


UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED  
MAY 19 1993  
OIL CON. DIV.  
DIST. 5

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work DRILL	5. Lease Number 30-045-28954 ✓ NM-71708
1b. Type of Well GAS	6. If Indian, All. or Tribe Navajo Tribe
2. Operator MERIDIAN OIL 14538 ✓	7. Unit Agreement Name
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499  (505) 326-9700	8. Farm or Lease Name Dufers ✓ 13563 9. Well Number 1 ✓
4. Location of Well 990' FNL, 790' FEL  Latitude 36° 26' 25", Longitude 107° 42' 58"	10. Field, Pool, Wildcat 19859 Dufers Point Gallup Dakota ✓ 11. Sec., Twn, Rge, Mer. A Sec 6, T-25-N, R-8-W ✓ NMPM
14. Distance in Miles from Nearest Town 11 miles Huerfano Trading Post	12. County San Juan 13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 790'	17. Acres Assigned to Well 123.88 NE/4 ✓
16. Acres in Lease 123.88	20. Rotary or Cable Tools Rotary
18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease 2640'	
19. Proposed Depth 6615'	
21. Elevations (DF, FT, GR, Etc.) 6349' GR ✓ <small>This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4.</small>	22. Approx. Date Work will Start 2nd quarter 1993
23. Proposed Casing and Cementing Program See Operations Plan attached	DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS"
24. Authorized by:  Regional Drilling Engineer	3-25-93 Date

PERMIT NO. \_\_\_\_\_

APPROVAL DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_

TITLE \_\_\_\_\_

DATE \_\_\_\_\_

Archaeological Report will be submitted  
Threatened and Endangered Species Report will be submitted  
NOTE: This format is issued in lieu of U.S. BLM Form 3160-3

1/10/94 C-104 for NSL

NMOCD

APPROVED  
AS AMENDED

MAY 17 1993

DISTRICT MANAGER

DISTRICT MANAGER

AS AMENDED  
APPROVED

Submit to Assessor  
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

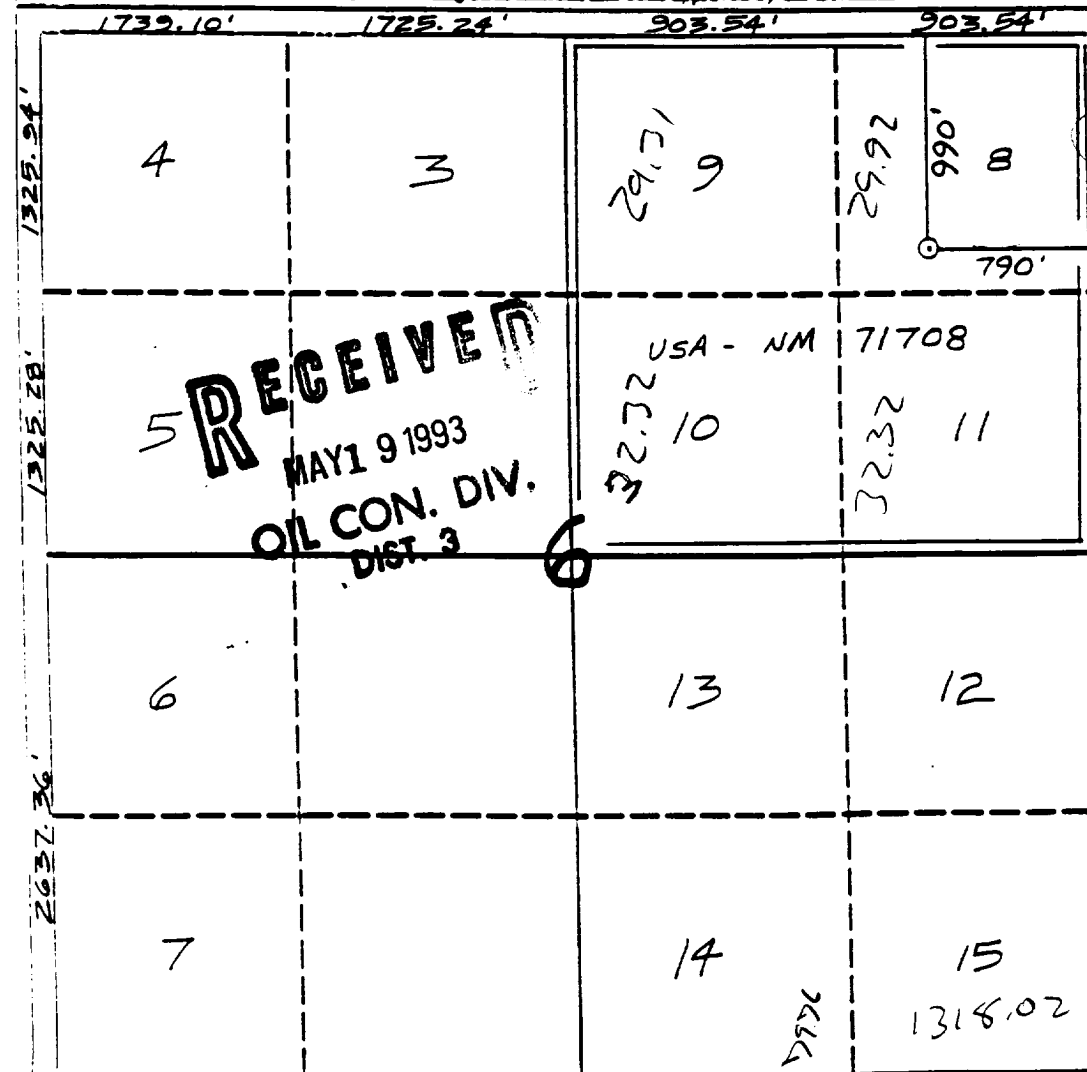
DISTRICT III

1000 Rio Arriba Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator		Lease		Well No.	
Meridian Oil Inc.		Dufers		1	
Unit Letter	Section	Township	Range	County	
A	6	25 North	8 West	San Juan	
Actual Footage Location of Well:					
990 feet from the		North	line and	790 feet from the	East
Casino level Elev.	Producing Formation	Foot	Distance Acreage		
6349'	Gallup Dakota	Dufers Point	123.88 Acres		
<p>1. Outline the acreage dedicated to the subject well by corner point or section marks on the plat below.</p> <p>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).</p> <p>3. If more than one lease of different ownership is dedicated to the well, have the interest of all owners been considered by communication, unification, force-pooling, etc.?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No If answer is "yes" type of consideration _____</p> <p>If answer is "no" list the owners and tract descriptions which have actually been considered. (Use reverse side of this form if necessary.) _____</p> <p>No allowance will be assigned to the well until all interests have been considered (by communication, unification, force-pooling, or otherwise) or until a vote-counted unit, encompassing such interest, has been approved by the Division.</p>					



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 \_\_\_\_\_  
Regulatory Representative

Position \_\_\_\_\_  
Meridian Oil Inc.

Company \_\_\_\_\_  
3-17-93

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 supervision, and that the same is true correct to the best of my knowledge and belief.

Date Surveyed \_\_\_\_\_  
2-15-93

Signature \_\_\_\_\_  
Neville G. Edwards

Professional Surveyor

License No. 9357

Signature \_\_\_\_\_

Signature \_\_\_\_\_

Signature \_\_\_\_\_

OPERATIONS PLANWell Name: Dufers #1Location: 990'FNL, 790'FEL Section 6, T-25-N, R-8-W  
San Juan County, New Mexico  
Latitude 36° 26' 25", Longitude 107° 42' 58"Formation: Dufers Point Gallup DakotaElevation: 6349'GL

<u>Formation Tops:</u>	<u>Top</u>	<u>Bottom</u>	<u>Contents</u>
Surface	Nacimiento	1161'	
Ojo Alamo	1161'	1291'	aquifer
Kirtland	1291'	1805'	
Fruitland	1805'	1847'	gas
Pictured Cliffs	1847'	3534'	salt water
Mesa Verde	3534'	4858'	salt water
Menefee	3562'	4451'	salt water
Point Lookout	4451'	4858'	oil
Mancos	4858'	5451'	
Gallup	5451'	6239'	gas & oil
Greenhorn	6239'	6293'	gas & oil
Graneros	6293'	6397'	gas & oil
Dakota	6397'		gas & oil
<b>Total Depth</b>	<b>6615'</b>		

Logging Program:

Mud Logs/Coring/DST -

Mud logs - none

Coring - none

DST - none

Electric logs - IEL/SP/GR; Density/Neut/GR; Microlog-GR

Mud Program:

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Vis.</u>	<u>Fluid Loss</u>
0- 200'	Spud	8.4-8.9	40-50	no control
200-6615'	LSND	8.4-9.1	30-60	no control

Pit levels will be visually monitored to detect gain or loss of fluid control.

Casing Program:

<u>Hole Size</u>	<u>Depth Interval</u>	<u>Csg.Size</u>	<u>Wt.</u>	<u>Grade</u>
12 1/4"	0' - 200'	8 5/8"	24.0#	K-55
7 7/8"	0' - 6615'	4 1/2"	10.5#	K-55

Tubing Program:

0' - 6615'      2 3/8"      4.7#      J-55 EUE

BOP Specifications, Wellhead and Tests:

**Surface to TD -**

11" 3000 psi minimum double gate BOP stack (Reference Figure #1). After nipple-up prior to drilling out surface casing, rams and casing will be tested to 600 psi for 30 minutes.

2" nominal, 3000 psi minimum choke manifold (Reference Figure #3).

**Completion Operations -**

6" 3000 psi double gate BOP stack (Reference Figure #2). After nipple-up prior to completion, pipe rams and casing top will be tested to 3000 psi for 15 minutes.

**Surface to Total Depth -**

2" nominal, 3000 psi minimum choke manifold (Reference Figure #3).

**Wellhead -**

8 5/8" x 4 1/2" x 2 3/8" x 3000 psi tree assembly.

**General -**

- Pipe rams will be actuated once each day and blind rams will be actuated once each trip to test proper functioning.
- An upper kelly cock valve with handle available and drill string valves to fit each drill string will be available on the rig floors at all times.
- A BOP pit level drill will be conducted weekly for each drilling crew.
- All of the BOP tests and drills will be recorded in the daily drilling reports.
- Blind and pipe rams will be equipped with extension hand wheels.

**Cementing:**

8 5/8" surface casing -

Cement to surface w/140 sx Class "B" cement w/3% calcium chloride and 1/4#/sx cellophane flakes (165 cu.ft. of slurry, 100% excess to circulate to surface.) WOC 12 hours prior to drilling out surface casing. Test casing to 600 psi for 30 minutes.

Saw tooth guide shoe on bottom. Bowspring centralizers will be run in accordance with Onshore Order #2.

Production Casing - 4 1/2"

First Stage: Cement to circulate to stage tool @ 4518'. Lead w/472 sx 65/35 Class "B" Pozmix w/6% gel, 2% calcium chloride, and 1/4#/sx cellophane flakes. Tail w/100 sx Class "B" cement w/2% calcium chloride. WOC 4 hours prior to pumping second stage. (Slurry volume: 955 cu.ft. Excess slurry 100%.)

Second Stage: Cement to circulate to stage tool @ 1469'. Lead w/719 sx 65/35 Class "B" Pozmix w/6% gel, 2% calcium chloride, and 1/4#/sx cellophane flakes. Tail w/100 sx Class "B" cement w/2% calcium chloride. WOC a minimum of 18 hours prior to cleanout. (Slurry volume: 1390 cu.ft. Excess slurry: 100%.)

Third Stage: Cement to circulate to surface. Cement w/312 sx 65/35 Class "B" Pozmix w/6% gel, 2% calcium chloride, and 1/4#/sx cellophane flakes. Tail w/100 sx Class "B" cement w/2% calcium chloride. WOC a minimum of 18 hours prior to cleanout. (Slurry volume: 670 cu.ft. Excess slurry: 100%.)

Float shoe on bottom. Three centralizers run every other joint above shoe. Thirty-three centralizers - one every 4th joint to the base of the Ojo Alamo @ 1291'. Two turbolizing type centralizers - one below and one into the base of the Ojo Alamo @ 1291'. Standard centralizers thereafter every fourth joint up to the base of the surface pipe.

- If hole conditions permit, an adequate water spacer will be pumped ahead of each cement job to prevent cement/ mud contamination or cement hydration.
- The pipe will be rotated and/or reciprocated, if hole conditions permit.

**Additional Information:**

- The Gallup Dakota formation will be completed.
- No abnormal temperatures or hazards are anticipated.
- Sufficient LCM will be added to the mud system to maintain well control, if lost circulation is encountered below the top of the Pictured Cliffs.
- The North-east quarter of Section 6 is dedicated to this well.
- This gas is dedicated.
- New casing will be utilized.
- Pipe movement (either rotation or reciprocation) will be done if hole conditions permit.

