

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

2007 MAR -5

APPLICATION FOR PERMIT TO DRILL OR REENTER

RECEIVED

5. Lease Serial No. **NMNM-025449**
6. If Indian, Allottee or Tribe Name **N/A**

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. **N/A**

2. Name of Operator
ELM RIDGE EXPLORATION COMPANY, LLC

8. Lease Name and Well No.
BISTI GALLUP 22 #2

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

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

9. API Well No.
30-045- 34209

4. Location of Well (Report location clearly and in accordance with any State requirements.)
At surface **880' FNL & 2150' FEL**
At proposed prod. zone **SAME**

10. Field and Pool, or Exploratory
BISTI LOWER-GALLUP

14. Distance in miles and direction from nearest town or post office*
26 MILES SSE OF FARMINGTON, NM

11. Sec., T. R. M. or Blk. and Survey or Area
B 22-25N-12W NMPM

12. County or Parish
SAN JUAN

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) **830'**

16. No. of acres in lease
440

17. Spacing Unit dedicated to this well
N2NE4 (= 80 acres)

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. **1,657' (BC 22-1)**

19. Proposed Depth
5,000'

20. BLM/BIA Bond No. on file
BLM STATE WIDE 886201C

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
6,391' GL

22. Approximate date work will start*
04/20/2007

23. Estimated duration
3 WEEKS

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall 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 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.

25. Signature

[Signature]

Name (Printed/Typed)

BRIAN WOOD

Date

03/03/2007

Title

CONSULTANT

PHONE: (505) 466-8120

FAX: (505) 466-9682

Approved by (Signature)

[Signature]

Name (Printed/Typed)

Date

3/12/07

Title

Acting AFM Minerals

Office

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)

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

NOTIFY AZTEC OCD
IN TIME TO WITNESS
subject to technical and
procedural review pursuant to 43 CFR 3168.3
and appeal pursuant to 43 CFR 3165.4

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

NMOCD 8

3/22/07

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

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

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, NM 87505

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

☐ AMENDED REPORT

2007 MAR -5 PM 2:41
REGISTRATION DEATH

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045- 34209		² Pool Code 5890	³ Property Name BISTI LOWER BISTIGALLUP 210 FARRINGTON NM		⁴ Well Number 2
⁵ Property Code 36290	⁶ Operator Name ELM RIDGE EXPLORATION, LLC				⁷ Elevation 6391'

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	22	25N	12W		880'	NORTH	2150'	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
								RCVD MAR 16 07	
12 Dedicated Acres 80			13 Joint or Infill .		14 Consolidation Code .		15 Order No. 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

18

FND 2 1/2" BC
GLO 1911

S 89°51'01" W
S 89°58' W

5270.51' (M)
5277.36' (R)

FND 2 1/2" BC
GLO 1911

880'

2150'

LAT. 36.39150° N
LONG. 108.09723° W
DATUM (NAD 1983)


N 0°14'35" W 2642.66' (M)
N 0°01' W 2640.00' (R)

22

FND 2 1/2" BC
GLO 1911

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
Date **MAR. 3, 2007**

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 13, 2006

Date of Survey _____
Signature and Seal of Professional Surveyor:
David Russell
DAVID RUSSELL
Certificate Number: 10201

Submit 3 Copies To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
May 27, 2004

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

WELL API NO. 30-045- 34209
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No. NMNM-025449
7. Lease Name or Unit Agreement Name BISTI GALLUP 22
8. Well Number 2
9. OGRID Number 149052
10. Pool name or Wildcat BISTI LOWER-GALLUP

Pit or Below-grade Tank Application ☒ or Closure ☐

Pit type: DRILLING Depth to Groundwater: >100' Distance from nearest fresh water well: >1,000' Distance from nearest surface water: >200'

Pit Liner Thickness: 12 mil Below-Grade Tank: Volume bbls; Construction Material

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/>
2. Name of Operator ELM RIDGE EXPLORATION COMPANY, LLC
3. Address of Operator P. O. BOX 156, BLOOMFIELD, NM 87413
4. Well Location Unit Letter: B 880' FNL & 2150' FEL Section 22 Township 25 North Range 12 West NMPM SAN JUAN County
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 6,391' GL

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:	SUBSEQUENT REPORT OF:
PERFORM REMEDIAL WORK <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>
MULTIPLE COMPL <input type="checkbox"/>	P AND A <input type="checkbox"/>
CASING/CEMENT JOB <input type="checkbox"/>	OTHER: <input type="checkbox"/>
OTHER: DRILLING PIT <input checked="" type="checkbox"/>	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE Brian Wood TITLE: CONSULTANT DATE: MAR. 3, 2007

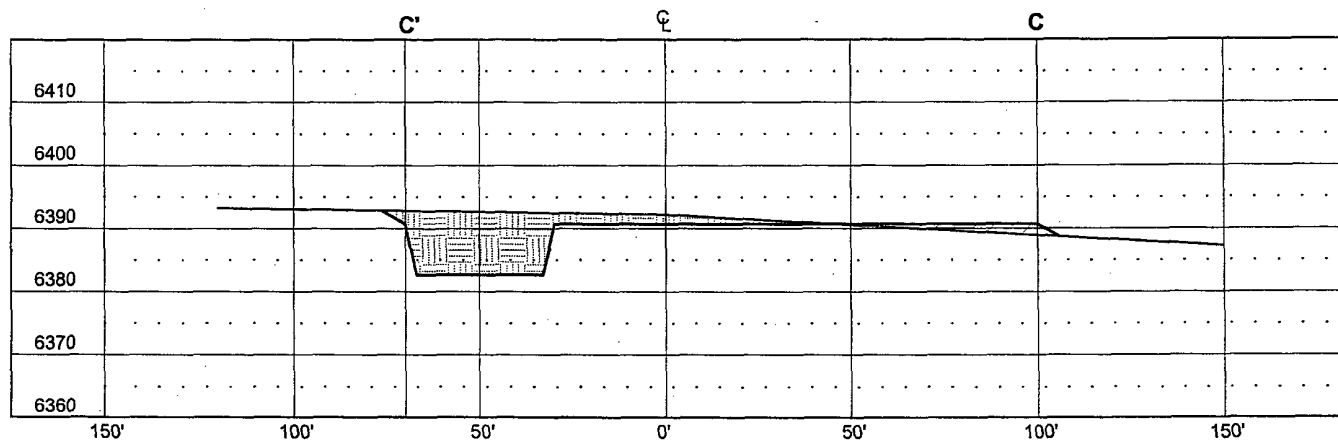
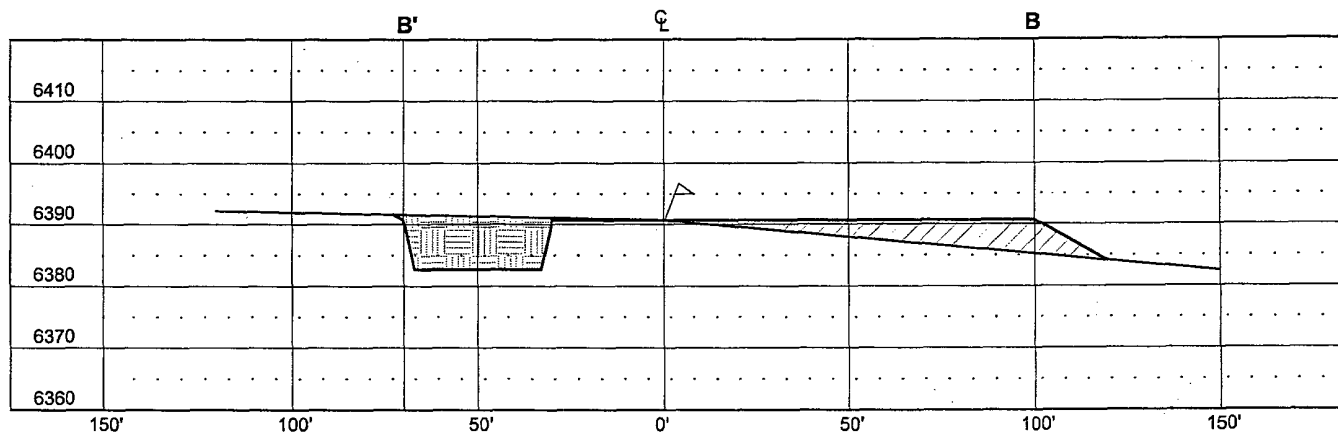
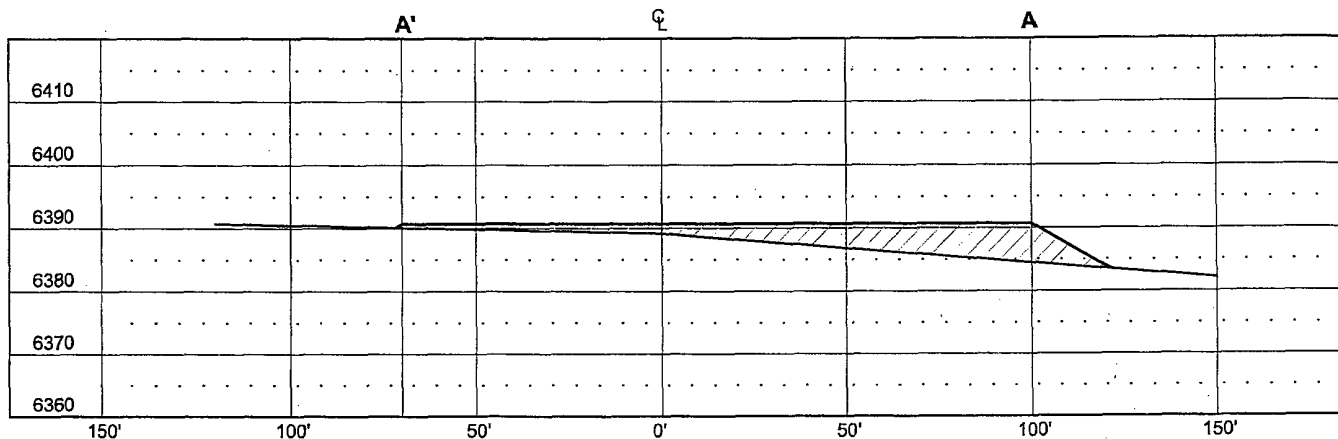
Type or print name: BRIAN WOOD E-mail address: brian@permitswest.com Telephone No.: (505) 466-8120

For State Use Only

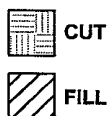
APPROVED BY: [Signature] TITLE: DEPUTY OIL & GAS INSPECTOR, DIST. 4 DATE: MAR 22 2007

Conditions of Approval (if any):

ELM RIDGE EXPLORATION, LLC
 BISTI GALLUP 22 #2
 880' FNL & 2150' FEL
 LOCATED IN THE NW/4 NE/4 OF
 SECTION 22, T25N, R12W, N.M.P.M.,
 SAN JUAN COUNTY, NEW MEXICO
 GROUND ELEVATION: 6391', NAVD 88
 FINISHED PAD ELEVATION: 6390.7', NAVD 88



VERT. SCALE: 1" = 30'
 HORZ. SCALE: 1" = 50'
 JOB No.: ERE009
 DATE: 11/17/06



Russell Surveying
 1409 W. Aztec Blvd. #5
 Aztec, New Mexico 87410
 (505) 334-8637

Elm Ridge Exploration Company, LLC
Bisti Gallup 22 #2
880' FNL & 2150' FEL
Sec. 22, 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'	+6,391'
Fruitland Coal	1,141'	1,153'	+5,250'
Pictured Cliffs	1,191'	1,203'	+5,200'
Lewis Shale	1,376'	1,388'	+5,015'
Cliff House	1,556'	1,568'	+4,835'
Menefee Shale	2,641'	2,653'	+3,750'
Point Lookout	3,666'	3,678'	+2,725'
Mancos Shale	3,816'	3,828'	+2,575'
Gallup Sandstone	4,741'	4,753'	+1,650'
Total Depth	5,000'	5,012'	+1,346'

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.

Elm Ridge Exploration Company, LLC
Bisti Gallup 22 #2
880' FNL & 2150' FEL
Sec. 22, T. 25 N., R. 12 W.
San Juan County, New Mexico

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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.

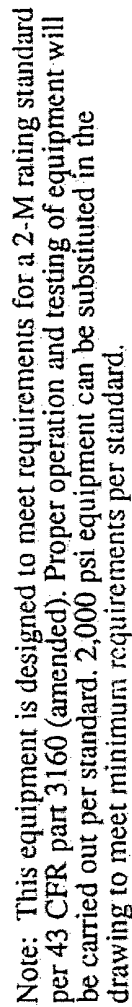
4. CASING & CEMENT

<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 or K-55	S T & C	New	350'
7-7/8"	5-1/2"	10.5 13.5	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.

2. Safety valves and necessary subs to fit all drill string in use will be available.



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880' FNL & 2150' FEL
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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.

Elm Ridge Exploration Company, LLC
Bisti Gallup 22 #2
880' FNL & 2150' FEL
Sec. 22, T. 25 N., R. 12 W.
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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 April 20, 2007. It is expected it will take 1 week to drill and 2 weeks to complete the well.