



November 9, 2017

Mike Bratcher & Crystal Weaver
NMOCD District 2
811 S. First St
Artesia, NM 88210

Re: Work Plan
XTO – Poker Lake Unit 078 & 139
NMOCD Reference #'s: 2RP-3980 & 2RP-3503

Mr. Mike Bratcher & Ms. Crystal Weaver:

RXSoil, Inc. is pleased to submit the work plan summarizing the on-site soil remediation of produced water impacted and crude oil distressed soil at the Poker Lake Unit ("PLU") 078 and 139 sites located in Eddy County, New Mexico. Restoration and remediation work plan follow in the attached report.

Sincerely,

Stan Mickle
Vice President of Operations
RXSoil, Inc.
(210) 997-7645

Zach Robbins
Technical and Engineering Analyst
RXSoil, Inc.
(210) 400-7645

Table of Contents

I.	Introduction.....	3
II.	Regulatory Guidelines	3
III.	Delineation Plan	4
IV.	Soil Remediation Work Plan	4

Figures

1.	Vicinity Map.....	6
2.	Water Table Map.....	7
3.	Initial Delineation	8
4.	Soil Movement	9

Appendix

A.	C-141, Release Notification and Corrective Action Document	
	1. PLU 078.....	10
	2. PLU 139.....	11
B.	Water Column/Average Depth to Water	12
C.	Initial Delineation Lab Data	13

I. Introduction

On behalf of XTO Energy, RXSoil, Inc. has prepared this work plan that describes the assessment and action plan for remediation of the following sites:

PLU 078 (32.194685, -103.828119), API No. 30-015-27536

PLU 139 (32.19998, -103.83173), API No. 30-015-29847

PLU 078 is located in Unit Letter “A”, Section 25, Township 24S, Range 30E (see *Figure 1* for Vicinity Map). The Release Notification and Corrective Action document (C-141, *Appendix A.1*), approved November 9, 2016, indicates a power failure on November 3 caused an overflow of the battery. It was reported that 2525 barrels of produced water and 130 barrels of oil were released, and 2080 barrels of produced water and 130 barrels of oil were recovered during the initial response.

PLU 139 is located in Unit Letter “J”, Section 24, Township 24S, Range 30E. The C-141 (*Appendix A.2*), approved January 15, 2016, indicates a freeze on January 12 caused a split in a flowline. It was reported that 33 barrels of produced water and 118 barrels of oil were released, and that 5 barrels of produced water and 90 barrels of oil were recovered during the initial response.

II. Regulatory Guidelines

Information was unavailable for depth to ground water in the New Mexico Water Rights Reporting System for Sections 24 and 25, Township 24 South, Range 30 East. The search was extended for adjacent sections, in which the closest data point was found (*Appendix B*). This point, which is located about 7,000 feet west of the two sites (*Figure 2*), shows depth to ground water of 400 feet. An Eddy County Depth to Ground Water map (dated February 2005) signifies depths between 350 and 375 feet. This is evidence that the depth to ground water is greater than 100 feet, scoring 0 for that section.

The site is also greater than 1,000 feet from all water sources and any surface water. *Figure 2* also includes a 1000-foot radius from both sites. The ranking score for this site’s threat to public health, ground water and environmental therefore is 0.

Depth to Ground Water:			
(Vertical distance from contaminants to seasonal high water elevation of groundwater)	Less than 50 feet	20 points	
	50 feet to 99 feet	10 points	
	>100 feet	0 points	X
Wellhead Protection Area:			
(Less than 200 feet from a private domestic water source; or less than 1000 feet from all other water sources)	Yes	20 points	
	No	0 points	X
Distance to Surface Water:			
(Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)	Less than 200 feet	20 points	
	200 feet to 1000 feet	10 points	
	>1000 feet	0 points	X
RANKING SCORE (TOTAL POINTS)			0

The target cleanup levels are determined using the *Guidelines for Remediation of Leaks, Spills and Releases* published by the NMOCD (August 13, 1993). The Recommended Remediation Action Levels (RRAL) are 10 parts per million (ppm) benzene, 50 ppm combined benzene, toluene, ethyl benzene, and total xylenes (BTEX), 5000 ppm total petroleum hydrocarbons (TPH) and 600 ppm chlorides.

Post-remediation discrete confirmation samples will be taken and properly packaged, preserved and transported to a third-party laboratory by chain of custody, and analyzed for BTEX (Method 8260 or 8021), TPH (Method 8015 extended range) and chlorides (Method 4500 or 300). The results will be included in the closure report along with chain of custody and quality control.

III. Delineation Plan

Five initial delineation samples from November 10, 2016 were tested for BTEX, TPH, and chlorides. The sample plot, along with an outline of expected contaminated area, is shown in *Figure 2* with corresponding lab data attached as *Appendix C*.

Primary samples will be taken on the south and west sides of the flare. Results of this will determine whether a replacement flare will need to be moved in order for RXSoil to remediate that material or if the replacement can be placed in the original location.

RXSoil will conduct vertical delineation of impacted soil by drilling bore holes throughout the impacted regions. Five bore holes will be spaced out and drilled throughout the contaminated area at PLU 078 while two bore holes will be drilled for PLU 139. Approximate placement of the bore holes for PLU 078 along with the predicted contamination outline can be seen in *Figure 3*. Bore holes for PLU 139 will be near the center of both contaminated areas. Per the NMOCD, at least ten vertical feet of soil with contaminant concentrations at or below thresholds will be shown.

RXSoil will contract out a geophysical electroconductivity survey to have for a guide throughout excavation. Two Geonics Electromagnetic Meters will be used to investigate contamination levels from the surface to a depth of five feet and eighteen feet. Data will be confirmed by comparing it to results from bore hole samples.

Horizontal delineation will be conducted during excavation. This process, driven by data, will use results from the electroconductivity survey to lay out an initial excavation area. Based on test results from side wall screenings throughout excavation, a gradient of contamination levels will be used to determine any required further horizontal excavation. A full delineation report will be included as support in the closure report.

IV. Soil Remediation Work Plan

RXSoil's core process of on-site remediation will be used to address the contamination. This work plan assumes that contamination levels will be above threshold to a depth of at least four feet and a 30 mil polyliner will be placed at the subsurface. This will be supported by the delineation report mentioned above.

RXSoil will supervise the excavation of affected soils with approval from area utilities owners via One-Call. RXSoil will continuously guide the excavation activities by collecting soil bottom and sidewall

samples for field screenings and third-party confirmation tests.

Impacted material from PLU 139 will be excavated and replaced with clean material from an area adjacent to PLU 078. This process can be seen in *Figure 4*. This will expedite the closure process for PLU 139 as well as allow more efficient treatment of all soil.

RXSoil will create engineered treatment cells using the excavated area at PLU 078. The impacted soil from both PLU 078 and PLU 139 will be placed back into these containment cells and a proprietary delivery system will be installed to apply RXSoil chemicals for remediation of the soil. No harmful or hazardous chemicals are used in the RXSoil Process, as previously approved by the NMOCD.

Approximately 85% of the water used throughout the RXSoil Process will be collected as effluent then transferred to XTO for a secondary industrial use.

Final soil samples will then be collected and tested at the end of treatment to confirm impacted soil has been remediated to required chloride, TPH and BTEX levels directed by NMOCD standards, as specified in **Section II**.

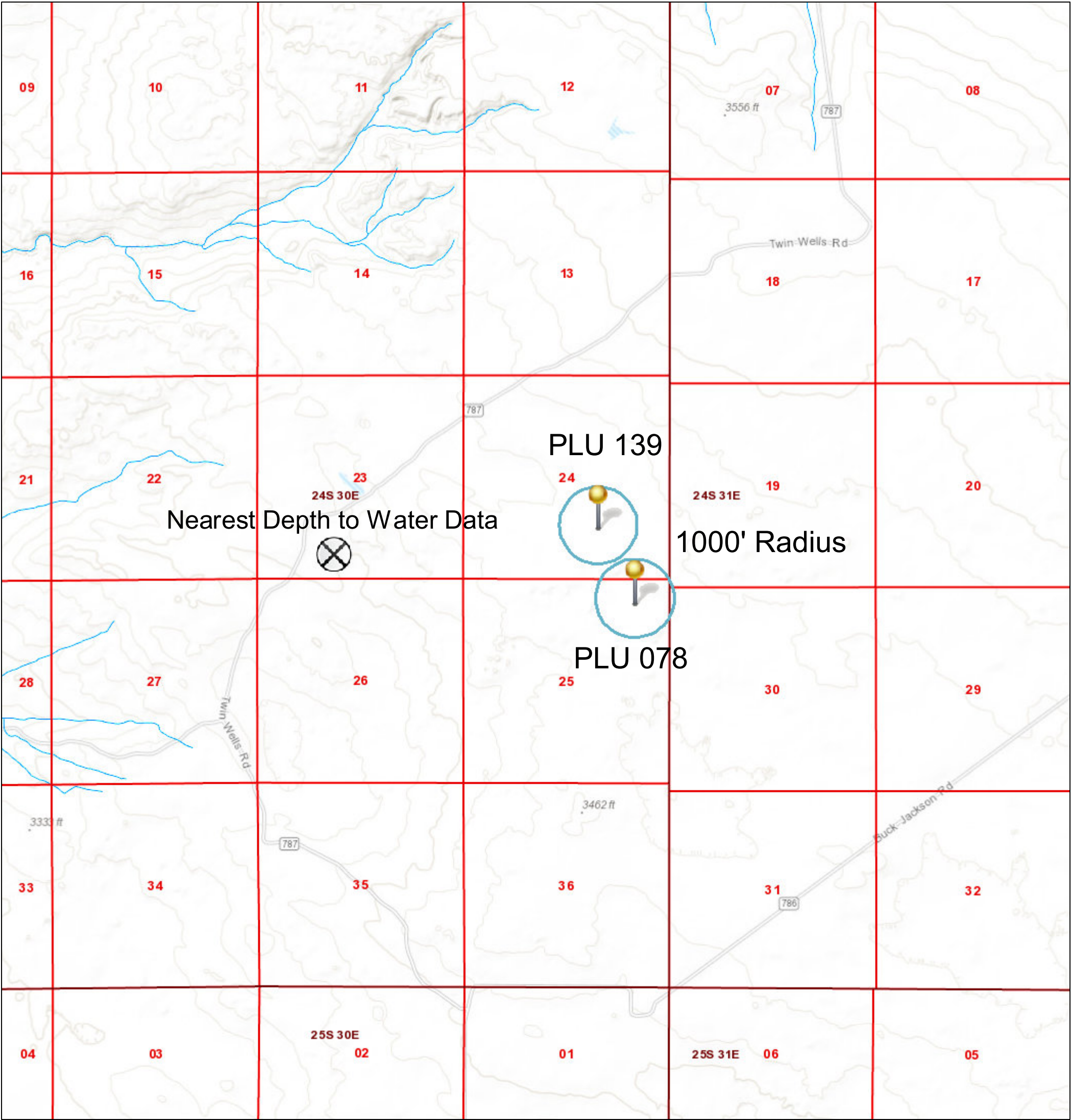
Figure 1 - Vicinity Map

Overview of the two sites

Legend

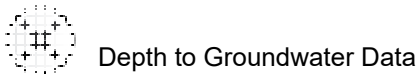
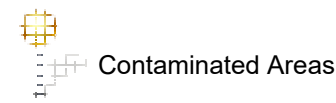


Figure 2 - Water Map



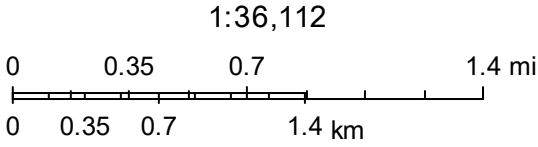
October 31, 2017

Points



Areas

- PLSS Townships
- PLSS First Division
- OSE Streams
- NM Probable Playas





Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

Figure 3 - Bore Holes

PLU #78 Battery

Legend

-  Release Area
-  Sample Locations

Google earth

© 2016 Google



300 ft

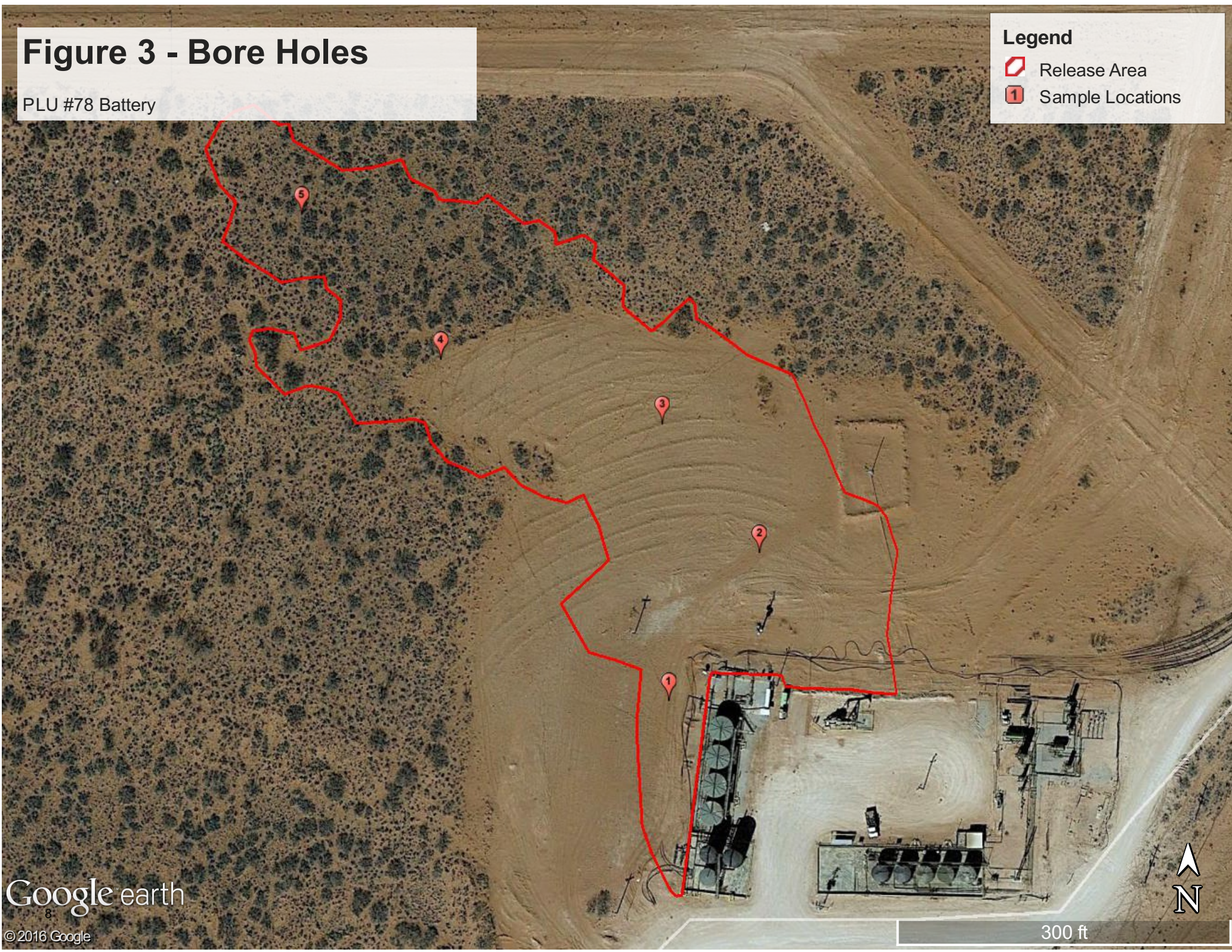
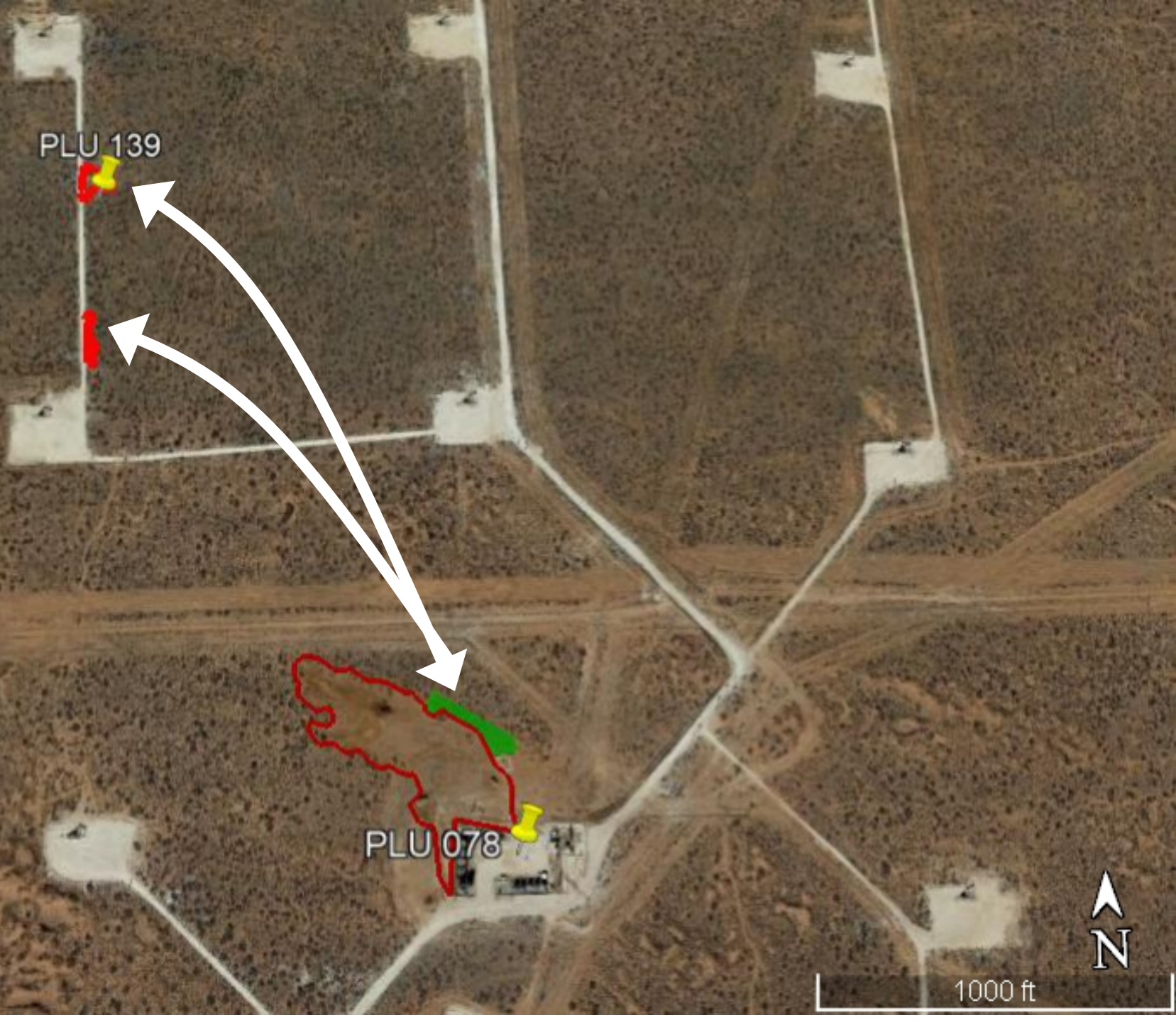


Figure 4 - Soil Replacement

1. Transport contaminated material from PLU 139 to PLU 078
2. Backfill PLU 139 with clean material from near PLU 078
3. Remediate all contaminated soil at PLU 078



NM OIL CONSERVATION

ARTESIA DISTRICT

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

NOV 08 2016

Form C-141
Revised August 8, 2011

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

RECEIVED

Release Notification and Corrective Action

OPERATOR ☒ Initial Report ☐ Final Report

Name of Company: BOPCO, L.P. **200737** **Contact:** Bradley Blevins

Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220 **Telephone No.** 575-887-7329

Facility Name: Poker Lake Unit 78 **Facility Type:** Exploration and Production

Surface Owner: Federal **Mineral Owner:** **API No.** 30-015-27536

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	25	24S	30E	660		660		Eddy

Latitude: 32.194685 Longitude: 103.828119

NATURE OF RELEASE

Type of Release: Crude Oil/ Produced Water	Volume of Release: 2525 barrels PW 130 barrels Oil	Volume Recovered: 2080 PW Recovered 130 barrels Oil recovered
Source of Release: Power failure at the battery causing PW system tanks to overflow, filling and overflowing containment.	Date and Hour of Occurrence: 11-3-16 @ 12:32am	Date and Hour of Discovery 11-3-16 @ 7:00am
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, Jim Amos via email	
By Whom? Bradley Blevins	Date and Hour: 11-3-16 @ 12:37pm	
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.*

BOPCO EHS was notified of a release that occurred at the PLU 78, storms in the area knocked out power to the battery causing water system tanks to fill and run over. The fluid filled the containment and overflowed to the ground surface. Vacuum trucks were called to the location and recovered 2210 barrels from the containment and ground surface combined.

Describe Area Affected and Cleanup Action Taken.*

Vacuum trucks were called to the location and recovered 2210 barrels from the containment and ground surface combined. An initial response crew was dispatched to the site and began scraping up the saturated surface soil.

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: <u>Bradley Blevins</u>	OIL CONSERVATION DIVISION	
Printed Name: Bradley Blevins	Signed By: <u>Mike Bratcher</u> Approved by Environmental Specialist.	
Title: Assistant Remediation Foreman	Approval Date: <u>11/9/16</u>	Expiration Date: <u>N/A</u>
E-mail Address: bblevins@basspet.com	Conditions of Approval:	Attached <input checked="" type="checkbox"/>
Date: <u>11-8-16</u> Phone: 432-214-3704		

* Attach Additional Sheets If Necessary

2RP-3980

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

NM OIL CONSERVATION

ARTESIA DISTRICT

Form C-141

Revised August 8, 2011

JAN 15 2016

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

RECEIVED

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: BOPCO, L.P.	Contact: Bradley Blevins
Address: 522 W. Mermod, Suite 704 Carlsbad, N.M. 88220	Telephone No. 575-887-7329
Facility Name: PLU 139	Facility Type: Exploration and Production

Surface Owner: Federal	Mineral Owner: Federal	API No. 3001529847
------------------------	------------------------	--------------------

LOCATION OF RELEASE

Unit Letter J	Section 24	Township 24S	Range 30E	Feet from the 1980	North/South Line	Feet from the 1980	East/West Line	County Eddy
------------------	---------------	-----------------	--------------	-----------------------	------------------	-----------------------	----------------	----------------

Latitude: 32.19998 Longitude: 103.83173

NATURE OF RELEASE

Type of Release: Crude Oil and Produced Water	Volume of Release: 118 barrels oil and 33 barrels PW	Volume Recovered: 90 barrels oil and 5 barrels PW
Source of Release: Failed flowline	Date and Hour of Occurrence: 1-12-16 @ 11:00am	Date and Hour of Discovery: 1-12-16 @ 12:08pm
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, Jim Amos	
By Whom? Bradley Blevins	Date and Hour: 1-12-16 @ 2:45pm via email	
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.*

The PLU 139 well was pickled and the flowline was flushed with fresh water, due to low lying areas of the flowline the fresh water settled and froze causing flowline to split. A check valve at the battery header also failed causing fluid to flow back down the flowline and was released out the failed flowline.

Describe Area Affected and Cleanup Action Taken.*

Vacuum trucks were called to the location and were able to recover 90 barrels of oil and 5 barrels of produced water. A response crew is scheduled to remove the saturated surface material and haul to an approved disposal.

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: <i>Bradley Blevins</i>		OIL CONSERVATION DIVISION	
Printed Name: Bradley Blevins		Approved by Environmental Specialist: <i>[Signature]</i>	
Title: Assistant Remediation Foreman		Approval Date: 1/15/16	Expiration Date: N/A
E-mail Address: bblevins@basspet.com		Conditions of Approval: <input type="checkbox"/> Attached <input type="checkbox"/>	
Date: 1-15-16 Phone: 432-214-3704		SUBMIT REMEDIATION PROPOSAL NO. <i>118/116</i>	

* Attach Additional Sheets If Necessary

LATER THAN: *1/18/16* *2RP-3503*



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	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	DepthWell	DepthWater	Water Column
C 02110			ED	4	3	23	24S	30E		608036	3562950*	600	400	200
C 02780			ED	2	3	2	23	24S	30E	608535	3563857*	505		
C 02781			ED	4	3	2	23	24S	30E	608535	3563657*	624		
C 02782			ED	4	3	2	23	24S	30E	608535	3563657*	808		

Average Depth to Water: 400 feet

Minimum Depth: 400 feet

Maximum Depth: 400 feet

Record Count: 4

PLSS Search:

Section(s): 23

Township: 24S

Range: 30E

*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.

11/8/17 9:42 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER

November 16, 2016

Daniel Dominguez

Environmental Plus, Inc.

P.O. Box 1558

Eunice, NM 88231

RE: PLU #78

Enclosed are the results of analyses for samples received by the laboratory on 11/10/16 15:44.

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.

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: 11/10/2016
Reported: 11/16/2016
Project Name: PLU #78
Project Number: NONE GIVEN
Project Location: UL- A SEC. 25, T24S, R30E

Sampling Date: 11/04/2016
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 1 (1') (H602534-01)

BTX 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	11/12/2016	ND	2.25	113	2.00	0.370	
Toluene*	<0.050	0.050	11/12/2016	ND	2.28	114	2.00	0.780	
Ethylbenzene*	<0.050	0.050	11/12/2016	ND	2.20	110	2.00	0.669	
Total Xylenes*	<0.150	0.150	11/12/2016	ND	6.65	111	6.00	0.572	
Total BTX	<0.300	0.300	11/12/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 114 % 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	4400	16.0	11/14/2016	ND	400	100	400	3.92	

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	11/11/2016	ND	190	94.8	200	5.13	
DRO >C10-C28	<10.0	10.0	11/11/2016	ND	200	99.8	200	4.45	

Surrogate: 1-Chlorooctane 89.9 % 35-147

Surrogate: 1-Chlorooctadecane 92.2 % 28-171

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: 11/10/2016
Reported: 11/16/2016
Project Name: PLU #78
Project Number: NONE GIVEN
Project Location: UL- A SEC. 25, T24S, R30E

Sampling Date: 11/04/2016
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 1 (2') (H602534-02)

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	11/12/2016	ND	2.25	113	2.00	0.370	
Toluene*	<0.050	0.050	11/12/2016	ND	2.28	114	2.00	0.780	
Ethylbenzene*	<0.050	0.050	11/12/2016	ND	2.20	110	2.00	0.669	
Total Xylenes*	<0.150	0.150	11/12/2016	ND	6.65	111	6.00	0.572	
Total BTEx	<0.300	0.300	11/12/2016	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	11/14/2016	ND	400	100	400	3.92	

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	11/11/2016	ND	190	94.8	200	5.13	
DRO >C10-C28	<10.0	10.0	11/11/2016	ND	200	99.8	200	4.45	

Surrogate: 1-Chlorooctane 111 % 35-147

Surrogate: 1-Chlorooctadecane 108 % 28-171

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: 11/10/2016
Reported: 11/16/2016
Project Name: PLU #78
Project Number: NONE GIVEN
Project Location: UL- A SEC. 25, T24S, R30E

Sampling Date: 11/04/2016
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 2 (1') (H602534-03)

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	11/14/2016	ND	2.44	122	2.00	1.20	
Toluene*	<0.050	0.050	11/14/2016	ND	2.50	125	2.00	1.18	
Ethylbenzene*	<0.050	0.050	11/14/2016	ND	2.41	121	2.00	1.26	
Total Xylenes*	<0.150	0.150	11/14/2016	ND	7.28	121	6.00	1.22	
Total BTEx	<0.300	0.300	11/14/2016	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	48.0	16.0	11/14/2016	ND	400	100	400	3.92	

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	11/11/2016	ND	190	94.8	200	5.13	
DRO >C10-C28	<10.0	10.0	11/11/2016	ND	200	99.8	200	4.45	

Surrogate: 1-Chlorooctane 96.9 % 35-147

Surrogate: 1-Chlorooctadecane 98.4 % 28-171

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: 11/10/2016
Reported: 11/16/2016
Project Name: PLU #78
Project Number: NONE GIVEN
Project Location: UL- A SEC. 25, T24S, R30E

Sampling Date: 11/04/2016
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 3 (1') (H602534-04)

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	11/14/2016	ND	2.44	122	2.00	1.20	
Toluene*	<0.050	0.050	11/14/2016	ND	2.50	125	2.00	1.18	
Ethylbenzene*	<0.050	0.050	11/14/2016	ND	2.41	121	2.00	1.26	
Total Xylenes*	<0.150	0.150	11/14/2016	ND	7.28	121	6.00	1.22	
Total BTEx	<0.300	0.300	11/14/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 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	8400	16.0	11/14/2016	ND	400	100	400	3.92	

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	11/11/2016	ND	190	94.8	200	5.13	
DRO >C10-C28	<10.0	10.0	11/11/2016	ND	200	99.8	200	4.45	

Surrogate: 1-Chlorooctane 94.2 % 35-147

Surrogate: 1-Chlorooctadecane 98.7 % 28-171

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: 11/10/2016
Reported: 11/16/2016
Project Name: PLU #78
Project Number: NONE GIVEN
Project Location: UL- A SEC. 25, T24S, R30E

Sampling Date: 11/04/2016
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 3 (4') (H602534-05)

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	11/14/2016	ND	2.44	122	2.00	1.20	
Toluene*	<0.050	0.050	11/14/2016	ND	2.50	125	2.00	1.18	
Ethylbenzene*	<0.050	0.050	11/14/2016	ND	2.41	121	2.00	1.26	
Total Xylenes*	<0.150	0.150	11/14/2016	ND	7.28	121	6.00	1.22	
Total BTEx	<0.300	0.300	11/14/2016	ND					

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

Chloride, SM4500CI-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	11/14/2016	ND	400	100	400	3.92	

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	11/11/2016	ND	190	94.8	200	5.13	
DRO >C10-C28	<10.0	10.0	11/11/2016	ND	200	99.8	200	4.45	

Surrogate: 1-Chlorooctane 101 % 35-147

Surrogate: 1-Chlorooctadecane 101 % 28-171

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: 11/10/2016
Reported: 11/16/2016
Project Name: PLU #78
Project Number: NONE GIVEN
Project Location: UL- A SEC. 25, T24S, R30E

Sampling Date: 11/04/2016
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 4 (1') (H602534-06)

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	11/14/2016	ND	2.44	122	2.00	1.20	
Toluene*	<0.050	0.050	11/14/2016	ND	2.50	125	2.00	1.18	
Ethylbenzene*	<0.050	0.050	11/14/2016	ND	2.41	121	2.00	1.26	
Total Xylenes*	<0.150	0.150	11/14/2016	ND	7.28	121	6.00	1.22	
Total BTEx	<0.300	0.300	11/14/2016	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	3200	16.0	11/14/2016	ND	400	100	400	3.92	

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	11/11/2016	ND	190	94.8	200	5.13	
DRO >C10-C28	<10.0	10.0	11/11/2016	ND	200	99.8	200	4.45	

Surrogate: 1-Chlorooctane 93.0 % 35-147

Surrogate: 1-Chlorooctadecane 97.2 % 28-171

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: 11/10/2016
Reported: 11/16/2016
Project Name: PLU #78
Project Number: NONE GIVEN
Project Location: UL- A SEC. 25, T24S, R30E

Sampling Date: 11/04/2016
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 4 (6') (H602534-07)

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	11/14/2016	ND	2.44	122	2.00	1.20	
Toluene*	<0.050	0.050	11/14/2016	ND	2.50	125	2.00	1.18	
Ethylbenzene*	<0.050	0.050	11/14/2016	ND	2.41	121	2.00	1.26	
Total Xylenes*	<0.150	0.150	11/14/2016	ND	7.28	121	6.00	1.22	
Total BTEx	<0.300	0.300	11/14/2016	ND					

Surrogate: 4-Bromofluorobenzene (PID) 112 % 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	496	16.0	11/15/2016	ND	400	100	400	3.92	

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	11/11/2016	ND	190	94.8	200	5.13	
DRO >C10-C28	<10.0	10.0	11/11/2016	ND	200	99.8	200	4.45	

Surrogate: 1-Chlorooctane 96.2 % 35-147

Surrogate: 1-Chlorooctadecane 99.1 % 28-171

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: 11/10/2016
Reported: 11/16/2016
Project Name: PLU #78
Project Number: NONE GIVEN
Project Location: UL- A SEC. 25, T24S, R30E

Sampling Date: 11/04/2016
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 5 (1') (H602534-08)

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	11/14/2016	ND	2.44	122	2.00	1.20	
Toluene*	<0.050	0.050	11/14/2016	ND	2.50	125	2.00	1.18	
Ethylbenzene*	<0.050	0.050	11/14/2016	ND	2.41	121	2.00	1.26	
Total Xylenes*	<0.150	0.150	11/14/2016	ND	7.28	121	6.00	1.22	
Total BTEx	<0.300	0.300	11/14/2016	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	12800	16.0	11/15/2016	ND	400	100	400	3.92	

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	11/11/2016	ND	190	94.8	200	5.13	
DRO >C10-C28	<10.0	10.0	11/11/2016	ND	200	99.8	200	4.45	

Surrogate: 1-Chlorooctane 77.5 % 35-147

Surrogate: 1-Chlorooctadecane 81.0 % 28-171

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: 11/10/2016
Reported: 11/16/2016
Project Name: PLU #78
Project Number: NONE GIVEN
Project Location: UL- A SEC. 25, T24S, R30E

Sampling Date: 11/04/2016
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: SP 5 (8') (H602534-09)

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	11/14/2016	ND	2.44	122	2.00	1.20	
Toluene*	<0.050	0.050	11/14/2016	ND	2.50	125	2.00	1.18	
Ethylbenzene*	<0.050	0.050	11/14/2016	ND	2.41	121	2.00	1.26	
Total Xylenes*	<0.150	0.150	11/14/2016	ND	7.28	121	6.00	1.22	
Total BTEx	<0.300	0.300	11/14/2016	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	48.0	16.0	11/15/2016	ND	400	100	400	3.92	

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	11/11/2016	ND	190	94.8	200	5.13	
DRO >C10-C28	<10.0	10.0	11/11/2016	ND	200	99.8	200	4.45	

Surrogate: 1-Chlorooctane 87.2 % 35-147

Surrogate: 1-Chlorooctadecane 88.3 % 28-171

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

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.
BS1	Blank spike recovery above laboratory acceptance criteria. Results for analyte potentially biased high.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

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

Environmental Plus, Inc.

2100 Avenue O, Eunice, NM 88231
(575) 394-3481 FAX: (575) 394-2601

P.O. Box 1558, Eunice, NM 88231

Chain of Custody Form
LAB Cardinal

Company Name Environmental Plus, Inc.

EPI Project Manager Daniel Dominguez

Mailing Address P.O. BOX 1558

City, State, Zip Eunice New Mexico 88231

EPI Phone#/Fax# 575-394-3481 / 575-394-2601

Client Company BOPCO

Facility Name PLU #78 Battery

Location UL-A Sec. 25, T24S, R30E

AFE#

EPI Sampler Name David Robinson

Bill To

ANALYSIS REQUEST

BOPCO, L.P.
Attn: Brad Blevins
522 W. Mermod, Suite 704
Carlsbad, NM 88220

LAB I.D.		SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							PRESERV.	SAMPLING																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
					GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	ACID/BASE		ICE/COOL	OTHER	DATE	TIME																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
H1602534																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																

Sampler Relinquished:

Relinquished by:

Delivered by:

Date 11/7/16

Received By:

Time 6:00 am

Received By: lab staff

Date 11/16/16

Received By: lab staff

Time 3:44 pm

Received By: lab staff

Sample Coded & Intact

Sample Coded & Intact

Checked By:

Checked By:

E-mail results to: ddominguezepi@gmail.com & bblevins@basspet.com
NOTES: