

**MERIDIAN OIL**

OIL CONSERVATION DIVISION  
RECEIVED

MAR 4 1994 8 39

March 2, 1994

Sent Federal Express

Mr. William LeMay  
New Mexico Oil Conservation Division  
Post Office Box 2088  
Santa Fe, New Mexico 87501

Re: Meridian Oil Inc. Cullins Federal #6  
1510'FSL, 2390'FEL, Section 4, T-24-N, R-3-W - Rio Arriba County, New Mexico  
API # 30-039-(not assigned)

Dear Mr. LeMay:

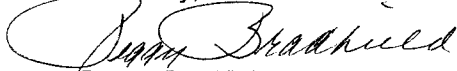
Meridian Oil Inc. is applying for administrative approval of a non-standard location for the above location in the West Lindrith Gallup Dakota formation. This application for the referenced location is due to terrain as shown on the topographic map and archaeology.

The following attachments are for your review:

1. Application for Permit to Drill.
2. Completed C-102 at referenced location.
3. Offset operators/owners plat and affidavit of notification..
4. 7.5 minute topographic map showing the orthodox windows for the southeast dedication for the West Lindrith Gallup Dakota, and enlargement of the map to define topographic features.
5. If the well were directionally drilled to a standard bottom hole location, the economics would be severely burdened due to the incremental directional drilling costs of \$150,000.

A copy of this application is being submitted to all offset owners/ operators by certified mail with a request that they furnish you with a Waiver of Objection, and return one copy to this office.

Sincerely,



Peggy Bradfield  
Regulatory/Compliance Representative  
encs.

**WAIVER**


\_\_\_\_\_ hereby waives objection to Meridian Oil Inc.'s application for a non-standard location for their Cullins Federal #6 as proposed above.

By: \_\_\_\_\_ Date: \_\_\_\_\_

xc: Mobil Producing Texas & New Mexico Inc.

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 SF-080472	
1b. Type of Well GAS	6. If Indian, All. or Tribe	
2. Operator <b>MERIDIAN OIL</b>	7. Unit Agreement Name	
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499  (505) 326-9700	8. Farm or Lease Name Cullins Federal 9. Well Number 6	
4. Location of Well 1510'FSL, 2390'FEL  Latitude 36° 20' 11", Longitude 107° 09' 39"	10. Field, Pool, Wildcat W.Lindrith G1 Dakota 11. Sec., Twn, Rge, Mer. Sec 4,T-24-N,R-3-W NMPM	
14. Distance in Miles from Nearest Town 35 miles Counselors	12. County Rio Arriba	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 1510'		
16. Acres in Lease	17. Acres Assigned to Well 160 SE/4	
18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease 2000'		
19. Proposed Depth 8000'	20. Rotary or Cable Tools Rotary	
21. Elevations (DF, FT, GR, Etc.) 7057'GL	22. Approx. Date Work will Start 2nd quarter 1994	
23. Proposed Casing and Cementing Program See Operations Plan attached		
24. Authorized by:  Regional Drilling Engineer	2-4-94 Date	

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_  
APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

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

February 4, 1994

OPERATIONS PLAN

**Well Name:** Cullins Federal #6  
**Location:** 1510' FSL, 2390' FEL, Section 4, T-24-N, R-3-W  
 Rio Arriba County, New Mexico  
**Formation:** West Lindrith Gallup Dakota  
**Elevation:** 7057' GL

**Formation Tops:**

Surface	San Jose	Menefee	5060'
Ojo Alamo	2950'	Point Lookout	5485'
Kirtland	3035'	Mancos	5860'
Fruitland	3045'	Gallup	6595'
Pictured Cliffs	3280'	Greenhorn	7465'
Lewis	3395'	Graneros	7520'
Chacra	4170'	Dakota	7550'
Cliff House	4910'	Morrison	7950'
		Total Depth	8000'

**Logging Program:** Mud logs from 3000' to Total Depth.  
 GR-DIL-SP; LDT-CNL-DIL; Microlog; MRIL

**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
200-8000'	Non-dispersed	8.4-9.5	30-60	no 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-40
7 7/8"	0 - 6800'	4 1/2"	10.5#	K-55

**Tubing Program:**

0 - 8000'	2 3/8"	4.7#	J-55
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**Float Equipment:** 8 5/8" surface casing- saw tooth guide shoe.  
 Centralizers to 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 turbolizing type centralizers - one below and one into the base of the Ojo Alamo @ 3035'. Standard centralizers thereafter every fourth joint up to base of surface pipe.

**Wellhead Equipment:** 8 5/8" x 4 1/2" x 2 3/8" x 11" 3000 psi xmas tree assembly.

**Cementing:**

8 5/8" surface casing - cement w/210 sx Class "B" cement with 1/4# flocele/sx and 3% calcium chloride (250 cu.ft. of slurry, 200% excess to circulate to surface). WOC 12 hrs. Test casing to 600 psi/30 minutes.

February 4, 1994

**Cementing, cont'd.**

4 1/2" production casing -

First stage - lead w/632 sx 65/35 Class "B" Poz w/6% gel and 2% calcium chloride. Tail w/100 sx Class "B" w/2% calcium chloride (1237 cu.ft. slurry, 100% excess to circulate stage tool @ 5485') Circulate 4 hrs between stages.

Second stage - lead w/358 sx 65/35 Class "B" Poz w/6% gel and 2% calcium chloride. Tail w/100 sx Class "B" w/2% calcium chloride (752 cu.ft. slurry, 100% excess to circulate stage tool @ 3835').

Third stage - lead w/925 sx 65/35 Class "B" Poz w/6% gel and 2% calcium chloride. Tail w/100 sx Class "B" w/2% calcium chloride (1755 cu.ft. slurry, 100% excess to circulate to surface). WOC 12 hrs. If cement does not circulate to surface, a temperature log will be run after 8 hrs to verify top of cement.

**BOP and tests:**

Surface to TD - 11" 2000 psi (minimum) double gate BOP stack (Reference Figure #1). Prior to drilling out surface casing, test rams to 600 psi/30 min.

Completion - 6" 2000 psi (minimum) double gate BOP stack (Reference Figure #2). Prior to completion operations, test rams to 3000 psi/15 min.

From surface to TD - choke manifold (Reference Figure #3).

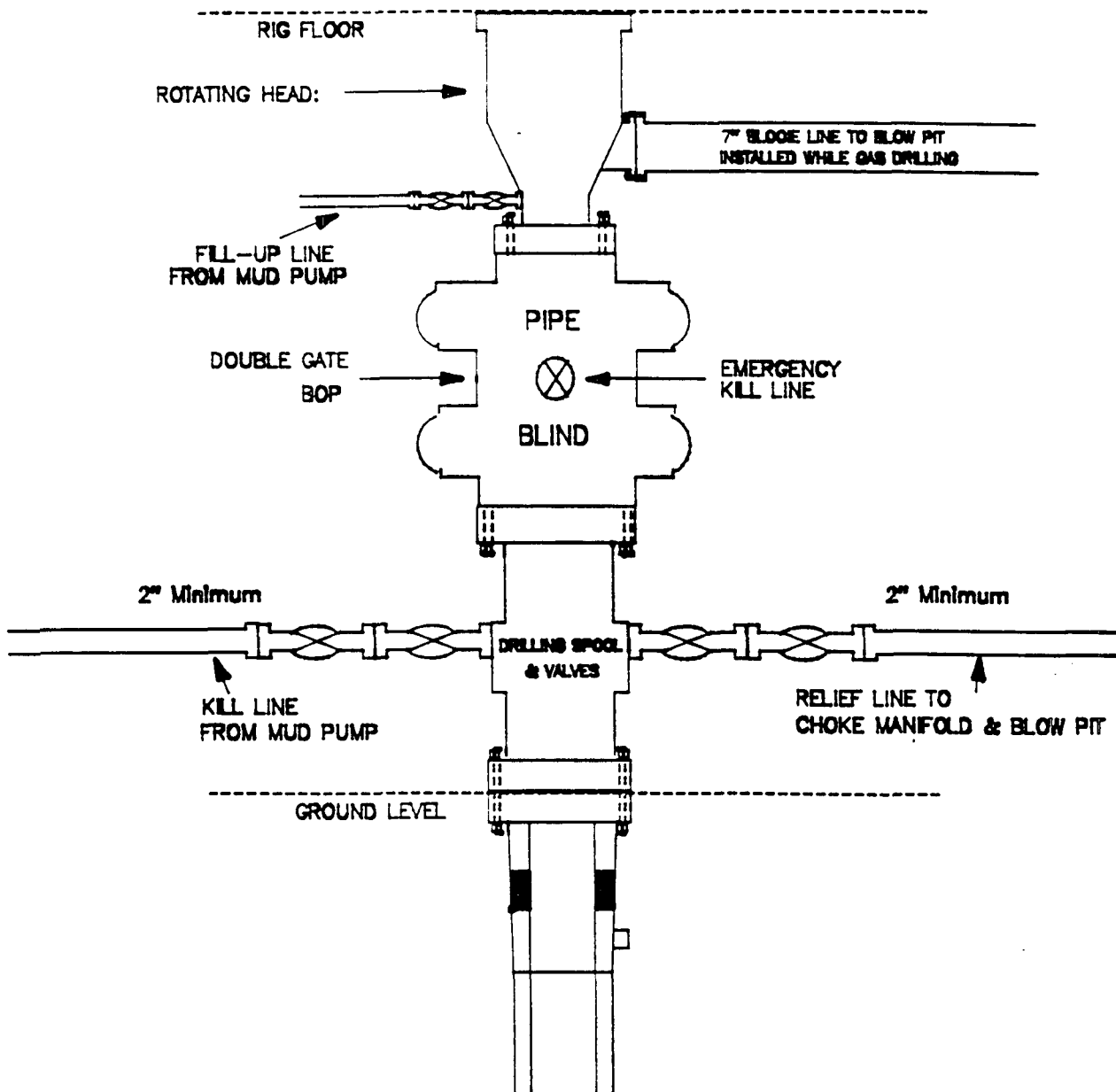
Pipe rams will be actuated to least once each day and blind rams actuated once each trip to test proper functioning. An upper kelly cock valve with handle and drill string safety valves to fit each drill string will be maintained and available on the rig floor.

**Additional information:**

- \* The West Lindrith Gallup Dakota formation will be completed.
- \* Anticipated pore pressure for the Gallup Dakota is 860 psi.
- \* This gas is dedicated.
- \* The SE/4 of Section 4 is dedicated to this well.
- \* New casing will be utilized.
- \* Cementing contractor will provide BLM with a chronological log including the pump rate and pressure, and the slurry density and volume for all cement jobs.
- \* Pipe movement (either rotation or reciprocation) will be done if hole conditions permit.

# MERIDIAN OIL INC.

## BOP Configuration 2M psi SYSTEM



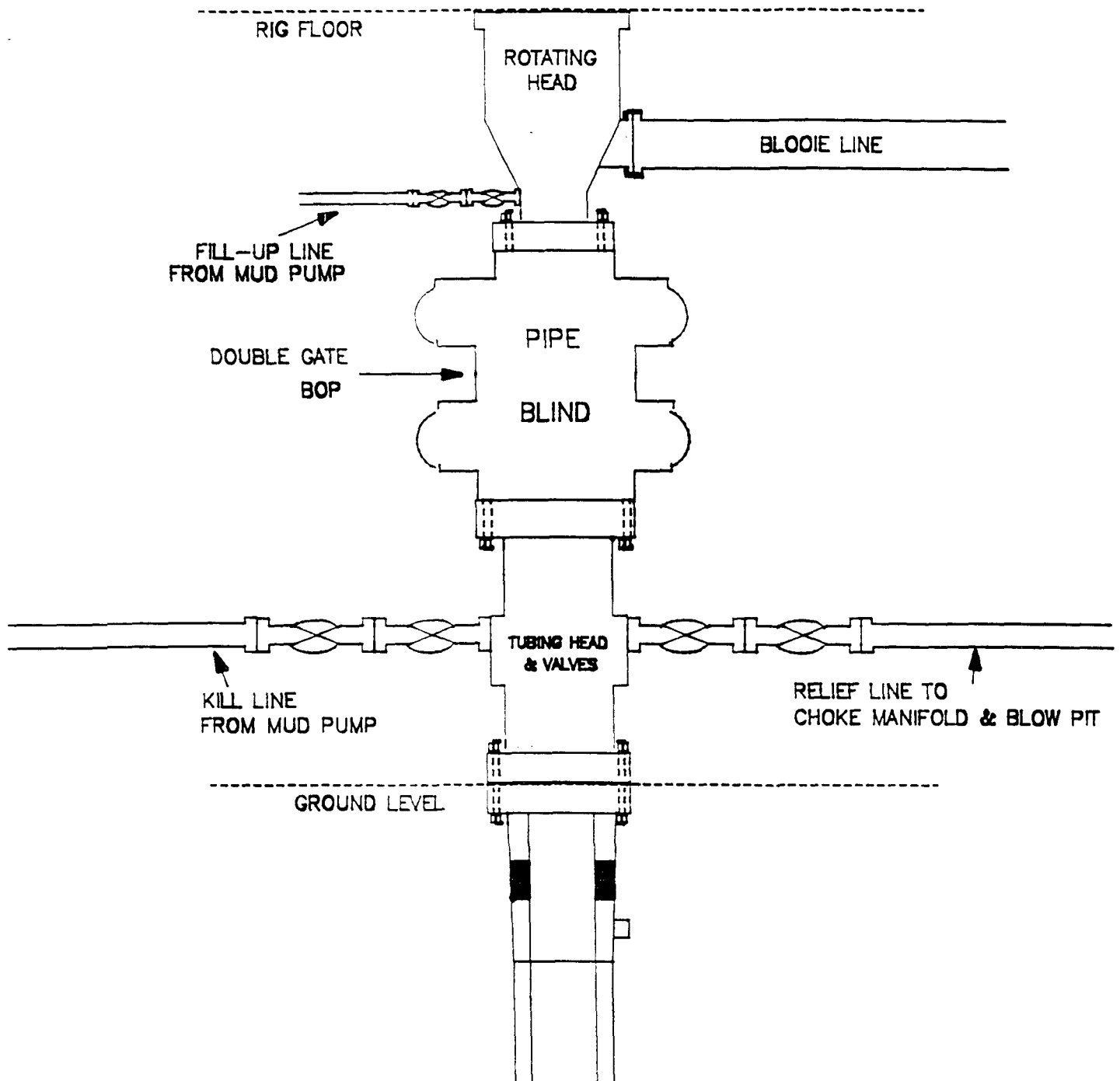
11" Bore, 2000psi minimum working pressure double gate BOP to be equipped with blind and pipe rams. A Schaffer Type 50 or equivalent rotating head to be installed on the top of the BOP. All equipment is 2000psi working pressure/or greater.

Figure #1

# MERIDIAN OIL INC.

BOP Configuration

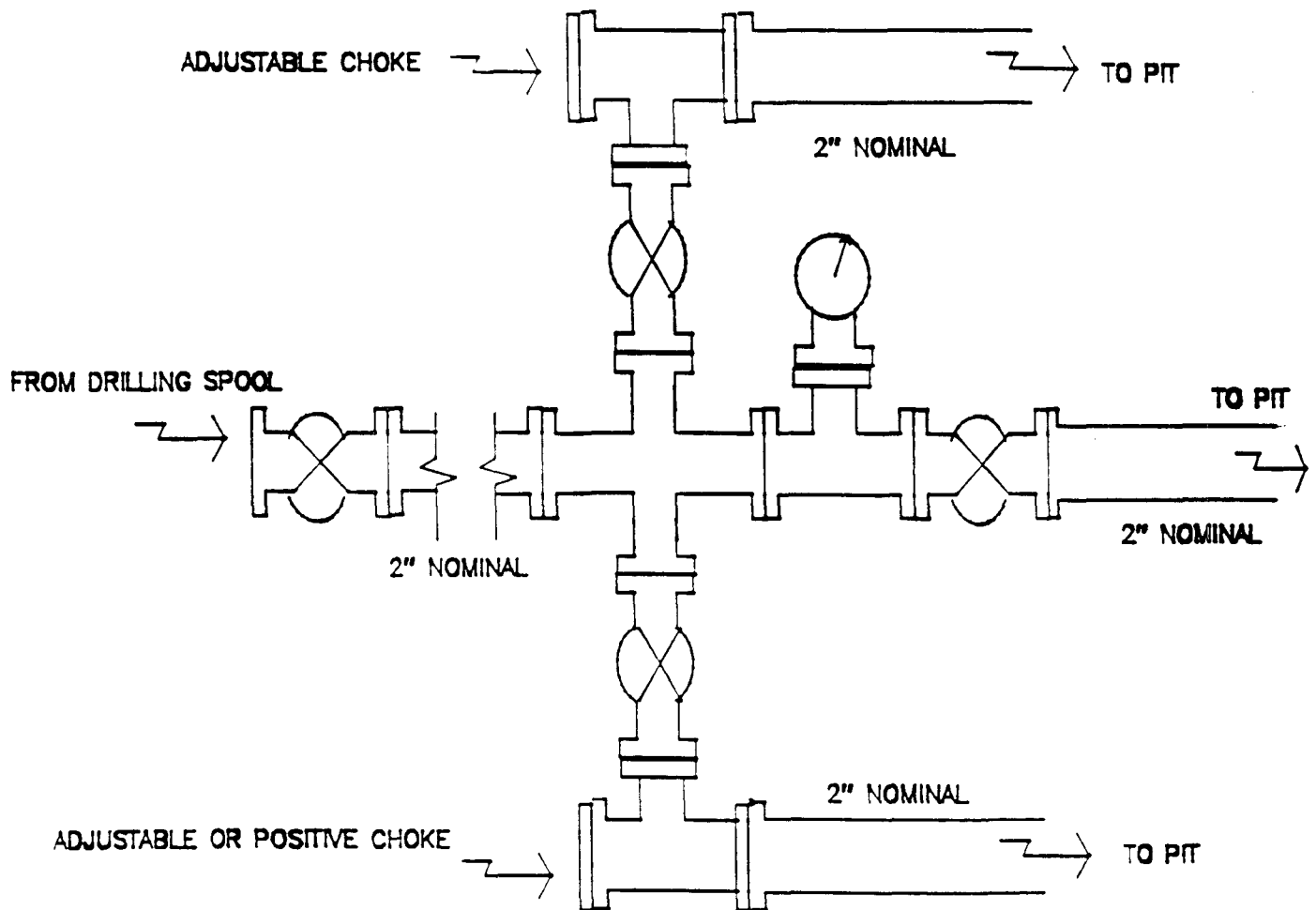
2M psi SYSTEM



Minimum BOP installation for Completion operations. 7 1/16" Bore (6" Nominal), 3000psi minimum working pressure double gate BOP to be equipped with blind and pipe rams.

Figure #2

**MERIDIAN OIL INC.**  
**Choke Manifold Configuration**  
**2M psi SYSTEM**



Minimum choke manifold installation from surface to Total Depth.  
2" minimum, 2000psi working pressure equipment with two chokes.

**MERIDIAN OIL**  
Cullins Federal #6  
Multi-Point Surface Use Plan

1. Existing Roads - Refer to Map No. 1. Existing roads used to access the proposed location will be properly maintained for the duration of the project. Bureau of Land Management right-of-way has been applied for as shown on Map No. 1.
2. Planned Access Road - Refer to Map No. 1. The required new access road is shown on Map No. 1. The gradient, shoulder, crowning and other design elements will meet or exceed those specified by the responsible government agency. The new access road surface will not exceed twenty feet (20') in width. No additional turnarounds or turnouts will be required. Upon completion of the project, the access road will be adequately drained to control soil erosion. Approximately 2000' of access road will be constructed. Pipelines are indicated on Map No. 1A.
3. Location of Existing Wells - Refer to Map No. 1A.
4. Location of Existing and/or Proposed Facilities if Well is Productive -
  - a. On the Well Pad - Refer to Plat No. 1, anticipated production facilities plat.
  - b. Off the Well Pad - Anticipated facilities off the well pad will be applied for as required.
5. Location and Type of Water Supply - Water will be hauled by truck for the proposed project and will be obtained from Cottonwood Water Hole located SW Section 10, T-24-N, R-4-W, New Mexico.
6. Source of Construction Materials - If construction materials are required for the proposed project, such materials will be obtained from a commercial quarry.
7. Methods of Handling Waste Materials - All garbage and trash materials will be removed from the site for proper disposal. A portable toilet will be provided for human waste and serviced in a proper manner. If liquids are left in the reserve pit after completion of the project, the pit will be fenced until the liquids have had adequate time to dry. The location clean-up will not take place until such time as the reserve pit can be properly covered over to prevent run-off from carrying waste materials into the watershed. All reserve pits will be lined with 12 mil bio-degradable plastic liner. All earthen pits will be so constructed as to prevent leakage from occurring; no earthen pit will be located on natural drainage. Generation of hazardous waste is not anticipated. Federal regulations will be adhered to regarding handling and disposal of such waste if so generated.
8. Ancillary Facilities - None anticipated.
9. Wellsite Layout - Refer to the location diagram and to the wellsite cut and fill diagram (Figure No. 4). The blow pit will be constructed with a 2'/160' grade to allow positive drainage to the reserve pit and prevent standing liquids in the blow pit.



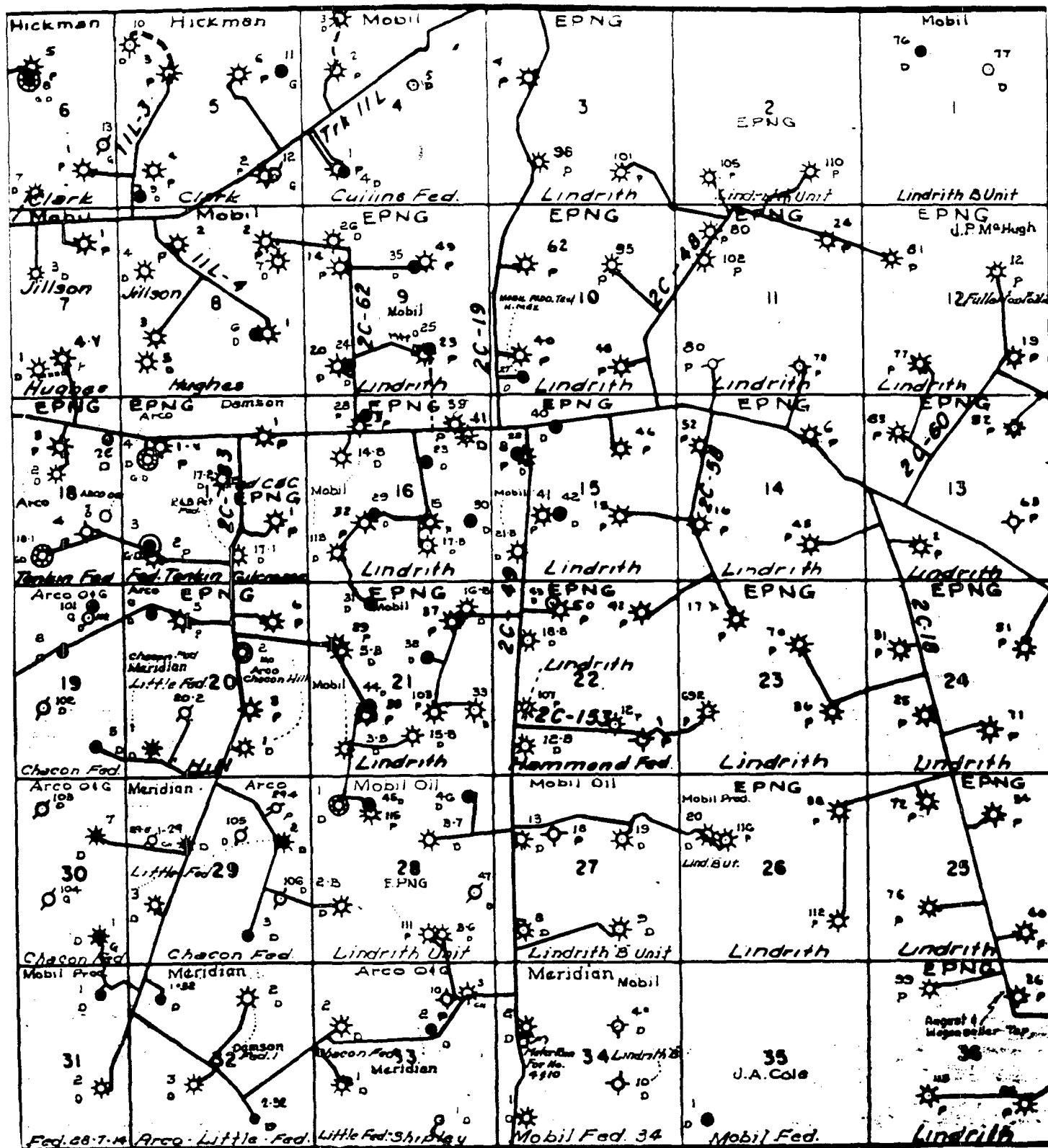
10. Plans for Restoration of the Surface - After completion of the proposed project, the location will be cleaned and leveled. The location will be left in such a condition that will enable reseeding operations to be carried out. Seed mixture as designated by the responsible government agency will be used. The reseeding operations will be performed during the time period set forth by the responsible government agency. The permanent location facilities will be painted as designated by the responsible government agency.
11. Surface Ownership - Bureau of Land Management.
12. Other Information - Environmental stipulations as outlined by the responsible government agency will be adhered to. Refer to the archaeological report for a description of the topography, flora, fauna, soil characteristics, dwellings, historical and cultural sites.
13. Operator's Representative and Certification - Meridian Oil Regional Drilling Manager, Post Office Box 4289, Farmington, NM 87499, telephone (505) 326-9700. I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan, are to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Meridian Oil Inc. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

  
Regional Drilling Engineer

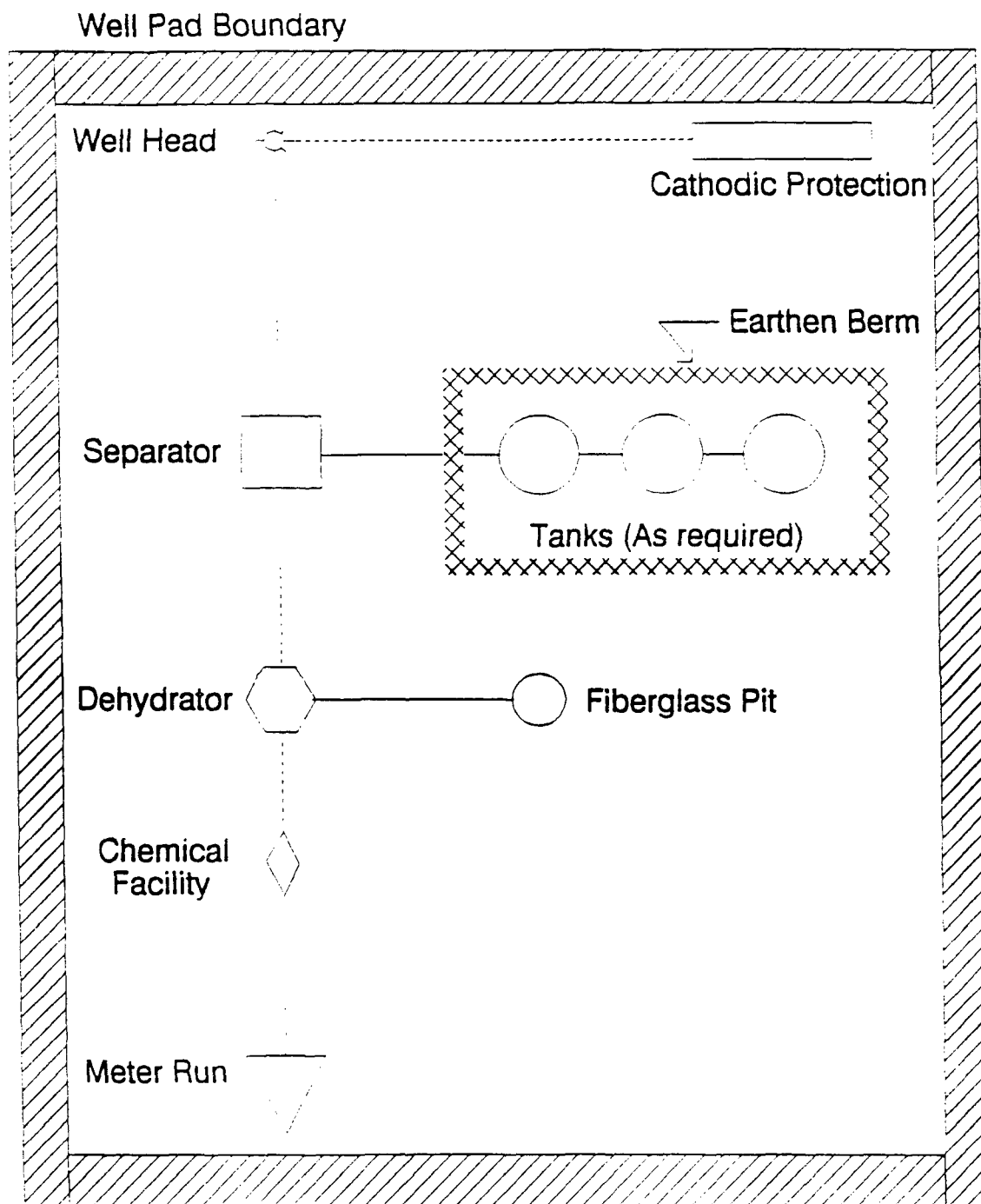
2/4/94  
Date

JWC:pb





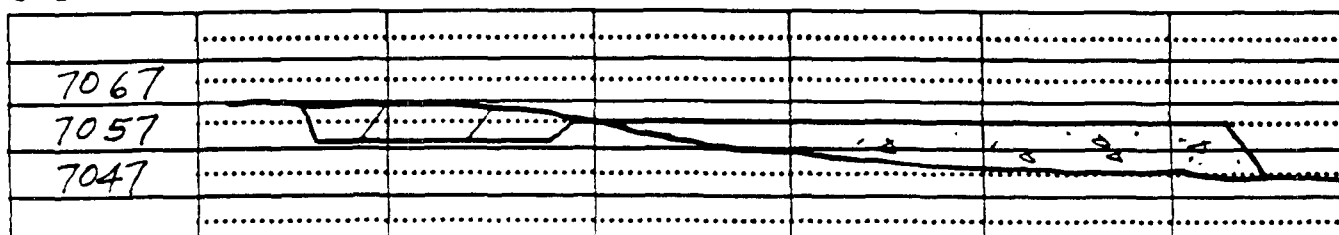
MERIDIAN OIL INC.  
 Pipeline Map  
 T-24-N, R-03-W  
 Rio Arriba County, New Mexico  
 Cullins Federal #6  
 Map #1A



PLAT #1

**MERIDIAN OIL**  
ANTICIPATED  
PRODUCTION FACILITIES  
FOR A  
DAKOTA WELL

ALL DK



Submit to Acquisition  
District Office -  
State Lease - 4 copies  
Fee Lease - 3 copies

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised 1-1-80

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 00, Artesa, NM 88210

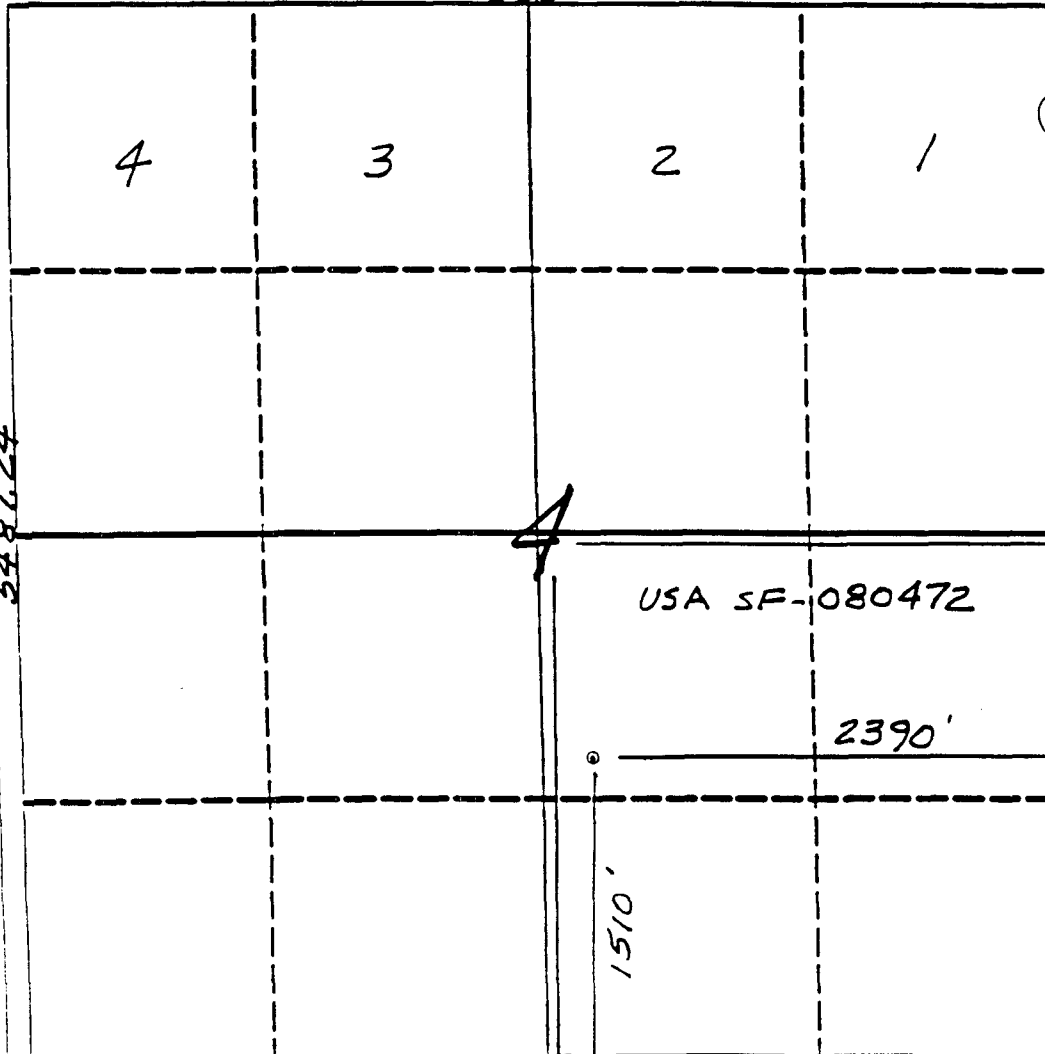
DISTRICT III  
1000 Rio Arriba Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator Meridian Oil Inc.		Lease Cullins Federal		Well No. 6
Unit Letter J	Section 4	Township 24 North	Range 3 West	County RIO Arriba
Admit Forfeiture Location of Well: 1510 feet from the South line and 2390 feet from the East line.				
Current level elev. 7057'	Producing Formation Gallup Dakota	Pool West Lindrith	Dedicated Acreage 160 Acres	
<p>1. Outline the acreage dedicated to the subject well by colored pencil or ink 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 consolidated by commutation, insurance, force-pooling, etc.?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No If answer is "yes" type of consolidation _____</p> <p>If answer is "no" list the owners and their descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____</p> <p>No allowance will be assigned to the well until all interests have been consolidated (by commutation, insurance, force-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.</p>				

5280.0



OPERATOR CERTIFICATION

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

*Peggy Bradford*  
Signature

Peggy Bradford

Printed Name

Regulatory Representative

Position

Meridian Oil Inc.

Company

2-1-94

Date

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.

11-11-93

Date Surveyed

*C. EDWARDS*  
Needle

Professional Surveyor

9857

Continued on

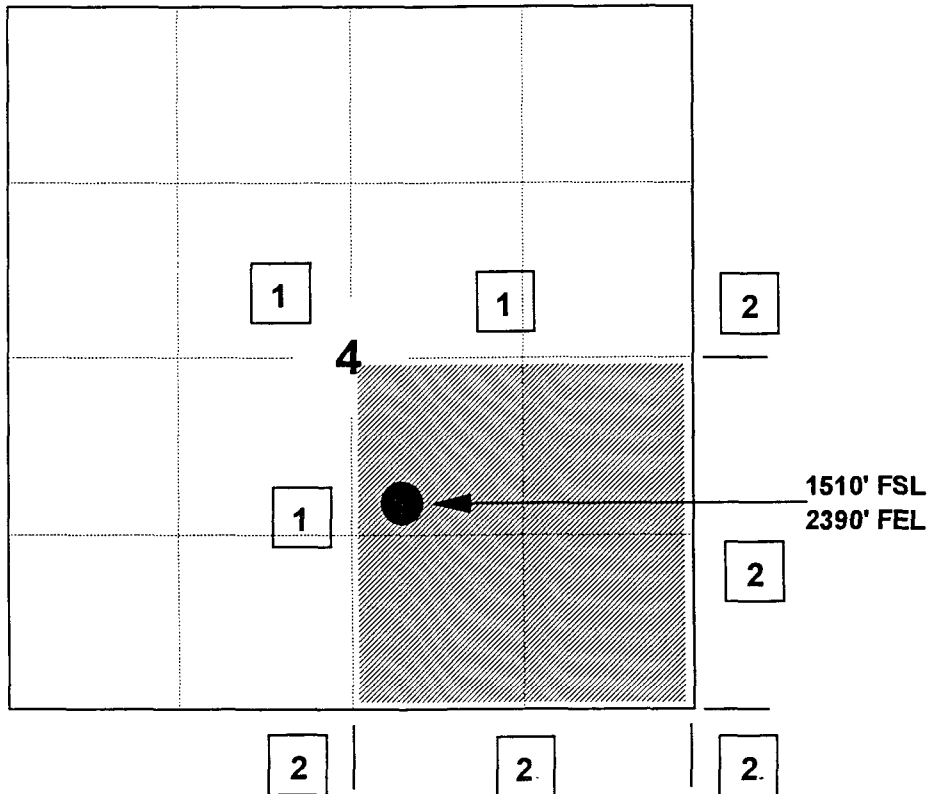
# MERIDIAN OIL INC

## CULLINS FEDERAL #6

### OFFSET OPERATOR PLAT

Unorthodox Well Location

Township 24 North, Range 3 West



1) Meridian Oil Inc

2) Mobil Producing Texas & New Mexico, Inc

PO Box 663, Midland, TX 79701

Re: Meridian Oil Inc. Cullins Federal #6  
1510'FSL, 2390'FEL, Section 4, T-24-N, R-3-W - Rio Arriba County, New Mexico  
API # 30-039-(not assigned)

I hereby certify that the following offset operators/owners have been mailed notification of our application for non-standard location to drill the referenced well.

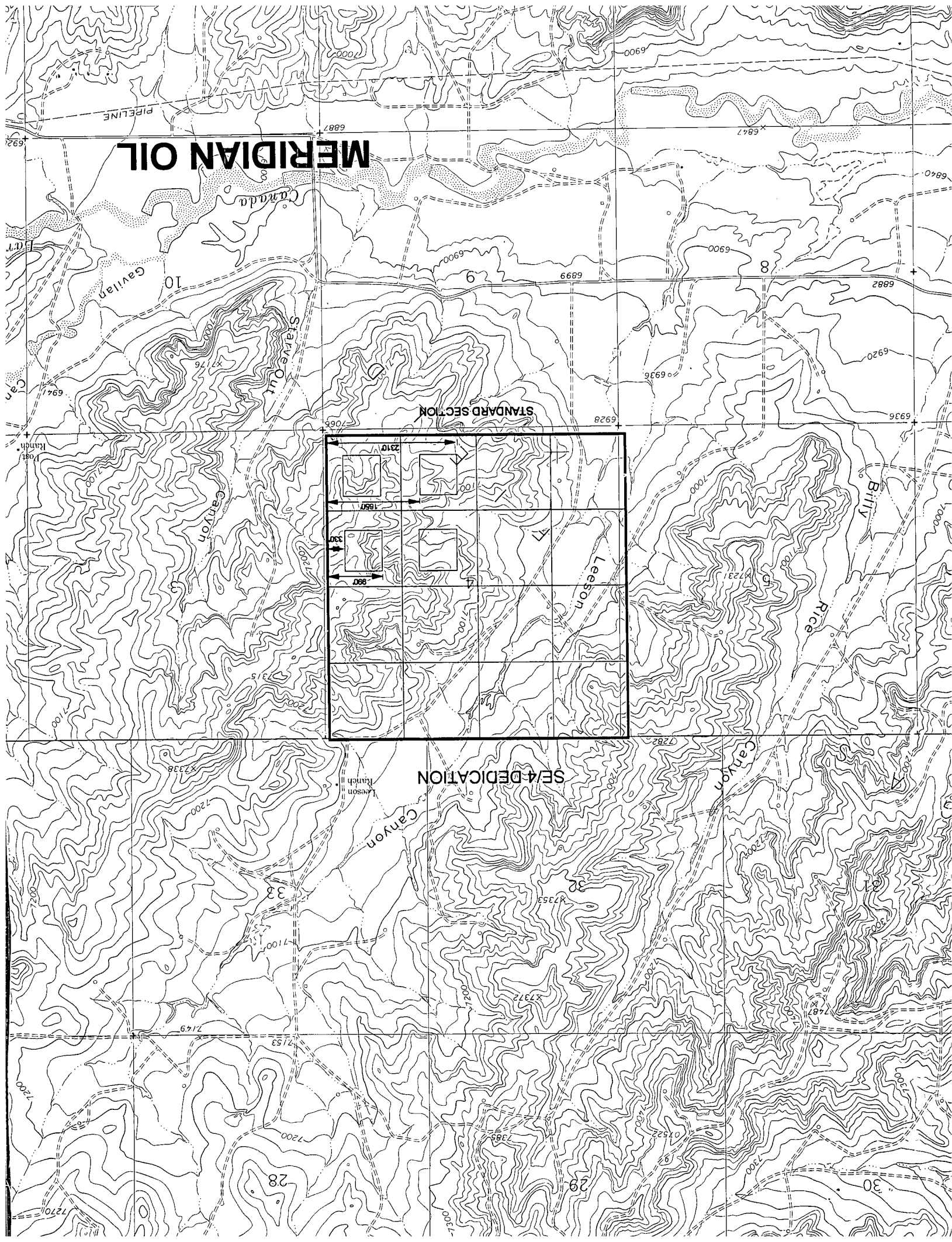
Mobil Producing Texas and New Mexico Inc.  
PO Box 663  
Midland, TX 79701

A handwritten signature in cursive script, reading "Peggy A. Bradfield".

Peggy A. Bradfield  
San Juan County  
State of New Mexico

My commission expires August 17, 1996





MERIDIAN OIL

STANDARD SECTION

SEA 4 DEDICATION

