

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 Cimarex Energy Co	Contact John Osbourne
Address 600N Mariefeld, Ste 600, Midland, TX 79701	Telephone No. 575-390-8978
Facility Name Mallon 34 Federal #1	Facility Type Well

Surface Owner BLM	Mineral Owner	API No. 30-025-32605
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LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
D	34	19S	34E					Lea

Latitude 32.6205 Longitude -103.5354

NATURE OF RELEASE

Type of Release Oil	Volume of Release Est. 10 BBLS	Volume Recovered Est 1 BBL
Source of Release Flow Line	Date and Hour of Occurrence 19Feb12 Hr unknown	Date and Hour of Discovery 19Feb12 1300hrs
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? N/A	
By Whom? N/A	Date and Hour N/A	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.*

N/A

GW @ 160'

Describe Cause of Problem and Remedial Action Taken.*

Failure of a flowline caused an unplanned release of oil. A vacuum truck was dispatched to attempt recovery of free standing liquid. Remedial action to recover saturated soil will commence as soon as OK is given by BLM. Upon completion of the remedial action to prevent further migration and penetration, a remediation work plan will be submitted for review/approval.

Describe Area Affected and Cleanup Action Taken.*

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.

OIL CONSERVATION DIVISION

Signature: *John P. Osbourne*

Printed Name: **John Osbourne**

John Osbourne

Approved by Environmental Specialist: *Jeff LeKing*

Title: **FOREMAN**

Approval Date: **2/21/12**

Expiration Date: **4/23/12**

E-mail Address: **j.osborne@cimarex.com**

Conditions of Approval: **SUBMIT FINAL C-141 BY 4/23/12,**

Attached ☐

Date: **20Feb12**

Phone: **575-390-8978**

IRF-2-12-1183

* Attach Additional Sheets If Necessary

4151

HUNGRY HORSE, LLC
ENVIRONMENTAL SERVICES

Dirt Work * On-Site Remediation * Soil Testing * Excavation

22Feb12

To: Geoff Leking, NM OCD

Jim Amos, BLM

Reference: Remediation Work Plan

Operator: Cimarex Energy Company

Location: Mallon 34 Federal #1

Legals: Sec. 34, T19S, R34E, Lea County, NM

GPS: N32.6147 W-103.5420 (Point of Release)

Site Information

On 19Feb12, an unplanned release from a flow line was discovered. This release is located approximately .5 mile south of the Carlsbad-Hobbs Highway ¼ west of mile marker 80. The area consists of relatively flat terrain with various sand dunes. Mesquite, range grasses, and yucca plants are the predominant vegetation in the area. Based upon the Lea County Depth to Groundwater Map, depth to groundwater is approximately 160'. The affected areas are a 175' x 75' area on each side of the lease road. A small part of each of these areas is saturated with liquid with the remainder having only a very light over spray.

A site visit with BLM's Jim Amos was conducted on 21Feb12. Jim advised that only remedial action work could be conducted pending clearance from BLM's archeologist.

Remedial Work Performed

A vacuum truck was dispatched to the site and recovered a minimal amount of free standing liquid. Excavation of the saturated soil near the point of release on each side of the lease road was performed to prevent further migration of the released liquid. No work other than the remedial action will be performed until the area has been cleared by BLM's archeologist.

Proposed Remediation Plan

Upon receipt of the archeological clearance, I propose to excavate the areas affected with heavy saturation and obtain and analyze soil samples during the process. Soil samples will be analyzed for Chlorides, TPH, and BTEX. Upon lab analysis indicating contaminant levels are at or below closure limit levels, results will be presented to NM OCD and BLM for closure approval. All excavated material will be transported to a division approved disposal facility.

Approved
Geoff Leking, Env. Specialist
NMOC-D-HOBBS
2/28/2012

HUNGRY HORSE, LLC
ENVIRONMENTAL SERVICES

Dirt Work * On-Site Remediation * Soil Testing * Excavation

Based upon successful remediation projects of the same nature, I propose to remediate the area that is affected by the light over spray by heavily disking the entire area and re-seeding it with a BLM approved seed mixture. All mesquite bushes that have been over sprayed will be removed from the site. This will cause the least amount of surface damage and will ensure a good re-growth of vegetation in this area as soon as moisture conditions are favorable for re-growth.

VKB 22Feb12

Vernon K. Black, Hungry Horse

Analytical Results For:

Hungry Horse Environmental
VERNON BLACK
P.O. Box 1058
Hobbs NM, 88240
Fax To: (505) 391-4585

Received: 03/05/2012
Reported: 03/06/2012
Project Name: MALLON 34 FED #1
Project Number: NOT GIVEN
Project Location: LEA COUNTY, NM

Sampling Date: 03/05/2012
Sampling Type: Soil
Sampling Condition: ** (See Notes)
Sample Received By: Jodi Henson

Sample ID: W SIDE OF LEASE RD- SOUTH END (H200567-01)

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	03/05/2012	ND	1.88	93.8	2.00	4.76	
Toluene*	<0.050	0.050	03/05/2012	ND	2.04	102	2.00	4.10	
Ethylbenzene*	<0.050	0.050	03/05/2012	ND	2.09	104	2.00	3.65	
Total Xylenes*	<0.150	0.150	03/05/2012	ND	6.54	109	6.00	3.57	

Surrogate: 4-Bromofluorobenzene (PIL) 107 % 64.4-134

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	03/05/2012	ND	432	108	400	3.77	

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	03/05/2012	ND	206	103	200	15.5	
DRO >C10-C28	<10.0	10.0	03/05/2012	ND	195	97.3	200	8.29	

Surrogate: 1-Chlorooctane 104 % 55.5-154

Surrogate: 1-Chlorooctadecane 111 % 57.6-158

Accepted
Jodi Henson
Env. Specialist
NMOCB-HOBBS
3/7/12

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

HUNGRY HORSE, LLC
ENVIRONMENTAL SERVICES

Dirt Work * On-Site Remediation * Soil Testing * Excavation

22Feb12

To: Geoff Leking, NM OCD
Jim Amos, BLM
Reference: Remediation Work Plan
Operator: Cimarex Energy Company
Location: Mallon 34 Federal #1
Legals: Sec. 34, T19S, R34E, Lea County, NM
GPS: N32.6147 W-103.5420 (Point of Release)

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Approved
Geoff Leking, Env. Specialist
NMOC-D-HOBBS
2/28/2012

P. O. Box 1058 * Hobbs New Mexico * Office 505.393.3386 * Fax 505.391.4585

HUNGRY HORSE, LLC
ENVIRONMENTAL SERVICES

Dirt Work * On-Site Remediation * Soil Testing * Excavation

Based upon successful remediation projects of the same nature, I propose to remediate the area that is affected by the light over spray by heavily disking the entire area and re-seeding it with a BLM approved seed mixture. All mesquite bushes that have been over sprayed will be removed from the site. This will cause the least amount of surface damage and will ensure a good re-growth of vegetation in this area as soon as moisture conditions are favorable for re-growth.



205612

Vernon K. Black, Hungry Horse

March 01, 2012

VERNON BLACK

Hungry Horse Environmental

P.O. Box 1058

Hobbs, NM 88240

RE: MALLON 34 FED #1

Enclosed are the results of analyses for samples received by the laboratory on 02/28/12 11:35.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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:

Hungry Horse Environmental
VERNON BLACK
P.O. Box 1058
Hobbs NM, 88240
Fax To: (505) 391-4585

Received: 02/28/2012
Reported: 03/01/2012
Project Name: MALLON 34 FED #1
Project Number: NOT GIVEN
Project Location: LEA COUNTY, NM

Sampling Date: 02/28/2012
Sampling Type: Soil
Sampling Condition: ** (See Notes)
Sample Received By: Celey D. Keene

Sample ID: EAST SIDE N END (H200522-01)

BTX 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	02/28/2012	ND	1.97	98.5	2.00	3.27	
Toluene*	<0.050	0.050	02/28/2012	ND	2.13	107	2.00	4.13	
Ethylbenzene*	<0.050	0.050	02/28/2012	ND	2.18	109	2.00	4.04	
Total Xylenes*	<0.150	0.150	02/28/2012	ND	6.79	113	6.00	4.05	

Surrogate: 4-Bromofluorobenzene (PII) 113 % 64.4-134

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AP					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	768	16.0	02/28/2012	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	<50.0	50.0	02/29/2012	ND	177	88.4	200	8.22	
DRO >C10-C28	306	50.0	02/29/2012	ND	187	93.6	200	7.89	

Surrogate: 1-Chlorooctane 87.4 % 55.5-154

Surrogate: 1-Chlorooctadecane 105 % 57.6-158

Cardinal Laboratories

*=Accredited Analyte

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



Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

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

Cardinal Laboratories

*=Accredited Analyte

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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: Hungry Horse, LLC

Project Manager: Vernon K. Black

Address: PO Box 1058

City: Hobbs State: NM zip: 88241

Phone #: 575-393-3386 Fax #: 575-391-4585

Project #: _____ Project Owner: Cimrex

Project Name: Mullan 34 Field #1

Project Location: Lee County NM

Sampler Name: Vernon K. Black

FOR LAB USE ONLY

Lab I.D. _____

Sample I.D. _____

P.O. #:

Company:

Attn:

Address:

City:

State:

Zip:

Phone #:

Fax #:

PRESERV

SAMPLING

DATE

TIME

ANALYSIS REQUEST

NMCRIS No.: 123114

NMCRIS INVESTIGATION ABSTRACT FORM (NIAF)

1. NMCRIS Activity No.: 123114	2a. Lead Agency: US Bureau of Land Management Carlsbad Field Office	2b. Other Agency(ies):	3. Lead Agency Report No.:
--	---	-------------------------------	-----------------------------------

4. Title of Report: A Class III Archaeological Survey for the Mallon 34 Fed #1 Oil Spill Author(s) Hill, Rebecca L.	5. Type of Report <input checked="" type="checkbox"/> Negative <input type="checkbox"/> Positive
--	---

6. Investigation Type

☐ Research Design ☒ Archaeological Survey/Inventory ☐ Architectural Survey/Inventory ☐ Test Excavation ☐ Excavation
☐ Collections/Non-Field Study ☐ Compliance Decision Based on Previous Inventory ☐ Overview/Lit Review ☐ Monitoring
☐ Ethnographic Study ☐ Site/Property Specific Visit ☐ Historic Structures Report ☐ Other

7. Description of Undertaking (what does the project entail?):

A pedestrian cultural resources survey was conducted on 22 Feb 2012 for an oil spill located at the Cimerex Mallon 34 Fed #3 T19S R34E Sec 34, Lea County, NM. Boone Arch Services of NM was contacted by Hungry Horse, an environmental remediation firm, to conduct an archaeological survey for an oil spill located at the Cimerex Mallon 34 Fed #3 well. Although the spill was located at the Mallon 34 Fed #3, the ruptured flow line carried crude oil from the Mallon 34 Fed #1. Bruce Boeke (BLM archaeologist) was consulted on 22 Feb 2012 regarding the oil spill, since the actual spill location was not known it could not be determined if the location was covered under a previous cultural survey. The survey was conducted using transects spaced 15 meters apart across the spill and up to 50 feet outside the spill area. One isolated occurrence was discovered a modern pipe clamp. No other cultural resources were discovered.

[] Continuation

8. Dates of Investigation: from: 22-Feb-2012 to: 22-Feb-2012	9. Report Date: 22-Feb-2012
---	------------------------------------

10. Performing Agency/Consultant: Boone Arch Svcs of NM

Principal Investigator: Rebecca L. Hill

Field Supervisor: Rebecca L. Hill

Field Personnel Names: Rebecca L. Hill

Historian / Other:

11. Performing Agency/Consultant Report No.:
BASNM 02-12-21

12. Applicable Cultural Resource Permit No(s):
BLM Permit # 190-2920-11-P

NMCRIS No.: 123114

13. Client/Customer (project proponent):

Hungry Horse Construction

Contact: Vernon Black

Address: P.O. Box 1058, Hobbs, NM 88241

Phone: 575-393-3386

14. Client/Customer Project No.:

15. Land Ownership Status (must be indicated on project map):

Land Owner (By Agency)

Acres Surveyed Acres in APE

US Bureau of Land Management Carlsbad Field Office	2.09	0.91
TOTALS	2.09	0.91

16. Records Search(es): Sites located within 1/4 of a mile of the project area.

LA No.	Cultural/Temporal Affiliation	Eligibility
72393	Unknown Aboriginal (9500BC-1880AD)	Undetermined
132489	Jornada Mogollon (Late Pithouse-Early Pueblo) (750-1200 AD)	Undetermined

Date(s) of HPD/ARMS File Review: 22Feb2012

Name of Reviewer(s): Rebecca L. Hill

Date(s) of Other Agency File Review: 22Feb2012

Name of Reviewer(s): Rebecca L. Hill Agency: BLM Carlsbad

17. Survey Data:

a. Source Graphics [] NAD 27 [x] NAD 83 Note: NAD 83 is the NMCRIS standard.

☒ USGS 7.5' (1:24,000) topo map ☐ Other topo map, Scale:

☒ GPS Unit Accuracy ☒ <1.0m ☐ 1-10m ☐ 10-100m ☐ >100m

☐ Aerial Photo(s)

Other Source Graphic(s):

b. USGS 7.5' Topographic Map Name

USGS Quad Code

Lea, NM

32103-E5

c. County(ies): LEA

d. Nearest City or Town: Hobbs, NM

e. Legal Description:

Township (N/S)

Range (E/W)

Section

19S

34E

34

Projected legal description? [] Yes [x] No [] Unplatted

f. Other Description (e.g. well pad footages, mile markers, plats, land grant name, etc.):

[] Continuation

18. Survey Field Methods:

Intensity: ☒ 100% coverage

☐ <100% coverage

Configuration: ☒ block survey units

☐ linear survey units (l x w):

NMCRIS No.: 123114

☐ other survey units (specify):

Scope: ☒ non-selective (all sites/properties recorded) ☐ selective/thematic (selected sites/properties recorded)

Coverage Method: ☒ systematic pedestrian coverage

☐ other method (describe):

Survey Interval (m): 15 Crew Size: 1 Fieldwork Dates: from: 22-Feb-2012 to: 22-Feb-2012

Survey Person Hours: 0.45 Recording Person Hours: Total Hours: 0.45

Additional Narrative:

Two known archaeological sites are located within 1/4 of a mile of the project area, both are at a sufficient distance as to be not affected by the project: LA 132489 and LA 72393

[] Continuation

19. Environmental Setting (NRCS soil designation; vegetative community; elevation; etc.):

NRCS (online database) describes soils within the project area as having Kermit soils and dune land with a 0-12 percent slope; and Pyote and maljamar fine sands. These soils historically supported a diverse grassland community of black grama, dropseeds, and bluestems grasses and shrubs such as sand sage and shinnery oak. Today due to grazing vegetation consists of shinnery oak, mesquite bush, winterfat, and desert grasses. Topographic relief is relatively flat at an elevation of 3,620 feet as the project is located on the Caprock formation in Lea County, NM.

[] Continuation

20.a. Percent Ground Visibility: 80%

b. Condition of Survey Area (grazed, bladed, undistributed, etc.):

This area shows evidence of livestock grazing and is within the Pearl Oil Field with access roads, power lines, flow lines and one pump jack.

[] Continuation

21. CULTURAL RESOURCE FINDINGS

☐ Yes, see next report section

☒ No, discuss why:

One isolated occurrence was discovered during this survey a modern pipe clamp. IO-1 pipe clamp 636822E - 3609485N

[] Continuation

22. Attachments (check all appropriate boxes):

[x] USGS 7.5 Topographic Map with sites, isolates, and survey area clearly drawn (required)

[x] Copy of NMCRIS Map Check (required)

[] LA Site Forms - new sites (with sketch map & topographic map) if applicable

[] LA Site Forms (update) - previously recorded & un-relocated sites (first 2 pages minimum)

[] Historic Cultural Property Inventory Forms, if applicable

[] List and Description of Isolates, if applicable

[] List and Description of Collections, if applicable

23. Other Attachments:

[] Photographs and Log

[] Other Attachments
(Describe)

NMCRIS No.: 123114

24. I certify the information provided above is correct and accurate and meets all applicable agency standards.

Principal Investigator/Qualified Supervisor: Printed Name: Rebecca L. Hill

Signature: /s/Rebecca L. Hill

Date: 22Feb2012

Title: Principal Investigator

25. Reviewing Agency

Reviewer's Name/Date:

Accepted []

Rejected []

26. SHPO

Reviewer's Name/Date:

HPD Log #:

Date sent to ARMS:

CULTURAL RESOURCE FINDINGS

[fill in appropriate section(s)]

SURVEY RESULTS:

Archaeological Sites discovered and registered: 0

Archaeological Sites discovered and NOT registered: 0

Previously recorded archaeological sites revisited (site update form required): 0

Previously recorded archaeological sites not relocated (site update form required): 0

TOTAL ARCHAEOLOGICAL SITES (visited & recorded): 0

Total isolates recorded: 1

☒ Non-selective isolate recording?

HCPI properties discovered and registered: 0

HCPI properties discovered and NOT registered: 0

Previously recorded HCPI properties revisited: 0

Previously recorded HCPI properties not relocated: 0

TOTAL HCPI PROPERTIES (visited & recorded, including acequias): 0

MANAGEMENT SUMMARY:

No significant cultural resources were discovered during this survey; therefore, it is recommended the oil spill clean-up project be approved. If cultural resources are discovered during clean-up, clean-up should cease and BLM Carlsbad notified.

[] Continuation

IF REPORT IS NEGATIVE, YOU ARE DONE AT THIS POINT.

SURVEY LA/HCPI NUMBER LOG

Sites/Properties Discovered:

LA/HCPI No. Field/Agency No.

Eligible? (Y/N/U, applicable criteria)

NMCRIS No.: 123114

Previously recorded revisited sites/HCPI properties:

LA/HCPI No. Field/Agency No.

Eligible? (Y/N/U, applicable criteria)

MONITORING LA NUMBER LOG (site form required)

Sites Discovered (site form required):

Previously recorded sites (site update form required):

LA No. Field/Agency No.

LA No. Field/Agency No.

Areas outside known nearby site boundaries monitored? [] Yes

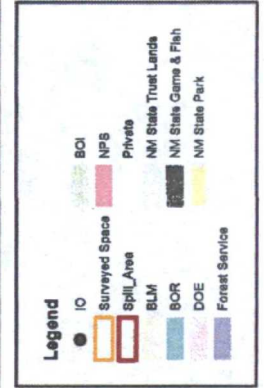
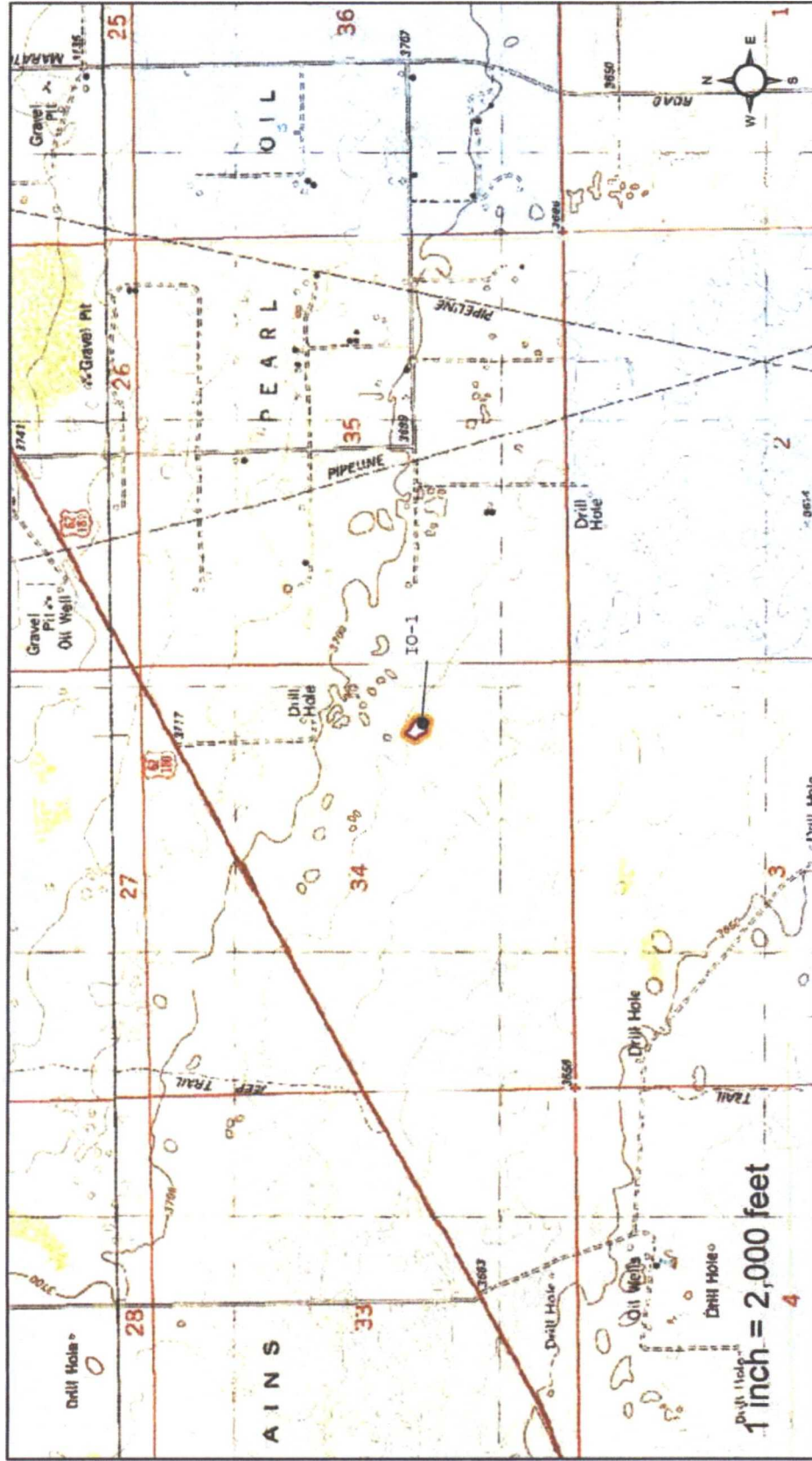
[] No, Explain
why

TESTING & EXCAVATION LA NUMBER LOG (site form required)

Tested LA number(s)

Excavated LA number(s)

Cimerex Mallon 34 Fed #3 Oil Spill



Lea
32108-E-5
T19S R34E Sec 34
1:2,000

From: Amos, James A [jamos@blm.gov]
Sent: Tuesday, February 28, 2012 6:16 AM
To: Vernon Black
Subject: RE: Cimarex Mallon 34 Fed #1
You may proceed as per field discussion. thanks

From: Vernon Black [mailto:vernon@hungry-horse.com]
Sent: Monday, February 27, 2012 12:29 PM
To: Amos, James A
Subject: Cimarex Mallon 34 Fed #1

Hello Jim,

I just got off the phone with Bruce Boeke and he said he had sent you the arch survey from Boone Arch. Are we clear to proceed as we had discussed at our site visit.

Vernon

March 01, 2012

VERNON BLACK

Hungry Horse Environmental

P.O. Box 1058

Hobbs, NM 88240

RE: MALLON 34 FED #1

Enclosed are the results of analyses for samples received by the laboratory on 02/27/12 9:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

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:

Hungry Horse Environmental
VERNON BLACK
P.O. Box 1058
Hobbs NM, 88240
Fax To: (505) 391-4585

Received: 02/27/2012
Reported: 03/01/2012
Project Name: MALLON 34 FED #1
Project Number: NOT GIVEN
Project Location: LEA COUNTY, NM

Sampling Date: 02/27/2012
Sampling Type: Soil
Sampling Condition: ** (See Notes)
Sample Received By: Celey D. Keene

Sample ID: NORTH END 3' (H200501-01)
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	02/29/2012	ND	2.10	105	2.00	2.86	
Toluene*	<0.050	0.050	02/29/2012	ND	2.27	114	2.00	2.79	
Ethylbenzene*	<0.050	0.050	02/29/2012	ND	2.32	116	2.00	2.60	
Total Xylenes*	<0.150	0.150	02/29/2012	ND	7.29	122	6.00	2.38	

Surrogate: 4-Bromofluorobenzene (PIL) 107 % 64.4-134

Chloride, SM4500Cl-B

mg/kg

Analyzed By: HM

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	160	16.0	02/27/2012	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	02/29/2012	ND	177	88.4	200	8.22	
DRO >C10-C28	23.2	10.0	02/29/2012	ND	187	93.6	200	7.89	

Surrogate: 1-Chlorooctane 87.0 % 55.5-154

Surrogate: 1-Chlorooctadecane 94.0 % 57.6-158

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

Hungry Horse Environmental
VERNON BLACK
P.O. Box 1058
Hobbs NM, 88240
Fax To: (505) 391-4585

Received: 02/27/2012
Reported: 03/01/2012
Project Name: MALLON 34 FED #1
Project Number: NOT GIVEN
Project Location: LEA COUNTY, NM

Sampling Date: 02/27/2012
Sampling Type: Soil
Sampling Condition: ** (See Notes)
Sample Received By: Celey D. Keene

Sample ID: SOUTH END 4' (H200501-02)

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	02/29/2012	ND	2.10	105	2.00	2.86			
Toluene*	<0.050	0.050	02/29/2012	ND	2.27	114	2.00	2.79			
Ethylbenzene*	<0.050	0.050	02/29/2012	ND	2.32	116	2.00	2.60			
Total Xylenes*	<0.150	0.150	02/29/2012	ND	7.29	122	6.00	2.38			

Surrogate: 4-Bromofluorobenzene (PIL) 114 % 64.4-134

Chloride, SM4500Cl-B			mg/kg							Analyzed By: HM	
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier		
Chloride	8000	16.0	02/27/2012	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	02/29/2012	ND	177	88.4	200	8.22			
DRO >C10-C28	<10.0	10.0	02/29/2012	ND	187	93.6	200	7.89			

Surrogate: 1-Chlorooctane 89.6 % 55.5-154

Surrogate: 1-Chlorooctadecane 93.8 % 57.6-158

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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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* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager



CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

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