

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

38-045-28252
APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL	5. LEASE NUMBER SF-078508-A
1b. TYPE OF WELL GAS	6. IF INDIAN, ALL. OR TRIBE NAME
2. OPERATOR MERIDIAN OIL INC.	7. UNIT AGREEMENT NAME
3. ADDRESS & PHONE NO. OF OPERATOR P O BOX 4289 FARMINGTON, NM 87499	8. FARM OR LEASE NAME NORDHAUS
4. LOCATION OF WELL 1810' FNL 1240' FEL	9. WELL NO. 716
14. DISTANCE IN MILES FROM NEAREST TOWN 13 MI N/W OF NAVAJO DAM	10. FIELD, POOL, OR WILDCAT BASIN FRUITLAND COAL
15. DISTANCE FROM PROPOSED LOCATION 1240' TO NEAREST PROPERTY OR LEASE LINE.	11. SEC. T. R. M OR BLK. <i>H</i> SEC. 13 T31N R09W NMPM
16. ACRES IN LEASE <i>160</i>	12. COUNTY SAN JUAN
17. ACRES ASSIGNED TO WELL <i>5</i> 316.87	13. STATE NM
18. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL DR. 200' COMPL., OR APPLIED FOR ON THIS LEASE.	19. PROPOSED DEPTH 2924'
20. ROTARY OR CABLE TOOLS ROTARY	
21. ELEVATIONS (DF, FT, GR, ETC.) 6071' GL	22. APPROX. DATE WORK WILL START
23. PROPOSED CASING AND CEMENTING PROGRAM	
*SEE OPERATIONS PLAN	
24. AUTHORIZED BY: <i>[Signature]</i> REG. DRILLING ENGR.	RECEIVED SEP 20 1990 OIL CON. DIV. <i>9/4/90</i> DIST. 3 DATE

PERMIT NO. _____ APPROVAL DATE _____
APPROVED BY _____ TITLE _____ DATE *[Signature]*

NOTE: THIS FORMAT IS ISSUED IN LIEU OF US BLM FORM 3160-3

Hold 2-104 FOR CAC

Submit to Asproprietor
District Office
State Lease - 4 copies
Federal Lease - 3 copies

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
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

1010 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator Meridian Oil Inc.			Lease Nordhaus (SF-078508A)		Well No. 716
U.S. Letter H	Section 13	Township 31 North	Range 9 West	County San Juan	
Actual Footage Location of Well: 1810 feet from the North line and 1240 feet from the East line					
Ground level Elev. 6071'		Producing Formation Fruitland Coal		Pool Basin	
					Dedicated Acreage: 316.87 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or machine marks on the plat below.

2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. 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

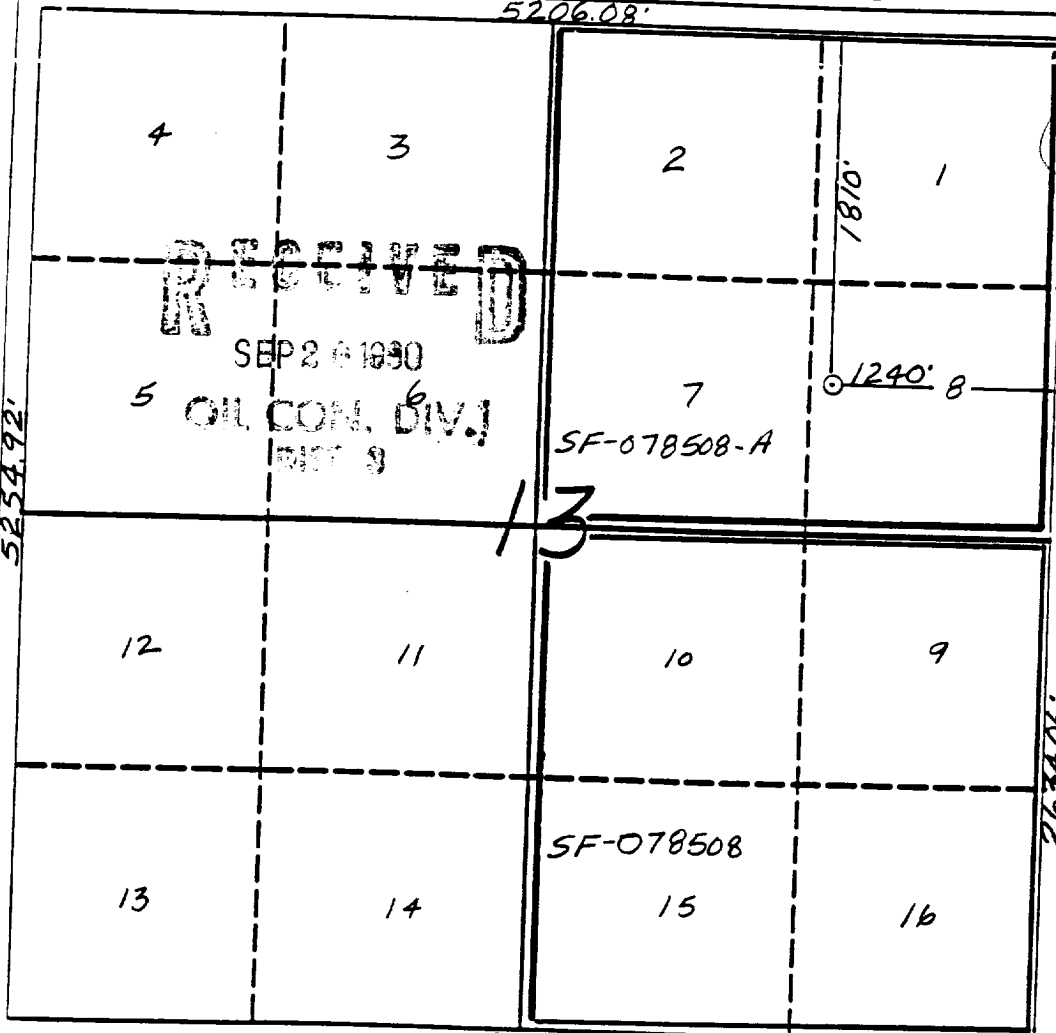
communitization agreement will be

this form if necessary.

obtained

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, force-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.

5226.08'



OPERATOR CERTIFICATION

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

Signature

Peggy Bradfield

Printed Name

Regulatory Affairs

Position

Meridian Oil Inc.

Company

9-4-90

Date

SURVEYOR CERTIFICATION

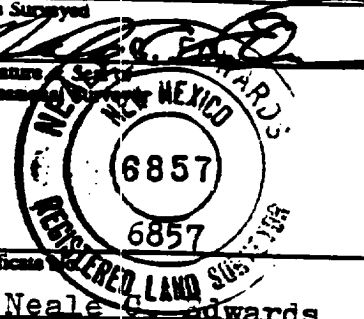
I hereby certify that the well location shown on this plat was plotted from field notes, actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

7-24-90

Date Surveyed

Signature

Professional Surveyor



Well Name: 716 NORDHAUS
 Sec. 13 T31N R09W
 BASIN FRUITLAND COAL

1810'FNL 1240'FEL
 SAN JUAN NEW MEXICO
 Elevation 6071'GL

Formation tops: Surface- SAN JOSE

Ojo Alamo- 1538

Kirtland- 1696

Fruitland- 2504

Fruitland Coal Top- 2710

Fruitland Coal Base- 2922

Pictured Cliffs- 2928

Intermediate TD- 2690

Total Depth- 2924

Logging Program: Mud logs from intermediate to total depth.

Mud Program:	Interval	Type	Weight	Visc.	Fl. Loss
	0 - 200	Spud	8.4 - 8.9	40-50	no control
	200 - 2690	Non-dispersed	8.4 - 9.1	30-60	no control
	2690 - 2924	Formation Water	8.4		no control

Casing Program:	Hole Size	Depth Interval	Csg. Size	Weight	Grade
	12 1/4"	0 - 200	9 5/8"	32.3#	H-40
	8 3/4"	0 - 2690	7"	20.0#	K-55
	6 1/4"	2640 - 2924	5 1/2"	15.5#	K-55
Tubing Program:		0 - 2924	2 7/8"	6.5#	J-55

Float Equipment: 9 5/8" surface casing - saw tooth guide shoe. Centralizers will be run in accordance with Onshore Order #2.

7" intermediate casing - guide shoe and self-fill insert float valve. Three centralizers run every other joint above shoe. Run insert float one joint above the guide shoe. Two turbolizing type centralizers - one below and one into the base of the Ojo Alamo @ 1696'. Standard centralizers thereafter every fourth joint up to the base of the surface pipe.

5 1/2" production casing - float shoe on bottom and a pre-drilled liner run to the 7" casing with a minimum 50' overlap. Liner hanger is a double slip grip type.

Wellhead Equipment: 9 5/8" x 7" x 2 7/8" x 11" 3000 psi xmas tree assembly.

Cementing:

9 5/8" surface casing - cement with 160 sacks of class "B" cement with 1/4# flocele/sack and 3% calcium chloride (189 cu ft. of slurry, 200% excess to circulate to surface). WOC 12 hours. Test casing to 600 psi for 30 minutes.

7" intermediate casing - lead with 384 sacks of 65/35 class "B" poz with 6% gel, 2% calcium chloride and 1/2 cu ft. Perlite/sack (10.3 gallons of water/sack) tail with 100 sacks of class "B" with 2% calcium chloride. 859 cu ft. of slurry, 110% excess to circulate to surface. If hole conditions permit, a 600 ft spacer will be run ahead of the cement slurry to avoid mud contamination of the cement. WOC 12 hours. If cement does not circulate to surface, a temperature log will be run after 8 hours to determine TOC.

5 1/2" liner - do not cement.

Nordhaus #716

T31N, R9W

No New Construction

800' On Lease Existing Roads

New BLM ROW

T31N, R9W

Section 13: E2SE 2400'

24: E2NE 2700'

E2SE 1400'

T30N, R9W

Section 1: W2, NW 3000'

NW SW 250'

E2SW 2900'

12: E2NW 2900'

E2SW 2000'

SW SE 300'

Map 1

STATE
LANDS