APPROVED

Hale State Battery

CLOSURE REPORT

API No. 30-025-02154

Release Date: June 25, 2015

Unit Letter E, Section 31, Township 17 South, Range 31 East

NMOCD Case #: 1R-3700

June 8, 2016

Prepared by:
Michael Burton, Environmental Operations Director
Environmental Department
Diversified Field Service, Inc.
206 W. Snyder
Hobbs, NM 88240
Phone: (575)964-8394
Fax: (575)393-8396

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Diversified Field Service, Inc.
206 W Snyder
Hobbs, NM 88240
(575) 964-8394

Hale State Battery

1 INTRODUCTION

Linn Energy (Linn) has retained Diversified Environmental (DFSI) to address environmental issues for the site detailed herein.

The site is located southeast of Maljamar, NM, in Lea County. The spill site resulted from the heater losing all pressure, causing it to fill with liquid, which came up through the gas line into the separator, and popped off the ground. The impacted area was contained between the tanks and the heater, with some residual spray into the pasture. Approximately 50 bbls of oil was released, with 40 bbls recovered. An initial C-141 was submitted on June 26, 2015 and approved on June 29, 2015 (Appendix I).

2 SITE ACTIVITIES

On June 30, 2015, DFSI personnel were onsite to obtain samples within the release area (Figure 1). Field samples were collected at four sample points, with each sample tested for chloride levels as well as BTEX. The BTEX samples were performed using a Mini Rae Photoionization Detector (PID). All clean field samples under NMOCD and BLM regulatory guidelines were submitted for laboratory analysis at Cardinal Laboratories of Hobbs, NM to obtain confirmation (Appendix II).

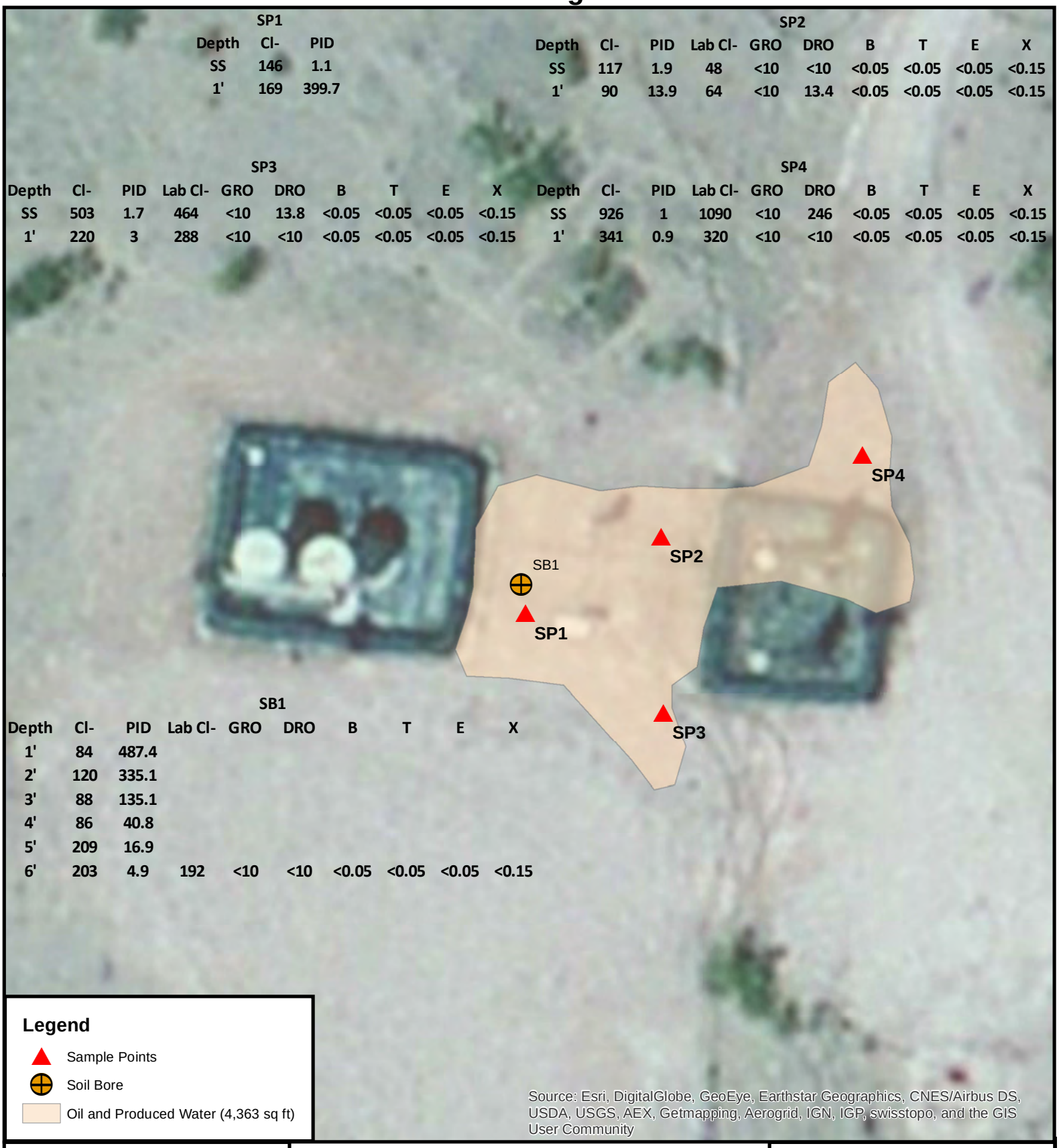
On November 20, 2015, to further delineate the site, a soil bore was installed, which each sample tested for chloride levels as well as BTEX. A clean field sample under NMOCD and BLM regulatory guidelines were submitted for laboratory analysis at Cardinal Laboratories of Hobbs, NM to obtain confirmation (Appendix III).

A work plan was submitted to NMOCD and BLM on March 23, 2016. On April 25, 2016, DFSI personnel were on site to excavate the area around SP1 and SB1 to 4’ bgs. The remainder of the release area was scraped to 6” bgs. The site was then backfill with clean caliche (Appendix IV). Seeding of the site was not warranted.

3 CONCLUSION

According to the U.S. Geological Survey and the NM Office of the State Engineer, depth to groundwater in the area averages 137 ft. bgs. Based on the report and work completed, any remaining chloride and BTEX components in the vadose zone will not affect groundwater beneath this site; therefore, DFSI, on behalf of Linn, submits the final C-141 (Appendix V) and respectfully requests the closure of this regulatory file.

Site Diagram



SP1

Depth	Cl-	PID
SS	146	1.1
1'	169	399.7

SP2

Depth	Cl-	PID	Lab Cl-	GRO	DRO	B	T	E	X
SS	117	1.9	48	<10	<10	<0.05	<0.05	<0.05	<0.15
1'	90	13.9	64	<10	13.4	<0.05	<0.05	<0.05	<0.15

SP3

Depth	Cl-	PID	Lab Cl-	GRO	DRO	B	T	E	X
SS	503	1.7	464	<10	13.8	<0.05	<0.05	<0.05	<0.15
1'	220	3	288	<10	<10	<0.05	<0.05	<0.05	<0.15

SP4

Depth	Cl-	PID	Lab Cl-	GRO	DRO	B	T	E	X
SS	926	1	1090	<10	246	<0.05	<0.05	<0.05	<0.15
1'	341	0.9	320	<10	<10	<0.05	<0.05	<0.05	<0.15

SB1

Depth	Cl-	PID	Lab Cl-	GRO	DRO	B	T	E	X
1'	84	487.4							
2'	120	335.1							
3'	88	135.1							
4'	86	40.8							
5'	209	16.9							
6'	203	4.9	192	<10	<10	<0.05	<0.05	<0.05	<0.15

Legend

- Sample Points
- Soil Bore
- Oil and Produced Water (4,363 sq ft)

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

DFSI Environmental Services

Linn
Hale State Battery
Unit Letter E, Section 31, T31S, R34E
Lea County, NM
API #: 30-025-02154
NMOCD Case #: 1R-3700

Mapped: 11/18/2015 LC
Drafted by: L. Flores
06/07/2016

N W E S

0 5 10 20 30 40 Feet

Appendix I

INITIAL C-141

Diversified Field Service, Inc.
206 W. Snyder
Hobbs, NM 88240
(575) 964-8394

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 Inc.	Contact E.L. Gonzales
Address 2130 W Bender Blvd Hobbs, NM 88240	Telephone No. 575-738-1739
Facility Name Hale State Battery- (closest well Hale State #1)	Facility Type Battery

Surface Owner State	Mineral Owner	API No. closest well 30-025-02154

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
E	31	17S	34E	990	North	660	West	Eddy

Latitude 32.795795315483 **Longitude** -103.605900841618

NATURE OF RELEASE

Type of Release Oil	Volume of Release 50 bbls	Volume Recovered 40 bbls
Source of Release Separator	Date and Hour of Occurrence 06/25/15	Date and Hour of Discovery 06/25/2015 9:00am
Was Immediate Notice Given? ☐ Yes ☐ No ☐ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

RECEIVED
By OCD District 1 at 3:09 pm, Jun 29, 2015

Describe Cause of Problem and Remedial Action Taken.* Heater lost all pressure filled it up with liquid came up through the gas line into separator and popped off on the ground. Had about fifty bbls on the ground and recovered about 40.

Describe Area Affected and Cleanup Action Taken.* Had a mess on the ground 60ft. Wide, 50 ft. long and about 50 ft. spray into the pasture about 15 ft. wide. Mess contained between the tanks and the heater.

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:

Printed Name: E.L. Gonzales

Title: Production Supervisor

E-mail Address: elgonzales@linnenergy.com

Date: 06/26/2015 Phone: 505-504-8002

OIL CONSERVATION DIVISION

Approved by Environmental Specialist:

Approval Date: 06/29/2015 Expiration Date: 09/29/2015

Conditions of Approval:
Site samples required. Delineate and remediate as per MNOCD guides. Geotag photographs of remediation required.

Attached ☐ 269324
1RP-3700
nKJ1518055891
pKJ1518056007

* Attach Additional Sheets If Necessary

Appendix II

SOIL DELINEATION LABORATORY ANALYSES

Diversified Field Service, Inc.
206 W. Snyder
Hobbs, NM 88240
(575) 964-8394

CARDINAL Laboratories

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

November 30, 2015

JOE HERNANDEZ

LINN OPERATING-HOBBS

2130 W. BENDER

HOBBS, NM 88240

RE: HALE STATE BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 11/20/15 16:40.

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

Cardinal Laboratories is accreditated 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

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

LINN OPERATING-HOBBS
JOE HERNANDEZ
2130 W. BENDER
HOBBS NM, 88240
Fax To: (575) 738-1740

Received:	11/20/2015	Sampling Date:	11/20/2015
Reported:	11/30/2015	Sampling Type:	Soil
Project Name:	HALE STATE BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LINN		

Sample ID: SAMPLE POINT 2 @ SURFACE (H503084-01)

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	11/25/2015	ND	2.02	101	2.00	0.897	
Toluene*	<0.050	0.050	11/25/2015	ND	2.00	99.9	2.00	1.29	
Ethylbenzene*	<0.050	0.050	11/25/2015	ND	2.07	104	2.00	0.196	
Total Xylenes*	<0.150	0.150	11/25/2015	ND	6.10	102	6.00	0.168	
Total BTEX	<0.300	0.300	11/25/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID *102 %* *73.6-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AP

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	11/25/2015	ND	400	100	400	14.8	

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	11/23/2015	ND	189	94.6	200	3.05	
DRO >C10-C28	<10.0	10.0	11/23/2015	ND	183	91.7	200	2.06	

Surrogate: 1-Chlorooctane *94.9 %* *35-147*

Surrogate: 1-Chlorooctadecane *105 %* *28-171*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

LINN OPERATING-HOBBS
JOE HERNANDEZ
2130 W. BENDER
HOBBS NM, 88240
Fax To: (575) 738-1740

Received:	11/20/2015	Sampling Date:	11/20/2015
Reported:	11/30/2015	Sampling Type:	Soil
Project Name:	HALE STATE BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LINN		

Sample ID: SAMPLE POINT 2 @ 1' (H503084-02)

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	11/25/2015	ND	2.02	101	2.00	0.897	
Toluene*	<0.050	0.050	11/25/2015	ND	2.00	99.9	2.00	1.29	
Ethylbenzene*	<0.050	0.050	11/25/2015	ND	2.07	104	2.00	0.196	
Total Xylenes*	<0.150	0.150	11/25/2015	ND	6.10	102	6.00	0.168	
Total BTEX	<0.300	0.300	11/25/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *73.6-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AP

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	11/25/2015	ND	400	100	400	14.8	

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	11/23/2015	ND	189	94.6	200	3.05	
DRO >C10-C28	**13.4**	10.0	11/23/2015	ND	183	91.7	200	2.06	

Surrogate: 1-Chlorooctane *102 %* *35-147*

Surrogate: 1-Chlorooctadecane *114 %* *28-171*

Cardinal Laboratories *=Accredited Analyte

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

Analytical Results For:

LINN OPERATING-HOBBS
JOE HERNANDEZ
2130 W. BENDER
HOBBS NM, 88240
Fax To: (575) 738-1740

Received:	11/20/2015	Sampling Date:	11/20/2015
Reported:	11/30/2015	Sampling Type:	Soil
Project Name:	HALE STATE BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LINN		

Sample ID: SAMPLE POINT 3 @ SURFACE (H503084-03)

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	11/25/2015	ND	2.02	101	2.00	0.897	
Toluene*	<0.050	0.050	11/25/2015	ND	2.00	99.9	2.00	1.29	
Ethylbenzene*	<0.050	0.050	11/25/2015	ND	2.07	104	2.00	0.196	
Total Xylenes*	<0.150	0.150	11/25/2015	ND	6.10	102	6.00	0.168	
Total BTEX	<0.300	0.300	11/25/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *73.6-140*

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	11/25/2015	ND	400	100	400	14.8	

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	11/23/2015	ND	189	94.6	200	3.05	
DRO >C10-C28	**13.8**	10.0	11/23/2015	ND	183	91.7	200	2.06	

Surrogate: 1-Chlorooctane *101 %* *35-147*

Surrogate: 1-Chlorooctadecane *111 %* *28-171*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

LINN OPERATING-HOBBS
JOE HERNANDEZ
2130 W. BENDER
HOBBS NM, 88240
Fax To: (575) 738-1740

Received:	11/20/2015	Sampling Date:	11/20/2015
Reported:	11/30/2015	Sampling Type:	Soil
Project Name:	HALE STATE BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LINN		

Sample ID: SAMPLE POINT 3 @ 1' (H503084-04)

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	11/25/2015	ND	2.02	101	2.00	0.897	
Toluene*	<0.050	0.050	11/25/2015	ND	2.00	99.9	2.00	1.29	
Ethylbenzene*	<0.050	0.050	11/25/2015	ND	2.07	104	2.00	0.196	
Total Xylenes*	<0.150	0.150	11/25/2015	ND	6.10	102	6.00	0.168	
Total BTEX	<0.300	0.300	11/25/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID *103 %* *73.6-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AP

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**288**	16.0	11/25/2015	ND	400	100	400	14.8	

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	11/23/2015	ND	189	94.6	200	3.05	
DRO >C10-C28	<10.0	10.0	11/23/2015	ND	183	91.7	200	2.06	

Surrogate: 1-Chlorooctane *102 %* *35-147*

Surrogate: 1-Chlorooctadecane *110 %* *28-171*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

LINN OPERATING-HOBBS
JOE HERNANDEZ
2130 W. BENDER
HOBBS NM, 88240
Fax To: (575) 738-1740

Received:	11/20/2015	Sampling Date:	11/20/2015
Reported:	11/30/2015	Sampling Type:	Soil
Project Name:	HALE STATE BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LINN		

Sample ID: SAMPLE POINT 4 @ SURFACE (H503084-05)

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	11/25/2015	ND	2.11	106	2.00	3.99	
Toluene*	<0.050	0.050	11/25/2015	ND	2.11	105	2.00	4.90	
Ethylbenzene*	<0.050	0.050	11/25/2015	ND	2.22	111	2.00	4.05	
Total Xylenes*	<0.150	0.150	11/25/2015	ND	6.40	107	6.00	3.31	
Total BTEX	<0.300	0.300	11/25/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *73.6-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AP

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1090**	16.0	11/25/2015	ND	400	100	400	14.8	

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	11/24/2015	ND	198	98.8	200	2.97	
DRO >C10-C28	**246**	10.0	11/24/2015	ND	197	98.6	200	3.60	

Surrogate: 1-Chlorooctane *99.6 %* *35-147*

Surrogate: 1-Chlorooctadecane *116 %* *28-171*

Cardinal Laboratories *=Accredited Analyte

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Analytical Results For:

LINN OPERATING-HOBBS
JOE HERNANDEZ
2130 W. BENDER
HOBBS NM, 88240
Fax To: (575) 738-1740

Received:	11/20/2015	Sampling Date:	11/20/2015
Reported:	11/30/2015	Sampling Type:	Soil
Project Name:	HALE STATE BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LINN		

Sample ID: SAMPLE POINT 4 @ 1' (H503084-06)

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	11/25/2015	ND	2.11	106	2.00	3.99	
Toluene*	<0.050	0.050	11/25/2015	ND	2.11	105	2.00	4.90	
Ethylbenzene*	<0.050	0.050	11/25/2015	ND	2.22	111	2.00	4.05	
Total Xylenes*	<0.150	0.150	11/25/2015	ND	6.40	107	6.00	3.31	
Total BTEX	<0.300	0.300	11/25/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID *101 %* *73.6-140*

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	11/25/2015	ND	400	100	400	14.8	

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	11/24/2015	ND	198	98.8	200	2.97	
DRO >C10-C28	<10.0	10.0	11/24/2015	ND	197	98.6	200	3.60	

Surrogate: 1-Chlorooctane *88.5 %* *35-147*

Surrogate: 1-Chlorooctadecane *96.3 %* *28-171*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

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

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name:	Linn
Project Manager:	Joe Hernandez
Address:	
City:	State: Zip:
Phone #:	Fax #:
Project #:	Project Owner:
Project Name:	Linn
Project Location:	Hale State Battery
Sampler Name:	Chris Flores

BILL TO

P.O. #:	
Company:	
Attn:	
Address:	
City:	
State: Zip:	
Phone #:	
Fax #:	

ANALYSIS REQUEST

FOR LAB USE ONLY Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	PRESERV: ACID/BASE:	ICE / COOL	OTHER :	SAMPLING DATE	SAMPLING TIME	Chloride	BTEX	TPH
H503084																	
1	Sample Point 2 @ Surface	G	1			√					√		11/20/2015	11:30 AM	X	X	X
2	Sample Point 2 @ 1'	G	1			√					√			11:35 AM	X	X	X
3	Sample Point 3 @ Surface	G	1			√					√			11:40 AM	X	X	X
4	Sample Point 3 @ 1'	G	1			√					√			11:45 AM	X	X	X
5	Sample Point 4 @ Surface	G	1			√					√			11:50 AM	X	X	X
6	Sample Point 4 @ 1'	G	1			√					√			11:55 AM	X	X	X

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: 11-20-2015	Received By: Jodi Henson	Phone Result: ☐ Yes ☐ No Add'l Phone #:
Relinquished By:	Time: 4:40	Received By:	Fax Result: ☐ Yes ☐ No Add'l Fax #:
	Date:		REMARKS: email to lcrenshaw@diversifiedfsi.com malves@ mburton@ mpatterson@ cflores@
	Time:		

Delivered By: (Circle One)
Sampler - UPS - Bus - Other: 5.2°C

Sample Condition: Cool ☑ Yes ☐ No; Intact ☑ Yes ☐ No

CHECKED BY: (Initials)

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

Appendix III

SOIL BORE INSTALLATION LABORATORY ANALYSES

Diversified Field Service, Inc.
206 W. Snyder
Hobbs, NM 88240
(575) 964-8394

CARDINAL Laboratories

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

December 11, 2015

JOE HERNANDEZ

LINN OPERATING-HOBBS

2130 W. BENDER

HOBBS, NM 88240

RE: HALE STATE BATTERY

Enclosed are the results of analyses for samples received by the laboratory on 12/07/15 16:25.

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

Cardinal Laboratories is accreditated 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

Celey D. Keene

Lab Director/Quality Manager

CARDINAL Laboratories

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

Analytical Results For:

LINN OPERATING-HOBBS
JOE HERNANDEZ
2130 W. BENDER
HOBBS NM, 88240
Fax To: (575) 738-1740

Received:	12/07/2015	Sampling Date:	12/07/2015
Reported:	12/11/2015	Sampling Type:	Soil
Project Name:	HALE STATE BATTERY	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Jodi Henson
Project Location:	LINN		

Sample ID: SOIL BORE 1 @ 6' (H503187-01)

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	12/09/2015	ND	1.62	80.8	2.00	3.31	
Toluene*	<0.050	0.050	12/09/2015	ND	1.61	80.6	2.00	3.71	
Ethylbenzene*	<0.050	0.050	12/09/2015	ND	1.65	82.6	2.00	3.94	
Total Xylenes*	<0.150	0.150	12/09/2015	ND	5.05	84.2	6.00	3.89	
Total BTEX	<0.300	0.300	12/09/2015	ND					

Surrogate: 4-Bromofluorobenzene (PID *104 %* *73.6-140*

Chloride, SM4500Cl-B mg/kg Analyzed By: AP

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**192**	16.0	12/10/2015	ND	400	100	400	7.69	

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	12/08/2015	ND	186	93.0	200	7.67	
DRO >C10-C28	<10.0	10.0	12/08/2015	ND	177	88.3	200	12.5	

Surrogate: 1-Chlorooctane *76.1 %* *35-147*

Surrogate: 1-Chlorooctadecane *76.2 %* *28-171*

Cardinal Laboratories *=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

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

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

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name: Linn	**BILL TO**
Project Manager:	P.O. #:
Address:	Company:
City: State: Zip:	Attn:
Phone #: Fax #:	Address:
Project #: Project Owner:	City:
Project Name: Linn	State: Zip:
Project Location: Hale State Battery	Phone #:
Sampler Name: Chris Flores	Fax #:

FOR LAB USE ONLY				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST											
Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:	ICE / COOL	OTHER :	DATE	TIME	Chloride	TPH	BTEX									
H503187	Soil Bore 1 @ 6'	G	1			✓					✓		12-7-2015	10:00am	X	X	X									

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 consequental 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: 12-7-2015	Received By: Jodi Henson	Phone Result: ☐ Yes ☐ No Add'l Phone #:
Relinquished By:	Time: 4:25	Received By:	Fax Result: ☐ Yes ☐ No Add'l Fax #:
	Date:		REMARKS: email to: lcrenshaw@diversifiedfsi.com malves@ mburton@ mpatterson@ cflores@
	Time:		
Delivered By: (Circle One) Sampler - UPS - Bus - Other: 5.2°C	Sample Condition Cool: ☑ Yes ☐ No Intact: ☑ Yes ☐ No	CHECKED BY: (Initials) JA	

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

#611

Appendix IV

SITE PHOTOS

Diversified Field Service, Inc.
206 W. Snyder
Hobbs, NM 88240
(575) 964-8394

Linn Hale State Battery

Unit Letter E, Section 31, T17S, R34E | NMOCD Case #: 1R-3700

Site prior, facing north 9/16/2015

Site prior, facing northeast 9/16/2015

Collecting sample, facing north 11/20/2015

Installing soil bore, facing northwest 12/7/2015

Scraping site, facing northwest 4/26/2016

Excavating site, facing northwest 4/26/2016

Site completed, facing northwest 5/2/2016

Site completed, facing west 5/2/2016

Site completed, facing west 5/2/2016

Site completed, facing north 5/2/2016

Site completed, facing northwest 5/2/2016

Site completed, facing north 5/2/2016

Appendix V

FINAL C-141

Diversified Field Service, Inc.
206 W. Snyder
Hobbs, NM 88240
(575) 964-8394

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 Energy	Contact: EL Gonzales
Address: 2130 W Bender, Hobbs, NM 88240	Telephone No. 575-738-1739
Facility Name: Hale State Battery – closest well Halte State #1	Facility Type: Battery

Surface Owner: State	Mineral Owner:	API No. 30-025-02154

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from	East/West Line	County
E	31	17S	34E	990	North	660	West	Eddy

Latitude: 32.795795315483 **Longitude:** -103.605900841618

NATURE OF RELEASE

Type of Release: Oil	Volume of Release: 50 bbls	Volume Recovered: 40 bbls
Source of Release: Separator	Date and Hour of Occurrence 06/25/2015	Date and Hour of Discovery 06/25/2015 9:00 am
Was Immediate Notice Given? ☐ Yes ☐ No ☐ Not Required	If YES, To Whom?	
By Whom?	Date and Hour: 07/17/2014 0650	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*
Heater lost all pressure filled it up with liquid came up through the gas line into separator and popped off on the ground. Had about fifty bbls on the ground and recovered about 40. Had a mess on the ground 60 ft. Wide, 50 ft. long and about 50 ft. spray into the pasture about 15 ft. wide. Mess contained between the tanks and the heater.

Describe Area Affected and Cleanup Action Taken.
On June 30, 2015, DFSI personnel were onsite to obtain samples within the release area. Field samples were collected at four sample points, with each sample tested for chloride levels as well as BTEX. The BTEX samples were performed using a Mini Rae Photoionization Detector (PID). All clean field samples under NMOCD and BLM regulatory guidelines were submitted for laboratory analysis at Cardinal Laboratories of Hobbs, NM to obtain confirmation. On November 20, 2015, to further delineate the site, a soil bore was installed, which each sample tested for chloride levels as well as BTEX. A clean field sample under NMOCD and BLM regulatory guidelines were submitted for laboratory analysis at Cardinal Laboratories of Hobbs, NM to obtain confirmation. A work plan was submitted to NMOCD and BLM on March 23, 2016. On April 25, 2016, DFSI personnel were on site to excavate the area around SP1 and SB1 to 4' bgs. The remainder of the release area was scraped to 6" bgs. The site was then backfill with clean caliche. Seeding of the site was not warranted.

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: E Gonzales	OIL CONSERVATION DIVISION	
Printed Name: EL Gonzales	Approved by Environmental Specialist:	
Title: Production Supervisor	Approval Date: 06/09/2016	Expiration Date: ///
E-mail Address: elgonzales@linnenergy.com	Conditions of Approval: ///	Attached ☐ 1RP 3700
Date: 6/7/2016 Phone: 575-504-8002		

* Attach Additional Sheets If Necessary