Form 3160-3
(April 2004)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

2006 DEC 29 AM 8:41

APPLICATION FOR PERMIT TO DRILL OR REENTER

RECEIVED
BLM
210 FARMINGTON NM

5. Lease Serial No.
BIA JE&DA 609-77-001

6. If Indian, Allotee or Tribe Name
JICARILLA APACHE

1a. Type of work: ☑ DRILL ☐ REENTER

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

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

8. Lease Name and Well No.
JICARILLA JV KD #12

2. Name of Operator
ELM RIDGE EXPLORATION COMPANY, LLC

9. API Well No.
30-039- 30176

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

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

10. Field and Pool, or Exploratory
LINDRITH GALL-DAK, WEST

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface **750' FNL & 1700' FEL**
At proposed prod. zone **SAME**

11. Sec., T. R. M. or Blk. and Survey or Area
B **10-23N-3W NMPM**

14. Distance in miles and direction from nearest town or post office*
7 AIR MILES SW OF LINDRITH, NM

12. County or Parish
RIO ARRIBA

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) **1,700'**

16. No. of acres in lease
1,920

17. Spacing Unit dedicated to this well
NE4

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. **150' (PC #103)**

19. Proposed Depth
7,500'

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

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
7,165' GL

22. Approximate date work will start*
03/15/2007

23. Estimated duration
4 WEEKS

24. Attachments

RCVD MAR 29 '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.

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

DIST. 3

25. Signature — Name *(Printed/Typed)* **BRIAN WOOD** — Date **12/16/2006**

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

Approved by *(Signature)* — Name *(Printed/Typed)* — Date 3/18/11

Title AFM — 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)*

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.

HOLD C104 FOR 5.9 Compliance

APR 06 2011

NMOCD

CONFIDENTIAL

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".

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-1
Revised February 21, 19
Instructions on ba
Submit to Appropriate District Offi
State Lease - 4 Copi
Fee Lease - 3 Copi

☐ AMENDED REPOR

RECEIVED
BLM

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-039-30176	39189	LINDRITH GALLUP-DAKOTA, WEST

[4] Property Code	[5] Property Name	[6] Well Number
38563	JICARILLA JV KD	12

[7] OGRID No.	[8] Operator Name	[9] Elevation
149052	ELM RIDGE EXPLORATION COMPANY, LLC.	7165'

[10] Surface Location

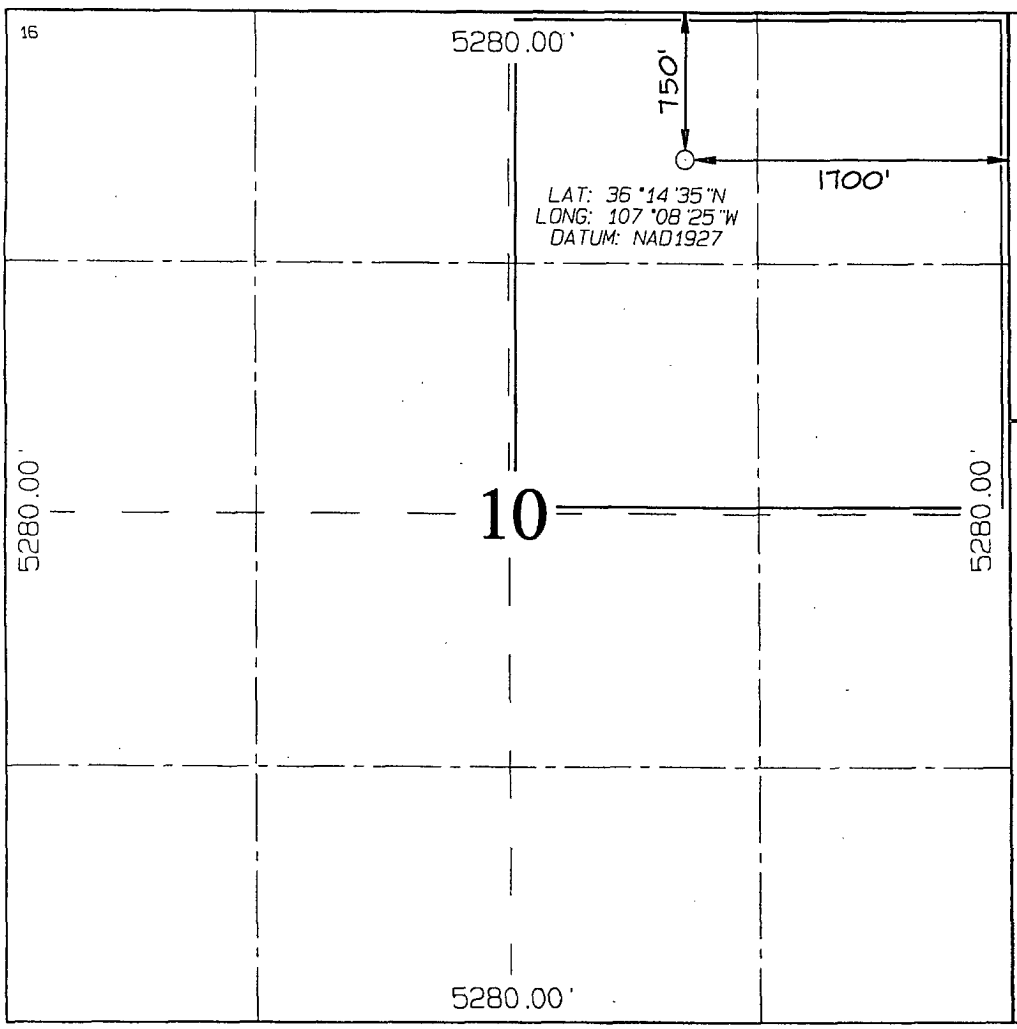
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	10	23N	3W		750	NORTH	1700	EAST	RIO ARRIBA

[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

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
160.0 Acres - (NE/4)			

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



[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

DEC. 16, 2006
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: NOVEMBER 11, 200

Signature and Seal of Professional Surveyor

JASON C. EDWARDS
NEW MEXICO
15269
REGISTERED PROFESSIONAL SURVEYOR

JASON C. EDWARDS
Certificate Number 15269

Elm Ridge Exploration Company, LLC
Jicarilla JV KD #12
750' FNL & 1700' FEL
Sec. 10, T. 23 N., R. 3 W.
Rio Arriba County, New Mexico

Drilling Program

1. ESTIMATED FORMATION TOPS

Formation	GL Depth	KB Depth	Elevation
San Jose	0'	12'	+7,165'
Ojo Alamo	2,585'	2,597'	+4,580'
Kirtland	2,765'	2,777'	+4,400'
Fruitland	2,865'	2,877'	+4,300'
Pictured Cliffs	2,990'	3,002'	+4,175'
Lewis	3,115'	3,127'	+4,050'
Chacra	3,865'	3,877'	+3,300'
Cliff House	4,585'	4,597'	+2,580'
Menefee	4,695'	4,507'	+2,470'
Point Lookout	5,065'	5,077'	+2,100'
Mancos	5,295'	5,307'	+1,870'
Gallup	6,135'	6,147'	+1,030'
Sanostee	6,870'	6,882'	+295'
Greenhorn	7,090'	7,102'	+75'
Graneros	7,155'	7,167'	+10'
Dakota	7,170'	7,182'	-5'
Burro Canyon	7,440'	7,452'	-275'
Total Depth (TD)	7,500'	7,512'	-335'

2. NOTABLE ZONES

Oil & Gas Zones	Water Zones	Coal Zones
Pictured Cliffs	San Jose	Fruitland
Gallup	Pictured Cliffs	Menefee
Dakota		

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

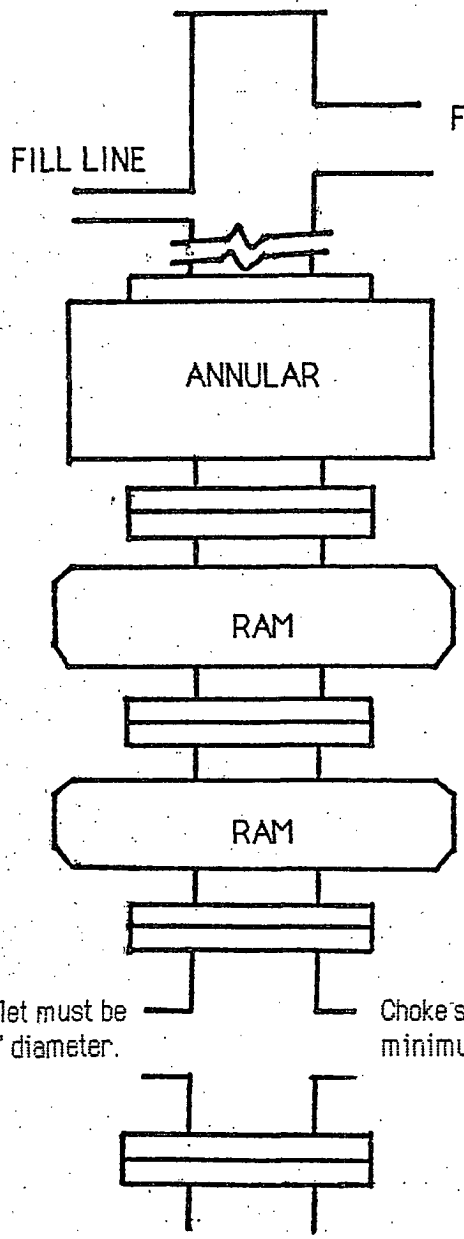
The drilling contract has not yet been awarded, thus the exact BOP model to be used is not yet known. A typical 3,000 psi model is on PAGE 3.

A ≥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

Hole Size	O. D	Weight (lb/ft)	Grade	Type	Age	Depth Set
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	7,500'



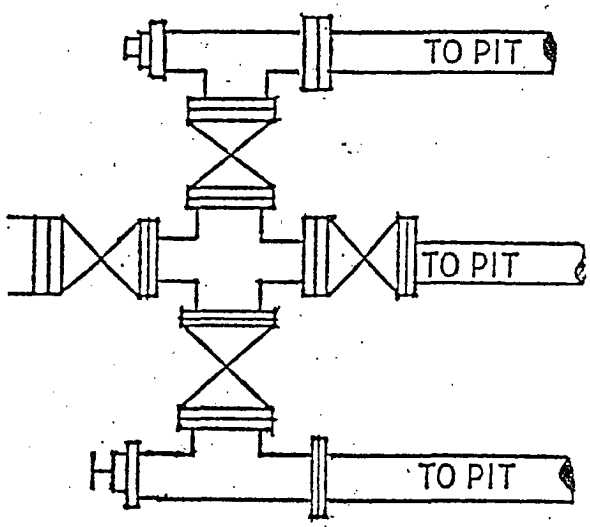
Kill side outlet must be minimum 2" diameter.

Choke side outlet must be minimum 3" diameter.

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

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.



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.

PERMITS WEST, INC.
PROVIDING PERMITS for the ENERGY INDUSTRY

Surface casing will be cemented to the surface with ≈290 cubic feet (≈245 sacks) Class B with 1/4# per sack cellophane + 2% $CaCl_2$. 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.

Production casing will be cemented to the surface in two stages with a stage tool set at ≈5,000'. Volumes are based on ≈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 ≈33 centralizers. Thread lock the guide shoe, bottom of float collar, and bottom of stage tool only. Use API casing dope.

First stage (≈2,500' fill) volume will be ≈780 cubic feet consisting of ≈190 sacks Halliburton light with 65/35 poz mix + 1/4 pound per sack cellophane + 2% $CaCl_2$ (yield = 1.87 cubic feet per sack & weight = 12.7 pounds per gallon) followed by ≈360 sacks Class B + 2% $CaCl_2$ (yield = 1.18 cubic feet per sack & weight = 15.2 pounds per gallon).

Second stage (≈5,000' fill) volume will be ≈1,525 cubic feet. Second stage will consist of ≈785 sacks of Halliburton light with 65/35 poz mix + 1/4 pound per sack cellophane + 2% $CaCl_2$ (yield = 1.87 cubic feet per sack & weight = 12.7 pounds per gallon) followed by ≈50 sacks Class B + 2% $CaCl_2$ (yield = 1.18 cubic feet per sack & weight = 15.2 pounds per gallon).

5. MUD PROGRAM

Depth	Type	ppg	Viscosity	Fluid Loss	pH
0' - 350'	Fresh water gel chem	9.0	50	NC	9
350' - TD'	Fresh water gel chem	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.

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 ≈10' from ≈200' above the Point Lookout to the base of the Point Lookout and through the Gallup and Dakota. Samples will be collected every ≈30' elsewhere.

7. DOWN HOLE CONDITIONS

No abnormal pressures, temperatures, or hydrogen sulfide are expected. Maximum expected bottom hole pressure will be ≤3,225 psi.

8. OTHER INFORMATION

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

Surface Use Plan

1. DIRECTIONS & EXISTING ROADS (See Pages 10 - 13)

From the equivalent of Mile Post 3.2 on US NM 537 ...
Go Northeast 7.8 miles on J-20
Then turn left and go North 1/10 mile to the existing Elm Ridge #103 pad
Then turn right and go Northeast ≈351' cross country to the proposed pad

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

2. ROADS TO BE BUILT OR IMPROVED (See PAGE 13)

No new road will be built. The proposed well site overlaps a producing well site. No upgrade, culvert, gate, or turnout is needed.

3. EXISTING WELLS (See PAGE 11)

There are 17 existing oil or gas wells and 5 plugged wells within a mile radius. There are no water or injection wells.

4. PROPOSED PRODUCTION FACILITIES (See PAGE 12)

Production facilities will include a pipeline, separator, dehydrator, meter run, and ≈210 bbl tank. Above ground equipment will be painted a non-glare juniper green color. A SDR-11 polyethylene ≈4" O. D. natural gas pipeline will be laid by Elm Ridge west 202.6' from the edge of the new pad all on the #103 pad to an existing meter run. The pipe will operate at ≈100 psi, be tested to ≈150 psi, and will be buried ≥36" deep. Maximum disturbed width = 40'.