

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMNM-107357	
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 N/A	
2. Name of Operator ELM RIDGE RESOURCES, INC.		7. If Unit or CA Agreement, Name and No. N/A 30936	
3a. Address P. O. BOX 189 FARMINGTON, NM 87499		8. Lease Name and Well No. HOGBACK 12 #21	
3b. Phone No. (include area code) (505) 632-3476		9. API Well No. 30-045- 31167	
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface 922' FNL & 1940' FWL At proposed prod. zone SAME		10. Field and Pool, or Exploratory VERDE GALLUP	
14. Distance in miles and direction from nearest town or post office* 5 AIR MILES NORTH OF WATERFLOW		11. Sec., T., R., M., or Blk. and Survey or Area 12-30n-16w NMPM	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 700'		12. County or Parish SAN JUAN	
16. No. of Acres in lease 240		13. State NM	
17. Spacing Unit dedicated to this well NENW = 40 ACRES			
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. N/A		20. BLM/BIA Bond No. on file #886695C (BLM - STATE WIDE)	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 5,530' GL		22. Approximate date work will start* DECEMBER 15, 2002	
		23. Estimated duration 2-3 WEEKS	

24. Attachments

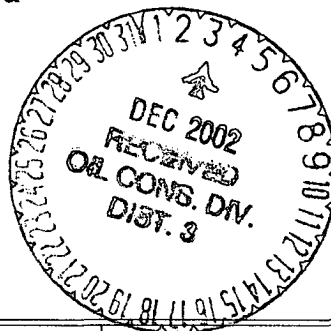
The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

- | | |
|---|--|
| 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. |

Comments

**BLM on site inspector: Roger Herrera
Lease issued 11/29/01**

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



This action is subject to technical and
procedural review pursuant to 43 CFR 3165.3
and appeal pursuant to 43 CFR 3165.4

cc:BIA, BLM (&OCD), Elm (D & F), Tribe

25. Signature 	Name (Printed/Typed) BRIAN WOOD	Date 8-14-02
Title CONSULTANT	PHONE: 505 466-8120	FAX: 505 466-9682
Approved by (Signature)	Name (Printed/Typed)	Date
Title	Office	

Application approval does not warrant or certify the 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.

NMOCD

State of New Mexico
Energy, Minerals & Mining Resources Department
OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C - 102

☐ AMENDED REPORT

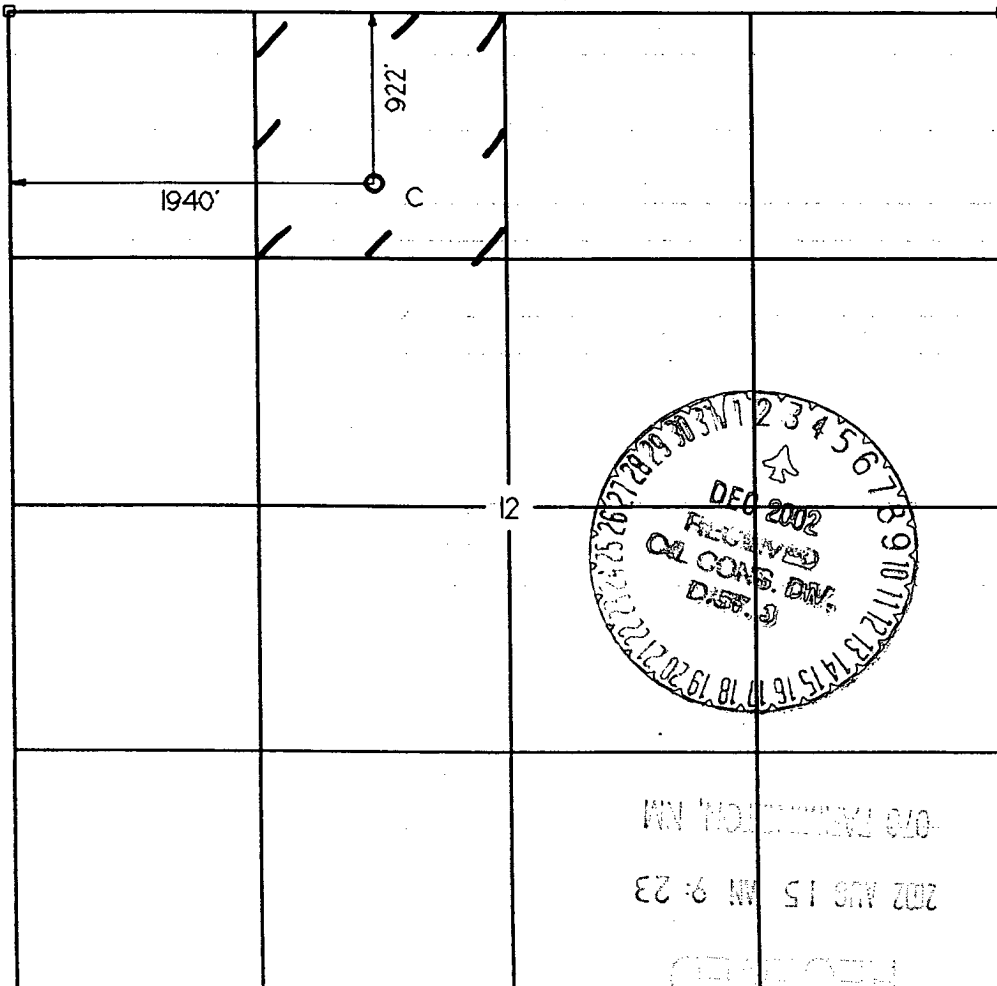
WELL LOCATION AND ACREAGE DEDICATION PLAT

APA Number 30-045-31167	Pool Code 62510	Pool Name VERDE GALLUP
Property Code 30936	Property Name HOGBACK 12	Well Number 21
OGARD No. 149052	Operator Name ELM RIDGE RESOURCES	Elevation 5530'

Surface Location									
UL or Lot C	Sec. 12	Twp. 30 N.	Rge. 16 W.	Lot Idh.	Feet from > 922	North/South NORTH	Feet from > 1940'	East/West WEST	County SAN JUAN

Bottom Hole Location If Different From Surface									
UL or Lot	Sec.	Twp.	Rge.	Lot Idh.	Feet from >	North/South	Feet from >	East/West	County
Dedication 40	Joint ?	Consolidation	Order No.						

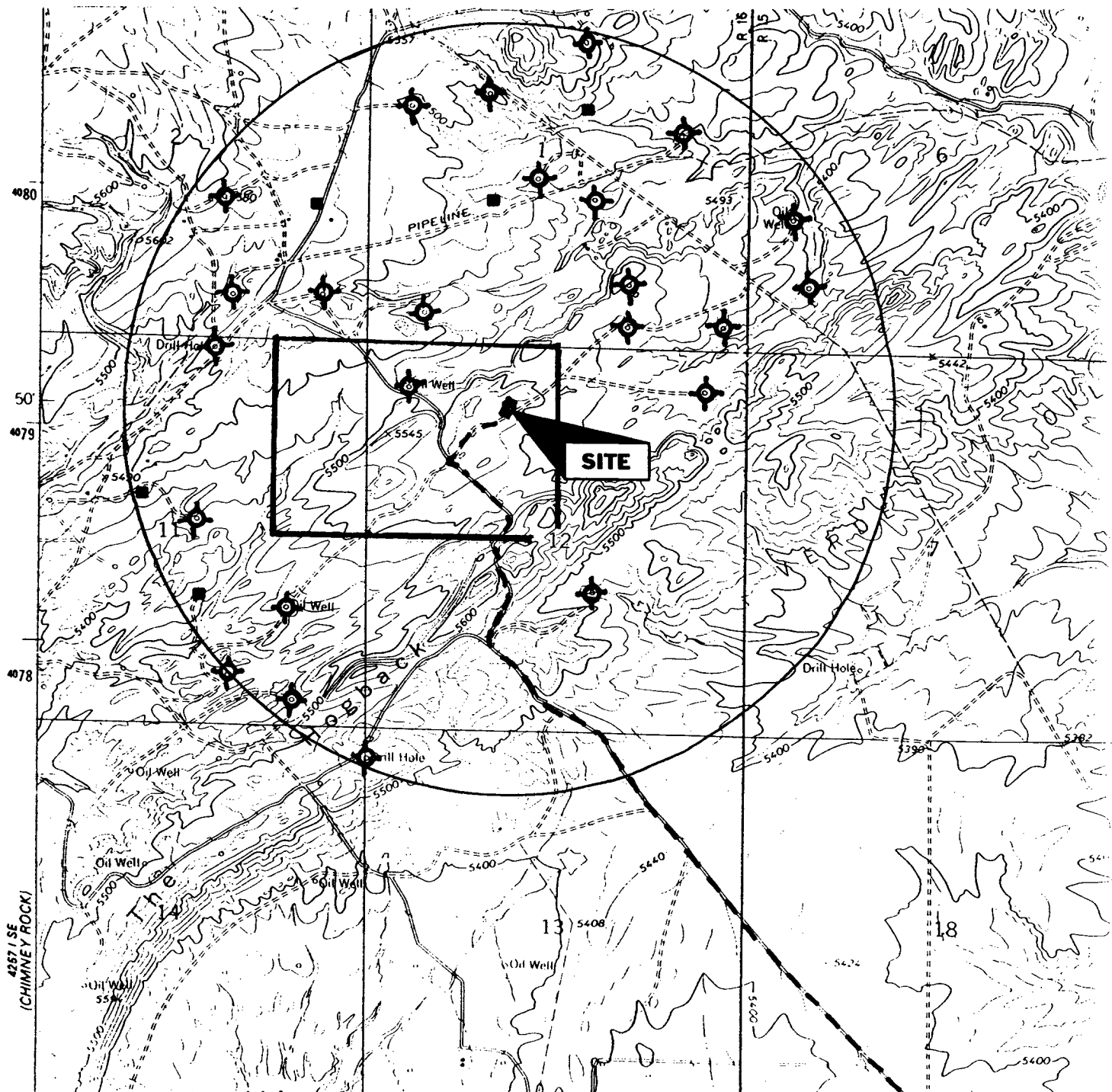
NO ALLOWABLE WILL ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. Signature <i>Brian Wood</i>	
Printed Name BRIAN WOOD	
Title CONSULTANT	
Date AUGUST 14, 2002	
SURVEYOR CERTIFICATION I hereby certify that the well location 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	
Signature and Seal of Professional Surveyor 	

• Elm Ridge Resources, Inc.
 Hogback 12 #21
 922' FNL & 1940' FWL
 Sec. 12, T. 30 N., R. 16 W.
 San Juan County, New Mexico

PAGE 11



PROPOSED WELL: ◆ LEASE: ┌
 EXISTING WELL: ■ ROAD: - - -
 P & A WELL: ⊕

PERMITS WEST INC.
 PROVIDING PERMITS for LAND USERS

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB No. 1004-0135
Expires November 30, 2000**SUNDRY NOTICES AND REPORTS ON WELLS**
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

RECEIVED

5. Lease Serial No.

NMNM-107357

6. If Indian, Allottee or Tribe Name

57 N/A

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

N/A

8. Well Name and No.

HOGBACK 12 #21

9. API Well No.

30-045-

10. Field and Pool, or Exploratory Area

VERDE GALLUP

11. County or Parish, State

SAN JUAN COUNTY, NM**SUBMIT IN TRIPLICATE - Other instructions on reverse side**

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

ELM RIDGE RESOURCES, INC.

3a. Address

**P. O. BOX 189
FARMINGTON, NM 87499**

3b. Phone No. (include area code)

(505) 632-3476

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

**SUFACE: 922' FNL & 1940' FWL SEC. 12, T. 30 N., R. 16 W.
BHL: SAME**

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input checked="" type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other _____
	<input checked="" type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Will set 840' of surface casing.**Cement type and top will be same as before, but will increase to 236 cubic feet (200 sacks).****cc: BLM (& OCD), Elm (Dallas, Farmington), Somers**14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)**BRIAN WOOD**

Title

CONSULTANT**(505) 466-8120**

Signature

Date

9-6-02**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

/s/ David J. Mankiewicz

Title

Date

DEC - 2 2002

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BUREAU OF LAND MANAGEMENTFORM APPROVED
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SUDDRY NOTICES AND REPORTS ON WELLS

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SUFACE: 922' FNL & 1940' FWL SEC. 12, T. 30 N., R. 16 W.
BHL: SAME

5. Lease Serial No.

NMNM-107357

6. If Indian, Allottee or Tribe Name

N/A

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

N/A

8. Well Name and No.

HOGBACK 12 #21

9. API Well No.

30-045-

10. Field and Pool, or Exploratory Area

VERDE GALLUP

11. County or Parish, State

SAN JUAN COUNTY, NM

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Change drilling program to reflect:

- 1) Top of Mancos is expected to be encountered at depth of 801'. Will then drill with warm air from top of Mancos to TD.
- 2) Point Lookout may also be water bearing.
- 3) Side wall cores will be cut in each separate sand in the Gallup. Indicated logs will be run from TD to the base of the surface casing.

cc: BLM (&OCD), Elm (Dall., Farm.), Somers

14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

BRIAN WOOD

Title

CONSULTANT

(505) 466-8120

Signature

Date

9-5-02

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

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NMOCD

• Elm Ridge Resources, Inc.
Hogback 12 #21
922' FNL & 1940' FWL
Sec. 12, T. 30 N., R. 16 W.
San Juan County, New Mexico

PAGE 1

Drilling Program

1. ESTIMATED FORMATION TOPS

<u>Formation Name</u>	<u>GL Depth</u>	<u>KB Depth</u>	<u>Elevation</u>
Cliff House Ss	000'	5'	+5,530'
Menefee Sh	100'	105'	+5,430'
Point Lookout Ss	530'	535'	+5,000'
Mancos Sh	1,030'	1,035'	+4,500'
Gallup Ss	2,030'	2,035'	+3,500'
Total Depth (TD)*	2,500'	2,505'	+3,030'

* all elevations reflect the ungraded ground level of 6,860'

2. NOTABLE ZONES

<u>Oil & Gas Zones</u>	<u>Water Zones</u>	<u>Coal Zones</u>
Cliff House	Cliff House	Menefee
Menefee		
Point Lookout		
Mancos		
Gallup		

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 2,000 psi model is on PAGE 3.) BOP and

Elm Ridge Resources, Inc.
Hogback 12 #21
922' FNL & 1940' FWL
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PAGE 2

choke manifold system will be installed and tested to 500 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>GL Setting Depth</u>
8-5/8"	7"	23	K-55	S T & C	New	250'
6-3/4"	4-1/2"	10.5	J-55	L T & C	New	2,500'

Surface casing will be cemented to the surface with ≈ 70 cubic feet (≈ 60 sacks) Class B with 1/4#/sk Flocele + 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. Thread lock the guide shoe and bottom of float collar only. Use API casing dope.

Production casing will be cemented to the surface with ≈ 615 cubic feet (≈ 522 sacks) Class B with 1/4#/sk Flocele + 2% CaCl_2 . Yield = 1.18 cubic feet per sack. Weight = 15.2 pounds per gallon. Volume = 75% excess. At least six centralizers will be used.