Page 1 of 56

State of New Mexico Energy Minerals and Natural Resources Department

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-141 Revised August 24, 2018 Submit to appropriate OCD District office

Incident ID	nRM 2012144856
District RP	
Facility ID	39031
Application ID	

Release Notification

Responsible Party

Responsible Party: Centennial Resource Development	OGRID: 372165	
Contact Name: Jamon Hohensee	Contact Telephone: 432-241-4283	
Contact email: jamon.hohensee@cdevinc.com	Inciden# nRM2012/64856	
Contact mailing address: 500 W Illinois Ave Suite 500, Midland TX, 79705		

Location of Release Source

Latitude 32.22384_

Longitude -103.46814 (NAD 83 in decimal degrees to 5 decimal places)

Site Name: P	irate State C	CTB 1			Site Type: Tank Batter	у
Date Release Discovered: 4/26/2020		API# 3002545777				
Unit Letter	Continu	Tanuation				C tol from the on 4-Han
Unit Letter	Section	Township	Range		County	precied will subminited
A	16	248	34E	Lea		Corrected from ited on 4-24-20 initial C141 submitted on 4-24-20

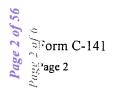
Surface Owner: State Federal Tribal Private (Name: ____

Nature and Volume of Release

Crude Oil	rial(s) Released (Select all that apply and attach calculations or speci Volume Released (bbls)	Volume Recovered (bbls)
Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	Yes No
Condensate	Volume Released (bbls)	Volume Recovered (bbls)
🗌 Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)
H2S Scavenger	2 gallons	0 gallons

Cause of Release

A malfunction in a check valve from separator allowed 2 gallons of H2S scavenger fluid to accumulate in the flare line. When operations began the scavenger fluid was moved to the tip of the flare and ignited. The gas lift compressor was down and the amount of time it was down could account for the amount of fluid in the line.



State of New Mexico Oil Conservation Division

Incident ID	
District RP	
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Was this a major release as defined by 19.15.29.7(A) NMAC?	If YES, for what reason(s) does the responsible party consider this a major release? Resulted in a fire that was immediately put out. Approx. 10'x10' area.
🛛 Yes 🗌 No	
If YES, was immediate no Notice by phone was giv reference.	otice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? yen on 4-27-2020 8:00am CST to Kerry Fortner by Jamon Hohensee and the API 3002545777 was used as

Initial Response

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

 \square The source of the release has been stopped.

The impacted area has been secured to protect human health and the environment.

Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

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

Printed Name: Jamon Hohensee Title: Sr. Environmental Analyst

Signature:

Date: 5/1/2020

email: jamon.hohensee@cdevinc.com

Telephone: 432-241-4283

OCD Only

Received by:

Date: _____



State of New Mexico Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells. Field data

Data table of soil contaminant concentration data

 Depth to water determination
 Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
 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 an. 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 2.9.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

o orm C-141	State of New Mexico Oil Conservation Division	Incident ID District RP Facility ID Application ID
regulations all operat public health or the e failed to adequately i	tors are required to report and/or file certain release noti environment. The acceptance of a C-141 report by the C investigate and remediate contamination that pose a thre	best of my knowledge and understand that pursuant to OCD rules and ifications and perform corrective actions for releases which may endanger OCD does not relieve the operator of liability should their operations have eat to groundwater, surface water, human health or the environment. In Fresponsibility for compliance with any other federal, state, or local laws
Printed Name:		Title:
Signature:		Date:
email:		Telephone:
OCD Only		
Received by:		Date:

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Form C-141

Page 5

State of New Mexico **Oil Conservation Division**

Incident ID	
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Remediation Plan

Remediation Plan Checklist: Each of the following items must be included in the plan. Detailed description of proposed remediation technique Π Scaled sitemap with GPS coordinates showing delineation points Estimated volume of material to be remediated Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required) Deferral Requests Only: Each of the following items must be confirmed as part of any request for deferral of remediation. Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction. Extents of contamination must be fully delineated. Contamination does not cause an imminent risk to human health, the environment, or groundwater. I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. Printed Name: ______ Title: _____ Signature: Date: email: Telephone: _____ OCD Only Received by: _____ Date: _____ Approved Approved with Attached Conditions of Approval Denied Deferral Approved Signature: Date:

95 Jos 9 Jos 10 Jos

State of New Mexico Oil Conservation Division

Incident ID	nRM 2012164856
District RP	
Facility ID	39031
Application ID	

Closure

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

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

A scaled site and sampling diagram as described in 19.15.29.11 NMAC

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

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

Description of remediation activities

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

Printed Name: Samon Hohensee	_ Title: Environmental Anolyst
Signature: Son // //	Date: $10-6-20$
email: jamon. hohenser@ Chevinc. com	Telephone: <u>432-241-4283</u>
OCD Only	
Received by:Cristina Eads	Date: 10/6/2020
Closure approval by the OCD does not relieve the responsible party mediate contamination that poses a threat to groundwater, surface party of compliance with any other federal, state, or local laws and/	of liability should their operations have failed to adequately investigate and water, human health, or the environment nor does not relieve the responsible or regulations.
Closure Approved by:	Date: 12/18/2020
Printed Name: Cristina Eads	Title: Environmental Specialist





CLOSURE REQUEST AND REMEDIATION SUMMARY REPORT

Centennial Resource Development, Inc. Pirate State CTB 1 Lea County, New Mexico Unit Letter "A", Section 16, Township 24 South, Range 34 East Latitude 32.22384° North, Longitude 103.46814° West NMOCD Reference # NRH2012164856

Prepared For:

Centennial Resource Development, Inc. 500 W. Illinois Avenue Suite 500 Midland, TX 79701

Prepared By:

Etech Environmental & Safety Solutions, Inc. P.O. Box 62228 Midland, Texas 79711

September 2020

Wesley A. Desilets Project Manager

Matthew Green, P.G. Senior Project Manager

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Figure 1 – Site Location Map Figure 2 – Confirmation Soil Sample Location Map

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Table 1 - Concentrations of Benzene, BTEX, TPH, and Chlorides in Soil

APPENDICES

Appendix A – Photographic Documentation

Appendix B – Analytical Reports

Appendix C – Release Notification and Corrective Action (Form C-141)

INTRODUCTION

Etech Environmental & Safety Solutions, Inc. (Etech), on behalf of Centennial Resource Development, Inc. (Centennial), has prepared this Closure Request and Remediation Summary Report for the Release Site known as Pirate State CTB 1. The legal description of the Release Site is Unit Letter "A", Section 16, Township 24 South, Range 34 East, in Lea County, New Mexico. The subject property is owned by The New Mexico State Land Office (NMSLO). The Release Site GPS coordinates are 32.22384° North and 103.46814° West. Please reference Figure 1 for the Site Location Map and Figure 2 for the Confirmation Soil Sample Location Map.

On April 26, 2020, Centennial discovered that a release had occurred due to a malfunction in a check valve from the separator, an accumulation of H2S Scavenger fluid occurred in the flare line and resulted in a small fire. Approximately two (2) gallons of H2S scavenger chemical was released with zero (0) recovered, resulting in a net loss of approximately two (2) gallons of H2S scavenger chemical. On April 27, 2020, Centennial filed a *Release Notification and Corrective Action Form* (Form C-141) with the New Mexico Oil Conservation Division (NMOCD) and NMSLO documenting the release. The Form C-141 is provided as Appendix C. Photographic documentation for the site are provided as Appendix A.

NMOCD SITE CLASSIFICATION

A search of the groundwater database maintained by United States Geological Survey (USGS) did not identify any registered water wells within a quarter (1/4) mile of the Pirate State CTB 1 Release Site. A further search of the USGS database identified the closest registered water well is USGS Well #: 321402103274801 located approximately one (1) mile southwest of the Release Site. The average depth to groundwater for USGS Well #: 321402103274801 should be encountered at approximately sixty-nine (69) feet below ground surface (bgs). Based on the NMOCD site classification system, ten (10) points will be assigned to the subject area ranking as a result of this criterion. No water wells were observed within one thousand (1,000) feet of the Release Site. Based on the NMOCD site classification system, zero (0) points will be assigned to the subject area ranking as a result of this criterion. No surface water was observed within one thousand (1,000) feet of the release. Based on the NMOCD site classification system, zero (0) points will be assigned to the Pirate State CTB 1 Release Site as a result of this criterion. Based on this score, the soil remediation levels for a site with a ranking score of ten (10) points are as follows:

- Benzene -10 mg/Kg (ppm)
- BTEX 50 mg/Kg (ppm)
- TPH 100 mg/Kg (ppm)
- Chloride 600 mg/Kg (ppm)

SUMMARY OF SOIL REMEDIATION ACTIVITIES

On July 28, 2020, Etech commenced excavation activities at the Release Site utilizing a backhoe and manual means. Excavated soil was stockpiled on site awaiting disposal. Etech, on behalf of Centennial, collected four (4) composite confirmation soil samples (Bottomhole-1 @ 3", Bottomhole-2 @ 3", Bottomhole-3 @ 3", and Bottomhole-4 @ 3") from the excavated area. Soil samples were submitted to Permian Basin Environmental Lab, LP. (PBELAB) in Midland, Texas

and analyzed for benzene, toluene, ethylbenzene, and xylene (BTEX) using EPA Method SW 846-8021B, Total Petroleum Hydrocarbons (TPH) using EPA Method SW 846-8015M, and chloride using EPA Method E 300.0. A review of laboratory analytical results indicated additional excavation activities were necessary in the area represented by Bottomhole-1 @ 3" due to elevated TPH concentrations and in the area represented by Bottomhole-4 @ 3" due to detectable BTEX concentrations. Please reference Figure 2 for site details and soil sampling locations.

On August 13, 2020, following additional excavation activities, two (2) composite confirmation soil samples (Bottomhole-1 @ 6" and Bottomhole-4 @ 6") were collected from the further excavated areas. The samples were submitted to PBELAB for BTEX and/or TPH analysis. Please reference Figure 2 for site details and soil sampling locations. A review of laboratory analytical results indicated all collected soil samples were below applicable NMOCD limits.

Table 1 summarizes the Concentrations of Benzene, BTEX, TPH, and Chlorides in Soil. Analytical reports are provided as Appendix B.

SOIL DISPOSAL AND BACKFILL ACTIVIES

On August 14, 2020, Etech transported the impacted stockpiled soil to the Sundance disposal facility in Lea County, NM for disposal.

On September 16, 2020, the excavated area was backfilled with non-impacted like soil from a local source and the site was contoured to fit the surrounding area.

SITE CLOSURE REQUEST

Based on the analytical results, Centennial requests NMOCD and NMSLO grant Site Closure Status to the Pirate State CTB 1 incident.

LIMITATIONS

Etech has prepared this Closure Request and Remediation Summary Report to the best of its ability. No other warranty, expressed or implied, is made or intended. Etech has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. Etech has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and that the information provided in documents or statements is true and accurate. Etech has prepared this report, in a professional manner, using the degree of skill and care exercised by similar environmental consultants. Etech also notes that the facts and conditions referenced in this report may change over time and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report. This report has been prepared for the benefit of Centennial Resource Development, Inc. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of Etech and/or Centennial Resource Development, Inc.

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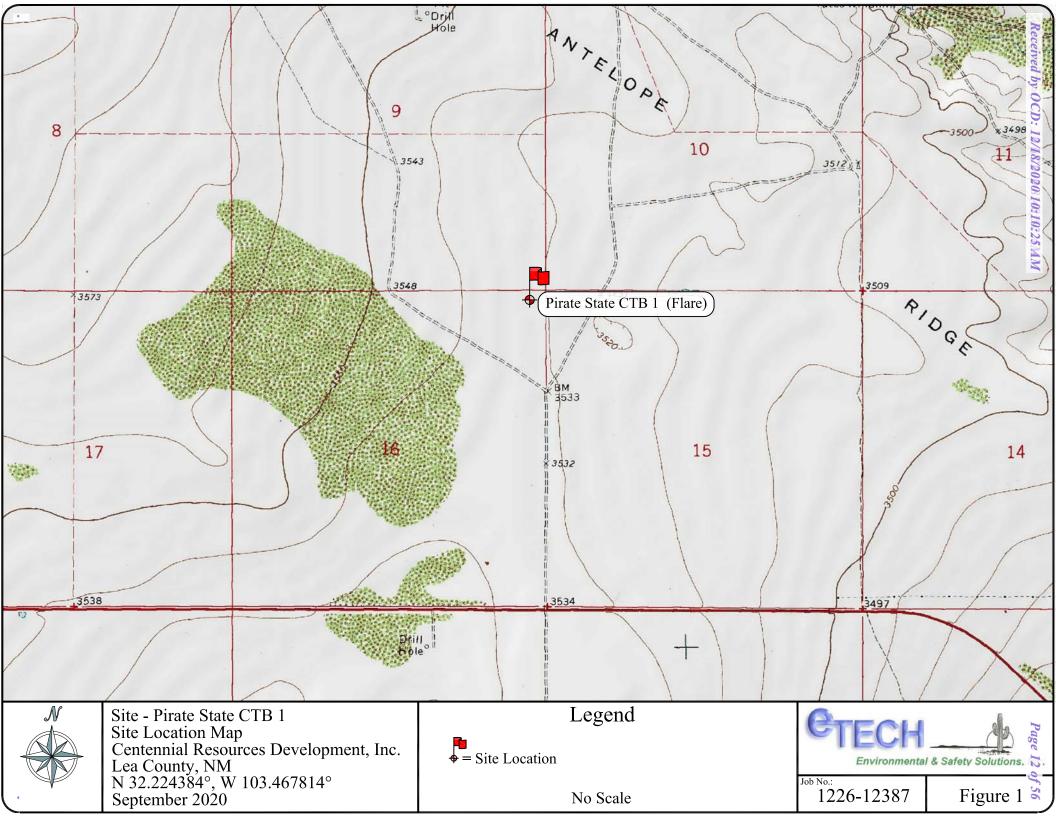
DISTRIBUTION

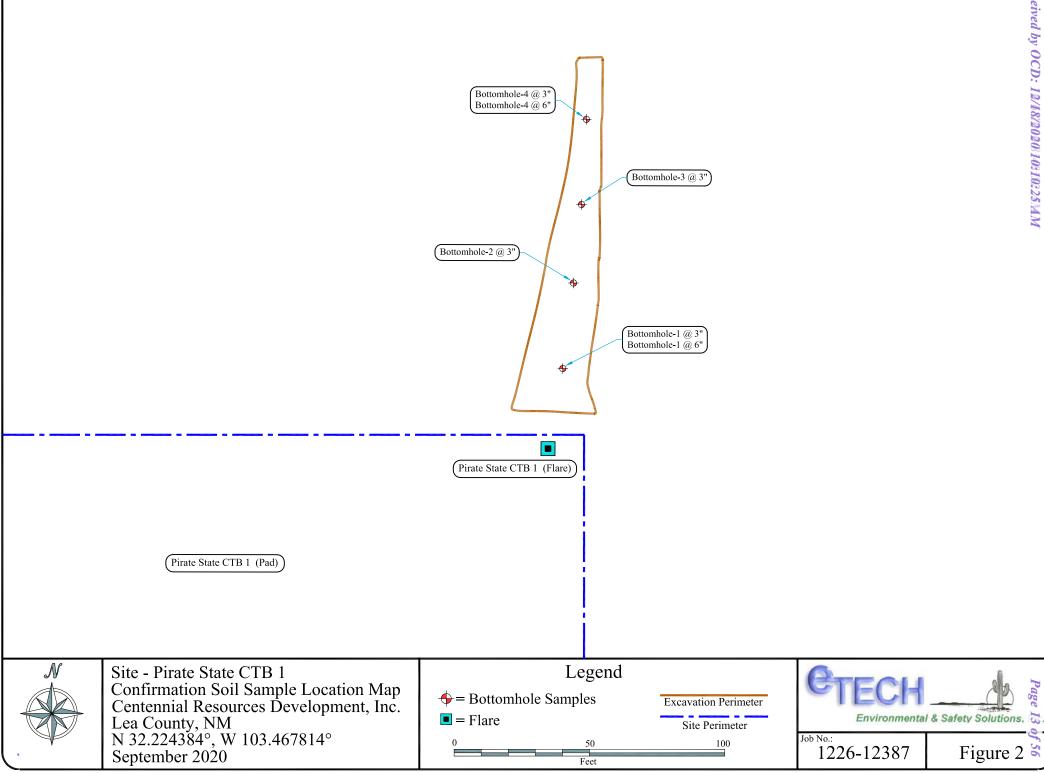
Copy 1:	New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division, District 1 1624 N. French Drive Hobbs, New Mexico 88210
Copy 2:	Ryan Mann New Mexico State Land Office Remediation Specialist

Hobbs, NM 88240 Copy 3: Jamon Hohensee Centennial Resource Development, Inc. 500 W. Illinois Avenue Suite 500 Midland, TX 79701

2827 N. Dal Paso Suite 117

Copy 4: Etech Environmental & Safety Solutions, Inc. P.O. Box 62228 Midland, TX 79711





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TABLE 1

CONCENTRATIONS OF BENZENE, BTEX, TPH AND CHLORIDE IN SOIL

CENTENNIAL RESOURCE DEVELOPMENT, INC.

PIRATE STATE CTB 1 RELEASE SITE

LEA COUNTY, NEW MEXICO

All concentrations are reported in mg/Kg

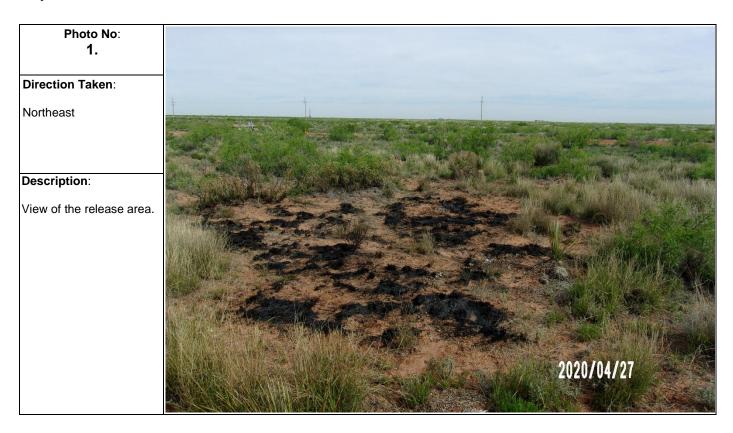
				METHODS:	SW 846-80211	B			Μ	ETHOD: SW 801	5M		E 300.1
SAMPLE LOCATION	SAMPLE DATE	BENZENE	TOLUENE	ETHYL- BENZENE	m, p - XYLENES	o - XYLENE	TOTAL XYLENES	TOTAL BTEX	TPH GRO C ₆ -C ₁₂	TPH DRO C ₁₂ -C ₂₈	TPH ORO C ₂₈ -C ₃₅	TOTAL TPH C ₆ -C ₃₅	CHLORIDI
Limits		10 mg/Kg						50 mg/Kg				100 mg/Kg	600 mg/Kg
						Bottom Hole S	Sample Results						
Bottomhole-1 @ 3"	7/28/2020	ND	ND	ND	ND	ND	ND	ND	ND	1,790	425	2,215	187
Bottomhole-1 @ 6"	8/13/2020	-	-	-	-	-	-	-	ND	ND	ND	ND	36.8
Bottomhole-2 @ 3"	7/28/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.34
Bottomhole-3 @ 3"	7/28/2020	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.77
Bottomhole-4 @ 3"	7/28/2020	ND	ND	0.00330	0.0178	0.00817	0.02597	0.02927	ND	ND	ND	ND	9.91
Bottomhole-4 @ 6"	8/13/2020	ND	ND	ND	ND	ND	ND	ND	-	-	-	-	-

Bold ande Yellow Highlighted indicates Analyte Above NMOCD Regulatory Limit

ND - Analyte not Detected at or above the laboratory reporting limit

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Project Name: Pirate State CTB 1 Project No: 12387 Page 15 of 56





Project Name: Pirate State CTB 1 Project No: 12387

Photographic Documentation





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Received by OCD: 12/18/2020/10810225/AM

🛟 eurofins **Environment Testing**

Project Id:

Project Location:

Contact:

Xenco

12387

Matthew Green

New Mexico

Certificate of Analysis Summary 668977

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: Pirate State 302H 401H

Date Received in Lab: Mon 08.03.2020 17:02

Report Date: 08.10.2020 13:04

Project Manager: Jessica Kramer

	Lab Id:	668977-0	001	668977-0	02	668977-0	03	668977-	004	
Analysis Doguested	Field Id:	Bottomhole-1	@ 3"	Bottomhole-2	@ 3"	Bottomhole-3	@ 3"	Bottomhole-4	@ 3"	
Analysis Requested	Depth:									
	Matrix:	SOIL		SOIL		SOIL		SOIL		
	Sampled:	07.28.2020	13:00	07.28.2020	13:10	07.28.2020	13:20	07.28.2020	13:30	
BTEX by EPA 8021B	Extracted:	08.06.2020	17:00	08.06.2020	17:00	08.06.2020	17:00	08.07.2020	14:00	
	Analyzed:	08.07.2020	08:36	08.07.2020 (08:56	08.07.2020	09:17	08.08.2020	08:18	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	
Benzene		ND	0.00200	ND	0.00201	ND	0.00199	ND	0.00202	
Toluene		ND	0.00200	ND	0.00201	ND	0.00199	ND	0.00202	
Ethylbenzene		ND	0.00200	ND	0.00201	ND	0.00199	0.00330	0.00202	
m,p-Xylenes		ND	0.00399	ND	0.00402	ND	0.00398	0.0178	0.00404	
o-Xylene		ND	0.00200	ND	0.00201	ND	0.00199	0.00817	0.00202	
Total Xylenes		ND	0.00200	ND	0.00201	ND	0.00199	0.0260	0.00202	
Total BTEX		ND	0.00200	ND	0.00201	ND	0.00199	0.0293	0.00202	
Chloride by EPA 300	Extracted:	08.04.2020	10:45	08.04.2020	10:45	08.04.2020	10:45	08.04.2020	10:45	
	Analyzed:	08.04.2020	11:21	08.04.2020	11:26	08.04.2020	11:31	08.04.2020	11:37	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	
Chloride		187	4.96	7.34	4.99	7.77	5.05	9.91	5.00	
TPH by SW8015 Mod	Extracted:	08.04.2020	12:00	08.04.2020	12:00	08.04.2020	12:00	08.05.2020	12:00	
	Analyzed:	08.04.2020	20:04	08.04.2020	20:25	08.04.2020	20:46	08.05.2020	12:27	
	Units/RL:	mg/kg	RL	mg/kg	RL	mg/kg	RL	mg/kg	RL	
Gasoline Range Hydrocarbons (GRO)		ND	50.0	ND	49.9	ND	49.9	ND	50.0	
Diesel Range Organics (DRO)		1790	50.0	ND	49.9	ND	49.9	ND	50.0	
Motor Oil Range Hydrocarbons (MRO)		425	50.0	ND	49.9	ND	49.9	ND	50.0	
Total TPH		2220	50.0	ND	49.9	ND	49.9	ND	50.0	

BRL - Below Reporting Limit

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

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Page 1 of 20

Received by OCD: 12/18/2020810810825/AM

eurofins

Analytical Report 668977

for

Etech Environmental & Safety Solution, Inc

Project Manager: Matthew Green

Pirate State 302H 401H

12387

08.10.2020

Collected By: Client



1211 W. Florida Ave Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122): Texas (T104704215-20-36), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054) Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

> Xenco-Dallas (EPA Lab Code: TX01468): Texas (T104704295-20-25), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-17) Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-22) Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-19) Xenco-Carlsbad (LELAP): Louisiana (05092) Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-7) Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757) Xenco-Tampa: Florida (E87429), North Carolina (483) Received by OCD: 12/18/2020810810225/AM

eurofins Environment Testing Xenco

08.10.2020

Project Manager: **Matthew Green Etech Environmental & Safety Solution, Inc** P.O. Box 62228 Midland, TX 79711

Reference: Eurofins Xenco, LLC Report No(s): 668977 Pirate State 302H 401H Project Address: New Mexico

Matthew Green:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 668977. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 668977 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jession Vermer

Jessica Kramer Project Manager

A Small Business and Minority Company

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

eurofins Environment Testing Xenco

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Sample Cross Reference 668977

Etech Environmental & Safety Solution, Inc, Midland, TX

Pirate State 302H 401H

Sample Id	Matrix	Date Collected Sample Depth	Lab Sample Id
Bottomhole-1 @ 3"	S	07.28.2020 13:00	668977-001
Bottomhole-2 @ 3"	S	07.28.2020 13:10	668977-002
Bottomhole-3 @ 3"	S	07.28.2020 13:20	668977-003
Bottomhole-4 @ 3"	S	07.28.2020 13:30	668977-004

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CASE NARRATIVE

Client Name: Etech Environmental & Safety Solution, Inc Project Name: Pirate State 302H 401H

Project ID: 12387 Work Order Number(s): 668977
 Report Date:
 08.10.2020

 Date Received:
 08.03.2020

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

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Etech Environmental & Safety Solution, Inc, Midland, TX

Pirate State 302H 401H

Sample Id:Bottomhole-1 @ 3"Lab Sample Id:668977-001	,	Matrix: Date Col	Soil llected: 07.28	.2020 13:00		Date Received:08.02	3.2020 17	:02
Analytical Method: Chloride by EP	A 300					Prep Method: E300)P	
Tech: CHE						% Moisture:		
Analyst: CHE		Date Pre	p: 08.04	.2020 10:45		Basis: Wet	Weight	
Seq Number: 3133486			-					
Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	187	4.96		mg/kg	08.04.2020 11:21		1
Analytical Method: TPH by SW801	15 Mod					Prep Method: SW8	8015P	
Analytical Method: TPH by SW801 Tech: DVM Analyst: ARM Seq Number: 3133477	15 Mod	Date Pre	p: 08.04	.2020 12:00		% Moisture:	3015P Weight	
Tech: DVM Analyst: ARM Seq Number: 3133477	15 Mod Cas Number	Date Pre Result	p: 08.04 RL	.2020 12:00		% Moisture:		Dil
Tech: DVM Analyst: ARM Seq Number: 3133477 Parameter			F ·	.2020 12:00		% Moisture: Basis: Wet	Weight	Dil
Tech: DVM Analyst: ARM	Cas Number	Result	RL	.2020 12:00	Units	 Moisture: Basis: Wet Analysis Date 	Weight Flag	
Tech: DVM Analyst: ARM Seq Number: 3133477 Parameter Gasoline Range Hydrocarbons (GRO)	Cas Number PHC610	Result ND	RL 50.0	.2020 12:00	Units mg/kg	% Moisture: Basis: Wet Analysis Date 08.04.2020 20:04	Weight Flag	
Tech: DVM Analyst: ARM Seq Number: 3133477 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO)	Cas Number PHC610 C10C28DRO	Result ND 1790	RL 50.0 50.0	.2020 12:00	Units mg/kg mg/kg	% Moisture: Basis: Wet Analysis Date 08.04.2020 20:04 08.04.2020 20:04	Weight Flag	1
Tech: DVM Analyst: ARM Seq Number: 3133477 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO) Motor Oil Range Hydrocarbons (MRO)	Cas Number PHC610 C10C28DRO PHCG2835 PHC635	Result ND 1790 425 2220	RL 50.0 50.0 50.0	.2020 12:00 Units	Units mg/kg mg/kg mg/kg	% Moisture: Basis: Wet Analysis Date 08.04.2020 20:04 08.04.2020 20:04 08.04.2020 20:04 08.04.2020 20:04	Weight Flag	1 1 1
Tech: DVM Analyst: ARM Seq Number: 3133477 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO) Motor Oil Range Hydrocarbons (MRO) Total TPH	Cas Number PHC610 C10C28DRO PHCG2835 PHC635	Result ND 1790 425 2220	RL 50.0 50.0 50.0 50.0 50.0		Units mg/kg mg/kg mg/kg mg/kg	% Moisture: Basis: Wet Analysis Date 08.04.2020 20:04 08.04.2020 20:04 08.04.2020 20:04 08.04.2020 20:04	Weight Flag U	1 1 1

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Certificate of Analytical Results 668977

Etech Environmental & Safety Solution, Inc, Midland, TX

Pirate State 302H 401H

Sample Id:	Bottomhole-1 @ 3"		Matrix:	Soil		Date Received	1:08.03	.2020 17:0	02
Lab Sample Id	1: 668977-001		Date Collected	1: 07.28.2020 13:00					
Analytical Me	thod: BTEX by EPA 802	1 B				Prep Method:	SW5	035A	
Tech:	KTL					% Moisture:			
Analyst:	KTL		Date Prep:	08.06.2020 17:00		Basis:	Wet V	Weight	
Seq Number:	3133866								
Parameter		Cas Number	Result RL		Units	Analysis D	ate	Flag	Dil

Parameter	Cas Number	r Kesult	KL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	NE	0.00200		mg/kg	08.07.2020 08:36	U	1
Toluene	108-88-3	NE	0.00200		mg/kg	08.07.2020 08:36	U	1
Ethylbenzene	100-41-4	NE	0.00200		mg/kg	08.07.2020 08:36	U	1
m,p-Xylenes	179601-23-1	NE	0.00399		mg/kg	08.07.2020 08:36	U	1
o-Xylene	95-47-6	NE	0.00200		mg/kg	08.07.2020 08:36	U	1
Total Xylenes	1330-20-7	NE	0.00200		mg/kg	08.07.2020 08:36	U	1
Total BTEX		NE	0.00200		mg/kg	08.07.2020 08:36	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	117	%	70-130	08.07.2020 08:36		
1,4-Difluorobenzene		540-36-3	109	%	70-130	08.07.2020 08:36		

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Etech Environmental & Safety Solution, Inc, Midland, TX

Pirate State 302H 401H

Sample Id:Bottomhole-2 @ 3'Lab Sample Id:668977-002	•	Matrix: Date Col	Soil llected: 07.28	.2020 13:10		Date Received:08.0	3.2020 17	:02
Analytical Method: Chloride by EF	PA 300					Prep Method: E30	0P	
Tech: CHE						% Moisture:		
Analyst: CHE		Date Pre	p: 08.04	.2020 10:45		Basis: Wet	Weight	
Seq Number: 3133486			r.				U	
Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	7.34	4.99		mg/kg	08.04.2020 11:26		1
Analytical Method: TPH by SW80	15 Mod					Prep Method: SW8	8015P	
Analytical Method: TPH by SW80 Tech: DVM Analyst: ARM Seq Number: 3133477		Date Pre	p: 08.04	.2020 12:00		% Moisture:	8015P Weight	
Tech: DVM Analyst: ARM Seq Number: 3133477	15 Mod Cas Number	Date Pre Result	p: 08.04 RL	.2020 12:00	Units	% Moisture:		Dil
Tech: DVM Analyst: ARM Seq Number: 3133477 Parameter			F ·	.2020 12:00		% Moisture: Basis: Wet	Weight	Dil
Tech: DVM Analyst: ARM Seq Number: 3133477 Parameter Gasoline Range Hydrocarbons (GRO)	Cas Number	Result	RL	.2020 12:00	Units	Moisture: Basis: Wet Analysis Date	Weight Flag	
Tech: DVM Analyst: ARM	Cas Number PHC610	Result ND	RL 49.9	.2020 12:00	Units mg/kg	% Moisture: Basis: Wet Analysis Date 08.04.2020 20:25	Weight Flag U	1
Tech: DVM Analyst: ARM Seq Number: 3133477 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO) Motor Oil Range Hydrocarbons (MRO)	Cas Number PHC610 C10C28DRO	Result ND ND	RL 49.9 49.9	.2020 12:00	Units mg/kg mg/kg	% Moisture: Basis: Wet Analysis Date 08.04.2020 20:25 08.04.2020 20:25	Weight Flag U U	1
Tech: DVM Analyst: ARM Seq Number: 3133477 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO) Motor Oil Range Hydrocarbons (MRO)	Cas Number PHC610 C10C28DRO PHCG2835 PHC635	Result ND ND ND ND	RL 49.9 49.9 49.9	.2020 12:00 Units	Units mg/kg mg/kg mg/kg	% Moisture: Basis: Wet Analysis Date 08.04.2020 20:25 08.04.2020 20:25 08.04.2020 20:25 08.04.2020 20:25	Weight Flag U U U	1 1 1
Tech: DVM Analyst: ARM Seq Number: 3133477 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO) Motor Oil Range Hydrocarbons (MRO) Fotal TPH	Cas Number PHC610 C10C28DRO PHCG2835 PHC635	Result ND ND ND ND	RL 49.9 49.9 49.9 49.9 49.9		Units mg/kg mg/kg mg/kg mg/kg	% Moisture: Basis: Wet Analysis Date 08.04.2020 20:25 08.04.2020 20:25 08.04.2020 20:25 08.04.2020 20:25 08.04.2020 20:25	Weight Flag U U U U Flag	1 1 1

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Certificate of Analytical Results 668977

Etech Environmental & Safety Solution, Inc, Midland, TX

Pirate State 302H 401H

Sample Id: Bottomhol Lab Sample Id: 668977-002		Matrix: Date Collected	Soil d: 07.28.2020 13:10	Date Receiv	red:08.03.2020 17:02	2
Analytical Method: BTEX Tech: KTL	by EPA 8021B			Prep Metho % Moisture	d: SW5035A	
Analyst: KTL		Date Prep:	08.06.2020 17:00	Basis:	Wet Weight	
Seq Number: 3133866		Docult DI				

Parameter	Cas Numbe	r Kesult	KL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	ND	0.00201		mg/kg	08.07.2020 08:56	U	1
Toluene	108-88-3	NE	0.00201		mg/kg	08.07.2020 08:56	U	1
Ethylbenzene	100-41-4	NE	0.00201		mg/kg	08.07.2020 08:56	U	1
m,p-Xylenes	179601-23-1	NE	0.00402		mg/kg	08.07.2020 08:56	U	1
o-Xylene	95-47-6	NE	0.00201		mg/kg	08.07.2020 08:56	U	1
Total Xylenes	1330-20-7	NE	0.00201		mg/kg	08.07.2020 08:56	U	1
Total BTEX		NE	0.00201		mg/kg	08.07.2020 08:56	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	119	%	70-130	08.07.2020 08:56		
1,4-Difluorobenzene		540-36-3	111	%	70-130	08.07.2020 08:56		

o-Terphenyl

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Etech Environmental & Safety Solution, Inc, Midland, TX

Pirate State 302H 401H

Sample Id: Bottomhole-3 @ 3' Lab Sample Id: 668977-003	•	Matrix: Date Col	Soil lected: 07.28.	.2020 13:20		Date Received:08.02	3.2020 17	:02
Analytical Method: Chloride by EF	PA 300					Prep Method: E300	OP	
Tech: CHE						% Moisture:		
Analyst: CHE		Date Prep	p: 08.04.	.2020 10:45		Basis: Wet	Weight	
Seq Number: 3133486								
Parameter	Cas Number	Result	RL		Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	7.77	5.05		mg/kg	08.04.2020 11:31		1
Analytical Method: TPH by SW80	15 Mod					Prep Method: SW8	3015P	
Analytical Method: TPH by SW80 Tech: DVM Analyst: ARM Seq Number: 3133477	15 Mod	Date Prep	o: 08.04.	.2020 12:00		% Moisture:	3015P Weight	
Tech: DVM Analyst: ARM	15 Mod Cas Number		o: 08.04. RL	.2020 12:00		% Moisture:		Dil
Tech:DVMAnalyst:ARMSeq Number:3133477				.2020 12:00		% Moisture: Basis: Wet	Weight	Dil
Tech: DVM Analyst: ARM Seq Number: 3133477 Parameter	Cas Number	Result	RL	.2020 12:00	Units	% Moisture: Basis: Wet Analysis Date	Weight Flag	
Tech: DVM Analyst: ARM Seq Number: 3133477 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO)	Cas Number PHC610	Result	RL 49.9	.2020 12:00	Units mg/kg	% Moisture: Basis: Wet Analysis Date 08.04.2020 20:46	Weight Flag U	1
Tech: DVM Analyst: ARM Seq Number: 3133477 Parameter Gasoline Range Hydrocarbons (GRO)	Cas Number PHC610 C10C28DRO	Result ND ND	RL 49.9 49.9	.2020 12:00	Units mg/kg mg/kg	% Moisture: Basis: Wet Analysis Date 08.04.2020 20:46 08.04.2020 20:46	Weight Flag U U	1
Tech: DVM Analyst: ARM Seq Number: 3133477 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO) Motor Oil Range Hydrocarbons (MRO)	Cas Number PHC610 C10C28DRO PHCG2835 PHC635	Result ND ND ND ND	RL 49.9 49.9 49.9	.2020 12:00 Units	Units mg/kg mg/kg mg/kg	% Moisture: Basis: Wet Analysis Date 08.04.2020 20:46 08.04.2020 20:46 08.04.2020 20:46 08.04.2020 20:46	Weight Flag U U U	1 1 1

78

%

70-130

08.04.2020 20:46

84-15-1

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Certificate of Analytical Results 668977

Etech Environmental & Safety Solution, Inc, Midland, TX

Pirate State 302H 401H

Sample Id: Lab Sample I	Bottomhole-3 @ 3 '' d: 668977-003		Matrix: Date Collected	Soil d: 07.28.2020 13:20	Date Receive	:02	
Analytical M	ethod: BTEX by EPA 802	1B			Prep Method	: SW5035A	
Tech:	KTL				% Moisture:		
Analyst:	KTL		Date Prep:	08.06.2020 17:00	Basis:	Wet Weight	
Seq Number:	3133866						
Parameter		Cas Number	Result BI		Unite Analysis I	Data Flag	Dil

Benzene	71-43-2 108-88-3	ND ND	0.00199		mg/kg	08.07.2020 09:17	U	1
	108-88-3	ND				00.07.2020 09.17	U	1
Toluene		ND	0.00199		mg/kg	08.07.2020 09:17	U	1
Ethylbenzene	100-41-4	ND	0.00199		mg/kg	08.07.2020 09:17	U	1
m,p-Xylenes	179601-23-1	ND	0.00398		mg/kg	08.07.2020 09:17	U	1
o-Xylene	95-47-6	ND	0.00199		mg/kg	08.07.2020 09:17	U	1
Total Xylenes	1330-20-7	ND	0.00199		mg/kg	08.07.2020 09:17	U	1
Total BTEX		ND	0.00199		mg/kg	08.07.2020 09:17	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene		540-36-3	109	%	70-130	08.07.2020 09:17		
4-Bromofluorobenzene		460-00-4	116	%	70-130	08.07.2020 09:17		

o-Terphenyl

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Etech Environmental & Safety Solution, Inc, Midland, TX

Pirate State 302H 401H

Sample Id: Bottomhole-4 @ 3 Lab Sample Id: 668977-004		Matrix: Date Coll	Soil ected: 07.28.2	2020 13:30	Date Received:08.03.2020 17:02				
Analytical Method: Chloride by El	PA 300					Prep Method: E300)P		
Tech: CHE						% Moisture:			
Analyst: CHE		Date Prep	: 08.04.2	2020 10:45		Basis: Wet	Weight		
Seq Number: 3133486									
Parameter	Cas Number	Result	RL		Units Analysis Date Flag mg/kg 08 04 2020 11:37		Flag	Dil	
Chloride	16887-00-6	9.91	5.00		mg/kg	08.04.2020 11:37		1	
Analytical Method: TPH by SW80	15 Mod					Prep Method: SW8	8015P		
Analytical Method: TPH by SW80 Tech: DVM Analyst: ARM Seq Number: 3133741	15 Mod	Date Prep	: 08.05.2	2020 12:00		% Moisture:	8015P Weight		
Tech: DVM Analyst: ARM	15 Mod Cas Number	Date Prep Result	: 08.05.2 RL	2020 12:00	Units	% Moisture:		Dil	
Tech: DVM Analyst: ARM Seq Number: 3133741 Parameter			•	2020 12:00	Units mg/kg	% Moisture: Basis: Wet	Weight	Dil	
Tech: DVM Analyst: ARM Seq Number: 3133741	Cas Number	Result	RL	2020 12:00		% Moisture: Basis: Wet Analysis Date	Weight Flag		
Tech: DVM Analyst: ARM Seq Number: 3133741 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO)	Cas Number PHC610	Result	RL 50.0	2020 12:00	mg/kg	% Moisture: Basis: Wet Analysis Date 08.05.2020 12:27	Weight Flag U	1	
Tech: DVM Analyst: ARM Seq Number: 3133741 Parameter Gasoline Range Hydrocarbons (GRO)	Cas Number PHC610 C10C28DRO	Result ND ND	RL 50.0 50.0	2020 12:00	mg/kg mg/kg	% Moisture: Basis: Wet Analysis Date 08.05.2020 12:27 08.05.2020 12:27	Weight Flag U U	1	
Tech: DVM Analyst: ARM Seq Number: 3133741 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO) Motor Oil Range Hydrocarbons (MRO)	Cas Number PHC610 C10C28DRO PHCG2835 PHC635	Result ND ND ND ND	RL 50.0 50.0 50.0	2020 12:00 Units	mg/kg mg/kg mg/kg	% Moisture: Basis: Wet Analysis Date 08.05.2020 12:27 08.05.2020 12:27 08.05.2020 12:27 08.05.2020 12:27	Weight Flag U U U	1 1 1	

85

%

70-130

08.05.2020 12:27

84-15-1

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Certificate of Analytical Results 668977

Etech Environmental & Safety Solution, Inc, Midland, TX

Pirate State 302H 401H

Sample Id: Bottomhole-4 @ 3" Lab Sample Id: 668977-004		Matrix: Date Collecte	Soil d: 07.28.2020 13:30		Date Receive	d:08.03	3.2020 17:0	02
Analytical Method: BTEX by EPA a Tech: KTL	8021B				Prep Method: % Moisture:	SW5	035A	
Analyst: KTL Seq Number: 3133951		Date Prep:	08.07.2020 14:00		Basis:	Wet	Weight	
Parameter	Cas Number	Result RI		Units	Analysis D	ate	Flag	Dil

1 ar anicter	Cas Numbe	i ittsuit	KL		Units	Analysis Date	riag	Dii
Benzene	71-43-2	ND	0.00202		mg/kg	08.08.2020 08:18	U	1
Toluene	108-88-3	ND	0.00202		mg/kg	08.08.2020 08:18	U	1
Ethylbenzene	100-41-4	0.00330	0.00202		mg/kg	08.08.2020 08:18		1
m,p-Xylenes	179601-23-1	0.0178	0.00404		mg/kg	08.08.2020 08:18		1
o-Xylene	95-47-6	0.00817	0.00202		mg/kg	08.08.2020 08:18		1
Total Xylenes	1330-20-7	0.0260	0.00202		mg/kg	08.08.2020 08:18		1
Total BTEX		0.0293	0.00202		mg/kg	08.08.2020 08:18		1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	103	%	70-130	08.08.2020 08:18		
1,4-Difluorobenzene		540-36-3	102	%	70-130	08.08.2020 08:18		

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Flagging Criteria

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.				
RL Reporting Limit				
MDL Method Detection Limit	SDL Sample De	tection Limit	LOD Limit of Detection	
PQL Practical Quantitation Limit	MQL Method Qu	antitation Limit	LOQ Limit of Quantitation	n
DL Method Detection Limit				
NC Non-Calculable				
SMP Client Sample		BLK	Method Blank	
BKS/LCS Blank Spike/Laboratory	Control Sample	BKSD/LCSD	Blank Spike Duplicate/Labo	ratory Control Sample Duplicate
MD/SD Method Duplicate/Samp	ble Duplicate	MS	Matrix Spike	MSD: Matrix Spike Duplicate
+ NELAC certification not offered	l for this compound.			

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

Received by OCD: 12/18/2020810810225/AM

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QC Summary 668977

Etech Environmental & Safety Solution, Inc Pirate State 302H 401H

					Piral	e State St	JZH 40.	П					
Analytical Method: Seq Number:	3133486	-	00				1 DV0			rep Metho Date Pr	ep: 08.0	04.2020	
MB Sample Id:	7708666		a "		-	7708666-		.		-		8666-1-BSD	
Parameter		MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride		<5.00	250	267	107	268	107	90-110	0	20	mg/kg	08.04.2020 10:55	
Analytical Method: Seq Number: Parent Sample Id:	Chlorid 3133486 668967-0)0		Matrix: nple Id:	Soil 668967-0	01 S			rep Metho Date Pro D Sample	ep: 08.0	0P)4.2020 967-001 SD	
Parameter		Parent	Spike	MS	MS	MSD	MSD	Limits	%RPD	RPD	Units	Analysis	Flag
Chloride		Result 297	Amount 2510	Result 3050	%Rec 110	Result 3040	%Rec 109	90-110	0	Limit 20	mg/kg	Date 08.04.2020 11:10	
Analytical Method: Seq Number: Parent Sample Id:	Chloride 3133486 668986-0)0 Spike		Matrix: nple Id: MS	Soil 668986-0 MSD	06 S MSD	Limits		rep Metho Date Pro D Samplo RPD	ep: 08.0	0P)4.2020 986-006 SD Analysis	
Parameter		Result	Amount	Result	%Rec	Result	%Rec	Linnes	70KI D	Limit	Cints	Date	Flag
Chloride		24.7	253	312	114	312	114	90-110	0	20	mg/kg	08.04.2020 12:24	Х
Analytical Method: Seq Number: MB Sample Id:	TPH by 3133477 7708673		od		Matrix: nple Id:	Solid 7708673-	1-BKS			rep Metho Date Pr D Sample	ep: 08.0	8015P)4.2020 8673-1-BSD	
Parameter		MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarb		<50.0	1000	854	85	836	84	70-130	2	20	mg/kg	08.04.2020 12:11	
Diesel Range Organics	(DRO)	<50.0	1000	896	90	833	83	70-130	7	20	mg/kg	08.04.2020 12:11	
Surrogate		MB %Rec	MB Flag		CS Rec	LCS Flag	LCSI %Re			imits	Units	Analysis Date	
1-Chlorooctane o-Terphenyl		89 86			95 91		88 85			-130 -130	% %	08.04.2020 12:11 08.04.2020 12:11	
Analytical Method: Seq Number: MB Sample Id: Parameter Gasoline Range Hydrocarb Diesel Range Organics Surrogate	3133741 7708797 ons (GRO)		od Spike Amount 1000 1000 MB Flag	LCS Sar LCS Result 896 932	Matrix: nple Id: LCS %Rec 90 93 CS Rec	7708797- LCSD Result 883	1-BKS LCSD %Rec 88 92 LCSI %Re		LCS %RPD 1 1 D Li	rep Metho Date Pro D Sample RPD Limit 20 20 imits	ep: 08.0	8015P)5.2020 8797-1-BSD Analysis Date 08.05.2020 11:44 08.05.2020 11:44 Analysis Date	Flag
1-Chlorooctane		99			05	5	108		-	-130	%	08.05.2020 11:44	
o-Terphenyl		100		1	01		101		70	-130	%	08.05.2020 11:44	
MS/MSD Percent Recover Relative Percent Difference LCS/LCSD Recovery		[D] = 100*(C RPD = 200* [D] = 100 * (C	(C-E) / (C+E)		(0 · · · · ·		А	CS = Labora = Parent R = MS/LCS	lesult	ol Sample	$\mathbf{B} = \mathbf{S}_{\mathbf{I}}$	Matrix Spike pike Added SD/LCSD % Rec	

LCS/LCSD Recovery Log Difference

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[D] = 100 * (C) / [B] Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

C = MS/LCS ResultE = MSD/LCSD Result

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Final 1.000

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Environment Testing

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QC Summary 668977

Etech Environmental & Safety Solution, Inc

Pirate State 302H 401H

Analytical Method:TPH by SW8015 ModSeq Number:3133477	Matrix: MB Sample Id:	Solid 7708673-1-BLK	Prep Method: Date Prep:		8015P 4.2020	
Parameter	MB Result		τ	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	ND		n	ng/kg	08.04.2020 11:50	
Analytical Method:TPH by SW8015 ModSeq Number:3133741	Matrix:	Solid	Prep Method: Date Prep:		8015P 5.2020	
	MB Sample Id:	7708797-1-BLK				
Parameter	MB Result		ĩ	Units	Analysis Date	Flag
Motor Oil Range Hydrocarbons (MRO)	ND		n	ng/kg	08.05.2020 11:23	

Analytical Method:TPH by SW8015 ModSeq Number:3133477Parent Sample Id:668877-001				Matrix: Soil MS Sample Id: 668877-001 S					Prep Method: SW8015P Date Prep: 08.04.2020 MSD Sample Id: 668877-001 SD				
Parameter		Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarb	ons (GRO)	<49.9	997	826	83	857	86	70-130	4	20	mg/kg	08.04.2020 13:37	
Diesel Range Organics	(DRO)	<49.9	997	837	84	861	86	70-130	3	20	mg/kg	08.04.2020 13:37	
Surrogate					1S Rec	MS Flag	MSD %Re			mits	Units	Analysis Date	
1-Chlorooctane				ç	96		92		70	-130	%	08.04.2020 13:37	
o-Terphenyl				8	36		85		70	-130	%	08.04.2020 13:37	

Seq Number:	Analytical Method:TPH by SW8015 ModSeq Number:3133741Parent Sample Id:668977-004				Matrix: Soil MS Sample Id: 668977-004 S					Prep Method: SW8015P Date Prep: 08.05.2020 MSD Sample Id: 668977-004 SD			
Parameter		Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarb	ons (GRO)	<49.9	997	826	83	847	85	70-130	3	20	mg/kg	08.05.2020 12:48	
Diesel Range Organics	(DRO)	<49.9	997	856	86	866	87	70-130	1	20	mg/kg	08.05.2020 12:48	
Surrogate					1S Rec	MS Flag	MSD %Ree			imits	Units	Analysis Date	
1-Chlorooctane				ç	93		94		70	-130	%	08.05.2020 12:48	
o-Terphenyl				8	34		85		70	-130	%	08.05.2020 12:48	

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

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

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Final 1.000

Received by OCD: 12/18/2020810310225/AM

QC Summary 668977

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Etech Environmental & Safety Solution, Inc Pirate State 302H 401H

Analytical Method:	BTEX by EPA 8021	IB			Prep Method: SW5035A							
Seq Number:	3133866]	Matrix:	Solid			Date Prep: 08.06.2020				
MB Sample Id:	7708950-1-BLK		LCS Sample Id: 7708950-1-BKS				LCSD Sample Id: 7708950-1-BSD					
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	< 0.00200	0.100	0.0972	97	0.102	102	70-130	5	35	mg/kg	08.06.2020 23:25	
Toluene	< 0.00200	0.100	0.0902	90	0.0938	94	70-130	4	35	mg/kg	08.06.2020 23:25	
Ethylbenzene	< 0.00200	0.100	0.0870	87	0.0908	91	70-130	4	35	mg/kg	08.06.2020 23:25	
m,p-Xylenes	< 0.00400	0.200	0.171	86	0.177	89	70-130	3	35	mg/kg	08.06.2020 23:25	
o-Xylene	< 0.00200	0.100	0.0856	86	0.0890	89	70-130	4	35	mg/kg	08.06.2020 23:25	
Surrogate	MB %Rec	MB Flag		CS Rec	LCS Flag	LCSE %Rec			imits	Units	Analysis Date	
1,4-Difluorobenzene	107		1	01		99		70)-130	%	08.06.2020 23:25	
4-Bromofluorobenzene	104		9	7		93		70	0-130	%	08.06.2020 23:25	

Analytical Method: Seq Number: MB Sample Id:	BTEX by EPA 8021 3133951 7709017-1-BLK	В	Matrix: Solid LCS Sample Id: 7709017-1-BKS					Prep Method: SW5035A Date Prep: 08.07.2020 LCSD Sample Id: 7709017-1-BSD				
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	< 0.00200	0.100	0.0849	85	0.0829	83	70-130	2	35	mg/kg	08.08.2020 01:10	
Toluene	< 0.00200	0.100	0.0857	86	0.0838	84	70-130	2	35	mg/kg	08.08.2020 01:10	
Ethylbenzene	< 0.00200	0.100	0.0835	84	0.0808	81	70-130	3	35	mg/kg	08.08.2020 01:10	
m,p-Xylenes	< 0.00400	0.200	0.167	84	0.162	81	70-130	3	35	mg/kg	08.08.2020 01:10	
o-Xylene	< 0.00200	0.100	0.0859	86	0.0832	83	70-130	3	35	mg/kg	08.08.2020 01:10	
Surrogate	MB %Rec	MB Flag			LCS Flag	LCSD %Rec			imits	Units	Analysis Date	
1,4-Difluorobenzene	103		1	01		100		70	-130	%	08.08.2020 01:10	
4-Bromofluorobenzene	103		1	01		100		70	-130	%	08.08.2020 01:10	

Analytical Method:	BTEX by EPA 8021	1B						P	rep Meth	od: SW	5035A	
Seq Number:	3133866		1	Matrix:	Soil				Date Pr	ep: 08.0	06.2020	
Parent Sample Id:	668877-003		MS San	nple Id:	668877-00)3 S		MS	D Sample	e Id: 668	877-003 SD	
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	< 0.00200	0.100	0.0967	97	0.0838	84	70-130	14	35	mg/kg	08.07.2020 00:06	
Toluene	< 0.00200	0.100	0.0909	91	0.0798	80	70-130	13	35	mg/kg	08.07.2020 00:06	
Ethylbenzene	< 0.00200	0.100	0.0890	89	0.0783	79	70-130	13	35	mg/kg	08.07.2020 00:06	
m,p-Xylenes	< 0.00401	0.200	0.176	88	0.156	78	70-130	12	35	mg/kg	08.07.2020 00:06	
o-Xylene	< 0.00200	0.100	0.0878	88	0.0773	78	70-130	13	35	mg/kg	08.07.2020 00:06	
Surrogate				IS Rec	MS Flag	MSD %Ree			imits	Units	Analysis Date	
1,4-Difluorobenzene			1	03		101		70	-130	%	08.07.2020 00:06	
4-Bromofluorobenzene			10	06		99		70	-130	%	08.07.2020 00:06	

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

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

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

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Final 1.000

Received by OCD: 12/18/2020810310225/AM

QC Summary 668977

eurofins Environment Testing Xenco

Etech Environmental & Safety Solution, Inc

Pirate State 302H 401H

Analytical Method:	BTEX by EPA 8021	lB						P	rep Meth	od: SW	5035A	
Seq Number:	3133951		I	Matrix:	Soil				Date Pr	ep: 08.0	07.2020	
Parent Sample Id:	669481-061		MS San	ple Id:	669481-06	51 S		MS	D Sampl	e Id: 669	481-061 SD	
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	< 0.00200	0.0998	0.0728	73	0.0685	69	70-130	6	35	mg/kg	08.08.2020 01:51	Х
Toluene	< 0.00200	0.0998	0.0703	70	0.0659	66	70-130	6	35	mg/kg	08.08.2020 01:51	Х
Ethylbenzene	< 0.00200	0.0998	0.0680	68	0.0643	65	70-130	6	35	mg/kg	08.08.2020 01:51	Х
m,p-Xylenes	< 0.00399	0.200	0.133	67	0.125	63	70-130	6	35	mg/kg	08.08.2020 01:51	Х
o-Xylene	< 0.00200	0.0998	0.0681	68	0.0645	65	70-130	5	35	mg/kg	08.08.2020 01:51	Х
Surrogate				IS Rec	MS Flag	MSD %Rec			imits	Units	Analysis Date	
1,4-Difluorobenzene			10	02		102		70	-130	%	08.08.2020 01:51	
4-Bromofluorobenzene			10	03		102		70	-130	%	08.08.2020 01:51	

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

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

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

			Tampa, FL	Tampa, FL (813) 620-2000, Tallahassee, FL (850) 756-0747, Delray Beach, FL (56 Atlanta, GA (770) 449-8800	Tallahas Atl	anta, G	(850) 7: A (770) 4	nassee, FL (850) 756-0747, D Atlanta, GA (770) 449-8800	elray Bea	ch, FL (56)	1) 689-6701	-
Proiect Manager:	Matt Green		Bill t	Bill to: (if different)							Work Order Commente	
	Etech Environmental & Safety Solutions, Inc	ntal & Safety Sol		Company Name:	Centennial	nnial					Program: UST/PST PRF Brownfield RR()	RR(Superfund
	PO Box 62228			'ess:							State of Project:	
e ZIP:	Midland, Texas 79711	9711	City,	City, State ZIP:							Reporting:Level 🚺 Level 🗍 PST/U	
	432-563-2200		Email: Mat	Email: Matt@etechenv.com	iom						Deliverables: EDD ADaPT	Other: contract
Project Name:	Pirate Sta	Pirate State 302H 401H	Turn Around	ound				Þ	NALYS	ANALYSIS REQI	UEST	Preservative Codes
Project Number:		12387	CONTRACT								HNO3: HN	HN
Project Location	Nev	New Mexico	Rush:								H2S04: H2	1: H2
Sampler's Name:	Joel	Joel Mendoza	Due Date:								HCL: HL	<u> </u>
Ŏ#	AFE#	E# or pat# or	LOE +CC#								None: NO	NO
SAMPLE RECEIPT		Temp Blank Yes No	/ Wet Ice: (es)	No							NaOH: Na	. Na
emperature (°C):	a 511.	2	Thermometer ID	iner							MeOH: Me	l: Me
Received Intact:	Var No		, L				0					Zn Acetate+ NaOH: Zn
sample Custody Seals	Yes No		ainers:	r of (5M	21B	s E3				IAT	TAT starts the day received by the lab, if received by 4:30pm
Sample Identification		Matrix Date Sampled	Time Sampled	Depth Numbe Code	TPH 801	BTEX 80	Chloride	<u></u>				Sample Comments
Bottomhole-1 @ 3"	-1@3" S	7/28/2020	0 1300	1	X	×	×					
Bottomhole-2 @ 3"	-2@3" S		0 1310		×	×	\mathbf{x}					
Bottomhole-3 @ 3"	-3@3" S	7/28/2020	0 1320		×	x	×`					
Bottomhole-4 @ 3"	4@3" S	7/28/2020	0 1330	1	×	×	\succ					
	S									_		
	5 0							_	-			
	s											
	S			-								
	s											
office. Standaring of this c	former and relincuie										cle one :	7 day, 5 day , Rush 3 day
votice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It If service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are i If Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enfi	locument and relinquis liable only for the cost arge of \$75.00 will be a	hment of samples co of samples and shall pplied to each project	gnature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontractors. It Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are A minimum charge of \$76.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will be enf	se order from clie sibility for any los each sample subn	nt comp ises or e nitted to	any to X xpenses Xenco, I	anco, its incurred out not a	affiliates ar by the clie halyzed. Th	ıd subcon nt if such ese terms		t assigns standard terms and conditions due to circumstances beyond the control forced unless previously negotiated.	
Relinquished by: (Signature)	: (Signature)		Received by: (Signature)	2	Date	Date/Time		Relinq	lished t	Relinquished by: (Signature)	ature) Received by: (Signature)	Date/Time
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Revised Date101419 Rev. 2019.1

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

Chain of Custody

Work Order No: 108777

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

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Etech Environmental & Safety Solution, I	Acceptable Temperature Range: 0 - 6 degC							
Date/ Time Received: 08.03.2020 05.02.00 PM	Air and Metal samples Acceptable Range: Ambient							
Work Order #: 668977	Temperature Measuring device used : IR-8							
Sample Recei	pt Checklist Comments							
#1 *Temperature of cooler(s)?	1.9							
#2 *Shipping container in good condition?	Yes							
#3 *Samples received on ice?	Yes							
#4 *Custody Seals intact on shipping container/ cooler?	N/A							
#5 Custody Seals intact on sample bottles?	N/A							
#6*Custody Seals Signed and dated?	N/A							
#7 *Chain of Custody present?	Yes							
#8 Any missing/extra samples?	No							
#9 Chain of Custody signed when relinquished/ received?	Yes							
#10 Chain of Custody agrees with sample labels/matrix?	Yes							
#11 Container label(s) legible and intact?	Yes							
#12 Samples in proper container/ bottle?	Yes BTEX was in bulk container							
#13 Samples properly preserved?	Yes							
#14 Sample container(s) intact?	Yes							
#15 Sufficient sample amount for indicated test(s)?	Yes							
#16 All samples received within hold time?	Yes							
#17 Subcontract of sample(s)?	N/A							
#18 Water VOC samples have zero headspace?	N/A							

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

Analyst:

PH Device/Lot#:

Checklist completed by: Bill Tal Brianna Teel

Date: 08.04.2020

Checklist reviewed by: Jession Vermer

Jessica Kramer

Date: 08.04.2020

Received by OCD: 12/18/2020810810225/AM

eurofins Environment Testing Xenco

12387

Matthew Green

New Mexico

Project Id:

Project Location:

Contact:

Certificate of Analysis Summary 670338

Etech Environmental & Safety Solution, Inc, Midland, TX

Project Name: Pirate State 302H 401H

 Date Received in Lab:
 Tue 08.18.2020 16:15

 Report Date:
 09.17.2020 15:49

Project Manager: Jessica Kramer

	Lab Id:	670338-00	1	670338-002		
Analysis Requested	Field Id:	Bottomhole-1 @	9 6"	Bottomhole-4 @ 6"		
Anaiysis Kequesieu	Depth:	6- In		6- In		
	Matrix:	SOIL		SOIL		
	Sampled:	08.13.2020 1	1:10	08.13.2020 11:15		
BTEX by EPA 8021B	Extracted:			08.19.2020 15:30		
	Analyzed:			08.20.2020 05:48		
	Units/RL:			mg/kg RL		
Benzene				ND 0.00201		
Toluene				ND 0.00201		
Ethylbenzene				ND 0.00201		
m,p-Xylenes				ND 0.00402		
o-Xylene				ND 0.00201		
Total Xylenes				ND 0.00201		
Total BTEX				ND 0.00201		
Chloride by EPA 300	Extracted:	08.19.2020 10	5:35			
	Analyzed:	08.19.2020 22	2:21			
	Units/RL:	mg/kg	RL			
Chloride		36.8	4.96			
TPH by SW8015 Mod	Extracted:	08.19.2020 12	2:00			
	Analyzed:	08.19.2020 21	1:13			
	Units/RL:	mg/kg	RL			
Gasoline Range Hydrocarbons (GRO)		ND	49.9			
Diesel Range Organics (DRO)		ND	49.9			
Motor Oil Range Hydrocarbons (MRO)		ND	49.9			
Total TPH		ND	49.9			

BRL - Below Reporting Limit

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

Jession VRAMER

Received by OCD: 12/18/2020810810825/AM

eurofins Environment Testing Xenco

Analytical Report 670338

for

Etech Environmental & Safety Solution, Inc

Project Manager: Matthew Green

Pirate State 302H 401H 12387

09.17.2020

Collected By: Client



1211 W. Florida Ave Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122): Texas (T104704215-20-38), Arizona (AZ0765), Florida (E871002-33), Louisiana (03054) Oklahoma (2019-058), North Carolina (681), Arkansas (20-035-0)

> Xenco-Dallas (EPA Lab Code: TX01468): Texas (T104704295-20-26), Arizona (AZ0809)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-20-18) Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-20-23) Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-19-21) Xenco-Carlsbad (LELAP): Louisiana (05092) Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-20-8) Xenco-Tampa: Florida (E87429), North Carolina (483) Received by OCD: 12/18/2020810810225/AM

eurofins Environment Testing Xenco

09.17.2020

Project Manager: **Matthew Green Etech Environmental & Safety Solution, Inc** P.O. Box 62228 Midland, TX 79711

Reference: Eurofins Xenco, LLC Report No(s): 670338 Pirate State 302H 401H Project Address: New Mexico

Matthew Green:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Eurofins Xenco, LLC Report Number(s) 670338. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by Eurofins Xenco, LLC. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 670338 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Jession Vermer

Jessica Kramer Project Manager

A Small Business and Minority Company

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

eurofins Environment Testing Xenco

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Sample Cross Reference 670338

Etech Environmental & Safety Solution, Inc, Midland, TX

Pirate State 302H 401H

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
Bottomhole-1 @ 6"	S	08.13.2020 11:10	6 In	670338-001
Bottomhole-4 @ 6"	S	08.13.2020 11:15	6 In	670338-002

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eurofins Environment Testing Xenco

CASE NARRATIVE

Client Name: Etech Environmental & Safety Solution, Inc Project Name: Pirate State 302H 401H

Project ID: 12387 Work Order Number(s): 670338
 Report Date:
 09.17.2020

 Date Received:
 08.18.2020

Sample receipt non conformances and comments:

V1.001 Revision (client email) Corrected sample depths

Sample receipt non conformances and comments per sample:

None

1-Chlorooctane

o-Terphenyl

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Etech Environmental & Safety Solution, Inc, Midland, TX

Pirate State 302H 401H

Sample Id: Bottomhole-1 @ 6' Lab Sample Id: 670338-001	•	Matrix: Date Collec	Soil cted: 08.13.2020 11:10		Date Received:08.1 Sample Depth: 6 In					
Analytical Method: Chloride by EF	PA 300				Prep Method: E30	0P				
Tech: CHE					% Moisture:					
Analyst: CHE		Date Prep:	08.19.2020 16:35		Basis: Wet	Weight				
Seq Number: 3135041										
Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil			
Chloride	16887-00-6	36.8	4.96	mg/kg	08.19.2020 22:21		1			
Analytical Method: TPH by SW80	15 Mod				Pren Method: SWS	8015P				
Analytical Method: TPH by SW80 Tech: DVM Analyst: ARM Seq Number: 3135110	15 Mod	Date Prep:	08.19.2020 12:00		Prep Method: SW8 % Moisture: Basis: Wet	8015P Weight				
Tech: DVM Analyst: ARM	15 Mod Cas Number	·	08.19.2020 12:00 RL	Units	% Moisture:		Dil			
Tech: DVM Analyst: ARM Seq Number: 3135110 Parameter		·		Units mg/kg	% Moisture: Basis: Wet	Weight	Dil			
Tech: DVM Analyst: ARM Seq Number: 3135110	Cas Number	Result	RL		% Moisture: Basis: Wet Analysis Date	Weight Flag				
Tech: DVM Analyst: ARM Seq Number: 3135110 Parameter Gasoline Range Hydrocarbons (GRO)	Cas Number PHC610	Result	RL 49.9	mg/kg	% Moisture: Basis: Wet Analysis Date 08.19.2020 21:13	Weight Flag U	1			
Tech: DVM Analyst: ARM Seq Number: 3135110 Parameter Gasoline Range Hydrocarbons (GRO) Diesel Range Organics (DRO)	Cas Number PHC610 C10C28DRO	Result ND ND	RL 49.9 49.9	mg/kg mg/kg	% Moisture: Basis: Wet Analysis Date 08.19.2020 21:13 08.19.2020 21:13	Weight Flag U U	1			

93

86

%

%

70-130

70-130

08.19.2020 21:13

08.19.2020 21:13

111-85-3

84-15-1

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eurofins Environment Testing Xenco

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Certificate of Analytical Results 670338

Etech Environmental & Safety Solution, Inc, Midland, TX

Pirate State 302H 401H

Sample Id: Bottomhole-4 @ 6'' Lab Sample Id: 670338-002	Matrix: Soil Date Collected: 08.13.2020	Date Received:08.18.2020 16:15 0 11:15 Sample Depth: 6 In
Analytical Method:BTEX by EPA 8021BTech:AMFAnalyst:AMFSeq Number:3135087	Date Prep: 08.19.2020	Prep Method: SW5035A % Moisture: 0 15:30 Basis: Wet Weight

Parameter	Cas Number	r Result	RL		Units	Analysis Date	Flag	Dil
Benzene	71-43-2	NE	0.00201		mg/kg	08.20.2020 05:48	U	1
Toluene	108-88-3	NE	0.00201		mg/kg	08.20.2020 05:48	U	1
Ethylbenzene	100-41-4	NE	0.00201		mg/kg	08.20.2020 05:48	U	1
m,p-Xylenes	179601-23-1	NE	0.00402		mg/kg	08.20.2020 05:48	U	1
o-Xylene	95-47-6	NE	0.00201		mg/kg	08.20.2020 05:48	U	1
Total Xylenes	1330-20-7	NE	0.00201		mg/kg	08.20.2020 05:48	U	1
Total BTEX		NE	0.00201		mg/kg	08.20.2020 05:48	U	1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene		460-00-4	103	%	70-130	08.20.2020 05:48		
1,4-Difluorobenzene		540-36-3	103	%	70-130	08.20.2020 05:48		

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Environment Testing Xenco

Flagging Criteria

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.	ND Not Detected			
RL Reporting Limit				
MDL Method Detection Limit	SDL Sample De	tection Limit	LOD Limit of Detection	
PQL Practical Quantitation Limit	MQL Method Qu	antitation Limit	LOQ Limit of Quantitation	n
DL Method Detection Limit				
NC Non-Calculable				
SMP Client Sample		BLK	Method Blank	
BKS/LCS Blank Spike/Laboratory	Control Sample	BKSD/LCSD	Blank Spike Duplicate/Labo	ratory Control Sample Duplicate
MD/SD Method Duplicate/Samp	ble Duplicate	MS	Matrix Spike	MSD: Matrix Spike Duplicate
+ NELAC certification not offered	for this compound.			

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

Received by OCD: 12/18/2020810310225/AM

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Environment Testing

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QC Summary 670338

Etech Environmental & Safety Solution, Inc

Pirate State 302H 401H

Characterization MB Result Spike Amount LCS Result LCS WRE LCSD Result LCSD WRE LImits WRE WRP REP Result Waits MRE MS WRE LCSD RESULT LImits WRE WRP REP MRE WRE Comp REP MRE LCSD RESULT LImits WRE WRE Comp REP MRE Limits WRE MRE MRE Limits WRE MRE MRE Limits WRE MRE MRE Limits WRE MRE MRE Limits WRE MRE MRE Limits WRE MRE MRE MRE M	Analytical Method: Seq Number: MB Sample Id:	Chloride by 3135041 7709764-1-1)0		Matrix: nple Id:	Solid 7709764-	1-BKS			rep Meth Date Pr D Sample	rep: 08.1	0P 19.2020 9764-1-BSD	
$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	•			-	LCS	LCS	LCSD	LCSD	Limits		RPD		Analysis	Flag
Seq Number: 3135041 Matrix: Soil Date Prep: $08.19.2020$ Parent Sample Id: 670326-004 MSD MSD Sample Id: Soil MSD									90-110	0		mg/kg		
Parent Sample Id:670326-004MS 3mple Id:670326-004 SMSD 1min is to complete Id:MSD 2min is to complete Id:MSD is to	-	-	y EPA 30)0		Matrix	Soil			Pı				
Parameter Parent Result Spike Amount MS Amount MSD Result MSD VRece Linits VRPD Linits Linits Linits Mapping Date Date Date Parameter Analytical Method: Chloride by EPA 300 Sil 35041 Matrix: Soil Free Method: E300P Date 977920 08.19.2020 20.37 Parameter Parameter 3135041 Matrix: Soil Date 977920 Matrix: Soil Date 977920 Mastice 570337-003 St Date 977920 Mastice 570337-003 St Parameter Result Analytice 670337-003 St Mastice 570337-003 St Mastice 570337-003 St Parameter Analytice 1000 1030 10.0 9.0110 0 2.0 mg/kg 08.19.2020 20.1 Seq Number: 3135110 Matrix: Soild Matrix: Soild Matrix: Soild Soild Soild Date 9779753-1-BK Parameter Result Analytice Matrix: Soild Linit Matrix: Matrix: Soild Linit Matrix: Matrix: Soild Linit Matrix: Matrix: <t< td=""><td>-</td><td></td><td></td><td></td><td></td><td></td><td></td><td>04 S</td><td></td><td>MS</td><td></td><td>-</td><td></td><td></td></t<>	-							04 S		MS		-		
Choide 357 253 64 98 609 100 90-110 1 20 mg/kg 08.19.2020 20:57 Analytical Method: Chioride by EPA 300 Matrix: Soil Errep Method: E300P Seq Number: 3135041 Matrix: Soil Errep Method: E300P Parent Sample Id: 670337-003 MS Sample Id: 670337-003 SD MS Sample Id: 670337-003 SD Parameter Parent Annound Mson MS MSS MSD MSD MSD MSD Date Prep: 08.19.2020 Parent Signet Parent Signet Soil Soil Diate Prep: 08.19.2020 Parent Signet Parent Signet Soil Soil Diate Prep: 08.19.2020 Parent Signet Parent Signet Soil Diate Prep: 08.19.2020 Parent Signet Parent Signet Soil Diate Prep: 08.19.2020 Parent Signet Soil Diate Prep: 08.19.2020 Diate Prep: 08.19.2020 Parent Signet Parent Signet Soil Diate Prep: 08.19.2020 Diate Prep: 08.19.2020 Diate Prep: 08.19.2020 Diate Prep:	-	070320-004	Parent	-	MS	MS	MSD	MSD	Limits		RPD		Analysis	Flag
Seq Number: 3135041 Matrix: Soil Date Prep: 08.19.2020 Parent Sample Id: 670337-003 MS Sample Id: 670337-003 S MSD Sample Id: 670337-003 SD Parent Sample Id: 670337-003 S MSD MSD Sample Id: 670337-003 SD Prep: 08.19.2020 Prep: 08.19.2020 Prep: 0 20 mg/kg 08.19.2020 Prep: 0 0 20 mg/kg 08.19.2020 22:11 Prep: 0 10 0 20 mg/kg 0 10 10 10 10 10 10 10 10 10 10 10<	Chloride								90-110	1		mg/kg		
Parameter Chloride Parent Result Spike Amount MS Source S370 MSD Source S380 MSD Voce S380 Linit Sol MISD Source S00 MSD Source S00 Linits %RPD Linit MPD Linit Units Analysis Date Mage Fag Analytical Method: TPH by SW8015 Mod 1250 Jassi S370 Jassi S370 Jossi S370 Jossi S370 Jossi S380 Jossi S380	-	-	y EPA 30)0		Matrix:	Soil			Pı	-			
Parameter Result Amount Result %Rec Result %Rec Limit Date Parameter Chloride 4060 1250 5370 105 5380 106 90-110 0 20 mg/kg 08.19.2020 22:11 Analytical Method: TPH by SW8015 Mod Katrix: Solid Solid Date Prep: 08.19.2020 Date Prep: 08.19.2020 Date Prep: 08.19.2020	Parent Sample Id:	670337-003			MS Sar	nple Id:	670337-0	03 S		MS		-	337-003 SD	
Analytical Method: TPH by SW8015 Mod Matrix: Solid Prep Method: SW8015P Seq Number: 3135110 Matrix: Solid Date Prep: 08.19.2020 MB Sample Id: 7709753-1-BLK LCS Sample Id: 7709753-1-BKS LCSD Sample Id: 7709753-1-BSD Parameter MB Spike LCS LCS LCSD LCSD Lmit Matrix: Solid Flag Gasoline Range Hydrocarbons (GRO) <0.00	Parameter			-					Limits	%RPD		Units	•	Flag
Seq Number: 3135110 Matrix: Solid Date Prep: 08.19.2020 MB Sample Id: 7709753-1-BLK LCS Sample Id: 7709753-1-BKS LCSD Sample Id: 7709753-1-BSD Parameter MB Result Spike Amount LCS Result LCS %Rec LCSD LCSD Linits %RPD RPD Linit Units Analysis Date Flag Gasoline Range Hydrocarbons (GRO) <50.0 1000 1030 103 965 97 70-130 7 20 mg/kg 08.19.2020 12:34 Surrogate MB %Rec MB Flag MB %Rec LCS LCS LCS LCS LCS LCS LCS LCSD LosD Linits Vnits Analysis Date Flag Surrogate MB %Rec MB Flag MB %Rec LCS Flag LCSD LCSD LCSD LosD LosD Maltsis Date Date Prop Mits Analysis Date Date Surrogate MB %Rec MB Flag LCS %Rec LCS LCSD LCSD LosD LosD Ma	Chloride		4060	1250	5370	105	5380	106	90-110	0	20	mg/kg	08.19.2020 22:11	
MB casoline Range Hydrocarbons (GRO) Spike Amount LCS Neeu LCSD Neec LCSD Neec <thl< td=""><td>Seq Number:</td><td>3135110</td><td></td><td>od</td><td></td><td></td><td></td><td></td><td></td><td></td><td>Date Pr</td><td>rep: 08.1</td><td>9.2020</td><td></td></thl<>	Seq Number:	3135110		od							Date Pr	rep: 08.1	9.2020	
Parameter Result Amount Result %Rec Result %Rec Limit Date Prig Gasoline Range Hydrocarbons (GRO) <50.0	-	7709753-1-1		Snike		-			Limits		-			
Diesel Range Organics (DRO) <50.0 1000 1030 103 947 95 70-130 8 20 mg/kg 08.19.2020 12:34 Surrogate MB %Rec MB Flag MB %Rec LCS Flag LCS %Rec LCSD Flag LCSD %Rec LCSD Flag LCSD %Rec LCSD Flag LCSD %Rec LCSD Flag LCSD %Rec LCSD Flag LCSD %Rec Flag %Rec %Rec Flag %Rec %Rec %Rec %Rec %Rec %Rec %Rec %Rec %Rec	Parameter			-					Linns	/ord D		Cinto	-	Flag
Surrogate%RecFlag%RecFlag%RecFlag%RecFlag%RecFlag%RecFlagMate1-Chlorooctane1051119670-130%08.19.2020 12:34o-Terphenyl1021138770-130%08.19.2020 12:34Analytical Method:TPH by SW8015 ModMatrix:SolidPrep Method:SW8015PSeq Number:3135110Matrix:SolidDate Prep:08.19.2020MB Sample Id:7709753-1-BLKMatrix:SolidDate Prep:08.19.2020ParameterMB ResultMB ResultImage: SubstanceMatrixFlag														
Analytical Method: TPH by SW8015 Mod Seq Number: Matrix: Solid 113 No No No Analytical Method: TPH by SW8015 Mod Seq Number: Matrix: Solid Matrix: Solid Solid Solid Solid Matrix: Prep Method: SW8015P Date Prep: 08.19.2020 Parameter MB Result MB Result Troppost Image: SW8015P Date Prep: 08.19.2020	Surrogate										imits	Units	-	
Seq Number: 3135110 Matrix: Solid Date Prep: 08.19.2020 MB Sample Id: 7709753-1-BLK Parameter MB Result Units Analysis Date Flag														
Parameter Result Date	-	-	V8015 M	od				1-BLK		Pı				
Motor Oil Range Hydrocarbons (MRO) ND mg/kg 08.19.2020 12:12	Parameter											Units	-	Flag
	Motor Oil Range Hydrocard	bons (MRO)			ND							mg/kg	08.19.2020 12:12	

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

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LCS = Laboratory Control Sample A = Parent Result C = MS/LCS Result E = MSD/LCSD Result MS = Matrix Spike B = Spike Added D = MSD/LCSD % Rec

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Received by OCD: 12/18/2020810310225/AM

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Environment Testing

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QC Summary 670338

Etech Environmental & Safety Solution, Inc

Pirate State 302H 401H

Analytical Method:	TPH by S	W8015 M	od						Pi	rep Meth	od: SW	8015P	
Seq Number:	3135110				Matrix:	Soil				Date Pr	ep: 08.1	9.2020	
Parent Sample Id:	670276-00)1		MS Sar	nple Id:	670276-00	01 S		MS	D Sample	e Id: 670	276-001 SD	
Parameter		Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarb	ons (GRO)	<49.9	998	970	97	986	99	70-130	2	20	mg/kg	08.19.2020 13:38	
Diesel Range Organics	(DRO)	<49.9	998	989	99	1000	100	70-130	1	20	mg/kg	08.19.2020 13:38	
Surrogate					IS Rec	MS Flag	MSD %Re			imits	Units	Analysis Date	
1-Chlorooctane				1	08		109	1	70	-130	%	08.19.2020 13:38	
o-Terphenyl				1	07		108		70	-130	%	08.19.2020 13:38	

Analytical Method:	BTEX by EPA 8021	B						P	rep Meth	od: SW	5035A	
Seq Number:	3135087			Matrix:	Solid				Date Pr	ep: 08.1	9.2020	
MB Sample Id:	7709815-1-BLK		LCS San	nple Id:	7709815-	I-BKS		LCS	D Sample	e Id: 770	9815-1-BSD	
Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	< 0.00200	0.100	0.102	102	0.105	105	70-130	3	35	mg/kg	08.20.2020 03:07	
Toluene	< 0.00200	0.100	0.112	112	0.117	117	70-130	4	35	mg/kg	08.20.2020 03:07	
Ethylbenzene	< 0.00200	0.100	0.0983	98	0.103	103	70-130	5	35	mg/kg	08.20.2020 03:07	
m,p-Xylenes	< 0.00400	0.200	0.193	97	0.204	102	70-130	6	35	mg/kg	08.20.2020 03:07	
o-Xylene	< 0.00200	0.100	0.0974	97	0.102	102	70-130	5	35	mg/kg	08.20.2020 03:07	
Surrogate	MB %Rec	MB Flag		CS Rec	LCS Flag	LCSI %Re			imits	Units	Analysis Date	
1,4-Difluorobenzene	95		1	00		101		70	-130	%	08.20.2020 03:07	
4-Bromofluorobenzene	100		1	00		101		70	-130	%	08.20.2020 03:07	

Analytical Method:	BTEX by EPA 8021	B						Pi	ep Metho	od: SW	5035A	
Seq Number:	3135087]	Matrix:	Soil				Date Pr	ep: 08.1	9.2020	
Parent Sample Id:	670350-001		MS San	nple Id:	670350-00	01 S		MS	D Sample	e Id: 670	350-001 SD	
Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	< 0.00200	0.0998	0.0589	59	0.0652	66	70-130	10	35	mg/kg	08.20.2020 03:48	Х
Toluene	< 0.00200	0.0998	0.0367	37	0.0493	50	70-130	29	35	mg/kg	08.20.2020 03:48	Х
Ethylbenzene	< 0.00200	0.0998	0.0162	16	0.0279	28	70-130	53	35	mg/kg	08.20.2020 03:48	XF
m,p-Xylenes	< 0.00399	0.200	0.0268	13	0.0490	25	70-130	59	35	mg/kg	08.20.2020 03:48	XF
o-Xylene	< 0.00200	0.0998	0.0144	14	0.0248	25	70-130	53	35	mg/kg	08.20.2020 03:48	XF
Surrogate				IS Rec	MS Flag	MSD % Po			mits	Units	Analysis Date	

%Rec	Flag	%Rec	Flag			Date
104		103	7	70-130	%	08.20.2020 03:48
100		101	7	70-130	%	08.20.2020 03:48
	%Rec 104	%Rec Flag 104	%Rec Flag %Rec 104 103	%Rec Flag %Rec Flag 104 103 7	%Rec Flag %Rec Flag 104 103 70-130	%Rec Flag %Rec Flag 104 103 70-130 %

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

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LCS = Laboratory Control Sample A = Parent Result C = MS/LCS Result E = MSD/LCSD Result MS = Matrix Spike B = Spike Added D = MSD/LCSD % Rec

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Final 1.001

	A All I	Relinquished by	Notice: Signature of this of service. Xenco will be of Xenco. A minimum ch				Bottomhole-4 @ 3"	Bottomhole-1 @ 3"	Sample Identification	Sample Custody Seals:	Cooler Custody Seals:	Received Intact:	Temperature (°C):	SAMPLE RECEIPT	PO#:	Sampler's Name:	Project Location	Project Number:	Project Name:	Phone:	City, State ZIP:	Address:	Company Name:	Project Manager:	
	Gers	by: (Signature)	Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Xenco, its affiliates and subcontract of service. Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such loss of Xenco. A minimum charge of \$75.00 will be applied to each project and a charge of \$5 for each sample submitted to Xenco, but not analyzed. These terms will				e-4 @ 3"			als: Yes No	Is: Yes No	No (Xes No	<u>8</u> (C 酸	A L	#BJV	Joel	Nev		Pirate Sta	432-563-2200	Midland, Texas 79711	PO Box 62228	Etech Environmental & Safety Solutions,	Matt Green	
•		R Progreshy	hment of samples co of samples and shall oplied to each project				8/13/2020	8/13/2020	Matrix Date Sampled	N/A Total Containers:	N/A Correction Factor:	ō		emp_Blank: Yes_No	to pate or	Joet Mendozal Vart	New Mexico	12387	Pirate State 302H 401H		9711		ntal & Safety So		
		ved by: (Signature)	nstitutes a valid pur not assume any res and a charge of \$5				0 1115	0 1100	Time Sampled	ainers:	Factor:		Ther	Vet Ice:		Crapue Date:	Rush:	CONTRACT	Tun	Email: N	0		Inc	B	
8		e)	rchase order from o ponsibility for any for each sample su						Depth Numb	er of	Co			Yes No S/Pr					Turn Around	Email: Matt@etechenv.com	City, State ZIP:	Address:	Company Name:	Bill to: (if different)	
(1:9, B1/B		Date/Time	lient company to X losses or expenses Ibmitted to Xenco, I				 ×	×	Code TPH 80 BTEX 8											1.com			Centennial		, mainet
S ₁	2	Re	enco, its affiliat i incurred by the but not analyze					×	Chlorid	les Ei	300														
																			ANALYSIS REQUEST						
		(Signature)	ors. It assigns standard terms and condi as are due to circumstances beyond the c be enforcad unless previously negotiated.																UEST	Deliverables: EDD	Reporting:Level	State of Project:	Program: UST/PST PRF Brownfield RR		
		Received by: (Signature)	arms and conditi is beyond the co isly negotiated.	NORM TAT	 								<u> </u>								el 🔲 Level 🗌	roject:	T/PST PRP	Work	www.xe
		(Signature)	ons ntrol	NORM TAT circle one :								Zn	Me	Na	No	H	H2	HN		ADaPT			Brownfie	§ ∣	www.xenco.com
) Date/Time		:7 day, 5 day , Rush 3 day					Sample Comments	lab, if received by 4:30pm	FAT starts the day receive	Zn Acetate+ NaOH: Zn	MeOH: Me	NaOH: Na	None: NO	HCL: HL	H2S04: H2	HNO3: HN	Preservative Codes	☐ Other: contract			eld RR Superfund	nments	Page of

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

Chain of Custody

Work Order No: U10336

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

Eurofins Xenco, LLC

Prelogin/Nonconformance Report- Sample Log-In

Client: Etech Environmental & Safety Solution, I	Acceptable Temperature Range: 0 - 6 degC Air and Metal samples Acceptable Range: Ambient					
Date/ Time Received: 08.18.2020 04.15.00 PM						
Work Order #: 670338	Temperature Measuring device used : IR-8					
Sample Recei	pt Checklist	Comments				
#1 *Temperature of cooler(s)?	2.9					
#2 *Shipping container in good condition?	Yes					
#3 *Samples received on ice?	Yes					
#4 *Custody Seals intact on shipping container/ cooler?	N/A					
#5 Custody Seals intact on sample bottles?	N/A					
#6*Custody Seals Signed and dated?	N/A					
#7 *Chain of Custody present?	Yes					
#8 Any missing/extra samples?	No					
#9 Chain of Custody signed when relinquished/ received?	Yes					
#10 Chain of Custody agrees with sample labels/matrix?	Yes					
#11 Container label(s) legible and intact?	Yes					
#12 Samples in proper container/ bottle?	Yes	BTEX was in bulk container				
#13 Samples properly preserved?	Yes					
#14 Sample container(s) intact?	Yes					
#15 Sufficient sample amount for indicated test(s)?	Yes					
#16 All samples received within hold time?	Yes					
#17 Subcontract of sample(s)?	N/A					
#18 Water VOC samples have zero headspace?	N/A					

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

Analyst:

PH Device/Lot#:

Checklist completed by: Billion Tal Brianna Teel

Date: 08.19.2020

Checklist reviewed by: Jession Vermer

Jessica Kramer

Date: 08.19.2020

State of New Mexico Energy Minerals and Natural Resources Department

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

)

Incident ID	
District RP	
Facility ID	39031
Application ID	

Release Notification

Responsible Party

Responsible Party: Centennial Resource Development	OGRID: 372165			
Contact Name: Jamon Hohensee	Contact Telephone: 432-241-4283			
Contact email: jamon.hohensee@cdevinc.com	Incident # (assigned by OCD)			
Contact mailing address: 500 W Illinois Ave Suite 500, Midland TX, 79705				

Location of Release Source

Latitude 32.22384_

_____ Longitude -103.46814____ (NAD 83 in decimal degrees to 5 decimal places)

Site Name: Pirate State CTB 1	Site Type: Tank Battery
Date Release Discovered: 4/26/2020	API# 3002545777

Unit Letter	Section	Township	Range	County
Т	24S	34E	16	Lea

Surface Owner: 🛛 State 🗌 Federal 🔲 Tribal 🗌 Private (Name: ______

Nature and Volume of Release

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

Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	Yes No
Condensate	Volume Released (bbls)	Volume Recovered (bbls)
Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)
H2S Scavenger	2 gallons	0 gallons
0 00 1		

Cause of Release

A malfunction in a check valve from separator allowed 2 gallons of H2S scavenger fluid to accumulate in the flare line. When operations began the scavenger fluid was moved to the tip of the flare and ignited. The gas lift compressor was down and the amount of time it was down could account for the amount of fluid in the line.

Form C-141 State of New Mexico Incident ID Page 2 Oil Conservation Division Incident ID Page 1 District RP Page 1 All field of Conservation Division If YES, for what reason(c) does the responsible party consider this a major release? If YES IN NMAC2 Resulted in a fire that was immediately put out. Approx. 10×10° area. If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Notice by phone was given on 4-27-2020 8.00am CST to Kerry Fortner by Jamon Hohensee and the API 3002545777 was used as reference. Initial Response The responsible party must undertake the following actions immediately untex they could create a safety heard that would result in inpury The source of the release has been stopped. The source of the release has been stopped. All free liquids and recoverable materials have been removed and managed appropriately. If all the actions described above have not been undertaken, explain why: If all the actions described above have not been to the the only (S) (NMAC2) please attach a marative of actions to date. If remediation immediately after discovery of a release. If remediation which a line dorto are noted for closure evaluation. If real undertaken a marative of actions to date. If remediation immediately after discovery of a release. If remediation which all the actions described above have not been to the been forefore orcettely. </th <th></th> <th>State of New Mexico</th> <th></th>		State of New Mexico							
Was this a major release as defined by 19.15.29.7(A) NMAC? If YES, for what reason(s) does the responsible party consider this a major release? Resulted in a fire that was immediately put out. Approx. 10'x10' area. If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Notice by phone was given on 4-27-2020 8:00am CST to Kerry Fortner by Jamon Hohensee and the API 3002545777 was used as reference. If the source of the release has been stopped. The impacted area has been secured to protect human health and the environment. Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. All free liquids and recoverable materials have been removed and managed appropriately. If all the actions described above have not been undertaken, explain why: Image: the instantion release of a Contained via the use of plerms or dikes, absorbent pads, or other containment devices. All free liquids and recoverable materials have been removed and managed appropriately. If all the actions described above have not been undertaken, explain why: Instrain the information given above is true and complete to the best of my knowledge and understand that pursuant to COD rules and regulations all operators are required to report and or file certain release not release not release of release of a release of a C-11 report does not releve to portsoil of the release of a C-14 report of a contreleve enotereve atom of release of a C-14 report of a	Page 2		Incident ID						
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OCD Only

Received by: _____ Date: _____

Form C-141 Page 3

State of New Mexico **Oil Conservation Division**

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

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

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

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

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

Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells. Field data

Data table of soil contaminant concentration data

Received by OCD:

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 lan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan nd methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 9.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Form C-141 Page 4	State of New Mexico Oil Conservation Division	Incident ID District RP Facility ID Application ID	
regulations all operators a public health or the enviro failed to adequately invest	aformation given above is true and complete to the best are required to report and/or file certain release notificat onment. The acceptance of a C-141 report by the OCD tigate and remediate contamination that pose a threat to e of a C-141 report does not relieve the operator of resp	ions and perform corrective actions for relea does not relieve the operator of liability she groundwater, surface water, human health	ases which may endanger ould their operations have or the environment In
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Signature:		te:	
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Received by:		Date:	

S Form C-141 Page 5

State of New Mexico Oil Conservation Division

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

Incident ID	
District RP	
Facility ID	
Application ID	

Remediation 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 co	onfirmed 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:						
Signature:	Date:					
email:	Telephone:					
OCD Only						
Received by:	Date:					
Approved Approved with Attached Conditions of	Approval Denied Deferral Approved					
Signature:	Date:					

SForm C-141 SPage 6

State of New Mexico Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Closure

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

Closure Report Attachment Checklist: Each of the	e 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 backf must be notified 2 days prior to liner inspection)	fill or photos of the liner integrity if applicable (Note: appropriate OCD District office
Laboratory analyses of final sampling (Note: app	ropriate ODC District office must be notified 2 days prior to final sampling)
Description of remediation activities	
and regulations all operators are required to report and/ may endanger public health or the environment. The a should their operations have failed to adequately invest human health or the environment. In addition, OCD ac compliance with any other federal, state, or local laws a restore, reclaim, and re-vegetate the impacted surface a	e and complete to the best of my knowledge and understand that pursuant to OCD rules for file certain release notifications and perform corrective actions for releases which cceptance of a C-141 report by the OCD does not relieve the operator of liability tigate and remediate contamination that pose a threat to groundwater, surface water, cceptance of a C-141 report does not relieve the operator of responsibility for and/or regulations. The responsible party acknowledges they must substantially trea to the conditions that existed prior to the release or their final land use in thion to the OCD when reclamation and re-vegetation are complete.
Printed Name:	Title:
Signature:	Date:
email:	Telephone:
OCD Only	
Received by:	Date:
Closure approval by the OCD does not relieve the response remediate contamination that poses a threat to groundwate party of compliance with any other federal, state, or loc Closure Approved by:	onsible party of liability should their operations have failed to adequately investigate and ater, surface water, human health, or the environment nor does not relieve the responsible cal laws and/or regulations.
Closure Approved by:	Date:
Printed Name:	Title:
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Recei	

District I 1625 N. French Dr., Hobbs, NM 88240

District II

District IV

Phone:(575) 393-6161 Fax:(575) 393-0720

811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

Phone:(505) 334-6178 Fax:(505) 334-6170

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

District III 1000 Rio Brazos Rd., Aztec, NM 87410

CONDITI	ONS

Action 10519

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

CONDITIONS OF APPROVAL

Operator:			OGRID:	Action Number:	Action Type:
CENTENNIAL RESOURCE PRODUCTION	1001 17th Street, Suite 1800	Denver, CO80202	372165	10519	C-141
OCD Reviewer		Condition			
ceads		None			