.00	mg/kg	01.02.19 16.43		1



Certificate of Analytical Results 609765



ConocoPhillips-Lovington, Lovington, NM

Zia Hills 401 H

Sample Id: **Boundary Sample (3) 1**

Matrix: Soil

Date Received: 12.26.18 15.40

Lab Sample Id: 609765-016

Date Collected: 12.20.18 00.00

Sample Depth: 4 In

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: OJS

% Moisture:

Analyst: OJS

Date Prep: 01.02.19 14.00

Basis: Wet Weight

Seq Number: 3074606

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.99	4.99	mg/kg	01.02.19 16.49	U	1



Certificate of Analytical Results 609765

ConocoPhillips-Lovington, Lovington, NM

Zia Hills 401 H

Sample Id: **Boundary Sample (4) 1**

Matrix: Soil

Date Received: 12.26.18 15.40

Lab Sample Id: 609765-017

Date Collected: 12.20.18 00.00

Analytical Method: Chloride by EPA 300

Prep Method: E300P

Tech: OJS

% Moisture:

Analyst: OJS

Date Prep: 01.02.19 14.00

Basis: Wet Weight

Seq Number: 3074606

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	<4.95	4.95	mg/kg	01.02.19 16.55	U	1



Flagging Criteria



- X** In our quality control review of the data a QC deficiency was observed and flagged as noted. MS/MSD recoveries were found to be outside of the laboratory control limits due to possible matrix /chemical interference, or a concentration of target analyte high enough to affect the recovery of the spike concentration. This condition could also affect the relative percent difference in the MS/MSD.
- B** A target analyte or common laboratory contaminant was identified in the method blank. Its presence indicates possible field or laboratory contamination.
- D** The sample(s) were diluted due to targets detected over the highest point of the calibration curve, or due to matrix interference. Dilution factors are included in the final results. The result is from a diluted sample.
- E** The data exceeds the upper calibration limit; therefore, the concentration is reported as estimated.
- F** RPD exceeded lab control limits.
- J** The target analyte was positively identified below the quantitation limit and above the detection limit.
- U** Analyte was not detected.
- L** The LCS data for this analytical batch was reported below the laboratory control limits for this analyte. The department supervisor and QA Director reviewed data. The samples were either reanalyzed or flagged as estimated concentrations.
- H** The LCS data for this analytical batch was reported above the laboratory control limits. Supporting QC Data were reviewed by the Department Supervisor and QA Director. Data were determined to be valid for reporting.
- K** Sample analyzed outside of recommended hold time.
- JN** A combination of the "N" and the "J" qualifier. The analysis indicates that the analyte is "tentatively identified" and the associated numerical value may not be consistent with the amount actually present in the environmental sample.

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

MDL Method Detection Limit **SDL** Sample Detection Limit **LOD** Limit of Detection

PQL Practical Quantitation Limit **MQL** Method Quantitation Limit **LOQ** Limit of Quantitation

DL Method Detection Limit

NC Non-Calculable

SMP Client Sample **BLK** Method Blank

BKS/LCS Blank Spike/Laboratory Control Sample **BKSD/LCSD** Blank Spike Duplicate/Laboratory Control Sample Duplicate

MD/SD Method Duplicate/Sample Duplicate **MS** Matrix Spike **MSD:** Matrix Spike Duplicate

+ NELAC certification not offered for this compound.

* (Next to analyte name or method description) = Outside XENCO's scope of NELAC accreditation



ConocoPhillips-Lovington

Zia Hills 401 H

Analytical Method: Chloride by EPA 300

Seq Number: 3074605

MB Sample Id: 7669093-1-BLK

Matrix: Solid

LCS Sample Id: 7669093-1-BKS

Prep Method: E300P

Date Prep: 01.02.19

LCSD Sample Id: 7669093-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	240	96	237	95	90-110	1	20	mg/kg	01.02.19 12:03	

Analytical Method: Chloride by EPA 300

Seq Number: 3074606

MB Sample Id: 7669095-1-BLK

Matrix: Solid

LCS Sample Id: 7669095-1-BKS

Prep Method: E300P

Date Prep: 01.02.19

LCSD Sample Id: 7669095-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<5.00	250	240	96	243	97	90-110	1	20	mg/kg	01.02.19 15:35	

Analytical Method: Chloride by EPA 300

Seq Number: 3074605

Parent Sample Id: 609733-001

Matrix: Soil

MS Sample Id: 609733-001 S

Prep Method: E300P

Date Prep: 01.02.19

MSD Sample Id: 609733-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.855	249	244	98	250	100	90-110	2	20	mg/kg	01.02.19 12:22	

Analytical Method: Chloride by EPA 300

Seq Number: 3074605

Parent Sample Id: 609765-008

Matrix: Soil

MS Sample Id: 609765-008 S

Prep Method: E300P

Date Prep: 01.02.19

MSD Sample Id: 609765-008 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	11.4	250	248	95	253	97	90-110	2	20	mg/kg	01.02.19 13:48	

Analytical Method: Chloride by EPA 300

Seq Number: 3074606

Parent Sample Id: 609765-010

Matrix: Soil

MS Sample Id: 609765-010 S

Prep Method: E300P

Date Prep: 01.02.19

MSD Sample Id: 609765-010 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	7.06	248	265	104	251	98	90-110	5	20	mg/kg	01.02.19 15:53	

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 $\text{Log Diff.} = \text{Log}(\text{Sample Duplicate}) - \text{Log}(\text{Original Sample})$

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



ConocoPhillips-Lovington

Zia Hills 401 H

Analytical Method: Chloride by EPA 300

Seq Number: 3074606

Parent Sample Id: 609775-003

Matrix: Soil

MS Sample Id: 609775-003 S

Prep Method: E300P

Date Prep: 01.02.19

MSD Sample Id: 609775-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	46.5	249	298	101	311	106	90-110	4	20	mg/kg	01.02.19 17:20	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3074784

MB Sample Id: 7669207-1-BLK

Matrix: Solid

LCS Sample Id: 7669207-1-BKS

Prep Method: TX1005P

Date Prep: 01.02.19

LCSD Sample Id: 7669207-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<8.00	1000	795	80	819	82	70-135	3	20	mg/kg	01.03.19 19:59	
Diesel Range Organics (DRO)	<8.13	1000	905	91	914	92	70-135	1	20	mg/kg	01.03.19 19:59	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	102		128		129		70-135	%	01.03.19 19:59
o-Terphenyl	104		106		121		70-135	%	01.03.19 19:59

Analytical Method: TPH By SW8015 Mod

Seq Number: 3074784

Parent Sample Id: 609634-040

Matrix: Soil

MS Sample Id: 609634-040 S

Prep Method: TX1005P

Date Prep: 01.02.19

MSD Sample Id: 609634-040 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<7.99	999	868	87	857	86	70-135	1	20	mg/kg	01.03.19 21:00	
Diesel Range Organics (DRO)	<8.12	999	973	97	976	98	70-135	0	20	mg/kg	01.03.19 21:00	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	144	**	144	**	70-135	%	01.03.19 21:00
o-Terphenyl	121		120		70-135	%	01.03.19 21:00

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C - A) / B$
 $RPD = 200 * |(C - E) / (C + E)|$
 $[D] = 100 * (C) / [B]$
 $\text{Log Diff.} = \text{Log}(\text{Sample Duplicate}) - \text{Log}(\text{Original Sample})$

LCS = Laboratory Control Sample
A = Parent Result
C = MS/LCS Result
E = MSD/LCSD Result

MS = Matrix Spike
B = Spike Added
D = MSD/LCSD % Rec



ConocoPhillips-Lovington

Zia Hills 401 H

Analytical Method: BTEX by EPA 8021B

Seq Number: 3074614

MB Sample Id: 7669101-1-BLK

Matrix: Solid

LCS Sample Id: 7669101-1-BKS

Prep Method: SW5030B

Date Prep: 01.02.19

LCSD Sample Id: 7669101-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.101	0.118	117	0.121	121	70-130	3	35	mg/kg	01.02.19 09:33	
Toluene	<0.00201	0.101	0.0968	96	0.100	100	70-130	3	35	mg/kg	01.02.19 09:33	
Ethylbenzene	<0.00201	0.101	0.115	114	0.121	121	70-130	5	35	mg/kg	01.02.19 09:33	
m,p-Xylenes	<0.00402	0.201	0.227	113	0.254	127	70-130	11	35	mg/kg	01.02.19 09:33	
o-Xylene	<0.00201	0.101	0.112	111	0.117	117	70-130	4	35	mg/kg	01.02.19 09:33	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	90		79		99		70-130	%	01.02.19 09:33
4-Bromofluorobenzene	103		89		71		70-130	%	01.02.19 09:33

Analytical Method: BTEX by EPA 8021B

Seq Number: 3074614

Parent Sample Id: 609765-001

Matrix: Soil

MS Sample Id: 609765-001 S

Prep Method: SW5030B

Date Prep: 01.02.19

MSD Sample Id: 609765-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00200	0.100	0.127	127	0.102	102	70-130	22	35	mg/kg	01.02.19 10:44	
Toluene	<0.00200	0.100	0.101	101	0.0834	83	70-130	19	35	mg/kg	01.02.19 10:44	
Ethylbenzene	<0.00200	0.100	0.126	126	0.109	109	70-130	14	35	mg/kg	01.02.19 10:44	
m,p-Xylenes	<0.00400	0.200	0.264	132	0.217	109	70-130	20	35	mg/kg	01.02.19 10:44	X
o-Xylene	<0.00200	0.100	0.123	123	0.100	100	70-130	21	35	mg/kg	01.02.19 10:44	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	97		85		70-130	%	01.02.19 10:44
4-Bromofluorobenzene	80		82		70-130	%	01.02.19 10:44

MS/MSD Percent Recovery
Relative Percent Difference
LCS/LCSD Recovery
Log Difference

$[D] = 100 * (C-A) / B$
 $RPD = 200 * |(C-E) / (C+E)|$
 $[D] = 100 * (C) / [B]$
 Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

LCS = Laboratory Control Sample
 A = Parent Result
 C = MS/LCS Result
 E = MSD/LCSD Result

MS = Matrix Spike
 B = Spike Added
 D = MSD/LCSD % Rec



Chain of Custody

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334

Midland, TX (432-704-5440) EL Paso, TX (915)585-3443 Lubbock, TX (806)794-1296

Hobbs,NM (575-392-7550) Phoenix,AZ (480-355-0900) Atlanta,GA (770-449-8800) Tampa,FL (813-620-2000)

Work Order No:

www.xenco.com

Page 1 of 2

Project Manager:	Matthew Oster	Bill to: (if different)	
Company Name:	ConocoPhillips	Company Name:	
Address:	15 W LONDON RD #4	Address:	
City, State ZIP:	LOVING, NM 88256	City, State ZIP:	
Phone:	432-210-7059 or 575-745-1937	Email:	Matthew.Oster@conocophillips.com

Work Order Comments			
Program: UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐			
State of Project:			
Reporting: Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐			
Deliverables: EDD ☐ ADaPT ☐ Other:			

[illegible]

Total 200.7 / 6010 200.8 / 6020:

8RCRA	13PPM	Texas 11	Al	Sb	As	Ba	Be	B	Cd	Ca	Cr	Co	Cu	Fe	Pb	Mg	Mn	Mo	Ni	K	Se	Ag	SiO ₂	Na	Sr	Tl	Sn	U	V	Zn
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Circle Method(s) and Metal(s) to be analyzed

TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Tl U

1631 / 245.1 / 7470 / 7471 : Hg

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 <i>Man Osta</i>	<i>[Signature]</i>	12/20/18 6:00am	2		
3			4		
5			6		



Chain of Custody

Houston, TX (281) 240-4200 Dallas, TX (214) 902-0300 San Antonio, TX (210) 509-3334
Midland, TX (432-704-5440) EL Paso, TX (915) 585-3443 Lubbock, TX (806) 794-1296

Hobbs, NM (575-392-7550) Phoenix, AZ (480-355-0900) Atlanta, GA (770-449-8800) Tampa, FL (813-620-2000)

Work Order No: 1009765

www.xenco.com Page 2 of 2

Project Manager:	Matthew Oster	Bill to: (if different)	
Company Name:	ConocoPhillips	Company Name:	
Address:	15W LONDON Rd #4	Address:	
City, State ZIP:	LOUING, NM 88256	City, State ZIP:	
Phone:	432-210-7059 or 575-745-1937	Email:	Matthew.Oster@conocophillips.com

Work Order Comments	
Program:	UST/PST ☐ PRP ☐ Brownfields ☐ RRC ☐ Superfund ☐
State of Project:	
Reporting:	Level II ☐ Level III ☐ PST/UST ☐ TRRP ☐ Level IV ☐
Deliverables:	EDD ☐ ADaPT ☐ Other: ☐

Project Name:	21A Hills 401H		Turn Around																	Work Order Notes																												
Project Number:	401H		Routine	☐																TAT starts the day received by the lab, if received by 4:30pm																												
P.O. Number:			Rush:	☒																																												
Sampler's Name:	MAT OSTER / CHARLES ROBERTS		Due Date:	12/21/18																																												
<table border="1"> <tr> <th colspan="2">SAMPLE RECEIPT</th> <th>Temp Blank:</th> <th>(Yes) No</th> <th>Wet Ice:</th> <th>(Yes) No</th> </tr> <tr> <td>Temperature (°C):</td> <td>13.9 32/3.1</td> <td colspan="3">Thermometer ID</td> <td></td> </tr> <tr> <td>Received Intact:</td> <td>(Yes) No</td> <td colspan="3"></td> <td></td> </tr> <tr> <td>Cooler Custody Seals:</td> <td>(Yes) No N/A</td> <td colspan="3">Correction Factor:</td> <td>-0.1</td> </tr> <tr> <td>Sample Custody Seals:</td> <td>(Yes) No N/A</td> <td colspan="3">Total Containers:</td> <td>17</td> </tr> </table>			SAMPLE RECEIPT		Temp Blank:	(Yes) No	Wet Ice:	(Yes) No	Temperature (°C):	13.9 32/3.1	Thermometer ID				Received Intact:	(Yes) No						Cooler Custody Seals:	(Yes) No N/A	Correction Factor:			-0.1	Sample Custody Seals:	(Yes) No N/A	Total Containers:			17															
SAMPLE RECEIPT		Temp Blank:	(Yes) No	Wet Ice:	(Yes) No																																											
Temperature (°C):	13.9 32/3.1	Thermometer ID																																														
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Sample Custody Seals:	(Yes) No N/A	Total Containers:			17																																											
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Number of Containers	Chlorides	TPH (SW8015)	BTEX											Sample Comments																													
Boundary Sample 1	Soil	12-2018	1623	4"	1	X											Boundary line																															
" " " 2	Soil	12-2018	1630	8"	1	X											" " "																															
Outside of boundary 1	Soil	12-2018	1635	4"	1	X											8' outside boundary																															
" " " 2	Soil	12-2018	1640	8"	1	X											" " "																															
Boundary sample (2) 1	Soil	12-2018	1648	4"	1	X											Boundary line																															
" " " (2) 1	Soil	12-2018		4"	1	X											" " "																															
Boundary Sample (4) 1						X																																										

Total 200.7 / 6010 200.8 / 6020:

8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO2 Na Sr Ti Sn U V Zn

Circle Method(s) and Metal(s) to be analyzed

TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U

1631 / 245.1 / 7470 / 7471 : Hg

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Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 Max Oster	ADW	12/20/18			
3					
5					



XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In

Client: ConocoPhillips-Lovington

Date/ Time Received: 12/26/2018 03:40:00 PM

Work Order #: 609765

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist**Comments**

#1 *Temperature of cooler(s)?	3.1
#2 *Shipping container in good condition?	Yes
#3 *Samples received on ice?	Yes
#4 *Custody Seals intact on shipping container/ cooler?	Yes
#5 Custody Seals intact on sample bottles?	N/A
#6 *Custody Seals Signed and dated?	Yes
#7 *Chain of Custody present?	Yes
#8 Any missing/extra samples?	No
#9 Chain of Custody signed when relinquished/ received?	Yes
#10 Chain of Custody agrees with sample labels/matrix?	Yes
#11 Container label(s) legible and intact?	Yes
#12 Samples in proper container/ bottle?	Yes
#13 Samples properly preserved?	Yes
#14 Sample container(s) intact?	Yes
#15 Sufficient sample amount for indicated test(s)?	Yes
#16 All samples received within hold time?	Yes
#17 Subcontract of sample(s)?	N/A
#18 Water VOC samples have zero headspace?	N/A

*** Must be completed for after-hours delivery of samples prior to placing in the refrigerator**

Analyst:

PH Device/Lot#:

Checklist completed by:

Brianna Teel

Date: 12/26/2018

Checklist reviewed by:

Holly Taylor

Date: 12/26/2018



ANALYTICAL REPORT

July 21, 2020

Revised Report

ConocoPhillips - Tetra Tech

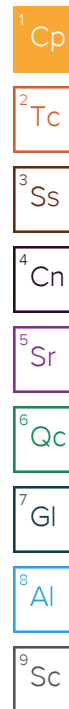
Sample Delivery Group: L1220048
Samples Received: 05/19/2020
Project Number: 212C-MD-02191
Description: COP Zia Hills 25E Fed Com 401H

Report To: Christian Llull
901 West Wall
Suite 100
Midland, TX 79701

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 Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



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

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BH-2 (6'-7') L1220048-01 Solid

Collected by JT
Collected date/time 05/14/20 11:20
Received date/time 05/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1481816	1	05/26/20 20:41	05/26/20 21:00	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1483976	1	05/21/20 00:35	05/21/20 03:37	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1479487	1	05/21/20 00:35	05/21/20 03:37	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1480349	1	05/22/20 00:03	05/22/20 16:46	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1481347	1	05/21/20 12:14	05/23/20 18:18	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480325	1	05/21/20 12:14	05/22/20 06:07	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1481781	1	05/25/20 07:49	05/25/20 23:11	KLM	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

BH-2 (8'-9') L1220048-02 Solid

Collected by JT
Collected date/time 05/14/20 11:30
Received date/time 05/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1481816	1	05/26/20 20:41	05/26/20 21:00	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1483976	1	05/21/20 00:35	05/21/20 04:13	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1479487	1	05/21/20 00:35	05/21/20 04:13	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1480349	1	05/22/20 00:03	05/22/20 17:00	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1480945	1	05/21/20 12:14	05/23/20 01:14	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480325	1	05/21/20 12:14	05/22/20 06:26	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1481781	1	05/25/20 07:49	05/25/20 23:24	KLM	Mt. Juliet, TN

BH-3 (6'-7') L1220048-03 Solid

Collected by JT
Collected date/time 05/14/20 12:10
Received date/time 05/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1481816	1	05/26/20 20:41	05/26/20 21:00	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1483976	1	05/21/20 00:35	05/21/20 04:31	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1479487	1	05/21/20 00:35	05/21/20 04:31	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1480349	1	05/22/20 00:03	05/22/20 17:02	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1480945	1	05/21/20 12:14	05/23/20 01:34	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480325	1	05/21/20 12:14	05/22/20 06:46	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1481781	1	05/25/20 07:49	05/25/20 23:37	KLM	Mt. Juliet, TN

BH-4 (2'-3') L1220048-04 Solid

Collected by JT
Collected date/time 05/14/20 12:40
Received date/time 05/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1481816	1	05/26/20 20:41	05/26/20 21:00	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1483976	1	05/21/20 00:35	05/21/20 04:49	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1479487	1	05/21/20 00:35	05/21/20 04:49	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1480349	1	05/22/20 00:03	05/22/20 17:05	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1480945	1	05/21/20 12:14	05/23/20 01:55	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480325	1	05/21/20 12:14	05/22/20 07:05	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1481781	1	05/25/20 07:49	05/25/20 23:50	KLM	Mt. Juliet, TN

BH-4 (4'-5') L1220048-05 Solid

Collected by JT
Collected date/time 05/14/20 12:50
Received date/time 05/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1481816	1	05/26/20 20:41	05/26/20 21:00	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1483976	1	05/21/20 00:35	05/21/20 05:07	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1479487	1	05/21/20 00:35	05/21/20 05:07	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1480349	1	05/22/20 00:03	05/22/20 17:13	CCE	Mt. Juliet, TN

BH-4 (4'-5') L1220048-05 Solid

Collected by JT
Collected date/time 05/14/20 12:50
Received date/time 05/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1480945	1	05/21/20 12:14	05/23/20 02:15	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480662	1	05/21/20 12:14	05/22/20 09:50	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1481781	1	05/25/20 07:49	05/26/20 00:03	KLM	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

BH-4 (6'-7') L1220048-06 Solid

Collected by JT
Collected date/time 05/14/20 13:00
Received date/time 05/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1481816	1	05/26/20 20:41	05/26/20 21:00	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1483976	1	05/21/20 00:35	05/21/20 06:36	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1479487	1	05/21/20 00:35	05/21/20 06:36	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1480349	1	05/22/20 00:03	05/22/20 17:16	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1480945	1	05/21/20 12:14	05/23/20 02:36	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480662	1	05/21/20 12:14	05/22/20 10:09	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1481781	1	05/25/20 07:49	05/26/20 00:16	KLM	Mt. Juliet, TN

BH-4 (8'-9') L1220048-07 Solid

Collected by JT
Collected date/time 05/14/20 13:10
Received date/time 05/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1481816	1	05/26/20 20:41	05/26/20 21:00	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1483976	1	05/21/20 00:35	05/21/20 06:54	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1479487	1	05/21/20 00:35	05/21/20 06:54	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1480349	1	05/22/20 00:03	05/22/20 17:18	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1480945	1	05/21/20 12:14	05/23/20 02:57	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480662	1	05/21/20 12:14	05/22/20 10:28	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1481781	1	05/25/20 07:49	05/26/20 00:30	KLM	Mt. Juliet, TN

BH-5 (0'-1') L1220048-08 Solid

Collected by JT
Collected date/time 05/14/20 13:20
Received date/time 05/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1481816	1	05/26/20 20:41	05/26/20 21:00	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1483976	1	05/21/20 00:35	05/21/20 07:12	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1479487	1	05/21/20 00:35	05/21/20 07:12	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1480349	1	05/22/20 00:03	05/22/20 17:21	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1480945	1	05/21/20 12:14	05/23/20 03:18	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480662	1	05/21/20 12:14	05/22/20 10:47	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1481781	1	05/25/20 07:49	05/26/20 02:01	KLM	Mt. Juliet, TN

BH-5 (2'-3') L1220048-09 Solid

Collected by JT
Collected date/time 05/14/20 13:30
Received date/time 05/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1481816	1	05/26/20 20:41	05/26/20 21:00	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1483976	1	05/21/20 00:35	05/21/20 07:30	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1479487	1	05/21/20 00:35	05/21/20 07:30	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1480349	1	05/22/20 00:03	05/22/20 17:24	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1480945	1	05/21/20 12:14	05/23/20 06:34	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480662	1	05/21/20 12:14	05/22/20 11:06	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1481781	1	05/25/20 07:49	05/26/20 00:43	KLM	Mt. Juliet, TN

BH-5 (8'-9') L1220048-10 Solid

Collected by JT
Collected date/time 05/14/20 14:00
Received date/time 05/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1481817	1	05/26/20 14:44	05/26/20 14:53	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1483976	1	05/21/20 00:35	05/21/20 07:48	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1479487	1	05/21/20 00:35	05/21/20 07:48	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1480349	1	05/22/20 00:03	05/22/20 17:27	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1480945	1	05/21/20 12:14	05/23/20 06:54	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480662	1	05/21/20 12:14	05/22/20 11:25	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1481781	1	05/25/20 07:49	05/26/20 00:56	KLM	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

BH-6 (0'-1') L1220048-11 Solid

Collected by JT
Collected date/time 05/14/20 14:10
Received date/time 05/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1481817	1	05/26/20 14:44	05/26/20 14:53	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1483976	1	05/21/20 00:35	05/21/20 08:06	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1479487	1	05/21/20 00:35	05/21/20 08:06	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1480349	1	05/22/20 00:03	05/22/20 17:29	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1480945	1	05/21/20 12:14	05/23/20 08:54	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480662	1	05/21/20 12:14	05/22/20 11:44	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1481781	1	05/25/20 07:49	05/26/20 02:14	KLM	Mt. Juliet, TN

BH-6 (2'-3') L1220048-12 Solid

Collected by JT
Collected date/time 05/14/20 14:20
Received date/time 05/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1481817	1	05/26/20 14:44	05/26/20 14:53	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1483976	1	05/21/20 00:35	05/21/20 08:24	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1479487	1	05/21/20 00:35	05/21/20 08:24	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1480349	1	05/22/20 00:03	05/22/20 17:32	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1480945	1	05/21/20 12:14	05/23/20 09:14	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480662	1	05/21/20 12:14	05/22/20 12:03	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1481781	1	05/25/20 07:49	05/26/20 01:48	KLM	Mt. Juliet, TN

BH-6 (4'-5') L1220048-13 Solid

Collected by JT
Collected date/time 05/14/20 14:30
Received date/time 05/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1481817	1	05/26/20 14:44	05/26/20 14:53	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1483976	1	05/21/20 00:35	05/21/20 08:41	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1479487	1	05/21/20 00:35	05/21/20 08:41	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1480349	1	05/22/20 00:03	05/22/20 17:34	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1480945	1	05/21/20 12:14	05/23/20 09:35	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480662	1	05/21/20 12:14	05/22/20 12:22	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1481781	1	05/25/20 07:49	05/26/20 01:09	KLM	Mt. Juliet, TN

BH-6 (6'-7') L1220048-14 Solid

Collected by JT
Collected date/time 05/14/20 14:40
Received date/time 05/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1481817	1	05/26/20 14:44	05/26/20 14:53	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1483976	1	05/21/20 00:35	05/21/20 08:59	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1479487	1	05/21/20 00:35	05/21/20 08:59	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1480349	1	05/22/20 00:03	05/22/20 17:37	CCE	Mt. Juliet, TN

BH-6 (6'-7') L1220048-14 Solid

Collected by JT
Collected date/time 05/14/20 14:40
Received date/time 05/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1480945	1	05/21/20 12:14	05/23/20 09:55	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480662	1	05/21/20 12:14	05/22/20 12:41	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1481781	1	05/25/20 07:49	05/26/20 01:22	KLM	Mt. Juliet, TN

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

BH-6 (8'-9') L1220048-15 Solid

Collected by JT
Collected date/time 05/14/20 14:50
Received date/time 05/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1481817	1	05/26/20 14:44	05/26/20 14:53	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1483976	1	05/21/20 00:35	05/21/20 09:17	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1479487	1	05/21/20 00:35	05/21/20 09:17	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1480349	1	05/22/20 00:03	05/22/20 17:45	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1481347	1	05/21/20 12:21	05/23/20 18:39	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480786	1	05/21/20 12:21	05/22/20 10:18	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1481781	1	05/25/20 07:49	05/26/20 01:35	KLM	Mt. Juliet, TN

AH-1 (2'-3') L1220048-16 Solid

Collected by JT
Collected date/time 05/14/20 15:10
Received date/time 05/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1481817	1	05/26/20 14:44	05/26/20 14:53	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1483976	1	05/21/20 00:35	05/21/20 10:11	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1479487	1	05/21/20 00:35	05/21/20 10:11	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1480349	1	05/22/20 00:03	05/22/20 17:48	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1481347	1	05/21/20 12:21	05/23/20 18:59	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480786	1	05/21/20 12:21	05/22/20 10:38	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1481870	1	05/26/20 16:44	05/27/20 15:01	FM	Mt. Juliet, TN

AH-2 (0-1') L1220048-17 Solid

Collected by JT
Collected date/time 05/14/20 15:20
Received date/time 05/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1481817	1	05/26/20 14:44	05/26/20 14:53	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1483976	1	05/21/20 00:35	05/21/20 10:29	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1479487	1	05/21/20 00:35	05/21/20 10:29	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1480349	1	05/22/20 00:03	05/22/20 17:50	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1481347	1	05/21/20 12:21	05/23/20 19:20	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480786	1	05/21/20 12:21	05/22/20 10:58	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1481870	1	05/26/20 16:44	05/27/20 15:17	FM	Mt. Juliet, TN

AH-2 (2'-3') L1220048-18 Solid

Collected by JT
Collected date/time 05/14/20 15:30
Received date/time 05/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1481817	1	05/26/20 14:44	05/26/20 14:53	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1483976	1	05/21/20 00:35	05/21/20 10:47	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1479487	1	05/21/20 00:35	05/21/20 10:47	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1480349	1	05/22/20 00:03	05/22/20 17:53	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1481347	1	05/21/20 12:21	05/23/20 19:41	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480786	1	05/21/20 12:21	05/22/20 11:19	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1481870	1	05/26/20 16:44	05/27/20 15:32	FM	Mt. Juliet, TN

AH-3 (0-1') L1220048-19 Solid

Collected by JT
Collected date/time 05/14/20 15:40
Received date/time 05/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1481817	1	05/26/20 14:44	05/26/20 14:53	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1483976	1	05/21/20 00:35	05/21/20 11:05	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1479487	1	05/21/20 00:35	05/21/20 11:05	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1480349	1	05/22/20 00:03	05/22/20 17:56	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1481347	1	05/21/20 12:21	05/23/20 20:01	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480786	1	05/21/20 12:21	05/22/20 11:39	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1481870	1	05/26/20 16:44	05/27/20 16:20	FM	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

AH-3 (2'-3') L1220048-20 Solid

Collected by JT
Collected date/time 05/14/20 15:50
Received date/time 05/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1481818	1	05/26/20 14:54	05/26/20 15:02	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1483976	1	05/21/20 00:35	05/21/20 11:23	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1479487	1	05/21/20 00:35	05/21/20 11:23	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1480349	1	05/22/20 00:03	05/22/20 17:58	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1481347	1	05/21/20 12:21	05/23/20 20:22	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480786	1	05/21/20 12:21	05/22/20 11:59	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1481870	1	05/26/20 16:44	05/27/20 16:36	FM	Mt. Juliet, TN

AH-4 (0-1') L1220048-21 Solid

Collected by JT
Collected date/time 05/14/20 16:00
Received date/time 05/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1481818	1	05/26/20 14:54	05/26/20 15:02	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1483979	1	05/20/20 19:00	05/21/20 04:33	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1479554	1	05/20/20 19:00	05/21/20 04:33	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1477813	1	05/21/20 16:48	05/22/20 11:28	TRB	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1481347	1	05/21/20 12:21	05/23/20 20:42	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480786	1	05/21/20 12:21	05/22/20 12:20	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1481870	1	05/26/20 16:44	05/27/20 19:50	FM	Mt. Juliet, TN

AH-4 (2'-3') L1220048-22 Solid

Collected by JT
Collected date/time 05/14/20 16:10
Received date/time 05/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1481818	1	05/26/20 14:54	05/26/20 15:02	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1483979	1	05/20/20 19:00	05/21/20 04:50	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1479554	1	05/20/20 19:00	05/21/20 04:50	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1477813	1	05/21/20 16:48	05/22/20 11:31	TRB	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1481378	1	05/21/20 12:21	05/24/20 00:15	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480786	1	05/21/20 12:21	05/22/20 12:40	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1481870	1	05/26/20 16:44	05/27/20 16:52	FM	Mt. Juliet, TN

AH-4 (4'-5') L1220048-23 Solid

Collected by JT
Collected date/time 05/14/20 16:20
Received date/time 05/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1481818	1	05/26/20 14:54	05/26/20 15:02	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1483979	1	05/20/20 19:00	05/21/20 05:07	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1479554	1	05/20/20 19:00	05/21/20 05:07	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1477813	1	05/21/20 16:48	05/22/20 11:39	TRB	Mt. Juliet, TN

AH-4 (4'-5') L1220048-23 Solid

Collected by JT
Collected date/time 05/14/20 16:20
Received date/time 05/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1481378	1	05/21/20 12:21	05/24/20 00:36	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480786	1	05/21/20 12:21	05/22/20 13:00	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1481870	1	05/26/20 16:44	05/27/20 17:08	FM	Mt. Juliet, TN

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

AH-5 (0-1') L1220048-24 Solid

Collected by JT
Collected date/time 05/14/20 16:30
Received date/time 05/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1481818	1	05/26/20 14:54	05/26/20 15:02	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1483979	1	05/20/20 19:00	05/21/20 05:24	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1479554	1	05/20/20 19:00	05/21/20 05:24	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1477813	1	05/21/20 16:48	05/22/20 11:41	TRB	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1481378	1	05/21/20 12:21	05/24/20 00:56	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480786	1	05/21/20 12:21	05/22/20 13:20	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1481870	1	05/26/20 16:44	05/27/20 17:24	FM	Mt. Juliet, TN

AH-5 (2'-3') L1220048-25 Solid

Collected by JT
Collected date/time 05/14/20 16:40
Received date/time 05/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1481818	1	05/26/20 14:54	05/26/20 15:02	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1483979	1	05/20/20 19:00	05/21/20 05:40	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1479554	1	05/20/20 19:00	05/21/20 05:40	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1477813	1	05/21/20 16:48	05/22/20 11:44	TRB	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1481378	1	05/21/20 12:21	05/24/20 01:17	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480786	1	05/21/20 12:21	05/22/20 13:41	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1481870	1	05/26/20 16:44	05/27/20 17:40	FM	Mt. Juliet, TN

AH-6 (0-1') L1220048-26 Solid

Collected by JT
Collected date/time 05/14/20 16:50
Received date/time 05/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1481818	1	05/26/20 14:54	05/26/20 15:02	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1483979	1	05/20/20 19:00	05/21/20 05:57	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1479554	1	05/20/20 19:00	05/21/20 05:57	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1477813	1	05/21/20 16:48	05/22/20 11:47	TRB	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1481378	1	05/21/20 12:21	05/24/20 01:38	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480786	1	05/21/20 12:21	05/22/20 14:01	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1481870	1	05/26/20 16:44	05/27/20 17:56	FM	Mt. Juliet, TN

AH-6 (2'-3') L1220048-27 Solid

Collected by JT
Collected date/time 05/14/20 17:00
Received date/time 05/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1481818	1	05/26/20 14:54	05/26/20 15:02	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1483979	1	05/20/20 19:00	05/21/20 06:14	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1479554	1	05/20/20 19:00	05/21/20 06:14	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1477813	1	05/21/20 16:48	05/22/20 11:49	TRB	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1481378	1	05/21/20 12:21	05/24/20 01:58	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1480786	1	05/21/20 12:21	05/22/20 14:21	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1481870	1	05/26/20 16:44	05/27/20 18:12	FM	Mt. Juliet, TN

BH-1 (2'-3') L1220048-29 Solid

Collected by JT
Collected date/time 05/14/20 10:10
Received date/time 05/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1481818	1	05/26/20 14:54	05/26/20 15:02	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1483981	1	05/25/20 15:30	05/25/20 22:17	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1481856	1	05/25/20 15:30	05/25/20 22:17	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481196	1	05/23/20 01:15	05/23/20 18:35	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1482079	1	05/26/20 17:02	05/26/20 21:25	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1481378	1	05/22/20 14:05	05/24/20 02:19	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1481005	1	05/22/20 14:05	05/23/20 01:18	ADM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1481870	1	05/26/20 16:44	05/27/20 18:27	FM	Mt. Juliet, TN

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

BH-1 (4'-5') L1220048-30 Solid

Collected by JT
Collected date/time 05/14/20 10:20
Received date/time 05/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1481818	1	05/26/20 14:54	05/26/20 15:02	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1483981	1	05/25/20 15:30	05/25/20 22:51	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1481856	1	05/25/20 15:30	05/25/20 22:51	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481196	1	05/23/20 01:15	05/23/20 18:38	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1482079	1	05/26/20 17:02	05/26/20 21:41	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1481378	1	05/22/20 14:05	05/24/20 02:40	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1481068	1	05/22/20 14:05	05/22/20 17:39	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1481922	1	05/26/20 16:49	05/27/20 04:19	AEG	Mt. Juliet, TN

BH-1 (6'-7') L1220048-31 Solid

Collected by JT
Collected date/time 05/14/20 10:30
Received date/time 05/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1481819	1	05/26/20 15:03	05/26/20 15:12	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1483981	5	05/25/20 15:30	05/25/20 23:42	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1481856	1	05/25/20 15:30	05/25/20 23:25	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481196	1	05/23/20 01:15	05/23/20 18:40	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1482079	1	05/26/20 17:02	05/26/20 21:44	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1481378	1	05/22/20 14:05	05/24/20 03:00	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1481068	1	05/22/20 14:05	05/22/20 18:00	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1481922	1	05/26/20 16:49	05/27/20 04:35	AEG	Mt. Juliet, TN

BH-1 (8'-9') L1220048-32 Solid

Collected by JT
Collected date/time 05/14/20 10:40
Received date/time 05/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1481819	1	05/26/20 15:03	05/26/20 15:12	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1483981	5	05/25/20 15:30	05/26/20 00:16	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1481856	1	05/25/20 15:30	05/25/20 23:59	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481196	1	05/23/20 01:15	05/23/20 18:49	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1482079	1	05/26/20 17:02	05/26/20 21:52	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1481378	1	05/22/20 14:05	05/24/20 03:21	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1481068	1	05/22/20 14:05	05/22/20 18:20	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1481922	1	05/26/20 16:49	05/27/20 04:51	AEG	Mt. Juliet, TN

BH-2 (2'-3') L1220048-34 Solid

Collected by JT
Collected date/time 05/14/20 11:00
Received date/time 05/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1481819	1	05/26/20 15:03	05/26/20 15:12	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1483981	1	05/25/20 15:30	05/26/20 01:06	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1481856	1	05/25/20 15:30	05/26/20 01:06	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481196	1	05/23/20 01:15	05/23/20 18:51	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1482079	1	05/26/20 17:02	05/26/20 21:54	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1481378	1	05/22/20 14:05	05/24/20 03:41	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1481068	1	05/22/20 14:05	05/22/20 18:40	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1481922	1	05/26/20 16:49	05/27/20 05:07	AEG	Mt. Juliet, TN

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

BH-2 (4'-5') L1220048-35 Solid

Collected by JT
Collected date/time 05/14/20 11:10
Received date/time 05/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1481819	1	05/26/20 15:03	05/26/20 15:12	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1483981	1	05/25/20 15:30	05/26/20 01:23	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1481856	1	05/25/20 15:30	05/26/20 01:23	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481196	1	05/23/20 01:15	05/23/20 18:54	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1482079	1	05/26/20 17:02	05/26/20 21:57	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1481378	1	05/22/20 14:05	05/24/20 04:02	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1481068	1	05/22/20 14:05	05/22/20 19:00	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1481922	1	05/26/20 16:49	05/27/20 05:23	AEG	Mt. Juliet, TN

BH-3 (0'-1') L1220048-36 Solid

Collected by JT
Collected date/time 05/14/20 11:40
Received date/time 05/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1481819	1	05/26/20 15:03	05/26/20 15:12	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1483981	1	05/25/20 15:30	05/26/20 01:40	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1481856	1	05/25/20 15:30	05/26/20 01:40	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481196	1	05/23/20 01:15	05/23/20 18:56	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1482079	1	05/26/20 17:02	05/26/20 22:00	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1481378	1	05/22/20 14:05	05/24/20 04:23	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1481068	1	05/22/20 14:05	05/22/20 19:20	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1481922	1	05/26/20 16:49	05/27/20 05:39	AEG	Mt. Juliet, TN

BH-3 (2'-3') L1220048-37 Solid

Collected by JT
Collected date/time 05/14/20 11:50
Received date/time 05/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1481819	1	05/26/20 15:03	05/26/20 15:12	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1483981	1	05/25/20 15:30	05/26/20 01:57	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1481856	1	05/25/20 15:30	05/26/20 01:57	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481196	1	05/23/20 01:15	05/23/20 18:59	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1482079	1	05/26/20 17:02	05/26/20 22:02	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1481378	1	05/22/20 14:05	05/24/20 04:43	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1481068	1	05/22/20 14:05	05/22/20 19:40	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1481922	1	05/26/20 16:49	05/27/20 05:55	AEG	Mt. Juliet, TN

BH-3 (4'-5') L1220048-38 Solid

Collected by JT
Collected date/time 05/14/20 12:00
Received date/time 05/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1481819	1	05/26/20 15:03	05/26/20 15:12	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1483981	1	05/25/20 15:30	05/26/20 02:14	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1481856	1	05/25/20 15:30	05/26/20 02:14	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481196	1	05/23/20 01:15	05/23/20 19:02	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1482079	1	05/26/20 17:02	05/26/20 22:05	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1481378	1	05/22/20 14:05	05/24/20 05:04	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1481068	1	05/22/20 14:05	05/22/20 20:00	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1481922	1	05/26/20 16:49	05/27/20 06:11	AEG	Mt. Juliet, TN

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

BH-3 (8'-9') L1220048-39 Solid

Collected by JT
Collected date/time 05/14/20 12:20
Received date/time 05/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1481819	1	05/26/20 15:03	05/26/20 15:12	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1483981	1	05/25/20 15:30	05/26/20 02:31	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1481856	1	05/25/20 15:30	05/26/20 02:31	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481196	1	05/23/20 01:15	05/23/20 19:04	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1482079	1	05/26/20 17:02	05/26/20 22:08	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1481378	1	05/22/20 14:05	05/24/20 05:25	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1481068	1	05/22/20 14:05	05/22/20 20:20	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1481922	1	05/26/20 16:49	05/27/20 06:27	AEG	Mt. Juliet, TN

BH-4 (0'-1') L1220048-40 Solid

Collected by JT
Collected date/time 05/14/20 12:30
Received date/time 05/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1481819	1	05/26/20 15:03	05/26/20 15:12	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1483981	1	05/25/20 15:30	05/26/20 02:48	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1481856	1	05/25/20 15:30	05/26/20 02:48	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481196	1	05/23/20 01:15	05/23/20 18:22	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1482079	1	05/26/20 17:02	05/26/20 22:10	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1481378	1	05/22/20 14:05	05/24/20 05:45	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1481068	1	05/22/20 14:05	05/22/20 20:40	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1481922	1	05/26/20 16:49	05/27/20 06:43	AEG	Mt. Juliet, TN

BH-5 (4'-5') L1220048-41 Solid

Collected by JT
Collected date/time 05/14/20 13:40
Received date/time 05/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1481819	1	05/26/20 15:03	05/26/20 15:12	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1483981	1	05/25/20 15:30	05/26/20 03:39	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1481856	1	05/25/20 15:30	05/26/20 03:39	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481196	1	05/23/20 01:15	05/23/20 19:07	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1482079	1	05/26/20 17:02	05/26/20 22:13	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1481378	1	05/22/20 14:05	05/24/20 06:06	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1481068	1	05/22/20 14:05	05/22/20 21:01	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1481922	1	05/26/20 16:49	05/27/20 06:59	AEG	Mt. Juliet, TN

BH-5 (6'-7') L1220048-42 Solid

Collected by JT
Collected date/time 05/14/20 13:50
Received date/time 05/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1481820	1	05/26/20 15:54	05/26/20 16:04	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1483981	1	05/25/20 15:30	05/26/20 04:29	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1481856	1	05/25/20 15:30	05/26/20 04:29	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481196	1	05/23/20 01:15	05/23/20 19:10	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1482079	1	05/26/20 17:02	05/26/20 22:16	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1481378	1	05/22/20 14:05	05/24/20 06:26	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1481068	1	05/22/20 14:05	05/22/20 21:20	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1481922	1	05/26/20 16:49	05/27/20 07:46	AEG	Mt. Juliet, TN

¹ Cp² Tc³ Ss⁴ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

AH-1 (0'-1') L1220048-43 Solid

Collected by JT
Collected date/time 05/14/20 15:00
Received date/time 05/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1481820	1	05/26/20 15:54	05/26/20 16:04	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1483981	1	05/25/20 15:30	05/26/20 04:46	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1481856	1	05/25/20 15:30	05/26/20 04:46	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481196	1	05/23/20 01:15	05/23/20 19:13	CCE	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1482079	1	05/26/20 17:02	05/26/20 22:37	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1481378	1	05/22/20 14:05	05/24/20 06:47	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1481068	1	05/22/20 14:05	05/22/20 21:40	JAH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1481922	1	05/26/20 16:49	05/27/20 08:02	AEG	Mt. Juliet, TN

BH-2 (0'-1') L1220048-44 Solid

Collected by JT
Collected date/time 05/14/20 10:00
Received date/time 05/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1481820	1	05/26/20 15:54	05/26/20 16:04	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1483981	1	05/25/20 15:30	05/26/20 05:03	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1481856	1	05/25/20 15:30	05/26/20 05:03	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481617	1	05/24/20 06:53	05/26/20 14:43	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1482090	1	05/26/20 07:43	05/26/20 14:22	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1482071	1	05/26/20 07:43	05/26/20 11:24	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1481922	1	05/26/20 16:49	05/27/20 18:43	FM	Mt. Juliet, TN

BH-1 (0'-1') L1220048-45 Solid

Collected by JT
Collected date/time 05/14/20 10:00
Received date/time 05/19/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1481820	1	05/26/20 15:54	05/26/20 16:04	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1483981	1	05/25/20 15:30	05/26/20 05:37	MCG	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG1481856	1	05/25/20 15:30	05/26/20 05:37	ELN	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1481617	1	05/24/20 06:53	05/26/20 14:31	CCE	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1482090	1	05/26/20 07:43	05/26/20 14:45	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1482071	1	05/26/20 07:43	05/26/20 11:43	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1481922	1	05/26/20 16:49	05/27/20 18:59	FM	Mt. Juliet, TN

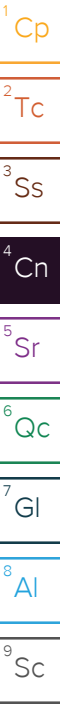
All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples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



Chris McCord
Project Manager

Report Revision History

Level II Report - Version 1: 05/29/20 18:12



Collected date/time: 05/14/20 11:20

L1220048

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	98.3		1	05/26/2020 21:00	WG1481816

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	13.4	J	9.36	20.3	1	05/21/2020 03:37	WG1483976

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Sulfate	16.8	J	13.1	50.9	1	05/21/2020 03:37	WG1479487

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Barium	69.7	O1	0.254	0.509	1	05/22/2020 16:46	WG1480349
Potassium	904		50.9	102	1	05/22/2020 16:46	WG1480349

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0221	0.102	1	05/23/2020 18:18	WG1481347
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	92.5			77.0-120		05/23/2020 18:18	WG1481347

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000475	0.00102	1	05/22/2020 06:07	WG1480325
Toluene	U		0.00132	0.00509	1	05/22/2020 06:07	WG1480325
Ethylbenzene	U		0.000750	0.00254	1	05/22/2020 06:07	WG1480325
Total Xylenes	U		0.000895	0.00661	1	05/22/2020 06:07	WG1480325
(S) <i>Toluene-d8</i>	103			75.0-131		05/22/2020 06:07	WG1480325
(S) <i>4-Bromofluorobenzene</i>	84.6			67.0-138		05/22/2020 06:07	WG1480325
(S) <i>1,2-Dichloroethane-d4</i>	97.5			70.0-130		05/22/2020 06:07	WG1480325

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.64	4.07	1	05/25/2020 23:11	WG1481781
C28-C40 Oil Range	1.55	J	0.279	4.07	1	05/25/2020 23:11	WG1481781
(S) <i>o</i> -Terphenyl	75.8			18.0-148		05/25/2020 23:11	WG1481781

Collected date/time: 05/14/20 11:30

L1220048

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	97.6		1	05/26/2020 21:00	WG1481816

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.42	20.5	1	05/21/2020 04:13	WG1483976

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Sulfate	40.0	J	13.2	51.2	1	05/21/2020 04:13	WG1479487

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Barium	232		0.256	0.512	1	05/22/2020 17:00	WG1480349
Potassium	889		51.2	102	1	05/22/2020 17:00	WG1480349

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U	J3	0.0222	0.102	1	05/23/2020 01:14	WG1480945
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	91.7			77.0-120		05/23/2020 01:14	WG1480945

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000478	0.00102	1	05/22/2020 06:26	WG1480325
Toluene	U		0.00133	0.00512	1	05/22/2020 06:26	WG1480325
Ethylbenzene	U		0.000755	0.00256	1	05/22/2020 06:26	WG1480325
Total Xylenes	U		0.000901	0.00666	1	05/22/2020 06:26	WG1480325
(S) <i>Toluene-d8</i>	109			75.0-131		05/22/2020 06:26	WG1480325
(S) <i>4-Bromofluorobenzene</i>	83.2			67.0-138		05/22/2020 06:26	WG1480325
(S) <i>1,2-Dichloroethane-d4</i>	88.2			70.0-130		05/22/2020 06:26	WG1480325

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	2.87	J	1.65	4.10	1	05/25/2020 23:24	WG1481781
C28-C40 Oil Range	2.80	J	0.281	4.10	1	05/25/2020 23:24	WG1481781
(S) <i>o</i> -Terphenyl	79.5			18.0-148		05/25/2020 23:24	WG1481781

Collected date/time: 05/14/20 12:10

L1220048

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	98.6		1	05/26/2020 21:00	WG1481816

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	24.6		9.33	20.3	1	05/21/2020 04:31	WG1483976

Wet Chemistry by Method 9056A

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Sulfate	17.7	J	13.1	50.7	1	05/21/2020 04:31	WG1479487

Metals (ICP) by Method 6010B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Barium	21.6		0.253	0.507	1	05/22/2020 17:02	WG1480349
Potassium	906		50.7	101	1	05/22/2020 17:02	WG1480349

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	U		0.0220	0.101	1	05/23/2020 01:34	WG1480945
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	92.3			77.0-120		05/23/2020 01:34	WG1480945

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
Benzene	U		0.000473	0.00101	1	05/22/2020 06:46	WG1480325
Toluene	U		0.00132	0.00507	1	05/22/2020 06:46	WG1480325
Ethylbenzene	U		0.000747	0.00253	1	05/22/2020 06:46	WG1480325
Total Xylenes	U		0.000892	0.00659	1	05/22/2020 06:46	WG1480325
(S) Toluene-d8	105			75.0-131		05/22/2020 06:46	WG1480325
(S) 4-Bromofluorobenzene	84.9			67.0-138		05/22/2020 06:46	WG1480325
(S) 1,2-Dichloroethane-d4	92.4			70.0-130		05/22/2020 06:46	WG1480325

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
C10-C28 Diesel Range	U		1.63	4.05	1	05/25/2020 23:37	WG1481781
C28-C40 Oil Range	0.600	J	0.278	4.05	1	05/25/2020 23:37	WG1481781
(S) <i>o</i> -Terphenyl	72.5			18.0-148		05/25/2020 23:37	WG1481781

Collected date/time: 05/14/20 12:40

L1220048

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	96.3		1	05/26/2020 21:00	WG1481816

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	U		9.55	20.8	1	05/21/2020 04:49	WG1483976

Wet Chemistry by Method 9056A

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Sulfate	16.8	J	13.4	51.9	1	05/21/2020 04:49	WG1479487

Metals (ICP) by Method 6010B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Barium	48.3		0.259	0.519	1	05/22/2020 17:05	WG1480349
Potassium	1420		51.9	104	1	05/22/2020 17:05	WG1480349

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	U		0.0225	0.104	1	05/23/2020 01:55	WG1480945
(S) a,a,a-Trifluorotoluene(FID)	91.5			77.0-120		05/23/2020 01:55	WG1480945

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
Benzene	U		0.000485	0.00104	1	05/22/2020 07:05	WG1480325
Toluene	U		0.00135	0.00519	1	05/22/2020 07:05	WG1480325
Ethylbenzene	U		0.000765	0.00259	1	05/22/2020 07:05	WG1480325
Total Xylenes	U		0.000913	0.00675	1	05/22/2020 07:05	WG1480325
(S) Toluene-d8	105			75.0-131		05/22/2020 07:05	WG1480325
(S) 4-Bromofluorobenzene	84.9			67.0-138		05/22/2020 07:05	WG1480325
(S) 1,2-Dichloroethane-d4	92.8			70.0-130		05/22/2020 07:05	WG1480325

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
C10-C28 Diesel Range	U		1.67	4.15	1	05/25/2020 23:50	WG1481781
C28-C40 Oil Range	1.01	J	0.284	4.15	1	05/25/2020 23:50	WG1481781
(S) o-Terphenyl	68.2			18.0-148		05/25/2020 23:50	WG1481781

Collected date/time: 05/14/20 12:50

L1220048

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	97.4		1	05/26/2020 21:00	WG1481816

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	U		9.45	20.5	1	05/21/2020 05:07	WG1483976

Wet Chemistry by Method 9056A

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Sulfate	U		13.2	51.3	1	05/21/2020 05:07	WG1479487

Metals (ICP) by Method 6010B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Barium	30.6		0.257	0.513	1	05/22/2020 17:13	WG1480349
Potassium	1360		51.3	103	1	05/22/2020 17:13	WG1480349

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

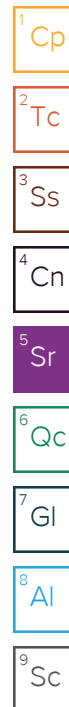
Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0223	0.103	1	05/23/2020 02:15	WG1480945
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	91.0			77.0-120		05/23/2020 02:15	WG1480945

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
Benzene	U		0.000480	0.00103	1	05/22/2020 09:50	WG1480662
Toluene	U		0.00133	0.00513	1	05/22/2020 09:50	WG1480662
Ethylbenzene	U		0.000757	0.00257	1	05/22/2020 09:50	WG1480662
Total Xylenes	U		0.000904	0.00667	1	05/22/2020 09:50	WG1480662
(S) <i>Toluene-d8</i>	101			75.0-131		05/22/2020 09:50	WG1480662
(S) <i>4</i> -Bromofluorobenzene	97.4			67.0-138		05/22/2020 09:50	WG1480662
(S) <i>1,2</i> -Dichloroethane-d4	91.1			70.0-130		05/22/2020 09:50	WG1480662

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
C10-C28 Diesel Range	U		1.65	4.11	1	05/26/2020 00:03	WG1481781
C28-C40 Oil Range	1.25	J	0.281	4.11	1	05/26/2020 00:03	WG1481781
(S) <i>o</i> -Terphenyl	73.7			18.0-148		05/26/2020 00:03	WG1481781



Collected date/time: 05/14/20 13:00

L1220048

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.9		1	05/26/2020 21:00	WG1481816

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	10.6	J	9.60	20.9	1	05/21/2020 06:36	WG1483976

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Sulfate	66.0		13.5	52.2	1	05/21/2020 06:36	WG1479487

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Barium	120		0.261	0.522	1	05/22/2020 17:16	WG1480349
Potassium	1310		52.2	104	1	05/22/2020 17:16	WG1480349

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0226	0.104	1	05/23/2020 02:36	WG1480945
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	92.6			77.0-120		05/23/2020 02:36	WG1480945

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000487	0.00104	1	05/22/2020 10:09	WG1480662
Toluene	U		0.00136	0.00522	1	05/22/2020 10:09	WG1480662
Ethylbenzene	U		0.000769	0.00261	1	05/22/2020 10:09	WG1480662
Total Xylenes	U		0.000918	0.00678	1	05/22/2020 10:09	WG1480662
(S) <i>Toluene-d8</i>	98.7			75.0-131		05/22/2020 10:09	WG1480662
(S) <i>4</i> -Bromofluorobenzene	96.5			67.0-138		05/22/2020 10:09	WG1480662
(S) <i>1,2</i> -Dichloroethane-d4	94.2			70.0-130		05/22/2020 10:09	WG1480662

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	1.71	J	1.68	4.17	1	05/26/2020 00:16	WG1481781
C28-C40 Oil Range	2.33	J	0.286	4.17	1	05/26/2020 00:16	WG1481781
(S) <i>o</i> -Terphenyl	66.9			18.0-148		05/26/2020 00:16	WG1481781

Collected date/time: 05/14/20 13:10

L1220048

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	83.9		1	05/26/2020 21:00	WG1481816

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	28.8		11.0	23.9	1	05/21/2020 06:54	WG1483976

Wet Chemistry by Method 9056A

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Sulfate	56.5	J	15.4	59.6	1	05/21/2020 06:54	WG1479487

Metals (ICP) by Method 6010B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Barium	39.3		0.298	0.596	1	05/22/2020 17:18	WG1480349
Potassium	828		59.6	119	1	05/22/2020 17:18	WG1480349

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	U		0.0259	0.119	1	05/23/2020 02:57	WG1480945
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	92.1			77.0-120		05/23/2020 02:57	WG1480945

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
Benzene	U		0.000557	0.00119	1	05/22/2020 10:28	WG1480662
Toluene	U		0.00155	0.00596	1	05/22/2020 10:28	WG1480662
Ethylbenzene	U		0.000879	0.00298	1	05/22/2020 10:28	WG1480662
Total Xylenes	U		0.00105	0.00775	1	05/22/2020 10:28	WG1480662
(S) <i>Toluene-d8</i>	99.1			75.0-131		05/22/2020 10:28	WG1480662
(S) <i>4</i> -Bromofluorobenzene	96.3			67.0-138		05/22/2020 10:28	WG1480662
(S) <i>1,2</i> -Dichloroethane-d4	94.1			70.0-130		05/22/2020 10:28	WG1480662

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
C10-C28 Diesel Range	U		1.92	4.77	1	05/26/2020 00:30	WG1481781
C28-C40 Oil Range	0.575	J	0.327	4.77	1	05/26/2020 00:30	WG1481781
(S) <i>o</i> -Terphenyl	73.6			18.0-148		05/26/2020 00:30	WG1481781

Collected date/time: 05/14/20 13:20

L1220048

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.0		1	05/26/2020 21:00	WG1481816

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	23.7		10.8	23.5	1	05/21/2020 07:12	WG1483976

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Sulfate	37.7	J	15.2	58.8	1	05/21/2020 07:12	WG1479487

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Barium	49.2		0.294	0.588	1	05/22/2020 17:21	WG1480349
Potassium	1050		58.8	118	1	05/22/2020 17:21	WG1480349

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0255	0.118	1	05/23/2020 03:18	WG1480945
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	92.5			77.0-120		05/23/2020 03:18	WG1480945

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000549	0.00118	1	05/22/2020 10:47	WG1480662
Toluene	U		0.00153	0.00588	1	05/22/2020 10:47	WG1480662
Ethylbenzene	U		0.000867	0.00294	1	05/22/2020 10:47	WG1480662
Total Xylenes	U		0.00104	0.00765	1	05/22/2020 10:47	WG1480662
(S) <i>Toluene-d8</i>	100			75.0-131		05/22/2020 10:47	WG1480662
(S) <i>4</i> -Bromofluorobenzene	95.9			67.0-138		05/22/2020 10:47	WG1480662
(S) <i>1,2</i> -Dichloroethane-d4	95.3			70.0-130		05/22/2020 10:47	WG1480662

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	5.54		1.89	4.71	1	05/26/2020 02:01	WG1481781
C28-C40 Oil Range	3.86	J	0.322	4.71	1	05/26/2020 02:01	WG1481781
(S) <i>o</i> -Terphenyl	75.9			18.0-148		05/26/2020 02:01	WG1481781

Collected date/time: 05/14/20 13:30

L1220048

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	99.4		1	05/26/2020 21:00	WG1481816

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.26	20.1	1	05/21/2020 07:30	WG1483976

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Sulfate	U		13.0	50.3	1	05/21/2020 07:30	WG1479487

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Barium	26.4		0.252	0.503	1	05/22/2020 17:24	WG1480349
Potassium	973		50.3	101	1	05/22/2020 17:24	WG1480349

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0218	0.101	1	05/23/2020 06:34	WG1480945
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	91.7			77.0-120		05/23/2020 06:34	WG1480945

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000470	0.00101	1	05/22/2020 11:06	WG1480662
Toluene	U		0.00131	0.00503	1	05/22/2020 11:06	WG1480662
Ethylbenzene	U		0.000742	0.00252	1	05/22/2020 11:06	WG1480662
Total Xylenes	U		0.000886	0.00654	1	05/22/2020 11:06	WG1480662
(S) <i>Toluene-d8</i>	100			75.0-131		05/22/2020 11:06	WG1480662
(S) <i>4-Bromofluorobenzene</i>	96.8			67.0-138		05/22/2020 11:06	WG1480662
(S) <i>1,2-Dichloroethane-d4</i>	88.4			70.0-130		05/22/2020 11:06	WG1480662

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.62	4.03	1	05/26/2020 00:43	WG1481781
C28-C40 Oil Range	1.18	J	0.276	4.03	1	05/26/2020 00:43	WG1481781
(S) <i>o</i> -Terphenyl	89.3			18.0-148		05/26/2020 00:43	WG1481781

Collected date/time: 05/14/20 14:00

L1220048

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	97.2		1	05/26/2020 14:53	WG1481817

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.47	20.6	1	05/21/2020 07:48	WG1483976

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Sulfate	21.2	J	13.3	51.4	1	05/21/2020 07:48	WG1479487

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Barium	88.3		0.257	0.514	1	05/22/2020 17:27	WG1480349
Potassium	749		51.4	103	1	05/22/2020 17:27	WG1480349

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0223	0.103	1	05/23/2020 06:54	WG1480945
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	92.3			77.0-120		05/23/2020 06:54	WG1480945

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000480	0.00103	1	05/22/2020 11:25	WG1480662
Toluene	U		0.00134	0.00514	1	05/22/2020 11:25	WG1480662
Ethylbenzene	U		0.000758	0.00257	1	05/22/2020 11:25	WG1480662
Total Xylenes	U		0.000905	0.00669	1	05/22/2020 11:25	WG1480662
(S) <i>Toluene-d8</i>	101			75.0-131		05/22/2020 11:25	WG1480662
(S) <i>4-Bromofluorobenzene</i>	97.2			67.0-138		05/22/2020 11:25	WG1480662
(S) <i>1,2-Dichloroethane-d4</i>	94.8			70.0-130		05/22/2020 11:25	WG1480662

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.66	4.12	1	05/26/2020 00:56	WG1481781
C28-C40 Oil Range	0.619	J	0.282	4.12	1	05/26/2020 00:56	WG1481781
(S) <i>o</i> -Terphenyl	74.1			18.0-148		05/26/2020 00:56	WG1481781

Collected date/time: 05/14/20 14:10

L1220048

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	83.5		1	05/26/2020 14:53	WG1481817

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	32.8		11.0	23.9	1	05/21/2020 08:06	WG1483976

Wet Chemistry by Method 9056A

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Sulfate	57.6	J	15.4	59.9	1	05/21/2020 08:06	WG1479487

Metals (ICP) by Method 6010B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Barium	42.4		0.299	0.599	1	05/22/2020 17:29	WG1480349
Potassium	1160		59.9	120	1	05/22/2020 17:29	WG1480349

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	U		0.0260	0.120	1	05/23/2020 08:54	WG1480945
(S) a,a,a-Trifluorotoluene(FID)	92.4			77.0-120		05/23/2020 08:54	WG1480945

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
Benzene	U		0.000559	0.00120	1	05/22/2020 11:44	WG1480662
Toluene	U		0.00156	0.00599	1	05/22/2020 11:44	WG1480662
Ethylbenzene	U		0.000882	0.00299	1	05/22/2020 11:44	WG1480662
Total Xylenes	U		0.00105	0.00778	1	05/22/2020 11:44	WG1480662
(S) Toluene-d8	101			75.0-131		05/22/2020 11:44	WG1480662
(S) 4-Bromofluorobenzene	95.9			67.0-138		05/22/2020 11:44	WG1480662
(S) 1,2-Dichloroethane-d4	93.7			70.0-130		05/22/2020 11:44	WG1480662

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
C10-C28 Diesel Range	5.96		1.93	4.79	1	05/26/2020 02:14	WG1481781
C28-C40 Oil Range	9.96		0.328	4.79	1	05/26/2020 02:14	WG1481781
(S) o-Terphenyl	64.1			18.0-148		05/26/2020 02:14	WG1481781

Collected date/time: 05/14/20 14:20

L1220048

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.3		1	05/26/2020 14:53	WG1481817

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	25.4		11.0	24.0	1	05/21/2020 08:24	WG1483976

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Sulfate	41.1	J	15.5	60.0	1	05/21/2020 08:24	WG1479487

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Barium	21.0		0.300	0.600	1	05/22/2020 17:32	WG1480349
Potassium	908		60.0	120	1	05/22/2020 17:32	WG1480349

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0261	0.120	1	05/23/2020 09:14	WG1480945
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	92.9			77.0-120		05/23/2020 09:14	WG1480945

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000561	0.00120	1	05/22/2020 12:03	WG1480662
Toluene	U		0.00156	0.00600	1	05/22/2020 12:03	WG1480662
Ethylbenzene	U		0.000885	0.00300	1	05/22/2020 12:03	WG1480662
Total Xylenes	U		0.00106	0.00781	1	05/22/2020 12:03	WG1480662
(S) <i>Toluene-d8</i>	101			75.0-131		05/22/2020 12:03	WG1480662
(S) <i>4</i> -Bromofluorobenzene	97.9			67.0-138		05/22/2020 12:03	WG1480662
(S) <i>1,2</i> -Dichloroethane-d4	97.9			70.0-130		05/22/2020 12:03	WG1480662

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	4.09	J	1.93	4.80	1	05/26/2020 01:48	WG1481781
C28-C40 Oil Range	2.20	J	0.329	4.80	1	05/26/2020 01:48	WG1481781
(S) <i>o</i> -Terphenyl	77.0			18.0-148		05/26/2020 01:48	WG1481781

Collected date/time: 05/14/20 14:30

L1220048

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.7		1	05/26/2020 14:53	WG1481817

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.61	20.9	1	05/21/2020 08:41	WG1483976

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Sulfate	19.1	J	13.5	52.2	1	05/21/2020 08:41	WG1479487

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Barium	40.0		0.261	0.522	1	05/22/2020 17:34	WG1480349
Potassium	1610		52.2	104	1	05/22/2020 17:34	WG1480349

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0227	0.104	1	05/23/2020 09:35	WG1480945
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	91.8			77.0-120		05/23/2020 09:35	WG1480945

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000488	0.00104	1	05/22/2020 12:22	WG1480662
Toluene	U		0.00136	0.00522	1	05/22/2020 12:22	WG1480662
Ethylbenzene	U		0.000770	0.00261	1	05/22/2020 12:22	WG1480662
Total Xylenes	U		0.000919	0.00679	1	05/22/2020 12:22	WG1480662
(S) <i>Toluene-d8</i>	99.8			75.0-131		05/22/2020 12:22	WG1480662
(S) <i>4-Bromofluorobenzene</i>	95.9			67.0-138		05/22/2020 12:22	WG1480662
(S) <i>1,2-Dichloroethane-d4</i>	93.3			70.0-130		05/22/2020 12:22	WG1480662

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.68	4.18	1	05/26/2020 01:09	WG1481781
C28-C40 Oil Range	0.754	J	0.286	4.18	1	05/26/2020 01:09	WG1481781
(S) <i>o</i> -Terphenyl	79.6			18.0-148		05/26/2020 01:09	WG1481781

Collected date/time: 05/14/20 14:40

L1220048

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	97.3		1	05/26/2020 14:53	WG1481817

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.45	20.5	1	05/21/2020 08:59	WG1483976

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Sulfate	U		13.3	51.4	1	05/21/2020 08:59	WG1479487

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Barium	44.1		0.257	0.514	1	05/22/2020 17:37	WG1480349
Potassium	883		51.4	103	1	05/22/2020 17:37	WG1480349

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0223	0.103	1	05/23/2020 09:55	WG1480945
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	92.1			77.0-120		05/23/2020 09:55	WG1480945

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000480	0.00103	1	05/22/2020 12:41	WG1480662
Toluene	U		0.00134	0.00514	1	05/22/2020 12:41	WG1480662
Ethylbenzene	U		0.000757	0.00257	1	05/22/2020 12:41	WG1480662
Total Xylenes	U		0.000904	0.00668	1	05/22/2020 12:41	WG1480662
(S) <i>Toluene-d8</i>	100			75.0-131		05/22/2020 12:41	WG1480662
(S) <i>4-Bromofluorobenzene</i>	95.7			67.0-138		05/22/2020 12:41	WG1480662
(S) <i>1,2-Dichloroethane-d4</i>	92.8			70.0-130		05/22/2020 12:41	WG1480662

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.65	4.11	1	05/26/2020 01:22	WG1481781
C28-C40 Oil Range	0.993	J	0.281	4.11	1	05/26/2020 01:22	WG1481781
(S) <i>o</i> -Terphenyl	70.7			18.0-148		05/26/2020 01:22	WG1481781

Collected date/time: 05/14/20 14:50

L1220048

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.6		1	05/26/2020 14:53	WG1481817

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.52	20.7	1	05/21/2020 09:17	WG1483976

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Sulfate	23.9	J	13.3	51.7	1	05/21/2020 09:17	WG1479487

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Barium	95.0		0.259	0.517	1	05/22/2020 17:45	WG1480349
Potassium	818		51.7	103	1	05/22/2020 17:45	WG1480349

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0225	0.103	1	05/23/2020 18:39	WG1481347
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	92.1			77.0-120		05/23/2020 18:39	WG1481347

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000483	0.00103	1	05/22/2020 10:18	WG1480786
Toluene	U		0.00135	0.00517	1	05/22/2020 10:18	WG1480786
Ethylbenzene	U		0.000763	0.00259	1	05/22/2020 10:18	WG1480786
Total Xylenes	U		0.000911	0.00673	1	05/22/2020 10:18	WG1480786
(S) <i>Toluene-d8</i>	103			75.0-131		05/22/2020 10:18	WG1480786
(S) <i>4</i> -Bromofluorobenzene	96.3			67.0-138		05/22/2020 10:18	WG1480786
(S) <i>1,2</i> -Dichloroethane-d4	86.6			70.0-130		05/22/2020 10:18	WG1480786

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.67	4.14	1	05/26/2020 01:35	WG1481781
C28-C40 Oil Range	0.556	J	0.284	4.14	1	05/26/2020 01:35	WG1481781
(S) <i>o</i> -Terphenyl	76.4			18.0-148		05/26/2020 01:35	WG1481781

Collected date/time: 05/14/20 15:10

L1220048

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	98.8		1	05/26/2020 14:53	WG1481817

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	11.1	J	9.31	20.2	1	05/21/2020 10:11	WG1483976

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Sulfate	13.7	J	13.1	50.6	1	05/21/2020 10:11	WG1479487

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Barium	22.6		0.253	0.506	1	05/22/2020 17:48	WG1480349
Potassium	1000		50.6	101	1	05/22/2020 17:48	WG1480349

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0220	0.101	1	05/23/2020 18:59	WG1481347
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	92.2			77.0-120		05/23/2020 18:59	WG1481347

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000473	0.00101	1	05/22/2020 10:38	WG1480786
Toluene	U		0.00132	0.00506	1	05/22/2020 10:38	WG1480786
Ethylbenzene	U		0.000746	0.00253	1	05/22/2020 10:38	WG1480786
Total Xylenes	U		0.000890	0.00658	1	05/22/2020 10:38	WG1480786
(S) <i>Toluene-d8</i>	109			75.0-131		05/22/2020 10:38	WG1480786
(S) <i>4-Bromofluorobenzene</i>	99.3			67.0-138		05/22/2020 10:38	WG1480786
(S) <i>1,2-Dichloroethane-d4</i>	92.9			70.0-130		05/22/2020 10:38	WG1480786

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.63	4.05	1	05/27/2020 15:01	WG1481870
C28-C40 Oil Range	2.69	J	0.277	4.05	1	05/27/2020 15:01	WG1481870
(S) <i>o</i> -Terphenyl	63.0			18.0-148		05/27/2020 15:01	WG1481870

Collected date/time: 05/14/20 15:20

L1220048

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.5		1	05/26/2020 14:53	WG1481817

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.64	21.0	1	05/21/2020 10:29	WG1483976

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Sulfate	16.5	J	13.5	52.4	1	05/21/2020 10:29	WG1479487

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Barium	24.6		0.262	0.524	1	05/22/2020 17:50	WG1480349
Potassium	1050		52.4	105	1	05/22/2020 17:50	WG1480349

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0227	0.105	1	05/23/2020 19:20	WG1481347
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	92.5			77.0-120		05/23/2020 19:20	WG1481347

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000489	0.00105	1	05/22/2020 10:58	WG1480786
Toluene	U		0.00136	0.00524	1	05/22/2020 10:58	WG1480786
Ethylbenzene	U		0.000772	0.00262	1	05/22/2020 10:58	WG1480786
Total Xylenes	U		0.000922	0.00681	1	05/22/2020 10:58	WG1480786
(S) <i>Toluene-d8</i>	104			75.0-131		05/22/2020 10:58	WG1480786
(S) <i>4</i> -Bromofluorobenzene	98.2			67.0-138		05/22/2020 10:58	WG1480786
(S) <i>1,2</i> -Dichloroethane-d4	93.3			70.0-130		05/22/2020 10:58	WG1480786

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	2.25	J	1.69	4.19	1	05/27/2020 15:17	WG1481870
C28-C40 Oil Range	5.64		0.287	4.19	1	05/27/2020 15:17	WG1481870
(S) <i>o</i> -Terphenyl	60.2			18.0-148		05/27/2020 15:17	WG1481870

Collected date/time: 05/14/20 15:30

L1220048

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	98.5		1	05/26/2020 14:53	WG1481817

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.34	20.3	1	05/21/2020 10:47	WG1483976

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Sulfate	U		13.1	50.8	1	05/21/2020 10:47	WG1479487

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Barium	23.1		0.254	0.508	1	05/22/2020 17:53	WG1480349
Potassium	1220		50.8	102	1	05/22/2020 17:53	WG1480349

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0220	0.102	1	05/23/2020 19:41	WG1481347
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	92.2			77.0-120		05/23/2020 19:41	WG1481347

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000474	0.00102	1	05/22/2020 11:19	WG1480786
Toluene	U		0.00132	0.00508	1	05/22/2020 11:19	WG1480786
Ethylbenzene	U		0.000748	0.00254	1	05/22/2020 11:19	WG1480786
Total Xylenes	U		0.000893	0.00660	1	05/22/2020 11:19	WG1480786
(S) <i>Toluene-d8</i>	107			75.0-131		05/22/2020 11:19	WG1480786
(S) <i>4-Bromofluorobenzene</i>	101			67.0-138		05/22/2020 11:19	WG1480786
(S) <i>1,2-Dichloroethane-d4</i>	92.8			70.0-130		05/22/2020 11:19	WG1480786

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.63	4.06	1	05/27/2020 15:32	WG1481870
C28-C40 Oil Range	2.76	J	0.278	4.06	1	05/27/2020 15:32	WG1481870
(S) <i>o</i> -Terphenyl	74.9			18.0-148		05/27/2020 15:32	WG1481870

Collected date/time: 05/14/20 15:40

L1220048

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	99.4		1	05/26/2020 14:53	WG1481817

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.26	20.1	1	05/21/2020 11:05	WG1483976

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Sulfate	U		13.0	50.3	1	05/21/2020 11:05	WG1479487

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Barium	28.7		0.252	0.503	1	05/22/2020 17:56	WG1480349
Potassium	1110		50.3	101	1	05/22/2020 17:56	WG1480349

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0218	0.101	1	05/23/2020 20:01	WG1481347
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	92.1			77.0-120		05/23/2020 20:01	WG1481347

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000470	0.00101	1	05/22/2020 11:39	WG1480786
Toluene	U		0.00131	0.00503	1	05/22/2020 11:39	WG1480786
Ethylbenzene	U		0.000742	0.00252	1	05/22/2020 11:39	WG1480786
Total Xylenes	U		0.000885	0.00654	1	05/22/2020 11:39	WG1480786
(S) <i>Toluene-d8</i>	108			75.0-131		05/22/2020 11:39	WG1480786
(S) <i>4-Bromofluorobenzene</i>	98.8			67.0-138		05/22/2020 11:39	WG1480786
(S) <i>1,2-Dichloroethane-d4</i>	91.0			70.0-130		05/22/2020 11:39	WG1480786

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	2.50	J	1.62	4.02	1	05/27/2020 16:20	WG1481870
C28-C40 Oil Range	2.80	J	0.276	4.02	1	05/27/2020 16:20	WG1481870
(S) <i>o</i> -Terphenyl	69.1			18.0-148		05/27/2020 16:20	WG1481870

Collected date/time: 05/14/20 15:50

L1220048

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	99.1		1	05/26/2020 15:02	WG1481818

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.28	20.2	1	05/21/2020 11:23	WG1483976

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Sulfate	U		13.0	50.5	1	05/21/2020 11:23	WG1479487

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Barium	25.1		0.252	0.505	1	05/22/2020 17:58	WG1480349
Potassium	1070		50.5	101	1	05/22/2020 17:58	WG1480349

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0219	0.101	1	05/23/2020 20:22	WG1481347
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	92.0			77.0-120		05/23/2020 20:22	WG1481347

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000471	0.00101	1	05/22/2020 11:59	WG1480786
Toluene	U		0.00131	0.00505	1	05/22/2020 11:59	WG1480786
Ethylbenzene	U		0.000744	0.00252	1	05/22/2020 11:59	WG1480786
Total Xylenes	U		0.000888	0.00656	1	05/22/2020 11:59	WG1480786
(S) <i>Toluene-d8</i>	104			75.0-131		05/22/2020 11:59	WG1480786
(S) <i>4</i> -Bromofluorobenzene	99.9			67.0-138		05/22/2020 11:59	WG1480786
(S) <i>1,2</i> -Dichloroethane-d4	94.9			70.0-130		05/22/2020 11:59	WG1480786

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	2.89	J	1.62	4.04	1	05/27/2020 16:36	WG1481870
C28-C40 Oil Range	3.57	J	0.277	4.04	1	05/27/2020 16:36	WG1481870
(S) <i>o</i> -Terphenyl	70.8			18.0-148		05/27/2020 16:36	WG1481870

Collected date/time: 05/14/20 16:00

L1220048

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	98.5		1	05/26/2020 15:02	WG1481818

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.34	20.3	1	05/21/2020 04:33	WG1483979

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Sulfate	U		13.1	50.7	1	05/21/2020 04:33	WG1479554

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Barium	39.9		0.254	0.507	1	05/22/2020 11:28	WG1477813
Potassium	751		50.7	101	1	05/22/2020 11:28	WG1477813

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0220	0.101	1	05/23/2020 20:42	WG1481347
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	92.5			77.0-120		05/23/2020 20:42	WG1481347

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000474	0.00101	1	05/22/2020 12:20	WG1480786
Toluene	U		0.00132	0.00507	1	05/22/2020 12:20	WG1480786
Ethylbenzene	U		0.000748	0.00254	1	05/22/2020 12:20	WG1480786
Total Xylenes	U		0.000893	0.00660	1	05/22/2020 12:20	WG1480786
(S) <i>Toluene-d8</i>	106			75.0-131		05/22/2020 12:20	WG1480786
(S) <i>4</i> -Bromofluorobenzene	93.0			67.0-138		05/22/2020 12:20	WG1480786
(S) <i>1,2</i> -Dichloroethane-d4	90.2			70.0-130		05/22/2020 12:20	WG1480786

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	4.42		1.63	4.06	1	05/27/2020 19:50	WG1481870
C28-C40 Oil Range	9.78		0.278	4.06	1	05/27/2020 19:50	WG1481870
(S) <i>o</i> -Terphenyl	73.0			18.0-148		05/27/2020 19:50	WG1481870

Collected date/time: 05/14/20 16:10

L1220048

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.1		1	05/26/2020 15:02	WG1481818

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.57	20.8	1	05/21/2020 04:50	WG1483979

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Sulfate	U		13.4	52.0	1	05/21/2020 04:50	WG1479554

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Barium	58.2		0.260	0.520	1	05/22/2020 11:31	WG1477813
Potassium	774		52.0	104	1	05/22/2020 11:31	WG1477813

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	0.0229	J	0.0226	0.104	1	05/24/2020 00:15	WG1481378
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	91.1			77.0-120		05/24/2020 00:15	WG1481378

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000486	0.00104	1	05/22/2020 12:40	WG1480786
Toluene	U		0.00135	0.00520	1	05/22/2020 12:40	WG1480786
Ethylbenzene	U		0.000767	0.00260	1	05/22/2020 12:40	WG1480786
Total Xylenes	U		0.000916	0.00676	1	05/22/2020 12:40	WG1480786
(S) <i>Toluene-d8</i>	103			75.0-131		05/22/2020 12:40	WG1480786
(S) <i>4-Bromofluorobenzene</i>	104			67.0-138		05/22/2020 12:40	WG1480786
(S) <i>1,2-Dichloroethane-d4</i>	96.9			70.0-130		05/22/2020 12:40	WG1480786

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	1.77	J	1.68	4.16	1	05/27/2020 16:52	WG1481870
C28-C40 Oil Range	4.89		0.285	4.16	1	05/27/2020 16:52	WG1481870
(S) <i>o</i> -Terphenyl	69.1			18.0-148		05/27/2020 16:52	WG1481870

Collected date/time: 05/14/20 16:20

L1220048

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.4		1	05/26/2020 15:02	WG1481818

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	10.8	J	9.65	21.0	1	05/21/2020 05:07	WG1483979

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Sulfate	U		13.5	52.4	1	05/21/2020 05:07	WG1479554

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Barium	56.1		0.262	0.524	1	05/22/2020 11:39	WG1477813
Potassium	901		52.4	105	1	05/22/2020 11:39	WG1477813

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0228	0.105	1	05/24/2020 00:36	WG1481378
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	92.0			77.0-120		05/24/2020 00:36	WG1481378

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000490	0.00105	1	05/22/2020 13:00	WG1480786
Toluene	U		0.00136	0.00524	1	05/22/2020 13:00	WG1480786
Ethylbenzene	U		0.000773	0.00262	1	05/22/2020 13:00	WG1480786
Total Xylenes	U		0.000923	0.00682	1	05/22/2020 13:00	WG1480786
(S) <i>Toluene-d8</i>	105			75.0-131		05/22/2020 13:00	WG1480786
(S) <i>4-Bromofluorobenzene</i>	95.3			67.0-138		05/22/2020 13:00	WG1480786
(S) <i>1,2-Dichloroethane-d4</i>	90.5			70.0-130		05/22/2020 13:00	WG1480786

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.69	4.19	1	05/27/2020 17:08	WG1481870
C28-C40 Oil Range	2.22	J	0.287	4.19	1	05/27/2020 17:08	WG1481870
(S) <i>o</i> -Terphenyl	69.8			18.0-148		05/27/2020 17:08	WG1481870

Collected date/time: 05/14/20 16:30

L1220048

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	98.4		1	05/26/2020 15:02	WG1481818

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.35	20.3	1	05/21/2020 05:24	WG1483979

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Sulfate	U		13.1	50.8	1	05/21/2020 05:24	WG1479554

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Barium	26.6		0.254	0.508	1	05/22/2020 11:41	WG1477813
Potassium	587		50.8	102	1	05/22/2020 11:41	WG1477813

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0220	0.102	1	05/24/2020 00:56	WG1481378
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	92.0			77.0-120		05/24/2020 00:56	WG1481378

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000474	0.00102	1	05/22/2020 13:20	WG1480786
Toluene	U		0.00132	0.00508	1	05/22/2020 13:20	WG1480786
Ethylbenzene	U		0.000749	0.00254	1	05/22/2020 13:20	WG1480786
Total Xylenes	U		0.000894	0.00660	1	05/22/2020 13:20	WG1480786
(S) <i>Toluene-d8</i>	107			75.0-131		05/22/2020 13:20	WG1480786
(S) <i>4</i> -Bromofluorobenzene	97.5			67.0-138		05/22/2020 13:20	WG1480786
(S) <i>1,2</i> -Dichloroethane-d4	93.4			70.0-130		05/22/2020 13:20	WG1480786

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	2.00	J	1.64	4.06	1	05/27/2020 17:24	WG1481870
C28-C40 Oil Range	5.10		0.278	4.06	1	05/27/2020 17:24	WG1481870
(S) <i>o</i> -Terphenyl	76.7			18.0-148		05/27/2020 17:24	WG1481870

Collected date/time: 05/14/20 16:40

L1220048

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	98.8		1	05/26/2020 15:02	WG1481818

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	13.1	J	9.31	20.2	1	05/21/2020 05:40	WG1483979

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Sulfate	14.9	J	13.1	50.6	1	05/21/2020 05:40	WG1479554

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Barium	18.6		0.253	0.506	1	05/22/2020 11:44	WG1477813
Potassium	499		50.6	101	1	05/22/2020 11:44	WG1477813

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	0.0229	J	0.0220	0.101	1	05/24/2020 01:17	WG1481378
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	92.4			77.0-120		05/24/2020 01:17	WG1481378

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000473	0.00101	1	05/22/2020 13:41	WG1480786
Toluene	U		0.00132	0.00506	1	05/22/2020 13:41	WG1480786
Ethylbenzene	U		0.000746	0.00253	1	05/22/2020 13:41	WG1480786
Total Xylenes	U		0.000890	0.00658	1	05/22/2020 13:41	WG1480786
(S) <i>Toluene-d8</i>	105			75.0-131		05/22/2020 13:41	WG1480786
(S) <i>4-Bromofluorobenzene</i>	98.0			67.0-138		05/22/2020 13:41	WG1480786
(S) <i>1,2-Dichloroethane-d4</i>	92.1			70.0-130		05/22/2020 13:41	WG1480786

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	2.52	J	1.63	4.05	1	05/27/2020 17:40	WG1481870
C28-C40 Oil Range	4.39		0.277	4.05	1	05/27/2020 17:40	WG1481870
(S) <i>o</i> -Terphenyl	67.9			18.0-148		05/27/2020 17:40	WG1481870

Collected date/time: 05/14/20 16:50

L1220048

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	99.3		1	05/26/2020 15:02	WG1481818

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.26	20.1	1	05/21/2020 05:57	WG1483979

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Sulfate	U		13.0	50.3	1	05/21/2020 05:57	WG1479554

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Barium	16.3		0.252	0.503	1	05/22/2020 11:47	WG1477813
Potassium	495		50.3	101	1	05/22/2020 11:47	WG1477813

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0219	0.101	1	05/24/2020 01:38	WG1481378
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	92.6			77.0-120		05/24/2020 01:38	WG1481378

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000470	0.00101	1	05/22/2020 14:01	WG1480786
Toluene	U		0.00131	0.00503	1	05/22/2020 14:01	WG1480786
Ethylbenzene	U		0.000742	0.00252	1	05/22/2020 14:01	WG1480786
Total Xylenes	U		0.000886	0.00655	1	05/22/2020 14:01	WG1480786
(S) <i>Toluene-d8</i>	104			75.0-131		05/22/2020 14:01	WG1480786
(S) <i>4-Bromofluorobenzene</i>	101			67.0-138		05/22/2020 14:01	WG1480786
(S) <i>1,2-Dichloroethane-d4</i>	94.6			70.0-130		05/22/2020 14:01	WG1480786

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	3.99	J	1.62	4.03	1	05/27/2020 17:56	WG1481870
C28-C40 Oil Range	5.06		0.276	4.03	1	05/27/2020 17:56	WG1481870
(S) <i>o</i> -Terphenyl	78.9			18.0-148		05/27/2020 17:56	WG1481870

Collected date/time: 05/14/20 17:00

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Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	98.4		1	05/26/2020 15:02	WG1481818

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.35	20.3	1	05/21/2020 06:14	WG1483979

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Sulfate	U		13.1	50.8	1	05/21/2020 06:14	WG1479554

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Barium	17.1		0.254	0.508	1	05/22/2020 11:49	WG1477813
Potassium	566		50.8	102	1	05/22/2020 11:49	WG1477813

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0220	0.102	1	05/24/2020 01:58	WG1481378
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	92.3			77.0-120		05/24/2020 01:58	WG1481378

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000475	0.00102	1	05/22/2020 14:21	WG1480786
Toluene	U		0.00132	0.00508	1	05/22/2020 14:21	WG1480786
Ethylbenzene	U		0.000749	0.00254	1	05/22/2020 14:21	WG1480786
Total Xylenes	U		0.000894	0.00660	1	05/22/2020 14:21	WG1480786
(S) <i>Toluene-d8</i>	101			75.0-131		05/22/2020 14:21	WG1480786
(S) <i>4-Bromofluorobenzene</i>	97.3			67.0-138		05/22/2020 14:21	WG1480786
(S) <i>1,2-Dichloroethane-d4</i>	97.1			70.0-130		05/22/2020 14:21	WG1480786

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.64	4.06	1	05/27/2020 18:12	WG1481870
C28-C40 Oil Range	2.72	J	0.278	4.06	1	05/27/2020 18:12	WG1481870
(S) <i>o</i> -Terphenyl	73.2			18.0-148		05/27/2020 18:12	WG1481870

Collected date/time: 05/14/20 10:10

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Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.5		1	05/26/2020 15:02	WG1481818

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	62.3		9.73	21.2	1	05/25/2020 22:17	WG1483981

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Sulfate	135		13.6	52.9	1	05/25/2020 22:17	WG1481856

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Barium	33.3		0.264	0.529	1	05/23/2020 18:35	WG1481196
Potassium	955		52.9	106	1	05/26/2020 21:25	WG1482079

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0230	0.106	1	05/24/2020 02:19	WG1481378
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	92.5			77.0-120		05/24/2020 02:19	WG1481378

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000494	0.00106	1	05/23/2020 01:18	WG1481005
Toluene	U		0.00138	0.00529	1	05/23/2020 01:18	WG1481005
Ethylbenzene	U		0.000780	0.00264	1	05/23/2020 01:18	WG1481005
Total Xylenes	U		0.000931	0.00688	1	05/23/2020 01:18	WG1481005
(S) <i>Toluene-d8</i>	112			75.0-131		05/23/2020 01:18	WG1481005
(S) <i>4-Bromofluorobenzene</i>	105			67.0-138		05/23/2020 01:18	WG1481005
(S) <i>1,2-Dichloroethane-d4</i>	94.3			70.0-130		05/23/2020 01:18	WG1481005

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	3.15	J	1.70	4.23	1	05/27/2020 18:27	WG1481870
C28-C40 Oil Range	4.85		0.290	4.23	1	05/27/2020 18:27	WG1481870
(S) <i>o</i> -Terphenyl	72.4			18.0-148		05/27/2020 18:27	WG1481870

Collected date/time: 05/14/20 10:20

L1220048

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.2		1	05/26/2020 15:02	WG1481818

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	120		9.67	21.0	1	05/25/2020 22:51	WG1483981

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Sulfate	67.6		13.6	52.5	1	05/25/2020 22:51	WG1481856

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Barium	67.1		0.263	0.525	1	05/23/2020 18:38	WG1481196
Potassium	966		52.5	105	1	05/26/2020 21:41	WG1482079

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0228	0.105	1	05/24/2020 02:40	WG1481378
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	91.6			77.0-120		05/24/2020 02:40	WG1481378

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000491	0.00105	1	05/22/2020 17:39	WG1481068
Toluene	U		0.00137	0.00525	1	05/22/2020 17:39	WG1481068
Ethylbenzene	U		0.000774	0.00263	1	05/22/2020 17:39	WG1481068
Total Xylenes	U		0.000925	0.00683	1	05/22/2020 17:39	WG1481068
(S) <i>Toluene-d8</i>	106			75.0-131		05/22/2020 17:39	WG1481068
(S) <i>4-Bromofluorobenzene</i>	96.4			67.0-138		05/22/2020 17:39	WG1481068
(S) <i>1,2-Dichloroethane-d4</i>	88.1			70.0-130		05/22/2020 17:39	WG1481068

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	3.12	J	1.69	4.20	1	05/27/2020 04:19	WG1481922
C28-C40 Oil Range	7.46		0.288	4.20	1	05/27/2020 04:19	WG1481922
(S) <i>o</i> -Terphenyl	77.7			18.0-148		05/27/2020 04:19	WG1481922

Collected date/time: 05/14/20 10:30

L1220048

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.7		1	05/26/2020 15:12	WG1481819

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	1980		47.6	103	5	05/25/2020 23:42	WG1483981

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Sulfate	46.4	J	13.3	51.7	1	05/25/2020 23:25	WG1481856

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Barium	164		0.259	0.517	1	05/23/2020 18:40	WG1481196
Potassium	584		51.7	103	1	05/26/2020 21:44	WG1482079

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0224	0.103	1	05/24/2020 03:00	WG1481378
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	91.4			77.0-120		05/24/2020 03:00	WG1481378

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000483	0.00103	1	05/22/2020 18:00	WG1481068
Toluene	U		0.00134	0.00517	1	05/22/2020 18:00	WG1481068
Ethylbenzene	U		0.000762	0.00259	1	05/22/2020 18:00	WG1481068
Total Xylenes	U		0.000910	0.00672	1	05/22/2020 18:00	WG1481068
(S) <i>Toluene-d8</i>	103			75.0-131		05/22/2020 18:00	WG1481068
(S) <i>4-Bromofluorobenzene</i>	101			67.0-138		05/22/2020 18:00	WG1481068
(S) <i>1,2-Dichloroethane-d4</i>	98.0			70.0-130		05/22/2020 18:00	WG1481068

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	2.46	J	1.66	4.14	1	05/27/2020 04:35	WG1481922
C28-C40 Oil Range	1.57	J	0.283	4.14	1	05/27/2020 04:35	WG1481922
(S) <i>o</i> -Terphenyl	68.5			18.0-148		05/27/2020 04:35	WG1481922

Collected date/time: 05/14/20 10:40

L1220048

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	83.1		1	05/26/2020 15:12	WG1481819

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	2200		55.4	120	5	05/26/2020 00:16	WG1483981

Wet Chemistry by Method 9056A

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Sulfate	51.8	J	15.5	60.2	1	05/25/2020 23:59	WG1481856

Metals (ICP) by Method 6010B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Barium	126		0.301	0.602	1	05/23/2020 18:49	WG1481196
Potassium	538		60.2	120	1	05/26/2020 21:52	WG1482079

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	U		0.0261	0.120	1	05/24/2020 03:21	WG1481378
(S) a,a,a-Trifluorotoluene(FID)	91.7			77.0-120		05/24/2020 03:21	WG1481378

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
Benzene	U		0.000562	0.00120	1	05/22/2020 18:20	WG1481068
Toluene	U		0.00157	0.00602	1	05/22/2020 18:20	WG1481068
Ethylbenzene	U		0.000887	0.00301	1	05/22/2020 18:20	WG1481068
Total Xylenes	U		0.00106	0.00783	1	05/22/2020 18:20	WG1481068
(S) Toluene-d8	105			75.0-131		05/22/2020 18:20	WG1481068
(S) 4-Bromofluorobenzene	92.4			67.0-138		05/22/2020 18:20	WG1481068
(S) 1,2-Dichloroethane-d4	90.1			70.0-130		05/22/2020 18:20	WG1481068

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
C10-C28 Diesel Range	2.17	J	1.94	4.82	1	05/27/2020 04:51	WG1481922
C28-C40 Oil Range	1.57	J	0.330	4.82	1	05/27/2020 04:51	WG1481922
(S) o-Terphenyl	64.5			18.0-148		05/27/2020 04:51	WG1481922

Collected date/time: 05/14/20 11:00

L1220048

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	99.3		1	05/26/2020 15:12	WG1481819

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	29.4		9.27	20.1	1	05/26/2020 01:06	WG1483981

Wet Chemistry by Method 9056A

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Sulfate	40.3	J	13.0	50.4	1	05/26/2020 01:06	WG1481856

Metals (ICP) by Method 6010B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Barium	29.3		0.252	0.504	1	05/23/2020 18:51	WG1481196
Potassium	401		50.4	101	1	05/26/2020 21:54	WG1482079

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	0.0257	J	0.0219	0.101	1	05/24/2020 03:41	WG1481378
(S) a,a,a-Trifluorotoluene(FID)	93.1			77.0-120		05/24/2020 03:41	WG1481378

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
Benzene	U		0.000470	0.00101	1	05/22/2020 18:40	WG1481068
Toluene	U		0.00131	0.00504	1	05/22/2020 18:40	WG1481068
Ethylbenzene	U		0.000743	0.00252	1	05/22/2020 18:40	WG1481068
Total Xylenes	U		0.000887	0.00655	1	05/22/2020 18:40	WG1481068
(S) Toluene-d8	107			75.0-131		05/22/2020 18:40	WG1481068
(S) 4-Bromofluorobenzene	94.3			67.0-138		05/22/2020 18:40	WG1481068
(S) 1,2-Dichloroethane-d4	86.9			70.0-130		05/22/2020 18:40	WG1481068

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
C10-C28 Diesel Range	U		1.62	4.03	1	05/27/2020 05:07	WG1481922
C28-C40 Oil Range	1.34	J	0.276	4.03	1	05/27/2020 05:07	WG1481922
(S) o-Terphenyl	75.8			18.0-148		05/27/2020 05:07	WG1481922

Collected date/time: 05/14/20 11:10

L1220048

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	99.2		1	05/26/2020 15:12	WG1481819

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	13.3	J	9.27	20.2	1	05/26/2020 01:23	WG1483981

Wet Chemistry by Method 9056A

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Sulfate	34.4	J	13.0	50.4	1	05/26/2020 01:23	WG1481856

Metals (ICP) by Method 6010B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Barium	33.7		0.252	0.504	1	05/23/2020 18:54	WG1481196
Potassium	512		50.4	101	1	05/26/2020 21:57	WG1482079

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	U		0.0219	0.101	1	05/24/2020 04:02	WG1481378
(S) a,a,a-Trifluorotoluene(FID)	92.3			77.0-120		05/24/2020 04:02	WG1481378

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
Benzene	U		0.000471	0.00101	1	05/22/2020 19:00	WG1481068
Toluene	U		0.00131	0.00504	1	05/22/2020 19:00	WG1481068
Ethylbenzene	U		0.000743	0.00252	1	05/22/2020 19:00	WG1481068
Total Xylenes	U		0.000887	0.00655	1	05/22/2020 19:00	WG1481068
(S) Toluene-d8	104			75.0-131		05/22/2020 19:00	WG1481068
(S) 4-Bromofluorobenzene	93.3			67.0-138		05/22/2020 19:00	WG1481068
(S) 1,2-Dichloroethane-d4	98.3			70.0-130		05/22/2020 19:00	WG1481068

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
C10-C28 Diesel Range	2.13	J	1.62	4.03	1	05/27/2020 05:23	WG1481922
C28-C40 Oil Range	0.476	J	0.276	4.03	1	05/27/2020 05:23	WG1481922
(S) o-Terphenyl	71.9			18.0-148		05/27/2020 05:23	WG1481922

Collected date/time: 05/14/20 11:40

L1220048

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	98.7		1	05/26/2020 15:12	WG1481819

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	36.9		9.32	20.3	1	05/26/2020 01:40	WG1483981

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Sulfate	36.8	J	13.1	50.7	1	05/26/2020 01:40	WG1481856

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Barium	27.9		0.253	0.507	1	05/23/2020 18:56	WG1481196
Potassium	492		50.7	101	1	05/26/2020 22:00	WG1482079

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0220	0.101	1	05/24/2020 04:23	WG1481378
(S) a,a,a-Trifluorotoluene(FID)	92.3			77.0-120		05/24/2020 04:23	WG1481378

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000473	0.00101	1	05/22/2020 19:20	WG1481068
Toluene	U		0.00132	0.00507	1	05/22/2020 19:20	WG1481068
Ethylbenzene	U		0.000747	0.00253	1	05/22/2020 19:20	WG1481068
Total Xylenes	U		0.000892	0.00659	1	05/22/2020 19:20	WG1481068
(S) Toluene-d8	104			75.0-131		05/22/2020 19:20	WG1481068
(S) 4-Bromofluorobenzene	92.4			67.0-138		05/22/2020 19:20	WG1481068
(S) 1,2-Dichloroethane-d4	90.0			70.0-130		05/22/2020 19:20	WG1481068

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	2.80	J	1.63	4.05	1	05/27/2020 05:39	WG1481922
C28-C40 Oil Range	4.88		0.278	4.05	1	05/27/2020 05:39	WG1481922
(S) o-Terphenyl	81.5			18.0-148		05/27/2020 05:39	WG1481922

Collected date/time: 05/14/20 11:50

L1220048

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	97.3		1	05/26/2020 15:12	WG1481819

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Chloride	99.8		9.45	20.6	1	05/26/2020 01:57	WG1483981

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Sulfate	45.0	J	13.3	51.4	1	05/26/2020 01:57	WG1481856

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Barium	33.5		0.257	0.514	1	05/23/2020 18:59	WG1481196
Potassium	627		51.4	103	1	05/26/2020 22:02	WG1482079

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.0223	0.103	1	05/24/2020 04:43	WG1481378
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	91.9			77.0-120		05/24/2020 04:43	WG1481378

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Benzene	U		0.000480	0.00103	1	05/22/2020 19:40	WG1481068
Toluene	U		0.00134	0.00514	1	05/22/2020 19:40	WG1481068
Ethylbenzene	U		0.000757	0.00257	1	05/22/2020 19:40	WG1481068
Total Xylenes	U		0.000904	0.00668	1	05/22/2020 19:40	WG1481068
(S) <i>Toluene-d8</i>	105			75.0-131		05/22/2020 19:40	WG1481068
(S) <i>4-Bromofluorobenzene</i>	91.3			67.0-138		05/22/2020 19:40	WG1481068
(S) <i>1,2-Dichloroethane-d4</i>	92.8			70.0-130		05/22/2020 19:40	WG1481068

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	2.65	J	1.65	4.11	1	05/27/2020 05:55	WG1481922
C28-C40 Oil Range	6.14		0.282	4.11	1	05/27/2020 05:55	WG1481922
(S) <i>o</i> -Terphenyl	75.5			18.0-148		05/27/2020 05:55	WG1481922

Collected date/time: 05/14/20 12:00

L1220048

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	81.6		1	05/26/2020 15:12	WG1481819

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	97.8		11.3	24.5	1	05/26/2020 02:14	WG1483981

Wet Chemistry by Method 9056A

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Sulfate	30.1	J	15.8	61.2	1	05/26/2020 02:14	WG1481856

Metals (ICP) by Method 6010B

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Barium	27.6		0.306	0.612	1	05/23/2020 19:02	WG1481196
Potassium	938		61.2	122	1	05/26/2020 22:05	WG1482079

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	U		0.0266	0.122	1	05/24/2020 05:04	WG1481378
(S) a,a,a-Trifluorotoluene(FID)	92.2			77.0-120		05/24/2020 05:04	WG1481378

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
Benzene	U		0.000572	0.00122	1	05/22/2020 20:00	WG1481068
Toluene	U		0.00159	0.00612	1	05/22/2020 20:00	WG1481068
Ethylbenzene	U		0.000903	0.00306	1	05/22/2020 20:00	WG1481068
Total Xylenes	U		0.00108	0.00796	1	05/22/2020 20:00	WG1481068
(S) Toluene-d8	107			75.0-131		05/22/2020 20:00	WG1481068
(S) 4-Bromofluorobenzene	95.2			67.0-138		05/22/2020 20:00	WG1481068
(S) 1,2-Dichloroethane-d4	86.4			70.0-130		05/22/2020 20:00	WG1481068

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
C10-C28 Diesel Range	U		1.97	4.90	1	05/27/2020 06:11	WG1481922
C28-C40 Oil Range	1.02	J	0.336	4.90	1	05/27/2020 06:11	WG1481922
(S) o-Terphenyl	74.3			18.0-148		05/27/2020 06:11	WG1481922

Collected date/time: 05/14/20 12:20

L1220048

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.4		1	05/26/2020 15:12	WG1481819

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	111		9.85	21.4	1	05/26/2020 02:31	WG1483981

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Sulfate	52.2	J	13.8	53.6	1	05/26/2020 02:31	WG1481856

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Barium	123		0.268	0.536	1	05/23/2020 19:04	WG1481196
Potassium	430		53.6	107	1	05/26/2020 22:08	WG1482079

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0232	0.107	1	05/24/2020 05:25	WG1481378
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	92.8			77.0-120		05/24/2020 05:25	WG1481378

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000500	0.00107	1	05/22/2020 20:20	WG1481068
Toluene	U		0.00139	0.00536	1	05/22/2020 20:20	WG1481068
Ethylbenzene	U		0.000789	0.00268	1	05/22/2020 20:20	WG1481068
Total Xylenes	U		0.000943	0.00696	1	05/22/2020 20:20	WG1481068
(S) <i>Toluene-d8</i>	102			75.0-131		05/22/2020 20:20	WG1481068
(S) <i>4-Bromofluorobenzene</i>	89.4			67.0-138		05/22/2020 20:20	WG1481068
(S) <i>1,2-Dichloroethane-d4</i>	91.4			70.0-130		05/22/2020 20:20	WG1481068

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	2.22	J	1.72	4.28	1	05/27/2020 06:27	WG1481922
C28-C40 Oil Range	0.800	J	0.293	4.28	1	05/27/2020 06:27	WG1481922
(S) <i>o</i> -Terphenyl	78.9			18.0-148		05/27/2020 06:27	WG1481922

Collected date/time: 05/14/20 12:30

L1220048

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	97.7		1	05/26/2020 15:12	WG1481819

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.42	20.5	1	05/26/2020 02:48	WG1483981

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Sulfate	U		13.2	51.2	1	05/26/2020 02:48	WG1481856

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Barium	42.4		0.256	0.512	1	05/23/2020 18:22	WG1481196
Potassium	837		51.2	102	1	05/26/2020 22:10	WG1482079

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0222	0.102	1	05/24/2020 05:45	WG1481378
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	91.8			77.0-120		05/24/2020 05:45	WG1481378

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000478	0.00102	1	05/22/2020 20:40	WG1481068
Toluene	U		0.00133	0.00512	1	05/22/2020 20:40	WG1481068
Ethylbenzene	U		0.000754	0.00256	1	05/22/2020 20:40	WG1481068
Total Xylenes	U		0.000901	0.00665	1	05/22/2020 20:40	WG1481068
(S) <i>Toluene-d8</i>	107			75.0-131		05/22/2020 20:40	WG1481068
(S) <i>4-Bromofluorobenzene</i>	98.6			67.0-138		05/22/2020 20:40	WG1481068
(S) <i>1,2-Dichloroethane-d4</i>	91.0			70.0-130		05/22/2020 20:40	WG1481068

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	1.72	J	1.65	4.09	1	05/27/2020 06:43	WG1481922
C28-C40 Oil Range	3.01	J	0.280	4.09	1	05/27/2020 06:43	WG1481922
(S) <i>o</i> -Terphenyl	72.8			18.0-148		05/27/2020 06:43	WG1481922

Collected date/time: 05/14/20 13:40

L1220048

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.0		1	05/26/2020 15:12	WG1481819

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	22.6	J	11.1	24.1	1	05/26/2020 03:39	WG1483981

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Sulfate	35.0	J	15.5	60.2	1	05/26/2020 03:39	WG1481856

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Barium	23.9		0.301	0.602	1	05/23/2020 19:07	WG1481196
Potassium	552		60.2	120	1	05/26/2020 22:13	WG1482079

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0261	0.120	1	05/24/2020 06:06	WG1481378
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	93.2			77.0-120		05/24/2020 06:06	WG1481378

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000563	0.00120	1	05/22/2020 21:01	WG1481068
Toluene	U		0.00157	0.00602	1	05/22/2020 21:01	WG1481068
Ethylbenzene	U		0.000888	0.00301	1	05/22/2020 21:01	WG1481068
Total Xylenes	U		0.00106	0.00783	1	05/22/2020 21:01	WG1481068
(S) <i>Toluene-d8</i>	106			75.0-131		05/22/2020 21:01	WG1481068
(S) <i>4</i> -Bromofluorobenzene	99.1			67.0-138		05/22/2020 21:01	WG1481068
(S) <i>1,2</i> -Dichloroethane-d4	94.2			70.0-130		05/22/2020 21:01	WG1481068

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.94	4.82	1	05/27/2020 06:59	WG1481922
C28-C40 Oil Range	1.43	J	0.330	4.82	1	05/27/2020 06:59	WG1481922
(S) <i>o</i> -Terphenyl	61.6			18.0-148		05/27/2020 06:59	WG1481922

Collected date/time: 05/14/20 13:50

L1220048

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	98.2		1	05/26/2020 16:04	WG1481820

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.37	20.4	1	05/26/2020 04:29	WG1483981

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Sulfate	14.1	J	13.1	50.9	1	05/26/2020 04:29	WG1481856

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Barium	51.6		0.254	0.509	1	05/23/2020 19:10	WG1481196
Potassium	398		50.9	102	1	05/26/2020 22:16	WG1482079

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0221	0.102	1	05/24/2020 06:26	WG1481378
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	92.8			77.0-120		05/24/2020 06:26	WG1481378

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000475	0.00102	1	05/22/2020 21:20	WG1481068
Toluene	U		0.00132	0.00509	1	05/22/2020 21:20	WG1481068
Ethylbenzene	U		0.000750	0.00254	1	05/22/2020 21:20	WG1481068
Total Xylenes	U		0.000896	0.00662	1	05/22/2020 21:20	WG1481068
(S) <i>Toluene-d8</i>	105			75.0-131		05/22/2020 21:20	WG1481068
(S) <i>4-Bromofluorobenzene</i>	96.2			67.0-138		05/22/2020 21:20	WG1481068
(S) <i>1,2-Dichloroethane-d4</i>	92.1			70.0-130		05/22/2020 21:20	WG1481068

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.64	4.07	1	05/27/2020 07:46	WG1481922
C28-C40 Oil Range	U		0.279	4.07	1	05/27/2020 07:46	WG1481922
(S) <i>o</i> -Terphenyl	70.3			18.0-148		05/27/2020 07:46	WG1481922

Collected date/time: 05/14/20 15:00

L1220048

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	98.9		1	05/26/2020 16:04	WG1481820

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.30	20.2	1	05/26/2020 04:46	WG1483981

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Sulfate	U		13.0	50.5	1	05/26/2020 04:46	WG1481856

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Barium	21.9		0.253	0.505	1	05/23/2020 19:13	WG1481196
Potassium	569		50.5	101	1	05/26/2020 22:37	WG1482079

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0219	0.101	1	05/24/2020 06:47	WG1481378
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	92.0			77.0-120		05/24/2020 06:47	WG1481378

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000472	0.00101	1	05/22/2020 21:40	WG1481068
Toluene	U		0.00131	0.00505	1	05/22/2020 21:40	WG1481068
Ethylbenzene	U		0.000745	0.00253	1	05/22/2020 21:40	WG1481068
Total Xylenes	U		0.000889	0.00657	1	05/22/2020 21:40	WG1481068
(S) <i>Toluene-d8</i>	103			75.0-131		05/22/2020 21:40	WG1481068
(S) <i>4-Bromofluorobenzene</i>	94.3			67.0-138		05/22/2020 21:40	WG1481068
(S) <i>1,2-Dichloroethane-d4</i>	92.8			70.0-130		05/22/2020 21:40	WG1481068

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	2.12	J	1.63	4.04	1	05/27/2020 08:02	WG1481922
C28-C40 Oil Range	2.00	J	0.277	4.04	1	05/27/2020 08:02	WG1481922
(S) <i>o</i> -Terphenyl	72.1			18.0-148		05/27/2020 08:02	WG1481922

Collected date/time: 05/14/20 10:00

L1220048

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	97.7		1	05/26/2020 16:04	WG1481820

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	11.6	J	9.41	20.5	1	05/26/2020 05:03	WG1483981

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Sulfate	62.0		13.2	51.2	1	05/26/2020 05:03	WG1481856

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Barium	77.5		0.256	0.512	1	05/26/2020 14:43	WG1481617
Potassium	1540		51.2	102	1	05/26/2020 14:43	WG1481617

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	0.0414	B J	0.0222	0.102	1	05/26/2020 14:22	WG1482090
(S) a,a,a-Trifluorotoluene(FID)	93.4			77.0-120		05/26/2020 14:22	WG1482090

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000478	0.00102	1	05/26/2020 11:24	WG1482071
Toluene	U		0.00133	0.00512	1	05/26/2020 11:24	WG1482071
Ethylbenzene	U		0.000754	0.00256	1	05/26/2020 11:24	WG1482071
Total Xylenes	U		0.000900	0.00665	1	05/26/2020 11:24	WG1482071
(S) Toluene-d8	99.2			75.0-131		05/26/2020 11:24	WG1482071
(S) 4-Bromofluorobenzene	93.9			67.0-138		05/26/2020 11:24	WG1482071
(S) 1,2-Dichloroethane-d4	121			70.0-130		05/26/2020 11:24	WG1482071

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	9.96		1.65	4.09	1	05/27/2020 18:43	WG1481922
C28-C40 Oil Range	15.6		0.280	4.09	1	05/27/2020 18:43	WG1481922
(S) o-Terphenyl	79.1			18.0-148		05/27/2020 18:43	WG1481922

Collected date/time: 05/14/20 10:00

L1220048

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	98.2		1	05/26/2020 16:04	WG1481820

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	16.6	J	9.37	20.4	1	05/26/2020 05:37	WG1483981

Wet Chemistry by Method 9056A

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Sulfate	17.6	J	13.1	50.9	1	05/26/2020 05:37	WG1481856

Metals (ICP) by Method 6010B

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Barium	35.9	O1	0.255	0.509	1	05/26/2020 14:31	WG1481617
Potassium	1070		50.9	102	1	05/26/2020 14:31	WG1481617

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	0.0804	B J	0.0221	0.102	1	05/26/2020 14:45	WG1482090
(S) <i>a,a,a</i> -Trifluorotoluene(FID)	93.1			77.0-120		05/26/2020 14:45	WG1482090

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000476	0.00102	1	05/26/2020 11:43	WG1482071
Toluene	U		0.00132	0.00509	1	05/26/2020 11:43	WG1482071
Ethylbenzene	U		0.000751	0.00255	1	05/26/2020 11:43	WG1482071
Total Xylenes	U		0.000896	0.00662	1	05/26/2020 11:43	WG1482071
(S) <i>Toluene-d8</i>	105			75.0-131		05/26/2020 11:43	WG1482071
(S) <i>4</i> -Bromofluorobenzene	91.1			67.0-138		05/26/2020 11:43	WG1482071
(S) <i>1,2</i> -Dichloroethane-d4	109			70.0-130		05/26/2020 11:43	WG1482071

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	4.27		1.64	4.07	1	05/27/2020 18:59	WG1481922
C28-C40 Oil Range	5.90		0.279	4.07	1	05/27/2020 18:59	WG1481922
(S) <i>o</i> -Terphenyl	73.0			18.0-148		05/27/2020 18:59	WG1481922

Total Solids by Method 2540 G-2011 [L1220048-01,02,03,04,05,06,07,08,09](#)

Method Blank (MB)

(MB) R3532065-1 05/26/20 21:00

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

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L1220048-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1220048-02 05/26/20 21:00 • (DUP) R3532065-3 05/26/20 21:00

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	97.6	97.9	1	0.279		10

Laboratory Control Sample (LCS)

(LCS) R3532065-2 05/26/20 21:00

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

Total Solids by Method 2540 G-2011 [L1220048-10,11,12,13,14,15,16,17,18,19](#)

Method Blank (MB)

(MB) R3531978-1 05/26/20 14:53

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

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

L1220048-12 Original Sample (OS) • Duplicate (DUP)

(OS) L1220048-12 05/26/20 14:53 • (DUP) R3531978-3 05/26/20 14:53

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	%	%		%		%
Total Solids	83.3	83.0	1	0.313		10

Laboratory Control Sample (LCS)

(LCS) R3531978-2 05/26/20 14:53

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

⁷ Gl

⁸ Al

⁹ Sc

Total Solids by Method 2540 G-2011 [L1220048-20,21,22,23,24,25,26,27,29,30](#)

Method Blank (MB)

(MB) R3531983-1 05/26/20 15:02

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

L1220048-23 Original Sample (OS) • Duplicate (DUP)

(OS) L1220048-23 05/26/20 15:02 • (DUP) R3531983-3 05/26/20 15:02

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	95.4	95.8	1	0.431		10

Laboratory Control Sample (LCS)

(LCS) R3531983-2 05/26/20 15:02

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

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Total Solids by Method 2540 G-2011 [L1220048-31,32,34,35,36,37,38,39,40,41](#)

Method Blank (MB)

(MB) R3531986-1 05/26/20 15:12

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

L1220048-35 Original Sample (OS) • Duplicate (DUP)

(OS) L1220048-35 05/26/20 15:12 • (DUP) R3531986-3 05/26/20 15:12

	Original Result	DUP Result	Dilution	DUP RPD	<u>DUP Qualifier</u>	DUP RPD Limits
Analyte	%	%		%		%
Total Solids	99.2	99.3	1	0.0233		10

Laboratory Control Sample (LCS)

(LCS) R3531986-2 05/26/20 15:12

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

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Total Solids by Method 2540 G-2011 [L1220048-42,43,44,45](#)

Method Blank (MB)

(MB) R3531998-1 05/26/20 16:04

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

L1220048-43 Original Sample (OS) • Duplicate (DUP)

(OS) L1220048-43 05/26/20 16:04 • (DUP) R3531998-3 05/26/20 16:04

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	%	%		%		%
Total Solids	98.9	98.9	1	0.00384		10

Laboratory Control Sample (LCS)

(LCS) R3531998-2 05/26/20 16:04

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

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Wet Chemistry by Method 300.0

[L1220048-01,02,03,04,05,06,07,08,09,10,11,12,13,14,15,16,17,18,19,20](#)

Method Blank (MB)

(MB) R3532839-1 05/21/20 02:44

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Chloride	U		9.20	20.0

L1220048-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1220048-01 05/21/20 03:37 • (DUP) R3532839-3 05/21/20 03:55

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	13.4	13.2	1	1.55	⌵	20

L1220048-20 Original Sample (OS) • Duplicate (DUP)

(OS) L1220048-20 05/21/20 11:23 • (DUP) R3532839-6 05/21/20 11:41

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3532839-2 05/21/20 03:01

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	208	104	90.0-110	

L1220048-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1220048-05 05/21/20 05:07 • (MS) R3532839-4 05/21/20 05:24 • (MSD) R3532839-5 05/21/20 05:42

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 %
Chloride	513	U	532	522	104	102	1	80.0-120			1.85	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Wet Chemistry by Method 300.0

[L1220048-21,22,23,24,25,26,27](#)

Method Blank (MB)

(MB) R3532840-1 05/21/20 00:02

Analyte	MB Result mg/kg	<u>MB Qualifier</u>	MB MDL mg/kg	MB RDL mg/kg
Chloride	U		9.20	20.0

Laboratory Control Sample (LCS)

(LCS) R3532840-2 05/21/20 00:19

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	<u>LCS Qualifier</u>
Chloride	200	205	103	90.0-110	

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

Method Blank (MB)

(MB) R3532841-1 05/25/20 21:26

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Chloride	U		9.20	20.0

L1220048-29 Original Sample (OS) • Duplicate (DUP)

(OS) L1220048-29 05/25/20 22:17 • (DUP) R3532841-3 05/25/20 22:34

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	62.3	61.8	1	0.812		20

L1220048-45 Original Sample (OS) • Duplicate (DUP)

(OS) L1220048-45 05/26/20 05:37 • (DUP) R3532841-6 05/26/20 05:54

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	16.6	15.7	1	5.63	⌵	20

Laboratory Control Sample (LCS)

(LCS) R3532841-2 05/25/20 21:43

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	205	102	90.0-110	

L1220048-40 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1220048-40 05/26/20 02:48 • (MS) R3532841-4 05/26/20 03:05 • (MSD) R3532841-5 05/26/20 03:22

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 %
Chloride	512	U	528	520	103	102	1	80.0-120			1.55	20

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

Wet Chemistry by Method 9056A

L1220048-01,02,03,04,05,06,07,08,09,10,11,12,13,14,15,16,17,18,19,20

Method Blank (MB)

(MB) R3530460-1 05/21/20 02:44

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Sulfate	U		12.9	50.0

L1220048-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1220048-01 05/21/20 03:37 • (DUP) R3530460-3 05/21/20 03:55

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfate	16.8	16.1	1	4.23	⌵	15

L1220048-20 Original Sample (OS) • Duplicate (DUP)

(OS) L1220048-20 05/21/20 11:23 • (DUP) R3530460-6 05/21/20 11:41

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfate	U	U	1	0.000		15

Laboratory Control Sample (LCS)

(LCS) R3530460-2 05/21/20 03:01

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Sulfate	200	209	104	80.0-120	

L1220048-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1220048-05 05/21/20 05:07 • (MS) R3530460-4 05/21/20 05:24 • (MSD) R3530460-5 05/21/20 05:42

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 %
Sulfate	513	U	543	533	106	104	1	80.0-120			1.81	15

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3530362-1 05/21/20 00:02

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Sulfate	U		12.9	50.0

L1219797-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1219797-01 05/21/20 01:27 • (DUP) R3530362-3 05/21/20 01:44

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfate	U	U	1	0.000		15

L1220284-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1220284-02 05/21/20 07:56 • (DUP) R3530362-6 05/21/20 08:13

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfate	20.9	29.5	1	0.000		15

Laboratory Control Sample (LCS)

(LCS) R3530362-2 05/21/20 00:19

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Sulfate	200	202	101	80.0-120	

L1219797-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1219797-05 05/21/20 02:51 • (MS) R3530362-4 05/21/20 03:42 • (MSD) R3530362-5 05/21/20 03:59

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 %
Sulfate	607	U	607	602	100	99.2	1	80.0-120			0.819	15

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Method Blank (MB)

(MB) R3532225-1 05/25/20 21:26

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Sulfate	U		12.9	50.0

L1220048-29 Original Sample (OS) • Duplicate (DUP)

(OS) L1220048-29 05/25/20 22:17 • (DUP) R3532225-3 05/25/20 22:34

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfate	135	135	1	0.411		15

L1220048-45 Original Sample (OS) • Duplicate (DUP)

(OS) L1220048-45 05/26/20 05:37 • (DUP) R3532225-6 05/26/20 05:54

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfate	17.6	18.0	1	2.44	J	15

Laboratory Control Sample (LCS)

(LCS) R3532225-2 05/25/20 21:43

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Sulfate	200	202	101	80.0-120	

L1220048-40 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1220048-40 05/26/20 02:48 • (MS) R3532225-4 05/26/20 03:05 • (MSD) R3532225-5 05/26/20 03:22

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 %
Sulfate	512	U	532	530	104	104	1	80.0-120			0.401	15

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

Metals (ICP) by Method 6010B

[L1220048-21,22,23,24,25,26,27](#)

Method Blank (MB)

(MB) R3530832-1 05/22/20 10:36

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Barium	U		0.250	0.500
Potassium	U		50.0	100

Laboratory Control Sample (LCS)

(LCS) R3530832-2 05/22/20 10:38

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Barium	100	99.3	99.3	80.0-120	
Potassium	1000	966	96.6	80.0-120	

L1219490-21 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1219490-21 05/22/20 10:41 • (MS) R3530832-5 05/22/20 10:48 • (MSD) R3530832-6 05/22/20 10:51

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 %
Barium	114	95.6	209	197	99.4	88.7	1	75.0-125			6.01	20
Potassium	1140	884	1840	1740	83.4	74.8	1	75.0-125		J6	5.50	20

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

Metals (ICP) by Method 6010B

[L1220048-01,02,03,04,05,06,07,08,09,10,11,12,13,14,15,16,17,18,19,20](#)

Method Blank (MB)

(MB) R3531534-1 05/24/20 01:53

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Barium	U		0.250	0.500
Potassium	U		50.0	100

Laboratory Control Sample (LCS)

(LCS) R3531534-2 05/24/20 01:56

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Barium	100	104	104	80.0-120	
Potassium	1000	1030	103	80.0-120	

L1220048-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1220048-01 05/22/20 16:46 • (MS) R3531541-5 05/22/20 16:54 • (MSD) R3531541-6 05/22/20 16:57

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Barium	102	69.7	154	155	82.9	84.2	1	75.0-125			0.841	20
Potassium	1020	904	1850	1900	92.6	98.0	1	75.0-125			2.92	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Metals (ICP) by Method 6010B

[L1220048-29,30,31,32,34,35,36,37,38,39,40,41,42,43](#)

Method Blank (MB)

(MB) R3531553-1 05/23/20 18:17

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Barium	U		0.250	0.500

Laboratory Control Sample (LCS)

(LCS) R3531553-2 05/23/20 18:19

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Barium	100	101	101	80.0-120	

L1220048-40 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1220048-40 05/23/20 18:22 • (MS) R3531553-5 05/23/20 18:30 • (MSD) R3531553-6 05/23/20 18:32

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 %
Barium	102	42.4	135	144	90.2	99.0	1	75.0-125			6.48	20

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

Metals (ICP) by Method 6010B [L1220048-44,45](#)

Method Blank (MB)

(MB) R3531936-1 05/26/20 14:26

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Barium	U		0.250	0.500
Potassium	U		50.0	100

Laboratory Control Sample (LCS)

(LCS) R3531936-2 05/26/20 14:28

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Barium	100	102	102	80.0-120	
Potassium	1000	1040	104	80.0-120	

L1220048-45 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1220048-45 05/26/20 14:31 • (MS) R3531936-5 05/26/20 14:38 • (MSD) R3531936-6 05/26/20 14:41

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 %
Barium	102	35.9	138	161	100	123	1	75.0-125			15.4	20
Potassium	1020	1070	2270	2160	118	107	1	75.0-125			4.94	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Metals (ICP) by Method 6010B

[L1220048-29,30,31,32,34,35,36,37,38,39,40,41,42,43](#)

Method Blank (MB)

(MB) R3531953-1 05/26/20 21:20

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Potassium	U		50.0	100

Laboratory Control Sample (LCS)

(LCS) R3531953-2 05/26/20 21:23

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Potassium	1000	980	98.0	80.0-120	

L1220048-29 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1220048-29 05/26/20 21:25 • (MS) R3531953-5 05/26/20 21:33 • (MSD) R3531953-6 05/26/20 21:35

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 %
Potassium	1060	955	1810	1950	80.8	93.8	1	75.0-125			7.31	20

1

Cp

2

Tc

3

Ss

4

Cn

5

Sr

6

Qc

7

Gl

8

Al

9

Sc

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

[L1220048-02,03,04,05,06,07,08,09,10,11,12,13,14](#)

Method Blank (MB)

(MB) R3531617-2 05/22/20 23:28

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)	94.0			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3531617-1 05/22/20 22:32

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.34	97.1	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			108	77.0-120	

L1220048-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1220048-02 05/23/20 01:14 • (MS) R3531617-3 05/23/20 10:16 • (MSD) R3531617-4 05/23/20 10:37

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.52	U	2.16	2.95	39.1	52.8	1	10.0-151		J3	30.9	28
(S) a,a,a-Trifluorotoluene(FID)					96.4	98.6		77.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3531455-2 05/23/20 13:29

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0217	⬇	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	93.6			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3531455-1 05/23/20 12:48

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	4.53	82.4	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			106	77.0-120	

L1220029-24 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1220029-24 05/23/20 17:58 • (MS) R3531455-3 05/23/20 21:03 • (MSD) R3531455-4 05/23/20 21:23

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.59	0.0380	2.84	3.09	50.2	55.1	1	10.0-151			8.22	28
(S) a,a,a-Trifluorotoluene(FID)					94.9	96.4		77.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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

[L1220048-22,23,24,25,26,27,29,30,31,32,34,35,36,37,38,39,40,41,42,43](#)

Method Blank (MB)

(MB) R3531830-2 05/23/20 23:34

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)	93.9			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3531830-1 05/23/20 22:25

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.11	92.9	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			108	77.0-120	

L1220048-36 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1220048-36 05/24/20 04:23 • (MS) R3531830-3 05/24/20 07:07 • (MSD) R3531830-4 05/24/20 07:28

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.52	U	4.03	3.51	73.0	62.9	1	10.0-151			14.0	28
(S) a,a,a-Trifluorotoluene(FID)					104	102		77.0-120				

1
Cp

2
Tc

3
Ss

4
Cn

5
Sr

6
Qc

7
Gl

8
Al

9
Sc

Method Blank (MB)

(MB) R3532130-3 05/26/20 11:51

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0343	⬇	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	93.6			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3532130-2 05/26/20 11:06

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	4.93	89.6	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			99.2	77.0-120	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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

L1220048-01,02,03,04

Method Blank (MB)

(MB) R3531615-3 05/22/20 00:45

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Ethylbenzene	U		0.000737	0.00250
Toluene	U		0.00130	0.00500
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	106			75.0-131
(S) 4-Bromofluorobenzene	85.6			67.0-138
(S) 1,2-Dichloroethane-d4	93.4			70.0-130

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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

(LCS) R3531615-1 05/21/20 23:29 • (LCSD) R3531615-2 05/21/20 23:48

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.125	0.109	0.108	87.2	86.4	70.0-123			0.922	20
Ethylbenzene	0.125	0.0991	0.102	79.3	81.6	74.0-126			2.88	20
Toluene	0.125	0.104	0.103	83.2	82.4	75.0-121			0.966	20
Xylenes, Total	0.375	0.284	0.287	75.7	76.5	72.0-127			1.05	20
(S) Toluene-d8				99.1	101	75.0-131				
(S) 4-Bromofluorobenzene				90.3	90.7	67.0-138				
(S) 1,2-Dichloroethane-d4				106	106	70.0-130				

Method Blank (MB)

(MB) R3531897-3 05/22/20 05:32

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Ethylbenzene	U		0.000737	0.00250
Toluene	U		0.00130	0.00500
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	101			75.0-131
(S) 4-Bromofluorobenzene	96.2			67.0-138
(S) 1,2-Dichloroethane-d4	92.6			70.0-130

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

(LCS) R3531897-1 05/22/20 04:16 • (LCSD) R3531897-2 05/22/20 04:35

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.125	0.100	0.105	80.0	84.0	70.0-123			4.88	20
Ethylbenzene	0.125	0.111	0.115	88.8	92.0	74.0-126			3.54	20
Toluene	0.125	0.0983	0.101	78.6	80.8	75.0-121			2.71	20
Xylenes, Total	0.375	0.330	0.344	88.0	91.7	72.0-127			4.15	20
(S) Toluene-d8				97.3	97.7	75.0-131				
(S) 4-Bromofluorobenzene				97.6	99.6	67.0-138				
(S) 1,2-Dichloroethane-d4				98.8	100	70.0-130				

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

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

L1220048-15,16,17,18,19,20,21,22,23,24,25,26,27

Method Blank (MB)

(MB) R3531839-2 05/22/20 09:21

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Ethylbenzene	U		0.000737	0.00250
Toluene	U		0.00130	0.00500
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	105			75.0-131
(S) 4-Bromofluorobenzene	97.8			67.0-138
(S) 1,2-Dichloroethane-d4	93.6			70.0-130

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R3531839-1 05/22/20 08:19

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.122	97.6	70.0-123	
Ethylbenzene	0.125	0.117	93.6	74.0-126	
Toluene	0.125	0.123	98.4	75.0-121	
Xylenes, Total	0.375	0.337	89.9	72.0-127	
(S) Toluene-d8			102	75.0-131	
(S) 4-Bromofluorobenzene			98.9	67.0-138	
(S) 1,2-Dichloroethane-d4			100	70.0-130	

L1220048-15 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1220048-15 05/22/20 10:18 • (MS) R3531839-3 05/22/20 14:42 • (MSD) R3531839-4 05/22/20 15:02

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.129	U	0.0944	0.0896	73.0	69.3	1	10.0-149			5.17	37
Ethylbenzene	0.129	U	0.0971	0.0919	75.0	71.0	1	10.0-160			5.48	38
Toluene	0.129	U	0.103	0.0927	79.9	71.7	1	10.0-156			10.9	38
Xylenes, Total	0.388	U	0.268	0.259	69.1	66.7	1	10.0-160			3.54	38
(S) Toluene-d8					106	100		75.0-131				
(S) 4-Bromofluorobenzene					95.9	104		67.0-138				
(S) 1,2-Dichloroethane-d4					91.8	97.8		70.0-130				

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

L1220048-29

Method Blank (MB)

(MB) R3531109-2 05/22/20 16:21

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Ethylbenzene	U		0.000737	0.00250
Toluene	U		0.00130	0.00500
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	109			75.0-131
(S) 4-Bromofluorobenzene	105			67.0-138
(S) 1,2-Dichloroethane-d4	94.2			70.0-130

Laboratory Control Sample (LCS)

(LCS) R3531109-1 05/22/20 15:43

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.0935	74.8	70.0-123	
Ethylbenzene	0.125	0.113	90.4	74.0-126	
Toluene	0.125	0.102	81.6	75.0-121	
Xylenes, Total	0.375	0.305	81.3	72.0-127	
(S) Toluene-d8			106	75.0-131	
(S) 4-Bromofluorobenzene			106	67.0-138	
(S) 1,2-Dichloroethane-d4			98.9	70.0-130	

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

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

L1220048-30,31,32,34,35,36,37,38,39,40,41,42,43

Method Blank (MB)

(MB) R3531816-2 05/22/20 17:02

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Ethylbenzene	U		0.000737	0.00250
Toluene	U		0.00130	0.00500
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	106			75.0-131
(S) 4-Bromofluorobenzene	97.4			67.0-138
(S) 1,2-Dichloroethane-d4	89.7			70.0-130

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R3531816-1 05/22/20 16:02

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.116	92.8	70.0-123	
Ethylbenzene	0.125	0.115	92.0	74.0-126	
Toluene	0.125	0.114	91.2	75.0-121	
Xylenes, Total	0.375	0.313	83.5	72.0-127	
(S) Toluene-d8			103	75.0-131	
(S) 4-Bromofluorobenzene			97.0	67.0-138	
(S) 1,2-Dichloroethane-d4			99.4	70.0-130	

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

L1220048-44,45

Method Blank (MB)

(MB) R3532070-2 05/26/20 10:29

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Ethylbenzene	U		0.000737	0.00250
Toluene	U		0.00130	0.00500
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	98.8			75.0-131
(S) 4-Bromofluorobenzene	92.9			67.0-138
(S) 1,2-Dichloroethane-d4	111			70.0-130

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Laboratory Control Sample (LCS)

(LCS) R3532070-1 05/26/20 09:31

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.134	107	70.0-123	
Ethylbenzene	0.125	0.113	90.4	74.0-126	
Toluene	0.125	0.107	85.6	75.0-121	
Xylenes, Total	0.375	0.342	91.2	72.0-127	
(S) Toluene-d8			97.6	75.0-131	
(S) 4-Bromofluorobenzene			95.4	67.0-138	
(S) 1,2-Dichloroethane-d4			120	70.0-130	

L1221039-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1221039-03 05/26/20 16:29 • (MS) R3532070-3 05/26/20 16:48 • (MSD) R3532070-4 05/26/20 17:07

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 %
Benzene	0.163	U	0.130	0.171	79.6	105	1	10.0-149			27.3	37
Ethylbenzene	0.163	U	0.112	0.145	68.4	88.8	1	10.0-160			26.0	38
Toluene	0.163	U	0.112	0.141	68.9	86.4	1	10.0-156			22.6	38
Xylenes, Total	0.489	U	0.346	0.423	70.7	86.4	1	10.0-160			20.0	38
(S) Toluene-d8					96.6	97.2		75.0-131				
(S) 4-Bromofluorobenzene					93.4	91.9		67.0-138				
(S) 1,2-Dichloroethane-d4					114	113		70.0-130				

Semi-Volatile Organic Compounds (GC) by Method 8015

[L1220048-01,02,03,04,05,06,07,08,09,10,11,12,13,14,15](#)

Method Blank (MB)

(MB) R3531640-1 05/25/20 21:53

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C40 Oil Range	U		0.274	4.00
(S) o-Terphenyl	75.8			18.0-148

Laboratory Control Sample (LCS)

(LCS) R3531640-2 05/25/20 22:06

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	39.1	78.2	50.0-150	
(S) o-Terphenyl			99.4	18.0-148	

L1220029-24 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1220029-24 05/26/20 02:27 • (MS) R3531640-3 05/26/20 02:40 • (MSD) R3531640-4 05/26/20 02:53

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 %
C10-C28 Diesel Range	49.8	3.19	40.4	41.7	74.8	77.4	1	50.0-150			2.97	20
(S) o-Terphenyl					87.3	85.6		18.0-148				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi-Volatile Organic Compounds (GC) by Method 8015

L1220048-16,17,18,19,20,21,22,23,24,25,26,27,29

Method Blank (MB)

(MB) R3532334-1 05/27/20 13:57

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C40 Oil Range	U		0.274	4.00
(S) o-Terphenyl	68.6			18.0-148

Laboratory Control Sample (LCS)

(LCS) R3532334-2 05/27/20 14:13

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	30.6	61.2	50.0-150	
(S) o-Terphenyl			57.1	18.0-148	

L1220048-18 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1220048-18 05/27/20 15:32 • (MS) R3532334-3 05/27/20 15:48 • (MSD) R3532334-4 05/27/20 16:04

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 %
C10-C28 Diesel Range	50.8	U	37.9	37.7	74.6	74.2	1	50.0-150			0.538	20
(S) o-Terphenyl					59.5	61.4		18.0-148				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Semi-Volatile Organic Compounds (GC) by Method 8015

[L1220048-30,31,32,34,35,36,37,38,39,40,41,42,43,44,45](#)

Method Blank (MB)

(MB) R3532137-1 05/27/20 03:47

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C40 Oil Range	U		0.274	4.00
(S) o-Terphenyl	65.3			18.0-148

Laboratory Control Sample (LCS)

(LCS) R3532137-2 05/27/20 04:03

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	32.4	64.8	50.0-150	
(S) o-Terphenyl			58.1	18.0-148	

L1220048-41 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1220048-41 05/27/20 06:59 • (MS) R3532137-3 05/27/20 07:14 • (MSD) R3532137-4 05/27/20 07:30

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 %
C10-C28 Diesel Range	60.2	U	40.8	43.5	67.8	72.2	1	50.0-150			6.29	20
(S) o-Terphenyl					55.4	59.0		18.0-148				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Guide to Reading and Understanding Your Laboratory Report

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

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

Abbreviations and Definitions

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

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
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.
O1	The analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.

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

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

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

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

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	LA000356
Kentucky ^{1 6}	90010	South Carolina	84004
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana ¹	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

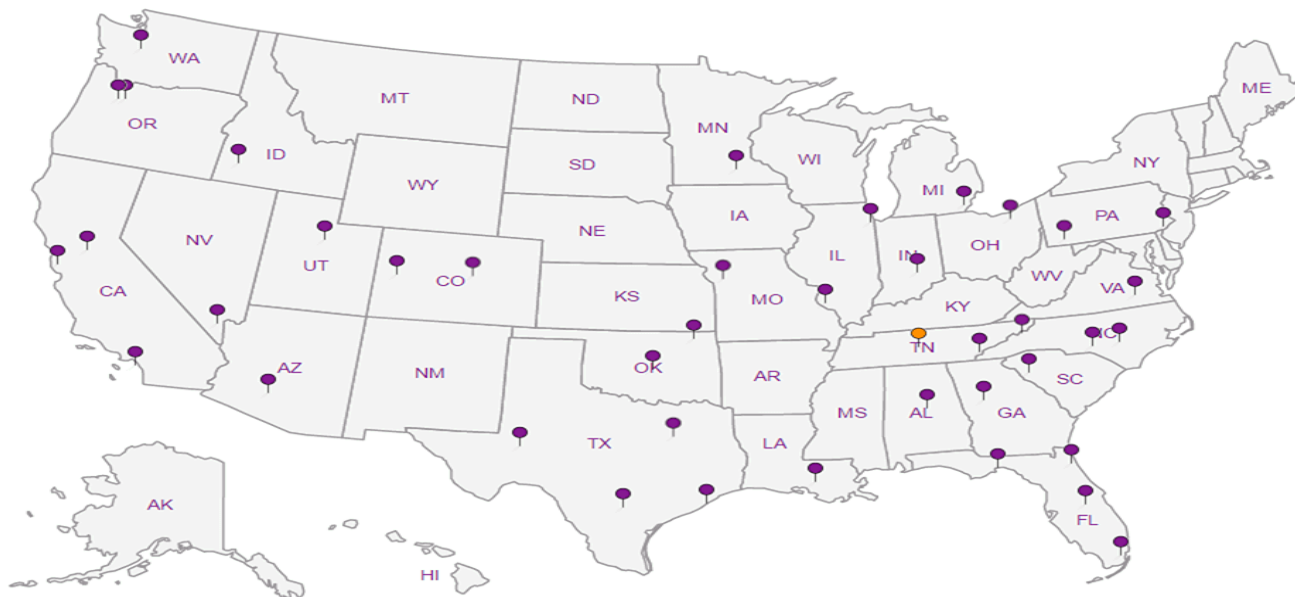
Third Party Federal Accreditations

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

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

Our Locations

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



Analysis Request of Chain of Custody Record

1220048

Page: 1 of 5

**Tetra Tech, Inc.**901 West Wall Street, Suite 100
Midland, Texas 79701
Tel (432) 682-4559
Fax (432) 682-3946

Client Name: Conoco Phillips

Site Manager: Christian Llull

Project Name: COP Zia Hills 25E Fed Com 401H

Contact Info: Email: christian.llull@tetratech.com
Phone: (512) 338-1667Project Location:
(county, state) Lea County, New Mexico

Project #: 212C-MD-02191

Invoice to: Accounts Payable
901 West Wall Street, Suite 100 Midland, Texas 79701

Receiving Laboratory: Pace Analytical

Sampler Signature:

Comments: COPTETRA Acctnum

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD				# CONTAINERS	FILTERED (Y/N)	BTX 8021B	BTX 8260B (Ext to C1005 - D1005)	TPH 8015M (GRO - D1005)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C / 625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Barium 6010B	Potassium 6010B	Sulfate 9056A	HOLD		
		YEAR: 2020		WATER	SOIL	HCL	HNO3	ICE	NONE																							
		DATE	TIME																													
28	BH-1 (0'-1')	05/14/20	1000		X			X		1	N	X	X													X	X	X	X			
29	BH-1 (2'-3')	05/14/20	1010		X			X		1	N	X	X														X	X	X	X		
30	BH-1 (4'-5')	05/14/20	1020		X			X		1	N	X	X														X	X	X	X		
31	BH-1 (6'-7')	05/14/20	1030		X			X		1	N	X	X														X	X	X	X		
32	BH-1 (8'-9')	05/14/20	1040		X			X		1	N	X	X														X	X	X	X		
33	BH-2 (0'-1')	05/14/20	1050		X			X		1	N	X	X														X	X	X	X		
34	BH-2 (2'-3')	05/14/20	1100		X			X		1	N	X	X														X	X	X	X		
35	BH-2 (4'-5')	05/14/20	1110		X			X		1	N	X	X														X	X	X	X		
- 01	BH-2 (6'-7')	05/14/20	1120		X			X		1	N	X	X														X	X	X	X		
02	BH-2 (8'-9')	05/14/20	1130		X			X		1	N	X	X														X	X	X	X		
REMARKS																																

Relinquished by:

Date: 5-18-20 Time: 14:00

Received by:

Date: 5-18-20 Time: 14:00

LAB USE ONLY

REMARKS:

☒ Standard☐ RUSH: Same Day 24 hr. 48 hr. 72 hr.☐ Rush Charges Authorized☐ Special Report Limits or TRRP Report

Relinquished by:

Date: 5-18-20 Time: 16:00

Received by:

Date: 5-18-20 Time: 16:00

Sample Temperature

Relinquished by:

Date: 5-19-20 Time: 8:45

Received by:

Date: 5-19-20 Time: 8:45

ORIGINAL COPY

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

4420 3423 7093 27 total No TB

J098

8-2-1.6 uM
AG

Analysis Request of Chain of Custody Record

1220048

Page: 2 of 5

**Tetra Tech, Inc.**901 West Wall Street, Suite 100
Midland, Texas 79701
Tel (432) 682-4559
Fax (432) 682-3946

Client Name:	Conoco Phillips	Site Manager:	Christian Llull
Project Name:	COP Zia Hills 25E Fed Com 401H	Contact Info:	Email: christian.llull@tetrattech.com Phone: (512) 338-1667
Project Location: (county, state)	Lea County, New Mexico	Project #:	212C-MD-02191
Invoice to:	Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 79701		
Receiving Laboratory:	Pace Analytical	Sampler Signature:	
Comments:	COPTETRA Acctnum		

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD				# CONTAINERS	FILTERED (Y/N)	BTX 8021B	BTX 8260B / 624	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Barium 6010B	Potassium 6010B	Sulfate 9056A	HOLD
		YEAR: 2020		WATER	SOIL	HCL	HNO ₃	ICE	NONE																						
		DATE	TIME																												
36	BH-3 (0'-1')	05/14/20	1140		X			X		1	N	X	X														X	X	X	X	
37	BH-3 (2'-3')	05/14/20	1150		X			X		1	N	X	X														X	X	X	X	
38	BH-3 (4'-5')	05/14/20	1200		X			X		1	N	X	X														X	X	X	X	
03	BH-3 (6'-7')	05/14/20	1210		X			X		1	N	X	X														X	X	X	X	
39	BH-3 (8'-9')	05/14/20	1220		X			X		1	N	X	X														X	X	X	X	
40	BH-4 (0'-1')	05/14/20	1230		X			X		1	N	X	X														X	X	X	X	
04	BH-4 (2'-3')	05/14/20	1240		X			X		1	N	X	X														X	X	X	X	
05	BH-4 (4'-5')	05/14/20	1250		X			X		1	N	X	X														X	X	X	X	
06	BH-4 (6'-7')	05/14/20	1300		X			X		1	N	X	X														X	X	X	X	
07	BH-4 (8'-9')	05/14/20	1310		X			X		1	N	X	X														X	X	X	X	

Relinquished by:	Date: 5-18-20	Time: 14:00	Received by:	Date: 5-18-20	Time: 14:00
Relinquished by:	Date: 5-18-20	Time: 16:00	Received by:	Date: 5-18-20	Time: 16:00
Relinquished by:	Date: 5-19-20	Time: 8:45	Received by:	Date: 5-19-20	Time: 8:45

LAB USE ONLY

Sample Temperature

REMARKS:

- ☒ Standard
- ☐ RUSH: Same Day 24 hr. 48 hr. 72 hr.
- ☐ Rush Charges Authorized
- ☐ Special Report Limits or TRRP Report

ORIGINAL COPY

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

1.8-221.6

Analysis Request of Chain of Custody Record

**Tetra Tech, Inc.**901 West Wall Street, Suite 100
Midland, Texas 79701
Tel (432) 682-4559
Fax (432) 682-3946

Client Name:	Conoco Phillips	Site Manager:	Christian Llull
Project Name:	COP Zia Hills 25E Fed Com 401H	Contact Info:	Email: christian.llull@tetratech.com Phone: (512) 338-1667
Project Location: (county, state)	Lea County, New Mexico	Project #:	212C-MD-02191
Invoice to:	Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 79701		
Receiving Laboratory:	Pace Analytical	Sampler Signature:	<i>[Signature]</i>
Comments:	COPTETRA Acctnum		

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD				# CONTAINERS	FILTERED (Y/N)	BTEX 8021B	BTEX 8260B / 624	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C / 625	PCBs 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Barium 6010B	Potassium 6010B	Sulfate 9056A		HOLD
		YEAR: 2020		WATER	SOIL	HCL	HNO3	ICE	NONE																							
		DATE	TIME																													
08	BH-5 (0'-1')	05/14/20	1320		X			X		1	N	X	X														X	X	X	X		
09	BH-5 (2'-3')	05/14/20	1330		X			X		1	N	X	X														X	X	X	X		
41	BH-5 (4'-5')	05/14/20	1340		X			X		1	N	X	X														X	X	X	X		
42	BH-5 (6'-7')	05/14/20	1350		X			X		1	N	X	X														X	X	X	X		
10	BH-5 (8'-9')	05/14/20	1400		X			X		1	N	X	X														X	X	X	X		
11	BH-6 (0'-1')	05/14/20	1410		X			X		1	N	X	X														X	X	X	X		
12	BH-6 (2'-3')	05/14/20	1420		X			X		1	N	X	X														X	X	X	X		
13	BH-6 (4'-5')	05/14/20	1430		X			X		1	N	X	X														X	X	X	X		
14	BH-6 (6'-7')	05/14/20	1440		X			X		1	N	X	X														X	X	X	X		
15	BH-6 (8'-9')	05/14/20	1450		X			X		1	N	X	X														X	X	X	X		

Relinquished by: <i>[Signature]</i>	Date: 5-18-20	Time: 14:00	Received by: <i>[Signature]</i>	Date: 5-18-20	Time: 14:00
Relinquished by: <i>[Signature]</i>	Date: 5-18-20	Time: 16:00	Received by: <i>[Signature]</i>	Date: 5-18-20	Time: 16:00
Relinquished by: <i>[Signature]</i>	Date: 5-19-20	Time: 8:45	Received by: <i>[Signature]</i>	Date: 5-19-20	Time: 8:45

LAB USE ONLY

Sample Temperature

REMARKS:

- ☒ Standard
- ☐ RUSH: Same Day 24 hr. 48 hr. 72 hr.
- ☐ Rush Charges Authorized
- ☐ Special Report Limits or TRRP Report

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(Circle) HAND DELIVERED FEDEX UPS Tracking #:

1.8-2 = 1.6 *WY*
AB

Analysis Request of Chain of Custody Record

**Tetra Tech, Inc.**901 West Wall Street, Suite 100
Midland, Texas 79701
Tel (432) 682-4559
Fax (432) 682-3946

Client Name: Conoco Phillips

Site Manager: Christian Llull

Project Name: COP Zia Hills 25E Fed Com 401H

Contact Info: Email: christian.llull@tetratech.com
Phone: (512) 338-1667Project Location:
(county, state) Lea County, New Mexico

Project #: 212C-MD-02191

Invoice to: Accounts Payable
901 West Wall Street, Suite 100 Midland, Texas 79701

Receiving Laboratory: Pace Analytical

Sampler Signature:

Comments: COPTETRA Acctnum

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD				# CONTAINERS	FILTERED (Y/N)	BTEX 8021B	BTEX TPH TX1005 (Ext to C10)	BTEX TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCBs 8062 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Barium 6010B	Potassium 6010B	Sulfate 9056A	HOLD		
		YEAR: 2020		WATER	SOIL	HCL	HNO3	ICE	NONE																							
		DATE	TIME																													
43	AH-1 (0-1')	05/14/20	1500		X			X		1	N	X	X													X	X	X	X			
16	AH-1 (2'-3')	05/14/20	1510		X			X		1	N	X	X														X	X	X	X		
17	AH-2 (0-1')	05/14/20	1520		X			X		1	N	X	X														X	X	X	X		
18	AH-2 (2'-3')	05/14/20	1530		X			X		1	N	X	X														X	X	X	X		
19	AH-3 (0-1')	05/14/20	1540		X			X		1	N	X	X														X	X	X	X		
26	AH-3 (2'-3')	05/14/20	1550		X			X		1	N	X	X														X	X	X	X		
21	AH-4 (0-1')	05/14/20	1600		X			X		1	N	X	X														X	X	X	X		
22	AH-4 (2'-3')	05/14/20	1610		X			X		1	N	X	X														X	X	X	X		
23	AH-4 (4-5')	05/14/20	1620		X			X		1	N	X	X														X	X	X	X		
24	AH-5 (0'-1')	05/14/20	1630		X			X		1	N	X	X														X	X	X	X		

Relinquished by:

Date: 5-18-20 Time: 14:00

Received by:

Date: 5-18-20 Time: 14:00

LAB USE ONLY

REMARKS:

- ☒ Standard
- ☐ RUSH: Same Day 24 hr. 48 hr. 72 hr.
- ☐ Rush Charges Authorized
- ☐ Special Report Limits or TRRP Report

Relinquished by:

Date: 5-18-20 Time: 16:00

Received by:

Date: 5-18-20 Time: 16:00

Sample Temperature

Relinquished by:

Date: 5-19-20 Time: 8:45

Received by:

Date: 5-19-20 Time: 8:45

ORIGINAL COPY

(Circle) HAND DELIVERED FEDEX UPS Tracking #:

1.8-2 = 1.64 y
All

$$1.8 - Z = 1.6 \text{ mm Al}$$

Pace Analytical National Center for Testing & Innovation Cooler Receipt Form			
Client: <i>COPTETRA</i>		<i>1220046</i>	
Cooler Received/Opened On: <i>5 / 19 / 20</i>		Temperature:	<i>1.6</i>
Received By: <i>Michael Pappas</i>			
Signature: <i>M Pappas</i>			
Receipt Check List	NP	Yes	No
COC Seal Present / Intact?	☒	☐	☐
COC Signed / Accurate?	☒	☐	☐
Bottles arrive intact?	☒	☐	☐
Correct bottles used?	☒	☐	☐
Sufficient volume sent?	☒	☐	☐
If Applicable			
VOA Zero headspace?			
Preservation Correct / Checked?			

Kelsey Stephenson



Login #: L1220048	Client:COPTETRA	Date:05/19	Evaluated by:Kelsey S
-------------------	-----------------	------------	-----------------------

Non-Conformance (check applicable items)

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

Login Comments: Received 2 BH-1 (0'-1') and did not receive BH-2 (0'-1')

Client informed by:	Call	x	Email	Voice Mail	Date: 5/22/20	Time: 19:22
TSR Initials: CM	Client Contact: Christian LLull					

Login Instructions:

Log both containers as BH-1 (0-1')A and B for requested tests.

Chris McCord

From: Abbott, Sam <Sam.Abbott@tetrattech.com>
Sent: Thursday, July 16, 2020 5:29 PM
To: Chris McCord
Cc: Llull, Christian
Subject: FW: Pace Analytical National Level II Report for 212C-MD-02191 COP Zia Hills 25E Fed Com 401H L1220048

CAUTION: This email originated from outside Pace Analytical. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Hi Chris,

We have identified the source of the error with the duplicate BH-1 (0'-1') samples with this dataset. The sample reported as BH-1 (0'-1')A has been identified as the missing BH-2 (0'-1') sample, and the BH-1 (0'-1')B is the true BH-1 (0'-1') sample. Could we please have the lab report amended to reflect this?

Thank you for your help,
Sam

From: cmccord@pacenational.com <cmccord@pacenational.com>
Sent: Friday, May 29, 2020 6:12:50 PM
To: Llull, Christian <Christian.Llull@tetrattech.com>
Subject: Pace Analytical National Level II Report for 212C-MD-02191 COP Zia Hills 25E Fed Com 401H L1220048

 CAUTION: This email originated from an external sender. Verify the source before opening links or attachments. 

"Privileged and Confidential"

Thank you for choosing Pace National!

The file size of the associated file(s) exceeded the mail delivery system threshold of 5MB.

Please view your report file(s) through our client portal "myData" at <https://www.pacenational.com/login> or by using the link(s) below:

[Report for L1220048](#)

Pace National is pleased to announce that we are accepting samples from 21 states for the new 3511 prep technique for PAHs by 8270 and 8270SIM. This technique allows for a 98% reduction in solvent usage, and requires only 2 to 3 40 mL non-preserved amber vials vs. the traditional 1 or 2 amber liter jars. Please contact your Project Manager for details.

Pace National is leading the laboratory industry with our On-line Data Management tools. Please contact your Project Manager to learn how to create historical Excel tables or access data in real time using powerful and intuitive software that is only available at <https://www.pacenational.com>.

Pace National ... "Your Lab of Choice"



ANALYTICAL REPORT

October 01, 2020

ConocoPhillips - Tetra Tech

Sample Delivery Group: L1264200
Samples Received: 09/19/2020
Project Number: 212C-MD-02191
Description: Zia Hills 25E Fed Com 401H

Report To: Christian Llull
901 West Wall
Suite 100
Midland, TX 79701

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 Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.



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BH-7 (0-1') L1264200-01 Solid

Collected by
John Thurston

Collected date/time
09/17/20 00:00

Received date/time
09/19/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1549371	1	09/28/20 08:43	09/28/20 08:54	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1548046	1	09/24/20 23:40	09/25/20 01:15	MSP	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1549981	36	09/17/20 00:00	09/27/20 12:41	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1550046	1.44	09/17/20 00:00	09/27/20 12:41	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1550232	1	09/27/20 17:24	09/28/20 06:50	DMG	Mt. Juliet, TN

¹ Cp² Tc³ Ss⁴ Cn

BH-7 (2-3') L1264200-02 Solid

Collected by
John Thurston

Collected date/time
09/17/20 00:00

Received date/time
09/19/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1549371	1	09/28/20 08:43	09/28/20 08:54	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1548046	1	09/24/20 23:40	09/25/20 01:33	MSP	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1549981	27.5	09/17/20 00:00	09/27/20 13:04	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1550046	1.1	09/17/20 00:00	09/27/20 13:00	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1550232	1	09/27/20 17:24	09/28/20 07:29	DMG	Mt. Juliet, TN

⁵ Sr⁶ Qc⁷ Gl⁸ Al

BH-7 (4-5') L1264200-03 Solid

Collected by
John Thurston

Collected date/time
09/17/20 00:00

Received date/time
09/19/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1549371	1	09/28/20 08:43	09/28/20 08:54	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1548046	1	09/24/20 23:40	09/25/20 01:43	MSP	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1549981	25	09/17/20 00:00	09/27/20 13:26	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1550046	1	09/17/20 00:00	09/27/20 13:19	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1550232	1	09/27/20 17:24	09/28/20 07:55	DMG	Mt. Juliet, TN

⁹ Sc

BH-7 (6-7') L1264200-04 Solid

Collected by
John Thurston

Collected date/time
09/17/20 00:00

Received date/time
09/19/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1549371	1	09/28/20 08:43	09/28/20 08:54	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1548046	1	09/24/20 23:40	09/25/20 01:52	MSP	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1549981	25	09/17/20 00:00	09/27/20 13:48	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1550046	1	09/17/20 00:00	09/27/20 13:38	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1550232	1	09/27/20 17:24	09/28/20 08:08	DMG	Mt. Juliet, TN

BH-7 (9-10') L1264200-05 Solid

Collected by
John Thurston

Collected date/time
09/17/20 00:00

Received date/time
09/19/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1549371	1	09/28/20 08:43	09/28/20 08:54	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1548046	1	09/24/20 23:40	09/25/20 02:02	MSP	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1549981	25	09/17/20 00:00	09/27/20 14:11	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1550046	1	09/17/20 00:00	09/27/20 13:57	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1550232	1	09/27/20 17:24	09/28/20 08:22	DMG	Mt. Juliet, TN

BH-7 (14-15') L1264200-06 Solid

Collected by John Thurston
Collected date/time 09/17/20 00:00
Received date/time 09/19/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1549371	1	09/28/20 08:43	09/28/20 08:54	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1548046	1	09/24/20 23:40	09/25/20 02:11	MSP	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1549981	33.5	09/17/20 00:00	09/27/20 14:33	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1550046	1.34	09/17/20 00:00	09/27/20 14:16	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1550232	1	09/27/20 17:24	09/28/20 08:35	DMG	Mt. Juliet, TN

¹ Cp² Tc³ Ss⁴ Cn

BH-7 (19-20') L1264200-07 Solid

Collected by John Thurston
Collected date/time 09/17/20 00:00
Received date/time 09/19/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1549372	1	09/28/20 08:32	09/28/20 08:41	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1548046	1	09/24/20 23:40	09/25/20 02:21	MSP	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1549981	25	09/17/20 00:00	09/27/20 14:56	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1550046	1	09/17/20 00:00	09/27/20 14:35	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1550232	1	09/27/20 17:24	09/28/20 08:48	DMG	Mt. Juliet, TN

⁵ Sr⁶ Qc⁷ Gl⁸ Al

BH-8 (0-1') L1264200-08 Solid

Collected by John Thurston
Collected date/time 09/17/20 00:00
Received date/time 09/19/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1549372	1	09/28/20 08:32	09/28/20 08:41	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1548046	1	09/24/20 23:40	09/25/20 02:49	MSP	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1549981	25	09/17/20 00:00	09/27/20 15:18	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1550046	1	09/17/20 00:00	09/27/20 14:54	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1550232	1	09/27/20 17:24	09/28/20 09:01	DMG	Mt. Juliet, TN

⁹ Sc

BH-8 (2-3') L1264200-09 Solid

Collected by John Thurston
Collected date/time 09/17/20 00:00
Received date/time 09/19/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1549372	1	09/28/20 08:32	09/28/20 08:41	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1548046	1	09/24/20 23:40	09/25/20 02:59	MSP	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1549981	25	09/17/20 00:00	09/27/20 15:40	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1550046	1	09/17/20 00:00	09/27/20 15:13	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1550232	1	09/27/20 17:24	09/28/20 09:14	JN	Mt. Juliet, TN

BH-8 (4-5') L1264200-10 Solid

Collected by John Thurston
Collected date/time 09/17/20 00:00
Received date/time 09/19/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1549372	1	09/28/20 08:32	09/28/20 08:41	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1548046	1	09/24/20 23:40	09/25/20 03:09	MSP	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1549981	25	09/17/20 00:00	09/27/20 16:03	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1550046	1	09/17/20 00:00	09/27/20 15:32	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1550232	1	09/27/20 17:24	09/28/20 09:27	DMG	Mt. Juliet, TN

BH-8 (6-7') L1264200-11 Solid

Collected by
John Thurston

Collected date/time
09/17/20 00:00

Received date/time
09/19/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1549372	1	09/28/20 08:32	09/28/20 08:41	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1548046	1	09/24/20 23:40	09/25/20 03:18	MSP	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1549981	25	09/17/20 00:00	09/27/20 16:25	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1550046	1	09/17/20 00:00	09/27/20 15:51	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1550232	1	09/27/20 17:24	09/28/20 09:53	DMG	Mt. Juliet, TN

1 Cp

2 Tc

3 Ss

4 Cn

BH-8 (9-10') L1264200-12 Solid

Collected by
John Thurston

Collected date/time
09/17/20 00:00

Received date/time
09/19/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1549372	1	09/28/20 08:32	09/28/20 08:41	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1548046	5	09/24/20 23:40	09/25/20 03:47	MSP	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1549981	25	09/17/20 00:00	09/27/20 16:48	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1550046	1	09/17/20 00:00	09/27/20 16:10	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1550232	1	09/27/20 17:24	09/28/20 09:40	DMG	Mt. Juliet, TN

5 Sr

6 Qc

7 Gl

8 Al

BH-8 (14-15') L1264200-13 Solid

Collected by
John Thurston

Collected date/time
09/17/20 00:00

Received date/time
09/19/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1549372	1	09/28/20 08:32	09/28/20 08:41	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1548046	1	09/24/20 23:40	09/25/20 03:56	MSP	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1549981	25	09/17/20 00:00	09/27/20 17:10	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1550046	1	09/17/20 00:00	09/27/20 16:29	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1550232	1	09/27/20 17:24	09/28/20 10:06	DMG	Mt. Juliet, TN

9 Sc

BH-8 (19-20') L1264200-14 Solid

Collected by
John Thurston

Collected date/time
09/17/20 00:00

Received date/time
09/19/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1549372	1	09/28/20 08:32	09/28/20 08:41	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1548046	1	09/24/20 23:40	09/25/20 04:06	MSP	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1549981	25	09/17/20 00:00	09/27/20 17:33	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1550076	1	09/17/20 00:00	09/27/20 13:08	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1550232	1	09/27/20 17:24	09/28/20 10:19	DMG	Mt. Juliet, TN

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



Chris McCord
Project Manager

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

Collected date/time: 09/17/20 00:00

L1264200

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	98.3		1	09/28/2020 08:54	WG1549371

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	15.4	J	9.36	20.3	1	09/25/2020 01:15	WG1548046

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	U		0.803	3.70	36	09/27/2020 12:41	WG1549981
(S) a,a,a-Trifluorotoluene(FID)	102			77.0-120		09/27/2020 12:41	WG1549981

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
Benzene	U		0.000691	0.00148	1.44	09/27/2020 12:41	WG1550046
Toluene	U		0.00192	0.00741	1.44	09/27/2020 12:41	WG1550046
Ethylbenzene	U		0.00109	0.00370	1.44	09/27/2020 12:41	WG1550046
Total Xylenes	U		0.00131	0.00963	1.44	09/27/2020 12:41	WG1550046
(S) Toluene-d8	96.6			75.0-131		09/27/2020 12:41	WG1550046
(S) 4-Bromofluorobenzene	91.7			67.0-138		09/27/2020 12:41	WG1550046
(S) 1,2-Dichloroethane-d4	86.7			70.0-130		09/27/2020 12:41	WG1550046

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
C10-C28 Diesel Range	1.93	J	1.64	4.07	1	09/28/2020 06:50	WG1550232
C28-C40 Oil Range	2.87	J	0.279	4.07	1	09/28/2020 06:50	WG1550232
(S) o-Terphenyl	77.5			18.0-148		09/28/2020 06:50	WG1550232

Collected date/time: 09/17/20 00:00

L1264200

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	97.9		1	09/28/2020 08:54	WG1549371

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	18.7	J	9.40	20.4	1	09/25/2020 01:33	WG1548046

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	U		0.622	2.86	27.5	09/27/2020 13:04	WG1549981
(S) a,a,a-Trifluorotoluene(FID)	101			77.0-120		09/27/2020 13:04	WG1549981

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
Benzene	U		0.000535	0.00115	1.1	09/27/2020 13:00	WG1550046
Toluene	U		0.00149	0.00573	1.1	09/27/2020 13:00	WG1550046
Ethylbenzene	U		0.000845	0.00286	1.1	09/27/2020 13:00	WG1550046
Total Xylenes	U		0.00101	0.00745	1.1	09/27/2020 13:00	WG1550046
(S) Toluene-d8	96.4			75.0-131		09/27/2020 13:00	WG1550046
(S) 4-Bromofluorobenzene	92.1			67.0-138		09/27/2020 13:00	WG1550046
(S) 1,2-Dichloroethane-d4	91.9			70.0-130		09/27/2020 13:00	WG1550046

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
C10-C28 Diesel Range	U		1.64	4.09	1	09/28/2020 07:29	WG1550232
C28-C40 Oil Range	2.03	J	0.280	4.09	1	09/28/2020 07:29	WG1550232
(S) o-Terphenyl	77.7			18.0-148		09/28/2020 07:29	WG1550232

Collected date/time: 09/17/20 00:00

L1264200

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	96.4		1	09/28/2020 08:54	WG1549371

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	18.4	J	9.54	20.7	1	09/25/2020 01:43	WG1548046

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	U		0.589	2.71	25	09/27/2020 13:26	WG1549981
(S) a,a,a-Trifluorotoluene(FID)	102			77.0-120		09/27/2020 13:26	WG1549981

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
Benzene	U		0.000506	0.00108	1	09/27/2020 13:19	WG1550046
Toluene	U		0.00141	0.00542	1	09/27/2020 13:19	WG1550046
Ethylbenzene	U		0.000799	0.00271	1	09/27/2020 13:19	WG1550046
Total Xylenes	U		0.000954	0.00705	1	09/27/2020 13:19	WG1550046
(S) Toluene-d8	96.9			75.0-131		09/27/2020 13:19	WG1550046
(S) 4-Bromofluorobenzene	91.6			67.0-138		09/27/2020 13:19	WG1550046
(S) 1,2-Dichloroethane-d4	92.4			70.0-130		09/27/2020 13:19	WG1550046

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
C10-C28 Diesel Range	1.77	J	1.67	4.15	1	09/28/2020 07:55	WG1550232
C28-C40 Oil Range	0.979	J	0.284	4.15	1	09/28/2020 07:55	WG1550232
(S) o-Terphenyl	78.3			18.0-148		09/28/2020 07:55	WG1550232

Collected date/time: 09/17/20 00:00

L1264200

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	96.7		1	09/28/2020 08:54	WG1549371

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	207		9.51	20.7	1	09/25/2020 01:52	WG1548046

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	U		0.586	2.70	25	09/27/2020 13:48	WG1549981
(S) a,a,a-Trifluorotoluene(FID)	101			77.0-120		09/27/2020 13:48	WG1549981

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
Benzene	U		0.000504	0.00108	1	09/27/2020 13:38	WG1550046
Toluene	U		0.00140	0.00540	1	09/27/2020 13:38	WG1550046
Ethylbenzene	U		0.000796	0.00270	1	09/27/2020 13:38	WG1550046
Total Xylenes	U		0.000950	0.00702	1	09/27/2020 13:38	WG1550046
(S) Toluene-d8	98.3			75.0-131		09/27/2020 13:38	WG1550046
(S) 4-Bromofluorobenzene	92.7			67.0-138		09/27/2020 13:38	WG1550046
(S) 1,2-Dichloroethane-d4	90.7			70.0-130		09/27/2020 13:38	WG1550046

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
C10-C28 Diesel Range	U		1.66	4.14	1	09/28/2020 08:08	WG1550232
C28-C40 Oil Range	0.485	J	0.283	4.14	1	09/28/2020 08:08	WG1550232
(S) o-Terphenyl	78.7			18.0-148		09/28/2020 08:08	WG1550232

Collected date/time: 09/17/20 00:00

L1264200

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	97.6		1	09/28/2020 08:54	WG1549371

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	101		9.42	20.5	1	09/25/2020 02:02	WG1548046

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	U		0.581	2.68	25	09/27/2020 14:11	WG1549981
(S) a,a,a-Trifluorotoluene(FID)	101			77.0-120		09/27/2020 14:11	WG1549981

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
Benzene	U		0.000500	0.00107	1	09/27/2020 13:57	WG1550046
Toluene	U		0.00139	0.00535	1	09/27/2020 13:57	WG1550046
Ethylbenzene	U		0.000789	0.00268	1	09/27/2020 13:57	WG1550046
Total Xylenes	U		0.000942	0.00696	1	09/27/2020 13:57	WG1550046
(S) Toluene-d8	97.8			75.0-131		09/27/2020 13:57	WG1550046
(S) 4-Bromofluorobenzene	92.6			67.0-138		09/27/2020 13:57	WG1550046
(S) 1,2-Dichloroethane-d4	94.9			70.0-130		09/27/2020 13:57	WG1550046

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
C10-C28 Diesel Range	U		1.65	4.10	1	09/28/2020 08:22	WG1550232
C28-C40 Oil Range	U		0.281	4.10	1	09/28/2020 08:22	WG1550232
(S) o-Terphenyl	83.1			18.0-148		09/28/2020 08:22	WG1550232

Collected date/time: 09/17/20 00:00

L1264200

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	93.0		1	09/28/2020 08:54	WG1549371

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Chloride	407		9.89	21.5	1	09/25/2020 02:11	WG1548046

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.822	3.79	33.5	09/27/2020 14:33	WG1549981
(S) a,a,a-Trifluorotoluene(FID)	101			77.0-120		09/27/2020 14:33	WG1549981

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Benzene	U		0.000708	0.00152	1.34	09/27/2020 14:16	WG1550046
Toluene	U		0.00197	0.00758	1.34	09/27/2020 14:16	WG1550046
Ethylbenzene	U		0.00112	0.00379	1.34	09/27/2020 14:16	WG1550046
Total Xylenes	U		0.00133	0.00985	1.34	09/27/2020 14:16	WG1550046
(S) Toluene-d8	96.7			75.0-131		09/27/2020 14:16	WG1550046
(S) 4-Bromofluorobenzene	87.9			67.0-138		09/27/2020 14:16	WG1550046
(S) 1,2-Dichloroethane-d4	86.9			70.0-130		09/27/2020 14:16	WG1550046

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		1.73	4.30	1	09/28/2020 08:35	WG1550232
C28-C40 Oil Range	U		0.295	4.30	1	09/28/2020 08:35	WG1550232
(S) o-Terphenyl	75.7			18.0-148		09/28/2020 08:35	WG1550232

Collected date/time: 09/17/20 00:00

L1264200

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	98.1		1	09/28/2020 08:41	WG1549372

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Chloride	27.6		9.38	20.4	1	09/25/2020 02:21	WG1548046

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.564	2.60	25	09/27/2020 14:56	WG1549981
(S) a,a,a-Trifluorotoluene(FID)	101			77.0-120		09/27/2020 14:56	WG1549981

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Benzene	U		0.000485	0.00104	1	09/27/2020 14:35	WG1550046
Toluene	U		0.00135	0.00519	1	09/27/2020 14:35	WG1550046
Ethylbenzene	U		0.000766	0.00260	1	09/27/2020 14:35	WG1550046
Total Xylenes	U		0.000914	0.00675	1	09/27/2020 14:35	WG1550046
(S) Toluene-d8	97.4			75.0-131		09/27/2020 14:35	WG1550046
(S) 4-Bromofluorobenzene	91.6			67.0-138		09/27/2020 14:35	WG1550046
(S) 1,2-Dichloroethane-d4	92.3			70.0-130		09/27/2020 14:35	WG1550046

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	2.00	J	1.64	4.08	1	09/28/2020 08:48	WG1550232
C28-C40 Oil Range	U		0.279	4.08	1	09/28/2020 08:48	WG1550232
(S) o-Terphenyl	78.9			18.0-148		09/28/2020 08:48	WG1550232

Collected date/time: 09/17/20 00:00

L1264200

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	98.3		1	09/28/2020 08:41	WG1549372

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	12.0	J	9.36	20.3	1	09/25/2020 02:49	WG1548046

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	U		0.562	2.59	25	09/27/2020 15:18	WG1549981
(S) a,a,a-Trifluorotoluene(FID)	101			77.0-120		09/27/2020 15:18	WG1549981

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
Benzene	U		0.000484	0.00104	1	09/27/2020 14:54	WG1550046
Toluene	U		0.00135	0.00518	1	09/27/2020 14:54	WG1550046
Ethylbenzene	U		0.000763	0.00259	1	09/27/2020 14:54	WG1550046
Total Xylenes	U		0.000911	0.00673	1	09/27/2020 14:54	WG1550046
(S) Toluene-d8	97.1			75.0-131		09/27/2020 14:54	WG1550046
(S) 4-Bromofluorobenzene	90.8			67.0-138		09/27/2020 14:54	WG1550046
(S) 1,2-Dichloroethane-d4	91.9			70.0-130		09/27/2020 14:54	WG1550046

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
C10-C28 Diesel Range	U		1.64	4.07	1	09/28/2020 09:01	WG1550232
C28-C40 Oil Range	1.50	J	0.279	4.07	1	09/28/2020 09:01	WG1550232
(S) o-Terphenyl	76.5			18.0-148		09/28/2020 09:01	WG1550232

Collected date/time: 09/17/20 00:00

L1264200

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	98.7		1	09/28/2020 08:41	WG1549372

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	17.5	J	9.32	20.3	1	09/25/2020 02:59	WG1548046

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	U		0.558	2.57	25	09/27/2020 15:40	WG1549981
(S) a,a,a-Trifluorotoluene(FID)	99.7			77.0-120		09/27/2020 15:40	WG1549981

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
Benzene	U		0.000480	0.00103	1	09/27/2020 15:13	WG1550046
Toluene	U		0.00134	0.00514	1	09/27/2020 15:13	WG1550046
Ethylbenzene	U		0.000757	0.00257	1	09/27/2020 15:13	WG1550046
Total Xylenes	U		0.000904	0.00668	1	09/27/2020 15:13	WG1550046
(S) Toluene-d8	96.2			75.0-131		09/27/2020 15:13	WG1550046
(S) 4-Bromofluorobenzene	90.1			67.0-138		09/27/2020 15:13	WG1550046
(S) 1,2-Dichloroethane-d4	87.6			70.0-130		09/27/2020 15:13	WG1550046

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
C10-C28 Diesel Range	3.25	J	1.63	4.05	1	09/28/2020 09:14	WG1550232
C28-C40 Oil Range	2.96	J	0.278	4.05	1	09/28/2020 09:14	WG1550232
(S) o-Terphenyl	72.2			18.0-148		09/28/2020 09:14	WG1550232

Collected date/time: 09/17/20 00:00

L1264200

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	98.1		1	09/28/2020 08:41	WG1549372

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Chloride	29.6		9.38	20.4	1	09/25/2020 03:09	WG1548046

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

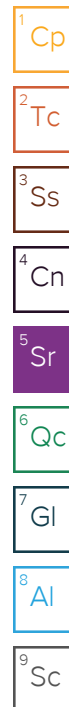
Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.565	2.60	25	09/27/2020 16:03	WG1549981
(S) a,a,a-Trifluorotoluene(FID)	102			77.0-120		09/27/2020 16:03	WG1549981

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Benzene	U		0.000486	0.00104	1	09/27/2020 15:32	WG1550046
Toluene	U		0.00135	0.00520	1	09/27/2020 15:32	WG1550046
Ethylbenzene	U		0.000767	0.00260	1	09/27/2020 15:32	WG1550046
Total Xylenes	U		0.000916	0.00676	1	09/27/2020 15:32	WG1550046
(S) Toluene-d8	98.8			75.0-131		09/27/2020 15:32	WG1550046
(S) 4-Bromofluorobenzene	92.1			67.0-138		09/27/2020 15:32	WG1550046
(S) 1,2-Dichloroethane-d4	89.1			70.0-130		09/27/2020 15:32	WG1550046

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		1.64	4.08	1	09/28/2020 09:27	WG1550232
C28-C40 Oil Range	U		0.279	4.08	1	09/28/2020 09:27	WG1550232
(S) o-Terphenyl	68.0			18.0-148		09/28/2020 09:27	WG1550232



Collected date/time: 09/17/20 00:00

L1264200

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	95.4		1	09/28/2020 08:41	WG1549372

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	814	J5	9.65	21.0	1	09/25/2020 03:18	WG1548046

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	U		0.605	2.79	25	09/27/2020 16:25	WG1549981
(S) a,a,a-Trifluorotoluene(FID)	100			77.0-120		09/27/2020 16:25	WG1549981

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
Benzene	U		0.000521	0.00111	1	09/27/2020 15:51	WG1550046
Toluene	U		0.00145	0.00557	1	09/27/2020 15:51	WG1550046
Ethylbenzene	U		0.000821	0.00279	1	09/27/2020 15:51	WG1550046
Total Xylenes	U		0.000981	0.00724	1	09/27/2020 15:51	WG1550046
(S) Toluene-d8	96.4			75.0-131		09/27/2020 15:51	WG1550046
(S) 4-Bromofluorobenzene	93.0			67.0-138		09/27/2020 15:51	WG1550046
(S) 1,2-Dichloroethane-d4	98.3			70.0-130		09/27/2020 15:51	WG1550046

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
C10-C28 Diesel Range	2.37	J	1.69	4.19	1	09/28/2020 09:53	WG1550232
C28-C40 Oil Range	3.36	J	0.287	4.19	1	09/28/2020 09:53	WG1550232
(S) o-Terphenyl	66.2			18.0-148		09/28/2020 09:53	WG1550232

Collected date/time: 09/17/20 00:00

L1264200

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	94.9		1	09/28/2020 08:41	WG1549372

Wet Chemistry by Method 300.0

Analyte	Result (dry) mg/kg	Qualifier	MDL (dry) mg/kg	RDL (dry) mg/kg	Dilution	Analysis date / time	Batch
Chloride	1200		48.5	105	5	09/25/2020 03:47	WG1548046

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	U		0.606	2.79	25	09/27/2020 16:48	WG1549981
(S) a,a,a-Trifluorotoluene(FID)	101			77.0-120		09/27/2020 16:48	WG1549981

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
Benzene	U		0.000521	0.00112	1	09/27/2020 16:10	WG1550046
Toluene	U		0.00145	0.00558	1	09/27/2020 16:10	WG1550046
Ethylbenzene	U		0.000822	0.00279	1	09/27/2020 16:10	WG1550046
Total Xylenes	U		0.000982	0.00725	1	09/27/2020 16:10	WG1550046
(S) Toluene-d8	95.8			75.0-131		09/27/2020 16:10	WG1550046
(S) 4-Bromofluorobenzene	91.9			67.0-138		09/27/2020 16:10	WG1550046
(S) 1,2-Dichloroethane-d4	98.9			70.0-130		09/27/2020 16:10	WG1550046

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
C10-C28 Diesel Range	2.41	J	1.70	4.22	1	09/28/2020 09:40	WG1550232
C28-C40 Oil Range	0.901	J	0.289	4.22	1	09/28/2020 09:40	WG1550232
(S) o-Terphenyl	71.4			18.0-148		09/28/2020 09:40	WG1550232

Collected date/time: 09/17/20 00:00

L1264200

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	95.6		1	09/28/2020 08:41	WG1549372

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Chloride	53.5		9.62	20.9	1	09/25/2020 03:56	WG1548046

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.596	2.74	25	09/27/2020 17:10	WG1549981
(S) a,a,a-Trifluorotoluene(FID)	101			77.0-120		09/27/2020 17:10	WG1549981

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Benzene	U		0.000512	0.00110	1	09/27/2020 16:29	WG1550046
Toluene	U		0.00143	0.00549	1	09/27/2020 16:29	WG1550046
Ethylbenzene	U		0.000808	0.00274	1	09/27/2020 16:29	WG1550046
Total Xylenes	U		0.000965	0.00713	1	09/27/2020 16:29	WG1550046
(S) Toluene-d8	97.5			75.0-131		09/27/2020 16:29	WG1550046
(S) 4-Bromofluorobenzene	92.3			67.0-138		09/27/2020 16:29	WG1550046
(S) 1,2-Dichloroethane-d4	94.0			70.0-130		09/27/2020 16:29	WG1550046

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	U		1.68	4.18	1	09/28/2020 10:06	WG1550232
C28-C40 Oil Range	U		0.287	4.18	1	09/28/2020 10:06	WG1550232
(S) o-Terphenyl	68.1			18.0-148		09/28/2020 10:06	WG1550232

Collected date/time: 09/17/20 00:00

L1264200

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Total Solids	98.2		1	09/28/2020 08:41	WG1549372

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Chloride	21.3		9.37	20.4	1	09/25/2020 04:06	WG1548046

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
TPH (GC/FID) Low Fraction	U		0.568	2.61	25	09/27/2020 17:33	WG1549981
(S) a,a,a-Trifluorotoluene(FID)	101			77.0-120		09/27/2020 17:33	WG1549981

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
Benzene	U		0.000488	0.00105	1	09/27/2020 13:08	WG1550076
Toluene	U		0.00136	0.00523	1	09/27/2020 13:08	WG1550076
Ethylbenzene	U		0.000771	0.00261	1	09/27/2020 13:08	WG1550076
Total Xylenes	U		0.000920	0.00680	1	09/27/2020 13:08	WG1550076
(S) Toluene-d8	96.8			75.0-131		09/27/2020 13:08	WG1550076
(S) 4-Bromofluorobenzene	109			67.0-138		09/27/2020 13:08	WG1550076
(S) 1,2-Dichloroethane-d4	99.9			70.0-130		09/27/2020 13:08	WG1550076

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis date / time	Batch
C10-C28 Diesel Range	1.82	J	1.64	4.07	1	09/28/2020 10:19	WG1550232
C28-C40 Oil Range	U		0.279	4.07	1	09/28/2020 10:19	WG1550232
(S) o-Terphenyl	75.3			18.0-148		09/28/2020 10:19	WG1550232

Total Solids by Method 2540 G-2011 [L1264200-01,02,03,04,05,06](#)

Method Blank (MB)

(MB) R3575615-1 09/28/20 08:54

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

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

L1264199-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1264199-09 09/28/20 08:54 • (DUP) R3575615-3 09/28/20 08:54

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	<u>DUP Qualifier</u>	DUP RPD Limits
Total Solids	93.7	94.0	1	0.382		10

Laboratory Control Sample (LCS)

(LCS) R3575615-2 09/28/20 08:54

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

Total Solids by Method 2540 G-2011 [L1264200-07,08,09,10,11,12,13,14](#)

Method Blank (MB)

(MB) R3575612-1 09/28/20 08:41

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

L1264200-12 Original Sample (OS) • Duplicate (DUP)

(OS) L1264200-12 09/28/20 08:41 • (DUP) R3575612-3 09/28/20 08:41

	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
Analyte	%	%		%		%
Total Solids	94.9	95.0	1	0.141		10

Laboratory Control Sample (LCS)

(LCS) R3575612-2 09/28/20 08:41

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

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Wet Chemistry by Method 300.0

[L1264200-01,02,03,04,05,06,07,08,09,10,11,12,13,14](#)

Method Blank (MB)

(MB) R3574352-1 09/25/20 00:08

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Chloride	U		9.20	20.0

L1264200-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1264200-01 09/25/20 01:15 • (DUP) R3574352-3 09/25/20 01:24

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	15.4	15.1	1	2.18	<u>J</u>	20

L1264331-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1264331-06 09/25/20 05:22 • (DUP) R3574352-6 09/25/20 05:31

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3574352-2 09/25/20 00:17

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	210	105	90.0-110	

L1264200-11 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1264200-11 09/25/20 03:18 • (MS) R3574352-4 09/25/20 03:28 • (MSD) R3574352-5 09/25/20 03:37

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	524	814	1350	1500	101	131	1	80.0-120	<u>E</u>	<u>E J5</u>	10.9	20

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

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

[L1264200-01,02,03,04,05,06,07,08,09,10,11,12,13,14](#)

Method Blank (MB)

(MB) R3575812-3 09/27/20 10:28

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)	102			77.0-120

Laboratory Control Sample (LCS)

(LCS) R3575812-1 09/27/20 09:21

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.50	100	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			105	77.0-120	

L1264200-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1264200-03 09/27/20 13:26 • (MS) R3575812-4 09/27/20 18:40 • (MSD) R3575812-5 09/27/20 19:02

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	119	U	61.2	54.8	51.4	46.0	25	10.0-151			11.0	28
(S) a,a,a-Trifluorotoluene(FID)					104	103		77.0-120				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Method Blank (MB)

(MB) R3575793-2 09/27/20 09:29

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Ethylbenzene	U		0.000737	0.00250
Toluene	U		0.00130	0.00500
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	98.8			75.0-131
(S) 4-Bromofluorobenzene	91.0			67.0-138
(S) 1,2-Dichloroethane-d4	92.1			70.0-130

Laboratory Control Sample (LCS)

(LCS) R3575793-1 09/27/20 08:32

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.106	84.8	70.0-123	
Ethylbenzene	0.125	0.0997	79.8	74.0-126	
Toluene	0.125	0.0984	78.7	75.0-121	
Xylenes, Total	0.375	0.286	76.3	72.0-127	
(S) Toluene-d8			93.1	75.0-131	
(S) 4-Bromofluorobenzene			92.6	67.0-138	
(S) 1,2-Dichloroethane-d4			98.8	70.0-130	

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

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

L1264200-14

Method Blank (MB)

(MB) R3575692-3 09/27/20 11:50

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Ethylbenzene	U		0.000737	0.00250
Toluene	U		0.00130	0.00500
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	101			75.0-131
(S) 4-Bromofluorobenzene	109			67.0-138
(S) 1,2-Dichloroethane-d4	99.7			70.0-130

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

(LCS) R3575692-1 09/27/20 10:33 • (LCSD) R3575692-2 09/27/20 10:53

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.125	0.119	0.118	95.2	94.4	70.0-123			0.844	20
Ethylbenzene	0.125	0.132	0.127	106	102	74.0-126			3.86	20
Toluene	0.125	0.114	0.113	91.2	90.4	75.0-121			0.881	20
Xylenes, Total	0.375	0.401	0.388	107	103	72.0-127			3.30	20
(S) Toluene-d8				95.3	96.0	75.0-131				
(S) 4-Bromofluorobenzene				111	110	67.0-138				
(S) 1,2-Dichloroethane-d4				104	106	70.0-130				

1Cp

2Tc

3Ss

4Cn

5Sr

6Qc

7Gl

8Al

9Sc

Semi-Volatile Organic Compounds (GC) by Method 8015

L1264200-01,02,03,04,05,06,07,08,09,10,11,12,13,14

Method Blank (MB)

(MB) R3575276-1 09/28/20 06:24

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	U		1.61	4.00
C28-C40 Oil Range	U		0.274	4.00
(S) o-Terphenyl	66.1			18.0-148

Laboratory Control Sample (LCS)

(LCS) R3575276-2 09/28/20 06:37

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	36.8	73.6	50.0-150	
(S) o-Terphenyl			82.3	18.0-148	

L1264200-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1264200-01 09/28/20 06:50 • (MS) R3575276-3 09/28/20 07:03 • (MSD) R3575276-4 09/28/20 07:16

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 %
C10-C28 Diesel Range	49.4	1.93	41.3	40.1	79.6	76.7	1	50.0-150			3.00	20
(S) o-Terphenyl					79.9	78.4		18.0-148				

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

Guide to Reading and Understanding Your Laboratory Report

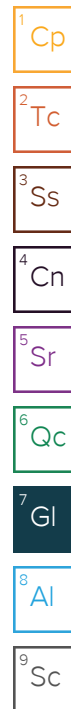
The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

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

Abbreviations and Definitions

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

Qualifier	Description
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.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.



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	LA000356
Kentucky ^{1 6}	90010	South Carolina	84004
Kentucky ²	16	South Dakota	n/a
Louisiana	AI30792	Tennessee ^{1 4}	2006
Louisiana ¹	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

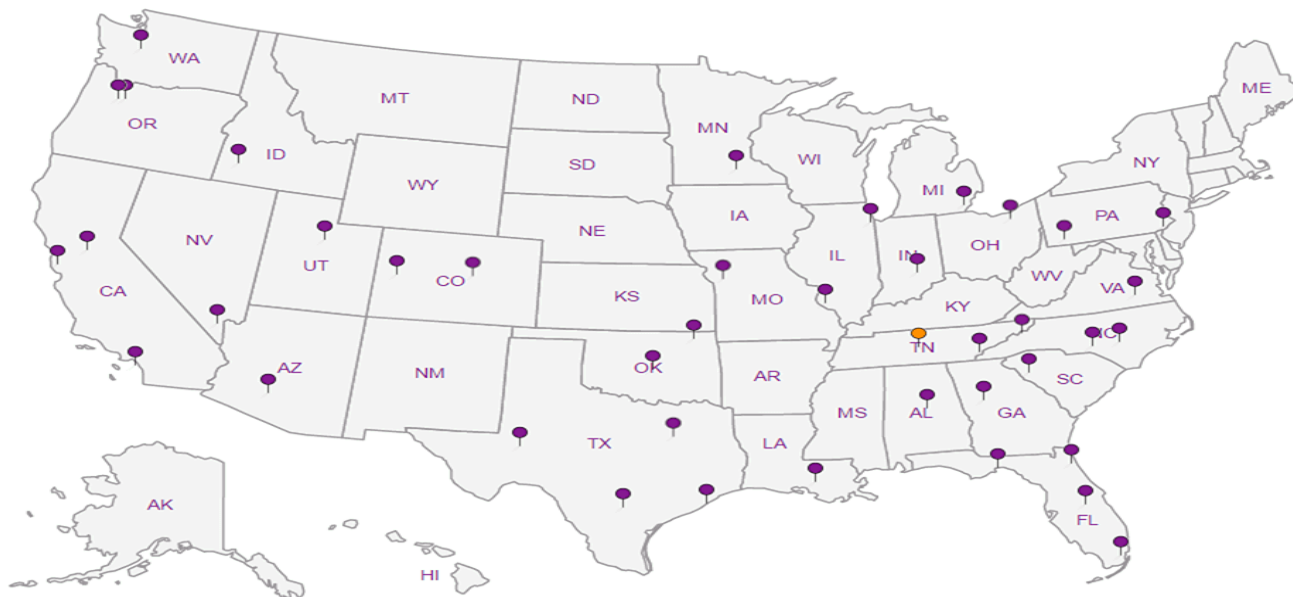
Third Party Federal Accreditations

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

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

Our Locations

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



Analysis Request of Chain of Custody Record

Page : 1 of 2

**Tetra Tech, Inc.**901 West Wall Street, Suite 100
Midland, Texas 79701
Tel (432) 682-4559
Fax (432) 682-3946**J206**

Client Name:	Conoco Phillips	Site Manager:	Christian Llull
Project Name:	Zia Hills 25E Fed Com 401H	Contact Info:	Email: christian.llull@tetrattech.com Phone: (512) 338-1667
Project Location: (county, state)	Lea County, New Mexico	Project #:	212C-MD-02191
Invoice to:	Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 79701		
Receiving Laboratory:	Pace Analytical	Sampler Signature:	John Thurston
Comments: COPTETRA Acctnum			

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD				# CONTAINERS	FILTERED (Y/N)	BTEX 8021B	BTEX 8260B / 624	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Barium 6010B	Potassium 6010B	Sulfate 9056A	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R	HOLD
		YEAR: 2020		WATER	SOIL	HCL	HNO ₃	ICE	NONE																							
		DATE	TIME																													
01	BH-7 (0-1')	9/17/2020		X			X		1	N	X	X	X	X	X											X						
02	BH-7 (2-3')	9/17/2020		X			X		1	N	X	X	X	X	X												X					
03	BH-7 (4-5')	9/17/2020		X			X		1	N	X	X	X	X	X												X					
04	BH-7 (6-7')	9/17/2020		X			X		1	N	X	X	X	X	X												X					
05	BH-7 (9-10')	9/17/2020		X			X		1	N	X	X	X	X	X												X					
06	BH-7 (14-15')	9/17/2020		X			X		1	N	X	X	X	X	X												X					
07	BH-7 (19-20')	9/17/2020		X			X		1	N	X	X	X	X	X												X					
08	BH-8 (0-1')	9/17/2020		X			X		1	N	X	X	X	X	X												X					
09	BH-8 (2-3')	9/17/2020		X			X		1	N	X	X	X	X	X												X					
10	BH-8 (4-5')	9/17/2020		X			X		1	N	X	X	X	X	X												X					

Relinquished by:	Date: 9/18/20	Time: 1500	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date: 09/19/2020	Time: 09:00

LAB USE ONLY	REMARKS:
	☒ Standard
Sample Temperature	☐ RUSH: Same Day 24 hr. 48 hr. 72 hr.
	☐ Rush Charges Authorized
	☐ Special Report Limits or TRRP Report

Sample Receipt Checklist

COC Seal Present/Intact: Y N If Applicable
 COC Signed/Accurate: Y N VOA Zero Headspace: Y N
 Bottles arrive intact: Y N Pres. Correct/Check: Y N
 Correct bottles used: Y N

Released to Imaging: 9/14/2022 9:25:03 AM

ORIGINAL COPY

8131 0130 7195

(Circle) HAND DELIVERED FEDEX UPS Tracking #:

0.8+1=0.9 NO AS

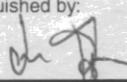
RAD SCREEN: <0.5 mR/hr

Analysis Request of Chain of Custody Record

Page : 2 of 2

 <b style="font-size: 24pt;">Tetra Tech, Inc.				901 West Wall Street, Suite 100 Midland, Texas 79701 Tel (432) 682-4559 Fax (432) 682-3946			
Client Name: Conoco Phillips				Site Manager: Christian Llull			
Project Name: Zia Hills 25E Fed Com 401H				Contact Info: Email: christian.llull@tetrattech.com Phone: (512) 338-1667			
Project Location: Lea County, New Mexico				Project #: 212C-MD-02191			
Invoice to: Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 79701							
Receiving Laboratory: Pace Analytical				Sampler Signature: John Thurston			
Comments: COPTETRA Acctnum							

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING		MATRIX		PRESERVATIVE METHOD				# CONTAINERS	FILTERED (Y/N)	ANALYSIS REQUEST (Circle or Specify Method No.)																							
		YEAR: 2020		WATER	SOIL	HCL	HNO ₃	ICE	NONE			BTEX 8021B	BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Barium 6010B	Potassium 6010B	Sulfate 9056A	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R	HOLD			
		DATE	TIME																																
11	BH-8 (6-7')	9/17/2020			X			X		1	N	X	X	X	X	X												X							
12	BH-8 (9-10')	9/17/2020			X			X		1	N	X	X	X	X	X												X							
13	BH-8 (14-15')	9/17/2020			X			X		1	N	X	X	X	X	X											X								
14	BH-8 (19-20')	9/17/2020			X			X		1	N	X	X	X	X	X											X								

Relinquished by: 	Date: 9/18/20	Time: 1500	Received by: 	Date: 09/19/2020	Time: 09:00	LAB USE ONLY Sample Temperature _____ ☒ Standard ☐ RUSH: Same Day 24 hr. 48 hr. 72 hr. ☐ Rush Charges Authorized ☐ Special Report Limits or TRRP Report
Relinquished by:	Date:	Time:	Received by:	Date:	Time:	
Relinquished by:	Date:	Time:	Received by:	Date:	Time:	

ORIGINAL COPY

8131 0130 7195

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

D.B +.1 = D.9

RAD SCREEN: <0.5 mR/hr

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 36215

CONDITIONS

Operator: CONOCOPHILLIPS COMPANY 600 W. Illinois Avenue Midland, TX 79701	OGRID: 217817
	Action Number: 36215
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
bhall	None	9/14/2022