

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007

2007 FEB 27

5. Lease Serial No.
BIA CONTRACT 13

6. If Indian, Allottee or Tribe Name
JICARILLA APACHE NATION

7. If Indian or CA Agreement, Name and No.
N/A

8. Lease Name and Well No.
JICARILLA 13 PC #4

9. API Well No.
30-039- 30209

10. Field and Pool, or Exploratory
BALLARD PICTURED CLIFFS

11. Sec., T. R. M. or Blk. and Survey or Area
22-24N-5W NMPM

12. County or Parish
RIO ARRIBA

13. State
NM

1a. Type of work: ☒ DRILL ☐ REENTER

1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

2. Name of Operator
ELM RIDGE EXPLORATION COMPANY, LLC

3a. Address P. O. BOX 156
BLOOMFIELD, NM 87413

3b. Phone No. (include area code)
(505) 632-3476

4. Location of Well (Report location clearly and in accordance with any State requirements *)
At surface 1090' FSL & 990' FEL
At proposed prod. zone SAME

14. Distance in miles and direction from nearest town or post office*
8 AIR MILES NE OF COUNSELOR, NM

15. Distance from proposed*
location to nearest
property or lease line, ft.
(Also to nearest drig. unit line, if any) 1,550'

16. No. of acres in lease
1,920

17. Spacing Unit dedicated to this well
SE4 160

18. Distance from proposed location*
to nearest well, drilling, completed,
applied for, on this lease, ft. 2,120'

19. Proposed Depth
2,600'

20. BLM/BIA Bond No. on file
BIA NATION WIDE 886441C

21. Elevations (Show whether DF, KDB, RT, GL, etc)
6,780' GL

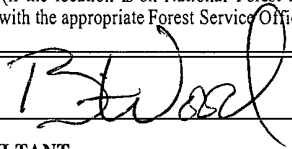
22. Approximate date work will start*
06/15/2007

23. Estimated duration
3 WEEKS

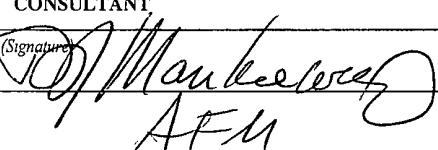
24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification
- Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature  Name (Printed/Typed) BRIAN WOOD Date 02/22/2007

Title CONSULTANT PHONE: (505) 466-8120 FAX: (505) 466-9682

Approved by  Name (Printed/Typed) AFM Date 6/7/11

Title Office FFO

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*(Instructions on page 2)

NOTIFY AZTEC OCD 24 HRS.
PRIOR TO CASING & CEMENT

JUN 22 2011

NMOCD

A COMPLETE C-144 MUST BE SUBMITTED TO AND APPROVED BY THE NMOCD FOR: A PIT, CLOSED LOOP SYSTEM, BELOW GRADE TANK, OR PROPOSED ALTERNATIVE METHOD, PURSUANT TO NMOCD PART 19.15.17, PRIOR TO THE USE OR CONSTRUCTION OF THE ABOVE APPLICATIONS.

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS".

RECD JUN 10 11

OL CONS. DIV.
DIST. 3

DISTRICT I
P.O. Box 1980, Hobbs, N.M. 88241-1980

DISTRICT II
811 South First, Artesia, N.M. 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-039-30209	² Pool Code 71439	³ Pool Name BALLARD PICTURED CLIFFS
⁴ Property Code 38463	⁵ Property Name JICARILLA 13 PC	⁶ Well Number 4
⁷ GRID No. 149052	⁸ Operator Name ELM RIDGE EXPLORATION	⁹ Elevation 6780

¹⁰Surface Location

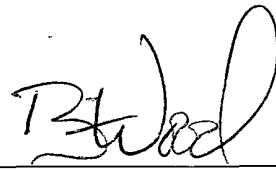
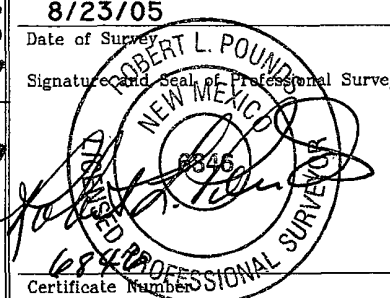
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	22	24 N	5 W		1090	SOUTH	990	EAST	RIO ARriba

¹¹Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

¹² Dedicated Acres 160	¹³ Joint or Infill .	¹⁴ Consolidation Code .	¹⁵ Order No. .
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16 5353.27'	S 87°36'40" E	5180.84'	17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.  Signature BRIAN WOOD Printed Name CONSULTANT Title FEB. 22, 2007 Date
	SECTION 22		
N 0°21'49" E 5195.44'	S 0°12'30" E 990'	5195.44'	18 SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. 8/23/05 Date of Survey Signature and Seal of Professional Surveyor:  Certificate Number

Elm Ridge Exploration Company, LLC
Jicarilla 13 PC 4
1090' FSL & 990' FEL
Sec. 22, T. 24 N., R. 5 W.
Rio Arriba County, New Mexico

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Drilling Program

1. ESTIMATED FORMATION TOPS

<u>Formation Name</u>	<u>GL Depth</u>	<u>KB Depth</u>	<u>Elevation</u>
San Jose	0'	5'	+6,780'
Ojo Alamo	1,910'	1,915'	+4,870'
Kirtland	2,105'	2,110'	+4,675'
Fruitland Coal	2,280'	2,285'	+4,500'
Pictured Cliffs	2,455'	2,460'	+4,325'
Lewis Shale	2,580'	2,585'	+4,200'
Total Depth (TD)	2,600'	2,605'	+4,180'

2. NOTABLE ZONES

<u>Oil & Gas Zones</u>	<u>Water Zones</u>	<u>Coal Zone</u>
Fruitland	San Jose	Fruitland
Pictured Cliffs	Ojo Alamo	

Water zones will be protected with casing, cement, and weighted mud. Fresh water encountered during drilling will be recorded by depth, cased, and cemented. Oil and gas shows will be tested for commercial potential based on the well site geologist's recommendations.

3. PRESSURE CONTROL

The drilling contract has not yet been awarded. Thus, the exact BOP model to be used is not yet known. (A typical 2,000 psi model is on PAGE 3.) BOP and choke manifold system will be installed and tested to \approx 500 psi before drilling the surface casing plug. It will remain in use until the well is completed or

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abandoned. A safety valve and sub with a full opening valve to fit the drill pipe and collars will be available on the rig floor in the open position at all times for use when kelly is not in use.

All BOP mechanical and pressure tests will be recorded on the driller's log. BOPs will be inspected and opened and closed at least daily to assure good mechanical working order. Inspections will be recorded on the daily drilling report. Pressure tests will be conducted before drilling out from under all casing strings which are set and cemented in place.

4. CASING & CEMENT

<u>Hole Size</u>	<u>O. D.</u>	<u>Weight</u>	<u>Grade</u>	<u>Type</u>	<u>Age</u>	<u>Setting Depth</u>
12-1/4"	8-5/8"	24#	J-55 or K-55	S T & C	New	250'
7-7/8"	5-1/2"	10.5# 15.5#	J-55	L T & C	New	2,600'

Surface casing will be cemented to the surface with ≈ 206 cubic feet (≈ 175 sacks) Class B with 1/4#/sk cellophane + 2% CaCl_2 . Yield = 1.18 cubic feet per sack. Weight = 15.2 pounds per gallon. Volume = 100% excess. Centralizers will be installed on the middle of the shoe joint and every other centralizer thereafter. Thread lock the guide shoe and bottom of float collar only. Use API casing dope.

Production casing will be cemented to the surface with ≈ 800 cubic feet (≈ 678 sacks) Class B with 1/4#/sk cellophane + 2% CaCl_2 . Yield = 1.18 cubic feet per sack. Weight = 15.2 pounds per gallon. Volume = 75% excess. About six or seven centralizers will be used.

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5. MUD PROGRAM

A nine pound polymer and fresh water mud system with a viscosity of ≈ 35 will be used. Sufficient material to maintain mud properties, control lost circulation, and contain a blowout will be available at the well while drilling.

6. CORES, TESTS, & LOGS

No cores or drill stem tests are planned. DIL/GR log may be run from TD to surface. CNL/FSC log may be run over certain intervals.

7. DOWN HOLE CONDITIONS

No abnormal pressures, temperatures, nor hydrogen sulfide are expected. Maximum pressure will be $\leq 1,040$ psi.

8. OTHER INFORMATION

The anticipated spud date is upon approval. It is expected it will take ≈ 1 week to drill and ≈ 2 weeks to complete the well.

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Surface Use Plan

1. DIRECTIONS & EXISTING ROADS (See PAGES 10 - 12)

From the junction of US 550 and NM-537 ...
Go North 11.4 miles on NM-537
Then turn left and go Southwest 4.1 miles on J-7
Then turn right and go North through a cattle guard 1/10 mile
Then bear left and go Northwest 0.7 miles
Then turn left and Southwest cross country 479' to the well site

Roads will be maintained to at least equal to their present condition.

2. ROAD TO BE BUILT OR UPGRADED (See PAGE 11)

The final $\approx 479'$ of access will be crowned and ditched to BLM Gold Book standards with a $\approx 14'$ wide running surface. Maximum disturbed width will be 30'. Maximum cut or fill = 2'. Maximum grade will be $\approx 1\%$. No upgrade, turn out, or culvert is needed. Only upgrade will be to clean and maintain the cattle guard north of J-7.

3. EXISTING WELLS (See PAGE 12)

There are 11 existing oil or gas wells and 4 plugged wells within a 1 mile radius. There are no water or injection wells.

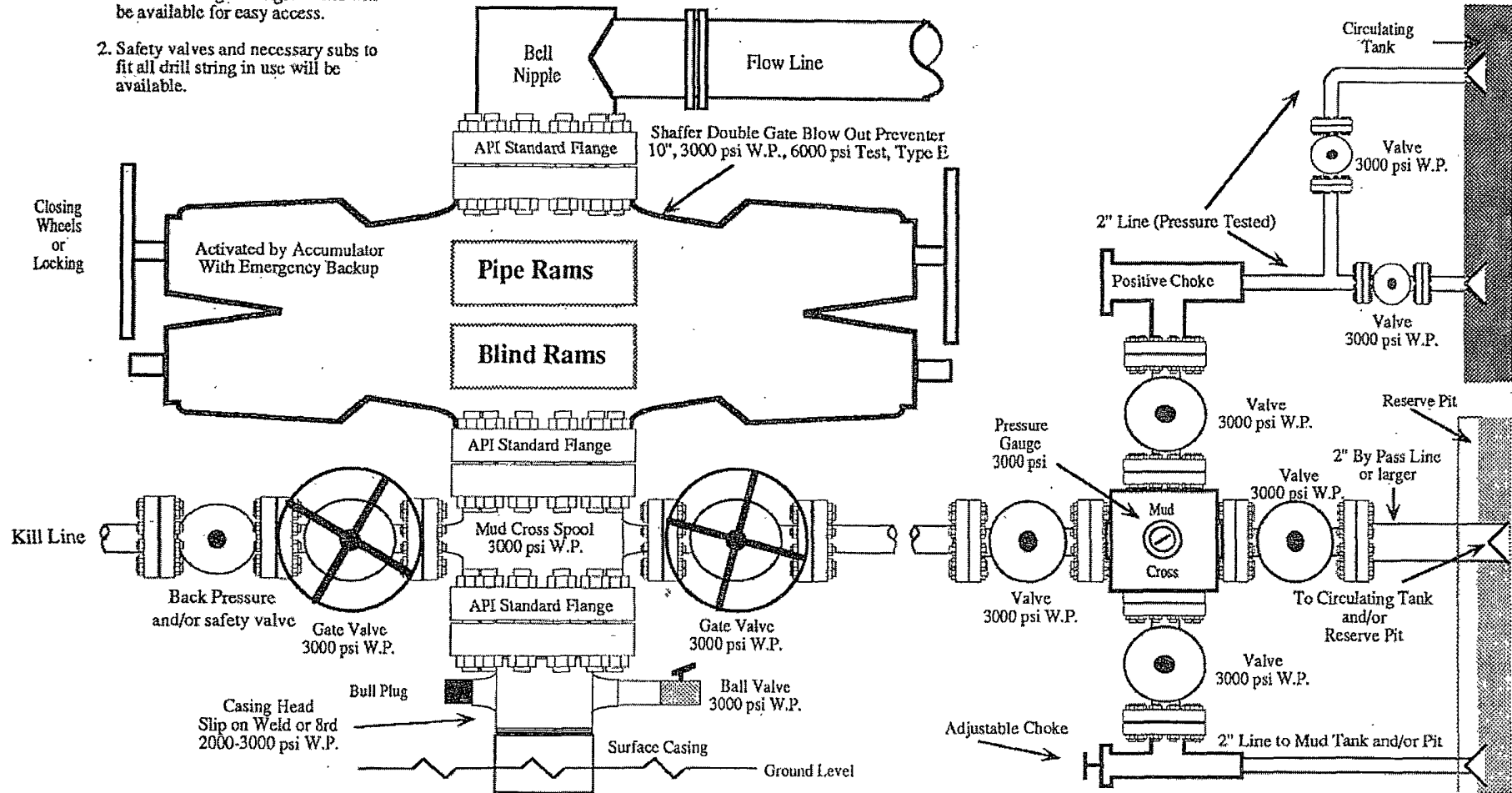
4. PROPOSED PRODUCTION FACILITIES (See PAGES 12 - 15)

Production facilities will include a pipeline, separator, dehydrator, meter run, and 210 bbl tank. Above ground equipment will be painted a flat juniper green.

2,000 PSI BOP SYSTEM

Note: 1. An upper Kelly cock valve will be utilized during drilling. Handle will be available for easy access.

2. Safety valves and necessary subs to fit all drill string in use will be available.



Note: This equipment is designed to meet requirements for a 2-M rating standard per 43 CFR part 3160 (amended). Proper operation and testing of equipment will be carried out per standard. 2,000 psi equipment can be substituted in the drawing to meet minimum requirements per standard.