

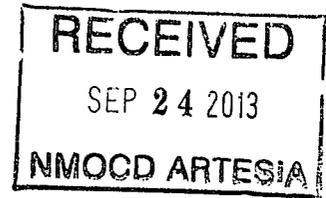
## Rice Environmental Consulting & Safety

P.O. Box 2948, Hobbs, NM 88241

Phone 575.393.2967

September 20<sup>th</sup>, 2013

**Mr. Michael Burton**  
Environmental Protection Specialist  
BLM  
620 E. Greene Street  
Carlsbad, NM 88220-6292



**RE: Corrective Action Plan  
Linn Energy – H.E. West B #85 (2RP-1865)  
UL/K sec. 3 T17S R31E  
API No. 3001528387**

Mr. Burton:

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

An accidental discharge of oil occurred from a pin-hole leak in a poly pipeline on August 18<sup>th</sup>, 2013. The hole sprayed approximately 5 gallons of oil over 7,402 sq ft of lease road and pasture. The poly line was repaired and an Initial C-141 was submitted to NMOCD and BLM on August 20<sup>th</sup>, 2013 (Appendix A).

RECS personnel arrived on site on August 23<sup>rd</sup>, 2013 to assess the site. On August 27<sup>th</sup>, 2013, BLM Archaeological Department stated that the site was in a previously surveyed area and a MOA was not needed (Appendix B). On September 9<sup>th</sup>, 2013, BLM gave permission to RECS to conduct sampling at the site. On September 9<sup>th</sup>, 2013, RECS personnel were on site to conduct initial sampling (Figure). Surface samples and samples at depth were taken at five points within the release and field tested for chlorides and hydrocarbons. Representative samples were taken to a commercial laboratory for analysis (Appendix C). Laboratory chloride readings dropped dramatically from the surface samples to the base of each augur point. GRO, DRO and BTEX readings were non-detect in all points at all depths except for DRO values at the surface that returned results of 594 mg/kg at Pt. 1, 160 mg/kg at Pt. 2 and 257 mg/kg at Pt. 3.

Photo documentation of these activities can be found in Appendix D.

### **Corrective Action Plan**

RECS recommends that the site be scraped to a depth of 6 inches and the excavated soil be disposed of at a NMOCD approved facility. A bottom composite will be taken after the scrape to confirm the bottom of the excavation has a chloride value below 1,000 mg/kg. Clean soil will be imported to the site to backfill and contour the site to the surrounding location. The site will be seeded with a blend of native vegetation. Vegetation provides an infiltration barrier for the site, since plants capture water through

their roots thereby reducing the amount of water traveling through the vadose zone to groundwater.

Once the Corrective Actions are completed, a 'remediation termination' request for site closure will be submitted to BLM and NMOCD along with a Final C-141.

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 black ink, appearing to read 'L.W.' followed by a stylized flourish.

Lara Weinheimer  
Project Scientist  
RECS  
(575) 441-0431

cc. Michael Bratcher, NMOCD

Attachments:

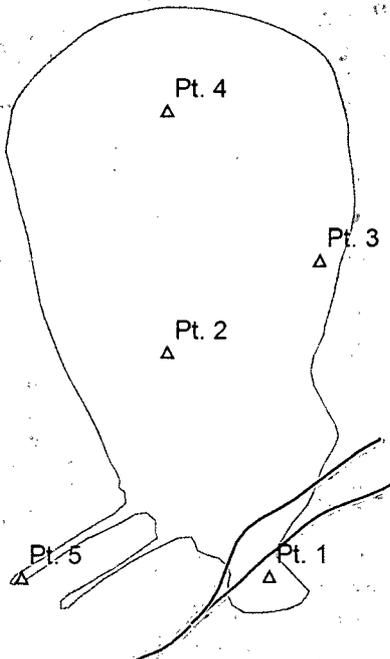
- Figure – Initial Sampling Data
- Appendix A – Initial C-141
- Appendix B – MOA Documentation
- Appendix C – Laboratory Analyses
- Appendix D – Photo Documentation

# Figures

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

# Initial Sampling Data

Point 1	Cl-	PID	GRO	DRO	B	T	E	X	BTEX
SS	6480	19.1	<10	594	<0.05	<0.05	<0.05	<0.15	<0.3
6"	544	60.2	<10	<10	<0.05	<0.05	<0.05	<0.15	<0.3
1'	128	16.5	<10	<10	<0.05	<0.05	<0.05	<0.15	<0.3



Point 2	Cl-	PID	GRO	DRO	B	T	E	X	BTEX
SS	2240	2.6	<10	160	<0.05	<0.05	<0.05	<0.15	<0.3
6"	160	3.8	<10	<10	<0.05	<0.05	<0.05	<0.15	<0.3
1'	80	10.3	<10	<10	<0.05	<0.05	<0.05	<0.15	<0.3

Point 3	Cl-	PID	GRO	DRO	B	T	E	X	BTEX
SS	1800	1.1	<10	257	<0.05	<0.05	<0.05	<0.15	<0.3
6"	195	2.6							
1'	1071	2.5							
1.5'	48	7.8	<10	<10	<0.05	<0.05	<0.05	<0.15	<0.3
2'	16	3.6	<10	<10	<0.05	<0.05	<0.05	<0.15	<0.3

Point 4	Cl-	PID
SS	339	7.2
6"	144	2.5

Point 5	Cl-	PID
SS	2497	18
6"	328	5.8
1'	168	8.7

## Legend

- △ SAMPLE POINTS
- SURFACE PIPELINE
- STAIN (7402 SQ FT)
- Cl- FIELD DATA
- Cl- LAB DATA

Landowner = BLM

DGW = None



**LINN H.E. WEST**  
**B #85**  
**(2RP-1865)**  
 LEGALS: UL/K SEC. 03  
 T17S - R31E  
 EDDY COUNTY, NM

0 30 60 Feet

GPS date: 9/10/13 KS  
 Drawing date: 9/17/13  
 Drafted by: L. Weineimer

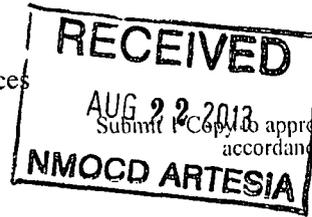
# Appendix A

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**

**JMW 1323840505** OPERATOR  Initial Report  Final Report

Name of Company: Linn Operating <b>269324</b>	Contact: Brian Wall
Address: 2130 W. Bender Hobbs, NM 88240	Telephone No.: 575-738-1739
Facility Name: H.E. West B # 85	Facility Type: Oil Producer
Surface Owner: Federal	Mineral Owner:
API No.: 3001528387	

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
K	03	17S	31E	2614	South	2621	West	Eddy

Latitude: 32.86357 Longitude: -103.85696

**NATURE OF RELEASE**

Type of Release: Oil	Volume of Release: 5 gal	Volume Recovered: 0
Source of Release: Poly Pipeline	Date and Hour of Occurrence: 08/18/2013 8:30am	Date and Hour of Discovery: 08/18/2013 8:30am
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Mike Burton - BLM	
By Whom? Brian Wall	Date and Hour 08/19/2013 2:00pm	
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.*: 150' from well head on road leading into location a pin hole in the flow line developed. I Shut in WB#85 and WB#56 Wells share the same Flow lines until repairs could be made. Possible line fatigue.		
Describe Area Affected and Cleanup Action Taken.*: Leak had sprayed fluid and covered an area approximately 25' X 75'		

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

Signature:	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Brian Wall	Approved by District Supervisor:	Signed By:
Title: Construction Foreman II	Approval Date: <b>AUG 26 2013</b>	Expiration Date:
E-mail Address: bwall@linenergy.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 08/20/2013 Phone: 806-367-0645	Remediation per OCD Rule & Guidelines, & like approval by BLM. <b>SUBMIT REMEDIATION PROPOSAL NO LATER THAN:</b>	

\* Attach Additional Sheets If Necessary

**2RP-1865**  
**September 26, 2013**

# Appendix B

MOA Documentation

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

**From:** [Galassini, Stacy](#)  
**To:** [Lara Weinheimer](#)  
**Subject:** Re: Linn H.E. West B #85  
**Date:** Tuesday, August 27, 2013 3:29:55 PM

---

This one is also in a surveyed area.

On Tue, Aug 27, 2013 at 3:27 PM, Lara Weinheimer <[lweinheimer@rice-ecs.com](mailto:lweinheimer@rice-ecs.com)> wrote:

Stacy, attached is the shapefile for this release. Could you let me know whether or not we need an MOA, etc. for this site?

Thanks!

Lara Weinheimer  
Rice Environmental Consulting & Safety  
Project Scientist  
419 West Cain  
Hobbs, NM 88240  
(575) 441-0431

--  
Stacy K. Galassini  
Archeologist  
Bureau of Land Management  
Carlsbad Field Office  
Carlsbad, NM 88220  
575-234-5986

# Appendix C

## Laboratory Analyses

**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

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September 16, 2013

JACOB KAMPLAIN  
RICE ENVIRONMENTAL CONSULTING & SAFETY LLC  
419 W. CAIN  
HOBBS, NM 88240

RE: H. E. WEST B #85

Enclosed are the results of analyses for samples received by the laboratory on 09/11/13 8:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in cursive script that reads "Celey D. Keene".

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:	09/11/2013	Sampling Date:	09/10/2013
Reported:	09/16/2013	Sampling Type:	Soil
Project Name:	H. E. WEST B #85	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: PT. 1 @ SURFACE (H302194-01)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/12/2013	ND	2.21	110	2.00	3.41		
Toluene*	<0.050	0.050	09/12/2013	ND	2.24	112	2.00	3.30		
Ethylbenzene*	<0.050	0.050	09/12/2013	ND	2.27	114	2.00	3.78		
Total Xylenes*	<0.150	0.150	09/12/2013	ND	6.83	114	6.00	3.82		
Total BTEX	<0.300	0.300	09/12/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIC) 103 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	6480	16.0	09/12/2013	ND	416	104	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	09/12/2013	ND	192	95.9	200	0.724		
DRO >C10-C28	594	10.0	09/12/2013	ND	180	90.0	200	1.81		

Surrogate: 1-Chlorooctane 86.0 % 65.2-140

Surrogate: 1-Chlorooctadecane 109 % 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:	09/11/2013	Sampling Date:	09/10/2013
Reported:	09/16/2013	Sampling Type:	Soil
Project Name:	H. E. WEST B #85	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: PT. 1 @ 6" (H302194-02)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/12/2013	ND	2.21	110	2.00	3.41	
Toluene*	<0.050	0.050	09/12/2013	ND	2.24	112	2.00	3.30	
Ethylbenzene*	<0.050	0.050	09/12/2013	ND	2.27	114	2.00	3.78	
Total Xylenes*	<0.150	0.150	09/12/2013	ND	6.83	114	6.00	3.82	
Total BTEX	<0.300	0.300	09/12/2013	ND					

*Surrogate: 4-Bromofluorobenzene (PIC) 103 % 89.4-126*

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	544	16.0	09/12/2013	ND	416	104	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	09/12/2013	ND	192	95.9	200	0.724	
DRO >C10-C28	<10.0	10.0	09/12/2013	ND	180	90.0	200	1.81	

*Surrogate: 1-Chlorooctane 72.4 % 65.2-140*
*Surrogate: 1-Chlorooctadecane 83.4 % 63.6-154*

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\* = 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:	09/11/2013	Sampling Date:	09/10/2013
Reported:	09/16/2013	Sampling Type:	Soil
Project Name:	H. E. WEST B #85	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: PT. 1 @ 1' (H302194-03)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/12/2013	ND	2.21	110	2.00	3.41		
Toluene*	<0.050	0.050	09/12/2013	ND	2.24	112	2.00	3.30		
Ethylbenzene*	<0.050	0.050	09/12/2013	ND	2.27	114	2.00	3.78		
Total Xylenes*	<0.150	0.150	09/12/2013	ND	6.83	114	6.00	3.82		
Total BTEX	<0.300	0.300	09/12/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIC) 103 % 89.4-126

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	09/12/2013	ND	416	104	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	09/12/2013	ND	192	95.9	200	0.724		
DRO >C10-C28	<10.0	10.0	09/12/2013	ND	180	90.0	200	1.81		

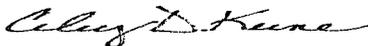
Surrogate: 1-Chlorooctane 83.7 % 65.2-140

Surrogate: 1-Chlorooctadecane 95.2 % 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:	09/11/2013	Sampling Date:	09/10/2013
Reported:	09/16/2013	Sampling Type:	Soil
Project Name:	H. E. WEST B #85	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: PT. 2 @ SURFACE (H302194-04)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/12/2013	ND	2.21	110	2.00	3.41		
Toluene*	<0.050	0.050	09/12/2013	ND	2.24	112	2.00	3.30		
Ethylbenzene*	<0.050	0.050	09/12/2013	ND	2.27	114	2.00	3.78		
Total Xylenes*	<0.150	0.150	09/12/2013	ND	6.83	114	6.00	3.82		
Total BTEX	<0.300	0.300	09/12/2013	ND						

*Surrogate: 4-Bromofluorobenzene (PII)* 103 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>2240</b>	16.0	09/12/2013	ND	416	104	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	09/12/2013	ND	192	95.9	200	0.724		
<b>DRO &gt;C10-C28</b>	<b>160</b>	10.0	09/12/2013	ND	180	90.0	200	1.81		

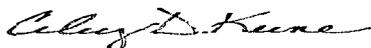
*Surrogate: 1-Chlorooctane* 96.6 % 65.2-140

*Surrogate: 1-Chlorooctadecane* 110 % 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:	09/11/2013	Sampling Date:	09/10/2013
Reported:	09/16/2013	Sampling Type:	Soil
Project Name:	H. E. WEST B #85	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: PT. 2 @ 6" (H302194-05)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/12/2013	ND	2.21	110	2.00	3.41		
Toluene*	<0.050	0.050	09/12/2013	ND	2.24	112	2.00	3.30		
Ethylbenzene*	<0.050	0.050	09/12/2013	ND	2.27	114	2.00	3.78		
Total Xylenes*	<0.150	0.150	09/12/2013	ND	6.83	114	6.00	3.82		
Total BTEX	<0.300	0.300	09/12/2013	ND						

*Surrogate: 4-Bromofluorobenzene (PIL) 102 % 89.4-126*

Chloride, SM4500CI-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>160</b>	16.0	09/12/2013	ND	416	104	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	09/12/2013	ND	192	95.9	200	0.724		
DRO >C10-C28	<10.0	10.0	09/12/2013	ND	180	90.0	200	1.81		

*Surrogate: 1-Chlorooctane 77.6 % 65.2-140*
*Surrogate: 1-Chlorooctadecane 88.1 % 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:	09/11/2013	Sampling Date:	09/10/2013
Reported:	09/16/2013	Sampling Type:	Soil
Project Name:	H. E. WEST B #85	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: PT. 2 @ 1' (H302194-06)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/12/2013	ND	2.21	110	2.00	3.41		
Toluene*	<0.050	0.050	09/12/2013	ND	2.24	112	2.00	3.30		
Ethylbenzene*	<0.050	0.050	09/12/2013	ND	2.27	114	2.00	3.78		
Total Xylenes*	<0.150	0.150	09/12/2013	ND	6.83	114	6.00	3.82		
Total BTEX	<0.300	0.300	09/12/2013	ND						

*Surrogate: 4-Bromofluorobenzene (PIC) 103 % 89.4-126*

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>80.0</b>	16.0	09/12/2013	ND	416	104	400	3.92		

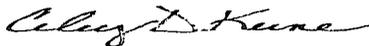
TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	09/12/2013	ND	202	101	200	1.28		
DRO >C10-C28	<10.0	10.0	09/12/2013	ND	198	98.9	200	0.838		

*Surrogate: 1-Chlorooctane 74.7 % 65.2-140*
*Surrogate: 1-Chlorooctadecane 86.4 % 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:	09/11/2013	Sampling Date:	09/10/2013
Reported:	09/16/2013	Sampling Type:	Soil
Project Name:	H. E. WEST B #85	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: PT. 3 @ SURFACE (H302194-07)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/12/2013	ND	2.21	110	2.00	3.41	
Toluene*	<0.050	0.050	09/12/2013	ND	2.24	112	2.00	3.30	
Ethylbenzene*	<0.050	0.050	09/12/2013	ND	2.27	114	2.00	3.78	
Total Xylenes*	<0.150	0.150	09/12/2013	ND	6.83	114	6.00	3.82	
Total BTEX	<0.300	0.300	09/12/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 103 % 89.4-126

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	<b>1800</b>	16.0	09/12/2013	ND	416	104	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	09/12/2013	ND	202	101	200	1.28	
<b>DRO &gt;C10-C28</b>	<b>257</b>	10.0	09/12/2013	ND	198	98.9	200	0.838	

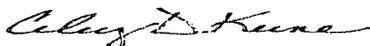
Surrogate: 1-Chlorooctane 65.5 % 65.2-140

Surrogate: 1-Chlorooctadecane 83.4 % 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: 09/11/2013  
 Reported: 09/16/2013  
 Project Name: H. E. WEST B #85  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 09/10/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: PT. 3 @ 1.5' (H302194-08)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	09/12/2013	ND	2.21	110	2.00	3.41	
Toluene*	<0.050	0.050	09/12/2013	ND	2.24	112	2.00	3.30	
Ethylbenzene*	<0.050	0.050	09/12/2013	ND	2.27	114	2.00	3.78	
Total Xylenes*	<0.150	0.150	09/12/2013	ND	6.83	114	6.00	3.82	
Total BTEX	<0.300	0.300	09/12/2013	ND					

*Surrogate: 4-Bromofluorobenzene (PIC) 103 % 89.4-126*

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	09/12/2013	ND	416	104	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	09/13/2013	ND	202	101	200	1.28	
DRO >C10-C28	<10.0	10.0	09/13/2013	ND	198	98.9	200	0.838	

*Surrogate: 1-Chlorooctane 77.8 % 65.2-140*
*Surrogate: 1-Chlorooctadecane 78.3 % 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:	09/11/2013	Sampling Date:	09/10/2013
Reported:	09/16/2013	Sampling Type:	Soil
Project Name:	H. E. WEST B #85	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: PT. 3 @ 2' (H302194-09)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	09/12/2013	ND	2.21	110	2.00	3.41		
Toluene*	<0.050	0.050	09/12/2013	ND	2.24	112	2.00	3.30		
Ethylbenzene*	<0.050	0.050	09/12/2013	ND	2.27	114	2.00	3.78		
Total Xylenes*	<0.150	0.150	09/12/2013	ND	6.83	114	6.00	3.82		
Total BTEX	<0.300	0.300	09/12/2013	ND						

*Surrogate: 4-Bromofluorobenzene (PIC) 103 % 89.4-126*

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>16.0</b>	16.0	09/12/2013	ND	416	104	400	3.92		

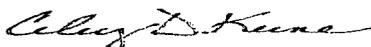
TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	09/12/2013	ND	202	101	200	1.28		
DRO >C10-C28	<10.0	10.0	09/12/2013	ND	198	98.9	200	0.838		

*Surrogate: 1-Chlorooctane 70.5 % 65.2-140*
*Surrogate: 1-Chlorooctadecane 83.0 % 63.6-154*

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

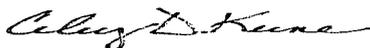
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported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

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\*=Accredited Analyte

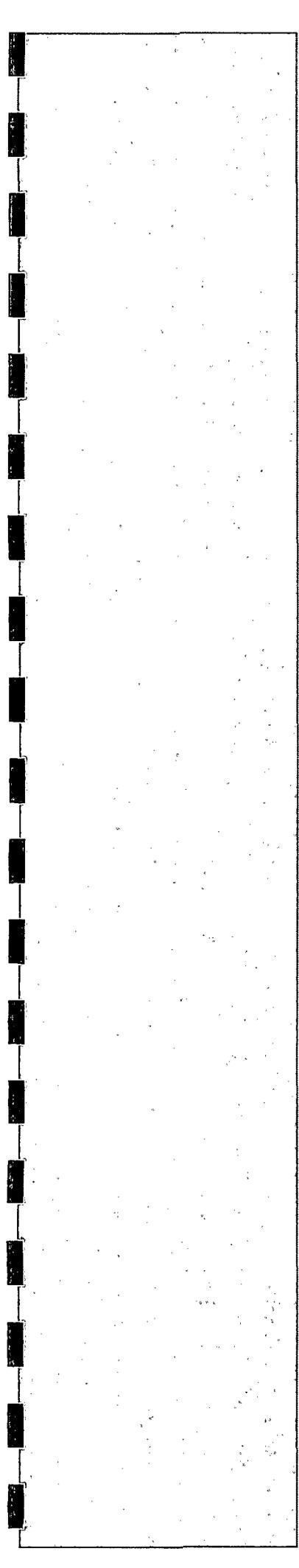
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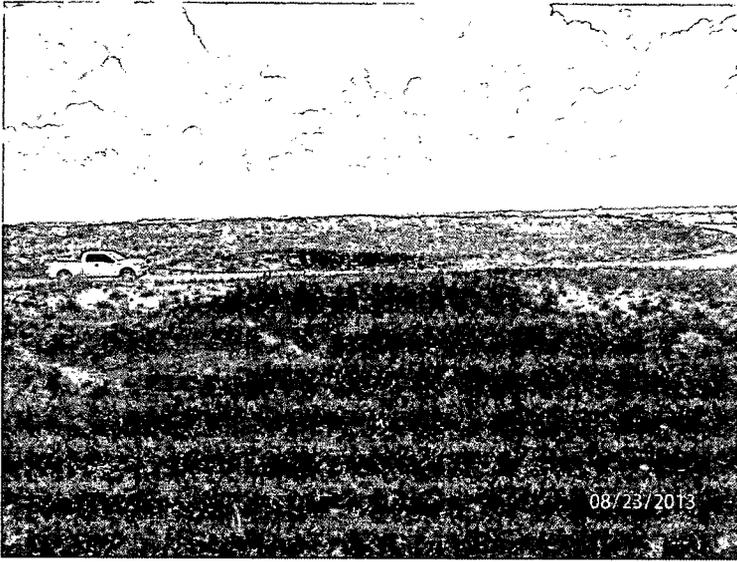


# Appendix D

Photo Documentation

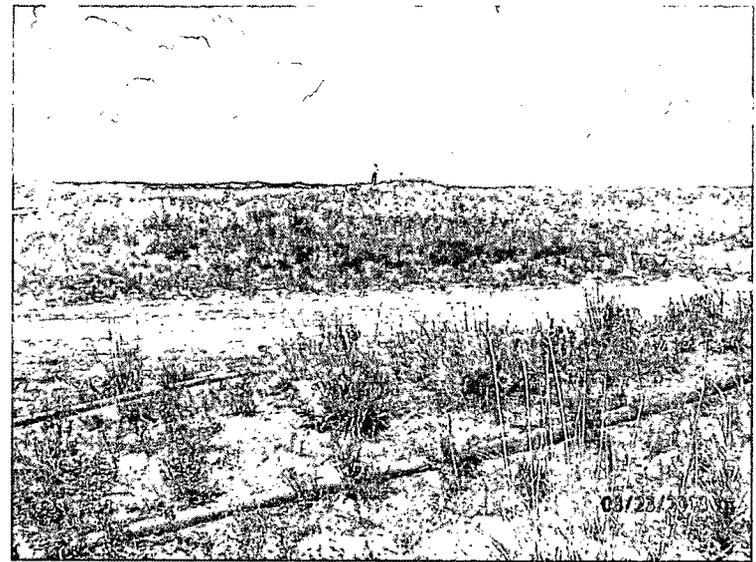
**RICE Environmental Consulting and Safety (RECS)**  
P.O. Box 2948 Hobbs, NM 88241  
Phone 575.393.2967

**Linn H.E. West B #85**  
Unit Letter K, Section 3, T17S, R31E



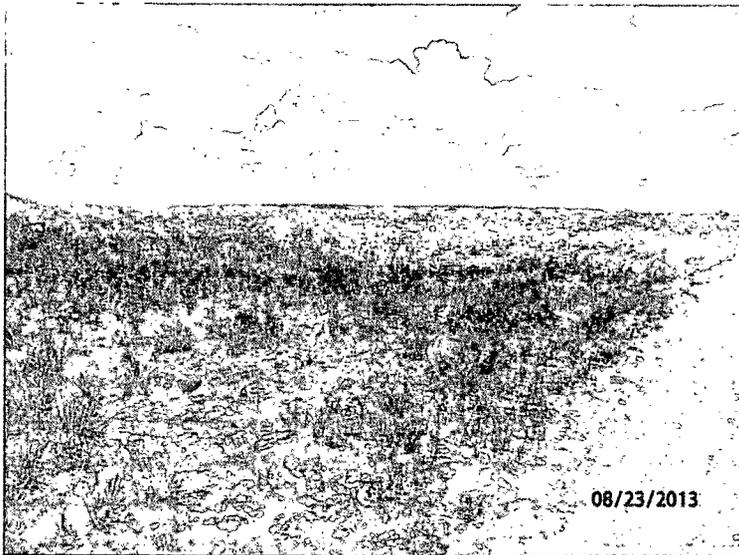
Initial release area, facing south

8/23/13



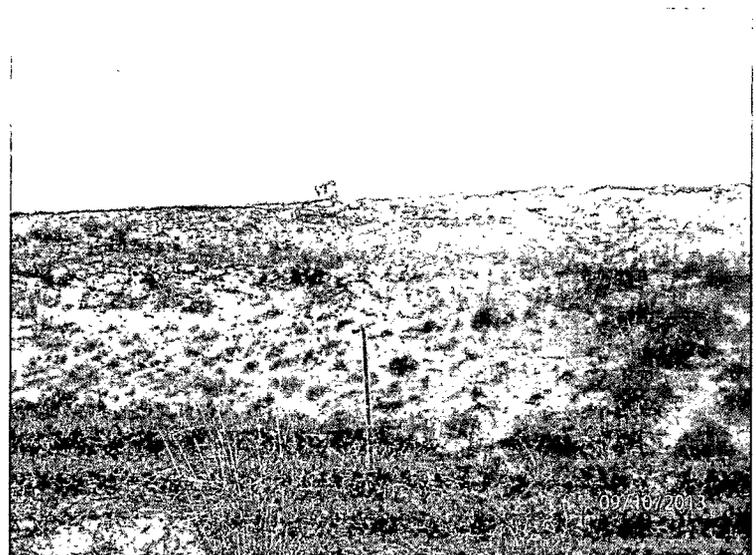
Initial release area, facing north

8/23/13



Initial release area, facing northeast

8/23/13



Auguring for depth, facing southeast

9/10/13



Plugging augur point in total with bentonite, facing east  
9/10/13