

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

RECEIVED
FEB 11 1991

OIL CON. DIV.
DIST. 3

1a. TYPE OF WORK DRILL	5. LEASE NUMBER SF-077941-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 ROWLEY
4. LOCATION OF WELL 2165' FSL 1550' FWL 960 1435	9. WELL NO. 501
10. FIELD, POOL, OR WILDCAT BASIN FRUITLAND COAL	11. SEC. T. R. M OR BLK. SEC. 20 T27N R10W NMPM
14. DISTANCE IN MILES FROM NEAREST TOWN 11 MILES S. OF BLOOMFIELD	12. COUNTY SAN JUAN
15. DISTANCE FROM PROPOSED LOCATION 1550' TO NEAREST PROPERTY OR LEASE LINE.	13. STATE NM
16. ACRES IN LEASE 1280	17. ACRES ASSIGNED TO WELL W/320.00
18. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL DR. 400' COMPL., OR APPLIED FOR ON THIS LEASE.	19. PROPOSED DEPTH 1728'
20. ROTARY OR CABLE TOOLS ROTARY	21. ELEVATIONS (DF, FT, GR, ETC.) 5971' GL 5970
22. APPROX. DATE WORK WILL START	23. PROPOSED CASING AND CEMENTING PROGRAM

*SEE OPERATIONS PLAN

24. AUTHORIZED BY: Charles J. W. for JWC
REG. DRILLING ENGR.

10/12/90
DATE

PERMIT NO. _____ APPROVAL DATE _____ APPROVED
AS AMENDED
APPROVED BY _____ TITLE _____ DATE _____

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

FEB 06 1991
John D. Keller
AREA MANAGER

NMOCD

1900 JAN 10 1900

Year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Population (millions)	7.7	7.9	8.1	8.3	8.5	8.7	8.9	9.1	9.3	9.5	9.7	9.9	10.1	10.3	10.5	10.7	10.9	11.1	11.3	11.5	11.7
GDP (trillion USD)	15.0	16.0	17.0	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
Life expectancy (years)	75.0	75.5	76.0	76.5	77.0	77.5	78.0	78.5	79.0	79.5	80.0	80.5	81.0	81.5	82.0	82.5	83.0	83.5	84.0	84.5	85.0
Urban population (%)	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0	72.0	73.0	74.0	75.0
Renewable energy (%)	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0	27.0	28.0	29.0	30.0
CO2 emissions (Gt)	15.0	16.0	17.0	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0

Submit to Appropriate
District Office
State Lease - 4 copies
Fee 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
1000 Rio Branos Rd., Aztec, NM 87410

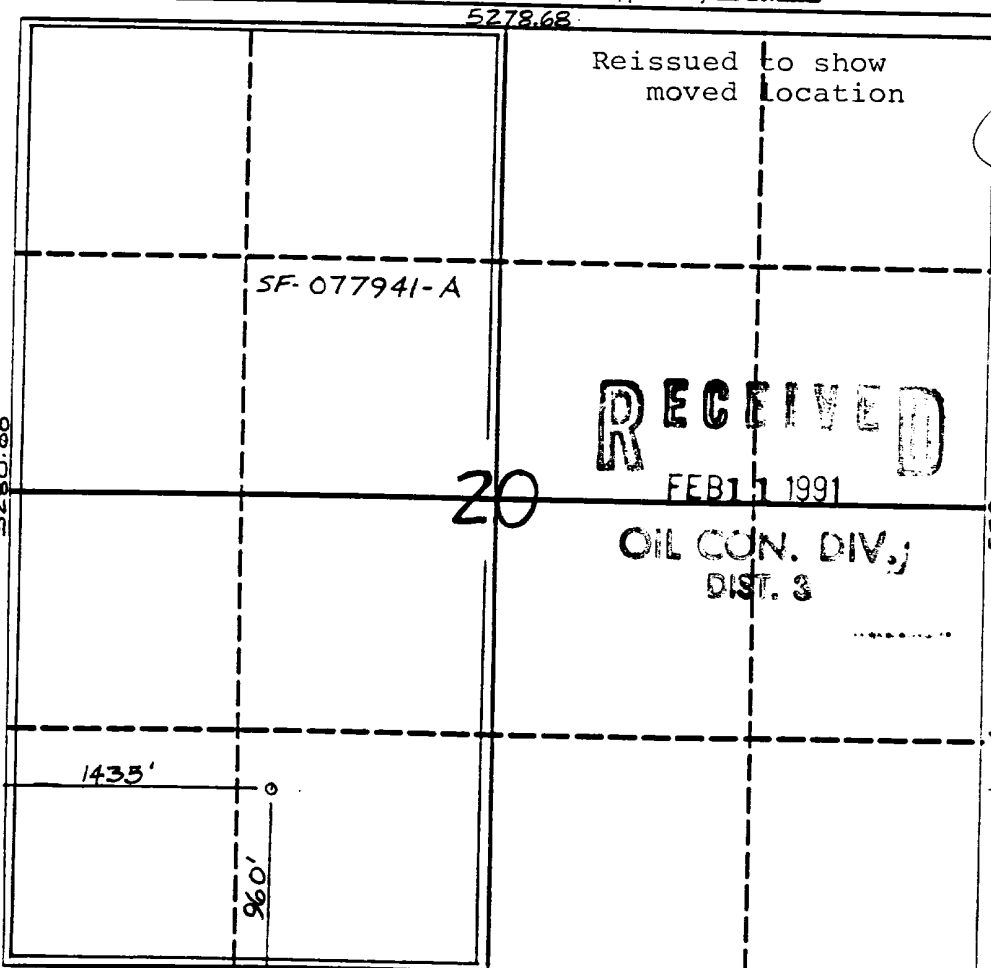
WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

RECEIVED
91 JAN - 8 11:13:05
OIL CON. DIV. N.M.

Operator Meridian Oil Inc.			Lease Rowley			Well No. 501		
Unit Letter N	Section 20	Township 27 North	Range 10 West	County NMNM San Juan				
Actual Footage Location of Well: 960 feet from the South line and 1435 feet from the West line								
Ground level Elev. 5970		Producing Formation Fruitland Coal		Pool Basin		Dedicated Acreage: 320 Acres		

1. Outline the acreage dedicated to the subject well by colored pencil or lacquer 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 _____
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
Peggy Bradfield

Printed Name
Peggy Bradfield

Position
Regulatory Affairs

Company
Meridian Oil Inc.

Date
1-4-91

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
10-22-90

Signature of Surveyor
Neale C. Edwards

Professional Surveyor
NEW MEXICO
6857
6857

Certificate No.
Neale C. Edwards

Well Name: 501 ROWLEY
 Sec. 20 T27N R10W
 BASIN FRUITLAND COAL

2165'FSL 1550'FWL
 SAN JUAN NEW MEXICO
 Elevation 5971'GL

Formation tops: Surface- Nacimiento

Ojo Alamo- 632
 Kirtland- 802
 Fruitland- 1474
 Fruitland Coal Top- 1535
 Fruitland Coal Base- 1718
 Pictured Cliffs- 1720

Total Depth- 1728

Logging Program: Mud logs from 1474 to total depth.

Mud Program:	Interval	Type	Weight	Visc.	Fl. Loss
	0 - 200	Spud	8.4 - 8.9	40-50	no control
	200 - 1728	Non-dispersed	8.4 - 9.5	30-60	no control

Casing Program:	Hole Size	Depth Interval	Csg. Size	Weight	Grade
	12 1/4"	0 - 200	8 5/8"	24.0#	K-40
	7 7/8"	0 - 1728	5 1/2"	15.5#	K-55
Tubing Program:		0 - 1728	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.

5 1/2" production casing - float shoe on bottom. Three centralizers run every other joint above shoe. Two turbolizing type centralizers - one below and one into the base of the Ojo Alamo @ 802'. Standard centralizers thereafter every fourth joint up to the base of the surface pipe.

Wellhead Equipment: 8 5/8" x 5 1/2" x 2 3/8" x 11" 3000 psi xmas tree assembly

Cementing:

8 5/8" surface casing - cement with 211 sacks of class "B" cement with 1/4# flocculent/sack and 3% calcium chloride (248 cu ft. of slurry, 200% excess to circulate to surface). WOC 12 hours. Test casing to 600 psi for 30 minutes.

5 1/2" production casing - lead with 253 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. 606 cu ft. of slurry, 100% 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.

Map 1
Rowley #501

T27N, R10W

No New Construction

1900' Existing BLM Roads
within Lease Boundary
New BLM ROW

Section 19: N2SE 1000
S2NE 1500

Existing
BLM ROW
& Fee Lands

Applied
For ROW

Fee
Lands

Existing
BLM Roads

Applied
for ROW

New
BLM
ROW

