

RECEIVED

Form 3160-3
(August 2007)

OCT 24 2011

FORM APPROVED 3
OMB No 1004-0137
Expires July 31, 2010

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Farmington Field Office
Bureau of Land Management
APPLICATION FOR PERMIT TO DRILL OR REENTER

| | | |
|--|---|---|
| 1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER | | 5. Lease Serial No. NMSF-078065 |
| 1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone | | 6. If Indian, Allottee or Tribe Name |
| 2. Name of Operator ELM RIDGE EXPLORATION COMPANY, LLC | | 7. If Unit or CA Agreement, Name and No. |
| 3a. Address P. O. BOX 156 BLOOMFIELD, NM 87413 | 3b. Phone No. (include area code) 505 632 3476 | 8. Lease Name and Well No. RENATE HIXON 2 |
| 4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 2070' FNL & 985' FEL At proposed prod. zone SAME | | 9. API Well No. 30-045-34207 |
| 14. Distance in miles and direction from nearest town or post office* 26 AIR MILES SSE OF FARMINGTON, NM | | 10. Field and Pool, or Exploratory BISTI LOWER-GALLUP |
| 15. Distance from proposed* location to nearest property or lease line, ft (Also to nearest drig. unit line, if any) 570' | 16. No. of acres in lease 440 | 11. Sec., T. R. M. or Blk. and Survey or Area NESE (I) 21-25N-12W NMPM |
| 18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 859' (Renate Hixon 1) | 19. Proposed Depth 5,000' | 12. County or Parish SAN JUAN |
| 21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6,310' GRADED | 22. Approximate date work will start* 11/28/2011 | 13. State NM |
| 17. Spacing Unit dedicated to this well N2SE4 (= 80 acres) | | |
| 20. BLM/BIA Bond No. on file BLM Statewide 886201C Nm 2858 | | |
| 23. Estimated duration 3 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:

- 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 must 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 BLM.

| | | |
|---------------|---|--------------------|
| 25. Signature | Name (Printed/Typed) BRIAN WOOD (505 466-8120) | Date 10/20/2011 |
|---------------|---|--------------------|

Title CONSULTANT (FAX 505 466-9682)

| | | |
|-------------------------|----------------------|-----------------|
| Approved by (Signature) | Name (Printed/Typed) | Date 4/12/12 |
|-------------------------|----------------------|-----------------|

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)

Held C-104
for comment C102

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

NMOCD

AV

APR 30 2012 ca

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

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

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.

RECEIVED

DISTRICT I
1625 N. French Dr., Hobbs, N.M. 88240

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 15, 2000

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

OCT 24 2011

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

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

OIL CONSERVATION DIVISION

Alamogordo Field Office
2040 South Pacheco
Santa Fe, NM 87505

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

2007 MAR -2 AM 11:20 AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

| | | | | |
|------------------------------------|---|---------------------------|---|----------------------------|
| *API Number 30-045-34207 | | *Pool Code 5890 | *Well Name BISTI LOWER GALLUP | |
| *Property Code 27240 | *Property Name RENATE HIXON | | | *Well Number 2 |
| *GRID No. 149052 | *Operator Name ELM RIDGE EXPLORATION, LLC | | | *Elevation 6310' |

10 Surface Location

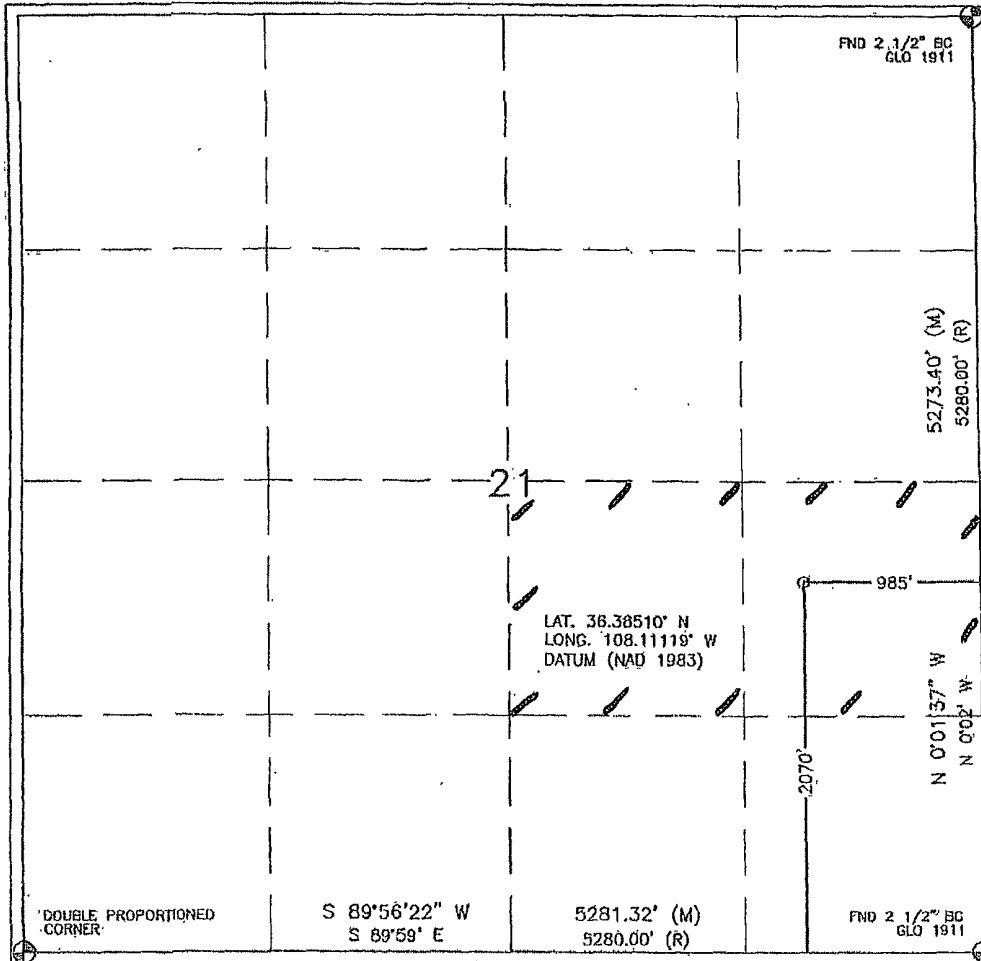
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|----------|
| 1 | 21 | 25N | 12W | | 2070' | SOUTH | 985' | EAST | SAN JUAN |

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 80 | | *Joint or Infill | | *Consolidation Code | | *Order No. RCVD MAR 18 '07 OIL CONS. DIV. DIST. 3 | | | |

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

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17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Brian Wood
Signature **BRIAN WOOD**
Printed Name **CONSULTANT**
Title **FEB. 28, 2007**
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.

NOVEMBER 14, 2006
Date of Survey
Signature and Seal of Professional Surveyor
David Russell
DAVID RUSSELL
Certificate Number **10201**

Elm Ridge Exploration Company, LLC
Renate Hixon 2
2070' FSL & 985' FEL
Sec. 21, T. 25 N., R. 12 W.
San Juan County, New Mexico

PAGE 1

Drilling Program

1. ESTIMATED FORMATION TOPS

| <u>Formation</u> | <u>GL Depth</u> | <u>KB Depth</u> | <u>Elevation</u> |
|------------------|-----------------|-----------------|------------------|
| Nacimiento | 0' | 12' | +6,310' |
| Fruitland Coal | 1,065' | 1,077' | +5,245' |
| Pictured Cliffs | 1,110' | 1,122' | +5,200' |
| Lewis Shale | 1,245' | 1,257' | +5,065' |
| Cliff House | 1,430' | 1,442' | +4,880' |
| Menefee Shale | 2,485' | 2,497' | +3,825' |
| Point Lookout | 3,540' | 3,552' | +2,770' |
| Mancos Shale | 3,695' | 3,707' | +2,615' |
| Gallup Sandstone | 4,615' | 4,627' | +1,695' |
| Total Depth | 5,000' | 5,012' | +1,310' |

2. NOTABLE ZONES

| <u>Oil &/or Gas Zones</u> | <u>Water Zones</u> | <u>Coal Zone</u> |
|-------------------------------|--------------------|------------------|
| Fruitland | Nacimiento | Fruitland |
| Pictured Cliffs | Fruitland | |
| Gallup | Pictured Cliffs | |

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 2,000 psi model is on PAGE 3.

A $\geq 2,000$ 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>Pounds/Foot</u> | <u>Grade</u> | <u>Type</u> | <u>Age</u> | <u>Depth Set</u> |
|------------------|--------------|--------------------|--------------|-------------|------------|------------------|
| 12-1/4" | 8-5/8" | 24 | J-55 | S T & C | New | 350' |
| 7-7/8" | 5-1/2" | 15.5 | J-55 | L T & C | New | 5,000' |

Surface casing will be cemented to the surface with ≈ 290 cubic feet (≈ 245 sacks) Class B with 1/4 pound per sack 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.

Production casing will be cemented to the surface in 2 stages with a stage tool set @ $\approx 3,500'$. Centralizers will be installed on the middle of the shoe joint and on every joint thereafter (≈ 2 dozen centralizers). Thread lock the guide shoe, bottom of float collar, and bottom of stage tool only. Use API casing dope.

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First stage volume will be ≈ 525 cubic feet consisting of ≈ 125 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 ≈ 250 sacks Class B with 2% CaCl_2 (yield = 1.18 cubic feet per sack, weight = 15.2 pounds per gallon). Volume = >100% excess, but caliper logs will be used to determine actual volume needed.

Second stage volume will be $\approx 1,215$ cubic feet consisting of ≈ 618 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 of Class B with 2% CaCl_2 (yield = 1.18 cubic feet per sack, weight = 15.2 pounds per gallon). Volume = >100% excess, but caliper logs will be used to determine actual volume needed.

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 chem | 9.0 | 50 | NC | 9 |
| 350' - TD | Fresh water gel chem | 9.0 | 38 - 50 | 6.0 | 9 |

Enough material to maintain mud properties, control lost circulation, and contain a blowout will be 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 surface. CNL/FDC logs may be run over selected segments. Samples will be collected every $\approx 10'$ through the Gallup. Samples will be collected every $\approx 30'$ elsewhere.

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7. DOWN HOLE CONDITIONS

No abnormal pressures, temperatures, or hydrogen sulfide are expected. Maximum expected bottom hole pressure will be $\leq 2,150$ psi.

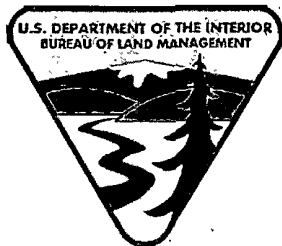
8. OTHER INFORMATION

The anticipated spud date is November 28, 2011. It is expected it will take 1 week to drill and 2 weeks to complete the well.

DRILLING CONDITIONS OF APPROVAL

Operator: Elm Ridge Exploration Company, LLC
Lease No.: NMSF-078065
Well Name: Renate Hixon #2
Well Location: Sec.21, T25N, R12W; 2070' FNL & 985' FEL

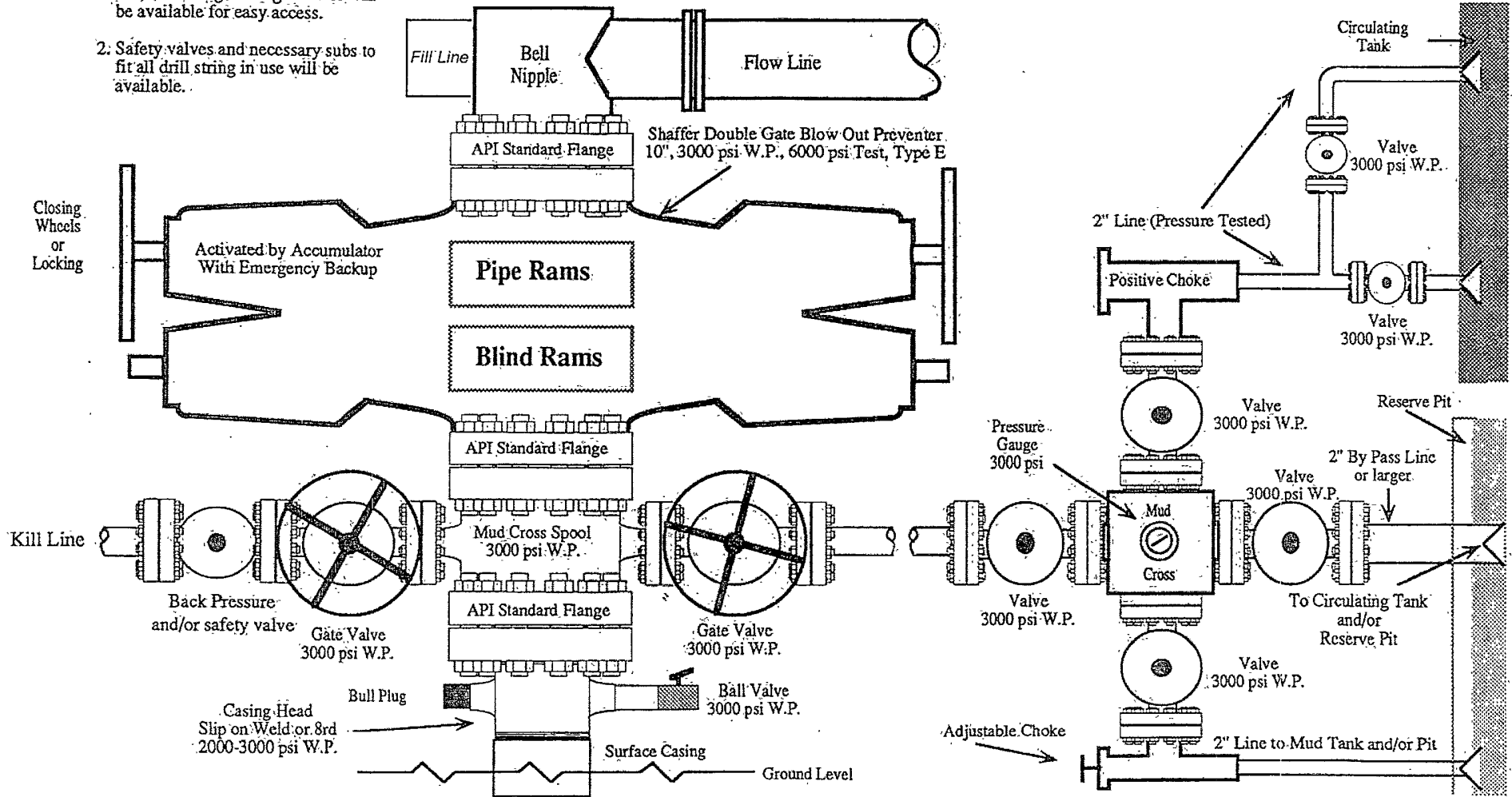
To meet minimal requirements, Elm Ridge shall have centralizers on the bottom 3 joints of the casing (a minimums of one centralizer per joint starting with the shoe joint).
Per Onshore Order 2.III.B.1.f.



After hour contact: Shea C. Valdez 505-793-5319

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.