

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

| | | | |
|--|--|--|--|
| 1a. Type of Work DRILL | | 5. Lease Number NM-03733 | |
| 1b. Type of Well GAS | | 6. If Indian, Name of Allottee or Tribe | |
| 2. Operator CAULKINS OIL COMPANY | | 7. Unit Agreement Name 30-039-25925 | |
| 3. Address & Phone No. of Operator c/o ROBERT VERQUER P. O. Box 340, Bloomfield, NM 87413 (505) 632-1544 | | 8. Farm or Lease Name BREECH 2454 | |
| 4. Location of Well 1475 FNL & 1850' FWL | | 9. Well Number 812-M | |
| 14. Distance in Miles from Nearest Town 30 miles southeast of Blanco, NM Post Office. | | 10. Filed, Pool, or Wildcat 71599 Basin Dakota - Blanco Mesa Verde 72319 | |
| 15. Distance from Proposed Location To Nearest Property Line or Lease Line 1475' | | 11. Section, Township, & Range, Meridian, or Block F 18-26N-6W | |
| 16. Acres in Lease 2400 Acres | | 12. County Rio Arriba | |
| 17. Acres Assigned to Well W/E 321.20 West - 820 Acres 321.20 | | 13. State New Mexico | |
| 18. Distance From Proposed Location To Nearest Well Drill, Compl., Or Applied For on Lease 25' | | 19. Proposed Depth 7070' | |
| 20. Rotary or Cable Tools ROTARY | | 21. Elevations (DR, RT, GR, Etc.) 6212' GR | |
| 22. Approximate Date Work Will Start September 1, 1998 | | 23. Proposed Casing and Cementing Program | |

EXHIBITS attached as follows

- "A" Location and Elevation Plat
- "B" Ten-Point Compliance Program
- "C" Blowout Preventer Schematic
- "D" Multi-Point Requirements for APD
- "E" Vicinity Map - Access Roads

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

- "F" Drill Rig Layout
- "G" Production Facility Schematic
- "H" Acreage dedication plat
- "I" Archaeological Report

24. Signed Robert L. Verquer Title Superintendent Date 05/14/98
Robert L. Verquer

Permit No. _____ Approval Date 7/24/98

Approved By _____ Title _____ Date 7/24/98

NOTE: THIS FORMAT IS ISSUED IN LIEU OF U.S. BLM FORM 3160-3

NMOCD

EXHIBIT "B"

TEN POINT COMPLIANCE PROGRAM

Caulkins Oil Company
Breach 812-M
1475' FNL & 1850' FWL, Sec. 18, 26N, 6W
Rio Arriba County, New Mexico
Lease No. NM - 03733

1. The Geological Surface Formation is : San Jose.
2. The Estimated Tops of Important Geological Markers:

| | |
|----------------|-------|
| Ojo Alamo | 1802' |
| Picture Cliffs | 2486' |
| Chacra | 3376' |
| Point Lookout | 4755' |
| Greenhorn | 6654' |
| Dakota | 6772' |
| TD | 7070' |

3. Estimated Depths and pressures of Anticipated Water, Oil, Gas or Minerals:

| Substance | Formation | Depth | Pressure |
|-----------|-----------------|-------|----------|
| Water | Alamo | 1928' | 0 |
| Gas | Pictured Cliffs | 2556' | 450 |
| Gas | Chara | 3446' | 500 |
| Gas | Mesa Verde | 4910' | 1000 |
| Gas | Dakota | 7070' | 1500 |

4. The proposed casing program will be as follows:

| Depth | Hole Size | O.D. | Weight | Grade | Type | New/Used |
|-----------|-----------|-------|--------|-------|------|----------|
| 0-350 | 12-1/4 | 9-5/8 | 36.00# | J55 | LT&C | NEW |
| 0-1000 | 7-7/8 | 5-1/2 | 17.00# | K55 | LT&C | NEW |
| 1000-6070 | 7-7/8 | 5-1/2 | 15.50# | K55 | LT&C | NEW |
| 6070-7070 | 7-7/8 | 5-1/2 | 17.00# | K55 | LT&C | NEW |

The proposed cement program will be as follows:

Surface: 154 sacks class H with 1% CaCl
and 1/4# per sack cellophane flake.

VOLUME CALCULATIONS

YIELD 1.14 350 ft x 0.3132 cu-ft/ft with 60% excess = 175 cu-ft

PRODUCTION:

Cement will be run in three stages with stage tools set at approximately 3070' and 5070'.

1st stage

Cement through shoe at approx. 7070' with 208 sacks class B 35/65 poz + 6% gel (bentonite) + 1/4# /sk cellophane flake followed by 100 sacks class H + 1% CaCl + 1/4# /sk cellophane flake.

VOLUME CALCULATIONS

YIELD 1.79 1341 ft x 0.1732 cu-ft/ft with 60% excess = 372 cu-ft
YIELD 1.14 659 ft x 0.1732 cu-ft/ft with 0% excess = 114 cu-ft

2nd stage

Cement through tool at approx. 5070' with 208 sacks class B 35/65 poz + 6% gel (bentonite) + 1/4# /sk cellophane flake followed by 100 sacks class H + 1% CaCl + 1/4# /sk cellophane flake.

VOLUME CALCULATIONS

YIELD 1.79 1341 ft x 0.1732 cu-ft/ft with 60% excess = 372 cu-ft
YIELD 1.14 659 ft x 0.1732 cu-ft/ft with 0% excess = 114 cu-ft

DISTRICT I
P.O. Box 1980, Hobbs, N.M. 88241-1980

State of New Mexico
Energy, Minerals & Natural Resources Department

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

DISTRICT II
P.O. Drawer DD, Artesia, N.M. 88211-0719

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

DISTRICT IV
PO Box 2088, Santa Fe, NM 87504-2088

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, NM 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

| | | |
|---|--|---|
| ¹ API Number 30-039-25925 | ² Pool Code 72319 | ³ Pool Name Blanco Mesa Verde |
| ⁴ Property Code 2454 | ⁵ Property Name BREECH | ⁶ Well Number 812M |
| ⁷ GRID No. 3824 | ⁸ Operator Name CAULKINS OIL CO. | ⁹ Elevation 6212' |

¹⁰ Surface Location

| | | | | | | | | | |
|--------------------|---------------|------------------|--------------|---------|-----------------------|---------------------------|-----------------------|------------------------|----------------------|
| UL or lot no. F | Section 18 | Township 26-N | Range 6-W | Lot Idn | Feet from the 1475 | North/South line NORTH | Feet from the 1850 | East/West line WEST | County Rio Arriba |
|--------------------|---------------|------------------|--------------|---------|-----------------------|---------------------------|-----------------------|------------------------|----------------------|

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 320.32 | ¹³ Joint or Infill 20 | 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

| | | | | | |
|---------------|-------|--|--|---|--|
| ¹⁶ | | | | ¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief Robert L. Verquer Signature Robert L. Verquer Printed Name Superintendent Title May 14, 1998 Date | |
| 40.22 | 1475' | | | | |
| 1850' | | | | | |
| 40.27 | | | | | |
| 40.33 | | | | | |
| 40.38 | 812' | | | | |
| | | | | 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 belief. 10-16-98 Date of Survey Signature and Seal of Professional Surveyor: 8894 Certificate Number | |

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| ⁴ Property Code 2454 | ⁵ Property Name BREECH | ⁶ Well Number 812M |
| ⁷ GRID No. 3824 | ⁸ Operator Name CAULKINS OIL CO. | ⁹ Elevation 6212' |

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| 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 32.6 | ¹³ Joint or Infill | ¹⁴ Consolidation Code | ¹⁵ Order No. |
|---------------------------------------|-------------------------------|----------------------------------|-------------------------|

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OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

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| | <div><p>¹⁸ SURVEYOR CERTIFICATION</p><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><p>10-16-98 Date of Survey Signature and Seal of Professional Surveyor: Certificate Number</p></div> |

EXHIBIT "E"

