

Trinity Oilfield Services & Rentals, LLC

Environmental Site Summary & Spill Remediation Proposal



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

Site Name: B Hardin Battery NMOCD Reference#: 1RP-4933

Surface Owner: Fee Mineral Owner: Fee

Unit Letter: P Section: 13 Township: 18S Range: 37E County: Lea GPS Coordinates: 32.742831 N -103.198829 W

Date/Time of Release: 1/9/2018 Type of Release: Crude Oil Produced Water

Volume(s) Released: 15 bbls Volume(s) Recovered: 12 bbls

Closure Criteria for Impacted Soil (mg/kg; See Appendix C, "Closure Criteria Justification"):

Benzene: 10 BTEX: 50 GRO+DRO: 1,000 TPH: 100 2,500 Chloride: 600 10,000 20,000

Background Information:

On January 9, 2018, OXY USA, Inc. (OXY), discovered a release at the B Hardin Battery. Failure of a 3-inch steel check valve on the piping of a heater treater resulted in the release of approximately 15 barrels (bbls) of crude oil. The release was confined to the containment area surrounding the heater treater and affected a total area measuring approximately 900 square feet. During initial response activities, the check valve was repaired, and a vacuum truck was utilized to recover approximately 12 bbls of free-standing liquid.

The release was immediately reported to the New Mexico Oil Conservation Division's (NMOCD) Hobbs 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 Appendix B. A "Site Location Map" is provided as Figure 1.

Summary of Field Activities:

On February 7, 2018, a hand auger was utilized to advance a series of 4 boreholes (SP-1 through SP-4) inside the containment area to investigate the extent of impacted soil. The auger holes were advanced to total depths ranging from approximately 6 inches (SP-3 and SP-4) to 2 feet (SP-2) below ground surface (bgs). Soil samples were collected at 6-inch to 1-foot vertical intervals and field-screened with a chloride test kit. Representative confirmation samples were submitted to Xenco Laboratories in Midland, Texas, for analysis of chloride, total petroleum hydrocarbons (TPH), and/or benzene, toluene, ethylbenzene, and total xylene (BTEX) concentrations using Environmental Protection Agency (EPA) Methods 300, SW 846-8015 Mod, and SW 846-8021B, respectively. Laboratory analytical results and field-screens indicated additional delineation to determine the extent of impacted soil was required.

On February 27, 2019, a backhoe was utilized to advance a series of delineation trenches in the areas represented by auger holes SP-1 through SP-4 to further investigate the horizontal and vertical extent of impacted soil. The delineation trenches were advanced horizontally to the inferred margins of the release and vertically to the hard rock layer underlying the site, which is typically encountered 2.5 to 3 feet bgs. Soil samples were collected from the floors and sidewalls of the trenches and field-screened with TPH and/or chloride test kits. Representative confirmation samples were submitted to the laboratory for analysis of chloride, TPH, and BTEX concentrations. Laboratory analytical results and field screens indicated horizontal and vertical delineation of the release had been achieved.

Locations of the auger holes and delineation trenches are depicted in Figure 2, "Site Plan". Laboratory analytical results are summarized in Table 1, and analytical reports are provided in Appendix D. Chloride and TPH field test results are summarized in Table 2.

Trinity Oilfield Services & Rentals, LLC

Environmental Site Summary & Spill Remediation Proposal



Proposed Activities:

OXY proposes to conduct the following activities to progress the B Hardin Battery release site to an NMOCD-approved closure:

- The excavation will be advanced vertically to the hard rock layer underlying the site, which is typically encountered between 2.5 and 3 feet bgs (represented by soil samples SP-1 Floor, SP-2 Floor, SP-3 Floor, and SP-4 Floor).
- The excavation will be advanced horizontally to the areas represented by soil samples SP-1 S., SP-2 W., SP-3 N., and SP-4 E.
- To preserve the structural integrity of the heater treater, excavation around the heater will be limited to a depth of 6 inches to 1 foot bgs.
- The total volume of soil to be excavated is approximately 71 cubic yards.
- Excavation in some impacted areas will be hindered by the presence of the heater treater and/or active pipes, electrical lines, etc. Impacted soil remaining in-situ will be remediated upon decommissioning and/or abandonment of the facility.
- Representative 5-point composite soil samples will be collected from the floor and sidewalls of the excavation and submitted to Xenco Laboratories for confirmatory analyses of chloride, TPH, and/or BTEX concentrations using the EPA analytical methods listed in the "Summary of Field Activities" above.
- All excavated soil will be stockpiled on-site on 6-mil plastic, pending transfer to Lea Land, Inc., for disposal.
- The excavation will be fenced off during periods of inactivity to prevent injury to oilfield personnel, livestock, and/or wildlife.
- Following remediation activities, the excavation will be backfilled with locally acquired, non-impacted material, compacted, and contoured to fit the needs of the facility.
- The aforementioned corrective actions will be completed within 45 days of receipt of approval of this proposal by the NMOCD. Upon completion of the proposed tasks, a "Remediation Summary & Closure Request" will be submitted, documenting remediation activities and results of confirmation soil samples.

Enclosures:

Figure 1: Site Location Map

Figure 2: Site Plan

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

Table 2: Field Tests

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

Appendix B: Photographs

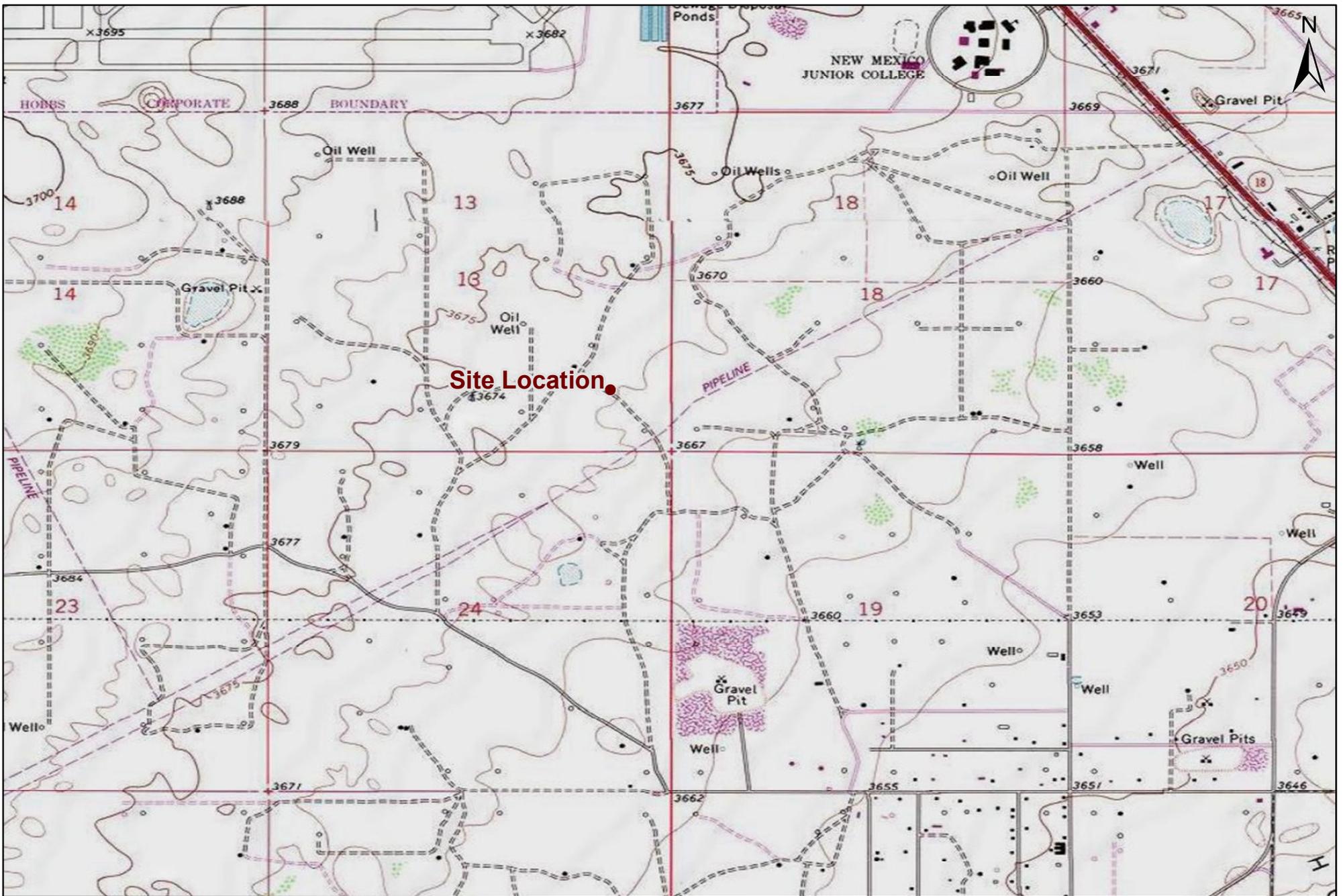
Appendix C: Closure Criteria Justification

Appendix D: Laboratory Analytical Results


Ben J. Arguijo
Project Manager

3/13/2019

Figures



Site Location

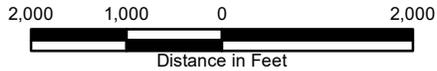
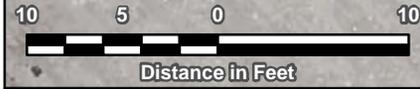
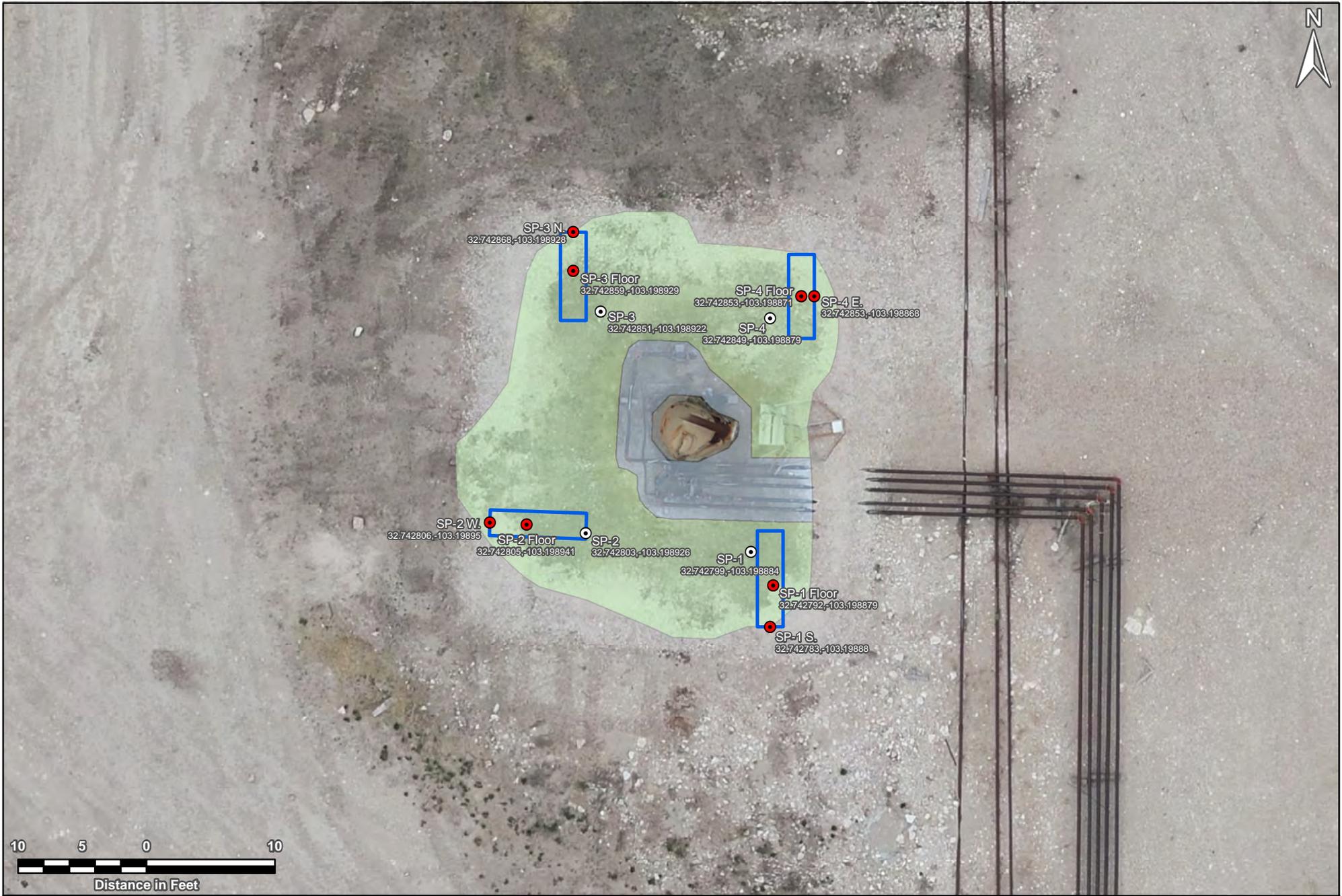


Figure 1
Site Location Map
OXY USA, Inc.
B Hardin Battery
Lea County, New Mexico
NMOCD Reference #: 1RP-4933



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

Drawn By: BJA	Checked By: JEH
March 6, 2019	Scale: 1" = 2,000'



Legend

Proposed Excavation Depths	— Delineation Trench
6" - 1' bgs	Auger Hole
2.5' - 3' bgs	Sample Location

Figure 2
Site Plan
OXY USA, Inc.
B Hardin Battery
Lea County, New Mexico
NMOCD Reference #: 1RP-4933



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

Drawn By: BJA	Checked By: JEH
March 12, 2019	Scale: 1" = 10'

Tables

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

OXY USA, INC.
B HARDIN BATTERY
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE #: 1RP-4933



SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SAMPLE TYPE	SOIL STATUS	EPA SW-846 Method 8021B							EPA SW-846 Method 8015M					EPA 300
					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 C6-C12 (mg/kg)	DRO C12-C28 (mg/kg)	GRO+ DRO (mg/kg)	MRO C28-C35 (mg/kg)	TPH C6-C35 (mg/kg)	CHLORIDE (mg/kg)
NMOCD Closure Limit (mg/kg)					10	NE	NE	NE	NE	NE	50	NE	NE	1,000	NE	2,500	10,000
SP-1 @ 6"	6"	2/7/2018	Grab (Auger)	In-Situ	-	-	-	-	-	-	-	947	2,330	3,277	170	3,450	642
SP-1 @ 1'	1'	2/7/2018	Grab (Auger)	In-Situ	-	-	-	-	-	-	-	1,730	3,980	5,710	317	6,030	389
SP-1 Floor	3'	2/27/2019	Grab (Trench)	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	0.0104	0.0104	0.0104	<15.0	228	228	42.6	271	78.3
SP-1 S.	2'	2/27/2019	Grab (Trench)	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	65.3	65.3	46.1	111	127
SP-2 @ 6"	6"	2/7/2018	Grab (Auger)	In-Situ	-	-	-	-	-	-	-	3,180	6,800	9,980	473	10,500	415
SP-2 @ 2'	2'	2/7/2018	Grab (Auger)	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	15.6	94.3	110	<15.0	110	790
SP-2 Floor	3'	2/27/2019	Grab (Trench)	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	19.6	19.6	<15.0	19.6	19.1
SP-2 W.	2'	2/27/2019	Grab (Trench)	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<14.9	20.1	20.1	<14.9	20.1	340
SP-3 @ 6"	6"	2/7/2018	Grab (Auger)	In-Situ	-	-	-	-	-	-	-	3,400	8,460	11,860	640	12,500	581
SP-3 Floor	3'	2/27/2019	Grab (Trench)	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	101	101	<15.0	101	17.5
SP-3 N.	2'	2/27/2019	Grab (Trench)	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	25.0	25.0	<15.0	25.0	102
SP-4 @ 6"	6"	2/7/2018	Grab (Auger)	In-Situ	-	-	-	-	-	-	-	4,730	10,900	15,630	805	16,400	540
SP-4 Floor	2.5'	2/27/2019	Grab (Trench)	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	0.00634	0.00634	0.00634	<15.0	560	560	97.7	658	180
SP-4 E.	2'	2/27/2019	Grab (Trench)	In-Situ	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	<15.0	46.1	46.1	35.0	81.1	318

NE = Not established

- = Not analyzed

Concentrations in **BOLD** exceed the NMOCD Closure Limit

**TABLE 2
FIELD TESTS**

**OXY USA, INC.
B HARDIN BATTERY
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE #: 1RP-4933**



SAMPLE LOCATION	SAMPLE DEPTH (BGS)	SAMPLE DATE	SOIL STATUS	HACH QUANTAB	HANBY
				CHLORIDE (mg/Kg)	TPH (mg/Kg)
NMOCD Closure Limit (mg/kg)				10,000	2,500
SP-1 @ 6"	6"	2/7/2018	In-Situ	608	-
Sp-1 @ 1'	1'	2/7/2018	In-Situ	512	-
SP-1 @ 2'	2'	2/7/2018	In-Situ	Rejected	Rejected
SP-1 Floor	3'	2/27/2019	In-Situ	<128	861
SP-1 S.	2'	2/27/2019	In-Situ	196	-
SP-2 @ 6"	6"	2/7/2018	In-Situ	512	-
SP-2 @ 1'	1'	2/7/2018	In-Situ	512	-
SP-2 @ 2'	2'	2/7/2018	In-Situ	512	-
SP-2 @ 3'	3'	2/7/2018	In-Situ	Rejected	Rejected
SP-2 Floor	3'	2/27/2019	In-Situ	<128	952
SP-2 W.	2'	2/27/2019	In-Situ	368	-
SP-3 @ 6"	6"	2/7/2018	In-Situ	464	-
SP-3 Floor	3'	2/27/2019	In-Situ	<128	810
SP-3 N.	2'	2/27/2019	In-Situ	140	-
SP-4 @ 6"	6"	2/7/2018	In-Situ	424	-
SP-4 Floor	2.5'	2/27/2019	In-Situ	292	965
SP-4 E.	2'	2/27/2019	In-Situ	404	-

Appendices

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

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

Form C-141
Revised April 3, 2017

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

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

Release Notification and Corrective Action

OPERATOR

Initial Report Final Report

Name of Company	OCCIDENTAL PERMIAN LTD	Contact	WADE DITTRICH
Address	PO BOX 4294; HOUSTON, TX 77210	Telephone No.	575-390-2828
Facility Name	B HARDIN BATTERY	Facility Type	BATTERY

Surface Owner	Fee	Mineral Owner	Fee	API No.	30-025-36046 (closet well)
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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
P	13	18S	37E					LEA

Latitude **32.742831** Longitude **-103.198829**

NATURE OF RELEASE

Type of Release	OIL	Volume of Release	15 bbls oil	Volume Recovered	12 bbls
Source of Release	3 INCH STEEL CHECK VALVE ON PIPING OF HEATER TREATER	Date and Hour of Occurrence	1/9/2018	Date and Hour of Discovery	
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	OLIVIA YU-NMOCD; AMBER GROVES-SLO		
By Whom?	WADE DITTRICH	Date and Hour	1-10-2018 @ 3:52 PM		
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.			

RECEIVED
By Olivia Yu at 3:44 pm, Jan 16, 2018

Describe Cause of Problem and Remedial Action Taken.*

Leak was caused by a failure on a 3 inch steel check valve on piping of heater treaters. Valve was repaired and returned to service.

Describe Area Affected and Cleanup Action Taken.*

The affected area is 30 ft x 30 ft (measurements are subject to change with GPS tracking). Remediation will be completed in accordance with a remediation plan approved by the NMOCD and the SLO.

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 SPECIALIST	Approval Date:	1/16/2018
E-mail Address:	wade_dittrich@oxy.com	Expiration Date:	
Date:	1-12-18	Conditions of Approval:	Attached <input checked="" type="checkbox"/>
Phone:	575-390-2828	see attached directive	

1RP-4933

nOY1801657371

pOY1801657518

Appendix B
Photographs

OXY USA, Inc. – B Hardin Battery
Unit Letter "P" (SE/SE), Section 13, Township 18S, Range 37E



Release (Looking Southwest)



Release (Looking Southeast)

OXY USA, Inc. – B Hardin Battery
Unit Letter "P" (SE/SE), Section 13, Township 18S, Range 37E



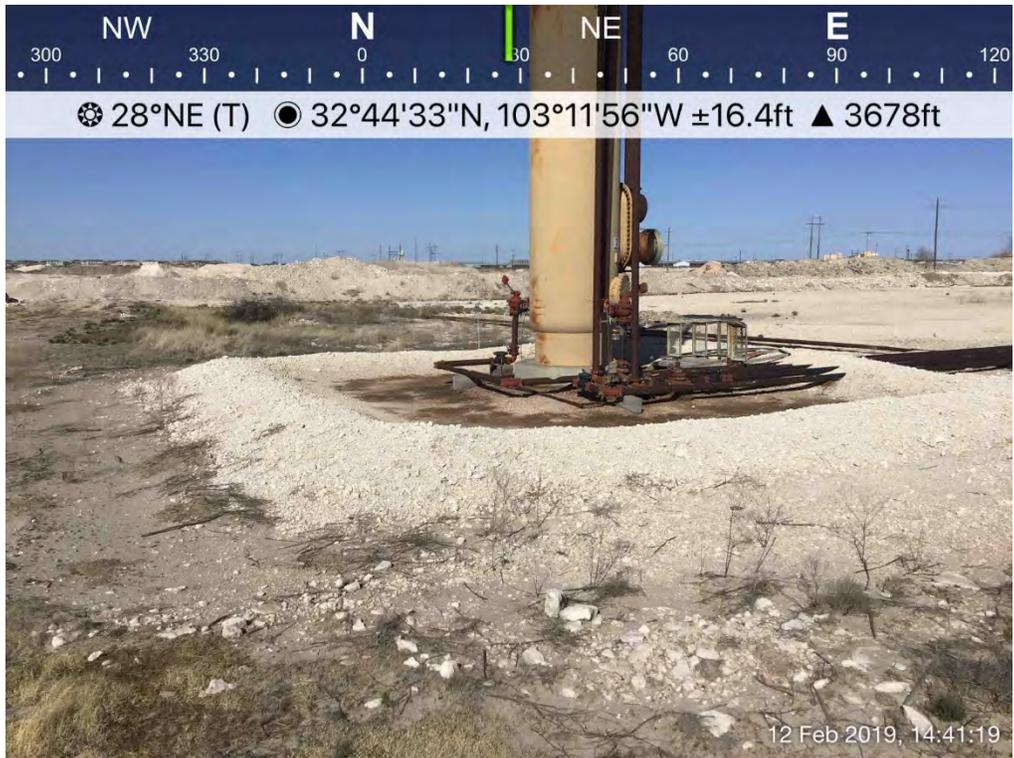
Release (Looking Northeast)



Release (Looking Northwest)

OXY USA, Inc. – B Hardin Battery

Unit Letter "P" (SE/SE), Section 13, Township 18S, Range 37E



Release Site 2/12/2019



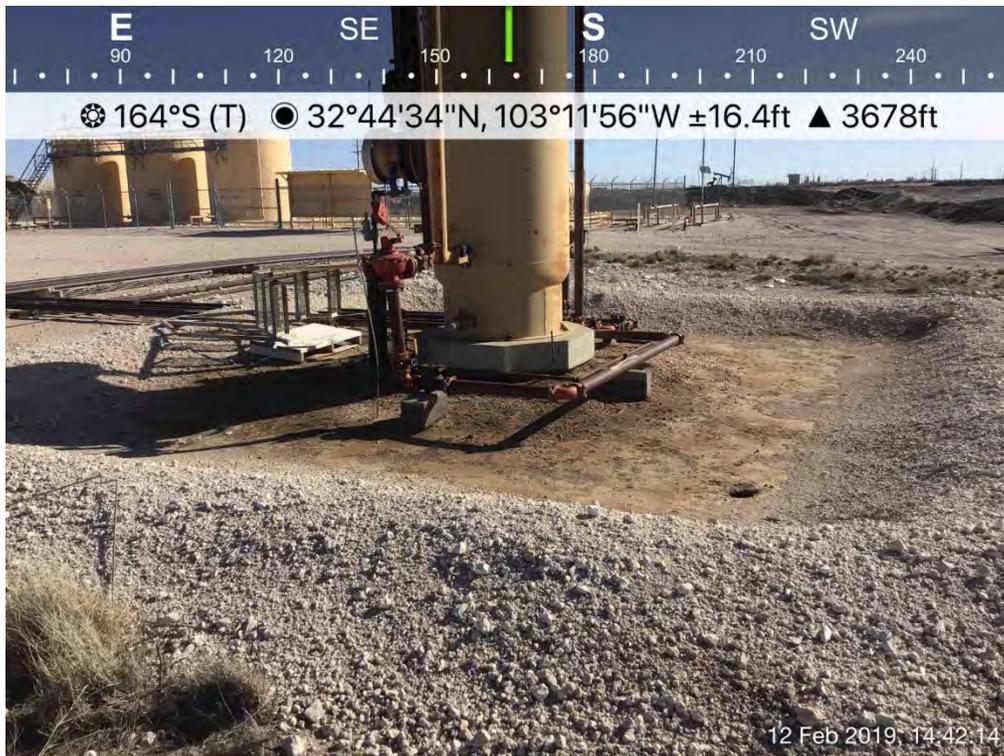
Release Site 2/12/2019

OXY USA, Inc. – B Hardin Battery

Unit Letter "P" (SE/SE), Section 13, Township 18S, Range 37E



Release Site 2/12/2019



Release Site 2/12/2019

OXY USA, Inc. – B Hardin Battery
Unit Letter "P" (SE/SE), Section 13, Township 18S, Range 37E



Release Site 2/12/2019



Release Site 2/12/2019

Appendix C
Closure Criteria Justification

**TABLE 3
CLOSURE CRITERIA JUSTIFICATION**

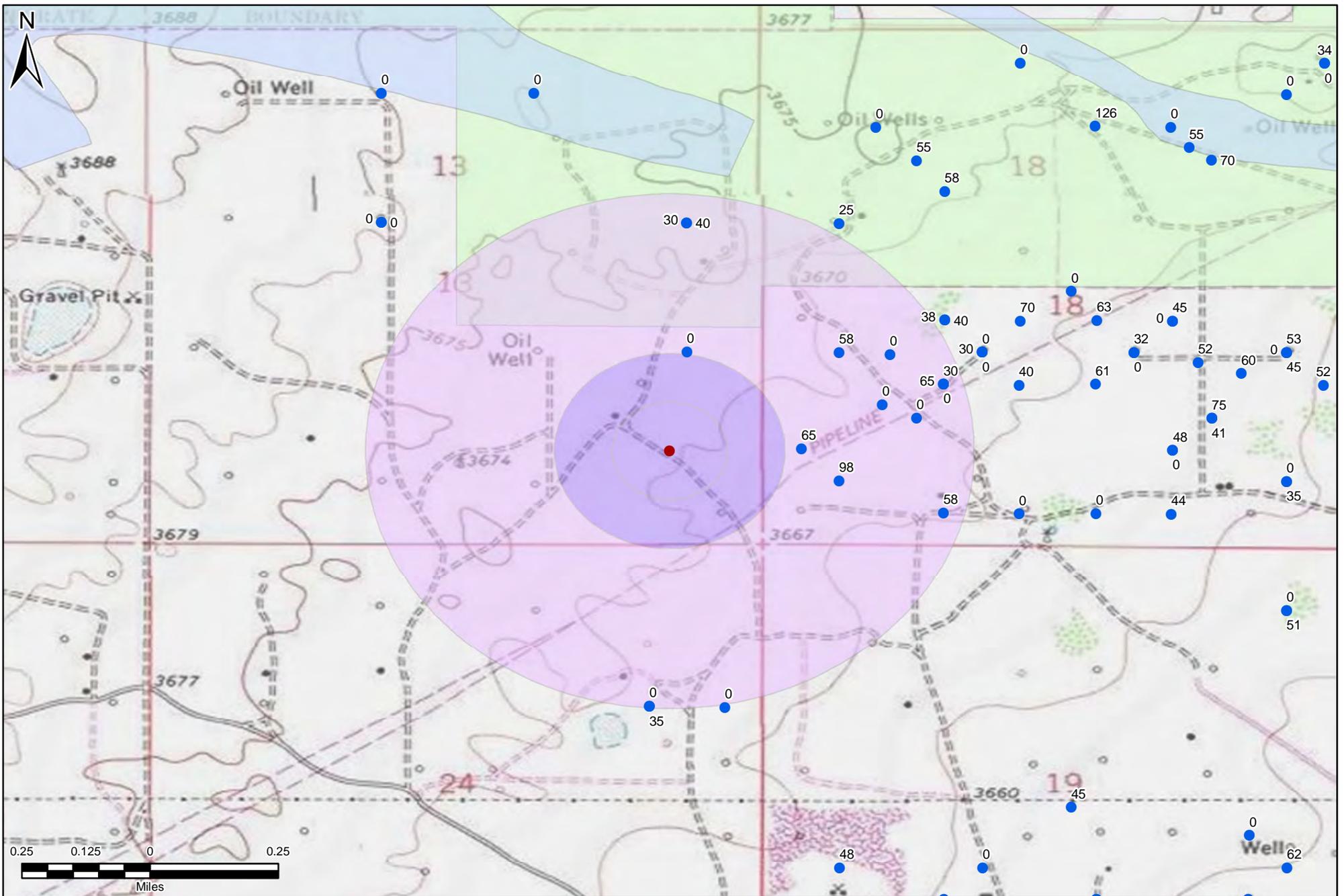
**OXY USA, INC.
B HARDIN BATTERY
LEA COUNTY, NEW MEXICO
NMOCD REF. #: 1RP-4933**



Groundwater, Water Wells & Other Water Sources	
Depth to groundwater (ft)?	53
Horizontal distance (ft) from all water sources within 0.5 miles?	1,145 - 2,621
Within 500' of a spring or a private, domestic fresh water well used by less than 5 households for domestic or stock watering purposes?	No
Within 1000' of any fresh water well or spring?	No
Surface Water	
Horizontal distance (ft) to nearest significant watercourse?	>1,000
Within 300' of any continuously flowing watercourse or any other significant watercourse?	No
Within 200' of any lakebed, sinkhole or playa lake?	No
Human-Occupied, Environmental & Other Areas	
Within incorporated municipal boundaries or within a defined municipal fresh water well field?	No
Within 300' of an occupied permanent residence, school, hospital, institution or church?	No
Within 300' of a wetland?	No
Within the area overlying a subsurface mine?	No
Within an unstable area?	No
Within a 100-year floodplain?	No

Closure Criteria (mg/kg)*				
Benzene	BTEX	GRO + DRO	TPH	Chloride
10	50	1,000	2,500	10,000

*Numerical limits or natural background level, whichever is greater



Legend	
	1,000-ft Radius
	0.5-mi Radius
	FEMA 100-Year Flood Zone
	Municipal Boundary
	B Hardin Battery
	NMOSE Depth to Water

Figure 3
Vicinity & Wellhead Protection Area Map
OXY USA, Inc.
B Hardin Battery
Lea County, New Mexico
NMOCD Reference #: 1RP-4933



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

Drawn By: BJA	Checked By: JEH
March 18, 2019	Scale: 1" = 0.25mi



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

No records found.

UTMNAD83 Radius Search (in meters):

Easting (X): 668755.94

Northing (Y): 3624212.71

Radius: 304.8
(1,000 ft)



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
L 09278	L	LE		1	3	3	18	18S	38E	669105	3624226*	349	125	65	60
L 04513	L	LE			3	3	18	18S	38E	669206	3624127*	458	120	98	22
L 08107	L	LE		1	3		18	18S	38E	669199	3624529*	544	120	58	62
L 13669 POD1	L	LE		4	1	3	18	18S	38E	669315	3624367	580	202		
L 10933	L	LE				3	18	18S	38E	669407	3624328*	661	158		
L 03112	L	LE		4	2	13	18S		37E	668789	3624927*	715	105	30	75
L 06511	L	LE		4	2	13	18S		37E	668789	3624927*	715	150	40	110
L 01500	L	LE		3	4	3	18	18S	38E	669483	3624032*	749	80	58	22
L 04111	L	LE		3	2	3	18	18S	38E	669476	3624435*	753	92	30	62
L 09826	L	LE		3	2	3	18	18S	38E	669476	3624435*	753	156	65	91
L 11111	L	LE		3	2	3	18	18S	38E	669476	3624435*	753	158		
L 06487	L	LE		1	4	2	24	18S	37E	668716	3623414*	799	121	35	86

Average Depth to Water: **53 feet**
 Minimum Depth: **30 feet**
 Maximum Depth: **98 feet**

Record Count: 12

UTMNAD83 Radius Search (in meters):

Easting (X): 668755.94

Northing (Y): 3624212.71

Radius: 804.67

(0.5 mile)

*UTM location was derived from PLSS - see Help

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

Appendix D
Laboratory Analytical Reports



Certificate of Analysis Summary 575988

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

Project Name: B. Hardin Battery



Project Id:
Contact: Ben Arguijo
Project Location: Hobbs, NM

Date Received in Lab: Fri Feb-09-18 10:00 am
Report Date: 23-FEB-18
Project Manager: Holly Taylor

<i>Analysis Requested</i>	<i>Lab Id:</i>	575988-001	575988-002	575988-003	575988-004	575988-005	575988-006
	<i>Field Id:</i>	SP-1 @ 6"	SP-1 @ 1'	SP-2 @ 6"	SP-2 @ 2'	SP-3 @ 6"	SP-4 @ 6"
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	<i>Sampled:</i>	Feb-07-18 13:35	Feb-07-18 13:52	Feb-07-18 13:46	Feb-07-18 14:14	Feb-07-18 14:20	Feb-07-18 14:25
BTEX by EPA 8021B	<i>Extracted:</i>				Feb-17-18 07:45		
	<i>Analyzed:</i>				Feb-17-18 18:14		
	<i>Units/RL:</i>				mg/kg RL		
Benzene					<0.00200 0.00200		
Toluene					<0.00200 0.00200		
Ethylbenzene					<0.00200 0.00200		
m,p-Xylenes					<0.00399 0.00399		
o-Xylene					<0.00200 0.00200		
Total Xylenes					<0.00200 0.00200		
Total BTEX					<0.00200 0.00200		
Chloride by EPA 300	<i>Extracted:</i>	Feb-16-18 17:45	Feb-16-18 17:45	Feb-17-18 10:30	Feb-17-18 10:30	Feb-17-18 10:30	Feb-17-18 10:30
	<i>Analyzed:</i>	Feb-16-18 20:44	Feb-16-18 20:49	Feb-17-18 14:11	Feb-17-18 14:16	Feb-17-18 13:29	Feb-17-18 13:45
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Chloride		642 4.98	389 4.95	415 5.00	790 5.00	581 5.00	540 5.00
TPH By SW8015 Mod	<i>Extracted:</i>	Feb-12-18 16:00	Feb-12-18 16:00	Feb-12-18 16:00	Feb-12-18 16:00	Feb-13-18 07:00	Feb-13-18 07:00
	<i>Analyzed:</i>	Feb-13-18 04:27	Feb-13-18 04:47	Feb-13-18 06:52	Feb-13-18 05:26	Feb-13-18 12:45	Feb-13-18 13:05
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL	mg/kg RL
Gasoline Range Hydrocarbons (GRO)		947 15.0	1730 15.0	3180 75.0	15.6 15.0	3400 74.8	4730 74.8
Diesel Range Organics (DRO)		2330 15.0	3980 15.0	6800 75.0	94.3 15.0	8460 74.8	10900 74.8
Oil Range Hydrocarbons (ORO)		170 15.0	317 15.0	473 75.0	<15.0 15.0	640 74.8	805 74.8
Total TPH		3450 15.0	6030 15.0	10500 75.0	110 15.0	12500 74.8	16400 74.8

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 575988
for
Trinity Oilfield Services & Rentals, LLC

Project Manager: Ben Arguijo

B. Hardin Battery

23-FEB-18

Collected By: Client



1211 W. Florida Ave, Midland TX 79701

Xenco-Houston (EPA Lab code: TX00122):
Texas (T104704215-17-23), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab code: TX01468):
Texas (T104704295-17-15), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab code: TX00127): Texas (T104704221-17-12)
Xenco-Lubbock (EPA Lab code: TX00139): Texas (T104704219-17-16)
Xenco-Odessa (EPA Lab code: TX00158): Texas (T104704400-17-13)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-17-3)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab code: AZ00901): Arizona (AZM757)



23-FEB-18

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

Reference: XENCO Report No(s): **575988**
B. Hardin Battery
Project Address: Hobbs, NM

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) 575988. 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. 575988 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

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Sample Cross Reference 575988



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

B. Hardin Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SP-1 @ 6"	S	02-07-18 13:35		575988-001
SP-1 @ 1'	S	02-07-18 13:52		575988-002
SP-2 @ 6"	S	02-07-18 13:46		575988-003
SP-2 @ 2'	S	02-07-18 14:14		575988-004
SP-3 @ 6"	S	02-07-18 14:20		575988-005
SP-4 @ 6"	S	02-07-18 14:25		575988-006



CASE NARRATIVE

Client Name: Trinity Oilfield Services & Rentals, LLC

Project Name: B. Hardin Battery

Project ID:
Work Order Number(s): 575988

Report Date: 23-FEB-18
Date Received: 02/09/2018

Sample receipt non conformances and comments:

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3041449 BTEX by EPA 8021B

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

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

B. Hardin Battery

Sample Id: SP-1 @ 6"	Matrix: Soil	Date Received: 02.09.18 10.00
Lab Sample Id: 575988-001	Date Collected: 02.07.18 13.35	
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: OJS		% Moisture:
Analyst: OJS	Date Prep: 02.16.18 17.45	Basis: Wet Weight
Seq Number: 3041419		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	642	4.98	mg/kg	02.16.18 20.44		1

Analytical Method: TPH By SW8015 Mod	Prep Method: TX1005P
Tech: ARM	% Moisture:
Analyst: ARM	Date Prep: 02.12.18 16.00
Seq Number: 3040881	Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	947	15.0	mg/kg	02.13.18 04.27		1
Diesel Range Organics (DRO)	C10C28DRO	2330	15.0	mg/kg	02.13.18 04.27		1
Oil Range Hydrocarbons (ORO)	PHCG2835	170	15.0	mg/kg	02.13.18 04.27		1
Total TPH	PHC635	3450	15.0	mg/kg	02.13.18 04.27		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	104	%	70-135	02.13.18 04.27	
o-Terphenyl	84-15-1	88	%	70-135	02.13.18 04.27	



Certificate of Analytical Results 575988



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

B. Hardin Battery

Sample Id: SP-1 @ 1'	Matrix: Soil	Date Received: 02.09.18 10.00
Lab Sample Id: 575988-002	Date Collected: 02.07.18 13.52	
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: OJS		% Moisture:
Analyst: OJS	Date Prep: 02.16.18 17.45	Basis: Wet Weight
Seq Number: 3041419		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	389	4.95	mg/kg	02.16.18 20.49		1

Analytical Method: TPH By SW8015 Mod	Prep Method: TX1005P
Tech: ARM	% Moisture:
Analyst: ARM	Date Prep: 02.12.18 16.00
Seq Number: 3040881	Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	1730	15.0	mg/kg	02.13.18 04.47		1
Diesel Range Organics (DRO)	C10C28DRO	3980	15.0	mg/kg	02.13.18 04.47		1
Oil Range Hydrocarbons (ORO)	PHCG2835	317	15.0	mg/kg	02.13.18 04.47		1
Total TPH	PHC635	6030	15.0	mg/kg	02.13.18 04.47		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	107	%	70-135	02.13.18 04.47	
o-Terphenyl	84-15-1	90	%	70-135	02.13.18 04.47	



Certificate of Analytical Results 575988



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

B. Hardin Battery

Sample Id: SP-2 @ 6"	Matrix: Soil	Date Received: 02.09.18 10.00
Lab Sample Id: 575988-003	Date Collected: 02.07.18 13.46	
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: OJS		% Moisture:
Analyst: OJS	Date Prep: 02.17.18 10.30	Basis: Wet Weight
Seq Number: 3041438		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	415	5.00	mg/kg	02.17.18 14.11		1

Analytical Method: TPH By SW8015 Mod	Prep Method: TX1005P
Tech: ARM	% Moisture:
Analyst: ARM	Date Prep: 02.12.18 16.00
Seq Number: 3040881	Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	3180	75.0	mg/kg	02.13.18 06.52		5
Diesel Range Organics (DRO)	C10C28DRO	6800	75.0	mg/kg	02.13.18 06.52		5
Oil Range Hydrocarbons (ORO)	PHCG2835	473	75.0	mg/kg	02.13.18 06.52		5
Total TPH	PHC635	10500	75.0	mg/kg	02.13.18 06.52		5
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
	1-Chlorooctane	111-85-3	113	%	70-135	02.13.18 06.52	
	o-Terphenyl	84-15-1	104	%	70-135	02.13.18 06.52	



Certificate of Analytical Results 575988



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

B. Hardin Battery

Sample Id: SP-2 @ 2'	Matrix: Soil	Date Received: 02.09.18 10.00
Lab Sample Id: 575988-004	Date Collected: 02.07.18 14.14	
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: OJS		% Moisture:
Analyst: OJS	Date Prep: 02.17.18 10.30	Basis: Wet Weight
Seq Number: 3041438		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	790	5.00	mg/kg	02.17.18 14.16		1

Analytical Method: TPH By SW8015 Mod	Prep Method: TX1005P
Tech: ARM	% Moisture:
Analyst: ARM	Date Prep: 02.12.18 16.00
Seq Number: 3040881	Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	15.6	15.0	mg/kg	02.13.18 05.26		1
Diesel Range Organics (DRO)	C10C28DRO	94.3	15.0	mg/kg	02.13.18 05.26		1
Oil Range Hydrocarbons (ORO)	PHCG2835	<15.0	15.0	mg/kg	02.13.18 05.26	U	1
Total TPH	PHC635	110	15.0	mg/kg	02.13.18 05.26		1
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
	1-Chlorooctane	111-85-3	103	%	70-135	02.13.18 05.26	
	o-Terphenyl	84-15-1	103	%	70-135	02.13.18 05.26	



Certificate of Analytical Results 575988



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

B. Hardin Battery

Sample Id: **SP-2 @ 2'**
 Lab Sample Id: 575988-004

Matrix: Soil
 Date Collected: 02.07.18 14.14

Date Received: 02.09.18 10.00

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: ALJ

% Moisture:

Analyst: ALJ

Date Prep: 02.17.18 07.45

Basis: Wet Weight

Seq Number: 3041449

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	02.17.18 18.14	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	02.17.18 18.14	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	02.17.18 18.14	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	02.17.18 18.14	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	02.17.18 18.14	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	02.17.18 18.14	U	1
Total BTEX		<0.00200	0.00200	mg/kg	02.17.18 18.14	U	1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	98		%	80-120	02.17.18 18.14	
1,4-Difluorobenzene	540-36-3	86		%	80-120	02.17.18 18.14	



Certificate of Analytical Results 575988



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

B. Hardin Battery

Sample Id: SP-3 @ 6"	Matrix: Soil	Date Received: 02.09.18 10.00
Lab Sample Id: 575988-005	Date Collected: 02.07.18 14.20	
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: OJS		% Moisture:
Analyst: OJS	Date Prep: 02.17.18 10.30	Basis: Wet Weight
Seq Number: 3041438		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	581	5.00	mg/kg	02.17.18 13.29		1

Analytical Method: TPH By SW8015 Mod	Prep Method: TX1005P
Tech: ARM	% Moisture:
Analyst: ARM	Date Prep: 02.13.18 07.00
Seq Number: 3041032	Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	3400	74.8	mg/kg	02.13.18 12.45		5
Diesel Range Organics (DRO)	C10C28DRO	8460	74.8	mg/kg	02.13.18 12.45		5
Oil Range Hydrocarbons (ORO)	PHCG2835	640	74.8	mg/kg	02.13.18 12.45		5
Total TPH	PHC635	12500	74.8	mg/kg	02.13.18 12.45		5

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	96	%	70-135	02.13.18 12.45	
o-Terphenyl	84-15-1	99	%	70-135	02.13.18 12.45	



Certificate of Analytical Results 575988



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

B. Hardin Battery

Sample Id: SP-4 @ 6"	Matrix: Soil	Date Received: 02.09.18 10.00
Lab Sample Id: 575988-006	Date Collected: 02.07.18 14.25	
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: OJS		% Moisture:
Analyst: OJS	Date Prep: 02.17.18 10.30	Basis: Wet Weight
Seq Number: 3041438		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	540	5.00	mg/kg	02.17.18 13.45		1

Analytical Method: TPH By SW8015 Mod	Prep Method: TX1005P
Tech: ARM	% Moisture:
Analyst: ARM	Date Prep: 02.13.18 07.00
Seq Number: 3041032	Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	4730	74.8	mg/kg	02.13.18 13.05		5
Diesel Range Organics (DRO)	C10C28DRO	10900	74.8	mg/kg	02.13.18 13.05		5
Oil Range Hydrocarbons (ORO)	PHCG2835	805	74.8	mg/kg	02.13.18 13.05		5
Total TPH	PHC635	16400	74.8	mg/kg	02.13.18 13.05		5
Surrogate		Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
	1-Chlorooctane	111-85-3	105	%	70-135	02.13.18 13.05	
	o-Terphenyl	84-15-1	107	%	70-135	02.13.18 13.05	

- 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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	(602) 437-0330	



Trinity Oilfield Services & Rentals, LLC

B. Hardin Battery

Analytical Method: Chloride by EPA 300

Seq Number: 3041419

MB Sample Id: 7639324-1-BLK

Matrix: Solid

LCS Sample Id: 7639324-1-BKS

Prep Method: E300P

Date Prep: 02.16.18

LCSD Sample Id: 7639324-1-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	271	108	275	110	90-110	1	20	mg/kg	02.16.18 18:26	

Analytical Method: Chloride by EPA 300

Seq Number: 3041438

MB Sample Id: 7639327-1-BLK

Matrix: Solid

LCS Sample Id: 7639327-1-BKS

Prep Method: E300P

Date Prep: 02.17.18

LCSD Sample Id: 7639327-1-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	256	102	267	107	90-110	4	20	mg/kg	02.17.18 11:37	

Analytical Method: Chloride by EPA 300

Seq Number: 3041419

Parent Sample Id: 575953-019

Matrix: Soil

MS Sample Id: 575953-019 S

Prep Method: E300P

Date Prep: 02.16.18

MSD Sample Id: 575953-019 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<4.98	249	253	102	251	101	90-110	1	20	mg/kg	02.16.18 18:42	

Analytical Method: Chloride by EPA 300

Seq Number: 3041419

Parent Sample Id: 575953-029

Matrix: Soil

MS Sample Id: 575953-029 S

Prep Method: E300P

Date Prep: 02.16.18

MSD Sample Id: 575953-029 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	587	250	838	100	835	99	90-110	0	20	mg/kg	02.16.18 19:56	

Analytical Method: Chloride by EPA 300

Seq Number: 3041438

Parent Sample Id: 575955-002

Matrix: Soil

MS Sample Id: 575955-002 S

Prep Method: E300P

Date Prep: 02.17.18

MSD Sample Id: 575955-002 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	756	250	1070	126	1030	110	90-110	4	20	mg/kg	02.17.18 11:53	X

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

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]

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



Trinity Oilfield Services & Rentals, LLC

B. Hardin Battery

Analytical Method: Chloride by EPA 300

Seq Number: 3041438

Parent Sample Id: 576012-003

Matrix: Soil

MS Sample Id: 576012-003 S

Prep Method: E300P

Date Prep: 02.17.18

MSD Sample Id: 576012-003 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	20.9	250	272	100	311	116	90-110	13	20	mg/kg	02.17.18 13:13	X

Analytical Method: TPH By SW8015 Mod

Seq Number: 3040881

MB Sample Id: 7639020-1-BLK

Matrix: Solid

LCS Sample Id: 7639020-1-BKS

Prep Method: TX1005P

Date Prep: 02.12.18

LCSD Sample Id: 7639020-1-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	877	88	923	92	70-135	5	35	mg/kg	02.12.18 20:57	
Diesel Range Organics (DRO)	<15.0	1000	941	94	1040	104	70-135	10	35	mg/kg	02.12.18 20:57	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	83		102		119		70-135	%	02.12.18 20:57
o-Terphenyl	86		98		109		70-135	%	02.12.18 20:57

Analytical Method: TPH By SW8015 Mod

Seq Number: 3041032

MB Sample Id: 7639062-1-BLK

Matrix: Solid

LCS Sample Id: 7639062-1-BKS

Prep Method: TX1005P

Date Prep: 02.13.18

LCSD Sample Id: 7639062-1-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	1050	105	913	91	70-135	14	35	mg/kg	02.13.18 09:22	
Diesel Range Organics (DRO)	<15.0	1000	1150	115	985	99	70-135	15	35	mg/kg	02.13.18 09:22	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	96		122		106		70-135	%	02.13.18 09:22
o-Terphenyl	100		123		104		70-135	%	02.13.18 09:22

Analytical Method: TPH By SW8015 Mod

Seq Number: 3040881

Parent Sample Id: 575585-001

Matrix: Soil

MS Sample Id: 575585-001 S

Prep Method: TX1005P

Date Prep: 02.12.18

MSD Sample Id: 575585-001 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)	<15.0	1000	929	93	900	90	70-135	3	35	mg/kg	02.12.18 21:56	
Diesel Range Organics (DRO)	<15.0	1000	1040	104	1010	101	70-135	3	35	mg/kg	02.12.18 21:56	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	99		112		70-135	%	02.12.18 21:56
o-Terphenyl	108		103		70-135	%	02.12.18 21:56

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

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]

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



Trinity Oilfield Services & Rentals, LLC

B. Hardin Battery

Analytical Method: TPH By SW8015 Mod

Seq Number: 3041032

Parent Sample Id: 576035-001

Matrix: Soil

MS Sample Id: 576035-001 S

Prep Method: TX1005P

Date Prep: 02.13.18

MSD Sample Id: 576035-001 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)	8940	1000	8750	0	9300	36	70-135	6	35	mg/kg	02.14.18 04:18	X
Diesel Range Organics (DRO)	8360	1000	9490	113	9860	150	70-135	4	35	mg/kg	02.14.18 04:18	X

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	106		100		70-135	%	02.14.18 04:18
o-Terphenyl	101		101		70-135	%	02.14.18 04:18

Analytical Method: BTEX by EPA 8021B

Seq Number: 3041449

MB Sample Id: 7639375-1-BLK

Matrix: Solid

LCS Sample Id: 7639375-1-BKS

Prep Method: SW5030B

Date Prep: 02.17.18

LCSD Sample Id: 7639375-1-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	0.101	0.0819	81	0.0765	77	70-130	7	35	mg/kg	02.17.18 08:39	
Toluene	<0.00201	0.101	0.0854	85	0.0805	81	70-130	6	35	mg/kg	02.17.18 08:39	
Ethylbenzene	<0.00201	0.101	0.0962	95	0.0893	89	71-129	7	35	mg/kg	02.17.18 08:39	
m,p-Xylenes	<0.00402	0.201	0.190	95	0.177	89	70-135	7	35	mg/kg	02.17.18 08:39	
o-Xylene	<0.00201	0.101	0.0961	95	0.0902	90	71-133	6	35	mg/kg	02.17.18 08:39	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	81		84		88		80-120	%	02.17.18 08:39
4-Bromofluorobenzene	91		110		116		80-120	%	02.17.18 08:39

Analytical Method: BTEX by EPA 8021B

Seq Number: 3041449

Parent Sample Id: 576187-001

Matrix: Soil

MS Sample Id: 576187-001 S

Prep Method: SW5030B

Date Prep: 02.17.18

MSD Sample Id: 576187-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Benzene	<0.00201	0.101	0.0765	76	0.0727	73	70-130	5	35	mg/kg	02.17.18 09:17	
Toluene	<0.00201	0.101	0.0794	79	0.0761	76	70-130	4	35	mg/kg	02.17.18 09:17	
Ethylbenzene	<0.00201	0.101	0.0833	82	0.0800	80	71-129	4	35	mg/kg	02.17.18 09:17	
m,p-Xylenes	<0.00402	0.201	0.164	82	0.158	79	70-135	4	35	mg/kg	02.17.18 09:17	
o-Xylene	<0.00201	0.101	0.0801	79	0.0803	80	71-133	0	35	mg/kg	02.17.18 09:17	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	83		82		80-120	%	02.17.18 09:17
4-Bromofluorobenzene	110		117		80-120	%	02.17.18 09:17

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

[D] = 100*(C-A) / B
RPD = 200* | (C-E) / (C+E) |
[D] = 100 * (C) / [B]

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



XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In



Client: Trinity Oilfield Services & Rentals, LLC
Date/ Time Received: 02/09/2018 10:00:00 AM
Work Order #: 575988

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)?	2.2
#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
#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)?	No
#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: Shawnee Smith Date: 02/09/2018
 Shawnee Smith

Checklist reviewed by: Holly Taylor Date: 02/12/2018
 Holly Taylor



Certificate of Analysis Summary 616451

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM



Project Name: B Hardin Battery

Project Id:
Contact: Ben Arguijo
Project Location:

Date Received in Lab: Tue Mar-05-19 11:30 am
Report Date: 12-MAR-19
Project Manager: Holly Taylor

Analysis Requested	Lab Id:	616451-001	616451-002	616451-003	616451-004	616451-005	616451-006
	Field Id:	SP-1 Floor	SP-1 S.	SP-2 Floor	SP-2 W.	SP-3 Floor	SP-3 N.
	Depth:						
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Sampled:	Feb-27-19 09:08	Feb-27-19 09:10	Feb-27-19 10:18	Feb-27-19 10:25	Feb-27-19 13:15	Feb-27-19 13:18
BTEX by EPA 8021B	Extracted:	Mar-08-19 17:00					
	Analyzed:	Mar-09-19 12:38	Mar-09-19 12:57	Mar-09-19 13:16	Mar-09-19 13:36	Mar-09-19 13:55	Mar-09-19 14:14
	Units/RL:	mg/kg RL					
Benzene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201
Toluene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201
Ethylbenzene		<0.00200 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201
m,p-Xylenes		<0.00400 0.00400	<0.00398 0.00398	<0.00401 0.00401	<0.00400 0.00400	<0.00398 0.00398	<0.00402 0.00402
o-Xylene		0.0104 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201
Total Xylenes		0.0104 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201
Total BTEX		0.0104 0.00200	<0.00199 0.00199	<0.00200 0.00200	<0.00200 0.00200	<0.00199 0.00199	<0.00201 0.00201
Chloride by EPA 300	Extracted:	Mar-06-19 11:15					
	Analyzed:	Mar-06-19 18:08	Mar-06-19 18:14	Mar-06-19 18:20	Mar-06-19 18:46	Mar-06-19 19:06	Mar-06-19 19:12
	Units/RL:	mg/kg RL					
Chloride		78.3 4.95	127 4.99	19.1 5.00	340 5.00	17.5 4.99	102 4.96
TPH By SW8015 Mod	Extracted:	Mar-08-19 15:00					
	Analyzed:	Mar-09-19 03:48	Mar-09-19 11:47	Mar-09-19 05:08	Mar-09-19 05:28	Mar-09-19 05:48	Mar-09-19 06:08
	Units/RL:	mg/kg RL					
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0	<15.0 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0
Diesel Range Organics (DRO)		228 15.0	65.3 15.0	19.6 15.0	20.1 14.9	101 15.0	25.0 15.0
Motor Oil Range Hydrocarbons (MRO)		42.6 15.0	46.1 15.0	<15.0 15.0	<14.9 14.9	<15.0 15.0	<15.0 15.0
Total TPH		271 15.0	111 15.0	19.6 15.0	20.1 14.9	101 15.0	25.0 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 - Midland - Tampa - Phoenix - Lubbock - San Antonio - El Paso - Atlanta - New Mexico

Holly Taylor
Project Manager



Certificate of Analysis Summary 616451

Trinity Oilfield Services & Rentals, LLC, Hobbs, NM



Project Name: B Hardin Battery

Project Id:
 Contact: Ben Arguijo
 Project Location:

Date Received in Lab: Tue Mar-05-19 11:30 am
 Report Date: 12-MAR-19
 Project Manager: Holly Taylor

<i>Analysis Requested</i>	<i>Lab Id:</i>	616451-007	616451-008				
	<i>Field Id:</i>	SP-4 Floor	SP-4 E.				
	<i>Depth:</i>						
	<i>Matrix:</i>	SOIL	SOIL				
	<i>Sampled:</i>	Feb-27-19 11:23	Feb-27-19 11:20				
BTEX by EPA 8021B	<i>Extracted:</i>	Mar-08-19 17:00	Mar-08-19 17:00				
	<i>Analyzed:</i>	Mar-09-19 14:33	Mar-09-19 14:52				
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
Benzene		<0.00199 0.00199	<0.00200 0.00200				
Toluene		<0.00199 0.00199	<0.00200 0.00200				
Ethylbenzene		<0.00199 0.00199	<0.00200 0.00200				
m,p-Xylenes		<0.00398 0.00398	<0.00399 0.00399				
o-Xylene		0.00634 0.00199	<0.00200 0.00200				
Total Xylenes		0.00634 0.00199	<0.00200 0.00200				
Total BTEX		0.00634 0.00199	<0.00200 0.00200				
Chloride by EPA 300	<i>Extracted:</i>	Mar-06-19 11:15	Mar-06-19 11:15				
	<i>Analyzed:</i>	Mar-06-19 19:19	Mar-06-19 19:25				
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
Chloride		180 4.97	318 4.95				
TPH By SW8015 Mod	<i>Extracted:</i>	Mar-08-19 15:00	Mar-08-19 15:00				
	<i>Analyzed:</i>	Mar-09-19 06:28	Mar-09-19 12:06				
	<i>Units/RL:</i>	mg/kg RL	mg/kg RL				
Gasoline Range Hydrocarbons (GRO)		<15.0 15.0	<15.0 15.0				
Diesel Range Organics (DRO)		560 15.0	46.1 15.0				
Motor Oil Range Hydrocarbons (MRO)		97.7 15.0	35.0 15.0				
Total TPH		658 15.0	81.1 15.0				

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

Holly Taylor
 Project Manager

Analytical Report 616451
for
Trinity Oilfield Services & Rentals, LLC

Project Manager: Ben Arguijo

B Hardin Battery

12-MAR-19

Collected By: Client



1211 W. Florida Ave
Midland TX 79701

Xenco-Houston (EPA Lab Code: TX00122):
Texas (T104704215-18-28), Arizona (AZ0765), Florida (E871002-24), Louisiana (03054)
Oklahoma (2017-142)

Xenco-Dallas (EPA Lab Code: TX01468):
Texas (T104704295-18-17), Arizona (AZ0809), Arkansas (17-063-0)

Xenco-El Paso (EPA Lab Code: TX00127): Texas (T104704221-18-14)
Xenco-Lubbock (EPA Lab Code: TX00139): Texas (T104704219-18-18)
Xenco-Midland (EPA Lab Code: TX00158): Texas (T104704400-18-18)
Xenco-San Antonio (EPA Lab Code: TNI02385): Texas (T104704534-18-4)
Xenco Phoenix (EPA Lab Code: AZ00901): Arizona (AZ0757)
Xenco-Phoenix Mobile (EPA Lab Code: AZ00901): Arizona (AZM757)
Xenco-Atlanta (LELAP Lab ID #04176)
Xenco-Tampa: Florida (E87429), North Carolina (483)
Xenco-Lakeland: Florida (E84098)



12-MAR-19

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

Reference: XENCO Report No(s): **616451**
B Hardin Battery
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) 616451. 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. 616451 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 616451



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

B Hardin Battery

Sample Id	Matrix	Date Collected	Sample Depth	Lab Sample Id
SP-1 Floor	S	02-27-19 09:08		616451-001
SP-1 S.	S	02-27-19 09:10		616451-002
SP-2 Floor	S	02-27-19 10:18		616451-003
SP-2 W.	S	02-27-19 10:25		616451-004
SP-3 Floor	S	02-27-19 13:15		616451-005
SP-3 N.	S	02-27-19 13:18		616451-006
SP-4 Floor	S	02-27-19 11:23		616451-007
SP-4 E.	S	02-27-19 11:20		616451-008



CASE NARRATIVE

Client Name: Trinity Oilfield Services & Rentals, LLC

Project Name: B Hardin Battery

Project ID:
Work Order Number(s): 616451

Report Date: 12-MAR-19
Date Received: 03/05/2019

Sample receipt non conformances and comments:

None

Sample receipt non conformances and comments per sample:

None

Analytical non conformances and comments:

Batch: LBA-3081756 BTEX by EPA 8021B

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

Surrogate 4-Bromofluorobenzene recovered above QC limits. Matrix interferences is suspected.

Samples affected are: 616451-005.



Certificate of Analytical Results 616451



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM B Hardin Battery

Sample Id: SP-1 Floor	Matrix: Soil	Date Received: 03.05.19 11.30
Lab Sample Id: 616451-001	Date Collected: 02.27.19 09.08	
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: CHE		% Moisture:
Analyst: CHE	Date Prep: 03.06.19 11.15	Basis: Wet Weight
Seq Number: 3081358		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	78.3	4.95	mg/kg	03.06.19 18.08		1

Analytical Method: TPH By SW8015 Mod	Prep Method: TX1005P
Tech: ARM	% Moisture:
Analyst: ARM	Date Prep: 03.08.19 15.00
Seq Number: 3081691	Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.09.19 03.48	U	1
Diesel Range Organics (DRO)	C10C28DRO	228	15.0	mg/kg	03.09.19 03.48		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	42.6	15.0	mg/kg	03.09.19 03.48		1
Total TPH	PHC635	271	15.0	mg/kg	03.09.19 03.48		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	03.09.19 03.48	
o-Terphenyl	84-15-1	96	%	70-135	03.09.19 03.48	



Certificate of Analytical Results 616451



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

B Hardin Battery

Sample Id: **SP-1 Floor**
 Lab Sample Id: 616451-001

Matrix: Soil
 Date Collected: 02.27.19 09.08

Date Received: 03.05.19 11.30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 03.08.19 17.00

Basis: Wet Weight

Seq Number: 3081756

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.09.19 12.38	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.09.19 12.38	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.09.19 12.38	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	03.09.19 12.38	U	1
o-Xylene	95-47-6	0.0104	0.00200	mg/kg	03.09.19 12.38		1
Total Xylenes	1330-20-7	0.0104	0.00200	mg/kg	03.09.19 12.38		1
Total BTEX		0.0104	0.00200	mg/kg	03.09.19 12.38		1
			%				
Surrogate	Cas Number	Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	104	%	70-130	03.09.19 12.38		
4-Bromofluorobenzene	460-00-4	126	%	70-130	03.09.19 12.38		



Certificate of Analytical Results 616451



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

B Hardin Battery

Sample Id: **SP-1 S.** Matrix: Soil Date Received: 03.05.19 11.30
 Lab Sample Id: 616451-002 Date Collected: 02.27.19 09.10
 Analytical Method: Chloride by EPA 300 Prep Method: E300P
 Tech: CHE % Moisture:
 Analyst: CHE Date Prep: 03.06.19 11.15 Basis: Wet Weight
 Seq Number: 3081358

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	127	4.99	mg/kg	03.06.19 18.14		1

Analytical Method: TPH By SW8015 Mod Prep Method: TX1005P
 Tech: ARM % Moisture:
 Analyst: ARM Date Prep: 03.08.19 15.00 Basis: Wet Weight
 Seq Number: 3081691

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.09.19 11.47	U	1
Diesel Range Organics (DRO)	C10C28DRO	65.3	15.0	mg/kg	03.09.19 11.47		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	46.1	15.0	mg/kg	03.09.19 11.47		1
Total TPH	PHC635	111	15.0	mg/kg	03.09.19 11.47		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	03.09.19 11.47	
o-Terphenyl	84-15-1	95	%	70-135	03.09.19 11.47	



Certificate of Analytical Results 616451



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

B Hardin Battery

Sample Id: **SP-1 S.**
 Lab Sample Id: 616451-002

Matrix: Soil
 Date Collected: 02.27.19 09.10

Date Received: 03.05.19 11.30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 03.08.19 17.00

Basis: Wet Weight

Seq Number: 3081756

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.09.19 12.57	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.09.19 12.57	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.09.19 12.57	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.09.19 12.57	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.09.19 12.57	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	03.09.19 12.57	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.09.19 12.57	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	113	%	70-130	03.09.19 12.57		
1,4-Difluorobenzene	540-36-3	110	%	70-130	03.09.19 12.57		



Certificate of Analytical Results 616451



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

B Hardin Battery

Sample Id: SP-2 Floor	Matrix: Soil	Date Received: 03.05.19 11.30
Lab Sample Id: 616451-003	Date Collected: 02.27.19 10.18	
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: CHE		% Moisture:
Analyst: CHE	Date Prep: 03.06.19 11.15	Basis: Wet Weight
Seq Number: 3081358		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	19.1	5.00	mg/kg	03.06.19 18.20		1

Analytical Method: TPH By SW8015 Mod	Prep Method: TX1005P
Tech: ARM	% Moisture:
Analyst: ARM	Date Prep: 03.08.19 15.00
Seq Number: 3081691	Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.09.19 05.08	U	1
Diesel Range Organics (DRO)	C10C28DRO	19.6	15.0	mg/kg	03.09.19 05.08		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.09.19 05.08	U	1
Total TPH	PHC635	19.6	15.0	mg/kg	03.09.19 05.08		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	94	%	70-135	03.09.19 05.08	
o-Terphenyl	84-15-1	95	%	70-135	03.09.19 05.08	



Certificate of Analytical Results 616451



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

B Hardin Battery

Sample Id: **SP-2 Floor**
 Lab Sample Id: 616451-003

Matrix: Soil
 Date Collected: 02.27.19 10.18

Date Received: 03.05.19 11.30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 03.08.19 17.00

Basis: Wet Weight

Seq Number: 3081756

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.09.19 13.16	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.09.19 13.16	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.09.19 13.16	U	1
m,p-Xylenes	179601-23-1	<0.00401	0.00401	mg/kg	03.09.19 13.16	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.09.19 13.16	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.09.19 13.16	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.09.19 13.16	U	1
			%				
Surrogate	Cas Number	Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	108	%	70-130	03.09.19 13.16		
4-Bromofluorobenzene	460-00-4	118	%	70-130	03.09.19 13.16		



Certificate of Analytical Results 616451



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

B Hardin Battery

Sample Id: SP-2 W.	Matrix: Soil	Date Received: 03.05.19 11.30
Lab Sample Id: 616451-004	Date Collected: 02.27.19 10.25	
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: CHE		% Moisture:
Analyst: CHE	Date Prep: 03.06.19 11.15	Basis: Wet Weight
Seq Number: 3081358		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	340	5.00	mg/kg	03.06.19 18.46		1

Analytical Method: TPH By SW8015 Mod	Prep Method: TX1005P
Tech: ARM	% Moisture:
Analyst: ARM	Date Prep: 03.08.19 15.00
Seq Number: 3081691	Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<14.9	14.9	mg/kg	03.09.19 05.28	U	1
Diesel Range Organics (DRO)	C10C28DRO	20.1	14.9	mg/kg	03.09.19 05.28		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<14.9	14.9	mg/kg	03.09.19 05.28	U	1
Total TPH	PHC635	20.1	14.9	mg/kg	03.09.19 05.28		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	92	%	70-135	03.09.19 05.28	
o-Terphenyl	84-15-1	92	%	70-135	03.09.19 05.28	



Certificate of Analytical Results 616451



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

B Hardin Battery

Sample Id: **SP-2 W.**
 Lab Sample Id: 616451-004

Matrix: Soil
 Date Collected: 02.27.19 10.25

Date Received: 03.05.19 11.30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 03.08.19 17.00

Basis: Wet Weight

Seq Number: 3081756

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.09.19 13.36	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.09.19 13.36	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.09.19 13.36	U	1
m,p-Xylenes	179601-23-1	<0.00400	0.00400	mg/kg	03.09.19 13.36	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.09.19 13.36	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.09.19 13.36	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.09.19 13.36	U	1
			%				
Surrogate	Cas Number	Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	111	%	70-130	03.09.19 13.36		
4-Bromofluorobenzene	460-00-4	109	%	70-130	03.09.19 13.36		



Certificate of Analytical Results 616451



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

B Hardin Battery

Sample Id: SP-3 Floor	Matrix: Soil	Date Received: 03.05.19 11.30
Lab Sample Id: 616451-005	Date Collected: 02.27.19 13.15	
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: CHE		% Moisture:
Analyst: CHE	Date Prep: 03.06.19 11.15	Basis: Wet Weight
Seq Number: 3081358		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	17.5	4.99	mg/kg	03.06.19 19.06		1

Analytical Method: TPH By SW8015 Mod	Prep Method: TX1005P
Tech: ARM	% Moisture:
Analyst: ARM	Date Prep: 03.08.19 15.00
Seq Number: 3081691	Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.09.19 05.48	U	1
Diesel Range Organics (DRO)	C10C28DRO	101	15.0	mg/kg	03.09.19 05.48		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.09.19 05.48	U	1
Total TPH	PHC635	101	15.0	mg/kg	03.09.19 05.48		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	95	%	70-135	03.09.19 05.48	
o-Terphenyl	84-15-1	96	%	70-135	03.09.19 05.48	



Certificate of Analytical Results 616451



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM B Hardin Battery

Sample Id: **SP-3 Floor**
Lab Sample Id: 616451-005

Matrix: Soil
Date Collected: 02.27.19 13.15

Date Received: 03.05.19 11.30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 03.08.19 17.00

Basis: Wet Weight

Seq Number: 3081756

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.09.19 13.55	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.09.19 13.55	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.09.19 13.55	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.09.19 13.55	U	1
o-Xylene	95-47-6	<0.00199	0.00199	mg/kg	03.09.19 13.55	U	1
Total Xylenes	1330-20-7	<0.00199	0.00199	mg/kg	03.09.19 13.55	U	1
Total BTEX		<0.00199	0.00199	mg/kg	03.09.19 13.55	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	104	%	70-130	03.09.19 13.55		
4-Bromofluorobenzene	460-00-4	137	%	70-130	03.09.19 13.55	**	



Certificate of Analytical Results 616451



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM B Hardin Battery

Sample Id: SP-3 N.	Matrix: Soil	Date Received: 03.05.19 11.30
Lab Sample Id: 616451-006	Date Collected: 02.27.19 13.18	
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: CHE		% Moisture:
Analyst: CHE	Date Prep: 03.06.19 11.15	Basis: Wet Weight
Seq Number: 3081358		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	102	4.96	mg/kg	03.06.19 19.12		1

Analytical Method: TPH By SW8015 Mod	Prep Method: TX1005P
Tech: ARM	% Moisture:
Analyst: ARM	Date Prep: 03.08.19 15.00
Seq Number: 3081691	Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.09.19 06.08	U	1
Diesel Range Organics (DRO)	C10C28DRO	25.0	15.0	mg/kg	03.09.19 06.08		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	<15.0	15.0	mg/kg	03.09.19 06.08	U	1
Total TPH	PHC635	25.0	15.0	mg/kg	03.09.19 06.08		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	93	%	70-135	03.09.19 06.08	
o-Terphenyl	84-15-1	94	%	70-135	03.09.19 06.08	



Certificate of Analytical Results 616451



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM B Hardin Battery

Sample Id: **SP-3 N.**
Lab Sample Id: 616451-006

Matrix: Soil
Date Collected: 02.27.19 13.18

Date Received: 03.05.19 11.30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 03.08.19 17.00

Basis: Wet Weight

Seq Number: 3081756

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00201	0.00201	mg/kg	03.09.19 14.14	U	1
Toluene	108-88-3	<0.00201	0.00201	mg/kg	03.09.19 14.14	U	1
Ethylbenzene	100-41-4	<0.00201	0.00201	mg/kg	03.09.19 14.14	U	1
m,p-Xylenes	179601-23-1	<0.00402	0.00402	mg/kg	03.09.19 14.14	U	1
o-Xylene	95-47-6	<0.00201	0.00201	mg/kg	03.09.19 14.14	U	1
Total Xylenes	1330-20-7	<0.00201	0.00201	mg/kg	03.09.19 14.14	U	1
Total BTEX		<0.00201	0.00201	mg/kg	03.09.19 14.14	U	1
Surrogate	Cas Number	% Recovery		Units	Limits	Analysis Date	Flag
4-Bromofluorobenzene	460-00-4	121		%	70-130	03.09.19 14.14	
1,4-Difluorobenzene	540-36-3	109		%	70-130	03.09.19 14.14	



Certificate of Analytical Results 616451



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM B Hardin Battery

Sample Id: SP-4 Floor	Matrix: Soil	Date Received: 03.05.19 11.30
Lab Sample Id: 616451-007	Date Collected: 02.27.19 11.23	
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: CHE		% Moisture:
Analyst: CHE	Date Prep: 03.06.19 11.15	Basis: Wet Weight
Seq Number: 3081358		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	180	4.97	mg/kg	03.06.19 19.19		1

Analytical Method: TPH By SW8015 Mod	Prep Method: TX1005P
Tech: ARM	% Moisture:
Analyst: ARM	Date Prep: 03.08.19 15.00
Seq Number: 3081691	Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.09.19 06.28	U	1
Diesel Range Organics (DRO)	C10C28DRO	560	15.0	mg/kg	03.09.19 06.28		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	97.7	15.0	mg/kg	03.09.19 06.28		1
Total TPH	PHC635	658	15.0	mg/kg	03.09.19 06.28		1

Surrogate	Cas Number	%	Units	Limits	Analysis Date	Flag
		Recovery				
1-Chlorooctane	111-85-3	94	%	70-135	03.09.19 06.28	
o-Terphenyl	84-15-1	107	%	70-135	03.09.19 06.28	



Certificate of Analytical Results 616451



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

B Hardin Battery

Sample Id: **SP-4 Floor**
 Lab Sample Id: 616451-007

Matrix: Soil
 Date Collected: 02.27.19 11.23

Date Received: 03.05.19 11.30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 03.08.19 17.00

Basis: Wet Weight

Seq Number: 3081756

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00199	0.00199	mg/kg	03.09.19 14.33	U	1
Toluene	108-88-3	<0.00199	0.00199	mg/kg	03.09.19 14.33	U	1
Ethylbenzene	100-41-4	<0.00199	0.00199	mg/kg	03.09.19 14.33	U	1
m,p-Xylenes	179601-23-1	<0.00398	0.00398	mg/kg	03.09.19 14.33	U	1
o-Xylene	95-47-6	0.00634	0.00199	mg/kg	03.09.19 14.33		1
Total Xylenes	1330-20-7	0.00634	0.00199	mg/kg	03.09.19 14.33		1
Total BTEX		0.00634	0.00199	mg/kg	03.09.19 14.33		1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
1,4-Difluorobenzene	540-36-3	106	%	70-130	03.09.19 14.33		
4-Bromofluorobenzene	460-00-4	118	%	70-130	03.09.19 14.33		



Certificate of Analytical Results 616451



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

B Hardin Battery

Sample Id: SP-4 E.	Matrix: Soil	Date Received: 03.05.19 11.30
Lab Sample Id: 616451-008	Date Collected: 02.27.19 11.20	
Analytical Method: Chloride by EPA 300		Prep Method: E300P
Tech: CHE		% Moisture:
Analyst: CHE	Date Prep: 03.06.19 11.15	Basis: Wet Weight
Seq Number: 3081358		

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Chloride	16887-00-6	318	4.95	mg/kg	03.06.19 19.25		1

Analytical Method: TPH By SW8015 Mod	Prep Method: TX1005P
Tech: ARM	% Moisture:
Analyst: ARM	Date Prep: 03.08.19 15.00
Seq Number: 3081691	Basis: Wet Weight

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Gasoline Range Hydrocarbons (GRO)	PHC610	<15.0	15.0	mg/kg	03.09.19 12.06	U	1
Diesel Range Organics (DRO)	C10C28DRO	46.1	15.0	mg/kg	03.09.19 12.06		1
Motor Oil Range Hydrocarbons (MRO)	PHCG2835	35.0	15.0	mg/kg	03.09.19 12.06		1
Total TPH	PHC635	81.1	15.0	mg/kg	03.09.19 12.06		1

Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag
1-Chlorooctane	111-85-3	97	%	70-135	03.09.19 12.06	
o-Terphenyl	84-15-1	97	%	70-135	03.09.19 12.06	



Certificate of Analytical Results 616451



Trinity Oilfield Services & Rentals, LLC, Hobbs, NM

B Hardin Battery

Sample Id: **SP-4 E.**
 Lab Sample Id: 616451-008

Matrix: Soil
 Date Collected: 02.27.19 11.20

Date Received: 03.05.19 11.30

Analytical Method: BTEX by EPA 8021B

Prep Method: SW5030B

Tech: SCM

% Moisture:

Analyst: SCM

Date Prep: 03.08.19 17.00

Basis: Wet Weight

Seq Number: 3081756

Parameter	Cas Number	Result	RL	Units	Analysis Date	Flag	Dil
Benzene	71-43-2	<0.00200	0.00200	mg/kg	03.09.19 14.52	U	1
Toluene	108-88-3	<0.00200	0.00200	mg/kg	03.09.19 14.52	U	1
Ethylbenzene	100-41-4	<0.00200	0.00200	mg/kg	03.09.19 14.52	U	1
m,p-Xylenes	179601-23-1	<0.00399	0.00399	mg/kg	03.09.19 14.52	U	1
o-Xylene	95-47-6	<0.00200	0.00200	mg/kg	03.09.19 14.52	U	1
Total Xylenes	1330-20-7	<0.00200	0.00200	mg/kg	03.09.19 14.52	U	1
Total BTEX		<0.00200	0.00200	mg/kg	03.09.19 14.52	U	1
Surrogate	Cas Number	% Recovery	Units	Limits	Analysis Date	Flag	
4-Bromofluorobenzene	460-00-4	111	%	70-130	03.09.19 14.52		
1,4-Difluorobenzene	540-36-3	110	%	70-130	03.09.19 14.52		



Trinity Oilfield Services & Rentals, LLC
B Hardin Battery

Analytical Method: Chloride by EPA 300

Seq Number: 3081358

MB Sample Id: 7673058-1-BLK

Matrix: Solid

LCS Sample Id: 7673058-1-BKS

Prep Method: E300P

Date Prep: 03.06.19

LCSD Sample Id: 7673058-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	<0.858	250	251	100	254	102	90-110	1	20	mg/kg	03.06.19 16:43	

Analytical Method: Chloride by EPA 300

Seq Number: 3081358

Parent Sample Id: 616446-016

Matrix: Soil

MS Sample Id: 616446-016 S

Prep Method: E300P

Date Prep: 03.06.19

MSD Sample Id: 616446-016 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	19.6	252	272	100	286	106	90-110	5	20	mg/kg	03.06.19 17:03	

Analytical Method: Chloride by EPA 300

Seq Number: 3081358

Parent Sample Id: 616452-001

Matrix: Soil

MS Sample Id: 616452-001 S

Prep Method: E300P

Date Prep: 03.06.19

MSD Sample Id: 616452-001 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD Limit	Units	Analysis Date	Flag
Chloride	3.22	248	254	101	249	99	90-110	2	20	mg/kg	03.06.19 18:33	

Analytical Method: TPH By SW8015 Mod

Seq Number: 3081691

MB Sample Id: 7673295-1-BLK

Matrix: Solid

LCS Sample Id: 7673295-1-BKS

Prep Method: TX1005P

Date Prep: 03.08.19

LCSD Sample Id: 7673295-1-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)	<8.00	1000	969	97	1020	102	70-135	5	20	mg/kg	03.09.19 03:08	
Diesel Range Organics (DRO)	<8.13	1000	981	98	1050	105	70-135	7	20	mg/kg	03.09.19 03:08	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	96		114		126		70-135	%	03.09.19 03:08
o-Terphenyl	97		102		109		70-135	%	03.09.19 03:08

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

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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



Trinity Oilfield Services & Rentals, LLC

B Hardin Battery

Analytical Method: TPH By SW8015 Mod

Seq Number: 3081691

Parent Sample Id: 616451-001

Matrix: Soil

MS Sample Id: 616451-001 S

Prep Method: TX1005P

Date Prep: 03.08.19

MSD Sample Id: 616451-001 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)	11.5	998	1000	99	1130	112	70-135	12	20		mg/kg	03.09.19 04:08	
Diesel Range Organics (DRO)	228	998	1250	102	1400	117	70-135	11	20		mg/kg	03.09.19 04:08	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1-Chlorooctane	115		127		70-135	%	03.09.19 04:08
o-Terphenyl	106		117		70-135	%	03.09.19 04:08

Analytical Method: BTEX by EPA 8021B

Seq Number: 3081756

MB Sample Id: 7673344-1-BLK

Matrix: Solid

LCS Sample Id: 7673344-1-BKS

Prep Method: SW5030B

Date Prep: 03.08.19

LCSD Sample Id: 7673344-1-BSD

Parameter	MB Result	Spike Amount	LCS Result	LCS %Rec	LCSD Result	LCSD %Rec	Limits	%RPD	RPD	Limit	Units	Analysis Date	Flag
Benzene	<0.000388	0.101	0.106	105	0.102	102	70-130	4	35		mg/kg	03.09.19 10:27	
Toluene	<0.000459	0.101	0.0939	93	0.0907	91	70-130	3	35		mg/kg	03.09.19 10:27	
Ethylbenzene	<0.000569	0.101	0.0901	89	0.0867	87	70-130	4	35		mg/kg	03.09.19 10:27	
m,p-Xylenes	<0.00102	0.202	0.180	89	0.173	87	70-130	4	35		mg/kg	03.09.19 10:27	
o-Xylene	<0.000347	0.101	0.0898	89	0.0870	87	70-130	3	35		mg/kg	03.09.19 10:27	

Surrogate	MB %Rec	MB Flag	LCS %Rec	LCS Flag	LCSD %Rec	LCSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	108		104		105		70-130	%	03.09.19 10:27
4-Bromofluorobenzene	97		96		98		70-130	%	03.09.19 10:27

Analytical Method: BTEX by EPA 8021B

Seq Number: 3081756

Parent Sample Id: 616450-004

Matrix: Soil

MS Sample Id: 616450-004 S

Prep Method: SW5030B

Date Prep: 03.08.19

MSD Sample Id: 616450-004 SD

Parameter	Parent Result	Spike Amount	MS Result	MS %Rec	MSD Result	MSD %Rec	Limits	%RPD	RPD	Limit	Units	Analysis Date	Flag
Benzene	<0.000387	0.101	0.0971	96	0.0921	92	70-130	5	35		mg/kg	03.09.19 11:05	
Toluene	<0.000458	0.101	0.0855	85	0.0816	82	70-130	5	35		mg/kg	03.09.19 11:05	
Ethylbenzene	<0.000568	0.101	0.0792	78	0.0757	76	70-130	5	35		mg/kg	03.09.19 11:05	
m,p-Xylenes	0.00117	0.201	0.158	78	0.151	75	70-130	5	35		mg/kg	03.09.19 11:05	
o-Xylene	0.000551	0.101	0.0789	78	0.0757	75	70-130	4	35		mg/kg	03.09.19 11:05	

Surrogate	MS %Rec	MS Flag	MSD %Rec	MSD Flag	Limits	Units	Analysis Date
1,4-Difluorobenzene	106		105		70-130	%	03.09.19 11:05
4-Bromofluorobenzene	102		101		70-130	%	03.09.19 11:05

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

[D] = 100*(C-A) / B
RPD = 200* |(C-E) / (C+E)|
[D] = 100 * (C) / [B]
Log Diff. = Log(Sample Duplicate) - Log(Original Sample)

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



CHAIN OF CUSTODY RECORD

Houston: 4143 Greenbriar Dr. Stafford, TX 77477 (281)240-4200 Odessa: 12600 West I-20 East Odessa, TX 79765 (432)563-1800

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LAB W.O.#: **616451**

Field billable Hrs: _____

Container Type Codes

VA Vial Amber	ES Encore Sampler
VC Vial Clear	TS TerraCore Sampler
VP Vial Pre-preserved	AC Air Canister
GA Glass Amber	TB Tedlar Bag
GC Glass Clear	ZB Zip Lock Bag
PA Plastic Amber	PC Plastic Clear
PC Plastic Clear	PC Plastic Clear
Other _____	

Size(s): 2oz, 4oz, 8oz, 16oz, 32oz, 1Gal, 40ml, 125 ml, 250 ml, 500 ml, 1L, Other _____

Company: Trinity Oilfield Services & Rentals, LLC Phone: (575)390-7208

Address: P.O. Box 2587 Fax: _____

City: Hobbs State: NM Zip: 88241

PM/Attn: Ben J. Arguijo Email: wade.dittrich@oxy.com & ben@trinityoilfieldservices.com

Project ID: B Hardin Battery PO#: _____

Invoice To: Oxy - Wade Dittrich (575)390-2828 Quote #: _____

Sampler Name: Josh Halcomb Circle One Event: Daily Weekly Monthly Quarterly Semi-Annual Annual N/A

TAT Work Days = D Need results by: _____ Time: _____
Std (5-7D) 5Hrs 1D 2D 3D 4D 5D 7D 10D 14D Other _____

ANALYSES REQUESTED

Cont Type* VC	GC	GC	GC																
Pres Type**																			
Example Volatiles by 8260	TPH 8015M	BTEX	Chloride																
# Cont	Lab Only:																		

** Preservative Type Codes

A. None	E. HCL	I. Ice
B. HNO ₃	F. MeOH	J. MCAA
C. H ₂ SO ₄	G. Na ₂ S ₂ O ₃	K. ZnAc&NaOH
D. NaOH	H. NaHSO ₄	L. Asbc Acid&NaOH
O. _____		

^ Matrix Type Codes

GW Ground Water	S Soil/Sediment/Solid
WW Waste Water	W Wipe
DW Drinking Water	A Air
SW Surface Water	O Oil
OW Ocean/Sea Water	T Tissue
PL Product-Liquid	U Urine
PS Product-Solid	B Blood
SL Sludge	
Other _____	

Sample #	Sample ID	Collect Date	Collect Time	Matrix Code	Field Filtered	Integrity OK (Y/N)	Total # of Containers	Example Volatiles by 8260	TPH 8015M	BTEX	Chloride									
1	SP-1 Floor	2/27/19	0908	S			1		X	X	X									
2	SP-1 S.	2/27/19	0910	S			1		X	X	X									
3	SP-2 Floor	2/27/19	1018	S			1		X	X	X									
4	SP-2 W.	2/27/19	1025	S			1		X	X	X									
5	SP-3 Floor	2/27/19	1315	S			1		X	X	X									
6	SP-3 N.	2/27/19	1318	S			1		X	X	X									
7	SP-4 Floor	2/27/19	1123	S			1		X	X	X									
8	SP-4 E.	2/27/19	1120	S			1		X	X	X									
9																				
0																				

Hold Sample (CALL on Highest TPH) Run PAH Only if _____

REMARKS

Reg. Program / Clean-up Std	STATE for Certs & Regs	QA/QC Level & Certification	EDDs	COC & Labels	Coolers Temp °C	Lab Use Only	YES NO N/A
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CTLS TRRP DW NPDES LPST DryCin	FL TX GA NC SC NJ PA OK	1 2 3 4 CLP AFCEE QAPP	ADaPT SEDD ERPIMS	Match Incomplete	1 1.0 2 3	Non-Conformances found?	_____
Other:	LA AL NM Other:	NELAC DoD-ELAP Other:	XLS Other:	Absent Unclear		Samples intact upon arrival?	_____

Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
Josh Halcomb	Trinity	3/4/19	4:25	Spencer Furey	MS	3/4/19	4:26
Spencer Furey	MS	3/4/19	5:01	Kell	Xenco	3/3/19	11:30

B&A Laboratories: Hobbs 575-392-7550 Dallas 214-902-0300 Houston 281-242-4200 Odessa 432-563-1800 San Antonio 210-509-3334 Phoenix 602-437-0330
 FTS Service Centers: Atlanta 770-449-8800 Lakeland 863-646-8526 Tampa 803-543-8099 Philadelphia 610-955-5649 South Carolina 803-543-8099

Execution of this document by client creates a legal and binding agreement between client and Xenco for analytical and testing services provided by Xenco to client under Xenco's standard terms and conditions unless previously agreed in writing. Terms of payment are Net 30-0.1 days, and all past due amounts shall accrue interest at 1.5% per month until paid in full. All laboratory analytical data and reports generated by Xenco remain the exclusive property of Xenco until invoices for such data are paid in full. Revision Date: Nov 12, 2009

1.4/1.3 R8

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XENCO Laboratories

Prelogin/Nonconformance Report- Sample Log-In



Client: Trinity Oilfield Services & Rentals, LLC
Date/ Time Received: 03/05/2019 11:30:00 AM
Work Order #: 616451

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)?	1.3
#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
#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)?	No
#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:  Date: 03/05/2019
 Katie Lowe

Checklist reviewed by:  Date: 03/05/2019
 Holly Taylor