SITE INFORMATION

Report Type: Work Plan 1RP-1500

General Site Information:						
Site:	**EVGSAU 2230-002 Wellhead Release**					
Company:	**ConocoPhillips**					
Section, Township and Range	**Unit Letter N**	**Sec. 22**	**T 17S**	**R 35E**		
Lease Number:	**N/A**					
County:	**Lea**					
GPS:	**32.814051°**			**-103.446575°**		
Surface Owner:	**State of New Mexico**					
Mineral Owner:	**N/A**					
Directions:	Depart from Buckeye, NM (NM 238/Buckeye Rd): Head east on Buckeye Rd for 4 miles. Turn left onto dirt road. Head north for 1 mile. Turn left onto dirt road. Head west for 0.6 miles. Destination is on the right.					

Release Data:		
Date Released:	7/23/2007	
Type Release:	Crude Oil and Produced Water	
Source of Contamination:	Wellhead Release	
Fluid Released:	1 bbls crude oil, 17 bbls produced water	
Fluids Recovered:	0.5 bbls crude oil, 2.5 bbls produced water	

Official Communication:			
Name:	Marvin Soriwei		Christian M. Llull
Company:	Conoco Phillips - RMR		Tetra Tech
Address:	935 N. Eldridge Pkwy.		8911 North Capital of Texas Highway
	832-486-2730		Building 2, Suite 2310
City:	Houston, Texas 77079		Austin, Texas
Phone number:	(832) 486-2730		(512) 338-2861
Fax:			
Email:	Marvin.Soriwei@conocophillips.com		christian.llull@tetratech.com

Site Characterization	
Shallowest Depth to Groundwater:	*50' below surface*
Impact to groundwater or surface water:	*No*
Extents within 300 feet of a watercourse:	*No*
Extents within 200 feet of lakebed, sinkhole, or playa lake:	*Yes*
Extents within 300 feet of an occupied structure:	*No*
Extents within 500 horizontal feet of a private water well:	*No*
Extents within 1000 feet of any water well or spring:	*No*
Extents within incorporated municipal well field:	*No*
Extents within 300 feet of a wetland:	*No*
Extents overlying a subsurface mine:	*No*
Karst Potential:	*Low*
Extents within a 100-year floodplain:	*No*
Impact to areas not on a production site:	*No*

Recommended Remedial Action Levels (RRALs)				
Benzene	***Total BTEX***	***TPH (GRO+DRO)***	***TPH (GRO+DRO+MRO)***	***Chlorides***
10 mg/kg	*50 mg/kg*	*-*	*100 mg/kg*	*600 mg/kg*

TETRA TECH

November 3, 2020

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

Re: Release Characterization and Remediation Work Plan
ConocoPhillips
EVGSAU 2230-002 Wellhead Release
Unit Letter N, Section 22, Township 17 South, Range 35 East
Lea County, New Mexico
1RP-1500

Sir or Madam:

Tetra Tech, Inc. (Tetra Tech) was contacted by ConocoPhillips (COP) to assess a release that occurred at the East Vacuum Grayburg-San Andres Unit (EVGSAU) 2230-002 well (API No. 30-025-02854), located in the Public Land Survey System (PLSS) Unit Letter N, Section 22, Township 17 South, Range 35 East, in Lea County, New Mexico (Site). The Site is located at coordinates 32.814051°, -103.446575°, as shown on Figures 1 and 2.

BACKGROUND

According to the State of New Mexico C-141 Initial Report (Appendix A), the release was discovered on July 23, 2007. According to the C-141, a Multi-Skilled Operator (MSO) discovered a spill caused by a broken ½" nipple to the pressure switch on the EVGSAU 2230-002 wellhead (API No. 30-025-02854). The release consisted of 1 barrel (bbl) of crude oil and 17 bbls of produced water. The New Mexico Oil Conservation District (NMOCD) was notified the same day, and the site was subsequently assigned the Remediation Permit (RP) number 1RP-1500. The release area reported on the C-141 is an 84 foot (ft) by 99 ft area of well pad and pasture. A total of 0.5 bbls of oil and 2.5 bbls of produced water were recovered during the immediate response actions. As noted in the C-141 the onsite MSO that discovered the spill shut in the well, called a vacuum truck to pick up the free liquids, replaced the broken nipple, and put the well back into production.

SITE CHARACTERIZATION

A site characterization was performed and no watercourses, lakebeds, sinkholes, residences, schools, hospitals, institutions, churches, springs, private domestic water wells, springs, wetlands, incorporated municipal boundaries, subsurface mines, or floodplains are located within the specified distances. The site is in an area with low karst potential. However, the Site is located within approximately 150 ft of a playa lake.

According to the New Mexico Office of the State Engineers (NMOSE) reporting system, there are no water wells within an 800-meter radius, however there are two (2) water wells within 1000-meter radius of the Site. The average depth to groundwater is 55 ft below ground surface (bgs). The site characterization data is included in Appendix B.

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's proximity to a playa lake, the RRALs for the Site are as follows:

CONSTITUENT	RRAL
Chloride	600 mg/kg
TPH (GRO+DRO+MRO)	100 mg/kg
BTEX	50 mg/kg
Benzene	10 mg/kg

INITIAL FIELD SCREENING

A cursory review of available aerial imagery was conducted for the Site, given the historical nature of the release. A low-lying, approximately 1,750 square-foot area south of the well pad was excavated at some point between the date of the release and August 2009, when it appeared in available aerial imagery.

Tetra Tech, Inc. (Tetra Tech) personnel visited the Site on January 3, 2020 to visually evaluate the release extent and conduct field screening of the surface soil (Figure 3) near the wellhead (release point). At the time of the site visit, the pumping unit had been removed from the well and the well was noted as plugged in the NMOCD imaging database (online records indicate the well has been plugged since 2015). The general topographical sheet flow near the wellhead was noted to the south-southeast. Thus, areas fanning out from the wellhead were in this general direction were primarily investigated. The low-lying oval-shaped excavated area to the south of the well pad that was initially identified in aerial images was confirmed in the field.

During the Site visit, surface soils in and around the release area were field screened for salinity parts per million (ppm) using an ExStik II EC 400 meter. Several locations east of the well pad were chosen for surface soil screening (based on the topography) to attempt to horizontally delineate chloride impact and to authenticate the historical release extent. The results of the surface screening identified several areas with elevated salinity values, predominantly near the northeastern side of the pad. Field screening results from three locations exhibited values interpreted to exceed the recommended remedial action levels (RRAL) for chlorides of 600 mg/kg. S-4 (approximately 56 feet from the wellhead) had a screening value of 8,720 ppm for salinity, S-8 (approximately 37 feet from the wellhead) had a screening value of 2,040 ppm for salinity, and S-9 (approximately 20 feet from the wellhead) had a screening value of 3,020 ppm for salinity.

Horizontal delineation was substantiated at screening location S-7 (approximately 70 feet from the wellhead) with a screening value of 74.1 ppm, in conjunction with the additional screenings of S-5 to the north and S-6 and S-3 to the south that provided results inferred as below the RRAL for chlorides. Additionally, field screening was conducted at "sidewall" locations within the low-lying oval-shaped area at S-1 with a screening value of 93.3 ppm and at S-2 with 53.4 ppm. The field surface screening results are shown in Table 1. Surface soil field screening locations are indicated in Figure 3.

SITE ASSESSMENT

Tetra Tech returned to the Site to conduct soil sampling on May 5, 2020 on behalf of COP. A total of seven (7) borings (BH-1 through BH-7) were installed using an air rotary drilling rig. Three borings, BH-1 through BH-3, were installed within the release extent at depths ranging from 10 ft bgs (BH-3) to 20 ft bgs (BH-2) to achieve vertical delineation of impact. One boring, BH-4, was installed within the excavated area on the southern edge of the release extent. The remaining three borings (BH-5 through BH-7) were installed along

the perimeter of the release extent in an attempt to achieve horizontal delineation. Boring logs from the May 2020 assessment activities are included in Appendix C.

A total of thirty-seven (37) samples were collected from the seven borings and submitted to Pace Analytical National Center for Testing & Innovation in Nashville, Tennessee (Pace) to be 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. Sample locations are shown in Figure 3.

INITIAL SUMMARY OF ANALYTICAL RESULTS

Results from the May 2020 soil sampling event are summarized in Table 2. Analytical results associated with BH-2, the boring located closest to the source of the release, exceeded the RRAL for chloride down to 20 ft bgs. Additionally, analytical results associated with BH-2 exceeded the Site RRAL for TPH (100 mg/kg) down to 10 ft bgs. Analytical results associated with BH-1 exceeded the RRAL for chloride down to 5 ft bgs. To the south, analytical results associated with BH-3 and BH-4 exceeded the Site RRAL for TPH (100 mg/kg) down to 10 ft bgs and down to 1-foot bgs, respectively. On the eastern and western edges of the release, samples at boring locations BH-5 and BH-7 exceeded the Site RRAL for TPH (100 mg/kg) in the upper 3 feet. These locations are assumed to have been a portion of the initial release extent footprint. The release was horizontally delineated to the north with no exceedances of Site RRALs in boring BH-6. There were no analytical results above the Site RRAL for BTEX (50 mg/kg) in any of the analyzed samples. All other analytical results were below Site RRALs.

ADDITIONAL DELINEATION

Due to the analytical results exceeding RRALs at boring locations BH-5, BH-7 and BH-4, Tetra Tech personnel returned to the Site in July 2020 to complete horizontal delineation of the release extent. Three (3) additional hand auger borings were completed to 2 ft bgs (BH-8a and BH-8b to the east, and BH-9a to the west). A total of six (6) samples were submitted to Pace and again 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. Sample locations are shown in Figure 3.

Analytical results associated with the 1'-2' sample interval from the BH-9a boring location (597.4 mg/kg) were above the Site RRAL for TPH (100 mg/kg). All other analytical results from the July 2020 soil sampling event were below Site RRALs. Given the Site topography, and the fact that analytical results in the surface sample (0-1') interval from BH-9a was below the RRAL (68.8 mg/kg), the elevated TPH results in the 1'-2' sample interval from BH-9a are interpreted as unrelated to the July 2007 wellhead release.

Nonetheless, to complete and confirm delineation in the cardinal directions, Tetra Tech personnel again returned to the Site on September 2020 to install five (5) additional hand auger borings to 1 ft bgs (BH-10 and BH-11 to the southeast, BH-12 to the south, BH-13 to the southwest and BH-14 to the west of the BH-9a location). A total of five (5) samples were submitted to Pace and again 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. Sample locations are shown in Figure 3.

SUMMARY OF ANALYTICAL RESULTS FROM ADDITIONAL DELINEATION

Results from the May, July and September 2020 sampling events are summarized in Table 2. All results were below Site RRALs, with one exception. Analytical results associated with the surface sample (0-1') from boring location BH-10 was above the Site RRAL for TPH (100 mg/kg). The release footprint was extended to the BH-10 to reflect this finding. BH-11 provides a horizontal boundary point for the results from BH-10.

Soil borings BH-1 and BH-2 vertically delineate soil impacts within the footprint of the release area. Soil borings BH-6, BH-8b, BH-11, BH-12 BH-13, and BH-14 successfully delineated horizontal impacts to the

cardinal directions. Therefore, the release is fully delineated following the 2020 sampling activities. Photographic documentation of the Site assessments is included as Appendix E.

REMEDIATION WORK PLAN

Based on the analytical results, ConocoPhillips proposes to remove the impacted material as shown in Figure 4. Impacted soils around BH-2, the boring located closest to the source of the release, will be excavated using heavy equipment (backhoes, hoe rams, and track hoes) to a maximum depth of 10 ft bgs. The impacted soil in the vicinity of boring locations BH-7 and BH-5 (west and east of the source of the release) will be excavated to a depth of 3 ft bgs and will be extended vertically (southeast) around BH-10 which will be excavated to a depth of 2 ft bgs. To the north of the source of the release, the area around BH-1 will be excavated to a depth of 5 ft bgs. To the south of the release source, the area around BH-3 will be excavated at a depth of 1-foot bgs. Due to the analytical results in the existing excavated area, COP proposed to excavate the area around BH-4 an additional foot to a total depth of 2 ft bgs. Excavation will continue until a representative sample from the walls and bottom of the excavation is below the RRALs to a maximum depth of 2 ft bgs.

Excavated soils will be transported offsite and disposed of an NMOCD approved or permitted facility. Confirmation bottom and sidewall samples will be collected for verification of remedial activities, and analyzed for TPH, BTEX, and chlorides. Once results are received, NMOCD will be notified and the excavation will then be backfilled with clean material to surface grade. The estimated volume of material to be remediated is 1,175 cubic yards.

VARIANCE REQUEST

In accordance with 19.15.29.14(A) NMAC, ConocoPhillips requests a variance for the remediation of the historical release area should excavation floor concentrations below 10 ft bgs exceed 600 mg/kg for chlorides or 100 mg/kg for TPH. A 20-mil reinforced polyethylene liner will be installed and properly seated at a depth of 10 ft within the excavated areas associated with the historical impacts. The liner will provide an engineered barrier that will inhibit the downward migration of residual constituents to groundwater.

In accordance with 19.15.29.14(A) NMAC, ConocoPhillips requests a variance to leave remaining constituents in place in the vicinity of BH-9a. The 1RP-1500 release extent was delineated horizontally and vertically, as detailed above. Remaining constituent concentrations found in the subsurface at BH-9a are believed unrelated to the 1RP-1500 extent and do not cause an imminent risk to human health, the environment, or groundwater. This area has been previously reclaimed and it is better for the established uniform vegetative cover at the ground surface in that area to remain undisturbed.

ALTERNATIVE CONFIRMATION SAMPLING PLAN

In accordance with 19.15.29.12(D)(1)(b) NMAC, ConocoPhillips proposes the following alternative confirmation sampling plan to adhere with NMOCD requirements. The proposed confirmation sample locations are depicted in Figure 5. Thirteen (13) confirmation floor samples and thirty-six (36) confirmation sidewall samples are proposed for verification of remedial activities. The proposed excavation encompasses an area of approximately 8,954 square feet.

These confirmation sidewall and floor samples will be representative of no more than approximately 500 square feet of excavated area. Confirmation samples will be sent to Pace Laboratories for analysis of TPH (Method 8015 modified), BTEX (Method 8260B), and chlorides (USEPA Method 300.0). Once results are received, NMOCD will be notified and the excavation will then be backfilled with clean material to surface grade.

SITE RECLAMATION AND RESTORATION PLAN

Excavated soils will be transported offsite and disposed of an NMOCD approved or permitted facility and the excavation will be backfilled with clean material to surface grade. As the well is plugged, the caliche pad area will be reclaimed along with any areas disturbed by the remediation. The backfilled areas will be

seeded in the first favorable growing season post-remediation to aid in revegetation. Based on the soils at the site, the New Mexico State Land Office (NMSLO) Coarse (CS) Sites Seed Mixture will be used for seeding and will be planted in the amount specified in the pounds pure live seed (PLS) per acre. The seed mixture will be spread by a drill equipped with a depth regulator or a hand-held broadcaster and raked. If a hand-held broadcaster is used for dispersal, the pounds pure live seed per acre will be doubled.

Site inspections will be performed to assess the revegetation progress and evaluate the site for the presence of primary or secondary noxious weeds. If noxious weeds are identified, the NMSLO will be contacted to determine an effective method for eradication. If the site does not show revegetation after one growing season, the area will be reseeded as appropriate. The NMSLO seed mixture details and corresponding pounds pure live seed per acre are included in Appendix E.

CONCLUSION

ConocoPhillips proposes to begin remediation activities at the Site within one hundred and twenty (120) days of NMOCD approval of this work plan. Upon completion of the proposed work, a final closure report detailing the remediation activities and the results of the confirmation sampling will be submitted to NMOCD.

If you have any questions concerning the soil assessment or the proposed remediation activities for the Site, please call me at (512) 338-2861 or Greg at (432) 682-4559.

Sincerely,
Tetra Tech, Inc.

Christian M. Llull, P.G.
Project Manager

Greg W. Pope, P.G.
Program Manager

cc:
Mr. Marvin Soriwei, RMR – ConocoPhillips
Mr. Charles Beauvais, GPBU – ConocoPhillips

LIST OF ATTACHMENTS

Figures:

Figure 1 – Overview Map
Figure 2 – Site Location/Topographic Map
Figure 3 – Release Assessment Map
Figure 4 – Proposed Remediation Extents
Figure 5 – Alternative Confirmation Sampling Plan

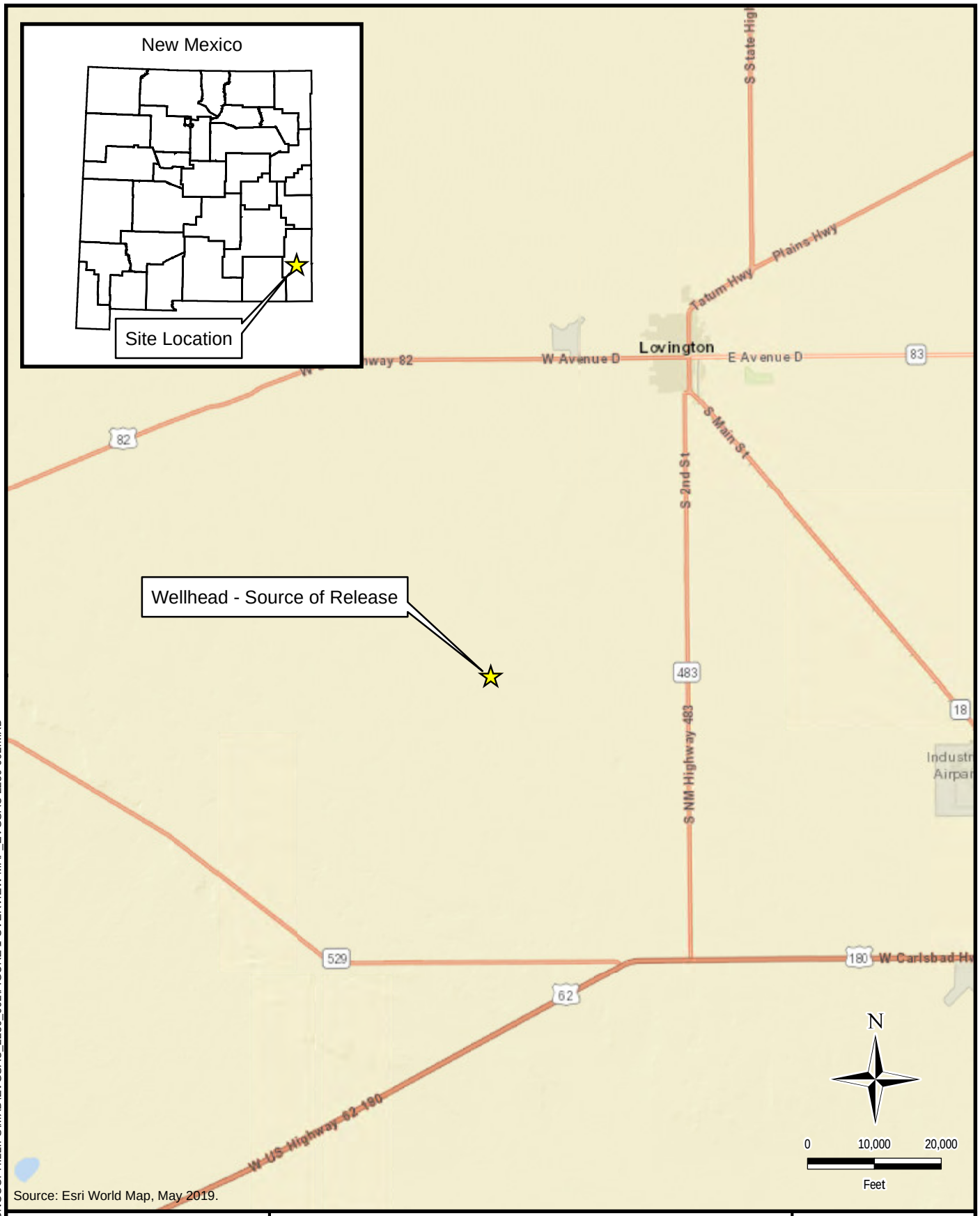
Tables:

Table 1 – Summary of Field Screening Results
Table 2 – Summary of Analytical Results – Soil Assessment

Appendices:

Appendix A – C-141 Forms
Appendix B – Site Characterization Data
Appendix C – Boring Logs
Appendix D – Laboratory Analytical Data
Appendix E – Photographic Documentation
Appendix F – NMSLO Seed Mixture Details

FIGURES



Source: Esri World Map, May 2019.

DOCUMENT PATH: D:\CONOCOPHILLIPS\MXD\EVGSAU_2230_002\FIGURE 1 OVERVIEW MAP_EVGSAU 2230-002.MXD

TETRA TECH
www.tetratech.com
901 West Wall Street, Suite 100
Midland, Texas 79701
Phone: (432) 682-4559
Fax: (432) 682-3946

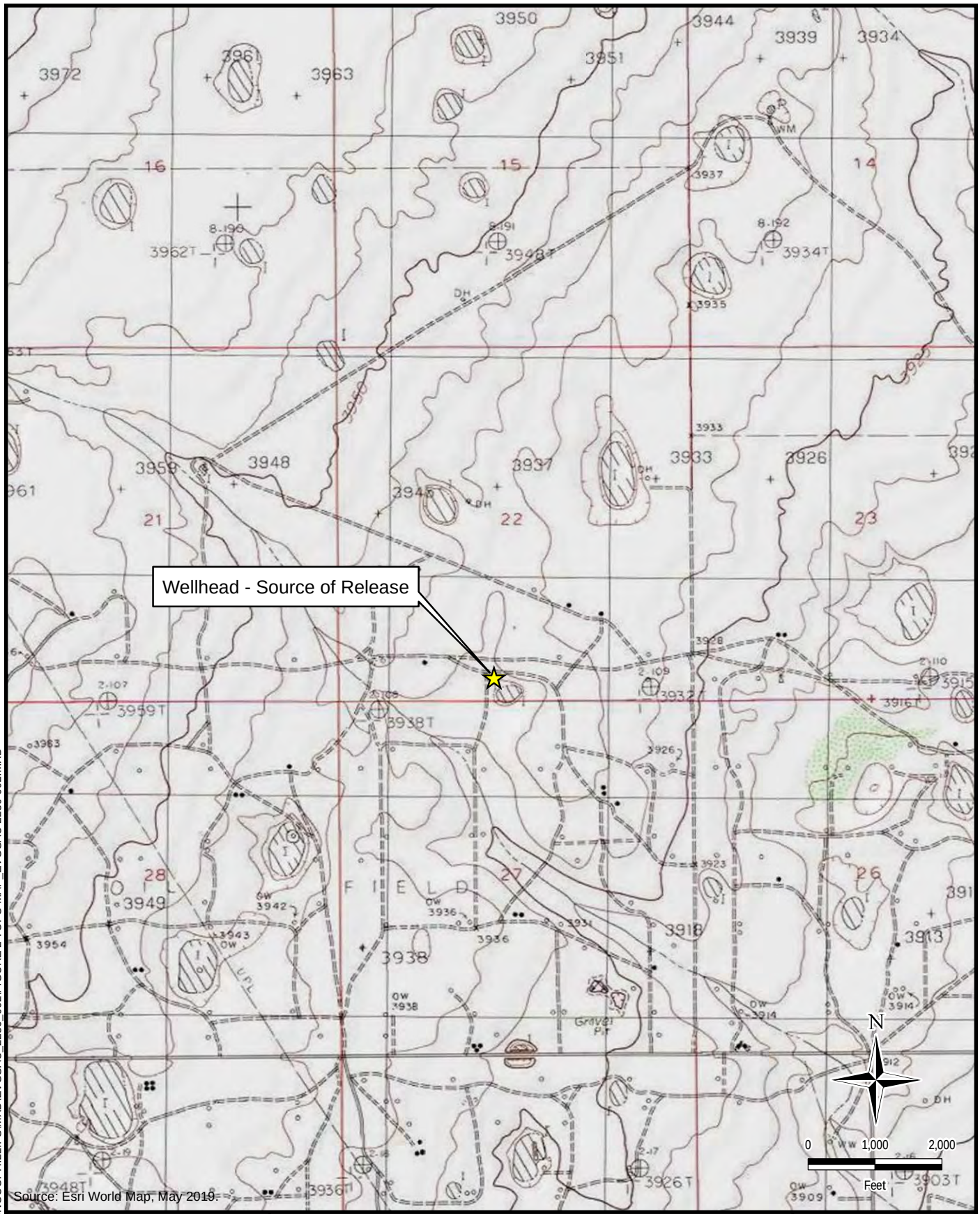
CONOCOPHILLIPS

1RP-1500
(32.814051°, -103.446575°)
LEA COUNTY, NEW MEXICO

EVGSAU 2230-002 WELLHEAD RELEASE
SITE LOCATION MAP

PROJECT NO.:	212C-MD-02164
DATE:	SEPTEMBER 16, 2020
DESIGNED BY:	AAM

Figure No.
1



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TETRA TECH
www.tetratech.com
901 West Wall Street, Suite 100
Midland, Texas 79701
Phone: (432) 682-4559
Fax: (432) 682-3946

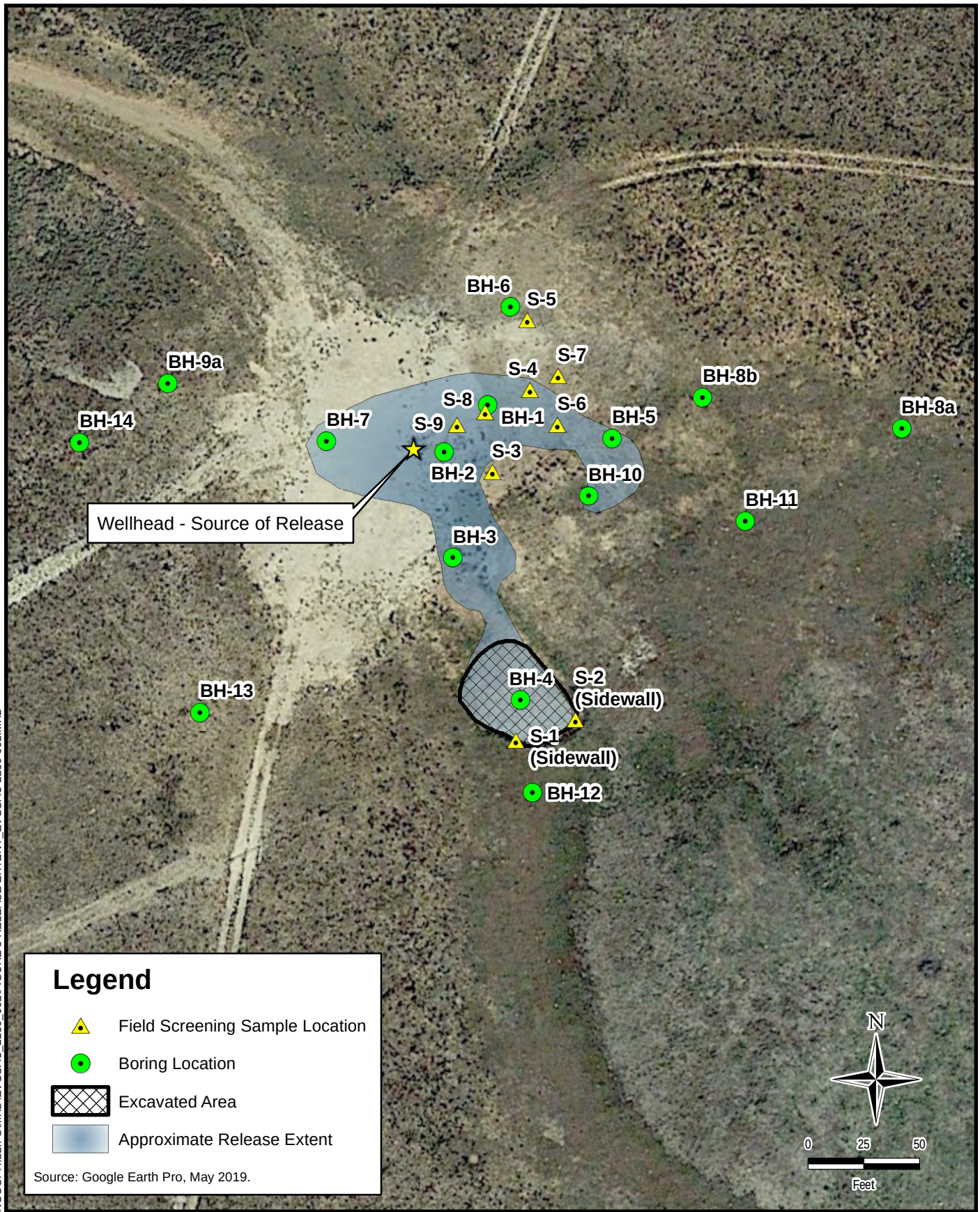
CONOCOPHILLIPS

1RP-1500
(32.814051°, -103.446575°)
LEA COUNTY, NEW MEXICO

EVGSAU 2230-002 WELLHEAD RELEASE
TOPOGRAPHIC MAP

PROJECT NO.:	212C-MD-02164
DATE:	SEPTEMBER 16, 2020
DESIGNED BY:	AAM

Figure No.
2



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TETRA TECH
www.tetratech.com
901 West Wall Street, Suite 100
Midland, Texas 79701
Phone: (432) 682-4559
Fax: (432) 682-3946

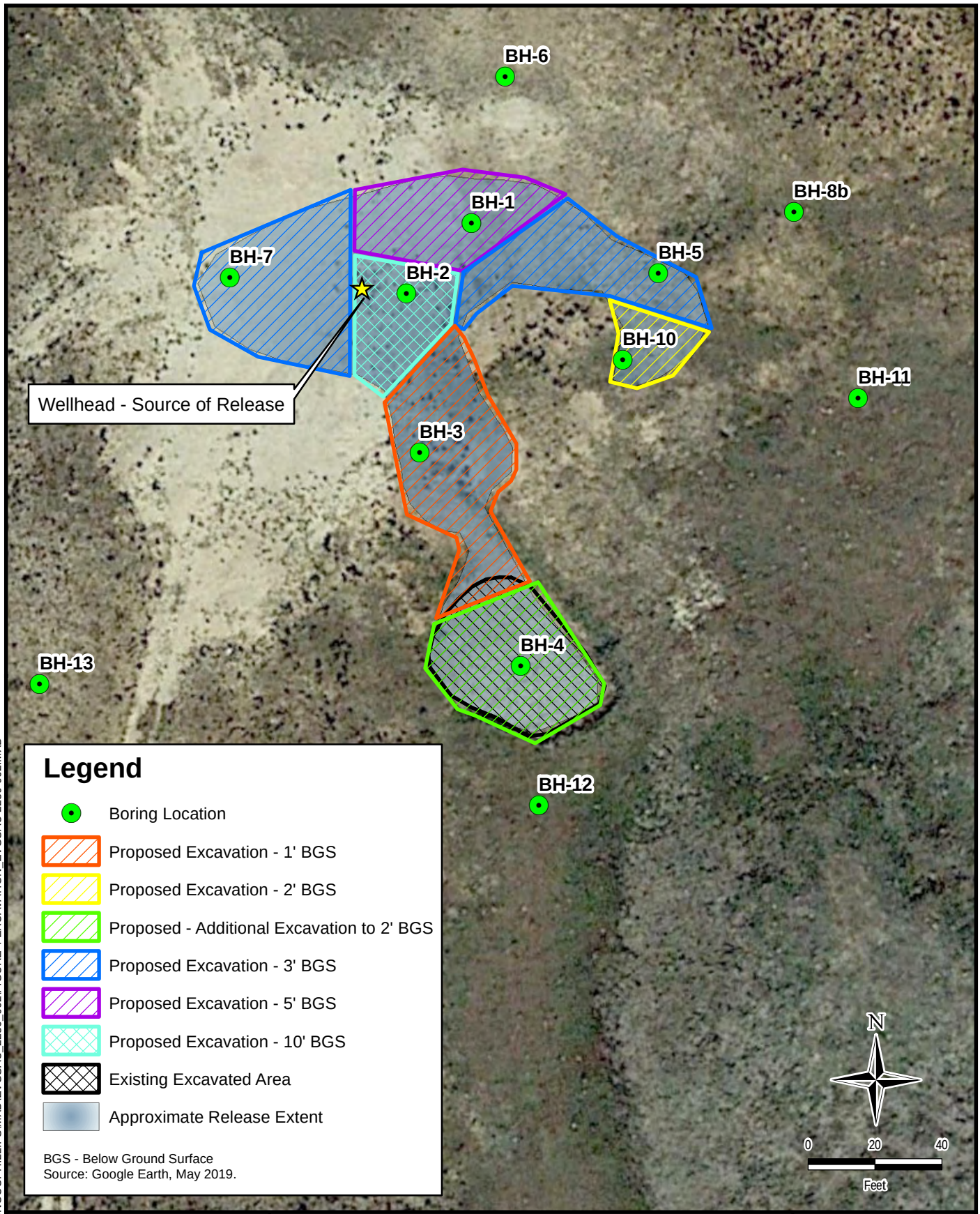
CONOCOPHILLIPS

1RP-1500
(32.814051°, -103.446575°)
LEA COUNTY, NEW MEXICO

EVGSAU 2230-002 WELLHEAD RELEASE
RELEASE ASSESSMENT MAP

PROJECT NO.:	212C-MD-02164
DATE:	SEPTEMBER 17, 2020
DESIGNED BY:	AAM

Figure No.
3



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TETRA TECH
www.tetratech.com
901 West Wall Street, Suite 100
Midland, Texas 79701
Phone: (432) 682-4559
Fax: (432) 682-3946

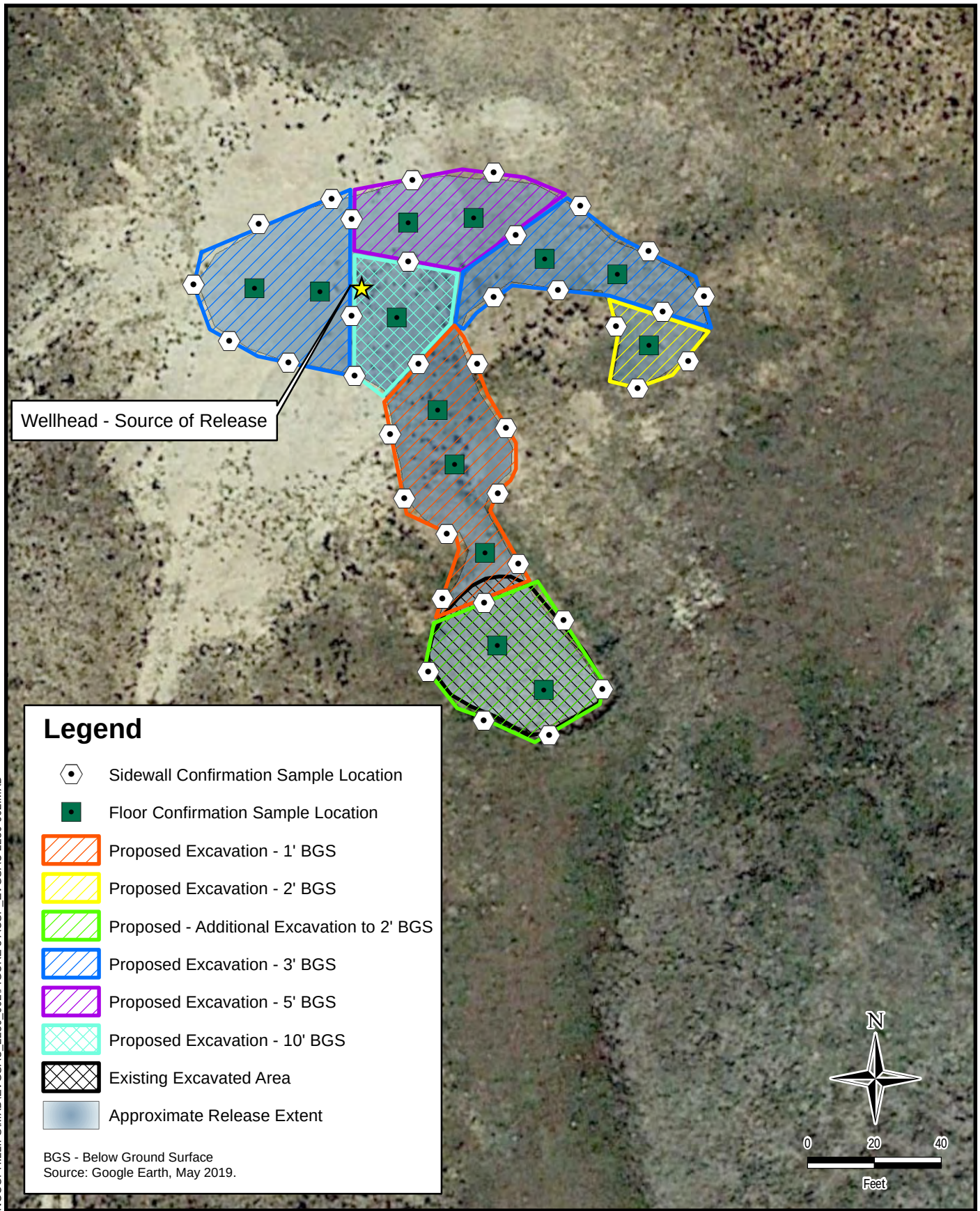
CONOCOPHILLIPS

1RP-1500
(32.814051°, -103.446575°)
LEA COUNTY, NEW MEXICO

EVGSAU 2230-002 WELLHEAD RELEASE
PROPOSED REMEDIATION EXTENTS

PROJECT NO.:	212C-MD-02164
DATE:	SEPTEMBER 16, 2020
DESIGNED BY:	AAM

Figure No.
4



DOCUMENT PATH: D:\CONOCOPHILLIPS\MXD\EVGSAU_2230_002\FIGURE 5 ACSP_EVGSAU 2230-002.MXD

TETRA TECH
www.tetratech.com
901 West Wall Street, Suite 100
Midland, Texas 79701
Phone: (432) 682-4559
Fax: (432) 682-3946

CONOCOPHILLIPS

1RP-1500
(32.814051°, -103.446575°)
LEA COUNTY, NEW MEXICO

EVGSAU 2230-002 WELLHEAD RELEASE
ALTERNATIVE CONFIRMATION SAMPLING PLAN

PROJECT NO.:	212C-MD-02164
DATE:	SEPTEMBER 16, 2020
DESIGNED BY:	AAM

Figure No.
5

TABLES

TABLE 1
SUMMARY OF FIELD SCREENING RESULTS
EVGSAU 2230-002 WELLHEAD RELEASE
LEA COUNTY, NM
1RP-1500

Sample ID*	Sample Date	Chloride[1]
		ppm
S-1 (sidewall)	01/03/20	53.4
S-2 (sidewall)	01/03/20	93.3
S-3	01/03/20	254
S-4	01/03/20	***8,720***
S-5	01/03/20	242
S-6	01/03/20	69.2
S-7	01/03/20	74.1
S-8	01/03/20	***2,040***
S-9	01/03/20	***3,020***

NOTES:

* Surface samples, unless otherwise indicated as sidewall samples.

ppm Parts per million

1 ExStik Salinity Measurement

Bold and italicized values indicate values inferred to equal an exceedance of the RRAL for chloride (600 mg/kg).

TABLE 2
SUMMARY OF ANALYTICAL RESULTS
SOIL ASSESSMENT
CONOCOPHILLIPS
EVGSAU 2230-002 WELLHEAD RELEASE
1RP-1500
LEA COUNTY, NM

Sample ID	Sample Date	Sample Depth Interval	Field Screening Results		Chloride[1]		BTEX[2]										TPH[3]									
							Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTEX		GRO[4] C_3 - C_{10}		DRO C_{10} - C_{28}		ORO C_{28} - C_{40}		Total TPH (GRO+DRO+ORO)			
			Chloride	PID																						
		ft. bgs	ppm		mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg		mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg			
BH-1	5/5/2020	0-1	896	9.4	***672***		0.00168		< 0.00543		0.000977	J	0.00190	J	0.00456		0.0295	B J	24.1		23.7		47.8			
		2-3	-	8.9	***1150***		< 0.00113		< 0.00564		< 0.00282		< 0.00733		-		< 0.113		< 4.51		1.99	J	1.99			
		4-5	1040	-	***1540***		< 0.00113		< 0.00566		< 0.00283		< 0.00736		-		< 0.113		< 4.53		< 4.53		-			
		6-7	-	-	357		0.000509	J	< 0.00509		< 0.00255		< 0.00662		0.000509		< 0.102		< 4.07		< 4.07		-			
		9-10	374	11.2	509		< 0.00103		< 0.00513		< 0.00256		< 0.00666		-		< 0.103		< 4.10		< 4.10		-			
		14-15	-	-	447		< 0.00105		< 0.00525		< 0.00262		0.00129	J	0.00129		0.0274	B J	< 4.20		1.06	J	1.09			
BH-2	5/5/2020	0-1	-	9.8	517		< 0.00104		< 0.00521		< 0.00260		< 0.00677		-		0.0229	B J	189		428		***617***			
		2-3	-	15.1	***949***		< 0.00109		0.00197	J	< 0.00273		0.00104	J	0.00301		0.0261	B J	668		1610		***2278***			
		4-5	-	12.5	***901***		< 0.00110		0.00157	J	0.000931	J	< 0.00712		0.00250		0.0366	B J	2720		5340		***8060***			
		6-7	-	76.7	587		< 0.00108		< 0.00538		0.00129	J	0.00275	J	0.00404		0.561	V3	1000		1780		***2781***			
		9-10	886	5.8	***849***		< 0.00104		< 0.00522		< 0.00261		< 0.00679		-		0.0374	B J	2630		4500		***7130***			
		14-15	720	4.1	--		--		--		--		--		-		--		--		--		-			
		19-20	421	7.2	***624***		< 0.00104		< 0.00522		< 0.00261		< 0.00679		-		< 0.104		80.4		162		242			
BH-3	5/5/2020	0-1	-	-	< 20.7		< 0.00103		< 0.00517		< 0.00258		< 0.00672		-		< 0.103		61.3		256		***317***			
		2-3	-	-	< 20.8		< 0.00104		< 0.00521		< 0.00260		< 0.00677		-		< 0.104		2.95	J	9.94		12.9			
		4-5	4.3	-	14.6	J	< 0.00109		< 0.00544		< 0.00272		< 0.00707		-		< 0.109		< 4.35		0.859	J	0.859			
		6-7	-	-	< 22.1		< 0.00110		< 0.00552		< 0.00276		< 0.00718		-		< 0.110		< 4.42		3.37	J	3.37			
		9-10	3.8	142	< 10.2		< 0.00111		< 0.00553		< 0.00276		< 0.00719		-		< 0.111		< 4.42		0.623	J	0.623			
BH-4	5/5/2020	0-1	167	8.1	11.0	J	< 0.00107		< 0.00536		< 0.00268		< 0.00697		-		< 0.107		25.1		78.4		***104***			
		2-3	189	13.6	10.8	J	< 0.00109		< 0.00547		< 0.00273		< 0.00711		-		< 0.109		< 4.37		3.49	J	3.49			
		4-5	93.2	7.7	< 21.3		< 0.00106		< 0.00532		< 0.00266		< 0.00691		-		< 0.106		< 4.25		1.21	J	1.21			
		6-7	166	4.1	49.6		< 0.00104		< 0.00520		< 0.00260		< 0.00675		-		< 0.104		< 4.16		1.78	J	1.78			
		9-10	151	5.9	23.9		< 0.00110		< 0.00548		< 0.00274		< 0.00713		-		< 0.110		< 4.39		0.684	J	0.684			
BH-5	5/5/2020	0-1	133	4.9	< 22.3		< 0.00111		< 0.00557		< 0.00279		< 0.00724		-		< 0.111		146	J	585		***731***			
		2-3	412	5.9	< 22.3		< 0.00111		< 0.00557		< 0.00279		< 0.00724		-		< 0.111		120		466		***586***			
		4-5	219	12.4	< 23.3		< 0.00116		< 0.00582		< 0.00291		< 0.00756		-		< 0.116		6.43		21.4		27.8			
		6-7	312	8.9	14.2	J	< 0.00109		< 0.00545		< 0.00272		< 0.00708		-		< 0.0236		< 4.36		1.82	J	1.82			
		9-10	251	6.2	95.4		< 0.00105		< 0.00526		< 0.00263		< 0.00683		-		< 0.105		< 4.20		4.08	J	4.08			
BH-6	5/5/2020	0-1	100	10.2	25.6		< 0.00112		< 0.00558		< 0.00279		< 0.00725		-		0.0329	J	29.3		67.8		97.1			
		2-3	390	7.1	164		< 0.00109		< 0.00543		< 0.00271		< 0.00706		-		< 0.109		2.78	J	5.89		8.67			
		4-5	354	14.4	326		< 0.00106		< 0.00528		< 0.00264		< 0.00686		-		< 0.106		< 4.22		0.615	J	0.615			
		6-7	331	13.0	269		< 0.00103		< 0.00517		< 0.00258		< 0.00672		-		< 0.103		< 4.13		0.554	J	0.554			
		9-10	187	10.1	238		< 0.00103		< 0.00516		< 0.00258		< 0.00671		-		0.122	B	< 4.13		0.664	J	0.786			
BH-7	5/5/2020	0-1	501	2.4	533		< 0.00103		< 0.00517		< 0.00258		< 0.00671		-		< 0.103		73.1		128		***201***			
		2-3	490	7.8	432		< 0.00104		< 0.00520		< 0.00260		< 0.00676		-		0.0248	B J	133		267		***400***			
		4-5	521	4.9	346		< 0.00105		< 0.00523		< 0.00261		< 0.00680		-		0.0230	B J	< 4.18		2.64	J	2.66			
		6-7	405	2.5	469		< 0.00106		< 0.00528		< 0.00264		< 0.00687		-		< 0.106		7.47		17.7		25.2			
		9-10	209	1.9	251		< 0.00103		< 0.00516		< 0.00258		< 0.00671		-		< 0.103		2.06	J	0.891	J	2.95			

TABLE 2
SUMMARY OF ANALYTICAL RESULTS
SOIL ASSESSMENT
CONOCOPHILLIPS
EVGSAU 2230-002 WELLHEAD RELEASE
1RP-1500
LEA COUNTY, NM

Sample ID	Sample Date	Sample Depth Interval	Field Screening Results		Chloride[1]		BTEX[2]										TPH[3]							
							Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTEX		GRO[4] C_3 - C_{10}		DRO C_{10} - C_{28}		ORO C_{28} - C_{40}		Total TPH (GRO+DRO+ORO)	
			Chloride	PID																				
		ft. bgs	ppm		mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg		mg/kg	Q	mg/kg	Q	mg/kg	Q	mg/kg	
BH-8A	7/23/2020	0-1	44	0	< 20.8		< 0.00104		< 0.00519		< 0.00259		< 0.00674		-		< 0.104		4.51		18.2		22.7	
		1-2	48	0	< 20.7		< 0.00104		< 0.00518		< 0.00259		< 0.00674		-		0.0295	J	3.12	J	5.46		8.6	
BH-8B	7/23/2020	0-1	37	0.5	< 23.7		< 0.00137		< 0.00683		< 0.00341		< 0.00887		-		< 0.118		4.19	J	9.88		14.1	
		1-2	122	0.1	< 21.7		< 0.00109		< 0.00543		< 0.00271		< 0.00705		-		< 0.110		3.46	J	15.3		18.8	
BH-9A	7/23/2020	0-1	54	3.3	11.2	J	< 0.00104		< 0.00520		< 0.00260		< 0.00676		-		0.0497	J	12		56.8		68.8	
		1-2*	60	-	31.2		< 0.00104		< 0.00521		< 0.00260		< 0.00677		-		< 0.104		78.4		519		***597***	
BH-10	9/11/2020	0-1	106	-	15.3	J	0.000674	J	0.00395	J	< 0.00293		0.00164	J	0.00626		0.757	B J	64.3		241		***306***	
BH-11	9/11/2020	0-1	225	-	< 21.2		< 0.00122		0.00362	J	< 0.00305		0.00173	J	0.00535		< 3.05		8.67		57.4		66.1	
BH-12	9/11/2020	0-1	83.5	-	12.6	J	< 0.00118		0.00315	J	< 0.00295		0.00141	J	0.00456		1.08	B J	7.42		39.1		47.6	
BH-13	9/11/2020	0-1	100	-	< 20.4		< 0.00111		0.00329	J	< 0.00276		0.00144	J	0.00473		< 2.76		3.71	J	18.9		22.6	
BH-14	9/11/2020	0-1	83.8	-	< 20.5		< 0.00110		0.00318	J	0.00101	J	0.00153	J	0.00572		< 2.75		2.52	J	15.3		17.8	

NOTES:

ft. Feet
bgs Below ground surface
ppm Parts per million
mg/kg Milligrams per kilogram
NS Not sampled
TPH Total Petroleum Hydrocarbons
GRO Gasoline range organics
DRO Diesel range organics
ORO Oil range organics

* Results interpreted as unrelated to the July 2007 EVGSAU 2230-002 Wellhead Release

Shaded intervals are proposed for excavation

Bold and italicized values indicate exceedance of proposed RRALs

1 EPA Method 300.0
2 EPA Method 8260B
3 EPA Method 8015
4 EPA Method 8015D/GRO

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.
V3 The internal standard exhibited poor recovery due to sample matrix interference. The analtyical results will be biased high. BDL results will be unaffected.

APPENDIX A
C-141 Forms

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, 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

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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company **ConocoPhillips Company**	Contact **Mickey D. Garner**
Address **3300 North A St. Bldg 6, Midland, TX 79705-5406**	Telephone No. **505.391.3158**
Facility Name **EVGSAU 2230-002**	Facility Type **Oil and Gas**

Surface Owner **State of New Mexico**	Mineral Owner **State of New Mexico**	Lease No **30-025-02854-00-00**

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
N	**22**	**17S**	**35E**					**Lea**

~50'

Latitude N 32 48.840 **Longitude W 103 26.794** ESTIMATE APPEARS TOO LOW

NATURE OF RELEASE

Type of Release **Crude Oil and Produced Water**	Volume of Release **18bbl (1oil, 17water)**	Volume Recovered **(0.5oil, 2.5water)**
Source of Release **1/2" nipple on wellhead**	Date and Hour of Occurrence **7-23-2007 04:00**	Date and Hour of Discovery **7-23-2007 08:45**
Was Immediate Notice Given? ☒ Yes ☐ No ☒ Not Required	If YES, To Whom? **Pat Roberts** Richards	
By Whom? **John Gates**	Date and Hour **7-23-2007 12:48**	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. **N/A**	

If a Watercourse was Impacted, Describe Fully.*
N/A

Describe Cause of Problem and Remedial Action Taken.*
Spill was caused by a 1/2" nipple to pressure switch breaking. The MSO shut in the well, called a vacuum truck to pick up the free liquids, replaced the broken nipple and put the well back on production. The Chloride concentration for this area is 53,000.

Describe Area Affected and Cleanup Action Taken.*
The spill affected a 84' X 99' area of pad and pasture. The area will be remediated in accordance with NMOCD guidelines
8316'

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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.

Signature:

Printed Name: **Mickey D. Garner**

Title: **HSER Lead**

E-mail Address: **Mickey.D.Garner@conocophillips.com**

Date: **7-24-2007** Phone: **505.391.3158**

OIL CONSERVATION DIVISION

Approved by District Supervisor: ENVIRO-ENGR

Approval Date: 7-26-07 Expiration Date: 9.23.07

Conditions of Approval: SUBMIT FULL DELINEATION OF HORIZONTAL & VERTICAL FOR CHLORIDES ALONG W/ CLEANUP PROPOSAL FOR OCD APPROVAL BY 9.23.07

Attached ☐

RP# 1500

- Attach Additional Sheets If Necessary

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	1RP-1500
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?	55 (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.

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	1RP-1500
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: Marvin Soriwei Title: Program Manager, Risk Management & Remediation

Signature: Date: 10/29/2020

email: marvin.soriwei@conocophillips.com Telephone: 8324862730

OCD Only

Received by: Date:

State of New Mexico
Oil Conservation Division

Incident ID	nBGB2104654782
District RP	1RP-1500
Facility ID	
Application ID	

Remediation Plan

Remediation Plan Checklist: ***Each of the following items must be included in the plan.***

- ☑ Detailed description of proposed remediation technique
- ☑ Scaled sitemap with GPS coordinates showing delineation points
- ☑ Estimated volume of material to be remediated
- ☑ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☑ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

Deferral Requests Only: ***Each of the following items must be confirmed as part of any request for deferral of remediation.***

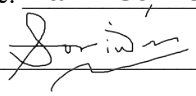
☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☐ Extents of contamination must be fully delineated.

☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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: Marvin Soriwei Title: Program Manager, Risk Management & Remediation

Signature:  Date: 10/29/2020

email: marvin.soriwei@conocophillips.com Telephone: 8324862730

OCD Only

Received by: _____ Date: _____

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: Bradford Billings Date: 02/15/2021

Variance request for maximum 500 sq.ft. for confirmation sampling is approved. Possible variance for liner is approved as described in report.

APPENDIX B
Site Characterization Data

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 Code	Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
L 10062		L	LE	2	4		22	17S	35E	646127	3632252*	866	142	50	92
L 05207		L	LE				27	17S	35E	645552	3630825*	924	140	60	80

Average Depth to Water: **55 feet**

Minimum Depth: **50 feet**

Maximum Depth: **60 feet**

Record Count: 2

UTMNAD83 Radius Search (in meters):

Easting (X): 645427 **Northing (Y):** 3631741.294 **Radius:** 1000

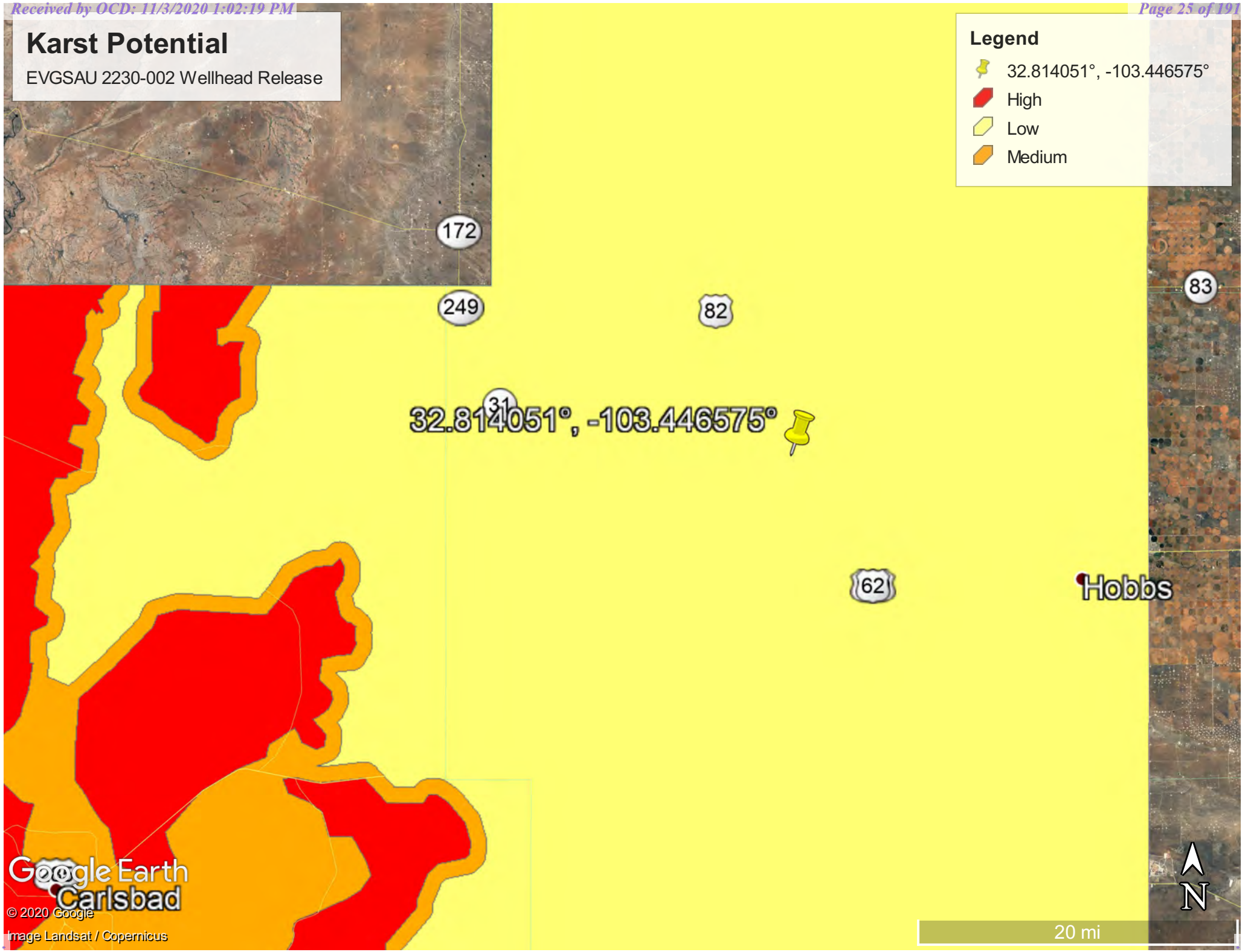
***UTM location was derived from PLSS - see Help**

9/16/20 2:18 PM

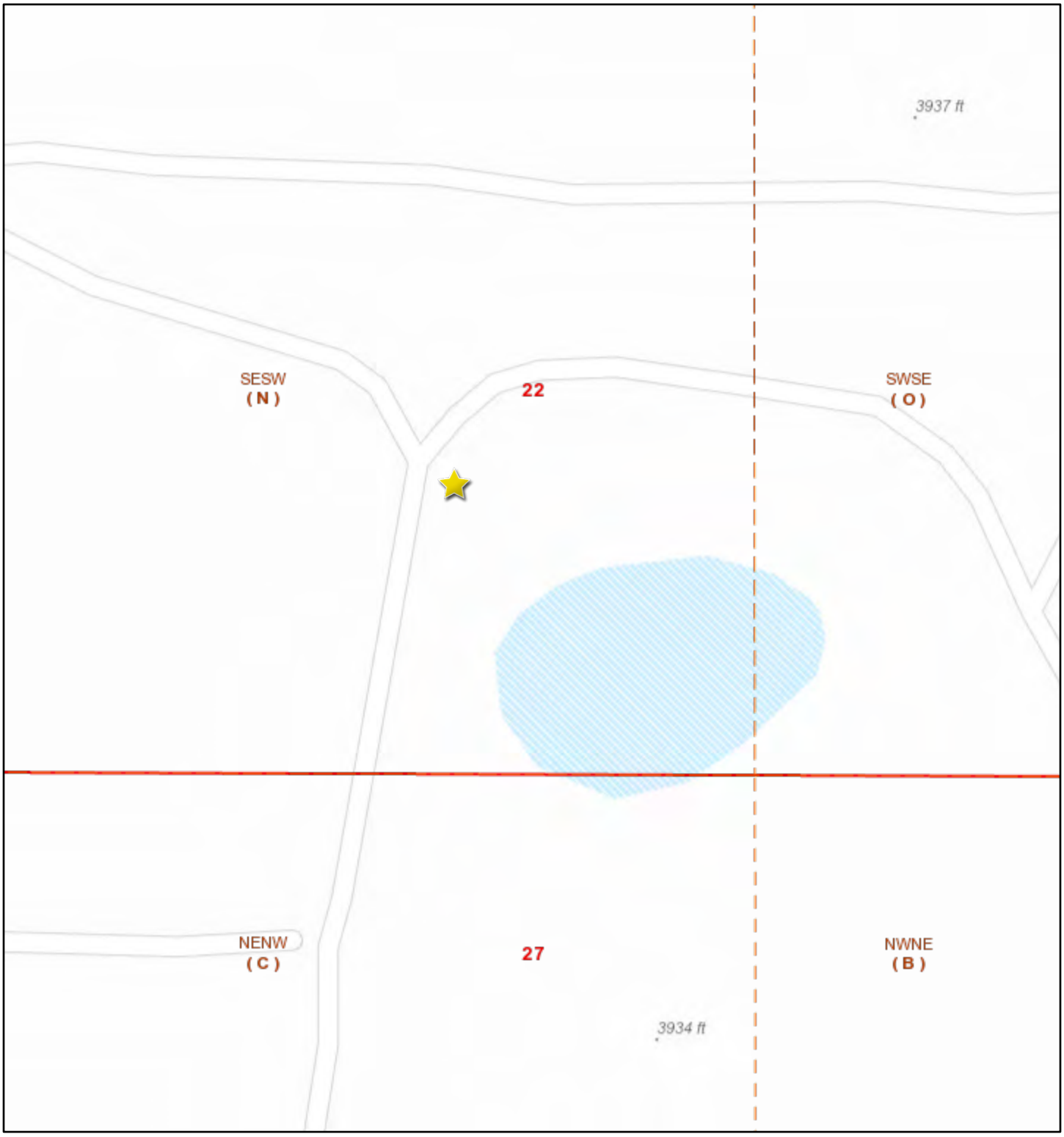
WATER COLUMN/ AVERAGE DEPTH TO WATER

Karst Potential

EVGSAU 2230-002 Wellhead Release



Water Bodies



4/20/2020, 12:54:09 PM

1:2,257

0 0.01 0.03 0.06 mi

0 0.03 0.05 0.1 km

Override 1

OCD District Offices

PLSS First Division

PLSS Second Division

OSE Water-bodies

PLJV Probable Playas

OSE Streams

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community, OCD, BLM

APPENDIX C
Boring Logs

212C-MD-02164 | TETRA TECH | **LOG OF BORING BH-1** | Page 1 of 1

Project Name: EVGSAU 2230-002 Flowline Release

Borehole Location: GPS: 32.814103°, -103.446468° | Surface Elevation: 3931 ft

Borehole Number: BH-1 | Borehole Diameter (in.): 8 | Date Started: 5/5/2020 | Date Finished: 5/5/2020

WATER LEVEL OBSERVATIONS

While Drilling ▽ DRY ft Upon Completion of Drilling ▼ DRY ft

Remarks:

DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm) ExStik	VOC FIELD SCREENING (ppm) PID	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT LL	PLASTICITY INDEX PI	MINUS NO. 200 (%)	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH (ft)	REMARKS
			896	9.4								**-SC-** CLAYEY SAND: Brown, dense, with moderate odor, no staining.		BH-1 (0'-1')
				8.9										BH-1 (2'-3')
													3.5	
5			1040									**-CL-** SILTY CLAY: Brown, medium stiff, with no odor, no staining.		BH-1 (4'-5')
													5.5	
												-- CALICHE: White, hard, indurated, heavily cemented, with no odor, no staining.		BH-1 (6'-7')
10			374	11.2										BH-1 (9'-10')
15													15	BH-1 (14'-15')

Bottom of borehole at 15.0 feet.

Sampler Types: Split Spoon, Acetate Liner, Shelby, Vane Shear, Bulk Sample, California, Grab Sample, Test Pit

Operation Types: Hand Auger, Mud Rotary, Air Rotary, Continuous Flight Auger, Direct Push, Wash Rotary, Core Barrel

Notes:
Analytical samples are shown in the "Remarks" column.
Surface elevation is an estimated value.

Logger: Joe Tyler | Drilling Equipment: Air Rotary | Driller: Scarborough Drilling

212C-MD-02164 | TETRA TECH | **LOG OF BORING BH-2** | Page 1 of 1

Project Name: EVGSAU 2230-002 Flowline Release

Borehole Location: GPS: 32.814046°, -103.446532° | Surface Elevation: 3931 ft

Borehole Number: BH-2 | Borehole Diameter (in.): 8 | Date Started: 5/5/2020 | Date Finished: 5/5/2020

WATER LEVEL OBSERVATIONS

While Drilling ▽ DRY ft Upon Completion of Drilling ▼ DRY ft

Remarks:

DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm) ExStik	VOC FIELD SCREENING (ppm) PID	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT LL	PLASTICITY INDEX PI	MINUS NO. 200 (%)	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH (ft)	REMARKS
				9.8								**-SC-** CLAYEY SAND: Brown, dense, with moderate odor, no staining.		BH-2 (0'-1')
				15.1										BH-2 (2'-3')
5				12.5										BH-2 (4'-5')
													5.5	
				76.7								**--** CALICHE: White, hard, indurated, heavily cemented, with moderate odor, no staining.		BH-2 (6'-7')
10			886	5.8										BH-2 (9'-10')
													12	
												-SM- SILTY SAND: Tan, hard, heavily cemented, with abundant gravel, no odor, no staining.		
15			720	4.1										
20			421	7.2									20	BH-2 (19'-20')

Bottom of borehole at 20.0 feet.

Sampler Types: Split Spoon, Acetate Liner, Shelby, Vane Shear, Bulk Sample, California, Grab Sample, Test Pit

Operation Types: Hand Auger, Mud Rotary, Air Rotary, Continuous Flight Auger, Direct Push, Wash Rotary, Core Barrel

Notes:

Analytical samples are shown in the "Remarks" column.
Surface elevation is an estimated value.

Logger: Joe Tyler | Drilling Equipment: Air Rotary | Driller: Scarborough Drilling

212C-MD-02164 | TETRA TECH | **LOG OF BORING BH-3** | Page 1 of 1

Project Name: EVGSAU 2230-002 Flowline Release

Borehole Location: GPS: 32.813915°, -103.446520° | Surface Elevation: 3931 ft

Borehole Number: BH-3 | Borehole Diameter (in.): 8 | Date Started: 5/5/2020 | Date Finished: 5/5/2020

WATER LEVEL OBSERVATIONS

While Drilling ▽ DRY ft Upon Completion of Drilling ▼ DRY ft

Remarks:

DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm) ExStik	VOC FIELD SCREENING (ppm) PID	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT LL	PLASTICITY INDEX PI	MINUS NO. 200 (%)	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH (ft)	REMARKS
												-SC- CLAYEY SAND: Brown, dense, with no odor, no staining.		BH-3 (0'-1')
														BH-3 (2'-3')
													3.5	
5				4.3								**-CL-** SILTY CLAY: Brown, medium stiff, with no odor, no staining.		BH-3 (4'-5')
													5.5	
												-- CALICHE: White, hard, indurated, heavily cemented, with no odor, no staining.		BH-3 (6'-7')
10			142	3.8									10	BH-3 (9'-10')

Bottom of borehole at 10.0 feet.

Sampler Types: Split Spoon, Acetate Liner, Shelby, Vane Shear, Bulk Sample, California, Grab Sample, Test Pit

Operation Types: Hand Auger, Mud Rotary, Air Rotary, Continuous Flight Auger, Direct Push, Wash Rotary, Core Barrel

Notes:

Analytical samples are shown in the "Remarks" column.
Surface elevation is an estimated value.

Logger: Joe Tyler | Drilling Equipment: Air Rotary | Driller: Scarborough Drilling

212C-MD-02164 | TETRA TECH | **LOG OF BORING BH-4** | Page 1 of 1

Project Name: EVGSAU 2230-002 Flowline Release

Borehole Location: GPS: 32.813740°, -103.446424° | Surface Elevation: 3931 ft

Borehole Number: BH-4 | Borehole Diameter (in.): 8 | Date Started: 5/5/2020 | Date Finished: 5/5/2020

WATER LEVEL OBSERVATIONS

While Drilling ▽ DRY ft Upon Completion of Drilling ▼ DRY ft

Remarks:

DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm) ExStik	VOC FIELD SCREENING (ppm) PID	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT LL	PLASTICITY INDEX PI	MINUS NO. 200 (%)	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH (ft)	REMARKS
			167	8.1								**-SC-** CLAYEY SAND: Brown, dense, with no odor, no staining.		BH-4 (0'-1')
			189	13.6										BH-4 (2'-3')
													3.5	
5			93.2	7.7								**-CL-** SILTY CLAY: Brown, medium stiff, with no odor, no staining.		BH-4 (4'-5')
													5.5	
			166	4.1								**--** CALICHE: White, hard, indurated, heavily cemented, with no odor, no staining.		BH-4 (6'-7')
10			151	5.9									10	BH-4 (9'-10')

Bottom of borehole at 10.0 feet.

Sampler Types: Split Spoon, Acetate Liner, Shelby, Vane Shear, Bulk Sample, California, Grab Sample, Test Pit

Operation Types: Hand Auger, Mud Rotary, Air Rotary, Continuous Flight Auger, Direct Push, Wash Rotary, Core Barrel

Notes:

Analytical samples are shown in the "Remarks" column.
Surface elevation is an estimated value.

Logger: Joe Tyler | Drilling Equipment: Air Rotary | Driller: Scarborough Drilling

212C-MD-02164 | TETRA TECH | **LOG OF BORING BH-5** | Page 1 of 1

Project Name: EVGSAU 2230-002 Flowline Release

Borehole Location: GPS: 32.814042°, -103.446327° | Surface Elevation: 3931 ft

Borehole Number: BH-5 | Borehole Diameter (in.): 8 | Date Started: 5/5/2020 | Date Finished: 5/5/2020

WATER LEVEL OBSERVATIONS

While Drilling ▽ DRY ft Upon Completion of Drilling ▼ DRY ft

Remarks:

DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm) ExStik	VOC FIELD SCREENING (ppm) PID	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT LL	PLASTICITY INDEX PI	MINUS NO. 200 (%)	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH (ft)	REMARKS
			133	4.9								**-SC-** CLAYEY SAND: Brown, dense, with no odor, no staining.		BH-5 (0'-1')
			412	5.9										BH-5 (2'-3')
													3.5	
5			219	12.4								**-CL-** SILTY CLAY: Brown, medium stiff, with no odor, no staining.		BH-5 (4'-5')
													5.5	
			312	8.9								**--** CALICHE: White, hard, indurated, heavily cemented, with no odor, no staining.		BH-5 (6'-7')
10			251	6.2									10	BH-5 (9'-10')

Bottom of borehole at 10.0 feet.

Sampler Types: Split Spoon, Acetate Liner, Shelby, Vane Shear, Bulk Sample, California, Grab Sample, Test Pit

Operation Types: Hand Auger, Mud Rotary, Air Rotary, Continuous Flight Auger, Direct Push, Wash Rotary, Core Barrel

Notes:

Analytical samples are shown in the "Remarks" column.
Surface elevation is an estimated value.

Logger: Joe Tyler | Drilling Equipment: Air Rotary | Driller: Scarborough Drilling

212C-MD-02164 | TETRA TECH | **LOG OF BORING BH-6** | Page 1 of 1

Project Name: EVGSAU 2230-002 Flowline Release

Borehole Location: GPS: 32.814223°, -103.446434° | Surface Elevation: 3932 ft

Borehole Number: BH-6 | Borehole Diameter (in.): 8 | Date Started: 5/5/2020 | Date Finished: 5/5/2020

WATER LEVEL OBSERVATIONS

While Drilling ▽ DRY ft Upon Completion of Drilling ▼ DRY ft

Remarks:

DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm) ExStik	VOC FIELD SCREENING (ppm) PID	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT LL	PLASTICITY INDEX PI	MINUS NO. 200 (%)	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH (ft)	REMARKS
			100	10.2								**-SC-** CLAYEY SAND: Brown, dense, with no odor, no staining.		BH-6 (0'-1')
			390	7.1										BH-6 (2'-3')
													3.5	
5			354	14.4								**-CL-** SILTY CLAY: Brown, medium stiff, with no odor, no staining.		BH-6 (4'-5')
													5.5	
			331	13								**--** CALICHE: White, hard, indurated, heavily cemented, with no odor, no staining.		BH-6 (6'-7')
10			187	10.1									10	BH-6 (9'-10')

Bottom of borehole at 10.0 feet.

Sampler Types: Split Spoon, Acetate Liner, Shelby, Vane Shear, Bulk Sample, California, Grab Sample, Test Pit

Operation Types: Hand Auger, Mud Rotary, Air Rotary, Continuous Flight Auger, Direct Push, Wash Rotary, Core Barrel

Notes:
Analytical samples are shown in the "Remarks" column.
Surface elevation is an estimated value.

Logger: Joe Tyler | Drilling Equipment: Air Rotary | Driller: Scarborough Drilling

212C-MD-02164 | TETRA TECH | **LOG OF BORING BH-7** | Page 1 of 1

Project Name: EVGSAU 2230-002 Flowline Release

Borehole Location: GPS: 32.814060°, -103.446703° | Surface Elevation: 3933 ft

Borehole Number: BH-7 | Borehole Diameter (in.): 8 | Date Started: 5/5/2020 | Date Finished: 5/5/2020

WATER LEVEL OBSERVATIONS

While Drilling ▽ DRY ft Upon Completion of Drilling ▼ DRY ft

Remarks:

DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm) ExStik	VOC FIELD SCREENING (ppm) PID	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT LL	PLASTICITY INDEX PI	MINUS NO. 200 (%)	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH (ft)	REMARKS
			501	2.4								**-SC-** CLAYEY SAND: Brown, dense, with no odor, no staining.		BH-7 (0'-1')
			490	7.8										BH-7 (2'-3')
													3.5	
5			521	4.9								**-CL-** SILTY CLAY: Brown, medium stiff, with no odor, no staining.		BH-7 (4'-5')
													5.5	
			405	2.5								**--** CALICHE: White, hard, indurated, heavily cemented, with no odor, no staining.		BH-7 (6'-7')
10			209	1.9									10	BH-7 (9'-10')

Bottom of borehole at 10.0 feet.

Sampler Types: Split Spoon, Acetate Liner, Shelby, Vane Shear, Bulk Sample, California, Grab Sample, Test Pit

Operation Types: Hand Auger, Mud Rotary, Air Rotary, Continuous Flight Auger, Direct Push, Wash Rotary, Core Barrel

Notes:

Analytical samples are shown in the "Remarks" column.
Surface elevation is an estimated value.

Logger: Joe Tyler | Drilling Equipment: Air Rotary | Driller: Scarborough Drilling

212C-MD-02164 | TETRA TECH | **LOG OF BORING BH-8a** | Page 1 of 1

Project Name: EVGSAU 2230-002 Flowline Release

Borehole Location: GPS: 32.814070°, -103.445864° | Surface Elevation: 3936 ft

Borehole Number: BH-8a | Borehole Diameter (in.): 8 | Date Started: 7/22/2020 | Date Finished: 7/22/2020

WATER LEVEL OBSERVATIONS

While Drilling ▽ DRY ft Upon Completion of Drilling ▼ DRY ft

Remarks:

DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm) ExStik	VOC FIELD SCREENING (ppm) PID	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT LL	PLASTICITY INDEX PI	MINUS NO. 200 (%)	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH (ft)	REMARKS
			44	0								**-SM-** SILTY SAND: Brown, loose, dry		BH-8a (0'-1')
			48	0								-- - Pea gravel at 1'	2	BH-8a (1'-2')

Bottom of borehole at 2.0 feet.

Sampler Types: Split Spoon, Acetate Liner, Shelby, Vane Shear, Bulk Sample, California, Grab Sample, Test Pit

Operation Types: Hand Auger, Mud Rotary, Air Rotary, Continuous Flight Auger, Direct Push, Wash Rotary, Core Barrel

Notes:
Analytical samples are shown in the "Remarks" column.
Surface elevation is an estimated value.

Logger: Adrian Garcia | Drilling Equipment: Hand Auger | Driller:

212C-MD-02164 | TETRA TECH | **LOG OF BORING BH-8b** | Page 1 of 1

Project Name: EVGSAU 2230-002 Flowline Release

Borehole Location: GPS: 32.814110°, -103.446154° | Surface Elevation: 3935 ft

Borehole Number: BH-8b | Borehole Diameter (in.): 8 | Date Started: 7/22/2020 | Date Finished: 7/22/2020

WATER LEVEL OBSERVATIONS

While Drilling ▽ DRY ft Upon Completion of Drilling ▼ DRY ft

Remarks:

DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm) ExStik	VOC FIELD SCREENING (ppm) PID	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT LL	PLASTICITY INDEX PI	MINUS NO. 200 (%)	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH (ft)	REMARKS
			37	0.5								**-SM-** SILTY SAND: Brown, loose, dry		BH-8b (0'-1')
			122	0.1								-- - Pea gravel at 1'	2	BH-8b (1'-2')

Bottom of borehole at 2.0 feet.

Sampler Types: Split Spoon, Acetate Liner, Shelby, Vane Shear, Bulk Sample, California, Grab Sample, Test Pit

Operation Types: Hand Auger, Mud Rotary, Air Rotary, Continuous Flight Auger, Direct Push, Wash Rotary, Core Barrel

Notes:
Analytical samples are shown in the "Remarks" column.
Surface elevation is an estimated value.

Logger: Adrian Garcia | Drilling Equipment: Hand Auger | Driller:

212C-MD-02164 | TETRA TECH | **LOG OF BORING BH-9a** | Page 1 of 1

Project Name: EVGSAU 2230-002 Flowline Release

Borehole Location: GPS: 32.814133°, -103.446934° | Surface Elevation: 3939 ft

Borehole Number: BH-9a | Borehole Diameter (in.): 8 | Date Started: 7/22/2020 | Date Finished: 7/22/2020

WATER LEVEL OBSERVATIONS

While Drilling ▽ DRY ft Upon Completion of Drilling ▼ DRY ft

Remarks:

DEPTH (ft)	OPERATION TYPE	SAMPLE	CHLORIDE FIELD SCREENING (ppm) ExStik	VOC FIELD SCREENING (ppm) PID	SAMPLE RECOVERY (%)	MOISTURE CONTENT (%)	DRY DENSITY (pcf)	LIQUID LIMIT LL	PLASTICITY INDEX PI	MINUS NO. 200 (%)	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH (ft)	REMARKS
			54	3.3								**-SM-** SILTY SAND: Tan, hard, dry, cemented		BH-9a (0'-1')
			60										2	BH-9a (1'-2')

Bottom of borehole at 2.0 feet.

Sampler Types: Split Spoon, Acetate Liner, Shelby, Vane Shear, Bulk Sample, California, Grab Sample, Test Pit

Operation Types: Hand Auger, Mud Rotary, Air Rotary, Continuous Flight Auger, Direct Push, Wash Rotary, Core Barrel

Notes:
Analytical samples are shown in the "Remarks" column.
Surface elevation is an estimated value.

Logger: Adrian Garcia | Drilling Equipment: Hand Auger | Driller:

APPENDIX D
Laboratory Analytical Data

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

May 22, 2020

ConocoPhillips - Tetra Tech

Sample Delivery Group:	L1218263
Samples Received:	05/13/2020
Project Number:	212C-MD-02164
Description:	COP EVGSAU 2230-002
Site:	LEA COUNTY, NEW MEXICO
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-1 (0'-1') L1218263-01 Solid

Collected by: Joe Tyler | Collected date/time: 05/05/20 10:00 | Received date/time: 05/13/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1479315	1	05/20/20 18:58	05/20/20 19:08	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1475879	5	05/15/20 10:21	05/15/20 16:12	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1477983	1	05/18/20 08:11	05/18/20 11:27	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1478032	1	05/18/20 08:11	05/18/20 12:54	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1477294	1	05/17/20 21:31	05/18/20 09:32	MTJ	Mt. Juliet, TN

BH-1 (2'-3') L1218263-02 Solid

Collected by: Joe Tyler | Collected date/time: 05/05/20 10:10 | Received date/time: 05/13/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1479315	1	05/20/20 18:58	05/20/20 19:08	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1475879	5	05/15/20 10:21	05/15/20 16:22	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1477983	1	05/18/20 08:11	05/18/20 11:48	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1478032	1	05/18/20 08:11	05/18/20 13:14	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1477294	1	05/17/20 21:31	05/18/20 06:58	MTJ	Mt. Juliet, TN

BH-1 (4'-5') L1218263-03 Solid

Collected by: Joe Tyler | Collected date/time: 05/05/20 10:20 | Received date/time: 05/13/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1479315	1	05/20/20 18:58	05/20/20 19:08	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1475879	5	05/15/20 10:21	05/15/20 16:31	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1477983	1	05/18/20 08:11	05/18/20 12:09	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1478032	1	05/18/20 08:11	05/18/20 13:35	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1477294	1	05/17/20 21:31	05/18/20 07:11	MTJ	Mt. Juliet, TN

BH-1 (6'-7') L1218263-04 Solid

Collected by: Joe Tyler | Collected date/time: 05/05/20 10:30 | Received date/time: 05/13/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1479315	1	05/20/20 18:58	05/20/20 19:08	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1475882	1	05/15/20 15:58	05/15/20 17:49	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1477983	1	05/18/20 08:11	05/18/20 12:29	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1478032	1	05/18/20 08:11	05/18/20 13:55	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1477294	1	05/17/20 21:31	05/18/20 07:25	MTJ	Mt. Juliet, TN

BH-1 (9'-10') L1218263-05 Solid

Collected by: Joe Tyler | Collected date/time: 05/05/20 10:40 | Received date/time: 05/13/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1479315	1	05/20/20 18:58	05/20/20 19:08	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1475882	1	05/15/20 15:58	05/15/20 17:59	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1477983	1	05/18/20 08:11	05/18/20 12:50	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1478032	1	05/18/20 08:11	05/18/20 14:16	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1477294	1	05/17/20 21:31	05/18/20 07:38	MTJ	Mt. Juliet, TN

BH-1 (14'-15') L1218263-06 Solid

Collected by: Joe Tyler | Collected date/time: 05/05/20 10:50 | Received date/time: 05/13/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1479315	1	05/20/20 18:58	05/20/20 19:08	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1475882	1	05/15/20 15:58	05/15/20 18:08	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1477983	1	05/18/20 08:11	05/18/20 13:11	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1478032	1	05/18/20 08:11	05/18/20 16:33	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1477294	1	05/17/20 21:31	05/18/20 08:52	MTJ	Mt. Juliet, TN

BH-2 (0'-1') L1218263-07 Solid

Collected by: Joe Tyler | Collected date/time: 05/05/20 11:00 | Received date/time: 05/13/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1479315	1	05/20/20 18:58	05/20/20 19:08	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1475882	1	05/15/20 15:58	05/15/20 18:18	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1478317	1	05/18/20 08:11	05/18/20 23:15	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1478032	1	05/18/20 08:11	05/18/20 16:53	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1477623	20	05/17/20 21:34	05/18/20 16:51	KME	Mt. Juliet, TN

BH-2 (2'-3') L1218263-08 Solid

Collected by: Joe Tyler | Collected date/time: 05/05/20 11:10 | Received date/time: 05/13/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1479316	1	05/20/20 18:47	05/20/20 18:56	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1475882	1	05/15/20 15:58	05/15/20 18:27	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1477983	1	05/18/20 08:11	05/18/20 13:52	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1478032	1	05/18/20 08:11	05/18/20 17:13	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1477623	40	05/17/20 21:34	05/18/20 17:30	KME	Mt. Juliet, TN

BH-2 (4'-5') L1218263-09 Solid

Collected by: Joe Tyler | Collected date/time: 05/05/20 11:20 | Received date/time: 05/13/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1479316	1	05/20/20 18:47	05/20/20 18:56	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1475882	1	05/15/20 15:58	05/15/20 18:46	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1477983	1	05/18/20 08:11	05/18/20 14:12	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1478032	1	05/18/20 08:11	05/18/20 17:33	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1477623	40	05/17/20 21:34	05/18/20 17:44	KME	Mt. Juliet, TN

BH-2 (6'-7') L1218263-10 Solid

Collected by: Joe Tyler | Collected date/time: 05/05/20 11:30 | Received date/time: 05/13/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1479316	1	05/20/20 18:47	05/20/20 18:56	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1475882	1	05/15/20 15:58	05/15/20 18:56	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1478317	1	05/18/20 08:11	05/18/20 23:36	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1478032	1	05/18/20 08:11	05/18/20 17:53	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1477623	20	05/17/20 21:34	05/18/20 17:57	KME	Mt. Juliet, TN

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

BH-2 (9'-10') L1218263-11 Solid

Collected by: Joe Tyler | Collected date/time: 05/05/20 11:40 | Received date/time: 05/13/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1479316	1	05/20/20 18:47	05/20/20 18:56	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1475882	1	05/15/20 15:58	05/15/20 19:24	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1477983	1	05/18/20 08:11	05/18/20 14:54	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1478032	1	05/18/20 08:11	05/18/20 18:14	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1477623	40	05/17/20 21:34	05/18/20 17:17	KME	Mt. Juliet, TN

BH-2 (19'-20') L1218263-12 Solid

Collected by: Joe Tyler | Collected date/time: 05/05/20 12:00 | Received date/time: 05/13/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1479316	1	05/20/20 18:47	05/20/20 18:56	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1475882	1	05/15/20 15:58	05/15/20 19:34	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1478067	1	05/18/20 08:11	05/18/20 15:02	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1478032	1	05/18/20 08:11	05/18/20 18:34	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1477623	5	05/17/20 21:34	05/18/20 16:11	KME	Mt. Juliet, TN

BH-3 (0'-1') L1218263-13 Solid

Collected by: Joe Tyler | Collected date/time: 05/05/20 12:10 | Received date/time: 05/13/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1479316	1	05/20/20 18:47	05/20/20 18:56	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1475882	1	05/15/20 15:58	05/15/20 19:43	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1478067	1	05/18/20 08:11	05/18/20 15:26	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1478032	1	05/18/20 08:11	05/18/20 18:54	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1477623	1	05/17/20 21:34	05/20/20 20:59	FM	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1477623	20	05/17/20 21:34	05/18/20 17:04	KME	Mt. Juliet, TN

BH-3 (2'-3') L1218263-14 Solid

Collected by: Joe Tyler | Collected date/time: 05/05/20 12:20 | Received date/time: 05/13/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1479316	1	05/20/20 18:47	05/20/20 18:56	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1475882	1	05/15/20 15:58	05/15/20 19:53	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1478067	1	05/18/20 08:11	05/18/20 15:56	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1478032	1	05/18/20 08:11	05/18/20 19:15	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1477623	1	05/17/20 21:34	05/18/20 13:59	KME	Mt. Juliet, TN

BH-3 (4'-5') L1218263-15 Solid

Collected by: Joe Tyler | Collected date/time: 05/05/20 12:30 | Received date/time: 05/13/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1479316	1	05/20/20 18:47	05/20/20 18:56	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1475882	1	05/15/20 15:58	05/15/20 20:02	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1478067	1	05/18/20 08:11	05/18/20 16:20	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1478332	1	05/18/20 08:11	05/18/20 23:43	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1477623	1	05/17/20 21:34	05/18/20 13:19	KME	Mt. Juliet, TN

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

BH-3 (6'-7') L1218263-16 Solid

Collected by: Joe Tyler | Collected date/time: 05/05/20 12:40 | Received date/time: 05/13/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1479316	1	05/20/20 18:47	05/20/20 18:56	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1475882	1	05/15/20 15:58	05/15/20 20:12	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1478067	1	05/18/20 08:11	05/18/20 16:44	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1478332	1	05/18/20 08:11	05/19/20 00:02	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1477623	1	05/17/20 21:34	05/20/20 20:06	FM	Mt. Juliet, TN

BH-3 (9'-10') L1218263-17 Solid

Collected by: Joe Tyler | Collected date/time: 05/05/20 12:50 | Received date/time: 05/13/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1479316	1	05/20/20 18:47	05/20/20 18:56	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1475882	1	05/15/20 15:58	05/15/20 20:21	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1478067	1	05/18/20 08:11	05/19/20 05:24	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1478332	1	05/18/20 08:11	05/19/20 00:21	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1477623	1	05/17/20 21:34	05/20/20 19:53	FM	Mt. Juliet, TN

BH-4 (0'-1') L1218263-18 Solid

Collected by: Joe Tyler | Collected date/time: 05/05/20 13:00 | Received date/time: 05/13/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1479317	1	05/20/20 20:20	05/20/20 20:30	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1475882	1	05/15/20 15:58	05/15/20 20:31	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1478067	1	05/18/20 08:11	05/19/20 06:07	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1478332	1	05/18/20 08:11	05/19/20 00:41	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1477623	1	05/17/20 21:34	05/20/20 20:45	FM	Mt. Juliet, TN

BH-4 (2'-3') L1218263-19 Solid

Collected by: Joe Tyler | Collected date/time: 05/05/20 13:10 | Received date/time: 05/13/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1479317	1	05/20/20 20:20	05/20/20 20:30	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1475882	1	05/15/20 15:58	05/15/20 21:19	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1478067	1	05/18/20 08:11	05/18/20 18:03	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1478332	1	05/18/20 08:11	05/19/20 01:00	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1477623	1	05/17/20 21:34	05/18/20 14:38	KME	Mt. Juliet, TN

BH-4 (4'-5') L1218263-20 Solid

Collected by: Joe Tyler | Collected date/time: 05/05/20 13:10 | Received date/time: 05/13/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1479317	1	05/20/20 20:20	05/20/20 20:30	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1475882	1	05/15/20 15:58	05/15/20 21:28	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1478067	1	05/18/20 08:24	05/18/20 18:27	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1478332	1	05/18/20 08:24	05/19/20 01:19	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1477623	1	05/17/20 21:34	05/18/20 14:52	KME	Mt. Juliet, TN

BH-4 (6'-7') L1218263-21 Solid

Collected by: Joe Tyler | Collected date/time: 05/05/20 13:20 | Received date/time: 05/13/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1479317	1	05/20/20 20:20	05/20/20 20:30	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1475882	1	05/15/20 15:58	05/15/20 21:38	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1478067	1	05/18/20 08:24	05/18/20 18:51	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1478049	1	05/18/20 08:24	05/18/20 13:53	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1477623	1	05/17/20 21:34	05/18/20 15:05	KME	Mt. Juliet, TN

BH-4 (9'-10') L1218263-22 Solid

Collected by: Joe Tyler | Collected date/time: 05/05/20 13:30 | Received date/time: 05/13/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1479317	1	05/20/20 20:20	05/20/20 20:30	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1475882	1	05/15/20 15:58	05/15/20 21:47	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1478067	1	05/18/20 08:24	05/18/20 19:15	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1478049	1	05/18/20 08:24	05/18/20 14:13	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1477623	1	05/17/20 21:34	05/18/20 15:18	KME	Mt. Juliet, TN

BH-5 (0'-1') L1218263-23 Solid

Collected by: Joe Tyler | Collected date/time: 05/05/20 13:40 | Received date/time: 05/13/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1479317	1	05/20/20 20:20	05/20/20 20:30	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1475882	1	05/15/20 15:58	05/15/20 21:57	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1478067	1	05/18/20 08:24	05/18/20 19:39	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1478049	1	05/18/20 08:24	05/18/20 14:32	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1477623	40	05/17/20 21:34	05/18/20 16:24	KME	Mt. Juliet, TN

BH-5 (2'-3') L1218263-24 Solid

Collected by: Joe Tyler | Collected date/time: 05/05/20 13:50 | Received date/time: 05/13/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1479317	1	05/20/20 20:20	05/20/20 20:30	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1475878	1	05/14/20 13:02	05/14/20 17:30	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1478067	1	05/18/20 08:24	05/18/20 22:32	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1478049	1	05/18/20 08:24	05/18/20 14:51	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1477623	20	05/17/20 21:34	05/18/20 16:37	KME	Mt. Juliet, TN

BH-5 (4'-5') L1218263-25 Solid

Collected by: Joe Tyler | Collected date/time: 05/05/20 14:00 | Received date/time: 05/13/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1479317	1	05/20/20 20:20	05/20/20 20:30	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1475878	1	05/14/20 13:02	05/14/20 17:40	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1478067	1	05/18/20 08:24	05/18/20 22:56	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1478049	1	05/18/20 08:24	05/18/20 15:10	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1477623	1	05/17/20 21:34	05/18/20 15:44	KME	Mt. Juliet, TN

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

BH-5 (6'-7') L1218263-26 Solid

Collected by: Joe Tyler | Collected date/time: 05/05/20 14:10 | Received date/time: 05/13/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1479317	1	05/20/20 20:20	05/20/20 20:30	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1475878	1	05/14/20 13:02	05/14/20 18:09	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1478067	1	05/18/20 08:24	05/18/20 23:20	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1478049	1	05/18/20 08:24	05/18/20 15:30	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1477623	1	05/17/20 21:34	05/18/20 15:31	KME	Mt. Juliet, TN

BH-5 (9'-10') L1218263-27 Solid

Collected by: Joe Tyler | Collected date/time: 05/05/20 14:20 | Received date/time: 05/13/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1479317	1	05/20/20 20:20	05/20/20 20:30	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1475878	1	05/14/20 13:02	05/14/20 18:18	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1478067	1	05/18/20 08:24	05/18/20 23:44	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1478049	1	05/18/20 08:24	05/18/20 15:49	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1478084	1	05/19/20 06:41	05/19/20 20:52	KME	Mt. Juliet, TN

BH-6 (0'-1') L1218263-28 Solid

Collected by: Joe Tyler | Collected date/time: 05/05/20 14:30 | Received date/time: 05/13/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1479318	1	05/20/20 20:05	05/20/20 20:17	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1475878	1	05/14/20 13:02	05/14/20 18:28	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1478067	1	05/18/20 08:24	05/19/20 00:10	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1478049	1	05/18/20 08:24	05/18/20 16:08	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1478084	1	05/19/20 06:41	05/19/20 21:56	KME	Mt. Juliet, TN

BH-6 (2'-3') L1218263-29 Solid

Collected by: Joe Tyler | Collected date/time: 05/05/20 14:40 | Received date/time: 05/13/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1479318	1	05/20/20 20:05	05/20/20 20:17	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1475878	1	05/14/20 13:02	05/14/20 18:37	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1478067	1	05/18/20 08:24	05/19/20 00:40	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1478049	1	05/18/20 08:24	05/18/20 16:27	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1478084	1	05/19/20 06:41	05/20/20 02:34	KME	Mt. Juliet, TN

BH-6 (4'-5') L1218263-30 Solid

Collected by: Joe Tyler | Collected date/time: 05/05/20 14:50 | Received date/time: 05/13/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1479318	1	05/20/20 20:05	05/20/20 20:17	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1475878	1	05/14/20 13:02	05/14/20 18:56	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1478067	1	05/18/20 08:24	05/19/20 01:04	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1478049	1	05/18/20 08:24	05/18/20 16:47	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1478084	1	05/19/20 06:41	05/19/20 16:56	KME	Mt. Juliet, TN

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

BH-6 (6'-7') L1218263-31 Solid

Collected by: Joe Tyler | Collected date/time: 05/05/20 15:00 | Received date/time: 05/13/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1479318	1	05/20/20 20:05	05/20/20 20:17	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1478252	1	05/18/20 23:00	05/19/20 02:47	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1478067	1	05/18/20 08:24	05/19/20 02:01	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1478049	1	05/18/20 08:24	05/18/20 17:06	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1478084	1	05/19/20 06:41	05/19/20 17:12	KME	Mt. Juliet, TN

BH-6 (9'-10') L1218263-32 Solid

Collected by: Joe Tyler | Collected date/time: 05/05/20 15:10 | Received date/time: 05/13/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1479318	1	05/20/20 20:05	05/20/20 20:17	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1478252	1	05/18/20 23:00	05/19/20 03:22	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1478226	1	05/18/20 08:24	05/19/20 00:38	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1478049	1	05/18/20 08:24	05/18/20 17:25	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1478084	1	05/19/20 06:41	05/19/20 17:28	KME	Mt. Juliet, TN

BH-7 (0'-1') L1218263-33 Solid

Collected by: Joe Tyler | Collected date/time: 05/05/20 15:20 | Received date/time: 05/13/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1479318	1	05/20/20 20:05	05/20/20 20:17	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1478252	1	05/18/20 23:00	05/19/20 03:40	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1478226	1	05/18/20 08:24	05/19/20 00:59	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1478049	1	05/18/20 08:24	05/18/20 17:44	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1478084	2	05/19/20 06:41	05/19/20 22:12	KME	Mt. Juliet, TN

BH-7 (2'-3') L1218263-34 Solid

Collected by: Joe Tyler | Collected date/time: 05/05/20 15:30 | Received date/time: 05/13/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1479318	1	05/20/20 20:05	05/20/20 20:17	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1478252	1	05/18/20 23:00	05/19/20 03:58	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1478226	1	05/18/20 08:24	05/19/20 01:19	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1478049	1	05/18/20 08:24	05/18/20 18:04	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1478084	10	05/19/20 06:41	05/19/20 22:27	KME	Mt. Juliet, TN

BH-7 (4'-5') L1218263-35 Solid

Collected by: Joe Tyler | Collected date/time: 05/05/20 15:40 | Received date/time: 05/13/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1479318	1	05/20/20 20:05	05/20/20 20:17	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1478252	1	05/18/20 23:00	05/19/20 04:16	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1478226	1	05/18/20 08:24	05/19/20 01:40	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1478049	1	05/18/20 08:24	05/18/20 18:23	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1478084	1	05/19/20 06:41	05/19/20 20:04	KME	Mt. Juliet, TN

BH-7 (6'-7') L1218263-36 Solid

Collected by: Joe Tyler
Collected date/time: 05/05/20 15:50
Received date/time: 05/13/20 08:45

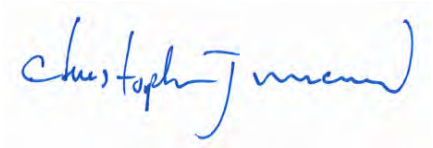
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1479318	1	05/20/20 20:05	05/20/20 20:17	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1478252	1	05/18/20 23:00	05/19/20 04:34	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1478226	1	05/18/20 08:24	05/19/20 02:00	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1478049	1	05/18/20 08:24	05/18/20 18:42	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1478084	1	05/19/20 06:41	05/19/20 21:24	KME	Mt. Juliet, TN

BH-7 (9'-10') L1218263-37 Solid

Collected by: Joe Tyler
Collected date/time: 05/05/20 16:00
Received date/time: 05/13/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1479318	1	05/20/20 20:05	05/20/20 20:17	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1478252	1	05/18/20 23:00	05/19/20 04:51	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1478226	1	05/18/20 08:24	05/19/20 02:21	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1478049	1	05/18/20 08:24	05/18/20 19:01	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1478084	1	05/19/20 06:41	05/19/20 17:44	KME	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

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.1		1	05/20/2020 19:08	WG1479315

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	672		49.9	109	5	05/15/2020 16:12	WG1475879

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	0.0295	B J	0.0236	0.109	1	05/18/2020 11:27	WG1477983
(S) a,a,a-Trifluorotoluene(FID)	*91.2*			*77.0-120*		*05/18/2020 11:27*	WG1477983

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	0.00168		0.000507	0.00109	1	05/18/2020 12:54	WG1478032
Toluene	U		0.00141	0.00543	1	05/18/2020 12:54	WG1478032
Ethylbenzene	0.000977	J	0.000800	0.00271	1	05/18/2020 12:54	WG1478032
Total Xylenes	0.00190	J	0.000955	0.00706	1	05/18/2020 12:54	WG1478032
(S) Toluene-d8	*101*			*75.0-131*		*05/18/2020 12:54*	WG1478032
(S) 4-Bromofluorobenzene	*101*			*67.0-138*		*05/18/2020 12:54*	WG1478032
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*05/18/2020 12:54*	WG1478032

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	24.1		1.75	4.34	1	05/18/2020 09:32	WG1477294
C28-C40 Oil Range	23.7		0.297	4.34	1	05/18/2020 09:32	WG1477294
(S) o-Terphenyl	*71.7*			*18.0-148*		*05/18/2020 09:32*	WG1477294

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.6		1	05/20/2020 19:08	WG1479315

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	1150		51.9	113	5	05/15/2020 16:22	WG1475879

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		0.0245	0.113	1	05/18/2020 11:48	WG1477983
(S) a,a,a-Trifluorotoluene(FID)	*90.2*			*77.0-120*		*05/18/2020 11:48*	WG1477983

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		0.000527	0.00113	1	05/18/2020 13:14	WG1478032
Toluene	U		0.00147	0.00564	1	05/18/2020 13:14	WG1478032
Ethylbenzene	U		0.000831	0.00282	1	05/18/2020 13:14	WG1478032
Total Xylenes	U		0.000993	0.00733	1	05/18/2020 13:14	WG1478032
(S) Toluene-d8	*102*			*75.0-131*		*05/18/2020 13:14*	WG1478032
(S) 4-Bromofluorobenzene	*98.8*			*67.0-138*		*05/18/2020 13:14*	WG1478032
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*05/18/2020 13:14*	WG1478032

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		1.82	4.51	1	05/18/2020 06:58	WG1477294
C28-C40 Oil Range	1.99	J	0.309	4.51	1	05/18/2020 06:58	WG1477294
(S) o-Terphenyl	*54.0*			*18.0-148*		*05/18/2020 06:58*	WG1477294

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	88.3		1	05/20/2020 19:08	WG1479315

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	1540		52.1	113	5	05/15/2020 16:31	WG1475879

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		0.0246	0.113	1	05/18/2020 12:09	WG1477983
(S) a,a,a-Trifluorotoluene(FID)	*90.3*			*77.0-120*		*05/18/2020 12:09*	WG1477983

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		0.000529	0.00113	1	05/18/2020 13:35	WG1478032
Toluene	U		0.00147	0.00566	1	05/18/2020 13:35	WG1478032
Ethylbenzene	U		0.000834	0.00283	1	05/18/2020 13:35	WG1478032
Total Xylenes	U		0.000996	0.00736	1	05/18/2020 13:35	WG1478032
(S) Toluene-d8	*102*			*75.0-131*		*05/18/2020 13:35*	WG1478032
(S) 4-Bromofluorobenzene	*98.5*			*67.0-138*		*05/18/2020 13:35*	WG1478032
(S) 1,2-Dichloroethane-d4	*92.1*			*70.0-130*		*05/18/2020 13:35*	WG1478032

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		1.82	4.53	1	05/18/2020 07:11	WG1477294
C28-C40 Oil Range	U		0.310	4.53	1	05/18/2020 07:11	WG1477294
(S) o-Terphenyl	*31.6*			*18.0-148*		*05/18/2020 07:11*	WG1477294

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	98.2		1	05/20/2020 19:08	WG1479315

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	357		9.37	20.4	1	05/15/2020 17:49	WG1475882

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	05/18/2020 12:29	WG1477983
(S) a,a,a-Trifluorotoluene(FID)	*90.5*			*77.0-120*		*05/18/2020 12:29*	WG1477983

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	0.000509	J	0.000476	0.00102	1	05/18/2020 13:55	WG1478032
Toluene	U		0.00132	0.00509	1	05/18/2020 13:55	WG1478032
Ethylbenzene	U		0.000751	0.00255	1	05/18/2020 13:55	WG1478032
Total Xylenes	U		0.000896	0.00662	1	05/18/2020 13:55	WG1478032
(S) Toluene-d8	*102*			*75.0-131*		*05/18/2020 13:55*	WG1478032
(S) 4-Bromofluorobenzene	*96.5*			*67.0-138*		*05/18/2020 13:55*	WG1478032
(S) 1,2-Dichloroethane-d4	*92.5*			*70.0-130*		*05/18/2020 13:55*	WG1478032

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	05/18/2020 07:25	WG1477294
C28-C40 Oil Range	U		0.279	4.07	1	05/18/2020 07:25	WG1477294
(S) o-Terphenyl	*75.6*			*18.0-148*		*05/18/2020 07:25*	WG1477294

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	97.5		1	05/20/2020 19:08	WG1479315

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	509		9.43	20.5	1	05/15/2020 17:59	WG1475882

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	0.103	1	05/18/2020 12:50	WG1477983
(S) a,a,a-Trifluorotoluene(FID)	*90.5*			*77.0-120*		*05/18/2020 12:50*	WG1477983

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		0.000479	0.00103	1	05/18/2020 14:16	WG1478032
Toluene	U		0.00133	0.00513	1	05/18/2020 14:16	WG1478032
Ethylbenzene	U		0.000756	0.00256	1	05/18/2020 14:16	WG1478032
Total Xylenes	U		0.000902	0.00666	1	05/18/2020 14:16	WG1478032
(S) Toluene-d8	*106*			*75.0-131*		*05/18/2020 14:16*	WG1478032
(S) 4-Bromofluorobenzene	*94.9*			*67.0-138*		*05/18/2020 14:16*	WG1478032
(S) 1,2-Dichloroethane-d4	*93.0*			*70.0-130*		*05/18/2020 14:16*	WG1478032

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	4.10	1	05/18/2020 07:38	WG1477294
C28-C40 Oil Range	U		0.281	4.10	1	05/18/2020 07:38	WG1477294
(S) o-Terphenyl	*82.8*			*18.0-148*		*05/18/2020 07:38*	WG1477294

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.3		1	05/20/2020 19:08	WG1479315

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	447		9.65	21.0	1	05/15/2020 18:08	WG1475882

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	0.0274	B J	0.0228	0.105	1	05/18/2020 13:11	WG1477983
(S) a,a,a-Trifluorotoluene(FID)	*86.6*			*77.0-120*		*05/18/2020 13:11*	WG1477983

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	05/18/2020 16:33	WG1478032
Toluene	U		0.00136	0.00525	1	05/18/2020 16:33	WG1478032
Ethylbenzene	U		0.000773	0.00262	1	05/18/2020 16:33	WG1478032
Total Xylenes	0.00129	J	0.000923	0.00682	1	05/18/2020 16:33	WG1478032
(S) Toluene-d8	*102*			*75.0-131*		*05/18/2020 16:33*	WG1478032
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*05/18/2020 16:33*	WG1478032
(S) 1,2-Dichloroethane-d4	*108*			*70.0-130*		*05/18/2020 16:33*	WG1478032

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	4.20	1	05/18/2020 08:52	WG1477294
C28-C40 Oil Range	1.06	J	0.288	4.20	1	05/18/2020 08:52	WG1477294
(S) o-Terphenyl	*78.9*			*18.0-148*		*05/18/2020 08:52*	WG1477294

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.0		1	05/20/2020 19:08	WG1479315

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	517		9.59	20.8	1	05/15/2020 18:18	WG1475882

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	B J	0.0226	0.104	1	05/18/2020 23:15	WG1478317
(S) a,a,a-Trifluorotoluene(FID)	*86.0*			*77.0-120*		*05/18/2020 23:15*	WG1478317

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	05/18/2020 16:53	WG1478032
Toluene	U		0.00135	0.00521	1	05/18/2020 16:53	WG1478032
Ethylbenzene	U		0.000768	0.00260	1	05/18/2020 16:53	WG1478032
Total Xylenes	U		0.000917	0.00677	1	05/18/2020 16:53	WG1478032
(S) Toluene-d8	*102*			*75.0-131*		*05/18/2020 16:53*	WG1478032
(S) 4-Bromofluorobenzene	*99.7*			*67.0-138*		*05/18/2020 16:53*	WG1478032
(S) 1,2-Dichloroethane-d4	*73.9*			*70.0-130*		*05/18/2020 16:53*	WG1478032

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	189		33.5	83.4	20	05/18/2020 16:51	WG1477623
C28-C40 Oil Range	428		5.71	83.4	20	05/18/2020 16:51	WG1477623
(S) o-Terphenyl	*78.0*	J7		*18.0-148*		*05/18/2020 16:51*	WG1477623

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.6		1	05/20/2020 18:56	WG1479316

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	949		10.0	21.8	1	05/15/2020 18:27	WG1475882

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	0.0261	B J	0.0237	0.109	1	05/18/2020 13:52	WG1477983
(S) a,a,a-Trifluorotoluene(FID)	*85.9*			*77.0-120*		*05/18/2020 13:52*	WG1477983

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		0.000510	0.00109	1	05/18/2020 17:13	WG1478032
Toluene	0.00197	J	0.00142	0.00546	1	05/18/2020 17:13	WG1478032
Ethylbenzene	U		0.000805	0.00273	1	05/18/2020 17:13	WG1478032
Total Xylenes	0.00104	J	0.000961	0.00710	1	05/18/2020 17:13	WG1478032
(S) Toluene-d8	*102*			*75.0-131*		*05/18/2020 17:13*	WG1478032
(S) 4-Bromofluorobenzene	*98.1*			*67.0-138*		*05/18/2020 17:13*	WG1478032
(S) 1,2-Dichloroethane-d4	*96.1*			*70.0-130*		*05/18/2020 17:13*	WG1478032

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	668		70.3	175	40	05/18/2020 17:30	WG1477623
C28-C40 Oil Range	1610		12.0	175	40	05/18/2020 17:30	WG1477623
(S) o-Terphenyl	*81.7*	J7		*18.0-148*		*05/18/2020 17:30*	WG1477623

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.3		1	05/20/2020 18:56	WG1479316

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	901		10.1	21.9	1	05/15/2020 18:46	WG1475882

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	0.0366	B J	0.0238	0.110	1	05/18/2020 14:12	WG1477983
(S) a,a,a-Trifluorotoluene(FID)	*86.6*			*77.0-120*		*05/18/2020 14:12*	WG1477983

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		0.000511	0.00110	1	05/18/2020 17:33	WG1478032
Toluene	0.00157	J	0.00142	0.00548	1	05/18/2020 17:33	WG1478032
Ethylbenzene	0.000931	J	0.000807	0.00274	1	05/18/2020 17:33	WG1478032
Total Xylenes	U		0.000964	0.00712	1	05/18/2020 17:33	WG1478032
(S) Toluene-d8	*103*			*75.0-131*		*05/18/2020 17:33*	WG1478032
(S) 4-Bromofluorobenzene	*102*			*67.0-138*		*05/18/2020 17:33*	WG1478032
(S) 1,2-Dichloroethane-d4	*100*			*70.0-130*		*05/18/2020 17:33*	WG1478032

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	2720		70.5	175	40	05/18/2020 17:44	WG1477623
C28-C40 Oil Range	5340		12.0	175	40	05/18/2020 17:44	WG1477623
(S) o-Terphenyl	*94.8*	J7		*18.0-148*		*05/18/2020 17:44*	WG1477623

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.0		1	05/20/2020 18:56	WG1479316

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	587		9.89	21.5	1	05/15/2020 18:56	WG1475882

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	0.561	V3	0.0233	0.108	1	05/18/2020 23:36	WG1478317
(S) a,a,a-Trifluorotoluene(FID)	*87.5*			*77.0-120*		*05/18/2020 23:36*	WG1478317

Sample Narrative:

L1218263-10 WG1478317: Previous run also had low IS.

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		0.000502	0.00108	1	05/18/2020 17:53	WG1478032
Toluene	U		0.00140	0.00538	1	05/18/2020 17:53	WG1478032
Ethylbenzene	0.00129	J	0.000792	0.00269	1	05/18/2020 17:53	WG1478032
Total Xylenes	0.00275	J	0.000946	0.00699	1	05/18/2020 17:53	WG1478032
(S) Toluene-d8	*101*			*75.0-131*		*05/18/2020 17:53*	WG1478032
(S) 4-Bromofluorobenzene	*96.3*			*67.0-138*		*05/18/2020 17:53*	WG1478032
(S) 1,2-Dichloroethane-d4	*96.2*			*70.0-130*		*05/18/2020 17:53*	WG1478032

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	1000		34.6	86.0	20	05/18/2020 17:57	WG1477623
C28-C40 Oil Range	1780		5.89	86.0	20	05/18/2020 17:57	WG1477623
(S) o-Terphenyl	*103*	J7		*18.0-148*		*05/18/2020 17:57*	WG1477623

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.7		1	05/20/2020 18:56	WG1479316

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	849		9.61	20.9	1	05/15/2020 19:24	WG1475882

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	0.0374	B J	0.0227	0.104	1	05/18/2020 14:54	WG1477983
(S) a,a,a-Trifluorotoluene(FID)	*89.0*			*77.0-120*		*05/18/2020 14:54*	WG1477983

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	05/18/2020 18:14	WG1478032
Toluene	U		0.00136	0.00522	1	05/18/2020 18:14	WG1478032
Ethylbenzene	U		0.000770	0.00261	1	05/18/2020 18:14	WG1478032
Total Xylenes	U		0.000919	0.00679	1	05/18/2020 18:14	WG1478032
(S) Toluene-d8	*102*			*75.0-131*		*05/18/2020 18:14*	WG1478032
(S) 4-Bromofluorobenzene	*100*			*67.0-138*		*05/18/2020 18:14*	WG1478032
(S) 1,2-Dichloroethane-d4	*98.9*			*70.0-130*		*05/18/2020 18:14*	WG1478032

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	2630		67.3	167	40	05/18/2020 17:17	WG1477623
C28-C40 Oil Range	4500		11.5	167	40	05/18/2020 17:17	WG1477623
(S) o-Terphenyl	*53.1*	J7		*18.0-148*		*05/18/2020 17:17*	WG1477623

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.7		1	05/20/2020 18:56	WG1479316

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	624		9.61	20.9	1	05/15/2020 19:34	WG1475882

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	05/18/2020 15:02	WG1478067
(S) a,a,a-Trifluorotoluene(FID)	*93.3*			*77.0-120*		*05/18/2020 15:02*	WG1478067

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	05/18/2020 18:34	WG1478032
Toluene	U		0.00136	0.00522	1	05/18/2020 18:34	WG1478032
Ethylbenzene	U		0.000770	0.00261	1	05/18/2020 18:34	WG1478032
Total Xylenes	U		0.000919	0.00679	1	05/18/2020 18:34	WG1478032
(S) Toluene-d8	*102*			*75.0-131*		*05/18/2020 18:34*	WG1478032
(S) 4-Bromofluorobenzene	*97.7*			*67.0-138*		*05/18/2020 18:34*	WG1478032
(S) 1,2-Dichloroethane-d4	*96.1*			*70.0-130*		*05/18/2020 18:34*	WG1478032

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	80.4		8.41	20.9	5	05/18/2020 16:11	WG1477623
C28-C40 Oil Range	162		1.43	20.9	5	05/18/2020 16:11	WG1477623
(S) o-Terphenyl	*72.6*			*18.0-148*		*05/18/2020 16:11*	WG1477623

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.8		1	05/20/2020 18:56	WG1479316

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		9.50	20.7	1	05/15/2020 19:43	WG1475882

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	05/18/2020 15:26	WG1478067
(S) a,a,a-Trifluorotoluene(FID)	*92.0*			*77.0-120*		*05/18/2020 15:26*	WG1478067

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		0.000482	0.00103	1	05/18/2020 18:54	WG1478032
Toluene	U		0.00134	0.00517	1	05/18/2020 18:54	WG1478032
Ethylbenzene	U		0.000761	0.00258	1	05/18/2020 18:54	WG1478032
Total Xylenes	U		0.000909	0.00672	1	05/18/2020 18:54	WG1478032
(S) Toluene-d8	*103*			*75.0-131*		*05/18/2020 18:54*	WG1478032
(S) 4-Bromofluorobenzene	*98.9*			*67.0-138*		*05/18/2020 18:54*	WG1478032
(S) 1,2-Dichloroethane-d4	*93.4*			*70.0-130*		*05/18/2020 18:54*	WG1478032

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	61.3		1.66	4.13	1	05/20/2020 20:59	WG1477623
C28-C40 Oil Range	256		5.66	82.6	20	05/18/2020 17:04	WG1477623
(S) o-Terphenyl	*72.2*	J7		*18.0-148*		*05/18/2020 17:04*	WG1477623
(S) o-Terphenyl	*90.8*			*18.0-148*		*05/20/2020 20:59*	WG1477623

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.0		1	05/20/2020 18:56	WG1479316

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		9.58	20.8	1	05/15/2020 19:53	WG1475882

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	05/18/2020 15:56	WG1478067
(S) a,a,a-Trifluorotoluene(FID)	*96.8*			*77.0-120*		*05/18/2020 15:56*	WG1478067

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	05/18/2020 19:15	WG1478032
Toluene	U		0.00135	0.00521	1	05/18/2020 19:15	WG1478032
Ethylbenzene	U		0.000767	0.00260	1	05/18/2020 19:15	WG1478032
Total Xylenes	U		0.000916	0.00677	1	05/18/2020 19:15	WG1478032
(S) Toluene-d8	*102*			*75.0-131*		*05/18/2020 19:15*	WG1478032
(S) 4-Bromofluorobenzene	*97.7*			*67.0-138*		*05/18/2020 19:15*	WG1478032
(S) 1,2-Dichloroethane-d4	*97.5*			*70.0-130*		*05/18/2020 19:15*	WG1478032

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	2.95	J	1.68	4.17	1	05/18/2020 13:59	WG1477623
C28-C40 Oil Range	9.94		0.285	4.17	1	05/18/2020 13:59	WG1477623
(S) o-Terphenyl	*76.3*			*18.0-148*		*05/18/2020 13:59*	WG1477623

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.9		1	05/20/2020 18:56	WG1479316

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	14.6	J	10.0	21.8	1	05/15/2020 20:02	WG1475882

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		0.0236	0.109	1	05/18/2020 16:20	WG1478067
(S) a,a,a-Trifluorotoluene(FID)	*94.8*			*77.0-120*		*05/18/2020 16:20*	WG1478067

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		0.000508	0.00109	1	05/18/2020 23:43	WG1478332
Toluene	U		0.00141	0.00544	1	05/18/2020 23:43	WG1478332
Ethylbenzene	U		0.000802	0.00272	1	05/18/2020 23:43	WG1478332
Total Xylenes	U		0.000958	0.00707	1	05/18/2020 23:43	WG1478332
(S) Toluene-d8	*104*			*75.0-131*		*05/18/2020 23:43*	WG1478332
(S) 4-Bromofluorobenzene	*99.6*			*67.0-138*		*05/18/2020 23:43*	WG1478332
(S) 1,2-Dichloroethane-d4	*109*			*70.0-130*		*05/18/2020 23:43*	WG1478332

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		1.75	4.35	1	05/18/2020 13:19	WG1477623
C28-C40 Oil Range	0.859	J	0.298	4.35	1	05/18/2020 13:19	WG1477623
(S) o-Terphenyl	*73.7*			*18.0-148*		*05/18/2020 13:19*	WG1477623

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.6		1	05/20/2020 18:56	WG1479316

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		10.2	22.1	1	05/15/2020 20:12	WG1475882

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		0.0240	0.110	1	05/18/2020 16:44	WG1478067
(S) a,a,a-Trifluorotoluene(FID)	*94.5*			*77.0-120*		*05/18/2020 16:44*	WG1478067

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		0.000516	0.00110	1	05/19/2020 00:02	WG1478332
Toluene	U		0.00144	0.00552	1	05/19/2020 00:02	WG1478332
Ethylbenzene	U		0.000814	0.00276	1	05/19/2020 00:02	WG1478332
Total Xylenes	U		0.000972	0.00718	1	05/19/2020 00:02	WG1478332
(S) Toluene-d8	*102*			*75.0-131*		*05/19/2020 00:02*	WG1478332
(S) 4-Bromofluorobenzene	*96.1*			*67.0-138*		*05/19/2020 00:02*	WG1478332
(S) 1,2-Dichloroethane-d4	*109*			*70.0-130*		*05/19/2020 00:02*	WG1478332

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		1.78	4.42	1	05/20/2020 20:06	WG1477623
C28-C40 Oil Range	3.37	J	0.303	4.42	1	05/20/2020 20:06	WG1477623
(S) o-Terphenyl	*73.3*			*18.0-148*		*05/20/2020 20:06*	WG1477623

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.4		1	05/20/2020 18:56	WG1479316

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		10.2	22.1	1	05/15/2020 20:21	WG1475882

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		0.0240	0.111	1	05/19/2020 05:24	WG1478067
(S) a,a,a-Trifluorotoluene(FID)	*97.9*			*77.0-120*		*05/19/2020 05:24*	WG1478067

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		0.000516	0.00111	1	05/19/2020 00:21	WG1478332
Toluene	U		0.00144	0.00553	1	05/19/2020 00:21	WG1478332
Ethylbenzene	U		0.000815	0.00276	1	05/19/2020 00:21	WG1478332
Total Xylenes	U		0.000973	0.00719	1	05/19/2020 00:21	WG1478332
(S) Toluene-d8	*103*			*75.0-131*		*05/19/2020 00:21*	WG1478332
(S) 4-Bromofluorobenzene	*99.3*			*67.0-138*		*05/19/2020 00:21*	WG1478332
(S) 1,2-Dichloroethane-d4	*109*			*70.0-130*		*05/19/2020 00:21*	WG1478332

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		1.78	4.42	1	05/20/2020 19:53	WG1477623
C28-C40 Oil Range	0.623	J	0.303	4.42	1	05/20/2020 19:53	WG1477623
(S) o-Terphenyl	*77.6*			*18.0-148*		*05/20/2020 19:53*	WG1477623

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.3		1	05/20/2020 20:30	WG1479317

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	11.0	J	9.86	21.4	1	05/15/2020 20:31	WG1475882

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		0.0233	0.107	1	05/19/2020 06:07	WG1478067
(S) a,a,a-Trifluorotoluene(FID)	*92.5*			*77.0-120*		*05/19/2020 06:07*	WG1478067

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		0.000501	0.00107	1	05/19/2020 00:41	WG1478332
Toluene	U		0.00139	0.00536	1	05/19/2020 00:41	WG1478332
Ethylbenzene	U		0.000790	0.00268	1	05/19/2020 00:41	WG1478332
Total Xylenes	U		0.000943	0.00697	1	05/19/2020 00:41	WG1478332
(S) Toluene-d8	*107*			*75.0-131*		*05/19/2020 00:41*	WG1478332
(S) 4-Bromofluorobenzene	*92.8*			*67.0-138*		*05/19/2020 00:41*	WG1478332
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*05/19/2020 00:41*	WG1478332

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	25.1		1.73	4.29	1	05/20/2020 20:45	WG1477623
C28-C40 Oil Range	78.4		0.294	4.29	1	05/20/2020 20:45	WG1477623
(S) o-Terphenyl	*76.4*			*18.0-148*		*05/20/2020 20:45*	WG1477623

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.4		1	05/20/2020 20:30	WG1479317

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	10.1	21.9	1	05/15/2020 21:19	WG1475882

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		0.0237	0.109	1	05/18/2020 18:03	WG1478067
(S) a,a,a-Trifluorotoluene(FID)	*95.9*			*77.0-120*		*05/18/2020 18:03*	WG1478067

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		0.000511	0.00109	1	05/19/2020 01:00	WG1478332
Toluene	U		0.00142	0.00547	1	05/19/2020 01:00	WG1478332
Ethylbenzene	U		0.000806	0.00273	1	05/19/2020 01:00	WG1478332
Total Xylenes	U		0.000962	0.00711	1	05/19/2020 01:00	WG1478332
(S) Toluene-d8	*103*			*75.0-131*		*05/19/2020 01:00*	WG1478332
(S) 4-Bromofluorobenzene	*94.8*			*67.0-138*		*05/19/2020 01:00*	WG1478332
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*		*05/19/2020 01:00*	WG1478332

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		1.76	4.37	1	05/18/2020 14:38	WG1477623
C28-C40 Oil Range	3.49	J	0.300	4.37	1	05/18/2020 14:38	WG1477623
(S) o-Terphenyl	*64.4*			*18.0-148*		*05/18/2020 14:38*	WG1477623

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.0		1	05/20/2020 20:30	WG1479317

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		9.78	21.3	1	05/15/2020 21:28	WG1475882

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		0.0231	0.106	1	05/18/2020 18:27	WG1478067
(S) a,a,a-Trifluorotoluene(FID)	*92.6*			*77.0-120*		*05/18/2020 18:27*	WG1478067

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		0.000497	0.00106	1	05/19/2020 01:19	WG1478332
Toluene	U		0.00138	0.00532	1	05/19/2020 01:19	WG1478332
Ethylbenzene	U		0.000784	0.00266	1	05/19/2020 01:19	WG1478332
Total Xylenes	U		0.000936	0.00691	1	05/19/2020 01:19	WG1478332
(S) Toluene-d8	*102*			*75.0-131*		*05/19/2020 01:19*	WG1478332
(S) 4-Bromofluorobenzene	*94.1*			*67.0-138*		*05/19/2020 01:19*	WG1478332
(S) 1,2-Dichloroethane-d4	*108*			*70.0-130*		*05/19/2020 01:19*	WG1478332

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		1.71	4.25	1	05/18/2020 14:52	WG1477623
C28-C40 Oil Range	1.21	J	0.291	4.25	1	05/18/2020 14:52	WG1477623
(S) o-Terphenyl	*76.7*			*18.0-148*		*05/18/2020 14:52*	WG1477623

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.2		1	05/20/2020 20:30	WG1479317

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	49.6		9.56	20.8	1	05/15/2020 21:38	WG1475882

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	05/18/2020 18:51	WG1478067
(S) a,a,a-Trifluorotoluene(FID)	*93.0*			*77.0-120*		*05/18/2020 18:51*	WG1478067

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		0.000485	0.00104	1	05/18/2020 13:53	WG1478049
Toluene	U		0.00135	0.00520	1	05/18/2020 13:53	WG1478049
Ethylbenzene	U		0.000766	0.00260	1	05/18/2020 13:53	WG1478049
Total Xylenes	U		0.000915	0.00675	1	05/18/2020 13:53	WG1478049
(S) Toluene-d8	*113*			*75.0-131*		*05/18/2020 13:53*	WG1478049
(S) 4-Bromofluorobenzene	*90.2*			*67.0-138*		*05/18/2020 13:53*	WG1478049
(S) 1,2-Dichloroethane-d4	*97.7*			*70.0-130*		*05/18/2020 13:53*	WG1478049

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	4.16	1	05/18/2020 15:05	WG1477623
C28-C40 Oil Range	1.78	J	0.285	4.16	1	05/18/2020 15:05	WG1477623
(S) o-Terphenyl	*68.3*			*18.0-148*		*05/18/2020 15:05*	WG1477623

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.2		1	05/20/2020 20:30	WG1479317

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	23.9		10.1	21.9	1	05/15/2020 21:47	WG1475882

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		0.0238	0.110	1	05/18/2020 19:15	WG1478067
(S) a,a,a-Trifluorotoluene(FID)	*97.1*			*77.0-120*		*05/18/2020 19:15*	WG1478067

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		0.000512	0.00110	1	05/18/2020 14:13	WG1478049
Toluene	U		0.00143	0.00548	1	05/18/2020 14:13	WG1478049
Ethylbenzene	U		0.000808	0.00274	1	05/18/2020 14:13	WG1478049
Total Xylenes	U		0.000965	0.00713	1	05/18/2020 14:13	WG1478049
(S) Toluene-d8	*109*			*75.0-131*		*05/18/2020 14:13*	WG1478049
(S) 4-Bromofluorobenzene	*87.8*			*67.0-138*		*05/18/2020 14:13*	WG1478049
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*05/18/2020 14:13*	WG1478049

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		1.77	4.39	1	05/18/2020 15:18	WG1477623
C28-C40 Oil Range	0.684	J	0.301	4.39	1	05/18/2020 15:18	WG1477623
(S) o-Terphenyl	*71.7*			*18.0-148*		*05/18/2020 15:18*	WG1477623

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.7		1	05/20/2020 20:30	WG1479317

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		10.3	22.3	1	05/15/2020 21:57	WG1475882

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		0.0242	0.111	1	05/18/2020 19:39	WG1478067
(S) a,a,a-Trifluorotoluene(FID)	*91.7*			*77.0-120*		*05/18/2020 19:39*	WG1478067

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		0.000520	0.00111	1	05/18/2020 14:32	WG1478049
Toluene	U		0.00145	0.00557	1	05/18/2020 14:32	WG1478049
Ethylbenzene	U		0.000821	0.00279	1	05/18/2020 14:32	WG1478049
Total Xylenes	U		0.000981	0.00724	1	05/18/2020 14:32	WG1478049
(S) Toluene-d8	*111*			*75.0-131*		*05/18/2020 14:32*	WG1478049
(S) 4-Bromofluorobenzene	*88.3*			*67.0-138*		*05/18/2020 14:32*	WG1478049
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*05/18/2020 14:32*	WG1478049

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	146	J	71.8	178	40	05/18/2020 16:24	WG1477623
C28-C40 Oil Range	585		12.3	178	40	05/18/2020 16:24	WG1477623
(S) o-Terphenyl	*64.5*	J7		*18.0-148*		*05/18/2020 16:24*	WG1477623

Sample Narrative:

L1218263-23 WG1477623: Cannot run at lower dilution due to viscosity of extract

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.8		1	05/20/2020 20:30	WG1479317

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		10.2	22.3	1	05/14/2020 17:30	WG1475878

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		0.0242	0.111	1	05/18/2020 22:32	WG1478067
(S) a,a,a-Trifluorotoluene(FID)	*88.1*			*77.0-120*		*05/18/2020 22:32*	WG1478067

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		0.000520	0.00111	1	05/18/2020 14:51	WG1478049
Toluene	U		0.00145	0.00557	1	05/18/2020 14:51	WG1478049
Ethylbenzene	U		0.000821	0.00279	1	05/18/2020 14:51	WG1478049
Total Xylenes	U		0.000980	0.00724	1	05/18/2020 14:51	WG1478049
(S) Toluene-d8	*113*			*75.0-131*		*05/18/2020 14:51*	WG1478049
(S) 4-Bromofluorobenzene	*91.2*			*67.0-138*		*05/18/2020 14:51*	WG1478049
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*05/18/2020 14:51*	WG1478049

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	120		35.9	89.1	20	05/18/2020 16:37	WG1477623
C28-C40 Oil Range	466		6.10	89.1	20	05/18/2020 16:37	WG1477623
(S) o-Terphenyl	*59.1*	J7		*18.0-148*		*05/18/2020 16:37*	WG1477623

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.0		1	05/20/2020 20:30	WG1479317

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		10.7	23.3	1	05/14/2020 17:40	WG1475878

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		0.0252	0.116	1	05/18/2020 22:56	WG1478067
(S) a,a,a-Trifluorotoluene(FID)	*94.3*			*77.0-120*		*05/18/2020 22:56*	WG1478067

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		0.000543	0.00116	1	05/18/2020 15:10	WG1478049
Toluene	U		0.00151	0.00582	1	05/18/2020 15:10	WG1478049
Ethylbenzene	U		0.000857	0.00291	1	05/18/2020 15:10	WG1478049
Total Xylenes	U		0.00102	0.00756	1	05/18/2020 15:10	WG1478049
(S) Toluene-d8	*113*			*75.0-131*		*05/18/2020 15:10*	WG1478049
(S) 4-Bromofluorobenzene	*89.8*			*67.0-138*		*05/18/2020 15:10*	WG1478049
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*05/18/2020 15:10*	WG1478049

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	6.43		1.87	4.65	1	05/18/2020 15:44	WG1477623
C28-C40 Oil Range	21.4		0.319	4.65	1	05/18/2020 15:44	WG1477623
(S) o-Terphenyl	*70.8*			*18.0-148*		*05/18/2020 15:44*	WG1477623

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.8		1	05/20/2020 20:30	WG1479317

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	14.2	J	10.0	21.8	1	05/14/2020 18:09	WG1475878

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		0.0236	0.109	1	05/18/2020 23:20	WG1478067
(S) a,a,a-Trifluorotoluene(FID)	*95.5*			*77.0-120*		*05/18/2020 23:20*	WG1478067

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		0.000509	0.00109	1	05/18/2020 15:30	WG1478049
Toluene	U		0.00142	0.00545	1	05/18/2020 15:30	WG1478049
Ethylbenzene	U		0.000803	0.00272	1	05/18/2020 15:30	WG1478049
Total Xylenes	U		0.000958	0.00708	1	05/18/2020 15:30	WG1478049
(S) Toluene-d8	*109*			*75.0-131*		*05/18/2020 15:30*	WG1478049
(S) 4-Bromofluorobenzene	*88.0*			*67.0-138*		*05/18/2020 15:30*	WG1478049
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*05/18/2020 15:30*	WG1478049

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		1.75	4.36	1	05/18/2020 15:31	WG1477623
C28-C40 Oil Range	1.82	J	0.298	4.36	1	05/18/2020 15:31	WG1477623
(S) o-Terphenyl	*75.2*			*18.0-148*		*05/18/2020 15:31*	WG1477623

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.1		1	05/20/2020 20:30	WG1479317

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	95.4		9.67	21.0	1	05/14/2020 18:18	WG1475878

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	05/18/2020 23:44	WG1478067
(S) a,a,a-Trifluorotoluene(FID)	*98.3*			*77.0-120*		*05/18/2020 23:44*	WG1478067

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	05/18/2020 15:49	WG1478049
Toluene	U		0.00137	0.00526	1	05/18/2020 15:49	WG1478049
Ethylbenzene	U		0.000775	0.00263	1	05/18/2020 15:49	WG1478049
Total Xylenes	U		0.000925	0.00683	1	05/18/2020 15:49	WG1478049
(S) Toluene-d8	*114*			*75.0-131*		*05/18/2020 15:49*	WG1478049
(S) 4-Bromofluorobenzene	*90.3*			*67.0-138*		*05/18/2020 15:49*	WG1478049
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*		*05/18/2020 15:49*	WG1478049

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	4.20	1	05/19/2020 20:52	WG1478084
C28-C40 Oil Range	4.08	J	0.288	4.20	1	05/19/2020 20:52	WG1478084
(S) o-Terphenyl	*79.4*			*18.0-148*		*05/19/2020 20:52*	WG1478084

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.6		1	05/20/2020 20:17	WG1479318

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	25.6		10.3	22.3	1	05/14/2020 18:28	WG1475878

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	0.0329	J	0.0242	0.112	1	05/19/2020 00:10	WG1478067
(S) a,a,a-Trifluorotoluene(FID)	*94.3*			*77.0-120*		*05/19/2020 00:10*	WG1478067

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		0.000521	0.00112	1	05/18/2020 16:08	WG1478049
Toluene	U		0.00145	0.00558	1	05/18/2020 16:08	WG1478049
Ethylbenzene	U		0.000822	0.00279	1	05/18/2020 16:08	WG1478049
Total Xylenes	U		0.000982	0.00725	1	05/18/2020 16:08	WG1478049
(S) Toluene-d8	*112*			*75.0-131*		*05/18/2020 16:08*	WG1478049
(S) 4-Bromofluorobenzene	*90.3*			*67.0-138*		*05/18/2020 16:08*	WG1478049
(S) 1,2-Dichloroethane-d4	*99.4*			*70.0-130*		*05/18/2020 16:08*	WG1478049

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	29.3		1.80	4.46	1	05/19/2020 21:56	WG1478084
C28-C40 Oil Range	67.8		0.306	4.46	1	05/19/2020 21:56	WG1478084
(S) o-Terphenyl	*85.4*			*18.0-148*		*05/19/2020 21:56*	WG1478084

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.1		1	05/20/2020 20:17	WG1479318

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	164		9.99	21.7	1	05/14/2020 18:37	WG1475878

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		0.0236	0.109	1	05/19/2020 00:40	WG1478067
(S) a,a,a-Trifluorotoluene(FID)	*96.9*			*77.0-120*		*05/19/2020 00:40*	WG1478067

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		0.000507	0.00109	1	05/18/2020 16:27	WG1478049
Toluene	U		0.00141	0.00543	1	05/18/2020 16:27	WG1478049
Ethylbenzene	U		0.000800	0.00271	1	05/18/2020 16:27	WG1478049
Total Xylenes	U		0.000956	0.00706	1	05/18/2020 16:27	WG1478049
(S) Toluene-d8	*109*			*75.0-131*		*05/18/2020 16:27*	WG1478049
(S) 4-Bromofluorobenzene	*88.5*			*67.0-138*		*05/18/2020 16:27*	WG1478049
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*05/18/2020 16:27*	WG1478049

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	2.78	J	1.75	4.34	1	05/20/2020 02:34	WG1478084
C28-C40 Oil Range	5.89		0.298	4.34	1	05/20/2020 02:34	WG1478084
(S) o-Terphenyl	*79.4*			*18.0-148*		*05/20/2020 02:34*	WG1478084

BH-6 (4-5)
Collected date/time: 05/05/20 14:50

ONE LAB. NATIONWIDE.

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.7		1	05/20/2020 20:17	WG1479318

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	326		9.71	21.1	1	05/14/2020 18:56	WG1475878

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		0.0229	0.106	1	05/19/2020 01:04	WG1478067
(S) a,a,a-Trifluorotoluene(FID)	*93.0*			*77.0-120*		*05/19/2020 01:04*	WG1478067

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		0.000493	0.00106	1	05/18/2020 16:47	WG1478049
Toluene	U		0.00137	0.00528	1	05/18/2020 16:47	WG1478049
Ethylbenzene	U		0.000778	0.00264	1	05/18/2020 16:47	WG1478049
Total Xylenes	U		0.000929	0.00686	1	05/18/2020 16:47	WG1478049
(S) Toluene-d8	*110*			*75.0-131*		*05/18/2020 16:47*	WG1478049
(S) 4-Bromofluorobenzene	*87.3*			*67.0-138*		*05/18/2020 16:47*	WG1478049
(S) 1,2-Dichloroethane-d4	*99.3*			*70.0-130*		*05/18/2020 16:47*	WG1478049

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		1.70	4.22	1	05/19/2020 16:56	WG1478084
C28-C40 Oil Range	0.615	J	0.289	4.22	1	05/19/2020 16:56	WG1478084
(S) o-Terphenyl	*86.3*			*18.0-148*		*05/19/2020 16:56*	WG1478084

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.8		1	05/20/2020 20:17	WG1479318

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	269		9.51	20.7	1	05/19/2020 02:47	WG1478252

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	05/19/2020 02:01	WG1478067
(S) a,a,a-Trifluorotoluene(FID)	*95.3*			*77.0-120*		*05/19/2020 02:01*	WG1478067

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	05/18/2020 17:06	WG1478049
Toluene	U		0.00134	0.00517	1	05/18/2020 17:06	WG1478049
Ethylbenzene	U		0.000762	0.00258	1	05/18/2020 17:06	WG1478049
Total Xylenes	U		0.000910	0.00672	1	05/18/2020 17:06	WG1478049
(S) Toluene-d8	*110*			*75.0-131*		*05/18/2020 17:06*	WG1478049
(S) 4-Bromofluorobenzene	*88.7*			*67.0-138*		*05/18/2020 17:06*	WG1478049
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*05/18/2020 17:06*	WG1478049

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	4.13	1	05/19/2020 17:12	WG1478084
C28-C40 Oil Range	0.554	J	0.283	4.13	1	05/19/2020 17:12	WG1478084
(S) o-Terphenyl	*76.2*			*18.0-148*		*05/19/2020 17:12*	WG1478084

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.9		1	05/20/2020 20:17	WG1479318

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	238		9.50	20.6	1	05/19/2020 03:22	WG1478252

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	0.122	B	0.0224	0.103	1	05/19/2020 00:38	WG1478226
(S) a,a,a-Trifluorotoluene(FID)	*86.5*			*77.0-120*		*05/19/2020 00:38*	WG1478226

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		0.000482	0.00103	1	05/18/2020 17:25	WG1478049
Toluene	U		0.00134	0.00516	1	05/18/2020 17:25	WG1478049
Ethylbenzene	U		0.000761	0.00258	1	05/18/2020 17:25	WG1478049
Total Xylenes	U		0.000908	0.00671	1	05/18/2020 17:25	WG1478049
(S) Toluene-d8	*111*			*75.0-131*		*05/18/2020 17:25*	WG1478049
(S) 4-Bromofluorobenzene	*88.8*			*67.0-138*		*05/18/2020 17:25*	WG1478049
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*		*05/18/2020 17:25*	WG1478049

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	4.13	1	05/19/2020 17:28	WG1478084
C28-C40 Oil Range	0.664	J	0.283	4.13	1	05/19/2020 17:28	WG1478084
(S) o-Terphenyl	*84.9*			*18.0-148*		*05/19/2020 17:28*	WG1478084

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.8		1	05/20/2020 20:17	WG1479318

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	533		9.50	20.7	1	05/19/2020 03:40	WG1478252

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	05/19/2020 00:59	WG1478226
(S) a,a,a-Trifluorotoluene(FID)	*88.1*			*77.0-120*		*05/19/2020 00:59*	WG1478226

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		0.000482	0.00103	1	05/18/2020 17:44	WG1478049
Toluene	U		0.00134	0.00517	1	05/18/2020 17:44	WG1478049
Ethylbenzene	U		0.000761	0.00258	1	05/18/2020 17:44	WG1478049
Total Xylenes	U		0.000909	0.00671	1	05/18/2020 17:44	WG1478049
(S) Toluene-d8	*114*			*75.0-131*		*05/18/2020 17:44*	WG1478049
(S) 4-Bromofluorobenzene	*87.8*			*67.0-138*		*05/18/2020 17:44*	WG1478049
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*05/18/2020 17:44*	WG1478049

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	73.1		3.33	8.26	2	05/19/2020 22:12	WG1478084
C28-C40 Oil Range	128		0.566	8.26	2	05/19/2020 22:12	WG1478084
(S) o-Terphenyl	*71.1*			*18.0-148*		*05/19/2020 22:12*	WG1478084

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.1		1	05/20/2020 20:17	WG1479318

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	432		9.57	20.8	1	05/19/2020 03:58	WG1478252

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	0.0248	B J	0.0226	0.104	1	05/19/2020 01:19	WG1478226
(S) a,a,a-Trifluorotoluene(FID)	*88.9*			*77.0-120*		*05/19/2020 01:19*	WG1478226

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	05/18/2020 18:04	WG1478049
Toluene	U		0.00135	0.00520	1	05/18/2020 18:04	WG1478049
Ethylbenzene	U		0.000767	0.00260	1	05/18/2020 18:04	WG1478049
Total Xylenes	U		0.000915	0.00676	1	05/18/2020 18:04	WG1478049
(S) Toluene-d8	*109*			*75.0-131*		*05/18/2020 18:04*	WG1478049
(S) 4-Bromofluorobenzene	*86.5*			*67.0-138*		*05/18/2020 18:04*	WG1478049
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*05/18/2020 18:04*	WG1478049

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	133		16.7	41.6	10	05/19/2020 22:27	WG1478084
C28-C40 Oil Range	267		2.85	41.6	10	05/19/2020 22:27	WG1478084
(S) o-Terphenyl	*98.5*			*18.0-148*		*05/19/2020 22:27*	WG1478084

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.6		1	05/20/2020 20:17	WG1479318

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	346		9.62	20.9	1	05/19/2020 04:16	WG1478252

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	0.0230	B J	0.0227	0.105	1	05/19/2020 01:40	WG1478226
(S) a,a,a-Trifluorotoluene(FID)	*88.2*			*77.0-120*		*05/19/2020 01:40*	WG1478226

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	0.00105	1	05/18/2020 18:23	WG1478049
Toluene	U		0.00136	0.00523	1	05/18/2020 18:23	WG1478049
Ethylbenzene	U		0.000771	0.00261	1	05/18/2020 18:23	WG1478049
Total Xylenes	U		0.000920	0.00680	1	05/18/2020 18:23	WG1478049
(S) Toluene-d8	*108*			*75.0-131*		*05/18/2020 18:23*	WG1478049
(S) 4-Bromofluorobenzene	*89.3*			*67.0-138*		*05/18/2020 18:23*	WG1478049
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*05/18/2020 18:23*	WG1478049

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	05/19/2020 20:04	WG1478084
C28-C40 Oil Range	2.64	J	0.287	4.18	1	05/19/2020 20:04	WG1478084
(S) o-Terphenyl	*88.7*			*18.0-148*		*05/19/2020 20:04*	WG1478084

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.6		1	05/20/2020 20:17	WG1479318

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	469		9.72	21.1	1	05/19/2020 04:34	WG1478252

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		0.0229	0.106	1	05/19/2020 02:00	WG1478226
(S) a,a,a-Trifluorotoluene(FID)	*87.5*			*77.0-120*		*05/19/2020 02:00*	WG1478226

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	05/18/2020 18:42	WG1478049
Toluene	U		0.00137	0.00528	1	05/18/2020 18:42	WG1478049
Ethylbenzene	U		0.000779	0.00264	1	05/18/2020 18:42	WG1478049
Total Xylenes	U		0.000930	0.00687	1	05/18/2020 18:42	WG1478049
(S) Toluene-d8	*110*			*75.0-131*		*05/18/2020 18:42*	WG1478049
(S) 4-Bromofluorobenzene	*91.2*			*67.0-138*		*05/18/2020 18:42*	WG1478049
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*05/18/2020 18:42*	WG1478049

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	7.47		1.70	4.23	1	05/19/2020 21:24	WG1478084
C28-C40 Oil Range	17.7		0.290	4.23	1	05/19/2020 21:24	WG1478084
(S) o-Terphenyl	*77.8*			*18.0-148*		*05/19/2020 21:24*	WG1478084

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.9		1	05/20/2020 20:17	WG1479318

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	251		9.49	20.6	1	05/19/2020 04:51	WG1478252

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	05/19/2020 02:21	WG1478226
(S) a,a,a-Trifluorotoluene(FID)	*88.0*			*77.0-120*		*05/19/2020 02:21*	WG1478226

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		0.000482	0.00103	1	05/18/2020 19:01	WG1478049
Toluene	U		0.00134	0.00516	1	05/18/2020 19:01	WG1478049
Ethylbenzene	U		0.000760	0.00258	1	05/18/2020 19:01	WG1478049
Total Xylenes	U		0.000908	0.00671	1	05/18/2020 19:01	WG1478049
(S) Toluene-d8	*111*			*75.0-131*		*05/18/2020 19:01*	WG1478049
(S) 4-Bromofluorobenzene	*89.5*			*67.0-138*		*05/18/2020 19:01*	WG1478049
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*05/18/2020 19:01*	WG1478049

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	2.06	J	1.66	4.13	1	05/19/2020 17:44	WG1478084
C28-C40 Oil Range	0.891	J	0.283	4.13	1	05/19/2020 17:44	WG1478084
(S) o-Terphenyl	*93.0*			*18.0-148*		*05/19/2020 17:44*	WG1478084

Method Blank (MB)

(MB) R3530478-1 05/20/20 19:08

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

L1218263-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1218263-03 05/20/20 19:08 • (DUP) R3530478-3 05/20/20 19:08

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	88.3	89.8	1	1.60		10

Laboratory Control Sample (LCS)

(LCS) R3530478-2 05/20/20 19:08

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

Method Blank (MB)

(MB) R3530471-1 05/20/20 18:56

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

L1218263-14 Original Sample (OS) • Duplicate (DUP)

(OS) L1218263-14 05/20/20 18:56 • (DUP) R3530471-3 05/20/20 18:56

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	96.0	95.4	1	0.624		10

Laboratory Control Sample (LCS)

(LCS) R3530471-2 05/20/20 18:56

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

Method Blank (MB)

(MB) R3530525-1 05/20/20 20:30

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

L1218263-21 Original Sample (OS) • Duplicate (DUP)

(OS) L1218263-21 05/20/20 20:30 • (DUP) R3530525-3 05/20/20 20:30

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	96.2	96.6	1	0.384		10

Laboratory Control Sample (LCS)

(LCS) R3530525-2 05/20/20 20:30

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

Method Blank (MB)

(MB) R3530517-1 05/20/20 20:17

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

L1218263-32 Original Sample (OS) • Duplicate (DUP)

(OS) L1218263-32 05/20/20 20:17 • (DUP) R3530517-3 05/20/20 20:17

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	96.9	97.0	1	0.149		10

Laboratory Control Sample (LCS)

(LCS) R3530517-2 05/20/20 20:17

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

Method Blank (MB)

(MB) R3528152-1 05/14/20 13:59

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Chloride	U		9.20	20.0

L1218263-29 Original Sample (OS) • Duplicate (DUP)

(OS) L1218263-29 05/14/20 18:37 • (DUP) R3528152-6 05/14/20 18:47

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	164	158	1	3.80		20

Laboratory Control Sample (LCS)

(LCS) R3528152-2 05/14/20 14:08

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	192	95.8	90.0-110	

Method Blank (MB)

(MB) R3528440-1 05/15/20 11:27

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Chloride	U		9.20	20.0

Original Sample (OS) • Duplicate (DUP)

(OS) • (DUP) R3528440-3 05/15/20 12:23

Analyte	Original Result	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride		624	1	2.32		20

Laboratory Control Sample (LCS)

(LCS) R3528440-2 05/15/20 11:37

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	192	96.0	90.0-110	

Method Blank (MB)

(MB) R3529361-1 05/15/20 17:20

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Chloride	U		9.20	20.0

L1218263-08 Original Sample (OS) • Duplicate (DUP)

(OS) L1218263-08 05/15/20 18:27 • (DUP) R3529361-3 05/15/20 18:37

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	949	915	1	3.64		20

L1218263-23 Original Sample (OS) • Duplicate (DUP)

(OS) L1218263-23 05/15/20 21:57 • (DUP) R3529361-6 05/15/20 22:06

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) R3529361-2 05/15/20 17:30

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	191	95.6	90.0-110	

L1218263-18 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1218263-18 05/15/20 20:31 • (MS) R3529361-4 05/15/20 20:40 • (MSD) R3529361-5 05/15/20 20:50

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	536	11.0	517	538	94.3	98.2	1	80.0-120			4.00	20

Method Blank (MB)

(MB) R3529462-1 05/19/20 01:39

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Chloride	U		9.20	20.0

L1218263-31 Original Sample (OS) • Duplicate (DUP)

(OS) L1218263-31 05/19/20 02:47 • (DUP) R3529462-3 05/19/20 03:04

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	269	273	1	1.23		20

L1218741-33 Original Sample (OS) • Duplicate (DUP)

(OS) L1218741-33 05/19/20 10:32 • (DUP) R3529462-6 05/19/20 10:50

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	858	757	5	12.4		20

Laboratory Control Sample (LCS)

(LCS) R3529462-2 05/19/20 01:56

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	204	102	90.0-110	

L1218263-37 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1218263-37 05/19/20 04:51 • (MS) R3529462-4 05/19/20 05:45 • (MSD) R3529462-5 05/19/20 06:03

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	516	251	747	742	96.0	95.2	1	80.0-120			0.595	20

Method Blank (MB)

(MB) R3529258-3 05/18/20 10:10

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0217	J	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*95.1*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3529258-2 05/18/20 09:29

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.64	103	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*110*	*77.0-120*	

Method Blank (MB)

(MB) R3529326-2 05/18/20 12:10

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)	*99.3*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3529326-1 05/18/20 11:04

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	6.04	110	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*107*	*77.0-120*	

Method Blank (MB)

(MB) R3529363-3 05/18/20 22:20

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0258	J	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*95.8*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3529363-2 05/18/20 21:39

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.57	101	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*110*	*77.0-120*	

Method Blank (MB)

(MB) R3529364-3 05/18/20 22:20

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0258	J	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*95.8*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3529364-2 05/18/20 21:39

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.57	101	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*110*	*77.0-120*	

Method Blank (MB)

(MB) R3529264-2 05/18/20 08:50

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	*103*			*75.0-131*
(S) 4-Bromofluorobenzene	*99.3*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*97.6*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3529264-1 05/18/20 07:49

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.131	105	70.0-123	
Ethylbenzene	0.125	0.129	103	74.0-126	
Toluene	0.125	0.129	103	75.0-121	
Xylenes, Total	0.375	0.354	94.4	72.0-127	
(S) Toluene-d8			*96.4*	*75.0-131*	
(S) 4-Bromofluorobenzene			*101*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*103*	*70.0-130*	

Method Blank (MB)

(MB) R3529249-3 05/18/20 10:00

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	*112*			*75.0-131*
(S) 4-Bromofluorobenzene	*90.8*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*

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

(LCS) R3529249-1 05/18/20 08:43 • (LCSD) R3529249-2 05/18/20 09:02

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.125	0.115	0.120	92.0	96.0	70.0-123			4.26	20
Ethylbenzene	0.125	0.145	0.144	116	115	74.0-126			0.692	20
Toluene	0.125	0.114	0.121	91.2	96.8	75.0-121			5.96	20
Xylenes, Total	0.375	0.363	0.362	96.8	96.5	72.0-127			0.276	20
(S) Toluene-d8				*105*	*104*	*75.0-131*				
(S) 4-Bromofluorobenzene				*94.2*	*88.8*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*108*	*109*	*70.0-130*				

L1218263-36 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1218263-36 05/18/20 18:42 • (MS) R3529249-4 05/18/20 19:21 • (MSD) R3529249-5 05/18/20 19:40

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	0.132	U	0.111	0.119	84.0	90.4	1	10.0-149			7.34	37
Ethylbenzene	0.132	U	0.138	0.156	105	118	1	10.0-160			12.2	38
Toluene	0.132	U	0.114	0.122	86.4	92.0	1	10.0-156			6.28	38
Xylenes, Total	0.396	U	0.332	0.360	83.7	90.9	1	10.0-160			8.24	38
(S) Toluene-d8					*107*	*108*		*75.0-131*				
(S) 4-Bromofluorobenzene					*86.8*	*89.3*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*104*	*104*		*70.0-130*				

Method Blank (MB)

(MB) R3529322-2 05/18/20 19:14

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	*102*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3529322-1 05/18/20 18:17

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.129	103	70.0-123	
Ethylbenzene	0.125	0.119	95.2	74.0-126	
Toluene	0.125	0.137	110	75.0-121	
Xylenes, Total	0.375	0.349	93.1	72.0-127	
(S) Toluene-d8			*102*	*75.0-131*	
(S) 4-Bromofluorobenzene			*98.0*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*117*	*70.0-130*	

Method Blank (MB)

(MB) R3528941-1 05/18/20 02:47

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	*76.1*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3528941-2 05/18/20 03:01

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			*107*	*18.0-148*	

L1218158-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1218158-05 05/18/20 04:46 • (MS) R3528941-3 05/18/20 04:59 • (MSD) R3528941-4 05/18/20 05:13

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	34.5	37.5	67.9	73.6	1	50.0-150			8.47	20
(S) o-Terphenyl					*88.5*	*104*		*18.0-148*				

Method Blank (MB)

(MB) R3529293-1 05/18/20 12:52

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	*77.8*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3529293-2 05/18/20 13:06

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	40.2	80.4	50.0-150	
(S) o-Terphenyl			*108*	*18.0-148*	

L1218263-15 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1218263-15 05/18/20 13:19 • (MS) R3529293-3 05/18/20 13:32 • (MSD) R3529293-4 05/18/20 13:45

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	51.5	U	28.3	31.2	55.0	60.5	1	50.0-150			9.87	20
(S) o-Terphenyl					*74.0*	*80.5*		*18.0-148*				

Method Blank (MB)

(MB) R3529788-1 05/19/20 16:24

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	*83.8*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3529788-2 05/19/20 16:40

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	42.8	85.6	50.0-150	
(S) o-Terphenyl			*89.6*	*18.0-148*	

L1218263-37 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1218263-37 05/19/20 17:44 • (MS) R3529788-3 05/19/20 18:00 • (MSD) R3529788-4 05/19/20 18:16

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	50.1	2.06	41.5	40.5	78.6	76.7	1	50.0-150			2.26	20
(S) o-Terphenyl					*78.7*	*74.8*		*18.0-148*				

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.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.
V3	The internal standard exhibited poor recovery due to sample matrix interference. The analytical results will be biased high. BDL results will be unaffected.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

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

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

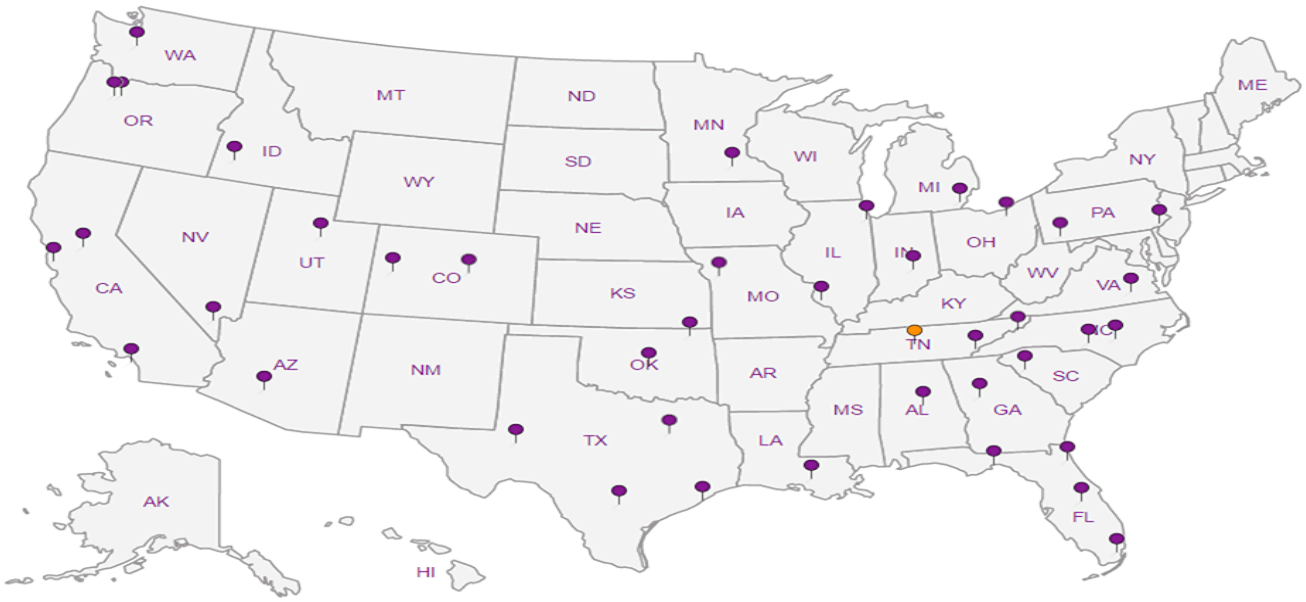
Third Party Federal Accreditations

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

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

Our Locations

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



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

L1218263

Client Name:	Conoco Phillips	**Site Manager:**	Christian Llull
Project Name:	COP EVGSAU 2230-002	**Contact Info:**	Email: christian.llull@tetratech.com Phone: (512) 338-1667
Project Location: (county, state)	Lea County, New Mexico	**Project #:**	212C-MD-02164
Invoice to:	Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 79701		
Receiving Laboratory:	Pace Analytical	**Sampler Signature:**	Joe Tyler
Comments:	COPTETRA Acctnum		D191

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	PRESERVATIVE METHOD: NONE	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	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	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R		HOLD
-01	BH-1 (0'-1')	05/05/20	1000		X			X		1	N	X		X												X						
-02	BH-1 (2'-3')	05/05/20	1010		X			X		1	N	X		X												X						
-03	BH-1 (4'-5')	05/05/20	1020		X			X		1	N	X		X												X						
-04	BH-1 (6'-7')	05/05/20	1030		X			X		1	N	X		X												X						
-05	BH-1 (9'-10')	05/05/20	1040		X			X		1	N	X		X												X						
-06	BH-1 (14'-15')	05/05/20	1050		X			X		1	N	X		X												X						
-07	BH-2 (0'-1')	05/05/20	1100		X			X		1	N	X		X												X						
-08	BH-2 (2'-3')	05/05/20	1110		X			X		1	N	X		X												X						
-09	BH-2 (4'-5')	05/05/20	1120		X			X		1	N	X		X												X						
-10	BH-2 (6'-7')	05/05/20	1130		X			X		1	N	X		X												X						

	Date:	Time:		Date:	Time:
Relinquished by:	5-12-20	13:00	Received by:	5-12-20	13:00
Relinquished by:	5-12-20	16:00	Received by: FedEx	5-12-20	16:00
Relinquished by:			Received by:	13	0845

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LAB USE ONLY
Sample Temperature

REMARKS:
- [X] Standard
- [ ] RUSH: Same Day 24 hr. 48 hr. 72 hr.
- [ ] Rush Charges Authorized
- [ ] Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

T# 4430012737255 2.0+.1=2.1 MM AI

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

C121826 3

Client Name:	Conoco Phillips	**Site Manager:**	Christian Llull
Project Name:	COP EVGSAU 2230-002	**Contact Info:**	Email: christian.llull@tetratech.com Phone: (512) 338-1667
Project Location: (county, state)	Lea County, New Mexico	**Project #:**	212C-MD-02164
Invoice to:	Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 79701		
Receiving Laboratory:	Pace Analytical	**Sampler Signature:**	Joe Tyler
Comments:	COPTETRA Acctnum		

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE (YEAR: 2020)	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	MATRIX:	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	PRESERVATIVE METHOD: NONE	PRESERVATIVE METHOD:	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	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	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R		HOLD
-11	BH-2 (9'-10')	05/05/20	1140		X				X			1	N	X		X												X						
	BH-2 (14'-15')	05/05/20	1150		X				X			10	N	X		X												X						
-12	BH-2 (19'-20')	05/05/20	1200		X				X			1	N	X		X												X						
-13	BH-3 (0'-1')	05/05/20	1210		X				X			1	N	X		X												X						
-14	BH-3 (2'-3')	05/05/20	1220		X				X			1	N	X		X												X						
-15	BH-3 (4'-5')	05/05/20	1230		X				X			1	N	X		X												X						
-16	BH-3 (6'-7')	05/05/20	1240		X				X			1	N	X		X												X						
-17	BH-3 (9'-10')	05/05/20	1250		X				X			1	N	X		X												X						
-18	BH-4 (0'-1')	05/05/20	1300		X				X			1	N	X		X												X						
-19	BH-4 (2'-3')	05/05/20	1300		X				X			1	N	X		X												X						

	Relinquished by:	Date:	Time:	Received by:	Date:	Time:
1		5-12-20	13:00		5-12-20	13:00
2		5-12-20	16:00	FedEx	5-12-20	16:00
3						

LAB USE ONLY

Sample Temperature

REMARKS:

- [X] Standard
- [ ] RUSH: Same Day 24 hr. 48 hr. 72 hr.
- [ ] Rush Charges Authorized
- [ ] Special Report Limits or TRRP Report

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Analysis Request or Chain of Custody Record

Page 3 of 4

Tetra Tech, Inc.

901 West Wall Street, Suite 100
Midland, Texas 79701
Tel (432) 682-4559
Fax (432) 682-3946

L1218263

Client Name:	Conoco Phillips	**Site Manager:**	Christian Llull
Project Name:	COP EVGSAU 2230-002	**Contact Info:**	Email: christian.llull@tetratech.com Phone: (512) 338-1667
Project Location: (county, state)	Lea County, New Mexico	**Project #:**	212C-MD-02164
Invoice to:	Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 79701		
Receiving Laboratory:	Pace Analytical	**Sampler Signature:**	Joe Tyler

Comments: COPTETRA Acctnum

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2020 DATE	SAMPLING TIME	MATRIX WATER	MATRIX SOIL	MATRIX	PRESERVATIVE METHOD HCL	PRESERVATIVE METHOD HNO_3	PRESERVATIVE METHOD ICE	PRESERVATIVE METHOD NONE	PRESERVATIVE METHOD	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	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	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R		HOLD
-20	BH-4 (4'-5')	05/05/20	1310		X				X			1	N	X		X												X						
-21	BH-4 (6'-7')	05/05/20	1320		X				X			1	N	X		X												X						
-22	BH-4 (9'-10')	05/05/20	1330		X				X			1	N	X		X												X						
-23	BH-5 (0'-1')	05/05/20	1340		X				X			1	N	X		X												X						
-24	BH-5 (2'-3')	05/05/20	1350		X				X			1	N	X		X												X						
-25	BH-5 (4'-5')	05/05/20	1400		X				X			1	N	X		X												X						
-26	BH-5 (6'-7')	05/05/20	1410		X				X			1	N	X		X												X						
-27	BH-5 (9'-10')	05/05/20	1420		X				X			1	N	X		X												X						
-28	BH-6 (0'-1')	05/05/20	1430		X				X			1	N	X		X												X						
-29	BH-6 (2'-3')	05/05/20	1440		X				X			1	N	X		X												X						

Relinquished by: Bill Schmick	Date: 5-12-20	Time: 13:00	Received by: [signature]
Relinquished by: [signature]	Date: 5-12-20	Time: 16:00	Received by: FedEx
Relinquished by:	Date:	Time:	Received by: [signature]

Date: 5-13-20 Time: 0815

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LAB USE ONLY

Sample Temperature

REMARKS:

- [X] Standard
- [ ] RUSH: Same Day 24 hr. 48 hr. 72 hr.
- [ ] Rush Charges Authorized
- [ ] Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

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

L1218263

Client Name:	Conoco Phillips	**Site Manager:**	Christian Llull
Project Name:	COP EVGSAU 2230-002	**Contact Info:**	Email: christian.llull@tetratech.com Phone: (512) 338-1667
Project Location: (county, state)	Lea County, New Mexico	**Project #:**	212C-MD-02164
Invoice to:	Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 79701		
Receiving Laboratory:	Pace Analytical	**Sampler Signature:**	Joe Tyler
Comments:	COPTETRA Acctnum		

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	MATRIX:	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	PRESERVATIVE METHOD: NONE	PRESERVATIVE METHOD:	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	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	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R		HOLD
		YEAR: 2020																															
-30	BH-6 (4'-5')	05/05/20	1450		X				X			1	N	X		X												X					
-31	BH-6 (6'-7')	05/05/20	1500		X				X			1	N	X		X												X					
-32	BH-6 (9'-10')	05/05/20	1510		X				X			1	N	X		X												X					
-33	BH-7 (0'-1')	05/05/20	1520		X				X			1	N	X		X												X					
-34	BH-7 (2'-3')	05/05/20	1530		X				X			1	N	X		X												X					
-35	BH-7 (4'-5')	05/05/20	1540		X				X			1	N	X		X												X					
-36	BH-7 (6'-7')	05/05/20	1550		X				X			1	N	X		X												X					
-37	BH-7 (9'-10')	05/05/20	1600		X				X			1	N	X		X												X					

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
[signature]	5-12-20	Bim	[signature]	5-12-20	Bim
[signature]	5-12-20	16:40	FedEx	5-12-20	16:40
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
			[signature]	1300	08:35

LAB USE ONLY

Sample Temperature

REMARKS:

- [X] Standard
- [ ] RUSH: Same Day 24 hr. 48 hr. 72 hr.
- [ ] Rush Charges Authorized
- [ ] Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

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Pace Analytical National Center for Testing & Innovation
Cooler Receipt Form

Client:	L1218263	
Cooler Received/Opened On: 5/13/20 Temperature:	2.1	
Received By: Paul Minnich		
Signature: Paul Minnich		

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?			

5/13

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

August 05, 2020

ConocoPhillips - Tetra Tech

Sample Delivery Group:	L1243728
Samples Received:	07/25/2020
Project Number:	212C-MD-02164
Description:	EVGSAU 2230-002
Site:	LEA COUNTY, NEW MEXICO
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.

TABLE OF CONTENTS

BH-8A (0-1') L1243728-01 Solid

Collected by: Adrian | Collected date/time: 07/23/20 08:00 | Received date/time: 07/25/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1518217	1	07/31/20 22:59	07/31/20 23:33	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1516545	1	07/30/20 13:29	07/31/20 09:22	MCG	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1518152	1	07/29/20 00:42	07/31/20 17:57	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1517296	1	07/29/20 00:42	07/30/20 08:49	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1518400	1	07/31/20 12:52	08/01/20 00:43	TH	Mt. Juliet, TN

BH-8A (1-2') L1243728-02 Solid

Collected by: Adrian | Collected date/time: 07/23/20 08:10 | Received date/time: 07/25/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1518217	1	07/31/20 22:59	07/31/20 23:33	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1516545	1	07/30/20 13:29	07/30/20 16:12	MCG	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1518152	1	07/29/20 00:42	07/31/20 18:19	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1517296	1	07/29/20 00:42	07/30/20 09:09	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1518400	1	07/31/20 12:52	07/31/20 23:00	TH	Mt. Juliet, TN

BH-9A (0-1') L1243728-03 Solid

Collected by: Adrian | Collected date/time: 07/23/20 08:20 | Received date/time: 07/25/20 09:00

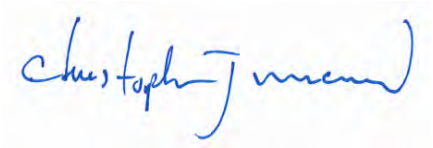
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1518217	1	07/31/20 22:59	07/31/20 23:33	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1516545	1	07/30/20 13:29	07/30/20 16:26	MCG	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1518152	1	07/29/20 00:42	07/31/20 18:41	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1517296	1	07/29/20 00:42	07/30/20 09:28	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1518501	2.73	08/01/20 08:47	08/01/20 17:17	JDG	Mt. Juliet, TN

BH-9A (1-2') L1243728-04 Solid

Collected by: Adrian | Collected date/time: 07/23/20 08:30 | Received date/time: 07/25/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1518217	1	07/31/20 22:59	07/31/20 23:33	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1516545	1	07/30/20 13:29	07/30/20 16:39	MCG	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1518152	1	07/29/20 00:42	07/31/20 19:03	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1517296	1	07/29/20 00:42	07/30/20 09:48	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1518675	10	08/01/20 15:44	08/04/20 22:04	JN	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

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.4		1	07/31/2020 23:33	WG1518217

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		9.55	20.8	1	07/31/2020 09:22	WG1516545

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	0.0391	J	0.0225	0.104	1	07/31/2020 17:57	WG1518152
(S) a,a,a-Trifluorotoluene(FID)	*103*			*77.0-120*		*07/31/2020 17:57*	WG1518152

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		0.000485	0.00104	1	07/30/2020 08:49	WG1517296
Toluene	U		0.00135	0.00519	1	07/30/2020 08:49	WG1517296
Ethylbenzene	U		0.000765	0.00259	1	07/30/2020 08:49	WG1517296
Total Xylenes	0.00169	J	0.000913	0.00674	1	07/30/2020 08:49	WG1517296
(S) Toluene-d8	*105*			*75.0-131*		*07/30/2020 08:49*	WG1517296
(S) 4-Bromofluorobenzene	*102*			*67.0-138*		*07/30/2020 08:49*	WG1517296
(S) 1,2-Dichloroethane-d4	*110*			*70.0-130*		*07/30/2020 08:49*	WG1517296

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	4.51		1.67	4.15	1	08/01/2020 00:43	WG1518400
C28-C40 Oil Range	18.2		0.284	4.15	1	08/01/2020 00:43	WG1518400
(S) o-Terphenyl	*56.5*			*18.0-148*		*08/01/2020 00:43*	WG1518400

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.4		1	07/31/2020 23:33	WG1518217

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		9.54	20.7	1	07/30/2020 16:12	WG1516545

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	0.0295	J	0.0225	0.104	1	07/31/2020 18:19	WG1518152
(S) a,a,a-Trifluorotoluene(FID)	*103*			*77.0-120*		*07/31/2020 18:19*	WG1518152

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		0.000484	0.00104	1	07/30/2020 09:09	WG1517296
Toluene	U		0.00135	0.00518	1	07/30/2020 09:09	WG1517296
Ethylbenzene	U		0.000764	0.00259	1	07/30/2020 09:09	WG1517296
Total Xylenes	U		0.000913	0.00674	1	07/30/2020 09:09	WG1517296
(S) Toluene-d8	*105*			*75.0-131*		*07/30/2020 09:09*	WG1517296
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*07/30/2020 09:09*	WG1517296
(S) 1,2-Dichloroethane-d4	*108*			*70.0-130*		*07/30/2020 09:09*	WG1517296

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	1.67	4.15	1	07/31/2020 23:00	WG1518400
C28-C40 Oil Range	5.46		0.284	4.15	1	07/31/2020 23:00	WG1518400
(S) o-Terphenyl	*76.8*			*18.0-148*		*07/31/2020 23:00*	WG1518400

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.1		1	07/31/2020 23:33	WG1518217

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	11.2	J	9.57	20.8	1	07/30/2020 16:26	WG1516545

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	0.0497	J	0.0226	0.104	1	07/31/2020 18:41	WG1518152
(S) a,a,a-Trifluorotoluene(FID)	*101*			*77.0-120*		*07/31/2020 18:41*	WG1518152

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	07/30/2020 09:28	WG1517296
Toluene	U		0.00135	0.00520	1	07/30/2020 09:28	WG1517296
Ethylbenzene	U		0.000767	0.00260	1	07/30/2020 09:28	WG1517296
Total Xylenes	U		0.000915	0.00676	1	07/30/2020 09:28	WG1517296
(S) Toluene-d8	*105*			*75.0-131*		*07/30/2020 09:28*	WG1517296
(S) 4-Bromofluorobenzene	*104*			*67.0-138*		*07/30/2020 09:28*	WG1517296
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*		*07/30/2020 09:28*	WG1517296

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	12.0		4.58	11.3	2.73	08/01/2020 17:17	WG1518501
C28-C40 Oil Range	56.8		0.778	11.3	2.73	08/01/2020 17:17	WG1518501
(S) o-Terphenyl	*82.4*			*18.0-148*		*08/01/2020 17:17*	WG1518501

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.0		1	07/31/2020 23:33	WG1518217

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	31.2		9.58	20.8	1	07/30/2020 16:39	WG1516545

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	07/31/2020 19:03	WG1518152
(S) a,a,a-Trifluorotoluene(FID)	*100*			*77.0-120*		*07/31/2020 19:03*	WG1518152

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	07/30/2020 09:48	WG1517296
Toluene	U		0.00135	0.00521	1	07/30/2020 09:48	WG1517296
Ethylbenzene	U		0.000767	0.00260	1	07/30/2020 09:48	WG1517296
Total Xylenes	0.00105	J	0.000916	0.00677	1	07/30/2020 09:48	WG1517296
(S) Toluene-d8	*107*			*75.0-131*		*07/30/2020 09:48*	WG1517296
(S) 4-Bromofluorobenzene	*106*			*67.0-138*		*07/30/2020 09:48*	WG1517296
(S) 1,2-Dichloroethane-d4	*108*			*70.0-130*		*07/30/2020 09:48*	WG1517296

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	78.4		16.8	41.7	10	08/04/2020 22:04	WG1518675
C28-C40 Oil Range	519		2.85	41.7	10	08/04/2020 22:04	WG1518675
(S) o-Terphenyl	*79.4*			*18.0-148*		*08/04/2020 22:04*	WG1518675

Method Blank (MB)

(MB) R3555381-1 07/31/20 23:33

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

L1243727-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1243727-01 07/31/20 23:33 • (DUP) R3555381-3 07/31/20 23:33

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	92.4	92.5	1	0.189		10

Laboratory Control Sample (LCS)

(LCS) R3555381-2 07/31/20 23:33

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

Method Blank (MB)

(MB) R3555089-1 07/30/20 14:41

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Chloride	U		9.20	20.0

L1244400-21 Original Sample (OS) • Duplicate (DUP)

(OS) L1244400-21 07/30/20 21:07 • (DUP) R3555089-5 07/30/20 21:21

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	81.7	71.3	1	13.7		20

L1243728-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1243728-01 07/31/20 09:22 • (DUP) R3555089-6 07/31/20 09:35

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) R3555089-2 07/30/20 14:54

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	199	99.6	90.0-110	

L1243732-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1243732-02 07/30/20 17:59 • (MS) R3555089-3 07/30/20 18:13 • (MSD) R3555089-4 07/30/20 18:26

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	516	19.8	557	556	104	104	1	80.0-120			0.213	20

Method Blank (MB)

(MB) R3555189-2 07/31/20 11:46

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)	*105*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3555189-1 07/31/20 11:01

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	6.63	121	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*106*	*77.0-120*	

L1244028-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1244028-03 07/31/20 20:11 • (MS) R3555189-3 07/31/20 20:55 • (MSD) R3555189-4 07/31/20 21:18

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	550	601	998	968	72.2	66.7	100	10.0-151			3.05	28
(S) a,a,a-Trifluorotoluene(FID)					*102*	*99.8*		*77.0-120*				

Method Blank (MB)

(MB) R3555463-2 07/30/20 05:54

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	*102*			*75.0-131*
(S) 4-Bromofluorobenzene	*102*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*98.4*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3555463-1 07/30/20 04:54

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.113	90.4	70.0-123	
Ethylbenzene	0.125	0.113	90.4	74.0-126	
Toluene	0.125	0.111	88.8	75.0-121	
Xylenes, Total	0.375	0.351	93.6	72.0-127	
(S) Toluene-d8			*105*	*75.0-131*	
(S) 4-Bromofluorobenzene			*107*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*119*	*70.0-130*	

L1243728-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1243728-04 07/30/20 09:48 • (MS) R3555463-3 07/30/20 13:28 • (MSD) R3555463-4 07/30/20 13:48

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	0.139	0.127	107	98.4	1	10.0-149			8.63	37
Ethylbenzene	0.129	U	0.145	0.131	112	102	1	10.0-160			9.81	38
Toluene	0.129	U	0.141	0.131	109	102	1	10.0-156			6.90	38
Xylenes, Total	0.387	0.00105	0.430	0.403	111	104	1	10.0-160			6.50	38
(S) Toluene-d8					*101*	*104*		*75.0-131*				
(S) 4-Bromofluorobenzene					*103*	*107*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*102*	*110*		*70.0-130*				

Method Blank (MB)

(MB) R3555333-1 07/31/20 16:05

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	*83.8*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3555333-2 07/31/20 16:19

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	37.1	74.2	50.0-150	
(S) o-Terphenyl			*71.3*	*18.0-148*	

L1243727-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1243727-03 08/01/20 01:22 • (MS) R3555433-1 08/01/20 01:35 • (MSD) R3555433-2 08/01/20 01:47

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	50.6	5.41	45.3	39.3	79.0	67.0	1	50.0-150			14.3	20
(S) o-Terphenyl					*75.9*	*67.8*		*18.0-148*				

Method Blank (MB)

(MB) R3555544-1 08/01/20 13:49

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	*74.6*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3555544-2 08/01/20 14:02

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	41.3	82.6	50.0-150	
(S) o-Terphenyl			*89.9*	*18.0-148*	

L1243649-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1243649-01 08/01/20 16:25 • (MS) R3555544-3 08/01/20 16:38 • (MSD) R3555544-4 08/01/20 16:51

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	49.8	18.8	50.8	59.1	64.3	80.9	1	50.0-150			15.1	20
(S) o-Terphenyl					*57.4*	*61.4*		*18.0-148*				

Method Blank (MB)

(MB) R3556172-1 08/01/20 23:05

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	*123*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3556172-2 08/01/20 23:18

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	62.5	125	50.0-150	
(S) o-Terphenyl			*125*	*18.0-148*	

Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) • (MS) R3556172-3 08/02/20 00:10 • (MSD) R3556172-4 08/02/20 00:23

Analyte	Spike Amount mg/kg	Original Result	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	48.9		58.1	58.7	115	116	1	50.0-150			1.03	20
(S) o-Terphenyl					*111*	*107*		*18.0-148*				

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

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

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

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

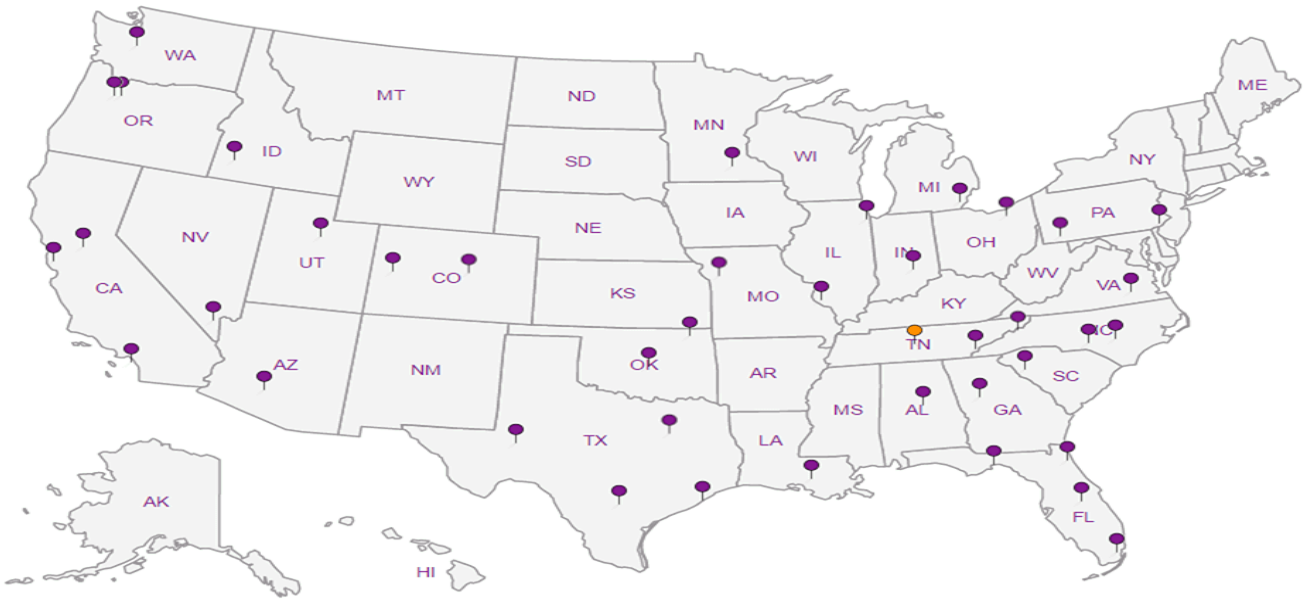
Third Party Federal Accreditations

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

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

Our Locations

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



Analysis Request of Chain of Custody Record

L1243728

Page : 1 of 1

Tetra Tech, Inc.

901 West Wall Street, Suite 100
Midland, Texas 79701
Tel (432) 682-4559
Fax (432) 682-3946

F026

Client Name:	Conoco Phillips	**Site Manager:**	Christian Llull
Project Name:	EVGSAU 2230-002	**Contact Info:**	Email: christian.llull@tetratech.com Phone: (512) 338-1667
Project Location: (county, state)	Lea County, New Mexico	**Project #:**	212C-MD-02164
Invoice to:	Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 79701		
Receiving Laboratory:	Pace Analytical	**Sampler Signature:**	Adrian
Comments:	COPTETRA Acctnum		

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2020 DATE	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	MATRIX:	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	PRESERVATIVE METHOD: NONE	PRESERVATIVE METHOD:	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	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	Chloride	Sulfate	TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R		HOLD
-01	BH-8a (0-1')	7/23/2020	800		X				X			1	N	X		X												X								
-02	BH-8a (1-2')	7/23/2020	810		X				X			1	N	X		X												X								
-03	BH-9a (0-1')	7/23/2020	820		X				X			1	N	X		X												X								
-04	BH-9a (1-2')	7/23/2020	830		X				X			1	N	X		X												X								

Relinquished by: Edwin Day	Date: 7/24/20	Time: 1:00 P	Received by:	Date: 7/24/20	Time:
Relinquished by:	Date: 7/24/20	Time: 17:00	Received by: FedEx	Date: 7/24/20	Time: 17:00
Relinquished by:	Date:	Time:	Received by:	Date: 7-25-20	Time: 900

ORIGINAL COPY

LAB USE ONLY

Sample Temperature

REMARKS:

- [X] Standard
- [ ] RUSH: Same Day 24 hr. 48 hr. 72 hr.
- [ ] Rush Charges Authorized
- [ ] Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

3.4-2-3.2

Pace Analytical National Center for Testing & Innovation
Cooler Receipt Form

Client: ~~TetraTech~~ COPTETRA	L1243728	
Cooler Received/Opened On: 7 / 25 / 20 Temperature:	3.2	
Received By: Bryan Burgess		
Signature:		

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?			

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

August 05, 2020

ConocoPhillips - Tetra Tech

Sample Delivery Group:	L1243730
Samples Received:	07/25/2020
Project Number:	212C-MD-02164
Description:	EVGSAU 2230-002
Site:	LEA COUNTY, NEW MEXICO
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.

TABLE OF CONTENTS

BH-8B (0-1') L1243730-01 Solid

Collected by: Adrian
Collected date/time: 07/23/20 08:00
Received date/time: 07/25/20 09:00

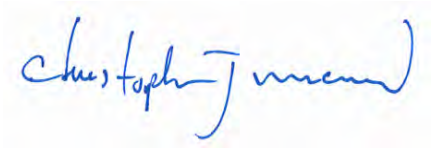
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1518218	1	08/01/20 22:36	08/01/20 22:48	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1515537	1	07/29/20 11:47	07/29/20 22:15	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1518152	1	07/29/20 16:58	07/31/20 19:26	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1517465	1	07/29/20 16:58	07/30/20 00:55	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1518675	1	08/01/20 15:44	08/02/20 00:37	JN	Mt. Juliet, TN

BH-8B (1-2') L1243730-02 Solid

Collected by: Adrian
Collected date/time: 07/23/20 08:10
Received date/time: 07/25/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1518218	1	08/01/20 22:36	08/01/20 22:48	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1515537	1	07/29/20 11:47	07/29/20 22:33	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1518152	1.01	07/29/20 16:58	07/31/20 19:48	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1517465	1	07/29/20 16:58	07/30/20 01:15	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1518675	1	08/01/20 15:44	08/04/20 13:31	TJD	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

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.5		1	08/01/2020 22:48	WG1518218

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		10.9	23.7	1	07/29/2020 22:15	WG1515537

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		0.0257	0.118	1	07/31/2020 19:26	WG1518152
(S) a,a,a-Trifluorotoluene(FID)	*103*			*77.0-120*		*07/31/2020 19:26*	WG1518152

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		0.000637	0.00137	1	07/30/2020 00:55	WG1517465
Toluene	U		0.00177	0.00683	1	07/30/2020 00:55	WG1517465
Ethylbenzene	U		0.00101	0.00341	1	07/30/2020 00:55	WG1517465
Total Xylenes	U		0.00120	0.00887	1	07/30/2020 00:55	WG1517465
(S) Toluene-d8	*94.5*			*75.0-131*		*07/30/2020 00:55*	WG1517465
(S) 4-Bromofluorobenzene	*100*			*67.0-138*		*07/30/2020 00:55*	WG1517465
(S) 1,2-Dichloroethane-d4	*98.8*			*70.0-130*		*07/30/2020 00:55*	WG1517465

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	4.19	J	1.90	4.73	1	08/02/2020 00:37	WG1518675
C28-C40 Oil Range	9.88		0.324	4.73	1	08/02/2020 00:37	WG1518675
(S) o-Terphenyl	*118*			*18.0-148*		*08/02/2020 00:37*	WG1518675

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.1		1	08/01/2020 22:48	WG1518218

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		9.98	21.7	1	07/29/2020 22:33	WG1515537

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		0.0238	0.110	1.01	07/31/2020 19:48	WG1518152
(S) a,a,a-Trifluorotoluene(FID)	*102*			*77.0-120*		*07/31/2020 19:48*	WG1518152

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		0.000507	0.00109	1	07/30/2020 01:15	WG1517465
Toluene	U		0.00141	0.00543	1	07/30/2020 01:15	WG1517465
Ethylbenzene	U		0.000800	0.00271	1	07/30/2020 01:15	WG1517465
Total Xylenes	U		0.000955	0.00705	1	07/30/2020 01:15	WG1517465
(S) Toluene-d8	*96.6*			*75.0-131*		*07/30/2020 01:15*	WG1517465
(S) 4-Bromofluorobenzene	*97.2*			*67.0-138*		*07/30/2020 01:15*	WG1517465
(S) 1,2-Dichloroethane-d4	*98.8*			*70.0-130*		*07/30/2020 01:15*	WG1517465

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	3.46	J	1.75	4.34	1	08/04/2020 13:31	WG1518675
C28-C40 Oil Range	15.3		0.297	4.34	1	08/04/2020 13:31	WG1518675
(S) o-Terphenyl	*89.5*			*18.0-148*		*08/04/2020 13:31*	WG1518675

Method Blank (MB)

(MB) R3555853-1 08/01/20 22:48

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

L1243732-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1243732-02 08/01/20 22:48 • (DUP) R3555853-3 08/01/20 22:48

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	96.9	97.2	1	0.333		10

Laboratory Control Sample (LCS)

(LCS) R3555853-2 08/01/20 22:48

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

Method Blank (MB)

(MB) R3554621-1 07/29/20 13:13

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Chloride	U		9.20	20.0

L1243360-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1243360-01 07/29/20 14:13 • (DUP) R3554621-3 07/29/20 14:30

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	216	203	1	5.78		20

L1243595-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1243595-01 07/29/20 21:40 • (DUP) R3554621-6 07/29/20 21:58

Analyte	Original Result (dry)	DUP Result (dry)	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	U	U	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R3554621-2 07/29/20 13:31

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	195	97.6	90.0-110	

L1243573-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1243573-01 07/29/20 16:17 • (MS) R3554621-4 07/29/20 17:11

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	587	14300	14400	22.8	1	80.0-120	E V

L1243573-01 Original Sample (OS) • Matrix Spike (MS)

(OS) L1243573-01 07/29/20 16:17 • (MS) R3554621-5 07/29/20 17:29

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Chloride	587	14300	15300	182	1	80.0-120	E V

Method Blank (MB)

(MB) R3555189-2 07/31/20 11:46

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)	*105*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3555189-1 07/31/20 11:01

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	6.63	121	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*106*	*77.0-120*	

L1244028-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1244028-03 07/31/20 20:11 • (MS) R3555189-3 07/31/20 20:55 • (MSD) R3555189-4 07/31/20 21:18

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	550	601	998	968	72.2	66.7	100	10.0-151			3.05	28
(S) a,a,a-Trifluorotoluene(FID)					*102*	*99.8*		*77.0-120*				

Method Blank (MB)

(MB) R3554887-2 07/29/20 22:01

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	*93.8*			*75.0-131*
(S) 4-Bromofluorobenzene	*97.8*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*97.8*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3554887-1 07/29/20 21:01

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.127	102	70.0-123	
Ethylbenzene	0.125	0.113	90.4	74.0-126	
Toluene	0.125	0.110	88.0	75.0-121	
Xylenes, Total	0.375	0.332	88.5	72.0-127	
(S) Toluene-d8			*95.3*	*75.0-131*	
(S) 4-Bromofluorobenzene			*95.5*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*108*	*70.0-130*	

L1244098-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1244098-10 07/30/20 04:58 • (MS) R3554887-3 07/30/20 06:19 • (MSD) R3554887-4 07/30/20 06:40

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	0.174	U	0.209	0.212	120	122	1	10.0-149			1.33	37
Ethylbenzene	0.174	0.00132	0.192	0.190	110	108	1	10.0-160			1.47	38
Toluene	0.174	U	0.177	0.177	102	102	1	10.0-156			0.000	38
Xylenes, Total	0.522	0.00737	0.559	0.565	106	107	1	10.0-160			1.00	38
(S) Toluene-d8					*94.4*	*93.4*		*75.0-131*				
(S) 4-Bromofluorobenzene					*118*	*121*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*103*	*101*		*70.0-130*				

Method Blank (MB)

(MB) R3556172-1 08/01/20 23:05

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	*123*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3556172-2 08/01/20 23:18

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	62.5	125	50.0-150	
(S) o-Terphenyl			*125*	*18.0-148*	

L1244183-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1244183-09 08/01/20 23:57 • (MS) R3556172-3 08/02/20 00:10 • (MSD) R3556172-4 08/02/20 00:23

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	48.9	1.89	58.1	58.7	115	116	1	50.0-150			1.03	20
(S) o-Terphenyl					*111*	*107*		*18.0-148*				

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.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

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

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

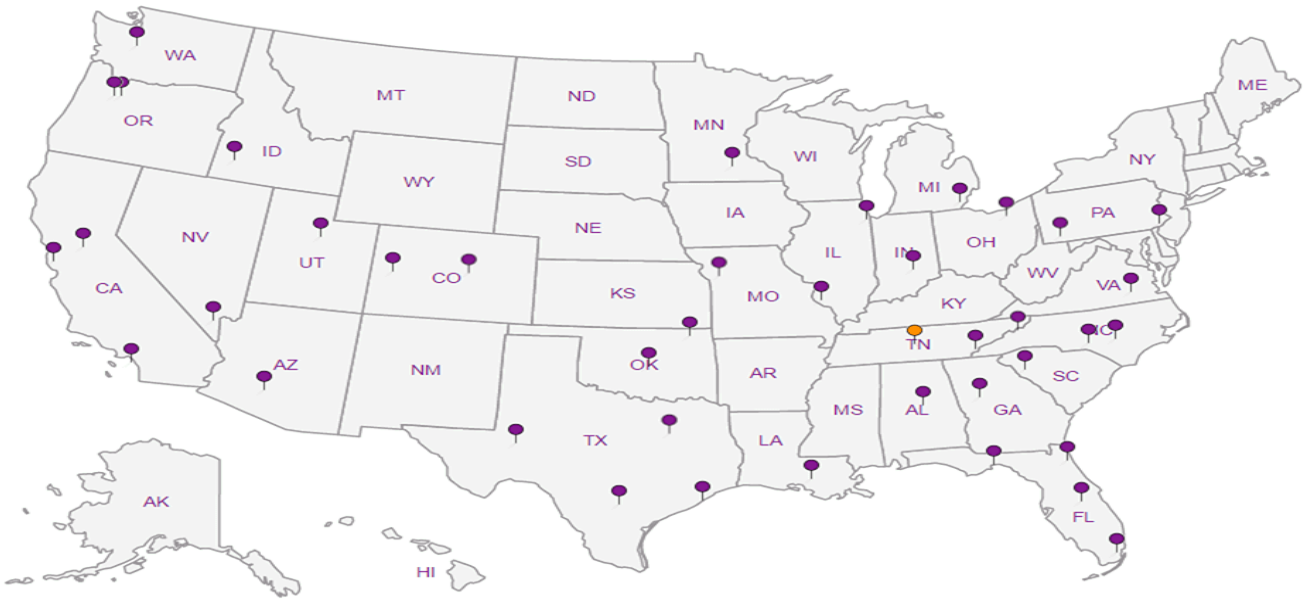
Third Party Federal Accreditations

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

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

Our Locations

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



Analysis Request of Chain of Custody Record

C1243730

Page : 1 of 1

Tetra Tech, Inc.

901 West Wall Street, Suite 100
Midland, Texas 79701
Tel (432) 682-4559
Fax (432) 682-3946

F027

Client Name:	Conoco Phillips	**Site Manager:**	Christian Llull
Project Name:	EVGSAU 2230-002	**Contact Info:**	Email: christian.llull@tetratech.com Phone: (512) 338-1667
Project Location: (county, state)	Lea County, New Mexico	**Project #:**	212C-MD-02164
Invoice to:	Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 79701		
Receiving Laboratory:	Pace Analytical	**Sampler Signature:**	Adrian
Comments:	COPTETRA Acctnum		

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	MATRIX:	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	PRESERVATIVE METHOD: NONE	PRESERVATIVE METHOD:	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	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	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R		HOLD
YEAR: 2020																																	
-C1	BH-8b (0-1')	7/23/2020	800		X				X			1	N	X		X												X					
-C2	BH-8b (1-2')	7/23/2020	810		X				X			1	N	X		X												X					

Relinquished by:	Date: 7/24/20	Time: 1:00	Received by:	Date: 7/24/20 Time: 13:30
Relinquished by:	Date: 7/24/20	Time: 17:30	Received by: FedEx	Date: 7/24/20 Time: 17:30
Relinquished by:	Date:	Time:	Received by:	Date: 7-25-20 Time: 900

ORIGINAL COPY

LAB USE ONLY

Sample Temperature

REMARKS:

- [X] Standard
- [ ] RUSH: Same Day 24 hr. 48 hr. 72 hr.
- [ ] Rush Charges Authorized
- [ ] Special Report Limits or TRRP Report

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

3.4-.2=3.2

Pace Analytical National Center for Testing & Innovation
Cooler Receipt Form

Client: ~~Fetra Tech~~ COPTETRA	U243770	
Cooler Received/Opened On: 7 / 25 / 20 Temperature:	3.2	
Received By: Bryan Burgess		
Signature:		

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?			

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

September 15, 2020

ConocoPhillips - Tetra Tech

Sample Delivery Group:	L1261121
Samples Received:	09/12/2020
Project Number:	212C-MD-02164
Description:	COP EVGSAU 2230-002
Site:	LEA COUNTY, NEW MEXICO
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.

TABLE OF CONTENTS

BH-10 (0-1') L1261121-01 Solid

Collected by: John Thurston | Collected date/time: 09/11/20 00:00 | Received date/time: 09/12/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1542601	1	09/14/20 12:38	09/14/20 12:45	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1541864	1	09/13/20 20:10	09/14/20 06:30	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1542332	27.5	09/11/20 00:00	09/13/20 17:12	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1542298	1.1	09/11/20 00:00	09/13/20 12:16	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1543135	1.1	09/11/20 00:00	09/15/20 12:12	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1542806	2	09/14/20 19:54	09/15/20 09:14	JN	Mt. Juliet, TN

BH-11 (0-1') L1261121-02 Solid

Collected by: John Thurston | Collected date/time: 09/11/20 00:00 | Received date/time: 09/12/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1542601	1	09/14/20 12:38	09/14/20 12:45	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1541864	1	09/13/20 20:10	09/14/20 06:45	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1542332	27.3	09/11/20 00:00	09/13/20 17:35	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1542298	1.09	09/11/20 00:00	09/13/20 12:35	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1543135	1.09	09/11/20 00:00	09/15/20 12:31	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1542806	1	09/14/20 19:54	09/15/20 07:45	JN	Mt. Juliet, TN

BH-12 (0-1') L1261121-03 Solid

Collected by: John Thurston | Collected date/time: 09/11/20 00:00 | Received date/time: 09/12/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1542601	1	09/14/20 12:38	09/14/20 12:45	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1541864	1	09/13/20 20:10	09/14/20 07:00	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1542332	27.3	09/11/20 00:00	09/13/20 17:58	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1542298	1.09	09/11/20 00:00	09/13/20 12:54	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1543135	1.09	09/11/20 00:00	09/15/20 12:50	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1542806	1	09/14/20 19:54	09/15/20 07:58	JN	Mt. Juliet, TN

BH-13 (0-1') L1261121-04 Solid

Collected by: John Thurston | Collected date/time: 09/11/20 00:00 | Received date/time: 09/12/20 09:00

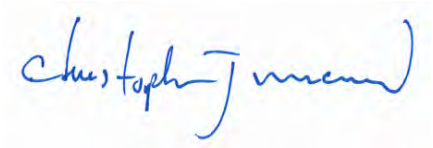
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1542604	1	09/14/20 12:29	09/14/20 12:37	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1541864	1	09/13/20 20:10	09/14/20 07:14	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1542332	26.5	09/11/20 00:00	09/13/20 18:21	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1542298	1.06	09/11/20 00:00	09/13/20 13:13	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1543135	1.06	09/11/20 00:00	09/15/20 13:09	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1542806	1	09/14/20 19:54	09/15/20 07:20	JN	Mt. Juliet, TN

BH-14 (0-1') L1261121-05 Solid

Collected by: John Thurston | Collected date/time: 09/11/20 00:00 | Received date/time: 09/12/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1542604	1	09/14/20 12:29	09/14/20 12:37	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1541864	1	09/13/20 20:10	09/14/20 07:29	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1542332	26.3	09/11/20 00:00	09/13/20 18:44	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1542298	1.05	09/11/20 00:00	09/13/20 13:32	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1543135	1.05	09/11/20 00:00	09/15/20 13:28	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1542806	1	09/14/20 19:54	09/15/20 07:32	JN	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

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.7		1	09/14/2020 12:45	WG1542601

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	15.3	J	9.51	20.7	1	09/14/2020 06:30	WG1541864

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	0.757	B J	0.636	2.93	27.5	09/13/2020 17:12	WG1542332
(S) a,a,a-Trifluorotoluene(FID)	*96.4*			*77.0-120*		*09/13/2020 17:12*	WG1542332

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	0.000674	J	0.000547	0.00117	1.1	09/13/2020 12:16	WG1542298
Toluene	0.00395	J	0.00152	0.00586	1.1	09/13/2020 12:16	WG1542298
Ethylbenzene	U		0.000864	0.00293	1.1	09/15/2020 12:12	WG1543135
Total Xylenes	0.00164	J	0.00103	0.00762	1.1	09/15/2020 12:12	WG1543135
(S) Toluene-d8	*98.4*			*75.0-131*		*09/13/2020 12:16*	WG1542298
(S) Toluene-d8	*95.9*			*75.0-131*		*09/15/2020 12:12*	WG1543135
(S) 4-Bromofluorobenzene	*99.8*			*67.0-138*		*09/13/2020 12:16*	WG1542298
(S) 4-Bromofluorobenzene	*112*			*67.0-138*		*09/15/2020 12:12*	WG1543135
(S) 1,2-Dichloroethane-d4	*110*			*70.0-130*		*09/13/2020 12:16*	WG1542298
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*09/15/2020 12:12*	WG1543135

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	64.3		3.33	8.27	2	09/15/2020 09:14	WG1542806
C28-C40 Oil Range	241		0.567	8.27	2	09/15/2020 09:14	WG1542806
(S) o-Terphenyl	*45.0*			*18.0-148*		*09/15/2020 09:14*	WG1542806

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.2		1	09/14/2020 12:45	WG1542601

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		9.77	21.2	1	09/14/2020 06:45	WG1541864

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		0.662	3.05	27.3	09/13/2020 17:35	WG1542332
(S) a,a,a-Trifluorotoluene(FID)	*95.3*			*77.0-120*		*09/13/2020 17:35*	WG1542332

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		0.000569	0.00122	1.09	09/13/2020 12:35	WG1542298
Toluene	0.00362	J	0.00159	0.00609	1.09	09/13/2020 12:35	WG1542298
Ethylbenzene	U		0.000898	0.00305	1.09	09/15/2020 12:31	WG1543135
Total Xylenes	0.00173	J	0.00107	0.00792	1.09	09/15/2020 12:31	WG1543135
(S) Toluene-d8	*97.8*			*75.0-131*		*09/13/2020 12:35*	WG1542298
(S) Toluene-d8	*98.8*			*75.0-131*		*09/15/2020 12:31*	WG1543135
(S) 4-Bromofluorobenzene	*99.6*			*67.0-138*		*09/13/2020 12:35*	WG1542298
(S) 4-Bromofluorobenzene	*114*			*67.0-138*		*09/15/2020 12:31*	WG1543135
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*		*09/13/2020 12:35*	WG1542298
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*09/15/2020 12:31*	WG1543135

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	8.67		1.71	4.25	1	09/15/2020 07:45	WG1542806
C28-C40 Oil Range	57.4		0.291	4.25	1	09/15/2020 07:45	WG1542806
(S) o-Terphenyl	*48.0*			*18.0-148*		*09/15/2020 07:45*	WG1542806

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.0		1	09/14/2020 12:45	WG1542601

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	12.6	J	9.58	20.8	1	09/14/2020 07:00	WG1541864

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	1.08	B J	0.639	2.95	27.3	09/13/2020 17:58	WG1542332
(S) a,a,a-Trifluorotoluene(FID)	*96.6*			*77.0-120*		*09/13/2020 17:58*	WG1542332

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	1.09	09/13/2020 12:54	WG1542298
Toluene	0.00315	J	0.00153	0.00588	1.09	09/13/2020 12:54	WG1542298
Ethylbenzene	U		0.000867	0.00295	1.09	09/15/2020 12:50	WG1543135
Total Xylenes	0.00141	J	0.00104	0.00764	1.09	09/15/2020 12:50	WG1543135
(S) Toluene-d8	*99.8*			*75.0-131*		*09/13/2020 12:54*	WG1542298
(S) Toluene-d8	*95.3*			*75.0-131*		*09/15/2020 12:50*	WG1543135
(S) 4-Bromofluorobenzene	*97.2*			*67.0-138*		*09/13/2020 12:54*	WG1542298
(S) 4-Bromofluorobenzene	*110*			*67.0-138*		*09/15/2020 12:50*	WG1543135
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*09/13/2020 12:54*	WG1542298
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*		*09/15/2020 12:50*	WG1543135

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	7.42		1.68	4.17	1	09/15/2020 07:58	WG1542806
C28-C40 Oil Range	39.1		0.285	4.17	1	09/15/2020 07:58	WG1542806
(S) o-Terphenyl	*47.7*			*18.0-148*		*09/15/2020 07:58*	WG1542806

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	97.8		1	09/14/2020 12:37	WG1542604

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		9.40	20.4	1	09/14/2020 07:14	WG1541864

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		0.600	2.76	26.5	09/13/2020 18:21	WG1542332
(S) a,a,a-Trifluorotoluene(FID)	*96.3*			*77.0-120*		*09/13/2020 18:21*	WG1542332

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		0.000516	0.00111	1.06	09/13/2020 13:13	WG1542298
Toluene	0.00329	J	0.00144	0.00553	1.06	09/13/2020 13:13	WG1542298
Ethylbenzene	U		0.000815	0.00276	1.06	09/15/2020 13:09	WG1543135
Total Xylenes	0.00144	J	0.000973	0.00719	1.06	09/15/2020 13:09	WG1543135
(S) Toluene-d8	*102*			*75.0-131*		*09/13/2020 13:13*	WG1542298
(S) Toluene-d8	*101*			*75.0-131*		*09/15/2020 13:09*	WG1543135
(S) 4-Bromofluorobenzene	*97.7*			*67.0-138*		*09/13/2020 13:13*	WG1542298
(S) 4-Bromofluorobenzene	*108*			*67.0-138*		*09/15/2020 13:09*	WG1543135
(S) 1,2-Dichloroethane-d4	*109*			*70.0-130*		*09/13/2020 13:13*	WG1542298
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*		*09/15/2020 13:09*	WG1543135

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	3.71	J	1.65	4.09	1	09/15/2020 07:20	WG1542806
C28-C40 Oil Range	18.9		0.280	4.09	1	09/15/2020 07:20	WG1542806
(S) o-Terphenyl	*53.0*			*18.0-148*		*09/15/2020 07:20*	WG1542806

BH14 (0-1)
Collected date/time: 09/11/20 00:00
L1261121

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	97.8		1	09/14/2020 12:37	WG1542604

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		9.41	20.5	1	09/14/2020 07:29	WG1541864

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		0.596	2.75	26.3	09/13/2020 18:44	WG1542332
(S) a,a,a-Trifluorotoluene(FID)	*96.1*			*77.0-120*		*09/13/2020 18:44*	WG1542332

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		0.000512	0.00110	1.05	09/13/2020 13:32	WG1542298
Toluene	0.00318	J	0.00142	0.00548	1.05	09/13/2020 13:32	WG1542298
Ethylbenzene	0.00101	J	0.000808	0.00275	1.05	09/15/2020 13:28	WG1543135
Total Xylenes	0.00153	J	0.000965	0.00713	1.05	09/15/2020 13:28	WG1543135
(S) Toluene-d8	*102*			*75.0-131*		*09/13/2020 13:32*	WG1542298
(S) Toluene-d8	*99.8*			*75.0-131*		*09/15/2020 13:28*	WG1543135
(S) 4-Bromofluorobenzene	*101*			*67.0-138*		*09/13/2020 13:32*	WG1542298
(S) 4-Bromofluorobenzene	*106*			*67.0-138*		*09/15/2020 13:28*	WG1543135
(S) 1,2-Dichloroethane-d4	*110*			*70.0-130*		*09/13/2020 13:32*	WG1542298
(S) 1,2-Dichloroethane-d4	*109*			*70.0-130*		*09/15/2020 13:28*	WG1543135

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	1.65	4.09	1	09/15/2020 07:32	WG1542806
C28-C40 Oil Range	15.3		0.280	4.09	1	09/15/2020 07:32	WG1542806
(S) o-Terphenyl	*51.5*			*18.0-148*		*09/15/2020 07:32*	WG1542806

Method Blank (MB)

(MB) R3570402-1 09/14/20 12:45

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

L1261121-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1261121-01 09/14/20 12:45 • (DUP) R3570402-3 09/14/20 12:45

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	96.7	96.1	1	0.629		10

Laboratory Control Sample (LCS)

(LCS) R3570402-2 09/14/20 12:45

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

Method Blank (MB)

(MB) R3570399-1 09/14/20 12:37

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

L1261135-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1261135-03 09/14/20 12:37 • (DUP) R3570399-3 09/14/20 12:37

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	82.5	82.6	1	0.0781		10

Laboratory Control Sample (LCS)

(LCS) R3570399-2 09/14/20 12:37

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

Method Blank (MB)

(MB) R3569986-1 09/13/20 21:39

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Chloride	U		9.20	20.0

L1260251-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1260251-01 09/14/20 00:32 • (DUP) R3569986-3 09/14/20 00:47

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	39.4	39.2	1	0.432		20

L1260772-06 Original Sample (OS) • Duplicate (DUP)

(OS) L1260772-06 09/14/20 06:00 • (DUP) R3569986-6 09/14/20 06:15

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	3960	4110	10	3.70		20

Laboratory Control Sample (LCS)

(LCS) R3569986-2 09/13/20 21:53

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	197	98.3	90.0-110	

L1260772-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1260772-01 09/14/20 03:31 • (MS) R3569986-4 09/14/20 03:46 • (MSD) R3569986-5 09/14/20 04:01

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	500	10100	10300	10800	43.3	129	1	80.0-120	E V	E V	4.05	20

Method Blank (MB)

(MB) R3570397-2 09/13/20 11:22

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0229	J	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*96.1*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3570397-1 09/13/20 10:36

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.33	96.9	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*104*	*77.0-120*	

Method Blank (MB)

(MB) R3570408-3 09/13/20 11:04

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Toluene	U		0.00130	0.00500
(S) Toluene-d8	*97.6*			*75.0-131*
(S) 4-Bromofluorobenzene	*96.1*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*111*			*70.0-130*

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

(LCS) R3570408-1 09/13/20 09:48 • (LCSD) R3570408-2 09/13/20 10:07

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	0.111	0.119	88.8	95.2	70.0-123			6.96	20
Toluene	0.125	0.102	0.111	81.6	88.8	75.0-121			8.45	20
(S) Toluene-d8				*93.0*	*93.0*	*75.0-131*				
(S) 4-Bromofluorobenzene				*104*	*103*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*110*	*109*	*70.0-130*				

Method Blank (MB)

(MB) R3570567-3 09/15/20 09:33

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Ethylbenzene	U		0.000737	0.00250
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	*98.5*			*75.0-131*
(S) 4-Bromofluorobenzene	*111*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*111*			*70.0-130*

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

(LCS) R3570567-1 09/15/20 08:18 • (LCSD) R3570567-2 09/15/20 08:37

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 %
Ethylbenzene	0.125	0.118	0.118	94.4	94.4	74.0-126			0.000	20
Xylenes, Total	0.375	0.386	0.380	103	101	72.0-127			1.57	20
(S) Toluene-d8				*96.7*	*97.7*	*75.0-131*				
(S) 4-Bromofluorobenzene				*106*	*104*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*112*	*114*	*70.0-130*				

Method Blank (MB)

(MB) R3570533-1 09/15/20 04:09

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	*70.6*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3570533-2 09/15/20 04:22

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	33.2	66.4	50.0-150	
(S) o-Terphenyl			*58.7*	*18.0-148*	

L1260620-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1260620-01 09/15/20 05:00 • (MS) R3570533-3 09/15/20 05:13 • (MSD) R3570533-4 09/15/20 05:25

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	49.8	U	33.3	30.7	66.9	61.6	1	50.0-150			8.12	20
(S) o-Terphenyl					*50.9*	*49.4*		*18.0-148*				

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.
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.
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

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

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

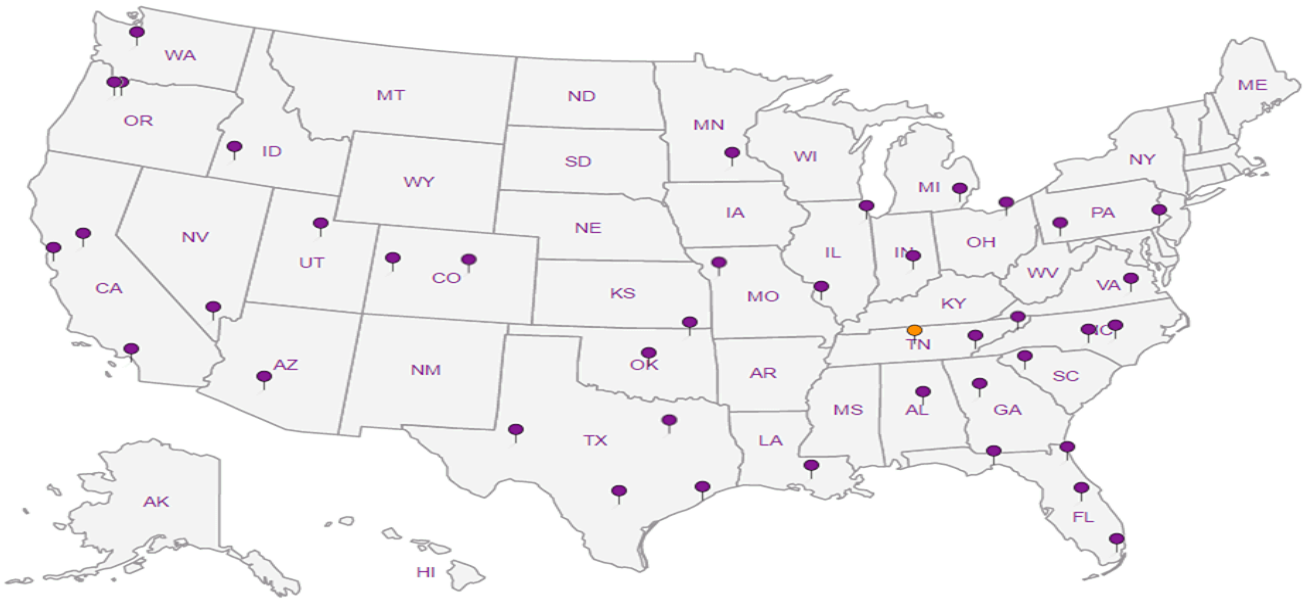
Third Party Federal Accreditations

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

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

Our Locations

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



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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:	EVGSAU 2230-002	**Contact Info:**	Email: christian.llull@tetratech.com Phone: (512) 338-1667
Project Location: (county, state)	Lea County, New Mexico	**Project #:**	212C-MD-02164
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 DATE	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	MATRIX:	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	PRESERVATIVE METHOD: NONE	PRESERVATIVE METHOD:	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	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	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R		HOLD
-01	BH-10 (0-1')	9/11/2020			X				X			1	N	X		X												X					
02	BH-11 (0-1')	9/11/2020			X				X			1	N	X		X												X					
03	BH-12 (0-1')	9/11/2020			X				X			1	N	X		X												X					
04	BH-13 (0-1')	9/11/2020			X				X			1	N	X		X												X					
05	BH-14 (0-1')	9/11/2020			X				X			1	N	X		X												X					

Relinquished by:	Date: 9/11/20	Time: 1400	Received by:
Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date:	Time:	Received by: Date: 9/12 Time: 9:00

ORIGINAL COPY

MP43 1.0-3=.1

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

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

8131 0130 6946

RAD SCREEN: <0.5 mR/hr

C066

Pace Analytical National Center for Testing & Innovation
Cooler Receipt Form

Client: COPTETRA	126121	
Cooler Received/Opened On: 9/12/20 Temperature:	0.7°C	
Received By: LUCAS GREEN		
Signature:		

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?			

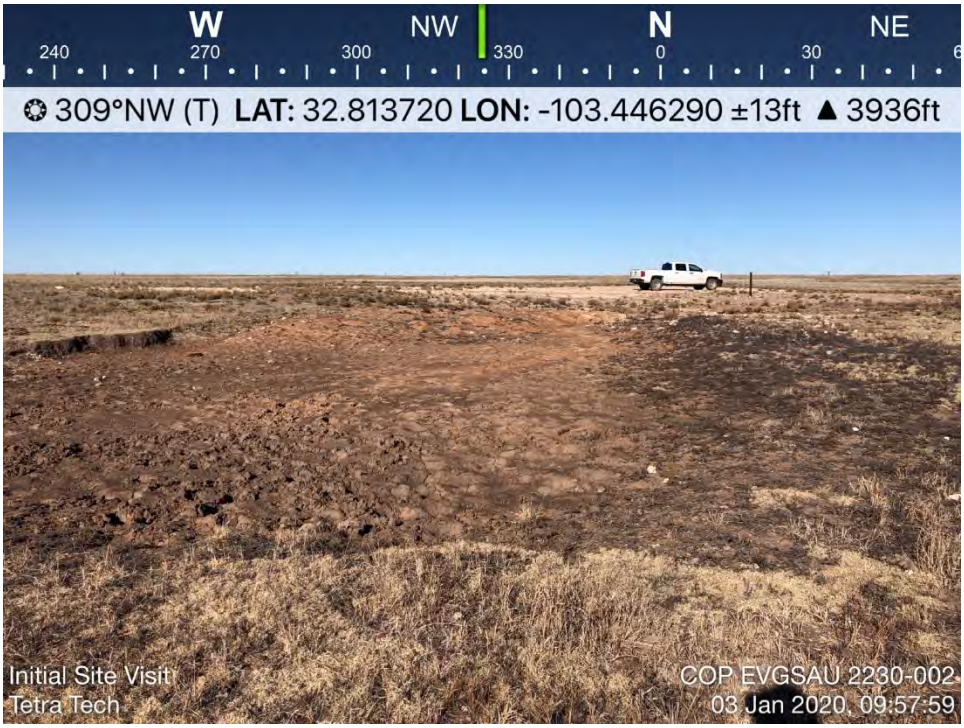
APPENDIX E
Photographic Documentation

TETRA TECH, INC. PROJECT NO. 212C-MD-02020	DESCRIPTION	View east. Former wellhead and release area on the former EVGSAU 2230-002 lease pad.	1
	SITE NAME	EVGSAU 2230-002 Wellhead Release	1/3/2020

TETRA TECH, INC. PROJECT NO. 212C-MD-02020	DESCRIPTION	View west from former wellhead. Release area on the former lease pad.	2
	SITE NAME	EVGSAU 2230-002 Wellhead Release	1/3/2020

TETRA TECH, INC. PROJECT NO. 212C-MD-02020	DESCRIPTION	View south. Release area and depressed area indicating previous excavation.	3
	SITE NAME	EVGSAU 2230-002 Wellhead Release	1/3/2020

TETRA TECH, INC. PROJECT NO. 212C-MD-02020	DESCRIPTION	View west-northwest. Depressed area indicating previous excavation.	4
	SITE NAME	EVGSAU 2230-002 Wellhead Release	1/3/2020



TETRA TECH, INC. PROJECT NO. 212C-MD-02020	DESCRIPTION	View northwest. Depressed area indicating previous excavation.	5
	SITE NAME	EVGSAU 2230-002 Wellhead Release	1/3/2020

TETRA TECH, INC. PROJECT NO. 212C-MD-02020	DESCRIPTION	View southwest. Sidewall of excavated area.	7
	SITE NAME	EVGSAU 2230-002 Wellhead Release	1/3/2020

APPENDIX F
NMSLO Seed Mixture Details

United States Department of Agriculture

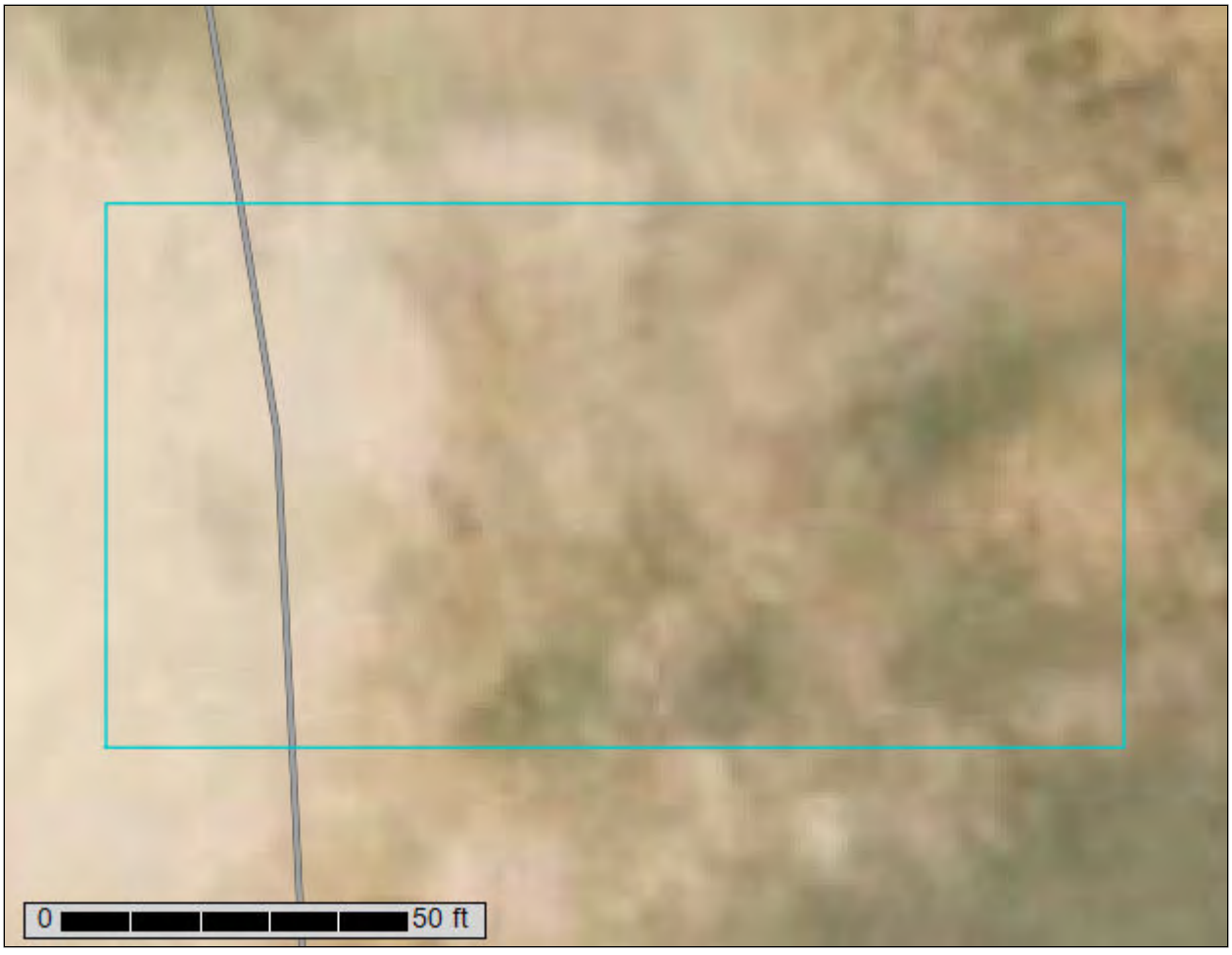
NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Lea County, New Mexico

EVGSAU 2230-002 Wellhead Release



August 17, 2020

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

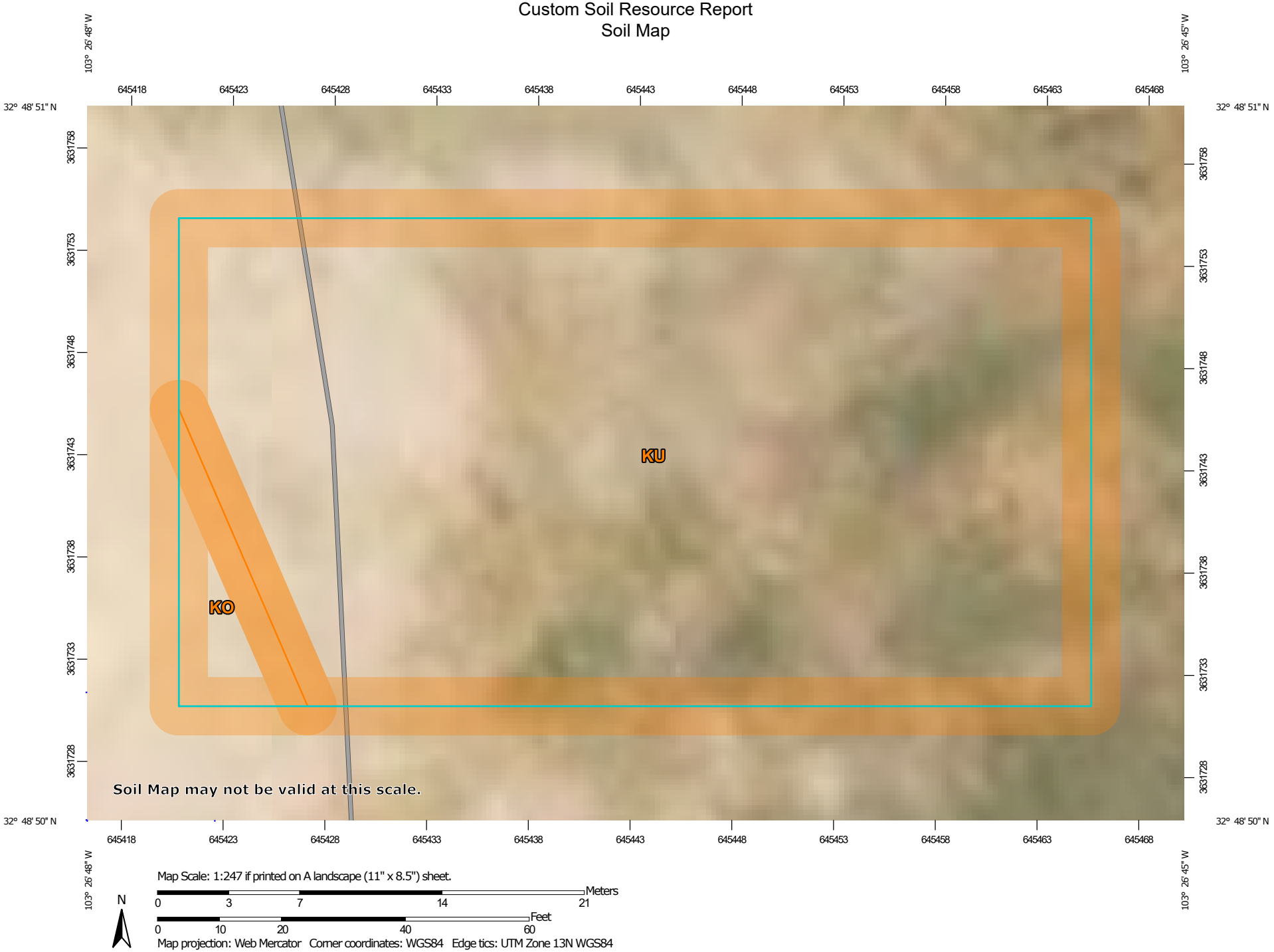
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Lea County, New Mexico
Survey Area Data: Version 17, Jun 8, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 18, 2016—Nov 20, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
KO	Kimbrough gravelly loam, dry, 0 to 3 percent slopes	0.0	4.3%
KU	Kimbrough-Lea complex, dry, 0 to 3 percent slopes	0.3	95.7%
Totals for Area of Interest		**0.3**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however,

onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Lea County, New Mexico

KO—Kimbrough gravelly loam, dry, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2tw43
Elevation: 2,500 to 4,800 feet
Mean annual precipitation: 14 to 16 inches
Mean annual air temperature: 57 to 63 degrees F
Frost-free period: 180 to 220 days
Farmland classification: Not prime farmland

Map Unit Composition

Kimbrough, dry, and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kimbrough, Dry

Setting

Landform: Plains, playa rims
Down-slope shape: Linear, convex
Across-slope shape: Linear, concave
Parent material: Loamy eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 3 inches: gravelly loam
Bw - 3 to 10 inches: loam
Bkkm1 - 10 to 16 inches: cemented material
Bkkm2 - 16 to 80 inches: cemented material

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 4 to 18 inches to petrocalcic
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.01 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 95 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water capacity: Very low (about 1.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: R077DY049TX - Very Shallow 12-17" PZ
Hydric soil rating: No

Minor Components

Eunice

Percent of map unit: 10 percent
Landform: Plains
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R077DY049TX - Very Shallow 12-17" PZ
Hydric soil rating: No

Spraberry

Percent of map unit: 6 percent
Landform: Plains, playa rims
Down-slope shape: Linear, convex
Across-slope shape: Linear
Ecological site: R077DY049TX - Very Shallow 12-17" PZ
Hydric soil rating: No

Kenhill

Percent of map unit: 4 percent
Landform: Plains
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R077DY038TX - Clay Loam 12-17" PZ
Hydric soil rating: No

KU—Kimbrough-Lea complex, dry, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2tw46
Elevation: 2,500 to 4,800 feet
Mean annual precipitation: 14 to 16 inches
Mean annual air temperature: 57 to 63 degrees F
Frost-free period: 180 to 220 days
Farmland classification: Not prime farmland

Map Unit Composition

Kimbrough and similar soils: 45 percent
Lea and similar soils: 25 percent
Minor components: 30 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Kimbrough

Setting

Landform: Plains, playa rims
Down-slope shape: Linear, convex
Across-slope shape: Linear, concave
Parent material: Loamy eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 3 inches: gravelly loam
Bw - 3 to 10 inches: loam
Bkkm1 - 10 to 16 inches: cemented material
Bkkm2 - 16 to 80 inches: cemented material

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 4 to 18 inches to petrocalcic
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.01 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 95 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water capacity: Very low (about 1.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: R077DY049TX - Very Shallow 12-17" PZ
Hydric soil rating: No

Description of Lea

Setting

Landform: Plains
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Calcareous, loamy eolian deposits from the blackwater draw formation of pleistocene age over indurated caliche of pliocene age

Typical profile

A - 0 to 10 inches: loam
Bk - 10 to 18 inches: loam
Bkk - 18 to 26 inches: gravelly fine sandy loam
Bkkm - 26 to 80 inches: cemented material

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: 22 to 30 inches to petrocalcic
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 90 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 3.0

Available water capacity: Very low (about 2.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Ecological site: R077DY047TX - Sandy Loam 12-17" PZ
Hydric soil rating: No

Minor Components

Douro

Percent of map unit: 12 percent
Landform: Plains
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R077DY047TX - Sandy Loam 12-17" PZ
Other vegetative classification: Unnamed (G077DH000TX)
Hydric soil rating: No

Kenhill

Percent of map unit: 12 percent
Landform: Plains
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R077DY038TX - Clay Loam 12-17" PZ
Hydric soil rating: No

Spraberry

Percent of map unit: 6 percent
Landform: Plains, playa rims
Down-slope shape: Linear, convex
Across-slope shape: Linear
Ecological site: R077DY049TX - Very Shallow 12-17" PZ
Other vegetative classification: Unnamed (G077DH000TX)
Hydric soil rating: No

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NMSLO Seed Mix Coarse (CS)

COARSE (CS) SITES SEED MIXTURE:

COMMON NAME	VARIETY	APPLICATION RATE (PLS/Acre)	DRILL BOX
Grasses:			
Sand bluestem	VNS, Southern	2.0	F
Sideoats grama	Vaughn, El Reno	2.0	F
Blue grama	Hachita, Lovington	1.5	D
Little bluestem	Cimmaron, Pastura	1.5	F
Sand dropseed	VNS, Southern	1.0	S
Plains bristlegrass	VNS, Southern	0.75	D
Forbs:			
Parry penstemon	VNS, Southern	1.0	D
Desert globemallow	VNS, Southern	1.0	D
White prairieclover	Kaneb, VNS	0.5	D
Sulfur buckwheat	VNS, Southern	0.5	D
Shrubs:			
Fourwing saltbush	VNS, Southern	1.0	D
Skunkbush sumac	VNS, Southern	1.0	D
Common winterfat	VNS, Southern	1.0	F
Fringed sagewort	VNS, Southern	0.5	F
	Total PLS/acre	18.25	

S = Small seed drill box, D = Standard seed drill box, F = Fluffy seed drill box

- VNS, Southern – No Variety Stated, seed should be from a southern latitude collection of this species.
- Double above seed rates for broadcast or hydroseeding.
- If Parry is not available, substitute firecracker penstemon.
- If desert globemallow is not available, substitute scarlet globemallow.
- If one species is not available, provide a suggested substitute to the New Mexico Land Office for approval. Increasing all other species proportionately may be acceptable.