

## **LINN ENERGY**

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

**McClay Federal #7**

2RP-1914

2RP-1959

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# Termination Request

API No. 3001510370

Release Date: September 8<sup>th</sup>, 2013 & September 24<sup>th</sup>, 2013

Unit Letter C, Section 33, Township 18S, Range 30E

# Rice Environmental Consulting & Safety

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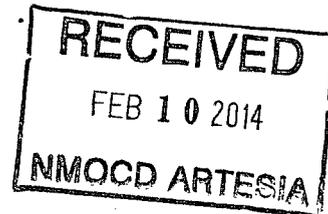
P.O. Box 2948, Hobbs, NM 88241

Phone 575.393.2967

February 6<sup>th</sup>, 2014

**Mike Bratcher**

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



**RE: CAP Report and Termination Request**

**Linn Energy**

**McClay Federal #7 (2RP-1914)**

**McClay Federal #7 (2RP-1959)**

**UL/C sec. 33 T18S R30E**

**API No. 3001510370**

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 7.5 miles south of Loco Hills, New Mexico at UL/C sec. 33 T18S R30E. This site is located in an area of no known groundwater.

Two releases occurred at the site in September 2013. The first (2RP-1914), which occurred on September 8<sup>th</sup>, 2013, was a release of 4 barrels of produced water and 1 barrel oil from a hole in the bottom of the heater. All the fluid remained in the lined heater dike. A vacuum truck was called to the site and recovered all the fluid. NMOCD and BLM were notified of the release on September 10<sup>th</sup>, 2013 and NMOCD approved the initial C-141 on September 19<sup>th</sup>, 2013.

The second release (2RP-1959), which occurred on September 24<sup>th</sup>, 2013, was a release of 10 barrels of oil. When the heater was restarted, a valve was not opened. The heater exceeded operating pressure and blew oil through the pressure relief valve on the top of the heater. None of this fluid was recovered. NMOCD and BLM were notified on the release on September 26<sup>th</sup>, 2013 and NMOCD approved the initial C-141 on October 2<sup>nd</sup>, 2013 (Appendix A).

Together the two releases covered 2,486 sq ft of lease pad and pasture land. RECS personnel were on site beginning on September 10<sup>th</sup>, 2013 and then on September 30<sup>th</sup>, 2013 to assess the releases. The first release was in the lined dike surrounding the heater and was not sampled. Soil samples from the surface and with depth were taken from the second release (Figure 1). The samples were field tested for chlorides and organic vapors and representative samples were taken to a commercial laboratory for analysis (Appendix

B). Point 1 returned laboratory chloride, GRO, DRO and BTEX below regulatory standards beginning at 6 inches. Point 2 returned laboratory chloride, GRO, DRO and BTEX below regulatory standards beginning at 1 foot. Point 3 returned laboratory chloride, GRO, DRO and BTEX below regulatory standards beginning at 8.5 feet.

A Corrective Action Plan (CAP) for the first release (2RP-1914) was sent to NMOCD and BLM on September 30<sup>th</sup>, 2013 and approved by BLM on October 30<sup>th</sup>, 2013 and by NMOCD on November 15<sup>th</sup>, 2013. As part of the CAP, the caliche above the liner would be removed and taken to a NMOCD approved facility for disposal. Clean caliche would be imported to the site to replace the contaminated caliche.

A CAP for the second release (2RP-1959) was sent to NMOCD and BLM on October 29<sup>th</sup>, 2013 and approved by BLM the same day. NMOCD approved the CAP on November 15<sup>th</sup>, 2013. As part of the CAP, the release area around Point 1 and Point 2, indicated that this area would reach acceptable standards by 6 inches bgs. Thus, this area would be scraped down 6 inches and a 5 point bottom composite would be taken to a commercial laboratory to show that the chloride level is below 1,000 mg/kg and the combined GRO/DRO reading is below 1,000 mg/kg.

The area around Point 3 will be excavated to depth of 4 ft bgs. The walls of the excavation would be advanced horizontally until laboratory analyses showed the walls to have a chloride reading below 1,000 mg/kg and combined GRO/DRO below 1,000 mg/kg. At the base of the 4 ft bgs excavation, a 20 mil reinforced poly liner would be installed at properly seated (Figure 2).

All excavated soils would be taken to a NMOCD approved facility for disposal. The 6 inch scrape and the 4 ft excavation would be backfilled with clean, imported soil to ground surface and contoured to the surrounding location. The site would be seeded with a blend of native vegetation. Vegetation acts as 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.

### **CAP Report**

On November 6<sup>th</sup>, 2013, CAP activities began at the site. The area inside the treater berm, the contaminated berm, the 6 inch scrape and the 4 foot excavation were completed and a total of 228 yards of contaminated soil was taken to a NMOCD approved facility for disposal.

A total of 72 yards of clean caliche was imported to the site to backfill the treater area and replace the contaminated berm. The remaining caliche was backfilled into the 4 foot excavation.

Once the 4 foot excavation was completed, wall samples were taken to a commercial laboratory for analysis to confirm all constituents were below regulatory standards (Appendix C). At the base of the 6 inch scrape, a 5 point bottom composite was taken

and sent to a commercial laboratory for analysis. The bottom composite returned a chloride value of 320 mg/kg, a DRO value of 306 mg/kg and GRO and BTEX values of non-detect. This data was sent to BLM and NMOCD with a request to backfill the site. BLM approved the site to be backfilled on November 25<sup>th</sup>, 2013 and NMOCD approved the site to be backfilled on December 2<sup>nd</sup>, 2013.

A trench was installed along the periphery of the 4 foot excavation and a 20-mil reinforced poly liner was key set into the excavation. A total of 108 yards of top soil was imported to site to serve as backfill. The liner was padded with 6 inches of the top soil and the remaining caliche was backfilled over the padded liner. A sample of the imported top soil was taken to a commercial laboratory and returned a laboratory chloride reading of 64 mg/kg. The 6 inch scrape and the remainder of the 4 foot excavation was backfilled with the imported top soil and the area was contoured to the surrounding location.

On December 10<sup>th</sup>, 2013, soil amendments were added to the pasture area and the site was seeded with LPC seed mix.

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

Given that the site was remediated per the approved CAP and backfilled with clean, imported soil, Linn respectfully requests that the site be granted 'remediation termination' and site closure. Final C-141s for both sites 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.

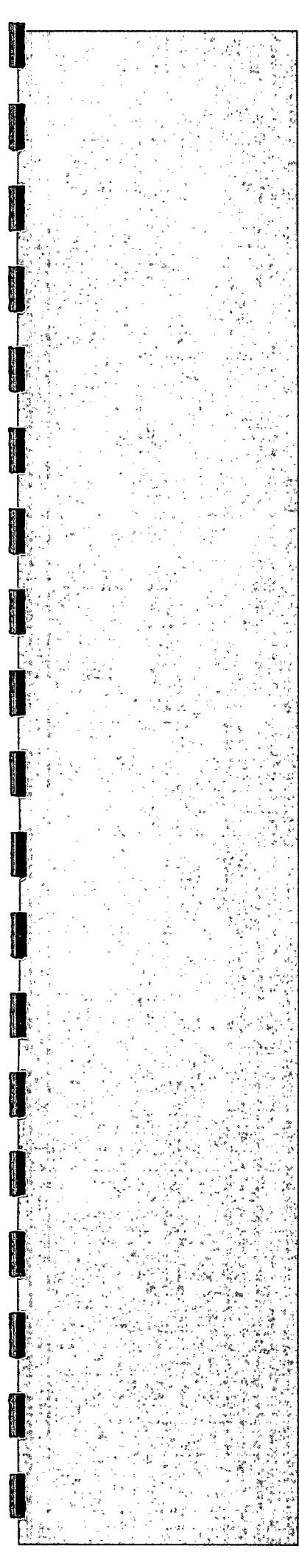
Sincerely,



Lara Weinheimer  
Project Scientist  
RECS  
(575) 441-0431

Attachments:

- Figure 1 – Initial Sampling Data
- Figure 2 – Proposed CAP Activities
- Figure 3 – Excavation Data
- Appendix A – Initial C-141s
- Appendix B – Initial Sampling Lab
- Appendix C – CAP Activities Labs
- Appendix D – Photo Documentation
- Appendix E – Final C-141s



# Figures

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

# Initial Sampling Data

## Point 1

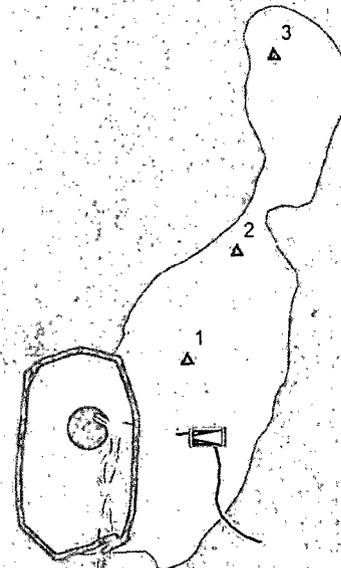
	Cl-	PID	GRO	DRO	B	T	E	X	BTEX
SS	464	308.6	893	15100	<1	2.8	10.5	19.5	32.8
6"	32	96.8	<10	72.6	<0.05	<0.05	<0.05	<0.15	<0.3
1'	<16	27.2	<10	23.6	<0.05	<0.05	<0.05	<0.15	<0.3

## Point 2

	Cl-	PID	GRO	DRO	B	T	E	X	BTEX
SS	3520	414.4	685	18900	0.235	3.11	6.67	11.5	21.5
6"	750	88.7							
1'	64	23.2	<10	13	<0.05	<0.05	0.069	<0.15	<0.3
1.5'	48	27.3	<10	14.2	<0.05	<0.05	<0.05	<0.15	<0.3

## Point 3

	Cl-	PID	GRO	DRO	B	T	E	X	BTEX
SS	3320	709.3	1830	26700	<2	9.42	19	33.1	61.6
6"	2009	1377							
1'	4684	587.6							
1.5'	6672	105.7							
2'	5015	22.7							
2.5'	4915	30							
3'	5120	14.7	<10	28.2	<0.05	<0.05	<0.05	<0.15	<0.3
3.5'	3730	11.3							
4'	2630	29							
4.5'	2884	20.1							
5'	2558	23.6							
5.5'	1792	31.3							
6'	1282	27.2							
6.5'	721	12.6							
7'	699	144.3							
7.5'	460	35.2							
8'	560	49.2	<10	69.3	<0.05	<0.05	<0.05	<0.15	<0.3
8.5'	208	20.1	<10	44.4	<0.05	<0.05	<0.05	<0.15	<0.3



## Legend

- ▲ AUGUR POINTS
- LINED BERM
- ☒ GAS REGULATOR
- 3 in SURFACE POLY
- 3 in SURFACE STEEL
- HEATER
- STAIN (2,486 sq ft)

DGW: None

Landowner: BLM

Source: Esri, DigitalGlobe, GeoEye, AeroGRID, IGN, IGF



**LINN MCCLAY  
FEDERAL #7**

2RP-1914

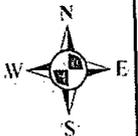
2RP-1959

LEGALS: UL/C sec. 33

T-18-S R-30-E

EDDY COUNTY, NM

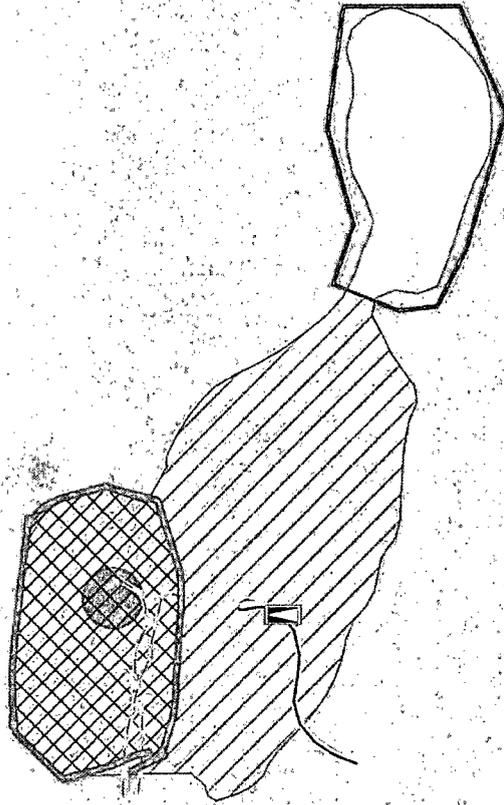
Figure 1



0 20 40  
Feet

GPS date: 9/30/13 EC  
Drawing date: 10/22/13  
Drafted by: L. Weinheimer

# Proposed CAP Activities



## Legend

-  LINED BERM
-  GAS REGULATOR
-  3 in SURFACE POLY
-  3 in SURFACE STEEL
-  REMOVE AND REPLACE CALICHE OVER LINER
-  SCRAPE AREA TO 6 INCHES
-  PROPOSED 20-MIL REINFORCED POLY LINER AT 4 FT BGS
-  HEATER
-  STAIN (2,486 sq ft)

DGW: None

Landowner: BLM



**LINN MCCLAY  
FEDERAL #7**

(2RP-1914)

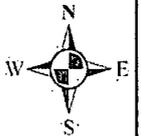
(2RP-1959)

LEGALS: UL/C sec. 33

T-18-S R-30-E

EDDY COUNTY, NM

Figure 2



0 10 20  
 Feet

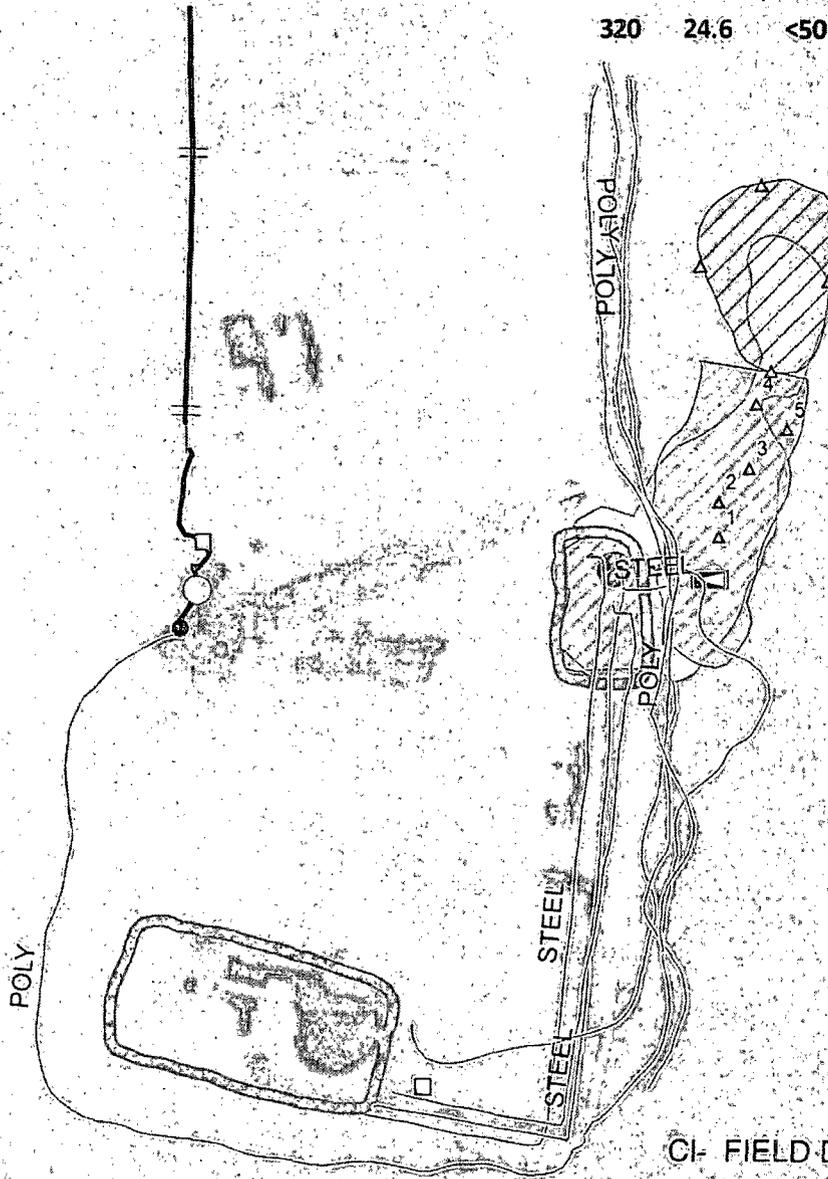
GPS date: 9/30/13 EC  
 Drawing date: 10/22/13  
 Drafted by: L. Weinheimer

# Excavation Data

Wall Samples	Cl-	PID	GRO	DRO	B	T	E	X	BTEX
North Wall	<16	25.6	<10	<10	<0.05	<0.05	<0.05	<0.15	<0.3
East Wall	112	0.9	<10	<10	<0.05	<0.05	<0.05	<0.15	<0.3
West Wall	<16	5.1	<10	<10	<0.05	<0.05	<0.05	<0.15	<0.3
South Wall	256	14.4	<10	113	<0.05	<0.05	<0.05	<0.15	<0.3

5 point composite at 6 inches

Cl-	PID	GRO	DRO	B	T	E	X	BTEX
320	24.6	<50	306	<0.05	<0.05	<0.05	<0.15	<0.3



## Legend

- ▲ FINAL WALL SAMPLE POINTS
- ▲ SAMPLE POINT
- CHEMICAL TANK
- ⊥ ELECTRIC POLE
- ELECTRICAL BOX
- WELLHEAD
- ▬ BERM
- OVERHEAD ELECTRICAL
- PAD
- SURFACE ELECTRICAL
- SURFACE PIPELINE
- ▭ GAS REGULATOR
- ▨ 6 IN SCRAPE
- ▩ HEATER
- ▭ STAIN (2,486 sq ft)
- ▨ 4 FT EXCAVATION

Cl- FIELD DATA

Cl- LAB DATA

Source: Esri, DigitalGlobe, GeoEye, AeroGRID, IGN, ICG

Landowner: BLM  
DGW: None



**LINN MCCLAY  
FEDERAL #7**

(2RP-1914)

(2RP-1959)

LEGALS: UL/C sec. 33

T-18-S R-30-E

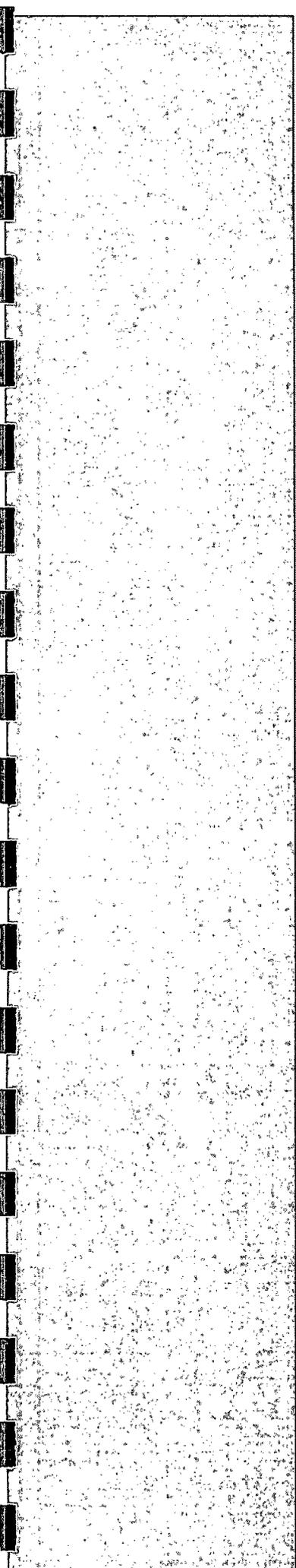
EDDY COUNTY, NM

Figure 3



0 30 60  
Feet

GPS date: 11/7/13 BC, 11/14/13 AG  
Drawing date: 11/7/13, 11/15/13  
Drafted by: T. Grieco



# Appendix A

Initial C-141s

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

RECEIVED

SEP 10 2013

Form C-141  
Revised October 10, 2003

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 87305

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

NMOC, ARTESIA

Submit to appropriate District Office in accordance with 19-15-29 NMAC

Release Notification and Corrective Action

njm 1326252898

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: McClay Federal # 7	Facility Type: Oil Producer
Surface Owner: Federal	Mineral Owner:
API No.: 3001510370	

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
C	53	18S	30E	330'	North	1650'	West	Eddy

Latitude: 32.7103208597655 Longitude: -103.980175130974

NATURE OF RELEASE

Type of Release: Produced Water / Oil	Volume of Release: 4 bbls / 1 bbl	Volume Recovered: 4 bbls / 1 bbl
Source of Release: Heater	Date and Hour of Occurrence: 09/08/2013 12:00am	Date and Hour of Discovery: 09/08/2013
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 Mike Bratcher, NM OCD	
By Whom? Brian Wall	Date and Hour 09/10/2013	
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: Hole in bottom of heater in side base ring.		
Describe Area Affected and Cleanup Action Taken: All fluid in dike area picked up with vacuum truck emptied heater. Cause degradation.		

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 NMOC 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, NMOC 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>Brian Wall</i>	OIL CONSERVATION DIVISION	
Printed Name: Brian Wall	Approved by District Supervisor:	Signed By: <i>Mike Bratcher</i>
Title: Construction Foreman II	Approval Date: SEP 19 2013	Expiration Date:
E-mail Address: bwall@linenergy.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 09/10/2013	Phone: 806-367-0645	Remediation per OCD Rule & Guidelines, & like approval by BLM: SUBMIT REMEDIATION PROPOSAL NO LATER THAN

Attach Additional Sheets if Necessary

Remediation per OCD Rule & Guidelines, & like approval by BLM: SUBMIT REMEDIATION PROPOSAL NO LATER THAN

October 19, 2013

2RP-1914

**RECEIVED**  
**SEP 26 2013**  
**NMOC D ARTESIA**

District I  
 1635 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  
 This report is to be filed in the appropriate District Office in accordance with 19.15.29 NMAC

**Release Notification and Corrective Action**

*njmw* 327537083

OPERATOR:  Initial Report  Final Report

Name of Company: <u>Lim Operating</u> <b>269324</b>	Contact: <u>Brian Wall</u>
Address: <u>2130 W. Bender Hobbs, NM 88240</u>	Telephone No.: <u>575-738-1739</u>
Facility Name: <u>McClay Federal # 7</u>	Facility Type: <u>Oil</u>
Surface Owner: <u>Federal</u>	Mineral Owner: <u>APINo: 3001510370</u>

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
C	53	18S	30E	330	North	1650	West	Eddy

Latitude: 32.7103208597655 Longitude: -103.980175130974

**NATURE OF RELEASE**

Type of Release: <u>Oil</u>	Volume of Release: <u>10 bbls</u>	Volume Recovered: <u>0</u>
Source of Release: <u>Heater</u>	Date and Hour of Occurrence: <u>09/24/2013 12:00am</u>	Date and Hour of Discovery: <u>09/24/2013</u>
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES To Whom? <u>Mike Burton, BLM Mike Bratcher, NM, OCD</u>	
By Whom? <u>Brian Wall</u>	Date and Hour <u>09/26/2013 7:45am</u>	
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: <u>Missed opening valve when restarting well, heater exceeded operating pressure blew oil through pressure relief valve on top of the heater.</u>		
Describe Area Affected and Cleanup Action Taken: <u>contaminated soil to be removed and replaced with clean, re-seeded to requirements.</u>		

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOC D 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 NMOC D 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, NMOC D 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>	<b>OIL CONSERVATION DIVISION</b>
Printed Name: <u>Brian Wall</u>	Approved by District Supervisor: Signed By: <i>[Signature]</i>
Title: <u>Construction Foreman II</u>	Approval Date: <b>OCT 02 2013</b> Expiration Date:
E-mail Address: <u>bwall@linenergy.com</u>	Conditions of Approval:
Date: <u>09/26/2013</u> Phone: <u>806-367-0645</u>	Attached <input type="checkbox"/>

Remediation per OCD Rule & Guidelines & like approval by BLM. **SUBMIT REMEDIATION PROPOSAL NO LATER THAN November 2, 2013**

**2 R.P. = 1959**

# 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

---

October 22, 2013

JACOB KAMPLAIN

RICE ENVIRONMENTAL CONSULTING & SAFETY LLC

419 W. CAIN

HOBBS, NM 88240

RE: MC CLAY FEDERAL #7

Enclosed are the results of analyses for samples received by the laboratory on 10/16/13 8:45.

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/ga/lab\\_accred\\_certif.html](http://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,

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:	10/16/2013	Sampling Date:	10/09/2013
Reported:	10/22/2013	Sampling Type:	Soil
Project Name:	MC CLAY FEDERAL #7	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: POINT 1 @ SURFACE (H302503-01)**

BTEX 8021B		mg/kg		Analyzed By: MS				S-04		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<1.00	1.00	10/18/2013	ND	1.93	96.4	2.00	1.36		
Toluene*	2.80	1.00	10/18/2013	ND	1.99	99.3	2.00	2.92		
Ethylbenzene*	10.5	1.00	10/18/2013	ND	2.01	100	2.00	2.99		
Total Xylenes*	19.5	3.00	10/18/2013	ND	5.85	97.4	6.00	2.79		
<b>Total BTEX</b>	<b>32.8</b>	<b>6.00</b>	<b>10/18/2013</b>	<b>ND</b>						

Surrogate: 4-Bromofluorobenzene (PIC) 141 % 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	464	16.0	10/17/2013	ND	416	104	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	893	200	10/17/2013	ND	191	95.3	200	2.37		
DRO >C10-C28	15100	200	10/17/2013	ND	191	95.5	200	3.62		

Surrogate: 1-Chlorooctane 172 % 65.2-140

Surrogate: 1-Chlorooctadecane 527 % 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:	10/16/2013	Sampling Date:	10/09/2013
Reported:	10/22/2013	Sampling Type:	Soil
Project Name:	MC CLAY FEDERAL #7	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: POINT 1 @ 6" (H302503-02)**

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	10/18/2013	ND	1.93	96.4	2.00	1.36		
Toluene*	<0.050	0.050	10/18/2013	ND	1.99	99.3	2.00	2.92		
Ethylbenzene*	<0.050	0.050	10/18/2013	ND	2.01	100	2.00	2.99		
Total Xylenes*	<0.150	0.150	10/18/2013	ND	5.85	97.4	6.00	2.79		
Total BTEX	<0.300	0.300	10/18/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 105 % 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	10/17/2013	ND	416	104	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	10/17/2013	ND	189	94.6	200	4.47		
DRO >C10-C28	72.6	10.0	10/17/2013	ND	181	90.6	200	1.79		

Surrogate: 1-Chlorooctane 100 % 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:	10/16/2013	Sampling Date:	10/09/2013
Reported:	10/22/2013	Sampling Type:	Soil
Project Name:	MC CLAY FEDERAL #7	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: POINT 1 @ 1' (H302503-03)**

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	10/21/2013	ND	1.93	96.4	2.00	1.36		
Toluene*	<0.050	0.050	10/21/2013	ND	1.99	99.3	2.00	2.92		
Ethylbenzene*	<0.050	0.050	10/21/2013	ND	2.01	100	2.00	2.99		
Total Xylenes*	<0.150	0.150	10/21/2013	ND	5.85	97.4	6.00	2.79		
Total BTEX	<0.300	0.300	10/21/2013	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	<16.0	16.0	10/17/2013	ND	416	104	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	10/17/2013	ND	189	94.6	200	4.47		
<b>DRO &gt;C10-C28</b>	<b>23.6</b>	10.0	10/17/2013	ND	181	90.6	200	1.79		

Surrogate: 1-Chlorooctane 99.0 % 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:	10/16/2013	Sampling Date:	10/09/2013
Reported:	10/22/2013	Sampling Type:	Soil
Project Name:	MC CLAY FEDERAL #7	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: POINT 2 @ SURFACE (H302503-04)**

BTEX 8021B		mg/kg		Analyzed By: MS				S-04		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Benzene*</b>	<b>0.235</b>	0.050	10/18/2013	ND	1.93	96.4	2.00	1.36		
<b>Toluene*</b>	<b>3.11</b>	0.050	10/18/2013	ND	1.99	99.3	2.00	2.92		
<b>Ethylbenzene*</b>	<b>6.67</b>	0.050	10/18/2013	ND	2.01	100	2.00	2.99		
<b>Total Xylenes*</b>	<b>11.5</b>	0.150	10/18/2013	ND	5.85	97.4	6.00	2.79		
<b>Total BTEX</b>	<b>21.5</b>	0.300	10/18/2013	ND						

*Surrogate: 4-Bromofluorobenzene (PIC) 383 % 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>3520</b>	16.0	10/17/2013	ND	416	104	400	0.00		

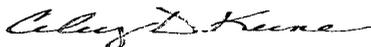
TPH 8015M		mg/kg		Analyzed By: MS				S-06		
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>GRO C6-C10</b>	<b>685</b>	200	10/17/2013	ND	189	94.6	200	4.47		
<b>DRO &gt;C10-C28</b>	<b>18900</b>	200	10/17/2013	ND	181	90.6	200	1.79		

*Surrogate: 1-Chlorooctane 166 % 65.2-140*
*Surrogate: 1-Chlorooctadecane 242 % 63.6-154*

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**Analytical Results For:**

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

Received:	10/16/2013	Sampling Date:	10/09/2013
Reported:	10/22/2013	Sampling Type:	Soil
Project Name:	MC CLAY FEDERAL #7	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: POINT 2 @ 1' (H302503-05)**

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	10/18/2013	ND	1.93	96.4	2.00	1.36		
Toluene*	<0.050	0.050	10/18/2013	ND	1.99	99.3	2.00	2.92		
<b>Ethylbenzene*</b>	<b>0.069</b>	0.050	10/18/2013	ND	2.01	100	2.00	2.99		
Total Xylenes*	<0.150	0.150	10/18/2013	ND	5.85	97.4	6.00	2.79		
Total BTEX	<0.300	0.300	10/18/2013	ND						

*Surrogate: 4-Bromofluorobenzene (PIC) 108 % 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>64.0</b>	16.0	10/17/2013	ND	416	104	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	10/17/2013	ND	189	94.6	200	4.47		
<b>DRO &gt;C10-C28</b>	<b>13.0</b>	10.0	10/17/2013	ND	181	90.6	200	1.79		

*Surrogate: 1-Chlorooctane 105 % 65.2-140*
*Surrogate: 1-Chlorooctadecane 110 % 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:	10/16/2013	Sampling Date:	10/09/2013
Reported:	10/22/2013	Sampling Type:	Soil
Project Name:	MC CLAY FEDERAL #7	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: POINT 2 @ 1.5' (H302503-06)**

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	10/18/2013	ND	1.93	96.4	2.00	1.36		
Toluene*	<0.050	0.050	10/18/2013	ND	1.99	99.3	2.00	2.92		
Ethylbenzene*	<0.050	0.050	10/18/2013	ND	2.01	100	2.00	2.99		
Total Xylenes*	<0.150	0.150	10/18/2013	ND	5.85	97.4	6.00	2.79		
Total BTEX	<0.300	0.300	10/18/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIC) 101 % 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	10/17/2013	ND	416	104	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	10/17/2013	ND	189	94.6	200	4.47		
DRO >C10-C28	14.2	10.0	10/17/2013	ND	181	90.6	200	1.79		

Surrogate: 1-Chlorooctane 111 % 65.2-140

Surrogate: 1-Chlorooctadecane 120 % 63.6-154

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**Analytical Results For:**

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

Received:	10/16/2013	Sampling Date:	10/09/2013
Reported:	10/22/2013	Sampling Type:	Soil
Project Name:	MC CLAY FEDERAL #7	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: POINT 3 @ SURFACE (H302503-07)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<2.00	2.00	10/18/2013	ND	1.93	96.4	2.00	1.36		
Toluene*	<b>9.42</b>	2.00	10/18/2013	ND	1.99	99.3	2.00	2.92		
Ethylbenzene*	<b>19.0</b>	2.00	10/18/2013	ND	2.01	100	2.00	2.99		
Total Xylenes*	<b>33.1</b>	6.00	10/18/2013	ND	5.85	97.4	6.00	2.79		
Total BTEX	<b>61.6</b>	12.0	10/18/2013	ND						

Surrogate: 4-Bromofluorobenzene (PII) 117 % 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>3320</b>	16.0	10/17/2013	ND	416	104	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	<b>1830</b>	200	10/17/2013	ND	189	94.6	200	4.47			
DRO >C10-C28	<b>26700</b>	200	10/17/2013	ND	181	90.6	200	1.79			

Surrogate: 1-Chlorooctane 190 % 65.2-140

Surrogate: 1-Chlorooctadecane 984 % 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:	10/16/2013	Sampling Date:	10/09/2013
Reported:	10/22/2013	Sampling Type:	Soil
Project Name:	MC CLAY FEDERAL #7	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: POINT 3 @ 3' (H302503-08)**

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	10/18/2013	ND	1.93	96.4	2.00	1.36		
Toluene*	<0.050	0.050	10/18/2013	ND	1.99	99.3	2.00	2.92		
Ethylbenzene*	<0.050	0.050	10/18/2013	ND	2.01	100	2.00	2.99		
Total Xylenes*	<0.150	0.150	10/18/2013	ND	5.85	97.4	6.00	2.79		
Total BTEX	<0.300	0.300	10/18/2013	ND						

*Surrogate: 4-Bromofluorobenzene (PIE) 105 % 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>5120</b>	16.0	10/17/2013	ND	416	104	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	10/17/2013	ND	189	94.6	200	4.47		
<b>DRO &gt;C10-C28</b>	<b>28.2</b>	10.0	10/17/2013	ND	181	90.6	200	1.79		

*Surrogate: 1-Chlorooctane 104 % 65.2-140*
*Surrogate: 1-Chlorooctadecane 110 % 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:	10/16/2013	Sampling Date:	10/09/2013
Reported:	10/22/2013	Sampling Type:	Soil
Project Name:	MC CLAY FEDERAL #7	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: POINT 3 @ 8' (H302503-09)**

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	10/18/2013	ND	1.93	96.4	2.00	1.36		
Toluene*	<0.050	0.050	10/18/2013	ND	1.99	99.3	2.00	2.92		
Ethylbenzene*	<0.050	0.050	10/18/2013	ND	2.01	100	2.00	2.99		
Total Xylenes*	<0.150	0.150	10/18/2013	ND	5.85	97.4	6.00	2.79		
Total BTEX	<0.300	0.300	10/18/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIC) 101 % 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>560</b>	16.0	10/17/2013	ND	416	104	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	10/17/2013	ND	189	94.6	200	4.47		
<b>DRO &gt;C10-C28</b>	<b>69.3</b>	10.0	10/17/2013	ND	181	90.6	200	1.79		

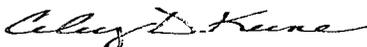
Surrogate: 1-Chlorooctane 109 % 65.2-140

Surrogate: 1-Chlorooctadecane 120 % 63.6-134

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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:	10/16/2013	Sampling Date:	10/09/2013
Reported:	10/22/2013	Sampling Type:	Soil
Project Name:	MC CLAY FEDERAL #7	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: POINT 3 @ 8.5' (H302503-10)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	10/18/2013	ND	1.93	96.4	2.00	1.36		
Toluene*	<0.050	0.050	10/18/2013	ND	1.99	99.3	2.00	2.92		
Ethylbenzene*	<0.050	0.050	10/18/2013	ND	2.01	100	2.00	2.99		
Total Xylenes*	<0.150	0.150	10/18/2013	ND	5.85	97.4	6.00	2.79		
Total BTEX	<0.300	0.300	10/18/2013	ND						

*Surrogate: 4-Bromofluorobenzene (PIC) 99.1 % 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>208</b>	16.0	10/17/2013	ND	416	104	400	0.00		

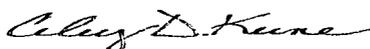
TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	10/17/2013	ND	189	94.6	200	4.47		
<b>DRO &gt;C10-C28</b>	<b>44.4</b>	10.0	10/17/2013	ND	181	90.6	200	1.79		

*Surrogate: 1-Chlorooctane 109 % 65.2-140*
*Surrogate: 1-Chlorooctadecane 116 % 63.6-154*

Cardinal Laboratories

\* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

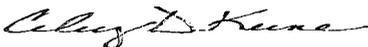
- S-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
- S-04 The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
- QM-4X The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
- 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





# Appendix C

CAP Activities Labs

**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

---

November 19, 2013

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

RE: MC CLAY FEDERAL #7

Enclosed are the results of analyses for samples received by the laboratory on 11/15/13 16:10.

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](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 black ink that reads "Celey D. Keene". The signature is written in a cursive style.

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: 11/15/2013  
 Reported: 11/19/2013  
 Project Name: MC CLAY FEDERAL #7  
 Project Number: NONE GIVEN  
 Project Location: T18S R30E

 Sampling Date: 11/15/2013  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Jodi Henson

**Sample ID: EAST WALL (H302804-01)**

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	11/18/2013	ND	1.98	99.2	2.00	5.01		
Toluene*	<0.050	0.050	11/18/2013	ND	1.96	98.2	2.00	5.59		
Ethylbenzene*	<0.050	0.050	11/18/2013	ND	1.95	97.4	2.00	5.81		
Total Xylenes*	<0.150	0.150	11/18/2013	ND	5.71	95.2	6.00	5.49		
Total BTEX	<0.300	0.300	11/18/2013	ND						

*Surrogate: 4-Bromofluorobenzene (PIC) 106 % 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>112</b>	16.0	11/18/2013	ND	432	108	400	0.00		

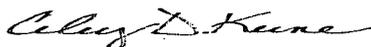
TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	11/18/2013	ND	215	108	200	0.572		
DRO >C10-C28	<10.0	10.0	11/18/2013	ND	210	105	200	2.06		

*Surrogate: 1-Chlorooctane 72.2 % 65.2-140*
*Surrogate: 1-Chlorooctadecane 82.2 % 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:	11/15/2013	Sampling Date:	11/15/2013
Reported:	11/19/2013	Sampling Type:	Soil
Project Name:	MC CLAY FEDERAL #7	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	T18S R30E		

**Sample ID: SOUTH WALL (H302804-02)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/18/2013	ND	1.98	99.2	2.00	5.01		
Toluene*	<0.050	0.050	11/18/2013	ND	1.96	98.2	2.00	5.59		
Ethylbenzene*	<0.050	0.050	11/18/2013	ND	1.95	97.4	2.00	5.81		
Total Xylenes*	<0.150	0.150	11/18/2013	ND	5.71	95.2	6.00	5.49		
Total BTEX	<0.300	0.300	11/18/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIC) 107 % 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	256	16.0	11/18/2013	ND	432	108	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	11/18/2013	ND	215	108	200	0.572		
DRO >C10-C28	113	10.0	11/18/2013	ND	210	105	200	2.06		

Surrogate: 1-Chlorooctane 69.9 % 65.2-140

Surrogate: 1-Chlorooctadecane 83.9 % 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:	11/15/2013	Sampling Date:	11/15/2013
Reported:	11/19/2013	Sampling Type:	Soil
Project Name:	MC CLAY FEDERAL #7	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	T18S R30E		

**Sample ID: WEST WALL (H302804-03)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/18/2013	ND	1.98	99.2	2.00	5.01		
Toluene*	<0.050	0.050	11/18/2013	ND	1.96	98.2	2.00	5.59		
Ethylbenzene*	<0.050	0.050	11/18/2013	ND	1.95	97.4	2.00	5.81		
Total Xylenes*	<0.150	0.150	11/18/2013	ND	5.71	95.2	6.00	5.49		
Total BTEX	<0.300	0.300	11/18/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIC) 108 % 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	<16.0	16.0	11/18/2013	ND	432	108	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	11/18/2013	ND	215	108	200	0.572		
DRO >C10-C28	<10.0	10.0	11/18/2013	ND	210	105	200	2.06		

Surrogate: 1-Chlorooctane 83.8 % 65.2-140

Surrogate: 1-Chlorooctadecane 94.0 % 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:	11/15/2013	Sampling Date:	11/15/2013
Reported:	11/19/2013	Sampling Type:	Soil
Project Name:	MC CLAY FEDERAL #7	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	T18S R30E		

**Sample ID: NORTH WALL (H302804-04)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	11/18/2013	ND	1.98	99.2	2.00	5.01		
Toluene*	<0.050	0.050	11/18/2013	ND	1.96	98.2	2.00	5.59		
Ethylbenzene*	<0.050	0.050	11/18/2013	ND	1.95	97.4	2.00	5.81		
Total Xylenes*	<0.150	0.150	11/18/2013	ND	5.71	95.2	6.00	5.49		
Total BTEX	<0.300	0.300	11/18/2013	ND						

*Surrogate: 4-Bromofluorobenzene (PID) 107 % 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	<16.0	16.0	11/18/2013	ND	432	108	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	11/18/2013	ND	215	108	200	0.572		
DRO >C10-C28	<10.0	10.0	11/18/2013	ND	210	105	200	2.06		

*Surrogate: 1-Chlorooctane 75.5 % 65.2-140*
*Surrogate: 1-Chlorooctadecane 88.1 % 63.6-154*

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

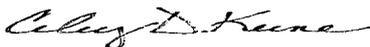
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported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

---

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---

Celey D. Keene, Lab Director/Quality Manager





November 21, 2013

JACOB KAMPLAIN

RICE ENVIRONMENTAL CONSULTING & SAFETY LLC

419 W. CAIN

HOBBS, NM 88240

RE: MC CLAY FEDERAL #7

Enclosed are the results of analyses for samples received by the laboratory on 11/14/13 16:45.

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](http://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,

A handwritten signature in black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized initial 'C'.

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:	11/14/2013	Sampling Date:	11/14/2013
Reported:	11/21/2013	Sampling Type:	Soil
Project Name:	MC CLAY FEDERAL #7	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	T18S R30E		

**Sample ID: 5 PT. COMPOSITE (H302788-01)**

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	11/18/2013	ND	2.14	107	2.00	2.60		
Toluene*	<0.050	0.050	11/18/2013	ND	2.12	106	2.00	2.40		
Ethylbenzene*	<0.050	0.050	11/18/2013	ND	2.12	106	2.00	2.58		
Total Xylenes*	<0.150	0.150	11/18/2013	ND	6.19	103	6.00	2.34		
Total BTEX	<0.300	0.300	11/18/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIE) 113 % 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	320	16.0	11/21/2013	ND	432	108	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	11/15/2013	ND	182	91.1	200	5.05		
DRO >C10-C28	306	50.0	11/15/2013	ND	182	90.8	200	6.00		

Surrogate: 1-Chlorooctane 81.7 % 65.2-140

Surrogate: 1-Chlorooctadecane 141 % 63.6-154

Cardinal Laboratories

\* = Accredited Analyte

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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

---

Cardinal Laboratories

\*=Accredited Analyte

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---

Celey D. Keene, Lab Director/Quality Manager





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

---

November 18, 2013

JACOB KAMPLAIN

RICE ENVIRONMENTAL CONSULTING & SAFETY LLC

419 W. CAIN

HOBBS, NM 88240

RE: MC CLAY FEDERAL #7

Enclosed are the results of analyses for samples received by the laboratory on 11/13/13 10:45.

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](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

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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 black ink that reads "Celey D. Keene". The signature is written in a cursive style with a large, stylized 'C' and 'K'.

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:	11/13/2013	Sampling Date:	11/12/2013
Reported:	11/18/2013	Sampling Type:	Soil
Project Name:	MC CLAY FEDERAL #7	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	NOT GIVEN		

**Sample ID: IMPORTED SOIL (H302765-01)**

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>64.0</b>	16.0	11/15/2013	ND	416	104	400	3.92	

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.



Celest D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

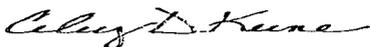
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported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

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Cardinal Laboratories

\*=Accredited Analyte

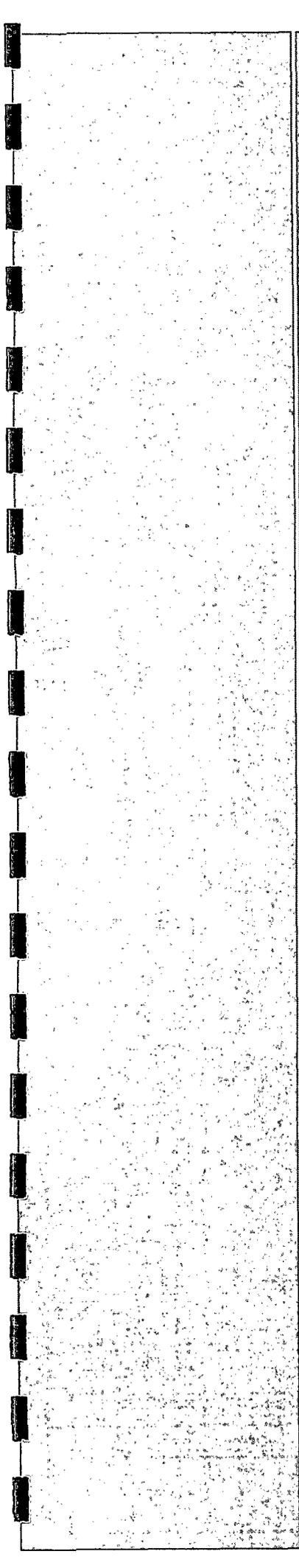
PLEASE NOTE: Liability and Damages. Cardinal's liability and client's exclusive remedy for any claim arising, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whatsoever shall be deemed waived 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.



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Celey D. Keene, Lab Director/Quality Manager



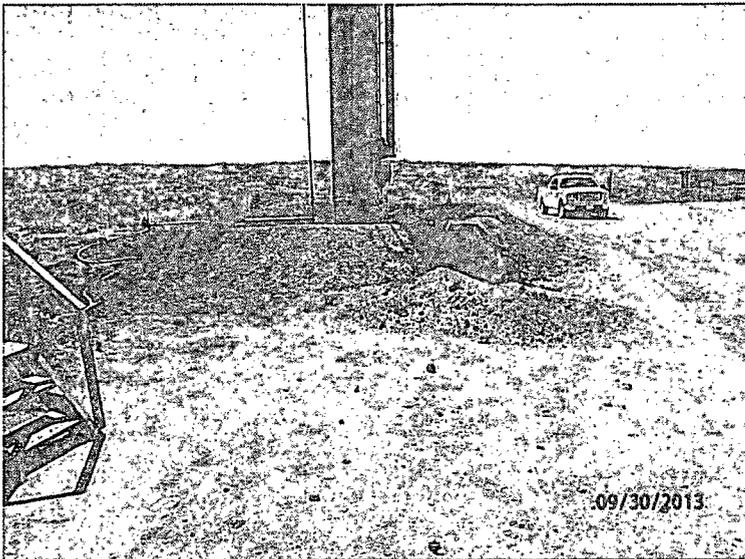


# Appendix D

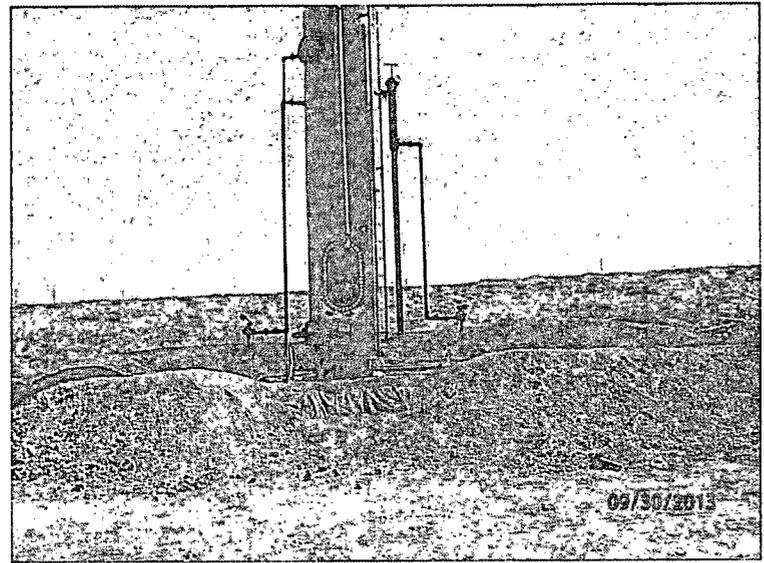
Photo Documentation

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

**Linn McClay Federal #7**  
Unit Letter C, Section 33, T18S, R30E



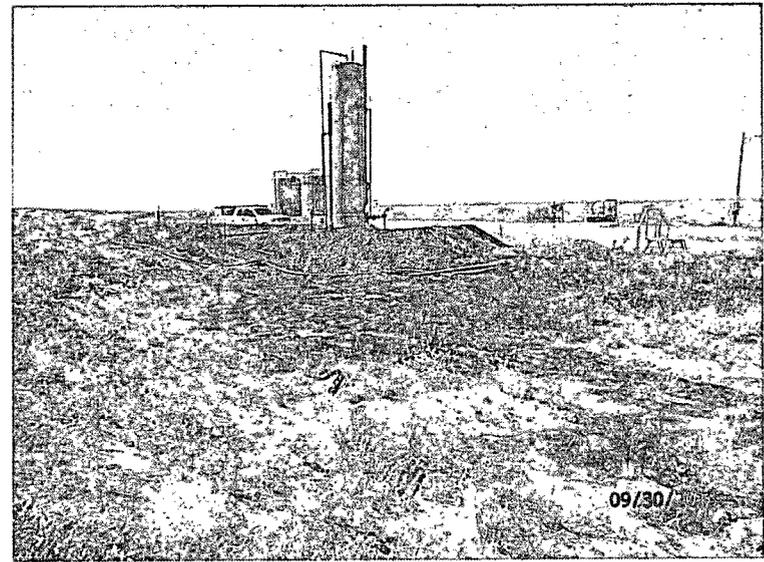
Initial release area, facing west 9/30/13



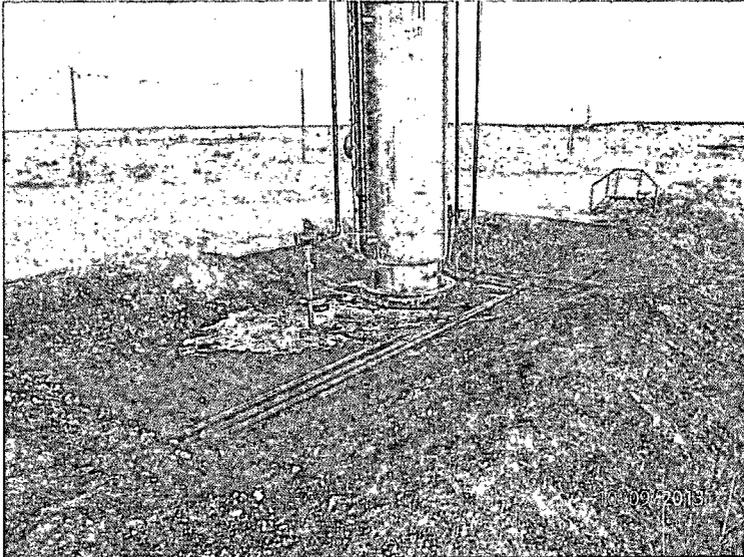
Showing liner beneath release, facing south 9/30/13



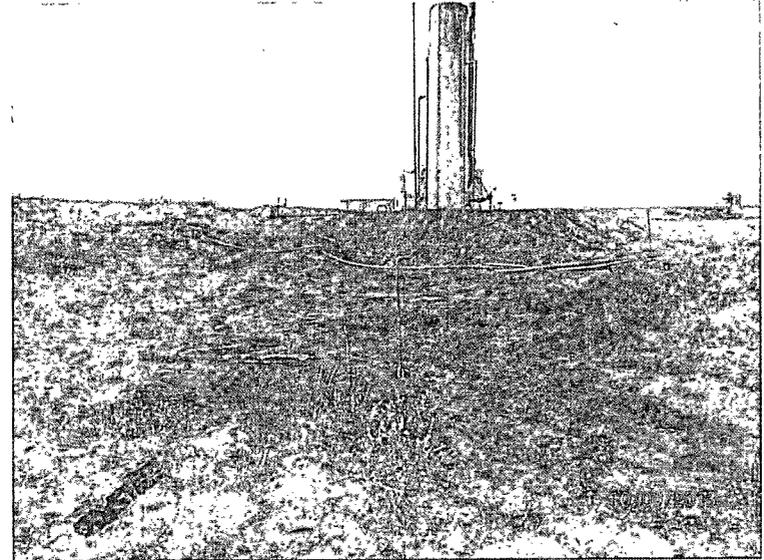
Initial release area, facing east 9/30/13



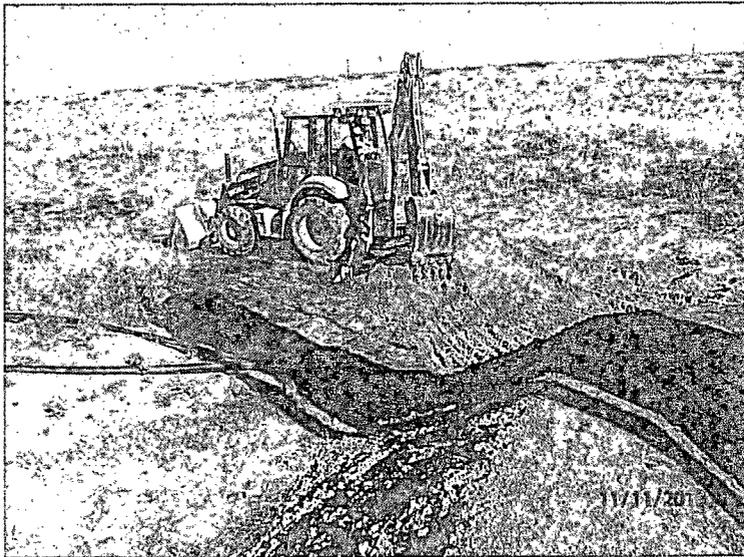
Initial release area, facing northwest 9/30/13



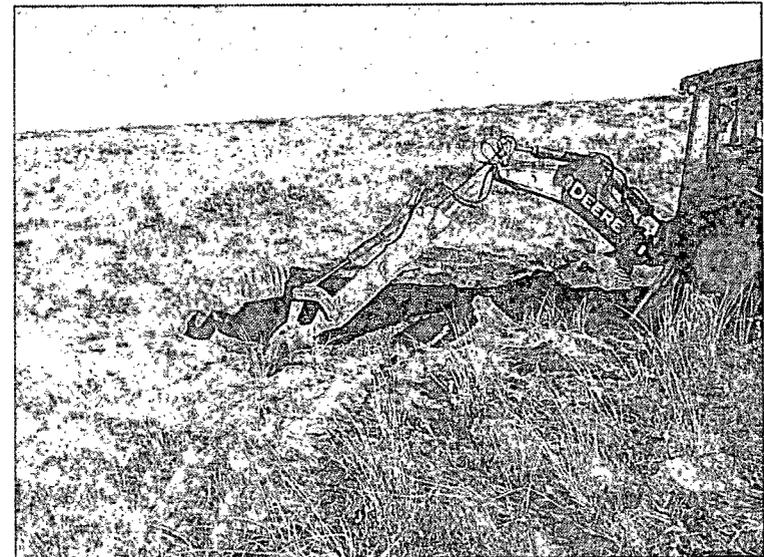
Initial release area, facing northeast 10/9/13



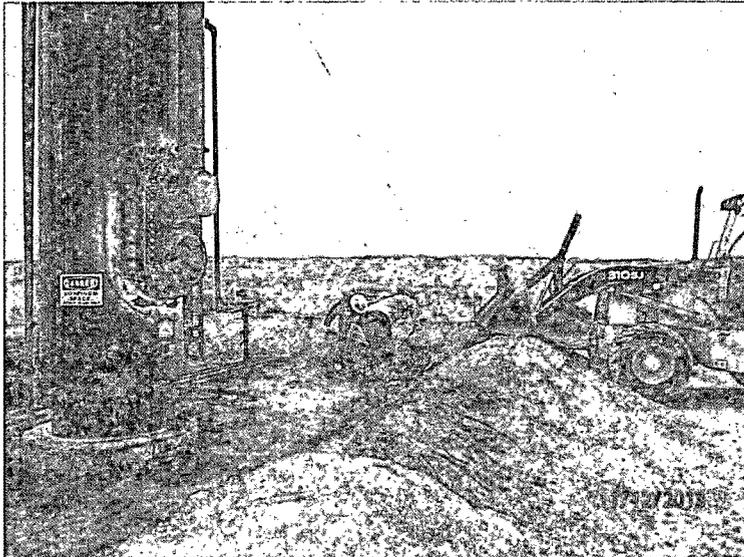
Hand augur site for depth, facing northwest 10/9/13



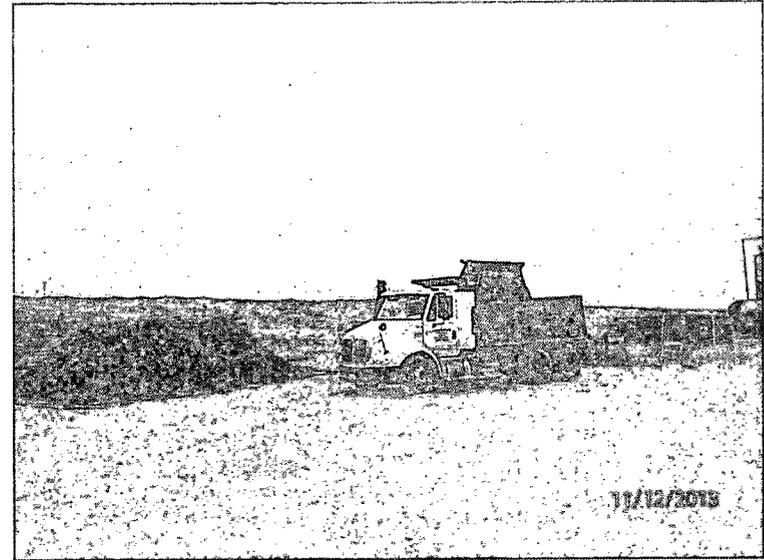
Beginning 6 in scrape, facing northeast 11/11/13



Beginning 4 ft excavation, facing north 11/11/13

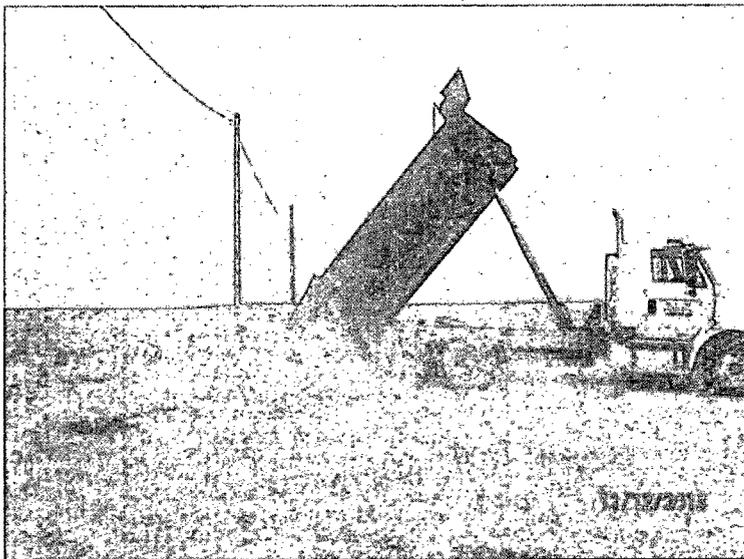


Removing caliche over liner, facing southeast 11/12/13



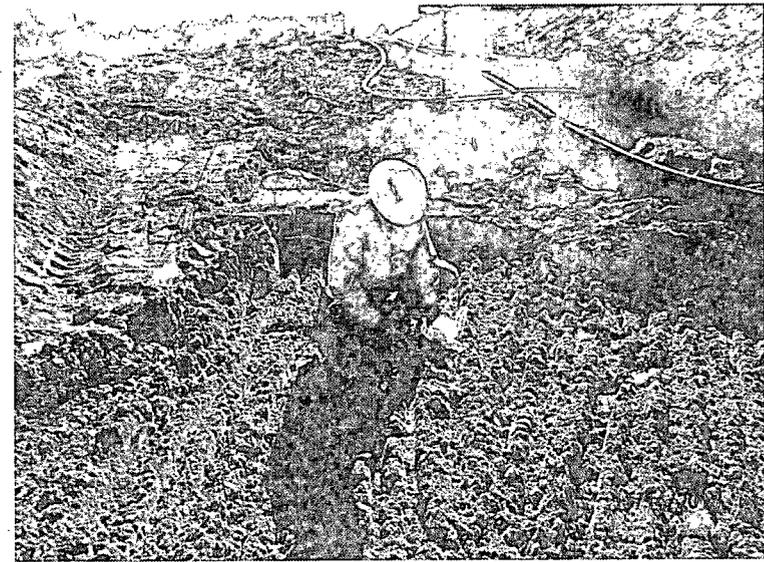
Exporting soil, facing southeast

11/12/13



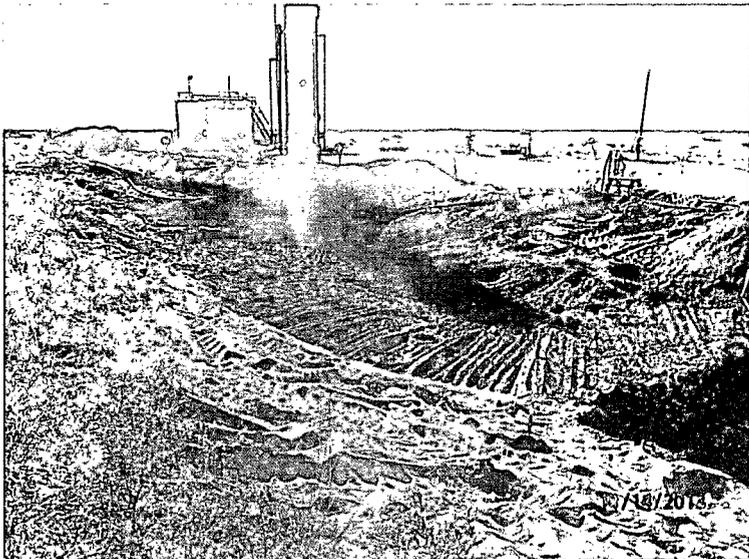
Importing caliche, facing north

11/12/13

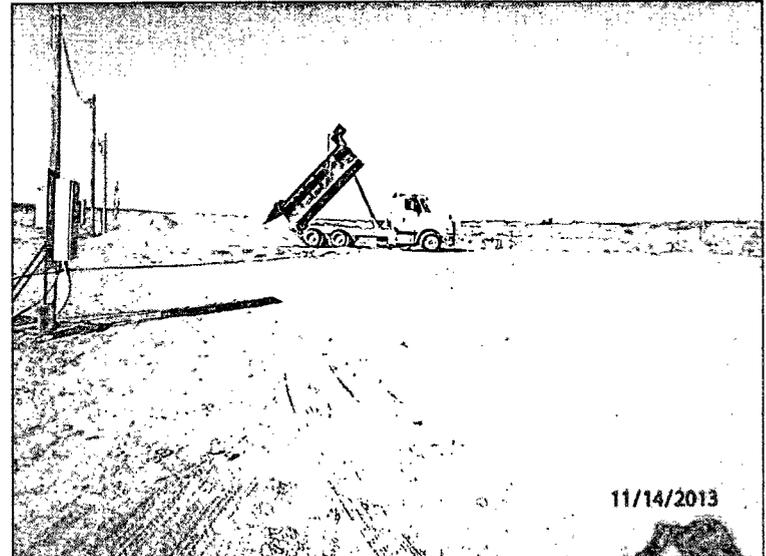


Taking final samples, facing south

11/14/13



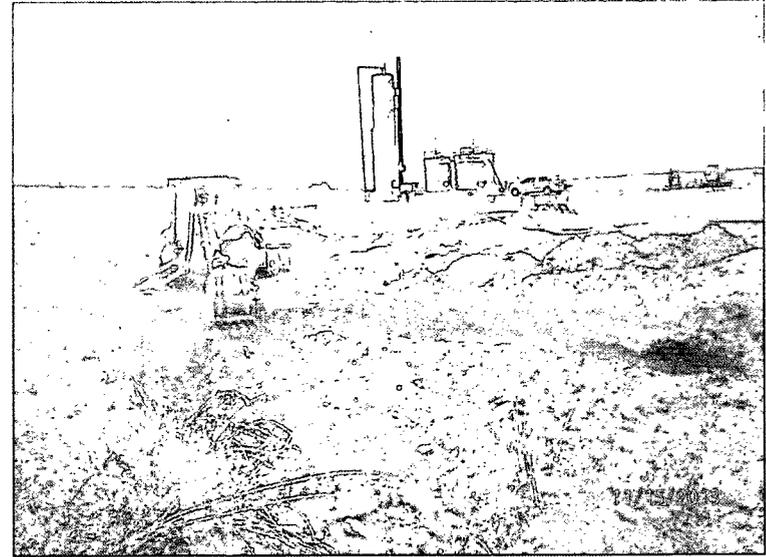
6 in scrape completed, facing southwest 11/14/13



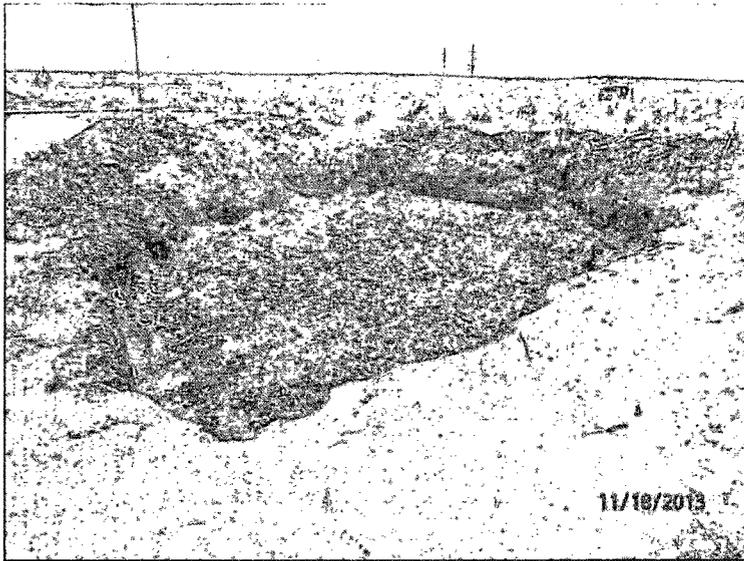
Importing topsoil, facing north 11/14/13



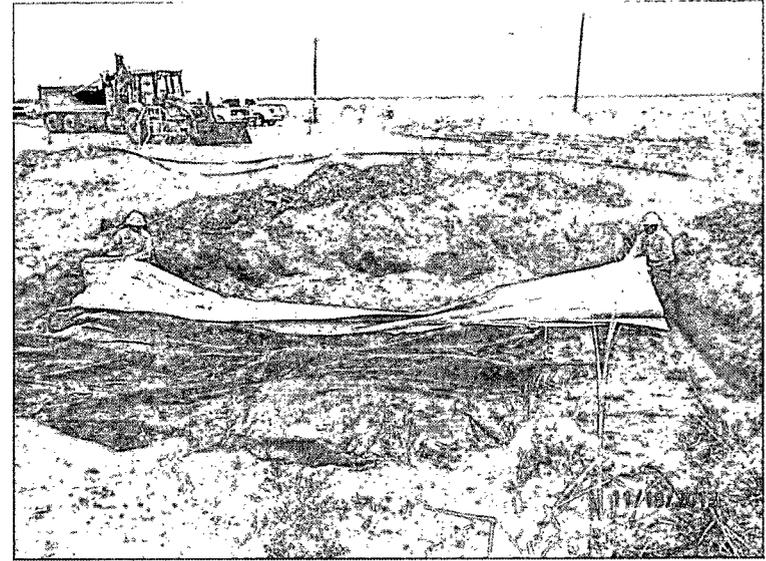
Sampling 4 ft excavation, facing northeast 11/15/13



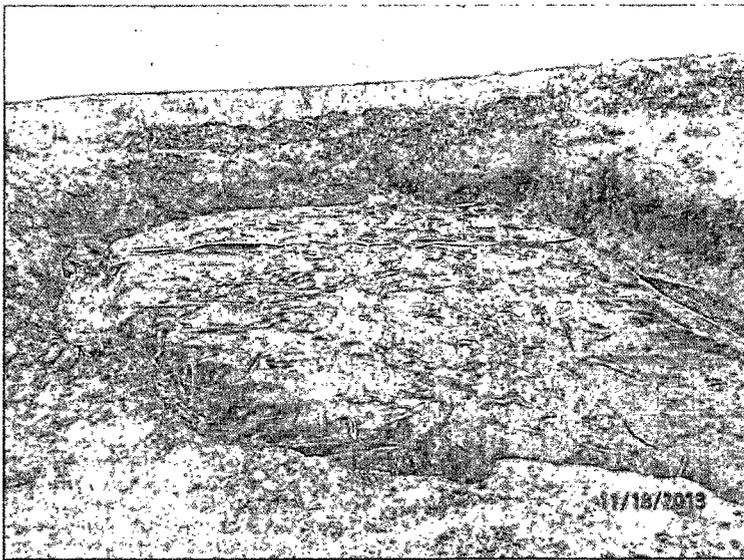
Installing trench to key set liner, facing south 11/15/13



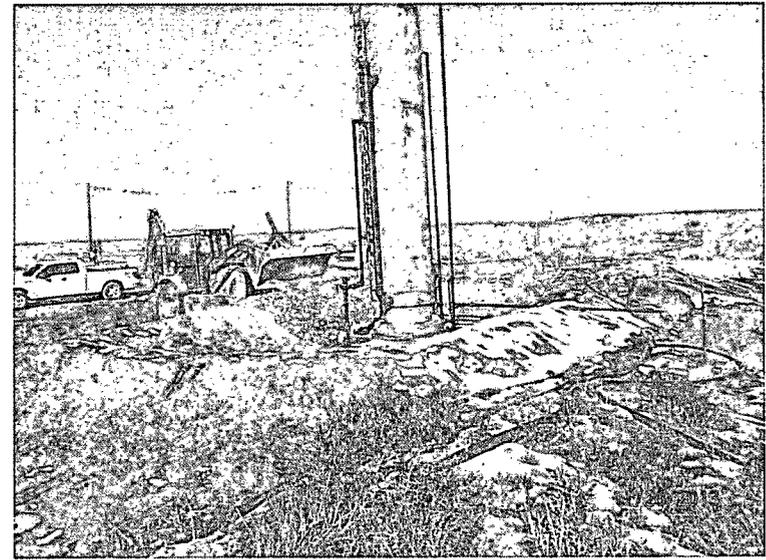
Trench for key set completed, facing northwest  
11/18/13



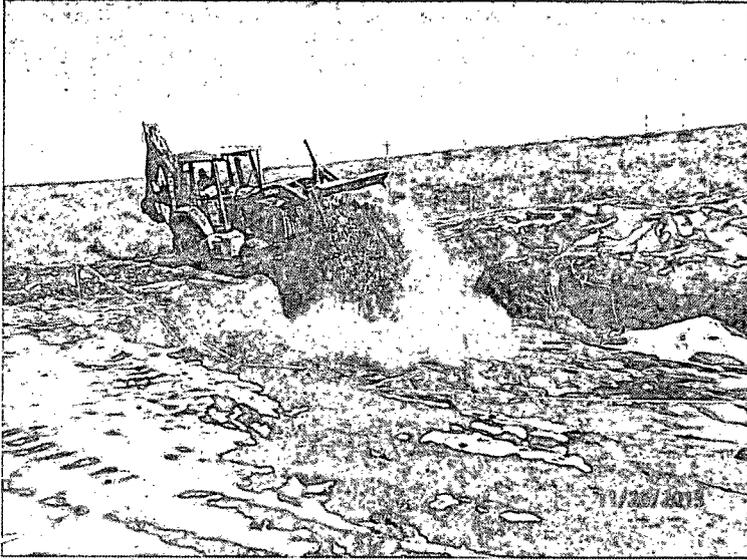
Installing liner, facing southwest  
11/18/13



Liner installation completed, facing north  
11/18/13

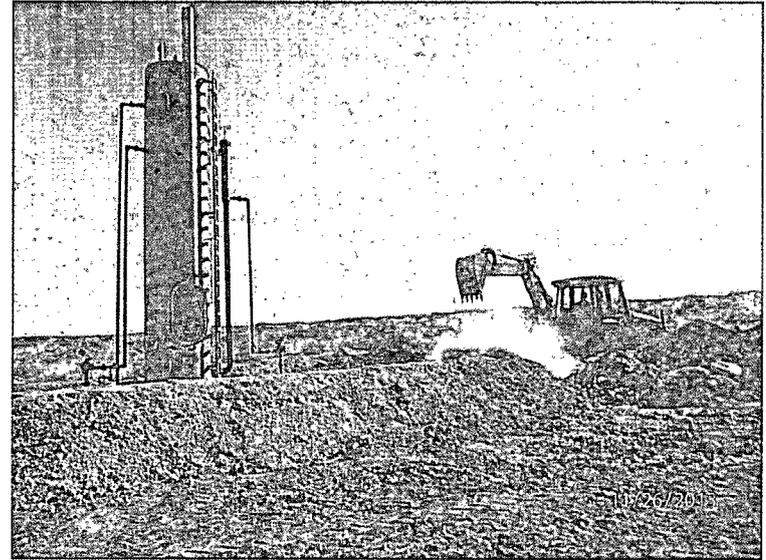


Backfilling treater area, facing northwest  
11/26/13



Padding liner, facing northeast

11/26/13



Re-building berm, facing southeast

11/26/13



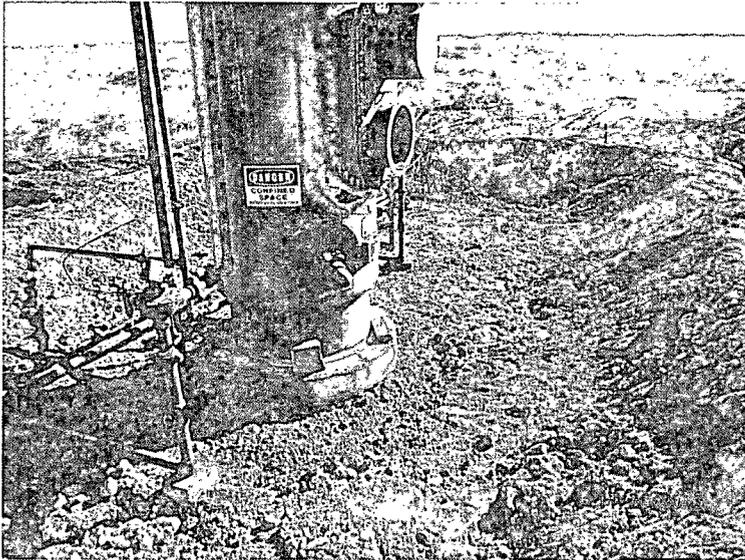
Padding of liner completed, facing north

11/26/13

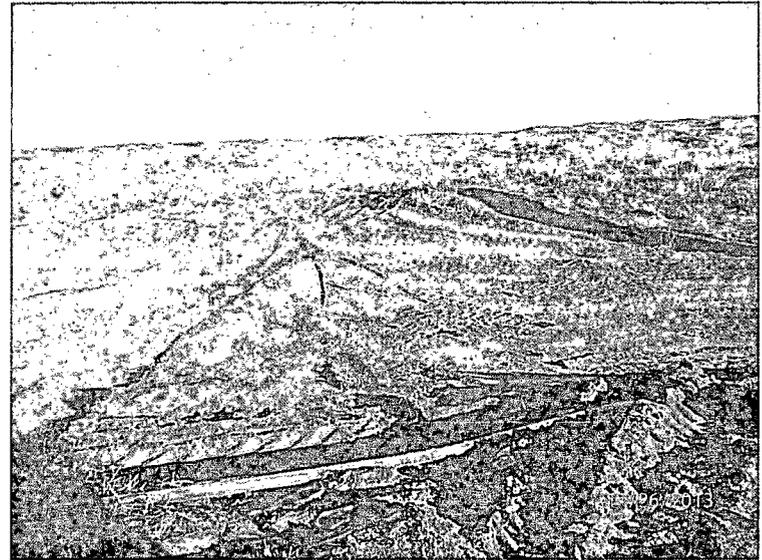


Backfilling excavation and scrape, facing southeast

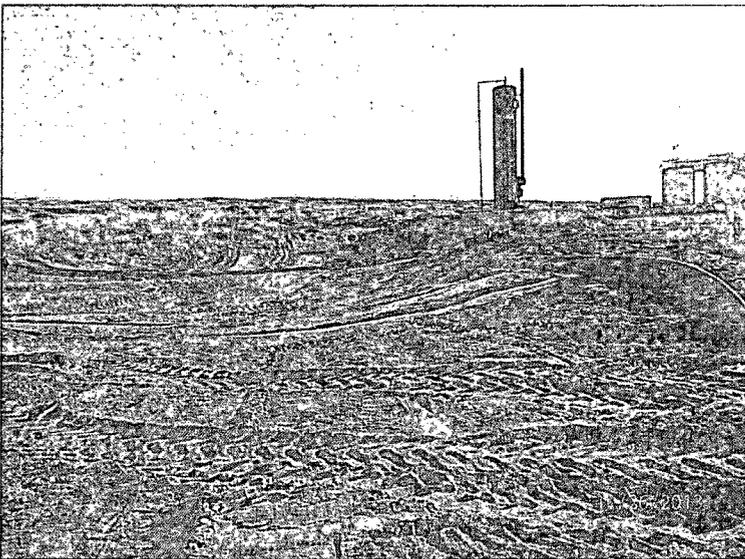
11/26/13



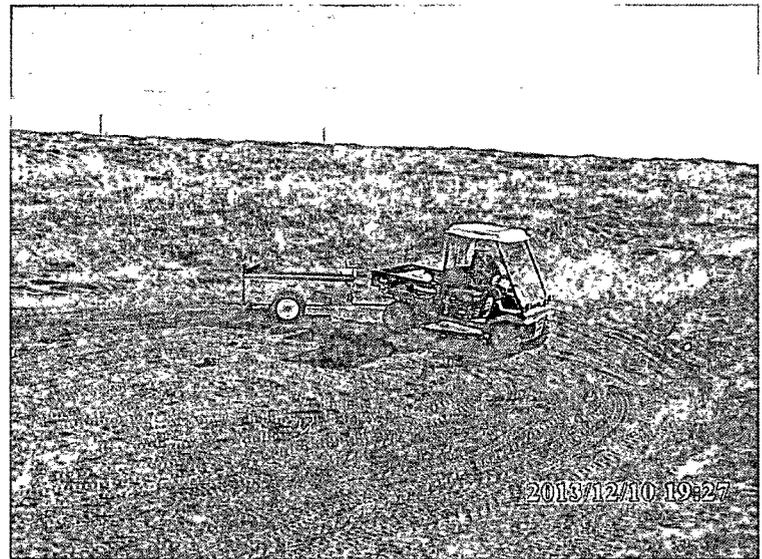
Backfill of treater completed, facing southeast  
11/26/13



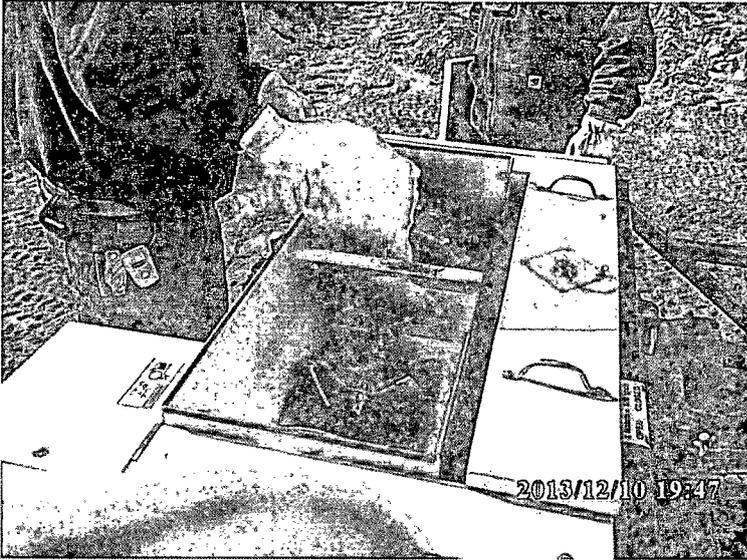
Backfill of pasture area completed, facing east  
11/26/13



Backfill of pasture area completed, facing south  
11/26/13

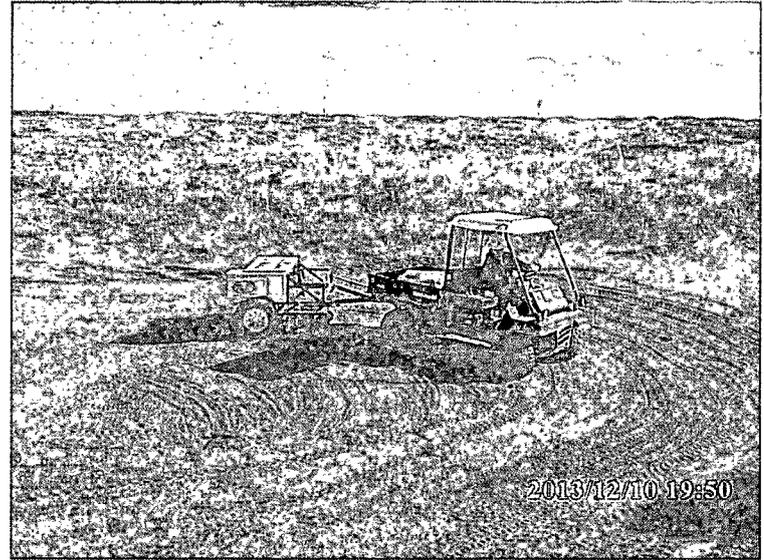


Adding soil amendments, facing north  
12/10/13



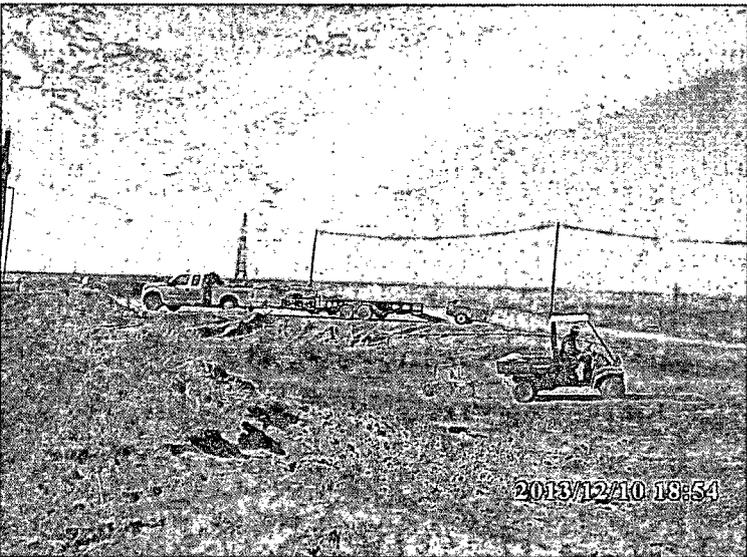
Loading seeder with LPC mix

12/10/13



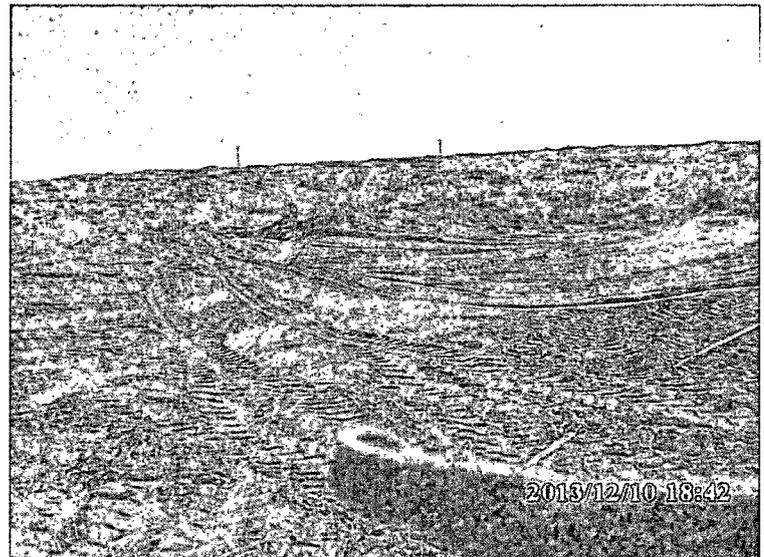
Seeding site, facing northwest

12/10/13



Tilling site, facing east

12/10/13



Site completed, facing northeast

12/10/13

# Appendix E

Final C-141s

**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

Form C-141  
Revised August 8, 2011

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

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

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

Name of Company: Linn Operating	Contact: Brian Wall
Address: 2130 W. Bender Hobbs, NM 88240	Telephone No.: 806-367-0645
Facility Name: McClay Federal #7	Facility Type: Oil Producer

Surface Owner: Federal	Mineral Owner	API No.: 3001510370
------------------------	---------------	---------------------

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
C	33	18S	30E	330	North	1650	West	Eddy

Latitude 32.7103208597655 Longitude -103.980175130974

**NATURE OF RELEASE**

Type of Release: Produced Water/ Oil	Volume of Release: 4bbls/ 1bbl	Volume Recovered: 4bbls/ 1bbl
Source of Release: Heater	Date and Hour of Occurrence: 9/8/2013 12:00 am	Date and Hour of Discovery: 09/08/2013
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 Mike Bratcher- NM OCD	
By Whom? Brian Wall	Date and Hour 09/10/2013	
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.\* Hole in bottom of heater inside base ring. All fluid in dike area picked up with vacuum truck emptied in heater. Cause degradation.

Describe Area Affected and Cleanup Action Taken.\* A total of 31 sq ft of the lined, bermed area surrounding the heater was affected. RECS personnel arrived on site on September 10th, 2013. The site was photographed and mapped. The liner was found across the base of the heater and none of the release occurred outside the liner. The contaminated caliche above the liner was removed and taken to a NMOCD approved facility for disposal. Clean caliche was imported to the site to replace the contaminated caliche.

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>Fred B Wall</i>	<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@linnenery.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 2/5/14	Phone: 806-367-0645	

\* Attach Additional Sheets If Necessary

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

State of New Mexico  
Energy Minerals and Natural Resources

Form C-141  
Revised August 8, 2011

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

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

**Release Notification and Corrective Action**

**OPERATOR**

Initial Report  Final Report

Name of Company: Linn Operating	Contact: Brian Wall
Address: 2130 W. Bender Hobbs, NM 88240	Telephone No.: 806-367-0645
Facility Name: McClay Federal #7	Facility Type: Oil

Surface Owner: Federal	Mineral Owner	API No.: 3001510370
------------------------	---------------	---------------------

**LOCATION OF RELEASE**

Unit Letter C	Section 33	Township 18S	Range 30E	Feet from the 330	North/South Line North	Feet from the 1650	East/West Line West	County Eddy
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Latitude: 32.7103208597655 Longitude: -103.980175130974

**NATURE OF RELEASE**

Type of Release: Oil	Volume of Release: 10 bbls	Volume Recovered: 0
Source of Release: Heater	Date and Hour of Occurrence: 09/24/2013 12:00am	Date and Hour of Discovery: 9/24/2013
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 Mike Bratcher- NM OCD	
By Whom? Brian Wall	Date and Hour 09/26/2013 7:45am	
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.\*: Missed opening valve when restarting well. Heater exceeded operating pressure blew oil through pressure relief valve on top of the heater.

Describe Area Affected and Cleanup Action Taken.\*: The release covered 2,486 sq ft of lease pad and pasture land. RECS personnel were on site beginning on September 30<sup>th</sup>, 2013 to assess the releases. Soil samples from the surface and with depth were taken from the release. The samples were field tested for chlorides and organic vapors and representative samples were taken to a commercial laboratory for analysis. Point 1 returned laboratory chloride, GRO, DRO and BTEX below regulatory standards beginning at 6 inches. Point 2 returned laboratory chloride, GRO, DRO and BTEX below regulatory standards beginning at 1 foot. Point 3 returned laboratory chloride, GRO, DRO and BTEX below regulatory standards beginning at 8.5 feet. A CAP for the release (2RP-1959) was sent to NMOCD and BLM on October 29<sup>th</sup>, 2013 and approved by BLM the same day. NMOCD approved the CAP on November 15<sup>th</sup>, 2013. On November 6<sup>th</sup>, 2013, CAP activities began at the site. The area inside the treater berm, the contaminated berm, the 6 inch scrape and the 4 foot excavation were completed and a total of 228 yards of contaminated soil was taken to a NMOCD approved facility for disposal. A total of 72 yards of clean caliche was imported to the site to backfill the treater area and replace the contaminated berm. The remaining caliche was backfilled into the 4 foot excavation. Once the 4 foot excavation was completed, wall samples were taken to a commercial laboratory for analysis to confirm all constituents were below regulatory standards. At the base of the 6 inch scrape, a 5 point bottom composite was taken and sent to a commercial laboratory for analysis. The bottom composite returned a chloride value of 320 mg/kg, a DRO value of 306 mg/kg and GRO and BTEX values of non-detect. This data was sent to BLM and NMOCD with a request to backfill the site. BLM approved the site to be backfilled on November 25<sup>th</sup>, 2013 and NMOCD approved the site to be backfilled on December 2<sup>nd</sup>, 2013. A trench was installed along the periphery of the 4 foot excavation and a 20-mil reinforced poly liner was key set into the excavation. A total of 108 yards of top soil was imported to site to serve as backfill. The liner was padded with 6 inches of the top soil and the remaining caliche was backfilled over the padded liner. A sample of the imported top soil was taken to a commercial laboratory and returned a laboratory chloride reading of 64 mg/kg. The 6 inch scrape and the remainder of the 4 foot excavation was backfilled with the imported top soil and the area was contoured to the surrounding location. On December 10<sup>th</sup>, 2013, soil amendments were added to the pasture area and the site was seeded with LPC seed mix.

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>Fred B Wall</i>	<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: 2/5/14	Phone: 806-367-0645	

\* Attach Additional Sheets If Necessary