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## DELINEATION WORKPLAN

### OXY – PLUMA 29 STATE #001 BATTERY (Leak Date: 1/7/17)

**RP # 1RP-4589**  
**API # 30-025-34517**

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This delineation workplan and remediation proposal addresses the release associated with RP # 1RP-4589.

The following information includes:

1. Scaled digital site map with spill area demarcated and leak point identified along with sample point locations and areas of remediation at appropriate depths.
2. GPS information for sample points and sample methodology
3. Depth to groundwater information (i.e., pdf of OSE search results and/or copy of Chevron groundwater trend map).
4. Laboratory analysis results summary table and original laboratory analysis reports
5. A copy of the initial C-141
6. Potentially other pertinent information as necessary for site specific purposes.

***Based on the information included in this package and the NMOCD guidelines, the following remediation is proposed:***

***OXY will excavate the spill area as depicted on the following site diagram. The entire leak area will be excavated to a depth of 1 foot.***

The entire site will then be backfilled with clean soil and revegetated (if warranted) to the standards of the appropriate regulatory agency or private surface owner.

All excavated materials will be disposed of at an NMOCD-approved disposal facility.

**APPROVED**

***By Olivia Yu at 8:52 am, Jul 31, 2017***

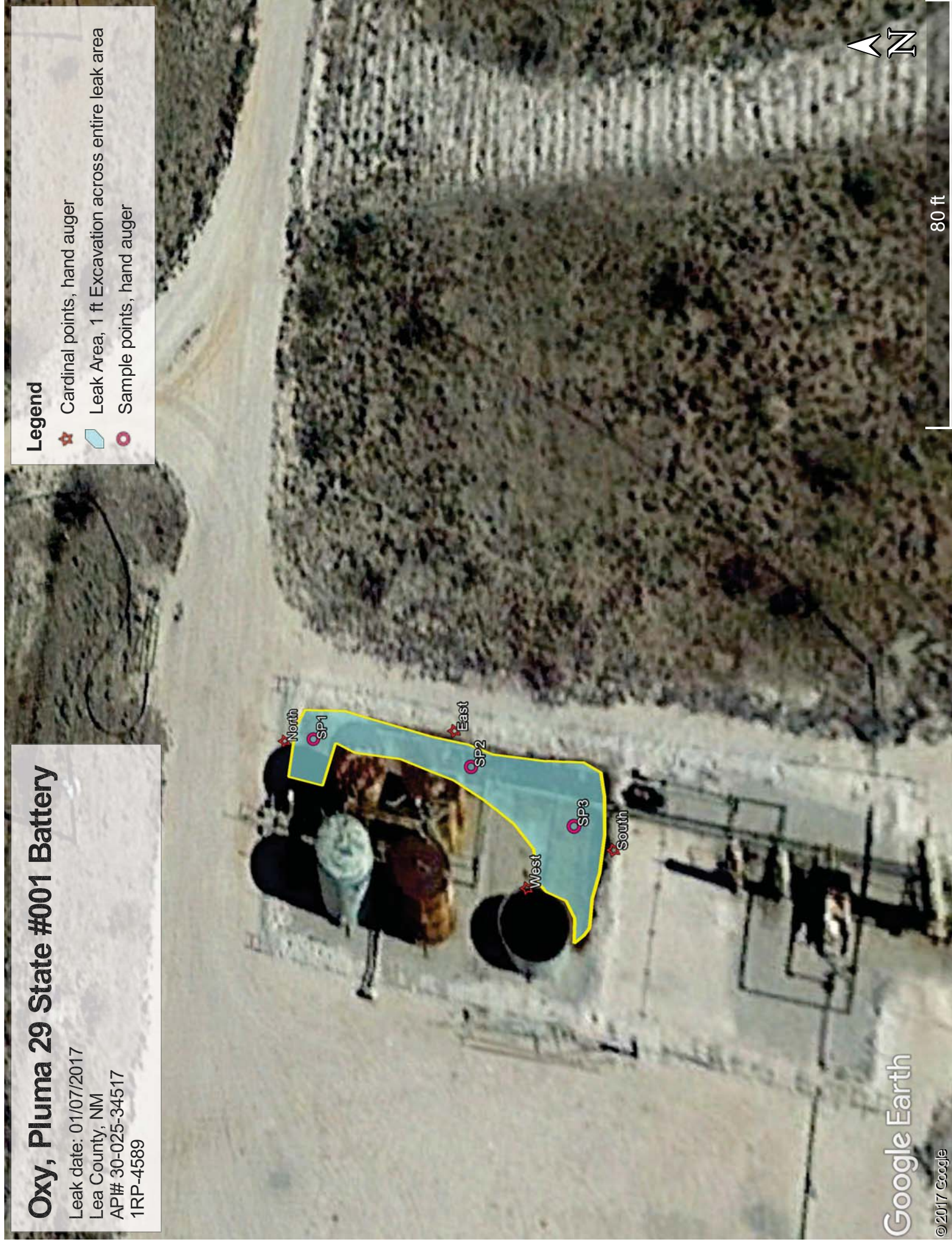
NMOCD approves of the delineation and proposed remediation for 1RP-4589 with one condition:  
Bottom confirmation samples with Method 8015 extended (GRO, DRO, and MRO).

# Oxy, Pluma 29 State #001 Battery

Leak date: 01/07/2017  
Lea County, NM  
API# 30-025-34517  
1RP-4589

## Legend

- ☆ Cardinal points, hand auger
- Leak Area, 1 ft Excavation across entire leak area
- Sample points, hand auger



Oxy, Pluma 29 State #001 Battery

Samples, hand auger

SP1, N 32.98904 W-103.73669

SP2, N 32.98893 W-103.73670

SP3, N 32.98886 W-103.73674

NORTH, N 32.98906 W-103.73669

SOUTH, N 32.98884 W-103.73675

EAST, N 32.98894 W-103.73667

WEST, N 32.98889 W-103.73678



**Oxy, Pluma 29 State #001 Battery**  
**U/L G, Section 29, T15S, R32E**  
**Groundwater: 225'**





# 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							Water							
POD Number	Code	basin	County	64	16	4	Sec	Tws	Rng	X	Y	Distance	Depth	Well	Depth	Water Column	
<a href="#">L_04816 POD7</a>		L	LE	3	2	29	15S	32E		617924	3650847*	<input type="checkbox"/>	0	336	198	138	
<a href="#">L_05090 POD2</a>		L	LE	3	2	29	15S	32E		617924	3650847*	<input type="checkbox"/>	0	337	220	117	
<a href="#">L_04816 S6</a>		L	LE	1	4	1	29	15S	32E	617421	3650941*	<input type="checkbox"/>	511	336	180	156	
<a href="#">L_05125 POD18</a>		L	LE	2	2	1	29	15S	32E	617572	3651435	<input type="checkbox"/>	686	315	240	75	
<a href="#">L_04816 S7</a>		L	LE	2	2	2	29	15S	32E	618421	3651353*	<input type="checkbox"/>	709	340	175	165	
<a href="#">L_04816 POD12</a>		L	LE	3	3	1	28	15S	32E	618628	3650755*	<input type="checkbox"/>	709				
<a href="#">L_04816 S4</a>		L	LE	3	3	1	28	15S	32E	618628	3650755*	<input type="checkbox"/>	709	340	207	133	
<a href="#">L_04816 S4</a>	R	L	LE	3	3	1	28	15S	32E	618628	3650755*	<input type="checkbox"/>	709	340	207	133	
<a href="#">L_05125 POD16</a>		L	LE	2	3	4	20	15S	32E	617992	3651659	<input type="checkbox"/>	815	300	230	70	
<a href="#">L_05125 POD19</a>		L	LE	1	4	4	20	15S	32E	618257	3651628	<input type="checkbox"/>	849	310	237	73	
<a href="#">L_05125 POD17</a>		L	LE	2	4	3	20	15S	32E	617634	3651652	<input type="checkbox"/>	855	315	246	69	
<a href="#">L_04816 S5</a>		L	LE	1	3	29	15S	32E		617124	3650435*	<input type="checkbox"/>	899	332	227	105	
<a href="#">L_03960 X3</a>		L	LE	4	4	29	15S	32E		618337	3650047*	<input type="checkbox"/>	900	348	230	118	
<a href="#">L_05125 POD14</a>		L	LE	4	1	4	20	15S	32E	617969	3651871	<input type="checkbox"/>	1025	315	220	95	
<a href="#">L_04816 S8</a>		L	LE		1	28	15S	32E		618930	3651057*	<input type="checkbox"/>	1027	336	198	138	
<a href="#">L_05125 POD15</a>		L	LE	4	2	3	20	15S	32E	617567	3651857	<input type="checkbox"/>	1072	320	220	100	
<a href="#">L_05125 POD11</a>		L	LE	3	2	4	20	15S	32E	618257	3651875	<input type="checkbox"/>	1080	310	275	35	
<a href="#">L_05125 S2</a>		L	LE	3	3	3	21	15S	32E	618710	3651659	<input type="checkbox"/>	1130	344	210	134	
<a href="#">L_05125 S7</a>		L	LE	4	3	3	21	15S	32E	618818	3651559*	<input type="checkbox"/>	1142				
<a href="#">L_05125 S</a>		L	LE	3	3	3	20	15S	32E	617102	3651646	<input type="checkbox"/>	1146	359	215	144	
<a href="#">L_01656</a>		L	LE	1	2	32	15S	32E		617939	3649640*	<input type="checkbox"/>	1207	331	290	41	
<a href="#">L_05125 POD13</a>		L	LE	4	1	3	20	15S	32E	617164	3651856	<input type="checkbox"/>	1263	317	225	92	
<a href="#">L_05090 POD3</a>		L	LE	2	1	32	15S	32E		617537	3649636*	<input type="checkbox"/>	1271	340	220	120	
<a href="#">L_04816 S9</a>		L	LE	2	3	28	15S	32E		619136	3650458*	<input type="checkbox"/>	1272	336			
<a href="#">L_05125 POD12</a>		L	LE	4	1	3	21	15S	32E	618755	3651869	<input type="checkbox"/>	1317	310	210	100	
<a href="#">L_05125 POD20</a>		L	LE	1	4	3	21	15S	32E	619087	3651669	<input type="checkbox"/>	1424	310	220	90	
<a href="#">L_04857</a>		L	LE	3	3	2	28	15S	32E	619433	3650764*	<input type="checkbox"/>	1511	335	240	95	

Average Depth to Water: **222 feet**

Minimum Depth: **175 feet**

Maximum Depth: **290 feet**

Public Land Survey System (PLSS)

☐

Q64:

Q16:

SW

Q4:

NE

Sec:

29

Tws:

15S

Rng:

32E

State Plane Coordinate System - NAD27

☐

X:

0

ft

Y:

0

ft

Zone:

State Plane Coordinate System - NAD83

☐

X:

0

ft

Y:

0

ft

Zone:

Degrees/Minutes/Seconds

☐

Longitude (X):

Degrees:

0

°

Minutes:

0

'

Seconds:

0

"

Latitude (Y):

Degrees:

0

°

Minutes:

0

'

Seconds:

0

"

UTM - NAD27

☐

Easting (X):

0

mtrs

Northing (Y):

0

mtrs

Zone:

SUBMIT

All Conversion Results are displayed as NAD 1983 UTM Zone 13

Easting (X):

617924.0

mtrs

Northing (Y):

3650847.0

mtrs

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

**Record Count:** 27

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

**Easting (X):** 617924

**Northing (Y):** 3650847

**Radius:** 1700

**\*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.

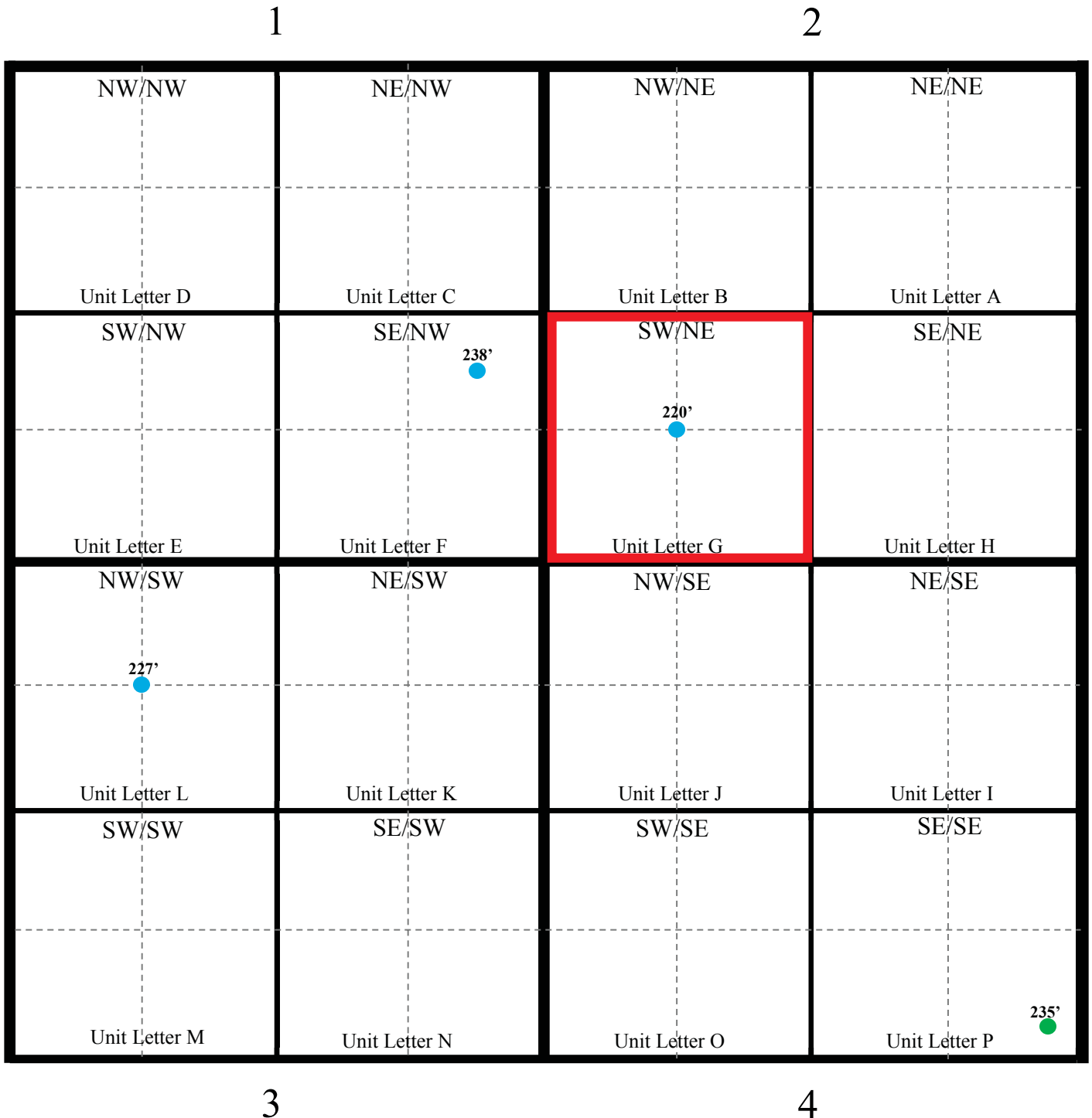
7/6/17 4:34 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER

## Oxy Pluma 29 State #001 Battery

<b>County</b>	<b>Unit Letter</b>	<b>Section</b>	<b>Township</b>	<b>Range</b>
Lea	G	29	15S	32E

Trend Map 225'





Laboratory Analytical Results Summary  
Pluma 29 State #001 Battery

Analyte	Method	Sample		SP1 @ SURFACE		SP1 @ 1'		SP1 @ 2'	
		Date		1/24/17	mg/kg	1/24/17	mg/kg	1/24/17	mg/kg
Benzene	BTEX 8021B								
Toluene	BTEX 8021B				2.4		<0.200		<0.050
Ethylbenzene	BTEX 8021B				35		1.43		0.064
Total Xylenes	BTEX 8021B				35.3		1.79		0.095
Total BTEX	BTEX 8021B				125		8.37		0.509
GRO	TPH 8015M				198		11.6		0.667
DRO	TPH 8015M				2720		290		<10.0
					11900		3520		<10.0

Analyte	Method	Sample		SP2 @ SURFACE		SP2 @ 1'		SP2 @ 2'	
		Date		1/24/17	mg/kg	1/24/17	mg/kg	1/24/17	mg/kg
Benzene	BTEX 8021B				1.64		0.123		<0.050
Toluene	BTEX 8021B				18.8		1.12		<0.050
Ethylbenzene	BTEX 8021B				21		0.92		<0.050
Total Xylenes	BTEX 8021B				75.5		4.38		0.242
Total BTEX	BTEX 8021B				117		6.54		<0.300
GRO	TPH 8015M				1790		142		<10.0
DRO	TPH 8015M				9500		1370		<10.0

Analyte	Method	Sample		SP3 @ SURFACE		SP3 @ 1'		SP3 @ 2'	
		Date		1/24/17	mg/kg	1/24/17	mg/kg	1/24/17	mg/kg
Benzene	BTEX 8021B				2.04		0.538		<0.050
Toluene	BTEX 8021B				23.9		6.18		0.071
Ethylbenzene	BTEX 8021B				25.2		6.07		0.084
Total Xylenes	BTEX 8021B				95.7		29.4		0.639
Total BTEX	BTEX 8021B				147		42.2		0.795
GRO	TPH 8015M				2310		558		<10.0
DRO	TPH 8015M				10900		3300		<10.0

Analyte	Method	Sample		NORTH @ SURFACE	
		Date		1/24/17	mg/kg
Benzene	BTEX 8021B				<0.050
Toluene	BTEX 8021B				<0.050
Ethylbenzene	BTEX 8021B				<0.050
Total Xylenes	BTEX 8021B				0.22
Total BTEX	BTEX 8021B				<0.300
GRO	TPH 8015M				<10.0
DRO	TPH 8015M				<10.0

Analyte	Method	Sample		EAST @ SURFACE	
		Date		1/24/17	mg/kg
Benzene	BTEX 8021B				<0.050
Toluene	BTEX 8021B				<0.050
Ethylbenzene	BTEX 8021B				<0.050
Total Xylenes	BTEX 8021B				<0.150
Total BTEX	BTEX 8021B				<0.300
GRO	TPH 8015M				<10.0
DRO	TPH 8015M				<10.0

Analyte	Method	Sample		SOUTH @ SURFACE	
		Date		1/24/17	mg/kg
Benzene	BTEX 8021B				<0.050
Toluene	BTEX 8021B				<0.050
Ethylbenzene	BTEX 8021B				<0.050
Total Xylenes	BTEX 8021B				<0.150
Total BTEX	BTEX 8021B				<0.300
GRO	TPH 8015M				<10.0
DRO	TPH 8015M				<10.0

Analyte	Method	Sample		WEST @ SURFACE	
		Date		1/24/17	mg/kg
Benzene	BTEX 8021B				<0.050
Toluene	BTEX 8021B				0.082
Ethylbenzene	BTEX 8021B				0.109
Total Xylenes	BTEX 8021B				0.5
Total BTEX	BTEX 8021B				0.691
GRO	TPH 8015M				<10.0
DRO	TPH 8015M				15.2

February 01, 2017

Cliff Brunson

BBC International, Inc.

P.O. Box 805

Hobbs, NM 88241

RE: PLUMA 29 STATE #001 BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 01/26/17 17:00.

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,



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:	01/26/2017	Sampling Date:	01/24/2017
Reported:	02/01/2017	Sampling Type:	Soil
Project Name:	PLUMA 29 STATE #001 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

**Sample ID: SP 1 @ SURFACE (H700203-01)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Benzene*</b>	<b>2.40</b>	2.00	01/31/2017	ND	1.98	98.8	2.00	0.451	
<b>Toluene*</b>	<b>35.0</b>	2.00	01/31/2017	ND	2.01	100	2.00	0.376	
<b>Ethylbenzene*</b>	<b>35.3</b>	2.00	01/31/2017	ND	2.06	103	2.00	0.437	
<b>Total Xylenes*</b>	<b>125</b>	6.00	01/31/2017	ND	5.86	97.7	6.00	0.156	
<b>Total BTEX</b>	<b>198</b>	12.0	01/31/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 73.6-140

TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>GRO C6-C10</b>	<b>2720</b>	50.0	01/28/2017	ND	192	96.1	200	0.0655		
<b>DRO &gt;C10-C28</b>	<b>11900</b>	50.0	01/28/2017	ND	208	104	200	2.56		

Surrogate: 1-Chlorooctane 261 % 35-147

Surrogate: 1-Chlorooctadecane 633 % 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:	01/26/2017	Sampling Date:	01/24/2017
Reported:	02/01/2017	Sampling Type:	Soil
Project Name:	PLUMA 29 STATE #001 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

**Sample ID: SP 1 @ 1' (H700203-02)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.200	0.200	01/31/2017	ND	1.98	98.8	2.00	0.451	
<b>Toluene*</b>	<b>1.43</b>	0.200	01/31/2017	ND	2.01	100	2.00	0.376	
<b>Ethylbenzene*</b>	<b>1.79</b>	0.200	01/31/2017	ND	2.06	103	2.00	0.437	
<b>Total Xylenes*</b>	<b>8.37</b>	0.600	01/31/2017	ND	5.86	97.7	6.00	0.156	
<b>Total BTX</b>	<b>11.6</b>	1.20	01/31/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 124 % 73.6-140

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10</b>	<b>290</b>	50.0	01/28/2017	ND	192	96.1	200	0.0655	
<b>DRO &gt;C10-C28</b>	<b>3520</b>	50.0	01/28/2017	ND	208	104	200	2.56	

Surrogate: 1-Chlorooctane 109 % 35-147

Surrogate: 1-Chlorooctadecane 136 % 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:	01/26/2017	Sampling Date:	01/24/2017
Reported:	02/01/2017	Sampling Type:	Soil
Project Name:	PLUMA 29 STATE #001 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

**Sample ID: SP 1 @ 2' (H700203-03)**

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	01/31/2017	ND	1.98	98.8	2.00	0.451	
<b>Toluene*</b>	<b>0.064</b>	0.050	01/31/2017	ND	2.01	100	2.00	0.376	
<b>Ethylbenzene*</b>	<b>0.095</b>	0.050	01/31/2017	ND	2.06	103	2.00	0.437	
<b>Total Xylenes*</b>	<b>0.509</b>	0.150	01/31/2017	ND	5.86	97.7	6.00	0.156	
<b>Total BTEX</b>	<b>0.667</b>	0.300	01/31/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 73.6-140

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	01/28/2017	ND	192	96.1	200	0.0655	
DRO >C10-C28	<10.0	10.0	01/28/2017	ND	208	104	200	2.56	

Surrogate: 1-Chlorooctane 76.6 % 35-147

Surrogate: 1-Chlorooctadecane 81.5 % 28-171

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



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Received:	01/26/2017	Sampling Date:	01/24/2017
Reported:	02/01/2017	Sampling Type:	Soil
Project Name:	PLUMA 29 STATE #001 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

**Sample ID: SP 2 @ SURFACE (H700203-04)**

BTX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Benzene*</b>	<b>1.64</b>	1.00	01/31/2017	ND	1.98	98.8	2.00	0.451	
<b>Toluene*</b>	<b>18.8</b>	1.00	01/31/2017	ND	2.01	100	2.00	0.376	
<b>Ethylbenzene*</b>	<b>21.0</b>	1.00	01/31/2017	ND	2.06	103	2.00	0.437	
<b>Total Xylenes*</b>	<b>75.5</b>	3.00	01/31/2017	ND	5.86	97.7	6.00	0.156	
<b>Total BTX</b>	<b>117</b>	6.00	01/31/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 118 % 73.6-140

TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>GRO C6-C10</b>	<b>1790</b>	50.0	01/28/2017	ND	192	96.1	200	0.0655		
<b>DRO &gt;C10-C28</b>	<b>9500</b>	50.0	01/28/2017	ND	208	104	200	2.56		

Surrogate: 1-Chlorooctane 155 % 35-147

Surrogate: 1-Chlorooctadecane 226 % 28-171

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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:	01/26/2017	Sampling Date:	01/24/2017
Reported:	02/01/2017	Sampling Type:	Soil
Project Name:	PLUMA 29 STATE #001 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

**Sample ID: SP 2 @ 1' (H700203-05)**

BTEx 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	0.123	0.100	01/31/2017	ND	1.98	98.8	2.00	0.451		
Toluene*	1.12	0.100	01/31/2017	ND	2.01	100	2.00	0.376		
Ethylbenzene*	0.920	0.100	01/31/2017	ND	2.06	103	2.00	0.437		
Total Xylenes*	4.38	0.300	01/31/2017	ND	5.86	97.7	6.00	0.156		
Total BTEx	6.54	0.600	01/31/2017	ND						

Surrogate: 4-Bromofluorobenzene (PID) 123 % 73.6-140

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	142	50.0	01/30/2017	ND	188	93.8	200	3.89	QR-03
DRO >C10-C28	1370	50.0	01/30/2017	ND	223	111	200	4.73	QR-03, QM-07

Surrogate: 1-Chlorooctane 87.1 % 35-147

Surrogate: 1-Chlorooctadecane 99.3 % 28-171

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 P.O. Box 805  
 Hobbs NM, 88241  
 Fax To: (575) 397-0397

Received:	01/26/2017	Sampling Date:	01/24/2017
Reported:	02/01/2017	Sampling Type:	Soil
Project Name:	PLUMA 29 STATE #001 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

**Sample ID: SP 2 @ 2' (H700203-06)**

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	01/31/2017	ND	1.98	98.8	2.00	0.451		
Toluene*	<0.050	0.050	01/31/2017	ND	2.01	100	2.00	0.376		
Ethylbenzene*	<0.050	0.050	01/31/2017	ND	2.06	103	2.00	0.437		
<b>Total Xylenes*</b>	<b>0.242</b>	0.150	01/31/2017	ND	5.86	97.7	6.00	0.156		
Total BTEX	<0.300	0.300	01/31/2017	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 73.6-140

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	01/30/2017	ND	188	93.8	200	3.89	
DRO >C10-C28	<10.0	10.0	01/30/2017	ND	223	111	200	4.73	

Surrogate: 1-Chlorooctane 72.4 % 35-147

Surrogate: 1-Chlorooctadecane 76.5 % 28-171

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

Received:	01/26/2017	Sampling Date:	01/24/2017
Reported:	02/01/2017	Sampling Type:	Soil
Project Name:	PLUMA 29 STATE #001 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

**Sample ID: SP 3 @ SURFACE (H700203-07)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Benzene*</b>	<b>2.04</b>	2.00	02/01/2017	ND	1.98	98.8	2.00	0.451	
<b>Toluene*</b>	<b>23.9</b>	2.00	02/01/2017	ND	2.01	100	2.00	0.376	
<b>Ethylbenzene*</b>	<b>25.2</b>	2.00	02/01/2017	ND	2.06	103	2.00	0.437	
<b>Total Xylenes*</b>	<b>95.7</b>	6.00	02/01/2017	ND	5.86	97.7	6.00	0.156	
<b>Total BTEX</b>	<b>147</b>	12.0	02/01/2017	ND					

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

TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>GRO C6-C10</b>	<b>2310</b>	50.0	01/30/2017	ND	188	93.8	200	3.89		
<b>DRO &gt;C10-C28</b>	<b>10900</b>	50.0	01/30/2017	ND	223	111	200	4.73		

Surrogate: 1-Chlorooctane 164 % 35-147

Surrogate: 1-Chlorooctadecane 243 % 28-171

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

Received:	01/26/2017	Sampling Date:	01/24/2017
Reported:	02/01/2017	Sampling Type:	Soil
Project Name:	PLUMA 29 STATE #001 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

**Sample ID: SP 3 @ 1' (H700203-08)**

BTEx 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Benzene*</b>	<b>0.538</b>	0.500	02/01/2017	ND	1.98	98.8	2.00	0.451	
<b>Toluene*</b>	<b>6.18</b>	0.500	02/01/2017	ND	2.01	100	2.00	0.376	
<b>Ethylbenzene*</b>	<b>6.07</b>	0.500	02/01/2017	ND	2.06	103	2.00	0.437	
<b>Total Xylenes*</b>	<b>29.4</b>	1.50	02/01/2017	ND	5.86	97.7	6.00	0.156	
<b>Total BTEX</b>	<b>42.2</b>	3.00	02/01/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 119 % 73.6-140

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>GRO C6-C10</b>	<b>558</b>	50.0	01/30/2017	ND	188	93.8	200	3.89	
<b>DRO &gt;C10-C28</b>	<b>3300</b>	50.0	01/30/2017	ND	223	111	200	4.73	

Surrogate: 1-Chlorooctane 134 % 35-147

Surrogate: 1-Chlorooctadecane 125 % 28-171

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P.O. Box 805  
Hobbs NM, 88241  
Fax To: (575) 397-0397

Received:	01/26/2017	Sampling Date:	01/24/2017
Reported:	02/01/2017	Sampling Type:	Soil
Project Name:	PLUMA 29 STATE #001 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

**Sample ID: SP 3 @ 2' (H700203-09)**

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	02/01/2017	ND	1.98	98.8	2.00	0.451		
Toluene*	0.071	0.050	02/01/2017	ND	2.01	100	2.00	0.376		
Ethylbenzene*	0.084	0.050	02/01/2017	ND	2.06	103	2.00	0.437		
Total Xylenes*	0.639	0.150	02/01/2017	ND	5.86	97.7	6.00	0.156		
Total BTEX	0.795	0.300	02/01/2017	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.6-140

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	01/30/2017	ND	188	93.8	200	3.89		
DRO >C10-C28	<10.0	10.0	01/30/2017	ND	223	111	200	4.73		

Surrogate: 1-Chlorooctane 90.8 % 35-147

Surrogate: 1-Chlorooctadecane 94.6 % 28-171

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Cliff Brunson  
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Hobbs NM, 88241  
Fax To: (575) 397-0397

Received:	01/26/2017	Sampling Date:	01/24/2017
Reported:	02/01/2017	Sampling Type:	Soil
Project Name:	PLUMA 29 STATE #001 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

**Sample ID: NORTH SAMPLE @ SURFACE (H700203-10)**

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	02/01/2017	ND	1.98	98.8	2.00	0.451		
Toluene*	<0.050	0.050	02/01/2017	ND	2.01	100	2.00	0.376		
Ethylbenzene*	<0.050	0.050	02/01/2017	ND	2.06	103	2.00	0.437		
Total Xylenes*	0.220	0.150	02/01/2017	ND	5.86	97.7	6.00	0.156		
Total BTEX	<0.300	0.300	02/01/2017	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.6-140

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	01/30/2017	ND	188	93.8	200	3.89		
DRO >C10-C28	<10.0	10.0	01/30/2017	ND	223	111	200	4.73		

Surrogate: 1-Chlorooctane 83.5 % 35-147

Surrogate: 1-Chlorooctadecane 79.5 % 28-171

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

Received:	01/26/2017	Sampling Date:	01/24/2017
Reported:	02/01/2017	Sampling Type:	Soil
Project Name:	PLUMA 29 STATE #001 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

**Sample ID: EAST SAMPLE (H700203-11)**

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	02/01/2017	ND	1.98	98.8	2.00	0.451		
Toluene*	<0.050	0.050	02/01/2017	ND	2.01	100	2.00	0.376		
Ethylbenzene*	<0.050	0.050	02/01/2017	ND	2.06	103	2.00	0.437		
Total Xylenes*	<0.150	0.150	02/01/2017	ND	5.86	97.7	6.00	0.156		
Total BTEX	<0.300	0.300	02/01/2017	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.6-140

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	01/30/2017	ND	188	93.8	200	3.89		
DRO >C10-C28	<10.0	10.0	01/30/2017	ND	223	111	200	4.73		

Surrogate: 1-Chlorooctane 86.1 % 35-147

Surrogate: 1-Chlorooctadecane 90.4 % 28-171

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Fax To: (575) 397-0397

Received:	01/26/2017	Sampling Date:	01/24/2017
Reported:	02/01/2017	Sampling Type:	Soil
Project Name:	PLUMA 29 STATE #001 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

**Sample ID: SOUTH SAMPLE (H700203-12)**

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	02/01/2017	ND	1.98	98.8	2.00	0.451		
Toluene*	<0.050	0.050	02/01/2017	ND	2.01	100	2.00	0.376		
Ethylbenzene*	<0.050	0.050	02/01/2017	ND	2.06	103	2.00	0.437		
Total Xylenes*	<0.150	0.150	02/01/2017	ND	5.86	97.7	6.00	0.156		
Total BTEX	<0.300	0.300	02/01/2017	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 73.6-140

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	01/30/2017	ND	188	93.8	200	3.89		
DRO >C10-C28	<10.0	10.0	01/30/2017	ND	223	111	200	4.73		

Surrogate: 1-Chlorooctane 86.9 % 35-147

Surrogate: 1-Chlorooctadecane 88.4 % 28-171

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Fax To: (575) 397-0397

Received:	01/26/2017	Sampling Date:	01/24/2017
Reported:	02/01/2017	Sampling Type:	Soil
Project Name:	PLUMA 29 STATE #001 BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Celey D. Keene
Project Location:	LEA COUNTY, NM		

**Sample ID: WEST SAMPLE (H700203-13)**

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	02/01/2017	ND	1.98	98.8	2.00	0.451	
Toluene*	0.082	0.050	02/01/2017	ND	2.01	100	2.00	0.376	
Ethylbenzene*	0.109	0.050	02/01/2017	ND	2.06	103	2.00	0.437	
Total Xylenes*	0.500	0.150	02/01/2017	ND	5.86	97.7	6.00	0.156	
Total BTEx	0.691	0.300	02/01/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.6-140

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	01/30/2017	ND	188	93.8	200	3.89	
DRO >C10-C28	15.2	10.0	01/30/2017	ND	223	111	200	4.73	

Surrogate: 1-Chlorooctane 66.4 % 35-147

Surrogate: 1-Chlorooctadecane 68.5 % 28-171

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### 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 of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
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

# ORDINAL LABORATORIES

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

## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

<b>Company Name:</b> BBC International, Inc. <b>Project Manager:</b> Cliff Brunson <b>Address:</b> P.O. Box 805 <b>City:</b> Hobbs <b>State:</b> NM <b>Zip:</b> 88241 <b>Phone #:</b> 575-397-6388 <b>Fax #:</b> 575-397-0397 <b>Project #:</b> _____ <b>Project Name:</b> Pluma 29 State #001 Battery <b>Project Location:</b> Lea County, NM <b>Sampler Name:</b> Roger Hernandez										<b>P.O. #:</b> _____ <b>Company:</b> Oxy <b>Attn:</b> Casey Summers <b>Address:</b> _____ <b>City:</b> _____ <b>State:</b> _____ <b>Zip:</b> _____ <b>Phone #:</b> _____ <b>Fax #:</b> _____									
<b>FOR LAB USE ONLY</b> <b>Lab I.D.</b> Sample I.D. <b>Sample I.D.</b>										<b>DATE</b> <b>TIME</b>									
										<b>TPH</b> <b>BTEX</b>									
<b>SP1 @ SURFACE</b> <b>SP1 @ 1'</b> <b>SP1 @ 2'</b> <b>SP2 @ SURFACE</b> <b>SP2 @ 1'</b> <b>SP2 @ 2'</b> <b>SP3 @ SURFACE</b> <b>SP3 @ 1'</b> <b>SP3 @ 2'</b> <b>NORTH SAMPLE @ SURFACE</b>										<b>(G)RAB OR (C)OMP.</b> <b># CONTAINERS</b> <b>GROUNDWATER</b> <b>WASTEWATER</b> <b>SOIL</b> <b>OIL</b> <b>SLUDGE</b> <b>OTHER :</b> <b>ACID/BASE:</b> <b>ICE / COOL</b> <b>OTHER :</b>									
<b>01</b> <b>02</b> <b>03</b> <b>04</b> <b>05</b> <b>06</b> <b>07</b> <b>08</b> <b>09</b> <b>10</b>										<b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b>									
<b>1/24/17</b> <b>1/24/17</b> <b>1/24/17</b> <b>1/24/17</b> <b>1/24/17</b> <b>1/24/17</b> <b>1/24/17</b> <b>1/24/17</b> <b>1/24/17</b> <b>1/24/17</b>										<b>9:30 AM</b> <b>9:50 AM</b> <b>10:20 AM</b> <b>10:40 AM</b> <b>11:00 AM</b> <b>11:25 AM</b> <b>12:00 PM</b> <b>1:00 PM</b> <b>1:15 PM</b> <b>1:25 PM</b>									
<b>✓</b> <b>✓</b> <b>✓</b> <b>✓</b> <b>✓</b> <b>✓</b> <b>✓</b> <b>✓</b> <b>✓</b> <b>✓</b>										<b>✓</b> <b>✓</b> <b>✓</b> <b>✓</b> <b>✓</b> <b>✓</b> <b>✓</b> <b>✓</b> <b>✓</b> <b>✓</b>									
<b>Relinquished By:</b> _____ <b>Relinquished By:</b> _____ <b>Delivered By:</b> _____ <b>Sampler - UPS - Bus - Other:</b> _____										<b>REMARKS:</b> _____ <b>REMARKS:</b> _____ <b>REMARKS:</b> _____									

## ORDINAL LABORATORIES

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## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

**Company Name:** BBC International, Inc.

**Project Manager:** Cliff Brunson

**Address:** P.O. Box 805

**City:** Hobbs

**Phone #:** 575-397-6388

**Project #:**

**Project Name:** Pluma 29 State #001 Battery

**Project Location:** Lea County, NM

**Sample Name:** Roger Hernandez

**State:** NM **Zip:** 88241

**Fax #:** 575-397-0397

**Project Owner:** Oxy

**City:**

**State:** **Zip:**

**Phone #:**

**Fax #:**

**BILL TO**

**P.O. #:**

**Company:** Oxy

**Attn:** Casey Summers

**Address:**

**City:**

**State:** **Zip:**

**Phone #:**

**Fax #:**

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	TPH	BTEX	
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :					ACID/BASE:
H700203-	EAST SAMPLE		61			✓				✓	1/24/17	1:35 PM	✓	✓
11	SOUTH SAMPLE		61			✓				✓	1/24/17	1:45 PM	✓	✓
13	WEST SAMPLE		61			✓				✓	1/24/17	1:55 PM	✓	✓
<div style="position: relative; width: 100%; height: 100%;"> <div style="position: absolute; top: 0; left: 0; width: 100%; height: 100%; background: linear-gradient(to bottom right, transparent 49%, black 49% 51%, black 51% 53%, transparent 53%);"></div> <div style="position: absolute; top: 0; left: 0; width: 100%; height: 100%; background: linear-gradient(to bottom right, transparent 49%, black 49% 51%, black 51% 53%, transparent 53%);"></div> </div>														

**FOR LAB USE ONLY**

**Relinquished By:** [Signature] **Received By:** [Signature]

**Date:** 1/23/17 **Date:** 1/26/17

**Time:** 5:00pm **Time:** 5:00

**Relinquished By:** [Signature] **Received By:** [Signature]

**Delivered By: (Circle One)** **Sample Condition**

**Sampler - UPS - Bus - Other:** -5.9°C ☒ Yes ☐ No ☐ No

**CHECKED BY:** [Signature] **(Initials)** CAH #75

**REMARKS:**

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**Phone Result:** ☐ Yes ☐ No **Add'l Phone #:**

**Fax Result:** ☐ Yes ☐ No **Add'l Fax #:**



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	PO Box 4294; Houston, TX 77210	Telephone No.	(575) 513-8289
Facility Name	Pluma 29 State #001 Battery	Facility Type	Battery

Surface Owner	State	Mineral Owner	API No. 30-025-34517
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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
G	29	15S	32E					Lea County, NM

Latitude N 32.98882° Longitude W 103.73695°

**NATURE OF RELEASE**

Type of Release	Oil	Volume of Release	11 bbls	Volume Recovered	4 bbls
Source of Release	Faulty fitting on the circulating pump	Date and Hour of Occurrence	01/07/2017	Date and Hour of Discovery	
Was Immediate Notice Given?	If YES, To Whom?				
<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	Tomas Oberding, Olivia Yu-NMOCD; Amber Groves-SLO				
By Whom?	Kathy Purvis @ BBC International	Date and Hour	01/10/2017 @ 4:04 pm		
Was a Watercourse Reached?	If YES, Volume Impacting the Watercourse.				
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					

If a Watercourse was Impacted, Describe Fully.\*


Describe Cause of Problem and Remedial Action Taken.\*

A faulty fitting on the circulating pump caused a spill of 11 bbls of oil. A vacuum truck recovered 4 bbls of oil and the fitting was replaced.

Describe Area Affected and Cleanup Action Taken.\*

The affected area is approximately 70' x 40' on location inside the berm. Remediation will be completed in accordance with a remediation plan approved by both 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: 	<b>OIL CONSERVATION DIVISION</b>		
Printed Name: Casey Summers	Approved by Environmental Specialist:		
Title: NM Environmental Advisor	Approval Date:	Expiration Date:	
E-mail Address: Casey_Summers@oxy.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 1-23-17	Phone: (575) 513-8289		

\* Attach Additional Sheets If Necessary