



LINN ENERGY

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

JL Keel A Battery – JL Keel A #9 (2RP-1839)

Corrective Action Plan

API No. 3001505097

Release Date: August 14th, 2013

Unit Letter G, Section 7, Township 17S, Range 31E

Rice Environmental Consulting & Safety

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

March 14th, 2014

Mike Bratcher

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

RE: Corrective Action Plan

Linn Energy – JL Keel A Battery – JL Keel A #9 (2RP-1839)
UL/G sec. 7 T17S R31E
API No. 3001505097

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 4.8 miles northeast of Loco Hills, New Mexico at UL/G sec. 7 T17S R31E. This site is in an area of no known groundwater.

On August 14th, 2013 a release of produced water occurred at the JL Keel A Battery. The water tank overflowed due to a faulty transmitter and released a total of 40 barrels of produced water inside 4,607 square feet of bermed facility. A vacuum truck was called to the site and recovered 35 barrels of water. NMOCD and BLM were notified of the release on August 14th, 2013 and NMOCD approved the initial C-141 on August 16th, 2013 (Appendix A).

RECS personnel were on site beginning on September 5th, 2013 to assess the release. Four points within the bermed area were sampled at the surface and Point 2 was augured down for depth (Figure 1). The surface sample and the 8 ft sample from Point 2 were taken to a commercial laboratory for analysis (Appendix B). Laboratory chloride readings returned results of 11,600 mg/kg at the surface and 592 mg/kg at 8 ft bgs. Gasoline Range Organics (GRO) and BTEX returned results of non-detect. Diesel Range Organics (DRO) returned results of 1,590 mg/kg at the surface and 11.1 mg/kg at 8 ft bgs.

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

Corrective Action Plan

Due to safety concerns with excavating inside a tank battery, the battery will be hand and machine excavated to a depth of 1 ft bgs. All excavated soils will be evaluated for use as

backfill and any soils that do not meet regulations will be disposed of at a NMOCD approved facility. The remainder of the soil will be blended on site with clean, imported soil as needed. A sample of the blended soil will be taken to a commercial laboratory for analysis to confirm that the chloride value and TPH value are below 1,000 mg/kg respectively. The battery will be backfilled with the blended soil and contoured to the surrounding location. Any disturbed berms will be rebuilt to previous standards.

Once these actions have been completed, a report will be submitted requesting 'remediation termination' and site closure.

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

Sincerely,

A handwritten signature in dark ink, appearing to read 'L.W.', followed by a long, horizontal, wavy line that extends to the right.

Lara Weinheimer
Project Scientist
RECS
(575) 441-0431

Attachments:

- Figure 1 – Initial Sampling Data
- Figure 2 – Proposed Corrective Actions
- Appendix A – Initial C-141
- Appendix B – Point 2 Sampling Lab
- Appendix C – Photo Documentation

Figures

Initial Sampling Data

CI- PID
Point 1
Surface 8956 385.7

	CI-	PID	GRO	DRO	B	T	E	X	BTEX
Point 2									
Surface	11600	372.3	<10	1590	<0.05	<0.05	<0.05	<0.15	<0.3
6"	2151	186.2							
1'	1660	366.4							
1.5'	3202	17.7							
2'	1003	95.7							
2.5'	997	38.7							
3'	1140	53.2							
3.5'	1000	33.6							
4'	4172	87.7							
4.5'	776	20.7							
5'	547	89.2							
5.5'	538	22.2							
6'	428	23.7							
6.5'	2508	29.1							
7'	572	61.5							
7.5'	538	20.3							
8'	592	33.4	<10	11.1	<0.05	<0.05	<0.05	<0.15	<0.3

Legend

- ▲ SAMPLE POINT
- CONTAINMENT
- CONTROL BOX
- ⊕ ELECTRIC POLE
- ELECTRICAL BOX
- ELECTRICAL LINE
- BERM
- CROSSOVER
- ELECTRICAL PANEL
- × — × FENCE
- OVERHEAD ELECTRIC LINE
- RISER
- STAIRS AND CATWALK
- SURFACE PIPELINE
- PUMP
- STORAGE TANK

CI- FIELD DATA

CI- LAB DATA

	CI-	PID
Point 3		
Surface	11589	346.4
Point 4		
Surface	9659	380.9

Landowner = BLM DGW = None



**LINN JL KEEL A
BATTERY - JL
KEEL A #9**
(2RP-1839)
UL G SECTION 7
T-17-S R-31-E
EDDY COUNTY, NM

Figure 1



0 10 20
Feet

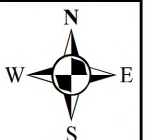
GPS date: 9/5/13 KS
Drawing date: 9/17/13
Drafted by: L. Weinheimer

Proposed Corrective Actions



**LINN JL KEEL A
BATTERY - JL
KEEL A #9
(2RP-1839)
UL G SECTION 7
T-17-S R-31-E
EDDY COUNTY, NM**

Figure 2



0 20 40
Feet

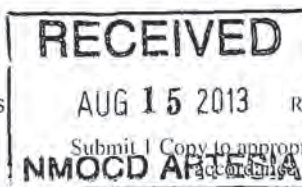
GPS date: 8/30/13 TG
Drawing date: 8/30/13
Drafted by: T. Grieco

Appendix A

Initial C-141

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

JM 1322841395

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: JL Keel A Battery - JL Keel A #9 Facility Type: Battery

Surface Owner: Federal Mineral Owner: API No.: 3001505097

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
G	07	17S	31E	1980	North	1980	East	Eddy

Latitude: 32.85081 Longitude: -103.90604

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release: 40bbls	Volume Recovered: 35bbls
Source of Release: Water Tank	Date and Hour of Occurrence: 08/14/2013 11:30am	Date and Hour of Discovery: 08/14/2013 11:30am
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Mike Bratcher- NM OCD M. Burton-BLM	
By Whom? Brian Wall	Date and Hour 08/14/2013 3:15pm	
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.*: pulled up on location to get guages, noticed inside the firewalls had water. Walked around and noticed water tank overflowing. Never received any alarm for pump failure or high tank level. Turned H.O.A. switch on panel box to transfer pump to hand position pump turned on and pumped down tank. Called electrician (Dixie Electric) to diagnose problem found transmitter on back of tank was bad causing it to show water level in tank at a steady 3 foot.

Describe Area Affected and Cleanup Action Taken.*: called vacuum truck (Unique Vacuum Services) to pick up standing water 60bbls of rain water and produced water; unable to determine exact amount of rain water mixed in with produced.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOC 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: AUG 16 2013	Expiration Date:
E-mail Address: bwall@linenergy.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 08/15/2013 Phone: 806-367-0645	Remediation per OCD Rule & Guidelines, & like approval by BLM. SUBMIT REMEDIATION PROPOSAL NO LATER THAN:	

* Attach Additional Sheets If Necessary

SEPTEMBER 16, 2013

ZRP-1839