

# ***ENVIRONMENTAL PLUS, INC.***

2100 Ave 'O'  
P.O. Box 1558  
Eunice, NM 88231  
ddominguezepi@gmail.com  
Office: (575) 394-3481  
Fax: (575) 394-2601



## **Site Characterization and Work Plan**

**Vanguard  
Staley State Tank Battery 1  
Eddy County, New Mexico  
Unit Letter "J", Section 30, Township 17 South, Range 28 East  
Latitude 32.637158 North, Longitude 104.077749 West  
NMOCD Reference #2RP-2274**

Prepared For:

Vanguard Operating, LLC  
4001 Penbrook, Suite 201  
Odessa, Texas 79762

Prepared By:

Environmental Plus, Inc.  
2100 Ave 'O'  
Eunice, NM 88231

**October 2017**

Project Manager



The following *Site Characterization and Work Plan* serves as a condensed update on field activities undertaken and proposed actions for the afore referenced Site.

**Background:**

The site is located in Unit Letter J, Section 30, Township 17 South, Range 28 East, approximately eleven miles east of Artesia, in Eddy County, New Mexico. The property is owned by COG.

The release site is located in the pasture off an active tank battery and flow line; latitude 32.637158 North, longitude 104.077749 West. Area Map, Site Location Map, and Sample/Site Map are included as Figure 1, Figure 2, and Figure 3, respectively. The initial C-141 indicated that the heater treater gasket failed causing fluid to spray into pasture due east of battery. The Initial NMOCD Form C-141 is included as Attachment IV.

**NMOCD Site Classification:**

A search for water wells was completed utilizing the New Mexico Office of the State Engineer's (NMOSE) website. There is one well located in the area surrounding the release site (reference *Table I*). Also, no wells (domestic, agriculture or public) and no bodies of surface water exist within a 1,000-foot radius of the release site (reference *Figure 2*). The USGS database located no wells within the surrounding area. The NMOSE database indicates average water depth is approximately 92 feet below ground surface (bgs) within a 1,760-meter radius (reference *Attachment II*). However, as this is too great a distance to accurately determine depth to water for this location as the closest documented well is 1,387 meters away, the Eddy county groundwater flowline map was utilized to determine an approximate depth to water of over one hundred feet bgs.

Utilizing this information, the NMOCD guidelines indicate the Staley State #6 release site to have a ranking score of zero. Based on this score, the NMOCD Recommended Remedial Action Levels (RRALs) for delineation at this Site were determined as follows: Benzene – 10 mg/Kg, BTEX – 50 mg/Kg, TPH – 5,000 mg/Kg, and Chloride – 600 mg/Kg.

There is no visual stain in the area and vegetation is growing east of the battery. C-141 indicates that micro-blaze was applied three times to pasture area.

**Delineation Progress:**

On August 28, 2017 EPI personnel mobilized on site to collect soil samples to determine the vertical extent of contamination. A total of fifteen soil samples were collected from ten sample locations; SP1 – SP10. Two soil samples from SP1-SP5 and one sample from SP6-SP10 location were sent to Cardinal Labs in Hobbs, New Mexico, for testing. Laboratory analytical results and Chlorides above NMOCD RRALs (reference *Table 2*).

Portions of select soil samples were field tested for organic vapors and chloride concentrations. Soil samples collected for field testing of organic vapors were placed in self-sealing polyethylene

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bags and allowed to equilibrate to ~70° F. Field testing of organic vapors utilized a Mini-Rae™ Photoionization Detector (PID) equipped with a 10.6 electron-volt (eV) calibrated for benzene response. Chloride concentrations were determined via use of a LaMotte Chloride Kit (Titration Method).

Soil samples designated for laboratory analyses were collected into laboratory provided glass containers, labeled and inserted into self-sealing polyethylene bags, placed in a cooler, chilled and transported to an independent laboratory for quantification of contaminant concentrations under Chain-of-Custody protocol.

**Proposed Actions:**

Based on field testing and laboratory analytical data, EPI proposes to excavate the following sample points to six inches bgs from SP6-SP10 with all contaminated soil hauled to a state approved disposal facility. All sample points in pasture area are below NMOCD RRALs and no further action is being requested for those sample points.

Backfill soil will be free of deleterious material or rocks or large clumps. Backfilling will continue until the excavation is closed. Upon completion of backfill activities, the area will be contoured to blend with existing pasture area and protected against wind/water erosion.

**Revegetation Plan:** Revegetation plan is not required all excavations will be done inside of bermed area.

**Noxious Weed Management Plan:**

In an effort to prevent the spread of noxious weeds such as African Rue, Siberian Elm, Jointed Goatgrass, Russian Olive, Camelthorn, Saltcedar, Starthistle varieties, Hoary Cress and Russian Knapweed, the area will be confirmed to be clear of any noxious weeds. If any are located they will be removed by hand and the area treated with an appropriate herbicide. After a period of three months the area will be examined for noxious weed growth and re-treated if any growth has occurred.

Following completion of NMOCD and NMSLO approved Proposed Actions, EPI will provide a detailed *Final Closure Report* to Vanguard, NMOCD, and NMSLO personnel. Vanguard and EPI personnel would welcome an opportunity to briefly discuss the *Work Plan* at your earliest convenience.

Should you have any questions or concerns please feel free to contact me via e-mail at [bboone.epi@gmail.com](mailto:bboone.epi@gmail.com) or Mr. Chuck Johnston at (432) 202-4771 or via e-mail at [cjohnston@vnrlc.com](mailto:cjohnston@vnrlc.com). All official communication should be addressed to:

Mr. Chuck Johnston  
Vanguard  
4001 Penbrook, Suite 2001  
Odessa, Texas 79762

Sincerely,

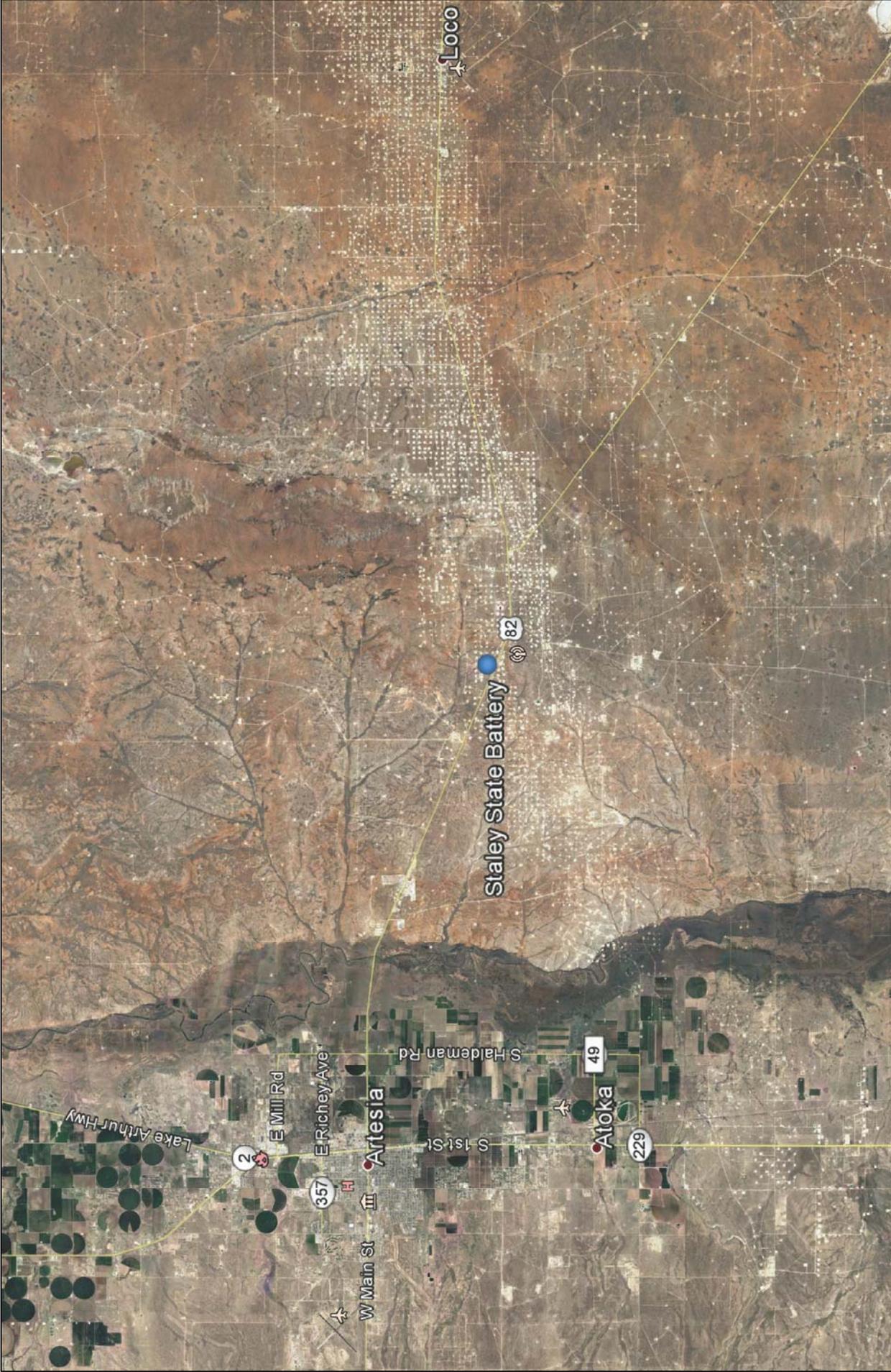
ENVIRONMENTAL PLUS, INC.

Brandon Boone  
Environmental Consultant

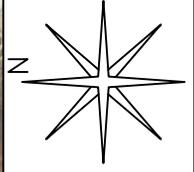
cc: Mike Bratcher, Environmental Specialist – NMOCD District 2, Hobbs, NM  
Amber Groves, Remediation Specialist – NMSLO, Hobbs, NM  
Chuck Johnston, EHS – Vanguard  
File

Encl.: Figure 1 – Area Map  
Figure 2 – Site Location Map  
Figure 3 – Sample/Site Map  
Table 1 – Well Data  
Table 2 – Summary of Soil Sample Field Testing and Laboratory Analytical Results  
Attachment I – Photographs  
Attachment II – NMOSE Average Depth to Groundwater, USGS Well Sites  
Attachment III – Laboratory Analytical Results  
Attachment IV – Copy of Initial NMOCD Form C-141

## **FIGURES**



<p>Figure 1 Area Map Vanguard Staley State Battery</p>	<p>Eddy County, New Mexico NW 1/4 of SE 1/4, Sec. 30, T17S, R28E N 32° 48' 15.12" W 104° 12' 42.19" Elevation: 3,601 feet amsl</p>		<p>DWG By: D Dominguez August 2017</p>	<p>REVISED:</p>
	<p>0 3 6 Miles</p>			





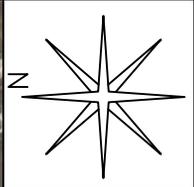
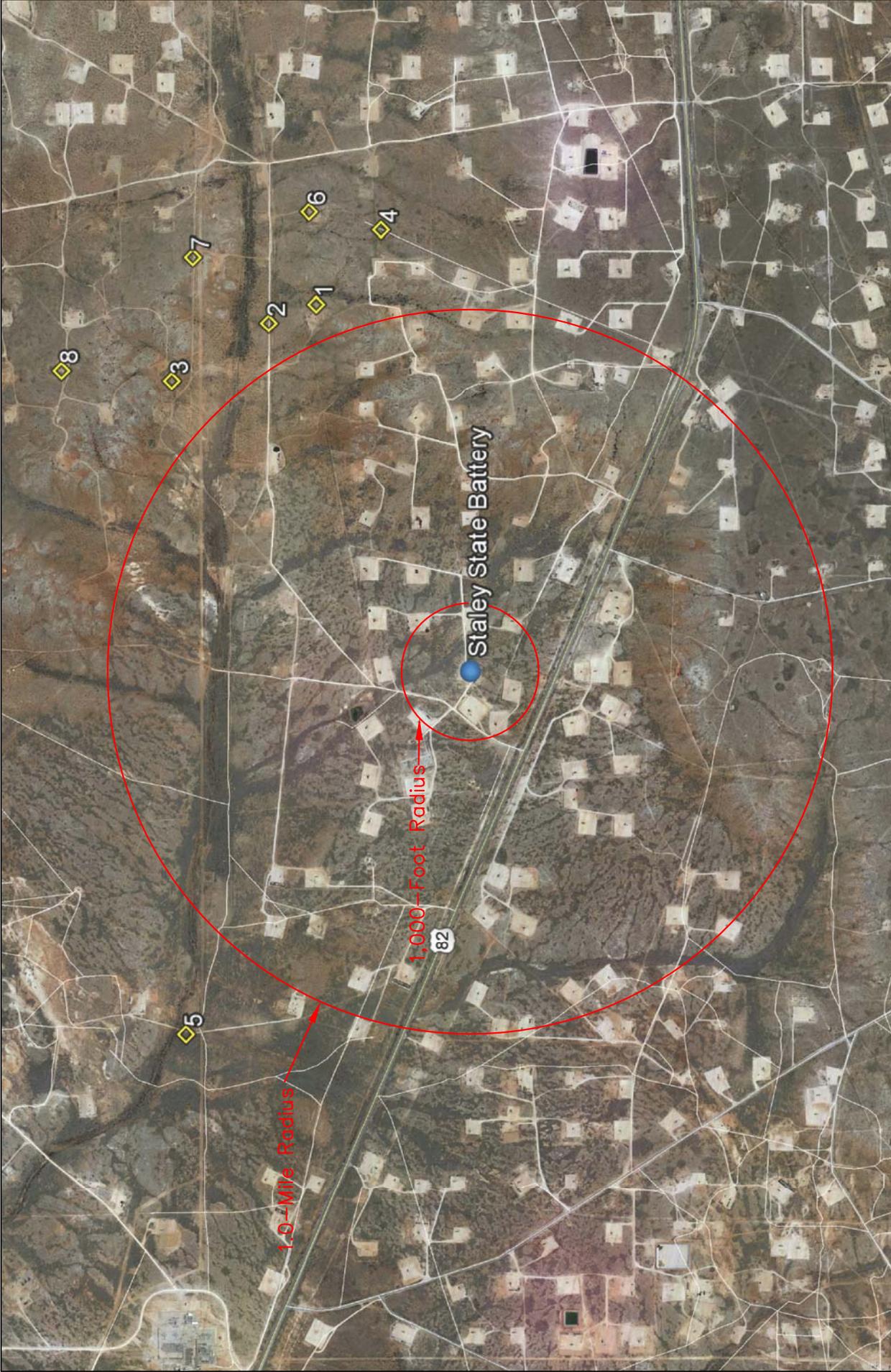
LEGEND

XSP1 Sample Location

DWG By: D Dominguez August 2017	REVISED:
	SHEET 1 of 1

Eddy County, New Mexico  
 NW 1/4 of SE 1/4, Sec. 30, T17S, R28E  
 N 32° 48' 15.12" W 104° 12' 42.19"  
 Elevation: 3,601 feet amsl

Figure 3  
 Site/Sample Map  
 Vanguard  
 Staley State Battery



DWG By: D Dominguez  
August 2017

REVISED:

0 2,000 4,000 SHEET  
1 of 1

Feet

Eddy County, New Mexico  
NW 1/4 of SE 1/4, Sec. 30, T17S, R28E  
N 32° 48' 15.12" W 104° 12' 42.19"  
Elevation: 3,601 feet amsl

Figure 2  
Site Location Map  
Vanguard  
Staley State Battery

## **TABLES**

**TABLE 1**

**Well Data**

**Vanguard - Pathfinder AFT State #11**

Ref #	Well Number	Use	Diversion <sup>A</sup>	Owner	q64	q16	q4	Sec	Twsp	Rng	Easting	Northing	Distance <sup>B</sup>	Date Measured	Surface Elevation <sup>C</sup>	Depth to Water
																(ft bgs)
1	RA 12030 POD29	MON	0	OXY USA WTP LP	3	1	2	29	17S	28E	575250	3630472	1,573			
2	RA 12030 POD27	MON	0	OXY USA WTP LP	1	1	2	29	17S	28E	575175	3630660	1,591			
3	RA 12030 POD26	MON	0	OXY USA WTP LP	2	4	3	20	17S	28E	574944	3631040	1,645			
4	RA 12030 POD30	MON	0	OXY USA WTP LP	1	4	2	29	17S	28E	575545	3630219	1,781			
5	RA 12456	STK	3	KEY LIVESTOCK LLC	1	4	4	24	17S	27E	572347	3630969	1,831	09-Sep-16		92
6	RA 12030 POD28	MON	0	OXY USA WTP LP	3	2	2	29	17S	28E	575616	3630503	1,926			
7	RA 12030 POD24	MON	0	OXY USA WTP LP	4	3	4	20	17S	28E	575433	3630960	1,970			
8	RA 12030 POD3	MON	0	OXY USA WTP LP	2	2	3	20	17S	28E	574979	3631471	1,999			

\* = Data obtained from the New Mexico Office of the State Engineer and USGS websites

<sup>A</sup> = In acre feet per annum

<sup>B</sup> = In meters

<sup>C</sup> = Elevation interpolated from Google Earth based on referenced location.

MON = Monitoring Well

STK = 72-12-1 Livestock watering

quarters are 1=NW, 2=NE, 3=SW, 4=SE; quarters are smallest to biggest

-- = Data not provided on the NM iwaters website

**Shaded area indicates wells not shown in Figure 2**

PRO = 72-12-1 Prospecting or development of Natural Resource

IND = Industrial

PDM = Non 72-12-1 Domestic

OIL = Oil Production

**TABLE 2**  
**Summary of Soil Sample Field Testing and Laboratory Analytical Results**  
**Vanguard**  
**Staley State TB 1**

Lab Sample ID	Depth (feet)	Soil Status	Sample Date	PID Reading (ppm)	Field Chloride (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	GRO C6-C10 (mg/Kg)	DRO C10-C28 (mg/Kg)	Total TPH (mg/Kg)	EXT DRO C28-C36	Chloride (mg/Kg)
SP1	Surface	In-Situ	28-Aug-17	0.0	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	<10.0	<b>32</b>
	4	In-Situ	28-Aug-17	0.0	560	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	<10.0	<b>672</b>
SP2	Surface	In-Situ	28-Aug-17	0.0	60	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	22.3	22.3	<10.0	<b>16</b>
	4	In-Situ	28-Aug-17	0.0	100	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	22.3	22.3	<10.0	64

**TABLE 2**  
**Summary of Soil Sample Field Testing and Laboratory Analytical Results**  
**Vanguard**  
**Staley State TB 1**

Lab Sample ID	Depth (feet)	Soil Status	Sample Date	PID Reading (ppm)	Field Chloride (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	GRO C6-C10 (mg/Kg)	DRO C10-C28 (mg/Kg)	Total TPH (mg/Kg)	EXT DRO C28-C36	Chloride (mg/Kg)
SP3	Surface	In-Situ	28-Aug-17	0.0	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	<10.0	32
	4	In-Situ	28-Aug-17	0.0	200	<0.050	<0.050	0.060	<0.150	<0.300	<10.0	<10.0	<20.0	<10.0	112
SP4	Surface	In-Situ	28-Aug-17	0.0	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	<10.0	16
	4	In-Situ	28-Aug-17	0.0	200	<0.050	<0.050	0.060	<0.150	<0.300	<10.0	<10.0	<20.0	<10.0	144
SP5	Surface	In-Situ	28-Aug-17	0.0	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	<10.0	32
	4	In-Situ	28-Aug-17	0.0	600	<0.050	<0.050	0.060	<0.150	<0.300	<10.0	<10.0	<20.0	<10.0	560
SP6	Surface	In-Situ	28-Aug-17	0.0	1,020	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<20.0	<10.0	976
SP7	Surface	In-Situ	28-Aug-17	1.4	220	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	39.6	<20.0	<10.0	208
SP8	Surface	In-Situ	28-Aug-17	1.4	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	286	<20.0	286	32
SP9	Surface	In-Situ	28-Aug-17	1.9	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	2,820	<20.0	786	16
SP10	Surface	In-Situ	28-Aug-17	1.9	80	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	2,730	<20.0	1,050	48
NMOCD Recommended Remedial Action Levels				100		10				50			1,000		600

- = Not Analyzed

MOCD Recommended Remedial Action Levels

indicates soil has been excavated

## **ATTACHMENTS**

**ATTACHMENT I**  
**Photographs**



Photograph #1- Lease sign



Photograph #2- Release area



Photograph #3- Release area

**ATTACHMENT II**  
**NMOSE Average Depth to Groundwater**  
**USGS Well Sites**



# 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
<a href="#">RA 12456 POD1</a>			ED	1	4	4	24	17S	27E	572348	3630969	1831	220	92	128

Average Depth to Water: **92 feet**  
 Minimum Depth: **92 feet**  
 Maximum Depth: **92 feet**

**Record Count: 1**

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

**Easting (X):** 573801.9

**Northing (Y):** 3629856.18

**Radius:** 2000

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.

## National Water Information System: Web Interface

[USGS Water Resources](#)

Data Category:  
Groundwater

Geographic Area:  
United States

GO

Click to hide News Bulletins

- [Please see news on new formats](#)
- [Full News](#) 

### Search Results -- No sites found

No sites were found for groundwater level data using your search criteria.

The sites you requested may be available offline. For more information, contact [USGS Water Data Inquiries](#).

lat\_long\_bounding\_box

Position	Latitude	Longitude
Corner 1	32.818649	104.228820
Corner 2	32.789698	104.194508
Coordinates are entered as Decimal Degrees. DMS values are converted to Decimal degrees using NAD83 as the datum. Make your bounding box bigger if you are using NAD27 Datum for your DMS values		

Minimum number of 1 levels =

Use the "Back" button on your browser to change your search criteria.

[Return To Previous Page](#)

**ATTACHMENT III**  
**Laboratory Analytical Results**

September 11, 2017

Daniel Dominguez  
Environmental Plus, Inc.  
P.O. Box 1558  
Eunice, NM 88231

RE: STALEY STATE TB #1

Enclosed are the results of analyses for samples received by the laboratory on 09/08/17 15:25.

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:**

 Environmental Plus, Inc.  
 Daniel Dominguez  
 P.O. Box 1558  
 Eunice NM, 88231  
 Fax To: (505) 394-2601

Received:	09/08/2017	Sampling Date:	08/28/2017
Reported:	09/11/2017	Sampling Type:	Soil
Project Name:	STALEY STATE TB #1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	UL-J SEC. 30, T17S, R28E		

**Sample ID: SP 1 (SURFACE) (H702393-01)**

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	09/09/2017	ND	1.78	88.9	2.00	0.593	
Toluene*	<0.050	0.050	09/09/2017	ND	1.83	91.7	2.00	1.19	
Ethylbenzene*	<0.050	0.050	09/09/2017	ND	1.98	98.8	2.00	1.15	
Total Xylenes*	<0.150	0.150	09/09/2017	ND	5.95	99.1	6.00	0.811	
Total BTEX	<0.300	0.300	09/09/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.1 % 72-148

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	09/11/2017	ND	448	112	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	09/08/2017	ND	186	92.9	200	3.58	
DRO >C10-C28	<10.0	10.0	09/08/2017	ND	204	102	200	4.09	
EXT DRO >C28-C36	<10.0	10.0	09/08/2017	ND					

Surrogate: 1-Chlorooctane 92.2 % 28.3-164

Surrogate: 1-Chlorooctadecane 99.6 % 34.7-157

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Environmental Plus, Inc.  
 Daniel Dominguez  
 P.O. Box 1558  
 Eunice NM, 88231  
 Fax To: (505) 394-2601

Received:	09/08/2017	Sampling Date:	08/28/2017
Reported:	09/11/2017	Sampling Type:	Soil
Project Name:	STALEY STATE TB #1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	UL-J SEC. 30, T17S, R28E		

**Sample ID: SP 1 (4') (H702393-02)**

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	09/09/2017	ND	1.78	88.9	2.00	0.593	
Toluene*	<0.050	0.050	09/09/2017	ND	1.83	91.7	2.00	1.19	
Ethylbenzene*	<0.050	0.050	09/09/2017	ND	1.98	98.8	2.00	1.15	
Total Xylenes*	<0.150	0.150	09/09/2017	ND	5.95	99.1	6.00	0.811	
Total BTEX	<0.300	0.300	09/09/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	672	16.0	09/11/2017	ND	448	112	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	09/08/2017	ND	186	92.9	200	3.58	
DRO >C10-C28	<10.0	10.0	09/08/2017	ND	204	102	200	4.09	
EXT DRO >C28-C36	<10.0	10.0	09/08/2017	ND					

Surrogate: 1-Chlorooctane 85.5 % 28.3-164

Surrogate: 1-Chlorooctadecane 92.6 % 34.7-157

Cardinal Laboratories

\*=Accredited Analyte

PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Environmental Plus, Inc.  
 Daniel Dominguez  
 P.O. Box 1558  
 Eunice NM, 88231  
 Fax To: (505) 394-2601

Received:	09/08/2017	Sampling Date:	08/28/2017
Reported:	09/11/2017	Sampling Type:	Soil
Project Name:	STALEY STATE TB #1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	UL-J SEC. 30, T17S, R28E		

**Sample ID: SP 2 (SURFACE) (H702393-03)**

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	09/09/2017	ND	1.78	88.9	2.00	0.593	
Toluene*	<0.050	0.050	09/09/2017	ND	1.83	91.7	2.00	1.19	
Ethylbenzene*	<0.050	0.050	09/09/2017	ND	1.98	98.8	2.00	1.15	
Total Xylenes*	<0.150	0.150	09/09/2017	ND	5.95	99.1	6.00	0.811	
Total BTEX	<0.300	0.300	09/09/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 72-148

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	09/11/2017	ND	448	112	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	09/08/2017	ND	186	92.9	200	3.58	
DRO >C10-C28	<10.0	10.0	09/08/2017	ND	204	102	200	4.09	
EXT DRO >C28-C36	<10.0	10.0	09/08/2017	ND					

Surrogate: 1-Chlorooctane 82.5 % 28.3-164

Surrogate: 1-Chlorooctadecane 87.5 % 34.7-157

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Environmental Plus, Inc.  
 Daniel Dominguez  
 P.O. Box 1558  
 Eunice NM, 88231  
 Fax To: (505) 394-2601

 Received: 09/08/2017  
 Reported: 09/11/2017  
 Project Name: STALEY STATE TB #1  
 Project Number: NONE GIVEN  
 Project Location: UL-J SEC. 30, T17S, R28E

 Sampling Date: 08/28/2017  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: SP 2 (4') (H702393-04)**

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	09/09/2017	ND	1.78	88.9	2.00	0.593	
Toluene*	<0.050	0.050	09/09/2017	ND	1.83	91.7	2.00	1.19	
Ethylbenzene*	<0.050	0.050	09/09/2017	ND	1.98	98.8	2.00	1.15	
Total Xylenes*	<0.150	0.150	09/09/2017	ND	5.95	99.1	6.00	0.811	
Total BTEX	<0.300	0.300	09/09/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 72-148

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>64.0</b>	16.0	09/11/2017	ND	448	112	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	09/08/2017	ND	186	92.9	200	3.58	
DRO >C10-C28	<10.0	10.0	09/08/2017	ND	204	102	200	4.09	
EXT DRO >C28-C36	<10.0	10.0	09/08/2017	ND					

Surrogate: 1-Chlorooctane 93.1 % 28.3-164

Surrogate: 1-Chlorooctadecane 99.0 % 34.7-157

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**Analytical Results For:**

 Environmental Plus, Inc.  
 Daniel Dominguez  
 P.O. Box 1558  
 Eunice NM, 88231  
 Fax To: (505) 394-2601

Received:	09/08/2017	Sampling Date:	08/28/2017
Reported:	09/11/2017	Sampling Type:	Soil
Project Name:	STALEY STATE TB #1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	UL-J SEC. 30, T17S, R28E		

**Sample ID: SP 3 (SURFACE) (H702393-05)**

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	09/09/2017	ND	1.78	88.9	2.00	0.593	
Toluene*	<0.050	0.050	09/09/2017	ND	1.83	91.7	2.00	1.19	
Ethylbenzene*	<0.050	0.050	09/09/2017	ND	1.98	98.8	2.00	1.15	
Total Xylenes*	<0.150	0.150	09/09/2017	ND	5.95	99.1	6.00	0.811	
Total BTEX	<0.300	0.300	09/09/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 72-148

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	09/11/2017	ND	448	112	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	09/09/2017	ND	180	90.0	200	0.778	
DRO >C10-C28	<10.0	10.0	09/09/2017	ND	198	99.1	200	0.879	
EXT DRO >C28-C36	<10.0	10.0	09/09/2017	ND					

Surrogate: 1-Chlorooctane 85.7 % 28.3-164

Surrogate: 1-Chlorooctadecane 96.7 % 34.7-157

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**Analytical Results For:**

 Environmental Plus, Inc.  
 Daniel Dominguez  
 P.O. Box 1558  
 Eunice NM, 88231  
 Fax To: (505) 394-2601

Received:	09/08/2017	Sampling Date:	08/28/2017
Reported:	09/11/2017	Sampling Type:	Soil
Project Name:	STALEY STATE TB #1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	UL-J SEC. 30, T17S, R28E		

**Sample ID: SP 3 (4') (H702393-06)**

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	09/09/2017	ND	1.78	88.9	2.00	0.593	
Toluene*	<0.050	0.050	09/09/2017	ND	1.83	91.7	2.00	1.19	
Ethylbenzene*	<0.050	0.050	09/09/2017	ND	1.98	98.8	2.00	1.15	
Total Xylenes*	<0.150	0.150	09/09/2017	ND	5.95	99.1	6.00	0.811	
Total BTEX	<0.300	0.300	09/09/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	112	16.0	09/11/2017	ND	448	112	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	09/09/2017	ND	180	90.0	200	0.778	
DRO >C10-C28	<10.0	10.0	09/09/2017	ND	198	99.1	200	0.879	
EXT DRO >C28-C36	<10.0	10.0	09/09/2017	ND					

Surrogate: 1-Chlorooctane 88.9 % 28.3-164

Surrogate: 1-Chlorooctadecane 94.2 % 34.7-157

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**Analytical Results For:**

 Environmental Plus, Inc.  
 Daniel Dominguez  
 P.O. Box 1558  
 Eunice NM, 88231  
 Fax To: (505) 394-2601

Received:	09/08/2017	Sampling Date:	08/28/2017
Reported:	09/11/2017	Sampling Type:	Soil
Project Name:	STALEY STATE TB #1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	UL-J SEC. 30, T17S, R28E		

**Sample ID: SP 4 (SURFACE) (H702393-07)**

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	09/09/2017	ND	1.78	88.9	2.00	0.593	
Toluene*	<0.050	0.050	09/09/2017	ND	1.83	91.7	2.00	1.19	
Ethylbenzene*	<0.050	0.050	09/09/2017	ND	1.98	98.8	2.00	1.15	
Total Xylenes*	<0.150	0.150	09/09/2017	ND	5.95	99.1	6.00	0.811	
Total BTEX	<0.300	0.300	09/09/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 72-148

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>16.0</b>	16.0	09/11/2017	ND	448	112	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	09/09/2017	ND	180	90.0	200	0.778	
DRO >C10-C28	<10.0	10.0	09/09/2017	ND	198	99.1	200	0.879	
EXT DRO >C28-C36	<10.0	10.0	09/09/2017	ND					

Surrogate: 1-Chlorooctane 82.2 % 28.3-164

Surrogate: 1-Chlorooctadecane 90.4 % 34.7-157

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**Analytical Results For:**

 Environmental Plus, Inc.  
 Daniel Dominguez  
 P.O. Box 1558  
 Eunice NM, 88231  
 Fax To: (505) 394-2601

Received:	09/08/2017	Sampling Date:	08/28/2017
Reported:	09/11/2017	Sampling Type:	Soil
Project Name:	STALEY STATE TB #1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	UL-J SEC. 30, T17S, R28E		

**Sample ID: SP 4 (4') (H702393-08)**

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	09/09/2017	ND	1.78	88.9	2.00	0.593	
Toluene*	<0.050	0.050	09/09/2017	ND	1.83	91.7	2.00	1.19	
Ethylbenzene*	<0.050	0.050	09/09/2017	ND	1.98	98.8	2.00	1.15	
Total Xylenes*	<0.150	0.150	09/09/2017	ND	5.95	99.1	6.00	0.811	
Total BTEX	<0.300	0.300	09/09/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 72-148

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>144</b>	16.0	09/11/2017	ND	448	112	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	09/09/2017	ND	180	90.0	200	0.778	
DRO >C10-C28	<10.0	10.0	09/09/2017	ND	198	99.1	200	0.879	
EXT DRO >C28-C36	<10.0	10.0	09/09/2017	ND					

Surrogate: 1-Chlorooctane 87.6 % 28.3-164

Surrogate: 1-Chlorooctadecane 96.7 % 34.7-157

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**Analytical Results For:**

 Environmental Plus, Inc.  
 Daniel Dominguez  
 P.O. Box 1558  
 Eunice NM, 88231  
 Fax To: (505) 394-2601

Received:	09/08/2017	Sampling Date:	08/28/2017
Reported:	09/11/2017	Sampling Type:	Soil
Project Name:	STALEY STATE TB #1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	UL-J SEC. 30, T17S, R28E		

**Sample ID: SP 5 (SURFACE) (H702393-09)**

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	09/09/2017	ND	1.78	88.9	2.00	0.593	
Toluene*	<0.050	0.050	09/09/2017	ND	1.83	91.7	2.00	1.19	
Ethylbenzene*	<0.050	0.050	09/09/2017	ND	1.98	98.8	2.00	1.15	
Total Xylenes*	<0.150	0.150	09/09/2017	ND	5.95	99.1	6.00	0.811	
Total BTEX	<0.300	0.300	09/09/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 72-148

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>32.0</b>	16.0	09/11/2017	ND	448	112	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	09/09/2017	ND	180	90.0	200	0.778	
DRO >C10-C28	<10.0	10.0	09/09/2017	ND	198	99.1	200	0.879	
EXT DRO >C28-C36	<10.0	10.0	09/09/2017	ND					

Surrogate: 1-Chlorooctane 81.0 % 28.3-164

Surrogate: 1-Chlorooctadecane 87.8 % 34.7-157

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**Analytical Results For:**

 Environmental Plus, Inc.  
 Daniel Dominguez  
 P.O. Box 1558  
 Eunice NM, 88231  
 Fax To: (505) 394-2601

Received:	09/08/2017	Sampling Date:	08/28/2017
Reported:	09/11/2017	Sampling Type:	Soil
Project Name:	STALEY STATE TB #1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	UL-J SEC. 30, T17S, R28E		

**Sample ID: SP 5 (4') (H702393-10)**

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	09/09/2017	ND	1.78	88.9	2.00	0.593	
Toluene*	<0.050	0.050	09/09/2017	ND	1.83	91.7	2.00	1.19	
Ethylbenzene*	<0.050	0.050	09/09/2017	ND	1.98	98.8	2.00	1.15	
Total Xylenes*	<0.150	0.150	09/09/2017	ND	5.95	99.1	6.00	0.811	
Total BTEX	<0.300	0.300	09/09/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.3 % 72-148

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>560</b>	16.0	09/11/2017	ND	448	112	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	09/09/2017	ND	180	90.0	200	0.778	
DRO >C10-C28	<10.0	10.0	09/09/2017	ND	198	99.1	200	0.879	
EXT DRO >C28-C36	<10.0	10.0	09/09/2017	ND					

Surrogate: 1-Chlorooctane 91.0 % 28.3-164

Surrogate: 1-Chlorooctadecane 99.2 % 34.7-157

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**Analytical Results For:**

 Environmental Plus, Inc.  
 Daniel Dominguez  
 P.O. Box 1558  
 Eunice NM, 88231  
 Fax To: (505) 394-2601

Received:	09/08/2017	Sampling Date:	08/28/2017
Reported:	09/11/2017	Sampling Type:	Soil
Project Name:	STALEY STATE TB #1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	UL-J SEC. 30, T17S, R28E		

**Sample ID: SP 6 (SURFACE) (H702393-11)**

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	09/09/2017	ND	1.78	88.9	2.00	0.593	
Toluene*	<0.050	0.050	09/09/2017	ND	1.83	91.7	2.00	1.19	
Ethylbenzene*	<0.050	0.050	09/09/2017	ND	1.98	98.8	2.00	1.15	
Total Xylenes*	<0.150	0.150	09/09/2017	ND	5.95	99.1	6.00	0.811	
Total BTEX	<0.300	0.300	09/09/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.2 % 72-148

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	976	16.0	09/11/2017	ND	448	112	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	09/09/2017	ND	180	90.0	200	0.778	
DRO >C10-C28	<10.0	10.0	09/09/2017	ND	198	99.1	200	0.879	
EXT DRO >C28-C36	<10.0	10.0	09/09/2017	ND					

Surrogate: 1-Chlorooctane 87.4 % 28.3-164

Surrogate: 1-Chlorooctadecane 95.8 % 34.7-157

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**Analytical Results For:**

 Environmental Plus, Inc.  
 Daniel Dominguez  
 P.O. Box 1558  
 Eunice NM, 88231  
 Fax To: (505) 394-2601

Received:	09/08/2017	Sampling Date:	08/28/2017
Reported:	09/11/2017	Sampling Type:	Soil
Project Name:	STALEY STATE TB #1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	UL-J SEC. 30, T17S, R28E		

**Sample ID: SP 7 (SURFACE) (H702393-12)**

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	09/09/2017	ND	1.78	88.9	2.00	0.593	
Toluene*	<0.050	0.050	09/09/2017	ND	1.83	91.7	2.00	1.19	
Ethylbenzene*	<0.050	0.050	09/09/2017	ND	1.98	98.8	2.00	1.15	
Total Xylenes*	<0.150	0.150	09/09/2017	ND	5.95	99.1	6.00	0.811	
Total BTEX	<0.300	0.300	09/09/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 100 % 72-148

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>208</b>	16.0	09/11/2017	ND	448	112	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	09/09/2017	ND	180	90.0	200	0.778	
<b>DRO &gt;C10-C28</b>	<b>39.6</b>	10.0	09/09/2017	ND	198	99.1	200	0.879	
EXT DRO >C28-C36	<10.0	10.0	09/09/2017	ND					

Surrogate: 1-Chlorooctane 82.6 % 28.3-164

Surrogate: 1-Chlorooctadecane 96.0 % 34.7-157

Cardinal Laboratories

\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Environmental Plus, Inc.  
 Daniel Dominguez  
 P.O. Box 1558  
 Eunice NM, 88231  
 Fax To: (505) 394-2601

Received:	09/08/2017	Sampling Date:	08/28/2017
Reported:	09/11/2017	Sampling Type:	Soil
Project Name:	STALEY STATE TB #1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	UL-J SEC. 30, T17S, R28E		

**Sample ID: SP 8 (SURFACE) (H702393-13)**

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	09/09/2017	ND	1.78	88.9	2.00	0.593	
Toluene*	<0.050	0.050	09/09/2017	ND	1.83	91.7	2.00	1.19	
Ethylbenzene*	<0.050	0.050	09/09/2017	ND	1.98	98.8	2.00	1.15	
Total Xylenes*	<0.150	0.150	09/09/2017	ND	5.95	99.1	6.00	0.811	
Total BTEX	<0.300	0.300	09/09/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 72-148

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>32.0</b>	16.0	09/11/2017	ND	448	112	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	<50.0	50.0	09/09/2017	ND	180	90.0	200	0.778	
<b>DRO &gt;C10-C28</b>	<b>286</b>	50.0	09/09/2017	ND	198	99.1	200	0.879	
<b>EXT DRO &gt;C28-C36</b>	<b>55.8</b>	50.0	09/09/2017	ND					

Surrogate: 1-Chlorooctane 84.9 % 28.3-164

Surrogate: 1-Chlorooctadecane 113 % 34.7-157

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Environmental Plus, Inc.  
 Daniel Dominguez  
 P.O. Box 1558  
 Eunice NM, 88231  
 Fax To: (505) 394-2601

Received:	09/08/2017	Sampling Date:	08/28/2017
Reported:	09/11/2017	Sampling Type:	Soil
Project Name:	STALEY STATE TB #1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	UL-J SEC. 30, T17S, R28E		

**Sample ID: SP 9 (SURFACE) (H702393-14)**

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	09/09/2017	ND	1.78	88.9	2.00	0.593	
Toluene*	<0.050	0.050	09/09/2017	ND	1.83	91.7	2.00	1.19	
Ethylbenzene*	<0.050	0.050	09/09/2017	ND	1.98	98.8	2.00	1.15	
Total Xylenes*	<0.150	0.150	09/09/2017	ND	5.95	99.1	6.00	0.811	
Total BTEX	<0.300	0.300	09/09/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 101 % 72-148

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>16.0</b>	16.0	09/11/2017	ND	448	112	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	<50.0	50.0	09/09/2017	ND	180	90.0	200	0.778		
<b>DRO &gt;C10-C28</b>	<b>2820</b>	50.0	09/09/2017	ND	198	99.1	200	0.879		
<b>EXT DRO &gt;C28-C36</b>	<b>786</b>	50.0	09/09/2017	ND						

Surrogate: 1-Chlorooctane 99.9 % 28.3-164

Surrogate: 1-Chlorooctadecane 172 % 34.7-157

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 Environmental Plus, Inc.  
 Daniel Dominguez  
 P.O. Box 1558  
 Eunice NM, 88231  
 Fax To: (505) 394-2601

Received:	09/08/2017	Sampling Date:	08/28/2017
Reported:	09/11/2017	Sampling Type:	Soil
Project Name:	STALEY STATE TB #1	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	UL-J SEC. 30, T17S, R28E		

**Sample ID: SP 10 (SURFACE) (H702393-15)**

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	09/09/2017	ND	1.78	88.9	2.00	0.593	
Toluene*	<0.050	0.050	09/09/2017	ND	1.83	91.7	2.00	1.19	
Ethylbenzene*	<0.050	0.050	09/09/2017	ND	1.98	98.8	2.00	1.15	
Total Xylenes*	<0.150	0.150	09/09/2017	ND	5.95	99.1	6.00	0.811	
Total BTEX	<0.300	0.300	09/09/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.7 % 72-148

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>48.0</b>	16.0	09/11/2017	ND	448	112	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	<50.0	50.0	09/09/2017	ND	180	90.0	200	0.778		
<b>DRO &gt;C10-C28</b>	<b>2730</b>	50.0	09/09/2017	ND	198	99.1	200	0.879		
<b>EXT DRO &gt;C28-C36</b>	<b>1050</b>	50.0	09/09/2017	ND						

Surrogate: 1-Chlorooctane 87.8 % 28.3-164

Surrogate: 1-Chlorooctadecane 169 % 34.7-157

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\*=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.
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





**ATTACHMENT IV**  
**Copy of Initial NMOCD 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 August 8, 2011

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**

nHMP1412135045

<b>OPERATOR</b>		<input checked="" type="checkbox"/> Initial Report	<input checked="" type="checkbox"/> Final Report
Name of Company	LRE Operating, LLC 281994	Contact	Michael Barrett
Address	1111 Bagby Street, Suite 4600, Houston, TX 77002	Telephone No.	575-623-8424
Facility Name	Staley State Battery (Well #1)	Facility Type	Production & Storage

Surface Owner	C.O.G.	Mineral Owner	State	API No.	30-015-22184
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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
J	30	17S	28E	660	North	1980	East	Eddy

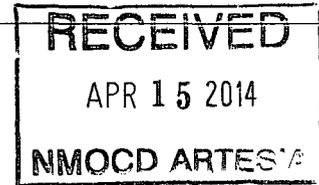
Latitude 32.637158 Longitude 104.077749

**NATURE OF RELEASE**

Type of Release	Oil & Produced Water	Volume of Release	18 Oil & 3Wtr	Volume Recovered	7 Oil & 1 Wtr
Source of Release	Heater Treater Gasket	Date and Hour of Occurrence	4/5/14 pm	Date and Hour of Discovery	4/5/14 @ 8:45 pm
Was Immediate Notice Given?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom?			
By Whom?	N/A	Date and Hour N/A			
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.\*  
N/A

Describe Cause of Problem and Remedial Action Taken.\*  
6x20 Heater treater gasket failed causing fluid to spray a large area of pasture with a fine mist. Picked up standing fluid. Replaced gasket.



Describe Area Affected and Cleanup Action Taken.\*  
Standing fluid was mainly in bermed area of battery. Hand dug and hydro vac was used to remove contaminated soil around flow lines and equipment. Area that was covered by spray was treated 3 times with micro-blaze.

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: Michael Barrett	Approved by Environmental Specialist:	
Title: Production Supervisor	Approval Date: 5/1/14	Expiration Date: NA
E-mail Address: mbarrett@limerockresources.com	Conditions of Approval: Remediation per OCD Rule & Guidelines. <b>SUBMIT REMEDIATION PROPOSAL NO LATER THAN:</b>	Attached <input type="checkbox"/>
Date: 04/14/14 Phone: 575-623-8424	<b>6/1/14</b>	

\* Attach Additional Sheets If Necessary

2PP-2274