

# Closure Report

## Site Description

Site Name:	Harroun 15 #3 & #5 CTB
Company:	Oxy Permian Ltd.
Legal Description:	U/L H, Section 15, T24S, R29E
County:	Eddy County, NM
GPS Coordinates:	N 32.22011° W 103.96463°

## Release Data

Date of Release:	08/22/2016
Type of Release:	Oil and produced water
Source of Release:	Compromised 2" steel line from the separator
Volume of Release:	3 bbls oil, 7 bbls produced water
Volume Recovered:	9 bbls

## Remediation Specifications

Remediation Parameters:	Excavate the area around SP1 to a depth of 6 inches. No further remediation is required. Backfill the site with clean soil.	
Remediation Activities:	March 2017	
Plan Sent to OCD:	11/21/2016	Email from Cliff Brunson to Mike Bratcher
OCD Approval of Plan:	11/29/2016	Email from Mike Bratcher to Cliff Brunson
Plan Sent to SLO:	11/21/2016	Email from Cliff Brunson to Shelly Tucker
SLO Approval of Plan:	11/21/2016	Email from Shelly Tucker to Cliff Brunson

## Supporting Documentation

Initial C-141	Signed 09/07/2016
Final C-141	Upon Completion
Site Diagram	October 2016
Groundwater Plot	75'-100' trend map
TOPO Maps	October 2016
Lab Summary	11/02/2016
Lab Analysis	11/02/2016
Correspondence	Request and approval of remediation plan via email

## Request for Closure

Based on the completion of the remediation plan as agreed upon, Oxy Permian requests closure approval from NMOCD.

Casey Summers, NM Environmental Advisor

05/23/2016

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

State of New Mexico  
Energy Minerals and Natural Resources

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

Form C-141  
Revised August 8, 2011

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

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

Name of Company	Oxy Permian Ltd.	Contact	Casey Summers
Address	6 Desta Drive, Midland, TX 79705	Telephone No.	(575) 513-8289
Facility Name	Harroun 15 #3 & #5 CTB	Facility Type	Battery
Surface Owner	BLM	Mineral Owner	
		API No. 30-015-29233	

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
H	15	24S	29E					Eddy County, NM

Latitude N 32.22011° Longitude W 103.96463°

**NATURE OF RELEASE**

Type of Release	Oil and Produced water	Volume of Release	3 bbls oil, 7 bbls produced water	Volume Recovered	9 bbls
Source of Release	Compromised 2" steel line from the separator	Date and Hour of Occurrence	08/22/2016	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?	Mike Bratcher, Heather Patterson- NMOCD; Shelly Tucker- BLM		
By Whom?	Kathy Purvis @ BBC International Inc.	Date and Hour	08/23/2016 @ 4:54 pm		
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.\*

Describe Cause of Problem and Remedial Action Taken.\*

A compromised 2" steel line from the separator leaked 3 bbls of oil and 7 bbls of produced water. A vacuum truck recovered 9 bbls of fluids and the line was repaired.

Describe Area Affected and Cleanup Action Taken.\*

The affected area is approximately 10' x 20' both on and off location. Remediation will be completed in accordance with an approved remediation plan from NMOCD and the BLM.

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

Signature:	<b>OIL CONSERVATION DIVISION</b>		
Printed Name: Casey Summers	Approved by Environmental Specialist:		
Title: NM Environmental Advisor	Approval Date:	Expiration Date:	
E-mail Address: <a href="mailto:Casey_Summers@oxy.com">Casey_Summers@oxy.com</a>	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 9-7-16	Phone: (575) 513-8289		

\* Attach Additional Sheets If Necessary

# Oxy, Harroun 15 #3 & #5 CTB

Leak date: 08/22/2016  
Eddy County, NM  
API# 30-015-29233  
RP# 2RP-3878

## Legend

-  6" Excavation
-  Spill Area
-  Sample points, hand auger



Oxy, Harroun 15 #3 & #5 CTB

Sample points, hand auger

SP1, N 32.22053 W-103.96482

SP2, N 32.22063 W-103.96504

SP3, N 32.22068 W-103.96524

**Oxy, Harroun 15 #3 & #5 CTB**  
**U/L H, Section 15, T24S, R29E**  
**Groundwater: 75'-100'**





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

(quarters are 1=NW 2=NE 3=SW 4=SE)  
(quarters are smallest to largest) (NAD83 UTM in meters)

No records found.

**UTMNAD83 Radius Search (in meters):**

**Easting (X):** 597449

**Northing (Y):** 3565217

**Radius:** 1700

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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.

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5/23/17 3:40 PM

WATER COLUMN/ AVERAGE  
DEPTH TO WATER

**Public Land Survey System (PLSS)**

Q64:            Q16: SE            Q4: NE            Sec: 15            Tws: 24S            Rng: 29E

**State Plane Coordinate System - NAD27**

X:            ft            Y:            ft            Zone:

**State Plane Coordinate System - NAD83**

X:            ft            Y:            ft            Zone:

**Degrees/Minutes/Seconds**

Longitude (X):            Degrees:    °            Minutes:    '            Seconds:    "

Latitude (Y):            Degrees:    °            Minutes:    '            Seconds:    "

**UTM - NAD27**

Easting (X):            mtrs    Northing (Y):            mtrs    Zone:

**SUBMIT**

All Conversion Results are displayed as **NAD 1983 UTM Zone 13**

Easting (X):  mtrs            Northing (Y):  mtrs

~~ Please keep screen open to copy UTM values for Reports. ~~



# Groundwater Plot

## Oxy Harroun 15 #3 & #5 CTB

County  
Eddy

Unit Letter  
H

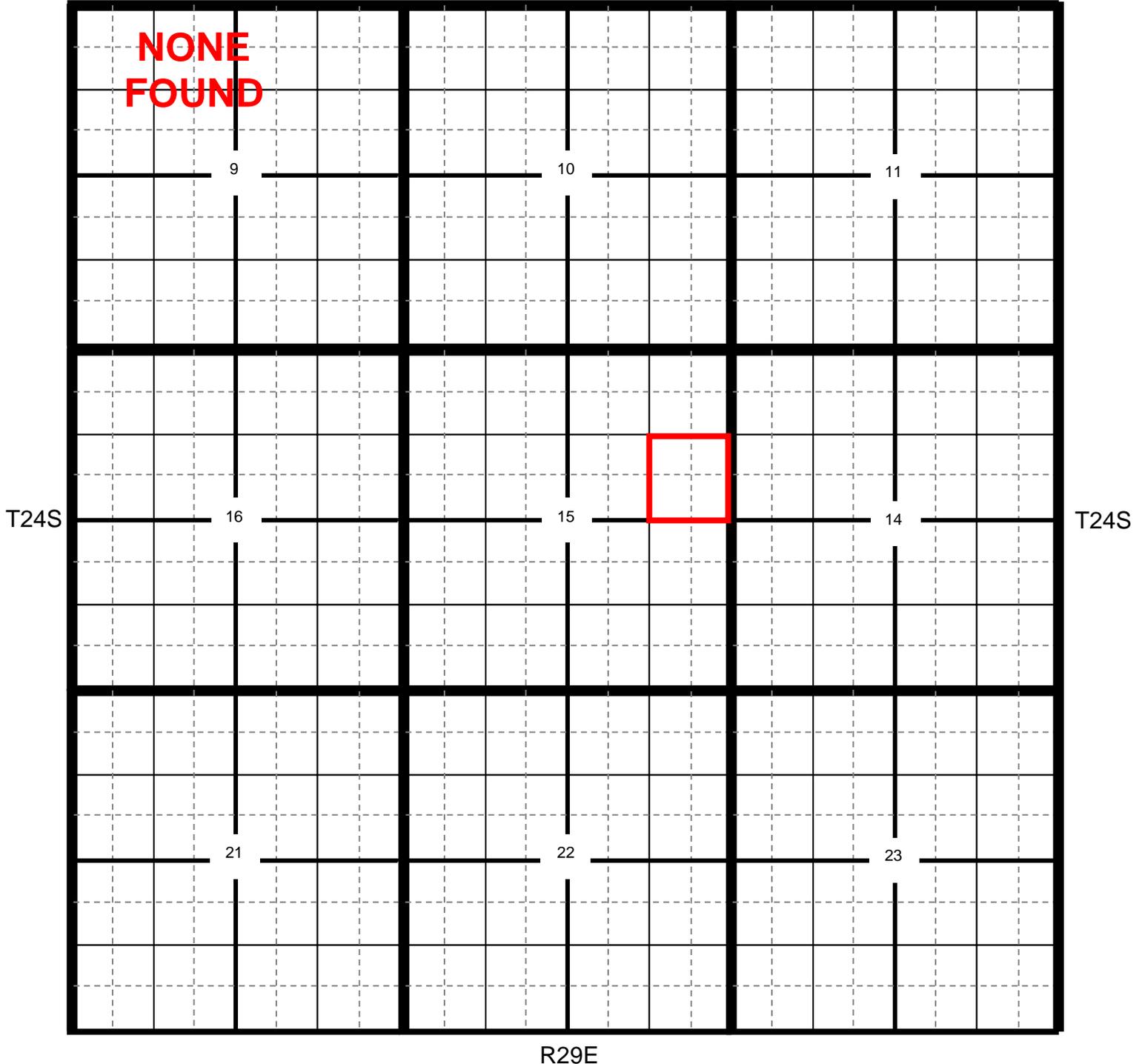
Section  
15

Township  
24S

Range  
29E

Trend Map 75'-100'

R29E



📍 Location

● OCD

● USGS

● SEO

● All Databases

## Oxy Harroun 15 #3 & #5 CTB

**County** Eddy      **Unit Letter** H      **Section** 15      **Township** 24S      **Range** 29E

Trend Map 75'-100'

1

2

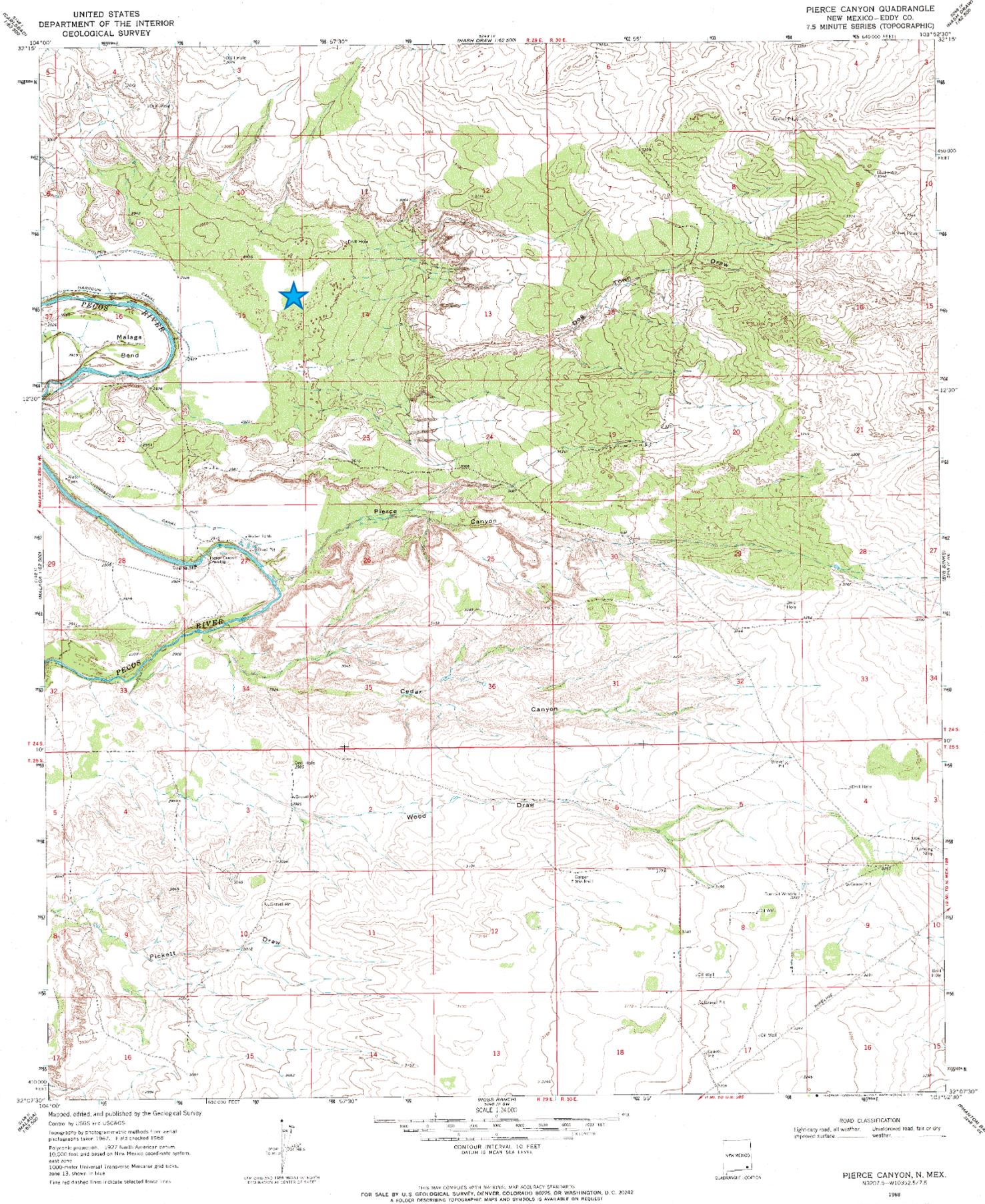
NW/NW  <span style="color: red; font-weight: bold; font-size: 1.2em;">NONE FOUND</span>	NE/NW	NW/NE	NE/NE
Unit Letter D	Unit Letter C	Unit Letter B	Unit Letter A
SW/NW	SE/NW	SW/NE	SE/NE
Unit Letter E	Unit Letter F	Unit Letter G	Unit Letter H
NW/SW	NE/SW	NW/SE	NE/SE
Unit Letter L	Unit Letter K	Unit Letter J	Unit Letter I
SW/SW	SE/SW	SW/SE	SE/SE
Unit Letter M	Unit Letter N	Unit Letter O	Unit Letter P

3

4

# Oxy

## Harroun 15 #3 & #5 CTB



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

PIERCE CANYON QUADRANGLE  
NEW MEXICO - EDDY CO.  
7.5 MINUTE SERIES (TOPOGRAPHIC)

Map made, edited, and published by the Geological Survey  
Control by USGS and USC&GS  
Topography by photogrammetric methods from aerial  
photographs taken 1967. Field checked 1968.  
Polyconic projection. 1927 North American datum.  
10,000-foot grid based on New Mexico coordinate system,  
1891 zone.  
Liquorwater Universal Transverse Mercator grid ticks,  
zone 13, shown in blue.  
Fine red dashed lines indicate selected border lines.



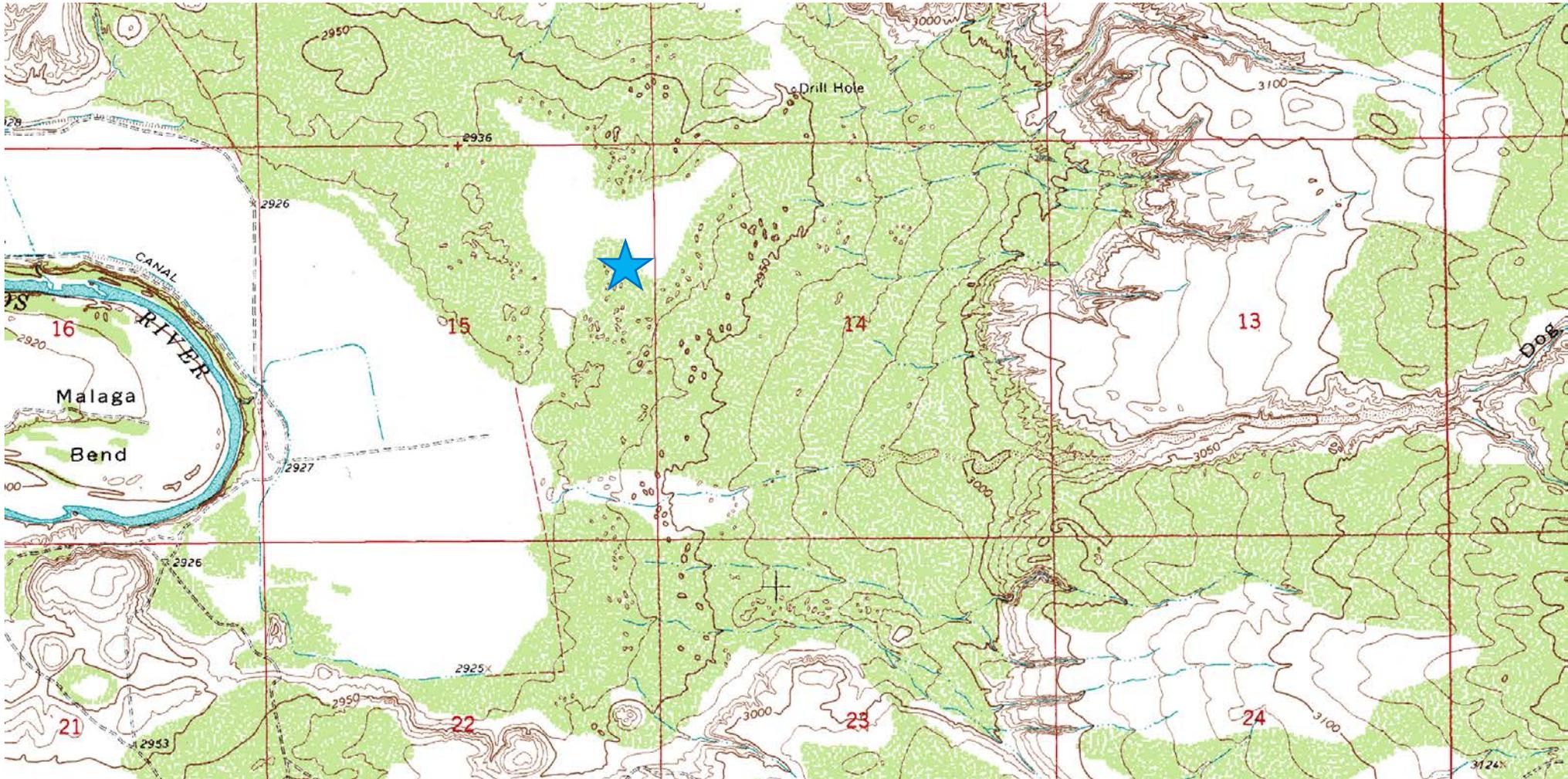
ROAD CLASSIFICATION  
Light-duty road, all weather. Unimproved road, fair or dry  
weather.  
Impaved surface.

THIS MAP COMPLETES WITH NATIONAL MAP ACCURACY STANDARDS  
FOR SALE BY U.S. GEOLOGICAL SURVEY, DENVER, COLORADO 80295 OR WASHINGTON, D.C. 20542  
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

PIERCE CANYON, N. MEX.  
N32075-W10852.57.5  
1968  
AMA 5248 III RW-SERIES 5881

# Oxy

## Harroun 15 #3 & #5 CTB



**Laboratory Analytical Results Summary  
Harroun 15 #3 #5 CTB**

		Sample	SP1 @ SURFACE	SP1 @ 1'
Analyte	Method	Date	11/2/16	11/2/16
			mg/Kg	mg/Kg
<b>Benzene</b>	BTEX 8021B		<0.050	<0.050
<b>Toluene</b>	BTEX 8021B		<0.050	<0.050
<b>Ethylbenzene</b>	BTEX 8021B		<0.050	<b>0.077</b>
<b>Total Xylenes</b>	BTEX 8021B		<0.150	<0.150
<b>Total BTEX</b>	BTEX 8021B		<0.300	<0.300
<b>Chloride</b>	SM4500Cl-B		<b>112</b>	<16.0
<b>GRO</b>	TPH 8015M		<100	<10.0
<b>DRO</b>	TPH 8015M		<b>11100</b>	<b>284</b>

		Sample	SP2 @ SURFACE	SP2 @ 1'
Analyte	Method	Date	11/2/16	11/2/16
			mg/Kg	mg/Kg
<b>Benzene</b>	BTEX 8021B		<0.050	<0.050
<b>Toluene</b>	BTEX 8021B		<0.050	<0.050
<b>Ethylbenzene</b>	BTEX 8021B		<0.050	<0.050
<b>Total Xylenes</b>	BTEX 8021B		<0.150	<0.150
<b>Total BTEX</b>	BTEX 8021B		<0.300	<0.300
<b>Chloride</b>	SM4500Cl-B		<b>32</b>	<b>80</b>
<b>GRO</b>	TPH 8015M		<10.0	<10.0
<b>DRO</b>	TPH 8015M		<10.0	<10.0

		Sample	SP3 @ SURFACE	SP3 @ 1'
Analyte	Method	Date	11/2/16	11/2/16
			mg/Kg	mg/Kg
<b>Benzene</b>	BTEX 8021B		<0.050	<0.050
<b>Toluene</b>	BTEX 8021B		<0.050	<0.050
<b>Ethylbenzene</b>	BTEX 8021B		<0.050	<b>0.063</b>
<b>Total Xylenes</b>	BTEX 8021B		<0.150	<0.150
<b>Total BTEX</b>	BTEX 8021B		<0.300	<0.300
<b>Chloride</b>	SM4500Cl-B		<b>32</b>	<16.0
<b>GRO</b>	TPH 8015M		<10.0	<10.0
<b>DRO</b>	TPH 8015M		<10.0	<b>132</b>



November 10, 2016

Cliff Brunson  
BBC International, Inc.  
P.O. Box 805  
Hobbs, NM 88241

RE: HARROUN 15 #3 & #5 CTB

Enclosed are the results of analyses for samples received by the laboratory on 11/03/16 14:00.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. 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](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited 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.

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,

A handwritten signature in black ink that reads "Celey D. Keene".

Celey D. Keene  
Lab Director/Quality Manager

**Analytical Results For:**

 BBC International, Inc.  
 Cliff Brunson  
 P.O. Box 805  
 Hobbs NM, 88241  
 Fax To: (575) 397-0397

Received:	11/03/2016	Sampling Date:	11/02/2016
Reported:	11/10/2016	Sampling Type:	Soil
Project Name:	HARROUN 15 #3 & #5 CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: SP 1 @ SURFACE (H602482-01)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	11/09/2016	ND	2.15	108	2.00	0.116	
Toluene*	<0.050	0.050	11/09/2016	ND	2.19	109	2.00	0.446	
Ethylbenzene*	<0.050	0.050	11/09/2016	ND	2.10	105	2.00	0.449	
Total Xylenes*	<0.150	0.150	11/09/2016	ND	6.38	106	6.00	0.187	
Total BTEX	<0.300	0.300	11/09/2016	ND					

*Surrogate: 4-Bromofluorobenzene (PID) 111 % 73.6-140*

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>112</b>	16.0	11/07/2016	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<100	100	11/08/2016	ND	178	89.2	200	0.976		
<b>DRO &gt;C10-C28</b>	<b>11100</b>	100	11/08/2016	ND	177	88.6	200	4.03		

*Surrogate: 1-Chlorooctane 89.7 % 35-147*
*Surrogate: 1-Chlorooctadecane 448 % 28-171*

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 BBC International, Inc.  
 Cliff Brunson  
 P.O. Box 805  
 Hobbs NM, 88241  
 Fax To: (575) 397-0397

Received:	11/03/2016	Sampling Date:	11/02/2016
Reported:	11/10/2016	Sampling Type:	Soil
Project Name:	HARROUN 15 #3 & #5 CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: SP 1 @ 1' (H602482-02)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/09/2016	ND	2.15	108	2.00	0.116		
Toluene*	<0.050	0.050	11/09/2016	ND	2.19	109	2.00	0.446		
<b>Ethylbenzene*</b>	<b>0.077</b>	0.050	11/09/2016	ND	2.10	105	2.00	0.449		
Total Xylenes*	<0.150	0.150	11/09/2016	ND	6.38	106	6.00	0.187		
Total BTEX	<0.300	0.300	11/09/2016	ND						

Surrogate: 4-Bromofluorobenzene (PID) 117 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	11/07/2016	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	11/09/2016	ND	178	89.2	200	0.976		
<b>DRO &gt;C10-C28</b>	<b>284</b>	10.0	11/09/2016	ND	177	88.6	200	4.03		

Surrogate: 1-Chlorooctane 97.0 % 35-147

Surrogate: 1-Chlorooctadecane 98.6 % 28-171

Cardinal Laboratories

\*=Accredited Analyte

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Received:	11/03/2016	Sampling Date:	11/02/2016
Reported:	11/10/2016	Sampling Type:	Soil
Project Name:	HARROUN 15 #3 & #5 CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: SP 2 @ SURFACE (H602482-03)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/09/2016	ND	2.15	108	2.00	0.116		
Toluene*	<0.050	0.050	11/09/2016	ND	2.19	109	2.00	0.446		
Ethylbenzene*	<0.050	0.050	11/09/2016	ND	2.10	105	2.00	0.449		
Total Xylenes*	<0.150	0.150	11/09/2016	ND	6.38	106	6.00	0.187		
Total BTEX	<0.300	0.300	11/09/2016	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	11/07/2016	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	11/08/2016	ND	178	89.2	200	0.976		
DRO >C10-C28	<10.0	10.0	11/08/2016	ND	177	88.6	200	4.03		

Surrogate: 1-Chlorooctane 76.1 % 35-147

Surrogate: 1-Chlorooctadecane 74.5 % 28-171

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Received:	11/03/2016	Sampling Date:	11/02/2016
Reported:	11/10/2016	Sampling Type:	Soil
Project Name:	HARROUN 15 #3 & #5 CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: SP 2 @ 1' (H602482-04)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/09/2016	ND	2.15	108	2.00	0.116		
Toluene*	<0.050	0.050	11/09/2016	ND	2.19	109	2.00	0.446		
Ethylbenzene*	<0.050	0.050	11/09/2016	ND	2.10	105	2.00	0.449		
Total Xylenes*	<0.150	0.150	11/09/2016	ND	6.38	106	6.00	0.187		
Total BTEX	<0.300	0.300	11/09/2016	ND						

*Surrogate: 4-Bromofluorobenzene (PID) 111 % 73.6-140*

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>80.0</b>	16.0	11/07/2016	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	11/08/2016	ND	178	89.2	200	0.976		
DRO >C10-C28	<10.0	10.0	11/08/2016	ND	177	88.6	200	4.03		

*Surrogate: 1-Chlorooctane 78.0 % 35-147*
*Surrogate: 1-Chlorooctadecane 84.9 % 28-171*

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Received:	11/03/2016	Sampling Date:	11/02/2016
Reported:	11/10/2016	Sampling Type:	Soil
Project Name:	HARROUN 15 #3 & #5 CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: SP 3 @ SURFACE (H602482-05)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/09/2016	ND	2.15	108	2.00	0.116		
Toluene*	<0.050	0.050	11/09/2016	ND	2.19	109	2.00	0.446		
Ethylbenzene*	<0.050	0.050	11/09/2016	ND	2.10	105	2.00	0.449		
Total Xylenes*	<0.150	0.150	11/09/2016	ND	6.38	106	6.00	0.187		
Total BTEX	<0.300	0.300	11/09/2016	ND						

Surrogate: 4-Bromofluorobenzene (PID) 111 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	32.0	16.0	11/07/2016	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	11/08/2016	ND	178	89.2	200	0.976		
DRO >C10-C28	<10.0	10.0	11/08/2016	ND	177	88.6	200	4.03		

Surrogate: 1-Chlorooctane 79.7 % 35-147

Surrogate: 1-Chlorooctadecane 86.5 % 28-171

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 BBC International, Inc.  
 Cliff Brunson  
 P.O. Box 805  
 Hobbs NM, 88241  
 Fax To: (575) 397-0397

Received:	11/03/2016	Sampling Date:	11/02/2016
Reported:	11/10/2016	Sampling Type:	Soil
Project Name:	HARROUN 15 #3 & #5 CTB	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	EDDY COUNTY, NM		

**Sample ID: SP 3 @ 1' (H602482-06)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/09/2016	ND	2.15	108	2.00	0.116		
Toluene*	<0.050	0.050	11/09/2016	ND	2.19	109	2.00	0.446		
<b>Ethylbenzene*</b>	<b>0.063</b>	0.050	11/09/2016	ND	2.10	105	2.00	0.449		
Total Xylenes*	<0.150	0.150	11/09/2016	ND	6.38	106	6.00	0.187		
Total BTEX	<0.300	0.300	11/09/2016	ND						

Surrogate: 4-Bromofluorobenzene (PID) 113 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	11/07/2016	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	11/08/2016	ND	178	89.2	200	0.976		
<b>DRO &gt;C10-C28</b>	<b>132</b>	10.0	11/08/2016	ND	177	88.6	200	4.03		

Surrogate: 1-Chlorooctane 93.4 % 35-147

Surrogate: 1-Chlorooctadecane 105 % 28-171

Cardinal Laboratories

\*=Accredited Analyte

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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.
QR-03	The RPD value for the sample duplicate or MS/MSD was outside if QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
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



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Celey D. Keene, Lab Director/Quality Manager



**CARDINAL LABORATORIES**  
 101 East Marland, Hobbs, NM 88240  
 (505) 393-2326 FAX (505) 393-2476

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

1 of 1

Company Name: BBC International, Inc. **BILL TO** ANALYSIS REQUEST

Project Manager: Cliff Brunson P.O. #: \_\_\_\_\_

Address: P.O. Box 805 Company: \_\_\_\_\_

City: Hobbs State: NM Zip: 88241 Attn: \_\_\_\_\_

Phone #: 575-397-6388 Fax #: 575-397-0397 Address: \_\_\_\_\_

Project #: \_\_\_\_\_ Project Owner: Oxy City: \_\_\_\_\_

Project Name: Harroun 15 #3 & #5 CTB State: \_\_\_\_\_ Zip: \_\_\_\_\_

Project Location: Eddy County, NM Phone #: \_\_\_\_\_

Sampler Name: Jeff Ornelas Fax #: \_\_\_\_\_

FOR LAB USE ONLY

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						PRESERV.	SAMPLING	DATE	TIME	BTEX	CI	TPH
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:							
HL02482	SP1 @ SURFACE		1			✓			✓		11/2/16	9:05 AM	✓	✓	✓	
	SP1 @ 1'		1			✓			✓		11/2/16	9:30 AM	✓	✓	✓	
	SP2 @ SURFACE		1			✓			✓		11/2/16	10:15 AM	✓	✓	✓	
	SP2 @ 1'		1			✓			✓		11/2/16	10:33 AM	✓	✓	✓	
	SP3 @ SURFACE		1			✓			✓		11/2/16	11:11 AM	✓	✓	✓	
	SP3 @ 1'		1			✓			✓		11/2/16	11:40 AM	✓	✓	✓	

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Relinquished By: *Jeff Ornelas* Date: 11/2/16 Received By: *Jeff Ornelas* Date: 11/2/16

Time: 3:00 PM

Delivered By: (Circle One) *UPS* #75 -782

Sampler - UPS - Bus - Other:  UPS  Bus  Other

Checked By: *Jeff Ornelas*

Phone Result:  Yes  No Add'l Phone #: \_\_\_\_\_

Fax Result:  Yes  No Add'l Fax #: \_\_\_\_\_

REMARKS:

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

**From:** Bratcher, Mike, EMNRD  
**To:** [Cliff Brunson](#)  
**Cc:** [Patterson, Heather, EMNRD](#); [Casey Summers](#); [jennifer\\_duarte@oxy.com](mailto:jennifer_duarte@oxy.com); [Ken Swinney](#); [Jennifer Gilkey](#); [Kathy Purvis](#)  
**Subject:** RE: OXY Harroun 15 #3 & #5 CTB - Remediation Plan  
**Date:** Tuesday, November 29, 2016 9:54:16 AM

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RE: OXY USA \* Harroun 15 3 & 5 CTB \* **2RP-3878** \* DOR: 8/22/16

Cliff,

Your proposal for remediation of the above referenced release is approved. Please advise once remedial activities have been scheduled. Federal sites require BLM approval.

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

If you have any questions or concerns, and for notification, please contact me.

**Mike Bratcher**  
**NMOCD District 2**  
**811 S. First Street**  
**Artesia, NM 88210**  
**O: 575-748-1283 X108**  
**C: 575-626-0857**  
**F: 575-748-9720**

---

**From:** Cliff Brunson [mailto:[cbrunson@bbcinternational.com](mailto:cbrunson@bbcinternational.com)]  
**Sent:** Monday, November 21, 2016 8:24 AM  
**To:** Bratcher, Mike, EMNRD  
**Cc:** Patterson, Heather, EMNRD; Casey Summers; [jennifer\\_duarte@oxy.com](mailto:jennifer_duarte@oxy.com); Ken Swinney; Jennifer Gilkey; Kathy Purvis  
**Subject:** OXY Harroun 15 #3 & #5 CTB - Remediation Plan

Mike,

This e-mail is to confirm our discussion concerning the remediation plan for the OXY Harroun 15 #3 & #5 CTB release. I have attached the information packet that we used in our discussion with a cover page describing the remediation plan that we agreed upon.

If you would please reply via e-mail with your concurrence on this plan, it would be greatly appreciated.

Thanks, Cliff

Cliff P. Brunson, CEI, CRS  
President  
BBC International, Inc.  
World-Wide Environmental Specialists  
Mailing Address:  
P. O. Box 805  
Hobbs, NM 88241-0805 USA  
Shipping Address:  
1324 W. Marland St.  
Hobbs, NM 88240 USA  
Phone: (575) 397-6388  
Fax: (575) 397-0397  
E-Mail: [cbrunson@bbcinternational.com](mailto:cbrunson@bbcinternational.com)



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**From:** Tucker, Shelly  
**To:** [Cliff Brunson](#)  
**Cc:** [Casey Summers](#); [jennifer\\_duarte@oxy.com](mailto:jennifer_duarte@oxy.com); [Ken Swinney](#); [Jennifer Gilkey](#); [Kathy Purvis](#)  
**Subject:** Re: OXY Harroun 15 #3 & #5 CTB - Remediation Plan  
**Date:** Monday, November 21, 2016 3:45:03 PM

---

## BLM approves your work plan as written.

If you have any questions or concerns, please do not hesitate to contact me.

Sincerely,

## Shelly J Tucker

Environmental Protection Specialist  
O&G Spill/Release Coordinator

Bureau of Land Management  
620 E. Greene St  
Carlsbad, NM 88220

575.234.5905 - Direct  
575.361.0084 - Cellular  
575.234.6235 - Emergency Spill Number

[stucker@blm.gov](mailto:stucker@blm.gov)

The **BLM acceptance/approval does not** relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that may pose a threat to groundwater, surface water, human health or the environment or if the location fails to reclaim properly. In such an event that the location does not revegetate, or future issues with contaminants are encountered, the operator will be asked to address the issues until the contaminant issues are fully mitigated and the location is successfully reclaimed. In addition, BLM approval does not relieve the operator of responsibility for compliance with any other federal, state or local laws/regulations.

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On Mon, Nov 21, 2016 at 8:23 AM, Cliff Brunson <[cbrunson@bbcinternational.com](mailto:cbrunson@bbcinternational.com)> wrote:

Shelly,

I have attached a remediation plan for the OXY Harroun 15 #3 & #5 CTB release. This plan has been approved by Mike Bratcher of the NMOCD. Oxy is requesting the BLM's approval of this plan as well. Upon your review of the materials, it would be appreciated if you would

respond via email with the BLM's approval.

If you have any questions, please let me know.

Thanks, Cliff

Cliff P. Brunson, CEI, CRS

President

BBC International, Inc.

World-Wide Environmental Specialists

Mailing Address:

P. O. Box 805

Hobbs, NM 88241-0805 USA

Shipping Address:

1324 W. Marland St.

Hobbs, NM 88240 USA

Phone: (575) 397-6388

Fax: (575) 397-0397

E-Mail: [cbrunson@bbcinternational.com](mailto:cbrunson@bbcinternational.com)



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