

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

|   |   |
|---|---|
| <p>1a. Type of Work<br/>DRILL</p> <p>1b. Type of Well<br/>GAS</p> <p>2. Operator<br/>MERIDIAN OIL<br/>14538</p> <p>3. Address &amp; Phone No. of Operator<br/>PO Box 4289, Farmington, NM 87499<br/><br/>(505) 326-9700</p> <p>4. Location of Well<br/>1850' FSL, 1495' FWL<br/><br/>Latitude 36° 30.1, Longitude 107° 45.7</p> <p>14. Distance in Miles from Nearest Town<br/>6 miles to Huerfano Trading Post</p> <p>15. Distance from Proposed Location to Nearest Property or Lease Line<br/>1495'</p> <p>16. Acres in Lease</p> <p>18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease<br/>1100'</p> <p>19. Proposed Depth<br/>2100'</p> <p>21. Elevations (DF, FT, GR, Etc.)<br/>6239' GR</p> <p>23. Proposed Casing and Cementing Program<br/>See Operations Plan attached</p> <p>24. Authorized by: <u>[Signature]</u><br/>Regulatory/Compliance Administrator</p> | <p>5. Lease Number<br/>NM-012737<br/>Unit Reporting Number</p> <p>6. If Indian, All. or Tribe</p> <p>7. Unit Agreement Name</p> <p>8. Farm or Lease Name<br/>6930 Crandell</p> <p>9. Well Number<br/>500</p> <p>10. Field, Pool, Wildcat<br/>71629 Basin Fruitland Coal</p> <p>11. Sec., Twn, Rge, Mer. (NMPM)<br/>Sec 11, T-26-N, R-9-W<br/>API # 30-045-29388</p> <p>12. County<br/>San Juan</p> <p>13. State<br/>NM</p> <p>17. Acres Assigned to Well<br/>320 S/2</p> <p>20. Rotary or Cable Tools<br/>Rotary</p> <p>22. <del>Approved Date Work will Start</del><br/>DRILLING OPERATIONS AUTHORIZED ARE<br/>SUBJECT TO COMPLIANCE WITH<br/>ATTACHED "GENERAL REQUIREMENTS"</p> <p>Date <u>6-11-96</u></p> |
|---|---|

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

Archaeological Report to be submitted by Arboles Contract Archaeology  
Threatened and Endangered Species Report submitted by Ecosphere dated June 1996

NOTE: This format is issued in lieu of U.S. BLM Form 3160-3

APPROVED  
AS AMENDED

JUN 24 1996

DISTRICT MANAGER

NM000

District I  
PO Box 1980, Hobbs, NM 88241-1980  
District II  
PO Drawer DD, Artesia, NM 88211-0719  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION BLM  
PO Box 2088  
Santa Fe, NM 87504-2088

Form C-102  
Revised February 21, 1994  
Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

JUN 20 PM 2:10

☐ AMENDED REPORT

070 FARMINGTON, NM

WELL LOCATION AND ACREAGE DEDICATION PLAT

|                            |                                    |                    |                                   |
|----------------------------|------------------------------------|--------------------|-----------------------------------|
| API Number<br>30-045-29388 |                                    | Pool Code<br>71629 | Pool Name<br>Basin Fruitland Coal |
| Property Code<br>6930      | Property Name<br>Crandell          |                    | Well Number<br>500                |
| OGRID No.<br>14538         | Operator Name<br>MERIDIAN OIL INC. |                    | Elevation<br>6239'                |

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 |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| K             | 11      | 26 N     | 9 W   |         | 1850          | South            | 1495          | West           | S.J.   |

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 |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
|               |         |          |       |         |               |                  |               |                |        |

|                             |                    |                       |              |
|-----------------------------|--------------------|-----------------------|--------------|
| 12 Dedicated Acres<br>S/320 | 13 Joint or Infill | 14 Consolidation Code | 15 Order No. |
|-----------------------------|--------------------|-----------------------|--------------|

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

|   |   |  |
|---|---|--|
| <div>16</div> <div>5192.22'</div> <div>1495'</div> <div>1750'</div> <div>5198.82'</div> <div>NMNM012737</div> <div>RECEIVED<br/>JUN 20 1996<br/>OIL CON. DIV.<br/>DIST. 3</div> | <div>17 OPERATOR CERTIFICATION</div> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <div>Signature<br/><i>Peggy Bradfield</i></div> <div>Printed Name<br/>Peggy Bradfield</div> <div>Title<br/>Regulatory Administrator</div> <div>Date<br/>6-11-96</div>   |  |
|   | <div>18 SURVEYOR CERTIFICATION</div> <p>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.</p> <div>Date of Survey<br/>5-04-96</div> <div>Signature and Seal of Professional Surveyor<br/><i>Heale C. Edwards</i></div> <div>Certificate Number<br/>8857</div> |  |
|   |   |  |
|   |   |  |

June 11, 1996

OPERATIONS PLAN

**Well Name:** Crandell #500  
**Location:** 1850' FSL, 1495' FWL Section 11, T-26-N, R-9-W  
 San Juan County, New Mexico  
 Latitude 36° 30.1, Longitude 107° 45.7  
**Formation:** Basin Fruitland Coal  
**Elevation:** 6239' GL

| Formation:      | Top        | Bottom | Contents |
|-----------------|------------|--------|----------|
| Surface         | Nacimiento | 1135'  |          |
| Ojo Alamo       | 1135'      | 1250'  | aquifer  |
| Kirtland        | 1250'      | 1737'  |          |
| Fruitland       | 1737'      | 1952'  |          |
| Fruitland Coal  | 1825'      | 1939'  |          |
| Pictured Cliffs | 1952'      |        |          |
| Total Depth     | 2100'      |        |          |

**Logging Program:** Mud logs: 1700' to TD  
 Hi Res Ind, DNL, Micro/GR: 1700-TD

**Mud Program:**

| Interval  | Type | Weight  | Vis.  | Fluid Loss |
|-----------|------|---------|-------|------------|
| 0- 120'   | Spud | 8.4-8.9 | 40-50 | no control |
| 120-2100' | LSND | 8.4-9.0 | 40-60 | no control |

**Casing Program:**

| Hole Size | Depth Interval | Csg. Size | Wt.   | Grade |
|-----------|----------------|-----------|-------|-------|
| 12 1/4"   | 0 - 120'       | 8 5/8"    | 24.0# | H-40  |
| 7 7/8"    | 0 - 2100'      | 4 1/2"    | 10.5# | K-55  |

**Tubing Program:**

|           |        |      |      |
|-----------|--------|------|------|
| 0 - 2100' | 2 3/8" | 4.7# | J-55 |
|-----------|--------|------|------|

**Float Equipment:** 8 5/8" surface casing - saw tooth guide shoe.  
 Centralizers will be run in accordance with Onshore Order #2.

4 1/2" production casing - float shoe on bottom. Three centralizers run every other joint above shoe. Two centralizers run every 3rd joint to the base of the Ojo Alamo @ 1250'. Two turbolizing type centralizers - one below and one into the base of the Ojo Alamo @ 1250'. Standard centralizers thereafter every fourth joint up to the base of the surface pipe.

**Wellhead Equipment:** 8 5/8" x 4 1/2" x 2 3/8" x 11" 2000 psi screw on type independent wellhead.

**MERIDIAN OIL INC**

**CRANDELL #500**

**T 26 N, R 9 W**

**1000' New Construction**

**Section 11: NWSW  
S2S2**

**500'  
2500'**

**All remaining BLM roads are covered by  
ROW NM 77289**

**APD MAP #1**

**NEW BLM  
ROW**

**EXISTING  
ROW**

**GAS  
FIELD**

**Sewage  
Disposal  
Pond**

**Ballard  
Pumping Sta**

**Well**

**Well**

**Ballard**

**NM 80753**

**Oil Wells**

**Oil Well**

**Oil Well**

**Sewage  
Disposal  
Pond**

**Ballard  
Pumping Sta**

**Well**

**Well**

**Ballard**

**NM 80753**

**Oil Wells**

**Oil Well**

**Oil Well**