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Form 3160 -3 (April 2004) DEC 2 8 2007

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

(April 2004) UNITED STATES	Bureau of Land Mar	300ma=	OMB No. Expires Ma	1004-0137 arch 31, 20	/ 007
DEPARTMENT OF THE I BUREAU OF LAND MAN	INTERIOR Faillington Field	Office	5. Lease Serial No. NMNM-58876		-
APPLICATION FOR PERMIT TO			6. If Indian, Allotee of N/A	or Tribe l	Name
la. Type of work: DRILL REENTH	ER		7. If Unit or CA Agree N/A	ment, Na	me and No.
lb. Type of Well: Oil Well Gas Well Other	✓ Single Zone Multi	ple Zone	8. Lease Name and W ERIC HIXON		
2. Name of Operator ELM RIDGE EXPLORATION COMP	PANY, LLC		9. API Well No. 30-945-03 9	- 304	144
3a. Address P. O. BOX 156 BLOOMFIELD, NM 87413	3b. Phone No. (include area code) (505) 632-3476		10. Field and Pool, or Exploratory  LYBROOK GALLUP		
4. Location of Well (Report location clearly and in accordance with an At surface 660' FSL & 660' FWL  At proposed prod. zone SAME	ny State requirements.*)		I-I. Sec., T. R. M. or BII		vey or Area
14. Distance in miles and direction from nearest town or post office*  1 AIR MILE SOUTH OF LYBROOK			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)  660'	16. No. of acres in lease 480		g Unit dedicated to this we W (= 40 acres)	eli	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.  4,850'	19. Proposed Depth <b>5,875</b> '		BIA Bond No. on file  STATE WIDE 88620	1C <b>V</b>	m 2858
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 7,323' GL	22. Approximate date work will sta 01/21/2008	nrt*	23. Estimated duration 3 WEEKS		
	24. Attachments				
The following, completed in accordance with the requirements of Onshor	re Oil and Gas Order No.1, shall be a	ittached to th	is form;		
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> </ol>	Item 20 above).	the operatio	ns unless covered by an e	xisting b	ond on file (see
3. A Surface Use Plan (if the location is on National Forest System SUPO shall be filed with the appropriate Forest Service Office).		specific infe	ormation and/or plans as i	nay be re	equired by the
25. Signature	Name (Printed/Typed) BRIAN WOOD			Date 12/2	24/2007
Title	PHONE: (505) 466-8120	FAX	X: (505) 466-9682		,
Approved by (Signature) Manles On	Name (Printed/Typed)			Date 8	6/88
Title ATM	Office FF	>		t	_ t - ` · ·

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.

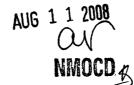
Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to

\*(Instructions on page 2)

conduct operations thereon.

Conditions of approval, if any, are attached.

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.



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

NOTIFY AZTEC OCD 24 HRS.
PRIOR TO CASING & CEMENT

SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS".

DISTRICT I

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

DISTRICT II

1301 W. Grand Avenue, Artesia, N.M. 88210

DISTRICT III

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

DISTRICT IV

5°47'01"

z

660

N 85°57'57" W

LONG: 107.568926° W

2611.251

N 85°57'57" W

2611.251

1220 S. St. Francis Dr., Santa Fe, N.M. 87505

State of New Mexico Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

Revised October 12, 2005 Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

Form C-102

 $\square$  AMENDED REPORT

# 1220 South St. Francis Dr. Santa Fe, N.M. 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT												
30-D'API	Number 5-39-	30444	4	<sup>2</sup> Pool Code 2289		L	YBROOK	GALL	JP Name			
Property 0	Code		=		•	rty Name	Name <sup>6</sup> Well Number					
* 270 ogrid N				-		HIXO ator Nam			2		• Z  * Elevation	
14905			_	ELI	•		ORATION				7323	
	,				10 Surfac	ce Loc	ation					
UL or lot no.	Section	Township					the East/Wes	st line	County			
M	15	23 N	7 W		660		SOUTH	660	WE	ST	RIO ARRIBA	
			11 Botte	om Hole	Location	n If Di	fferent Fro	om Surfa	ce			
UL or lot no.	Section	Township	Range	Lot Idn	Feet from th	ne No	rth/South line	Feet from	the East/Wes	st line	County	
	<u> </u>											
12 Dedicated Acre	es 13 Joint	or Infill 14 (	Consolidatio	n Code 150	rder No.							
40			=									
NO ALLOW	ABLE W						UNTIL ALL APPROVED			BEEN	CONSOLIDATED	
16 N 89°3	2'01" E		4.55'		79°24'II" E		2571.79'			R CE	ERTIFICATION	
								I hereby	certify that the i	nformati	on contained herein is	
-2								and that	this organization	either o	ny knowledge and belief, rwns a working interest	
2616.42											e land including the as a right to drill this	
26	,										contract with an ng interest, or to a	
									pooling agreeme entered by the		compulsory pooling order	
>									(i)	7		
>									Livel	- 1	12-24-07	
8.20								Signati	BRIAN	WO	Date	
W .62.80.0								Printed		***	<u> </u>	
z												
			SEC	TION 15								
								18 (	SURVEYOR	CEF	RTIFICATION	
											ion shown on this plat ual surveys made by me	
,97.								or under	my supervision,	and that	the same is true and	
2692.4								correct to	the best of my	belief.		
2									29/07	ZERI	100	
								Date of	Survey re and Seal of P	200 mary par	Manage	
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т Ш		36.22155	8° N					<b>&gt;</b>	100	/ [6]	846 ) 5	

# **Drilling Program**

# 1. ESTIMATED FORMATION TOPS

<u>Formation</u>	<u>GL Depth</u>	<u>KB Depth</u>	<u>Elevation</u>
Nacimiento	0'	12'	+7,323'
Ojo Alamo Sandstone	1,558'	1,570'	+5,765'
Kirtland Shale	1,673'	1,685'	+5,650'
Fruitland Formation	1,883'	1,895'	+5,440'
Pictured Cliffs Sandstone	2,143'	2,155'	+5,180'
Chacra Sandstone	2,623'	2,635'	+4,700'
Cliff House Sandstone	3,683'	3,695'	+3,640'
Menefee Shale	3,712'	3,724'	+3,611'
Point Lookout Sandstone	4,513'	4,525'	+2,810'
Mancos Shale	4,698'	4,710'	+2,625'
Gallup Sandstone	5,388'	5,400'	+1,935'
Skelly	5,573'	5,585'	+1,750'
Mayre	5,688'	5,700'	+1,635'
Total Depth	5,875'	5,887'	+1,448'

### 2. NOTABLE ZONES

Oil &/or Gas Zones	Water Zones	 <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.



### 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  $\approx$ 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 which are set and cemented in place.

### 4. CASING & CEMENT

<u>Hole Size</u>	<u>O. D.</u>	Pounds/Foot	<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	ST&C	New	350'
7-7/8"	5-1/2"	10.5 15.5 **	J-55	LT&C	New	5,875'
		12.5				

Surface casing will be cemented to the surface with  $\approx 290$  cubic feet ( $\approx 245$  sacks) Class B with 1/4 pound per sack cellophane + 2% CaCl<sub>2</sub>. 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 @  $\approx 3,800$ '. Centralizers will be installed on the middle of the shoe joint and on every joint thereafter ( $\geq 2$  dozen centralizers). Thread lock the guide shoe, bottom of float collar, and bottom of stage tool only. Use API casing dope.



First stage volume will be  $\approx$ 740 cubic feet consisting of  $\approx$ 175 sacks of Halliburton light with 65/35 poz mix + 1/4 pound per sack cellophane + 2% CaCl<sub>2</sub> (yield = 1.87 cubic feet per sack, weight = 12.7 pounds per gallon) followed by  $\approx$ 350 sacks Class B with 2% CaCl<sub>2</sub> (yield = 1.18 cubic feet per sack, weight = 15.2 pounds per gallon). Volume calculated at >100% excess, but caliper logs will be used to determine actual volume needed.

Second stage volume will be  $\approx 1,330$  cubic feet consisting of  $\approx 680$  sacks of Halliburton light with 65/35 poz mix + 1/4 pound per sack cellophane + 2% CaCl<sub>2</sub> (yield = 1.87 cubic feet per sack, weight = 12.7 pounds per gallon) followed by  $\approx 50$  sacks of Class B with 2% CaCl<sub>2</sub> (yield = 1.18 cubic feet per sack, weight = 15.2 pounds per gallon). Volume calculated at >100% excess, but caliper logs will be used to determine actual volume needed.

### 5. MUD PROGRAM

<u>Depth</u>	<u>Type</u>	ppg	<u>Viscosity</u>	Fluid Loss	Hq
0' - 350'	Fresh water gel	9.0	50	NC	9
350' - TD	Fresh water gel	9.0	38 <b>-</b> 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 the surface. CNL/FDC logs may be run over selected segments. Samples will be collected every  $\approx 10^{\circ}$  through the Gallup. Samples will be collected every  $\approx 30^{\circ}$  elsewhere.



# 7. DOWN HOLE CONDITIONS

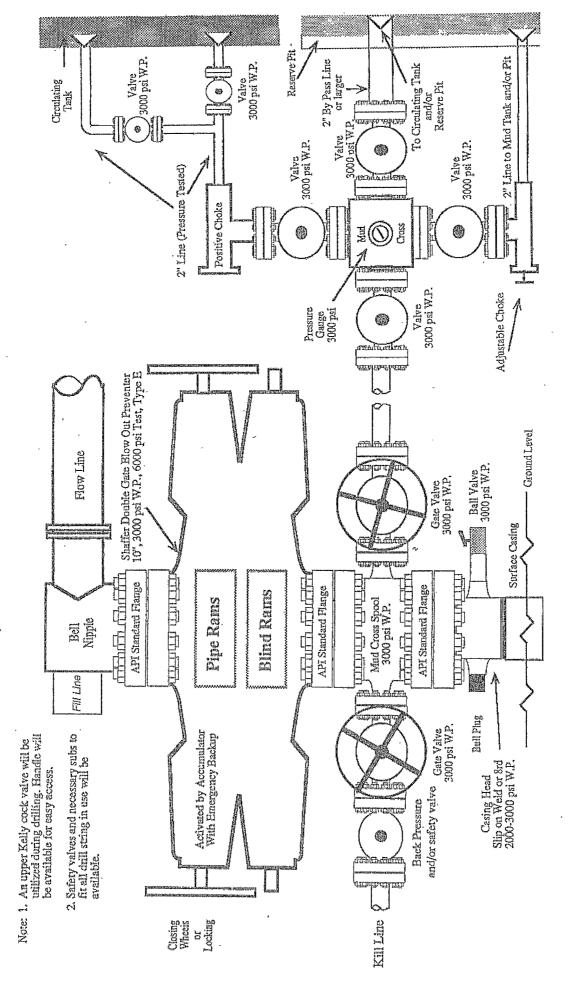
No abnormal pressures, temperatures, or hydrogen sulfide are expected. Maximum expected bottom hole pressure will be  $\leq 2,350$  psi.

# 8. OTHER INFORMATION

The anticipated spud date is January 21, 2007. It is expected it will take 1 week to drill and 2 weeks to complete the well.



# 



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.