TETRA TECH

RESUBMITTED 6/15/2022 -
ORIGINALLY SUBMITTED UNDER
PO Number 637YL-210427-C-1410
ON APRIL 27, 2021
WITH INCORRECT INCIDENT ID nOY1821258767

April 27, 2021

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

Re: Closure Report
ConocoPhillips
MCA 1C Trunkline Release
Unit Letter M, Section 20, Township 17 South, Range 32 East
Lea County, New Mexico
1RP-5141
Incident ID nOY1821258273

Sir or Madam:

Tetra Tech, Inc. (Tetra Tech) was contacted by ConocoPhillips (COP) to assess, evaluate and remediate a historical release that occurred from the Maljamar Cooperative Agreement (MCA) 1C Header trunk line. The well listed in the C-141 is the MCA Unit #269 well (API No. 30-025-23706), located approximately 3,400 feet (ft) west-northwest of the wellhead. The release footprint is located in Public Land Survey System (PLSS) Unit Letter M, Section 20, Township 17 South, Range 35 East, in Lea County, New Mexico (Site). The approximate release point occurred at coordinates 32.816182°, -103.794761°, as shown on Figures 1 and 2.

BACKGROUND

According to the State of New Mexico Oil Conservation District (NMOCD) C-141 Initial Report, the release was discovered on November 11, 2016. The release occurred as the result of a flowline leak and approximately 1.8 barrels (bbls) of produced water and 9.2 bbls of oil were reported released, of which 8 bbls of fluid were recovered. The release reportedly affected a 93-ft by 51-ft and 120-ft by 15-ft area. The New Mexico Oil Conservation District (NMOCD) received the initial C-141 on November 15, 2016 and subsequently assigned the release the Remediation Permit (RP) number 1RP-5141 and the Incident ID nOY1821258273. The initial C-141 form is included in Appendix A.

SITE CHARACTERIZATION

A site characterization was performed and no watercourses, sinkholes, residences, schools, hospitals, institutions, churches, springs, private domestic water wells, springs, playa lakes, wetlands, incorporated municipal boundaries, subsurface mines, or floodplains are located within the distances specified in 19.15.0029 New Mexico Administrative Code (NMAC). The Site is in an area of low karst potential.

The Site is within a New Mexico oil and gas production area. According to the New Mexico Office of the State Engineers (NMOSE) reporting system, there are no water wells within 800 meters (approximately ½ mile) of the Site. The search radius was expanded and based on available data from nine (9) water wells located within 2,400 meters (approximately 1.5 miles) of the Site with an average depth to groundwater of 85 ft below ground surface (bgs). The site characterization data is included in Appendix B.

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REGULATORY FRAMEWORK

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

Based on the site characterization (depth to groundwater) and in accordance with Table I of 19.15.29.12 NMAC, the remediation RRALs for the Site are as follows:

Constituent	Site RRALs
Chloride	10,000 mg/kg
TPH	2,500 mg/kg
BTEX	50 mg/kg

Additionally, in accordance with the NMOCD guidance Procedures for Implementation of the Spill Rule (19.15.29 NMAC) (September 6, 2019), the following reclamation criteria for surface soils (0-4 ft bgs) outside of active oil and gas operations are as follows:

Constituent	Reclamation Requirements
Chloride	600 mg/kg
TPH	100 mg/kg
BTEX	50 mg/kg

INITIAL ASSESSMENT ACTIVITIES AND SAMPLING RESULTS

The release extent was initially assessed by Tetra Tech in 2017. On August 31, 2017, Tetra Tech personnel were at the Site to delineate impact within the reported release extent. A total of four (4) borings (B-1 through B-4) were drilled to varying depths of 15, 17 and 20 feet bgs. The soil borings were completed within the release footprint to vertically define the extent of impacted soils in order to draft a remediation work plan. Boring locations are shown in Figure 3.

A total of twenty-four (24) soil samples were collected from the four borings and submitted to Pace Analytical (Pace) to be analyzed for TPH via EPA Method 8015B modified, BTEX via EPA Method 8260, and chloride via EPA Method 300.0. Copies of the laboratory analytical report and chain-of-custody documentation are included in Appendix C.

According to the assessment conducted, the analytical results associated with the B-3 and B-4 sample locations exceeded the TPH and chloride reclamation requirements for soil at 0-4 feet bgs. The analytical results associated with all samples analyzed were below the BTEX Site RRAL of 50 mg/kg. Analytical results from the initial assessment can be found in Table 1.

REMEDIATION WORK PLAN

The Site Work Plan was prepared by Tetra Tech on behalf of ConocoPhillips and submitted to NMOCD on July 3, 2018. The Work Plan described results of the assessment and provided an outline for the proposed closure plan for the Site. On August 3, 2018, Olivia Yu of the NMOCD approved the work plan with the condition that confirmation bottom and sidewall samples be collected following removal of impacted material in the vicinity of boring locations B-3 and B-4.

INITIAL REMEDIAL ACTIVITIES

From August 20, 2018 through August 24, 2018, Tetra Tech personnel were onsite to supervise the remediation activities proposed in the approved Work Plan, including excavation, disposal, and confirmation sampling. Impacted soils were excavated until a representative sample from the walls and bottom of the excavation had a field screening value inferred as lower than the RRALs for the Site. Once field screening was completed, confirmation floor and sidewall samples were collected for laboratory analysis to verify that the impacted materials were properly removed.

A total of two (2) floor sample locations and six (6) sidewall sample locations were used during the 2018 remedial activities. Confirmation sidewall sample locations were categorized with the cardinal direction (N, E, S, W) followed by SW-#. Confirmation floor sample locations were labeled with auger hole designations ("AH"-#). Initially collected confirmation samples were placed into laboratory-provided sample containers, transferred under chain-of-custody, and analyzed within appropriate holding times by Pace. The soil samples were analyzed for TPH (DRO and ORO) by EPA Method 8015, TPH Low Fraction (GRO) by EPA Method 8015D, BTEX by EPA Method 8260B, and chlorides by EPA Method 300.0. The results of the 2018 confirmation sampling events are summarized in Table 2.

The excavation floor was initially excavated to 6' bgs, as described in the approved Work Plan. Based on the field screening data, the excavation floor was trenched to determine the vertical extent of impact in the area. Based on the screening data, he area of AH-2 was eventually deepened to collect a representative sample at 7' bgs. One additional sample was collected and analyzed for confirmation. The analytical results were below the respective RRALs for that location.

All the excavated material was transported offsite for proper disposal. Approximately 550 cubic yards of material were transported to the R360 facility in Hobbs, New Mexico. A 40-mil poly liner was placed at the base of the excavation and the excavated area was backfilled with clean material to the previously existing grade. The area was seeded with a Bureau of Land Management mixture to complete the site restoration activities.

CLOSURE REPORT SUBMITTAL AND REJECTION

The Closure Report was prepared by Tetra Tech on behalf of ConocoPhillips and submitted to NMOCD on October 21, 2019 with fee application payment PO Number 9UHX9-191021-C-1410. The report requested closure of the Site based on the soil assessment results and remedial activities detailed above.

The Work Plan was rejected via email by Robert Hamlet, NMOCD, on December 6, 2019. Mr. Hamlet stated the closure was denied based on the following:

"The State of New Mexico no longer uses the Ranking Scoring System.

All off pad areas must contain a minimum of 4 feet non-waste containing uncontaminated, earthen material with chloride concentrations less than 600 mg/kg. In the pasture area, 4 feet below the ground surface, soil contamination limits revert back to Table 1 "Closure Criteria for Soils Impacted by a Release" included in the spill rule http://164.64.110.134/parts/title19/19.015.0029.html

Your report says, "Based upon the depth to groundwater, the approved RRAL for TPH is 5,000 mg/kg". The correct limit for TPH 51'-100' and >100' are 2,500 mg/kg (GRO+DRO+MRO) or 1,000 mg/kg for (GRO+DRO).

Sample ID "B-1" and "B-2" are both over the limit for TPH.

Please excavate soil sample "B-1" to 4 feet bgs and "B-2" to 6 feet bgs."

Email correspondence between NMOCD and Tetra Tech can be found in Appendix D.

ADDITIONAL REMEDIATION ACTIVITIES AND CONFIRMATION SAMPLING

Per 19.15.29.16 NMAC (Transitional Provisions), responsible parties with current ongoing corrective actions/remediation with approved plans and timelines as of August 14, 2018 do not have to submit revised plans. Based on the rejection and the comments received from NMOCD, per Subsection E of 19.15.29.12 NMAC, analytical results from boring locations B-1 and B-2 exceeded the *Table 1. Closure Criteria for Soils Impacted by a Release*. Per NMOCD request, COP commenced additional remediation at the release site in the release area footprint surrounding B-1 and B-2.

From February 8, 2021 through February 22, 2021, Tetra Tech personnel were onsite to supervise the continuation of remediation activities including excavation, disposal, and confirmation sampling based on the NMOCD rejection. Impacted soils within the release footprint were excavated until a representative sample from the walls and bottom of the excavation had a field screening value inferred as lower than the RRALs for the Site. Once field screening was completed, confirmation floor and sidewall samples were collected for laboratory analysis to verify that the impacted materials were properly removed. Each confirmation sample laboratory analytical result was directly compared to the proposed RRALs and reclamation requirements of soils at 0-4 feet bgs to demonstrate compliance.

Confirmation samples were collected such that each discrete sample (sidewall and floor) was representative of no more than 200 square feet of excavated area. A total of nine (9) floor sample locations and twenty-four (24) sidewall sample locations were used during the remedial activities. Confirmation sidewall sample locations were categorized with the cardinal direction (N, E, S, W) followed by SW-#. Confirmation floor sample locations were labeled with “FS”-#. Selected areas required additional excavation to collect a representative sample that was below the respective RRALs for that location. As the analytical results associated with these sample locations exceeded the respective RRAL, additional excavation was conducted at those locations until field screening results indicated closure criteria were attained. Photographic documentation of remedial activities can be found in Appendix E.

Iterative confirmation samples were located to encompass the original sample locations that triggered removal (nomenclature defined in Table 3) post-additional excavation. If the sidewall area was expanded due to unacceptable confirmation sample results, the parentheses indicate the expansion iteration. For floor samples, the parentheses indicate the excavation floor depth from which the sample was collected. Excavated areas, depths and confirmation sample locations are shown in Figure 5

Collected confirmation samples were placed into laboratory-provided sample containers, transferred under chain-of-custody, and analyzed within appropriate holding times by Pace. The soil samples were analyzed for TPH (DRO and ORO) by EPA Method 8015, TPH Low Fraction (GRO) by EPA Method 8015D, BTEX by EPA Method 8260B, and chlorides by EPA Method 300.0. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix C.

In accordance with 19.15.29.12 NMAC, the southern portion of the release extent was excavated to 5 feet bgs and the northern portion of the release extent was excavated to 6 feet bgs. Areas along steel surface lines and/or buried lines in the release footprint were hand dug to the maximum extent practicable to remove impacted soil. Analytical results associated with one (1) floor sample locations (FS-21-1) exceeded remediation RRALs for TPH (2,500 mg/kg). This excavation area was deepened, and an additional confirmation sample (FS-21-1 (5’)) was collected. Analytical results associated with sidewall samples (NSW-21-1, NSW-21-2, SSW-21-2, SSW-21-3, SSW-21-5, and WSW-21-1) were above reclamation requirements for TPH (100 mg/kg). The excavation walls were expanded at these locations. After iterative confirmation sampling, all final confirmation soil samples (floor and sidewall) were below the reclamation requirements for soils 0-4 feet bgs and the RRALs for chloride, BTEX, and TPH. The results of the February 2021 confirmation sampling events are summarized in Table 3.

All the excavated material was transported offsite for proper disposal. Approximately 468 cubic yards of material were transported to the R360 facility in Hobbs, New Mexico. Photographs from the excavated areas prior to backfill are provided in Appendix E. Once confirmation sampling activities were completed and associated analytical results were below the RRALs, the excavated areas were backfilled with clean

material to surface grade. The remediated areas contain soil backfill consisting of suitable material to establish vegetation at the site. Copies of the waste manifests are included in Appendix F.

The backfilled areas were seeded to aid in revegetation. Based on the soils at the site, the New Mexico State Land Office (NMSLO) Sandy (S) Sites Seed Mixture was used for seeding and was planted in the amount specified in the pounds pure live seed (PLS) per acre. The seed mixture was spread by cart-pulled seed drill equipped with a depth regulator.

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.

CONCLUSION

ConocoPhillips respectfully requests closure of this release based on the confirmation sampling results and additional remediation activities performed. Following the combined remedial activities in August 2018 and February 2021, remediation and reclamation of impacted material associated with the 1RP-5141/ nOY1821258273 release is considered complete. The final C-141 forms are enclosed in Appendix A. If you have any questions concerning the remediation activities for the Site, please call me at (512) 338-2861 or Greg at (432) 682-4559.

Sincerely,
Tetra Tech, Inc.

Christian M. Llull, P.G.
Project Manager

Greg W. Pope, P.G.
Program Manager

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

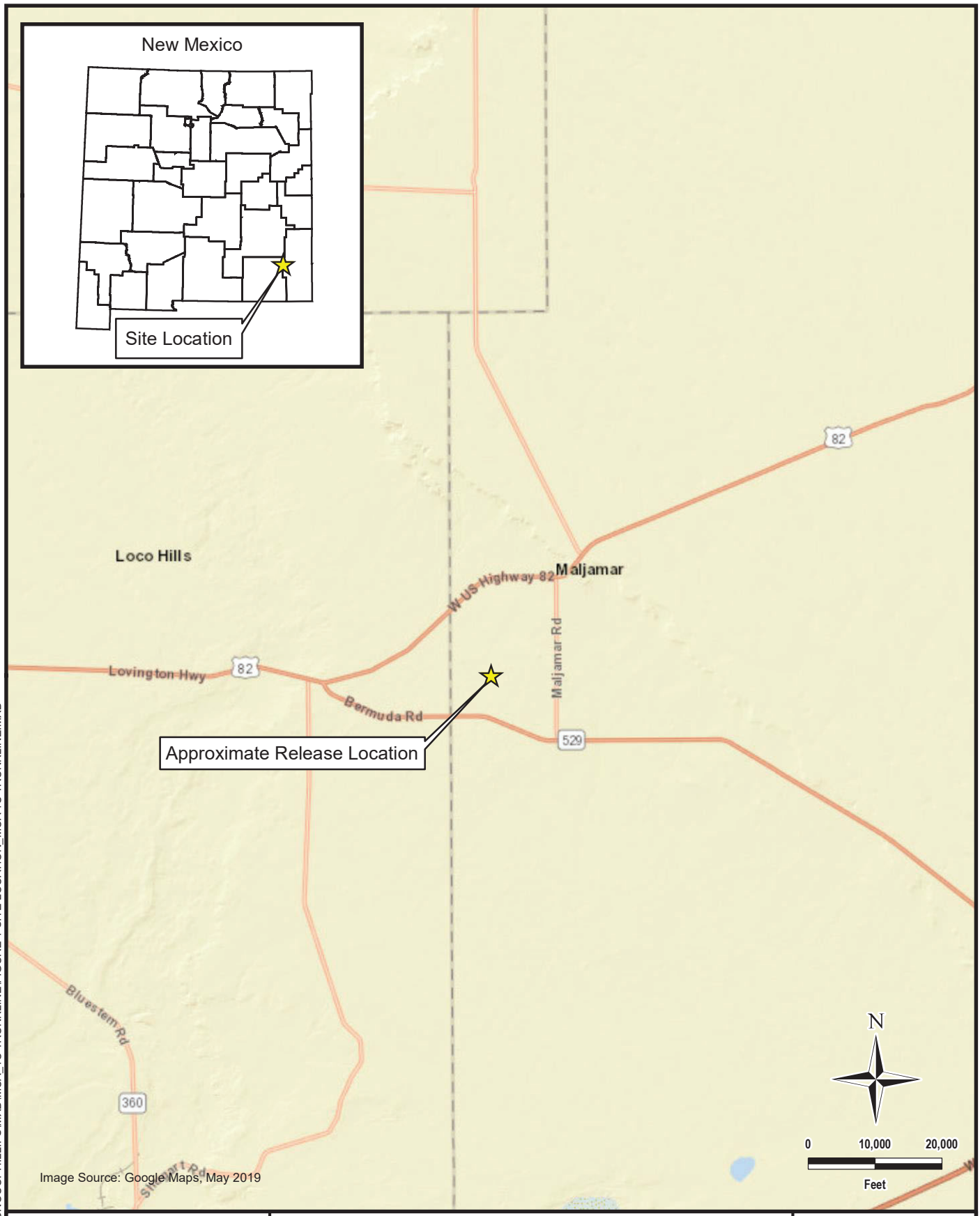
LIST OF ATTACHMENTS

Figures:

Tables:

Appendices:

FIGURES



DOCUMENT PATH: D:\CONOCOPHILLIPS\MXD\MCA_1C TRUNKLINE\FIGURE 1 SITE LOCATION_MCA 1C TRUNKLINE.MXD

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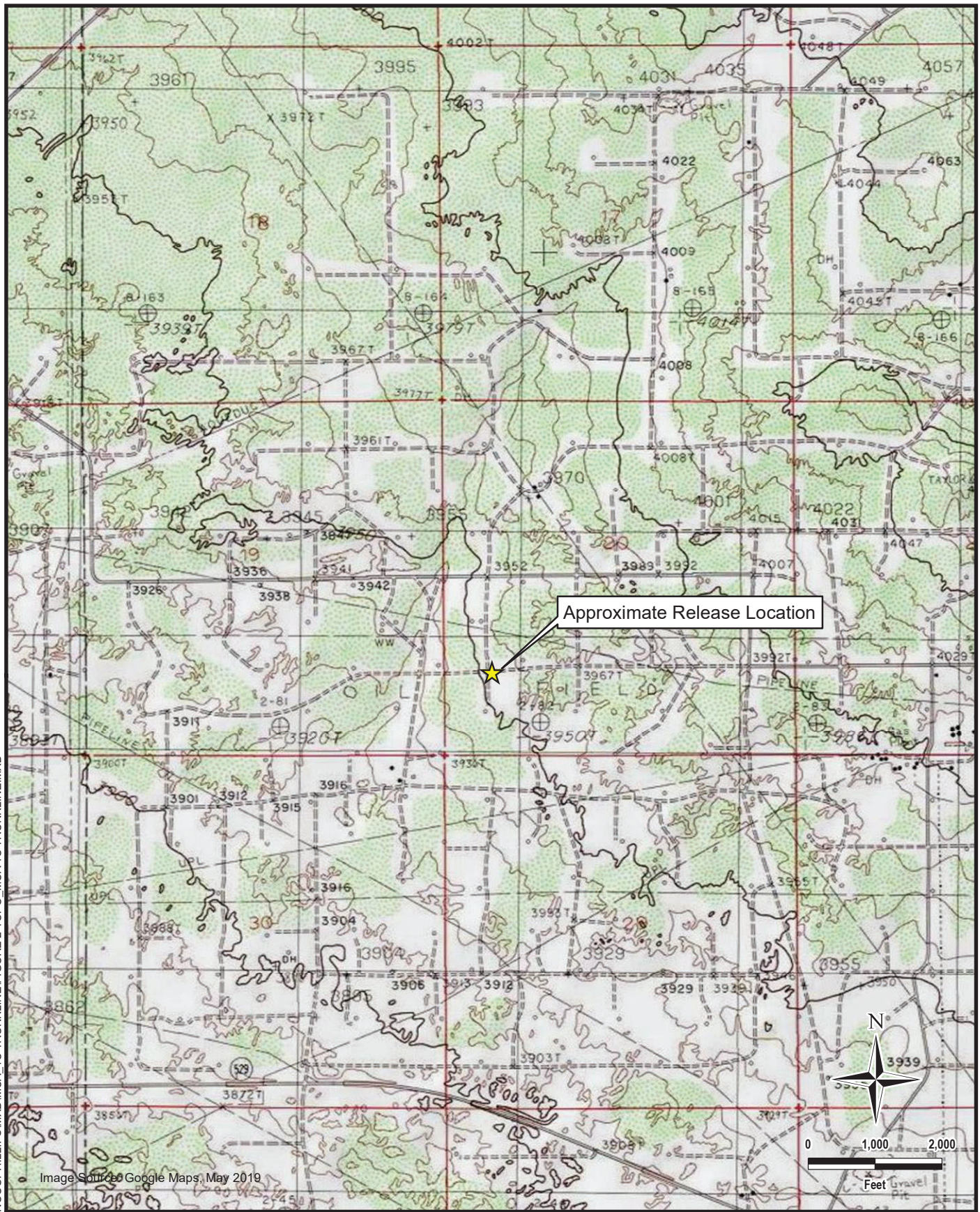
CONOCOPHILLIPS

1RP-5141
(32.816182°, -103.794761°)
LEA COUNTY, NEW MEXICO

MCA 1C TRUNKLINE RELEASE
SITE LOCATION MAP

PROJECT NO.:	212C-MD-02356
DATE:	APRIL 01, 2021
DESIGNED BY:	AAM

Figure No.
1



DOCUMENT PATH: D:\CONOCOPHILLIPS\MXD\MCA_1C TRUNKLINE\FIGURE 2 TOPO_MCA 1C TRUNKLINE.MXD

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CONOCOPHILLIPS

1RP-5141
(32.816182°, -103.794761°)
LEA COUNTY, NEW MEXICO

MCA 1C TRUNKLINE RELEASE
TOPOGRAPHIC MAP

PROJECT NO.:	212C-MD-02356
DATE:	MARCH 23, 2021
DESIGNED BY:	AAM

Figure No.
2

DOCUMENT PATH: D:\CONOCOPHILLIPS\MXD\MCA_1C TRUNKLINE\FIGURE 3 RELEASE_MCA 1C TRUNKLINE.MXD

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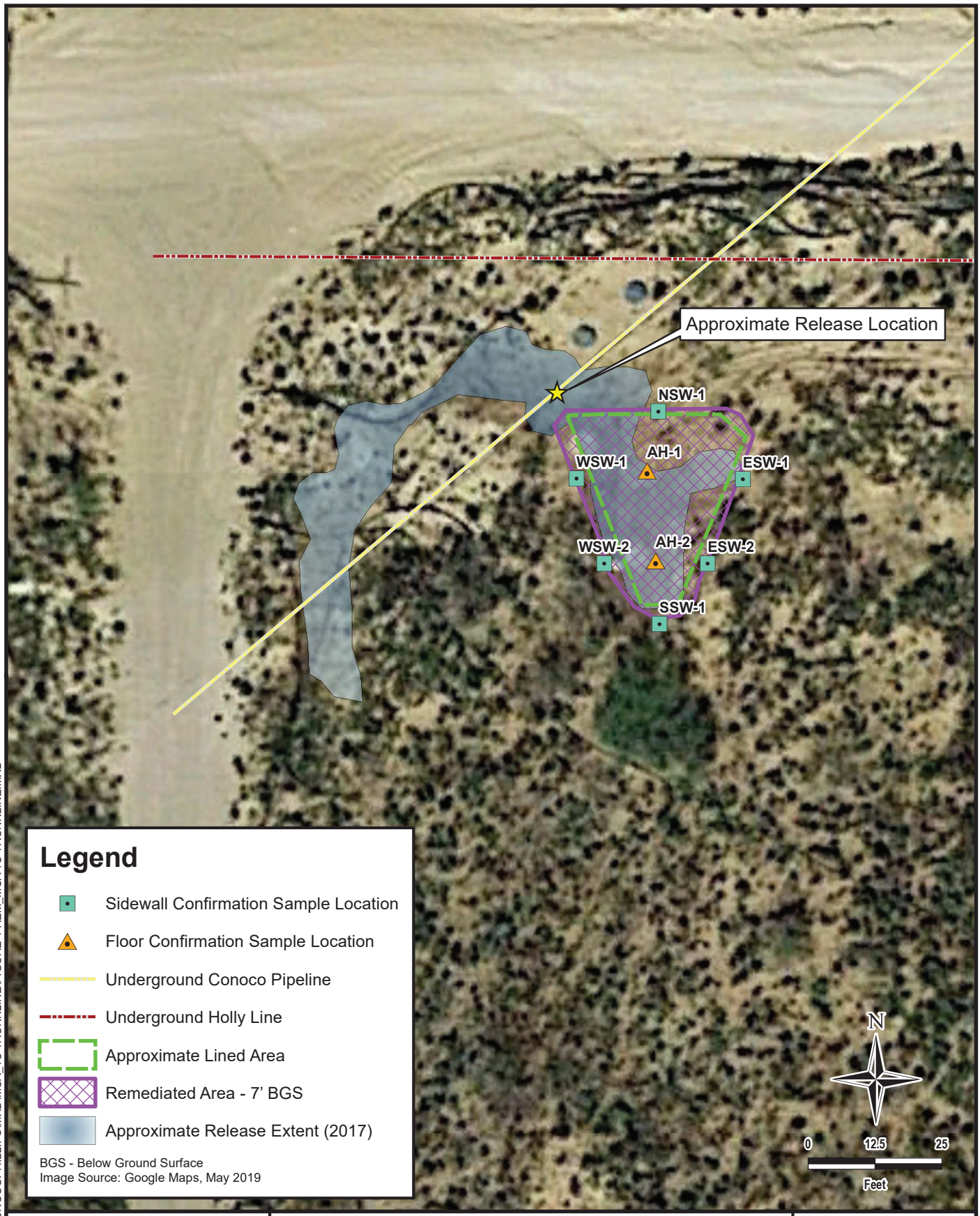
CONOCOPHILLIPS

1RP-5141
(32.816182°, -103.794761°)
LEA COUNTY, NEW MEXICO

MCA 1C TRUNKLINE RELEASE
APPROXIMATE RELEASE EXTENT AND INITIAL ASSESSMENT

PROJECT NO.:	212C-MD-02356
DATE:	MARCH 23, 2021
DESIGNED BY:	AAM

Figure No.
3



Legend

- Sidewall Confirmation Sample Location
- Floor Confirmation Sample Location
- Underground Conoco Pipeline
- Underground Holly Line
- Approximate Lined Area
- Remediated Area - 7' BGS
- Approximate Release Extent (2017)

BGS - Below Ground Surface
Image Source: Google Maps, May 2019

DOCUMENT PATH: D:\CONOCOPHILLIPS\MXD\MCA_1C TRUNKLINE\FIGURE 4 REM_MCA 1C TRUNKLINE.MXD

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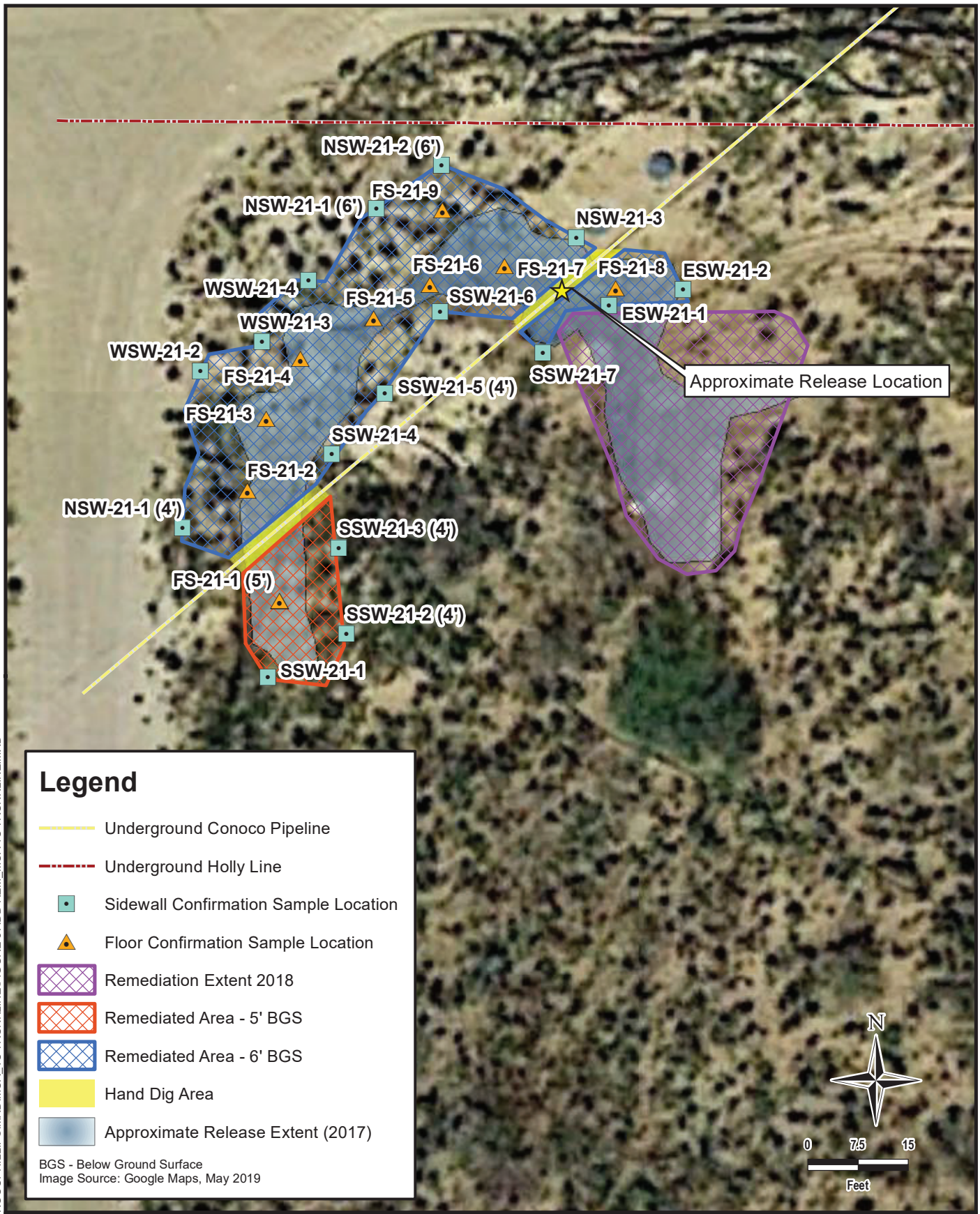
CONOCOPHILLIPS

1RP-5141
(32.816182°, -103.794761°)
LEA COUNTY, NEW MEXICO

MCA 1C TRUNKLINE RELEASE
INTERIM REMEDIATION EXTENT

PROJECT NO.:	212C-MD-02356
DATE:	APRIL 01, 2021
DESIGNED BY:	AAM

Figure No.
4



DOCUMENT PATH: D:\CONOCOPHILLIPS\MXD\MCA_1C TRUNKLINE\FIGURE 5 ADD REM_MCA 1C TRUNKLINE.MXD

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CONOCOPHILLIPS

1RP-5141
(32.816198°, -103.794750°)
LEA COUNTY, NEW MEXICO

MCA 1C TRUNKLINE RELEASE
ADDITIONAL REMEDIATION EXTENT AND SAMPLING LOCATIONS

PROJECT NO.:	212C-MD-02356
DATE:	APRIL 12, 2021
DESIGNED BY:	AAM

Figure No.
5

TABLES

TABLE 1
SUMMARY OF ANALYTICAL RESULTS
SOIL ASSESSMENT - 1RP-5141
CONOCOPHILLIPS
MCA 1C TRUNKLINE 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		DRO		ORO[4]		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	
B-1	8/31/2017	0-1	53.5	415	< 125		< 0.0026		< 0.0026		< 0.0026		< 0.0077		-		< 12.7		1,480		1,130	N2	***2,610***	
		2-3	43.0	362	< 125		NA		NA		NA		NA		-		NA		NA		NA		-	
		4-5	281	434	161		< 0.0024		< 0.0024		< 0.0024		< 0.0071		-		< 11.9		34.3		23.3	N2	57.6	
		6-7	197	232	< 129		NA		NA		NA		NA		-		NA		NA		NA		-	
		14-15	241	21.1	< 124		< 0.0025		< 0.0025		< 0.0025		< 0.0076		-		< 12.8		< 6.3	2t	17.2	N2	17.2	
B-2	8/31/2017	0-1	441	48.0	179		< 0.0020		< 0.0020		< 0.0020		< 0.0060		-		< 10.1		1,710		2,050	M3 N2	***3,760***	
		2-3	1,410	51.4	338		NA		NA		NA		NA		-		NA		NA		NA		-	
		4-5	379	17.3	169		< 0.0022		< 0.0022		< 0.0022		< 0.0065		-		< 10.7		1,820		1,350	N2	***3,170***	
		6-7	251	3.0	125		< 0.0021		< 0.0021		< 0.0021		< 0.0063		-		< 10.4		< 5.2	1t	6.3	N2	6.3	
		16-17	109	1.2	< 103		< 0.0021		< 0.0021		< 0.0021		< 0.0062		-		< 10.3		< 5.1	1t	6.4	N2	6.4	
B-3	8/31/2017	0-1	728	579	168		NA		NA		NA		NA		-		NA		NA		NA		-	
		2-3	1.24	800	***769***		< 0.010	D3	6.1		0.17		6.9		13.2		224		6,060		3,000	N2	***9,284***	
		4-5	1.51	90.3	1,530		< 0.012		< 0.012		< 0.012		< 0.035		-		24.1		676		440	N2	1,140	
		6-7	1.49	80.3	204		NA		NA		NA		NA		-		NA		NA		NA		-	
		8-9	195	45.7	335		NA		NA		NA		NA		-		NA		NA		NA		-	
		9-10	379	53.8	209		< 0.0023		< 0.0023		< 0.0023		< 0.0068		-		< 11.4		83.9		57.8	N2	142	
		19-20	217	10.4	< 106		< 0.0021		< 0.0021		< 0.0021		< 0.0063		-		< 10.4		39.2		23.8	N2	63.0	
B-4	8/31/2017	0-1	35.7	270	< 112		NA		NA		NA		NA		-		NA		NA		NA		-	
		2-3	46.0	1,506	< 108		< 0.011	D3	2.3		0.32		5.4		8.02		772		6,440		3,860	N2	***11,072***	
		4-5	4,600	227	1,650		< 0.0023		0.030		0.0052		0.066		0.101		31.3		642		443	N2	***1,116***	
		6-7	205	70.4	< 109		NA		NA		NA		NA		-		NA		NA		NA		-	
		8-9	181	87.4	< 127		NA		NA		NA		NA		-		NA		NA		NA		-	
		9-10	165	2.3	< 108		< 0.0022		< 0.0022		< 0.0022		< 0.0065		-		< 10.9		10.8		7.8	N2	18.6	
		19-20	117	2.0	< 102		< 0.0021		< 0.0021		< 0.0021		< 0.0064		-		< 10.5		98.5		60.9	N2	159	

NOTES:

ft. Feet

bgs Below ground surface

ppm Parts per million

mg/kg Milligrams per kilogram

TPH Total Petroleum Hydrocarbons

GRO Gasoline range organics

DRO Diesel range organics

ORO Oil range organics

NA Sample not analyzed for constituent

1 EPA Method 300.0

2 EPA Method 8260

3 EPA Method 8015B

4 EPA Method 8015B Modified

Bold and italicized values indicate exceedance of proposed RRALs.

QUALIFIERS:

1t The beginning continuing calibration for this compound is outside the Pace Analytical acceptance limits. The results may be biased high.

2t The ending continuing calibration for this compound is outside of the Pace Analytical acceptance limits. The results may be biased high.

D3 Sample was diluted due to the presence of high level of non-targets or other matrix interference.

M3 Matrix spike recovery was outside laboratory control limits due to matrix interferences.

N2 The lab does not hold NELAC/TNI accrediation for this parameter.

TABLE 2
SUMMARY OF ANALYTICAL RESULTS
INTERIM EXCAVATION SOIL SAMPLES - 1RP-5141
CONOCOPHILLIPS
MCA 1C TRUNKLINE RELEASE
LEA COUNTY, NM

Sample ID	Sample Date	Sample Depth	Field Screening Results		Chloride		BTEX									TPH								
			Chloride	PID			Benzene		Toluene		Ethylbenzene		Total Xylenes		Total BTEX	GRO 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	
AH-1	8/24/2018	6	3440	289	5,910		< 0.00131		< 0.00654		< 0.00327		< 0.00851		< 0.00851	0.0528	J	12.1		2.71	J	14.9	
		7	1060	13	1,200		< 0.00115		< 0.00573		< 0.00287		< 0.00745		< 0.00745	< 0.0249		4.69		1.04	J	5.73	
AH-2	8/24/2018	6	1800	1607	2,190		2.16		76.7		82.6		132		***293***	3,140		7,060		1,580		***11,780***	
		7	2400	31	2,150		< 0.00111		0.00250	J	0.00371		0.00575	J	0.0120	0.0698	J	6.78	J3 J6	1.14	J	7.99	
	10/15/2018	7	1080	36.3	302		-		-		-		-		-	0.0443	BJ	< 4.46		< 4.46		0.04	
NSW-1	8/24/2018	-	-	4	73.1		< 0.00114		< 0.00569		< 0.00285		< 0.00740		< 0.00740	< 0.114		< 4.56		< 4.55		< 4.55	
ESW-1	8/24/2018	-	21	3.8	56.3		< 0.00104		< 0.00518		< 0.00259		< 0.00674		< 0.00674	< 0.104		10.1		9.62		19.7	
ESW-2	8/24/2018	-	27	4	37.1		< 0.00105		< 0.00524		< 0.00262		< 0.00681		< 0.00681	< 0.105		4.34		1.58	J	5.92	
SSW-1	8/24/2018	-	170	4.9	105		< 0.00104		< 0.00521		< 0.00260		< 0.00677		< 0.00677	< 0.104		< 4.17		0.789	J	0.789	
WSW-1	8/24/2018	-	51.2	7	51.2		< 0.00104		< 0.00520		< 0.00260		< 0.00676		< 0.00676	< 0.104		< 4.16		0.771	J	0.771	
WSW-2	8/24/2018	-	290	3.9	217		< 0.00105		< 0.00523		< 0.00261		< 0.00680		< 0.00680	< 0.105		1.80	J	1.58	J	3.38	

NOTES:

ft. Feet
bgs Below ground surface
ppm Parts per million
mg/kg Milligrams per kilogram
TPH Total Petroleum Hydrocarbons
GRO Gasoline range organics
DRO Diesel range organics
ORO Oil range organics

Bold and italicized values indicate exceedance of Reclamation Requirements

Shaded rows indicate soil horizons removed during excavation.

QUALIFIERS:

J The identification of the analyte is acceptable; the reported value is an estimate.
J3 The associated batch QC was outside the established quality control range for precision.
J6 The sample matrix interfered with the ability to make any accurate determination; spike value is low.

TABLE 3
SUMMARY OF ANALYTICAL RESULTS
ADDITIONAL SOIL REMEDIATION - 1RP-5141
CONOCOPHILLIPS
MCA 1C TRUNKLINE RELEASE
LEA COUNTY, NM

Sample ID	Sample Date	Sample Depth	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
FS-21-1	2/10/2021	4	-	-	42.5		< 0.00953		3.23		14.1		22.8		40.1	1220		6910		4390		***12520***
FS-21-1 (5')*	2/10/2021	5	-	-	179		0.000832	J	0.00243	J	0.000924	J	0.00394	J	0.00813	< 0.112		41.0		30.5		71.5
FS-21-2	2/22/2021	6	-	-	10.6	J	< 0.00111		< 0.00557		< 0.00279		< 0.00724		-	< 0.106		< 4.23		< 4.23		-
FS-21-3	2/22/2021	6	-	-	11.9	J	< 0.00112		< 0.00559		< 0.00280		< 0.00727		-	< 0.106		< 4.24		< 4.24		-
FS-21-4	2/22/201	6			10.6	J	< 0.00113		< 0.00556		< 0.00283		< 0.00736		-	< 0.107		< 4.27		< 4.27		-
FS-21-5	2/19/2021	6	-	-	148		< 0.00111		< 0.00557	J4	< 0.00279		< 0.00725		-	0.0325	B J	31.8		56.0		87.8
FS-21-6	2/10/2021	6	-	-	809		< 0.00117		< 0.00584		0.00284	J	0.00809		0.0109	0.0640	J	5.10		6.40	B	11.6
FS-21-7	2/10/2021	6	-	-	453		< 0.00139		< 0.00696		0.00141	J	0.00352	J	0.00493	< 0.119		77.9		66.8		145
FS-21-8	2/10/2021	6	-	-	1340		< 0.00137		< 0.00686		< 0.00343		< 0.00892		-	< 0.119		30.7		23.8		54.5
FS-21-9	2/19/2021	6	-	-	161		< 0.00116		< 0.00578	J4	< 0.00289		< 0.00751		-	0.0300	B J	31.9		52.0		83.9
NSW-21-1	2/8/2021	-	287	8.4	170		< 0.00103		< 0.00513		< 0.00256		< 0.00667		-	0.0280	J	959		1280		***2239***
NSW-21-1 (4')	2/11/2021	-	121	3.6	37.4		< 0.00104		< 0.00518		< 0.00259		< 0.00673		-	< 0.102		72.9		69.1		***142***
NSW-21-1 (6')*	2/19/2021	-	-	-	< 20.3		< 0.00103		< 0.00515	J4	< 0.00257		< 0.00669		-	< 0.101		6.43	B	20.2		26.6
NSW-21-2	2/8/2021	-	110	9.2	72.0		< 0.00109		< 0.00545		< 0.00272		< 0.00708		-	0.0293	J	448		727		***1175***
NSW-21-2 (4')	2/11/2021	-	176	2.5	< 20.2		< 0.00102		< 0.00508		< 0.00254		< 0.00660		-	< 0.101		237		297		***534***
NSW-21-2 (6')*	2/19/2021		-	-	< 20.3	P1	< 0.00103	J3	< 0.00515	J3 J4	< 0.00257		< 0.00669	J3	-	< 0.101		6.97	B	25.7		32.7
NSW-21-3	2/8/2021	-	76.1	6.7	29.5		< 0.00103		< 0.00513		< 0.00257		< 0.00667		-	< 0.101		4.06		9.15		13.2
ESW-21-1	2/8/2021	-	26.0	6.2	< 20.5		< 0.00105		< 0.00524		< 0.00262		< 0.00681		-	< 0.102		< 4.10		4.68		4.68
ESW-21-2	2/8/2021	-	31.2	5.5	< 21.1		< 0.00111		< 0.00554		< 0.00277		< 0.00721		-	< 0.105		1.85	J	9.58		11.4
SSW-21-1	2/8/2021	-	21.1	2.2	< 20.4		< 0.00104		< 0.00522		< 0.00261		< 0.00678		-	< 0.102		4.60		9.38		14.0
SSW-21-2	2/8/2021	-	33.4	5.1	11.7	J	< 0.00101		< 0.00507		< 0.00253		< 0.00659		-	< 0.101		930		1240		***2170***
SSW-21-2 (4')*	2/11/2021	-	48.1	2.1	< 20.1		< 0.00101		< 0.00507		< 0.00254		< 0.00659		-	< 0.101		< 4.03		2.89	B J	2.89
SSW-21-3	2/8/2021	-	31.3	6.3	< 20.2		< 0.00102		< 0.00511		< 0.00255		< 0.00664		-	< 0.101		90.1		141		***231***
SSW-21-3 (4')*	2/11/2021	-	57.9	2.1	< 20.2		< 0.00102		< 0.00509		< 0.00254		< 0.00661		-	< 0.101		2.03	J	6.43	B	8.46
SSW-21-4	2/8/2021	-	31.4	6.0	< 20.2		< 0.00102		< 0.00509		< 0.00254		< 0.00662		-	< 0.101		7.31		37.0		44.3
SSW-21-5	2/8/2021	-	105	7.8	46.5		< 0.00102		< 0.00509		< 0.00254		< 0.00661		-	< 0.101		74.2		134		***208***
SSW-21-5 (4')*	2/11/2021	-	193	2.8	< 20.4		< 0.00104		0.00331	J	0.00444		0.00588	J	0.0136	0.0241	J	2.99	J	8.77	B	11.8
SSW-21-6	2/8/2021	-	66.4	7.3	13.2	J	< 0.00102		< 0.00508		< 0.00254		< 0.00660		-	< 0.101		< 4.03		6.09		6.09
SSW-21-7	2/8/2021	-	100	8.8	36.1		< 0.00102		< 0.00509		< 0.00255		< 0.00662		-	< 0.101		2.29	J	17.8		20.1
WSW-21-1	2/8/2021	-	91.1	7.2	28.3		< 0.00104		< 0.00518		< 0.00259		< 0.00674		-	0.0261	J	1350		1540		***2890***
WSW-21-1 (4')*	2/10/2021	-	71.4	2.5	16.5	J	< 0.00103		< 0.00515		< 0.00257		< 0.00669		-	< 0.101		6.6		18.9		25.5
WSW-21-2	2/8/2021	-	58.2	8.3	11.1	J	< 0.00102		< 0.00512		< 0.00256		< 0.00665		-	< 0.101		3.57	J	23.9		27.5
WSW-21-3	2/8/2021	-	39.3	7.5	< 20.2		< 0.00102		< 0.00509		< 0.00254		< 0.00662		-	< 0.101		2.59	J	10.1	B	12.7
WSW-21-4	2/8/2021	-	80.8	7.9	14.4	J	< 0.00102	J3	< 0.00511	J3	< 0.00255	J3	< 0.00664	J3	-	< 0.101		3.72	J	24.1		27.8

NOTES:

ft. Feet
bgs Below ground surface
ppm Parts per million
mg/kg Milligrams per kilogram
TPH Total Petroleum Hydrocarbons
GRO Gasoline range organics
DRO Diesel range organics
ORO Oil range organics
1 EPA Method 300.0
2 EPA Method 8260B
3 EPA Method 8015
4 EPA Method 8015D/GRO

Bold and italicized values indicate exceedance of Reclamation Requirements.

Gold highlight represents soil horizons that were removed during deepening of excavation floors.

Green highlight represents soil intervals that were removed during horizontal expansion of excavation sidewalls.

* These iterative samples are located to encompass the original sample location that triggered removal, with further excavation in each area indicated in ().

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.
J4 The associated batch QC was outside the established quality control range for accuracy.
P1 RPD value not applicable for sample concentrations less than 5 times the reporting limit.

APPENDIX A
C-141 Forms

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

State of New Mexico
Energy Minerals and Natural Resources

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: **Cullen Rosine**
Address: **29 Vacuum Complex Lane**	Telephone No. **575-391-3133**
Facility Name: **MCA 1C**	Facility Type: **Flow line**

Surface Owner: Federal	Mineral Owner: N/A	API No. 30-025-23706

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
M	20	17S	32E					**Lea**

Latitude 32.8131905 **Longitude** -103.7842789 NAD83

NATURE OF RELEASE

Type of Release: **1.8 BBL Produce Water & 9.2 Oil**	Volume of Release: **11 BBL**	Volume Recovered: 8 BBL
Source of Release: **Flow line**	Date and Hour of Occurrence **11/11/2016 1030hrs**	Date and Hour of Discovery **SAME**
Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required	If YES, To Whom? Kristen Lynch	
By Whom? **Cullen Rosine**	Date and Hour: **11/15/16 1235 hrs 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 November 11, 2016 at 1030hrs a flow line leak occurred on the MCA 1C header trunk line. Total spill volume was 11 BBL of which 8 BBL were recovered. Spill site will be remediated according to NMOCD and COPC guidelines.

Describe Area Affected and Cleanup Action Taken. *

Area 1: 93ft x 51ft x 2 inches
Area 2: 120ft x 15ft x 1 inch

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: Cullen Rosine	OIL CONSERVATION DIVISION	
Printed Name: Cullen Rosine	Approved by Environmental Specialist:	
Title:HSE Specialist	Approval Date:	Expiration Date:
E-mail Address: ***Cullen.j.rosine@cop.com***	Conditions of Approval:	Attached ☐
Date: 11/15/16 Phone:575-391-3133		

* Attach Additional Sheets If Necessary

nOY1821258273

1RP-5141

pOY1821258767

State of New Mexico
Oil Conservation Division

Incident ID	nOY1821258273
District RP	1RP-5141
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?	85 (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.

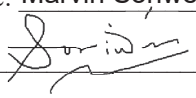
Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	nOY1821258273
District RP	1RP-5141
Facility ID	
Application ID	

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

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

Signature:  Date: 4/23/2021

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

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	nOY1821258273
District RP	1RP-5141
Facility ID	
Application ID	

Remediation Plan

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

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

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

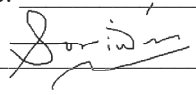
☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☐ Extents of contamination must be fully delineated.

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

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

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

Signature:  Date: 4/23/2021

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

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____

Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	nOY1821258767
District RP	1RP-5141
Facility ID	
Application ID	pOY1821258767

Closure

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

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

☑ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☑ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☑ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☑ Description of remediation activities

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

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

Signature: Date: 4/23/2021

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

OCD Only

Received by: Date:

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

Closure Approved by: Brittany Hall Date: 11/1/2022

Printed Name: Brittany Hall Title: Environmental Specialist

APPENDIX B
Site Characterization Data

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

No records found.

UTMNAD83 Radius Search (in meters):

Easting (X): 612832.347 **Northing (Y):** 3631553 **Radius:** 800

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	Distance	Depth Well	Depth Water	Water Column
RA 10175	RA	LE		2	1	28	17S	32E	614814	3631005*	2056	158		
RA 12020 POD1	RA	LE	2	2	1	28	17S	32E	614828	3630954	2083	120	81	39
RA 12042 POD1	RA	LE	2	2	1	28	17S	32E	614891	3631181	2091	400		
RA 12522 POD1	RA	LE	3	3	4	21	17S	32E	614941	3631122	2151	100		
RA 12522 POD2	RA	LE	2	2	1	28	17S	32E	614949	3631098	2165	100		
RA 12522 POD3	RA	LE	4	4	3	28	17S	32E	614980	3631093	2196	100		
RA 12721 POD1	RA	LE	3	2	3	28	17S	32E	614645	3630141	2297	125		
RA 12521 POD1	RA	LE	3	3	4	21	17S	32E	615127	3631271	2311	105	92	13
RA 12020 POD3	RA	LE	2	1	2	28	17S	32E	615152	3631019	2380	112	83	29

Average Depth to Water: **85 feet**

Minimum Depth: **81 feet**

Maximum Depth: **92 feet**

Record Count: 9

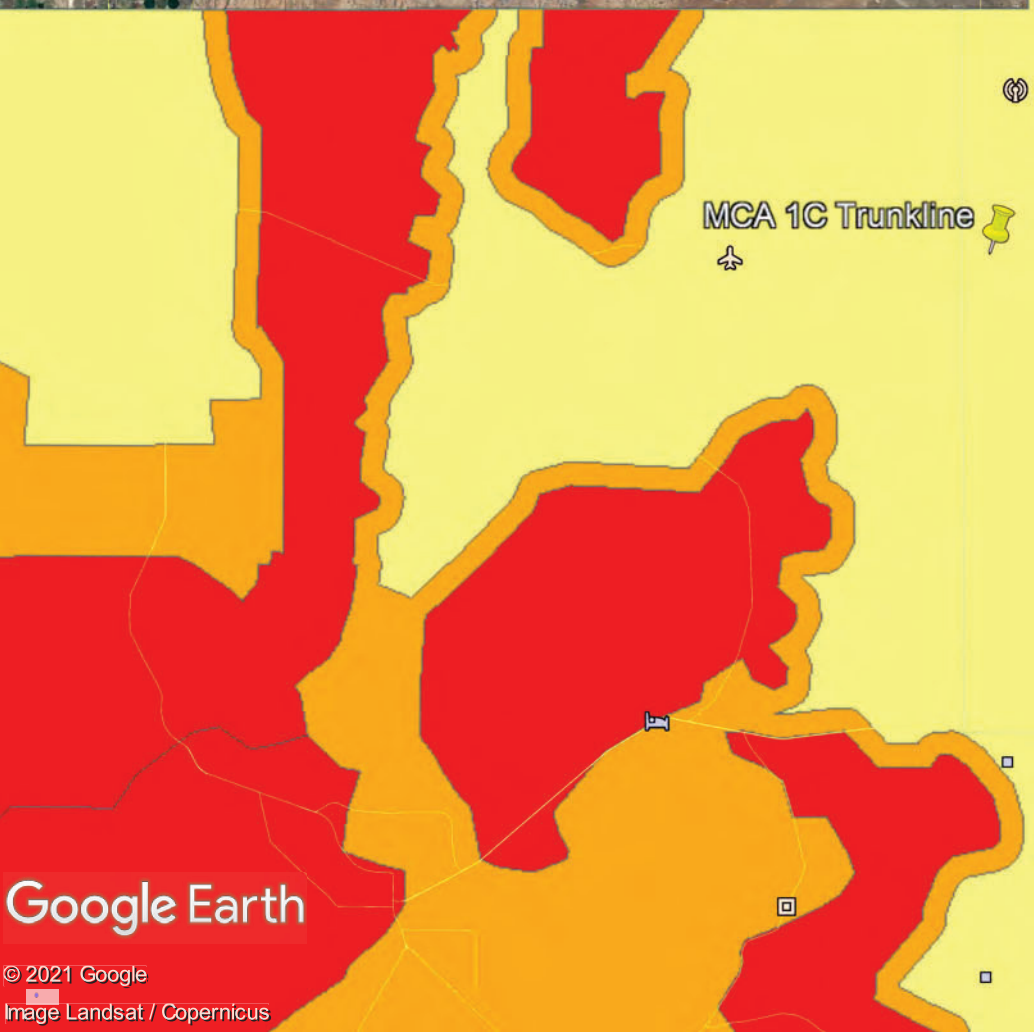
UTMNAD83 Radius Search (in meters):

Easting (X): 612832.347 **Northing (Y):** 3631553 **Radius:** 2400

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

MCA 1C Trunkline

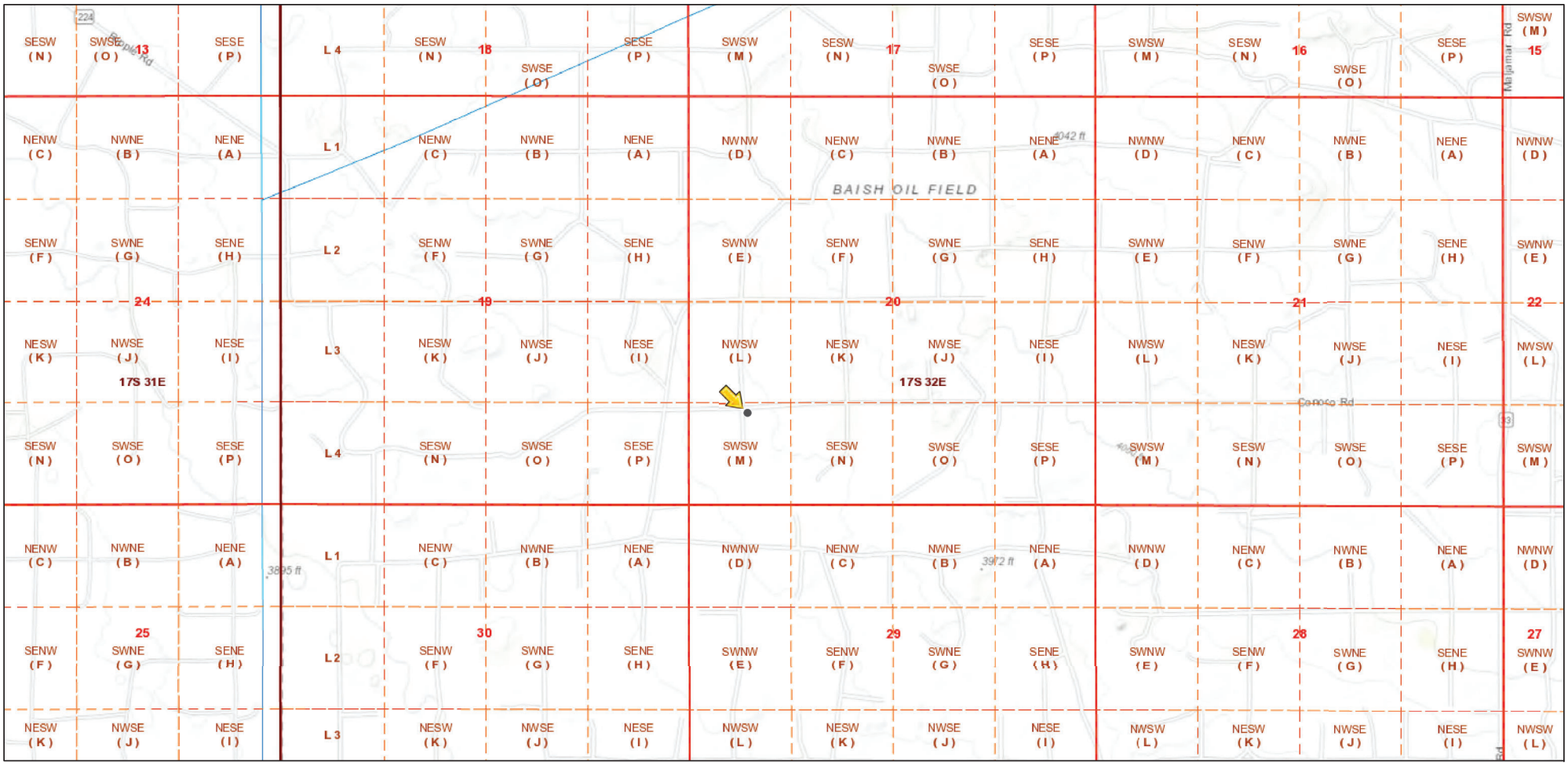
12C-MD-02356 - Karst Potential
RP-5141



Legend

- High
- Low
- MCA 1C Trunkline
- Medium

MCA 1C Trunkline (212C-MD-02356)



3/25/2021, 11:08:07 AM

Override 1
OCD District Offices
PLSS First Division
PLSS Second Division
PLSS Townships
OSE Streams
PLJV Probable Playas
OSE Water-bodies

1:18,056

0 0.17 0.35 0.7 mi
0 0.28 0.55 1.1 km

Bureau of Land Management, Texas Parks & Wildlife, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA, OCD, BLM

APPENDIX C
Laboratory Analytical Reports

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

September 06, 2018

ConocoPhillips - Tetra Tech

Sample Delivery Group:	L1021250
Samples Received:	08/28/2018
Project Number:	212C-MD-01381
Description:	MCA 1C Lea County, NM

Report To: Kayla Taylor
4001 N. Big Spring St., Ste. 401
Midland, TX 79705

Entire Report Reviewed By:

Chris McCord
Project Manager

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

TABLE OF CONTENTS

NSW-1 L1021250-01 Solid

			Collected by	Collected date/time	Received date/time
				08/22/18 12:10	08/28/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1160201	1	09/04/18 09:35	09/04/18 09:43	JD
Wet Chemistry by Method 300.0	WG1158706	1	08/28/18 22:18	09/01/18 00:40	MCG
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1159479	1	08/29/18 12:01	08/30/18 22:17	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1160396	1	08/29/18 12:01	09/02/18 05:43	JHH
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1159858	1	09/03/18 19:40	09/05/18 20:19	MTJ

SSW-1 L1021250-02 Solid

			Collected by	Collected date/time	Received date/time
				08/22/18 12:32	08/28/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1160201	1	09/04/18 09:35	09/04/18 09:43	JD
Wet Chemistry by Method 300.0	WG1158706	1	08/28/18 22:18	09/01/18 00:49	MCG
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1160015	1	08/29/18 12:01	08/31/18 11:20	RAS
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1160396	1	08/29/18 12:01	09/02/18 06:03	JHH
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1159858	1	09/03/18 19:40	09/05/18 20:32	MTJ

ESW-1 L1021250-03 Solid

			Collected by	Collected date/time	Received date/time
				08/22/18 09:31	08/28/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1160201	1	09/04/18 09:35	09/04/18 09:43	JD
Wet Chemistry by Method 300.0	WG1158706	1	08/28/18 22:18	09/01/18 00:58	MCG
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1159479	1	08/29/18 12:01	08/30/18 23:29	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1160396	1	08/29/18 12:01	09/02/18 06:23	JHH
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1159858	1	09/03/18 19:40	09/05/18 22:35	MTJ

ESW-2 L1021250-04 Solid

			Collected by	Collected date/time	Received date/time
				08/22/18 10:10	08/28/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1160201	1	09/04/18 09:35	09/04/18 09:43	JD
Wet Chemistry by Method 300.0	WG1158742	1	08/29/18 14:05	08/30/18 00:18	ELN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1159479	1	08/29/18 12:01	08/31/18 02:28	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1160396	1	08/29/18 12:01	09/02/18 06:43	JHH
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1159858	1	09/03/18 19:40	09/05/18 20:45	MTJ

WSW-1 L1021250-05 Solid

			Collected by	Collected date/time	Received date/time
				08/22/18 11:20	08/28/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1160201	1	09/04/18 09:35	09/04/18 09:43	JD
Wet Chemistry by Method 300.0	WG1158742	1	08/29/18 14:05	08/30/18 00:27	ELN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1159479	1	08/29/18 12:01	08/31/18 02:49	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1160396	1	08/29/18 12:01	09/02/18 07:04	JHH
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1159858	1	09/03/18 19:40	09/05/18 20:58	MTJ

WSW-2 L1021250-06 Solid

			Collected by	Collected date/time	Received date/time
				08/22/18 11:28	08/28/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1160203	1	09/04/18 09:20	09/04/18 09:32	JD
Wet Chemistry by Method 300.0	WG1158742	1	08/29/18 14:05	08/30/18 00:36	ELN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1160015	1	08/29/18 12:01	08/31/18 11:42	RAS
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1160396	1	08/29/18 12:01	09/02/18 07:24	JHH
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1159858	1	09/03/18 19:40	09/05/18 21:12	MTJ

AH-1 (6') L1021250-07 Solid

			Collected by	Collected date/time	Received date/time
				08/23/18 10:50	08/28/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1160203	1	09/04/18 09:20	09/04/18 09:32	JD
Wet Chemistry by Method 300.0	WG1158742	20	08/29/18 14:05	08/30/18 00:45	ELN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1159479	1	08/29/18 12:01	08/31/18 03:32	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1160677	1	08/29/18 12:01	09/01/18 21:55	BMB
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1159858	1	09/03/18 19:40	09/05/18 21:26	MTJ

AH-1 (7') L1021250-08 Solid

			Collected by	Collected date/time	Received date/time
				08/23/18 11:31	08/28/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1160203	1	09/04/18 09:20	09/04/18 09:32	JD
Wet Chemistry by Method 300.0	WG1158742	5	08/29/18 14:05	08/30/18 01:02	ELN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1159479	1	08/29/18 12:01	08/31/18 03:54	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1160677	1	08/29/18 12:01	09/01/18 22:14	BMB
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1159858	1	09/03/18 19:40	09/05/18 21:40	MTJ

AH-2 (6') L1021250-09 Solid

			Collected by	Collected date/time	Received date/time
				08/23/18 10:55	08/28/18 08:45

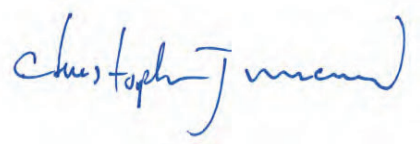
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1160203	1	09/04/18 09:20	09/04/18 09:32	JD
Wet Chemistry by Method 300.0	WG1158742	5	08/29/18 14:05	08/30/18 01:11	ELN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1159479	500	08/29/18 12:01	08/30/18 21:34	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1160677	40	08/29/18 12:01	09/01/18 22:33	BMB
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1159858	10	09/03/18 19:40	09/05/18 22:48	MTJ
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1159858	50	09/03/18 19:40	09/05/18 23:15	MTJ

AH-2 (7') L1021250-10 Solid

			Collected by	Collected date/time	Received date/time
				08/23/18 11:40	08/28/18 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1160203	1	09/04/18 09:20	09/04/18 09:32	JD
Wet Chemistry by Method 300.0	WG1158742	5	08/29/18 14:05	08/30/18 01:20	ELN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1159479	1	08/29/18 12:01	08/30/18 21:56	LRL
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1160677	1	08/29/18 12:01	09/01/18 22:53	BMB
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1159858	1	09/03/18 19:40	09/05/18 21:54	MTJ

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	87.8		1	09/04/2018 09:43	WG1160201

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Chloride	73.1		0.905	10.0	11.4	1	09/01/2018 00:40	WG1158706

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0247	0.100	0.114	1	08/30/2018 22:17	WG1159479
(S) a,a,a-Trifluorotoluene(FID)	*104*				*77.0-120*		*08/30/2018 22:17*	WG1159479

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	U		0.000455	0.00100	0.00114	1	09/02/2018 05:43	WG1160396
Toluene	U		0.00142	0.00500	0.00569	1	09/02/2018 05:43	WG1160396
Ethylbenzene	U		0.000603	0.00250	0.00285	1	09/02/2018 05:43	WG1160396
Total Xylenes	U		0.00544	0.00650	0.00740	1	09/02/2018 05:43	WG1160396
(S) Toluene-d8	*106*				*75.0-131*		*09/02/2018 05:43*	WG1160396
(S) Dibromofluoromethane	*99.6*				*65.0-129*		*09/02/2018 05:43*	WG1160396
(S) a,a,a-Trifluorotoluene	*105*				*80.0-120*		*09/02/2018 05:43*	WG1160396
(S) 4-Bromofluorobenzene	*103*				*67.0-138*		*09/02/2018 05:43*	WG1160396

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.83	4.00	4.55	1	09/05/2018 20:19	WG1159858
C28-C40 Oil Range	U		0.312	4.00	4.55	1	09/05/2018 20:19	WG1159858
(S) o-Terphenyl	*56.3*				*18.0-148*		*09/05/2018 20:19*	WG1159858

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.0		1	09/04/2018 09:43	WG1160201

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Chloride	105		0.828	10.0	10.4	1	09/01/2018 00:49	WG1158706

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0226	0.100	0.104	1	08/31/2018 11:20	WG1160015
(S) a,a,a-Trifluorotoluene(FID)	*97.6*				*77.0-120*		*08/31/2018 11:20*	WG1160015

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	U		0.000417	0.00100	0.00104	1	09/02/2018 06:03	WG1160396
Toluene	U		0.00130	0.00500	0.00521	1	09/02/2018 06:03	WG1160396
Ethylbenzene	U		0.000552	0.00250	0.00260	1	09/02/2018 06:03	WG1160396
Total Xylenes	U		0.00498	0.00650	0.00677	1	09/02/2018 06:03	WG1160396
(S) Toluene-d8	*106*				*75.0-131*		*09/02/2018 06:03*	WG1160396
(S) Dibromofluoromethane	*98.8*				*65.0-129*		*09/02/2018 06:03*	WG1160396
(S) a,a,a-Trifluorotoluene	*103*				*80.0-120*		*09/02/2018 06:03*	WG1160396
(S) 4-Bromofluorobenzene	*102*				*67.0-138*		*09/02/2018 06:03*	WG1160396

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.68	4.00	4.17	1	09/05/2018 20:32	WG1159858
C28-C40 Oil Range	0.789	J	0.285	4.00	4.17	1	09/05/2018 20:32	WG1159858
(S) o-Terphenyl	*81.7*				*18.0-148*		*09/05/2018 20:32*	WG1159858

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.5		1	09/04/2018 09:43	WG1160201

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Chloride	56.3		0.824	10.0	10.4	1	09/01/2018 00:58	WG1158706

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0225	0.100	0.104	1	08/30/2018 23:29	WG1159479
(S) a,a,a-Trifluorotoluene(FID)	*104*				*77.0-120*		*08/30/2018 23:29*	WG1159479

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	U		0.000415	0.00100	0.00104	1	09/02/2018 06:23	WG1160396
Toluene	U		0.00130	0.00500	0.00518	1	09/02/2018 06:23	WG1160396
Ethylbenzene	U		0.000549	0.00250	0.00259	1	09/02/2018 06:23	WG1160396
Total Xylenes	U		0.00496	0.00650	0.00674	1	09/02/2018 06:23	WG1160396
(S) Toluene-d8	*106*				*75.0-131*		*09/02/2018 06:23*	WG1160396
(S) Dibromofluoromethane	*98.2*				*65.0-129*		*09/02/2018 06:23*	WG1160396
(S) a,a,a-Trifluorotoluene	*104*				*80.0-120*		*09/02/2018 06:23*	WG1160396
(S) 4-Bromofluorobenzene	*105*				*67.0-138*		*09/02/2018 06:23*	WG1160396

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	10.1		1.67	4.00	4.15	1	09/05/2018 22:35	WG1159858
C28-C40 Oil Range	9.62		0.284	4.00	4.15	1	09/05/2018 22:35	WG1159858
(S) o-Terphenyl	*88.8*				*18.0-148*		*09/05/2018 22:35*	WG1159858

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.4		1	09/04/2018 09:43	WG1160201

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Chloride	37.1		0.834	10.0	10.5	1	08/30/2018 00:18	WG1158742

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0227	0.100	0.105	1	08/31/2018 02:28	WG1159479
(S) a,a,a-Trifluorotoluene(FID)	*104*				*77.0-120*		*08/31/2018 02:28*	WG1159479

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	U		0.000419	0.00100	0.00105	1	09/02/2018 06:43	WG1160396
Toluene	U		0.00131	0.00500	0.00524	1	09/02/2018 06:43	WG1160396
Ethylbenzene	U		0.000556	0.00250	0.00262	1	09/02/2018 06:43	WG1160396
Total Xylenes	U		0.00501	0.00650	0.00681	1	09/02/2018 06:43	WG1160396
(S) Toluene-d8	*107*				*75.0-131*		*09/02/2018 06:43*	WG1160396
(S) Dibromofluoromethane	*99.2*				*65.0-129*		*09/02/2018 06:43*	WG1160396
(S) a,a,a-Trifluorotoluene	*107*				*80.0-120*		*09/02/2018 06:43*	WG1160396
(S) 4-Bromofluorobenzene	*103*				*67.0-138*		*09/02/2018 06:43*	WG1160396

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	4.34		1.69	4.00	4.19	1	09/05/2018 20:45	WG1159858
C28-C40 Oil Range	1.58	J	0.287	4.00	4.19	1	09/05/2018 20:45	WG1159858
(S) o-Terphenyl	*84.2*				*18.0-148*		*09/05/2018 20:45*	WG1159858

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	96.1		1	09/04/2018 09:43	WG1160201

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Chloride	51.2		0.827	10.0	10.4	1	08/30/2018 00:27	WG1158742

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0226	0.100	0.104	1	08/31/2018 02:49	WG1159479
(S) a,a,a-Trifluorotoluene(FID)	*104*				*77.0-120*		*08/31/2018 02:49*	WG1159479

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	U		0.000416	0.00100	0.00104	1	09/02/2018 07:04	WG1160396
Toluene	U		0.00130	0.00500	0.00520	1	09/02/2018 07:04	WG1160396
Ethylbenzene	U		0.000551	0.00250	0.00260	1	09/02/2018 07:04	WG1160396
Total Xylenes	U		0.00497	0.00650	0.00676	1	09/02/2018 07:04	WG1160396
(S) Toluene-d8	*107*				*75.0-131*		*09/02/2018 07:04*	WG1160396
(S) Dibromofluoromethane	*99.2*				*65.0-129*		*09/02/2018 07:04*	WG1160396
(S) a,a,a-Trifluorotoluene	*104*				*80.0-120*		*09/02/2018 07:04*	WG1160396
(S) 4-Bromofluorobenzene	*106*				*67.0-138*		*09/02/2018 07:04*	WG1160396

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.67	4.00	4.16	1	09/05/2018 20:58	WG1159858
C28-C40 Oil Range	0.771	J	0.285	4.00	4.16	1	09/05/2018 20:58	WG1159858
(S) o-Terphenyl	*87.9*				*18.0-148*		*09/05/2018 20:58*	WG1159858

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.6		1	09/04/2018 09:32	WG1160203

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Chloride	217		0.832	10.0	10.5	1	08/30/2018 00:36	WG1158742

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0227	0.100	0.105	1	08/31/2018 11:42	WG1160015
(S) a,a,a-Trifluorotoluene(FID)	*97.4*				*77.0-120*		*08/31/2018 11:42*	WG1160015

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	U		0.000418	0.00100	0.00105	1	09/02/2018 07:24	WG1160396
Toluene	U		0.00131	0.00500	0.00523	1	09/02/2018 07:24	WG1160396
Ethylbenzene	U		0.000554	0.00250	0.00261	1	09/02/2018 07:24	WG1160396
Total Xylenes	U		0.00500	0.00650	0.00680	1	09/02/2018 07:24	WG1160396
(S) Toluene-d8	*108*				*75.0-131*		*09/02/2018 07:24*	WG1160396
(S) Dibromofluoromethane	*99.2*				*65.0-129*		*09/02/2018 07:24*	WG1160396
(S) a,a,a-Trifluorotoluene	*103*				*80.0-120*		*09/02/2018 07:24*	WG1160396
(S) 4-Bromofluorobenzene	*104*				*67.0-138*		*09/02/2018 07:24*	WG1160396

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	1.80	J	1.68	4.00	4.18	1	09/05/2018 21:12	WG1159858
C28-C40 Oil Range	1.58	J	0.287	4.00	4.18	1	09/05/2018 21:12	WG1159858
(S) o-Terphenyl	*80.9*				*18.0-148*		*09/05/2018 21:12*	WG1159858

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	76.4		1	09/04/2018 09:32	WG1160203

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Chloride	5910		20.8	10.0	262	20	08/30/2018 00:45	WG1158742

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	0.0528	J	0.0284	0.100	0.131	1	08/31/2018 03:32	WG1159479
(S) a,a,a-Trifluorotoluene(FID)	*103*				*77.0-120*		*08/31/2018 03:32*	WG1159479

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	U		0.000524	0.00100	0.00131	1	09/01/2018 21:55	WG1160677
Toluene	U		0.00164	0.00500	0.00654	1	09/01/2018 21:55	WG1160677
Ethylbenzene	U		0.000694	0.00250	0.00327	1	09/01/2018 21:55	WG1160677
Total Xylenes	U		0.00626	0.00650	0.00851	1	09/01/2018 21:55	WG1160677
(S) Toluene-d8	*117*				*75.0-131*		*09/01/2018 21:55*	WG1160677
(S) Dibromofluoromethane	*88.8*				*65.0-129*		*09/01/2018 21:55*	WG1160677
(S) a,a,a-Trifluorotoluene	*80.8*				*80.0-120*		*09/01/2018 21:55*	WG1160677
(S) 4-Bromofluorobenzene	*98.4*				*67.0-138*		*09/01/2018 21:55*	WG1160677

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	12.1		2.11	4.00	5.24	1	09/05/2018 21:26	WG1159858
C28-C40 Oil Range	2.71	J	0.359	4.00	5.24	1	09/05/2018 21:26	WG1159858
(S) o-Terphenyl	*50.2*				*18.0-148*		*09/05/2018 21:26*	WG1159858

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	87.3		1	09/04/2018 09:32	WG1160203

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Chloride	1200		4.56	10.0	57.3	5	08/30/2018 01:02	WG1158742

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0249	0.100	0.115	1	08/31/2018 03:54	WG1159479
(S) a,a,a-Trifluorotoluene(FID)	*104*				*77.0-120*		*08/31/2018 03:54*	WG1159479

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	U		0.000458	0.00100	0.00115	1	09/01/2018 22:14	WG1160677
Toluene	U		0.00143	0.00500	0.00573	1	09/01/2018 22:14	WG1160677
Ethylbenzene	U		0.000607	0.00250	0.00287	1	09/01/2018 22:14	WG1160677
Total Xylenes	U		0.00548	0.00650	0.00745	1	09/01/2018 22:14	WG1160677
(S) Toluene-d8	*119*				*75.0-131*		*09/01/2018 22:14*	WG1160677
(S) Dibromofluoromethane	*86.0*				*65.0-129*		*09/01/2018 22:14*	WG1160677
(S) a,a,a-Trifluorotoluene	*80.3*				*80.0-120*		*09/01/2018 22:14*	WG1160677
(S) 4-Bromofluorobenzene	*101*				*67.0-138*		*09/01/2018 22:14*	WG1160677

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	4.69		1.85	4.00	4.58	1	09/05/2018 21:40	WG1159858
C28-C40 Oil Range	1.04	J	0.314	4.00	4.58	1	09/05/2018 21:40	WG1159858
(S) o-Terphenyl	*66.5*				*18.0-148*		*09/05/2018 21:40*	WG1159858

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	86.2		1	09/04/2018 09:32	WG1160203

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Chloride	2190		4.61	10.0	58.0	5	08/30/2018 01:11	WG1158742

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	3140		12.6	0.100	58.0	500	08/30/2018 21:34	WG1159479
(S) a,a,a-Trifluorotoluene(FID)	*102*				*77.0-120*		*08/30/2018 21:34*	WG1159479

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	2.16		0.0186	0.00100	0.0464	40	09/01/2018 22:33	WG1160677
Toluene	76.7		0.0580	0.00500	0.232	40	09/01/2018 22:33	WG1160677
Ethylbenzene	82.6		0.0246	0.00250	0.116	40	09/01/2018 22:33	WG1160677
Total Xylenes	132		0.222	0.00650	0.301	40	09/01/2018 22:33	WG1160677
(S) Toluene-d8	*114*				*75.0-131*		*09/01/2018 22:33*	WG1160677
(S) Dibromofluoromethane	*97.9*				*65.0-129*		*09/01/2018 22:33*	WG1160677
(S) a,a,a-Trifluorotoluene	*84.8*				*80.0-120*		*09/01/2018 22:33*	WG1160677
(S) 4-Bromofluorobenzene	*98.6*				*67.0-138*		*09/01/2018 22:33*	WG1160677

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	7060		93.3	4.00	232	50	09/05/2018 23:15	WG1159858
C28-C40 Oil Range	1580		3.18	4.00	46.4	10	09/05/2018 22:48	WG1159858
(S) o-Terphenyl	*0.000*	J7			*18.0-148*		*09/05/2018 23:15*	WG1159858
(S) o-Terphenyl	*686*	J1			*18.0-148*		*09/05/2018 22:48*	WG1159858

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	90.4		1	09/04/2018 09:32	WG1160203

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Chloride	2150		4.40	10.0	55.3	5	08/30/2018 01:20	WG1158742

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	0.0698	J	0.0240	0.100	0.111	1	08/30/2018 21:56	WG1159479
(S) a,a,a-Trifluorotoluene(FID)	*103*				*77.0-120*		*08/30/2018 21:56*	WG1159479

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Benzene	U		0.000443	0.00100	0.00111	1	09/01/2018 22:53	WG1160677
Toluene	0.00250	J	0.00138	0.00500	0.00553	1	09/01/2018 22:53	WG1160677
Ethylbenzene	0.00371		0.000586	0.00250	0.00277	1	09/01/2018 22:53	WG1160677
Total Xylenes	0.00575	J	0.00529	0.00650	0.00719	1	09/01/2018 22:53	WG1160677
(S) Toluene-d8	*116*				*75.0-131*		*09/01/2018 22:53*	WG1160677
(S) Dibromofluoromethane	*88.5*				*65.0-129*		*09/01/2018 22:53*	WG1160677
(S) a,a,a-Trifluorotoluene	*81.4*				*80.0-120*		*09/01/2018 22:53*	WG1160677
(S) 4-Bromofluorobenzene	*98.9*				*67.0-138*		*09/01/2018 22:53*	WG1160677

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	6.78	J3 J6	1.78	4.00	4.43	1	09/05/2018 21:54	WG1159858
C28-C40 Oil Range	1.14	J	0.303	4.00	4.43	1	09/05/2018 21:54	WG1159858
(S) o-Terphenyl	*75.5*				*18.0-148*		*09/05/2018 21:54*	WG1159858

Method Blank (MB)

(MB) R3339093-1 09/04/18 09:43

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

L1021250-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1021250-01 09/04/18 09:43 • (DUP) R3339093-3 09/04/18 09:43

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	87.8	87.7	1	0.113		10

Laboratory Control Sample (LCS)

(LCS) R3339093-2 09/04/18 09:43

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

Method Blank (MB)

(MB) R3339092-1 09/04/18 09:32

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

L1021252-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1021252-05 09/04/18 09:32 • (DUP) R3339092-3 09/04/18 09:32

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	87.4	88.0	1	0.650		10

Laboratory Control Sample (LCS)

(LCS) R3339092-2 09/04/18 09:32

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

Method Blank (MB)

(MB) R3338911-1 08/31/18 22:55

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

L1021246-16 Original Sample (OS) • Duplicate (DUP)

(OS) L1021246-16 08/31/18 23:30 • (DUP) R3338911-4 08/31/18 23:39

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	28.1	86.5	1	102	J3	20

L1021288-12 Original Sample (OS) • Duplicate (DUP)

(OS) L1021288-12 09/01/18 03:01 • (DUP) R3338911-5 09/01/18 03:09

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	2470	2250	5	9.46		20

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

(LCS) R3338911-2 08/31/18 23:04 • (LCSD) R3338911-3 08/31/18 23:12

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 %
Chloride	200	198	196	98.9	97.9	90.0-110			1.03	20

L1021288-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1021288-02 09/01/18 01:15 • (MS) R3338911-6 09/01/18 12:49 • (MSD) R3338911-7 09/01/18 12:57

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	5.66	45900	41800	33800	0.000	0.000	100	80.0-120	V	J3 V	21.2	20

Method Blank (MB)

(MB) R3337860-1 08/29/18 21:57

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

L1021250-07 Original Sample (OS) • Duplicate (DUP)

(OS) L1021250-07 08/30/18 00:45 • (DUP) R3337860-6 08/30/18 00:53

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	5910	5630	20	4.76		20

L1021301-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1021301-01 08/30/18 01:46 • (DUP) R3337860-7 08/30/18 01:55

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	564	598	1	5.73		20

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

(LCS) R3337860-2 08/29/18 22:06 • (LCSD) R3337860-3 08/29/18 22:15

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 %
Chloride	200	197	200	98.5	100	90.0-110			1.69	20

Method Blank (MB)

(MB) R3338213-3 08/30/18 14:46

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	U		0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*106*			*77.0-120*

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

(LCS) R3338213-1 08/30/18 13:41 • (LCSD) R3338213-2 08/30/18 14:03

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	5.70	5.76	104	105	72.0-127			0.968	20
(S) a,a,a-Trifluorotoluene(FID)				*97.2*	*96.7*	*77.0-120*				

L1021250-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1021250-09 08/30/18 21:34 • (MS) R3338213-4 08/31/18 04:15 • (MSD) R3338213-5 08/31/18 04:37

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	6.38	3140	6300	6500	99.0	105	500	10.0-151		E	3.17	28
(S) a,a,a-Trifluorotoluene(FID)					*99.7*	*99.9*		*77.0-120*				

Method Blank (MB)

(MB) R3338326-3 08/31/18 07:30

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	U		0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*99.7*			*77.0-120*

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

(LCS) R3338326-1 08/31/18 06:23 • (LCSD) R3338326-2 08/31/18 06:46

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	5.44	5.52	98.9	100	72.0-127			1.39	20
(S) a,a,a-Trifluorotoluene(FID)				*103*	*103*	*77.0-120*				

Method Blank (MB)

(MB) R3339147-3 09/02/18 00:38

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	*108*			*75.0-131*
(S) Dibromofluoromethane	*98.1*			*65.0-129*
(S) a,a,a-Trifluorotoluene	*107*			*80.0-120*
(S) 4-Bromofluorobenzene	*98.2*			*67.0-138*

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

(LCS) R3339147-1 09/01/18 23:18 • (LCSD) R3339147-2 09/01/18 23:38

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.125	0.115	0.116	91.9	93.1	70.0-123			1.30	20
Ethylbenzene	0.125	0.118	0.116	94.6	92.9	74.0-126			1.79	20
Toluene	0.125	0.119	0.121	94.9	96.6	75.0-121			1.81	20
Xylenes, Total	0.375	0.315	0.323	84.0	86.1	72.0-127			2.51	20
(S) Toluene-d8				*104*	*107*	*75.0-131*				
(S) Dibromofluoromethane				*105*	*105*	*65.0-129*				
(S) a,a,a-Trifluorotoluene				*104*	*103*	*80.0-120*				
(S) 4-Bromofluorobenzene				*101*	*101*	*67.0-138*				

L1021250-06 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1021250-06 09/02/18 07:24 • (MS) R3339147-4 09/02/18 07:44 • (MSD) R3339147-5 09/02/18 08:05

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	0.131	U	0.125	0.113	95.5	86.3	1	10.0-149			10.1	37
Ethylbenzene	0.131	U	0.128	0.128	98.2	97.6	1	10.0-160			0.693	38
Toluene	0.131	U	0.129	0.128	99.0	97.7	1	10.0-156			1.36	38
Xylenes, Total	0.392	U	0.361	0.351	92.0	89.6	1	10.0-160			2.64	38
(S) Toluene-d8					*105*	*109*		*75.0-131*				
(S) Dibromofluoromethane					*102*	*98.1*		*65.0-129*				
(S) a,a,a-Trifluorotoluene					*104*	*106*		*80.0-120*				
(S) 4-Bromofluorobenzene					*98.8*	*105*		*67.0-138*				

Method Blank (MB)

(MB) R3338696-2 09/01/18 18:03

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	*114*			*75.0-131*
(S) Dibromofluoromethane	*89.9*			*65.0-129*
(S) a,a,a-Trifluorotoluene	*85.8*			*80.0-120*
(S) 4-Bromofluorobenzene	*97.8*			*67.0-138*

Laboratory Control Sample (LCS)

(LCS) R3338696-1 09/01/18 17:05

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.127	102	70.0-123	
Ethylbenzene	0.125	0.116	92.6	74.0-126	
Toluene	0.125	0.117	93.5	75.0-121	
Xylenes, Total	0.375	0.342	91.2	72.0-127	
(S) Toluene-d8			*103*	*75.0-131*	
(S) Dibromofluoromethane			*103*	*65.0-129*	
(S) a,a,a-Trifluorotoluene			*90.4*	*80.0-120*	
(S) 4-Bromofluorobenzene			*98.7*	*67.0-138*	

L1021250-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1021250-09 09/01/18 22:33 • (MS) R3338696-3 09/02/18 01:09 • (MSD) R3338696-4 09/02/18 01:28

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.145	2.16	8.10	8.26	102	105	40	10.0-149			1.91	37
Ethylbenzene	0.145	82.6	85.9	85.7	57.4	53.1	40	10.0-160			0.288	38
Toluene	0.145	76.7	79.2	77.9	43.8	21.4	40	10.0-156			1.66	38
Xylenes, Total	0.435	132	144	144	67.3	68.7	40	10.0-160			0.161	38
(S) Toluene-d8					*110*	*107*		*75.0-131*				
(S) Dibromofluoromethane					*102*	*101*		*65.0-129*				
(S) a,a,a-Trifluorotoluene					*84.5*	*86.9*		*80.0-120*				
(S) 4-Bromofluorobenzene					*107*	*112*		*67.0-138*				

Method Blank (MB)

(MB) R3339438-1 09/05/18 19:41

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	*93.4*			*18.0-148*

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

(LCS) R3339438-2 09/05/18 19:54 • (LCSD) R3339438-3 09/05/18 20:06

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 %
C10-C28 Diesel Range	50.0	36.6	39.8	73.2	79.6	50.0-150			8.38	20
(S) o-Terphenyl				*86.8*	*93.8*	*18.0-148*				

L1021250-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1021250-10 09/05/18 21:54 • (MS) R3339438-4 09/05/18 22:08 • (MSD) R3339438-5 09/05/18 22:22

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	55.3	6.78	32.1	47.5	45.7	73.5	1	50.0-150	J6	J3	38.7	20
(S) o-Terphenyl					*62.8*	*70.1*		*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.

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

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.
V	The sample concentration is too high to evaluate accurate spike recoveries.

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

State Accreditations

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

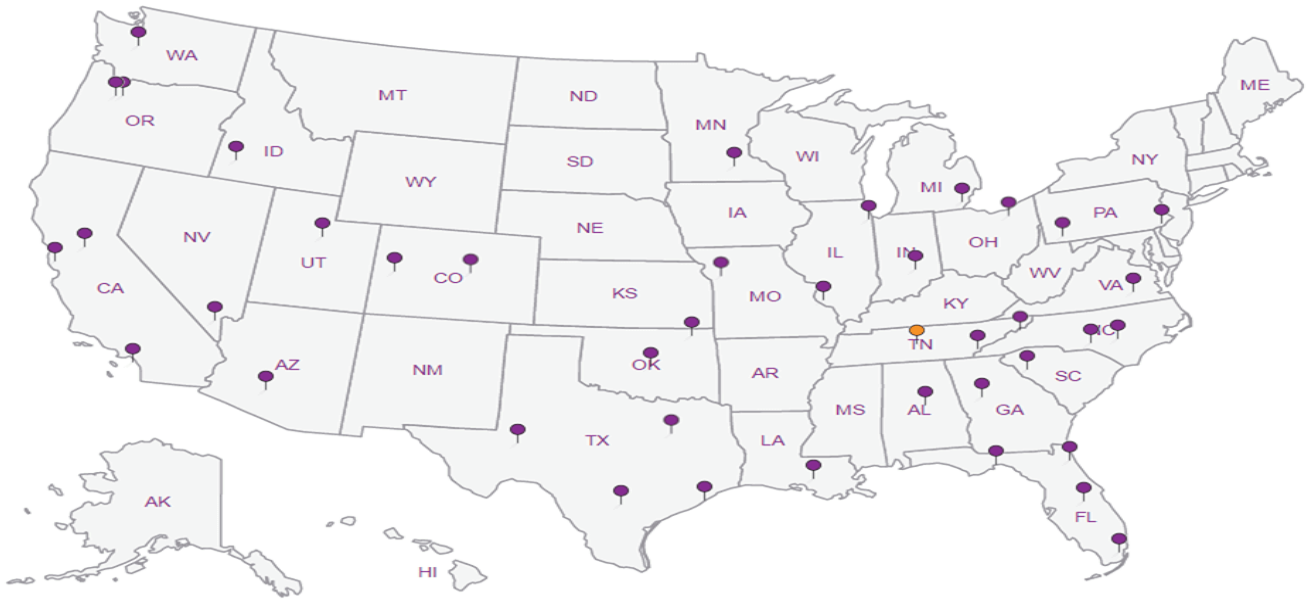
Third Party Federal Accreditations

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

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

Our Locations

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



11/02/2250

Analysis Request of Chain of Custody Record

Tetra Tech, Inc.

900 West Wall St., Suite 100
Midland, Texas 79701
Tel (432) 682-4559
Fax (432) 682-3946

G005

Client Name:	ConocoPhillips RMR	Site Manager:	Kayla Taylor
Project Name:	MCA 1C		
Project Location: (county, state)	Lea County, New Mexico	Project #:	212C-MD-01381
Invoice to:	Accounts Payable 900 West Wall St, Suite 100 Midland, Texas 79701		
Receiving Laboratory:	Pace Analytical	Sampler Signature:	

Comments: COPTETRA Acctnum

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB #	SAMPLE IDENTIFICATION	SAMPLING DATE (YEAR: 2018)	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	PRESERVATIVE METHOD: HCL	HNO3	ICE	None	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B (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	PCBs 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R		Hold
	NSW-1	8/22/2018	1210		X					1		X														X				X	-01	
	SSW-1	8/22/2018	1232		X					1		X														X				X	-02	
	ESW-1	8/22/2018	0931		X					1		X														X				X	-03	
	ESW-2	8/22/2018	1010		X					1		X														X				X	-04	
	WSW-1	8/22/2018	1120		X					1		X														X				X	-05	
	WSW-2	8/22/2018	1128		X					1		X														X				X	-06	
	AH-1(6')	8/23/2018	1050		X					1		X														X				X	-07	
	AH-1(7')	8/23/2018	1131		X					1		X														X				X	-08	
	AH-2(6')	8/23/2018	1055		X					1		X														X				X	-09	
	AH-2(7')	8/23/2018	1140		X					1		X														X				X	-10	

Relinquished by:	Date: 8-27-18	Time: 1350	Received by:	Date: 8-27-18 Time: 1350
Relinquished by:	Date:	Time:	Received by:	Date: Time:
Relinquished by:	Date:	Time:	Received by:	Date: 5/28/18 Time: 0845

LAB USE ONLY
Sample Temperature: 0.2 +0.2

REMARKS:
- ☐ STANDARD
- ☐ RUSH: Same Day 24 hr 48 hr 72 hr
- ☐ Rush Charges Authorized
- ☐ Special Report Limits or TRRP Report

OK

(Circle) HAND DELIVERED FEDEX UPS Tracking #: 4430 3429 2650

ORIGINAL COPY

Count = 10 - 4oz

RAD SCREEN: <0.5 mR/hr

Pace Analytical National Center for Testing & Innovation
Cooler Receipt Form

Client:	COPTERA	SDG#	L601250
Cooler Received/Opened On:		Temperature:	6 2
Received By: tiana hutchings			
Signature:			

Receipt Check List	NP	Yes	No
COC Seal Present / Intact?			
COC Signed / Accurate?			
Bottles arrive intact?			
Correct bottles used?			
Sufficient volume sent?			
If Applicable			
VOA Zero headspace?			
Preservation Correct / Checked?			

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ANALYTICAL REPORT

October 23, 2018

ConocoPhillips - Tetra Tech

Sample Delivery Group:	L1035522
Samples Received:	10/17/2018
Project Number:	212C-MD-01381
Description:	COP MCA-1C

Report To: Kayla Taylor
4001 N. Big Spring St., Ste. 401
Midland, TX 79705

Entire Report Reviewed By:

Chris McCord
Project Manager

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

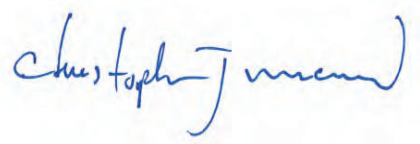
TABLE OF CONTENTS

AH-2 (7')-CONFIRMATION L1035522-01 Solid

Collected by	Collected date/time	Received date/time
Devin Dominguez	10/15/18 10:50	10/17/18 08:54

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Total Solids by Method 2540 G-2011	WG1184404	1	10/22/18 10:40	10/22/18 10:53	JD
Wet Chemistry by Method 300.0	WG1182631	1	10/18/18 11:00	10/18/18 16:11	MAJ
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1183244	1	10/17/18 20:21	10/19/18 10:07	JAH
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1182520	1	10/17/18 21:33	10/18/18 18:56	AAT

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	89.7		1	10/22/2018 10:53	WG1184404

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
Chloride	302		0.887	10.0	11.2	1	10/18/2018 16:11	WG1182631

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

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	0.0443	B J	0.0242	0.100	0.112	1	10/19/2018 10:07	WG1183244
(S) a,a,a-Trifluorotoluene(FID)	*101*				*77.0-120*		*10/19/2018 10:07*	WG1183244

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	SDL (dry)	Unadj. MQL	MQL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.80	4.00	4.46	1	10/18/2018 18:56	WG1182520
C28-C40 Oil Range	U		0.306	4.00	4.46	1	10/18/2018 18:56	WG1182520
(S) o-Terphenyl	*73.4*				*18.0-148*		*10/18/2018 18:56*	WG1182520

Method Blank (MB)

(MB) R3353063-1 10/22/18 10:53

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

Laboratory Control Sample (LCS)

(LCS) R3353063-2 10/22/18 10:53

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

Method Blank (MB)

(MB) R3352330-1 10/18/18 13:25

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Chloride	1.25	J	0.795	10.0

L1033402-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1033402-01 10/18/18 14:12 • (DUP) R3352330-4 10/18/18 14:20

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	73.9	73.8	1	0.137		20

L1035750-17 Original Sample (OS) • Duplicate (DUP)

(OS) L1035750-17 10/18/18 18:57 • (DUP) R3352330-7 10/18/18 19:06

Analyte	Original Result mg/kg	DUP Result mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	1330	1380	5	3.48		20

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

(LCS) R3352330-2 10/18/18 13:34 • (LCSD) R3352330-3 10/18/18 13:43

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 %
Chloride	200	206	193	103	96.7	90.0-110			6.23	20

L1035384-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1035384-02 10/18/18 14:29 • (MS) R3352330-5 10/18/18 14:38 • (MSD) R3352330-6 10/18/18 14:47

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	80.8	769	626	138	109	1	80.0-120	J5	J3	20.5	20

Method Blank (MB)

(MB) R3352489-3 10/19/18 03:04

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0306	J	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*98.6*			*77.0-120*

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

(LCS) R3352489-1 10/19/18 01:57 • (LCSD) R3352489-2 10/19/18 02:20

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	5.95	5.88	108	107	72.0-127			1.13	20
(S) a,a,a-Trifluorotoluene(FID)				*103*	*103*	*77.0-120*				

L1035193-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1035193-01 10/19/18 10:29 • (MS) R3352489-4 10/19/18 10:52 • (MSD) R3352489-5 10/19/18 11:14

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	7.59	144	221	180	10.1	4.64	100	10.0-151		J6	20.8	28
(S) a,a,a-Trifluorotoluene(FID)					*107*	*108*		*77.0-120*				

Method Blank (MB)

(MB) R3351816-1 10/18/18 09:55

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	*85.0*			*18.0-148*

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

(LCS) R3351816-2 10/18/18 10:09 • (LCSD) R3351816-3 10/18/18 10:22

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 %
C10-C28 Diesel Range	50.0	40.9	38.1	81.8	76.2	50.0-150			7.09	20
(S) o-Terphenyl				*106*	*93.2*	*18.0-148*				

L1035522-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1035522-01 10/18/18 18:56 • (MS) R3351816-4 10/18/18 19:09 • (MSD) R3351816-5 10/18/18 19:23

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	837	U	730	692	87.2	82.7	15	50.0-150			5.34	20
(S) o-Terphenyl					*109*	*108*		*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.

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

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.

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

State Accreditations

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

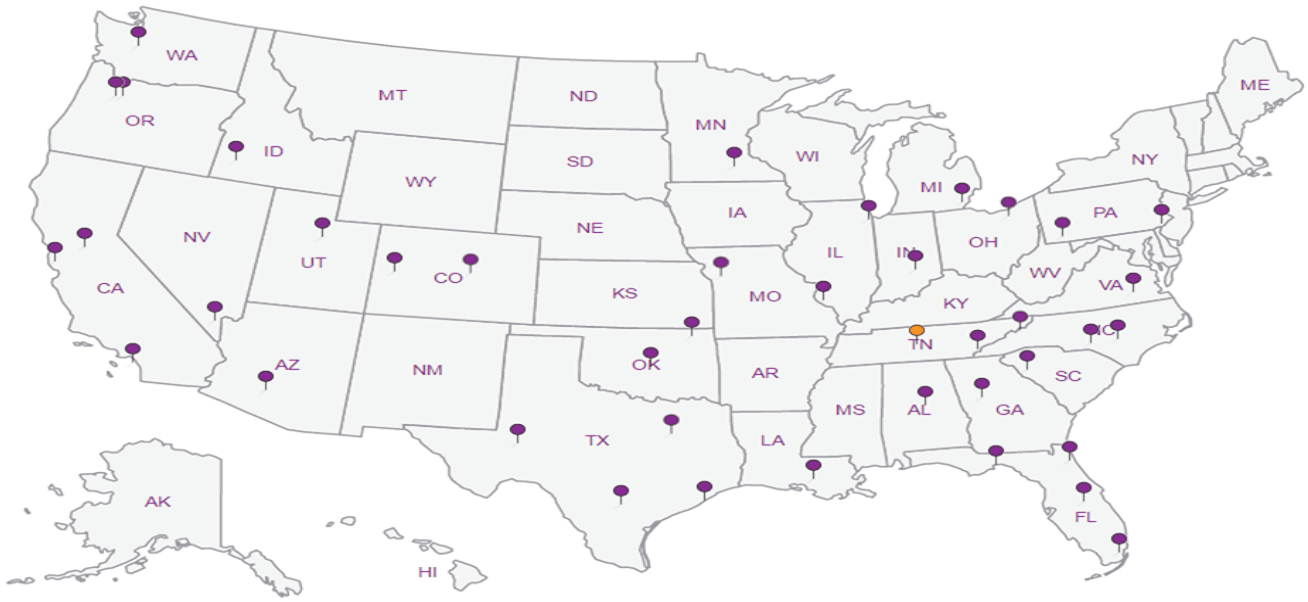
Third Party Federal Accreditations

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

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

Our Locations

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



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

C240

1035522

Client Name	Conoco Phillips	Site Manager	Kayla Taylor
Project Name	COP MCA-1C		
Project Location (county, state)	Lea County, New Mexico	Project #	212C-MD-01381
Invoice to	Accounts Payable 900 West Wall Street Suite 100 Midland, Texas 79701		
Receiving Laboratory	Pace Analytical	Sampler Signature	Devin Dominguez

Comments: COPTETRA Acctnum

LAB #	SAMPLE IDENTIFICATION	SAMPLING DATE	SAMPLING TIME	MATRIX WATER	MATRIX SOIL	PRESERVATIVE METHOD HCL	HNO3	ICE	None	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B	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	GCMS Vol 8260B / 624	GCMS Semi Vol 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R	Hold
	AH-2 (7')-Confirmation	10/4/2018	1050		X			X		1	N	X		X											X						

Relinquished by:	Date	Time	Received by:	Date:	Time:
Kayla Taylor	10-15-18	1533		10.16.18	1533
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
Relinquished by:	Date:	Time:	Received by:	Date:	Time:
				10/16/18	0744

ORIGINAL COPY

LAB USE ONLY

Sample Temperature

REMARKS:

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

o K

(Circle) HAND DELIVERED FEDEX UPS Tracking #

1.44.3=1.7

T.C-1-402

RAD SCREEN: <0.5 mR/hr

Pace Analytical National Center for Testing & Innovation
Cooler Receipt Form

Client:	SDG#	L1035522
Cooler Received/Opened On: 10/17/18	Temperature:	1.7
Received By: Patrick Nshizirungu		
Signature:		

Receipt Check List	NP	Yes	No
COC Seal Present / Intact?		✓	
COC Signed / Accurate?		✓	
Bottles arrive intact?		✓	
Correct bottles used?		✓	
Sufficient volume sent?		✓	
If Applicable			
VOA Zero headspace?			
Preservation Correct / Checked?			

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

February 11, 2021

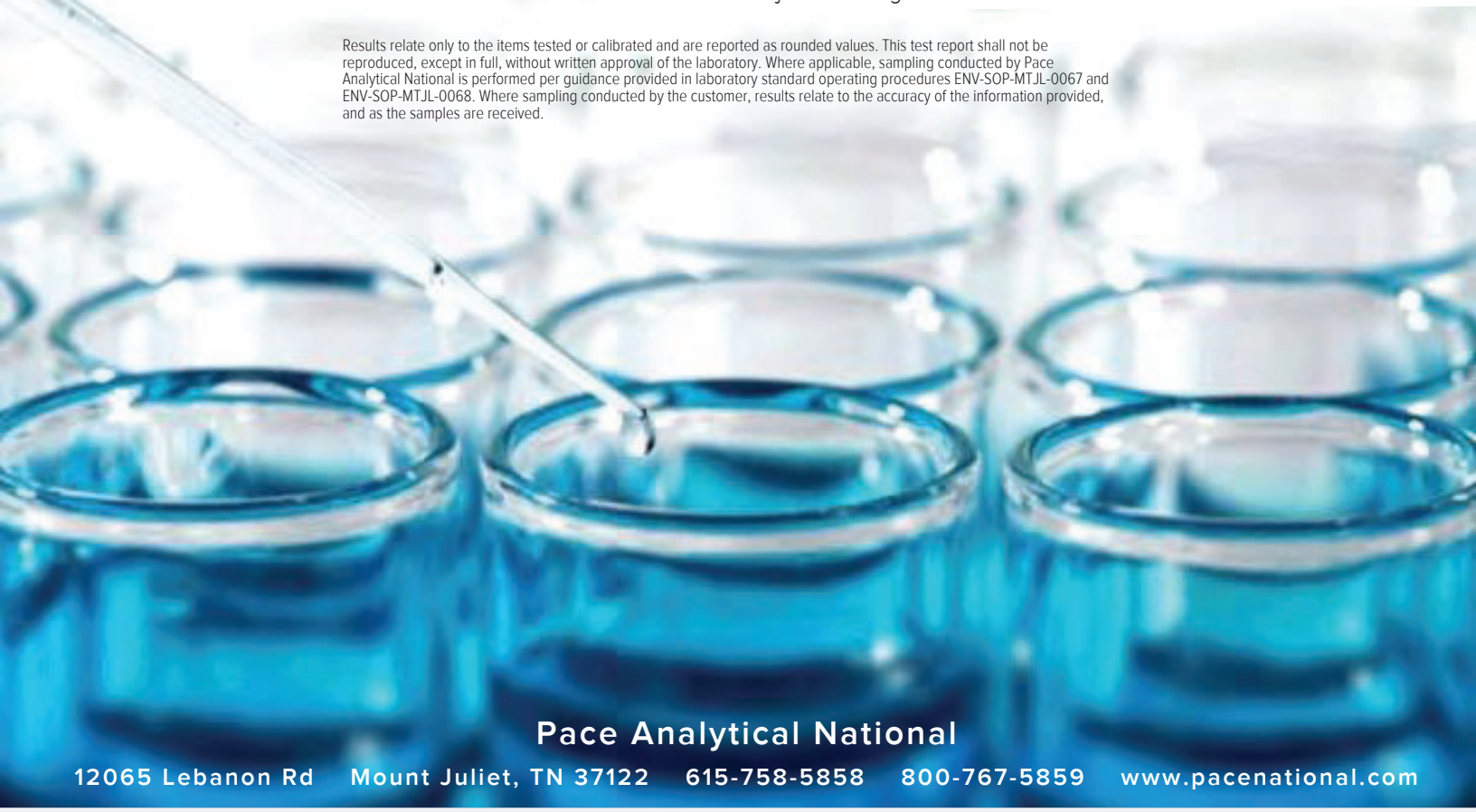
ConocoPhillips - Tetra Tech

Sample Delivery Group:	L1315474
Samples Received:	02/10/2021
Project Number:	212C-MD-02356
Description:	MCA 1C Trunkline Release
Site:	LEA COUNTY, NM
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.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

NSW-21-1 L1315474-01 Solid

Collected by: John Thurston | Collected date/time: 02/09/21 10:00 | Received date/time: 02/10/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1619257	1	02/10/21 11:48	02/10/21 11:57	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1619263	1	02/10/21 23:03	02/11/21 04:01	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1619325	1	02/10/21 10:58	02/10/21 15:31	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1619339	1	02/10/21 10:58	02/10/21 13:18	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1619297	20	02/10/21 16:10	02/11/21 01:06	JN	Mt. Juliet, TN

NSW-21-2 L1315474-02 Solid

Collected by: John Thurston | Collected date/time: 02/09/21 10:10 | Received date/time: 02/10/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1619257	1	02/10/21 11:48	02/10/21 11:57	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1619263	1	02/10/21 23:03	02/11/21 04:21	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1619325	1	02/10/21 10:58	02/10/21 15:53	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1619339	1	02/10/21 10:58	02/10/21 13:37	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1619297	20	02/10/21 16:10	02/11/21 06:39	JN	Mt. Juliet, TN

NSW-21-3 L1315474-03 Solid

Collected by: John Thurston | Collected date/time: 02/09/21 10:20 | Received date/time: 02/10/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1619257	1	02/10/21 11:48	02/10/21 11:57	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1619263	1	02/10/21 23:03	02/11/21 04:31	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1619325	1	02/10/21 10:58	02/10/21 16:15	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1619339	1	02/10/21 10:58	02/10/21 13:56	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1619297	1	02/10/21 16:10	02/10/21 23:01	JN	Mt. Juliet, TN

ESW-21-1 L1315474-04 Solid

Collected by: John Thurston | Collected date/time: 02/09/21 10:30 | Received date/time: 02/10/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1619257	1	02/10/21 11:48	02/10/21 11:57	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1619263	1	02/10/21 23:03	02/11/21 04:41	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1619325	1	02/10/21 10:58	02/10/21 16:37	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1619339	1	02/10/21 10:58	02/10/21 14:15	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1619297	1	02/10/21 16:10	02/10/21 23:14	JN	Mt. Juliet, TN

ESW-21-2 L1315474-05 Solid

Collected by: John Thurston | Collected date/time: 02/09/21 10:40 | Received date/time: 02/10/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1619257	1	02/10/21 11:48	02/10/21 11:57	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1619263	1	02/10/21 23:03	02/11/21 05:11	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1619325	1	02/10/21 10:58	02/10/21 16:59	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1619339	1	02/10/21 10:58	02/10/21 14:34	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1619297	1	02/10/21 16:10	02/10/21 23:28	JN	Mt. Juliet, TN

SSW-21-1 L1315474-06 Solid

Collected by: John Thurston | Collected date/time: 02/09/21 10:50 | Received date/time: 02/10/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1619257	1	02/10/21 11:48	02/10/21 11:57	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1619263	1	02/10/21 23:03	02/11/21 05:21	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1619325	1	02/10/21 10:58	02/10/21 17:20	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1619339	1	02/10/21 10:58	02/10/21 14:52	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1619297	1	02/10/21 16:10	02/10/21 23:41	JN	Mt. Juliet, TN

SSW-21-2 L1315474-07 Solid

Collected by: John Thurston | Collected date/time: 02/09/21 11:00 | Received date/time: 02/10/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1619257	1	02/10/21 11:48	02/10/21 11:57	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1619263	1	02/10/21 23:03	02/11/21 05:31	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1619697	1	02/10/21 10:58	02/11/21 00:18	TPR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1619339	1	02/10/21 10:58	02/10/21 15:11	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1619297	20	02/10/21 16:10	02/11/21 01:19	JN	Mt. Juliet, TN

SSW-21-3 L1315474-08 Solid

Collected by: John Thurston | Collected date/time: 02/09/21 11:10 | Received date/time: 02/10/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1619257	1	02/10/21 11:48	02/10/21 11:57	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1619263	1	02/10/21 23:03	02/11/21 05:40	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1619325	1	02/10/21 10:58	02/10/21 18:04	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1619339	1	02/10/21 10:58	02/10/21 15:30	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1619297	5	02/10/21 16:10	02/11/21 00:52	JN	Mt. Juliet, TN

SSW-21-4 L1315474-09 Solid

Collected by: John Thurston | Collected date/time: 02/09/21 11:20 | Received date/time: 02/10/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1619257	1	02/10/21 11:48	02/10/21 11:57	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1619263	1	02/10/21 23:03	02/11/21 05:50	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1619325	1	02/10/21 10:58	02/10/21 18:26	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1619339	1	02/10/21 10:58	02/10/21 15:49	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1619297	1	02/10/21 16:10	02/11/21 00:26	JN	Mt. Juliet, TN

SSW-21-5 L1315474-10 Solid

Collected by: John Thurston | Collected date/time: 02/09/21 11:30 | Received date/time: 02/10/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1619257	1	02/10/21 11:48	02/10/21 11:57	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1619263	1	02/10/21 23:03	02/11/21 06:00	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1619325	1	02/10/21 10:58	02/10/21 18:48	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1619339	1	02/10/21 10:58	02/10/21 16:07	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1619297	5	02/10/21 16:10	02/11/21 00:39	JN	Mt. Juliet, TN

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

SSW-21-6 L1315474-11 Solid

Collected by: John Thurston | Collected date/time: 02/09/21 11:40 | Received date/time: 02/10/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1619259	1	02/10/21 11:34	02/10/21 11:41	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1619263	1	02/10/21 23:03	02/11/21 06:30	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1619325	1	02/10/21 10:58	02/10/21 19:12	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1619339	1	02/10/21 10:58	02/10/21 16:26	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1619297	1	02/10/21 16:10	02/10/21 23:54	JN	Mt. Juliet, TN

SSW-21-7 L1315474-12 Solid

Collected by: John Thurston | Collected date/time: 02/09/21 11:50 | Received date/time: 02/10/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1619259	1	02/10/21 11:34	02/10/21 11:41	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1619263	1	02/10/21 23:03	02/11/21 06:40	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1619325	1	02/10/21 10:58	02/10/21 19:35	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1619339	1	02/10/21 10:58	02/10/21 16:45	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1619297	1	02/10/21 16:10	02/11/21 00:12	JN	Mt. Juliet, TN

WSW-21-1 L1315474-13 Solid

Collected by: John Thurston | Collected date/time: 02/09/21 13:00 | Received date/time: 02/10/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1619259	1	02/10/21 11:34	02/10/21 11:41	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1619263	1	02/10/21 23:03	02/11/21 07:10	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1619325	1	02/10/21 10:58	02/10/21 19:57	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1619339	1	02/10/21 10:58	02/10/21 17:04	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1619300	10	02/10/21 16:19	02/11/21 06:52	JN	Mt. Juliet, TN

WSW-21-2 L1315474-14 Solid

Collected by: John Thurston | Collected date/time: 02/09/21 13:10 | Received date/time: 02/10/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1619259	1	02/10/21 11:34	02/10/21 11:41	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1619263	1	02/10/21 23:03	02/11/21 07:20	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1619325	1	02/10/21 10:58	02/10/21 20:19	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1619339	1	02/10/21 10:58	02/10/21 17:23	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1619300	1	02/10/21 16:19	02/11/21 03:06	JN	Mt. Juliet, TN

WSW-21-3 L1315474-15 Solid

Collected by: John Thurston | Collected date/time: 02/09/21 13:20 | Received date/time: 02/10/21 09:00

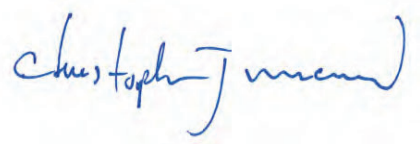
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1619259	1	02/10/21 11:34	02/10/21 11:41	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1619263	1	02/10/21 23:03	02/11/21 07:29	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1619325	1	02/10/21 10:58	02/10/21 20:41	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1619339	1	02/10/21 10:58	02/10/21 17:41	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1619300	1	02/10/21 16:19	02/11/21 02:39	JN	Mt. Juliet, TN

WSW-21-4 L1315474-16 Solid

Collected by: John Thurston
Collected date/time: 02/09/21 13:30
Received date/time: 02/10/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1619259	1	02/10/21 11:34	02/10/21 11:41	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1619263	1	02/10/21 23:03	02/11/21 07:39	ELN	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1619325	1	02/10/21 10:58	02/10/21 21:03	BMB	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1619339	1	02/10/21 10:58	02/10/21 18:00	BMB	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1619300	1	02/10/21 16:19	02/11/21 03:19	JN	Mt. Juliet, TN

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



Chris McCord
Project Manager

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	98.7		1	02/10/2021 11:57	WG1619257

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	170		9.32	20.3	1	02/11/2021 04:01	WG1619263

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	0.0280	J	0.0220	0.101	1	02/10/2021 15:31	WG1619325
(S) a,a,a-Trifluorotoluene(FID)	*110*			*77.0-120*		*02/10/2021 15:31*	WG1619325

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000479	0.00103	1	02/10/2021 13:18	WG1619339
Toluene	U		0.00133	0.00513	1	02/10/2021 13:18	WG1619339
Ethylbenzene	U		0.000756	0.00256	1	02/10/2021 13:18	WG1619339
Total Xylenes	U		0.000903	0.00667	1	02/10/2021 13:18	WG1619339
(S) Toluene-d8	*121*			*75.0-131*		*02/10/2021 13:18*	WG1619339
(S) 4-Bromofluorobenzene	*101*			*67.0-138*		*02/10/2021 13:18*	WG1619339
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*02/10/2021 13:18*	WG1619339

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	959		32.6	81.0	20	02/11/2021 01:06	WG1619297
C28-C40 Oil Range	1280		5.55	81.0	20	02/11/2021 01:06	WG1619297
(S) o-Terphenyl	*235*	J7		*18.0-148*		*02/11/2021 01:06*	WG1619297

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	95.7		1	02/10/2021 11:57	WG1619257

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	72.0		9.61	20.9	1	02/11/2021 04:21	WG1619263

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	0.0293	J	0.0227	0.104	1	02/10/2021 15:53	WG1619325
(S) a,a,a-Trifluorotoluene(FID)	*110*			*77.0-120*		*02/10/2021 15:53*	WG1619325

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000509	0.00109	1	02/10/2021 13:37	WG1619339
Toluene	U		0.00142	0.00545	1	02/10/2021 13:37	WG1619339
Ethylbenzene	U		0.000803	0.00272	1	02/10/2021 13:37	WG1619339
Total Xylenes	U		0.000959	0.00708	1	02/10/2021 13:37	WG1619339
(S) Toluene-d8	*118*			*75.0-131*		*02/10/2021 13:37*	WG1619339
(S) 4-Bromofluorobenzene	*107*			*67.0-138*		*02/10/2021 13:37*	WG1619339
(S) 1,2-Dichloroethane-d4	*108*			*70.0-130*		*02/10/2021 13:37*	WG1619339

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	448		33.6	83.6	20	02/11/2021 06:39	WG1619297
C28-C40 Oil Range	727		5.73	83.6	20	02/11/2021 06:39	WG1619297
(S) o-Terphenyl	*116*	J7		*18.0-148*		*02/11/2021 06:39*	WG1619297

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	98.7		1	02/10/2021 11:57	WG1619257

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	29.5		9.32	20.3	1	02/11/2021 04:31	WG1619263

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0220	0.101	1	02/10/2021 16:15	WG1619325
(S) a,a,a-Trifluorotoluene(FID)	*114*			*77.0-120*		*02/10/2021 16:15*	WG1619325

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000479	0.00103	1	02/10/2021 13:56	WG1619339
Toluene	U		0.00133	0.00513	1	02/10/2021 13:56	WG1619339
Ethylbenzene	U		0.000757	0.00257	1	02/10/2021 13:56	WG1619339
Total Xylenes	U		0.000903	0.00667	1	02/10/2021 13:56	WG1619339
(S) Toluene-d8	*116*			*75.0-131*		*02/10/2021 13:56*	WG1619339
(S) 4-Bromofluorobenzene	*105*			*67.0-138*		*02/10/2021 13:56*	WG1619339
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*		*02/10/2021 13:56*	WG1619339

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	4.06		1.63	4.05	1	02/10/2021 23:01	WG1619297
C28-C40 Oil Range	9.15		0.278	4.05	1	02/10/2021 23:01	WG1619297
(S) o-Terphenyl	*76.2*			*18.0-148*		*02/10/2021 23:01*	WG1619297

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	97.6		1	02/10/2021 11:57	WG1619257

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.42	20.5	1	02/11/2021 04:41	WG1619263

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0222	0.102	1	02/10/2021 16:37	WG1619325
(S) a,a,a-Trifluorotoluene(FID)	*114*			*77.0-120*		*02/10/2021 16:37*	WG1619325

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000490	0.00105	1	02/10/2021 14:15	WG1619339
Toluene	U		0.00136	0.00524	1	02/10/2021 14:15	WG1619339
Ethylbenzene	U		0.000773	0.00262	1	02/10/2021 14:15	WG1619339
Total Xylenes	U		0.000922	0.00681	1	02/10/2021 14:15	WG1619339
(S) Toluene-d8	*116*			*75.0-131*		*02/10/2021 14:15*	WG1619339
(S) 4-Bromofluorobenzene	*104*			*67.0-138*		*02/10/2021 14:15*	WG1619339
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*		*02/10/2021 14:15*	WG1619339

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.65	4.10	1	02/10/2021 23:14	WG1619297
C28-C40 Oil Range	4.68		0.281	4.10	1	02/10/2021 23:14	WG1619297
(S) o-Terphenyl	*73.4*			*18.0-148*		*02/10/2021 23:14*	WG1619297

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.8		1	02/10/2021 11:57	WG1619257

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.70	21.1	1	02/11/2021 05:11	WG1619263

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0229	0.105	1	02/10/2021 16:59	WG1619325
(S) a,a,a-Trifluorotoluene(FID)	*114*			*77.0-120*		*02/10/2021 16:59*	WG1619325

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		0.000518	0.00111	1	02/10/2021 14:34	WG1619339
Toluene	U		0.00144	0.00554	1	02/10/2021 14:34	WG1619339
Ethylbenzene	U		0.000817	0.00277	1	02/10/2021 14:34	WG1619339
Total Xylenes	U		0.000976	0.00721	1	02/10/2021 14:34	WG1619339
(S) Toluene-d8	*119*			*75.0-131*		*02/10/2021 14:34*	WG1619339
(S) 4-Bromofluorobenzene	*106*			*67.0-138*		*02/10/2021 14:34*	WG1619339
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*		*02/10/2021 14:34*	WG1619339

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	1.85	J	1.70	4.22	1	02/10/2021 23:28	WG1619297
C28-C40 Oil Range	9.58		0.289	4.22	1	02/10/2021 23:28	WG1619297
(S) o-Terphenyl	*75.2*			*18.0-148*		*02/10/2021 23:28*	WG1619297

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	97.9		1	02/10/2021 11:57	WG1619257

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.40	20.4	1	02/11/2021 05:21	WG1619263

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0222	0.102	1	02/10/2021 17:20	WG1619325
(S) a,a,a-Trifluorotoluene(FID)	*115*			*77.0-120*		*02/10/2021 17:20*	WG1619325

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000487	0.00104	1	02/10/2021 14:52	WG1619339
Toluene	U		0.00136	0.00522	1	02/10/2021 14:52	WG1619339
Ethylbenzene	U		0.000769	0.00261	1	02/10/2021 14:52	WG1619339
Total Xylenes	U		0.000918	0.00678	1	02/10/2021 14:52	WG1619339
(S) Toluene-d8	*117*			*75.0-131*		*02/10/2021 14:52*	WG1619339
(S) 4-Bromofluorobenzene	*104*			*67.0-138*		*02/10/2021 14:52*	WG1619339
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*		*02/10/2021 14:52*	WG1619339

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	4.60		1.64	4.09	1	02/10/2021 23:41	WG1619297
C28-C40 Oil Range	9.38		0.280	4.09	1	02/10/2021 23:41	WG1619297
(S) o-Terphenyl	*82.8*			*18.0-148*		*02/10/2021 23:41*	WG1619297

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	99.3		1	02/10/2021 11:57	WG1619257

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	11.7	J	9.26	20.1	1	02/11/2021 05:31	WG1619263

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0218	0.101	1	02/11/2021 00:18	WG1619697
(S) a,a,a-Trifluorotoluene(FID)	*88.7*			*77.0-120*		*02/11/2021 00:18*	WG1619697

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000473	0.00101	1	02/10/2021 15:11	WG1619339
Toluene	U		0.00132	0.00507	1	02/10/2021 15:11	WG1619339
Ethylbenzene	U		0.000747	0.00253	1	02/10/2021 15:11	WG1619339
Total Xylenes	U		0.000892	0.00659	1	02/10/2021 15:11	WG1619339
(S) Toluene-d8	*119*			*75.0-131*		*02/10/2021 15:11*	WG1619339
(S) 4-Bromofluorobenzene	*106*			*67.0-138*		*02/10/2021 15:11*	WG1619339
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*		*02/10/2021 15:11*	WG1619339

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	930		32.4	80.5	20	02/11/2021 01:19	WG1619297
C28-C40 Oil Range	1240		5.52	80.5	20	02/11/2021 01:19	WG1619297
(S) o-Terphenyl	*241*	J7		*18.0-148*		*02/11/2021 01:19*	WG1619297

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	98.9		1	02/10/2021 11:57	WG1619257

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.30	20.2	1	02/11/2021 05:40	WG1619263

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0219	0.101	1	02/10/2021 18:04	WG1619325
(S) a,a,a-Trifluorotoluene(FID)	*113*			*77.0-120*		*02/10/2021 18:04*	WG1619325

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		0.000477	0.00102	1	02/10/2021 15:30	WG1619339
Toluene	U		0.00133	0.00511	1	02/10/2021 15:30	WG1619339
Ethylbenzene	U		0.000753	0.00255	1	02/10/2021 15:30	WG1619339
Total Xylenes	U		0.000899	0.00664	1	02/10/2021 15:30	WG1619339
(S) Toluene-d8	*117*			*75.0-131*		*02/10/2021 15:30*	WG1619339
(S) 4-Bromofluorobenzene	*105*			*67.0-138*		*02/10/2021 15:30*	WG1619339
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*02/10/2021 15:30*	WG1619339

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	90.1		8.14	20.2	5	02/11/2021 00:52	WG1619297
C28-C40 Oil Range	141		1.38	20.2	5	02/11/2021 00:52	WG1619297
(S) o-Terphenyl	*82.9*			*18.0-148*		*02/11/2021 00:52*	WG1619297

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	99.1		1	02/10/2021 11:57	WG1619257

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.28	20.2	1	02/11/2021 05:50	WG1619263

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0219	0.101	1	02/10/2021 18:26	WG1619325
(S) a,a,a-Trifluorotoluene(FID)	*114*			*77.0-120*		*02/10/2021 18:26*	WG1619325

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000475	0.00102	1	02/10/2021 15:49	WG1619339
Toluene	U		0.00132	0.00509	1	02/10/2021 15:49	WG1619339
Ethylbenzene	U		0.000750	0.00254	1	02/10/2021 15:49	WG1619339
Total Xylenes	U		0.000896	0.00662	1	02/10/2021 15:49	WG1619339
(S) Toluene-d8	*118*			*75.0-131*		*02/10/2021 15:49*	WG1619339
(S) 4-Bromofluorobenzene	*104*			*67.0-138*		*02/10/2021 15:49*	WG1619339
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*		*02/10/2021 15:49*	WG1619339

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	7.31		1.62	4.04	1	02/11/2021 00:26	WG1619297
C28-C40 Oil Range	37.0		0.276	4.04	1	02/11/2021 00:26	WG1619297
(S) o-Terphenyl	*66.9*			*18.0-148*		*02/11/2021 00:26*	WG1619297

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	99.1		1	02/10/2021 11:57	WG1619257

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	46.5		9.28	20.2	1	02/11/2021 06:00	WG1619263

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0219	0.101	1	02/10/2021 18:48	WG1619325
(S) a,a,a-Trifluorotoluene(FID)	*113*			*77.0-120*		*02/10/2021 18:48*	WG1619325

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000475	0.00102	1	02/10/2021 16:07	WG1619339
Toluene	U		0.00132	0.00509	1	02/10/2021 16:07	WG1619339
Ethylbenzene	U		0.000750	0.00254	1	02/10/2021 16:07	WG1619339
Total Xylenes	U		0.000895	0.00661	1	02/10/2021 16:07	WG1619339
(S) Toluene-d8	*118*			*75.0-131*		*02/10/2021 16:07*	WG1619339
(S) 4-Bromofluorobenzene	*107*			*67.0-138*		*02/10/2021 16:07*	WG1619339
(S) 1,2-Dichloroethane-d4	*106*			*70.0-130*		*02/10/2021 16:07*	WG1619339

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	74.2		8.12	20.2	5	02/11/2021 00:39	WG1619297
C28-C40 Oil Range	134		1.38	20.2	5	02/11/2021 00:39	WG1619297
(S) o-Terphenyl	*75.3*			*18.0-148*		*02/11/2021 00:39*	WG1619297

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	99.2		1	02/10/2021 11:41	WG1619259

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	13.2	J	9.27	20.2	1	02/11/2021 06:30	WG1619263

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0219	0.101	1	02/10/2021 19:12	WG1619325
(S) a,a,a-Trifluorotoluene(FID)	*114*			*77.0-120*		*02/10/2021 19:12*	WG1619325

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000474	0.00102	1	02/10/2021 16:26	WG1619339
Toluene	U		0.00132	0.00508	1	02/10/2021 16:26	WG1619339
Ethylbenzene	U		0.000748	0.00254	1	02/10/2021 16:26	WG1619339
Total Xylenes	U		0.000893	0.00660	1	02/10/2021 16:26	WG1619339
(S) Toluene-d8	*117*			*75.0-131*		*02/10/2021 16:26*	WG1619339
(S) 4-Bromofluorobenzene	*107*			*67.0-138*		*02/10/2021 16:26*	WG1619339
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*		*02/10/2021 16:26*	WG1619339

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.62	4.03	1	02/10/2021 23:54	WG1619297
C28-C40 Oil Range	6.09		0.276	4.03	1	02/10/2021 23:54	WG1619297
(S) o-Terphenyl	*86.1*			*18.0-148*		*02/10/2021 23:54*	WG1619297

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	99.1		1	02/10/2021 11:41	WG1619259

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	36.1		9.28	20.2	1	02/11/2021 06:40	WG1619263

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0219	0.101	1	02/10/2021 19:35	WG1619325
(S) a,a,a-Trifluorotoluene(FID)	*113*			*77.0-120*		*02/10/2021 19:35*	WG1619325

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000475	0.00102	1	02/10/2021 16:45	WG1619339
Toluene	U		0.00132	0.00509	1	02/10/2021 16:45	WG1619339
Ethylbenzene	U		0.000750	0.00255	1	02/10/2021 16:45	WG1619339
Total Xylenes	U		0.000896	0.00662	1	02/10/2021 16:45	WG1619339
(S) Toluene-d8	*119*			*75.0-131*		*02/10/2021 16:45*	WG1619339
(S) 4-Bromofluorobenzene	*106*			*67.0-138*		*02/10/2021 16:45*	WG1619339
(S) 1,2-Dichloroethane-d4	*107*			*70.0-130*		*02/10/2021 16:45*	WG1619339

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	2.29	J	1.62	4.04	1	02/11/2021 00:12	WG1619297
C28-C40 Oil Range	17.8		0.276	4.04	1	02/11/2021 00:12	WG1619297
(S) o-Terphenyl	*91.9*			*18.0-148*		*02/11/2021 00:12*	WG1619297

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	98.2		1	02/10/2021 11:41	WG1619259

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	28.3		9.37	20.4	1	02/11/2021 07:10	WG1619263

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	0.0261	J	0.0221	0.102	1	02/10/2021 19:57	WG1619325
(S) a,a,a-Trifluorotoluene(FID)	*113*			*77.0-120*		*02/10/2021 19:57*	WG1619325

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000484	0.00104	1	02/10/2021 17:04	WG1619339
Toluene	U		0.00135	0.00518	1	02/10/2021 17:04	WG1619339
Ethylbenzene	U		0.000764	0.00259	1	02/10/2021 17:04	WG1619339
Total Xylenes	U		0.000912	0.00674	1	02/10/2021 17:04	WG1619339
(S) Toluene-d8	*118*			*75.0-131*		*02/10/2021 17:04*	WG1619339
(S) 4-Bromofluorobenzene	*105*			*67.0-138*		*02/10/2021 17:04*	WG1619339
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*02/10/2021 17:04*	WG1619339

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	1350		16.4	40.7	10	02/11/2021 06:52	WG1619300
C28-C40 Oil Range	1540		2.79	40.7	10	02/11/2021 06:52	WG1619300
(S) o-Terphenyl	*292*	J1		*18.0-148*		*02/11/2021 06:52*	WG1619300

Sample Narrative:

L1315474-13 WG1619300: Surrogate failure due to matrix interference

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	98.8		1	02/10/2021 11:41	WG1619259

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	11.1	J	9.31	20.2	1	02/11/2021 07:20	WG1619263

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0220	0.101	1	02/10/2021 20:19	WG1619325
(S) a,a,a-Trifluorotoluene(FID)	*113*			*77.0-120*		*02/10/2021 20:19*	WG1619325

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000478	0.00102	1	02/10/2021 17:23	WG1619339
Toluene	U		0.00133	0.00512	1	02/10/2021 17:23	WG1619339
Ethylbenzene	U		0.000754	0.00256	1	02/10/2021 17:23	WG1619339
Total Xylenes	U		0.000901	0.00665	1	02/10/2021 17:23	WG1619339
(S) Toluene-d8	*116*			*75.0-131*		*02/10/2021 17:23*	WG1619339
(S) 4-Bromofluorobenzene	*104*			*67.0-138*		*02/10/2021 17:23*	WG1619339
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*02/10/2021 17:23*	WG1619339

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	3.57	J	1.63	4.05	1	02/11/2021 03:06	WG1619300
C28-C40 Oil Range	23.9		0.277	4.05	1	02/11/2021 03:06	WG1619300
(S) o-Terphenyl	*79.0*			*18.0-148*		*02/11/2021 03:06*	WG1619300

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	99.1		1	02/10/2021 11:41	WG1619259

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.28	20.2	1	02/11/2021 07:29	WG1619263

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0219	0.101	1	02/10/2021 20:41	WG1619325
(S) a,a,a-Trifluorotoluene(FID)	*114*			*77.0-120*		*02/10/2021 20:41*	WG1619325

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000475	0.00102	1	02/10/2021 17:41	WG1619339
Toluene	U		0.00132	0.00509	1	02/10/2021 17:41	WG1619339
Ethylbenzene	U		0.000750	0.00254	1	02/10/2021 17:41	WG1619339
Total Xylenes	U		0.000896	0.00662	1	02/10/2021 17:41	WG1619339
(S) Toluene-d8	*120*			*75.0-131*		*02/10/2021 17:41*	WG1619339
(S) 4-Bromofluorobenzene	*100*			*67.0-138*		*02/10/2021 17:41*	WG1619339
(S) 1,2-Dichloroethane-d4	*94.4*			*70.0-130*		*02/10/2021 17:41*	WG1619339

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	2.59	J	1.62	4.04	1	02/11/2021 02:39	WG1619300
C28-C40 Oil Range	10.1	B	0.276	4.04	1	02/11/2021 02:39	WG1619300
(S) o-Terphenyl	*74.9*			*18.0-148*		*02/11/2021 02:39*	WG1619300

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	99.0		1	02/10/2021 11:41	WG1619259

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	14.4	J	9.30	20.2	1	02/11/2021 07:39	WG1619263

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0219	0.101	1	02/10/2021 21:03	WG1619325
(S) a,a,a-Trifluorotoluene(FID)	*114*			*77.0-120*		*02/10/2021 21:03*	WG1619325

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	0.000477	0.00102	1	02/10/2021 18:00	WG1619339
Toluene	U	J3	0.00133	0.00511	1	02/10/2021 18:00	WG1619339
Ethylbenzene	U	J3	0.000753	0.00255	1	02/10/2021 18:00	WG1619339
Total Xylenes	U	J3	0.000899	0.00664	1	02/10/2021 18:00	WG1619339
(S) Toluene-d8	*117*			*75.0-131*		*02/10/2021 18:00*	WG1619339
(S) 4-Bromofluorobenzene	*104*			*67.0-138*		*02/10/2021 18:00*	WG1619339
(S) 1,2-Dichloroethane-d4	*104*			*70.0-130*		*02/10/2021 18:00*	WG1619339

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	3.72	J	1.63	4.04	1	02/11/2021 03:19	WG1619300
C28-C40 Oil Range	24.1		0.277	4.04	1	02/11/2021 03:19	WG1619300
(S) o-Terphenyl	*76.7*			*18.0-148*		*02/11/2021 03:19*	WG1619300

Method Blank (MB)

(MB) R3621487-1 02/10/21 11:57

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

L1315474-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1315474-01 02/10/21 11:57 • (DUP) R3621487-3 02/10/21 11:57

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	98.7	99.1	1	0.391		10

Laboratory Control Sample (LCS)

(LCS) R3621487-2 02/10/21 11:57

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	51.0	102	85.0-115	

Method Blank (MB)

(MB) R3621486-1 02/10/21 11:41

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

L1315474-12 Original Sample (OS) • Duplicate (DUP)

(OS) L1315474-12 02/10/21 11:41 • (DUP) R3621486-3 02/10/21 11:41

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	99.1	99.0	1	0.0841		10

Laboratory Control Sample (LCS)

(LCS) R3621486-2 02/10/21 11:41

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

Method Blank (MB)

(MB) R3621520-1 02/11/21 02:31

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

L1315474-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1315474-01 02/11/21 04:01 • (DUP) R3621520-3 02/11/21 04:11

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	170	170	1	0.0824		20

L1315474-16 Original Sample (OS) • Duplicate (DUP)

(OS) L1315474-16 02/11/21 07:39 • (DUP) R3621520-6 02/11/21 07:49

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	14.4	15.8	1	9.07	J	20

Laboratory Control Sample (LCS)

(LCS) R3621520-2 02/11/21 02:41

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	214	107	90.0-110	

L1315474-10 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1315474-10 02/11/21 06:00 • (MS) R3621520-4 02/11/21 06:10 • (MSD) R3621520-5 02/11/21 06:20

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	504	46.5	559	566	102	103	1	80.0-120			1.37	20

Method Blank (MB)

(MB) R3621407-3 02/10/21 11:15

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	U		0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*116*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3621407-2 02/10/21 10:09

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.05	91.8	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*102*	*77.0-120*	

Method Blank (MB)

(MB) R3621507-2 02/10/21 15:04

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	U		0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*99.2*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3621507-1 02/10/21 14:22

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.42	98.5	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*107*	*77.0-120*	

Method Blank (MB)

(MB) R3621382-2 02/10/21 12:25

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Ethylbenzene	U		0.000737	0.00250
Toluene	U		0.00130	0.00500
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	*117*			*75.0-131*
(S) 4-Bromofluorobenzene	*104*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*105*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3621382-1 02/10/21 11:28

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.117	93.6	70.0-123	
Ethylbenzene	0.125	0.134	107	74.0-126	
Toluene	0.125	0.140	112	75.0-121	
Xylenes, Total	0.375	0.416	111	72.0-127	
(S) Toluene-d8			*117*	*75.0-131*	
(S) 4-Bromofluorobenzene			*101*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*99.4*	*70.0-130*	

L1315474-16 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1315474-16 02/10/21 18:00 • (MS) R3621382-3 02/10/21 19:34 • (MSD) R3621382-4 02/10/21 19:53

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.128	U	0.0646	0.0981	50.6	76.9	1	10.0-149		J3	41.2	37
Ethylbenzene	0.128	U	0.0740	0.113	58.0	88.8	1	10.0-160		J3	42.0	38
Toluene	0.128	U	0.0738	0.114	57.8	89.6	1	10.0-156		J3	43.1	38
Xylenes, Total	0.383	U	0.242	0.359	63.2	93.9	1	10.0-160		J3	39.0	38
(S) Toluene-d8					*117*	*117*		*75.0-131*				
(S) 4-Bromofluorobenzene					*105*	*105*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*105*	*106*		*70.0-130*				

Method Blank (MB)

(MB) R3621453-1 02/10/21 22:34

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	*87.7*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3621453-2 02/10/21 22:48

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	35.7	71.4	50.0-150	
(S) o-Terphenyl			*64.7*	*18.0-148*	

Method Blank (MB)

(MB) R3621454-1 02/11/21 02:12

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	1.24	J	0.274	4.00
(S) o-Terphenyl	*80.9*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3621454-2 02/11/21 02:26

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	40.8	81.6	50.0-150	
(S) o-Terphenyl			*69.2*	*18.0-148*	

L1314333-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1314333-01 02/11/21 09:01 • (MS) R3621454-3 02/11/21 09:15 • (MSD) R3621454-4 02/11/21 09:28

Analyte	Spike Amount (dry) mg/kg	Original Result (dry)	MS Result (dry)	MSD Result (dry)	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	47.4	2.63	49.5	37.9	80.5	60.7	1	50.0-150		J3	26.4	20
(S) o-Terphenyl					*73.1*	*53.2*		*18.0-148*				

Guide to Reading and Understanding Your Laboratory Report

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

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

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

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J3	The associated batch QC was outside the established quality control range for precision.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.

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.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN, 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
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]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
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		

Pace Analytical National 1313 Point Mallard Parkway SE Suite B Decatur, AL, 35601

Alabama	40160
ANSI National Accreditation Board	L2239

Pace Analytical National 660 Bercut Dr. Ste. C Sacramento, CA, 95811

California	2961	Oregon	CA300002
Minnesota	006-999-465	Washington	C926
North Dakota	R-214		

Pace Analytical National 6000 South Eastern Avenue Ste 9A Las Vegas, NV, 89119

Nevada	NV009412021-1

Pace Analytical National 1606 E. Brazos Street Suite D Victoria, TX, 77901

Texas	T104704328-20-18

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

Analysis Request of Chain of Custody Record

G057

Tetra Tech, Inc.

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

Client Name:	Conoco Phillips	Site Manager:	Christian Llull
Project Name:	MCA 1C Trunkline Release	Contact Info:	Email: christian.llull@tetratech.com Phone: (512) 338-1667
Project Location: (County, state)	Lea County, New Mexico	Project #:	212C-MD-02356
Invoice to:	Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 79701		
Receiving Laboratory:	Pace Analytical	Sampler Signature:	John Thurston

Comments: COPTETRA Acctnum

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2021 DATE	SAMPLING TIME	MATRIX WATER	MATRIX SOIL	MATRIX	PRESERVATIVE METHOD HCL	PRESERVATIVE METHOD HNO_3	PRESERVATIVE METHOD ICE	PRESERVATIVE METHOD NONE	PRESERVATIVE METHOD	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R	
131547														BTEX 8021B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R	
01	NSW-21-1	2/9/2021	10:00		X				X			1	N	X		X											X					
02	NSW-21-2	2/9/2021	10:10		X				X			1	N	X		X											X					
03	NSW-21-3	2/9/2021	10:20		X				X			1	N	X		X											X					
04	ESW-21-1	2/9/2021	10:30		X				X			1	N	X		X											X					
05	ESW-21-2	2/9/2021	10:40		X				X			1	N	X		X											X					
06	SSW-21-1	2/9/2021	10:50		X				X			1	N	X		X											X					
07	SSW-21-2	2/9/2021	11:00		X				X			1	N	X		X											X					
08	SSW-21-3	2/9/2021	11:10		X				X			1	N	X		X											X					
09	SSW-21-4	2/9/2021	11:20		X				X			1	N	X		X											X					
10	SSW-21-5	2/9/2021	11:30		X				X			1	N	X		X											X					

Relinquished by:	Date: 2/9/21	Time: 0860	Received by:
Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date:	Time:	Received by: Kailey Miller 2/10/21 900

ORIGINAL COPY

Fedex: 1922 0813 4684

LAB USE ONLY

Sample Temperature

REMARKS:

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

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

MPB 9-2-17

Tetra Tech, Inc.

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

Client Name:	Conoco Phillips	Site Manager:	Christian Llull
Project Name:	MCA 1C Trunkline Release	Contact Info:	Email: christian.llull@tetratech.com Phone: (512) 338-1667
Project Location: (County, state)	Lea County, New Mexico	Project #:	212C-MD-02356
Invoice to:	Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 79701		
Receiving Laboratory:	Pace Analytical	Sampler Signature:	John Thurston

Comments: COPTETRA Acctnum

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE (YEAR: 2021)	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	MATRIX:	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	PRESERVATIVE METHOD: NONE	PRESERVATIVE METHOD:	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R	
13547																																
10 19	SSW-21-6	2/9/2021	11:40		X				X			1	N	X		X												X					
12 11	SSW-21-7	2/9/2021	11:50		X				X			1	N	X		X												X					
13 12	WSW-21-1	2/9/2021	13:00		X				X			1	N	X		X												X					
14 13	WSW-21-2	2/9/2021	13:10		X				X			1	N	X		X												X					
15 14	WSW-21-3	2/9/2021	13:20		X				X			1	N	X		X												X					
16 15	WSW-21-4	2/9/2021	13:30		X				X			1	N	X		X												X					

Relinquished by:	Date: 2/9/21	Time: 0800	Received by:
Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date:	Time:	Received by: Kaley Miller Date: 2/10/21 Time: 900

ORIGINAL COPY

LAB USE ONLY

Sample Temperature

REMARKS:

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

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

NPAB 9-22-7

Pace Analytical National Center for Testing & Innovation
Cooler Receipt Form

Client:	Coterra	1315474
Cooler Received/Opened On: 2 / 10 / 21	Temperature:	0.9
Received By: Kailey Miller		
Signature: Kailey Miller		

Receipt Check List	NP	Yes	No
COC Seal Present / Intact?	/		
COC Signed / Accurate?		/	
Bottles arrive intact?		/	
Correct bottles used?		/	
Sufficient volume sent?		/	
If Applicable			
VOA Zero headspace?			
Preservation Correct / Checked?			

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

February 18, 2021

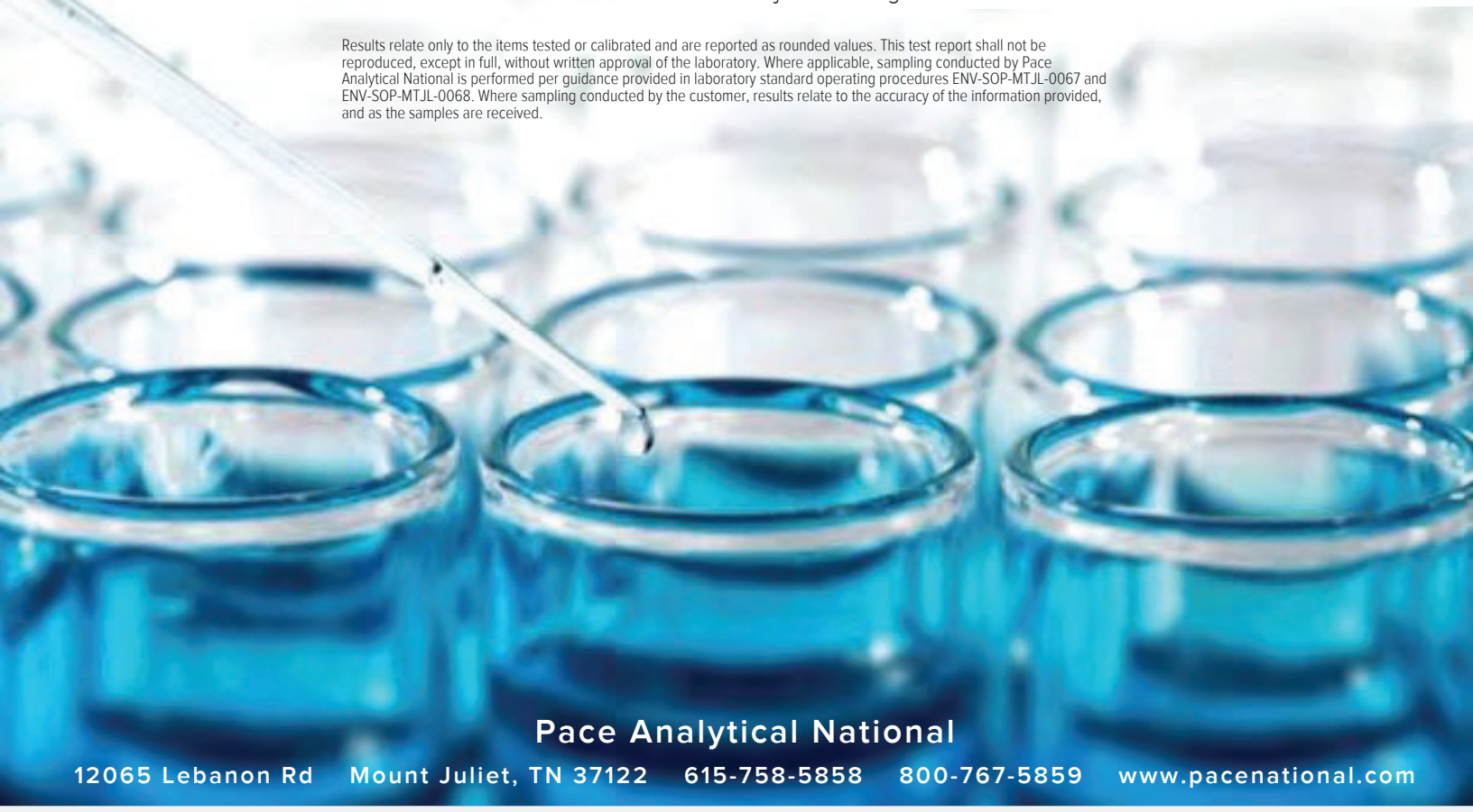
ConocoPhillips - Tetra Tech

Sample Delivery Group:	L1316966
Samples Received:	02/13/2021
Project Number:	212C-MD-02356
Description:	MCA 1C Trunkline Release

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

Entire Report Reviewed By:

Chris McCord
Project Manager



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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FS-21-1 L1316966-01 Solid

Collected by: John Thurston | Collected date/time: 02/10/21 11:40 | Received date/time: 02/13/21 11:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1621583	1	02/16/21 08:24	02/16/21 08:30	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1621294	1	02/14/21 12:17	02/14/21 18:54	MCG	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1621336	100	02/13/21 16:20	02/14/21 18:58	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1621212	8	02/13/21 16:20	02/14/21 01:19	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1621280	50	02/14/21 10:05	02/17/21 16:09	CAG	Mt. Juliet, TN

FS-21-1 (5') L1316966-02 Solid

Collected by: John Thurston | Collected date/time: 02/10/21 11:50 | Received date/time: 02/13/21 11:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1621583	1	02/16/21 08:24	02/16/21 08:30	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1621294	1	02/14/21 12:17	02/14/21 19:26	MCG	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1621336	1	02/13/21 16:20	02/14/21 14:08	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1621212	1	02/13/21 16:20	02/13/21 21:30	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1621280	1	02/14/21 10:05	02/14/21 16:19	CLG	Mt. Juliet, TN

FS-21-6 L1316966-03 Solid

Collected by: John Thurston | Collected date/time: 02/10/21 13:00 | Received date/time: 02/13/21 11:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1621583	1	02/16/21 08:24	02/16/21 08:30	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1621294	1	02/14/21 12:17	02/14/21 19:42	MCG	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1621336	1	02/13/21 16:20	02/14/21 14:28	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1621212	1	02/13/21 16:20	02/13/21 21:49	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1621280	1	02/14/21 10:05	02/14/21 16:05	CLG	Mt. Juliet, TN

FS-21-7 L1316966-04 Solid

Collected by: John Thurston | Collected date/time: 02/10/21 13:10 | Received date/time: 02/13/21 11:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1621583	1	02/16/21 08:24	02/16/21 08:30	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1621294	1	02/14/21 12:17	02/14/21 19:58	MCG	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1621336	1	02/13/21 16:20	02/14/21 14:49	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1621212	1	02/13/21 16:20	02/13/21 22:08	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1621280	1	02/14/21 10:05	02/14/21 16:59	CLG	Mt. Juliet, TN

FS-21-8 L1316966-05 Solid

Collected by: John Thurston | Collected date/time: 02/10/21 13:20 | Received date/time: 02/13/21 11:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1621583	1	02/16/21 08:24	02/16/21 08:30	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1621294	5	02/14/21 12:17	02/14/21 20:46	MCG	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1621336	1	02/13/21 16:20	02/14/21 15:10	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1621212	1	02/13/21 16:20	02/13/21 22:28	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1621280	1	02/14/21 10:05	02/14/21 16:32	CLG	Mt. Juliet, TN

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

NSW-21-1 (4') L1316966-06 Solid

Collected by: John Thurston | Collected date/time: 02/11/21 15:00 | Received date/time: 02/13/21 11:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1621583	1	02/16/21 08:24	02/16/21 08:30	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1621294	1	02/14/21 12:17	02/14/21 21:01	MCG	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1621336	1	02/13/21 16:20	02/14/21 15:31	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1621212	1	02/13/21 16:20	02/13/21 22:47	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1621280	1	02/14/21 10:05	02/14/21 16:46	CLG	Mt. Juliet, TN

NSW-21-2 (4') L1316966-07 Solid

Collected by: John Thurston | Collected date/time: 02/11/21 15:05 | Received date/time: 02/13/21 11:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1621584	1	02/16/21 08:31	02/16/21 08:39	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1621294	1	02/14/21 12:17	02/14/21 21:17	MCG	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1621924	1	02/13/21 16:20	02/17/21 15:08	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1621212	1	02/13/21 16:20	02/13/21 23:06	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1621280	1	02/14/21 10:05	02/14/21 17:13	CLG	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1621280	5	02/14/21 10:05	02/17/21 15:56	CAG	Mt. Juliet, TN

SSW-21-2 (4') L1316966-08 Solid

Collected by: John Thurston | Collected date/time: 02/11/21 15:10 | Received date/time: 02/13/21 11:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1621584	1	02/16/21 08:31	02/16/21 08:39	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1621294	1	02/14/21 12:17	02/14/21 21:33	MCG	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1621336	1	02/13/21 16:20	02/14/21 16:12	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1621212	1	02/13/21 16:20	02/13/21 23:25	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1621280	1	02/14/21 10:05	02/14/21 15:11	CLG	Mt. Juliet, TN

SSW-21-3 (4') L1316966-09 Solid

Collected by: John Thurston | Collected date/time: 02/11/21 15:15 | Received date/time: 02/13/21 11:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1621584	1	02/16/21 08:31	02/16/21 08:39	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1621294	1	02/14/21 12:17	02/14/21 21:49	MCG	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1621336	1	02/13/21 16:20	02/14/21 16:33	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1621212	1	02/13/21 16:20	02/13/21 23:44	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1621280	1	02/14/21 10:05	02/14/21 15:38	CLG	Mt. Juliet, TN

SSW-21-5 (4') L1316966-10 Solid

Collected by: John Thurston | Collected date/time: 02/11/21 15:20 | Received date/time: 02/13/21 11:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1621584	1	02/16/21 08:31	02/16/21 08:39	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1621294	1	02/14/21 12:17	02/14/21 22:05	MCG	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1621336	1	02/13/21 16:20	02/14/21 16:54	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1621212	1	02/13/21 16:20	02/14/21 00:03	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1621280	1	02/14/21 10:05	02/14/21 15:25	CLG	Mt. Juliet, TN

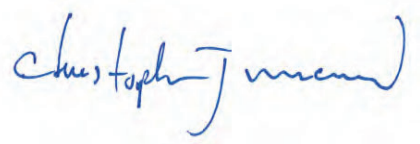
SAMPLE SUMMARY

WSW-21-1 (4') L1316966-11 Solid

Collected by: John Thurston
Collected date/time: 02/10/21 11:40
Received date/time: 02/13/21 11:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1621584	1	02/16/21 08:31	02/16/21 08:39	CMK	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1621294	1	02/14/21 12:17	02/14/21 22:21	MCG	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1621336	1	02/13/21 16:20	02/14/21 17:14	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1621212	1	02/13/21 16:20	02/14/21 00:22	DWR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1621280	1	02/14/21 10:05	02/14/21 15:52	CLG	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	91.3		1	02/16/2021 08:30	WG1621583

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	42.5		10.1	21.9	1	02/14/2021 18:54	WG1621294

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	1220		2.59	11.9	100	02/14/2021 18:58	WG1621336
(S) a,a,a-Trifluorotoluene(FID)	*101*			*77.0-120*		*02/14/2021 18:58*	WG1621336

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		0.00446	0.00953	8	02/14/2021 01:19	WG1621212
Toluene	3.23		0.0124	0.0477	8	02/14/2021 01:19	WG1621212
Ethylbenzene	14.1		0.00703	0.0238	8	02/14/2021 01:19	WG1621212
Total Xylenes	22.8		0.00839	0.0620	8	02/14/2021 01:19	WG1621212
(S) Toluene-d8	*91.3*			*75.0-131*		*02/14/2021 01:19*	WG1621212
(S) 4-Bromofluorobenzene	*108*			*67.0-138*		*02/14/2021 01:19*	WG1621212
(S) 1,2-Dichloroethane-d4	*82.5*			*70.0-130*		*02/14/2021 01:19*	WG1621212

Sample Narrative:

L1316966-01 WG1621212: Non-target compounds too high to run at a lower dilution.

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	6910		88.2	219	50	02/17/2021 16:09	WG1621280
C28-C40 Oil Range	4390		15.0	219	50	02/17/2021 16:09	WG1621280
(S) o-Terphenyl	*0.000*	J7		*18.0-148*		*02/17/2021 16:09*	WG1621280

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	89.6		1	02/16/2021 08:30	WG1621583

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	179		10.3	22.3	1	02/14/2021 19:26	WG1621294

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0242	0.112	1	02/14/2021 14:08	WG1621336
(S) a,a,a-Trifluorotoluene(FID)	*92.9*			*77.0-120*		*02/14/2021 14:08*	WG1621336

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	0.000832	J	0.000576	0.00123	1	02/13/2021 21:30	WG1621212
Toluene	0.00243	J	0.00160	0.00616	1	02/13/2021 21:30	WG1621212
Ethylbenzene	0.000924	J	0.000908	0.00308	1	02/13/2021 21:30	WG1621212
Total Xylenes	0.00394	J	0.00108	0.00801	1	02/13/2021 21:30	WG1621212
(S) Toluene-d8	*100*			*75.0-131*		*02/13/2021 21:30*	WG1621212
(S) 4-Bromofluorobenzene	*97.4*			*67.0-138*		*02/13/2021 21:30*	WG1621212
(S) 1,2-Dichloroethane-d4	*82.0*			*70.0-130*		*02/13/2021 21:30*	WG1621212

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	41.0		1.80	4.46	1	02/14/2021 16:19	WG1621280
C28-C40 Oil Range	30.5		0.306	4.46	1	02/14/2021 16:19	WG1621280
(S) o-Terphenyl	*64.5*			*18.0-148*		*02/14/2021 16:19*	WG1621280

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.3		1	02/16/2021 08:30	WG1621583

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	809		9.97	21.7	1	02/14/2021 19:42	WG1621294

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	0.0640	J	0.0235	0.108	1	02/14/2021 14:28	WG1621336
(S) a,a,a-Trifluorotoluene(FID)	*92.6*			*77.0-120*		*02/14/2021 14:28*	WG1621336

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		0.000545	0.00117	1	02/13/2021 21:49	WG1621212
Toluene	U		0.00152	0.00584	1	02/13/2021 21:49	WG1621212
Ethylbenzene	0.00284	J	0.000860	0.00292	1	02/13/2021 21:49	WG1621212
Total Xylenes	0.00809		0.00103	0.00759	1	02/13/2021 21:49	WG1621212
(S) Toluene-d8	*102*			*75.0-131*		*02/13/2021 21:49*	WG1621212
(S) 4-Bromofluorobenzene	*95.9*			*67.0-138*		*02/13/2021 21:49*	WG1621212
(S) 1,2-Dichloroethane-d4	*81.8*			*70.0-130*		*02/13/2021 21:49*	WG1621212

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	5.10		1.74	4.33	1	02/14/2021 16:05	WG1621280
C28-C40 Oil Range	6.40	B	0.297	4.33	1	02/14/2021 16:05	WG1621280
(S) o-Terphenyl	*61.2*			*18.0-148*		*02/14/2021 16:05*	WG1621280

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	83.7		1	02/16/2021 08:30	WG1621583

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	453		11.0	23.9	1	02/14/2021 19:58	WG1621294

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		0.0259	0.119	1	02/14/2021 14:49	WG1621336
(S) a,a,a-Trifluorotoluene(FID)	*92.7*			*77.0-120*		*02/14/2021 14:49*	WG1621336

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		0.000650	0.00139	1	02/13/2021 22:08	WG1621212
Toluene	U		0.00181	0.00696	1	02/13/2021 22:08	WG1621212
Ethylbenzene	0.00141	J	0.00103	0.00348	1	02/13/2021 22:08	WG1621212
Total Xylenes	0.00352	J	0.00122	0.00904	1	02/13/2021 22:08	WG1621212
(S) Toluene-d8	*101*			*75.0-131*		*02/13/2021 22:08*	WG1621212
(S) 4-Bromofluorobenzene	*97.9*			*67.0-138*		*02/13/2021 22:08*	WG1621212
(S) 1,2-Dichloroethane-d4	*80.6*			*70.0-130*		*02/13/2021 22:08*	WG1621212

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	77.9		1.92	4.78	1	02/14/2021 16:59	WG1621280
C28-C40 Oil Range	66.8		0.327	4.78	1	02/14/2021 16:59	WG1621280
(S) o-Terphenyl	*64.2*			*18.0-148*		*02/14/2021 16:59*	WG1621280

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	84.4		1	02/16/2021 08:30	WG1621583

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	1340		54.5	119	5	02/14/2021 20:46	WG1621294

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0257	0.119	1	02/14/2021 15:10	WG1621336
(S) a,a,a-Trifluorotoluene(FID)	*93.3*			*77.0-120*		*02/14/2021 15:10*	WG1621336

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		0.000641	0.00137	1	02/13/2021 22:28	WG1621212
Toluene	U		0.00178	0.00686	1	02/13/2021 22:28	WG1621212
Ethylbenzene	U		0.00101	0.00343	1	02/13/2021 22:28	WG1621212
Total Xylenes	U		0.00121	0.00892	1	02/13/2021 22:28	WG1621212
(S) Toluene-d8	*102*			*75.0-131*		*02/13/2021 22:28*	WG1621212
(S) 4-Bromofluorobenzene	*96.9*			*67.0-138*		*02/13/2021 22:28*	WG1621212
(S) 1,2-Dichloroethane-d4	*81.9*			*70.0-130*		*02/13/2021 22:28*	WG1621212

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	30.7		1.91	4.74	1	02/14/2021 16:32	WG1621280
C28-C40 Oil Range	23.8		0.325	4.74	1	02/14/2021 16:32	WG1621280
(S) o-Terphenyl	*62.3*			*18.0-148*		*02/14/2021 16:32*	WG1621280

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	98.3		1	02/16/2021 08:30	WG1621583

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	37.4		9.36	20.4	1	02/14/2021 21:01	WG1621294

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0221	0.102	1	02/14/2021 15:31	WG1621336
(S) a,a,a-Trifluorotoluene(FID)	*91.7*			*77.0-120*		*02/14/2021 15:31*	WG1621336

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000483	0.00104	1	02/13/2021 22:47	WG1621212
Toluene	U		0.00135	0.00518	1	02/13/2021 22:47	WG1621212
Ethylbenzene	U		0.000763	0.00259	1	02/13/2021 22:47	WG1621212
Total Xylenes	U		0.000911	0.00673	1	02/13/2021 22:47	WG1621212
(S) Toluene-d8	*102*			*75.0-131*		*02/13/2021 22:47*	WG1621212
(S) 4-Bromofluorobenzene	*96.9*			*67.0-138*		*02/13/2021 22:47*	WG1621212
(S) 1,2-Dichloroethane-d4	*81.8*			*70.0-130*		*02/13/2021 22:47*	WG1621212

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	72.9		1.64	4.07	1	02/14/2021 16:46	WG1621280
C28-C40 Oil Range	69.1		0.279	4.07	1	02/14/2021 16:46	WG1621280
(S) o-Terphenyl	*74.8*			*18.0-148*		*02/14/2021 16:46*	WG1621280

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	99.2		1	02/16/2021 08:39	WG1621584

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.27	20.2	1	02/14/2021 21:17	WG1621294

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0219	0.101	1	02/17/2021 15:08	WG1621924
(S) a,a,a-Trifluorotoluene(FID)	*91.8*			*77.0-120*		*02/17/2021 15:08*	WG1621924

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000474	0.00102	1	02/13/2021 23:06	WG1621212
Toluene	U		0.00132	0.00508	1	02/13/2021 23:06	WG1621212
Ethylbenzene	U		0.000748	0.00254	1	02/13/2021 23:06	WG1621212
Total Xylenes	U		0.000893	0.00660	1	02/13/2021 23:06	WG1621212
(S) Toluene-d8	*100*			*75.0-131*		*02/13/2021 23:06*	WG1621212
(S) 4-Bromofluorobenzene	*96.0*			*67.0-138*		*02/13/2021 23:06*	WG1621212
(S) 1,2-Dichloroethane-d4	*79.1*			*70.0-130*		*02/13/2021 23:06*	WG1621212

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	237		1.62	4.03	1	02/14/2021 17:13	WG1621280
C28-C40 Oil Range	297		1.38	20.2	5	02/17/2021 15:56	WG1621280
(S) o-Terphenyl	*89.7*			*18.0-148*		*02/14/2021 17:13*	WG1621280
(S) o-Terphenyl	*91.0*			*18.0-148*		*02/17/2021 15:56*	WG1621280

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	99.3		1	02/16/2021 08:39	WG1621584

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.27	20.1	1	02/14/2021 21:33	WG1621294

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0219	0.101	1	02/14/2021 16:12	WG1621336
(S) a,a,a-Trifluorotoluene(FID)	*93.4*			*77.0-120*		*02/14/2021 16:12*	WG1621336

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000474	0.00101	1	02/13/2021 23:25	WG1621212
Toluene	U		0.00132	0.00507	1	02/13/2021 23:25	WG1621212
Ethylbenzene	U		0.000747	0.00254	1	02/13/2021 23:25	WG1621212
Total Xylenes	U		0.000892	0.00659	1	02/13/2021 23:25	WG1621212
(S) Toluene-d8	*101*			*75.0-131*		*02/13/2021 23:25*	WG1621212
(S) 4-Bromofluorobenzene	*95.8*			*67.0-138*		*02/13/2021 23:25*	WG1621212
(S) 1,2-Dichloroethane-d4	*80.7*			*70.0-130*		*02/13/2021 23:25*	WG1621212

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.62	4.03	1	02/14/2021 15:11	WG1621280
C28-C40 Oil Range	2.89	B J	0.276	4.03	1	02/14/2021 15:11	WG1621280
(S) o-Terphenyl	*61.9*			*18.0-148*		*02/14/2021 15:11*	WG1621280

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	99.1		1	02/16/2021 08:39	WG1621584

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.28	20.2	1	02/14/2021 21:49	WG1621294

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0219	0.101	1	02/14/2021 16:33	WG1621336
(S) a,a,a-Trifluorotoluene(FID)	*92.8*			*77.0-120*		*02/14/2021 16:33*	WG1621336

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000475	0.00102	1	02/13/2021 23:44	WG1621212
Toluene	U		0.00132	0.00509	1	02/13/2021 23:44	WG1621212
Ethylbenzene	U		0.000750	0.00254	1	02/13/2021 23:44	WG1621212
Total Xylenes	U		0.000895	0.00661	1	02/13/2021 23:44	WG1621212
(S) Toluene-d8	*102*			*75.0-131*		*02/13/2021 23:44*	WG1621212
(S) 4-Bromofluorobenzene	*96.2*			*67.0-138*		*02/13/2021 23:44*	WG1621212
(S) 1,2-Dichloroethane-d4	*79.9*			*70.0-130*		*02/13/2021 23:44*	WG1621212

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	1.62	4.03	1	02/14/2021 15:38	WG1621280
C28-C40 Oil Range	6.43	B	0.276	4.03	1	02/14/2021 15:38	WG1621280
(S) o-Terphenyl	*74.0*			*18.0-148*		*02/14/2021 15:38*	WG1621280

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	98.2		1	02/16/2021 08:39	WG1621584

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.37	20.4	1	02/14/2021 22:05	WG1621294

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	0.0241	J	0.0221	0.102	1	02/14/2021 16:54	WG1621336
(S) a,a,a-Trifluorotoluene(FID)	*91.7*			*77.0-120*		*02/14/2021 16:54*	WG1621336

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000484	0.00104	1	02/14/2021 00:03	WG1621212
Toluene	0.00331	J	0.00135	0.00518	1	02/14/2021 00:03	WG1621212
Ethylbenzene	0.00444		0.000764	0.00259	1	02/14/2021 00:03	WG1621212
Total Xylenes	0.00588	J	0.000912	0.00674	1	02/14/2021 00:03	WG1621212
(S) Toluene-d8	*101*			*75.0-131*		*02/14/2021 00:03*	WG1621212
(S) 4-Bromofluorobenzene	*96.6*			*67.0-138*		*02/14/2021 00:03*	WG1621212
(S) 1,2-Dichloroethane-d4	*81.5*			*70.0-130*		*02/14/2021 00:03*	WG1621212

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	2.99	J	1.64	4.07	1	02/14/2021 15:25	WG1621280
C28-C40 Oil Range	8.77	B	0.279	4.07	1	02/14/2021 15:25	WG1621280
(S) o-Terphenyl	*65.7*			*18.0-148*		*02/14/2021 15:25*	WG1621280

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	98.6		1	02/16/2021 08:39	WG1621584

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	16.5	J	9.33	20.3	1	02/14/2021 22:21	WG1621294

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0220	0.101	1	02/14/2021 17:14	WG1621336
(S) a,a,a-Trifluorotoluene(FID)	*92.4*			*77.0-120*		*02/14/2021 17:14*	WG1621336

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		0.000481	0.00103	1	02/14/2021 00:22	WG1621212
Toluene	U		0.00134	0.00515	1	02/14/2021 00:22	WG1621212
Ethylbenzene	U		0.000758	0.00257	1	02/14/2021 00:22	WG1621212
Total Xylenes	U		0.000906	0.00669	1	02/14/2021 00:22	WG1621212
(S) Toluene-d8	*103*			*75.0-131*		*02/14/2021 00:22*	WG1621212
(S) 4-Bromofluorobenzene	*98.6*			*67.0-138*		*02/14/2021 00:22*	WG1621212
(S) 1,2-Dichloroethane-d4	*80.6*			*70.0-130*		*02/14/2021 00:22*	WG1621212

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	6.60		1.63	4.06	1	02/14/2021 15:52	WG1621280
C28-C40 Oil Range	18.9		0.278	4.06	1	02/14/2021 15:52	WG1621280
(S) o-Terphenyl	*72.6*			*18.0-148*		*02/14/2021 15:52*	WG1621280

Method Blank (MB)

(MB) R3622609-1 02/16/21 08:30

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

L1316966-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1316966-04 02/16/21 08:30 • (DUP) R3622609-3 02/16/21 08:30

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	83.7	83.6	1	0.0760		10

Laboratory Control Sample (LCS)

(LCS) R3622609-2 02/16/21 08:30

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	50.0	99.9	85.0-115	

Method Blank (MB)

(MB) R3622641-1 02/16/21 08:39

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

L1316340-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1316340-01 02/16/21 08:39 • (DUP) R3622641-3 02/16/21 08:39

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	79.8	79.3	1	0.592		10

Laboratory Control Sample (LCS)

(LCS) R3622641-2 02/16/21 08:39

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

Method Blank (MB)

(MB) R3622488-1 02/14/21 14:09

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

L1316966-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1316966-01 02/14/21 18:54 • (DUP) R3622488-7 02/14/21 19:10

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	42.5	44.5	1	4.46		20

L1316966-11 Original Sample (OS) • Duplicate (DUP)

(OS) L1316966-11 02/14/21 22:21 • (DUP) R3622488-8 02/14/21 22:37

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	16.5	15.3	1	7.60	J	20

Laboratory Control Sample (LCS)

(LCS) R3622488-4 02/14/21 14:57

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

L1317089-17 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1317089-17 02/14/21 17:51 • (MS) R3622488-5 02/14/21 18:06 • (MSD) R3622488-6 02/14/21 18:22

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Chloride	587	U	548	548	93.5	93.4	1	80.0-120			0.111	20

Method Blank (MB)

(MB) R3622796-2 02/14/21 12:03

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)	*97.7*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3622796-1 02/14/21 11:22

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.38	97.8	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*105*	*77.0-120*	

Method Blank (MB)

(MB) R3622915-2 02/17/21 12:42

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)	*96.6*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3622915-1 02/17/21 12:00

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.66	103	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*111*	*77.0-120*	

Method Blank (MB)

(MB) R3622608-3 02/13/21 19:24

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Ethylbenzene	U		0.000737	0.00250
Toluene	U		0.00130	0.00500
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	*102*			*75.0-131*
(S) 4-Bromofluorobenzene	*97.5*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*79.0*			*70.0-130*

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

(LCS) R3622608-1 02/13/21 18:08 • (LCSD) R3622608-2 02/13/21 18:27

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.125	0.135	0.133	108	106	70.0-123			1.49	20
Ethylbenzene	0.125	0.132	0.131	106	105	74.0-126			0.760	20
Toluene	0.125	0.134	0.130	107	104	75.0-121			3.03	20
Xylenes, Total	0.375	0.377	0.369	101	98.4	72.0-127			2.14	20
(S) Toluene-d8				*100*	*99.1*	*75.0-131*				
(S) 4-Bromofluorobenzene				*97.4*	*94.9*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*84.6*	*84.1*	*70.0-130*				

Method Blank (MB)

(MB) R3622669-1 02/14/21 14:44

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	0.868	J	0.274	4.00
(S) o-Terphenyl	*56.6*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3622669-2 02/14/21 14:58

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	36.4	72.8	50.0-150	
(S) o-Terphenyl			*93.5*	*18.0-148*	

L1316405-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1316405-01 02/14/21 20:35 • (MS) R3622669-3 02/14/21 20:49 • (MSD) R3622669-4 02/14/21 21:02

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
C10-C28 Diesel Range	47.3	U	427	896	903	1870	10	50.0-150	J5	J3 J5	70.9	20
(S) o-Terphenyl					*120*	*505*		*18.0-148*		J1		

Sample Narrative:

OS: Surrogate failure due to matrix interference

Guide to Reading and Understanding Your Laboratory Report

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

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

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

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J3	The associated batch QC was outside the established quality control range for precision.
J5	The sample matrix interfered with the ability to make any accurate determination; spike value is high.
J7	Surrogate recovery cannot be used for control limit evaluation due to dilution.

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.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN, 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
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]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
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		

Pace Analytical National 1313 Point Mallard Parkway SE Suite B Decatur, AL, 35601

Alabama	40160
ANSI National Accreditation Board	L2239

Pace Analytical National 660 Bercut Dr. Ste. C Sacramento, CA, 95811

California	2961	Oregon	CA300002
Minnesota	006-999-465	Washington	C926
North Dakota	R-214		

Pace Analytical National 6000 South Eastern Avenue Ste 9A Las Vegas, NV, 89119

Nevada	NV009412021-1

Pace Analytical National 1606 E. Brazos Street Suite D Victoria, TX, 77901

Texas	T104704328-20-18

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

Analysis Request of Chain of Custody Record C140

Tetra Tech, Inc.

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

Client Name:	Conoco Phillips	Site Manager:	Christian Llull
Project Name:	MCA 1C Trunkline Release	Contact Info:	Email: christian.llull@tetratech.com Phone: (512) 338-1667
Project Location: (county, state)	Lea County, New Mexico	Project #:	212C-MD-02356
Invoice to:	Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 79701		
Receiving Laboratory:	Pace Analytical	Sampler Signature:	John Thurston

Comments: COPTETRA Acctnum

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2021 DATE	SAMPLING TIME	MATRIX WATER	MATRIX SOIL	PRESERVATIVE METHOD HCL	PRESERVATIVE METHOD HNO_3	PRESERVATIVE METHOD ICE	PRESERVATIVE METHOD NONE	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R	
L136966 -01	FS-21-1	2/10/2021	11:40		X			X		1	N	X		X											X						
02	FS-21-1 (5')	2/10/2021	11:50		X			X		1	N	X		X											X						
03	FS-21-6	2/10/2021	13:00		X			X		1	N	X		X											X						
04	FS-21-7	2/10/2021	13:10		X			X		1	N	X		X											X						
05	FS-21-8	2/10/2021	13:20		X			X		1	N	X		X											X						
06	NSW-21-1 (4')	2/11/2021	15:00		X			X		1	N	X		X											X						
07	NSW-21-2 (4')	2/11/2021	15:05		X			X		1	N	X		X											X						
08	SSW-21-2 (4')	2/11/2021	15:10		X			X		1	N	X		X											X						
09	SSW-21-3 (4')	2/11/2021	15:15		X			X		1	N	X		X											X						
10	SSW-21-5 (4')	2/11/2021	15:20		X			X		1	N	X		X											X						

Relinquished by:	Date: 2/12/21	Time: 1200	Received by:
Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date:	Time:	Received by: Date: 2/13/21 Time: 1130

LAB USE ONLY

Sample Temperature 2.2-.2= 2.0 A2 DT

REMARKS:

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

(Circle) HAND DELIVERED FEDEX UPS Tracking #: 9050 0894 4170

ORIGINAL COPY

Analysis Request of Chain of Custody Record

Tetra Tech, Inc.

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

Client Name:	Conoco Phillips	**Site Manager:**	Christian Llull
Project Name:	MCA 1C Trunkline Release	**Contact Info:**	Email: christian.llull@tetratech.com Phone: (512) 338-1667
Project Location: (county, state)	Lea County, New Mexico	**Project #:**	212C-MD-02356
Invoice to:	Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 79701		
Receiving Laboratory:	Pace Analytical	**Sampler Signature:**	John Thurston

Comments: COPTETRA Acctnum

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING DATE	SAMPLING TIME	MATRIX: WATER	MATRIX: SOIL	MATRIX:	PRESERVATIVE METHOD: HCL	PRESERVATIVE METHOD: HNO_3	PRESERVATIVE METHOD: ICE	PRESERVATIVE METHOD: NONE	PRESERVATIVE METHOD:	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R	
L131646 -11	WSW-21-1 (4')	2/10/2021	11:40		X				X			1	N	X		X												X					

Sample Receipt Checklist

COC Seal Present/Intact:	__Y__N	If Applicable	
COC Signed/Accurate:	✓Y__N	VOA Zero Headspace:	__Y__N
Bottles arrive intact:	✓Y__N	Pres.Correct/Check:	__Y__N
Correct bottles used:	✓Y__N		
Sufficient volume sent:	✓Y__N		
RAD Screen <0.5 mR/hr:	✓Y__N		

Relinquished by:	Date: 2/12/21	Time: 1200	Received by:
Relinquished by:	Date:	Time:	Received by:
Relinquished by:	Date:	Time:	Received by: Date: 2/13/21 Time: 1130

ORIGINAL COPY

LAB USE ONLY

Sample Temperature 2.2-.2 =2.0 A2 04

REMARKS:

- ☐ Standard
- ☒ RUSH: Same Day (24 hr.) 48 hr. 72 hr.
- ☐ Rush Charges Authorized
- ☐ Special Report Limits or TRRP Report

(Circle) HAND DELIVERED (FEDEX) UPS Tracking #: _____

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

February 24, 2021

ConocoPhillips - Tetra Tech

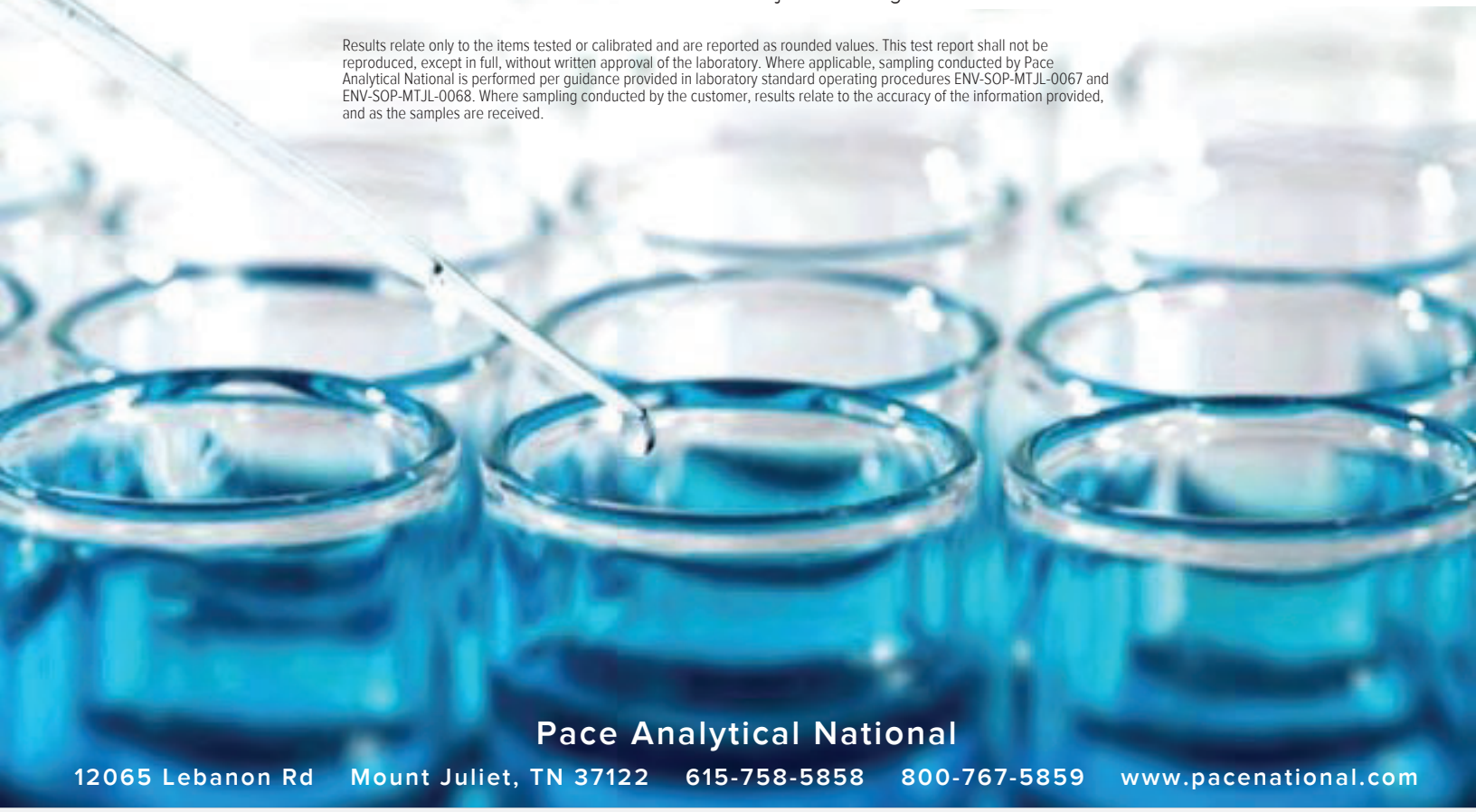
Sample Delivery Group:	L1318542
Samples Received:	02/23/2021
Project Number:	212C-MD-02356
Description:	MCA 1C Trunkline Release

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

Entire Report Reviewed By:

Erica McNeese
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.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

FS-21-5 L1318542-01 Solid

Collected by: John Thurston
Collected date/time: 02/19/21 11:40
Received date/time: 02/23/21 11:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1624202	1	02/23/21 12:53	02/23/21 13:02	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1624445	1	02/24/21 01:29	02/24/21 05:11	MSP	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1624490	1	02/23/21 15:06	02/24/21 00:02	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1624334	1	02/23/21 15:06	02/23/21 23:28	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1624230	1	02/23/21 16:43	02/24/21 03:52	JN	Mt. Juliet, TN

FS-21-9 L1318542-02 Solid

Collected by: John Thurston
Collected date/time: 02/19/21 11:50
Received date/time: 02/23/21 11:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1624202	1	02/23/21 12:53	02/23/21 13:02	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1624445	1	02/24/21 01:29	02/24/21 05:45	MSP	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1624490	1	02/23/21 15:06	02/24/21 00:24	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1624334	1	02/23/21 15:06	02/23/21 23:47	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1624230	1	02/23/21 16:43	02/24/21 08:09	JN	Mt. Juliet, TN

NSW-21-1 (6') L1318542-03 Solid

Collected by: John Thurston
Collected date/time: 02/19/21 13:00
Received date/time: 02/23/21 11:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1624202	1	02/23/21 12:53	02/23/21 13:02	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1624445	1	02/24/21 01:29	02/24/21 06:36	MSP	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1624490	1	02/23/21 15:06	02/24/21 00:47	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1624334	1	02/23/21 15:06	02/24/21 00:05	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1624230	1	02/23/21 16:43	02/24/21 08:22	JN	Mt. Juliet, TN

NSW-21-2 (6') L1318542-04 Solid

Collected by: John Thurston
Collected date/time: 02/19/21 13:10
Received date/time: 02/23/21 11:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1624202	1	02/23/21 12:53	02/23/21 13:02	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1624445	1	02/24/21 01:29	02/24/21 06:53	MSP	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1624490	1	02/23/21 15:06	02/24/21 01:09	JHH	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1624334	1	02/23/21 15:06	02/24/21 00:25	JHH	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1624230	1	02/23/21 16:43	02/24/21 08:36	JN	Mt. Juliet, TN

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

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

Erica McNeese
Project Manager

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.6		1	02/23/2021 13:02	WG1624202

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	148		9.73	21.1	1	02/24/2021 05:11	WG1624445

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	0.0325	B J	0.0229	0.106	1	02/24/2021 00:02	WG1624490
(S) a,a,a-Trifluorotoluene(FID)	*109*			*77.0-120*		*02/24/2021 00:02*	WG1624490

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000521	0.00111	1	02/23/2021 23:28	WG1624334
Toluene	U	J4	0.00145	0.00557	1	02/23/2021 23:28	WG1624334
Ethylbenzene	U		0.000822	0.00279	1	02/23/2021 23:28	WG1624334
Total Xylenes	U		0.000981	0.00725	1	02/23/2021 23:28	WG1624334
(S) Toluene-d8	*119*			*75.0-131*		*02/23/2021 23:28*	WG1624334
(S) 4-Bromofluorobenzene	*105*			*67.0-138*		*02/23/2021 23:28*	WG1624334
(S) 1,2-Dichloroethane-d4	*99.7*			*70.0-130*		*02/23/2021 23:28*	WG1624334

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	31.8		1.70	4.23	1	02/24/2021 03:52	WG1624230
C28-C40 Oil Range	56.0		0.290	4.23	1	02/24/2021 03:52	WG1624230
(S) o-Terphenyl	*63.6*			*18.0-148*		*02/24/2021 03:52*	WG1624230

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	92.8		1	02/23/2021 13:02	WG1624202

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	161		9.92	21.6	1	02/24/2021 05:45	WG1624445

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	0.0300	B J	0.0234	0.108	1	02/24/2021 00:24	WG1624490
(S) a,a,a-Trifluorotoluene(FID)	*110*			*77.0-120*		*02/24/2021 00:24*	WG1624490

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		0.000540	0.00116	1	02/23/2021 23:47	WG1624334
Toluene	U	J4	0.00150	0.00578	1	02/23/2021 23:47	WG1624334
Ethylbenzene	U		0.000852	0.00289	1	02/23/2021 23:47	WG1624334
Total Xylenes	U		0.00102	0.00751	1	02/23/2021 23:47	WG1624334
(S) Toluene-d8	*120*			*75.0-131*		*02/23/2021 23:47*	WG1624334
(S) 4-Bromofluorobenzene	*103*			*67.0-138*		*02/23/2021 23:47*	WG1624334
(S) 1,2-Dichloroethane-d4	*89.0*			*70.0-130*		*02/23/2021 23:47*	WG1624334

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	31.9		1.74	4.31	1	02/24/2021 08:09	WG1624230
C28-C40 Oil Range	52.0		0.295	4.31	1	02/24/2021 08:09	WG1624230
(S) o-Terphenyl	*64.3*			*18.0-148*		*02/24/2021 08:09*	WG1624230

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	98.6		1	02/23/2021 13:02	WG1624202

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U		9.33	20.3	1	02/24/2021 06:36	WG1624445

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0220	0.101	1	02/24/2021 00:47	WG1624490
(S) a,a,a-Trifluorotoluene(FID)	*110*			*77.0-120*		*02/24/2021 00:47*	WG1624490

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		0.000481	0.00103	1	02/24/2021 00:05	WG1624334
Toluene	U	J4	0.00134	0.00515	1	02/24/2021 00:05	WG1624334
Ethylbenzene	U		0.000758	0.00257	1	02/24/2021 00:05	WG1624334
Total Xylenes	U		0.000906	0.00669	1	02/24/2021 00:05	WG1624334
(S) Toluene-d8	*117*			*75.0-131*		*02/24/2021 00:05*	WG1624334
(S) 4-Bromofluorobenzene	*108*			*67.0-138*		*02/24/2021 00:05*	WG1624334
(S) 1,2-Dichloroethane-d4	*101*			*70.0-130*		*02/24/2021 00:05*	WG1624334

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	6.43	B	1.63	4.06	1	02/24/2021 08:22	WG1624230
C28-C40 Oil Range	20.2		0.278	4.06	1	02/24/2021 08:22	WG1624230
(S) o-Terphenyl	*76.1*			*18.0-148*		*02/24/2021 08:22*	WG1624230

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	98.5		1	02/23/2021 13:02	WG1624202

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	U	P1	9.34	20.3	1	02/24/2021 06:53	WG1624445

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0220	0.101	1	02/24/2021 01:09	WG1624490
(S) a,a,a-Trifluorotoluene(FID)	*109*			*77.0-120*		*02/24/2021 01:09*	WG1624490

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	0.000481	0.00103	1	02/24/2021 00:25	WG1624334
Toluene	U	J3 J4	0.00134	0.00515	1	02/24/2021 00:25	WG1624334
Ethylbenzene	U	J3	0.000759	0.00257	1	02/24/2021 00:25	WG1624334
Total Xylenes	U	J3	0.000906	0.00669	1	02/24/2021 00:25	WG1624334
(S) Toluene-d8	*122*			*75.0-131*		*02/24/2021 00:25*	WG1624334
(S) 4-Bromofluorobenzene	*104*			*67.0-138*		*02/24/2021 00:25*	WG1624334
(S) 1,2-Dichloroethane-d4	*89.3*			*70.0-130*		*02/24/2021 00:25*	WG1624334

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	6.97	B	1.63	4.06	1	02/24/2021 08:36	WG1624230
C28-C40 Oil Range	25.7		0.278	4.06	1	02/24/2021 08:36	WG1624230
(S) o-Terphenyl	*68.9*			*18.0-148*		*02/24/2021 08:36*	WG1624230

Method Blank (MB)

(MB) R3624522-1 02/23/21 13:02

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

L1318509-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1318509-01 02/23/21 13:02 • (DUP) R3624522-3 02/23/21 13:02

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	81.7	80.8	1	1.19		10

Laboratory Control Sample (LCS)

(LCS) R3624522-2 02/23/21 13:02

Analyte	Spike Amount %	LCS Result %	LCS Rec. %	Rec. Limits %	LCS Qualifier
Total Solids	50.0	49.9	99.9	85.0-115	

Method Blank (MB)

(MB) R3624572-1 02/24/21 02:54

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

L1318542-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1318542-01 02/24/21 05:11 • (DUP) R3624572-5 02/24/21 05:28

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	148	154	1	3.89		20

L1318542-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1318542-04 02/24/21 06:53 • (DUP) R3624572-6 02/24/21 07:10

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	U	10.4	1	200	J P1	20

Laboratory Control Sample (LCS)

(LCS) R3624572-2 02/24/21 03:11

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	189	94.4	90.0-110	

L1318529-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1318529-01 02/24/21 03:45 • (MS) R3624572-3 02/24/21 04:02 • (MSD) R3624572-4 02/24/21 04:19

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	11.0	458	488	89.4	95.3	1	80.0-120			6.27	20

Method Blank (MB)

(MB) R3624561-3 02/23/21 17:03

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
TPH (GC/FID) Low Fraction	0.0269	J	0.0217	0.100
(S) a,a,a-Trifluorotoluene(FID)	*114*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3624561-2 02/23/21 16:19

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	6.33	115	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*111*	*77.0-120*	

L1318609-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1318609-02 02/24/21 03:34 • (MS) R3624561-4 02/24/21 07:41 • (MSD) R3624561-5 02/24/21 08:03

Analyte	Spike Amount mg/kg	Original Result mg/kg	MS Result mg/kg	MSD Result mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	176	1.24	87.3	88.3	48.9	49.5	32	10.0-151			1.14	28
(S) a,a,a-Trifluorotoluene(FID)					*105*	*105*		*77.0-120*				

Method Blank (MB)

(MB) R3624550-3 02/23/21 20:52

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Ethylbenzene	U		0.000737	0.00250
Toluene	U		0.00130	0.00500
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	*120*			*75.0-131*
(S) 4-Bromofluorobenzene	*112*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*102*			*70.0-130*

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

(LCS) R3624550-1 02/23/21 19:37 • (LCSD) R3624550-2 02/23/21 19:56

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCSD Result mg/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	0.125	0.111	0.118	88.8	94.4	70.0-123			6.11	20
Ethylbenzene	0.125	0.136	0.149	109	119	74.0-126			9.12	20
Toluene	0.125	0.137	0.152	110	122	75.0-121		J4	10.4	20
Xylenes, Total	0.375	0.421	0.459	112	122	72.0-127			8.64	20
(S) Toluene-d8				*118*	*119*	*75.0-131*				
(S) 4-Bromofluorobenzene				*106*	*106*	*67.0-138*				
(S) 1,2-Dichloroethane-d4				*98.9*	*97.1*	*70.0-130*				

L1318542-04 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1318542-04 02/24/21 00:25 • (MS) R3624550-4 02/24/21 05:45 • (MSD) R3624550-5 02/24/21 06:04

Analyte	Spike Amount (dry) mg/kg	Original Result (dry) mg/kg	MS Result (dry) mg/kg	MSD Result (dry) mg/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.129	U	0.110	0.0620	85.6	48.2	1	10.0-149		J3	56.0	37
Ethylbenzene	0.129	U	0.136	0.0741	106	57.6	1	10.0-160		J3	58.8	38
Toluene	0.129	U	0.131	0.0730	102	56.7	1	10.0-156		J3	56.7	38
Xylenes, Total	0.386	U	0.425	0.235	110	60.8	1	10.0-160		J3	57.7	38
(S) Toluene-d8					*119*	*119*		*75.0-131*				
(S) 4-Bromofluorobenzene					*107*	*106*		*67.0-138*				
(S) 1,2-Dichloroethane-d4					*102*	*99.7*		*70.0-130*				

Method Blank (MB)

(MB) R3624558-1 02/24/21 03:07

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
C10-C28 Diesel Range	1.62	J	1.61	4.00
C28-C40 Oil Range	1.72	J	0.274	4.00
(S) o-Terphenyl	*76.0*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3624558-2 02/24/21 03:25

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	36.1	72.2	50.0-150	
(S) o-Terphenyl			*80.0*	*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.
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.
J4	The associated batch QC was outside the established quality control range for accuracy.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.

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.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN, 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
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]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
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		

Pace Analytical National 1313 Point Mallard Parkway SE Suite B Decatur, AL, 35601

Alabama	40160
ANSI National Accreditation Board	L2239

Pace Analytical National 660 Bercut Dr. Ste. C Sacramento, CA, 95811

California	2961	Oregon	CA300002
Minnesota	006-999-465	Washington	C926
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Pace Analytical National 6000 South Eastern Avenue Ste 9A Las Vegas, NV, 89119

Nevada	NV009412021-1

Pace Analytical National 1606 E. Brazos Street Suite D Victoria, TX, 77901

Texas	T104704328-20-18

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

alysis Request of Chain of Custody Record

D025

Tetra Tech, Inc.

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

ent Name:	Conoco Phillips	Site Manager:	Christian Llull
ject Name:	MCA 1C Trunkline Release	Contact Info:	Email: christian.llull@tetratech.com Phone: (512) 338-1667
ject Location: unty, state)	Lea County, New Mexico	Project #:	212C-MD-02356
oice to:	Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 79701		
ceiving Laboratory:	Pace Analytical	Sampler Signature:	John Thurston

Comments: COPTETRA Acctnum

ANALYSIS REQUEST
(Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2021 DATE	SAMPLING TIME	MATRIX WATER	MATRIX SOIL	MATRIX	PRESERVATIVE METHOD HCL	PRESERVATIVE METHOD HNO_3	PRESERVATIVE METHOD ICE	PRESERVATIVE METHOD NONE	PRESERVATIVE METHOD	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R		HOLD
131854																																	
01	FS-21-5	2/19/2021	11:40		X				X			1	N	X		X												X					
02	FS-21-9	2/19/2021	11:50		X				X			1	N	X		X												X					
03	NSW-21-1 (6')	2/19/2021	13:00		X				X			1	N	X		X												X					
04	NSW-21-2 (6')	2/19/2021	13:10		X				X			1	N	X		X												X					

Relinquished by: Date: Time: Received by: Date: Time:
2/19/21 1630

Relinquished by: Date: Time: Received by: Date: Time:

Relinquished by: Date: Time: Received by: Date: Time:
3/23/21 1100

ORIGINAL COPY

TRACK 9050 0894 3829

LAB USE ONLY
Sample Temperature

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

(Circle) HAND DELIVERED FEDEX UPS Tracking #: _____

4.1+0=4.1 MAZ

Pace Analytical National Center for Testing & Innovation
Cooler Receipt Form

Client:	Coptetra	131854
Cooler Received/Opened On: 2/23/21	Temperature:	4.1
Received By:	Kate Holderbaum	
Signature:	K. Holderbaum	

Receipt Check List	NP	Yes	No
COC Seal Present / Intact?	✓		
COC Signed / Accurate?		✓	
Bottles arrive intact?		✓	
Correct bottles used?		✓	
Sufficient volume sent?		✓	
If Applicable			
VOA Zero headspace?			
Preservation Correct / Checked?			

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ANALYTICAL REPORT

February 25, 2021

ConocoPhillips - Tetra Tech

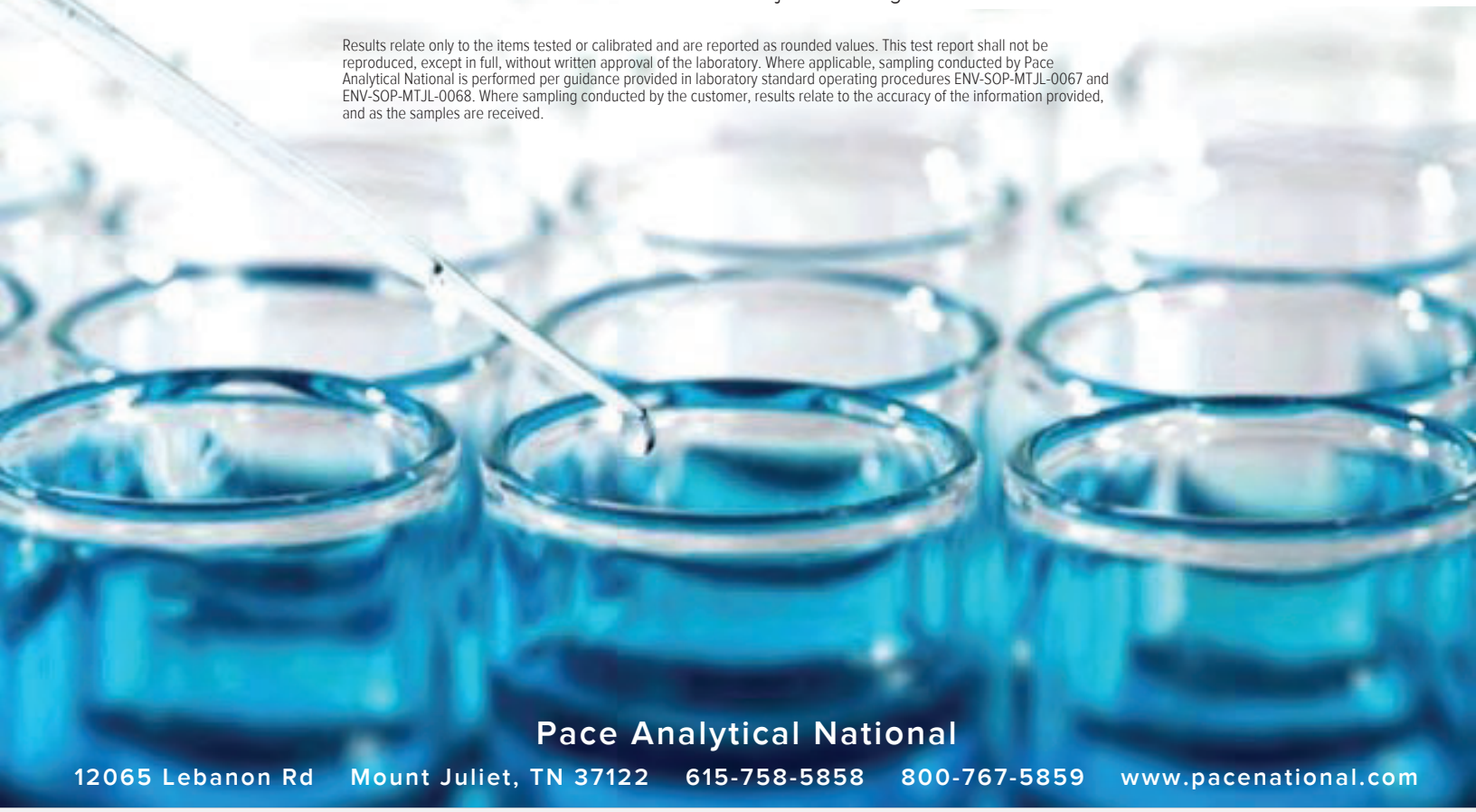
Sample Delivery Group:	L1319276
Samples Received:	02/24/2021
Project Number:	212C-MD-02356
Description:	MCA 1C Trunkline Release

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.



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

TABLE OF CONTENTS

FS-21-2 L1319276-01 Solid

Collected by: John Thurston
Collected date/time: 02/22/21 11:40
Received date/time: 02/24/21 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1625110	1	02/24/21 16:14	02/24/21 16:20	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1625352	1	02/24/21 23:10	02/25/21 01:14	MSP	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1625255	1	02/24/21 15:32	02/25/21 01:59	TPR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1625138	1	02/24/21 15:32	02/25/21 02:00	TPR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1624964	1	02/24/21 21:36	02/25/21 03:27	JN	Mt. Juliet, TN

FS-21-3 L1319276-02 Solid

Collected by: John Thurston
Collected date/time: 02/22/21 11:50
Received date/time: 02/24/21 10:30

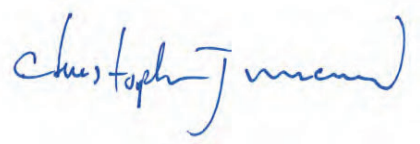
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1625110	1	02/24/21 16:14	02/24/21 16:20	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1625352	1	02/24/21 23:10	02/25/21 01:24	MSP	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1625255	1	02/24/21 15:32	02/25/21 02:21	TPR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1625138	1	02/24/21 15:32	02/25/21 02:18	TPR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1624964	1	02/24/21 21:36	02/25/21 03:40	JN	Mt. Juliet, TN

FS-21-4 L1319276-03 Solid

Collected by: John Thurston
Collected date/time: 02/22/21 12:00
Received date/time: 02/24/21 10:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Total Solids by Method 2540 G-2011	WG1625110	1	02/24/21 16:14	02/24/21 16:20	KDW	Mt. Juliet, TN
Wet Chemistry by Method 300.0	WG1625352	1	02/24/21 23:10	02/25/21 01:54	MSP	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG1625255	1	02/24/21 15:32	02/25/21 02:43	TPR	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1625138	1	02/24/21 15:32	02/25/21 02:37	TPR	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 8015	WG1624964	1	02/24/21 21:36	02/25/21 03:54	JN	Mt. Juliet, TN

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



Chris McCord
Project Manager

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.6		1	02/24/2021 16:20	WG1625110

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	10.6	J	9.72	21.1	1	02/25/2021 01:14	WG1625352

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0229	0.106	1	02/25/2021 01:59	WG1625255
(S) a,a,a-Trifluorotoluene(FID)	*110*			*77.0-120*		*02/25/2021 01:59*	WG1625255

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000520	0.00111	1	02/25/2021 02:00	WG1625138
Toluene	U		0.00145	0.00557	1	02/25/2021 02:00	WG1625138
Ethylbenzene	U		0.000821	0.00279	1	02/25/2021 02:00	WG1625138
Total Xylenes	U		0.000980	0.00724	1	02/25/2021 02:00	WG1625138
(S) Toluene-d8	*117*			*75.0-131*		*02/25/2021 02:00*	WG1625138
(S) 4-Bromofluorobenzene	*109*			*67.0-138*		*02/25/2021 02:00*	WG1625138
(S) 1,2-Dichloroethane-d4	*100*			*70.0-130*		*02/25/2021 02:00*	WG1625138

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.70	4.23	1	02/25/2021 03:27	WG1624964
C28-C40 Oil Range	U		0.290	4.23	1	02/25/2021 03:27	WG1624964
(S) o-Terphenyl	*50.9*			*18.0-148*		*02/25/2021 03:27*	WG1624964

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	94.4		1	02/24/2021 16:20	WG1625110

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	11.9	J	9.74	21.2	1	02/25/2021 01:24	WG1625352

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
TPH (GC/FID) Low Fraction	U		0.0230	0.106	1	02/25/2021 02:21	WG1625255
(S) a,a,a-Trifluorotoluene(FID)	*110*			*77.0-120*		*02/25/2021 02:21*	WG1625255

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		0.000522	0.00112	1	02/25/2021 02:18	WG1625138
Toluene	U		0.00145	0.00559	1	02/25/2021 02:18	WG1625138
Ethylbenzene	U		0.000824	0.00280	1	02/25/2021 02:18	WG1625138
Total Xylenes	U		0.000984	0.00727	1	02/25/2021 02:18	WG1625138
(S) Toluene-d8	*117*			*75.0-131*		*02/25/2021 02:18*	WG1625138
(S) 4-Bromofluorobenzene	*107*			*67.0-138*		*02/25/2021 02:18*	WG1625138
(S) 1,2-Dichloroethane-d4	*100*			*70.0-130*		*02/25/2021 02:18*	WG1625138

Semi-Volatile Organic Compounds (GC) by Method 8015

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
C10-C28 Diesel Range	U		1.71	4.24	1	02/25/2021 03:40	WG1624964
C28-C40 Oil Range	U		0.290	4.24	1	02/25/2021 03:40	WG1624964
(S) o-Terphenyl	*57.2*			*18.0-148*		*02/25/2021 03:40*	WG1624964

Total Solids by Method 2540 G-2011

Analyte	Result	Qualifier	Dilution	Analysis	Batch
	%			date / time	
Total Solids	93.8		1	02/24/2021 16:20	WG1625110

Wet Chemistry by Method 300.0

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Chloride	10.6	J	9.81	21.3	1	02/25/2021 01:54	WG1625352

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	02/25/2021 02:43	WG1625255
(S) a,a,a-Trifluorotoluene(FID)	*111*			*77.0-120*		*02/25/2021 02:43*	WG1625255

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

Analyte	Result (dry)	Qualifier	MDL (dry)	RDL (dry)	Dilution	Analysis	Batch
	mg/kg		mg/kg	mg/kg		date / time	
Benzene	U		0.000529	0.00113	1	02/25/2021 02:37	WG1625138
Toluene	U		0.00147	0.00566	1	02/25/2021 02:37	WG1625138
Ethylbenzene	U		0.000835	0.00283	1	02/25/2021 02:37	WG1625138
Total Xylenes	U		0.000997	0.00736	1	02/25/2021 02:37	WG1625138
(S) Toluene-d8	*119*			*75.0-131*		*02/25/2021 02:37*	WG1625138
(S) 4-Bromofluorobenzene	*108*			*67.0-138*		*02/25/2021 02:37*	WG1625138
(S) 1,2-Dichloroethane-d4	*100*			*70.0-130*		*02/25/2021 02:37*	WG1625138

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	02/25/2021 03:54	WG1624964
C28-C40 Oil Range	U		0.292	4.27	1	02/25/2021 03:54	WG1624964
(S) o-Terphenyl	*59.8*			*18.0-148*		*02/25/2021 03:54*	WG1624964

Method Blank (MB)

(MB) R3625053-1 02/24/21 16:20

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

L1318826-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1318826-02 02/24/21 16:20 • (DUP) R3625053-3 02/24/21 16:20

Analyte	Original Result %	DUP Result %	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Total Solids	82.6	81.9	1	0.834		10

Laboratory Control Sample (LCS)

(LCS) R3625053-2 02/24/21 16:20

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

Method Blank (MB)

(MB) R3624905-1 02/25/21 00:45

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

L1319276-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1319276-03 02/25/21 01:54 • (DUP) R3624905-5 02/25/21 02:03

Analyte	Original Result (dry) mg/kg	DUP Result (dry) mg/kg	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Chloride	10.6	11.1	1	4.80	J	20

Laboratory Control Sample (LCS)

(LCS) R3624905-2 02/25/21 00:54

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Chloride	200	200	99.9	90.0-110	

L1319276-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1319276-02 02/25/21 01:24 • (MS) R3624905-3 02/25/21 01:34 • (MSD) R3624905-4 02/25/21 01:44

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	530	11.9	536	532	99.0	98.2	1	80.0-120			0.825	20

Method Blank (MB)

(MB) R3624918-2 02/25/21 00:13

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)	*113*			*77.0-120*

Laboratory Control Sample (LCS)

(LCS) R3624918-1 02/24/21 23:30

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
TPH (GC/FID) Low Fraction	5.50	5.17	94.0	72.0-127	
(S) a,a,a-Trifluorotoluene(FID)			*105*	*77.0-120*	

Method Blank (MB)

(MB) R3624965-3 02/24/21 19:10

Analyte	MB Result mg/kg	MB Qualifier	MB MDL mg/kg	MB RDL mg/kg
Benzene	U		0.000467	0.00100
Ethylbenzene	U		0.000737	0.00250
Toluene	U		0.00130	0.00500
Xylenes, Total	U		0.000880	0.00650
(S) Toluene-d8	*121*			*75.0-131*
(S) 4-Bromofluorobenzene	*109*			*67.0-138*
(S) 1,2-Dichloroethane-d4	*103*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R3624965-1 02/24/21 17:55

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.125	0.115	92.0	70.0-123	
Ethylbenzene	0.125	0.132	106	74.0-126	
Toluene	0.125	0.130	104	75.0-121	
Xylenes, Total	0.375	0.403	107	72.0-127	
(S) Toluene-d8			*117*	*75.0-131*	
(S) 4-Bromofluorobenzene			*109*	*67.0-138*	
(S) 1,2-Dichloroethane-d4			*108*	*70.0-130*	

Method Blank (MB)

(MB) R3624893-1 02/25/21 01:41

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	*65.9*			*18.0-148*

Laboratory Control Sample (LCS)

(LCS) R3624893-2 02/25/21 01:55

Analyte	Spike Amount mg/kg	LCS Result mg/kg	LCS Rec. %	Rec. Limits %	LCS Qualifier
C10-C28 Diesel Range	50.0	37.7	75.4	50.0-150	
(S) o-Terphenyl			*82.3*	*18.0-148*	

Guide to Reading and Understanding Your Laboratory Report

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

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

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

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

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

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

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN, 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
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]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
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		

Pace Analytical National 1313 Point Mallard Parkway SE Suite B Decatur, AL, 35601

Alabama	40160
ANSI National Accreditation Board	L2239

Pace Analytical National 660 Bercut Dr. Ste. C Sacramento, CA, 95811

California	2961	Oregon	CA300002
Minnesota	006-999-465	Washington	C926
North Dakota	R-214		

Pace Analytical National 6000 South Eastern Avenue Ste 9A Las Vegas, NV, 89119

Nevada	NV009412021-1

Pace Analytical National 1606 E. Brazos Street Suite D Victoria, TX, 77901

Texas	T104704328-20-18

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

Analysis Request of Chain of Custody Record

Tetra Tech, Inc.

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

1130

Client Name:	Conoco Phillips	Site Manager:	Christian Llull
Project Name:	MCA 1C Trunkline Release	Contact Info:	Email: christian.llull@tetratech.com Phone: (512) 338-1667
Project Location: (County, state)	Lea County, New Mexico	Project #:	212C-MD-02356
Invoice to:	Accounts Payable 901 West Wall Street, Suite 100 Midland, Texas 79701		
Receiving Laboratory:	Pace Analytical	Sampler Signature:	John Thurston

Comments: COPTETRA Acctnum

ANALYSIS REQUEST (Circle or Specify Method No.)

LAB # (LAB USE ONLY)	SAMPLE IDENTIFICATION	SAMPLING YEAR: 2021 DATE	TIME	MATRIX WATER	SOIL	PRESERVATIVE METHOD HCL	HNO_3	ICE	NONE	# CONTAINERS	FILTERED (Y/N)	BTEX 8021B BTEX 8260B	TPH TX1005 (Ext to C35)	TPH 8015M (GRO - DRO - ORO - MRO)	PAH 8270C	Total Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	RCI	GC/MS Vol. 8260B / 624	GC/MS Semi. Vol. 8270C/625	PCB's 8082 / 608	NORM	PLM (Asbestos)	Chloride 300.0	Chloride Sulfate TDS	General Water Chemistry (see attached list)	Anion/Cation Balance	TPH 8015R	TURN
L1319276 -01	FS-21-2	2/22/2021	11:40		X			X		1	N	X		X												X					
02	FS-21-3	2/10/2021	11:50		X			X		1	N	X		X												X					
03	FS-21-4	2/10/2021	12:00		X			X		1	N	X		X												X					

Sample Receipt Checklist
COC Seal Present/Intact: __Y__N
COC Signed/Accurate: /Y__N
Bottles arrive intact: /Y__N
Correct bottles used: /Y__N
Sufficient volume sent: /Y__N
RAD Screen <0.5 mR/hr: /Y__N
If Applicable
VOA Zero Headspace: __Y__N
Pres.Correct/Check: __Y__N

Relinquished by:	Date:	Time:	Received by:	Date: Time:
Relinquished by:	Date:	Time:	Received by:	Date: Time:
Relinquished by:	Date:	Time:	Received by:	Date: Time:
	2/22/21	1530		
				04/24/21 10:30

LAB USE ONLY
Sample Temperature

REMARKS:
MRT 10.0+0.1= 10.1
☐ 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

1922 0113 0163

L1319276 COPTETRA NCF

R1/R2

Time estimate: oh **Time spent:** oh

Members

v Jeremy Watkins (responsible) Christopher McCord

- [ ] Parameter(s) past holding time
- [x] Temperature not in range
- [ ] Improper container type
- [ ] pH not in range
- [ ] Insufficient sample volume
- [ ] Sample is biphasic
- [ ] Vials received with headspace
- [ ] Broken container
- [ ] Sufficient sample remains
- [ ] If broken container: Insufficient packing material around container
- [ ] If broken container: Insufficient packing material inside cooler
- [ ] If broken container: Improper handling by carrier:_____
- [ ] If broken container: Sample was frozen
- [ ] If broken container: Container lid not intact
- [ ] Client informed by Call
- [ ] Client informed by Email
- [ ] Client informed by Voicemail
- [x] Date/Time: 02/24/21 12:15
- [x] PM initials: CM
- [ ] Client Contact:_____

Comments

Jeremy Watkins *24 February 2021 12:02 PM*

Received at 10.1 Deg C.

Christopher McCord *24 February 2021 12:16 PM*

Run as received. I will notify the client.

Jeremy Watkins *24 February 2021 1:49 PM*

Done

Erica McNeese

To: Chris McCord
Subject: RE: Date Change Request

From: Myler, John <John.Myler@tetratech.com>
Sent: Tuesday, February 23, 2021 9:18 AM
To: Chris McCord <Chris.McCord@pacelabs.com>
Cc: Llull, Christian <Christian.Llull@tetratech.com>; Dickerson, Ryan <Ryan.Dickerson@tetratech.com>; Thurston, John <John.Thurston@tetratech.com>
Subject: Date Change Request

Hi Chris,

It was good talking to you this morning. Attached is the COC with incorrect date (02/10/2021) listed for FS-21-3 & FS-21-4. We need to reflect that those were indeed sampled on 02/22/2021.

Any questions or concerns let me know.

Thanks, and have a good day.

John Myler | Environmental Scientist II/Staff Archaeologist

Direct **+1 (512) 221-8450** | Main **+1 (512) 338-2868** | Fax **+1 (512) 338-1331** | john.myler@tetratech.com

Tetra Tech | *Leading with Science®* | Oil and Gas Division
8911 N. Capital of Texas Hwy. Bldg. 2, Ste 2310 Austin, Texas 78759 | tetratech.com

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From: Thurston, John <John.Thurston@tetratech.com>
Sent: Tuesday, February 23, 2021 7:09 AM
To: Dickerson, Ryan <Ryan.Dickerson@tetratech.com>; Myler, John <John.Myler@tetratech.com>; Llull, Christian <Christian.Llull@tetratech.com>
Subject: Fwd:

Hey guys I just realized that I didn't change the dates for all the samples to 2/22/21. Can we contact the lab and let them know?
Get Outlook for iOS

From: Thurston, John <John.Thurston@tetratech.com>
Sent: Monday, February 22, 2021 3:01:59 PM
To: Thurston, John <John.Thurston@tetratech.com>
Subject:

APPENDIX D
NMOCD Email Correspondence

Hamlet, Robert, EMNRD

From: Hamlet, Robert, EMNRD
Sent: Friday, December 6, 2019 1:09 PM
To: 'Llull, Christian'
Cc: Bratcher, Mike, EMNRD; Venegas, Victoria, EMNRD; Eads, Cristina, EMNRD; Billings, Bradford, EMNRD; blm_nm_cfo_spill@blm.gov
Subject: Closure Denied - ConocoPhillips - MCA 1C - (1RP-5141) 11-11-2016
Attachments: Closure Denied - ConocoPhillips - MCA 1C - (1RP-5141) 12.6.19.pdf

Christian,

We have received your closure report and final C-141 for **1RP-5141 MCA 1C** thank you. This closure is denied.

The State of New Mexico no longer uses the Ranking Scoring System. All off pad areas must contain a minimum of 4 feet non-waste containing uncontaminated, earthen material with chloride concentrations less than 600 mg/kg. In the pasture area, 4 feet below the ground surface, soil contamination limits revert back to Table 1 "Closure Criteria for Soils Impacted by a Release" included in the spill rule http://164.64.110.134/parts/title19/19.015.0029.html

Your report says, "Based upon the depth to groundwater, the approved RRAL for TPH is 5,000 mg/kg". The correct limit for TPH 51'-100' and >100' are 2,500 mg/kg (GRO+DRO+MRO) or 1,000 mg/kg for (GRO+DRO).

Table I
Closure Criteria for Soils Impacted by a Release

Minimum depth below any point within the horizontal boundary of the release to ground water less than 10,000 mg/l TDS	Constituent	Method*	Limit**
≤ 50 feet	Chloride***	EPA 300.0 or SM4500 Cl B	600 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	100 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg
51 feet-100 feet	Chloride***	EPA 300.0 or SM4500 Cl B	10,000 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	2,500 mg/kg
	GRO+DRO	EPA SW-846 Method 8015M	1,000 mg/kg
	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg
>100 feet	Chloride***	EPA 300.0 or SM4500 Cl B	20,000 mg/kg
	TPH (GRO+DRO+MRO)	EPA SW-846 Method 8015M	2,500 mg/kg
	GRO+DRO	EPA SW-846 Method 8015M	1,000 mg/kg

	BTEX	EPA SW-846 Method 8021B or 8260B	50 mg/kg
	Benzene	EPA SW-846 Method 8021B or 8260B	10 mg/kg

Sample ID “B-1” and “B-2” are both over the limit for TPH. Please excavate soil sample “B-1” to 4 feet bgs and “B-2” to 6 feet bgs.

Please let me know if you have any further questions.

Regards,

Robert J Hamlet
State of New Mexico
Energy, Minerals, and Natural Resources
Oil Conservation Division
811 S. First St., Artesia NM 88210
(575) 748-1283
Robert.Hamlet@state.nm.us

APPENDIX E
Photographic Documentation

TETRA TECH, INC. PROJECT NO. 212C-MD-02356	DESCRIPTION	View SE. Release footprint surrounding flowlines.	1
	SITE NAME	MCA 1C Trunkline Release	

TETRA TECH, INC. PROJECT NO. 212C-MD-02356	DESCRIPTION	View south. Boring location near 1RP-5141 release footprint.	2
	SITE NAME	MCA 1C Trunkline Release	

TETRA TECH, INC. PROJECT NO. 212C-MD-02356	DESCRIPTION	View south. Initial remedial excavation.	3
	SITE NAME	MCA 1C Trunkline Release	8/27/2018

TETRA TECH, INC. PROJECT NO. 212C-MD-02356	DESCRIPTION	View south. Initial eastern excavation backfilled after remedial activities.	4
	SITE NAME	MCA 1C Trunkline Release	11/1/2018

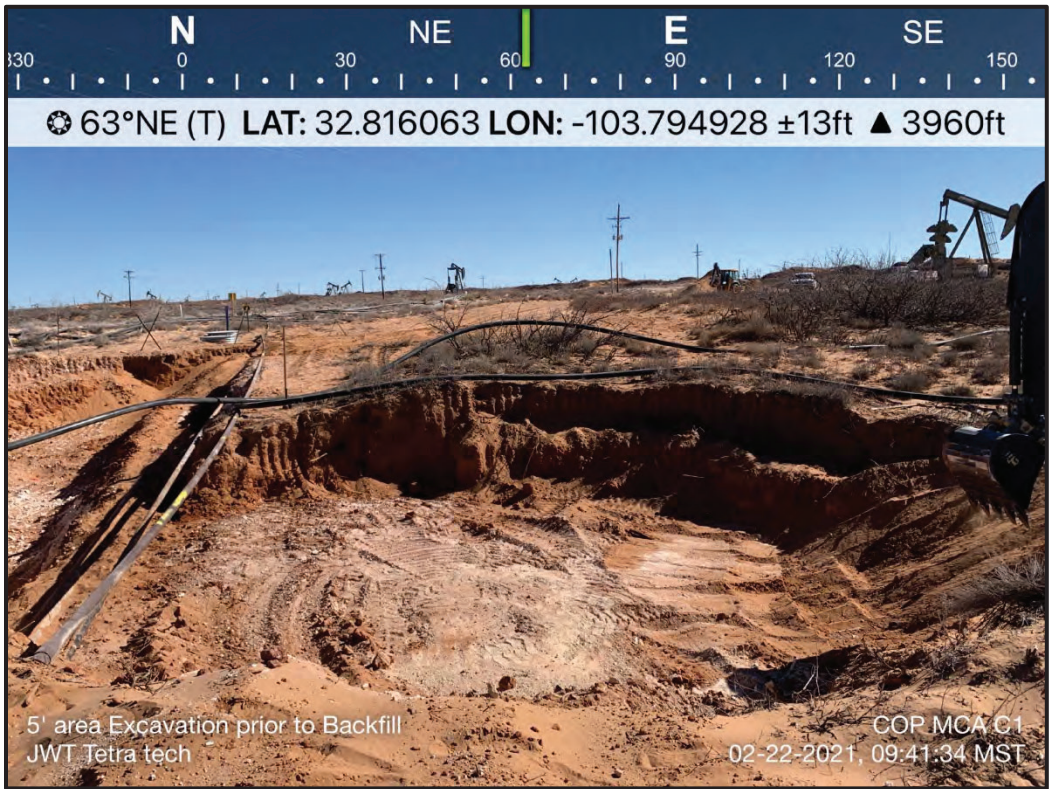
TETRA TECH, INC. PROJECT NO. 212C-MD-02356	DESCRIPTION	View south. Line location activities prior to excavation.	5
	SITE NAME	MCA 1C Trunkline Release	2/08/2021

TETRA TECH, INC. PROJECT NO. 212C-MD-02356	DESCRIPTION	View east. Additional excavation activities surrounding flowlines.	6
	SITE NAME	MCA 1C Trunkline Release	2/09/2021

TETRA TECH, INC. PROJECT NO. 212C-MD-02356	DESCRIPTION	View west. Additional excavation activities.	7
	SITE NAME	MCA 1C Trunkline Release	2/9/2021

TETRA TECH, INC. PROJECT NO. 212C-MD-02356	DESCRIPTION	View west. Additional excavation activities.	8
	SITE NAME	MCA 1C Trunkline Release	2/10/2021

TETRA TECH, INC. PROJECT NO. 212C-MD-02356	DESCRIPTION	View north. Additional excavation activities prior to backfill.	9
	SITE NAME	MCA 1C Trunkline Release	2/22/2021



TETRA TECH, INC. PROJECT NO. 212C-MD-02356	DESCRIPTION	View east. Additional excavation activities prior to backfill.	10
	SITE NAME	MCA 1C Trunkline Release	2/22/2021

TETRA TECH, INC. PROJECT NO. 212C-MD-02356	DESCRIPTION	View SW. Backfilling activities.	11
	SITE NAME	MCA 1C Trunkline Release	2/22/2021

TETRA TECH, INC. PROJECT NO. 212C-MD-02356	DESCRIPTION	View SE. Completion of excavation and backfilling activities.	12
	SITE NAME	MCA 1C Trunkline Release	2/23/2021

APPENDIX F
Waste Manifests

R360 ENVIRONMENTAL SOLUTIONS

Permian Basin

Customer:	CONOCOPHILLIPS
Customer #:	CRI2190
Ordered by:	JOHN THURSTON
AFE #:	
PO #:	
Manifest #:	1
Manif. Date:	2/9/2021
Hauler:	MCNABB SERVICES
Driver	ACIE
Truck #	M80
Card #	
Job Ref #	

Ticket #:	700-1193944
Bid #:	O6UJ9A000H7J
Date:	2/9/2021
Generator:	CONOCOPHILLIPS
Generator #:	
Well Ser. #:	23686
Well Name:	MCA UNIT
Well #:	265
Field:	
Field #:	
Rig:	NON-DRILLING
County	LEA (NM)

Facility: CRI

Product / Service	Quantity Units
Contaminated Soil (RCRA Exempt)	20.00 yards

	Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

X RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt wast

_ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):

_ MSDS Information _ RCRA Hazardous Waste Analysis _ Process Knowledge _ Other (Provide description above)

Driver/ Agent Signature **R360 Representative Signature**

_____ _____

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____ Date: _____

t6UJ9A01HM5B

2/9/2021 11:21:36AM

R360 ENVIRONMENTAL SOLUTIONS

Permian Basin

Customer:	CONOCOPHILLIPS
Customer #:	CRI2190
Ordered by:	JOHN THURSTON
AFE #:	
PO #:	
Manifest #:	2
Manif. Date:	2/9/2021
Hauler:	MCNABB PARTNERS
Driver	JR
Truck #	M78
Card #	
Job Ref #	

Ticket #:	700-1193945
Bid #:	O6UJ9A000H7J
Date:	2/9/2021
Generator:	CONOCOPHILLIPS
Generator #:	
Well Ser. #:	23686
Well Name:	MCA UNIT
Well #:	265
Field:	
Field #:	
Rig:	NON-DRILLING
County	LEA (NM)

Facility: CRI

Product / Service	Quantity Units
Contaminated Soil (RCRA Exempt)	20.00 yards

	Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

X RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste

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__ MSDS Information __ RCRA Hazardous Waste Analysis __ Process Knowledge __ Other (Provide description above)

Driver/ Agent Signature **R360 Representative Signature**

_____ _____

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____ Date: _____

t6UJ9A01HM5D 2/9/2021 11:22:58AM

R360 ENVIRONMENTAL SOLUTIONS

Permian Basin

Customer:	CONOCOPHILLIPS	Ticket #:	700-1193982
Customer #:	CRI2190	Bid #:	O6UJ9A000H7J
Ordered by:	JOHN THURSTON	Date:	2/9/2021
AFE #:		Generator:	CONOCOPHILLIPS
PO #:		Generator #:	
Manifest #:	43	Well Ser. #:	999908
Manif. Date:	2/9/2021	Well Name:	MCA
Hauler:	MCNABB PARTNERS	Well #:	1C
Driver	ACIE	Field:	
Truck #	M80	Field #:	
Card #		Rig:	NON-DRILLING
Job Ref #		County	LEA (NM)

Facility: CRI

Product / Service	Quantity Units
Contaminated Soil (RCRA Exempt)	20.00 yards

	Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0			2.00			

Generator Certification Statement of Waste Status

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

X RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt wast

_ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):

_ MSDS Information _ RCRA Hazardous Waste Analysis _ Process Knowledge _ Other (Provide description above)

Driver/ Agent Signature **R360 Representative Signature**

_____ _____

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____ Date: _____

R360 ENVIRONMENTAL SOLUTIONS

Permian Basin

Customer:	CONOCOPHILLIPS
Customer #:	CRI2190
Ordered by:	JOE TYLER
AFE #:	
PO #:	
Manifest #:	4
Manif. Date:	2/9/2021
Hauler:	MCNABB PARTNERS
Driver	JR
Truck #	M78
Card #	
Job Ref #	

Ticket #:	700-1193983
Bid #:	O6UJ9A000H7J
Date:	2/9/2021
Generator:	CONOCOPHILLIPS
Generator #:	
Well Ser. #:	999908
Well Name:	MCA
Well #:	1C
Field:	
Field #:	
Rig:	NON-DRILLING
County	LEA (NM)

Facility: CRI

Product / Service	Quantity Units
Contaminated Soil (RCRA Exempt)	20.00 yards

	Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

X RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt wast

_ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):

_ MSDS Information _ RCRA Hazardous Waste Analysis _ Process Knowledge _ Other (Provide description above)

Driver/ Agent Signature **R360 Representative Signature**

_____ _____

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____ Date: _____

t6UJ9A01HMAC 2/9/2021 3:07:40PM

R360 ENVIRONMENTAL SOLUTIONS

Permian Basin

Customer:	CONOCOPHILLIPS	Ticket #:	700-1194071
Customer #:	CRI2190	Bid #:	O6UJ9A000H7J
Ordered by:	JOE TYLER	Date:	2/10/2021
AFE #:		Generator:	CONOCOPHILLIPS
PO #:		Generator #:	
Manifest #:	5	Well Ser. #:	999908
Manif. Date:	2/10/2021	Well Name:	MCA
Hauler:	MCNABB PARTNERS	Well #:	1C
Driver	ACIE	Field:	
Truck #	M80	Field #:	
Card #		Rig:	NON-DRILLING
Job Ref #		County	LEA (NM)

Facility: CRI

Product / Service	Quantity Units
Contaminated Soil (RCRA Exempt)	20.00 yards

	Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

X RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt wast

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__ MSDS Information __ RCRA Hazardous Waste Analysis __ Process Knowledge __ Other (Provide description above)

Driver/ Agent Signature **R360 Representative Signature**

_____ _____

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____ Date: _____

t6UJ9A01HMHP 2/10/2021 9:04:27AM

R360 ENVIRONMENTAL SOLUTIONS

Permian Basin

Customer:	CONOCOPHILLIPS	Ticket #:	700-1194096
Customer #:	CRI2190	Bid #:	O6UJ9A000H7J
Ordered by:	JOHN THURSTON	Date:	2/10/2021
AFE #:		Generator:	CONOCOPHILLIPS
PO #:		Generator #:	
Manifest #:	6	Well Ser. #:	999908
Manif. Date:	2/10/2021	Well Name:	MCA
Hauler:	MCNABB PARTNERS	Well #:	1C
Driver	ACIE	Field:	
Truck #	M80	Field #:	
Card #		Rig:	NON-DRILLING
Job Ref #		County	LEA (NM)

Facility: CRI

Product / Service	Quantity Units
Contaminated Soil (RCRA Exempt)	20.00 yards

	Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

X RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste

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_ MSDS Information _ RCRA Hazardous Waste Analysis _ Process Knowledge _ Other (Provide description above)

Driver/ Agent Signature **R360 Representative Signature**

_____ _____

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____ Date: _____

R360 ENVIRONMENTAL SOLUTIONS

Permian Basin

Customer:	CONOCOPHILLIPS	Ticket #:	700-1194117
Customer #:	CRI2190	Bid #:	O6UJ9A000H7J
Ordered by:	JOHN THURSTON	Date:	2/10/2021
AFE #:		Generator:	CONOCOPHILLIPS
PO #:		Generator #:	
Manifest #:	7	Well Ser. #:	999908
Manif. Date:	2/10/2021	Well Name:	MCA
Hauler:	MCNABB PARTNERS	Well #:	1C
Driver	ACIE	Field:	
Truck #	M80	Field #:	
Card #		Rig:	NON-DRILLING
Job Ref #		County	LEA (NM)

Facility: CRI

Product / Service	Quantity Units
Contaminated Soil (RCRA Exempt)	20.00 yards

	Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

X RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste

_ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):

_ MSDS Information _ RCRA Hazardous Waste Analysis _ Process Knowledge _ Other (Provide description above)

Driver/ Agent Signature **R360 Representative Signature**

_____ _____

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____ Date: _____

R360 ENVIRONMENTAL SOLUTIONS

Permian Basin

Customer:	CONOCOPHILLIPS	Ticket #:	700-1194206
Customer #:	CRI2190	Bid #:	O6UJ9A000H7J
Ordered by:	JOE TYLER	Date:	2/11/2021
AFE #:		Generator:	CONOCOPHILLIPS
PO #:		Generator #:	
Manifest #:	8	Well Ser. #:	999908
Manif. Date:	2/11/2021	Well Name:	MCA
Hauler:	MCNABB PARTNERS	Well #:	1C
Driver	ACIE	Field:	
Truck #	M80	Field #:	
Card #		Rig:	NON-DRILLING
Job Ref #		County	LEA (NM)

Facility: CRI

Product / Service	Quantity Units
Contaminated Soil (RCRA Exempt)	20.00 yards

	Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

X RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste

_ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):

_ MSDS Information _ RCRA Hazardous Waste Analysis _ Process Knowledge _ Other (Provide description above)

Driver/ Agent Signature **R360 Representative Signature**

_____ _____

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____ Date: _____

t6UJ9A01HMVC 2/11/2021 10:36:29AM

R360 ENVIRONMENTAL SOLUTIONS

Permian Basin

Customer:	CONOCOPHILLIPS
Customer #:	CRI2190
Ordered by:	JOE TYLER
AFE #:	
PO #:	
Manifest #:	9
Manif. Date:	2/11/2021
Hauler:	MCNABB PARTNERS
Driver	ACIE
Truck #	M80
Card #	
Job Ref #	

Ticket #:	700-1194226
Bid #:	O6UJ9A000H7J
Date:	2/11/2021
Generator:	CONOCOPHILLIPS
Generator #:	
Well Ser. #:	999908
Well Name:	MCA
Well #:	1C
Field:	
Field #:	
Rig:	NON-DRILLING
County	LEA (NM)

Facility: CRI

Product / Service	Quantity Units
Contaminated Soil (RCRA Exempt)	20.00 yards

	Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

X RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste

_ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):

_ MSDS Information _ RCRA Hazardous Waste Analysis _ Process Knowledge _ Other (Provide description above)

Driver/ Agent Signature **R360 Representative Signature**

_____ _____

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____ Date: _____

R360 ENVIRONMENTAL SOLUTIONS

Permian Basin

Customer:	CONOCOPHILLIPS	Ticket #:	700-1194838
Customer #:	CRI2190	Bid #:	O6UJ9A000H7J
Ordered by:	~~JOE TYLER~~ JOHN THURSTON	Date:	2/17/2021
AFE #:		Generator:	CONOCOPHILLIPS
PO #:		Generator #:	
Manifest #:	10	Well Ser. #:	999908
Manif. Date:	2/17/2021	Well Name:	MCA
Hauler:	MCNABB PARTNERS	Well #:	1C
Driver	JOE	Field:	
Truck #	M81	Field #:	
Card #		Rig:	NON-DRILLING
Job Ref #		County	LEA (NM)

Facility: CRI

Product / Service	Quantity Units
Contaminated Soil (RCRA Exempt)	20.00 yards

	Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

X RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt wast

_ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):

_ MSDS Information _ RCRA Hazardous Waste Analysis _ Process Knowledge _ Other (Provide description above)

Driver/ Agent Signature **R360 Representative Signature**

Joe _____ _____

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____ Date: _____

t6UJ9A01HO5X 2/17/2021 9:23:15AM

R360 ENVIRONMENTAL SOLUTIONS

Permian Basin

Customer:	CONOCOPHILLIPS
Customer #:	CRI2190
Ordered by:	~~JOE TYLER~~ JOHN-THURSTON
AFE #:	
PO #:	
Manifest #:	11
Manif. Date:	2/17/2021
Hauler:	MCNABB PARTNERS
Driver	JOE
Truck #	M81
Card #	
Job Ref #	

Ticket #:	700-1194869
Bid #:	O6UJ9A000H7J
Date:	2/17/2021
Generator:	CONOCOPHILLIPS
Generator #:	
Well Ser. #:	999908
Well Name:	MCA
Well #:	1C
Field:	
Field #:	
Rig:	NON-DRILLING
County	LEA (NM)

Facility: CRI

Product / Service	Quantity Units
Contaminated Soil (RCRA Exempt)	20.00 yards

	Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

X RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste

_ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):

_ MSDS Information _ RCRA Hazardous Waste Analysis _ Process Knowledge _ Other (Provide description above)

Driver/ Agent Signature **R360 Representative Signature**

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____ Date: _____

t6UJ9A01HO7L 2/17/2021 12:14:52PM

R360 ENVIRONMENTAL SOLUTIONS

Permian Basin

Customer:	CONOCOPHILLIPS
Customer #:	CRI2190
Ordered by:	JOHN THURSTON
AFE #:	
PO #:	
Manifest #:	12
Manif. Date:	2/17/2021
Hauler:	MCNABB PARTNERS
Driver	JOE
Truck #	M81
Card #	
Job Ref #	

Ticket #:	700-1194913
Bid #:	O6UJ9A000H7J
Date:	2/17/2021
Generator:	CONOCOPHILLIPS
Generator #:	
Well Ser. #:	999908
Well Name:	MCA
Well #:	1C
Field:	
Field #:	
Rig:	NON-DRILLING
County	LEA (NM)

Facility: CRI

Product / Service	Quantity Units
Contaminated Soil (RCRA Exempt)	20.00 yards

	Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

X RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste

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_ MSDS Information _ RCRA Hazardous Waste Analysis _ Process Knowledge _ Other (Provide description above)

Driver/ Agent Signature **R360 Representative Signature**

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____ Date: _____

t6UJ9A01HO9L 2/17/2021 2:53:47PM

R360 ENVIRONMENTAL SOLUTIONS

Permian Basin

Customer:	CONOCOPHILLIPS	Ticket #:	700-1195119
Customer #:	CRI2190	Bid #:	O6UJ9A000H7J
Ordered by:	JOHN THURSTON	Date:	2/19/2021
AFE #:		Generator:	CONOCOPHILLIPS
PO #:		Generator #:	
Manifest #:	13	Well Ser. #:	999908
Manif. Date:	2/19/2021	Well Name:	MCA
Hauler:	MCNABB SERVICES	Well #:	1C
Driver	JOE	Field:	
Truck #	M81	Field #:	
Card #		Rig:	NON-DRILLING
Job Ref #		County	LEA (NM)

Facility: CRI

Product / Service	Quantity Units
Contaminated Soil (RCRA Exempt)	20.00 yards

	Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

X RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt wast

_ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):

_ MSDS Information _ RCRA Hazardous Waste Analysis _ Process Knowledge _ Other (Provide description above)

Driver/ Agent Signature **R360 Representative Signature**

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____ Date: _____

R360 ENVIRONMENTAL SOLUTIONS

Permian Basin

Customer:	CONOCOPHILLIPS	Ticket #:	700-1195125
Customer #:	CRI2190	Bid #:	O6UJ9A000H7J
Ordered by:	JOHN THURSTON	Date:	2/19/2021
AFE #:		Generator:	CONOCOPHILLIPS
PO #:		Generator #:	
Manifest #:	14	Well Ser. #:	999908
Manif. Date:	2/19/2021	Well Name:	MCA
Hauler:	MCNABB SERVICES	Well #:	1C
Driver	JOE	Field:	
Truck #	M81	Field #:	
Card #		Rig:	NON-DRILLING
Job Ref #		County	LEA (NM)

Facility: CRI

Product / Service	Quantity Units
Contaminated Soil (RCRA Exempt)	20.00 yards

	Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

X RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt wast

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_ MSDS Information _ RCRA Hazardous Waste Analysis _ Process Knowledge _ Other (Provide description above)

Driver/ Agent Signature **R360 Representative Signature**

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____ Date: _____

t6UJ9A01HOS5 2/19/2021 12:31:42PM

R360 ENVIRONMENTAL SOLUTIONS

Permian Basin

Customer:	CONOCOPHILLIPS	Ticket #:	700-1195145
Customer #:	CRI2190	Bid #:	O6UJ9A000H7J
Ordered by:	JOHN THURSTON	Date:	2/19/2021
AFE #:		Generator:	CONOCOPHILLIPS
PO #:		Generator #:	
Manifest #:	15	Well Ser. #:	999908
Manif. Date:	2/19/2021	Well Name:	MCA
Hauler:	MCNABB SERVICES	Well #:	1C
Driver	JOE	Field:	
Truck #	M81	Field #:	
Card #		Rig:	NON-DRILLING
Job Ref #		County	LEA (NM)

Facility: CRI

Product / Service	Quantity Units
Contaminated Soil (RCRA Exempt)	20.00 yards

	Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

X RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt wast

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_ MSDS Information _ RCRA Hazardous Waste Analysis _ Process Knowledge _ Other (Provide description above)

Driver/ Agent Signature **R360 Representative Signature**

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____ Date: _____

R360 ENVIRONMENTAL SOLUTIONS

Permian Basin

Customer:	CONOCOPHILLIPS	Ticket #:	700-1195407
Customer #:	CRI2190	Bid #:	O6UJ9A000H7J
Ordered by:	JOHN THURSTON	Date:	2/22/2021
AFE #:		Generator:	CONOCOPHILLIPS
PO #:		Generator #:	
Manifest #:	16	Well Ser. #:	999908
Manif. Date:	2/22/2021	Well Name:	MCA
Hauler:	MCNABB PARTNERS	Well #:	1C
Driver	JOSH	Field:	
Truck #	M75	Field #:	
Card #		Rig:	NON-DRILLING
Job Ref #		County	LEA (NM)

Facility: CRI

Product / Service	Quantity Units
Contaminated Soil (RCRA Exempt)	20.00 yards

	Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

X RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste

_ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):

_ MSDS Information _ RCRA Hazardous Waste Analysis _ Process Knowledge _ Other (Provide description above)

Driver/ Agent Signature **R360 Representative Signature**

_____ _____

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____ Date: _____

R360 ENVIRONMENTAL SOLUTIONS

Permian Basin

Customer:	CONOCOPHILLIPS	Ticket #:	700-1195446
Customer #:	CRI2190	Bid #:	O6UJ9A000H7J
Ordered by:	JOHN THURSTON	Date:	2/22/2021
AFE #:		Generator:	CONOCOPHILLIPS
PO #:		Generator #:	
Manifest #:	17	Well Ser. #:	999908
Manif. Date:	2/22/2021	Well Name:	MCA
Hauler:	MCNABB PARTNERS	Well #:	1C
Driver	JOSH	Field:	
Truck #	M75	Field #:	
Card #		Rig:	NON-DRILLING
Job Ref #		County	LEA (NM)

Facility: CRI

Product / Service	Quantity Units
Contaminated Soil (RCRA Exempt)	20.00 yards

	Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

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_ MSDS Information _ RCRA Hazardous Waste Analysis _ Process Knowledge _ Other (Provide description above)

Driver/ Agent Signature **R360 Representative Signature**

_____ _____

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____ Date: _____

t6UJ9A01HPGP 2/22/2021 12:05:05PM

R360 ENVIRONMENTAL SOLUTIONS

Permian Basin

Customer:	CONOCOPHILLIPS	Ticket #:	700-1195490
Customer #:	CRI2190	Bid #:	O6UJ9A000H7J
Ordered by:	JOHN THURSTON	Date:	2/22/2021
AFE #:		Generator:	CONOCOPHILLIPS
PO #:		Generator #:	
Manifest #:	18	Well Ser. #:	999908
Manif. Date:	2/22/2021	Well Name:	MCA
Hauler:	MCNABB PARTNERS	Well #:	1C
Driver	JOSH	Field:	
Truck #	M75	Field #:	
Card #		Rig:	NON-DRILLING
Job Ref #		County	LEA (NM)

Facility: CRI

Product / Service	Quantity Units
Contaminated Soil (RCRA Exempt)	20.00 yards

	Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

X RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste

_ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):

_ MSDS Information _ RCRA Hazardous Waste Analysis _ Process Knowledge _ Other (Provide description above)

Driver/ Agent Signature **R360 Representative Signature**

_____ _____

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____ Date: _____

t6UJ9A01HPJO 2/22/2021 2:49:02PM

R360 ENVIRONMENTAL SOLUTIONS

Permian Basin

Customer:	CONOCOPHILLIPS	Ticket #:	700-1195616
Customer #:	CRI2190	Bid #:	O6UJ9A000H7J
Ordered by:	JOHN THURSTON	Date:	2/23/2021
AFE #:		Generator:	CONOCOPHILLIPS
PO #:		Generator #:	
Manifest #:	19	Well Ser. #:	999908
Manif. Date:	2/23/2021	Well Name:	MCA
Hauler:	MCNABB PARTNERS	Well #:	1C
Driver	JESUS	Field:	
Truck #	M31	Field #:	
Card #		Rig:	NON-DRILLING
Job Ref #		County	LEA (NM)

Facility: CRI

Product / Service	Quantity Units
Contaminated Soil (RCRA Exempt)	18.00 yards

	Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

X RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste

_ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):

_ MSDS Information _ RCRA Hazardous Waste Analysis _ Process Knowledge _ Other (Provide description above)

Driver/ Agent Signature **R360 Representative Signature**

_____ _____

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____ Date: _____

t6UJ9A01HPU2 2/23/2021 9:42:50AM

R360 ENVIRONMENTAL SOLUTIONS

Permian Basin

Customer:	CONOCOPHILLIPS	Ticket #:	700-1195617
Customer #:	CRI2190	Bid #:	O6UJ9A000H7J
Ordered by:	JOHN THURSTON	Date:	2/23/2021
AFE #:		Generator:	CONOCOPHILLIPS
PO #:		Generator #:	
Manifest #:	20	Well Ser. #:	999908
Manif. Date:	2/23/2021	Well Name:	MCA
Hauler:	MCNABB PARTNERS	Well #:	1C
Driver	GUMER	Field:	
Truck #	M32	Field #:	
Card #		Rig:	NON-DRILLING
Job Ref #		County	LEA (NM)

Facility: CRI

Product / Service	Quantity Units
Contaminated Soil (RCRA Exempt)	18.00 yards

	Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

X RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste

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__ MSDS Information __ RCRA Hazardous Waste Analysis __ Process Knowledge __ Other (Provide description above)

Driver/ Agent Signature **R360 Representative Signature**

_____ _____

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____ Date: _____

t6UJ9A01HPU3 2/23/2021 9:44:35AM

R360 ENVIRONMENTAL SOLUTIONS

Permian Basin

Customer:	CONOCOPHILLIPS
Customer #:	CRI2190
Ordered by:	JOHN THURSTON
AFE #:	
PO #:	
Manifest #:	21
Manif. Date:	2/23/2021
Hauler:	MCNABB PARTNERS
Driver	JESUS
Truck #	M31
Card #	
Job Ref #	

Ticket #:	700-1195642
Bid #:	O6UJ9A000H7J
Date:	2/23/2021
Generator:	CONOCOPHILLIPS
Generator #:	
Well Ser. #:	999908
Well Name:	MCA
Well #:	1C
Field:	
Field #:	
Rig:	NON-DRILLING
County	LEA (NM)

Facility: CRI

Product / Service	Quantity Units
Contaminated Soil (RCRA Exempt)	18.00 yards

	Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

X RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt wast

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_ MSDS Information _ RCRA Hazardous Waste Analysis _ Process Knowledge _ Other (Provide description above)

Driver/ Agent Signature **R360 Representative Signature**

_____ _____

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____ Date: _____

t6UJ9A01HPW0 2/23/2021 11:17:31AM

R360 ENVIRONMENTAL SOLUTIONS

Permian Basin

Customer:	CONOCOPHILLIPS	Ticket #:	700-1195644
Customer #:	CRI2190	Bid #:	O6UJ9A000H7J
Ordered by:	JOHN THURSTON	Date:	2/23/2021
AFE #:		Generator:	CONOCOPHILLIPS
PO #:		Generator #:	
Manifest #:	22	Well Ser. #:	999908
Manif. Date:	2/23/2021	Well Name:	MCA
Hauler:	MCNABB PARTNERS	Well #:	1C
Driver	GUMER	Field:	
Truck #	M32	Field #:	
Card #		Rig:	NON-DRILLING
Job Ref #		County	LEA (NM)

Facility: CRI

Product / Service	Quantity Units
Contaminated Soil (RCRA Exempt)	18.00 yards

	Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

X RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste

__ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):

__ MSDS Information __ RCRA Hazardous Waste Analysis __ Process Knowledge __ Other (Provide description above)

Driver/ Agent Signature **R360 Representative Signature**

_____ _____

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____ Date: _____

t6UJ9A01HPW2 2/23/2021 11:22:29AM

R360 ENVIRONMENTAL SOLUTIONS

Permian Basin

Customer:	CONOCOPHILLIPS	Ticket #:	700-1195691
Customer #:	CRI2190	Bid #:	O6UJ9A000H7J
Ordered by:	JOHN THURSTON	Date:	2/23/2021
AFE #:		Generator:	CONOCOPHILLIPS
PO #:		Generator #:	
Manifest #:	23	Well Ser. #:	999908
Manif. Date:	2/23/2021	Well Name:	MCA
Hauler:	MCNABB PARTNERS	Well #:	1C
Driver	JESUS	Field:	
Truck #	M31	Field #:	
Card #		Rig:	NON-DRILLING
Job Ref #		County	LEA (NM)

Facility: CRI

Product / Service	Quantity Units
Contaminated Soil (RCRA Exempt)	18.00 yards

	Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						

Generator Certification Statement of Waste Status

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste is:

X RCRA Exempt: Oil Field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste

_ RCRA Non-Exempt: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24 or listed hazardous waste as defined in 40 CFR, part 261, subpart D, as amended. The following documentation is attached to demonstrate the above-described waste is non-hazardous. (Check the appropriate items):

_ MSDS Information _ RCRA Hazardous Waste Analysis _ Process Knowledge _ Other (Provide description above)

Driver/ Agent Signature **R360 Representative Signature**

_____ _____

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____ Date: _____

t6UJ9A01HPZ8 2/23/2021 2:10:15PM

R360 ENVIRONMENTAL SOLUTIONS

Permian Basin

Customer:	CONOCOPHILLIPS
Customer #:	CRI2190
Ordered by:	JOHN THURSTON
AFE #:	
PO #:	
Manifest #:	24
Manif. Date:	2/23/2021
Hauler:	MCNABB PARTNERS
Driver	GUMER
Truck #	M32
Card #	
Job Ref #	

Ticket #:	700-1195694
Bid #:	O6UJ9A000H7J
Date:	2/23/2021
Generator:	CONOCOPHILLIPS
Generator #:	
Well Ser. #:	999908
Well Name:	MCA
Well #:	1C
Field:	
Field #:	
Rig:	NON-DRILLING
County	LEA (NM)

Facility: CRI

Product / Service	Quantity Units
Contaminated Soil (RCRA Exempt)	18.00 yards

	Cell	pH	Cl	Cond.	%Solids	TDS	PCI/GM	MR/HR	H2S	% Oil	Weight
Lab Analysis:	50/51	0.00	0.00	0.00	0						

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_ MSDS Information _ RCRA Hazardous Waste Analysis _ Process Knowledge _ Other (Provide description above)

Driver/ Agent Signature **R360 Representative Signature**

_____ _____

Customer Approval

THIS IS NOT AN INVOICE!

Approved By: _____ Date: _____

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APPENDIX G
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

MCA 1C Trunkline Release

April 12, 2021

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other

Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Lea County, New Mexico
Survey Area Data: Version 17, Jun 8, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Feb 7, 2020—May 12, 2020

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
PY	Pyote soils and Dune land	0.1	100.0%
Totals for Area of Interest		**0.1**	**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

PY—Pyote soils and Dune land

Map Unit Setting

National map unit symbol: dmqr
Elevation: 3,000 to 4,400 feet
Mean annual precipitation: 10 to 15 inches
Mean annual air temperature: 60 to 64 degrees F
Frost-free period: 190 to 220 days
Farmland classification: Not prime farmland

Map Unit Composition

Pyote and similar soils: 46 percent
Dune land: 44 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Pyote

Setting

Landform: Depressions
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Concave
Parent material: Sandy eolian deposits derived from sedimentary rock

Typical profile

A - 0 to 30 inches: fine sand
Bt - 30 to 60 inches: fine sandy loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Gypsum, maximum content: 1 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water capacity: Low (about 5.1 inches)

Interpretive groups

Land capability classification (irrigated): 6e
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: A
Ecological site: R042XC003NM - Loamy Sand
Hydric soil rating: No

Description of Dune Land

Setting

Landform: Dunes
Landform position (two-dimensional): Backslope, shoulder
Landform position (three-dimensional): Side slope
Down-slope shape: Linear, convex
Across-slope shape: Convex

Typical profile

A - 0 to 6 inches: fine sand
C - 6 to 60 inches: fine sand

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8e
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Kermit

Percent of map unit: 5 percent
Ecological site: R042XC022NM - Sandhills
Hydric soil rating: No

Maljamar, fine sand

Percent of map unit: 3 percent
Ecological site: R042XC003NM - Loamy Sand
Hydric soil rating: No

Wink

Percent of map unit: 2 percent
Ecological site: R042XC003NM - Loamy Sand
Hydric soil rating: No

NMSLO Seed Mix Sandy (S)

SANDY (S) SITES SEED MIXTURE:

COMMON NAME	VARIETY	APPLICATION RATE (PLS/Acre)	DRILL BOX
Grasses:			
Sand bluestem	Elida, VNS, So.	2.0	F
Little bluestem	Cimarron, Pastura	3.0	F
Black grama	VNS, Southern	1.0	D
Sand dropseed	VNS, Southern	4.0	S
Plains bristlegrass	VNS, Southern	2.0	D
Forbs:			
Firewheel (Gaillardia)	VNS, Southern	1.0	D
Annual Sunflower	VNS, Southern	1.0	D
Shrubs:			
Fourwing Saltbush	VNS, Southern	1.0	F
	Total PLS/acre	16.0	

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 117604

CONDITIONS

Operator: CONOCOPHILLIPS COMPANY 600 W. Illinois Avenue Midland, TX 79701	OGRID: 217817
	Action Number: 117604
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
bhall	None	11/1/2022