

Submit to Appropriate District Office
State Lease - 6 copies
Fee Lease - 5 copies

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-101
Revised 1-1-89

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

30-045-04482

API NO. (assigned by OCD on New Wells)

5. Indicate Type of Lease
STATE FEE

6. State Oil & Gas Lease No.

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work:
 DRILL RE-ENTER DEEPEN PLUG BACK

b. Type of Well:
 OIL WELL GAS WELL OTHER
 SINGLE ZONE MULTIPLE ZONE

2. Name of Operator: Maralex Resources, Inc.

3. Address of Operator: 518 17th St., Suite 1030, Denver, CO 80202

7. Lease Name or Unit Agreement Name: Scott

8. Well No.: 1

9. Pool name or Wildcat: Basin Fruitland Coal

4. Well Location
 Unit Letter K : 1880 Feet From The south Line and 1650 Feet From The west Line
 Section 18 Township 30 North Range 11 West NMPM San Juan County

10. Proposed Depth: 1860'
 11. Formation: Fruitland Coals
 12. Rotary or C.T.: WO

13. Elevations (Show whether DF, RT, GR, etc.): 5546' DF
 14. Kind & Status Plug. Bond: Single well
 15. Drilling Contractor:
 16. Approx. Date Work will start: Sept. 7, 1990

17. PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP

Maralex Resources, Inc. proposes to plug back the subject well from the Pictured Cliffs formation and recomplete the well to the Fruitland coals as detailed in the attached workover procedure. A double ram type blowout preventor will be used to maintain pressure control at all times.

Maralex requests verbal approval of this application by September 5 so that operations may commence by the

RECEIVED SEP 25 1990 OIL CON. DIV DIST. 3

RECEIVED AUG 31 1990 OIL CON. DIV

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: IF PROPOSAL IS TO DEEPEN OR PLUG BACK, PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

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

SIGNATURE: A. M. O'Hare TITLE: President DATE: 8/28/90

TYPE OR PRINT NAME: A. M. O'Hare (303) TELEPHONE NO 571-4220

(This space for State Use)

APPROVED BY: [Signature] DEPUTY OIL & GAS INSPECTOR, DIST. #3 DATE: SEP 25 1990

CONDITIONS OF APPROVAL, IF ANY:

10660 C-104 FOR NSL

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

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Energy, Minerals and Natural Resources Department

Form C-102
Revised 1-1-89

OIL CONSERVATION DIVISION

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

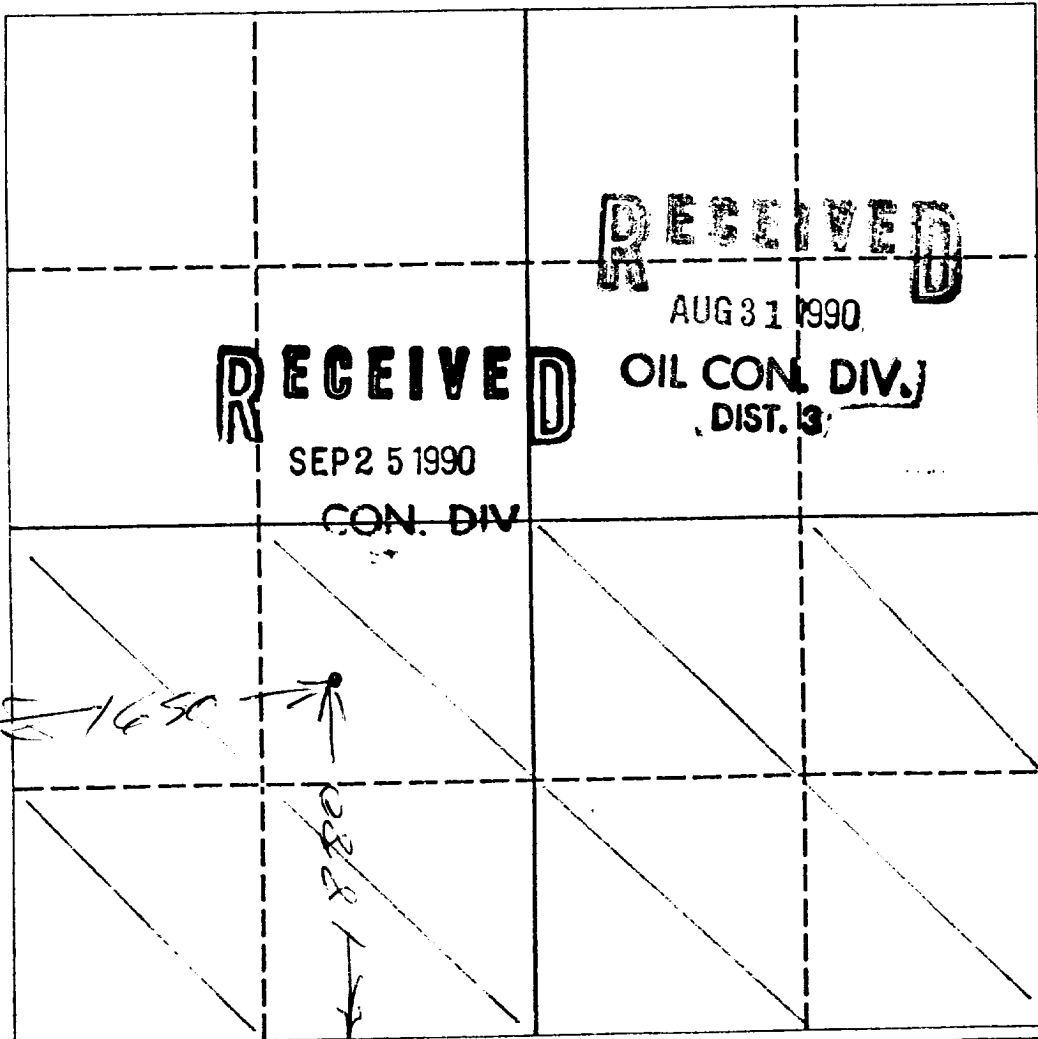
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator Maralex Resources, Inc.		Lease Scott		Well No. 1
Unit Letter K	Section 18	Township 30 North	Range 11 West NMPM	County San Juan
Actual Footage Location of Well: 1880 feet from the south line and 1650 feet from the west line				
Ground level Elev. 5546 DF	Producing Formation Fruitland Coals	Pool Basin Fruitland Coal	Dedicated Acreage: 320 Acres	

- Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc.?
 Yes No If answer is "yes" type of consolidation Farmouts
 If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.)
 No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, 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: *A. M. O'Hare*
Printed Name: **A. M. O'Hare**
Position: **President**
Company: **Maralex Resources, Inc.**
Date: **August 28, 1990**

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 Surveyed:
Signature & Seal of Professional Surveyor:
Certificate No.:

RECOMPLETION PROCEDURE

Well Name: Scott No. 1

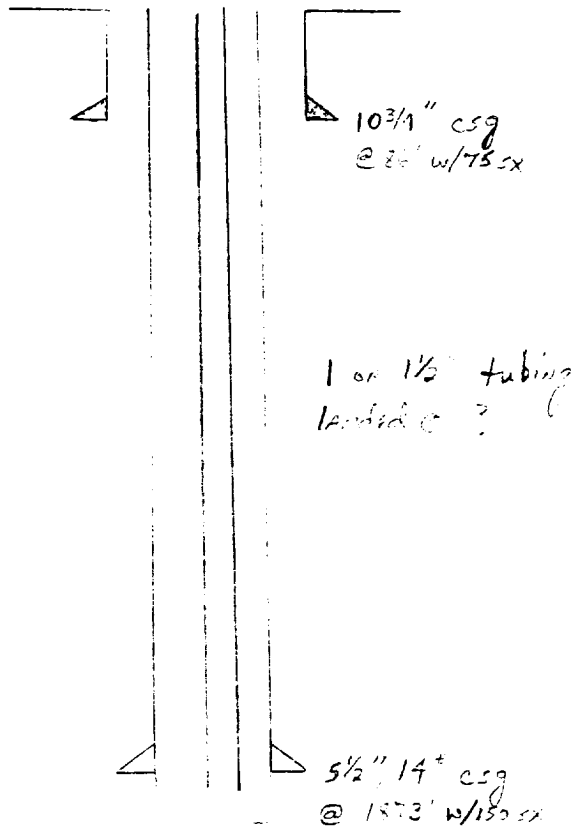
Location: 1880' FSL, 1650' FWL,
Section 18, T30N, R11W
San Juan County, NM

Elevations: 5546' DF, TD = 1926', PBD = Open Hole

Spud Date: 9-13-53 Completion Date: 2-10-54

Original Completion: Open hole shot (1883-1911) w/70 qts.

Purpose: This workover is intended to plug back the well from the Pictured Cliffs for a recompletion attempt in the Fruitland coals.



TD = 1926'

1. Move in and rig up service unit.
2. Blow well down and pump 20 barrels of 2% KCl water down tubing.
3. Nipple down wellhead, nipple up BOP.
4. Trip out of hole and lay down 1 or 1-1/2 inch tubing.
5. Rig up wireline company and run a gauge ring and junk basket to 1870 feet noting fluid level.
6. Wireline set a cast iron bridge plug at 1865 feet and dump bail 1 sx of cement on top of bridge plug.
7. Fill casing with 2% KCl water and pressure test to 2400 psi for 30 minutes.
8. Run a GR-CBL-casing-collar-locator log from BPD to top of cement. Hold pressure on casing if necessary to obtain a good reading.
9. If CBL shows good cement behind pipe

from BPD to 1600 feet, go to Step 16.

10. If cement top is below 1600 feet perforate with a squeeze shot about 10 feet above cement top.
11. Nipple down wireline company, then attempt to establish circulation through squeeze shot holes and out bradenhead.
12. Pick up a cement retainer and trip in hole w/retainer on a stinger and 2-3/8 inch tubing. Set retainer about 30 feet above shot holes.
13. Sting into retainer and establish circulation again through bradenhead, then pump calculated amount (see notes) of Class B cement with 2% CaCl₂ and displace to within 1 barrel of top of retainer. Sting out of retainer and displace remainder of cement on top of retainer. Pull up two stands and reverse out tubing.
14. Trip out of hole with tubing and stinger. Pick up a bit and 6 four-inch drill collars. Trip in hole to two stands above cement and shut down overnight to wait on cement.
15. Trip in to cement and drill out to PBD. Circulate hole clean at PBD. Then pressure test casing to 2400 psi to ensure that the squeeze holes are plugged.
16. Spot 150 gallons of 7-1/2% HCl inhibited acid from 1830'. Pull up to 1400'.
17. Swab well down through 2-3/8 inch tubing to 1400 feet.
18. Trip out of hole with tubing and rig up wireline company.
19. Perforate below a full lubricator the approximate Fruitland coal intervals 1807'-1826', 1736'-1746', and 1706'-1714' (see notes) with 4 shots per foot using a four inch casing gun, premium charges and 90-120° phasing.
20. Rig down wireline company and rig up a frac spool and stimulation company.
21. Frac the gross interval 1706'-1826' down casing with a 70 quality nitrogen foam as follows:

Pump 24,000 gallons Pad
Pump 4,000 gallons @ 0.5 PPG 40-70 mesh sand
Pump 4,000 gallons @ 1.0 PPG 40-70 mesh sand

Pump 4,000 gallons @ 1.0 PPG 20-40 mesh sand
Pump 6,000 gallons @ 2.0 PPG 20-40 mesh sand
Pump 10,000 gallons @ 3.0 PPG 20-40 mesh sand
Pump 12,000 gallons @ 4.0 PPG 20-40 mesh sand
Pump 10,000 gallons @ 5.0 PPG 20-40 mesh sand (70 quality foam)

Flush with 39 barrels of 50 quality foam. Shut down and obtain ISIP through 15-minute, shut-in pressures.

22. Leave well shut-in for four hours to allow frac to heal and gel to break. Hook up blow down lines to pit (stake lines down) and install 1/4 inch positive displacement choke during shut-in time.
23. Open well and flow back frac to pit through choke. Once load is recovered and no sand or fines are visible, trip in hole hot with tubing through a stripping head.
24. Clean out well to plug back depth with nitrogen. Pull tubing up to 1500' and run after frac Gamma Ray log.
25. Nipple down BOP and nipple up wellhead landing tubing at +/-1830 feet.
26. Release rig.
27. Flow test well through separator using an orifice meter to gauge flow rates and flare gas at blow pit.
28. Turn well into sales line after all paper work and approvals have been filed.

NOTES:

If circulation is established behind pipe through the bradenhead, then a viscous slug of polymer and paper should be pumped around and the volume of fluid required to displace this slug from the squeeze hole to the surface should be measured. The cement volume will then be 10 percent more than this volume to ensure that cement circulates to surface. Care should be taken to keep from breaking the well down while pumping the viscous slug.

If circulation cannot be established behind pipe through the bradenhead, then the cement volume will be 50 sacks of Class B cement containing 2% CaCl₂ and the squeeze procedure will remain essentially the same.

The actual Fruitland coal perforated intervals will be picked off of

the Gamma Ray correlation log. Therefore, the intervals shown may vary slightly.

The Frac will require approximately 460 barrels of fluid and 2 frac tanks. Fluid for the drilling out of cement can be pumped from the Animas River immediately adjacent to the location. All other water used during the recompletion attempt should be 2% KCl water.

If the casing will not test, it may be necessary to perform the frac through a 3-1/2 inch rental string of tubing. No matter which way the well is fract'd, the frac should be tagged with 1/2 to 1 milli-currie of IR-132 per thousand pounds of sand.

Maximum allowable surface treating pressure down the 5-1/2-inch casing will be 2000 psi. Down 3-1/2 inch tubing maximum surface treating pressures will be 4000 psi. The frac should be pumped at a rate of 40 BPM. At this rate, the job will take about 45 minutes to pump.