

Form 3160-3  
(April 2004)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

2007 MAR 29 AM 10:35  
RECEIVED  
BLM  
210 FARMINGTON NM

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

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. <b>BIA CONTRACT 429</b>
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input checked="" type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name <b>JICARILLA APACHE</b>
2. Name of Operator <b>ELM RIDGE EXPLORATION COMPANY, LLC</b>		7. If Unit or CA Agreement, Name and No. N/A
3a. Address <b>P. O. BOX 156 BLOOMFIELD, NM 87413</b>	3b. Phone No. (include area code) <b>(505) 632-3476</b>	8. Lease Name and Well No. <b>JICARILLA 429 GD #1</b>
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface <b>835' FSL &amp; 1660' FWL</b> At proposed prod. zone <b>SAME</b>		9. API Well No. <b>30-043- 21043</b>
14. Distance in miles and direction from nearest town or post office* <b>7 MILES EAST OF COUNSELORS, NM</b>		10. Field and Pool, or Exploratory <b>WC Basin Mancos, Basin Dakota</b>
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) <b>835'</b>	16. No. of acres in lease <b>1,920</b>	11. Sec., T. R. M. or Blk. and Survey or Area <b>N 23-23N-5W NMPM</b>
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. <b>8,173' (429 #4)</b>	19. Proposed Depth <b>6,700'</b>	12. County or Parish <b>SANDOVAL</b>
21. Elevations (Show whether DF, KDB, RT, GL, etc.) <b>6,774' GL</b>	22. Approximate date work will start* <b>07/01/2007</b>	13. State <b>NM</b>
17. Spacing Unit dedicated to this well <b>SESW (= 40 acres) 320 Dakota 160 Mancos</b>		
20. BLM/BIA Bond No. on file <b>BIA NATION WIDE 886441C</b>		
23. Estimated duration <b>4 WEEKS</b>		

24. Attachments

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

- |   |  |
|---|--|
| 1. Well plat certified by a registered surveyor.  | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).    |
| 2. A Drilling Plan.   | 5. Operator certification  |
| 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). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature	Name (Printed/Typed) <b>BRIAN WOOD</b>	Date <b>03/24/2007</b>
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Title **CONSULTANT** PHONE: (505) 466-8120 FAX: (505) 466-9682

Approved by (Signature)	Name (Printed/Typed) <b>AFM</b>	Date <b>6/23/08</b>
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Title <b>AFM</b>	Office <b>FFO</b>
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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.

**NOTIFY AZTEC OCD 24 HRS. PRIOR TO CASING & CEMENT**

JUN 30 2008

**NMOCD**

*av*

24 HR

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

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised February 21, 1994

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

OIL CONSERVATION DIVISION

Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

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

P.O. Box 2088  
Santa Fe, NM 87504-2088

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

Change pool & dedication from 20740 AFD 1730 PM 12/21 AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-043-21043	<sup>2</sup> Pool Code 97232	<sup>3</sup> Pool Name WILDCAT BASIN MANCOS
<sup>4</sup> Property Code 37226	<sup>5</sup> Property Name JICARILLA 429 GD	
<sup>7</sup> GRID No. 149052	<sup>6</sup> Operator Name ELM RIDGE EXPLORATION	
		<sup>8</sup> Well Number 1
		<sup>9</sup> Elevation 6774

<sup>10</sup> Surface Location


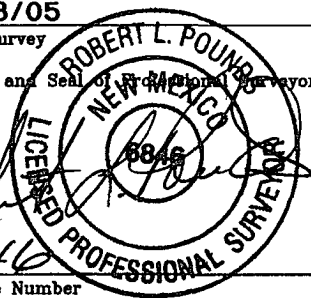
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	23	23 N	5 W		835	SOUTH	1660	WEST	SANDOVAL

<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	<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

<sup>16</sup> S 88°03'01" E 5326.57'          SECTION 23       N 0°12'51" W 1660' 835' N 88°30'57" W 5235.90'	5237.45'	<sup>17</sup> 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 MAR. 29, 2007 Date
	5284.01'	<sup>18</sup> 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.  12/28/05 Date of Survey Signature and Seal of Professional Surveyor:  Certificate Number

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

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102

Revised February 21, 1994

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

OIL CONSERVATION DIVISION

Instructions on back  
Submit to Appropriate District Office

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

P.O. Box 2088  
Santa Fe, NM 87504-2088

State Lease - 4 Copies  
Fee Lease - 3 Copies

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

Change pool & dedication from 140 to 320 12:21 AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-043-21043		<sup>2</sup> Pool Code 71599		<sup>3</sup> Pool Name BASIN DAKOTA	
<sup>4</sup> Property Code 32226		<sup>5</sup> Property Name JICARILLA 429 GD			<sup>6</sup> Well Number 1
<sup>7</sup> GRID No. 149052		<sup>8</sup> Operator Name ELM RIDGE EXPLORATION			<sup>9</sup> Elevation 6774

<sup>10</sup> Surface Location


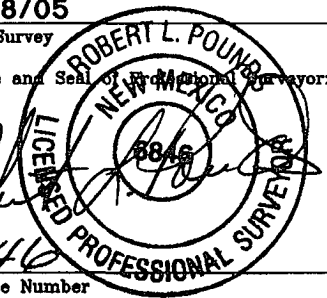
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	23	23 N	5 W		835	SOUTH	1660	WEST	SANDOVAL

<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	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
320			

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

<sup>16</sup> S 88°03'01" E 5326.57' SECTION 23 N 0°12'51" W 1660' 835' N 88°30'57" W 5235.90'	<sup>17</sup> OPERATOR CERTIFICATION <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</i>  Signature Printed Name Title Date	
	<sup>18</sup> SURVEYOR CERTIFICATION <i>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.</i> Date of Survey Signature and Seal of Professional Surveyor:  Certificate Number	
	5237.45' 5284.01' 12/28/05	

Elm Ridge Exploration Company, LLC  
 Jicarilla 429 GD #1  
 835' FSL & 1660' FWL  
 Sec. 23, T. 23 N., R. 5 W.  
 Sandoval County, New Mexico

Drilling Program

1. ESTIMATED FORMATION TOPS

<u>Formation</u>	<u>GL Depth</u>	<u>KB Depth</u>	<u>Elevation</u>
San Jose	0'	12'	+6,774'
Fruitland	1,759'	1,771'	+5,015'
Pictured Cliffs	2,109'	2,121'	+4,665'
Lewis	2,144'	2,156'	+4,630'
Mesa Verde	3,624'	3,636'	+3,150'
Mancos	4,474'	4,486'	+2,300'
Gallup	5,339'	5,351'	+1,435'
Greenhorn	6,274'	6,286'	+500'
Graneros	6,344'	6,356'	+430'
Dakota	6,449'	6,451'	+325'
Morrison	6,609'	6,621'	+165'
Total Depth (TD)	6,700'	6,712'	+74'

2. NOTABLE ZONES

Oil & Gas Zones

Pictured Cliffs

Gallup

Dakota

Water Zones

San Jose

Pictured Cliffs

Coal Zones

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.

Elm Ridge Exploration Company, LLC  
Jicarilla 429 GD #1  
835' FSL & 1660' FWL  
Sec. 23, T. 23 N., R. 5 W.  
Sandoval County, New Mexico

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	<del>7,500'</del> 6,700'

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% CaCl<sub>2</sub>. 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.

Elm Ridge Exploration Company, LLC  
Jicarilla 429 GD #1  
835' FSL & 1660' FWL  
Sec. 23, T. 23 N., R. 5 W.  
Sandoval County, New Mexico

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 ( $\approx 1,700'$  fill) volume will be  $\approx 530$  cubic feet consisting of  $\approx 130$  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  $\approx 245$  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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Jicarilla 429 GD #1  
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PAGE 5

#### 6. CORES, TESTS, & LOGS

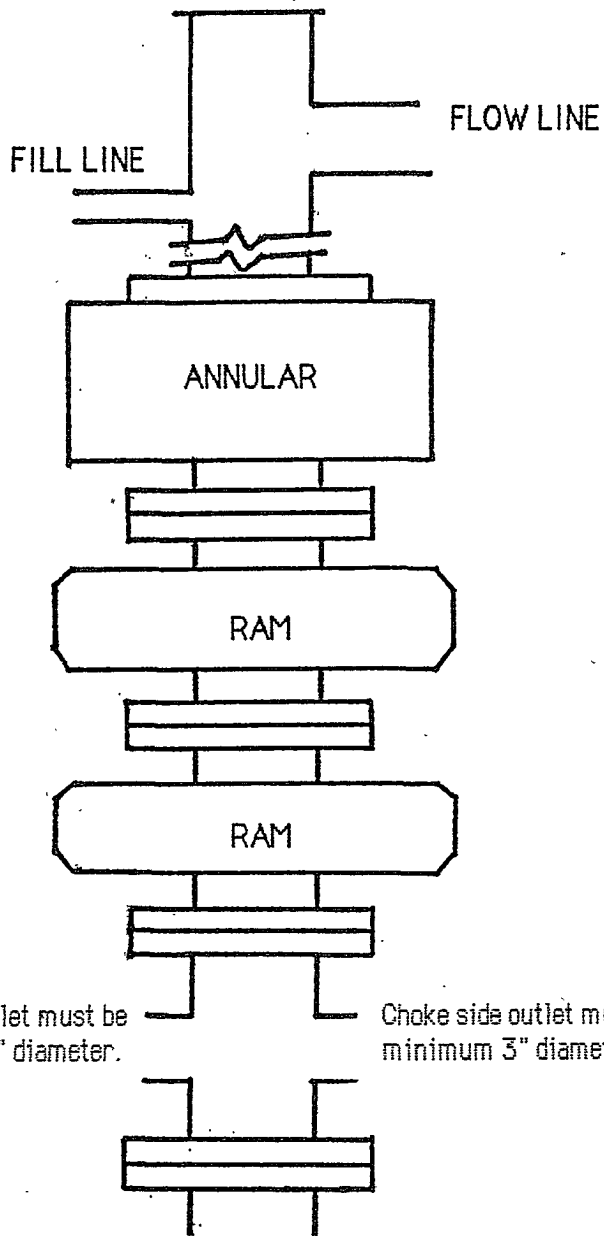
No cores or drill stem tests are planned. DIL/GR logs will be run from TD to the surface. CNL/FDC logs will be run over selected segments. Samples will be collected every  $\approx 10'$  from  $\approx 200'$  above the Point Lookout to the base of the Point Lookout and through the Gallup and Dakota. 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  $\leq 2,880$  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.



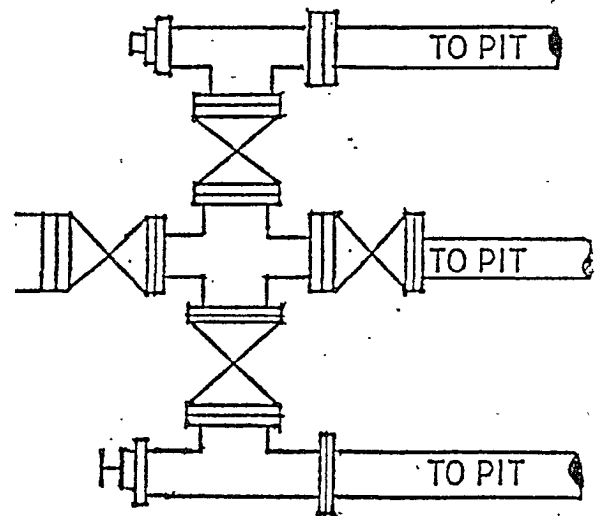
TYPICAL BOP STACK  
& CHOKE MANIFOLD

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.