

## **LINN ENERGY**

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

**Fren Oil Battery – Turner B #118  
2RP-1559**

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### **Termination Request**

API No. 3001528920

Release Date: January 24<sup>th</sup>, 2012

Unit Letter M, Section 20, Township 17S, Range 31E

# Rice Environmental Consulting & Safety

P.O. Box 2948, Hobbs, NM 88241  
Phone 575.393.2967

**December 9<sup>th</sup>, 2013**

## **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 – Fren Oil Battery – Turner B #118 (2RP-1559)  
UL/M sec. 20 T17S R31E  
API No. 3001528920**

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 4.7 miles east of Loco Hills, New Mexico at UL/M sec. 20 T17S R31E. This site is in an area of no known groundwater.

On January 24<sup>th</sup>, 2012, a dresser clamp began to leak from an asbestos pipeline releasing 3 barrels of produced water. None of this water was recovered. A total of 1,365 square feet of primarily lease road was affected. On January 24<sup>th</sup>, 2012, NMOCD and BLM were notified of the release and an initial C-141 was sent to both agencies. NMOCD approved the initial C-141 on February 14<sup>th</sup>, 2013 (Appendix A). BLM mapped the site and RECS used that map to determine the extent of the release since staining was not visible on the lease road or in the pasture.

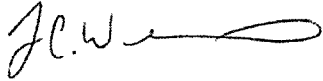
RECS personnel were on site beginning on October 25<sup>th</sup>, 2013 to assess the site. Two points were sampled from the surface of the release. The points were not sampled with depth given that the lease road was compacted too tightly to augur. The small area off the lease road to the north was not sampled because vegetation was not affected in this area and showed no signs of staining (Figure 1). The samples were field tested for chlorides and for organic vapors using a PID meter. The samples were then taken to a commercial laboratory for analysis (Appendix B). Point 1 returned a laboratory chloride value of 32 mg/kg and Point 2 returned a laboratory chloride value of 272 mg/kg. Gasoline Range Organics (GRO), Diesel Range Organics (DRO) and BTEX all returned results of non-detect.

Photo documentation of this site can be found in Appendix C.

Given that the laboratory data shows all constituents below regulatory standards and that vegetation has not been affected in the pasture area, Linn requests 'remediation termination' and closure for this site. The final C-141 can be found in Appendix D.

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 'J.C.W.' followed by a stylized flourish.

Lara Weinheimer  
Project Scientist  
RECS  
(575) 441-0431

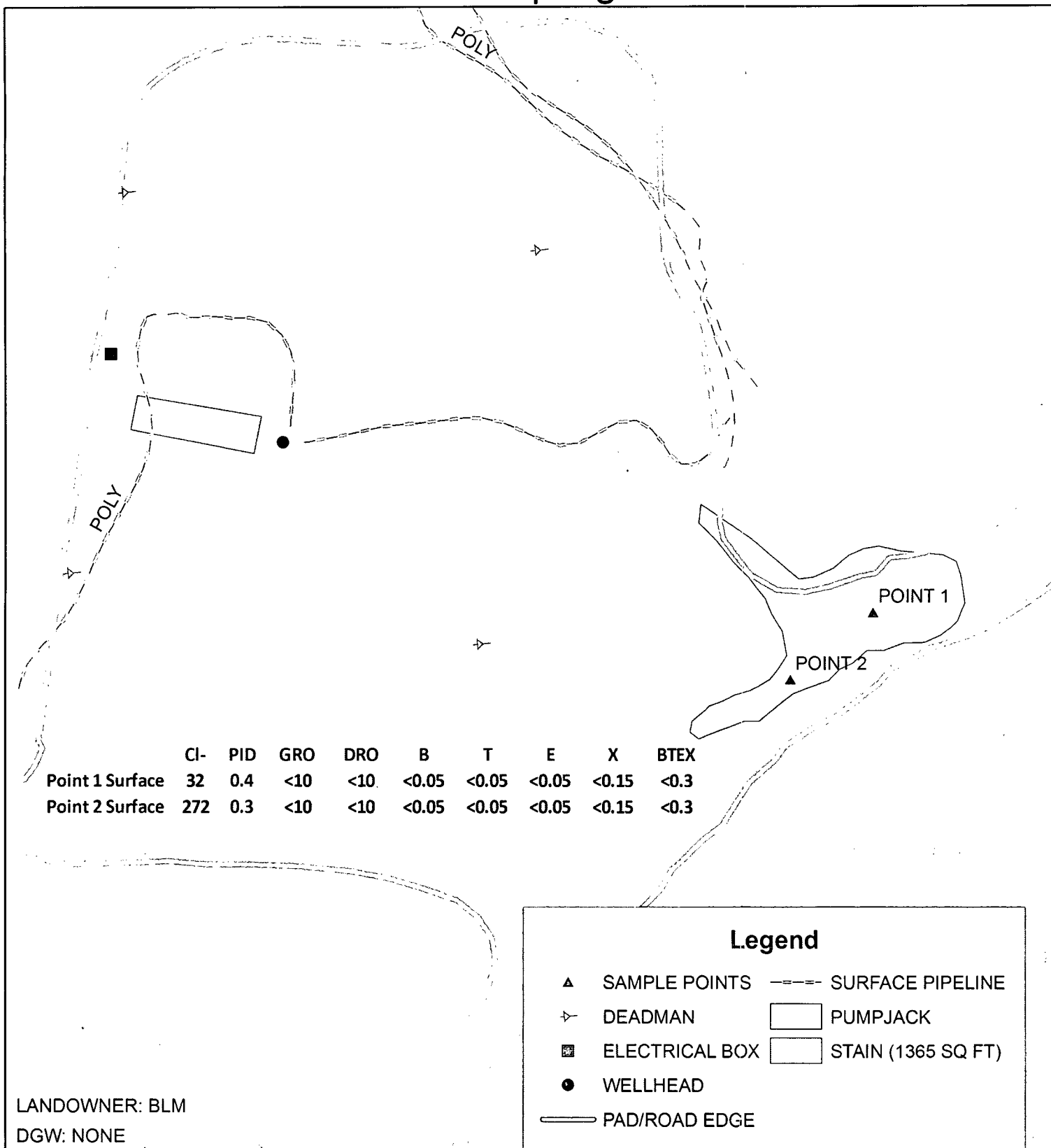
Attachments:

- Figure 1 – Initial Sampling Data
- Appendix A – Initial C-141
- Appendix B – Laboratory Analyses
- Appendix C – Photo Documentation
- Appendix D – Final C-141

# Figures

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

# Initial Sampling Data



## LINN FREN OIL BATTERY

### TURNER B #118

UL M SECTION 20  
T-17-S R-31-E  
EDDY COUNTY, NM

NMOCD Case #: 2RP-1559

## Figure 1



0 25 50  
Feet

GPS date: 10/8/13 KS  
Drawing date: 11/1/13  
Drafted by: L. Weinheimer

# Appendix A

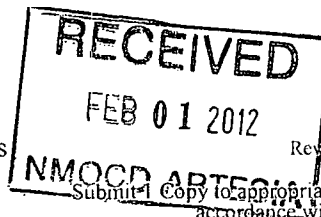
Initial C-141

**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

**nJM) W1304553260** **269324** **OPERATOR** ☒ Initial Report ☐ Final Report

Name of Company: Linn Operating	Contact: Joe Hernandez	
Address: 2130 W. Bender Hobbs, NM 88240	Telephone No.: 575-738-1739	
Facility Name: Fren Oil Battery - Turner B #118	Facility Type: WaterFlood	
Surface Owner: BLM	Mineral Owner: BLM	API No.: 3001528920

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
M	20	17S	31E	1200	South	10	West	Eddy

Latitude: N 32 48' 57" Longitude: W 103 53' 59.7

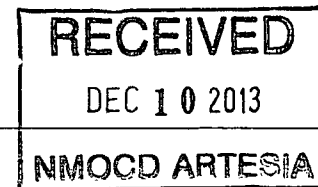
NATURE OF RELEASE

Type of Release: Produced water	Volume of Release: 3	Volume Recovered: 0
Source of Release: Pipeline	Date and Hour of Occurrence: 01/24/2012 9:00am	Date and Hour of Discovery: 01/24/2012 9:30am
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? M. Bratcher - NM OCD Terry Gregston - BLM	
By Whom? Joe Hernandez	Date and Hour 01/24/2012 3:00pm	
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.\*: Loc.Charged to Fren Oil Battery NW/SE Sec.19-T17-S R31E LC-031844, Fries Federal Battery NW/SE, Sec.19-T17S-R31E LC-060409  
Max Friess Battery Sec.30-T17-S-R31E LC-031844  
From TB#118 leak is do east 100yds from wellhead 7 1/4 asbestos line from these batteries had dresser clamp that began to leak. Weather erosion has exposed line that crosses Lease Rd causing leak

Describe Area Affected and Cleanup Action Taken.\* : Further remedial action pending.



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: Joe Hernandez	Approved by District Supervisor:	Signed By
Title: Production Foreman	Approval Date: <b>FEB 14 2013</b>	Expiration Date:
E-mail Address: jhernandez@linenergy.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 2/01/2012 Phone: 575-942-9492	Remediation per OCD Rule & Guidelines. <b>SUBMIT REMEDIATION PROPOSAL NO LATER THAN:</b>	

\* Attach Additional Sheets If Necessary

**2RP-1559**  
**March 14, 2013**

# Appendix B

## Laboratory Analyses

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



October 31, 2013

JACOB KAMPLAIN

RICE ENVIRONMENTAL CONSULTING & SAFETY LLC

419 W. CAIN

HOBBS, NM 88240

RE: FREN OIL BATTERY TURNER B #118

Enclosed are the results of analyses for samples received by the laboratory on 10/25/13 16:20.

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).

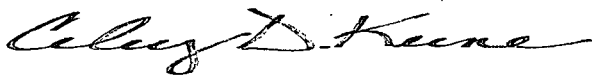
Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

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,



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:	10/25/2013	Sampling Date:	10/25/2013
Reported:	10/31/2013	Sampling Type:	Soil
Project Name:	FREN OIL BATTERY TURNER B #118	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: POINT 1 @ SURFACE (H302606-01)**

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	10/29/2013	ND	2.02	101	2.00	0.429		
Toluene*	<0.050	0.050	10/29/2013	ND	2.00	100	2.00	0.174		
Ethylbenzene*	<0.050	0.050	10/29/2013	ND	2.00	99.8	2.00	0.532		
Total Xylenes*	<0.150	0.150	10/29/2013	ND	5.85	97.5	6.00	0.0606		
Total BTX	<0.300	0.300	10/29/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 104 % 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	32.0	16.0	10/29/2013	ND	400	100	400	3.92		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	10/29/2013	ND	210	105	200	1.98		
DRO >C10-C28	<10.0	10.0	10/29/2013	ND	202	101	200	1.03		

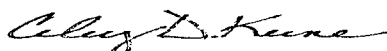
Surrogate: 1-Chlorooctane 92.1 % 65.2-140

Surrogate: 1-Chlorooctadecane 89.2 % 63.6-154

Cardinal Laboratories

\*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

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

Received: 10/25/2013  
Reported: 10/31/2013  
Project Name: FREN OIL BATTERY TURNER B #118  
Project Number: NONE GIVEN  
Project Location: NOT GIVEN

Sampling Date: 10/25/2013  
Sampling Type: Soil  
Sampling Condition: Cool & Intact  
Sample Received By: Jodi Henson

**Sample ID: POINT 2 @ SURFACE (H302606-02)**

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	10/29/2013	ND	2.02	101	2.00	0.429	
Toluene*	<0.050	0.050	10/29/2013	ND	2.00	100	2.00	0.174	
Ethylbenzene*	<0.050	0.050	10/29/2013	ND	2.00	99.8	2.00	0.532	
Total Xylenes*	<0.150	0.150	10/29/2013	ND	5.85	97.5	6.00	0.0606	
Total BTX	<0.300	0.300	10/29/2013	ND					

Surrogate: 4-Bromofluorobenzene (PIE) 104 % 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	272	16.0	10/29/2013	ND	400	100	400	3.92	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	10/29/2013	ND	210	105	200	1.98	
DRO >C10-C28	<10.0	10.0	10/29/2013	ND	202	101	200	1.03	

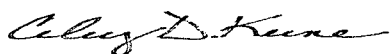
Surrogate: 1-Chlorooctane 99.2 % 65.2-140

Surrogate: 1-Chlorooctadecane 101 % 63.6-154

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**

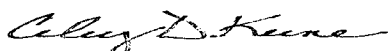
ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C Samples reported on an as received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

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Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



## CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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 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 Cardinal within 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 services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise.

Relinquished By:		Date:	Received By:	Phone Result:	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Add'l Phone #:
Kyle Schnaidt		6-25-13	Jodi Henson	Fax Result:	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	Add'l Fax #:
Relinquished By:		Date:	Received By:	REMARKS:			
		Time:		kschnaidt@rice-ecs.com			
Delivered By: (Circle One)		Time:		Knorman@rice-ecs.com			
Sampler - UPS - Bus - Other:		Sample Condition	CHECKED BY:	Kjones@riceswd.com; jkamplain@rice-ecs.com			
		Cool <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Intact <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	hconder@rice-ecs.com; Lweinheimer@rice-ecs.com			

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

#54

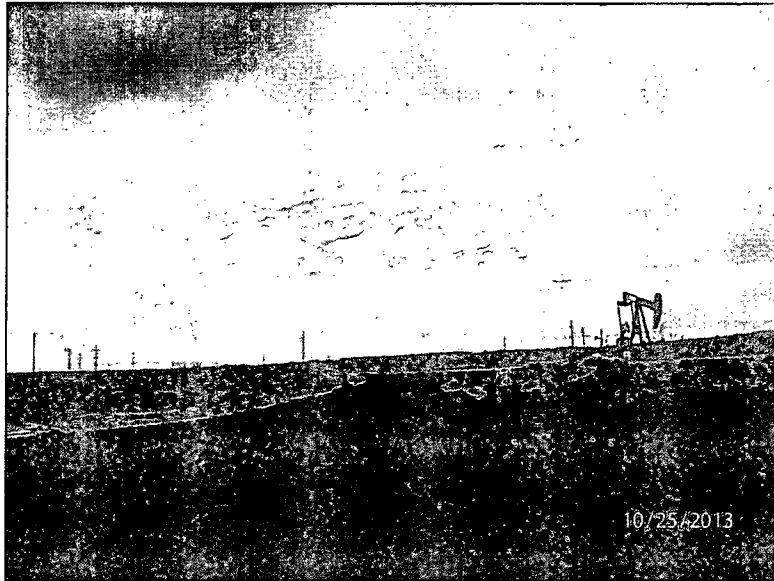
# Appendix C

## Photo Documentation

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

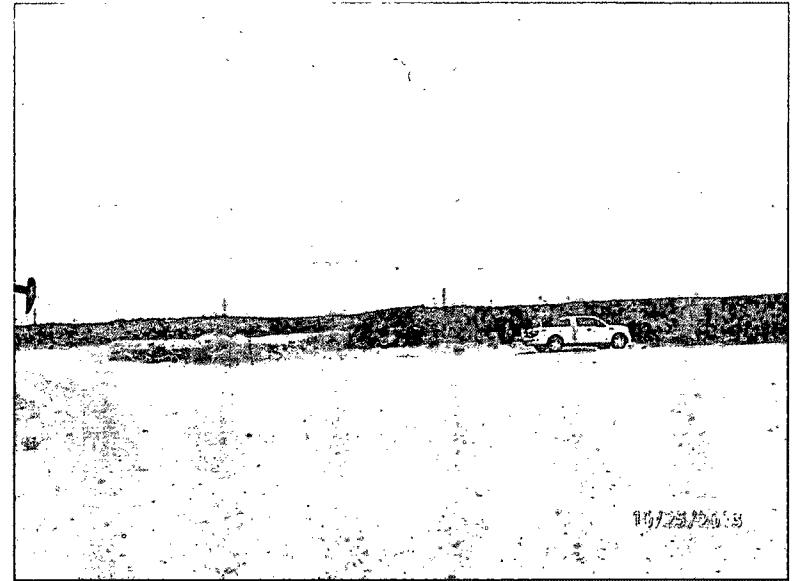
# Linn Fren Oil Battery – Turner B #118

Unit Letter M, Section 20, T17S, R31E



Initial site photo, facing west

10/25/13



Initial site photo, facing northwest

10/25/13

# Appendix D

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  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

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

Form C-141  
Revised August 8, 2011

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

## Release Notification and Corrective Action

### OPERATOR

☐ Initial Report ☒ Final Report

Name of Company	Linn Operating	Contact	Brian Wall
Address	2130 W. Bender Blvd., Hobbs, NM 88240	Telephone No.	(806) 367-0645
Facility Name	Fren Oil Battery – Turner B #118	Facility Type	WaterFlood
Surface Owner	BLM	Mineral Owner	BLM
		API No.	3001528920

### LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
M	20	17S	31E	1200	FSL	10	FWL	Eddy

Latitude 32°48'57" Longitude -103°53'59.7"

### NATURE OF RELEASE

Type of Release	Produced Water	Volume of Release	3 bbls	Volume Recovered	0 bbls
Source of Release	Pipeline	Date and Hour of Occurrence	1/24/12 9:00 am	Date and Hour of Discovery	1/24/12 9:30 am
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	M. Bratcher – NMOCD Terry Gregston - BLM		
By Whom?	Joe Hernandez	Date and Hour	1/24/12 3:00 pm		
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.\*

7 ¼ asbestos line to the Friess Federal Battery and Max Friess Battery from the Turner B #118 had a dresser clay that began to leak. Weather erosion had exposed the line the crosses the lease road causing the release.

Describe Area Affected and Cleanup Action Taken.\*

RECS personnel were on site beginning on October 25<sup>th</sup>, 2013 to assess the site. Two points were sampled from the surface of the release. The points were not sampled with depth given that the lease road was compacted too tightly to augur. The small area off the lease road to the north was not sampled because vegetation was not affected in this area and showed no signs of staining (Figure 1). The samples were field tested for chlorides and for organic vapors using a PID meter. The samples were then taken to a commercial laboratory for analysis. Point 1 returned a laboratory chloride value of 32 mg/kg and Point 2 returned a laboratory chloride value of 272 mg/kg. Gasoline Range Organics (GRO), Diesel Range Organics (DRO) and BTEX all returned results of non-detect. Given that the laboratory data shows all constituents below regulatory standards and that vegetation has not been affected in the pasture area, no further action is required at the site.

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

Signature: <u>Fred B Wall</u>		<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Brian Wall		Approved by Environmental Specialist:	
Title: Construction Foreman II		Approval Date:	Expiration Date:
E-mail Address: Bwall@linenergy.com		Conditions of Approval:	Attached <input type="checkbox"/>
Date: <u>12/9/13</u>	Phone: (806) 367-0645		

\* Attach Additional Sheets If Necessary