

January 12, 2015

Mr. Mike Bratcher **NMOCD District 2**

AMARILLO 921 North Bivins Amarillo, Texas 79107 Phone 806,467,0607 Fax 806.467.0622

811 S. 1st Street Artesia, NM 88210

Subject:

Soil Assessment and Remediation Work Plan

Oxy USA WTP Limited Partnership Martha Creek Gas Com Battery API: 30-015-10323 - 2RP-2653

AMENDED

ARTESIA

408 West Texas Ave. Artesia, New Mexico 88210 Phone 575.746.8768 Fax 575.746.8905

Dear Mr. Bratcher,

HOBBS

318 East Taylor Street Hobbs, New Mexico 88240 Phone 575.393.4261 Fax 575.393.4658 Oxy USA WTP Limited Partnership (Oxy) has contracted Talon/LPE (Talon) to perform soil assessment and remediation services at the above referenced location. The results of our soil assessment and proposed remediation activities consist of the following.

MIDLAND

2901 State Hwv 349 Midland, Texas 79706 Phone 432.522.2133 Fax 432.522.2180

Background Information

The Martha Creek Gas Com Battery is located approximately 35 miles southwest of Artesia, New Mexico. The legal location for this release is Unit Letter I, Section 30, Township 21 South, and Range 24 East in Eddy County, New Mexico. More specifically the latitude and longitude for the release are 32.4476087 North and -104.533986 West. A site plan is presented in Appendix I.

OKLAHOMA CITY 7700 North Hudson Avenue Oklahoma City, Oklahoma 73116 Phone 405.486.7030 Fax 806.467.0622

> SAN ANTONIO 13111 Lookout Way San Antonio, Texas 78233 Phone 210,265,8025 Fax 210.568.2191

According to the soil survey provided by the United States Department of Agriculture National Resources Conservation Services, the soil in this area is made up of Ector rocky loam with a 0 to 9 percent slopes. The local surface and shallow geology, Paleozoic Age sedimentary deposits, is comprised of the Guadeloupian Artesia Group, Tansil and Yates formations, which are made up of residuum weathered limestone under lain by very cobbly loam and hard caliches. Groundwater in the project vicinity is approximately 90-feet below ground surface (bgs) according to the New Mexico Office for the State Engineer. See Appendix II for the referenced groundwater data.

The ranking for this site is 10 based on the following:

Depth to ground water

50' - 100'

Wellhead Protection Area

>1000'

Distance to surface water body

>1000°

ENVIRONMENTAL CONSULTING ENGINEERING DRILLING CONSTRUCTION SPILL MANAGEMENT **GENERAL CONTRACTING**

Toll Free: 866.742.0742 www.talonlpe.com

Incident Description

A manway gasket malfunctioned on the heater treater caused a release of 15 barrels of oil and 5 barrels of produced water. A vacuum truck was immediately called to the location and 15 barrels of oil was recovered. The facility was shut-in, the heater treater was repaired and put back into service. The affected area measured approximately 70-feet long by 20-60 feet wide around the heater treater. All fluids stayed on location. Talon mobilized personnel to conduct a site assessment and conduct soil sampling activities utilizing a hand auger within the impacted areas. The results of our soil sampling activities are summarized in the table below.

Laboratory Results

See Appendix III for complete report of laboratory results.

Sample ID	Depth (feet)	BTEX (mg/kg)	Chlorides (mg/kg)	TPH (mg/kg) GRO	TPH (mg/kg) DRO
S-1	1'	50.5	1040	950	13100
S-2	1'	1.53	880	35.7	3480
S-3 Refusal	1'	< 0.300	1360	10.5	1510

Based upon the site ranking of 0, NMOCD Recommended Remedial Action Levels (RRAL's) are 50 mg/kg for BTEX, 10 mg/kg for Benzene, 1,000 mg/kg for TPH and 1,000 mg/kg for Chlorides.

Proposed Remedial Actions

- The impacted area in the vicinity of S-1 will be excavated to a minimum depth of 3-feet bgs. Field PID readings will be used to guide the excavation. Once field results indicate that the impacted soil is below NMOCD Recommended Remedial Action Level's (RRAL's) a confirmation soil sample will be taken to insure all of the impacted material was removed.
- The impacted area in the vicinity S-2 and S-3 will be excavated a minimum of 2-feet deep. Field PID readings will be used to guide the excavation. Once field results indicate that the impacted soil is below NMOCD Recommended Remedial Action Level's (RRAL's) confirmation soil samples will be taken to insure all of the impacted material was removed.
- All of the excavated material will be hauled to an NMOCD approved solid waste disposal facility.
- Upon approval by the NMOCD, the excavated areas on location will be backfilled with caliche and re-contoured to match the surrounding location.

Should you have any questions or if further information is required, please do not hesitate to contact our office at (575)-746-8768.

Respectfully submitted,

M. Wilson

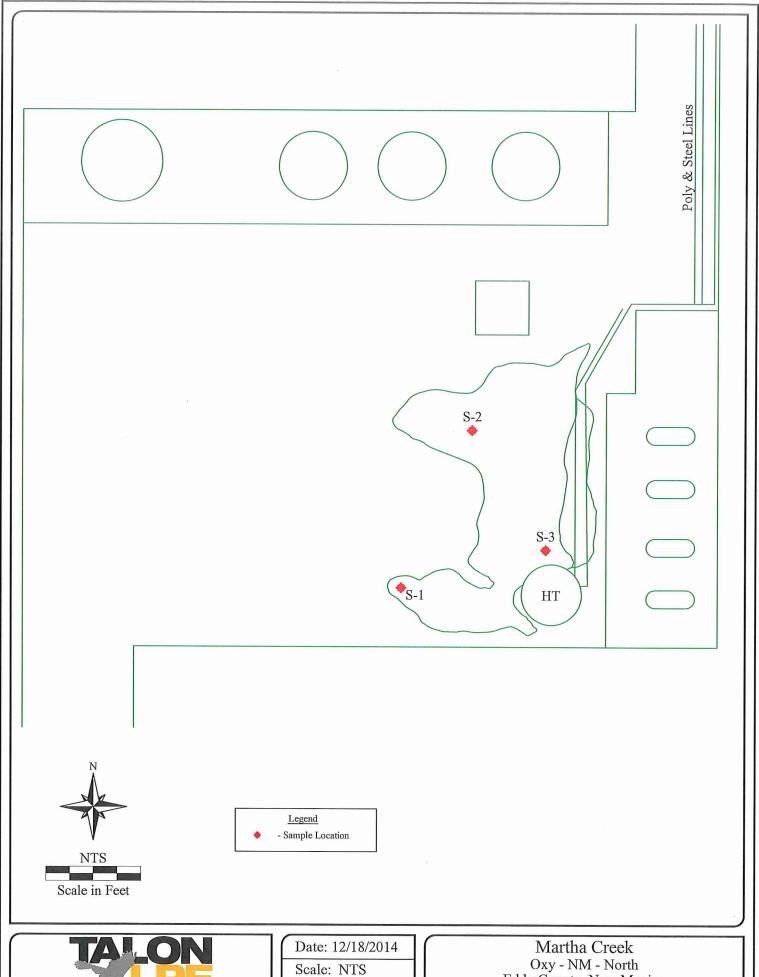
Kimberly M. Wilson

Project Manager

David J. Adkins

District Manager

APPENDIX I SITE MAP





Drawn By: TJS

Martha Creek Oxy - NM - North Eddy County, New Mexico Figure 1 - Site Plan

APPENDIX II GROUNDWATER DATA INITIAL C-141



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 (quarters closed) (quarters

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

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

0 ,	,								•					
	POD													
	Sub-	(2 (Q								Depth	Depth	Water
POD Number	Code basin Cou	nty 6	41	6 4	Sec	Tws	Rng		Х	Υ	Distance	Well	Water	Column
RA 09741	E)	2 ′	1	32	21S	23E	5348	313	3589438*	570	200	180	20
RA 10046	E) ,	4 1	4	36	21S	22E	5325	553	3588361* 🌑	2372	247	215	32

Average Depth to Water: 197 feet

Minimum Depth: 180 feet

Maximum Depth: 215 feet

Record Count: 2

UTMNAD83 Radius Search (in meters):

Easting (X): 534408

Northing (Y): 3589840

Radius: 3000

NM OIL CONSERVATION

ARTESIA DISTRICT

<u>District I</u> 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 87503

State of New Mexico Energy Minerals and Natural Resources

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

DEC 1 0 2014 Form C-141
Revised August 8, 2011

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

Release Notificati	on and Corrective Action
NAB143445634-1	OPERATOR Initial Report Final Report
Name of Company: OXY USA Limited Partnership 19246	
Address: 102 S. Main St. Carlsbad, NM 88220 Facility Name: Martha Creek Gas Com Battery	Telephone No.: 575-628-4121 Facility Type: Battery
Surface Owner: Federal Mineral Owner	r: API No.: 30-015-10323 Lease #: NM D-29301
LOCATIO	ON OF RELEASE
Unit Letter Section Township Range Feet from the No. 30 21S 24E	th/South Line Feet from the East/West Line County Eddy
	<u>10 N</u> Longitude104.5340 W E OF RELEASE
Type of Release: Oil & Produced Water	Volume of Release: 5 bbls PW & Volume Recovered: 15 bbls 61
Source of Release: Heater Trenter	Date and Hour of Occurrence Date and Hour of Discovery 11/7/14 @ 11:30 am 11/7/14 @ 11:30
Was Immediate Notice Given? 	
By Whom? Kimberly Wilson	Jeff Robertson BLM Date and Hour: 11/13/14
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.
If a Watercourse was Impacted, Describe Fully.*	
and 15 barrels of oil to be released within the berms. The facility was:	ray gasket on the heater treater malfunctioned causing 5 barrels of produced water shut-in, the heater treater was repaired and put back into service. A vacuum truck treater was contracted to perform an initial site assessment and soil
sampling. Describe Area Affected and Cleanup Action Taken.*	
The affected area is approximately 25' X 63' around the heater treater.	All fluids stayed on location.
regulations all operators are required to report and/or file certain releas public health or the environment. The acceptance of a C-141 report by should their operations have failed to adequately investigate and remove	the best of my knowledge and understand that pursuant to NMOCD rules and e notifications and perform corrective actions for releases which may endanger the NMOCD marked as "Final Report" does not relieve the operator of liability liate contamination that pose a threat to ground water, surface water, human health to does not relieve the operator of responsibility for compliance with any other
1.	OIL CONSERVATION DIVISION
Signature: CMS ON	Approved by Environmental Specialist
Printed Name: Chris Jones	10 10 10 11/4
Title: HES Specialist	Approval Date: 12 10 14 Expiration Date: N/A
E-mail Address: Christopher.Jones@oxy.com	Conditions of Approval: emediation per O.C.D. Rules & Guidelines
	UBMIT REMEDIATION PROPOSAL NO
Attach Additional officers II 1400056aly	ATER THAN: 1015 2RP. 2653

APPENDIX III LABORATORY RESULTS



December 03, 2014

DAVID ADKINS

TALON LPE

408 W. TEXAS AVE.

ARTESIA, NM 88210

RE: MARTHA CREEK CTB

Enclosed are the results of analyses for samples received by the laboratory on 12/02/14 13:46.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-13-5. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab accred certif.html.

Cardinal Laboratories is accreditated through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2

Haloacetic Acids (HAA-5)

Method EPA 524.2

Total Trihalomethanes (TTHM)

Method EPA 524.4

Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

Celey D. Keens

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager



Analytical Results For:

TALON LPE
DAVID ADKINS
408 W. TEXAS AVE.
ARTESIA NM, 88210
Fax To: (575) 745-8905

Received:

12/02/2014

Reported:

12/03/2014

Project Name:

MARTHA CREEK CTB

Project Number: Project Location: 700608.384.01 EDDY COUNTY, NM

Sampling Date:

12/01/2014

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Kathy Perez

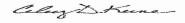
Sample ID: S - 1 1' (H403672-01)

BTEX 8021B	mg/	kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.500	0.500	12/03/2014	ND	1.93	96.7	2.00	3.49	
Toluene*	4.42	0.500	12/03/2014	ND	1.90	95.2	2.00	2.81	
Ethylbenzene*	3.10	0.500	12/03/2014	ND	1.79	89.6	2.00	3.02	
Total Xylenes*	43.0	1.50	12/03/2014	ND	5.42	90.4	6.00	3.67	
Total BTEX	50.5	3.00	12/03/2014	ND					
Surrogate: 4-Bromofluorobenzene (PIL	106 %	6 61-154							
Chloride, SM4500CI-B	mg/l	кg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1040	16.0	12/03/2014	ND	416	104	400	3.77	
TPH 8015M	mg/l	кg	Analyze	d By: CK					S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	950	50.0	12/02/2014	ND	196	98.1	200	5.01	
DRO >C10-C28	13100	50.0	12/02/2014	ND	200	99.9	200	8.07	
Surrogate: 1-Chlorooctane	212 %	6 47.2-157	7						
Surrogate: 1-Chlorooctadecane	392 %	52.1-170	í						

Cardinal Laboratories

*=Accredited Analyte

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Analytical Results For:

TALON LPE DAVID ADKINS 408 W. TEXAS AVE. ARTESIA NM, 88210

Fax To:

(575) 745-8905

Received:

12/02/2014

Reported:

12/03/2014

Project Name: Project Number: MARTHA CREEK CTB

Project Location:

700608.384.01 EDDY COUNTY, NM Sampling Date:

12/01/2014

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Kathy Perez

Sample ID: S - 2 1' (H403672-02)

BTEX 8021B	mg/	kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/03/2014	ND	1.93	96.7	2.00	3.49	
Toluene*	0.072	0.050	12/03/2014	ND	1.90	95.2	2.00	2.81	
Ethylbenzene*	0.088	0.050	12/03/2014	ND	1.79	89.6	2.00	3.02	
Total Xylenes*	1.37	0.150	12/03/2014	ND	5.42	90.4	6.00	3.67	
Total BTEX	1.53	0.300	12/03/2014	ND					
Surrogate: 4-Bromofluorobenzene (PIL	100 9	61-154							
Chloride, SM4500CI-B	mg/	kg	Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	880	16.0	12/03/2014	ND	416	104	400	3.77	
TPH 8015M	mg/	kg	Analyze	d By: CK					S-04
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	35.7	10.0	12/02/2014	ND	196	98.1	200	5.01	
DRO >C10-C28	3480	10.0	12/02/2014	ND	200	99.9	200	8.07	
Surrogate: 1-Chlorooctane	141 %	6 47.2-157	7						
Surrogate: 1-Chlorooctadecane	208 9	6 52.1-170	s ·						

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*=Accredited Analyte

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Analytical Results For:

TALON LPE
DAVID ADKINS
408 W. TEXAS AVE.
ARTESIA NM, 88210

Fax To:

(575) 745-8905

Received:

12/02/2014

Reported:

12/03/2014

Project Name:

MARTHA CREEK CTB

Project Number:

700608.384.01

Project Location:

EDDY COUNTY, NM

Sampling Date:

12/01/2014

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Kathy Perez

Sample ID: S - 3 1' (H403672-03)

BTEX 8021B	mg/	kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	12/03/2014	ND	1.93	96.7	2.00	3.49	
Toluene*	<0.050	0.050	12/03/2014	ND	1.90	95.2	2.00	2.81	
Ethylbenzene*	<0.050	0.050	12/03/2014	ND	1.79	89.6	2.00	3.02	
Total Xylenes*	<0.150	0.150	12/03/2014	ND	5.42	90.4	6.00	3.67	
Total BTEX	<0.300	0.300	12/03/2014	ND					
Surrogate: 4-Bromofluorobenzene (PIL	103 % 61-154 mg/kg		§						
Chloride, SM4500CI-B			Analyze	d By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1360	16.0	12/03/2014	ND	416	104	400	3.77	
TPH 8015M	mg/	kg	Analyze	d By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	10.5	10.0	12/02/2014	ND	196	98.1	200	5.01	
DRO >C10-C28	1510	10.0	12/02/2014	ND	200	99.9	200	8.07	
Surrogate: 1-Chlorooctane	124 %	6 47.2-15	7						
Surrogate: 1-Chlorooctadecane	174 9	6 52.1-17	6						

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*=Accredited Analyte

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



Notes and Definitions

S-06	The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keine



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240 (575) 393-2326 FAX (575) 393-2476

(0.0) 000	ANALYSIS REQUES	CESI
Company Name: Jalen (COC	12837n	
Address: Co	7	
State:	No zip:082/0 Attn Chrls Codes	
e#: 675 746 8768 Fax#:	Address:	
Project #: 746 668 389 Project Owner: C	City:	
6	State: Zip:	
20	Phone #:	
Sampler Name:	Fax#:	
FOR LAB USE ONLY	MATRIX PRESERV SAMPLING	
	RS LTER ER	
Lab I.D. Sample I.D.	JDGE HER: ID/BASE: I/COOL HER:	
H413672	# C GR WA SO OIL SLI OT AC	
S.		
\$. \$	1 1 12:15	
3	1 1 2 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	
65.3		
PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remody for	PLEASE NOTE: Lability and Camages. Cardinal's liability and client's exclusive remody for any claim arising whether based in contract or tort, shall be limited to the amount bad by the client for the process of the p	
service. In no event shall Cardinal be liable for incidental or consequental desirable because of services hereunder by	service. In no event shall Cardinal be liable for inconstruction or consequences have desired by Cardinal regardless of whether such claim is based upon any of the above stated reasons or otherwise.	

Sample Condition
Cool Intact
Pes Yes
No No

CHECKED BY: (Initials) Date: 46

Phone Result:
Fax Result:
REMARKS:

□ Yes

O NO

Add'l Phone #: Add'l Fax #:

PJ 1127623

1 Kololo30105

Date: Time:

Received By:

Delivered By: (Circle One)
Sampler - UPS - Bus - Other:



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 Sub-		Q	Q	Q						Depth	Depth	Water
POD Number	Code basin	County	64	16	l Se	c Tws	Rng	Х	Υ	Distance			Column
C 02701		ED	3	3	3 20	218	24E	544393	3591373*	1437	230	90	140
C 02261	С	ED	1	2	2 29	218	24E	545598	3591170*	2250		20	
C 01136	С	ED		4	3 28	3 21S	24E	546455	3589868*	2903	138	83	55
RA 05131		ED	2	3	2 23	3 21S	23E	540424	3592266*	3767	255		
RA 05131 S		ED	2	3	2 23	3 218	23E	540424	3592266*	3767	292	180	112

Average Depth to Water:

93 feet

Minimum Depth:

20 feet

Maximum Depth:

180 feet

Record Count: 5

Basin/County Search:

County: Eddy

UTMNAD83 Radius Search (in meters):

Easting (X): 543570

Northing (Y): 3590194

Radius: 4000