

Forest Oil Corporation

Pit Closure Summary

CMU #39

API 30-025-01479

Lea County, NM

UL. B, Sec. 19, T17S, R33E

GPS N32 49.553 W103 42.026

Start date: 16Mar09

Finish date: 27Mar09

Prepared By: Vernon K. Black

Environmental Technician

Hungry Horse Environmental, LLC

PO Box 1058

Hobbs, NM 88240

(575)-393-3386

RECEIVED

APR 06 2009

HOBBSOCD

WORKOVER PIT
FINAL CLOSURE APPROVAL

Johnson
ENVIRONMENTAL ENGINEER

5.19.09

PI-00979



Table of Contents

1.0 Introduction	pg. 1
2.0 Area Description	pg. 1
3.0 Pit Closure Process	pg. 1
Diagram of Pit/Location Area	pg. 2

Attachments

Attachment 1 – Overhead View
Attachment 2 – Lab Analytical & Chain of Custody
Attachment 3 – One call
Attachment 4 – Photos of Progress
Attachment 5 – Proof of Closure Notice
Attachment 6 – Plot Plan
Attachment 7 – C 144 w/Closure Plan

1.0 Introduction

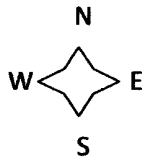
This report addresses the pit (work over) closure at Forest Oil Corporation's CMU #39 injection well. Analytical results, photos of the project, an overhead map, and a general scope of the work conducted are included in this document as attachments. The project manager for Hungry Horse Environmental Services was David Carter.

2.0 Area Description

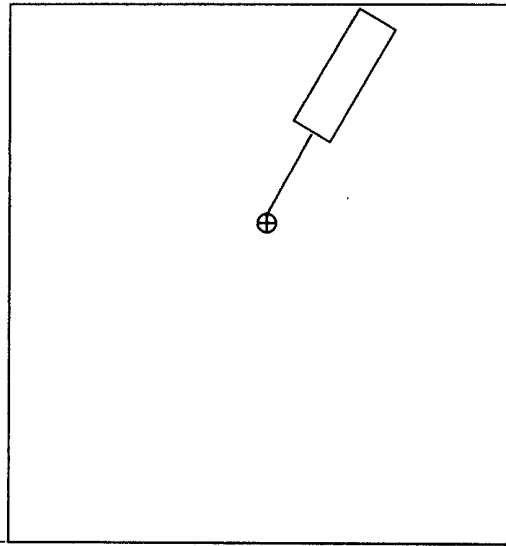
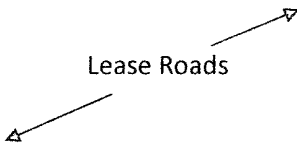
This geographical area is primarily caliche/caliche rock base covered with sand. Vegetation present in this area is mesquite, yucca plants, and a variety of range grass and weeds. The depth to the ground water is >150' based on the Lea County Depth to Ground Water Map. There are no water wells or surface bodies of water within a half of a mile of this location. This location is in rural Lea County, NM near Maljamar, between Mescalero and Humming Bird Roads at the bottom of the caprock.

3.0 Pit Closure Process

This pit closure was accomplished using the Waste Excavation and Removal Process. The work over pit was 15'L x 8'W X 4'D and was lined with a synthetic liner. The pit contents, along with the liner, and material from underneath the liner as well as the pit walls were excavated and removed. The final depth of the excavation was five feet. All material removed was disposed of at Lea Land SWM 131401. A five-point composite soil sample was obtained and taken to Cardinal Labs for analysis. Lab results indicated that chlorides, TPH, GRO/DRO, Benzene, and BTEX were all well below the limits set forth by NM OCD. Larry Johnson, NM OCD, was notified of the results and advised that backfilling could commence. The excavated area was backfilled using clean material from a nearby source and contoured to match the existing grade of the location. All work conducted was on the existing location; therefore no re-seeding and no cover design was conducted.



Lease Roads



To Top of
Caprock

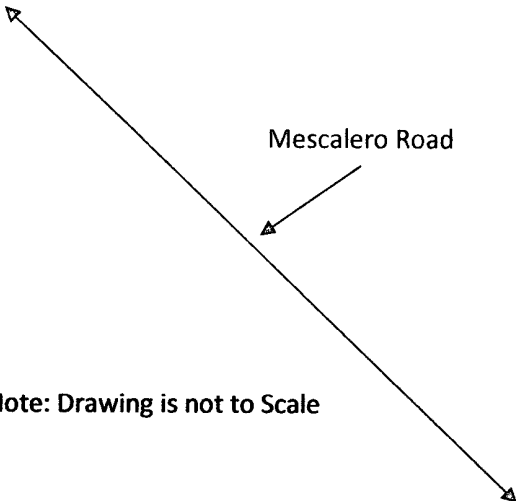
CMU #39

Center of Pit is 40' NW of Wellhead

Mescalero Road

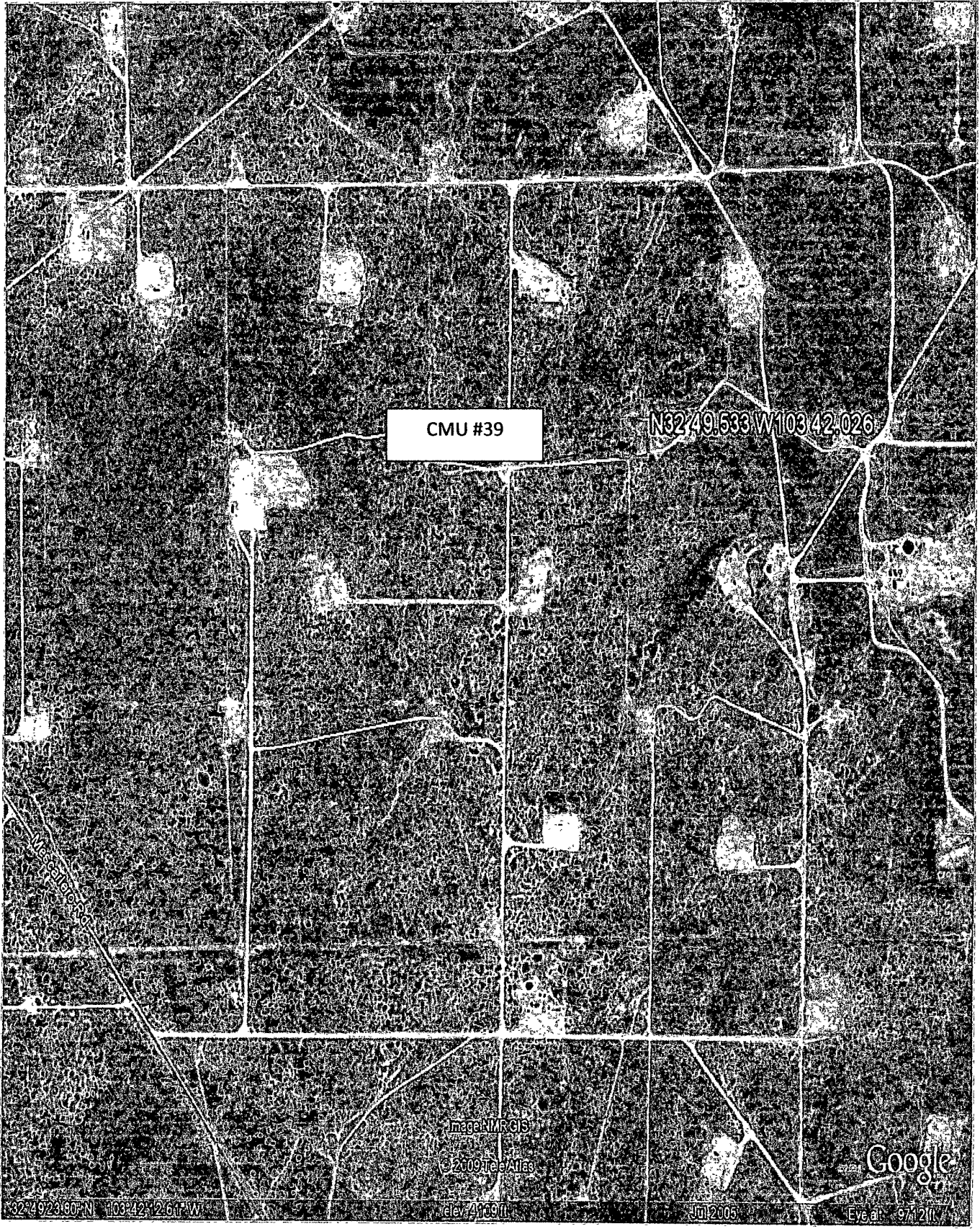


Note: Drawing is not to Scale





Attachment 1



CMU #39

N32°49.533' W103°42.026'

Image: NRCIS

© 2009 Terra Atlas

elev: 4100ft

Jul 2006

Elev at: 9712ft

Google

32°49'23.60"N 103°42'12.61"W



Attachment 2



CARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240
(575) 393-2320 Fax (575) 393-2476

Page ____ of ____

Company Name: Hungry Horse Environmental Services 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: Forest Oil Project Name: CMU #39 Project Location: Lea County Sampler Name: Vernon K. Black				BILL TO P.O. #: Company: SAME Attn: Address: City: State: Zip: Phone #: Fax #:		ANALYSIS REQUEST															
FOR LAB USE ONLY Lab I.D. H17084-1		Sample I.D. Workover Pit Composite 5 BGS		MATRIX GROUNDWATER WASTEWATER SOIL SLUDGE OTHER		PRESERV. ACIDBASE COLD / COOL OTHER		SAMPLING DATE 15 MAR TIME 1430		chbrides BTEX TPH GRL/DLO											
										X X X L											

PLEASE NOTE: Liability and Damages: Cardinal's liability and claims include remedy for only 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 interruption, loss of use, or loss of profits incurred by client, to whatsoever, arising out of or related to the performance of services rendered by Cardinal. (Limitation of remedy shall apply to all claims, whether or not the above stated remedy is adequate.)

Terms and Conditions: There will be charged on all accounts more than 30 days past due at the rate of 24% per annum from the original date of invoice, and all costs of collection, including attorney's fees.

Sampler Relinquished: Date: Received By: Time:		Phone Request: <input type="checkbox"/> No Add'l Phone #: Fax Request: <input type="checkbox"/> No Add'l Fax #:	
Relinquished By: <i>[Signature]</i> Delivered By: (Circle One) Sampler - UPS - Bus - Other:		REMARKS: e-mail + fax	

Checked By: *[Signature]*
Sample Condition:
 Cont. Intact
☐ Yes ☒ No

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



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

ANALYTICAL RESULTS FOR
HUNGRY HORSE ENVIRONMENTAL SERVICES
ATTN: VERNON K. BLACK
P.O. BOX 1058
HOBBS, NM 88241
FAX TO: (575) 391-4585

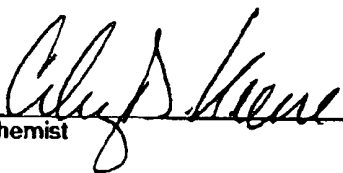
Receiving Date: 03/19/09
Reporting Date: 03/23/09
Project Owner: FOREST OIL
Project Name: CMU #39
Project Location: LEA COUNTY, NM

Sampling Date: 03/18/09
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: AB
Analyzed By: ZL

LAB NUMBER	SAMPLE ID	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL BENZENE (mg/kg)	TOTAL XYLENES (mg/kg)
ANALYSIS DATE					
H17084-1	COMPOSITE 5'BGS	03/20/09 <0.050	03/20/09 <0.050	03/20/09 <0.050	03/20/09 <0.300
Quality Control		0.049	0.050	0.049	0.149
True Value QC		0.050	0.050	0.050	0.150
% Recovery		98.0	100	98.0	99.3
Relative Percent Difference		1.8	3.4	3.4	4.6

METHOD: EPA SW-846 8021B

TEXAS NELAP ACCREDITATION T104704398-08-TX FOR BENZENE, TOLUENE, ETHYL BENZENE,
AND TOTAL XYLENES.



Chemist



Date

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 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 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.



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

ANALYTICAL RESULTS FOR
HUNGRY HORSE ENVIRONMENTAL SERVICES
ATTN: VERNON K. BLACK
P.O. BOX 1058
HOBBS, NM 88241
FAX TO: (575) 391-4585

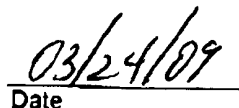
Receiving Date: 03/19/09
Reporting Date: 03/23/09
Project Owner: FOREST OIL
Project Name: CMU #39
Project Location: LEA COUNTY, NM

Sampling Date: 03/18/09
Sample Type: SOIL
Sample Condition: COOL & INTACT
Sample Received By: AB
Analyzed By: AB/TR

LAB NUMBER	SAMPLE ID	GRO (C ₈ -C ₁₀) (mg/kg)	DRO (C ₁₀ -C ₂₈) (mg/kg)	418.1 TOTAL TPH (mg/kg)	CI* (mg/kg)
ANALYSIS DATE		03/21/09	03/21/09	03/20/09	03/19/09
H17084-1	COMPOSITE 5' BGS	<10.0	<10.0	<100	< 16
Quality Control		473	535	319	500
True Value QC		500	500	300	500
% Recovery		94.6	107	106	100
Relative Percent Difference		0.7	2.8	2.7	< 0.1

METHODS: TPH GRO & DRO: EPA SW-846 8015 M; EPA 418.1, CI: Std Methods 4500-CI-B
*Analysis performed on a 1.4 w/v aqueous extract.


Chemist


Date

H17084 TPH2CL HHE

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 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.

Attachment 3

NEW MEXICO ONE CALL
Locate Request Confirmation

Ticket #:2009103213 Reason Code:STANDARD LOCATE
Work to Begin Date: 03/10/2009 Time: 12:49:00 PM

CALLER INFORMATION

DAVID CARTER Excavator Type:CONTRACTOR
HUNGRY HORSE LLC Tel.:(575)441-5264

DIG LOCATION

City:RURAL LEA
Subdivision:
Address : To:
Street : WELL CAPROCK MALJAMAR UNIT #039
Nearest Intersecting Street :
Second Intersecting Street :

Additional Dig Information:

HAUL OFF WORKOVER PIT -- FROM HOBBS GO W ON
US-62/180 GO 12MI - T/NW ON CR-529 GO 19.5MI - T/R
ON MESCALERO RD GO TO END OF ROAD - T/R GO 1.7MI
PAST CATTLE GUARD - T/N ON HUMMINGBIRD RD GO 1.4MI
- T/W ON TO TOMAHAWK GO 7/10MI GO ACROSS CATTLE

Remarks: GUARD - T/L GO 1.1MI - T/L TOWARDS WATER TANK GO
1/10MI - T/L DOWN HILL TO LOCATION === SPOT 50FT
RADIUS AROUND WORK OVER PIT - NO HAZARDS

Township: 17S Range: 33E Section 1/4: 19 SE
Township: 17S Range: 33E Section 1/4: 19 SW
Township: 17S Range: 33E Section 1/4: 19 NE
Township: 17S Range: 33E Section 1/4: 19 NW

Type of Work: OIL/GAS-WELL/PIT REPAIR

The following utility owners have been notified of
your proposed excavation site:

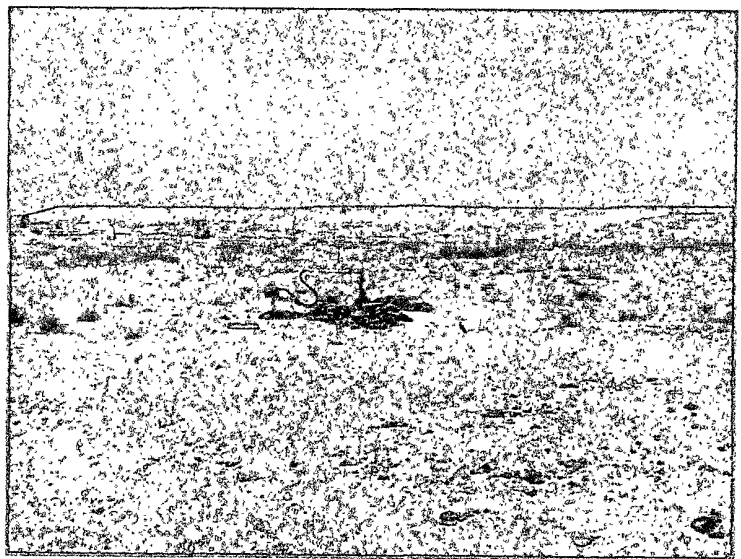
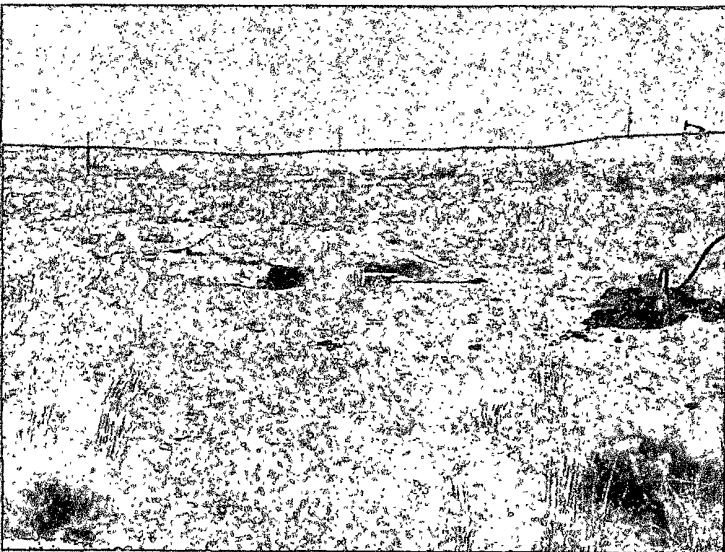
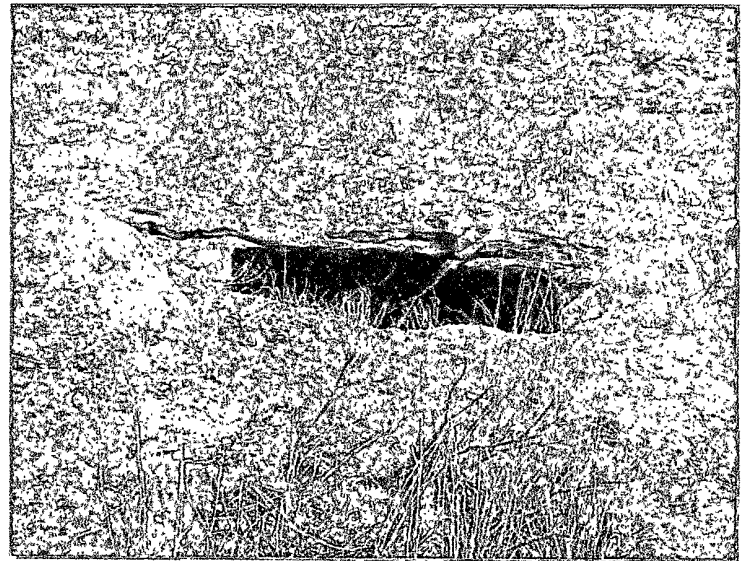
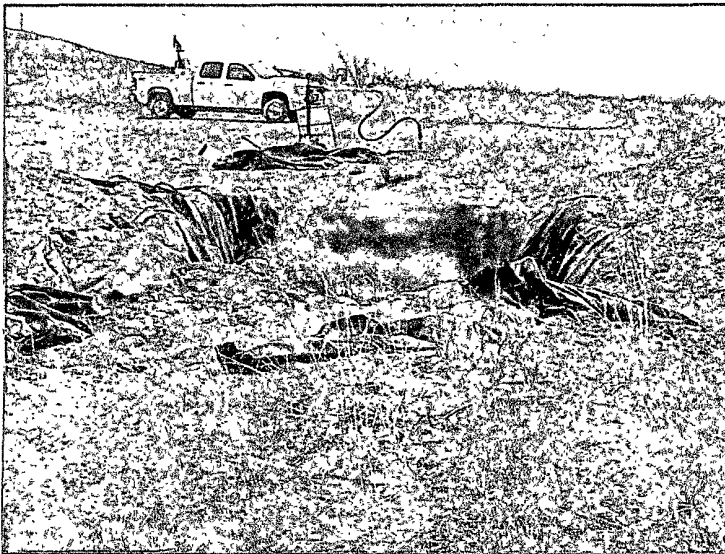
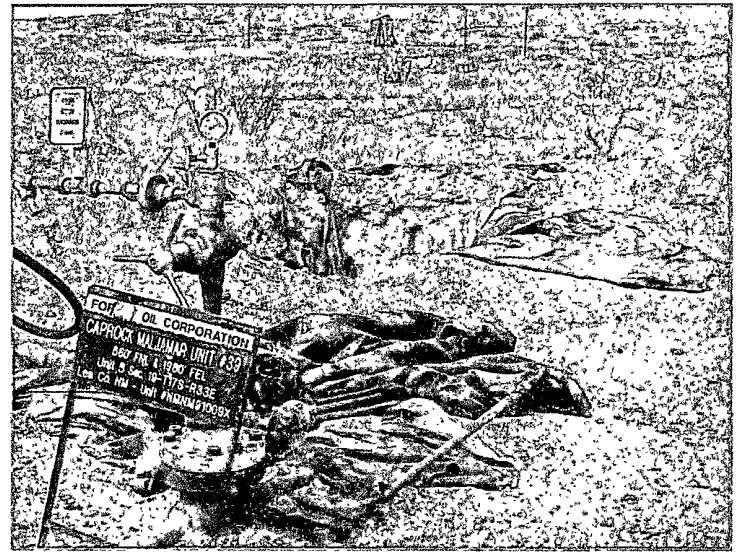
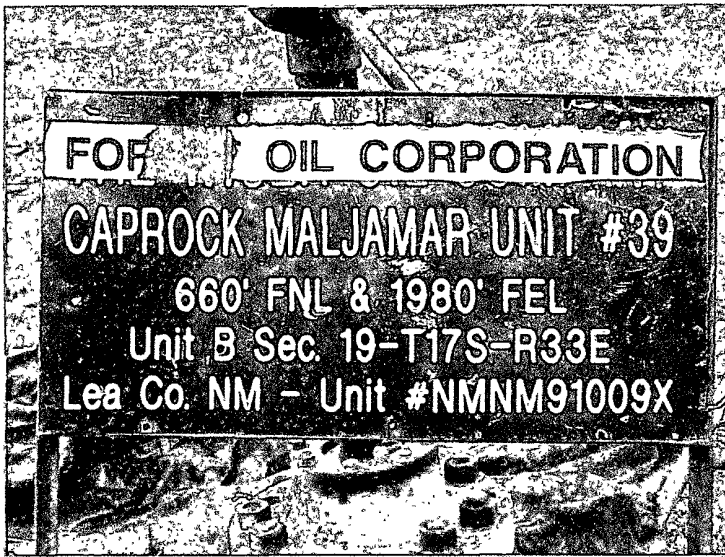
CHEVRON-HOBBS
CONOCO-PHILLIPS HOBBS
CONOCOPHILLIPS - MALJAMAR PROD
CONOCO-PHILLIPS & WESTTEX 66 PIPELINE
DCP MIDSTREAM - LINUM
PLAINS PIPELINE - HOBBS

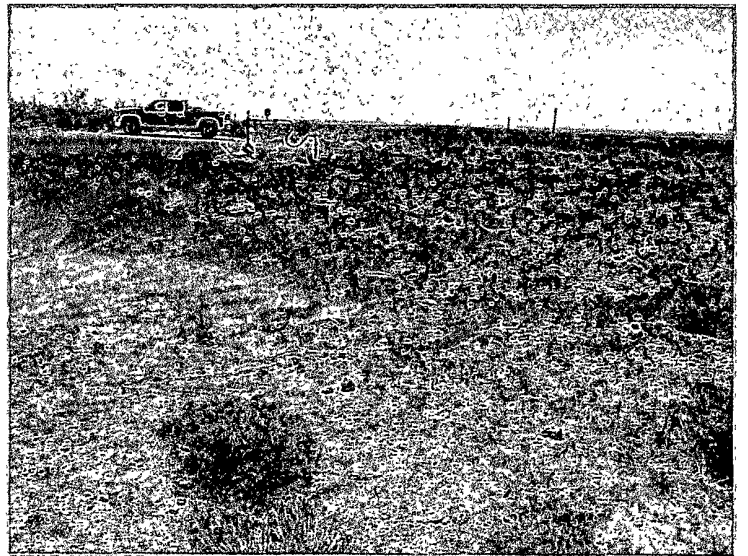
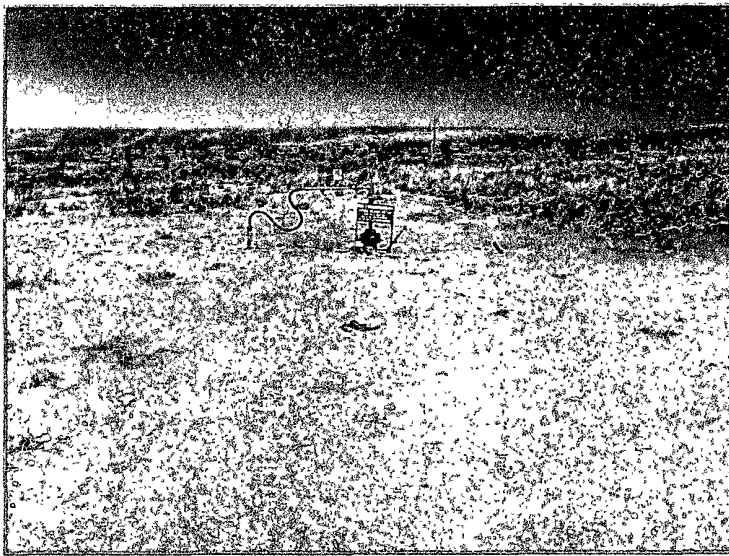
IMPORTANT CONFIRMATION NOTICE

Your fax request has been received and processed. It is your
responsibility to review the information provided on this faxback
confirmation ticket and ensure it has been correctly interpreted from
your request. Notify us immediately of any corrections or errors.
Acceptance of this faxback confirmation ticket means you accept
responsibility for the accuracy of the information contained in the



Attachment 4





Attachment 5

HUNGRY HORSE, LLC
ENVIRONMENTAL SERVICES

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

9Mar09

To: John Norris, Norris Cattle Company
Reference: Pit Closures

Dear Mr. Norris,

I am writing this letter on behalf of Forest Oil Corporation to notify you of their intent to close eight workover pits located on your property. All pits are located on active well locations. The pits will be closed utilizing the waste excavation and removal process following NM OCD guidelines. The pits to be closed are listed below.

Well Name	Legals	API
CMU #39	UL. B, Sec. 19, T17S, R33E	30-025-01479
CMU #283	UL. O, Sec. 28, T17S, R33E	30-025-34193
CMU #58	UL. E, Sec. 21, T17S, R33E	30-025-01509
CMU #93	UL. L, Sec. 28, T17S, R33E	30-025-01526
CMU #32	UL. P, Sec. 17, T17S, R33E	30-025-01451
CMU #17	UL. J, Sec. 18, T17S, R33E	30-025-01460
CMU #3	UL. D, Sec. 17, T17S, R33E	30-025-01442
CMU #26	UL. N, Sec. 18, T17S, R33E	30-025-01466

Should you have any questions, please feel free to contact myself or Mr. Rick Rickman w/Forest Oil Corporation at 575 392 9797.

Sincerely,



Vernon K. Black

HSE

Hungry Horse Environmental Services
Hobbs, NM





Attachment 6

The center of the work over pit is 40' northwest of the well head.

GPS N32 49.553 W103 42.026 is center of pit

Reference the drawing on page 2.



Attachment 7

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

RECEIVED

MAR 11 2009

HOBBSOCD

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

Form C-144
July 21, 2008

For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOCD District Office.
For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

Pit, Closed-Loop System, Below-Grade Tank, or
Proposed Alternative Method Permit or Closure Plan Application

Type of action: ☐ Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method
☐ Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method
☐ Modification to an existing permit
☒ Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system, below-grade tank, or proposed alternative method

Instructions: Please submit one application (Form C-144) per individual pit, closed-loop system, below-grade tank or alternative request

It is advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

Operator: Forest Oil Corporation OGRID #:8041
Address:707 17th ST Suite 3600 Denver, CO
Facility or well name: CMU #39
API Number: 30-025-01479 OCD Permit Number: P1-00 979
U/L or Qtr/Qtr B Section 19 Township 17S Range 33E County: Lea
Center of Proposed Design: Latitude Longitude NAD: ☐ 1927 ☐ 1983
Surface Owner: ☐ Federal ☐ State x Private ☐ Tribal Trust or Indian Allotment

☐ **Pit:** Subsection F or G of 19.15.17.11 NMAC
Temporary: ☐ Drilling x Workover
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A
☐ Lined ☐ Unlined Liner type: Thickness 12 mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other
☐ String-Reinforced
Liner Seams: x Welded ☐ Factory ☐ Other Volume: 50 bbl Dimensions: 15'L x 10'W x 5'D

☐ **Closed-loop System:** Subsection H of 19.15.17.11 NMAC
Type of Operation: ☐ P&A ☐ Drilling a new well ☐ Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent)
☐ Drying Pad ☐ Above Ground Steel Tanks ☐ Haul-off Bins ☐ Other
☐ Lined ☐ Unlined Liner type: Thickness mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other
Liner Seams: ☐ Welded ☐ Factory ☐ Other

☐ **Below-grade tank:** Subsection I of 19.15.17.11 NMAC
Volume: bbl Type of fluid:
Tank Construction material:
☐ Secondary containment with leak detection ☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Other
Liner type: Thickness mil ☐ HDPE ☐ PVC ☐ Other

☐ **Alternative Method:**
Submission of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

6. **Fencing:** Subsection D of 19.15.17.11 NMAC (*Applies to permanent pits, temporary pits, and below-grade tanks*)

- ☐ Chain link, six feet in height, two strands of barbed wire at top (*Required if located within 1000 feet of a permanent residence, school, hospital, institution or church*)
- ☐ Four foot height, four strands of barbed wire evenly spaced between one and four feet
- ☐ Alternate. Please specify _____

7. **Netting:** Subsection E of 19.15.17.11 NMAC (*Applies to permanent pits and permanent open top tanks*)

- ☐ Screen ☐ Netting ☐ Other _____
- ☐ Monthly inspections (If netting or screening is not physically feasible)

8. **Signs:** Subsection C of 19.15.17.11 NMAC

- ☐ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers
- ☐ Signed in compliance with 19.15.3.103 NMAC

9. **Administrative Approvals and Exceptions:**

Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.

Please check a box if one or more of the following is requested, if not leave blank:

- ☐ Administrative approval(s): Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau office for consideration of approval.
- ☐ Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

10. **Siting Criteria (regarding permitting):** 19.15.17.10 NMAC

Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to drying pads or above-grade tanks associated with a closed-loop system.

- | | |
|--|---|
| Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank.
- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).
- Topographic map; Visual inspection (certification) of the proposed site | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.
(Applies to temporary, emergency, or cavitation pits and below-grade tanks)
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image | <input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> NA |
| Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.
(Applies to permanent pits)
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image | <input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> NA |
| Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application.
- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended.
- Written confirmation or verification from the municipality; Written approval obtained from the municipality | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Within 500 feet of a wetland.
- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Within the area overlying a subsurface mine.
- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Within an unstable area.
- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Within a 100-year floodplain.
- FEMA map | <input type="checkbox"/> Yes <input type="checkbox"/> No |

11.

Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC**Instructions:** Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
☐ Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC
☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
☐ Previously Approved Design (attach copy of design) API Number: _____ or Permit Number: _____

12.

Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC**Instructions:** Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9 NMAC
☐ Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC
☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
☐ Previously Approved Design (attach copy of design) API Number: _____
☐ Previously Approved Operating and Maintenance Plan API Number: _____ (Applies only to closed-loop system that use above ground steel tanks or haul-off bins and propose to implement waste removal for closure)

13.

Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC**Instructions:** Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC
☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
☐ Climatological Factors Assessment
☐ Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Quality Control/Quality Assurance Construction and Installation Plan
☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
☐ Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Nuisance or Hazardous Odors, including H₂S, Prevention Plan
☐ Emergency Response Plan
☐ Oil Field Waste Stream Characterization
☐ Monitoring and Inspection Plan
☐ Erosion Control Plan
☐ Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

14.

Proposed Closure: 19.15.17.13 NMAC**Instructions:** Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.

- Type: ☐ Drilling ☒ Workover ☐ Emergency ☐ Cavitation ☐ P&A ☐ Permanent Pit ☐ Below-grade Tank ☐ Closed-loop System
☐ Alternative
 Proposed Closure Method: ☒ Waste Excavation and Removal
☐ Waste Removal (Closed-loop systems only)
☐ On-site Closure Method (Only for temporary pits and closed-loop systems)
☐ In-place Burial ☐ On-site Trench Burial
☐ Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)

Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) **Instructions:** Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.

- ☒ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
☒ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
☒ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)
☒ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
☒ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
☒ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

6. Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: (19.15.17.13.D NMAC)

Instructions: Please identify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Will any of the proposed closed-loop system operations and associated activities occur on or in areas that *will not* be used for future service and operations?

☐ Yes (If yes, please provide the information below) ☐ No

Required for impacted areas which will not be used for future service and operations:

☐ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC

☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

7. Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC

Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.

Ground water is less than 50 feet below the bottom of the buried waste.

- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells

☐ Yes ☐ No

☐ NA

Ground water is between 50 and 100 feet below the bottom of the buried waste

- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells

☐ Yes ☐ No

☐ NA

Ground water is more than 100 feet below the bottom of the buried waste.

- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells

☐ Yes ☐ No

☐ NA

Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).

- Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.

- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image

☐ Yes ☐ No

Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application.

- NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended.

- Written confirmation or verification from the municipality; Written approval obtained from the municipality

☐ Yes ☐ No

Within 500 feet of a wetland.

- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site

☐ Yes ☐ No

Within the area overlying a subsurface mine.

- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division

☐ Yes ☐ No

Within an unstable area.

- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map

☐ Yes ☐ No

Within a 100-year floodplain.

- FEMA map

☐ Yes ☐ No

8. On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.

☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC

☐ Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC

☐ Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.11 NMAC

☐ Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.11 NMAC

☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC

☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC

☐ Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC

☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)

☐ Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC

☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC

☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

19.

Operator Application Certification:

I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.

Name (Print): Rick RickmanTitle: ASESignature: Rick RickmanDate: 3-9-09

e-mail address: _____

Telephone: 369-6176

20.

OCD Approval: ☐ Permit Application (including closure plan) ☒ Closure Plan (only) ☐ OCD Conditions (see attachment)OCD Representative Signature: [Signature]Approval Date: 3.11.09Title: ENVIRONMENTAL ENGINEEROCD Permit Number: P1-00929

21.

Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC*Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.*☐ Closure Completion Date: _____

22.

Closure Method:☐ Waste Excavation and Removal ☐ On-Site Closure Method ☐ Alternative Closure Method ☐ Waste Removal (Closed-loop systems only)
☐ If different from approved plan, please explain.

23.

Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:*Instructions: Please identify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.*

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Were the closed-loop system operations and associated activities performed on or in areas that will not be used for future service and operations?

☐ Yes (If yes, please demonstrate compliance to the items below) ☐ No

Required for impacted areas which will not be used for future service and operations:

- ☐
- Site Reclamation (Photo Documentation)
-
- ☐
- Soil Backfilling and Cover Installation
-
- ☐
- Re-vegetation Application Rates and Seeding Technique

24.

Closure Report Attachment Checklist: *Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.*

- ☐
- Proof of Closure Notice (surface owner and division)
-
- ☐
- Proof of Deed Notice (required for on-site closure)
-
- ☐
- Plot Plan (for on-site closures and temporary pits)
-
- ☐
- Confirmation Sampling Analytical Results (if applicable)
-
- ☐
- Waste Material Sampling Analytical Results (required for on-site closure)
-
- ☐
- Disposal Facility Name and Permit Number
-
- ☐
- Soil Backfilling and Cover Installation
-
- ☐
- Re-vegetation Application Rates and Seeding Technique
-
- ☐
- Site Reclamation (Photo Documentation)

On-site Closure Location: Latitude _____ Longitude _____ NAD: ☐ 1927 ☐ 1983

25.

Operator Closure Certification:

I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print): _____

Title: _____

Signature: _____

Date: _____

e-mail address: _____

Telephone: _____

HUNGRY HORSE, LLC
ENVIRONMENTAL SERVICES

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

9Mar09

TO: Larry Johnson, NM OCD Dist 1
REFERENCE: Work Plan for Closure of a Temporary Pit

RECEIVED

MAR 11 2009
HOBBSOCD

OPERATOR: Forest Oil Corporation
LOCATION: CMU #39
API: 30-025-01479
LEGALS: UL, B, Sec 19, T17S, R33E
GPS: N32 49.533 W103 42.026
DEPTH to GROUND WATER: 150'

Protocols and Procedures: The closure of this work over pit will be accomplished by using the waste excavation and removal method. All contents of the pit to include the synthetic liner will be removed and disposed of at a division-approved facility.

Confirmation Sampling: A composite sample of the excavated will be obtained and analyzed to determine the levels of Benzene, BTEX, TPH, GRO/DRO, and chlorides. All analysis will be conducted using NM OCD approved analysis methods.

Disposal Facility: Lea Land SWM 131401

Soil backfill and Cover Design Specifications: The excavated area will be backfilled to the existing grade of the location using the stockpiled material that came from the original pit excavation and/or from a local source should more be required.

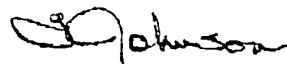
Re-vegetation Plan: Due to the affected area being on an active well location, no re-vegetation will be conducted.

Site Reclamation Plan: The excavated area will be reclaimed in a manner to match the existing grade of the location.

Submitted By: Vernon K. Black, Hungry Horse Environmental Services

Signature: 

Date: 9 Mar 09


ENVIRONMENTAL ENGINEER
3.11.09