



LINN ENERGY

2130 W. Bender Blvd.
Hobbs, NM 88241
Phone 575.738.1739

H E West B #58
(2RP-2327)

Termination Request

API No. 30-015-27311

Release Date: June 1st, 2014

Unit Letter C, Section 10, Township 17S, Range 31E

February 12, 2015

Mike Bratcher

New Mexico Energy, Minerals, & Natural Resources
Oil Conservation Division, Environmental Bureau – District 2
811 S. First St.
Artesia, NM 88210

**RE: Termination Request
Linn Energy H E West B #58 (2RP-2327)
UL/C sec. 10 T17S R31E
API No. 30-015-27311**

Mr. Bratcher:

Linn Energy (Linn) has retained Rice Environmental Consulting and Safety (RECS) to address potential environmental concerns at the above-referenced site.

Background and Previous Work

The site is located approximately 5.5 miles west of Maljamar, New Mexico. The initial C-141 states that the release is located in UL/C, Section 10, T17S R31E; however, GPS mapping shows the site to be located in UL/G. This site is situated in an area of no known groundwater.

On June 1st, 2014, Linn discovered a release caused by the failure in a 2 inch HP fiberglass line. Deterioration of the line caused it to split releasing 20 barrels of produced water over 2,103 square feet of pasture land. None of this fluid was recovered. The line was isolated and repaired. NMOCD and BLM were notified of the release on June 2nd, 2014, and an initial C-141 was sent to both agencies for approval. NMOCD approved the initial C-141 on June 6th, 2014 (Appendix A).

On June 3rd, 2014, RECS personnel were on site to assess the release. Three points within the release area were sampled at the surface and with depth (Figure 1). All samples were field tested for chlorides and organic vapors, and representative samples were taken to a commercial laboratory for analysis (Appendix B).

Based on the laboratory analysis of the release, a Corrective Action Plan (CAP) was submitted to NMOCD and BLM on June 24th, 2014. NMOCD approved the CAP on June 27th, 2014. The CAP stated that the release would be scraped down to 6 inches around Point 1, scraped down to 1.5 feet around Point 2 and excavated to a depth of 4 feet around Point 3 (Figure 2). At the base of each scrape, a bottom composite sample would be taken to confirm that all constituents were below regulatory standards.

All excavated soils would be evaluated for use as backfill, and any soils that did not meet regulatory standards would be disposed at a NMOCD approved facility. Clean soil would be imported to the site to replace any soils taken for disposal. The clean soil would be blended on site with the remaining excavated soil. A composite sample of the blended soil would be taken to a commercial laboratory for analysis to confirm that the chloride concentration was below regulatory standards.

The scrapes and excavation would be backfilled with the blended soil, and the area would be contoured to the surrounding location. Soil amendments would be added as needed and then the disturbed area would be seeded with a blend of native vegetation.

Corrective action activities began at the site on September 4th, 2014. A total of 36 yards of clean caliche was imported to the site to provide a stable road surface from which to conduct remediation activities. Once the site was excavated, this caliche was used to level uneven surfaces on the lease pad.

The release area was excavated in three portions as stated in the approved CAP (Figure 3). Once the excavations were completed, a 5 point bottom composite was taken from each excavation and field tested for chlorides and hydrocarbons. The composites were then sent to a commercial laboratory for analysis. All three bottom composites returned laboratory chloride, GRO, DRO and BTEX readings of non-detect (Appendix C).

The excavated soil was evaluated for use as backfill, and a total of 60 cubic yards of contaminated soil was taken to a NMOCD approved facility for disposal. The remaining soil was blended on site, and a 5 point composite sample of this spoil pile was taken to a commercial laboratory for analyses. The composite returned a laboratory chloride value of 240 mg/kg and a DRO value of 48.9 mg/kg. The GRO and BTEX results returned values of non-detect. A total of 108 cubic yards of top soil was imported to the site and blended with the spoil pile to form the backfill material. A sample of the imported soil was taken to a commercial laboratory for analysis and returned a chloride value of 48 mg/kg. The site was backfilled with the blended soil and contoured to the surrounding location. On October 31st, 2014, soil amendments were added to the site, and the site was seeded with a blend of BLM mix #2 and BLM mix #4.

Photo documentation of the field activities can be found in Appendix D.

Given that Linn completed the work as stated in the approved CAP, Linn respectfully requests 'remediation termination' and site closure. A final C-141 can be found in Appendix E.

RECS appreciates the opportunity to work with you on this project. Please call Hack Conder at (575) 393-2967 or me if you have any questions or wish to discuss the site.

Sincerely,

A handwritten signature in dark ink, appearing to read 'L.W.' followed by a stylized flourish.

Lara Weinheimer
Project Scientist
RECS
(575) 441-0431

Attachments:

- Figure 1 – Initial Sampling Data
- Figure 2 – Proposed Corrective Actions
- Figure 3 – Excavation Data
- Appendix A – Initial C-141
- Appendix B – Initial Sampling Lab
- Appendix C – Corrective Action Labs
- Appendix D – Photo Documentation
- Appendix E – Final C-141

Figures

RICE Environmental Consulting and Safety (RECS)
P.O. Box 2948, Hobbs, NM 88241
Phone 575.393.2967

Initial Sampling Data

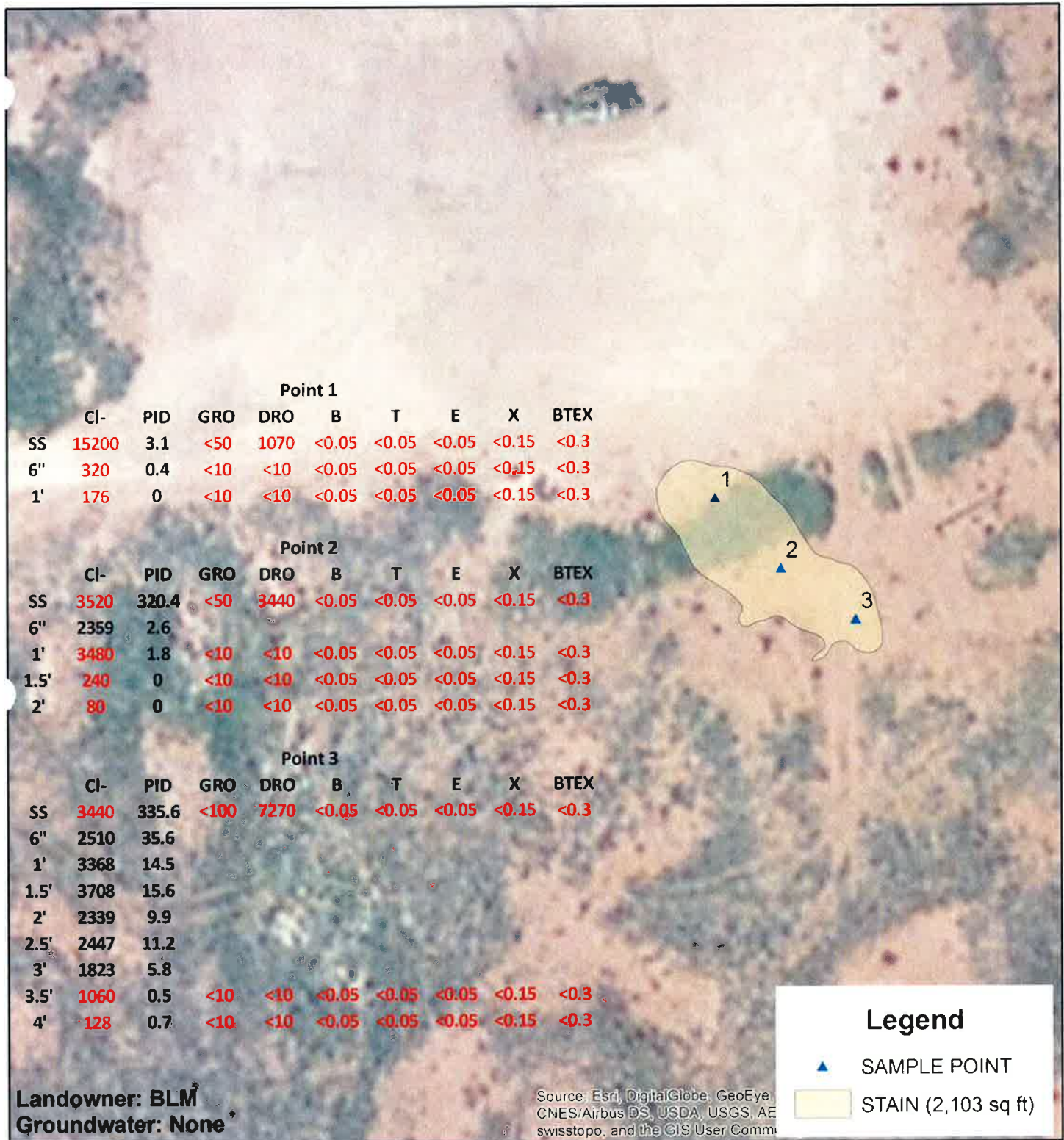


Figure 1



0 25 50
Feet

GPS date: 6/3/14 KH
Drawing date: 6/8/14
Drafted by: L. Weinheimer

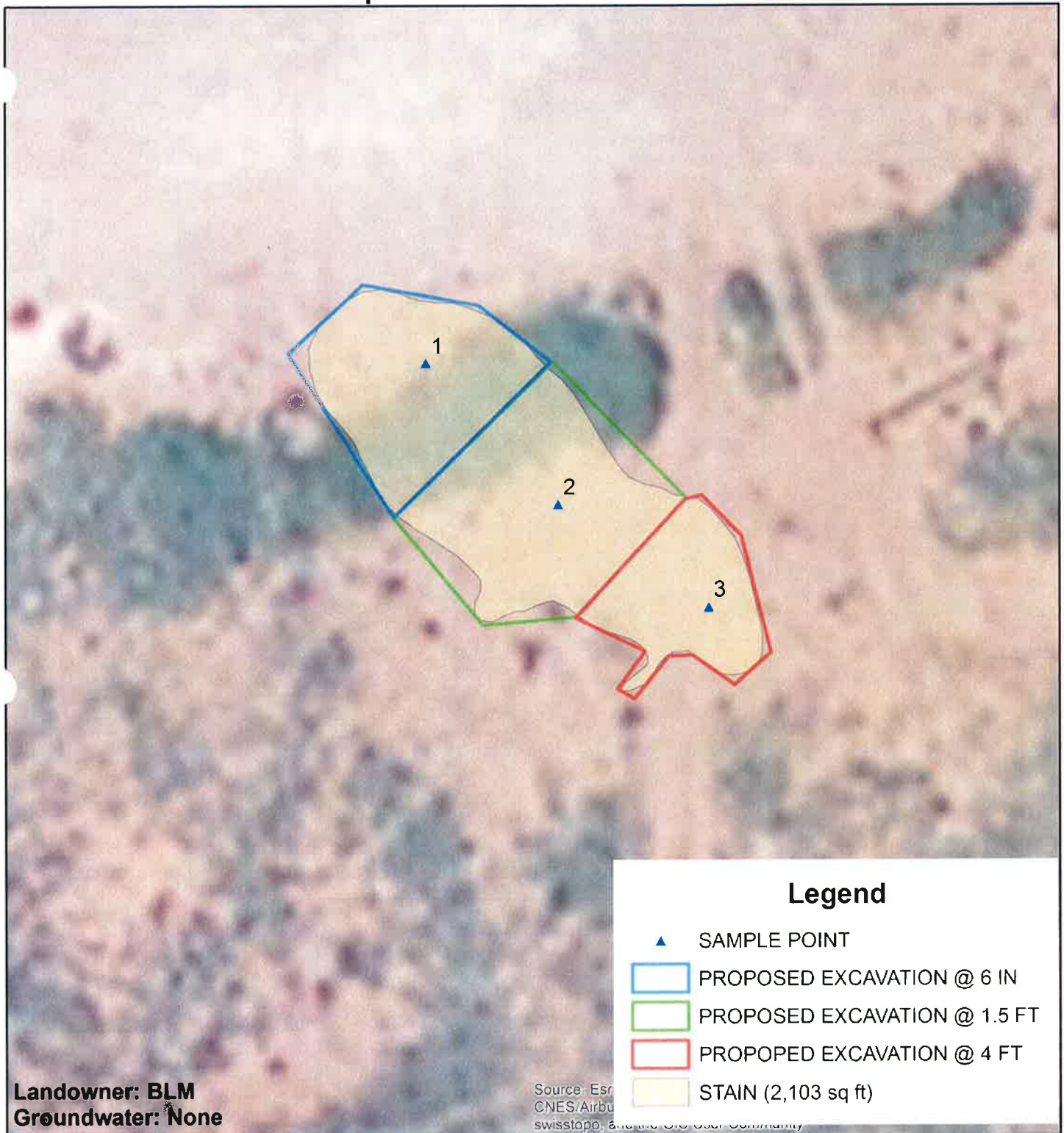


RICE ENVIRONMENTAL
CONSULTING & SAFETY

**LINN H E
WEST B #58**

UL G SECTION 10
T-17-S R-31-E
EDDY COUNTY, NM

Proposed Corrective Actions



Landowner: BLM
Groundwater: None

Source: Esri
CNES/Airbus
swisstopo, and the Geo-Data Community



**LINN H E
WEST B #58**

UL G SECTION 10
T-17-S R-31-E
EDDY COUNTY, NM

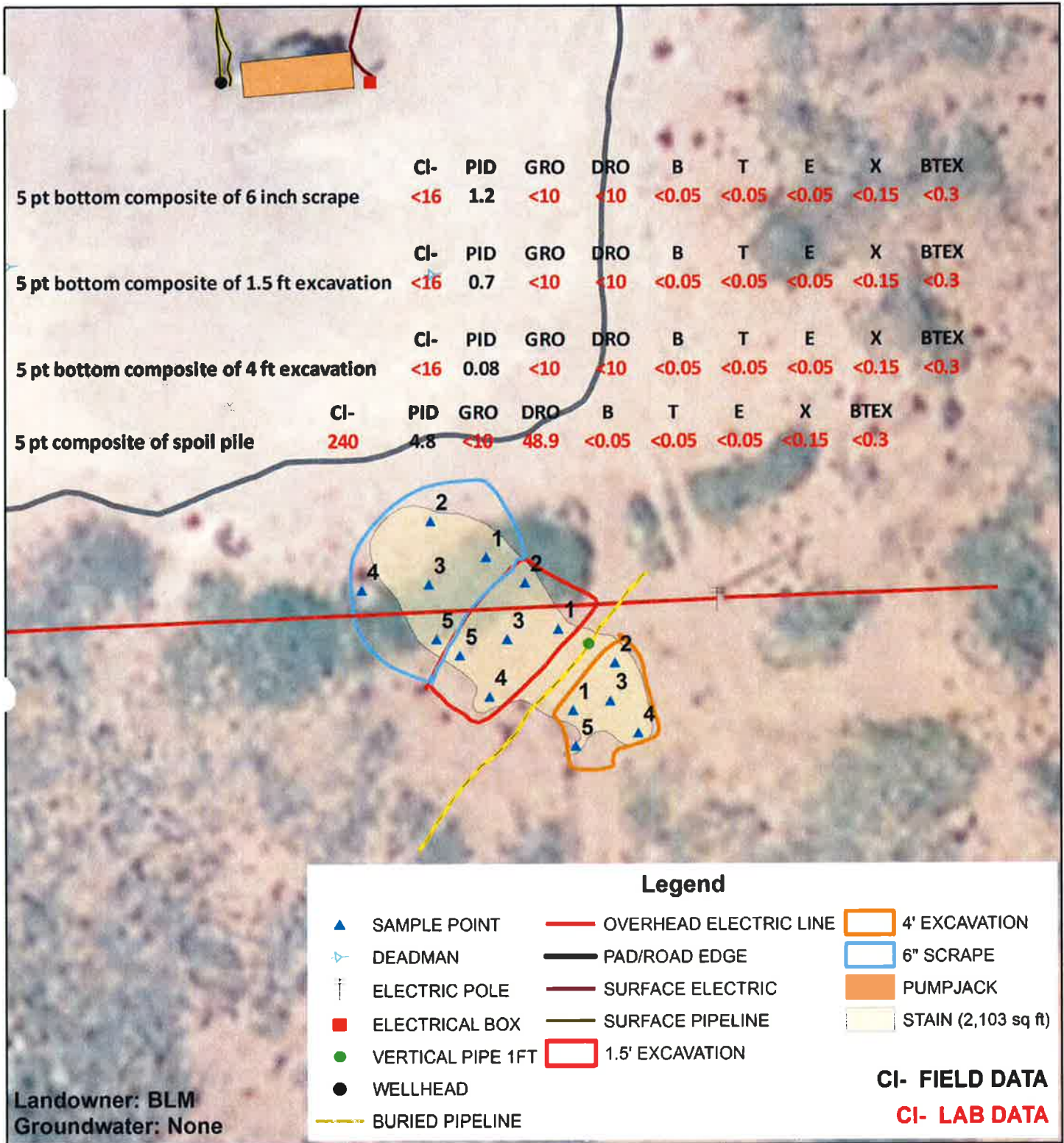
Figure 2



0 10 20
Feet

GPS date: 6/3/14 KH
Drawing date: 6/19/14
Drafted by: L. Weinheimer

Excavation Data



**LINN H E
WEST B #58**

UL G SECTION 10
T-17-S R-31-E
EDDY COUNTY, NM

Figure 3



0 25 50
Feet

GPS date: 9/2/14 BC, 10/28/14
Drawing date: 10/30/14
Drafted by: T. Grieco, L. Weinheimer

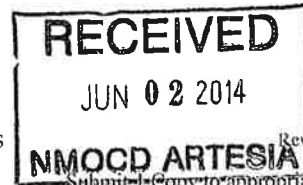
Appendix A

Initial C-141

RICE Environmental Consulting and Safety (RECS)
P.O. Box 2948 Hobbs, NM 88241
Phone 575.393.2967

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505



Form C-141
Revised October 10, 2003

Release Notification and Corrective Action

nHMP1415734365
OPERATOR ☒ Initial Report ☐ Final Report
Name of Company: Linn Operating *269324* Contact: Brian Wall
Address: 2130 W. Bender Hobbs, NM 88240 Telephone No.: 575-738-1739
Facility Name: H E West B #58 Facility Type: Oil Producer
Surface Owner: Federal Mineral Owner: API No.: 30-01527311

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
C	10	17S	31E	1305	North	2625	West	Eddy

Latitude: 32.8527476727543 Longitude: -103.857625755191

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: 20 bbls	Volume Recovered: 0
Source of Release: Fiber glass pipeline	Date and Hour of Occurrence: 06/01/2014	Date and Hour of Discovery: 06/01/2014 0900
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Jennifer Van Curren- BLM Mike Bratcher- NM OCD	
By Whom? Brian Wall	Date and Hour 06/02/2014 0815	
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.*: Release was caused by failure in 2" HP fiberglass line. Split in line appears to be from deterioration of line due to age. Line is located at South East corner of location. Line was isolated and is scheduled to be fixed.

Describe Area Affected and Cleanup Action Taken.*: Released fluid in a fine area measuring approximately 15x20 ft, and pooled in an area around line approximately 20x30 ft. Total fluid release is estimated at 20 BBL. Fluid could not be picked up due to absorption. Delineate site and turn in CAP to BLM and OCD. Remove contaminated soils and haul to approved disposal. Return clean soils to void and return to natural terrain.

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>[Signature]</i>	OIL CONSERVATION DIVISION	
Printed Name: Brian Wall	Approved by District Supervisor: <i>[Signature]</i>	
Title: Construction Foreman II	Approval Date: <i>6/6/14</i>	Expiration Date: <i>NA</i>
E-mail Address: bwall@linenergy.com	Conditions of Approval: Remediation per OCD Rule & Guidelines, & like approval by BLM. SUBMIT REMEDIATION	Attached <input type="checkbox"/>
Date: 06/02/2014 Phone: 806-367-0645	PROPOSAL NO LATER THAN: <i>7/6/14</i>	

* Attach Additional Sheets If Necessary

2 RP-2327

Appendix B

Initial Sampling Lab

RICE Environmental Consulting and Safety (RECS)
P.O. Box 2948 Hobbs, NM 88241
Phone 575.393.2967



PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

June 10, 2014

JACOB KAMPLAIN

RICE ENVIRONMENTAL CONSULTING & SAFETY LLC

419 W. CAIN

HOBBS, NM 88240

RE: H. E. WEST B #58

Enclosed are the results of analyses for samples received by the laboratory on 06/03/14 16:00.

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

Cardinal Laboratories is 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:

RICE ENVIRONMENTAL CONSULTING & SAFETY
JACOB KAMPLAIN
419 W. CAIN
HOBBS NM, 88240
Fax To: (575) 397-1471

Received: 06/03/2014
Reported: 06/10/2014
Project Name: H. E. WEST B #58
Project Number: NONE GIVEN
Project Location: NONE GIVEN

Sampling Date: 06/03/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: PT. 1 @ SURFACE (H401696-01)

BTEX 8260B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/05/2014	ND	2.05	102	2.00	1.26		
Toluene*	<0.050	0.050	06/05/2014	ND	2.03	102	2.00	0.474		
Ethylbenzene*	<0.050	0.050	06/05/2014	ND	1.91	95.5	2.00	0.291		
Total Xylenes*	<0.150	0.150	06/05/2014	ND	5.74	95.7	6.00	0.823		
Total BTEX	<0.300	0.300	06/05/2014	ND						

Surrogate: Dibromofluoromethane 96.8 % 61.3-142

Surrogate: Toluene-d8 100 % 71.3-129

Surrogate: 4-Bromofluorobenzene 96.6 % 65.7-141

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	15200	16.0	06/09/2014	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<50.0	50.0	06/09/2014	ND	143	71.7	200	7.16		
DRO >C10-C28	1070	50.0	06/09/2014	ND	141	70.4	200	4.92		

Surrogate: 1-Chlorooctane 66.5 % 65.2-140

Surrogate: 1-Chlorooctadecane 106 % 63.6-154

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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RICE ENVIRONMENTAL CONSULTING & SAFETY
JACOB KAMPLAIN
419 W. CAIN
HOBBS NM, 88240
Fax To: (575) 397-1471

Received:	06/03/2014	Sampling Date:	06/03/2014
Reported:	06/10/2014	Sampling Type:	Soil
Project Name:	H. E. WEST B #58	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NONE GIVEN		

Sample ID: PT. 1 @ 6" (H401696-02)

BTEx 8260B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/05/2014	ND	2.05	102	2.00	1.26		
Toluene*	<0.050	0.050	06/05/2014	ND	2.03	102	2.00	0.474		
Ethylbenzene*	<0.050	0.050	06/05/2014	ND	1.91	95.5	2.00	0.291		
Total Xylenes*	<0.150	0.150	06/05/2014	ND	5.74	95.7	6.00	0.823		
Total BTEX	<0.300	0.300	06/05/2014	ND						

Surrogate: Dibromofluoromethane 83.2 % 61.3-142
Surrogate: Toluene-d8 109 % 71.3-129
Surrogate: 4-Bromofluorobenzene 103 % 65.7-141

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	320	16.0	06/09/2014	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	06/09/2014	ND	143	71.7	200	7.16		
DRO >C10-C28	<10.0	10.0	06/09/2014	ND	141	70.4	200	4.92		

Surrogate: 1-Chlorooctane 75.6 % 65.2-140
Surrogate: 1-Chlorooctadecane 80.6 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

RICE ENVIRONMENTAL CONSULTING & SAFETY
JACOB KAMPLAIN
419 W. CAIN
HOBBS NM, 88240
Fax To: (575) 397-1471

Received:	06/03/2014	Sampling Date:	06/03/2014
Reported:	06/10/2014	Sampling Type:	Soil
Project Name:	H. E. WEST B #58	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NONE GIVEN		

Sample ID: PT. 1 @ 1' (H401696-03)

BTEX 8260B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2014	ND	2.05	102	2.00	1.26	
Toluene*	<0.050	0.050	06/05/2014	ND	2.03	102	2.00	0.474	
Ethylbenzene*	<0.050	0.050	06/05/2014	ND	1.91	95.5	2.00	0.291	
Total Xylenes*	<0.150	0.150	06/05/2014	ND	5.74	95.7	6.00	0.823	
Total BTEX	<0.300	0.300	06/05/2014	ND					

Surrogate: Dibromofluoromethane 97.6 % 61.3-142
Surrogate: Toluene-d8 99.5 % 71.3-129
Surrogate: 4-Bromofluorobenzene 102 % 65.7-141

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	176	16.0	06/09/2014	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/09/2014	ND	143	71.7	200	7.16	
DRO >C10-C28	<10.0	10.0	06/09/2014	ND	141	70.4	200	4.92	

Surrogate: 1-Chlorooctane 86.1 % 65.2-140
Surrogate: 1-Chlorooctadecane 92.3 % 63.6-154

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JACOB KAMPLAIN
419 W. CAIN
HOBBS NM, 88240
Fax To: (575) 397-1471

Received:	06/03/2014	Sampling Date:	06/03/2014
Reported:	06/10/2014	Sampling Type:	Soil
Project Name:	H. E. WEST B #58	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NONE GIVEN		

Sample ID: PT. 2 @ SURFACE (H401696-04)

BTX 8260B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2014	ND	2.05	102	2.00	1.26	
Toluene*	<0.050	0.050	06/05/2014	ND	2.03	102	2.00	0.474	
Ethylbenzene*	<0.050	0.050	06/05/2014	ND	1.91	95.5	2.00	0.291	
Total Xylenes*	<0.150	0.150	06/05/2014	ND	5.74	95.7	6.00	0.823	
Total BTX	<0.300	0.300	06/05/2014	ND					

Surrogate: Dibromofluoromethane 96.2 % 61.3-142
Surrogate: Toluene-d8 111 % 71.3-129
Surrogate: 4-Bromofluorobenzene 101 % 65.7-141

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3520	16.0	06/09/2014	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<50.0	50.0	06/09/2014	ND	143	71.7	200	7.16	
DRO >C10-C28	3440	50.0	06/09/2014	ND	141	70.4	200	4.92	

Surrogate: 1-Chlorooctane 73.1 % 65.2-140
Surrogate: 1-Chlorooctadecane 139 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

RICE ENVIRONMENTAL CONSULTING & SAFETY
JACOB KAMPLAIN
419 W. CAIN
HOBBS NM, 88240
Fax To: (575) 397-1471

Received:	06/03/2014	Sampling Date:	06/03/2014
Reported:	06/10/2014	Sampling Type:	Soil
Project Name:	H. E. WEST B #58	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NONE GIVEN		

Sample ID: PT. 2 @ 1' (H401696-05)

BTEX 8260B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/05/2014	ND	2.05	102	2.00	1.26		
Toluene*	<0.050	0.050	06/05/2014	ND	2.03	102	2.00	0.474		
Ethylbenzene*	<0.050	0.050	06/05/2014	ND	1.91	95.5	2.00	0.291		
Total Xylenes*	<0.150	0.150	06/05/2014	ND	5.74	95.7	6.00	0.823		
Total BTEX	<0.300	0.300	06/05/2014	ND						

Surrogate: Dibromofluoromethane 94.6 % 61.3-142
Surrogate: Toluene-d8 105 % 71.3-129
Surrogate: 4-Bromofluorobenzene 119 % 65.7-141

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	3480	16.0	06/09/2014	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	06/09/2014	ND	143	71.7	200	7.16		
DRO >C10-C28	<10.0	10.0	06/09/2014	ND	141	70.4	200	4.92		

Surrogate: 1-Chlorooctane 99.6 % 65.2-140
Surrogate: 1-Chlorooctadecane 108 % 63.6-154

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

RICE ENVIRONMENTAL CONSULTING & SAFETY
JACOB KAMPLAIN
419 W. CAIN
HOBBS NM, 88240
Fax To: (575) 397-1471

Received:	06/03/2014	Sampling Date:	06/03/2014
Reported:	06/10/2014	Sampling Type:	Soil
Project Name:	H. E. WEST B #58	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NONE GIVEN		

Sample ID: PT. 2 @ 1.5' (H401696-06)

BTEX 8260B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/05/2014	ND	2.05	102	2.00	1.26		
Toluene*	<0.050	0.050	06/05/2014	ND	2.03	102	2.00	0.474		
Ethylbenzene*	<0.050	0.050	06/05/2014	ND	1.91	95.5	2.00	0.291		
Total Xylenes*	<0.150	0.150	06/05/2014	ND	5.74	95.7	6.00	0.823		
Total BTEX	<0.300	0.300	06/05/2014	ND						

Surrogate: Dibromofluoromethane 90.8 % 61.3-142
Surrogate: Toluene-d8 102 % 71.3-129
Surrogate: 4-Bromofluorobenzene 115 % 65.7-141

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	240	16.0	06/09/2014	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	06/09/2014	ND	143	71.7	200	7.16		
DRO >C10-C28	<10.0	10.0	06/09/2014	ND	141	70.4	200	4.92		

Surrogate: 1-Chlorooctane 95.8 % 65.2-140
Surrogate: 1-Chlorooctadecane 102 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

RICE ENVIRONMENTAL CONSULTING & SAFETY
JACOB KAMPLAIN
419 W. CAIN
HOBBS NM, 88240
Fax To: (575) 397-1471

Received:	06/03/2014	Sampling Date:	06/03/2014
Reported:	06/10/2014	Sampling Type:	Soil
Project Name:	H. E. WEST B #58	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NONE GIVEN		

Sample ID: PT. 2 @ 2' (H401696-07)

BTEX 8260B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/05/2014	ND	2.05	102	2.00	1.26		
Toluene*	<0.050	0.050	06/05/2014	ND	2.03	102	2.00	0.474		
Ethylbenzene*	<0.050	0.050	06/05/2014	ND	1.91	95.5	2.00	0.291		
Total Xylenes*	<0.150	0.150	06/05/2014	ND	5.74	95.7	6.00	0.823		
Total BTEX	<0.300	0.300	06/05/2014	ND						

Surrogate: Dibromofluoromethane 93.6 % 61.3-142

Surrogate: Toluene-d8 93.6 % 71.3-129

Surrogate: 4-Bromofluorobenzene 105 % 65.7-141

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	80.0	16.0	06/09/2014	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	06/09/2014	ND	143	71.7	200	7.16		
DRO >C10-C28	<10.0	10.0	06/09/2014	ND	141	70.4	200	4.92		

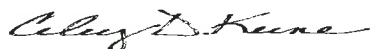
Surrogate: 1-Chlorooctane 93.0 % 65.2-140

Surrogate: 1-Chlorooctadecane 101 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

RICE ENVIRONMENTAL CONSULTING & SAFETY
JACOB KAMPLAIN
419 W. CAIN
HOBBS NM, 88240
Fax To: (575) 397-1471

Received:	06/03/2014	Sampling Date:	06/03/2014
Reported:	06/10/2014	Sampling Type:	Soil
Project Name:	H. E. WEST B #58	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NONE GIVEN		

Sample ID: PT. 3 @ SURFACE (H401696-08)

BTEX 8260B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2014	ND	2.05	102	2.00	1.26	
Toluene*	<0.050	0.050	06/05/2014	ND	2.03	102	2.00	0.474	
Ethylbenzene*	<0.050	0.050	06/05/2014	ND	1.91	95.5	2.00	0.291	
Total Xylenes*	<0.150	0.150	06/05/2014	ND	5.74	95.7	6.00	0.823	
Total BTEX	<0.300	0.300	06/05/2014	ND					

Surrogate: Dibromofluoromethane 84.9 % 61.3-142
Surrogate: Toluene-d8 105 % 71.3-129
Surrogate: 4-Bromofluorobenzene 109 % 65.7-141

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	3440	16.0	06/09/2014	ND	400	100	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<100	100	06/09/2014	ND	191	95.4	200	3.91		
DRO >C10-C28	7270	100	06/09/2014	ND	197	98.3	200	4.65		

Surrogate: 1-Chlorooctane 89.7 % 65.2-140
Surrogate: 1-Chlorooctadecane 216 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

RICE ENVIRONMENTAL CONSULTING & SAFETY
JACOB KAMPLAIN
419 W. CAIN
HOBBS NM, 88240
Fax To: (575) 397-1471

Received:	06/03/2014	Sampling Date:	06/03/2014
Reported:	06/10/2014	Sampling Type:	Soil
Project Name:	H. E. WEST B #58	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NONE GIVEN		

Sample ID: PT. 3 @ 3.5' (H401696-09)

BTX 8260B		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	06/05/2014	ND	2.05	102	2.00	1.26		
Toluene*	<0.050	0.050	06/05/2014	ND	2.03	102	2.00	0.474		
Ethylbenzene*	<0.050	0.050	06/05/2014	ND	1.91	95.5	2.00	0.291		
Total Xylenes*	<0.150	0.150	06/05/2014	ND	5.74	95.7	6.00	0.823		
Total BTX	<0.300	0.300	06/05/2014	ND						

Surrogate: Dibromofluoromethane 96.2 % 61.3-142

Surrogate: Toluene-d8 90.5 % 71.3-129

Surrogate: 4-Bromofluorobenzene 91.3 % 65.7-141

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	1060	16.0	06/09/2014	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	06/09/2014	ND	191	95.4	200	3.91		
DRO >C10-C28	<10.0	10.0	06/09/2014	ND	197	98.3	200	4.65		

Surrogate: 1-Chlorooctane 103 % 65.2-140

Surrogate: 1-Chlorooctadecane 106 % 63.6-154

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

RICE ENVIRONMENTAL CONSULTING & SAFETY
JACOB KAMPLAIN
419 W. CAIN
HOBBS NM, 88240
Fax To: (575) 397-1471

Received:	06/03/2014	Sampling Date:	06/03/2014
Reported:	06/10/2014	Sampling Type:	Soil
Project Name:	H. E. WEST B #58	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NONE GIVEN		

Sample ID: PT. 3 @ 4' (H401696-10)

BTX 8260B		mg/kg		Analyzed By: ms					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	06/05/2014	ND	2.05	102	2.00	1.26	
Toluene*	<0.050	0.050	06/05/2014	ND	2.03	102	2.00	0.474	
Ethylbenzene*	<0.050	0.050	06/05/2014	ND	1.91	95.5	2.00	0.291	
Total Xylenes*	<0.150	0.150	06/05/2014	ND	5.74	95.7	6.00	0.823	
Total BTX	<0.300	0.300	06/05/2014	ND					

Surrogate: Dibromofluoromethane 99.0 % 61.3-142
Surrogate: Toluene-d8 103 % 71.3-129
Surrogate: 4-Bromofluorobenzene 105 % 65.7-141

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	06/09/2014	ND	400	100	400	0.00	


TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	06/09/2014	ND	191	95.4	200	3.91	
DRO >C10-C28	<10.0	10.0	06/09/2014	ND	197	98.3	200	4.65	

Surrogate: 1-Chlorooctane 92.4 % 65.2-140
Surrogate: 1-Chlorooctadecane 105 % 63.6-154

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager

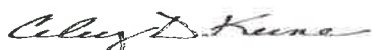
Notes and Definitions

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.
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
•	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene, Lab Director/Quality Manager



CARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603
(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325) 673-7020

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 13 of 13

BILL TO				ANALYSIS REQUEST															
Company Name: <u>R.F.E.S.</u>				P.O. #:															
Project Manager: <u>Jacob Kamplain</u>				Company:															
Address:				Attn:															
City: <u>Hobbs</u> State: <u>NM</u> Zip: <u>88240</u>				Address:															
Phone #:				City:															
Project #:				State: Zip:															
Project Name:				Phone #:															
Project Location: <u>Lynn H.E. West #58</u>				Fax #:															
Sampler Name: <u>Kyle Humphrey</u>																			
Lab I.D.	Sample I.D.	MATRIX	PRESERV	SAMPLING	DATE	TIME	Chlorides	TPH 8015 M	BTEX	Texas TPH	Complete Cations/Anions	TDS							
<u>H401696</u>																			
<u>1</u>	<u>Pt. 1 @ Surface</u>	<u>6</u>	<u>1</u>	<u>1</u>	<u>6-3-14</u>	<u>9:00</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>										
<u>2</u>	<u>Pt. 1 @ 6"</u>	<u>6</u>	<u>1</u>	<u>1</u>		<u>9:10</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>										
<u>3</u>	<u>Pt. 1 @ 1'</u>	<u>6</u>	<u>1</u>	<u>1</u>		<u>9:15</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>										
<u>4</u>	<u>Pt. 2 @ Surface</u>	<u>6</u>	<u>1</u>	<u>1</u>		<u>9:20</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>										
<u>5</u>	<u>Pt. 2 @ 1'</u>	<u>6</u>	<u>1</u>	<u>1</u>		<u>9:25</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>										
<u>6</u>	<u>Pt. 2 @ 2.5'</u>	<u>6</u>	<u>1</u>	<u>1</u>		<u>9:30</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>										
<u>7</u>	<u>Pt. 2 @ 2'</u>	<u>6</u>	<u>1</u>	<u>1</u>		<u>9:35</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>										
<u>8</u>	<u>Pt. 3 @ Surface</u>	<u>6</u>	<u>1</u>	<u>1</u>		<u>9:40</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>										
<u>9</u>	<u>Pt. 3 @ 3.5'</u>	<u>6</u>	<u>1</u>	<u>1</u>		<u>9:45</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>										
<u>10</u>	<u>Pt. 3 @ 4.5'</u>	<u>6</u>	<u>1</u>	<u>1</u>		<u>9:50</u>	<u>✓</u>	<u>✓</u>	<u>✓</u>										

IN CASE NOTE: Samples are analyzed for metals, nutrients, and hydrocarbons. Samples for metals and nutrients are analyzed by EPA methods. Samples for hydrocarbons are analyzed by EPA methods. Samples for metals and nutrients are analyzed by EPA methods. Samples for hydrocarbons are analyzed by EPA methods.

Relinquished By: <u>Kyle Humphrey</u>	Date: <u>6/3/14</u>	Received By: <u>Jodi Benson</u>	Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Phone #: _____
Relinquished By: _____	Date: _____	Received By: _____	Fax Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Fax #: _____
Delivered By: (Circle One)	Sample Condition: <input checked="" type="checkbox"/> Good <input type="checkbox"/> Intact	CHECKED BY: <u>[Signature]</u>	email results: <u>Knorman@rice-ecs.com</u> <u>Kjones@riceswd.com</u> ; <u>jkamplain@rice-ecs.com</u> <u>hconder@rice-ecs.com</u> <u>Lweinheimer@rice-ecs.com</u> <u>Khumphrey@rice-ecs.com</u> <u>sedwards@rice-ecs.com</u> , <u>lflores@rice-ecs.com</u>	
Sampler - UPS - Bus - Other:				

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

#54

Appendix C

Corrective Action Labs

RICE Environmental Consulting and Safety (RECS)
P.O. Box 2948 Hobbs, NM 88241
Phone 575.393.2967

October 29, 2014

LAURA FLORES

RICE ENVIRONMENTAL CONSULTING & SAFETY LLC

419 W. CAIN

HOBBS, NM 88240

RE: H. E. WEST B #58

Enclosed are the results of analyses for samples received by the laboratory on 10/28/14 15:45.

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

Cardinal Laboratories is 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:

RICE ENVIRONMENTAL CONSULTING & SAFETY
LAURA FLORES
419 W. CAIN
HOBBS NM, 88240
Fax To: (575) 397-1471

Received:	10/28/2014	Sampling Date:	10/28/2014
Reported:	10/29/2014	Sampling Type:	Soil
Project Name:	H. E. WEST B #58	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NONE GIVEN		

Sample ID: 6" SCRAPE 5 PT. COMP (H403316-01)

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	10/29/2014	ND	2.04	102	2.00	3.57	
Toluene*	<0.050	0.050	10/29/2014	ND	1.96	97.9	2.00	5.20	
Ethylbenzene*	<0.050	0.050	10/29/2014	ND	1.88	93.8	2.00	5.49	
Total Xylenes*	<0.150	0.150	10/29/2014	ND	5.53	92.2	6.00	4.72	
Total BTX	<0.300	0.300	10/29/2014	ND					

Surrogate: 4-Bromofluorobenzene (PIC) 102 % 61-154

.loride, SM4500Cl-B			mg/kg		Analyzed By: AP				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<16.0	16.0	10/29/2014	ND	400	100	400	0.00	

TPH 8015M			mg/kg		Analyzed By: ms				
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/28/2014	ND	176	87.9	200	0.451	
DRO >C10-C28	<10.0	10.0	10/28/2014	ND	196	98.0	200	3.25	

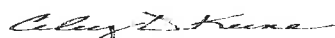
Surrogate: 1-Chlorooctane 79.4 % 47.2-157

Surrogate: 1-Chlorooctadecane 96.8 % 52.1-176

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

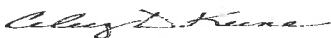
Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Cardinal Laboratories

*=Accredited Analyte

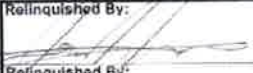

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Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325) 673-7020				BILL TO		ANALYSIS REQUEST														
Company Name: RECS Project Manager: Laura Flores / Address: 419 W Cain City: Hobbs State: NM Zip: 88240 Phone #: Fax #: Project #: Project Owner: Project Name: LHO GARY Project Location: Hg West B# SP Sampler Name: Joshua Balcom				P.O. #: Company: Attn: Address: City: State: Zip: Phone #: Fax #:		Chlorides TPH 8015 M BTEX Texas TPH Complete Cations/Anions TDS														
FOR LAB USE ONLY		MATRIX		PRESERV								SAMPLING								
Lab I.D. H4103316 1	Sample I.D. 2" Scope Spt Composite	(G)RAB OR (C)OMP	# CONTAINERS	GROUNDWATER	WASTEWATER							SOIL	OIL	SLUDGE	OTHER	ACID/BASE	ICE / COOL	OTHER	DATE	TIME
PLEASE NOTE: Liability and Damages: Contractor's liability and owner's exclusive remedy for any claim arising whether based in contract or tort, shall be limited to the amount paid by the client for the analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Contractor within 30 days after completion of the activities. In no event shall it be held 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 provided to the project. In no event shall it be held liable for any of the above stated limitations or otherwise.																				
Relinquished By:  Refiniquished By:		Date: 4.14.04 Time: 3:45 Received By: Jodi Benson Date: Time:		Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Fax Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No REMARKS:		Add'l Phone #: Add'l Fax #:														
Delivered By: (Circle One) Sampler - UPS - Bus - Other:		Sample Condition Cool Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No		CHECKED BY: 		email results: hconder@rice-ecs.com; knorman@rice-ecs.com; jkamplain@rice-ecs.com; regans@rice-ecs.com; lflores@rice-ecs.com; lweinheimer@rice-ecs.com; cursanic@rice-ecs.com environmental tech. jbalcom@rice-ecs.com														

Page 4 of 4

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#54

October 29, 2014

JACOB KAMPLAIN

RICE ENVIRONMENTAL CONSULTING & SAFETY LLC

419 W. CAIN

HOBBS, NM 88240

RE: H. E. WEST B #58

Enclosed are the results of analyses for samples received by the laboratory on 10/28/14 15:45.

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

Cardinal Laboratories is 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:

RICE ENVIRONMENTAL CONSULTING & SAFETY
JACOB KAMPLAIN
419 W. CAIN
HOBBS NM, 88240
Fax To: (575) 397-1471

Received: 10/28/2014
Reported: 10/29/2014
Project Name: H. E. WEST B #58
Project Number: NONE GIVEN
Project Location: NONE GIVEN

Sampling Date: 10/28/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: 1.5' EXC 5 PT. COMP (H403317-01)

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	10/29/2014	ND	2.04	102	2.00	3.57		
Toluene*	<0.050	0.050	10/29/2014	ND	1.96	97.9	2.00	5.20		
Ethylbenzene*	<0.050	0.050	10/29/2014	ND	1.88	93.8	2.00	5.49		
Total Xylenes*	<0.150	0.150	10/29/2014	ND	5.53	92.2	6.00	4.72		
Total BTEX	<0.300	0.300	10/29/2014	ND						

Surrogate: 4-Bromofluorobenzene (PIC) 104 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	10/29/2014	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	10/28/2014	ND	176	87.9	200	0.451		
DRO >C10-C28	<10.0	10.0	10/28/2014	ND	196	98.0	200	3.25		

Surrogate: 1-Chlorooctane 72.7 % 47.2-157

Surrogate: 1-Chlorooctadecane 94.3 % 52.1-176

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

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RPD	Relative Percent Difference
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***	Insufficient time to reach temperature.
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Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager






RUSH!!

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 4 of 4

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<small>Results of Success is emerging out of or related to the performance of services rendered by Carrier, regardless of whether such claim is based upon any of the above stated causes or otherwise.</small>			
Relinquished By: 		Received By: 	
Date: 10/31/10		Date: 10/31/10	
Time: 3:45		Time: 3:45	
Relinquished By:		Received By:	
Date:		Date:	
Time:		Time:	
Delivered By: (Circle One)		Sample Condition	
Sampler - UPS - Bus - Other:		Cool - Intact	
4.42		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
		<input type="checkbox"/> Yes <input type="checkbox"/> No	
		CHECKED BY: 	
		Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
		Fax Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
		REMARKS:	
		email results: hconden@rice-ecs.com; knorman@rice-ecs.com; jkamplain@rice-ecs.com; regans@rice-ecs.com; lfiores@rice-ecs.com; hweinheimer@rice-ecs.com; cursanic@rice-ecs.com environmental tech: jbalcom@rice-ecs.com	

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

#54

October 29, 2014

LAURA FLORES

RICE ENVIRONMENTAL CONSULTING & SAFETY LLC

419 W. CAIN

HOBBS, NM 88240

RE: H. E. WEST B #58

Enclosed are the results of analyses for samples received by the laboratory on 10/28/14 15:45.

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

RICE ENVIRONMENTAL CONSULTING & SAFETY
LAURA FLORES
419 W. CAIN
HOBBS NM, 88240
Fax To: (575) 397-1471

Received: 10/28/2014
Reported: 10/29/2014
Project Name: H. E. WEST B #58
Project Number: NONE GIVEN
Project Location: NONE GIVEN

Sampling Date: 10/28/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Jodi Henson

Sample ID: 4' EXC 5 PT. COMP (H403318-01)

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	10/29/2014	ND	2.04	102	2.00	3.57		
Toluene*	<0.050	0.050	10/29/2014	ND	1.96	97.9	2.00	5.20		
Ethylbenzene*	<0.050	0.050	10/29/2014	ND	1.88	93.8	2.00	5.49		
Total Xylenes*	<0.150	0.150	10/29/2014	ND	5.53	92.2	6.00	4.72		
Total BTEX	<0.300	0.300	10/29/2014	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 102 % 61-154

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	10/29/2014	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	10/28/2014	ND	176	87.9	200	0.451		
DRO >C10-C28	<10.0	10.0	10/28/2014	ND	196	98.0	200	3.25		

Surrogate: 1-Chlorooctane 80.6 % 47.2-157

Surrogate: 1-Chlorooctadecane 99.7 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

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RPD	Relative Percent Difference
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***	Insufficient time to reach temperature.
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Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 4 of 4

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#54

October 29, 2014

LAURA FLORES

RICE ENVIRONMENTAL CONSULTING & SAFETY LLC

419 W. CAIN

HOBBS, NM 88240

RE: H. E. WEST B #58

Enclosed are the results of analyses for samples received by the laboratory on 10/28/14 15:45.

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

Cardinal Laboratories is 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:

RICE ENVIRONMENTAL CONSULTING & SAFETY
LAURA FLORES
419 W. CAIN
HOBBS NM, 88240
Fax To: (575) 397-1471

Received:	10/28/2014	Sampling Date:	10/28/2014
Reported:	10/29/2014	Sampling Type:	Soil
Project Name:	H. E. WEST B #58	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NONE GIVEN		

Sample ID: SPOIL PILE 5 PT COMPOSITE (H403319-01)

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	10/29/2014	ND	2.04	102	2.00	3.57		
Toluene*	<0.050	0.050	10/29/2014	ND	1.96	97.9	2.00	5.20		
Ethylbenzene*	<0.050	0.050	10/29/2014	ND	1.88	93.8	2.00	5.49		
Total Xylenes*	<0.150	0.150	10/29/2014	ND	5.53	92.2	6.00	4.72		
Total BTX	<0.300	0.300	10/29/2014	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 101 % 61-154

loride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	240	16.0	10/29/2014	ND	400	100	400	0.00		

TPH 8015M		mg/kg		Analyzed By: ms						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	10/28/2014	ND	176	87.9	200	0.451		
DRO >C10-C28	48.9	10.0	10/28/2014	ND	196	98.0	200	3.25		

Surrogate: 1-Chlorooctane 80.9 % 47.2-157

Surrogate: 1-Chlorooctadecane 102 % 52.1-176

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

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Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



CARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603
(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325) 673-7020

RUSH!!

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Page 4 of 4

Company Name: RECS		P.O. #:		ANALYSIS REQUEST									
Project Manager: Laura Flores /		Company:		<div>Chlorides</div> <div>TPH 8015 M</div> <div>BTEX</div> <div>Texas TPH</div> <div>Complete Cations/Anions</div> <div>TDS</div>									
Address: 419 W Cain		Attn:											
City: Hobbs	State: NM Zip: 88240	Address:											
Phone #:	Fax #:	City:											
Project #:	Project Owner:	State: Zip:											
Project Name: <i>Lin. 6000</i>		Phone #:											
Project Location: <i>HE Unit DASP</i>		Fax #:											
Sampler Name: Joshua Balcom													
FOR LAB USE ONLY	Lab I.D.	Sample I.D.	CONTAINERS	MATRIX	PRESERV	SAMPLING							
	<i>H403319</i>	<i>Spotlight Spill Site</i>	GROUNDWATER	SLUDGE	DATE	TIME							
			WASTEWATER	OTHER									
			COIL	ACID/BASE									
			OIL	ICE / COOL									
				OTHER									

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Relinquished By:	Date: <i>4/24/11</i>	Received By:	Phone Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Add'l Phone #:
	Time: <i>3:45</i>	<i>Jodi Hendon</i>	Fax Result: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:
	Time:		
Delivered By: (Circle One)	Sample Condition	CHECKED BY:	email results:
Sampler - UPS - Bus - Other:	Cool <input checked="" type="checkbox"/> Intact <input type="checkbox"/>	<i>JA</i>	hconder@rice-ecs.com; knorman@rice-ecs.com;
	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		jkamplain@rice-ecs.com; regans@rice-ecs.com; lflores@rice-ecs.com;
			lweinheimer@rice-ecs.com; cursanic@rice-ecs.com;
			environmental tech: jbalcom@rice-ecs.com

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

#54

November 05, 2014

LAURA FLORES

RICE ENVIRONMENTAL CONSULTING & SAFETY LLC

419 W. CAIN

HOBBS, NM 88240

RE: H. E. WEST B #58

Enclosed are the results of analyses for samples received by the laboratory on 10/31/14 15:55.

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

Method EPA 552.2	Haloacetic Acids (HAA-5)
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Method EPA 524.4	Regulated VOCs (V1, V2, V3)

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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:

RICE ENVIRONMENTAL CONSULTING & SAFETY
LAURA FLORES
419 W. CAIN
HOBBS NM, 88240
Fax To: (575) 397-1471

Received: 10/31/2014
Reported: 11/05/2014
Project Name: H. E. WEST B #58
Project Number: NONE GIVEN
Project Location: NONE GIVEN

Sampling Date: 10/31/2014
Sampling Type: Soil
Sampling Condition: Cool & Intact
Sample Received By: Celey D. Keene

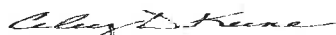
Sample ID: IMPORTED SOIL (H403378-01)**Chloride, SM4500Cl-B****mg/kg****Analyzed By: AP**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	48.0	16.0	11/04/2014	ND	400	100	400	0.00	

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

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



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

PLEASE NOTE: Liability and Penalties: Cardholder's liability and creditor's exclusive remedy for any claims arising whether based in contract or tort, shall be limited to the amount paid by the cardholder for the purchase.

Relinquished By:	Date:	Received By:	Phone Result:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Phone #:
	Time:		Fax Result:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS:		
	Time:		email results:		
Delivered By: (Circle One)		Sample Condition	hcondar@rice-ecs.com; knorman@rice-ecs.com;		
Sampler - UPS - Bus - Other:		Cool Intact	jkamplain@rice-ecs.com; regans@rice-ecs.com; lflores@rice-ecs.com;		
		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	lweinheimer@rice-ecs.com; cursanlc@rice-ecs.com		
		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	environmental tech: jbalcom@rice-ecs.com		
		CHECKED BY: (Initials)			

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

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Appendix D

Photo Documentation

RICE Environmental Consulting and Safety (RECS)
P.O. Box 2948 Hobbs, NM 88241
Phone 575.393.2967

H E West B #58
Unit Letter C, Section 10, T17S, R31E



Initial release area, facing southeast 6/3/14



Initial release area, facing west 6/3/14



Initial release area, facing east 6/3/14



Initial release area, facing east 6/3/14



Importing caliche, facing northwest 9/4/14



Creating road to site, facing northwest 9/4/14



Scraping to 6 in bgs, facing northwest 9/9/14



6 in bgs scrape completed, facing southwest 9/10/14



Beginning excavation to 4 ft bgs, facing west 9/10/14



Continue to excavate to 4 ft bgs, facing south 10/27/14



Excavating to 1.5 ft bgs, facing northeast 10/27/14



Excavation to 1.5 ft bgs completed, facing northeast
10/28/14



Excavation to 4 ft bgs completed, facing southwest
10/28/14



Importing soil, facing north
10/29/14



Backfilling site, facing northwest
10/30/14



Backfilling site, facing north
10/30/14



Site backfilled, facing southwest 10/30/14



Site backfilled, facing southwest 10/30/14



Adding soil amendments to site, facing southwest 10/31/14



Disking in amendments, facing east 10/31/14



Seeding site, facing north

10/31/14



Tilling in the seed, facing southwest

10/31/14



Raking in the seed, facing southeast

10/31/14



Site completed, facing southeast

10/31/14

Appendix E

Final C-141

RICE Environmental Consulting and Safety (RECS)
P.O. Box 2948 Hobbs, NM 88241
Phone 575.393.2967

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company Linn Operating	Contact	
Address 2130 W. Bender, Hobbs, NM 88240	Telephone No.	
Facility Name H E West B #58	Facility Type Oil Producer	
Surface Owner Federal	Mineral Owner	API No. 30-015-27311

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
C	10	17S	31E	1305	North	2625	West	Eddy

Latitude 32.8527476727543 Longitude -103.857625755191

NATURE OF RELEASE

Type of Release Produced Water	Volume of Release 20 bbls	Volume Recovered 0
Source of Release Fiberglass line	Date and Hour of Occurrence 06/01/2014	Date and Hour of Discovery 06/01/2014 0900
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Jennifer Van Curen – BLM; Mike Bratcher – NMOCD	
By Whom? Brian Wall	Date and Hour 06/02/2014 0815	
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.* ☐ Release was caused by failure in 2" HP fiberglass line. Spilt in line appears to be from deterioration of line due to age. Line was isolated.

Describe Area Affected and Cleanup Action Taken.* ☐ The release affected 2,103 square feet of pasture land. On June 3rd, 2014, RECS personnel were on site to assess the release. Three points within the release area were sampled at the surface and with depth. All samples were field tested for chlorides and organic vapors, and representative samples were taken to a commercial laboratory for analysis. Based on the laboratory analysis of the release, a CAP was submitted to NMOCD and BLM on June 24th, 2014. NMOCD approved the CAP on June 27th, 2014. Corrective action activities began at the site on September 4th, 2014. A total of 36 yards of clean caliche was imported to the site to provide a stable road surface from which to conduct remediation activities. Once the site was excavated, this caliche was used to level uneven surfaces on the lease pad. The release area was excavated in three portions as stated in the approved CAP. Once the excavations were completed, a 5 point bottom composite was taken from each excavation and field tested for chlorides and hydrocarbons. The composites were then sent to a commercial laboratory for analysis. All three bottom composites returned laboratory chloride, GRO, DRO and BTEX readings of non-detect. The excavated soil was evaluated for use as backfill, and a total of 60 cubic yards of contaminated soil was taken to a NMOCD approved facility for disposal. The remaining soil was blended on site, and a 5 point composite sample of this spoil pile was taken to a commercial laboratory for analyses. The composite returned a laboratory chloride value of 240 mg/kg and a DRO value of 48.9 mg/kg. The GRO and BTEX results returned values of non-detect. A total of 108 cubic yards of top soil was imported to the site and blended with the spoil pile to form the backfill material. A sample of the imported soil was taken to a commercial laboratory for analysis and returned a chloride value of 48 mg/kg. The site was backfilled with the blended soil and contoured to the surrounding location. On October 31st, 2014, soil amendments were added to the site, and the site was seeded with a blend of BLM mix #2 and BLM mix #4.

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.

OIL CONSERVATION DIVISION

Signature: 	Approved by Environmental Specialist:			
Printed Name: E.L. Gonzales	Approval Date:			Expiration Date:
Title: Production Supervisor	Conditions of Approval:			Attached <input type="checkbox"/>
E-mail Address: elgonzales@linenergy.com				
Date: 03/10/2015	Phone: 505-504-8002			

* Attach Additional Sheets If Necessary