

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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

APPLICATION FOR PERMIT TO DRILL OR REENTER

2007 APR -3 AM 10:47  
RECEIVED

5. Lease Serial No.  
**BIA CONTRACT 13**

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

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

8. Lease Name and Well No.  
**JICARILLA 13 GD #6**

9. API Well No.  
**30-039-30242**

10. Field and Pool, or Exploratory  
**OTERO GALL. & BAS. DAKOTA**

11. Sec., T. R. M. or Blk. and Survey or Area  
**B 34-24N-SW NMMP**

12. County or Parish  
**RIO ARriba**

13. State  
**NM**

14. Distance in miles and direction from nearest town or post office\*  
**6 MILES NORTHEAST OF COUNSELORS, NM**

15. Distance from proposed\* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) **945'**

16. No. of acres in lease  
**1,920**

17. Spacing Unit dedicated to this well  
**NWNE (Gallup) & E2 (Dakota)**

18. Distance from proposed location\* to nearest well, drilling, completed, applied for, on this lease, ft. **158' (P #4)**

19. Proposed Depth  
**7,000'**

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

21. Elevations (Show whether DF, KDB, RT, GL, etc.)  
**6,638' GL**

22. Approximate date work will start\*  
**08/01/2007**

23. Estimated duration  
**4 WEEKS**

24. Attachments

RCVD FEB 9 '11

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

OIL CONS. DIV.

- 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.

DIST. 3

25. Signature *Brian Wood* Name (Printed/Typed) **BRIAN WOOD** Date **03/31/2007**

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

Approved by (Signature) *B. Mantecosa* Name (Printed/Typed) **B. Mantecosa** Date **2/2/2011**

Title **AFM** Office **PFO**

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)

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.

FEB 23 2011  
NMOCD

Hold C104 for 5.9 compliance

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

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

District I  
PO Box 1980, Hobbs, NM 88241-1980

District II  
PO Drawer DD, Artesia, NM 88211-0719

District III  
1000 Rio Brazos Rd., Aztec, NM 87410

District IV  
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
PO 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

2007 APR - 3  
AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number <b>30-039-30242</b>	Pool Code 48450 / 71599	Pool Name OTERO GALLUP / BASIN DAKOTA
Property Code <b>38473</b>	Property Name JICARILLA 13 GD	Well Number 6
GRID No. 149052	Operator Name ELM RIDGE EXPLORATION COMPANY, LLC.	Elevation 6638'

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	34	24N	5W		825	NORTH	1695	EAST	RIO ARriba

11 Bottom 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
Dedicated Acres 40.0 NW4NE4 - Gallup 320.0 (E/2) - Dakota					Joint or Infill	Consolidation Code C	Order No.		

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

15		17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.  Signature <b>BRIAN WOOD</b> Printed Name <b>CONSULTANT</b> Title <b>MAR. 31, 2007</b> Date
		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. Date of Survey: JUNE 3, 2005 Signature and Seal of Professional Surveyor  <b>JASON C. EDWARDS</b> Certificate Number 15269

Elm Ridge Exploration Company, LLC  
Jicarilla 13 GD #6  
825' FNL & 1695' FEL  
Sec. 34, T. 24 N., R. 5 W.  
Rio Arriba County, New Mexico

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## Drilling Program

### 1. ESTIMATED FORMATION TOPS

<u>Formation</u>	<u>GL Depth</u>	<u>KB Depth</u>	<u>Elevation</u>
San Jose	0'	12'	+6,638'
Ojo Alamo	1,763'	1,775'	+4,875'
Kirtland	2,163'	2,175'	+4,475'
Fruitland Coal	2,238'	2,250'	+4,400'
Pictured Cliffs	2,263'	2,275'	+4,375'
Lewis	2,488'	2,500'	+4,150'
Gallup	5,413'	5,425'	+1,225'
Dakota	6,663'	6,675'	-25'
Morrison	6,838'	6,850'	-200'
Total Depth (TD)	7,000'	7,012'	-362'

### 2. NOTABLE ZONES

#### Oil & Gas Zones

Pictured Cliffs  
Gallup  
Dakota

#### Water Zones

San Jose  
Pictured Cliffs

#### Coal Zone

Fruitland

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.

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### 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 3,000 psi model is on PAGE 3.

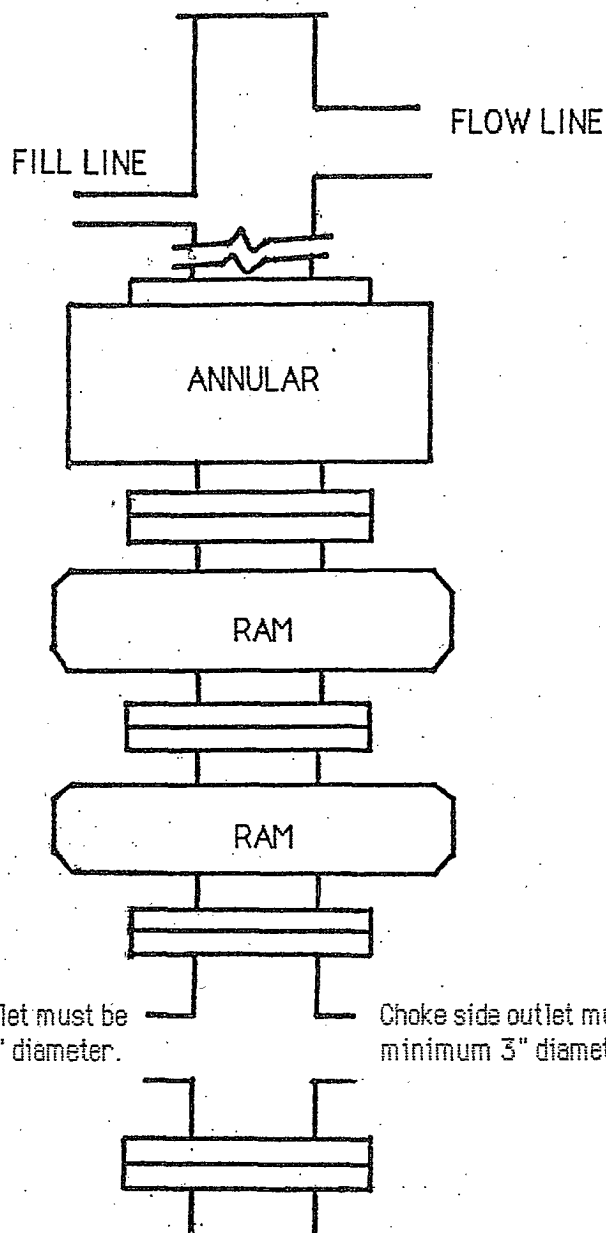
A  $\geq 3,000$  psi BOP and choke manifold system will be installed and tested to 2,000 psi before drilling surface casing plug. It will remain in use until the well is completed or abandoned. A safety valve and sub with a full opening valve to fit the drill pipe and collars will be available on the 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

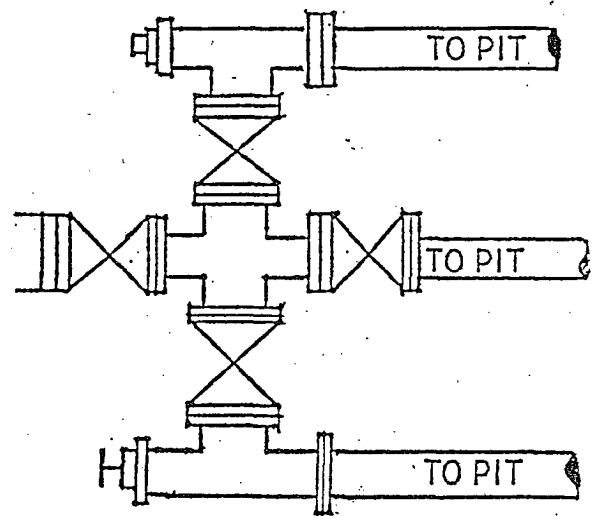
<u>Hole Size</u>	<u>O. D.</u>	<u>Weight (lb/ft)</u>	<u>Grade</u>	<u>Type</u>	<u>Age</u>	<u>Depth Set</u>
12-1/4"	8-5/8"	24	J-55 or K-55	S T & C	New	350'
7-7/8"	5-1/2"	15.5	J-55	L T & C	New	7,000'

Surface casing will be cemented to the surface with  $\approx 290$  cubic feet ( $\approx 245$  sacks) Class B with 1/4# per sack cellophane + 2%  $\text{CaCl}_2$ . Yield = 1.18 cubic feet per sack. Weight = 15.2 pounds per gallon. Volume is based on 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.



TYPICAL BOP STACK  
& CHOKE MANIFOLD

There will be at least 2 chokes and 2 choke line valves (3" minimum). The choke line will be 3" in diameter. There will be a pressure gauge on the choke manifold.



Kill line will be minimum 2" diameter and have 2 valves, one of which shall be a minimum 2" check valve.

Upper kelly cock will have handle available.  
Safety valve and subs will fit all drill string connections in use.  
All BOPE connections subjected to well pressure will be flanged, welded, or clamped.

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Production casing will be cemented to the surface in two stages with a stage tool set at  $\approx 5,000'$ . Volumes are based on  $\approx 75\%$  excess, but a caliper log will be used to determine actual volume needed. Centralizers will be installed on the middle of the shoe joint and on every joint thereafter for a total of  $\approx 33$  centralizers. Thread lock the guide shoe, bottom of float collar, and bottom of stage tool only. Use API casing dope.

First stage ( $\approx 2,000'$  fill) volume will be  $\approx 615$  cubic feet consisting of  $\approx 165$  sacks Halliburton light with 65/35 poz mix + 1/4 pound per sack cellophane + 2%  $\text{CaCl}_2$  (yield = 1.87 cubic feet per sack & weight = 12.7 pounds per gallon) followed by  $\approx 260$  sacks Class B + 2%  $\text{CaCl}_2$  (yield = 1.18 cubic feet per sack & weight = 15.2 pounds per gallon).

Second stage ( $\approx 5,000'$  fill) volume will be  $\approx 1,525$  cubic feet. Second stage will consist of  $\approx 785$  sacks of Halliburton light with 65/35 poz mix + 1/4 pound per sack cellophane + 2%  $\text{CaCl}_2$  (yield = 1.87 cubic feet per sack & weight = 12.7 pounds per gallon) followed by  $\approx 50$  sacks Class B + 2%  $\text{CaCl}_2$  (yield = 1.18 cubic feet per sack & weight = 15.2 pounds per gallon).

## 5. MUD PROGRAM

<u>Depth</u>	<u>Type</u>	<u>ppg</u>	<u>Viscosity</u>	<u>Fluid Loss</u>	<u>pH</u>
0' - 350'	Fresh water gel	9.0	50	NC	9
350' - TD'	Fresh water gel	9.0	38 - 50	6.0	9

Sufficient material to maintain mud qualities, control lost circulation, and prevent a blowout will be available at the well site while drilling. Mud will be checked hourly by rig personnel. Material to soak up possible oil or fuel spills will be on site.

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6. CORES, TESTS, & LOGS

No cores or drill stem tests are planned. DIL/GR logs will be run from TD to the surface. CNL/FDC logs will be run over selected segments. Samples will be collected every  $\approx 10'$  from  $\approx 200'$  above the Point Lookout to the base of the Point Lookout and through the Gallup and Dakota. Samples will be collected every  $\approx 30'$  elsewhere.

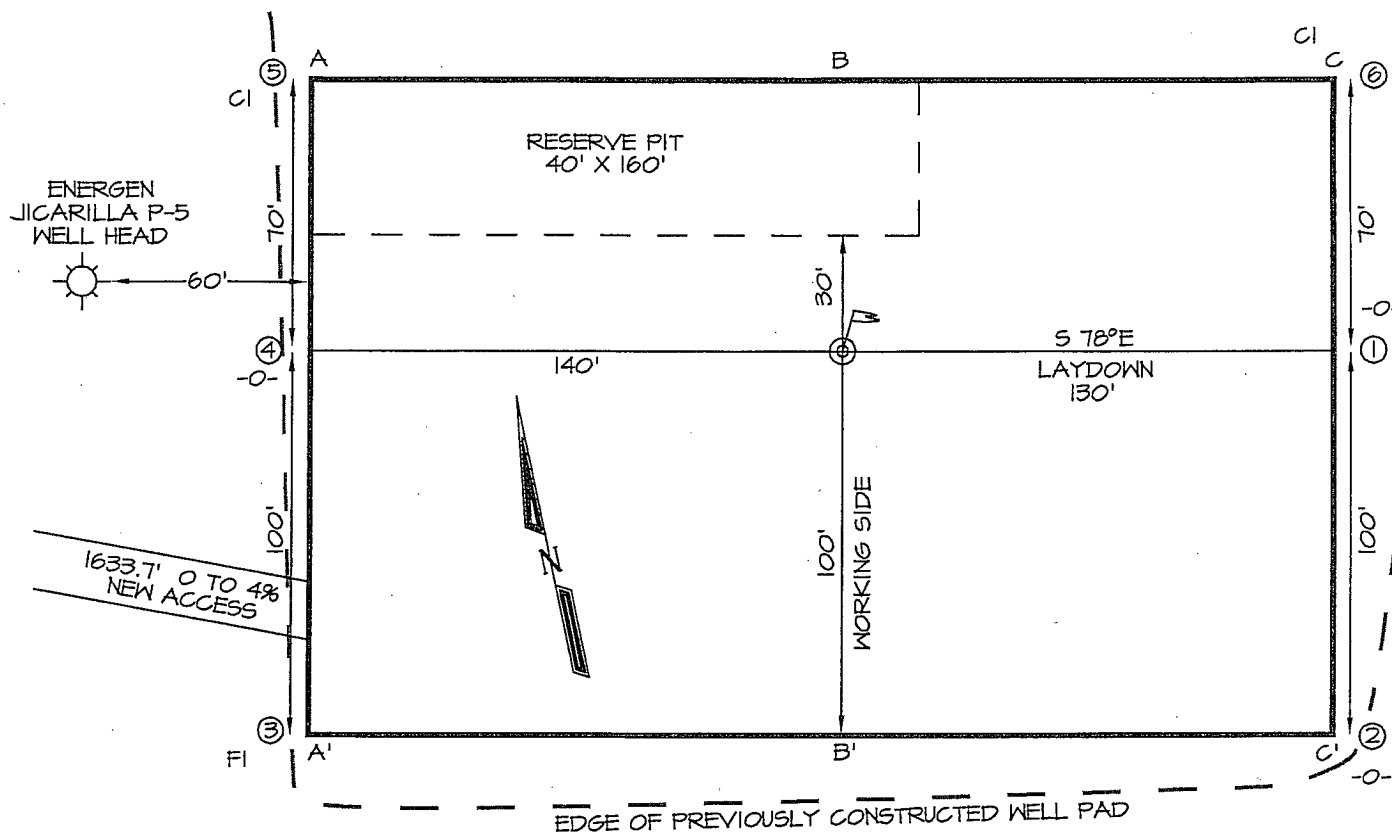
7. DOWN HOLE CONDITIONS

No abnormal pressures, temperatures, or hydrogen sulfide are expected. Maximum expected bottom hole pressure will be  $\leq 2,800$  psi.

8. OTHER INFORMATION

The anticipated spud date is upon approval. It is expected it will take  $\approx 2$  weeks to drill and  $\approx 2$  weeks to complete the well.

ELM RIDGE EXPLORATION COMPANY, LLC: JICARILLA 13 GD #6  
 825' FNL & 1695' FEL, SECTION 34, T24N, R5W, NMPM  
 RIO ARriba COUNTY, NEW MEXICO ELEVATION: 6638'



LATITUDE: 36.27363°  
 LONGITUDE: 107.34486°  
 DATUM: NAD1927

NOTE:  
 BEFORE ANY CONSTRUCTION BEGINS,  
 CONTRACTOR IS ADVISED TO CALL  
 ONE-CALL FOR LOCATION OF ANY  
 MARKED OR UNMARKED PIPELINES OR  
 CABLES IN THE AREA OF THIS PROJECT.

A-A'

6648'						
6638'						
6628'						

B-B'

6648'						
6638'						
6628'						

C-C'

6648'						
6638'						
6628'						