

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED  
OMB No. 1004-0136  
Expires January 31, 2004

5. Lease Serial No.  
SF080917

6. If Indian, Allottee or Tribe Name

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

8. Lease Name and Well No.  
Atlantic Fruitland #5#2A

9. API Well No.  
30-048-33154

10. Field and Pool, or Exploratory  
Basin Fruitland Coal

11. Sec., T. R. M. or Blk. and Survey or Area  
Section 5-T30N-R10W

12. County or Parish  
San Juan

13. State  
NM

1a. Type of work: ☒ DRILL ☐ REENTER

1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

2. Name of Operator  
Maralex Resources, Inc.

3a. Address  
P.O. Box 338, Ignacio, CO 81137

3b. Phone No. (include area code)  
970/563-4000

4. Location of Well (Report location clearly and in accordance with any State requirements.)

At surface 860' FSL; 955' FEL (SESE)

At proposed prod. zone Same

14. Distance in miles and direction from nearest town or post office  
4 miles NE of Aztec, New Mexico

15. Distance from proposed location to nearest property or lease line, ft.  
(Also to nearest drilg. unit line, if any) 860'

16. No. of acres in lease  
2538.18

17. Spacing Unit dedicated to this well  
S/2 - 322.12

18. Distance from proposed location to nearest well, drilling completed, applied for, on this lease, ft.  
816'

19. Proposed Depth  
3000'

20. BLM/BIA Bond No. on file  
8188110

21. Elevations (Show whether DF, KDB, RT, GL, etc.)  
6263 GL

22. Approximate date work will start  
6/25/05

23. Estimated duration  
5 days

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  
*Jeremy Golob*  
Title  
Sr. Petroleum Engineer

Name (Printed/Typed)  
Jeremy Golob

Date  
06/08/05

Approved by (Signature)  
*Jim Lovel*  
Title  
Acting Field Manager - Minerals

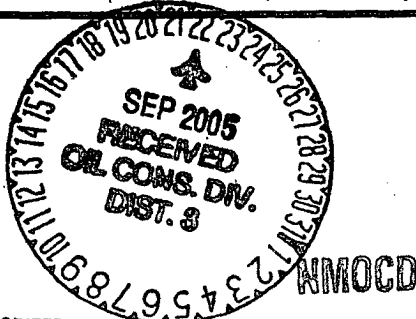
Name (Printed/Typed)

Date  
9/16/05

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

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

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JUN 9 PM 1 49  
70 FARMINGTON NM

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1381 W. Grand Avenue, 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 & Natural Resources Department  
**OIL CONSERVATION DIVISION**  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102  
Revised June 10, 2003  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

☐ AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

API Number <b>30-045-33154</b>	Pool Code <b>71629</b>	Pool Name <b>Basin Fruitland coal</b>
Property Code <b>20260</b>	Property Name <b>ATLANTIC 5</b>	Well Number <b>2A</b>
OCRID No. <b>13998</b>	Operator Name <b>MARALEX RESOURCES, INC.</b>	Elevation <b>6263</b>

**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
20	5	30N	10W		860	South	955	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 <b>322.12</b>	"Joint or Infill	"Consolidation Code	"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

<b>16</b> S89°53'W 79.86ac.			
20.36ac. Lot No. (TTP) <b>8</b>	<b>7</b>	<b>6</b>	<b>5</b>
20.16ac. <b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
20.16ac. <b>16</b>	<b>15</b>	<b>14</b>	<b>13</b>
20.16ac. <b>17</b> S89°41'W 39.97ac.	<b>18</b>	<b>19</b> Lat. 36.83572°N Long. 107.89994°W S89°24'W 40.03ac.	<b>20</b>

**17 OPERATOR CERTIFICATION**  
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.  
Signature  
**Carla S. Shaw**  
Printed Name  
**Production Technician**  
Title and E-mail Address  
**production@maralexresources.com**  
Date  
**05/13/05**

**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 knowledge and belief.  
Date of Survey  
**5/13/05**  
Signature and Seal of Professional Surveyor  
**William E. Munnke II**  
Certificate Number  
**8466**

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MAY 19 2005  
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[illegible]

SCALE: 1" = 50'

EXISTING PIPELINE

EXISTING TRAIL

A-A' Vert:  $i^{\circ} = 30^{\circ}$  Horiz:  $i^{\circ} = 50^{\circ}$  C/L

6260						
6250						

B-B'

6260						
6250						

C-C'

6260						
6250						

**ATLANTIC FRUITLAND 5 # 2A**  
**860' FSL; 955' FEL**  
**SECTION 5-T30N-R10W**  
**SAN JUAN COUNTY, NM**

**Drilling Program**

1. Formation Tops

The estimated tops of important geologic markers are:

<u>Formation Name</u>	<u>KB Depth</u>
San Jose	Surface
Ojo Alamo	1831'
Kirtland	1906'
Fruitland Coals	
a)	2659-2661'
b)	2721-2741'
c)	2777-2783'
d)	2865-2875'
Pictured Cliffs	2911'
Total Depth (TD)	3000'

\* All elevations reflect the ungraded ground level of 6263' and 5' KB.

2. Notable Zones

Oil and Gas Zones

Sands above	1831'-Water
Fruitland Coal	2659'-Gas
Pictured Cliffs	2911'-Gas

The primary objective is the Basin Fruitland Coal formation. Completion may require fracturing. The entire wellbore will be cased. Water zones will be protected with casing, cement and weighted mud. Oil and gas shows will be tested for commercial potential based on the well site geologist's recommendations.

3. Pressure Control

BOP systems will follow Onshore Order No. 2. The drilling contract has not been awarded yet, thus the exact BOP model to be used is not yet known. A typical model is shown on the attached page.

Once out from under the surface casing, a minimum of 2,000 psi BOP and choke manifold system will be used. BOP controls will be installed before drilling the surface casing plug and used until the well is completed or abandoned.

Pressure tests to 600 psi will be conducted with a rig pump. All BOP mechanical and pressure tests will be recorded on the driller's log. BOPs will be inspected and operated at least daily to assure good mechanical working order. The inspection will be recorded on the daily drilling report.

4. Casing and Cement

Hole Size	OD	Weight(lb/ft)	Grade	Depth
12-1/4"	8-5/8"	24	J-55	150'
7-7/8"	5-1/2"	17	J-55	3000'

Surface casing will be cemented to surface with 115 sacks Standard Cement containing 2% cacl<sub>2</sub> and ¼# flocele.

Production casing will be cemented to surface with approximately 380 sacks cement.

The entire wellbore will be cased. Water zones will be protected with casing, cement and weighted mud. (Cement program is attached).

5. Mud Program

The proposed mud program is:

Depth	Type	ppg	vis(cp)	FL(cc)
0 -2600'	Water	8.4	Polymer Sweeps	-
2600' - TD	Water	8.4-8.820-40	< 10	

**MARALEX RESOURCES, INC.**  
**ATLANTIC FRUITLAND 5-2A**  
**CEMENTING PROGRAM**

**SURFACE CASING**

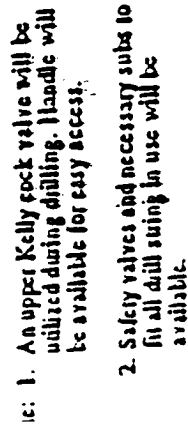
Surface casing will be set at 150 feet. It will be cemented with 115 sacks of Standard cement, containing 2%  $\text{CaCl}_2$  and  $\frac{1}{4}$  lb floccle per sack. This cement has a yield of approximately 1.18 cubic feet per sack and the final slurry will weigh about 15.6 ppg. The calculated volumes equate to a one hundred (100) percent excess of the annular volume. A total of three centralizers will be used on the surface casing. *Circulate cement* *At*

**PRODUCTION CASING**

The production casing will be run to TD and cemented back to surface with 270 sacks of 65/35 Pozmix cement containing 2%  $\text{CaCl}_2$ , 4% Gilsonite and  $\frac{1}{4}$  lb per sack celloflake. This cement will be followed by 110 sacks of Standard cement with 2%  $\text{CaCl}_2$  tail. The lead cement has a yield of approximately 1.88 cubic feet per sack and has a slurry weight of 12.4 ppg. The tail slurry has a yield of about 1.26 cubic feet per sack and a slurry weight of 15.2 ppg. The calculated volumes will amount to about 25 percent excess of the annular volume. A total of 30 centralizers will be used on the production casing. *Circulate cement* *At*

*If cement does not circulate, a CBL of some type will be run*

## Pressure Control Equipment



**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.