

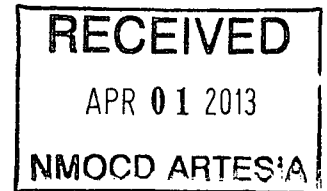
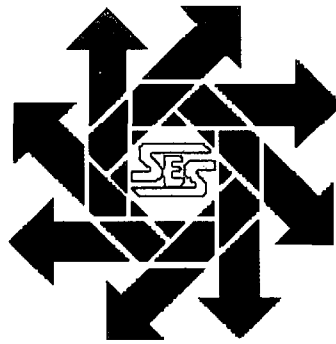
Bluestem Energy Holdings, LLC.

Flint-2

**Township 19 South, Range 25 East, Section 25
Eddy County New Mexico**

Closure Report

March 18, 2013



Prepared for:

**Bluestem Energy Holdings, LLC.
400 W. Illinois #900
Midland, Texas 79701**

By:

**Safety & Environmental Solutions, Inc.
703 East Clinton Street
Hobbs, New Mexico 88240
(575) 397-0510**

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I. Company Contacts

Representative	Company	Telephone	E-mail
Jim Mason	Bluestem Energy	432-685-0134	jmason@Bluestemenergy.com
Bob Allen	SESI	575-397-0510	ballen@sesi-nm.com

II. Background

Safety and Environmental Solutions, Inc. (SESI) was engaged by Bluestem Energy Holdings, LLC. to perform site assessment of a release area at the Flint-2 located in Unit Letter N, Section 25 of Township 19 South, Range 25 East, Eddy County, New Mexico.

According to the C-141 dated February 25, 2013, the cause of the release was due to a valve left open by the operator. Approximately nine (9) barrels of produced fluids were released with zero recovery.

New Mexico Oil Conservation Division (NMOCD) representative Mr. Randy Dade was contacted on February 24, 2013.

III. Surface and Ground Water

The nearest groundwater of record is approximately 0.16 miles southeast of the site. The New Mexico Office of State Engineer record is in Section 25 Range 25 East and Township 19 South. The reported depth was 60 feet below ground surface (BGS).

IV. Characterization

The target cleanup levels are determined using the *Guidelines for Remediation of Leaks, Spills and Releases* published by the NMOCD (August 13, 1993). Based on the ranking criteria presented below, the applicable Recommended Remediation Action Levels (RRAL) are 10 parts per million (ppm) Benzene, 50 ppm combined benzene, toluene, ethylbenzene, and total xylenes (BTEX), and 1,000 ppm Total Petroleum Hydrocarbons (TPH).

Depth to Ground Water:			
(Vertical distance from contaminants to seasonal high water elevation of groundwater)	Less than 50 feet	20 points	
	50 feet to 99 feet	10 points	X
	>100 feet	0 points	
Wellhead Protection Area:			
(Less than 200 feet from a private domestic water source; or less than 1000 feet from all other water sources)	Yes	20 points	
	No	0 points	X
Distance to Surface Water:			
(Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)	Less than 200 feet	20 points	
	200 feet to 1000 feet	10 points	
	>1000 feet	0 points	X
RANKING SCORE (TOTAL POINTS)			10

V. Work Performed

On February 27, 2013, Mr. Bob Allen, SESI representative was onsite to assess the impacted area. Mr. Allen observed spray from the compressor traveling northeast of location approximately 360 ft., with no pooling areas. Site photographs were obtained of the impacted area.

According to Mr. Mike Bratcher, NMOCD Artesia representative, and Mr. Allen's onsite conversation, a Micro blaze application will be applied over the entire impacted vegetation.

On March 5, 2013, SESI was onsite at the Bluestem Energy Flint #2 to obtain soil samples of the release area near the compressor. Back hoe and Roustabout crew of three were onsite excavating the release area removing all the staining to one and a half foot in depth. Three (3) auger holes were installed at a depth of two (2) ft. and soil samples were retrieved at that depth. The excavated soils were transported to an NMOCD approved facility for disposal.

All samples were properly preserved and transported under Chain of Custody to Cardinal Laboratories of Hobbs, New Mexico for analysis. The samples were analyzed for Chlorides (EPA Method 4500-Cl B) Benzene Toluene, Ethylbenzene, Total Xylenes (BTEX), and Total Petroleum Hydrocarbons (TPH).

The results of the analysis are presented in the table below:

Lab ID	Sample ID	Cl- (mg/kg)	TPH (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)
Analysis Date:		03/07/13	03/13/13	03/11/13	03/11/13	03/11/13	03/11/13
H300561-01	AH-1 2' bgs	<16.0	70.0	<0.050	<0.050	<0.050	<0.150
H300561-02	AH-2 2' bgs	<16.0	68.0	<0.050	<0.050	<0.050	<0.150
H300561-03	AH-3 2' bgs	32.0	63.0	<0.050	<0.050	<0.050	<0.150

On March 8, 2013, SESI arrived at the Bluestem Flint #2 and set up equipment and divided the impacted spray area into three sections using white pin flags. The micro blaze application was applied on the impacted area. The results of the final sampling show all TPH levels to be below the target level of 1,000 ppm therefore, the excavation was backfilled with clean soils contoured to match the surrounding area.

The secondary containment onsite was also free of all liquids.

VI. Conclusion

Remedial actions at this site have all been performed with the approval of, and in accordance with all NMOCD requirements. The area will be reseeded in the spring as per landowner's specifications.

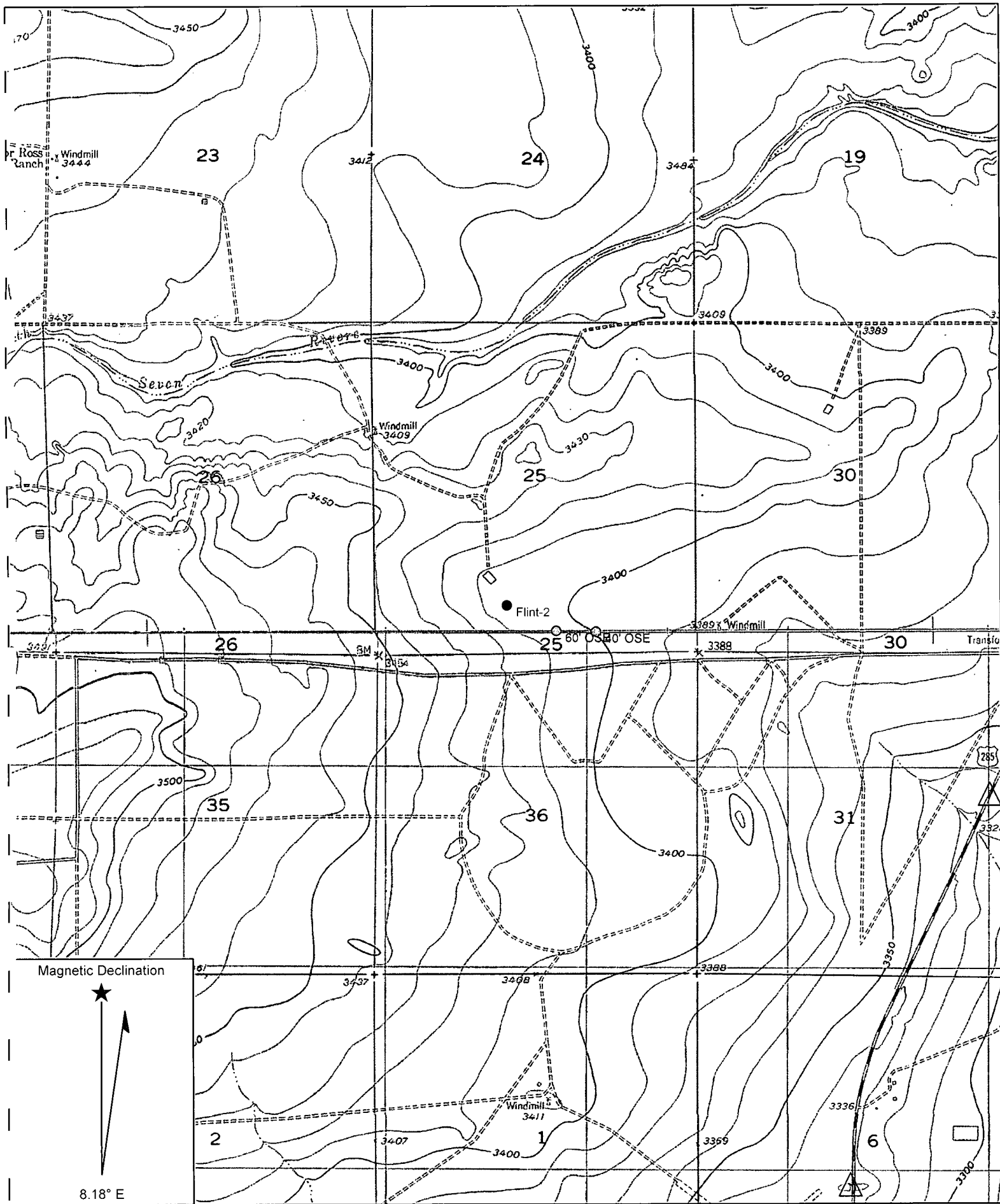
As a result, we respectfully submit this closure report for your consideration and approval.

VII. Figures & Appendices

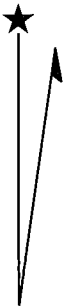
Figure 1 – Vicinity Map
Figure 2 – Site Map
Appendix A- Analytical Results
Appendix B- Site Photographs
Appendix C- C-141

Figure 1

Vicinity Map



Magnetic Declination



8.18° E

Name: DAYTON

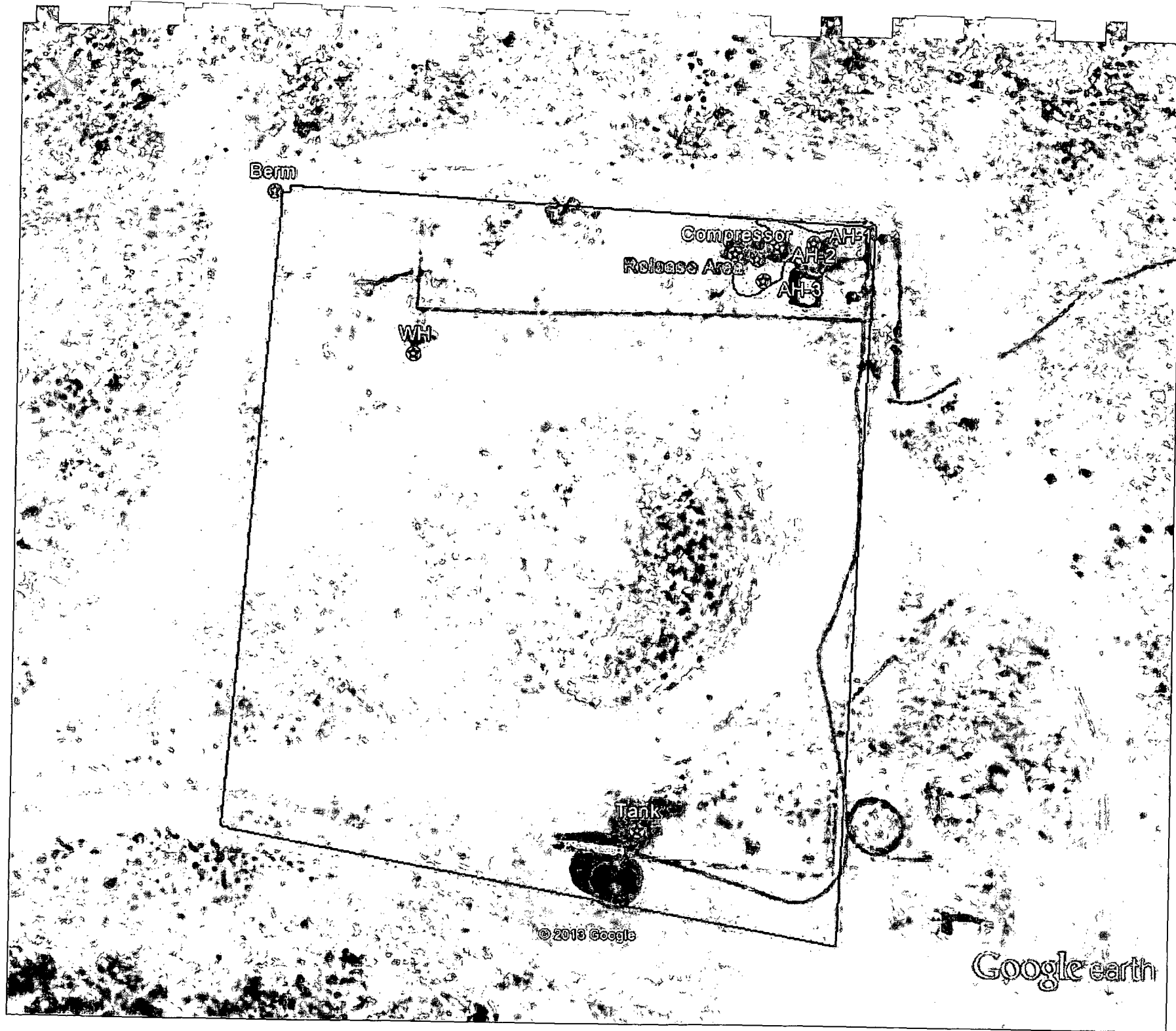
Date: 3/1/2013

Scale: 1 inch equals 2000 feet

Location: 032.6262935° N 104.4398803° W WGS84

Figure 2

Site Map



© 2013 Google

Google earth

Appendix A

Analytical Results

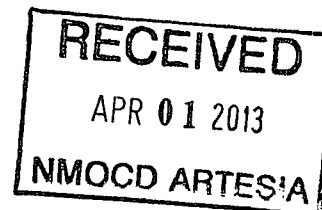
March 14, 2013

Bob Allen

Safety & Environmental Solutions

703 East Clinton

Hobbs, NM 88240



RE: FLINT #2

Enclosed are the results of analyses for samples received by the laboratory on 03/06/13 8:00.

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.

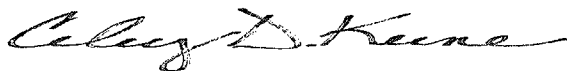
Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

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

Accreditation applies to public drinking water matrices.

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

Sincerely,



Celey D. Keene

Lab Director/Quality Manager

Analytical Results For:

 Safety & Environmental Solutions
 Bob Allen
 703 East Clinton
 Hobbs NM, 88240
 Fax To: (575) 393-4388

Received:	03/06/2013	Sampling Date:	03/05/2013
Reported:	03/14/2013	Sampling Type:	Soil
Project Name:	FLINT #2	Sampling Condition:	Cool & Intact
Project Number:	BLU-13-001	Sample Received By:	Jodi Henson
Project Location:	ARTESIA, NEW MEXICO		

Sample ID: AH - 1 2' BGS (H300561-01)

BTEX 8021B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/11/2013	ND	2.09	104	2.00	0.212		
Toluene*	<0.050	0.050	03/11/2013	ND	2.07	103	2.00	1.16		
Ethylbenzene*	<0.050	0.050	03/11/2013	ND	1.99	99.6	2.00	1.26		
Total Xylenes*	<0.150	0.150	03/11/2013	ND	6.02	100	6.00	1.76		
Total BTEX	<0.300	0.300	03/11/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIC) 117 % 89.4-126

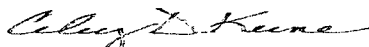
Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	03/07/2013	ND	416	104	400	0.00		

TPH 418.1		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TPH 418.1	70.0	10.0	03/13/2013	ND	140	107	131		SUB-S5	

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 Safety & Environmental Solutions
 Bob Allen
 703 East Clinton
 Hobbs NM, 88240
 Fax To: (575) 393-4388

Received:	03/06/2013	Sampling Date:	03/05/2013
Reported:	03/14/2013	Sampling Type:	Soil
Project Name:	FLINT #2	Sampling Condition:	Cool & Intact
Project Number:	BLU-13-001	Sample Received By:	Jodi Henson
Project Location:	ARTESIA, NEW MEXICO		

Sample ID: AH - 2 2' BGS (H300561-02)

BTEX 8021B		mg/kg		Analyzed By: AP						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/11/2013	ND	2.09	104	2.00	0.212		
Toluene*	<0.050	0.050	03/11/2013	ND	2.07	103	2.00	1.16		
Ethylbenzene*	<0.050	0.050	03/11/2013	ND	1.99	99.6	2.00	1.26		
Total Xylenes*	<0.150	0.150	03/11/2013	ND	6.02	100	6.00	1.76		
Total BTEX	<0.300	0.300	03/11/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIL) 117 % 89.4-126

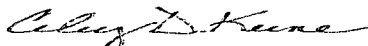
Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<16.0	16.0	03/07/2013	ND	416	104	400	0.00		

TPH 418.1		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
TPH 418.1	68.0	10.0	03/13/2013	ND	140	107	131		SUB-SS	

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 Safety & Environmental Solutions
 Bob Allen
 703 East Clinton
 Hobbs NM, 88240
 Fax To: (575) 393-4388

Received:	03/06/2013	Sampling Date:	03/05/2013
Reported:	03/14/2013	Sampling Type:	Soil
Project Name:	FLINT #2	Sampling Condition:	Cool & Intact
Project Number:	BLU-13-001	Sample Received By:	Jodi Henson
Project Location:	ARTESIA, NEW MEXICO		

Sample ID: AH - 3 2' BGS (H300561-03)

BTEX 8021B			mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	03/11/2013	ND	2.09	104	2.00	0.212		
Toluene*	<0.050	0.050	03/11/2013	ND	2.07	103	2.00	1.16		
Ethylbenzene*	<0.050	0.050	03/11/2013	ND	1.99	99.6	2.00	1.26		
Total Xylenes*	<0.150	0.150	03/11/2013	ND	6.02	100	6.00	1.76		
Total BTEX	<0.300	0.300	03/11/2013	ND						

Surrogate: 4-Bromofluorobenzene (PIC) 114 % 89.4-126

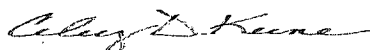
Chloride, SM4500Cl-B		mg/kg		Analyzed By: DW					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	32.0	16.0	03/07/2013	ND	416	104	400	0.00	

TPH 418.1		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
TPH 418.1	63.0	10.0	03/13/2013	ND	140	107	131		SUB-SS

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

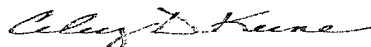
Notes and Definitions

SUB-SS	Analysis subcontracted to SunStar Laboratories, Inc.
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

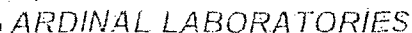
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Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

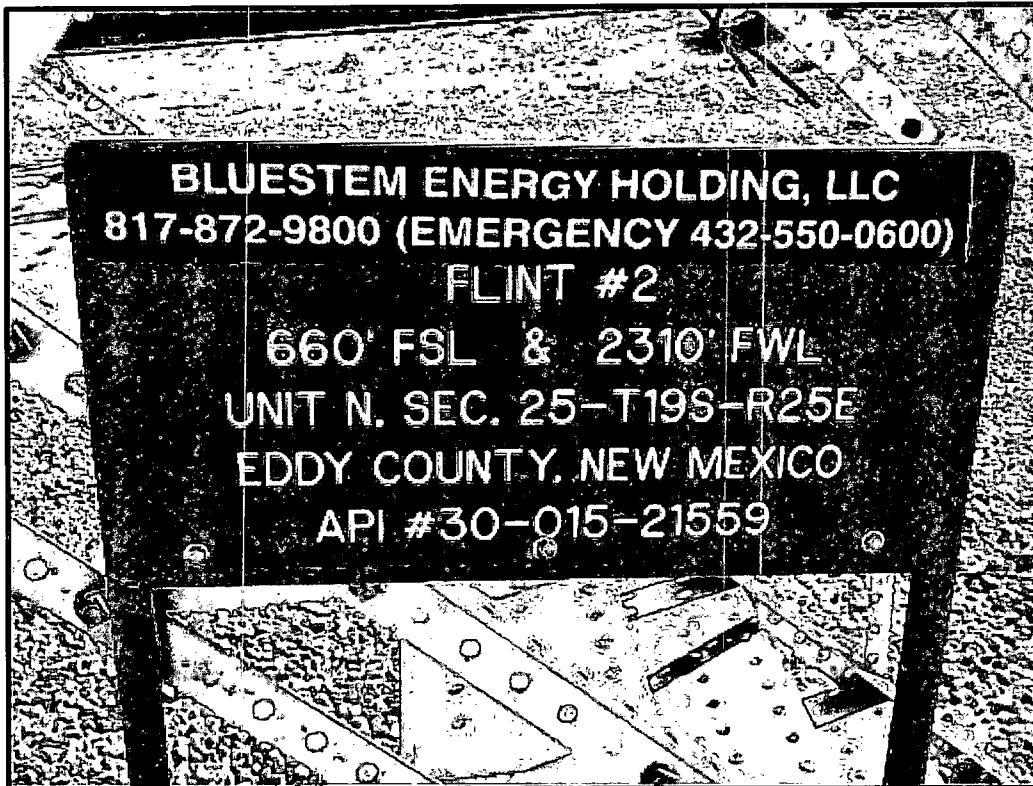
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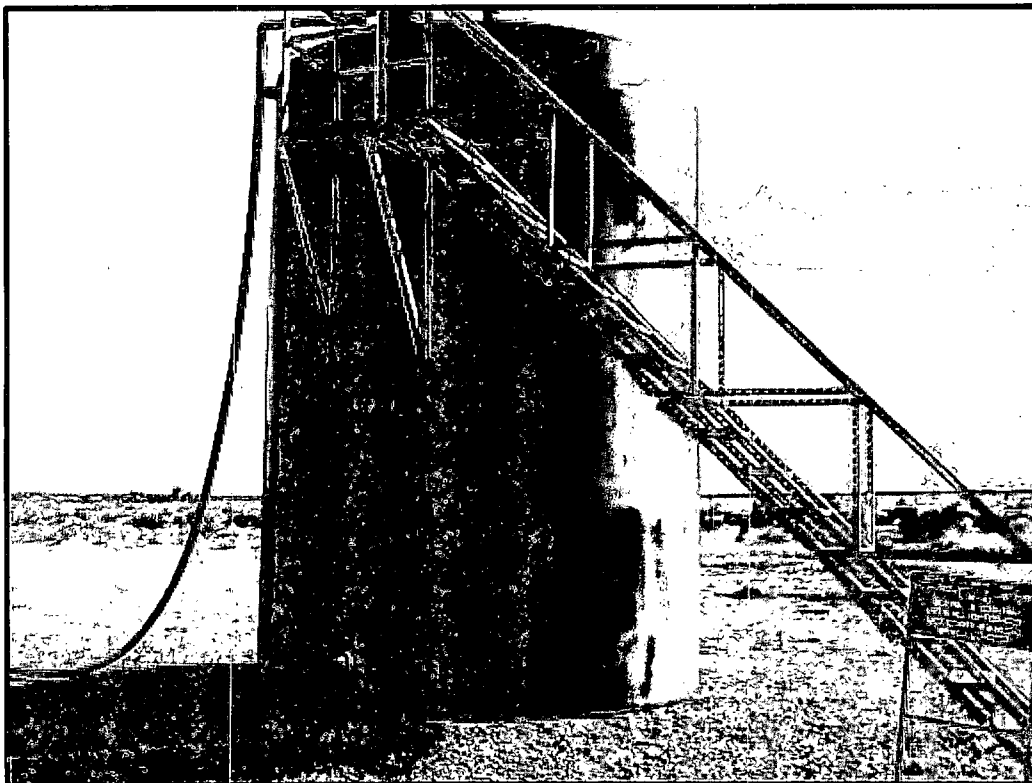
† Cardinal cannot accept verbal changes. Please fax written changes to 575-393-2476.

Appendix B

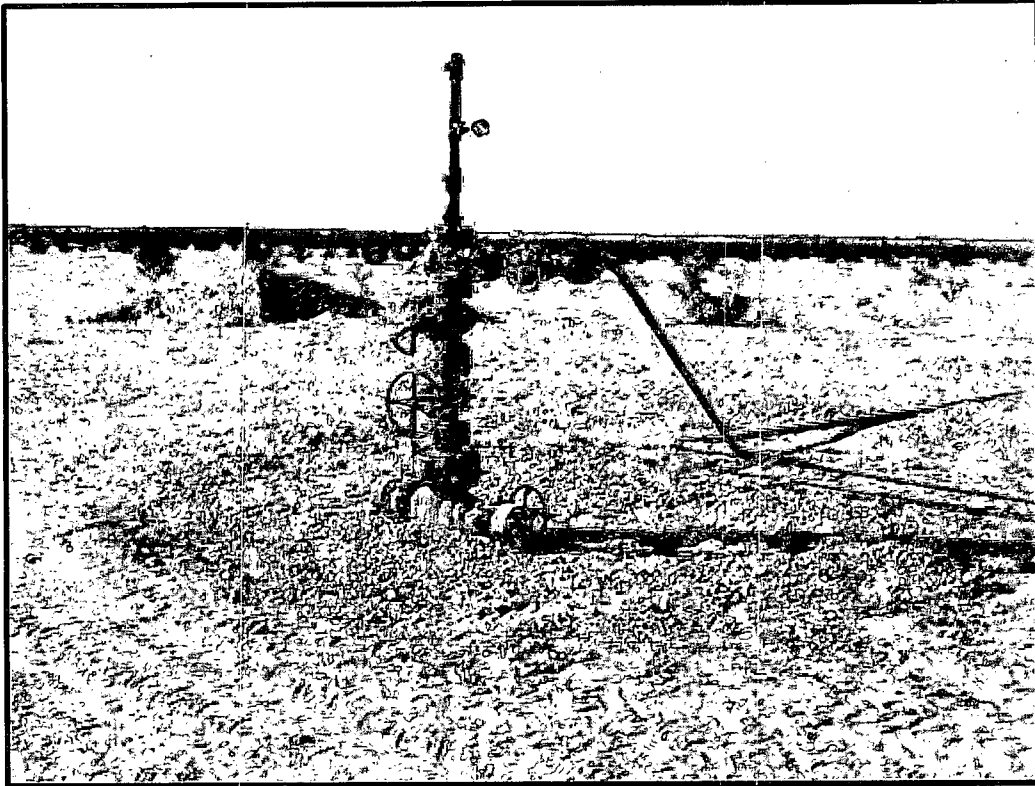
Site Photographs



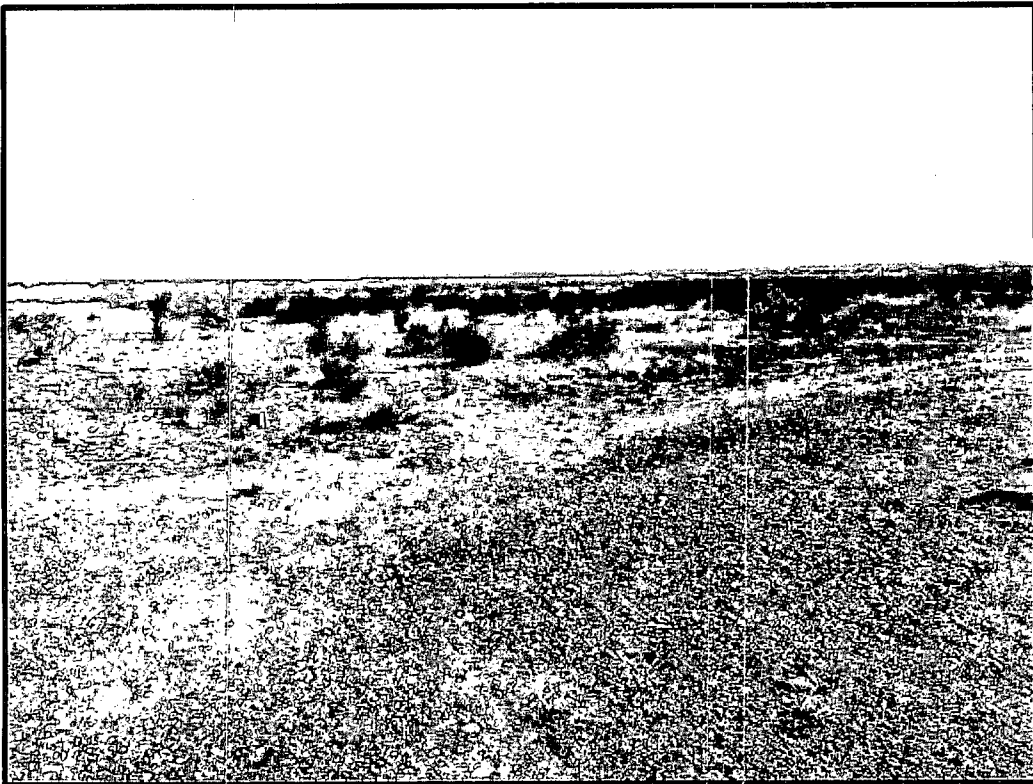
Lease sign on location



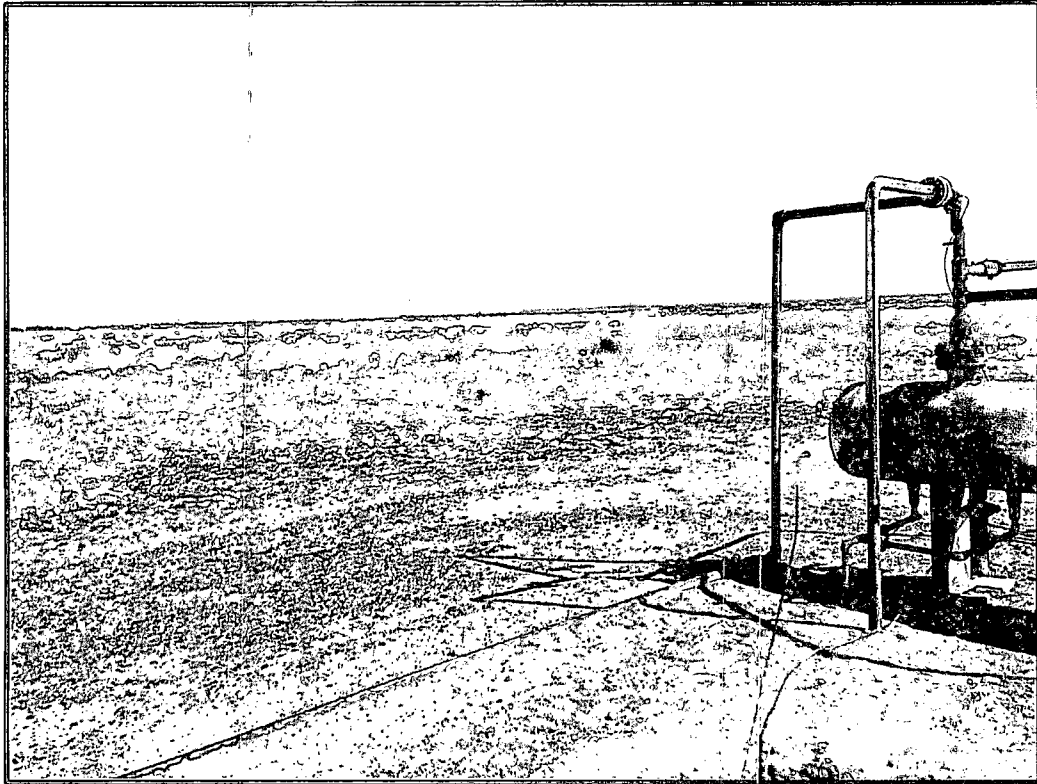
Tank facing southeast



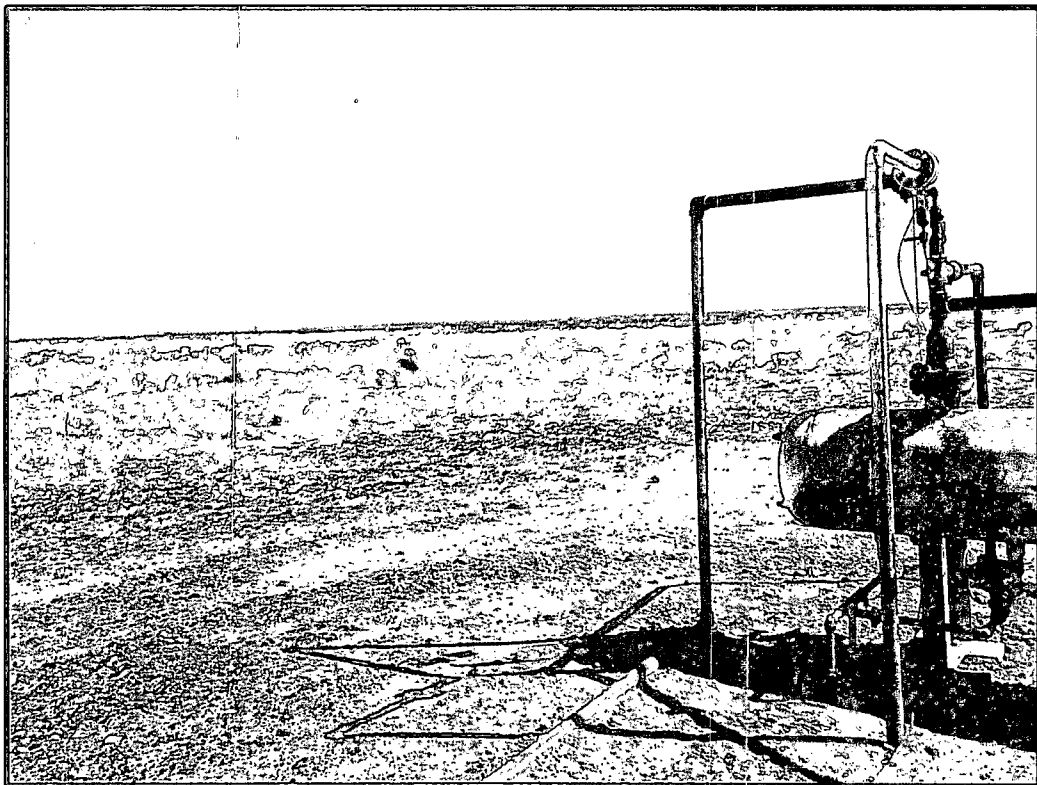
Wellhead



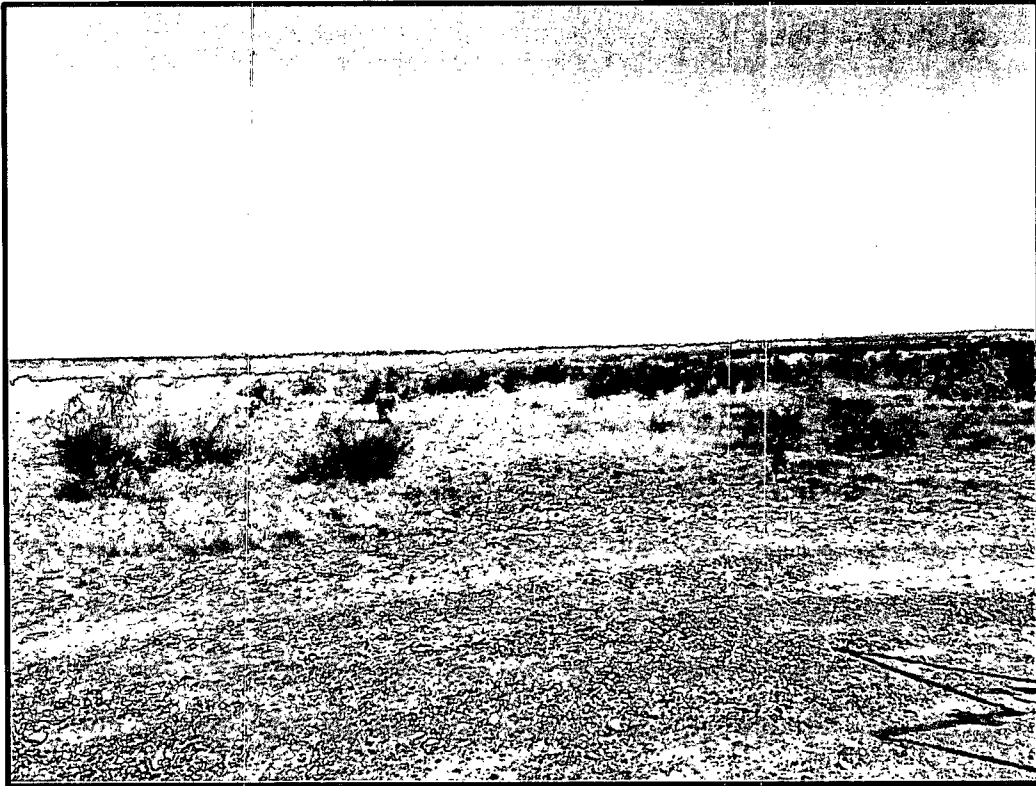
Impacted area looking Northeast



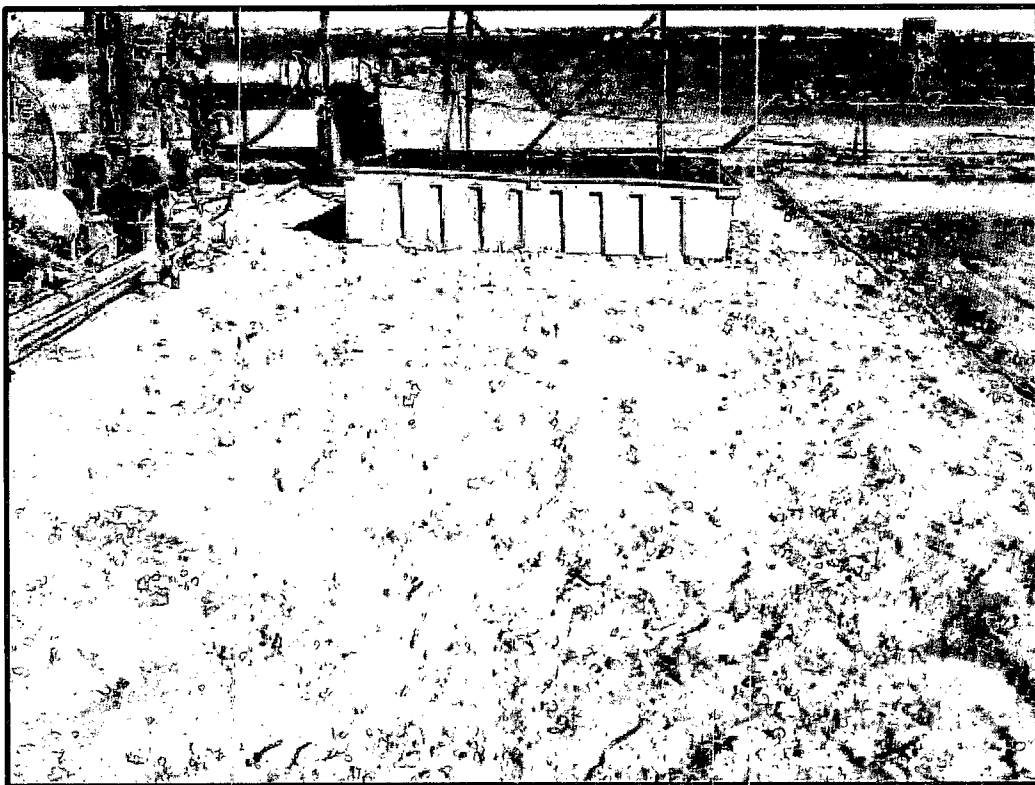
Impacted area looking Northeast



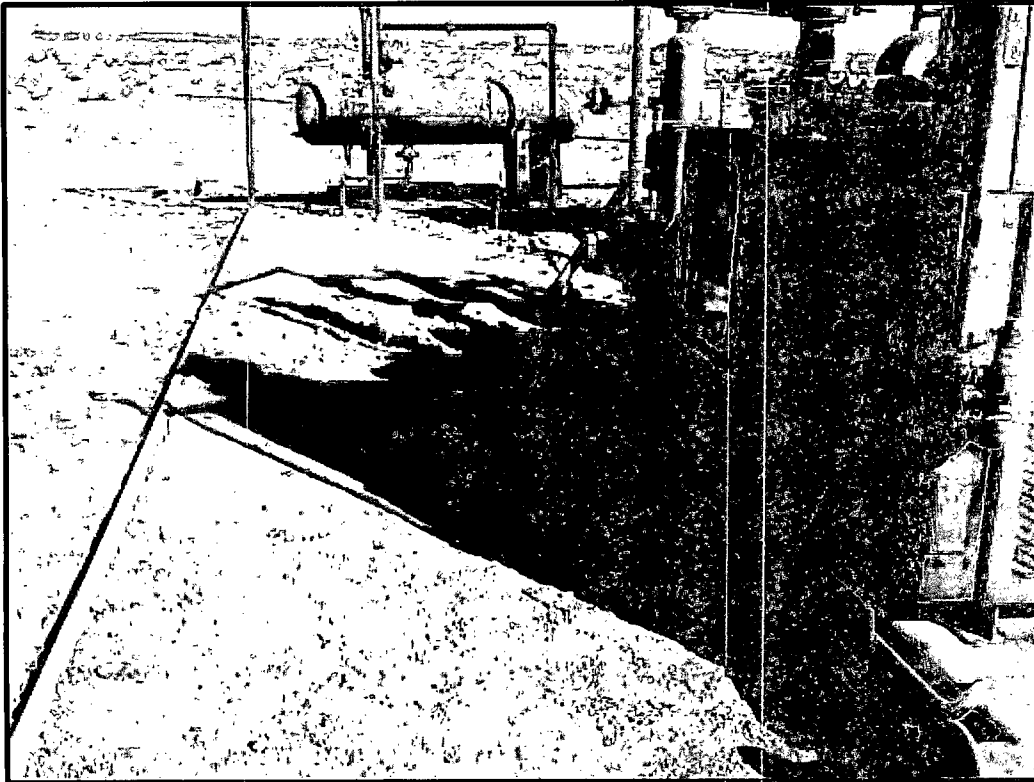
Impacted area looking Northeast



Impacted area looking Northeast



Excavated area backfilled facing East



Excavated area backfilled facing East



Excavated area backfilled facing South

Appendix C

C-141

RECEIVED

APR 01 2013

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: Bluestem Holdings, LLC	Contact: Jim Mason
Address: 400 W. Illinois #900 Midland TX 79701	Telephone No.: 432-685-0134
Facility Name: Flint -2	Facility Type: Oil Well
Surface Owner: Estate of JW Gissler	Mineral Owner
API No. 30-015-21559	

LOCATION OF RELEASE

Unit Letter N	Section 25	Township 19s	Range 25e	Feet from the 660'	North/South Line South	Feet from the 2310'	East/West Line West	County Eddy
Latitude					Longitude			

NATURE OF RELEASE

Type of Release: Oil and Produced Water	Volume of Release 5bbl Oil & 4 bbl Water	Volume Recovered: Not recoverable
Source of Release: Wellhead valve open	Date and Hour of Occurrence 2-24-13 approx 1:30pm	Date and Hour of Discovery: 2-24-13 approx 4:45pm
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Randy Dade, Artesia OCD	
By Whom? Jim Mason	Date and Hour: 2-24-13 approx 4:45pm	
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.*

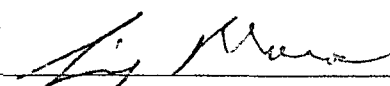
Describe Cause of Problem and Remedial Action Taken.*

Valve left open by lease operator-On February 27, 2013, Mr. Bob Allen, SESI representative was onsite to assess the impacted area. Mr. Allen observed spray from the compressor traveling northeast of location approximately 360 ft., with no pooling areas. According to Mr. Mike Bratcher, NMOCD Artesia representative, and Mr. Allen's onsite conversation, a Micro blaze application will be applied over the entire impacted vegetation.

Describe Area Affected and Cleanup Action Taken.*

On March 5, 2013, SESI was onsite at the Bluestem Energy Flint #2 to obtain soil samples of the release area near the compressor. Back hoe and Roustabout crew of three were onsite excavating the release area removing all the staining to one and a half foot in depth. Three (3) auger holes were installed at a depth of two (2) ft. and soil samples were retrieved at that depth. The excavated soils were transported to an NMOCD approved facility for disposal. On March 8, 2013, SESI arrived at the Bluestem Flint #2 and set up equipment and divided the impacted spray area into three sections using white pin flags. The micro blaze application was applied on the impacted area. The results of the final sampling show all TPH levels to be below the target level of 1,000 ppm therefore, the excavation was backfilled with clean soils contoured to match the surrounding area. The secondary containment onsite was also free of all liquids.

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: 	OIL CONSERVATION DIVISION	
Printed Name: Jim Mason	Approved by Environmental Specialist:	
Title: Operations Manager	Approval Date:	Expiration Date:
E-mail Address: jmason@bluestemenergy.com	Conditions of Approval:	Attached <input type="checkbox"/>
Date: 3/15/2013 Phone: 432.682.0134 or 432.770.8322		

* Attach Additional Sheets If Necessary