

Trinity Oilfield Services & Rentals, LLC

Environmental Site Summary & Spill Remediation Plan



Company: OXY USA, Inc. Address: P.O. Box 4294, Houston, TX 77210 Telephone #: (575) 390-2828

Site Name: Indian Basin Station 210 NMOCD Reference#: 2RP-4332

Surface Owner: US BLM Mineral Owner: US BLM

Unit Letter: "M" (SW/SW) Section: 10 Township: 21S Range: 23E County: Eddy GPS Coordinates: 32.48752 N -104.59618 W

Depth to Ground Water: 175' - 180' Distance to Surface Water Body: ☐ <200' ☐ 200' - 1,000' ☒ >1,000'

Wellhead Protection Area: <1,000' from Water Source or <200' from Domestic Water Source? ☐ Y ☒ N

NMOCD Ranking Score: 0 Soil Remediation Levels (mg/kg): Benzene: 10 BTEX: 50 TPH: ☐ 100 Chloride: ☐ 250
☐ 1,000 ☐ 500
☒ 5,000 ☒ 1,000

Date/Time of Release: 7/15/2017 Type of Release: Produced Water Approximate Volume of Release: 100 bbls

Background Information:

On July 15, 2017, OXY USA, Inc. (OXY), discovered a release at the Indian Basin Station 210 tank battery. A fire of unknown origin destroyed a 500 barrel (bbl) fiberglass tank, resulting in the release of approximately 100 bbls of produced water. The majority of the release was confined to the steel containment surrounding the tank and affected an area inside the containment measuring approximately 40' x 40'. The release also affected an area of the adjacent caliche pad measuring approximately 6,800 square feet. The storage tank was replaced following initial response activities.

The release was immediately reported to the New Mexico Oil Conservation Division's (NMOCD) Artesia District Office and the United States Department of the Interior - Bureau of Land Management's (BLM) Carlsbad District Office. The NMOCD "Release Notification & Corrective Action" (Form C-141) is provided as Appendix A. General photographs of the release site are provided in Attachment B. A "Site Location Map" is provided as Figure 1.

Summary of Field Activities:

On July 26, 2017, a series of soil samples (SP-1 through SP-8) were collected at the site to investigate the extent of impacted soil. The soil samples ranged in depth from approximately 6 inches to 1 foot below ground surface (bgs). The soil samples were submitted to Xenco Laboratories in Midland, Texas, for analysis of total petroleum hydrocarbons (TPH), benzene, toluene, ethylbenzene, and total xylenes (BTEX), and/or chloride concentrations using Environmental Protection Agency (EPA) Methods SW 846-8021b, SW 846-8015M, and 300.1, respectively. Laboratory analytical results indicated TPH and BTEX constituent concentrations were below the NMOCD "Recommended Remediation Action Levels" (RRALs) established for the site. However, additional delineation to determine the vertical extent of chloride contamination is required.

Locations of the soil samples are depicted in Figure 2, "Sample Location Map". Laboratory analytical results are summarized in Table 1, and analytical reports are provided in Appendix C.

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Proposed Activities:

OXY proposes to conduct the following activities to progress the Indian Basin Station 210 release site to an NMOCD- and BLM-approved closure:

- Heavily impacted, visibly stained soil on the caliche pad will be scraped up and stockpiled on-site on 6-mil plastic, pending transfer to an NMOCD-permitted facility for disposal.
- The man-made earthen mound under the Indian Basin Station 210 storage tank and steel containment will be razed to the ground. All soil removed from the mound will be stockpiled on-site, pending disposal. The mound and containment area will be rebuilt following completion of all proposed remediation activities.
- Delineation trenches will be advanced at the site (including 1 in the footprint of the razed earthen mound) to further delineate the vertical extent of impacted soil. Soil samples will be collected at 1- to 2-foot vertical intervals and field-screened with a chloride field test kit. Representative soil samples will be submitted to Xenco Laboratories for confirmatory analyses of chloride, TPH, and/or BTEX concentrations using the EPA laboratory analytical methods described in the "Summary of Remediation Activities" above.
- Following delineation activities, impacted soil will be excavated until laboratory analytical results indicate contaminants of concern are below the RRALs established for the site by the NMOCD, or to a maximum depth of 4 feet bgs. The horizontal limits of the excavation will be determined by field-screening using a chloride field test kit. Confirmation soil samples will be collected at approximately fifty-foot (50') horizontal increments and submitted to Xenco Laboratories for analysis of chloride, TPH, and/or BTEX concentrations using the laboratory analytical methods described above.
- Should it be required, a 20-mil polyurethane liner will be installed in the excavation at approximately 3 feet bgs. A cushion of sand will be installed approximately 1 foot both above and below the liner to protect it from damage during installation and backfilling activities. This engineered control will serve to inhibit vertical migration of contaminants left in-situ.
- Following remediation activities, the excavation will be backfilled in 18-inch lifts, compacted, and contoured to fit the surrounding topography.
- Upon completion of the aforementioned corrective actions, a "Remediation Summary" will be submitted to the NMOCD and BLM, documenting remediation activities and results of confirmation soil samples.

Proposed Soil Boring/Monitor Well Locations:

N/A	N	N/A	W
	N		W
	N		W
	N		W
	N		W

Name/Description:

N/A

Enclosures:

Figure 1: Site Location Map

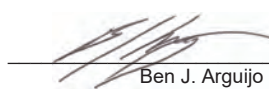
Figure 2: Sample Location Map

Table 1: Concentrations of Benzene, BTEX, TPH & Chloride in Soil

Appendix A: Release Notification & Corrective Action (Form C-141)

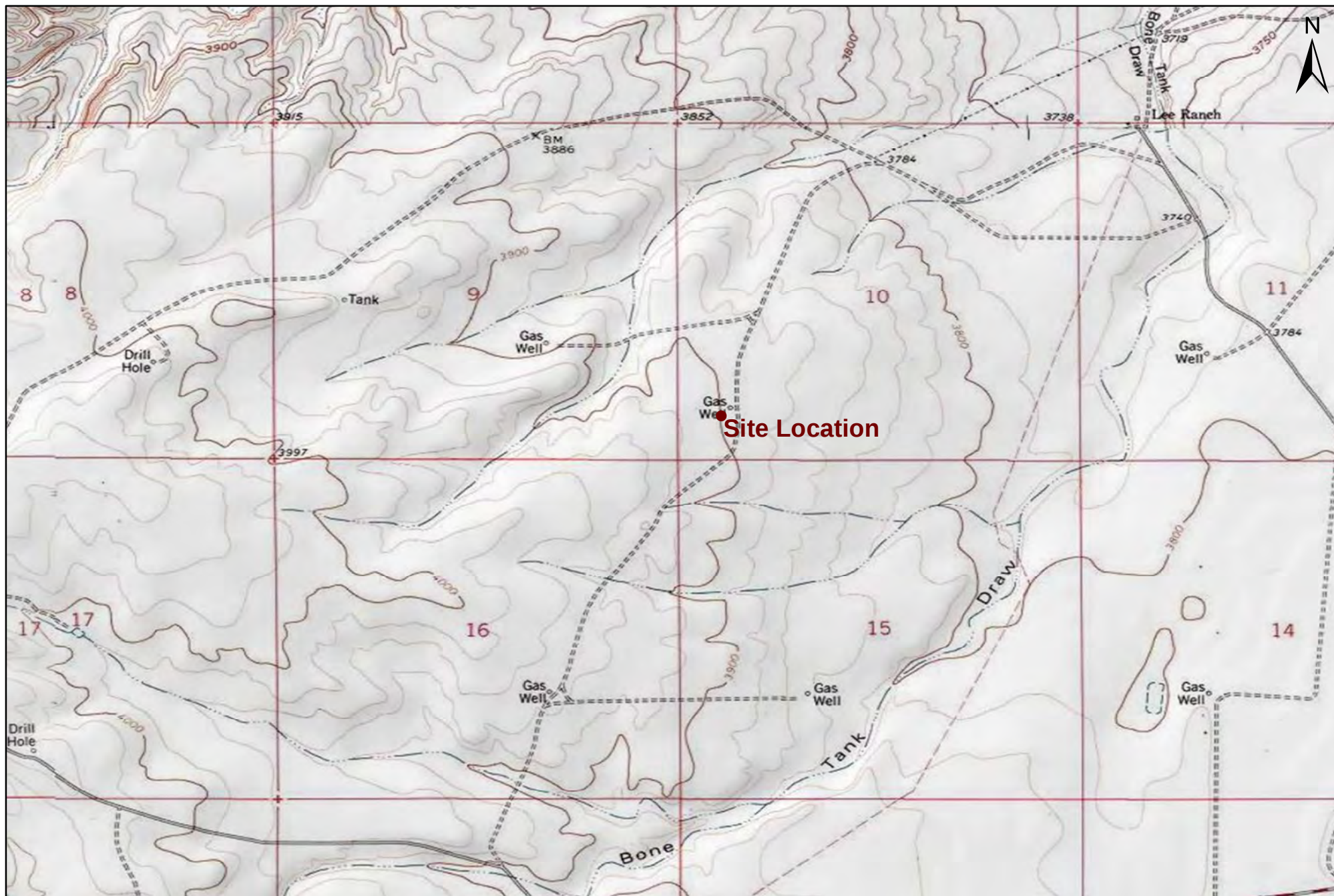
Appendix B: Photographs

Appendix C: Laboratory Analytical Results


Ben J. Arguijo
Project Manager

8/17/2017

Figures



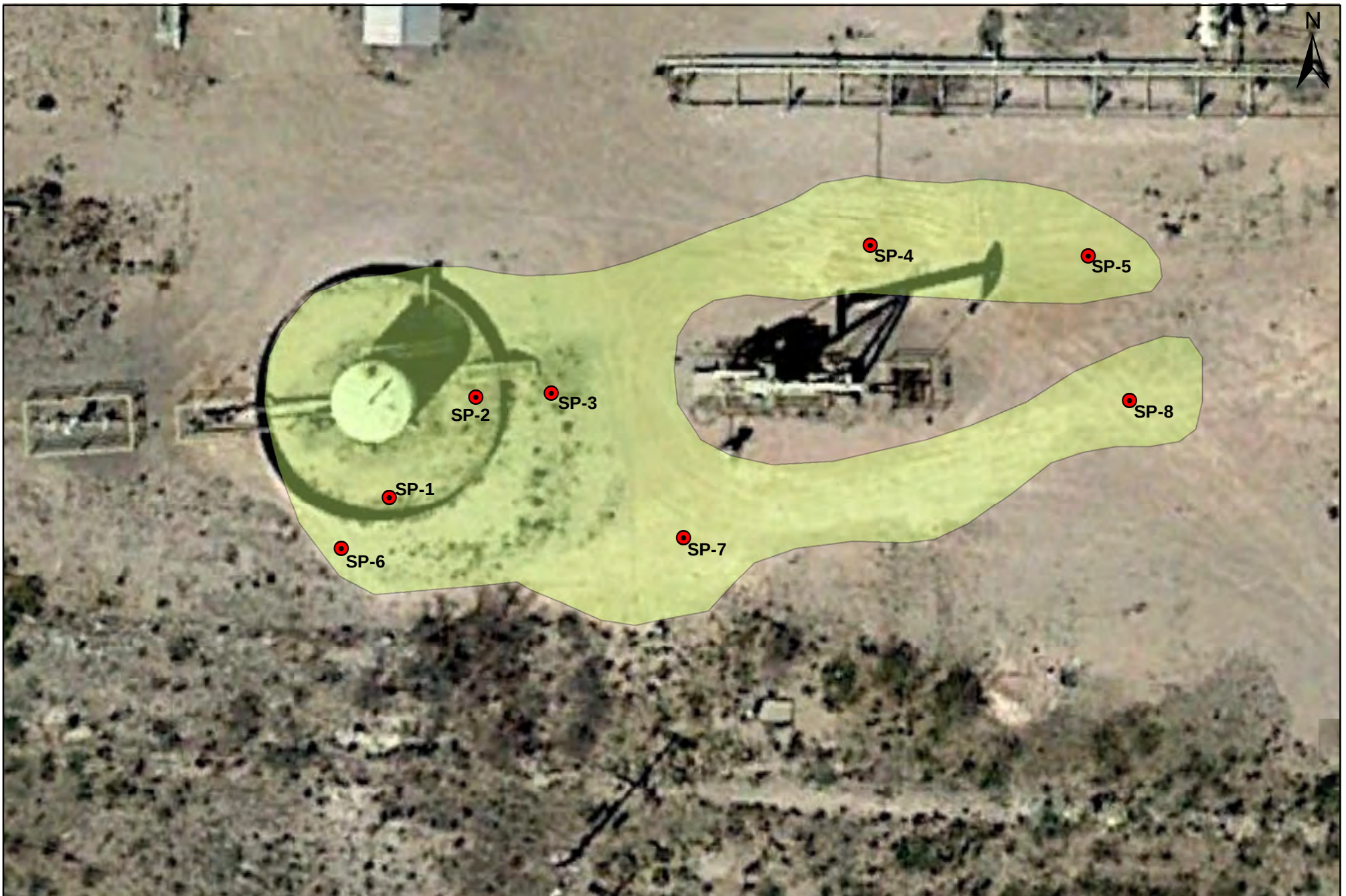
2,000 1,000 0 2,000
Distance in Feet

Figure 1
Site Location Map
OXY USA, Inc.
Indian Basin Station 210
Eddy County, New Mexico
NMOCD Reference #: 2RP-4322



Trinity Oilfield Services & Rentals, LLC
P.O. Box 2587
Hobbs, NM 88241

Drawn By: BJA	Checked By: CTR
August 16, 2017	Scale: 1" = 2,000'



25 12.5 0 25



Distance in Feet

Legend



Release



Sample Location

Figure 2
Sample Location Map
 OXY USA, Inc.
 Indian Basin Station 210
 Eddy County, New Mexico
 NMOCD Reference #: 2RP-4322



Trinity Oilfield Services & Rentals, LLC
 P.O. Box 2587
 Hobbs, NM 88241

Drawn By: BJA

Checked By: CTR

August 16, 2017

Scale: 1" = 25'

Tables

TABLE 1
CONCENTRATIONS OF BENZENE, BTEX, TPH & CHLORIDE IN SOIL

OXY USA, INC.
INDIAN BASIN STATION 210
EDDY COUNTY, NEW MEXICO
NMOCD REF. #: 2RP-4332



SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	METHOD: EPA SW 846-8021B, 5030							METHOD: 8015M				300.1
				BENZENE (mg/Kg)	TOLUENE (mg/Kg)	ETHYL-BENZENE (mg/Kg)	M,P-XYLENES (mg/Kg)	O-XYLENE (mg/Kg)	TOTAL XYLENES (mg/Kg)	TOTAL BTEX (mg/Kg)	GRO C ₆ -C ₁₂ (mg/Kg)	DRO C ₁₂ -C ₂₈ (mg/Kg)	EXT DRO C ₂₈ -C ₃₅ (mg/Kg)	TPH C ₆ -C ₃₅ (mg/Kg)	CHLORIDE (mg/Kg)
NMOCD Recommended Remediation Action Levels (RRALs)				10	NE	NE	NE	NE	NE	50	NE	NE	NE	5,000	1,000
SP-1	0.5'	7/26/17	In-Situ	0.0043	0.0421	0.0182	0.0555	0.0334	0.0889	0.154	58.2	179	<15.0	237	2,950
SP-2	0.5'	7/26/17	In-Situ	<0.0020	0.0108	0.0042	0.0160	0.0091	0.0251	0.0401	37.8	192	<14.9	230	2,950
SP-3	0.5'	7/26/17	In-Situ	<0.0020	0.0049	<0.0020	0.0100	0.0048	0.0148	0.0197	<15.0	<15.0	<15.0	<15.0	2,430
SP-4	0.5'	7/26/17	In-Situ	<0.0020	0.0100	0.0027	0.0085	0.0036	0.0121	0.0247	<15.0	43.0	<15.0	43.0	1,220
SP-5	0.5'	7/26/17	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	<15.0	<15.0	<15.0	1,080
SP-6	0.5'	7/26/17	In-Situ	<0.0020	0.0411	0.0454	0.3070	0.0704	0.3770	0.4640	233	398	<15.0	631	3,100
SP-7	0.5'	7/26/17	In-Situ	<0.0020	0.0023	<0.0020	0.0062	0.0031	0.0093	0.0116	<15.0	<15.0	<15.0	<15.0	2,430
SP-8	0.5'	7/26/17	In-Situ	<0.0020	<0.0020	0.0027	0.0120	0.0040	0.0160	0.0187	<15.0	83.6	<15.0	83.6	1,550

NE = Not established

- = Not analyzed

Concentrations in BOLD exceed NMOCD RRALs

Appendices

Appendix A

Release Notification &

Corrective Action (Form C-141)

NM OIL CONSERVATION

ARTESIA DISTRICT

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

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

AUG 09 2017

Form C-141
Revised April 3, 2017

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

FAB1722256833

Release Notification and Corrective Action

NAB1722257112

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company	OXY USA WTP LP 192413	Contact	WADE DITTRICH
Address	PO BOX 4294; HOUSTON, TX 77210	Telephone No.	575-390-2828
Facility Name	INDIAN BASIN STATION 210	Facility Type	BATTERY

Surface Owner	BLM	Mineral Owner	BLM	API No.
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LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
M	10	21S	23E					

Latitude 32.48752 Longitude -104.59618 NAD83

NATURE OF RELEASE

Type of Release	PRODUCED WATER	Volume of Release	100 bbls	Volume Recovered	100 bbls
Source of Release	500 bbl FIBERGLASS TANK FIRE - FIRE	Date and Hour of Occurrence	7-15-2017	Date and Hour of Discovery	
SOURCE UNKNOWN					
Was Immediate Notice Given?		If YES, To Whom?			
☒ Yes ☐ No ☐ Not Required		CRYSTAL WEAVER-NMOCD; MIKE BRATCHER-NMOCD; SHELLY TUCKER-BLM			
By Whom?		Date and Hour			
WADE DITTRICH		7-17-17 @ 9:11 AM			
Was a Watercourse Reached?		If YES, Volume Impacting the Watercourse.			
☐ Yes ☒ No					

If a Watercourse was Impacted, Describe Fully.*

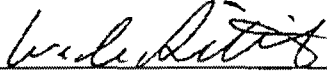
Describe Cause of Problem and Remedial Action Taken.*

Spill caused by a tank fire on 500 bbl fiberglass tank, caused 100 bbl leak of produced water. Tank has been replaced and is back in service.

Describe Area Affected and Cleanup Action Taken.*

The affected area of the spill is 40x40 FT, Leak is at battery (measurements are subject to change with GPS tracking). Remediation will be completed in accordance with a remediation plan approved by the NMOCD and the BLM.

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

Signature: 	OIL CONSERVATION DIVISION	
Printed Name: WADE DITTRICH	Approved by Environmental Specialist 	
Title: ENVIROMENTAL COORDINATOR	Approval Date: 8/10/17	Expiration Date: N/A
E-mail Address: wade.dittrich@oxy.com	Conditions of Approval: 	
Date: 8/8/2017 Phone: 575-390-2828	Attached ☐ ARP-4338	

* Attach Additional Sheets If Necessary

8/10/17 AB

Appendix B

Photographs



Indian Basin Station 210 - Release (Looking West)



Indian Basin Station 210 - Release (Looking Northwest)



Indian Basin Station 210 – Release (Looking Northwest)



Indian Basin Station 210 – Release (Looking North)



Indian Basin Station 210 – Release (Looking East)



Indian Basin Station 210 – Release (Looking Northwest)



Indian Basin Station 210 – Release (Looking East)



Indian Basin Station 210 – Release (Looking East)



Indian Basin Station 210 – Release (Looking Northeast)



Indian Basin Station 210 – Release (Looking East)



Indian Basin Station 210 – Release (Looking East)

Appendix C

Laboratory Analytical Reports



Certificate of Analysis Summary 558337

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Project Name: Indian Basin Station 210



Project Id:

Contact: Ben Arguijo

Project Location:

Date Received in Lab: Mon Jul-24-17 03:31 pm

Report Date: 03-AUG-17

Project Manager: Holly Taylor

Analysis Requested	Lab Id:	558337-001	558337-002	558337-003	558337-004	558337-005	558337-006
	Field Id:	SP-1	SP-2	SP-3	SP-4	SP-5	SP-6
	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Jul-20-17 14:00	Jul-20-17 14:05	Jul-20-17 14:10	Jul-20-17 14:15	Jul-20-17 14:20	Jul-20-17 14:25
BTEX by EPA 8021B	Extracted:	Jul-26-17 15:00	Jul-26-17 15:00	Jul-26-17 15:00	Jul-26-17 15:00	Jul-26-17 15:00	Jul-26-17 15:00
	Analyzed:	Jul-26-17 23:02	Jul-26-17 23:21	Jul-26-17 23:39	Jul-26-17 23:58	Jul-27-17 00:17	Jul-27-17 00:55
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Benzene		0.00431 0.00199	<0.00199 0.00199	<0.00198 0.00198	<0.00201 0.00201	<0.00200 0.00200	<0.00200 0.00200
Toluene		0.0421 0.00199	0.0108 0.00199	0.00489 0.00198	0.0100 0.00201	<0.00200 0.00200	0.0411 0.00200
Ethylbenzene		0.0182 0.00199	0.00417 0.00199	<0.00198 0.00198	0.00265 0.00201	<0.00200 0.00200	0.0454 0.00200
m,p-Xylenes		0.0555 0.00398	0.0160 0.00398	0.00998 0.00396	0.00847 0.00402	<0.00401 0.00401	0.307 0.00399
o-Xylene		0.0334 0.00199	0.00908 0.00199	0.00482 0.00198	0.00359 0.00201	<0.00200 0.00200	0.0704 0.00200
Total Xylenes		0.0889 0.00199	0.0251 0.00199	0.0148 0.00198	0.0121 0.00201	<0.00200 0.00200	0.377 0.00200
Total BTEX		0.154 0.00199	0.0401 0.00199	0.0197 0.00198	0.0247 0.00201	<0.00200 0.00200	0.464 0.00200
Chloride by EPA 300	Extracted:	Jul-27-17 15:00	Jul-27-17 15:00	Jul-27-17 15:00	Jul-27-17 15:00	Jul-27-17 15:00	Jul-27-17 15:00
	Analyzed:	Jul-27-17 19:01	Jul-27-17 19:09	Jul-27-17 19:40	Jul-27-17 19:47	Jul-27-17 19:17	Jul-27-17 20:10
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		2950 24.7	2950 25.0	2430 24.9	1220 24.6	1080 4.95	3100 24.7
TPH By SW8015 Mod SUB: T104704400	Extracted:	Jul-26-17 17:00	Jul-26-17 17:00	Jul-26-17 17:00	Jul-26-17 17:00	Jul-26-17 17:00	Jul-26-17 17:00
	Analyzed:	Jul-26-17 17:21	Jul-26-17 18:40	Jul-26-17 19:05	Jul-26-17 19:31	Jul-26-17 19:57	Jul-26-17 20:21
	Units/RL:	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		58.2 15.0	37.8 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0	233 15.0
Diesel Range Organics (DRO)		179 15.0	192 14.9	<15.0 15.0	43.0 15.0	<15.0 15.0	398 15.0
Oil Range Hydrocarbons (ORO)		<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0	<15.0 15.0	<15.0 15.0
Total TPH		237 15.0	230 14.9	<15.0 15.0	43.0 15.0	<15.0 15.0	631 15.0

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

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Holly Taylor
Project Manager



Certificate of Analysis Summary 558337

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Project Name: Indian Basin Station 210



Project Id:

Contact: Ben Arguijo

Project Location:

Date Received in Lab: Mon Jul-24-17 03:31 pm

Report Date: 03-AUG-17

Project Manager: Holly Taylor

Analysis Requested	Lab Id:	558337-007	558337-008				
	Field Id:	SP-7	SP-8				
	Depth:						
	Matrix:	SOIL	SOIL				
	Sampled:	Jul-20-17 14:30	Jul-20-17 14:35				
BTEX by EPA 8021B	Extracted:	Jul-26-17 15:00	Jul-26-17 15:00				
	Analyzed:	Jul-27-17 00:36	Jul-27-17 01:14				
	Units/RL:	mg/kg RL	mg/kg RL				
Benzene		<0.00198	0.00198	<0.00202	0.00202		
Toluene		0.00234	0.00198	<0.00202	0.00202		
Ethylbenzene		<0.00198	0.00198	0.00270	0.00202		
m,p-Xylenes		0.00621	0.00397	0.0120	0.00403		
o-Xylene		0.00308	0.00198	0.00396	0.00202		
Total Xylenes		0.00929	0.00198	0.0160	0.00202		
Total BTEX		0.0116	0.00198	0.0187	0.00202		
Chloride by EPA 300	Extracted:	Jul-27-17 15:00	Jul-27-17 15:00				
	Analyzed:	Jul-27-17 20:18	Jul-27-17 20:26				
	Units/RL:	mg/kg RL	mg/kg RL				
Chloride		2430	25.0	1550	24.6		
TPH By SW8015 Mod SUB: T104704400	Extracted:	Jul-26-17 17:00	Jul-26-17 17:00				
	Analyzed:	Jul-26-17 20:48	Jul-26-17 21:13				
	Units/RL:	mg/kg RL	mg/kg RL				
Gasoline Range Hydrocarbons (GRO)		<15.0	15.0	<15.0	15.0		
Diesel Range Organics (DRO)		<15.0	15.0	83.6	15.0		
Oil Range Hydrocarbons (ORO)		<15.0	15.0	<15.0	15.0		
Total TPH		<15.0	15.0	83.6	15.0		

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

Houston - Dallas - San Antonio - Atlanta - Tampa - Boca Raton - Latin America - Odessa - Corpus Christi

Holly Taylor
Project Manager

Analytical Report 558337
for
Trinity Oilfield Services & Rentals, LLC

Project Manager: Ben Arguijo
Indian Basin Station 210

03-AUG-17

Collected By: Client



1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215), Arizona (AZ0765), Florida (E871002), Louisiana (03054)
Oklahoma (9218)

Xenco-Dallas (EPA Lab code: TX01468): Texas (T104704295)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400)
Xenco-San Antonio: Texas (T104704534)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)



03-AUG-17

Project Manager: **Ben Arguijo**
Trinity Oilfield Services & Rentals, LLC
PO BOX 2587
Hobbs, NM 88241

Reference: XENCO Report No(s): **558337**
Indian Basin Station 210
Project Address:

Ben Arguijo:

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the XENCO Report Number(s) 558337. All results being reported under this Report Number apply to the samples analyzed and properly identified with a Laboratory ID number. Subcontracted analyses are identified in this report with either the NELAC certification number of the subcontract lab in the analyst ID field, or the complete subcontracted report attached to this report.

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

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by XENCO Laboratories. This report will be filed for at least 5 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in Report No. 558337 will be filed for 45 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

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

Respectfully,

Holly Taylor
Project Manager

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

Certified and approved by numerous States and Agencies.

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

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



Sample Cross Reference 558337



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Indian Basin Station 210

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SP-1	S	07-20-17 14:00		558337-001
SP-2	S	07-20-17 14:05		558337-002
SP-3	S	07-20-17 14:10		558337-003
SP-4	S	07-20-17 14:15		558337-004
SP-5	S	07-20-17 14:20		558337-005
SP-6	S	07-20-17 14:25		558337-006
SP-7	S	07-20-17 14:30		558337-007
SP-8	S	07-20-17 14:35		558337-008



CASE NARRATIVE

Client Name: *Trinity Oilfield Services & Rentals, LLC*

Project Name: *Indian Basin Station 210*

Project ID:
Work Order Number(s): 558337

Report Date: 03-AUG-17
Date Received: 07/24/2017

Sample receipt non conformances and comments:

Per Ben on 7-27-17 add TPH 8015 N.M. method.

Per Ben on 8/3/17: Re-issue report without TX1005 results.

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3023326 BTEX by EPA 8021B

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

Batch: LBA-3023433 Inorganic Anions by EPA 300

Lab Sample ID 558337-005 was randomly selected for Matrix Spike/Matrix Spike Duplicate (MS/MSD). Chloride recovered below QC limits in the Matrix Spike and Matrix Spike Duplicate. Outlier/s are due to possible matrix interference. Samples in the analytical batch are: 558337-001, -002, -003, -004, -005, -006, -007, -008.

The Laboratory Control Sample for Chloride is within laboratory Control Limits, therefore the data was accepted.



Certificate of Analytical Results 558337



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM Indian Basin Station 210

Sample Id: **SP-1**
Lab Sample Id: 558337-001

Matrix: Soil
Date Collected: 07.20.17 14.00

Date Received: 07.24.17 15.31

Analytical Method: Chloride by EPA 300

Tech: MGO

Analyst: MGO

Seq Number: 3023433

Prep Method: E300P

% Moisture:

Date Prep: 07.27.17 15.00

Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2950	24.7	mg/kg	07.27.17 19.01		5

Analytical Method: TPH By SW8015 Mod

Tech: ARM

Analyst: ARM

Seq Number: 3023496

Prep Method: TX1005P

% Moisture:

Date Prep: 07.26.17 17.00

Basis: Wet Weight

SUB: T104704400

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	58.2	15.0	mg/kg	07.26.17 17.21		1
Diesel Range Organics (DRO)	C10C28DRO	179	15.0	mg/kg	07.26.17 17.21		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.26.17 17.21	U	1
Total TPH	PHC635	237	15.0	mg/kg	07.26.17 17.21		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	98	%	70-135	07.26.17 17.21	
o-Terphenyl	84-15-1	115	%	70-135	07.26.17 17.21	



Certificate of Analytical Results 558337



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM Indian Basin Station 210

Sample Id: **SP-1**
Lab Sample Id: 558337-001

Matrix: Soil
Date Collected: 07.20.17 14.00

Date Received: 07.24.17 15.31

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 07.26.17 15.00

Basis: Wet Weight

Seq Number: 3023326

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	0.00431	0.00199	mg/kg	07.26.17 23.02		1
Toluene	108-88-3	0.0421	0.00199	mg/kg	07.26.17 23.02		1
Ethylbenzene	100-41-4	0.0182	0.00199	mg/kg	07.26.17 23.02		1
m,p-Xylenes	179601-23-1	0.0555	0.00398	mg/kg	07.26.17 23.02		1
o-Xylene	95-47-6	0.0334	0.00199	mg/kg	07.26.17 23.02		1
Total Xylenes	1330-20-7	0.0889	0.00199	mg/kg	07.26.17 23.02		1
Total BTEX		0.154	0.00199	mg/kg	07.26.17 23.02		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	89	%	80-120	07.26.17 23.02		
4-Bromofluorobenzene	460-00-4	103	%	80-120	07.26.17 23.02		



Certificate of Analytical Results 558337



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM Indian Basin Station 210

Sample Id: **SP-2** Matrix: Soil Date Received: 07.24.17 15.31
Lab Sample Id: 558337-002 Date Collected: 07.20.17 14.05
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MGO % Moisture:
Analyst: MGO Date Prep: 07.27.17 15.00 Basis: Wet Weight
Seq Number: 3023433

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2950	25.0	mg/kg	07.27.17 19.09		5

Analytical Method: TPH By SW8015 Mod Prep Method: TX1005P
Tech: ARM % Moisture:
Analyst: ARM Date Prep: 07.26.17 17.00 Basis: Wet Weight
Seq Number: 3023496 SUB: T104704400

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	37.8	14.9	mg/kg	07.26.17 18.40		1
Diesel Range Organics (DRO)	C10C28DRO	192	14.9	mg/kg	07.26.17 18.40		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<14.9	14.9	mg/kg	07.26.17 18.40	U	1
Total TPH	PHC635	230	14.9	mg/kg	07.26.17 18.40		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	07.26.17 18.40	
o-Terphenyl	84-15-1	109	%	70-135	07.26.17 18.40	



Certificate of Analytical Results 558337



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM Indian Basin Station 210

Sample Id: **SP-2**
Lab Sample Id: 558337-002

Matrix: Soil
Date Collected: 07.20.17 14.05

Date Received: 07.24.17 15.31

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 07.26.17 15.00

Basis: Wet Weight

Seq Number: 3023326

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	07.26.17 23.21	U	1
Toluene	108-88-3	0.0108	0.00199	mg/kg	07.26.17 23.21		1
Ethylbenzene	100-41-4	0.00417	0.00199	mg/kg	07.26.17 23.21		1
m,p-Xylenes	179601-23-1	0.0160	0.00398	mg/kg	07.26.17 23.21		1
o-Xylene	95-47-6	0.00908	0.00199	mg/kg	07.26.17 23.21		1
Total Xylenes	1330-20-7	0.0251	0.00199	mg/kg	07.26.17 23.21		1
Total BTEX		0.0401	0.00199	mg/kg	07.26.17 23.21		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	109	%	80-120	07.26.17 23.21		
1,4-Difluorobenzene	540-36-3	96	%	80-120	07.26.17 23.21		



Certificate of Analytical Results 558337



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM Indian Basin Station 210

Sample Id: **SP-3** Matrix: Soil Date Received: 07.24.17 15.31
Lab Sample Id: 558337-003 Date Collected: 07.20.17 14.10
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MGO % Moisture:
Analyst: MGO Date Prep: 07.27.17 15.00 Basis: Wet Weight
Seq Number: 3023433

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2430	24.9	mg/kg	07.27.17 19.40		5

Analytical Method: TPH By SW8015 Mod Prep Method: TX1005P
Tech: ARM % Moisture:
Analyst: ARM Date Prep: 07.26.17 17.00 Basis: Wet Weight
Seq Number: 3023496 SUB: T104704400

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.26.17 19.05	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.26.17 19.05	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.26.17 19.05	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.26.17 19.05	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	91	%	70-135	07.26.17 19.05		
o-Terphenyl	84-15-1	108	%	70-135	07.26.17 19.05		



Certificate of Analytical Results 558337



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM Indian Basin Station 210

Sample Id: **SP-3**
Lab Sample Id: 558337-003

Matrix: Soil
Date Collected: 07.20.17 14.10

Date Received: 07.24.17 15.31

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 07.26.17 15.00

Basis: Wet Weight

Seq Number: 3023326

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	07.26.17 23.39	U	1
Toluene	108-88-3	0.00489	0.00198	mg/kg	07.26.17 23.39		1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	07.26.17 23.39	U	1
m,p-Xylenes	179601-23-1	0.00998	0.00396	mg/kg	07.26.17 23.39		1
o-Xylene	95-47-6	0.00482	0.00198	mg/kg	07.26.17 23.39		1
Total Xylenes	1330-20-7	0.0148	0.00198	mg/kg	07.26.17 23.39		1
Total BTEX		0.0197	0.00198	mg/kg	07.26.17 23.39		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	116	%	80-120	07.26.17 23.39		
1,4-Difluorobenzene	540-36-3	99	%	80-120	07.26.17 23.39		



Certificate of Analytical Results 558337



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM Indian Basin Station 210

Sample Id: **SP-4** Matrix: Soil Date Received: 07.24.17 15.31
Lab Sample Id: 558337-004 Date Collected: 07.20.17 14.15
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MGO % Moisture:
Analyst: MGO Date Prep: 07.27.17 15.00 Basis: Wet Weight
Seq Number: 3023433

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1220	24.6	mg/kg	07.27.17 19.47		5

Analytical Method: TPH By SW8015 Mod Prep Method: TX1005P
Tech: ARM % Moisture:
Analyst: ARM Date Prep: 07.26.17 17.00 Basis: Wet Weight
Seq Number: 3023496 SUB: T104704400

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.26.17 19.31	U	1
Diesel Range Organics (DRO)	C10C28DRO	43.0	15.0	mg/kg	07.26.17 19.31		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.26.17 19.31	U	1
Total TPH	PHC635	43.0	15.0	mg/kg	07.26.17 19.31		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	07.26.17 19.31	
o-Terphenyl	84-15-1	109	%	70-135	07.26.17 19.31	



Certificate of Analytical Results 558337



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM Indian Basin Station 210

Sample Id: **SP-4**
Lab Sample Id: 558337-004

Matrix: Soil
Date Collected: 07.20.17 14.15

Date Received: 07.24.17 15.31

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 07.26.17 15.00

Basis: Wet Weight

Seq Number: 3023326

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	07.26.17 23.58	U	1
Toluene	108-88-3	0.0100	0.00201	mg/kg	07.26.17 23.58		1
Ethylbenzene	100-41-4	0.00265	0.00201	mg/kg	07.26.17 23.58		1
m,p-Xylenes	179601-23-1	0.00847	0.00402	mg/kg	07.26.17 23.58		1
o-Xylene	95-47-6	0.00359	0.00201	mg/kg	07.26.17 23.58		1
Total Xylenes	1330-20-7	0.0121	0.00201	mg/kg	07.26.17 23.58		1
Total BTEX		0.0247	0.00201	mg/kg	07.26.17 23.58		1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
1,4-Difluorobenzene	540-36-3	100		%	80-120	07.26.17 23.58	
4-Bromofluorobenzene	460-00-4	111		%	80-120	07.26.17 23.58	



Certificate of Analytical Results 558337



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM Indian Basin Station 210

Sample Id: **SP-5** Matrix: Soil Date Received: 07.24.17 15.31
Lab Sample Id: 558337-005 Date Collected: 07.20.17 14.20
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MGO % Moisture:
Analyst: MGO Date Prep: 07.27.17 15.00 Basis: Wet Weight
Seq Number: 3023433

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1080	4.95	mg/kg	07.27.17 19.17		1

Analytical Method: TPH By SW8015 Mod Prep Method: TX1005P
Tech: ARM % Moisture:
Analyst: ARM Date Prep: 07.26.17 17.00 Basis: Wet Weight
Seq Number: 3023496 SUB: T104704400

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.26.17 19.57	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.26.17 19.57	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.26.17 19.57	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.26.17 19.57	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	102	%	70-135	07.26.17 19.57		
o-Terphenyl	84-15-1	121	%	70-135	07.26.17 19.57		



Certificate of Analytical Results 558337



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM Indian Basin Station 210

Sample Id: **SP-5**
Lab Sample Id: 558337-005

Matrix: Soil
Date Collected: 07.20.17 14.20

Date Received: 07.24.17 15.31

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 07.26.17 15.00

Basis: Wet Weight

Seq Number: 3023326

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.27.17 00.17	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	07.27.17 00.17	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	07.27.17 00.17	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	07.27.17 00.17	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	07.27.17 00.17	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	07.27.17 00.17	U	1
Total BTEX		<0.00200	0.00200	mg/kg	07.27.17 00.17	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	100	%	80-120	07.27.17 00.17		
4-Bromofluorobenzene	460-00-4	106	%	80-120	07.27.17 00.17		



Certificate of Analytical Results 558337



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM Indian Basin Station 210

Sample Id: **SP-6**
Lab Sample Id: 558337-006

Matrix: Soil
Date Collected: 07.20.17 14.25

Date Received: 07.24.17 15.31

Analytical Method: Chloride by EPA 300
Tech: MGO
Analyst: MGO
Seq Number: 3023433

Date Prep: 07.27.17 15.00

Prep Method: E300P
% Moisture:
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	3100	24.7	mg/kg	07.27.17 20.10		5

Analytical Method: TPH By SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3023496

Date Prep: 07.26.17 17.00

Prep Method: TX1005P
% Moisture:
Basis: Wet Weight
SUB: T104704400

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	233	15.0	mg/kg	07.26.17 20.21		1
Diesel Range Organics (DRO)	C10C28DRO	398	15.0	mg/kg	07.26.17 20.21		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.26.17 20.21	U	1
Total TPH	PHC635	631	15.0	mg/kg	07.26.17 20.21		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	100	%	70-135	07.26.17 20.21		
o-Terphenyl	84-15-1	108	%	70-135	07.26.17 20.21		



Certificate of Analytical Results 558337



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM Indian Basin Station 210

Sample Id: **SP-6**
Lab Sample Id: 558337-006

Matrix: Soil
Date Collected: 07.20.17 14.25

Date Received: 07.24.17 15.31

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 07.26.17 15.00

Basis: Wet Weight

Seq Number: 3023326

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	07.27.17 00.55	U	1
Toluene	108-88-3	0.0411	0.00200	mg/kg	07.27.17 00.55		1
Ethylbenzene	100-41-4	0.0454	0.00200	mg/kg	07.27.17 00.55		1
m,p-Xylenes	179601-23-1	0.307	0.00399	mg/kg	07.27.17 00.55		1
o-Xylene	95-47-6	0.0704	0.00200	mg/kg	07.27.17 00.55		1
Total Xylenes	1330-20-7	0.377	0.00200	mg/kg	07.27.17 00.55		1
Total BTEX		0.464	0.00200	mg/kg	07.27.17 00.55		1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	112		%	80-120	07.27.17 00.55	
1,4-Difluorobenzene	540-36-3	82		%	80-120	07.27.17 00.55	



Certificate of Analytical Results 558337



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM Indian Basin Station 210

Sample Id: **SP-7**
Lab Sample Id: 558337-007

Matrix: Soil
Date Collected: 07.20.17 14.30

Date Received: 07.24.17 15.31

Analytical Method: Chloride by EPA 300
Tech: MGO
Analyst: MGO
Seq Number: 3023433

Prep Method: E300P
% Moisture:
Date Prep: 07.27.17 15.00
Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	2430	25.0	mg/kg	07.27.17 20.18		5

Analytical Method: TPH By SW8015 Mod
Tech: ARM
Analyst: ARM
Seq Number: 3023496

Prep Method: TX1005P
% Moisture:
Date Prep: 07.26.17 17.00
Basis: Wet Weight
SUB: T104704400

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.26.17 20.48	U	1
Diesel Range Organics (DRO)	C10C28DRO	<15.0	15.0	mg/kg	07.26.17 20.48	U	1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.26.17 20.48	U	1
Total TPH	PHC635	<15.0	15.0	mg/kg	07.26.17 20.48	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1-Chlorooctane	111-85-3	91	%	70-135	07.26.17 20.48		
o-Terphenyl	84-15-1	107	%	70-135	07.26.17 20.48		



Certificate of Analytical Results 558337



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM Indian Basin Station 210

Sample Id: **SP-7**
Lab Sample Id: 558337-007

Matrix: Soil
Date Collected: 07.20.17 14.30

Date Received: 07.24.17 15.31

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 07.26.17 15.00

Basis: Wet Weight

Seq Number: 3023326

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00198	0.00198	mg/kg	07.27.17 00.36	U	1
Toluene	108-88-3	0.00234	0.00198	mg/kg	07.27.17 00.36		1
Ethylbenzene	100-41-4	<0.00198	0.00198	mg/kg	07.27.17 00.36	U	1
m,p-Xylenes	179601-23-1	0.00621	0.00397	mg/kg	07.27.17 00.36		1
o-Xylene	95-47-6	0.00308	0.00198	mg/kg	07.27.17 00.36		1
Total Xylenes	1330-20-7	0.00929	0.00198	mg/kg	07.27.17 00.36		1
Total BTEX		0.0116	0.00198	mg/kg	07.27.17 00.36		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	111	%	80-120	07.27.17 00.36		
1,4-Difluorobenzene	540-36-3	103	%	80-120	07.27.17 00.36		



Certificate of Analytical Results 558337



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM Indian Basin Station 210

Sample Id: **SP-8** Matrix: Soil Date Received: 07.24.17 15.31
Lab Sample Id: 558337-008 Date Collected: 07.20.17 14.35
Analytical Method: Chloride by EPA 300 Prep Method: E300P
Tech: MGO % Moisture:
Analyst: MGO Date Prep: 07.27.17 15.00 Basis: Wet Weight
Seq Number: 3023433

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	1550	24.6	mg/kg	07.27.17 20.26		5

Analytical Method: TPH By SW8015 Mod Prep Method: TX1005P
Tech: ARM % Moisture:
Analyst: ARM Date Prep: 07.26.17 17.00 Basis: Wet Weight
Seq Number: 3023496 SUB: T104704400

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	07.26.17 21.13	U	1
Diesel Range Organics (DRO)	C10C28DRO	83.6	15.0	mg/kg	07.26.17 21.13		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	07.26.17 21.13	U	1
Total TPH	PHC635	83.6	15.0	mg/kg	07.26.17 21.13		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	07.26.17 21.13	
o-Terphenyl	84-15-1	108	%	70-135	07.26.17 21.13	



Certificate of Analytical Results 558337



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM Indian Basin Station 210

Sample Id: **SP-8**
Lab Sample Id: 558337-008

Matrix: Soil
Date Collected: 07.20.17 14.35

Date Received: 07.24.17 15.31

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 07.26.17 15.00

Basis: Wet Weight

Seq Number: 3023326

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00202	0.00202	mg/kg	07.27.17 01.14	U	1
Toluene	108-88-3	<0.00202	0.00202	mg/kg	07.27.17 01.14	U	1
Ethylbenzene	100-41-4	0.00270	0.00202	mg/kg	07.27.17 01.14		1
m,p-Xylenes	179601-23-1	0.0120	0.00403	mg/kg	07.27.17 01.14		1
o-Xylene	95-47-6	0.00396	0.00202	mg/kg	07.27.17 01.14		1
Total Xylenes	1330-20-7	0.0160	0.00202	mg/kg	07.27.17 01.14		1
Total BTEX		0.0187	0.00202	mg/kg	07.27.17 01.14		1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	113		%	80-120	07.27.17 01.14	
1,4-Difluorobenzene	540-36-3	97		%	80-120	07.27.17 01.14	

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

** Surrogate recovered outside laboratory control limit.

BRL Below Reporting Limit.

RL Reporting Limit

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

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

DL Method Detection Limit

NC Non-Calculable

+ NELAC certification not offered for this compound.

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

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(432) 563-1800	(432) 563-1713
(602) 437-0330	

Trinity Oilfield Services & Rentals, LLC
Indian Basin Station 210**Analytical Method: Chloride by EPA 300**

Seq Number: 3023433

MB Sample Id: 728362-1-BLK

Matrix: Solid

LCS Sample Id: 728362-1-BKS

Prep Method: E300P

Date Prep: 07.27.17

LCSD Sample Id: 728362-1-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	249	100	247	99	90-110	1	20	mg/kg	07.27.17 17:14	

Analytical Method: Chloride by EPA 300

Seq Number: 3023433

Parent Sample Id: 558057-001

Matrix: Soil

MS Sample Id: 558057-001 S

Prep Method: E300P

Date Prep: 07.27.17

MSD Sample Id: 558057-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	342	250	577	94	582	96	90-110	1	20	mg/kg	07.27.17 17:37	

Analytical Method: Chloride by EPA 300

Seq Number: 3023433

Parent Sample Id: 558337-005

Matrix: Soil

MS Sample Id: 558337-005 S

Prep Method: E300P

Date Prep: 07.27.17

MSD Sample Id: 558337-005 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	1080	248	1280	81	1280	81	90-110	0	20	mg/kg	07.27.17 19:24	X

Analytical Method: TPH By SW8015 Mod

Seq Number: 3023496

MB Sample Id: 728363-1-BLK

Matrix: Solid

LCS Sample Id: 728363-1-BKS

Prep Method: TX1005P

Date Prep: 07.26.17

LCSD Sample Id: 728363-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	<15.0	1000	882	88	858	86	70-135	3	35	mg/kg	07.26.17 16:29	
Diesel Range Organics (DRO)	<15.0	1000	924	92	918	92	70-135	1	35	mg/kg	07.26.17 16:29	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	93		109		105		70-135	%	07.26.17 16:29
o-Terphenyl	112		126		121		70-135	%	07.26.17 16:29

Trinity Oilfield Services & Rentals, LLC
Indian Basin Station 210

Analytical Method: TPH By SW8015 Mod

Seq Number: 3023496

Parent Sample Id: 558337-001

Matrix: Soil

MS Sample Id: 558337-001 S

Prep Method: TX1005P

Date Prep: 07.26.17

MSD Sample Id: 558337-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Gasoline Range Hydrocarbons (GRO)	58.2	999	894	84	926	87	70-135	4	35	mg/kg	07.26.17 17:47	
Diesel Range Organics (DRO)	179	999	1030	85	1080	90	70-135	5	35	mg/kg	07.26.17 17:47	

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	105		111		70-135	%	07.26.17 17:47
o-Terphenyl	122		126		70-135	%	07.26.17 17:47

Analytical Method: BTEX by EPA 8021B

Seq Number: 3023326

MB Sample Id: 728303-1-BLK

Matrix: Solid

LCS Sample Id: 728303-1-BKS

Prep Method: SW5030B

Date Prep: 07.26.17

LCSD Sample Id: 728303-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.100	0.102	102	0.102	101	70-130	0	35	mg/kg	07.26.17 16:50	
Toluene	<0.00201	0.100	0.103	103	0.103	102	70-130	0	35	mg/kg	07.26.17 16:50	
Ethylbenzene	<0.00201	0.100	0.108	108	0.108	107	71-129	0	35	mg/kg	07.26.17 16:50	
m,p-Xylenes	<0.00402	0.201	0.210	104	0.210	104	70-135	0	35	mg/kg	07.26.17 16:50	
o-Xylene	<0.00201	0.100	0.105	105	0.105	104	71-133	0	35	mg/kg	07.26.17 16:50	

Surrogate

	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	99		104		108		80-120	%	07.26.17 16:50
4-Bromofluorobenzene	107		110		112		80-120	%	07.26.17 16:50

Analytical Method: BTEX by EPA 8021B

Seq Number: 3023326

Parent Sample Id: 558338-012

Matrix: Soil

MS Sample Id: 558338-012 S

Prep Method: SW5030B

Date Prep: 07.26.17

MSD Sample Id: 558338-012 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	0.0610	61	0.0644	64	70-130	5	35	mg/kg	07.26.17 17:27	X
Toluene	0.00205	0.100	0.0571	55	0.0608	58	70-130	6	35	mg/kg	07.26.17 17:27	X
Ethylbenzene	<0.00200	0.100	0.0508	51	0.0563	56	71-129	10	35	mg/kg	07.26.17 17:27	X
m,p-Xylenes	0.00469	0.200	0.0972	46	0.108	51	70-135	11	35	mg/kg	07.26.17 17:27	X
o-Xylene	0.00264	0.100	0.0504	48	0.0559	53	71-133	10	35	mg/kg	07.26.17 17:27	X

Surrogate

	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		103		80-120	%	07.26.17 17:27
4-Bromofluorobenzene	119		112		80-120	%	07.26.17 17:27



XENCO Laboratories
Prelogin/Nonconformance Report- Sample Log-In



Client: Trinity Oilfield Services & Rentals, LLC

Date/ Time Received: 07/24/2017 03:31:00 PM

Work Order #: 558337

Acceptable Temperature Range: 0 - 6 degC

Air and Metal samples Acceptable Range: Ambient

Temperature Measuring device used : R8

Sample Receipt Checklist

Comments

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

Date: 07/25/2017

Checklist reviewed by: Brandi Ritcherson
Brandi Ritcherson

Date: 07/25/2017