SITE INFORMATION

Report Type: Work Plan 1RP-4470

General Site Information:						
Site:	**EVGSAU 2622-034 Flowline Release**					
Company:	**ConocoPhillips**					
Section, Township and Range	**Unit Letter F**	**Sec. 26**	**T 17S**	**R 35E**		
Lease Number:	**N/A**					
County:	**Lea**					
GPS:	**32.806784°**			**-103.430709°**		
Surface Owner:	**Federal (BLM)**					
Mineral Owner:	**N/A**					
Directions:	Depart from Buckeye (NM238/Buckeye Rd). Head east on Buckeye Rd for 4.12 miles. Turn left onto dirt road. Head north for 0.47 miles. Turn right onto dirt road. Head east for 0.2 miles. Arrive at location on left.					

Release Data:			
Date Released:	10/10/2016		
Type Release:	Oil		
Source of Contamination:	Flowline leak		
Fluid Released:	10.5 bbls oil		
Fluids Recovered:	10 bbls oil		

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:	*No*
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

May 15, 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 2622-034 Flowline Release
Unit Letter F, Section 26, Township 17 South, Range 35 East
Lea County, New Mexico
1RP-4470
Incident ID nKL1629442582

Sir or Madam:

Tetra Tech, Inc. (Tetra Tech) was contacted by ConocoPhillips (COP) to assess a release that occurred along a flowline from the East Vacuum Grayburg San Andres Unit (EVGSAU) 2622-034 well to the EVGSAU Satellite #5 facility. The release footprint is located in the Public Land Survey System (PLSS) Unit Letter F, Section 26, Township 17 South, Range 35 East, in Lea County, New Mexico (Site). The Site is located at coordinates 32.806784°, -103.430709° immediately east of the Satellite #5 facility, as shown on Figures 1 and 2.

1. BACKGROUND

According to the State of New Mexico C-141 Initial Report (Appendix A), on October 10, 2016 a Multi-Skilled Operator (MSO) discovered a leak on a flowline from the EVGSAU 2622-034 well (API No. 30-025-02881) to the Satellite #5 facility. The leak resulted in a release of 10.5 barrels (bbls) of oil, of which 10 bbls were recovered. Immediate action taken by COP was to isolate the leak and submit a work order to repair the line. The New Mexico Oil Conservation District (NMOCD) was notified on October 13, 2016, and the site was subsequently assigned the Remediation Permit (RP) number 1RP-4470 and the Incident Identification Number nKL1629442582.

2. 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 there are playa lakes within 1000 feet of the release area footprint.

There are two water wells listed in Section 26, Township 17 South, Range 35 East on the New Mexico Office of the State Engineer (NMOSE) database. The average depth to groundwater is 50 ft below ground surface (bgs). Site characterization data are included in Appendix B.

3. 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

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levels (RRALs) for benzene, toluene, ethylbenzene, and xylenes (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	100 mg/kg
BTEX	50 mg/kg
Benzene	10 mg/kg

4. SITE ASSESSMENT

Tetra Tech, Inc. (Tetra Tech) personnel visited the Site on January 7, 2020 to visually identify the footprint, assess the release, and conduct field screenings of the surface soil to establish the release extent (Figure 3). During the site visit, Tetra Tech personnel walked the entire length of the surface flowline between the EVGSAU 2622-034 well and Satellite #5 and discovered a repaired five-foot segment of flowline approximately twenty feet northeast of the Satellite #5 location. This observed area exhibited signs of impacted soils and distressed vegetation surrounding the repaired flowline section.

Several locations within and around the observed release area were chosen for surface soil screening for salinity parts per million (ppm) using an ExStik II EC 400 meter in order to horizontally delineate impact and to establish the release extent. The results of the surface screenings revealed two impacted locations (S-1 and S-3) that had screening values over 600 ppm, inferred as greater than the recommended remedial action levels (RRAL) for chlorides of 600 mg/kg in accordance with the NMOCD Guidelines for Remediation of Leaks, Spills and Releases. The remaining surface screening values were below 600 ppm, hypothetically equivalent to the NMOCD's RRAL for chlorides. Surface soil screening results are summarized in Table 1.

Based on provided information and surface screening data collected during the site visit, the estimated release extent was identified around the repaired flowline in an estimated eighty (80)-feet by eighty (80)-feet impacted area of pasture. Observed release extents, surface screening locations, and all additional structures observed in the field are indicated in Figure 3.

Tetra Tech personnel returned to the Site to delineate and sample the release area on March 26, 2020 on behalf of COP. A total of eight (8) borings (BH-1 through BH-8) were installed using an air rotary drilling rig to various depths. Four borings, BH-1 through BH-4, were installed within the observed release footprint at depths ranging from 7 ft bgs (BH-1) to 25 ft bgs (BH-2) to achieve vertical delineation of impact. The remining four borings, BH-5 through BH-8, were installed to 5 ft bgs along the perimeter of the observed release footprint to achieve horizontal delineation. Boring logs, included as Appendix C, present soil descriptions, sample depths and field screening data from the March 2020 site assessment activities.

A total of thirty-one (31) samples were collected from the eight borings and submitted to Pace Analytical National Center for Testing & Innovation (Pace) in Nashville, Tennessee 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. Boring locations are shown in Figure 3. Photographic documentation from the additional site assessment is included in Appendix E.

5. SUMMARY OF SAMPLING RESULTS

Results from the March 2020 soil sampling event are summarized in Table 2. Analytical results associated with all soil samples were non-detect for BTEX. The analytical results associated with the surface (0-1) sample from boring location BH-2 exceeded the Site RRAL for TPH (100 mg/kg). All other sample results were below RRAL for TPH. The analytical results associated with location BH-3 had RRAL exceedances for chloride (600 mg/kg) from the surface down to 4 ft bgs. Analytical results from one isolated depth interval at BH-4 (3-4 ft bgs) also exceed the RRAL for chloride. The analytical results associated with perimeter

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borings BH-5 through BH-8) were non-detect for both benzene and total BTEX concentrations, and were below the respective RRALs for both TPH and chloride.

6. REMEDIATION WORK PLAN

Based on the analytical results, COP proposes to remove the impacted material as shown in Table 2 and as depicted in Figure 4. Impacted soils around the BH-3 and BH-4 locations will be excavated using heavy equipment (backhoes, hoe rams, and track hoes) to a minimum depth of 4 ft bgs until a representative sample from the walls and bottom of the excavation is below the RRALs. Impacted soil in the vicinity of BH-2 will be excavated to a depth of 2 ft bgs within the release area footprint. The area of the release extent that runs along the surface flowlines within the release location footprint will be hand-dug to a depth to 4 ft or the maximum extent practicable.

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 900 cubic yards.

7. VARIANCE REQUEST

In accordance with 19.15.29.14(A) NMAC, COP requests a variance for the remediation of the historical release area should excavation floor concentrations below 4 ft bgs exceed 600 mg/kg for chlorides. A 20-mil reinforced polyethylene liner will be installed and properly seated at a depth of 4 ft within the excavated areas associated with the release. The liner will provide an engineered barrier that will inhibit the downward migration of residual constituents to groundwater.

8. ALTERNATIVE CONFIRMATION SAMPLING PLAN

In accordance with 19.15.29.12(D)(1)(b) NMAC, COP proposes the following alternative confirmation sampling plan to adhere with NMOCD requirements. The proposed confirmation sample locations are depicted in Figure 4. Twelve (12) confirmation floor samples and thirteen (13) confirmation sidewall samples are proposed for verification of remedial activities. The proposed excavation encompasses an area of approximately 5,000 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.

9. SITE RECLAMATION AND RESTORATION PLAN

The backfilled areas will be seeded in Spring/Summer 2020 (first favorable growing season) to aid in revegetation. Based on the soils at the site, the New Mexico State Land Office (NMSLO) Loamy (L) 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 F.

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10. CONCLUSION

The release extent was delineated vertically and horizontally through assessment activities, as discussed in Section 5 and as shown on Figures 3 and 4. The deepest impacted interval encountered was 4 ft bgs at sample locations BH-3 and BH-4 and 2 ft bgs at BH-2. Based on these results, COP proposes to excavate the impacted areas to 4 ft bgs and 2 ft bgs, respectfully, as shown on Figure 4. Confirmation floor and sidewall samples will be collected and analyzed for Site constituents, and excavation areas will be expanded if results exceed RRALs. If floor confirmation samples collected at 4 ft bgs exceed RRALs, then COP requests a variance for remediation, as discussed in Section 7.

COP proposes to complete remediation activities at the Site within 90 days of NMOCD approval of this submittal. 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 Pope 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

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LIST OF ATTACHMENTS

Figures:

Figure 1 – Overview Map
Figure 2 – Site Location/Topographic Map
Figure 3 – Release Assessment Map
Figure 4 – Proposed Excavation and Confirmation Sampling Plan

Tables:

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

Appendices:

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

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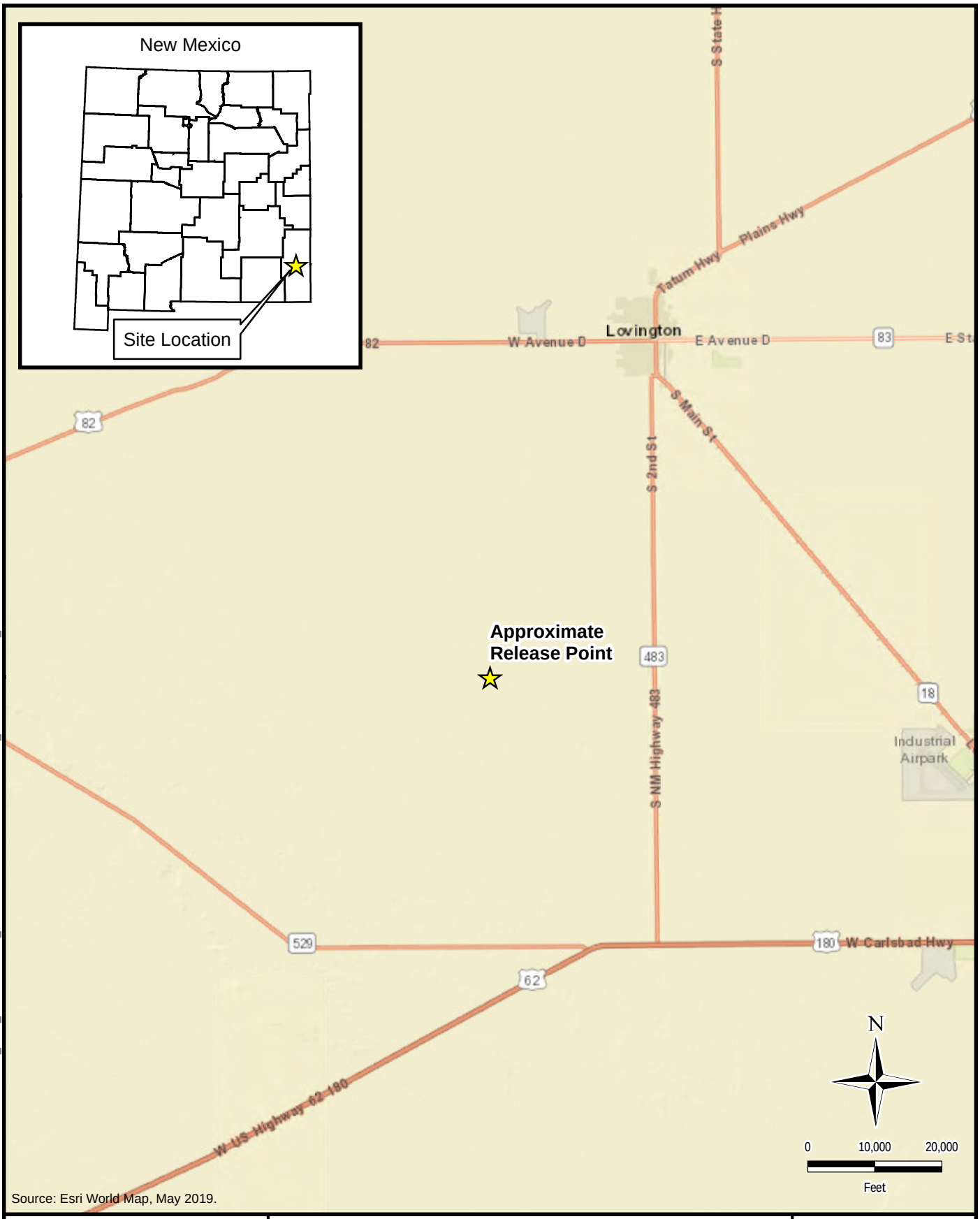
FIGURES



Source: Esri World Map, May 2019.

DOCUMENT PATH: D:\CONOCOPHILLIPS\MXD\EVGSAU_2622_034\APRIL2020_UPDATE\FIGURE 1 OVERVIEW MAP_EVGSAU 2622-034_APRIL20.MXD

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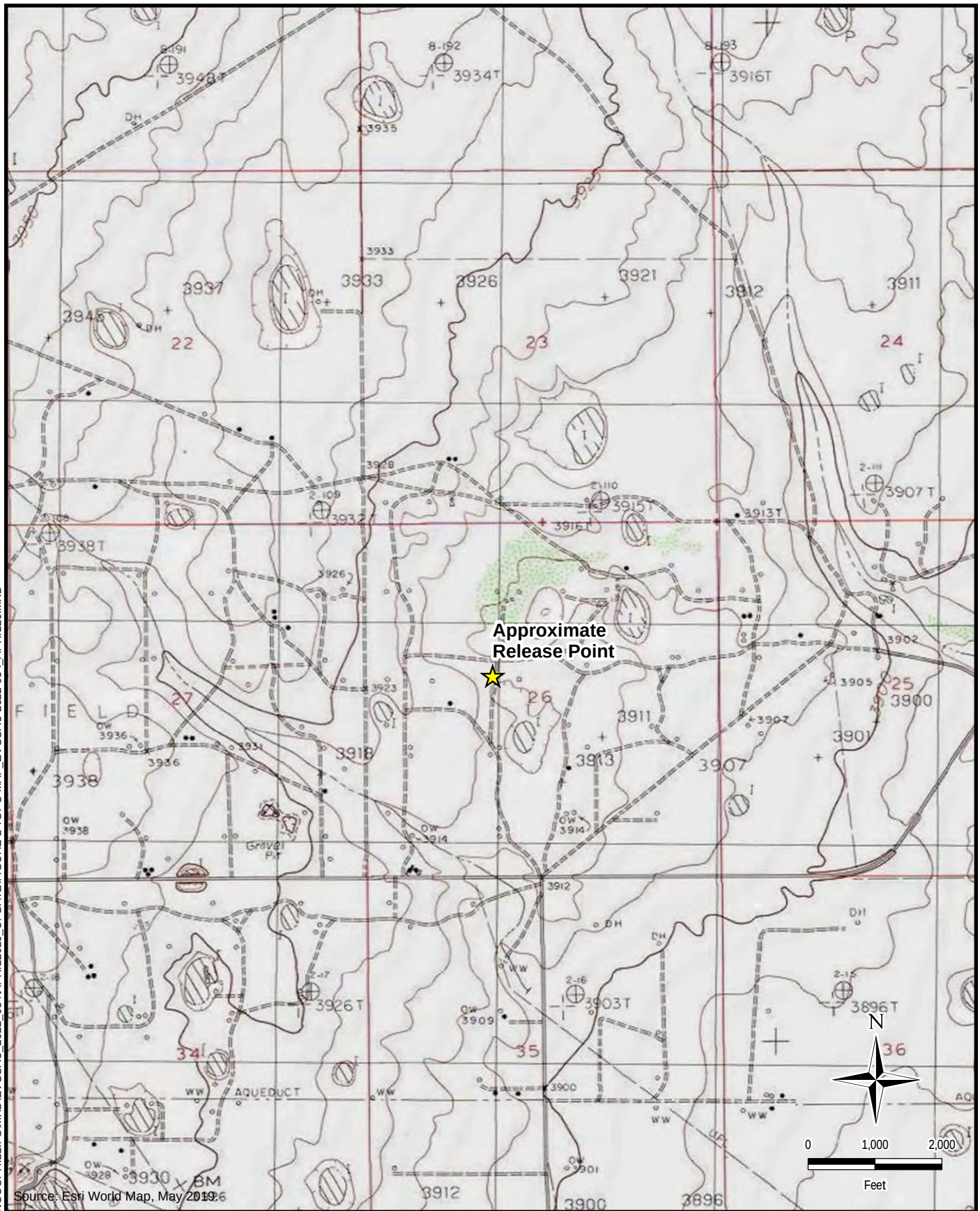
CONOCOPHILLIPS

INCIDENT ID NKL1629442582
(32.806784°, -103.430709°)
LEA COUNTY, NEW MEXICO

EVGSAU 2622-034 FLOWLINE RELEASE
SITE LOCATION MAP

PROJECT NO.:	212C-MD-02127
DATE:	MAY 07, 2020
DESIGNED BY:	AAM

Figure No.
1



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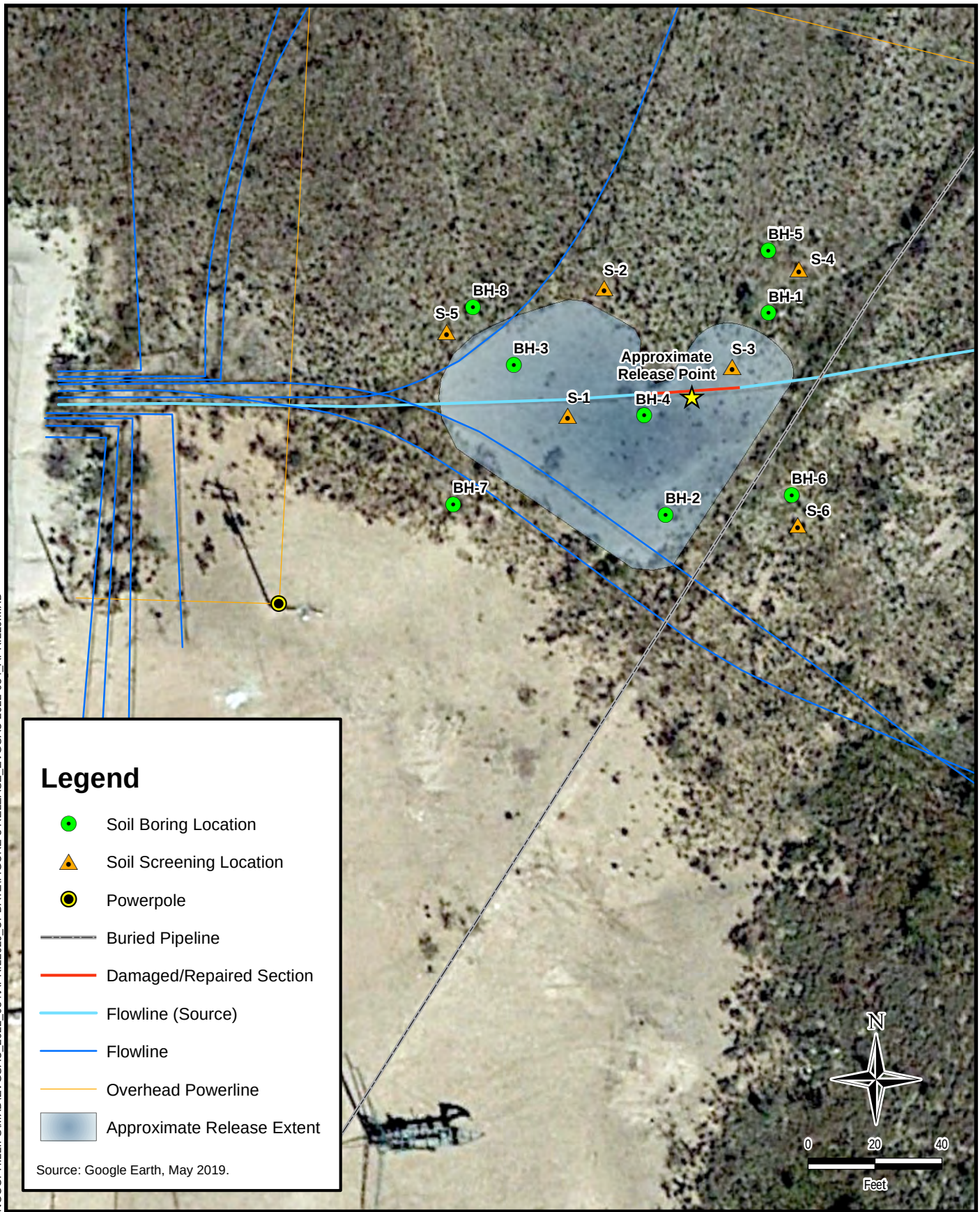
CONOCOPHILLIPS

INCIDENT ID NKL1629442582
(32.806784°, -103.430709°)
LEA COUNTY, NEW MEXICO

EVGSAU 2622-034 FLOWLINE RELEASE
TOPOGRAPHIC MAP

PROJECT NO.:	212C-MD-02127
DATE:	MAY 07, 2020
DESIGNED BY:	AAM

Figure No.
2



Legend

- Soil Boring Location
- Soil Screening Location
- Powerpole
- Buried Pipeline
- Damaged/Repaired Section
- Flowline (Source)
- Flowline
- Overhead Powerline
- Approximate Release Extent

Source: Google Earth, May 2019.

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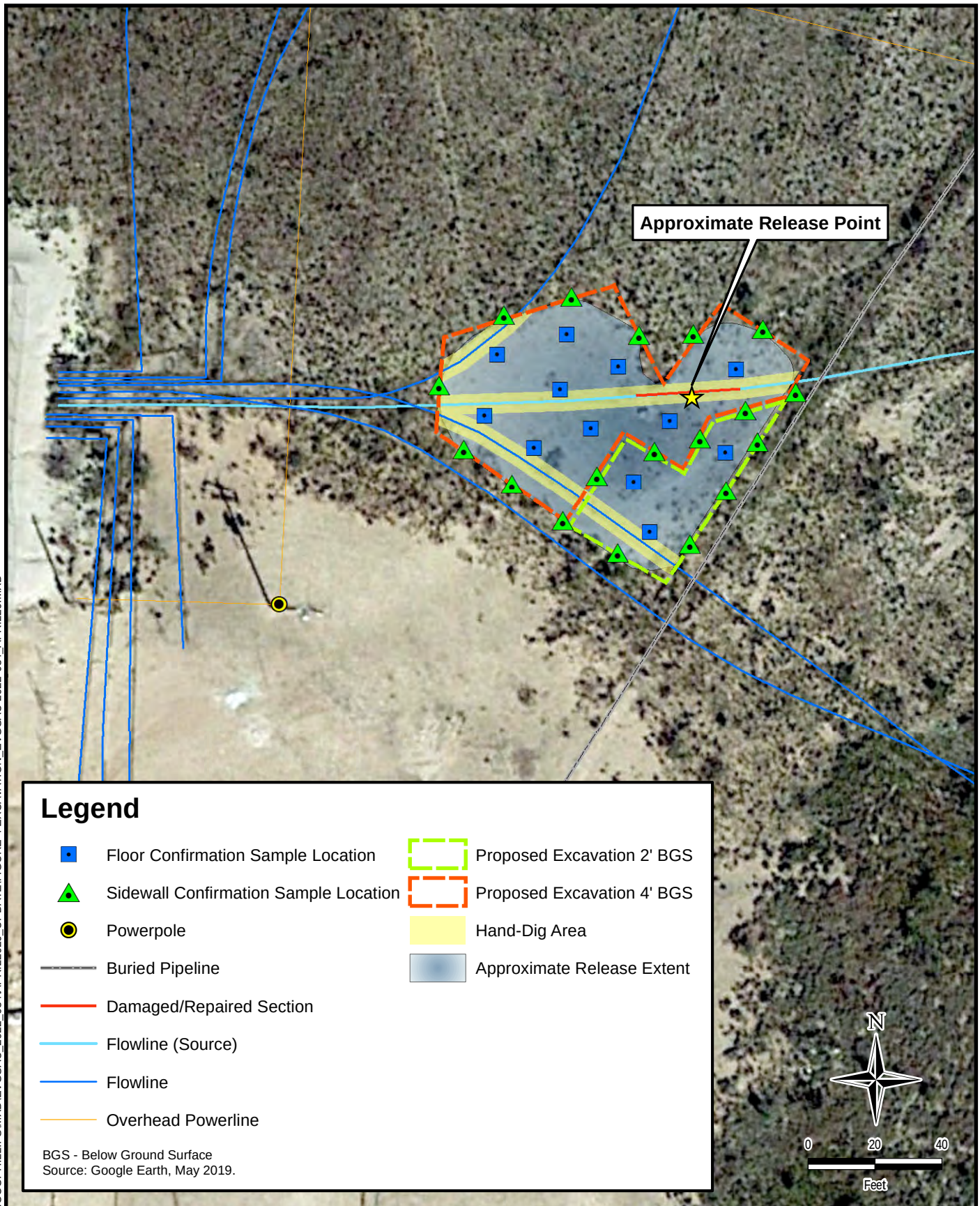
CONOCOPHILLIPS

INCIDENT ID NKL1629442582
(32.806784°, -103.430709°)
LEA COUNTY, NEW MEXICO

EVGSAU 2622-034 FLOWLINE RELEASE
SITE ASSESSMENT MAP

PROJECT NO.:	212C-MD-02127
DATE:	MAY 07, 2020
DESIGNED BY:	AAM

Figure No.
3



DOCUMENT PATH: D:\CONOCOPHILLIPS\MXD\EVGSAU_2622_034\APRIL2020_UPDATE\FIGURE 4 EXCAVATION_EVGSAU 2622-034_APRIL20.MXD

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CONOCOPHILLIPS

INCIDENT ID NKL1629442582
(32.806784°, -103.430709°)
LEA COUNTY, NEW MEXICO

EVGSAU 2622-034 FLOWLINE RELEASE
PROPOSED EXCAVATION AND CONFIRMATION SAMPLING PLAN

PROJECT NO.:	212C-MD-02127
DATE:	MAY 07, 2020
DESIGNED BY:	AAM

Figure No.
4

TABLES

TABLE 1
SUMMARY OF FIELD SCREENING RESULTS
SOIL ASSESSMENT
CONOCOPHILLIPS
1RP-4470 (INCIDENT ID NKL1629442582)
EVGSAU 2622-034 FLOWLINE RELEASE
LEA COUNTY, NM

Sample ID*	Sample Date	Chloride[1]
		ppm
S-1	1/3/2020	***>10,000***
S-2	1/3/2020	143
S-3	1/3/2020	***710***
S-4	1/3/2020	98
S-5	1/3/2020	216
S-6	1/3/2020	112

NOTES:

* Surface soil grab samples

ppm Parts per million

1 ExStik Field Screening Salinity Measurement

Bold and italicized values indicate results inferred to exceed the RRAL for chloride (600 mg/kg).

TABLE 2
SUMMARY OF ANALYTICAL RESULTS
SOIL ASSESSMENT
CONOCOPHILLIPS
1RP-4470 (INCIDENT ID NKL1629442582)
EVGSAU 2622-034 FLOWLINE RELEASE
LEA COUNTY, NM

Sample ID	Sample Date	Sample Depth Interval	Field Screening Results		Chloride[1]		BTEX[2]									TPH[3]						
			Chloride	PID			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)
		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	3/26/2020	0-1	227	4.9	129		< 0.00108		< 0.00541		< 0.00271		< 0.00704		ND	0.0240	B J	3.46	J	10.3		13.8
		2-3	327	1.3	266		< 0.00107		< 0.00533		< 0.00267		< 0.00693		ND	< 0.107		< 4.27		1.24	B J	1.24
		3-4	361	1.2	249		< 0.00105		< 0.00525		< 0.00263		< 0.00683		ND	< 0.105		< 4.20		0.929	B J	0.929
		4-5	688	3.2	-		-		-		-		-		-	-		-		-		-
		6-7	251	1.4	20.6		< 0.00105		< 0.00523		< 0.00262		< 0.00680		ND	< 0.105		< 4.19		0.396	B J	0.396
BH-2	3/26/2020	0-1	277	4.6	190		< 0.00107		< 0.00535		< 0.00268		< 0.00696		ND	< 0.108		59.3		227		***286***
		2-3	629	3.1	270		< 0.00104		< 0.00519		< 0.00259		< 0.00674		ND	< 0.104		2.80	J	7.86		10.7
		3-4	846	3.2	287		< 0.00105		< 0.00525		< 0.00263		< 0.00683		ND	< 0.105		< 4.20		0.514	B J	0.514
		4-5	961	2.9	-		-		-		-		-		-	-		-		-		-
		6-7	1560	1.5	-		-		-		-		-		-	-		-		-		-
		9-10	1510	1.4	-		-		-		-		-		-	-		-		-		-
		14-15	1710	1.1	-		-		-		-		-		-	-		-		-		-
		19-20	1030	1.1	-		-		-		-		-		-	-		-		-		-
		24-25	391	0.9	59.4		< 0.00118		< 0.00588		< 0.00294		< 0.00765		ND	0.0295	B J	2.13	J	0.605	B J	2.76
BH-3	3/26/2020	0-1	8420	8.1	***7630***		< 0.00110		< 0.00551		< 0.00275		< 0.00716		ND	0.0317	B J	6.21		13.4		19.6
		2-3	4780	7.1	***4830***		< 0.00106		< 0.00532		< 0.00266		< 0.00691		ND	< 0.106		1.89	J	4.66		6.55
		3-4	3690	3.2	***4660***		< 0.00107		< 0.00537		< 0.00269		< 0.00698		ND	< 0.107		2.37	J	4.39		6.76
		4-5	946	1.8	-		-		-		-		-		-	-		-		-		-
		6-7	152	2.6	-		-		-		-		-		-	-		-		-		-
		9-10	107	1.1	23.4		< 0.00105		< 0.00526		< 0.00263		< 0.00684		ND	< 0.105		< 4.21		< 4.21		-
BH-4	3/26/2020	2-3	287	1.3	128		< 0.00108		< 0.00542		< 0.00271		< 0.00705		ND	< 0.108		1.76	J	6.90		8.66
		3-4	361	1.2	***660***		< 0.00103		< 0.00516		< 0.00258		< 0.00671		ND	< 0.103		< 4.13		< 4.13		-
		4-5	645	1.8	-		-		-		-		-		-	-		-		-		-
		6-7	637	1.9	-		-		-		-		-		-	-		-		-		-
		9-10	598	2.1	-		-		-		-		-		-	-		-		-		-
		14-15	167	2.0	60.6		< 0.00124		< 0.00619		< 0.00309		< 0.00804		ND	0.0652	B J	< 4.76		< 4.76		0.0652

TABLE 2
SUMMARY OF ANALYTICAL RESULTS
SOIL ASSESSMENT
CONOCOPHILLIPS
1RP-4470 (INCIDENT ID NKL1629442582)
EVGSAU 2622-034 FLOWLINE RELEASE
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]		DRO		ORO		Total TPH (GRO+DRO+ORO)
			Chloride	PID												C_3 - C_{10}		C_{10} - C_{28}		C_{28} - C_{40}		
		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-5	3/26/2020	0-1	127	6.9	32.1		< 0.00105		< 0.00525		< 0.00263		< 0.00683		ND	< 0.105		4.41		14.6		19.0
		2-3	115	3.2	47.3		< 0.00108		< 0.00540		< 0.00270		< 0.00702		ND	< 0.108		< 12.6		6.85	J	6.85
		3-4	129	3.6	36.9		< 0.00107	J3	< 0.00537	J3	< 0.00268	J3	< 0.00698	J3	ND	0.0577	B J	2.79	J	8.67		11.5
		4-5	98	1.8	18.0	B	< 0.00105		< 0.00524		< 0.00262		< 0.00681		ND	0.0656	B J	< 4.19		< 4.19		0.0656
BH-6	3/26/2020	0-1	151	1.1	37.6		< 0.00107		< 0.00535		< 0.00268		< 0.00696		ND	0.0726	B J	< 4.28		2.50	J	2.57
		2-3	108	0.9	34.7		< 0.00107		< 0.00537		< 0.00268		< 0.00698		ND	0.0656	B J	< 4.19		< 4.19	J	0.0656
		3-4	205	0.7	19.6	B	< 0.00105		< 0.00524		< 0.00262		< 0.00681		ND	0.0725	B J	2.61	J	< 4.19		2.68
		4-5	203	0.4	22.3	B	< 0.00105		< 0.00526		< 0.00263		< 0.00684		ND	0.636	B J	1.90	J	< 4.21		2.54
BH-7	3/26/2020	0-1	94.9	1.7	11.2	B	< 0.00107		< 0.00536		< 0.00268		< 0.00694		ND	0.109	B	13.8		58.0		71.9
		2-3	296	2.4	173		< 0.00110		< 0.00552		< 0.00276		< 0.00718		ND	0.0710	B J	1.90	J	5.97		7.94
		3-4	307	2.1	177		< 0.00110		< 0.00548		< 0.00274		< 0.00713		ND	0.0680	B J	2.03	J	8.68		10.8
		4-5	315	2.2	250		< 0.00104		< 0.00521		< 0.00260		< 0.00677		ND	0.0593	B J	< 4.17		0.373	J	0.432
BH-8	3/26/2020	0-1	87.5	1.2	12.4	B	< 0.00108		< 0.00542		< 0.00271		< 0.00705		ND	< 0.108		5.21		15.0		20.2
		2-3	134	2.5	38.8		< 0.00107		< 0.00537		< 0.00268		< 0.00698		ND	< 0.107		3.46	J	4.04	J	7.50
		3-4	156	2.7	40.4		< 0.00107		< 0.00535		< 0.00267		< 0.00695		ND	< 0.107		< 4.28		3.63	J	3.63
		4-5	75.5	1.6	9.82	B J	< 0.00105		< 0.00524		< 0.00262		< 0.00681		ND	< 0.105		< 4.19		1.93	J	193

NOTES:

ft.	Feet
bgs	Below ground surface
ppm	Parts per million
mg/kg	Milligrams per kilogram
-	Not analyzed
TPH	Total Petroleum Hydrocarbons
GRO	Gasoline range organics
DRO	Diesel range organics
ORO	Oil range organics
ND	Non-detect result

Bold and italicized values indicate exceedance of proposed RRALs

Shaded rows indicate depth intervals proposed for excavation and remediation.

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.
J3	The associated batch QC was outside the established quality control range for precision.

APPENDIX A
C-141 Form

REVIEWED
By Kristen Lynch at 11:47 am, Oct 20, 2016

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: **ConocoPhillips**	Contact: **Jose A Zepeda**
Address**: 29 Vacuum Complex Lane**	Telephone No. **575-391-3165**
Facility Name: **EVGSAU 2622-034**	Facility Type: **line**

Surface Owner: Federal	Mineral Owner: N/A	API No. 30-025-02881

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
G	26	17S	35E					**Lea**

Latitude _____ **Longitude**_____

NATURE OF RELEASE

Type of Release**: Oil**	Volume of Release: **10.5**	Volume Recovered: **10**
Source of Release: **line**	Date and Hour of Occurrence **10/10/16 1030**	Date and Hour of Discovery **SAME**
Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required	If YES, To Whom? Kristen Lynch, Shelly Tucker	
By Whom? **Jose A Zepeda**	Date and Hour: **10/13/16 0815 Via Email**	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully. *

N/A

Describe Cause of Problem and Remedial Action Taken. *
On October 10, 2016 at 1030 hrs. at EVGSAU 2622-034 MSO located a leak on a line resulting in a release of 10.5 bbls of Oil with 10 bbls recovered. Immediate action was to isolate leak and submit work order to repair and remediate area. Spill site will be remediated according to COPC and NMOCD guidelines.

Describe Area Affected and Cleanup Action Taken. *

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: JOSE A ZEPEDA

Printed Name: Jose A Zepeda

Title: LEAD HSE

E-mail Address: **Jose. A. Zepeda@conocophillips.com**

Date: 10/13/2016 Phone:575-391-3165

OIL CONSERVATION DIVISION

Approved by Environmental Specialist: Kristen Lynch

Approval Date: 10/20/2016 Expiration Date: 12/20/2016

Conditions of Approval:
NMOCD Accepts discrete samples only
Please notify NMOCD prior to sampling
Please submit remediation plan no later than 11/20/2016

Attached ☐
1RP 4470

* Attach Additional Sheets If Necessary

nKL1629442582
pKL1629442720

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

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

Printed Name: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
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: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: Bradford Billings Date: 11/30/2021

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

Signature: Bradford Billings Date: 11/30/2021

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 Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
L 04881	L	LE	1	3		26	17S	35E	646556	3630644*	137	50	87
L 04951	L	LE	2	2	2	26	17S	35E	647851	3631560*	137	50	87

Average Depth to Water: **50 feet**

Minimum Depth: **50 feet**

Maximum Depth: **50 feet**

Record Count: 2

PLSS Search:

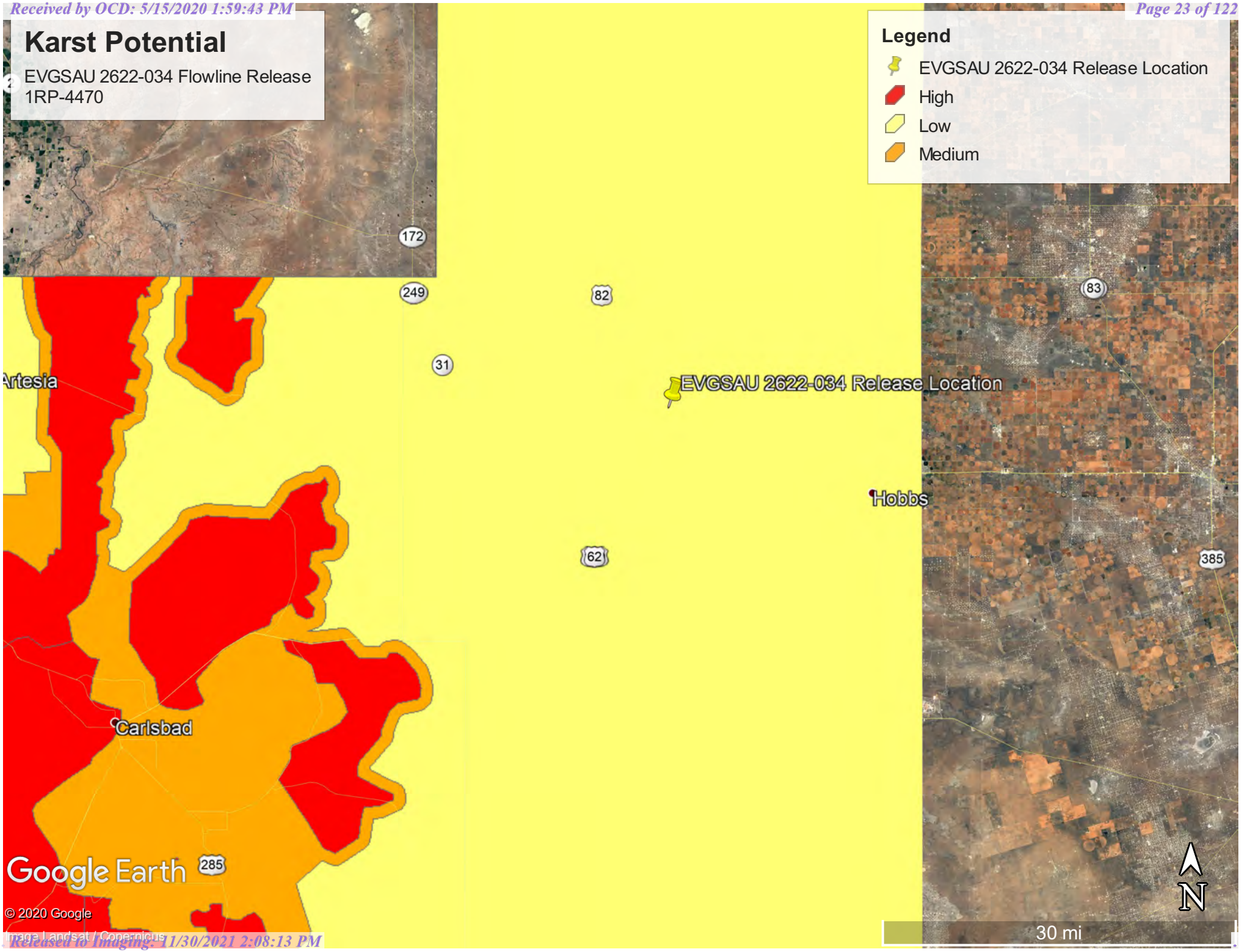
Section(s): 26 **Township:** 17S **Range:** 35E

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

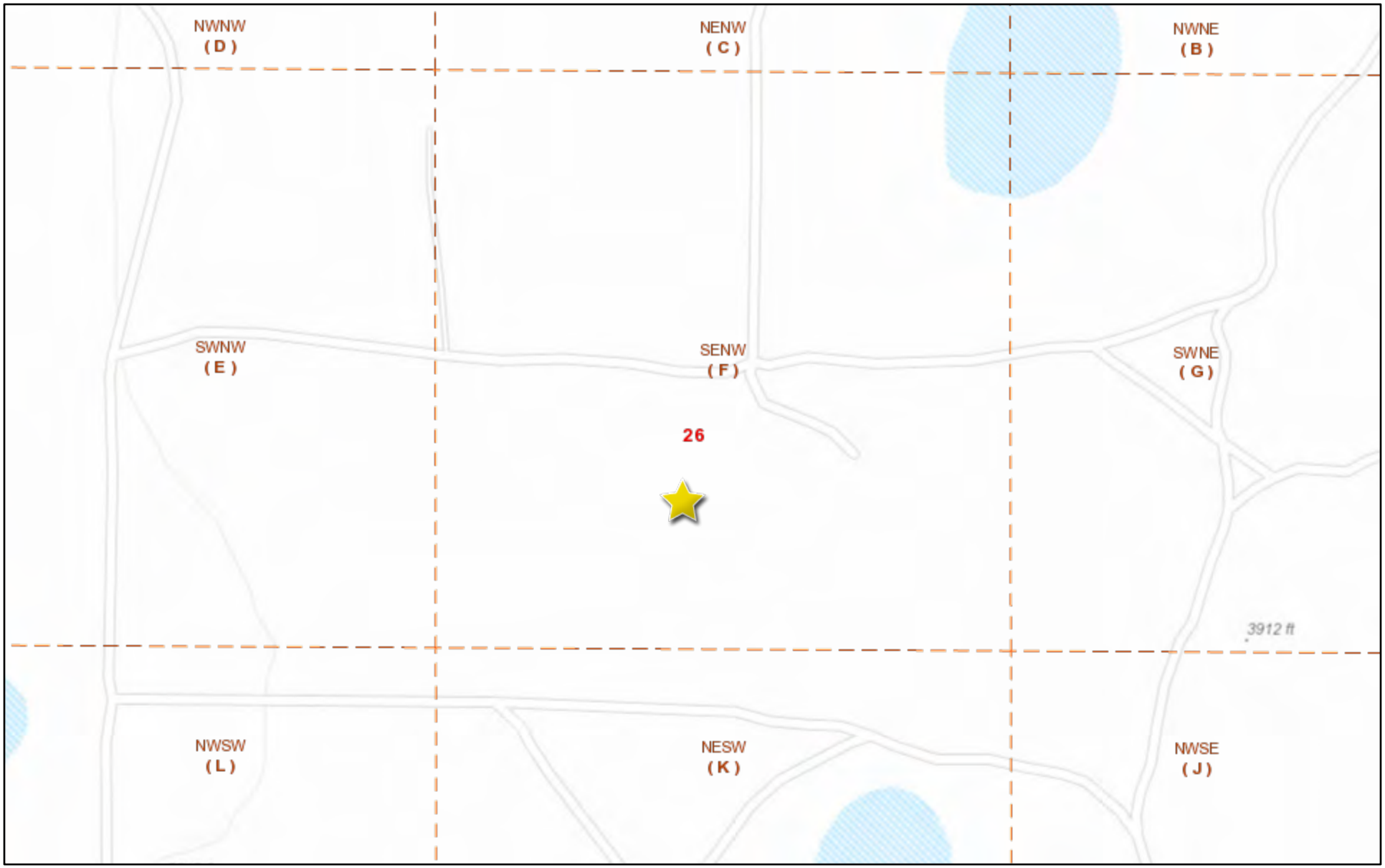
The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

Karst Potential

EVGSAU 2622-034 Flowline Release
1RP-4470



Water Bodies



2/24/2020, 9:04:17 AM

1:4,514

0 0.03 0.07 0.13 mi

0 0.05 0.1 0.2 km

Override 1

OCD Districts

OCD District Offices

PLSS First Division

PLSS Second Division

PLSS Townships

OSE Water-bodies

PLJV Probable Playas

OSE Streams

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

New Mexico Oil Conservation Division

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

APPENDIX C
Boring Logs

212C-MD-02127 | TETRA TECH | **LOG OF BORING BH-1** | Page 1 of 1

Project Name: EVGSAU 2622-034 Flowline Release

Borehole Location: GPS: 32.806849°, -103.430626° | Surface Elevation: 3913 ft

Borehole Number: BH-1 | Borehole Diameter (in.): 8 | Date Started: 3/26/2020 | Date Finished: 3/26/2020

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
			227	4.9								**-SM-** SILTY SAND; Brown, dense, dry, with gravel, with no odor, with no staining.		BH-1 (0'-1')
													2	
			327	1.3								**-SM-** SILTY SAND; Brown, dense, dry, with no odor, with no staining.	3	BH-1 (2'-3')
			361	1.2								**-SM-** SILTY SAND; Tan, dense, dry, with gravel, with no odor, with no staining.		BH-1 (3'-4')
5			688	3.2										BH-1 (4'-5')
			251	1.4									7	BH-1 (6'-7')

Bottom of borehole at 7.0 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: Devin Dominguez | Drilling Equipment: Air Rotary | Driller: Scarborough Drilling

Released to Imaging: 11/30/2021 2:08:13 PM

212C-MD-02127 | TETRA TECH | **LOG OF BORING BH-2** | Page 1 of 1

Project Name: EVGSAU 2622-034 Flowline Release

Borehole Location: GPS: 32.806684°, -103.430728° | Surface Elevation: 3912 ft

Borehole Number: BH-2 | Borehole Diameter (in.): 8 | Date Started: 3/26/2020 | Date Finished: 3/26/2020

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
			277	4.6								**-SM-** SILTY SAND; Brown, dense, dry, with gravel, with no odor, with no staining.		BH-2 (0'-1')
			629	3.1									3	BH-2 (2'-3')
			846	3.2								**-SM-** SILTY SAND; Tan, dense, dry, with gravel, with no odor, with no staining.		BH-2 (3'-4')
5			961	2.9										BH-2 (4'-5')
													6	
			1.56	1.5								**-SM-** SILTY SAND; Tan, dense, dry, with no odor, with no staining.		BH-2 (6'-7')
10			1.51	1.4										BH-2 (9'-10')
15			1.71	1.1										BH-2 (14'-15')
													19	
20			1.03	1.1								**-ML-** SANDY SILT; Tan, medium stiff, dry, with coarse grained sand, with no odor, with no staining.		BH-2 (19'-20')
25			391	0.9									25	BH-2 (24'-25')

Bottom of borehole at 25.0 feet.

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

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

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

Logger: Devin Dominguez | Drilling Equipment: Air Rotary | Driller: Scarborough Drilling

Released to Imaging: 11/30/2021 2:08:13 PM

212C-MD-02127 | TETRA TECH | **LOG OF BORING BH-3** | Page 1 of 1

Project Name: EVGSAU 2622-034 Flowline Release

Borehole Location: GPS: 32.806808°, -103.430875° | Surface Elevation: 3913 ft

Borehole Number: BH-3 | Borehole Diameter (in.): 8 | Date Started: 3/26/2020 | Date Finished: 3/26/2020

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
			8.42	3.1								**-SM-** SILTY SAND; Brown, dense, dry, with gravel, with light odor, with no staining.		BH-3 (0'-1')
			4.78	7.1									3	BH-3 (2'-3')
			3.69	3.2								**-SM-** SILTY SAND; Brown, dense, dry, with gravel, with no odor, with no staining.	4	BH-3 (3'-4')
5			946	1.8								**-SM-** SILTY SAND; Tan, dense, dry, with gravel, with no odor, with no staining.		BH-3 (4'-5')
			152	2.6										BH-3 (6'-7')
10			107	1.1									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: Devin Dominguez | Drilling Equipment: Air Rotary | Driller: Scarborough Drilling

Released to Imaging: 11/30/2021 2:08:13 PM

212C-MD-02127 | TETRA TECH | **LOG OF BORING BH-4** | Page 1 of 1

Project Name: EVGSAU 2622-034 Flowline Release

Borehole Location: GPS: 32.806766°, -103.430748° | Surface Elevation: 3913 ft

Borehole Number: BH-4 | Borehole Diameter (in.): 8 | Date Started: 3/26/2020 | Date Finished: 3/26/2020

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
			515	4.9								**-SM-** SILTY SAND; Brown, dense, dry, with gravel, with no odor, with no staining.		BH-4 (0'-1')
			287	1.3										BH-4 (2'-3')
			361	1.2										BH-4 (3'-4')
5			645	1.8										BH-4 (4'-5')
													6	
			637	1.9								**-SM-** SILTY SAND; Tan, dense, dry, with gravel, with no odor, with no staining.		BH-4 (6'-7')
10			598	2.1										BH-4 (9'-10')
													14	
15			167	2								**-SM-** SILTY SAND; Brown, dense, dry, with no odor, with no staining.	15	BH-4 (14'-15')

Bottom of borehole at 15.0 feet.

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

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

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

Logger: Devin Dominguez | Drilling Equipment: Air Rotary | Driller: Scarborough Drilling

Released to Imaging: 11/30/2021 2:08:13 PM

212C-MD-02127 | TETRA TECH | **LOG OF BORING BH-5** | Page 1 of 1

Project Name: EVGSAU 2622-034 Flowline Release

Borehole Location: GPS: 32.806900°, -103.430626° | Surface Elevation: 3912 ft

Borehole Number: BH-5 | Borehole Diameter (in.): 8 | Date Started: 3/26/2020 | Date Finished: 3/26/2020

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
			127	6.9								**-SM-** SILTY SAND; Brown, dense, dry, with gravel, with no odor, with no staining.		BH-5 (0'-1')
			115	3.2										BH-5 (2'-3')
			129	3.6									4	BH-5 (3'-4')
5			98	1.8								**-SM-** SILTY SAND; Tan, dense, dry, with gravel, with no odor, with no staining.	5	BH-5 (4'-5')

Bottom of borehole at 5.0 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: Devin Dominguez | Drilling Equipment: Air Rotary | Driller: Scarborough Drilling

Released to Imaging: 11/30/2021 2:08:13 PM

212C-MD-02127 | TETRA TECH | **LOG OF BORING BH-6** | Page 1 of 1

Project Name: EVGSAU 2622-034 Flowline Release

Borehole Location: GPS: 32.806699°, -103.430605° | Surface Elevation: 3912 ft

Borehole Number: BH-6 | Borehole Diameter (in.): 8 | Date Started: 3/26/2020 | Date Finished: 3/26/2020

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
			151	1.1								**-SM-** SILTY SAND; Brown, dense, dry, with gravel, with no odor, with no staining.		BH-6 (0'-1')
			108	0.9										BH-6 (2'-3')
			205	0.7									4	BH-6 (3'-4')
5			203	0.4								**-SM-** SILTY SAND; Tan, dense, dry, with gravel, with no odor, with no staining.	5	BH-6 (4'-5')

Bottom of borehole at 5.0 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: Devin Dominguez | Drilling Equipment: Air Rotary | Driller: Scarborough Drilling

Released to Imaging: 11/30/2021 2:08:13 PM

212C-MD-02127 | TETRA TECH | **LOG OF BORING BH-7** | Page 1 of 1

Project Name: EVGSAU 2622-034 Flowline Release

Borehole Location: GPS: 32.806694°, -103.430935° | Surface Elevation: 3914 ft

Borehole Number: BH-7 | Borehole Diameter (in.): 8 | Date Started: 3/26/2020 | Date Finished: 3/26/2020

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
			94.9	1.7								**-SM-** SILTY SAND; Brown, medium dense, dry, with no odor, with no staining.	2	BH-7 (0'-1')
			296	2.4								**-SM-** SILTY SAND; Brown, dense, dry, with gravel, with no odor, with no staining.		BH-7 (2'-3')
			307	2.1									4	BH-7 (3'-4')
5			315	2.2								**-SM-** SILTY SAND; Tan, dense, dry, with gravel, with no odor, with no staining.	5	BH-7 (4'-5')

Bottom of borehole at 5.0 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: Devin Dominguez | Drilling Equipment: Air Rotary | Driller: Scarborough Drilling

EVGSAU 2622-034.GPJ ` 5-12-20 ` TT_AUSTIN_GEOTECH_NOWELL3 ` 2015 TT TEMPLATE DECEMBER WELL.GDT ' ` Revised 5-16-12 (RHM)

212C-MD-02127 | TETRA TECH | **LOG OF BORING BH-8** | Page 1 of 1

Project Name: EVGSAU 2622-034 Flowline Release

Borehole Location: GPS: 32.806856°, -103.430914° | Surface Elevation: 3913 ft

Borehole Number: BH-8 | Borehole Diameter (in.): 8 | Date Started: 3/26/2020 | Date Finished: 3/26/2020

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
			87.5	1.2								**-SM-** SILTY SAND; Brown, dense, dry, with gravel, with no odor, with no staining.		BH-8 (0'-1')
			134	2.5										BH-8 (2'-3')
			156	2.7									4	BH-8 (3'-4')
5			75.5	1.6								**-SM-** SILTY SAND; Tan, dense, dry, with gravel, with no odor, with no staining.	5	BH-8 (4'-5')

Bottom of borehole at 5.0 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: Devin Dominguez | Drilling Equipment: Air Rotary | Driller: Scarborough Drilling

Released to Imaging: 11/30/2021 2:08:13 PM

APPENDIX D
Laboratory Analytical Data

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

April 07, 2020

ConocoPhillips - Tetra Tech

Sample Delivery Group:	L1204240
Samples Received:	03/28/2020
Project Number:	212CMD02127
Description:	EVGSAU 2622-034

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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Released to Imaging: 11/30/2021 2:08:13 PM

BH-1 0-1' L1204240-01 Solid

Collected by: Devin Dominguez | Collected date/time: 03/26/20 00:00 | Received date/time: 03/28/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1453688	1	04/01/20 16:11	04/01/20 16:19	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1453404	1	04/01/20 15:25	04/01/20 19:27	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1453781	1	03/31/20 22:29	04/01/20 13:57	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1453765	1	03/31/20 22:29	04/01/20 13:46	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1453538	1	03/31/20 22:12	04/01/20 14:32	FM	Mt. Juliet, TN

BH-1 2'-3' L1204240-02 Solid

Collected by: Devin Dominguez | Collected date/time: 03/26/20 00:00 | Received date/time: 03/28/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1453688	1	04/01/20 16:11	04/01/20 16:19	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1453404	1	04/01/20 15:25	04/01/20 19:37	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1453781	1	03/31/20 22:29	04/01/20 14:18	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1453765	1	03/31/20 22:29	04/01/20 14:05	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1453538	1	03/31/20 22:12	04/01/20 12:05	FM	Mt. Juliet, TN

BH-1 3'-4' L1204240-03 Solid

Collected by: Devin Dominguez | Collected date/time: 03/26/20 00:00 | Received date/time: 03/28/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1453688	1	04/01/20 16:11	04/01/20 16:19	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1453404	1	04/01/20 15:25	04/01/20 19:47	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1453781	1	03/31/20 22:29	04/01/20 14:39	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1453765	1	03/31/20 22:29	04/01/20 14:23	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1453538	1	03/31/20 22:12	04/01/20 12:18	FM	Mt. Juliet, TN

BH-1 6'-7' L1204240-04 Solid

Collected by: Devin Dominguez | Collected date/time: 03/26/20 00:00 | Received date/time: 03/28/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1453688	1	04/01/20 16:11	04/01/20 16:19	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1453404	1	04/01/20 15:25	04/01/20 19:56	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1453781	1	03/31/20 22:29	04/01/20 14:59	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1453765	1	03/31/20 22:29	04/01/20 14:42	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1453538	1	03/31/20 22:12	04/01/20 12:32	FM	Mt. Juliet, TN

BH-2 0-1' L1204240-05 Solid

Collected by: Devin Dominguez | Collected date/time: 03/26/20 00:00 | Received date/time: 03/28/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1453688	1	04/01/20 16:11	04/01/20 16:19	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1453404	1	04/01/20 15:25	04/01/20 20:06	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1453781	1.01	03/31/20 22:29	04/01/20 15:20	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1453765	1	03/31/20 22:29	04/01/20 15:01	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1453538	5	03/31/20 22:12	04/01/20 16:43	FM	Mt. Juliet, TN

BH-2 2'-3' L1204240-06 Solid

Collected by: Devin Dominguez | Collected date/time: 03/26/20 00:00 | Received date/time: 03/28/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1453690	1	04/01/20 15:30	04/01/20 15:38	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1453404	1	04/01/20 15:25	04/01/20 20:15	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1453781	1	03/31/20 22:29	04/01/20 15:40	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1453765	1	03/31/20 22:29	04/01/20 15:20	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1453538	1	03/31/20 22:12	04/01/20 15:11	FM	Mt. Juliet, TN

BH-2 3'-4' L1204240-07 Solid

Collected by: Devin Dominguez | Collected date/time: 03/26/20 00:00 | Received date/time: 03/28/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1453690	1	04/01/20 15:30	04/01/20 15:38	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1453404	1	04/01/20 15:25	04/01/20 20:25	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1453781	1	03/31/20 22:29	04/01/20 16:01	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1453765	1	03/31/20 22:29	04/01/20 15:39	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1453538	1	03/31/20 22:12	04/01/20 12:45	FM	Mt. Juliet, TN

BH-2 24'-25' L1204240-08 Solid

Collected by: Devin Dominguez | Collected date/time: 03/26/20 00:00 | Received date/time: 03/28/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1453690	1	04/01/20 15:30	04/01/20 15:38	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1453404	1	04/01/20 15:25	04/01/20 20:53	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1453781	1.01	03/31/20 22:29	04/01/20 16:32	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1453765	1	03/31/20 22:29	04/01/20 15:58	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1453538	1	03/31/20 22:12	04/01/20 12:59	FM	Mt. Juliet, TN

BH-3 0-1' L1204240-09 Solid

Collected by: Devin Dominguez | Collected date/time: 03/26/20 00:00 | Received date/time: 03/28/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1453690	1	04/01/20 15:30	04/01/20 15:38	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1453404	20	04/01/20 15:25	04/01/20 21:03	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1453781	1	03/31/20 22:29	04/01/20 16:57	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1453765	1	03/31/20 22:29	04/01/20 16:17	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1453538	1	03/31/20 22:12	04/01/20 14:45	FM	Mt. Juliet, TN

BH-3 2'-3' L1204240-10 Solid

Collected by: Devin Dominguez | Collected date/time: 03/26/20 00:00 | Received date/time: 03/28/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1453690	1	04/01/20 15:30	04/01/20 15:38	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1453404	10	04/01/20 15:25	04/01/20 21:22	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1453781	1	03/31/20 22:29	04/01/20 17:17	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1453765	1	03/31/20 22:29	04/01/20 16:36	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1453538	1	03/31/20 22:12	04/01/20 13:12	FM	Mt. Juliet, TN

BH-3 3'-4' L1204240-11 Solid

Collected by: Devin Dominguez | Collected date/time: 03/26/20 00:00 | Received date/time: 03/28/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1453690	1	04/01/20 15:30	04/01/20 15:38	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1453404	10	04/01/20 15:25	04/01/20 21:31	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1453781	1	03/31/20 22:29	04/01/20 18:28	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1453765	1	03/31/20 22:29	04/01/20 16:55	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1453627	1	04/01/20 08:25	04/01/20 20:27	KME	Mt. Juliet, TN

BH-3 9'-10' L1204240-12 Solid

Collected by: Devin Dominguez | Collected date/time: 03/26/20 00:00 | Received date/time: 03/28/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1453690	1	04/01/20 15:30	04/01/20 15:38	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1453404	1	04/01/20 15:25	04/01/20 21:41	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1453781	1	03/31/20 22:29	04/01/20 18:48	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1453765	1	03/31/20 22:29	04/01/20 17:14	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1453627	1	04/01/20 08:25	04/01/20 18:55	KME	Mt. Juliet, TN

BH-4 2'-3' L1204240-13 Solid

Collected by: Devin Dominguez | Collected date/time: 03/26/20 00:00 | Received date/time: 03/28/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1453690	1	04/01/20 15:30	04/01/20 15:38	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1453915	1	04/01/20 23:00	04/02/20 08:56	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1453781	1	03/31/20 22:29	04/01/20 19:09	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1453765	1	03/31/20 22:29	04/01/20 17:33	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1453627	1	04/01/20 08:25	04/02/20 10:06	KME	Mt. Juliet, TN

BH-4 3'-4' L1204240-14 Solid

Collected by: Devin Dominguez | Collected date/time: 03/26/20 00:00 | Received date/time: 03/28/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1453690	1	04/01/20 15:30	04/01/20 15:38	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1453915	1	04/01/20 23:00	04/02/20 09:14	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1453781	1	03/31/20 22:29	04/01/20 19:29	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1453765	1	03/31/20 22:29	04/01/20 17:52	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1453627	1	04/01/20 08:25	04/01/20 19:47	KME	Mt. Juliet, TN

BH-4 14'-15' L1204240-15 Solid

Collected by: Devin Dominguez | Collected date/time: 03/26/20 00:00 | Received date/time: 03/28/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1453690	1	04/01/20 15:30	04/01/20 15:38	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1453915	1	04/01/20 23:00	04/02/20 09:32	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1454654	1	03/31/20 22:29	04/03/20 00:51	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1453765	1.04	03/31/20 22:29	04/01/20 18:10	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1453627	1	04/01/20 08:25	04/01/20 19:34	KME	Mt. Juliet, TN

BH-5 0-1' L1204240-16 Solid

Collected by: Devin Dominguez | Collected date/time: 03/26/20 00:00 | Received date/time: 03/28/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1453691	1	04/01/20 15:15	04/01/20 15:29	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1453915	1	04/01/20 23:00	04/02/20 09:50	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1453781	1	03/31/20 22:29	04/01/20 20:10	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1453765	1	03/31/20 22:29	04/01/20 18:29	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1453627	1	04/01/20 08:25	04/02/20 10:32	KME	Mt. Juliet, TN

BH-5 2'-3' L1204240-17 Solid

Collected by: Devin Dominguez | Collected date/time: 03/26/20 00:00 | Received date/time: 03/28/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1453691	1	04/01/20 15:15	04/01/20 15:29	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1453915	1	04/01/20 23:00	04/02/20 10:44	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1453781	1	03/31/20 22:29	04/01/20 20:31	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1453765	1	03/31/20 22:29	04/01/20 18:48	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1453627	2.93	04/01/20 08:25	04/01/20 20:14	KME	Mt. Juliet, TN

BH-5 3'-4' L1204240-18 Solid

Collected by: Devin Dominguez | Collected date/time: 03/26/20 00:00 | Received date/time: 03/28/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1453691	1	04/01/20 15:15	04/01/20 15:29	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1453916	1	04/02/20 10:05	04/02/20 17:58	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1453837	1	03/31/20 22:29	04/01/20 12:35	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1453765	1	03/31/20 22:29	04/01/20 19:07	ACG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1453627	1	04/01/20 08:25	04/02/20 10:19	KME	Mt. Juliet, TN

BH-5 4'-5' L1204240-19 Solid

Collected by: Devin Dominguez | Collected date/time: 03/26/20 00:00 | Received date/time: 03/28/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1453691	1	04/01/20 15:15	04/01/20 15:29	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1453916	1	04/02/20 10:05	04/02/20 18:07	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1453837	1	03/31/20 22:29	04/01/20 12:57	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1453768	1	03/31/20 22:29	04/01/20 15:08	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1453627	1	04/01/20 08:25	04/01/20 19:08	KME	Mt. Juliet, TN

BH-6 0-1' L1204240-20 Solid

Collected by: Devin Dominguez | Collected date/time: 03/26/20 00:00 | Received date/time: 03/28/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1453691	1	04/01/20 15:15	04/01/20 15:29	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1453916	1	04/02/20 10:05	04/02/20 18:17	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1453837	1.01	03/31/20 22:29	04/01/20 13:20	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1453768	1	03/31/20 22:29	04/01/20 15:27	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1453627	1	04/01/20 08:25	04/01/20 20:01	KME	Mt. Juliet, TN

BH-6 2'-3' L1204240-21 Solid

Collected by: Devin Dominguez | Collected date/time: 03/26/20 00:00 | Received date/time: 03/28/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1453691	1	04/01/20 15:15	04/01/20 15:29	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1453916	1	04/02/20 10:05	04/02/20 18:26	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1453837	1	04/01/20 01:22	04/01/20 13:42	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1453768	1	04/01/20 01:22	04/01/20 15:46	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1453627	1	04/01/20 08:25	04/01/20 21:20	KME	Mt. Juliet, TN

BH-6 3'-4' L1204240-22 Solid

Collected by: Devin Dominguez | Collected date/time: 03/26/20 00:00 | Received date/time: 03/28/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1453691	1	04/01/20 15:15	04/01/20 15:29	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1453916	1	04/02/20 10:05	04/02/20 18:36	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1453837	1	04/01/20 01:22	04/01/20 14:05	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1453768	1	04/01/20 01:22	04/01/20 16:05	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1453627	1	04/01/20 08:25	04/01/20 19:21	KME	Mt. Juliet, TN

BH-6 4'-5' L1204240-23 Solid

Collected by: Devin Dominguez | Collected date/time: 03/26/20 00:00 | Received date/time: 03/28/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1453691	1	04/01/20 15:15	04/01/20 15:29	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1453916	1	04/02/20 10:05	04/02/20 18:45	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1453837	1	04/01/20 01:22	04/01/20 14:27	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1453768	1	04/01/20 01:22	04/01/20 16:24	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1453627	1	04/01/20 08:25	04/01/20 18:15	KME	Mt. Juliet, TN

BH-7 0-1' L1204240-24 Solid

Collected by: Devin Dominguez | Collected date/time: 03/26/20 00:00 | Received date/time: 03/28/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1453691	1	04/01/20 15:15	04/01/20 15:29	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1453916	1	04/02/20 10:05	04/02/20 19:04	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1453837	1	04/01/20 01:22	04/01/20 14:59	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1453768	1	04/01/20 01:22	04/01/20 16:44	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1453627	1	04/01/20 08:25	04/02/20 10:59	KME	Mt. Juliet, TN

BH-7 2'-3' L1204240-25 Solid

Collected by: Devin Dominguez | Collected date/time: 03/26/20 00:00 | Received date/time: 03/28/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1453691	1	04/01/20 15:15	04/01/20 15:29	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1453916	1	04/02/20 10:05	04/02/20 19:33	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1453837	1	04/01/20 01:22	04/01/20 15:22	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1453768	1	04/01/20 01:22	04/01/20 17:03	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1453627	1	04/01/20 08:25	04/01/20 20:54	KME	Mt. Juliet, TN

BH-7 3'-4' L1204240-26 Solid

Collected by: Devin Dominguez | Collected date/time: 03/26/20 00:00 | Received date/time: 03/28/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1453693	1	04/01/20 22:17	04/01/20 22:24	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1453916	1	04/02/20 10:05	04/02/20 19:42	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1453837	1	04/01/20 01:22	04/01/20 15:44	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1453768	1	04/01/20 01:22	04/01/20 17:22	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1453627	1	04/01/20 08:25	04/01/20 21:07	KME	Mt. Juliet, TN

BH-7 4'-5' L1204240-27 Solid

Collected by: Devin Dominguez | Collected date/time: 03/26/20 00:00 | Received date/time: 03/28/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1453693	1	04/01/20 22:17	04/01/20 22:24	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1453916	1	04/02/20 10:05	04/02/20 19:52	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1453837	1	04/01/20 01:22	04/01/20 16:06	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1453768	1	04/01/20 01:22	04/01/20 17:41	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1453628	1	04/01/20 00:21	04/02/20 01:57	KME	Mt. Juliet, TN

BH-8 0-1' L1204240-28 Solid

Collected by: Devin Dominguez | Collected date/time: 03/26/20 00:00 | Received date/time: 03/28/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1453693	1	04/01/20 22:17	04/01/20 22:24	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1453916	1	04/02/20 10:05	04/02/20 20:01	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1453878	1	04/01/20 01:22	04/01/20 14:50	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1453768	1	04/01/20 01:22	04/01/20 18:01	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1453628	1	04/01/20 00:21	04/02/20 02:10	KME	Mt. Juliet, TN

BH-8 2'-3' L1204240-29 Solid

Collected by: Devin Dominguez | Collected date/time: 03/26/20 00:00 | Received date/time: 03/28/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1453693	1	04/01/20 22:17	04/01/20 22:24	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1453916	1	04/02/20 10:05	04/02/20 20:11	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1453878	1	04/01/20 01:22	04/01/20 15:13	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1453768	1	04/01/20 01:22	04/01/20 18:20	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1453628	1	04/01/20 00:21	04/02/20 02:23	KME	Mt. Juliet, TN

BH-8 3'-4' L1204240-30 Solid

Collected by: Devin Dominguez | Collected date/time: 03/26/20 00:00 | Received date/time: 03/28/20 08:00

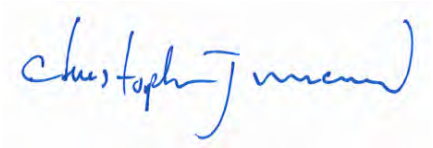
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1453693	1	04/01/20 22:17	04/01/20 22:24	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1453916	1	04/02/20 10:05	04/02/20 20:21	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1453878	1	04/01/20 01:22	04/01/20 15:37	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1453768	1	04/01/20 01:22	04/01/20 18:39	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1453628	1	04/01/20 00:21	04/02/20 02:35	KME	Mt. Juliet, TN

BH-8 4'-5' L1204240-31 Solid

Collected by: Devin Dominguez
Collected date/time: 03/26/20 00:00
Received date/time: 03/28/20 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1453693	1	04/01/20 22:17	04/01/20 22:24	KBC	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1453916	1	04/02/20 10:05	04/02/20 20:30	ST	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1453878	1	04/01/20 01:22	04/01/20 16:01	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1453768	1	04/01/20 01:22	04/01/20 18:59	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1453628	1	04/01/20 00:21	04/02/20 03:11	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	92.4		1	04/01/2020 16:19	WG1453688

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	129		0.861	10.8	1	04/01/2020 19:27	WG1453404

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	0.0240	B J	0.0235	0.108	1	04/01/2020 13:57	WG1453781
(S) a,a,a-Trifluorotoluene(FID)	*94.3*			*77.0-120*		*04/01/2020 13:57*	WG1453781

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		0.000433	0.00108	1	04/01/2020 13:46	WG1453765
Toluene	U		0.00135	0.00541	1	04/01/2020 13:46	WG1453765
Ethylbenzene	U		0.000574	0.00271	1	04/01/2020 13:46	WG1453765
Total Xylenes	U		0.00517	0.00704	1	04/01/2020 13:46	WG1453765
(S) Toluene-d8	*103*			*75.0-131*		*04/01/2020 13:46*	WG1453765
(S) 4-Bromofluorobenzene	*99.7*			*67.0-138*		*04/01/2020 13:46*	WG1453765
(S) 1,2-Dichloroethane-d4	*88.3*			*70.0-130*		*04/01/2020 13:46*	WG1453765

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	1.74	4.33	1	04/01/2020 14:32	WG1453538
C28-C40 Oil Range	10.3		0.297	4.33	1	04/01/2020 14:32	WG1453538
(S) o-Terphenyl	*52.5*			*18.0-148*		*04/01/2020 14:32*	WG1453538

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.8		1	04/01/2020 16:19	WG1453688

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	266		0.848	10.7	1	04/01/2020 19:37	WG1453404

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	0.107	1	04/01/2020 14:18	WG1453781
(S) a,a,a-Trifluorotoluene(FID)	*94.5*			*77.0-120*		*04/01/2020 14:18*	WG1453781

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		0.000427	0.00107	1	04/01/2020 14:05	WG1453765
Toluene	U		0.00133	0.00533	1	04/01/2020 14:05	WG1453765
Ethylbenzene	U		0.000565	0.00267	1	04/01/2020 14:05	WG1453765
Total Xylenes	U		0.00510	0.00693	1	04/01/2020 14:05	WG1453765
(S) Toluene-d8	*102*			*75.0-131*		*04/01/2020 14:05*	WG1453765
(S) 4-Bromofluorobenzene	*99.0*			*67.0-138*		*04/01/2020 14:05*	WG1453765
(S) 1,2-Dichloroethane-d4	*94.7*			*70.0-130*		*04/01/2020 14:05*	WG1453765

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		1.72	4.27	1	04/01/2020 12:05	WG1453538
C28-C40 Oil Range	1.24	B J	0.292	4.27	1	04/01/2020 12:05	WG1453538
(S) o-Terphenyl	*46.2*			*18.0-148*		*04/01/2020 12:05*	WG1453538

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.2		1	04/01/2020 16:19	WG1453688

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	249		0.835	10.5	1	04/01/2020 19:47	WG1453404

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	04/01/2020 14:39	WG1453781
(S) a,a,a-Trifluorotoluene(FID)	*94.2*			*77.0-120*		*04/01/2020 14:39*	WG1453781

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		0.000420	0.00105	1	04/01/2020 14:23	WG1453765
Toluene	U		0.00131	0.00525	1	04/01/2020 14:23	WG1453765
Ethylbenzene	U		0.000557	0.00263	1	04/01/2020 14:23	WG1453765
Total Xylenes	U		0.00502	0.00683	1	04/01/2020 14:23	WG1453765
(S) Toluene-d8	*102*			*75.0-131*		*04/01/2020 14:23*	WG1453765
(S) 4-Bromofluorobenzene	*99.7*			*67.0-138*		*04/01/2020 14:23*	WG1453765
(S) 1,2-Dichloroethane-d4	*93.9*			*70.0-130*		*04/01/2020 14:23*	WG1453765

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	04/01/2020 12:18	WG1453538
C28-C40 Oil Range	0.929	B J	0.288	4.20	1	04/01/2020 12:18	WG1453538
(S) o-Terphenyl	*61.8*			*18.0-148*		*04/01/2020 12:18*	WG1453538

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.6		1	04/01/2020 16:19	WG1453688

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	20.6		0.832	10.5	1	04/01/2020 19:56	WG1453404

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0227	0.105	1	04/01/2020 14:59	WG1453781
(S) a,a,a-Trifluorotoluene(FID)	*94.2*			*77.0-120*		*04/01/2020 14:59*	WG1453781

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		0.000419	0.00105	1	04/01/2020 14:42	WG1453765
Toluene	U		0.00131	0.00523	1	04/01/2020 14:42	WG1453765
Ethylbenzene	U		0.000555	0.00262	1	04/01/2020 14:42	WG1453765
Total Xylenes	U		0.00500	0.00680	1	04/01/2020 14:42	WG1453765
(S) Toluene-d8	*103*			*75.0-131*		*04/01/2020 14:42*	WG1453765
(S) 4-Bromofluorobenzene	*101*			*67.0-138*		*04/01/2020 14:42*	WG1453765
(S) 1,2-Dichloroethane-d4	*96.4*			*70.0-130*		*04/01/2020 14:42*	WG1453765

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	4.19	1	04/01/2020 12:32	WG1453538
C28-C40 Oil Range	0.396	B J	0.287	4.19	1	04/01/2020 12:32	WG1453538
(S) o-Terphenyl	*57.1*			*18.0-148*		*04/01/2020 12:32*	WG1453538

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.5		1	04/01/2020 16:19	WG1453688

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	190		0.851	10.7	1	04/01/2020 20:06	WG1453404

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		0.0234	0.108	1.01	04/01/2020 15:20	WG1453781
(S) a,a,a-Trifluorotoluene(FID)	*93.4*			*77.0-120*		*04/01/2020 15:20*	WG1453781

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		0.000428	0.00107	1	04/01/2020 15:01	WG1453765
Toluene	U		0.00134	0.00535	1	04/01/2020 15:01	WG1453765
Ethylbenzene	U		0.000567	0.00268	1	04/01/2020 15:01	WG1453765
Total Xylenes	U		0.00511	0.00696	1	04/01/2020 15:01	WG1453765
(S) Toluene-d8	*104*			*75.0-131*		*04/01/2020 15:01*	WG1453765
(S) 4-Bromofluorobenzene	*100*			*67.0-138*		*04/01/2020 15:01*	WG1453765
(S) 1,2-Dichloroethane-d4	*94.3*			*70.0-130*		*04/01/2020 15:01*	WG1453765

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	59.3		8.61	21.4	5	04/01/2020 16:43	WG1453538
C28-C40 Oil Range	227		1.47	21.4	5	04/01/2020 16:43	WG1453538
(S) o-Terphenyl	*54.1*			*18.0-148*		*04/01/2020 16:43*	WG1453538

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.4		1	04/01/2020 15:38	WG1453690

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	270		0.825	10.4	1	04/01/2020 20:15	WG1453404

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0225	0.104	1	04/01/2020 15:40	WG1453781
(S) a,a,a-Trifluorotoluene(FID)	*95.0*			*77.0-120*		*04/01/2020 15:40*	WG1453781

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		0.000415	0.00104	1	04/01/2020 15:20	WG1453765
Toluene	U		0.00130	0.00519	1	04/01/2020 15:20	WG1453765
Ethylbenzene	U		0.000550	0.00259	1	04/01/2020 15:20	WG1453765
Total Xylenes	U		0.00496	0.00674	1	04/01/2020 15:20	WG1453765
(S) Toluene-d8	*103*			*75.0-131*		*04/01/2020 15:20*	WG1453765
(S) 4-Bromofluorobenzene	*98.6*			*67.0-138*		*04/01/2020 15:20*	WG1453765
(S) 1,2-Dichloroethane-d4	*95.8*			*70.0-130*		*04/01/2020 15:20*	WG1453765

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	2.80	J	1.67	4.15	1	04/01/2020 15:11	WG1453538
C28-C40 Oil Range	7.86		0.284	4.15	1	04/01/2020 15:11	WG1453538
(S) o-Terphenyl	*51.4*			*18.0-148*		*04/01/2020 15:11*	WG1453538

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.2		1	04/01/2020 15:38	WG1453690

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	287		0.835	10.5	1	04/01/2020 20:25	WG1453404

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	04/01/2020 16:01	WG1453781
(S) a,a,a-Trifluorotoluene(FID)	*94.8*			*77.0-120*		*04/01/2020 16:01*	WG1453781

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		0.000420	0.00105	1	04/01/2020 15:39	WG1453765
Toluene	U		0.00131	0.00525	1	04/01/2020 15:39	WG1453765
Ethylbenzene	U		0.000557	0.00263	1	04/01/2020 15:39	WG1453765
Total Xylenes	U		0.00502	0.00683	1	04/01/2020 15:39	WG1453765
(S) Toluene-d8	*103*			*75.0-131*		*04/01/2020 15:39*	WG1453765
(S) 4-Bromofluorobenzene	*101*			*67.0-138*		*04/01/2020 15:39*	WG1453765
(S) 1,2-Dichloroethane-d4	*97.8*			*70.0-130*		*04/01/2020 15:39*	WG1453765

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	04/01/2020 12:45	WG1453538
C28-C40 Oil Range	0.514	B J	0.288	4.20	1	04/01/2020 12:45	WG1453538
(S) o-Terphenyl	*63.5*			*18.0-148*		*04/01/2020 12:45*	WG1453538

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	85.0		1	04/01/2020 15:38	WG1453690

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	59.4		0.935	11.8	1	04/01/2020 20:53	WG1453404

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	0.0258	0.119	1.01	04/01/2020 16:32	WG1453781
(S) a,a,a-Trifluorotoluene(FID)	*96.1*			*77.0-120*		*04/01/2020 16:32*	WG1453781

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000471	0.00118	1	04/01/2020 15:58	WG1453765
Toluene	U		0.00147	0.00588	1	04/01/2020 15:58	WG1453765
Ethylbenzene	U		0.000624	0.00294	1	04/01/2020 15:58	WG1453765
Total Xylenes	U		0.00562	0.00765	1	04/01/2020 15:58	WG1453765
(S) Toluene-d8	*103*			*75.0-131*		*04/01/2020 15:58*	WG1453765
(S) 4-Bromofluorobenzene	*100*			*67.0-138*		*04/01/2020 15:58*	WG1453765
(S) 1,2-Dichloroethane-d4	*95.3*			*70.0-130*		*04/01/2020 15:58*	WG1453765

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	2.13	J	1.89	4.71	1	04/01/2020 12:59	WG1453538
C28-C40 Oil Range	0.605	B J	0.322	4.71	1	04/01/2020 12:59	WG1453538
(S) o-Terphenyl	*55.8*			*18.0-148*		*04/01/2020 12:59*	WG1453538

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.8		1	04/01/2020 15:38	WG1453690

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	7630		17.5	220	20	04/01/2020 21:03	WG1453404

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	0.0317	B J	0.0239	0.110	1	04/01/2020 16:57	WG1453781
(S) a,a,a-Trifluorotoluene(FID)	*92.0*			*77.0-120*		*04/01/2020 16:57*	WG1453781

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		0.000441	0.00110	1	04/01/2020 16:17	WG1453765
Toluene	U		0.00138	0.00551	1	04/01/2020 16:17	WG1453765
Ethylbenzene	U		0.000584	0.00275	1	04/01/2020 16:17	WG1453765
Total Xylenes	U		0.00527	0.00716	1	04/01/2020 16:17	WG1453765
(S) Toluene-d8	*103*			*75.0-131*		*04/01/2020 16:17*	WG1453765
(S) 4-Bromofluorobenzene	*102*			*67.0-138*		*04/01/2020 16:17*	WG1453765
(S) 1,2-Dichloroethane-d4	*95.2*			*70.0-130*		*04/01/2020 16:17*	WG1453765

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	6.21		1.77	4.41	1	04/01/2020 14:45	WG1453538
C28-C40 Oil Range	13.4		0.302	4.41	1	04/01/2020 14:45	WG1453538
(S) o-Terphenyl	*51.1*			*18.0-148*		*04/01/2020 14:45*	WG1453538

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.0		1	04/01/2020 15:38	WG1453690

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	4830		8.45	106	10	04/01/2020 21:22	WG1453404

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	04/01/2020 17:17	WG1453781
(S) a,a,a-Trifluorotoluene(FID)	*95.1*			*77.0-120*		*04/01/2020 17:17*	WG1453781

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		0.000425	0.00106	1	04/01/2020 16:36	WG1453765
Toluene	U		0.00133	0.00532	1	04/01/2020 16:36	WG1453765
Ethylbenzene	U		0.000564	0.00266	1	04/01/2020 16:36	WG1453765
Total Xylenes	U		0.00508	0.00691	1	04/01/2020 16:36	WG1453765
(S) Toluene-d8	*104*			*75.0-131*		*04/01/2020 16:36*	WG1453765
(S) 4-Bromofluorobenzene	*101*			*67.0-138*		*04/01/2020 16:36*	WG1453765
(S) 1,2-Dichloroethane-d4	*98.4*			*70.0-130*		*04/01/2020 16:36*	WG1453765

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	1.89	J	1.71	4.25	1	04/01/2020 13:12	WG1453538
C28-C40 Oil Range	4.66		0.291	4.25	1	04/01/2020 13:12	WG1453538
(S) o-Terphenyl	*52.4*			*18.0-148*		*04/01/2020 13:12*	WG1453538

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.1		1	04/01/2020 15:38	WG1453690

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	4660		8.54	107	10	04/01/2020 21:31	WG1453404

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	04/01/2020 18:28	WG1453781
(S) a,a,a-Trifluorotoluene(FID)	*94.8*			*77.0-120*		*04/01/2020 18:28*	WG1453781

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		0.000430	0.00107	1	04/01/2020 16:55	WG1453765
Toluene	U		0.00134	0.00537	1	04/01/2020 16:55	WG1453765
Ethylbenzene	U		0.000569	0.00269	1	04/01/2020 16:55	WG1453765
Total Xylenes	U		0.00514	0.00698	1	04/01/2020 16:55	WG1453765
(S) Toluene-d8	*103*			*75.0-131*		*04/01/2020 16:55*	WG1453765
(S) 4-Bromofluorobenzene	*100*			*67.0-138*		*04/01/2020 16:55*	WG1453765
(S) 1,2-Dichloroethane-d4	*91.6*			*70.0-130*		*04/01/2020 16:55*	WG1453765

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	2.37	J	1.73	4.30	1	04/01/2020 20:27	WG1453627
C28-C40 Oil Range	4.39		0.294	4.30	1	04/01/2020 20:27	WG1453627
(S) o-Terphenyl	*52.9*			*18.0-148*		*04/01/2020 20:27*	WG1453627

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.0		1	04/01/2020 15:38	WG1453690

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	23.4		0.837	10.5	1	04/01/2020 21:41	WG1453404

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	04/01/2020 18:48	WG1453781
(S) a,a,a-Trifluorotoluene(FID)	*95.1*			*77.0-120*		*04/01/2020 18:48*	WG1453781

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		0.000421	0.00105	1	04/01/2020 17:14	WG1453765
Toluene	U		0.00132	0.00526	1	04/01/2020 17:14	WG1453765
Ethylbenzene	U		0.000558	0.00263	1	04/01/2020 17:14	WG1453765
Total Xylenes	U		0.00503	0.00684	1	04/01/2020 17:14	WG1453765
(S) Toluene-d8	*103*			*75.0-131*		*04/01/2020 17:14*	WG1453765
(S) 4-Bromofluorobenzene	*98.9*			*67.0-138*		*04/01/2020 17:14*	WG1453765
(S) 1,2-Dichloroethane-d4	*96.3*			*70.0-130*		*04/01/2020 17:14*	WG1453765

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	4.21	1	04/01/2020 18:55	WG1453627
C28-C40 Oil Range	U		0.288	4.21	1	04/01/2020 18:55	WG1453627
(S) o-Terphenyl	*51.1*			*18.0-148*		*04/01/2020 18:55*	WG1453627

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.2		1	04/01/2020 15:38	WG1453690

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	128		0.862	10.8	1	04/02/2020 08:56	WG1453915

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		0.0235	0.108	1	04/01/2020 19:09	WG1453781
(S) a,a,a-Trifluorotoluene(FID)	*94.5*			*77.0-120*		*04/01/2020 19:09*	WG1453781

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		0.000434	0.00108	1	04/01/2020 17:33	WG1453765
Toluene	U		0.00136	0.00542	1	04/01/2020 17:33	WG1453765
Ethylbenzene	U		0.000575	0.00271	1	04/01/2020 17:33	WG1453765
Total Xylenes	U		0.00518	0.00705	1	04/01/2020 17:33	WG1453765
(S) Toluene-d8	*103*			*75.0-131*		*04/01/2020 17:33*	WG1453765
(S) 4-Bromofluorobenzene	*98.8*			*67.0-138*		*04/01/2020 17:33*	WG1453765
(S) 1,2-Dichloroethane-d4	*95.4*			*70.0-130*		*04/01/2020 17:33*	WG1453765

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	1.76	J	1.75	4.34	1	04/02/2020 10:06	WG1453627
C28-C40 Oil Range	6.90		0.297	4.34	1	04/02/2020 10:06	WG1453627
(S) o-Terphenyl	*56.5*			*18.0-148*		*04/02/2020 10:06*	WG1453627

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.9		1	04/01/2020 15:38	WG1453690

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	660		0.820	10.3	1	04/02/2020 09:14	WG1453915

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	04/01/2020 19:29	WG1453781
(S) a,a,a-Trifluorotoluene(FID)	*94.7*			*77.0-120*		*04/01/2020 19:29*	WG1453781

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		0.000413	0.00103	1	04/01/2020 17:52	WG1453765
Toluene	U		0.00129	0.00516	1	04/01/2020 17:52	WG1453765
Ethylbenzene	U		0.000547	0.00258	1	04/01/2020 17:52	WG1453765
Total Xylenes	U		0.00493	0.00671	1	04/01/2020 17:52	WG1453765
(S) Toluene-d8	*102*			*75.0-131*		*04/01/2020 17:52*	WG1453765
(S) 4-Bromofluorobenzene	*99.5*			*67.0-138*		*04/01/2020 17:52*	WG1453765
(S) 1,2-Dichloroethane-d4	*96.9*			*70.0-130*		*04/01/2020 17:52*	WG1453765

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	04/01/2020 19:47	WG1453627
C28-C40 Oil Range	U		0.283	4.13	1	04/01/2020 19:47	WG1453627
(S) o-Terphenyl	*59.9*			*18.0-148*		*04/01/2020 19:47*	WG1453627

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.0		1	04/01/2020 15:38	WG1453690

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	60.6		0.946	11.9	1	04/02/2020 09:32	WG1453915

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	0.0652	B J	0.0258	0.119	1	04/03/2020 00:51	WG1454654
(S) a,a,a-Trifluorotoluene(FID)	*104*			*77.0-120*		*04/03/2020 00:51*	WG1454654

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		0.000495	0.00124	1.04	04/01/2020 18:10	WG1453765
Toluene	U		0.00155	0.00619	1.04	04/01/2020 18:10	WG1453765
Ethylbenzene	U		0.000656	0.00309	1.04	04/01/2020 18:10	WG1453765
Total Xylenes	U		0.00591	0.00804	1.04	04/01/2020 18:10	WG1453765
(S) Toluene-d8	*103*			*75.0-131*		*04/01/2020 18:10*	WG1453765
(S) 4-Bromofluorobenzene	*101*			*67.0-138*		*04/01/2020 18:10*	WG1453765
(S) 1,2-Dichloroethane-d4	*96.0*			*70.0-130*		*04/01/2020 18:10*	WG1453765

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		1.92	4.76	1	04/01/2020 19:34	WG1453627
C28-C40 Oil Range	U		0.326	4.76	1	04/01/2020 19:34	WG1453627
(S) o-Terphenyl	*59.4*			*18.0-148*		*04/01/2020 19:34*	WG1453627

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.2		1	04/01/2020 15:29	WG1453691

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	32.1		0.835	10.5	1	04/02/2020 09:50	WG1453915

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	04/01/2020 20:10	WG1453781
(S) a,a,a-Trifluorotoluene(FID)	*94.7*			*77.0-120*		*04/01/2020 20:10*	WG1453781

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		0.000420	0.00105	1	04/01/2020 18:29	WG1453765
Toluene	U		0.00131	0.00525	1	04/01/2020 18:29	WG1453765
Ethylbenzene	U		0.000557	0.00263	1	04/01/2020 18:29	WG1453765
Total Xylenes	U		0.00502	0.00683	1	04/01/2020 18:29	WG1453765
(S) Toluene-d8	*103*			*75.0-131*		*04/01/2020 18:29*	WG1453765
(S) 4-Bromofluorobenzene	*98.7*			*67.0-138*		*04/01/2020 18:29*	WG1453765
(S) 1,2-Dichloroethane-d4	*93.7*			*70.0-130*		*04/01/2020 18:29*	WG1453765

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	4.41		1.69	4.20	1	04/02/2020 10:32	WG1453627
C28-C40 Oil Range	14.6		0.288	4.20	1	04/02/2020 10:32	WG1453627
(S) o-Terphenyl	*58.2*			*18.0-148*		*04/02/2020 10:32*	WG1453627

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.7		1	04/01/2020 15:29	WG1453691

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	47.3		0.858	10.8	1	04/02/2020 10:44	WG1453915

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		0.0234	0.108	1	04/01/2020 20:31	WG1453781
(S) a,a,a-Trifluorotoluene(FID)	*95.0*			*77.0-120*		*04/01/2020 20:31*	WG1453781

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		0.000432	0.00108	1	04/01/2020 18:48	WG1453765
Toluene	U		0.00135	0.00540	1	04/01/2020 18:48	WG1453765
Ethylbenzene	U		0.000572	0.00270	1	04/01/2020 18:48	WG1453765
Total Xylenes	U		0.00516	0.00702	1	04/01/2020 18:48	WG1453765
(S) Toluene-d8	*103*			*75.0-131*		*04/01/2020 18:48*	WG1453765
(S) 4-Bromofluorobenzene	*101*			*67.0-138*		*04/01/2020 18:48*	WG1453765
(S) 1,2-Dichloroethane-d4	*94.9*			*70.0-130*		*04/01/2020 18:48*	WG1453765

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		5.09	12.6	2.93	04/01/2020 20:14	WG1453627
C28-C40 Oil Range	6.85	J	0.867	12.6	2.93	04/01/2020 20:14	WG1453627
(S) o-Terphenyl	*54.9*			*18.0-148*		*04/01/2020 20:14*	WG1453627

Sample Narrative:

L1204240-17 WG1453627: Dilution due to matrix impact during extract concentration procedure

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.2		1	04/01/2020 15:29	WG1453691

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	36.9		0.853	10.7	1	04/02/2020 17:58	WG1453916

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	0.0577	B J	0.0233	0.107	1	04/01/2020 12:35	WG1453837
(S) a,a,a-Trifluorotoluene(FID)	*105*			*77.0-120*		*04/01/2020 12:35*	WG1453837

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	J3	0.000429	0.00107	1	04/01/2020 19:07	WG1453765
Toluene	U	J3	0.00134	0.00537	1	04/01/2020 19:07	WG1453765
Ethylbenzene	U	J3	0.000569	0.00268	1	04/01/2020 19:07	WG1453765
Total Xylenes	U	J3	0.00513	0.00698	1	04/01/2020 19:07	WG1453765
(S) Toluene-d8	*104*			*75.0-131*		*04/01/2020 19:07*	WG1453765
(S) 4-Bromofluorobenzene	*101*			*67.0-138*		*04/01/2020 19:07*	WG1453765
(S) 1,2-Dichloroethane-d4	*91.6*			*70.0-130*		*04/01/2020 19:07*	WG1453765

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	2.79	J	1.73	4.29	1	04/02/2020 10:19	WG1453627
C28-C40 Oil Range	8.67		0.294	4.29	1	04/02/2020 10:19	WG1453627
(S) o-Terphenyl	*57.5*			*18.0-148*		*04/02/2020 10:19*	WG1453627

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.5		1	04/01/2020 15:29	WG1453691

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	18.0	B	0.833	10.5	1	04/02/2020 18:07	WG1453916

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	0.0656	B J	0.0227	0.105	1	04/01/2020 12:57	WG1453837
(S) a,a,a-Trifluorotoluene(FID)	*106*			*77.0-120*		*04/01/2020 12:57*	WG1453837

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		0.000419	0.00105	1	04/01/2020 15:08	WG1453768
Toluene	U		0.00131	0.00524	1	04/01/2020 15:08	WG1453768
Ethylbenzene	U		0.000555	0.00262	1	04/01/2020 15:08	WG1453768
Total Xylenes	U		0.00501	0.00681	1	04/01/2020 15:08	WG1453768
(S) Toluene-d8	*113*			*75.0-131*		*04/01/2020 15:08*	WG1453768
(S) 4-Bromofluorobenzene	*88.9*			*67.0-138*		*04/01/2020 15:08*	WG1453768
(S) 1,2-Dichloroethane-d4	*120*			*70.0-130*		*04/01/2020 15:08*	WG1453768

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.69	4.19	1	04/01/2020 19:08	WG1453627
C28-C40 Oil Range	U		0.287	4.19	1	04/01/2020 19:08	WG1453627
(S) o-Terphenyl	*62.4*			*18.0-148*		*04/01/2020 19:08*	WG1453627

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.4		1	04/01/2020 15:29	WG1453691

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	37.6		0.851	10.7	1	04/02/2020 18:17	WG1453916

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	0.0726	B J	0.0234	0.108	1.01	04/01/2020 13:20	WG1453837
(S) a,a,a-Trifluorotoluene(FID)	*106*			*77.0-120*		*04/01/2020 13:20*	WG1453837

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		0.000428	0.00107	1	04/01/2020 15:27	WG1453768
Toluene	U		0.00134	0.00535	1	04/01/2020 15:27	WG1453768
Ethylbenzene	U		0.000567	0.00268	1	04/01/2020 15:27	WG1453768
Total Xylenes	U		0.00512	0.00696	1	04/01/2020 15:27	WG1453768
(S) Toluene-d8	*110*			*75.0-131*		*04/01/2020 15:27*	WG1453768
(S) 4-Bromofluorobenzene	*86.2*			*67.0-138*		*04/01/2020 15:27*	WG1453768
(S) 1,2-Dichloroethane-d4	*111*			*70.0-130*		*04/01/2020 15:27*	WG1453768

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		1.72	4.28	1	04/01/2020 20:01	WG1453627
C28-C40 Oil Range	2.50	J	0.293	4.28	1	04/01/2020 20:01	WG1453627
(S) o-Terphenyl	*55.1*			*18.0-148*		*04/01/2020 20:01*	WG1453627

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.2		1	04/01/2020 15:29	WG1453691

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	34.7		0.853	10.7	1	04/02/2020 18:26	WG1453916

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	0.0656	B J	0.0233	0.107	1	04/01/2020 13:42	WG1453837
(S) a,a,a-Trifluorotoluene(FID)	*106*			*77.0-120*		*04/01/2020 13:42*	WG1453837

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		0.000429	0.00107	1	04/01/2020 15:46	WG1453768
Toluene	U		0.00134	0.00537	1	04/01/2020 15:46	WG1453768
Ethylbenzene	U		0.000569	0.00268	1	04/01/2020 15:46	WG1453768
Total Xylenes	U		0.00513	0.00698	1	04/01/2020 15:46	WG1453768
(S) Toluene-d8	*111*			*75.0-131*		*04/01/2020 15:46*	WG1453768
(S) 4-Bromofluorobenzene	*87.2*			*67.0-138*		*04/01/2020 15:46*	WG1453768
(S) 1,2-Dichloroethane-d4	*110*			*70.0-130*		*04/01/2020 15:46*	WG1453768

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		1.73	4.29	1	04/01/2020 21:20	WG1453627
C28-C40 Oil Range	2.93	J	0.294	4.29	1	04/01/2020 21:20	WG1453627
(S) o-Terphenyl	*44.9*			*18.0-148*		*04/01/2020 21:20*	WG1453627

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.4		1	04/01/2020 15:29	WG1453691

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	19.6	B	0.833	10.5	1	04/02/2020 18:36	WG1453916

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	0.0725	B J	0.0227	0.105	1	04/01/2020 14:05	WG1453837
(S) a,a,a-Trifluorotoluene(FID)	*106*			*77.0-120*		*04/01/2020 14:05*	WG1453837

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		0.000419	0.00105	1	04/01/2020 16:05	WG1453768
Toluene	U		0.00131	0.00524	1	04/01/2020 16:05	WG1453768
Ethylbenzene	U		0.000555	0.00262	1	04/01/2020 16:05	WG1453768
Total Xylenes	U		0.00501	0.00681	1	04/01/2020 16:05	WG1453768
(S) Toluene-d8	*112*			*75.0-131*		*04/01/2020 16:05*	WG1453768
(S) 4-Bromofluorobenzene	*88.4*			*67.0-138*		*04/01/2020 16:05*	WG1453768
(S) 1,2-Dichloroethane-d4	*114*			*70.0-130*		*04/01/2020 16:05*	WG1453768

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	2.61	J	1.69	4.19	1	04/01/2020 19:21	WG1453627
C28-C40 Oil Range	U		0.287	4.19	1	04/01/2020 19:21	WG1453627
(S) o-Terphenyl	*65.5*			*18.0-148*		*04/01/2020 19:21*	WG1453627

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.1		1	04/01/2020 15:29	WG1453691

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	22.3	B	0.836	10.5	1	04/02/2020 18:45	WG1453916

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	0.0636	B J	0.0228	0.105	1	04/01/2020 14:27	WG1453837
(S) a,a,a-Trifluorotoluene(FID)	*106*			*77.0-120*		*04/01/2020 14:27*	WG1453837

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		0.000421	0.00105	1	04/01/2020 16:24	WG1453768
Toluene	U		0.00131	0.00526	1	04/01/2020 16:24	WG1453768
Ethylbenzene	U		0.000558	0.00263	1	04/01/2020 16:24	WG1453768
Total Xylenes	U		0.00503	0.00684	1	04/01/2020 16:24	WG1453768
(S) Toluene-d8	*112*			*75.0-131*		*04/01/2020 16:24*	WG1453768
(S) 4-Bromofluorobenzene	*89.3*			*67.0-138*		*04/01/2020 16:24*	WG1453768
(S) 1,2-Dichloroethane-d4	*113*			*70.0-130*		*04/01/2020 16:24*	WG1453768

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	1.90	J	1.69	4.21	1	04/01/2020 18:15	WG1453627
C28-C40 Oil Range	U		0.288	4.21	1	04/01/2020 18:15	WG1453627
(S) o-Terphenyl	*62.8*			*18.0-148*		*04/01/2020 18:15*	WG1453627

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.3		1	04/01/2020 15:29	WG1453691

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	B	0.852	10.7	1	04/02/2020 19:04	WG1453916

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	0.109	B	0.0233	0.107	1	04/01/2020 14:59	WG1453837
(S) a,a,a-Trifluorotoluene(FID)	*103*			*77.0-120*		*04/01/2020 14:59*	WG1453837

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		0.000429	0.00107	1	04/01/2020 16:44	WG1453768
Toluene	U		0.00134	0.00536	1	04/01/2020 16:44	WG1453768
Ethylbenzene	U		0.000568	0.00268	1	04/01/2020 16:44	WG1453768
Total Xylenes	U		0.00512	0.00697	1	04/01/2020 16:44	WG1453768
(S) Toluene-d8	*113*			*75.0-131*		*04/01/2020 16:44*	WG1453768
(S) 4-Bromofluorobenzene	*89.3*			*67.0-138*		*04/01/2020 16:44*	WG1453768
(S) 1,2-Dichloroethane-d4	*109*			*70.0-130*		*04/01/2020 16:44*	WG1453768

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	13.8		1.73	4.29	1	04/02/2020 10:59	WG1453627
C28-C40 Oil Range	58.0		0.294	4.29	1	04/02/2020 10:59	WG1453627
(S) o-Terphenyl	*53.0*			*18.0-148*		*04/02/2020 10:59*	WG1453627

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.6		1	04/01/2020 15:29	WG1453691

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	173		0.878	11.0	1	04/02/2020 19:33	WG1453916

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	0.0710	B J	0.0240	0.110	1	04/01/2020 15:22	WG1453837
(S) a,a,a-Trifluorotoluene(FID)	*106*			*77.0-120*		*04/01/2020 15:22*	WG1453837

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		0.000442	0.00110	1	04/01/2020 17:03	WG1453768
Toluene	U		0.00138	0.00552	1	04/01/2020 17:03	WG1453768
Ethylbenzene	U		0.000585	0.00276	1	04/01/2020 17:03	WG1453768
Total Xylenes	U		0.00528	0.00718	1	04/01/2020 17:03	WG1453768
(S) Toluene-d8	*111*			*75.0-131*		*04/01/2020 17:03*	WG1453768
(S) 4-Bromofluorobenzene	*86.6*			*67.0-138*		*04/01/2020 17:03*	WG1453768
(S) 1,2-Dichloroethane-d4	*112*			*70.0-130*		*04/01/2020 17:03*	WG1453768

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	1.90	J	1.78	4.42	1	04/01/2020 20:54	WG1453627
C28-C40 Oil Range	5.97		0.303	4.42	1	04/01/2020 20:54	WG1453627
(S) o-Terphenyl	*53.1*			*18.0-148*		*04/01/2020 20:54*	WG1453627

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	91.2		1	04/01/2020 22:24	WG1453693

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	177		0.872	11.0	1	04/02/2020 19:42	WG1453916

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	0.0680	B J	0.0238	0.110	1	04/01/2020 15:44	WG1453837
(S) a,a,a-Trifluorotoluene(FID)	*104*			*77.0-120*		*04/01/2020 15:44*	WG1453837

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		0.000439	0.00110	1	04/01/2020 17:22	WG1453768
Toluene	U		0.00137	0.00548	1	04/01/2020 17:22	WG1453768
Ethylbenzene	U		0.000581	0.00274	1	04/01/2020 17:22	WG1453768
Total Xylenes	U		0.00524	0.00713	1	04/01/2020 17:22	WG1453768
(S) Toluene-d8	*110*			*75.0-131*		*04/01/2020 17:22*	WG1453768
(S) 4-Bromofluorobenzene	*87.6*			*67.0-138*		*04/01/2020 17:22*	WG1453768
(S) 1,2-Dichloroethane-d4	*112*			*70.0-130*		*04/01/2020 17:22*	WG1453768

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	2.03	J	1.77	4.39	1	04/01/2020 21:07	WG1453627
C28-C40 Oil Range	8.68		0.300	4.39	1	04/01/2020 21:07	WG1453627
(S) o-Terphenyl	*57.4*			*18.0-148*		*04/01/2020 21:07*	WG1453627

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.0		1	04/01/2020 22:24	WG1453693

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	250		0.828	10.4	1	04/02/2020 19:52	WG1453916

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	0.0593	B J	0.0226	0.104	1	04/01/2020 16:06	WG1453837
(S) a,a,a-Trifluorotoluene(FID)	*106*			*77.0-120*		*04/01/2020 16:06*	WG1453837

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		0.000417	0.00104	1	04/01/2020 17:41	WG1453768
Toluene	U		0.00130	0.00521	1	04/01/2020 17:41	WG1453768
Ethylbenzene	U		0.000552	0.00260	1	04/01/2020 17:41	WG1453768
Total Xylenes	U		0.00498	0.00677	1	04/01/2020 17:41	WG1453768
(S) Toluene-d8	*109*			*75.0-131*		*04/01/2020 17:41*	WG1453768
(S) 4-Bromofluorobenzene	*86.4*			*67.0-138*		*04/01/2020 17:41*	WG1453768
(S) 1,2-Dichloroethane-d4	*110*			*70.0-130*		*04/01/2020 17:41*	WG1453768

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	4.17	1	04/02/2020 01:57	WG1453628
C28-C40 Oil Range	0.373	J	0.286	4.17	1	04/02/2020 01:57	WG1453628
(S) o-Terphenyl	*65.2*			*18.0-148*		*04/02/2020 01:57*	WG1453628

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.2		1	04/01/2020 22:24	WG1453693

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	12.4	B	0.862	10.8	1	04/02/2020 20:01	WG1453916

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		0.0235	0.108	1	04/01/2020 14:50	WG1453878
(S) a,a,a-Trifluorotoluene(FID)	*92.8*			*59.0-128*		*04/01/2020 14:50*	WG1453878

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		0.000434	0.00108	1	04/01/2020 18:01	WG1453768
Toluene	U		0.00136	0.00542	1	04/01/2020 18:01	WG1453768
Ethylbenzene	U		0.000575	0.00271	1	04/01/2020 18:01	WG1453768
Total Xylenes	U		0.00518	0.00705	1	04/01/2020 18:01	WG1453768
(S) Toluene-d8	*109*			*75.0-131*		*04/01/2020 18:01*	WG1453768
(S) 4-Bromofluorobenzene	*85.9*			*67.0-138*		*04/01/2020 18:01*	WG1453768
(S) 1,2-Dichloroethane-d4	*109*			*70.0-130*		*04/01/2020 18:01*	WG1453768

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	5.21		1.75	4.34	1	04/02/2020 02:10	WG1453628
C28-C40 Oil Range	15.0		0.297	4.34	1	04/02/2020 02:10	WG1453628
(S) o-Terphenyl	*48.8*			*18.0-148*		*04/02/2020 02:10*	WG1453628

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.1		1	04/01/2020 22:24	WG1453693

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	38.8		0.854	10.7	1	04/02/2020 20:11	WG1453916

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	04/01/2020 15:13	WG1453878
(S) a,a,a-Trifluorotoluene(FID)	*96.5*			*59.0-128*		*04/01/2020 15:13*	WG1453878

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		0.000429	0.00107	1	04/01/2020 18:20	WG1453768
Toluene	U		0.00134	0.00537	1	04/01/2020 18:20	WG1453768
Ethylbenzene	U		0.000569	0.00268	1	04/01/2020 18:20	WG1453768
Total Xylenes	U		0.00513	0.00698	1	04/01/2020 18:20	WG1453768
(S) Toluene-d8	*112*			*75.0-131*		*04/01/2020 18:20*	WG1453768
(S) 4-Bromofluorobenzene	*86.5*			*67.0-138*		*04/01/2020 18:20*	WG1453768
(S) 1,2-Dichloroethane-d4	*108*			*70.0-130*		*04/01/2020 18:20*	WG1453768

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	1.73	4.29	1	04/02/2020 02:23	WG1453628
C28-C40 Oil Range	4.04	J	0.294	4.29	1	04/02/2020 02:23	WG1453628
(S) o-Terphenyl	*57.1*			*18.0-148*		*04/02/2020 02:23*	WG1453628

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.5		1	04/01/2020 22:24	WG1453693

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	40.4		0.850	10.7	1	04/02/2020 20:21	WG1453916

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0232	0.107	1	04/01/2020 15:37	WG1453878
(S) a,a,a-Trifluorotoluene(FID)	*97.6*			*59.0-128*		*04/01/2020 15:37*	WG1453878

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		0.000428	0.00107	1	04/01/2020 18:39	WG1453768
Toluene	U		0.00134	0.00535	1	04/01/2020 18:39	WG1453768
Ethylbenzene	U		0.000567	0.00267	1	04/01/2020 18:39	WG1453768
Total Xylenes	U		0.00511	0.00695	1	04/01/2020 18:39	WG1453768
(S) Toluene-d8	*109*			*75.0-131*		*04/01/2020 18:39*	WG1453768
(S) 4-Bromofluorobenzene	*85.2*			*67.0-138*		*04/01/2020 18:39*	WG1453768
(S) 1,2-Dichloroethane-d4	*112*			*70.0-130*		*04/01/2020 18:39*	WG1453768

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		1.72	4.28	1	04/02/2020 02:35	WG1453628
C28-C40 Oil Range	3.63	J	0.293	4.28	1	04/02/2020 02:35	WG1453628
(S) o-Terphenyl	*63.7*			*18.0-148*		*04/02/2020 02:35*	WG1453628

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.5		1	04/01/2020 22:24	WG1453693

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	9.82	B J	0.833	10.5	1	04/02/2020 20:30	WG1453916

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0227	0.105	1	04/01/2020 16:01	WG1453878
(S) a,a,a-Trifluorotoluene(FID)	*97.7*			*59.0-128*		*04/01/2020 16:01*	WG1453878

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		0.000419	0.00105	1	04/01/2020 18:59	WG1453768
Toluene	U		0.00131	0.00524	1	04/01/2020 18:59	WG1453768
Ethylbenzene	U		0.000555	0.00262	1	04/01/2020 18:59	WG1453768
Total Xylenes	U		0.00501	0.00681	1	04/01/2020 18:59	WG1453768
(S) Toluene-d8	*112*			*75.0-131*		*04/01/2020 18:59*	WG1453768
(S) 4-Bromofluorobenzene	*88.6*			*67.0-138*		*04/01/2020 18:59*	WG1453768
(S) 1,2-Dichloroethane-d4	*109*			*70.0-130*		*04/01/2020 18:59*	WG1453768

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.69	4.19	1	04/02/2020 03:11	WG1453628
C28-C40 Oil Range	1.93	J	0.287	4.19	1	04/02/2020 03:11	WG1453628
(S) o-Terphenyl	*65.3*			*18.0-148*		*04/02/2020 03:11*	WG1453628

Received by OCD: 5/15/2020 1:59:43 PM

Method Blank (MB)

(MB) R3514902-1 04/01/20 16:19

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

L1204240-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1204240-02 04/01/20 16:19 • (DUP) R3514902-3 04/01/20 16:19

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	93.8	93.4	1	0.405		10

Laboratory Control Sample (LCS)

(LCS) R3514902-2 04/01/20 16:19

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

Released to Imaging: 11/30/2021 2:08:13 PM

Received by OCD: 5/15/2020 1:59:43 PM

Method Blank (MB)

(MB) R3514900-1 04/01/20 15:38

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

L1204240-13 Original Sample (OS) • Duplicate (DUP)

(OS) L1204240-13 04/01/20 15:38 • (DUP) R3514900-3 04/01/20 15:38

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	92.2	92.6	1	0.359		10

Laboratory Control Sample (LCS)

(LCS) R3514900-2 04/01/20 15:38

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

Released to Imaging: 11/30/2021 2:08:13 PM

Received by OCD: 5/15/2020 1:59:43 PM

QUALITY CONTROL SUMMARY

L1204240-16,17,18,19,20,21,22,23,24,25

Total Solids by Method 2540 G-2011

ONE LAB. NA

Method Blank (MB)

(MB) R3514898-1 04/01/20 15:29

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

L1204240-17 Original Sample (OS) • Duplicate (DUP)

(OS) L1204240-17 04/01/20 15:29 • (DUP) R3514898-3 04/01/20 15:29

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	92.7	93.0	1	0.365		10

Laboratory Control Sample (LCS)

(LCS) R3514898-2 04/01/20 15:29

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

Released to Imaging: 11/30/2021 2:08:13 PM

Received by OCD: 5/15/2020 1:59:43 PM

Method Blank (MB)

(MB) R3514960-1 04/01/20 22:24

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

L1204240-28 Original Sample (OS) • Duplicate (DUP)

(OS) L1204240-28 04/01/20 22:24 • (DUP) R3514960-3 04/01/20 22:24

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	92.2	92.4	1	0.181		10

Laboratory Control Sample (LCS)

(LCS) R3514960-2 04/01/20 22:24

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

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Method Blank (MB)

(MB) R3514800-1 04/01/20 16:35

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Chloride	U		0.795	10.0

L1204046-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1204046-01 04/01/20 17:24 • (DUP) R3514800-3 04/01/20 17:33

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	3620	3590	10	0.800		20

L1204240-09 Original Sample (OS) • Duplicate (DUP)

(OS) L1204240-09 04/01/20 21:03 • (DUP) R3514800-6 04/01/20 21:12

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	7630	8360	20	9.06		20

Laboratory Control Sample (LCS)

(LCS) R3514800-2 04/01/20 16:45

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	186	93.0	90.0-110	

L1204046-05 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1204046-05 04/01/20 18:11 • (MS) R3514800-4 04/01/20 18:21 • (MSD) R3514800-5 04/01/20 18:30

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	405	880	891	95.0	97.1	1	80.0-120			1.17	20

Method Blank (MB)

(MB) R3515015-1 04/02/20 03:16

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Chloride	1.43	J	0.795	10.0

L1204232-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1204232-01 04/02/20 04:10 • (DUP) R3515015-3 04/02/20 04:28

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	54.5	56.9	1	4.17		20

L1204232-10 Original Sample (OS) • Duplicate (DUP)

(OS) L1204232-10 04/02/20 08:21 • (DUP) R3515015-6 04/02/20 08:39

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	4.73	4.53	1	4.31	J	20

Laboratory Control Sample (LCS)

(LCS) R3515015-2 04/02/20 03:34

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	206	103	90.0-110	

L1204232-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1204232-06 04/02/20 05:57 • (MS) R3515015-4 04/02/20 06:15 • (MSD) R3515015-5 04/02/20 07:09

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	519	12.4	545	539	103	101	1	80.0-120			1.01	20

Method Blank (MB)

(MB) R3515160-1 04/02/20 17:29

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Chloride	2.55	J	0.795	10.0

L1204240-23 Original Sample (OS) • Duplicate (DUP)

(OS) L1204240-23 04/02/20 18:45 • (DUP) R3515160-3 04/02/20 18:55

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	22.3	22.6	1	1.31		20

L1204246-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1204246-03 04/02/20 21:37 • (DUP) R3515160-6 04/02/20 21:46

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	7120	6590	20	7.70		20

Laboratory Control Sample (LCS)

(LCS) R3515160-2 04/02/20 17:39

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	182	90.8	90.0-110	

L1204240-31 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1204240-31 04/02/20 20:30 • (MS) R3515160-4 04/02/20 20:40 • (MSD) R3515160-5 04/02/20 20:49

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	524	9.82	505	506	94.6	94.7	1	80.0-120			0.0649	20

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Method Blank (MB)

(MB) R3514783-2 04/01/20 11:21

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0261	J	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*98.4*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3514783-1 04/01/20 10:40

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.51	100	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*114*	*77.0-120*	

L1204278-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1204278-01 04/01/20 12:56 • (MS) R3514783-3 04/01/20 20:52 • (MSD) R3514783-4 04/01/20 21:12

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	174	1.28	146	162	83.2	92.3	26	10.0-151			10.3	28
(S) a,a,a-Trifluorotoluene(FID)					*112*	*113*		*77.0-120*				

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

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Method Blank (MB)

(MB) R3515890-3 04/01/20 11:27

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0552	J	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*107*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3515890-2 04/01/20 10:42

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.40	98.2	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*105*	*77.0-120*	

L1203806-25 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1203806-25 04/01/20 16:28 • (MS) R3515890-6 04/01/20 20:55 • (MSD) R3515890-7 04/01/20 21:18

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	144	ND	165	164	113	112	25	10.0-151			0.797	28
(S) a,a,a-Trifluorotoluene(FID)					*110*	*111*		*77.0-120*				

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Method Blank (MB)

(MB) R3515024-2 04/01/20 12:36

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	U		0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*100*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3515024-1 04/01/20 11:48

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	6.16	112	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*106*	*77.0-120*	

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Method Blank (MB)

(MB) R3515296-4 04/02/20 19:32

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0521	J	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*105*			*77.0-120*

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

(LCS) R3515296-2 04/02/20 18:25 • (LCSD) R3515296-3 04/02/20 18:47

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.50	5.21	5.53	94.7	101	72.0-127			5.96	20
(S) a,a,a-Trifluorotoluene(FID)				*108*	*106*	*77.0-120*				

L1204172-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1204172-01 04/02/20 23:44 • (MS) R3515296-5 04/03/20 04:12 • (MSD) R3515296-6 04/03/20 04:34

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	126	ND	120	125	94.8	98.5	25	10.0-151			3.83	28
(S) a,a,a-Trifluorotoluene(FID)					*106*	*108*		*77.0-120*				

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Method Blank (MB)

(MB) R3515045-2 04/01/20 11:20

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000400	0.00100
Ethylbenzene	U		0.000530	0.00250
Toluene	U		0.00125	0.00500
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	*104*			*75.0-131*
(S) 4-Bromofluorobenzene	*100*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*91.6*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3515045-1 04/01/20 10:23

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.106	84.8	70.0-123	
Ethylbenzene	0.125	0.101	80.8	74.0-126	
Toluene	0.125	0.110	88.0	75.0-121	
Xylenes, Total	0.375	0.320	85.3	72.0-127	
(S) Toluene-d8			*102*	*75.0-131*	
(S) 4-Bromofluorobenzene			*103*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*107*	*70.0-130*	

L1204240-18 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1204240-18 04/01/20 19:07 • (MS) R3515045-3 04/01/20 19:26 • (MSD) R3515045-4 04/01/20 19:58

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	0.133	U	0.109	0.0455	82.3	34.2	1	10.0-149		J3	82.5	37
Ethylbenzene	0.133	U	0.103	0.0429	77.5	32.3	1	10.0-160		J3	82.4	38
Toluene	0.133	U	0.117	0.0487	87.9	36.6	1	10.0-156		J3	82.4	38
Xylenes, Total	0.399	U	0.316	0.150	79.0	37.6	1	10.0-160		J3	71.0	38
(S) Toluene-d8					*102*	*102*		*75.0-131*				
(S) 4-Bromofluorobenzene					*99.9*	*99.2*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*97.9*	*97.6*		*70.0-130*				

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Method Blank (MB)

(MB) R3515599-1 04/01/20 10:28

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000400	0.00100
Ethylbenzene	U		0.000530	0.00250
Toluene	U		0.00125	0.00500
Xylenes, Total	U		0.00478	0.00650
(S) Toluene-d8	*112*			*75.0-131*
(S) 4-Bromofluorobenzene	*89.2*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*110*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3515599-2 04/01/20 12:10

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.116	92.8	70.0-123	
Ethylbenzene	0.125	0.101	80.8	74.0-126	
Toluene	0.125	0.109	87.2	75.0-121	
Xylenes, Total	0.375	0.314	83.7	72.0-127	
(S) Toluene-d8			*101*	*75.0-131*	
(S) 4-Bromofluorobenzene			*94.4*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*121*	*70.0-130*	

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Method Blank (MB)

(MB) R3514780-1 04/01/20 11:38

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	0.413	J	0.274	4.00
(S) o-Terphenyl	*66.5*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3514780-2 04/01/20 11:51

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	32.1	64.2	50.0-150	
(S) o-Terphenyl			*59.8*	*18.0-148*	

L1204232-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1204232-01 04/01/20 15:51 • (MS) R3514780-3 04/01/20 16:04 • (MSD) R3514780-4 04/01/20 16:17

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	56.9	31.8	77.6	77.8	80.4	80.8	1	50.0-150			0.293	20
(S) o-Terphenyl					*56.0*	*58.1*		*18.0-148*				

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

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Method Blank (MB)

(MB) R3514781-1 04/01/20 17:49

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	*65.0*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3514781-2 04/01/20 18:02

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	31.6	63.2	50.0-150	
(S) o-Terphenyl			*56.3*	*18.0-148*	

L1204240-23 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1204240-23 04/01/20 18:15 • (MS) R3514781-3 04/01/20 18:28 • (MSD) R3514781-4 04/01/20 18:41

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	52.6	1.90	37.3	32.4	67.4	58.0	1	50.0-150			14.2	20
(S) o-Terphenyl					*57.2*	*57.1*		*18.0-148*				

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

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Method Blank (MB)

(MB) R3514866-1 04/02/20 01:32

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	*62.5*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3514866-2 04/02/20 01:45

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	29.2	58.4	50.0-150	
(S) o-Terphenyl			*51.2*	*18.0-148*	

L1204246-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1204246-02 04/02/20 20:46 • (MS) R3514866-3 04/02/20 20:59 • (MSD) R3514866-4 04/02/20 21:11

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	53.8	1.92	37.0	39.7	65.2	70.2	1	50.0-150			7.01	20
(S) o-Terphenyl					*53.9*	*47.0*		*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.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
RDL (dry)	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.

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

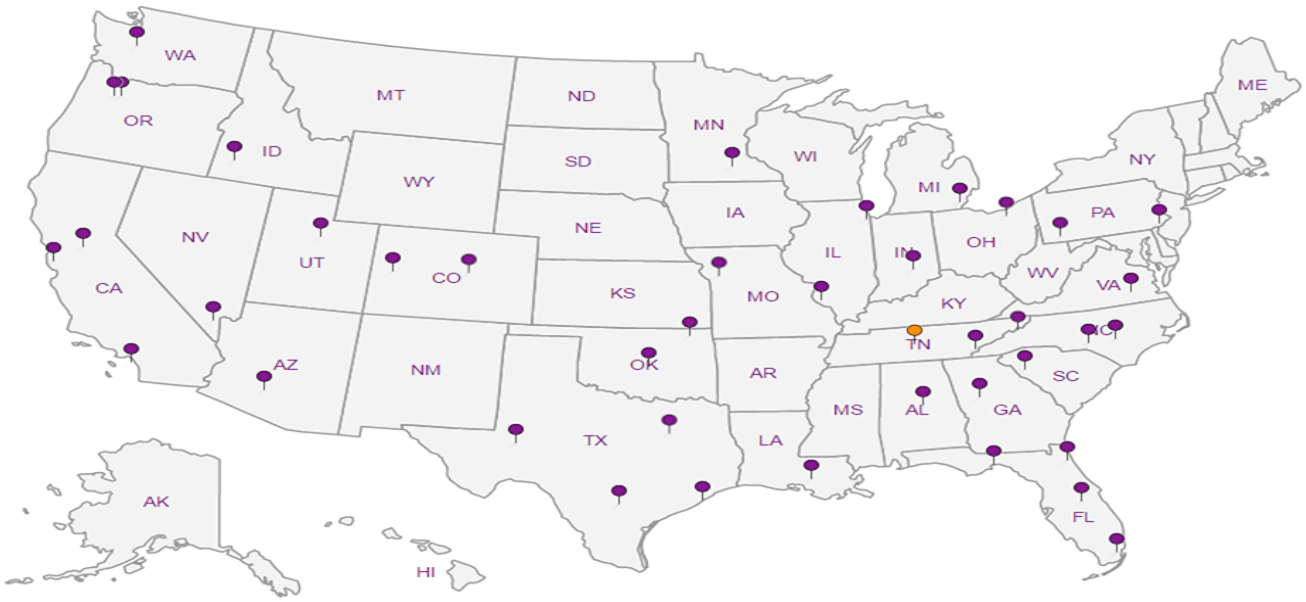
Third Party Federal Accreditations

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.



ACCOUNT:	PROJECT:	SDG:	DATE/TIME:	PAGE:
ConocoPhillips - Tetra Tech	212CMD02127	L1204240	04/07/20 09:59	60 of 66

L1204240

Page 1 of 5

Analysis Request of Chain of Custody Record

Tetra Tech, Inc.

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

Client Name:	ConocoPhillips	**Site Manager:**	Christian Llull
Project Name:	EVGSAU 2622-034		
Project Location: (county, state)	Lea County, New Mexico	**Project #:**	212C-MD-02127
Invoice to:	Accounts Payable 901 West Wall St. Suite 100, Midland TX 79701		
Receiving Laboratory:	Pace Analytical	**Sampler Signature:**	Devin Dominguez

Comments: Contact PM regarding holds COPTETRA acctn

ANALYSIS REQUEST
(Circle or Specify Method No.)

F226

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		# 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 Sulfate TDS	Chloride	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R			Hold
-01	BH-1 0-1'	3/26/2020			X				X			1	N	X		X												X							
-02	BH-1 2'-3'	3/26/2020			X				X			1	N	X		X												X							
-03	BH-1 3'-4'	3/26/2020			X				X			1	N	X		X												X							
	BH-1 4'-5'	3/26/2020			X				X			1	N																						X
-04	BH-1 6'-7'	3/26/2020			X				X			1	N	X		X												X							
-05	BH-2 0-1'	3/26/2020			X				X			1	N	X		X												X							
-06	BH-2 2'-3'	3/26/2020			X				X			1	N	X		X												X							
-07	BH-2 3'-4'	3/26/2020			X				X			1	N	X		X												X							
	BH-2 4'-5'	3/26/2020			X				X			1	N																						X
	BH-2 6'-7'	3/26/2020			X				X			1	N																						X

Relinquished by:	Date: 3/27 Time: 12:00	Received by:	Date: 3-27-20 Time: 12:00
Relinquished by:	Date: 3-27-20 Time: 15:00	Received by:	Date: 3-27-20 Time: 15:00
Relinquished by:	Date: Time:	Received by:	Date: 3/28/20 Time: 08:00

LAB USE ONLY

Sample Temperature 0.2+0.1=0.3

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 #: _____

ORIGINAL COPY

03-223

EN: <0.5 mR/hr

Custody Seals Received

Received by OCD: 5/15/2020 1:59:43 PM

CL204240

Analysis Request of Chain of Custody Record

Tetra Tech, Inc.

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

Client Name:	ConocoPhillips	**Site Manager:**	Christian Llull
Project Name:	EVGSAU 2622-034		
Project Location: (county, state)	Lea County, New Mexico	**Project #:**	212C-MD-02127
Invoice to:	Accounts Payable 901 West Wall St. Suite 100, Midland TX 79701		
Receiving Laboratory:	Pace Analytical	**Sampler Signature:**	Devin Dominguez
Comments:	Contact PM regarding holds COPTETRA acctn		

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	# 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	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R			Hold
	BH-2 9'-10'	3/26/2020			X				X		1	N																						X
	BH-2 14'-15'	3/26/2020			X				X		1	N																						X
	BH-2 19'-20'	3/26/2020			X				X		1	N																						X
-08	BH-2 24'-25'	3/26/2020			X				X		1	N	X		X												X							
-09	BH-3 0-1'	3/26/2020			X				X		1	N	X		X												X							
-10	BH-3 2'-3'	3/26/2020			X				X		1	N	X		X												X							
-11	BH-3 3'-4'	3/26/2020			X				X		1	N	X		X												X							
	BH-3 4'-5'	3/26/2020			X				X		1	N																						X
	BH-3 6'-7'	3/26/2020			X				X		1	N																						X
-12	BH-3 9'-10'	3/26/2020			X				X		1	N	X		X												X							

Relinquished by:	Date: 3/27 Time: 12:00	Received by:	Date: 3/27 Time: 12:00
Relinquished by:	Date: 3-27-20 Time: 15:00	Received by:	Date: 3/27/20 Time: 1500
Relinquished by:	Date: Time:	Received by:	Date: Time:

LAB USE ONLY

Sample Temperature
0.2+0.1=0.3°C

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 #: _____

ORIGINAL COPY

RAD SCREEN: <0.5 mR/hr

Released to Imaging: 11/30/2021 2:08:13 PM

L1204240

Analysis Request of Chain of Custody Record

Page 3 of 5

Tetra Tech, Inc.

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

Client Name: ConocoPhillips	Site Manager: Christian Llull
Project Name: EVGSAU 2622-034	
Project Location: (county, state) Lea County, New Mexico	Project #: 212C-MD-02127
Invoice to: Accounts Payable 901 West Wall St. Suite 100, Midland TX 79701	
Receiving Laboratory: Pace Analytical	Sampler Signature: Devin Dominguez
Comments: Contact PM regarding holds COPTETRA acctn	

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2020 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	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R			Hold
-13	BH-4 0-1'	3/26/2020			X			X		1	N	X		X												X							
-14-13	BH-4 2'-3'	3/26/2020			X			X		1	N	X		X												X							
-15-14	BH-4 3'-4'	3/26/2020			X			X		1	N	X		X												X							
	BH-4 4'-5'	3/26/2020			X			X		1	N																						X
	BH-4 6'-7'	3/26/2020			X			X		1	N																						X
	BH-4 9'-10'	3/26/2020			X			X		1	N																						X
-16-15	BH-4 14'-15'	3/26/2020			X			X		1	N	X		X												X							
-17-16	BH-5 0-1'	3/26/2020			X			X		1	N	X		X												X							
-18-17	BH-5 2'-3'	3/26/2020			X			X		1	N	X		X												X							
-19-18	BH-5 3'-4'	3/26/2020			X			X		1	N	X		X												X							

Relinquished by:	Date: 3/27	Time: 12:00	Received by: Date: 3/27/20 Time: 12:00
Relinquished by:	Date: 3-27-20	Time: 15:00	Received by: SOA Date: 3/27 Time: 15:00
Relinquished by:	Date:	Time:	Received by: Date: Time:

LAB USE ONLY

Sample Temperature 0.2+0.1-0.3 °C

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 #: _____

ORIGINAL COPY

RAD SCREEN: <0.5 mR/hr

Received by OCD: 5/15/2020 1:59:43 PM

U204240

Analysis Request of Chain of Custody Record

Tetra Tech, Inc.

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

Client Name:	ConocoPhillips	**Site Manager:**	Christian Llull
Project Name:	EVGSAU 2622-034		
Project Location: (county, state)	Lea County, New Mexico	**Project #:**	212C-MD-02127
Invoice to:	Accounts Payable 901 West Wall St. Suite 100, Midland TX 79701		
Receiving Laboratory:	Pace Analytical	**Sampler Signature:**	Devin Dominguez
Comments:	Contact PM regarding holds COPTETRA acctn		

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		# 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	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R			Hold
~~20-19~~	BH-5 4'-5'	3/26/2020			X				X			1	N	X		X												X							
~~21-20~~	BH-6 0-1'	3/26/2020			X				X			1	N	X		X												X							
~~22-21~~	BH-6 2'-3'	3/26/2020			X				X			1	N	X		X												X							
~~23-22~~	BH-6 3'-4'	3/26/2020			X				X			1	N	X		X												X							
~~24-23~~	BH-6 4'-5'	3/26/2020			X				X			1	N	X		X												X							
~~25-24~~	BH-7 0-1'	3/26/2020			X				X			1	N	X		X												X							
~~26-25~~	BH-7 2'-3'	3/26/2020			X				X			1	N	X		X												X							
~~27-26~~	BH-7 3'-4'	3/26/2020			X				X			1	N	X		X												X							
~~28-27~~	BH-7 4'-5'	3/26/2020			X				X			1	N	X		X												X							
~~29-28~~	BH-8 0-1'	3/26/2020			X				X			1	N	X		X												X							

Relinquished by:	Date: 3/27 Time: 12:00	Received by:	Date: 3/27/20 Time: 12:00
Relinquished by:	Date: 3/27/20 Time: 15:00	Received by:	Date: 3-27-20 Time: 15:00
Relinquished by:	Date: Time:	Received by:	Date: Time:

LAB USE ONLY

Sample Temperature
0.2+0.1=0.3 °C

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 #: _____

ORIGINAL COPY

RAD SCREEN: <0.5 mR/hr

Released to Imaging: 11/30/2021 2:08:13 PM

L1204240

Analysis Request of Chain of Custody Record

Page 5 of 5

Tetra Tech, Inc.

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

Client Name:	ConocoPhillips	Site Manager:	Christian Llull
Project Name:	EVGSAU 2622-034		
Project Location: (county, state)	Lea County, New Mexico	Project #:	212C-MD-02127
Invoice to:	Accounts Payable 901 West Wall St. Suite 100, Midland TX 79701		
Receiving Laboratory:	Pace Analytical	Sampler Signature:	Devin Dominguez

Comments: Contact PM regarding holds COPTETRA acctn

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	# 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	Sulfate TDS	Chloride	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R			Hold
~~3021~~	BH-8 2'-3'	3/26/2020			X				X		1	N	X		X												X								
~~3x30~~	BH-8 3'-4'	3/26/2020			X				X		1	N	X		X												X								
~~3231~~	BH-8 4'-5'	3/26/2020			X				X		1	N	X		X												X								

Relinquished by:	Date:	Time:	Received by:	Date:	Time:
	3/27	12:00		3/27/20	12:00
	3/27/20	15:00		3/27/20	15:00

LAB USE ONLY
Sample Temperature
0.2+0.1=0.3°C

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 #: _____

ORIGINAL COPY

RAD SCREEN: <0.5 mR/hr

Page 100 of 122

Katie Ingram

Pace Analytical®
National Center for Testing & Innovation

Login #: L1204240	Client: COPTETRA-212CMD02127	Date:03/28/20	Evaluated by:Myra "Katie" Ingram

Non-Conformance (check applicable items)

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

Login Comments:
ID: BH-4 0-1' received broken unsalvegable.

Client informed by:		Call		Email		Voice Mail		Date: 3/31/20	Time: 15:59
TSR Initials: CM	Client Contact:								

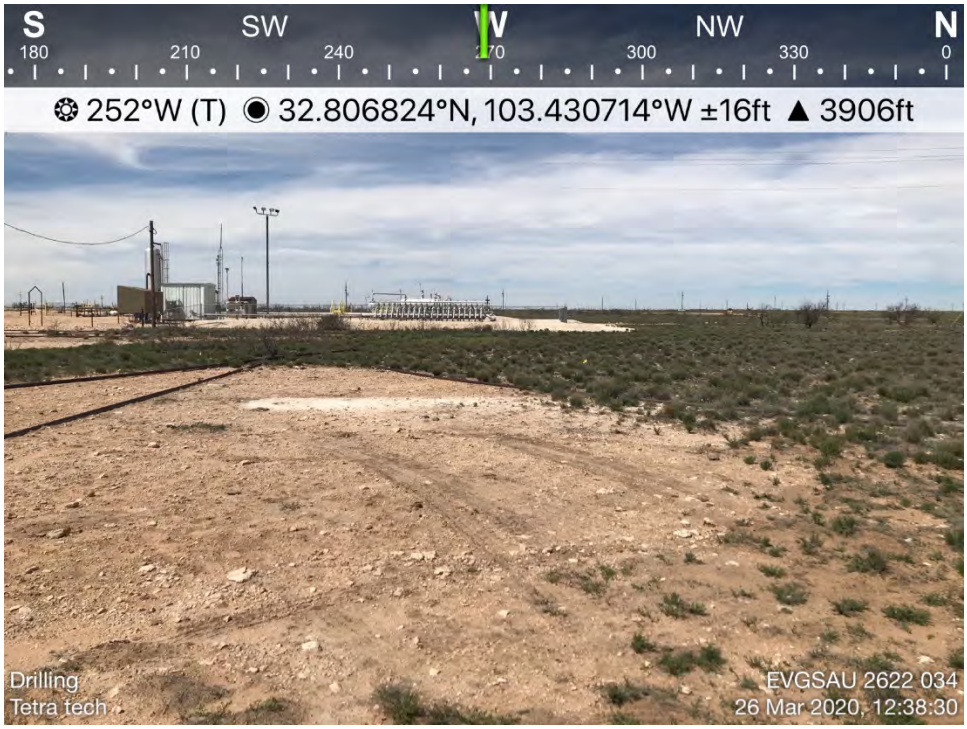
Login Instructions:

Client notified of broken container.

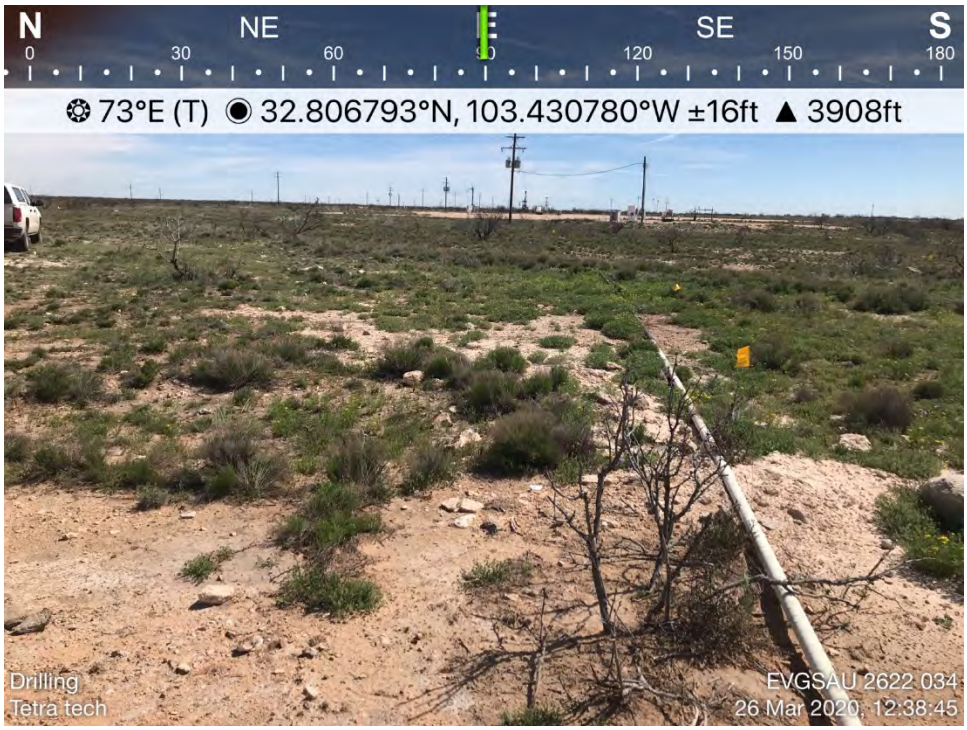
Received by OCD: 5/15/2020 1:59:43 PM

Released to Imaging: 11/30/2021 2:08:13 PM

APPENDIX E
Photographic Documentation

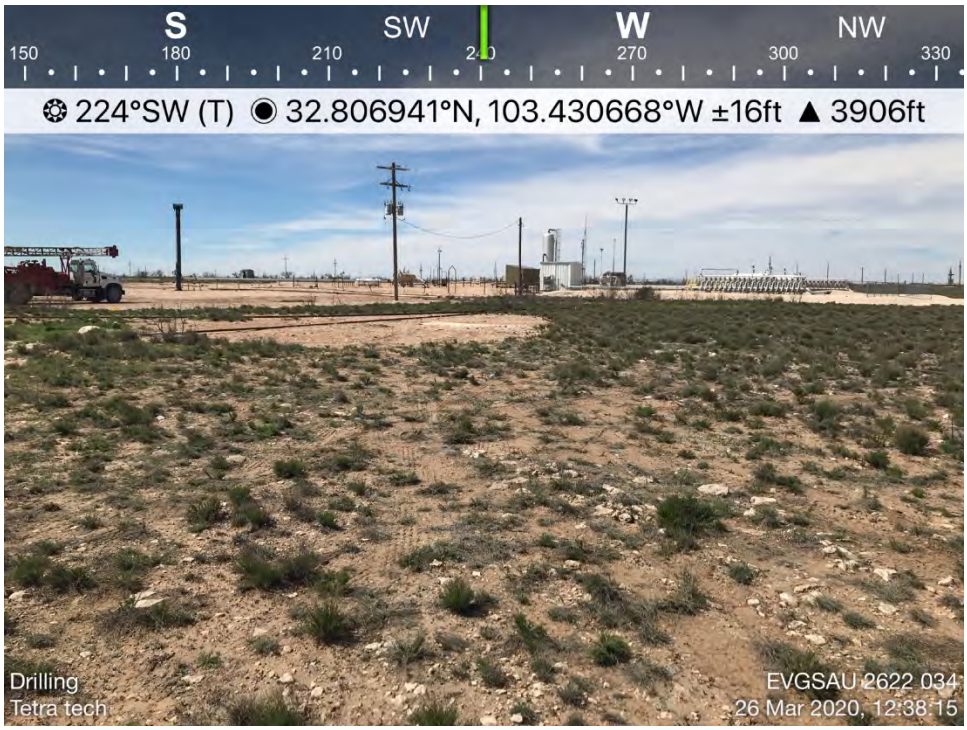


TETRA TECH, INC. PROJECT NO. 212C-MD-02127	DESCRIPTION	View W of release area and surface flow lines; Satellite #5 facility visible in the background.	1
	SITE NAME	EVGSAU 2622-034 Flowline Release	3/26/2020



TETRA TECH, INC. PROJECT NO. 212C-MD-02127	DESCRIPTION	View E of the release area and the repaired portion of the flowline (source of release).	2
	SITE NAME	EVGSAU 2622-034 Flowline Release	3/26/2020

TETRA TECH, INC. PROJECT NO. 212C-MD-02127	DESCRIPTION	View S of drill rig and release extent.	3
	SITE NAME	EVGSAU 2622-034 Flowline Release	3/26/2020



TETRA TECH, INC. PROJECT NO. 212C-MD-02127	DESCRIPTION	View SW of the release area, drill rig, and Satellite #5 facility.	4
	SITE NAME	EVGSAU 2622-034 Flowline Release	3/26/2020

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 2622-034 Flowline Release

April 22, 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

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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.

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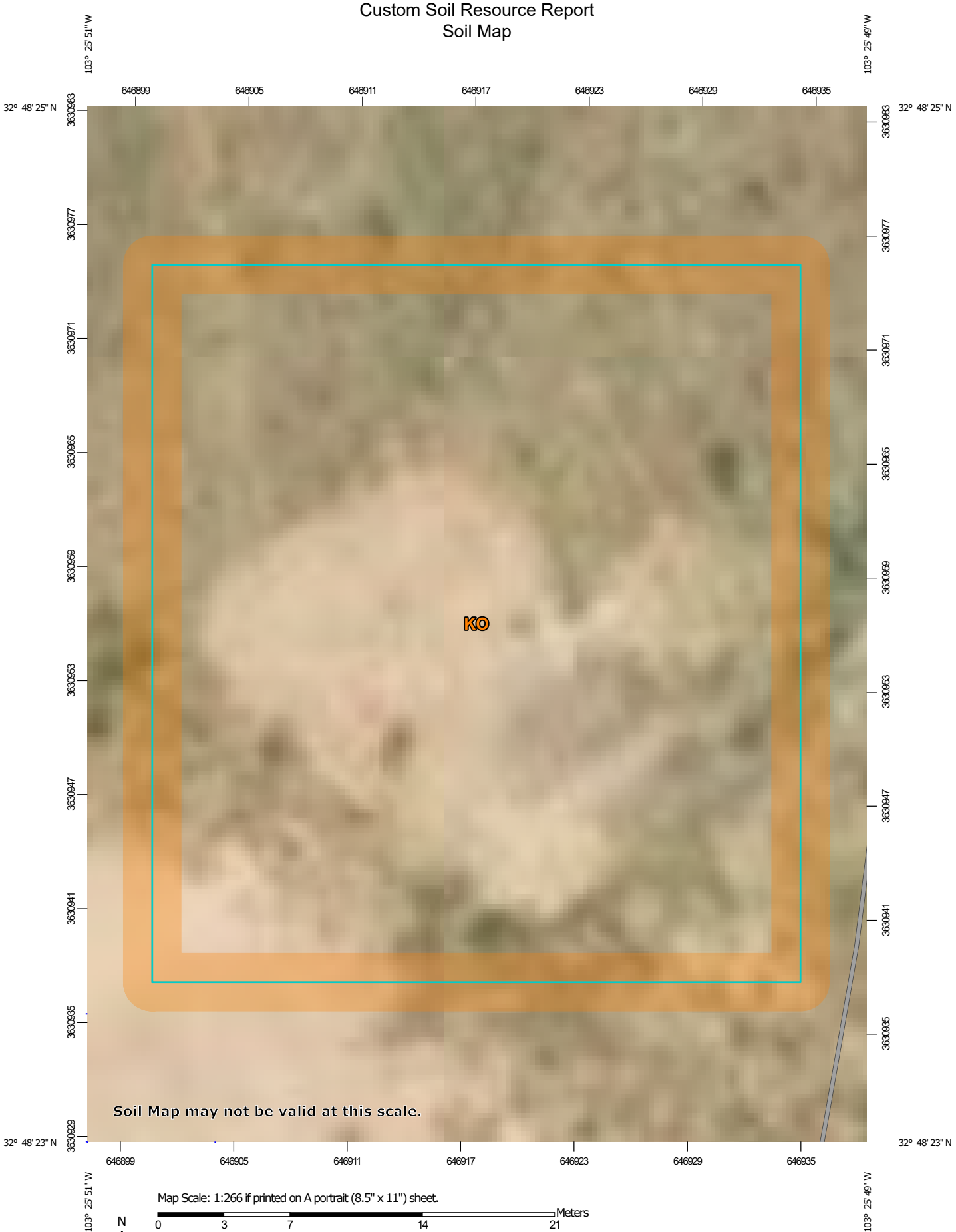
Custom Soil Resource Report
Soil Map



Map Scale: 1:266 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 3 7 14 21

Feet: 0 10 20 40 60

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 13N WGS84

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 16, Sep 15, 2019

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	0.3	100.0%
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
Natural 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 in profile: 95 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 1.0
Available water storage in profile: 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: Very Shallow 12-17" PZ (R077DY049TX)
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: Very Shallow 12-17" PZ (R077DY049TX)
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: Very Shallow 12-17" PZ (R077DY049TX)
Hydric soil rating: No

Kenhill

Percent of map unit: 4 percent
Landform: Plains
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: Clay Loam 12-17" PZ (R077DY038TX)
Hydric soil rating: No

References

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

National Research Council. 1995. Wetlands: Characteristics and boundaries.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577

Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580

Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.

United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.

United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374

United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084

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United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

NMSLO Seed Mix Loamy (L)

LOAMY (L) SITES SEED MIXTURE:

COMMON NAME	VARIETY	APPLICATION RATE (PLS/Acre)	DRILL BOX
Grasses:			
Black grama	**VNS, Southern**	**1.0**	**D**
Blue grama	**Lovington**	**1.0**	**D**
Sideoats grama	**Vaughn, El Reno**	**4.0**	**F**
Sand dropseed	**VNS, Southern**	**2.0**	**S**
Alkali sacaton	**VNS, Southern**	**1.0**	
Little bluestem	**Cimarron, Pastura**	**1.5**	**F**
Forbs:			
Firewheel (*Gaillardia*)	**VNS, Southern**	**1.0**	**D**
Shrubs:			
Fourwing saltbush	**Marana, Santa Rita**	**1.0**	**D**
Common winterfat	**VNS, Southern**	**0.5**	**F**
	Total PLS/acre	**18.0**	

S = Small seed drill box, D = Standard seed drill box, F = Fluffy seed drill box
VNS = Variety Not Stated, PLS = Pure Live Seed

- Seed mixes should be provided in bags separating seed types into the three categories: small (S), standard (D) and fluffy (F).
- VNS, Southern – Seed should be from a southern latitude collection of this species.
- Double seed application rate for broadcast or hydroseeding.
- If one species is not available, contact the SLO for an approved substitute; alternatively the SLO may require other species proportionately increased.
- Additional information on these seed species can be found on the USDA Plants Database website at http://plants.usda.gov.

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 8320

CONDITIONS

Operator: CONOCOPHILLIPS COMPANY 600 W. Illinois Avenue Midland, TX 79701	OGRID: 217817
	Action Number: 8320
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
bbillings	Work plan is approved, with sampling protocol, however, variance request regarding bottom of excavation is denied ending data outcome. Can be revisited at that time if needed.	11/30/2021