

RECEIVED

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
Farmington Field Office

JUN 28 2012

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No. *Jicarilla Contract 9*  
6. If Indian, Allottee or Tribe Name  
JICARILLA APACHE NATION

1a. Type of work:  DRILL  REENTER  
1b. Type of Well:  Oil Well  Gas Well  Other  Single Zone  Multiple Zone

7. If Unit or CA Agreement, Name and No.  
8. Lease Name and Well No.  
JICARILLA APACHE A 21

2. Name of Operator ELM RIDGE EXPLORATION COMPANY, LLC

9. API Well No.  
30-039- *31127*

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 GALLUP-DAKOTA, WEST

4. Location of Well (Report location clearly and in accordance with any State requirements.)  
At surface 1610' FNL & 899' FEL  
At proposed prod. zone SAME

11. Sec., T. R. M. or Blk. and Survey or Area  
SENE (H) 35-25N-5W NMPM

14. Distance in miles and direction from nearest town or post office\*  
13 AIR MILES NE OF COUNSELOR, 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)  
1,030'

17. Spacing Unit dedicated to this well  
NE4 (= 160 acres)  
**RCVD DEC 6 '12  
OIL CONS. DIV.  
DIST. 3**

18. Distance from proposed location\* to nearest well, drilling, completed, applied for, on this lease, ft.  
1,114' (A 10)

19. Proposed Depth  
7,500'

21. Elevations (Show whether DF, KDB, RT, GL, etc.)  
6,908' GRADED

22. Approximate date work will start\*  
08/01/2012  
23. Estimated duration  
5 WEEKS

24. Attachments

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

- 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 must 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 BLM.

25. Signature *[Signature]* Name (Printed/Typed) BRIAN WOOD (505 466-8120) Date 06/11/2012

Title CONSULTANT (FAX 505 466-9682)

Approved by (Signature) *[Signature]* Name (Printed/Typed) Date 12/4/12

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.

(Continued on page 2)

\*(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 C-104 For 5.9 Compliance*

**BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS**

DEC 17 2012 *ca*

NMOCD

*Ar*

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".

NOTIFY AZTEC OCD 24 HRS. PRIOR TO CASING & CEMENT

HOLD C-104 FOR NSL

NSL

DISTRICT I  
1625 N. French Dr., Hobbs, N.M. 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720

DISTRICT II  
811 S. First St., Artesia, N.M. 88210  
Phone: (575) 748-1283 Fax: (575) 748-9720

DISTRICT III  
1000 Rio Brazos Rd., Aztec, N.M. 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV  
1220 S. St. Francis Dr., Santa Fe, N.M. 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, N.M. 87505

Form C-102  
Revised August 1, 2011  
Submit one copy to appropriate  
District Office

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-039- <b>31127</b>	<sup>2</sup> Pool Code 39189	<sup>3</sup> Pool Name LINDRITH GALLUP-DAKOTA, WEST
<sup>4</sup> Property Code 19025	<sup>5</sup> Property Name JICARILLA APACHE A	
<sup>7</sup> GRID No. 149052	<sup>8</sup> Operator Name ELM RIDGE EXPLORATION COMPANY, LLC	<sup>6</sup> Well Number 21
		<sup>9</sup> Elevation 6908

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	35	25 N	5 W		1610	NORTH	899	EAST	RIO ARRIBA

<sup>11</sup> 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

<sup>12</sup> Dedicated Acres 160 <b>NE 1/4</b>	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> 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

<p>16</p> <p>N 89°17'18" W WEST</p> <p>5272.16' (CALC.) 79.82 CHAINS (R)</p>	<p>1610'</p> <p>5260.69' (CALC.) 80 CHAINS (R)</p>	<p><sup>17</sup> OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p><i>Brian Wood</i> 5-28-12 Signature Date BRIAN WOOD Printed Name brian@permitswest.com E-mail Address</p>	
		<p>LAT: 36.3593416° N LONG: 107.3234442° W NAD 85</p> <p>LAT: 36°21.55977' N LONG: 107°19.37060' W NAD 27</p> <p>SECTION 35</p>	
<p>5242.79' (CALC.) 80 CHAINS (R)</p> <p>N 00°41'12" E NORTH</p>	<p>N 00°40'50" E NORTH</p>	<p><sup>18</sup> SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes and is correct to the best of my knowledge and belief.</p> <p>10/24/11 Date of Survey Signature and Seal of Registered Professional Surveyor: <i>[Signature]</i> 14831 Certificate Number</p>	
<p>LEGEND: ○ = SURFACE LOCATION ◇ = D.P. SECTION CORNER ▨ = S.P. SECTION CORNER</p>	<p>N 89°05'38" W WEST</p> <p>5272.77' (CALC.) 80 CHAINS (R)</p>	<p>1-23-2012</p>	

Elm Ridge Exploration Company, LLC  
 Jicarilla Apache A 21  
 1610' FNL & 899' FEL  
 Sec. 35, T. 25 N., R. 5 W.  
 Rio Arriba County, New Mexico

Drilling Program

1. ESTIMATED FORMATION TOPS

<u>Formation Name</u>	<u>GL Depth</u>	<u>KB Depth</u>	<u>Elevation</u>
San Jose	0'	10'	+6,908'
Ojo Alamo Ss	2,408'	2,418'	+4,500'
Kirtland	2,658'	2,668'	+4,250'
Pictured Cliffs Ss	2,983'	2,993'	+3,925'
Lewis Shale	3,048'	3,058'	+3,860'
Chacra Ss	3,788'	3,798'	+3,120'
Point Lookout	5,198'	5,208'	+1,710'
Mancos Shale	5,348'	5,358'	+1,560'
Gallup Ss	6,308'	6,318'	+600'
Sanostee Ss	6,803'	6,813'	+105'
Green Horn	7,103'	7,113'	-195'
Graneros	7,163'	7,173'	-255'
Dakota Ss	7,318'	7,328'	-410'
Burro Canyon	7,443'	7,453'	-535'
Total Depth (TD)*	7,500'	7,510'	-592'

\* all elevations reflect the ungraded ground level of 6,908'

2. NOTABLE ZONES

Oil & Gas Zones

Ojo Alamo  
 Pictured Cliffs  
 Chacra  
 Gallup  
 Dakota

Water Zones

San Jose  
 Ojo Alamo  
 Fruitland

Coal Zone

Fruitland

Water zones will be protected with casing, cement, and weighted mud. Fresh

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water 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. The  $\geq 3,000$  psi BOP and choke manifold system will be installed and tested to 2,000 psi before drilling the 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 that are set and cemented in place.

4. CASING & CEMENT

Hole Size	O. D.	Weight (lb/ft)	Grade	Type	Age	GL Setting Depth
12-1/4"	8-5/8"	24	J-55	S T & C	New	360'
7-7/8"	5-1/2"	15.5	J-55	L T & C	New	7,500'

	Drift inch	Torque feet-pounds	Burst psi	Collapse psi	Tension 1000 psi	Pressure Test psi
Surface	7.972	3070	2950	1370	381	1000
Production	4.653	2020	4810	4040	248	3500

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Surface casing will be cemented to the surface with  $\approx 310$  cubic feet ( $\approx 262$  sacks) Class B with 1/4 pound per sack cellophane + 2%  $\text{CaCl}_2$ . 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. Will test to  $\approx 800$  psi for  $\approx 30$  minutes.

Production casing will be cemented to the surface in two stages with  $\approx 75\%$  excess. A DV tool will be set at  $\approx 5,100'$  ( $\approx 200'$  above the Mancos). Will pressure test to  $\approx 2,000$  psi for  $\approx 30$  minutes.

First stage volume will be  $\approx 1,420$  cubic feet. First stage will consist of 350 sacks (654.5 cubic feet) Halliburton light with 65/35 poz mix + 1/4 pound per sack Flocele + 2%  $\text{CaCl}_2$  mixed at a yield of 1.87 cubic feet per sack and a weight of 12.7 pounds per gallon. That will be followed by 650 sacks (767 cubic feet) Class B + 2%  $\text{CaCl}_2$  mixed at a yield of 1.18 cubic feet per sack and a weight of 15.2 pounds per gallon.

Second stage volume will be  $\approx 1,611$  cubic feet. Second stage will consist of  $\approx 830$  sacks (1,552 cubic feet) of Halliburton light with 65/35 poz mix + 1/4 pound per sack Flocele + 2%  $\text{CaCl}_2$  mixed at a yield of 1.87 cubic feet per sack and a weight of 12.7 pounds per gallon. That will be followed by  $\approx 50$  sacks (59 cubic feet) Class B + 2%  $\text{CaCl}_2$  mixed at a yield of 1.18 cubic feet per sack and a weight of 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' - 360'	Fresh water gel	9.0	50	NC	9
360' - TD'	Fresh water gel	9.0	38-50	6.0	9

Sufficient material to maintain mud properties, control lost circulation, and

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PAGE 5

contain 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. Spectral density, high resolution induction, and cement bond logs will be run the base of the surface casing to TD. Samples will be collected every  $\approx 10'$  from  $\approx 200'$  above the Point Lookout to and through the Gallup and Dakota.

#### 7. DOWN HOLE CONDITIONS

No abnormal pressures, temperatures, nor hydrogen sulfide are expected. Maximum bottom hole pressure will be  $\leq 3,225$  psi.

#### 8. OTHER INFORMATION

The anticipated spud date is upon approval. It is expected it will take  $\approx 2$  weeks to drill and  $\approx 3$  weeks to complete the well.

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PAGE 6

## Surface Use Plan

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

From the junction of US 550 and NM 537 ...  
Go N 17.2 miles on NM 537  
Then turn left and go SW 5.9 miles on dirt J-18  
Then turn right and go N 42' cross country 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 12)

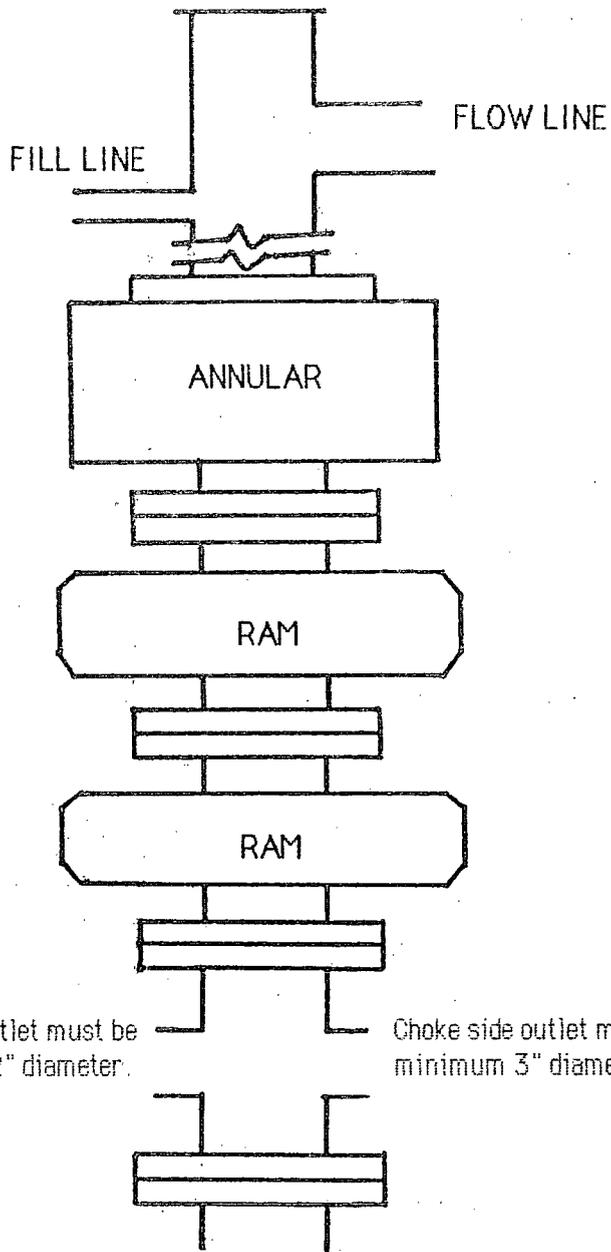
No upgrade is needed. The 42' of new road will be built to BLM Gold Book standards. Road will be crowned and ditched, have a  $\approx 14'$  wide running surface, and will be rocked as needed. Maximum disturbed width will be 20'. Maximum cut or fill = 11'. Maximum grade = 8%. A minimum 18" x 50' CMP culvert will be installed on the north side of J-18. No turn out or cattle guard is needed.

### 3. EXISTING WELLS (See PAGE 12)

Oil Conservation Division and State Engineer records show 13 gas or oil wells and four plugged and abandoned wells within a one mile radius. There are no injection or water wells within a mile.

### 4. PROPOSED PRODUCTION FACILITIES (See PAGES 12 & 14)

Production facilities will include a separator, dehydrator, meter run, and two  $\approx 300$  bbl tanks. All of the equipment will be painted a flat juniper green.



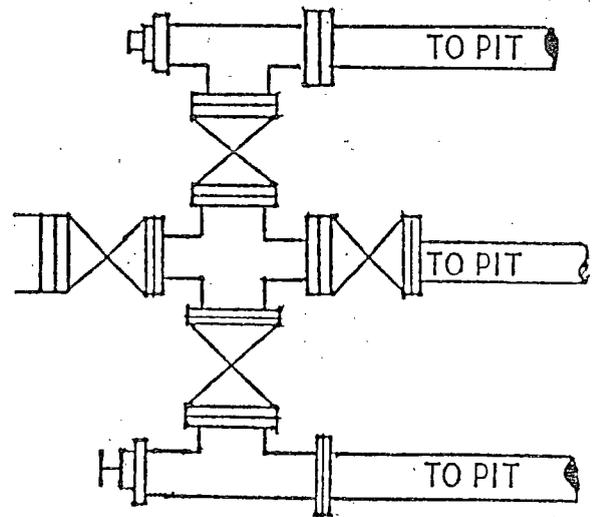
TYPICAL BOP STACK  
& CHOKE MANIFOLD

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 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.



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.