

MERIDIAN OIL

OIL CONSERVATION DIVISION  
RECEIVED

104 MAR 16 AM 8 39

March 14, 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. San Juan 30-6 Unit #66R  
225'FSL, 190'FWL, Section 14, T-30-N, R-7-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 Blanco Mesa Verde formation. This application for the referenced location is due to terrain as shown on the topographic map, archaeology, and the presence of Navajo Lake.

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
4. 7.5 minute topographic map showing the orthodox windows for the west half dedication for the Mesa Verde; 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 \$200,000.

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 San Juan 30-6 Unit #66R as proposed above.


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

xc: Blackwood & Nichols

Meridian Oil Inc., 3535 East 30th St., P.O. Box 4289, Farmington, New Mexico 87499-4289, Telephone 505-326-9700

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

<b>1a. Type of Work</b> DRILL	<b>5. Lease Number</b> NM-012573
<b>1b. Type of Well</b> GAS	<b>6. If Indian, All. or Tribe</b>
<b>2. Operator</b> <b>MERIDIAN OIL</b>	<b>7. Unit Agreement Name</b> San Juan 30-6 Unit
<b>3. Address &amp; Phone No. of Operator</b> PO Box 4289, Farmington, NM 87499  (505) 326-9700	<b>8. Farm or Lease Name</b> San Juan 30-6 Unit <b>9. Well Number</b> 66R
<b>4. Location of Well</b> 255' FSL, 190' FWL  Latitude 36° 48' 24", Longitude 107° 33' 09"	<b>10. Field, Pool, Wildcat</b> Blanco Mesa Verde <b>11. Sec., Twn, Rge, Mer.</b> Sec 14, T-30-N, R-7-W NMPM
<b>14. Distance in Miles from Nearest Town</b> 5 miels to Navajo City	<b>12. County</b> Rio Arriba
	<b>13. State</b> NM
<b>15. Distance from Proposed Location to Nearest Property or Lease Line</b> 190'	
<b>16. Acres in Lease</b>	<b>17. Acres Assigned to Well</b> 320 W/2
<b>18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease</b> 600'	
<b>19. Proposed Depth</b> 5900'	<b>20. Rotary or Cable Tools</b> Rotary
<b>21. Elevations (DF, FT, GR, Etc.)</b> 6265' GR	<b>22. Approx. Date Work will Start</b> 1st quarter 1994
<b>23. Proposed Casing and Cementing Program</b> See Operations Plan attached	
<b>24. Authorized by:</b> 	<b>Date</b> <u>11/10/93</u>
Regional Drilling Engineer	

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

OPERATIONS PLAN

Well Name: San Juan 30-6 Unit #66R  
Location: 255'FSL, 190'FWL Section 14, T-30-N, R-7-W  
 Rio Arriba County, New Mexico  
 Latitude 36° 48' 24", Longitude 107° 33' 09"  
Formation: Blanco Mesa Verde  
Elevation: 6265'GL

<u>Formation Tops:</u>	<u>Top</u>	<u>Bottom</u>	<u>Contents</u>
Surface	San Jose	2107'	
Ojo Alamo	2107'	2362'	aquifer
Kirtland	2362'	2893'	
Fruitland	2893'	3182'	gas
Pictured Cliffs	3182'	3372'	gas
Lewis	3372'	3872'	
Intermediate TD	3520'		
Huerfanito Bentonite	3872'	3922'	
Chacra	3922'	4767'	gas
Upper Cliff House	4767'	5040'	gas
Massive Cliff House	5040'	5082'	gas
Menefee	5082'	5394'	gas
Massive Point Lookout	5394'	5500'	gas
Total Depth	5900'		

Logging Program:

Openhole Wireline Logging -  
 Surface to Intermediate TD : DIL/LDT/CNL/NGT/ML/FMS  
 Intermediate TD to Total Depth : DIL/LDT/CNL/Temp  
 Mud Logs/Coring/DST -  
 Mud logs - 2100' to Total Depth  
 Sidewall Cores in Pictured Cliffs  
 DST - none

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
200-3520'	Weighted	8.4-9.1	30-60	no control
3520-5900'	Gas/Mist	n/a	n/a	n/a

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'	9 5/8"	32.3#	H-40
8 3/4"	0' - 3520'	7"	20.0#	K-55
	7" stage tool @ 2843'			
6 1/4"	3370' - 5900'	4 1/2"	10.5#	K-55

Tubing Program:

0' - 5900' 2 3/8" 4.7# J-55

BOP Specifications, Wellhead and Tests:

**Surface to Intermediate TD -**

11" 2000 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.

**Intermediate TD to Total Depth -**

11" 2000 psi minimum double gate BOP stack (Reference Figure #1). After nipple-up prior to drilling out intermediate casing, rams and casing will be tested to 1500 psi for 30 minutes.

**Surface to Total Depth -**

2" nominal, 2000 psi minimum choke manifold (Reference Figure #3).

**Completion Operations -**

6" 2000 psi double gate BOP stack (Reference Figure #2). After nipple-up prior to completion, pipe rams, casing and liner top will be tested to 2000 psi for 15 minutes.

**Wellhead -**

9 5/8" x 7" x 2 3/8" x 2000 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.
- BOP pit level drill will be conducted weekly for each drilling crew.
- All BOP tests and drills will be recorded in daily drilling reports.
- Blind and pipe rams will be equipped with extension hand wheels.

**Cementing:**

9 5/8" surface casing - cement with 180 sx Class "B" cement with 1/4# flocele/sx and 3% calcium chloride (212 cu.ft. of slurry, 200% excess to circulate to surface). WOC 12 hrs. 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.

**7" intermediate casing -**

First stage - lead w/50 sx of 65/35 Class "B" poz w/6% gel, 2% calcium chloride, 5# gilsonite/sx and 1/4# flocele/sx. Tail w/100 sx Class "B" w/2% calcium chloride (204 cu.ft. of slurry, 100% excess to circulate to stage tool @ 2843'.)

Second stage - Lead w/450 sx 65/35 Class "B" poz w/6% gel, 2% calcium chloride, 5# gilsonite/sx and 1/4# flocele/sx. Tail w/50 sx Class "B" w/2% calcium chloride (855 cu.ft. of slurry, 100% excess to circulate to surface.) WOC minimum of 12 hours before drilling out intermediate casing. If cement does not circulate to surface, a temperature log will be run after 8 hours to determine TOC. Test casing to 1500 psi for 30 minutes.

Cement nose guide shoe on bottom with float collar spaced on top of shoe joint. Seven bowspring centralizers spaced every other joint off bottom, with three spaced every fourth joint to the base of the Ojo Alamo at 2362'. Two turbolating centralizers at the base of the Ojo Alamo at 2362'. Bowspring centralizers spaced every fourth joint from the base of the Ojo Alamo to the base of the surface casing.

#### 4 1/2" Production Liner -

Cement to circulate liner top. Lead with 226 sx 65/35 Class "B" poz w/6% gel, 2% calcium chloride, 5# gilsonite/sx and 1/4# flocele/sx. Tail with 100 sx Class "B" w/2% calcium chloride (519 cu.ft., 100% excess to circulate liner top). WOC a minimum of 18 hrs prior to completing.

Cement nose guide shoe on bottom with float collar spaced on top of shoe joint. Bowspring centralizers spaced every other joint off bottom to top of the Mesa Verde or above. The liner hanger will have a rubber packoff.

- 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.

#### Special Drilling Operations (Gas/Mist Drilling):

The following equipment will be operational while gas/mist drilling:

- An anchored blooie line will be utilized to discharge all cuttings and circulating medium to the blow pit a minimum of 100' from the wellhead.
- The blooie line will be equipped with an automatic igniter or pilot light.
- Compressors will be located a minimum of 100' from the wellhead in the opposite direction from the blooie line.
- Engines will have spark arresters or water cooled exhaust.
- Deduster equipment will be utilized.
- The rotating head will be properly lubricated and maintained.
- A float valve will be utilized above the bit.
- Mud circulating equipment, water, and mud materials will be sufficient to maintain control of the well.

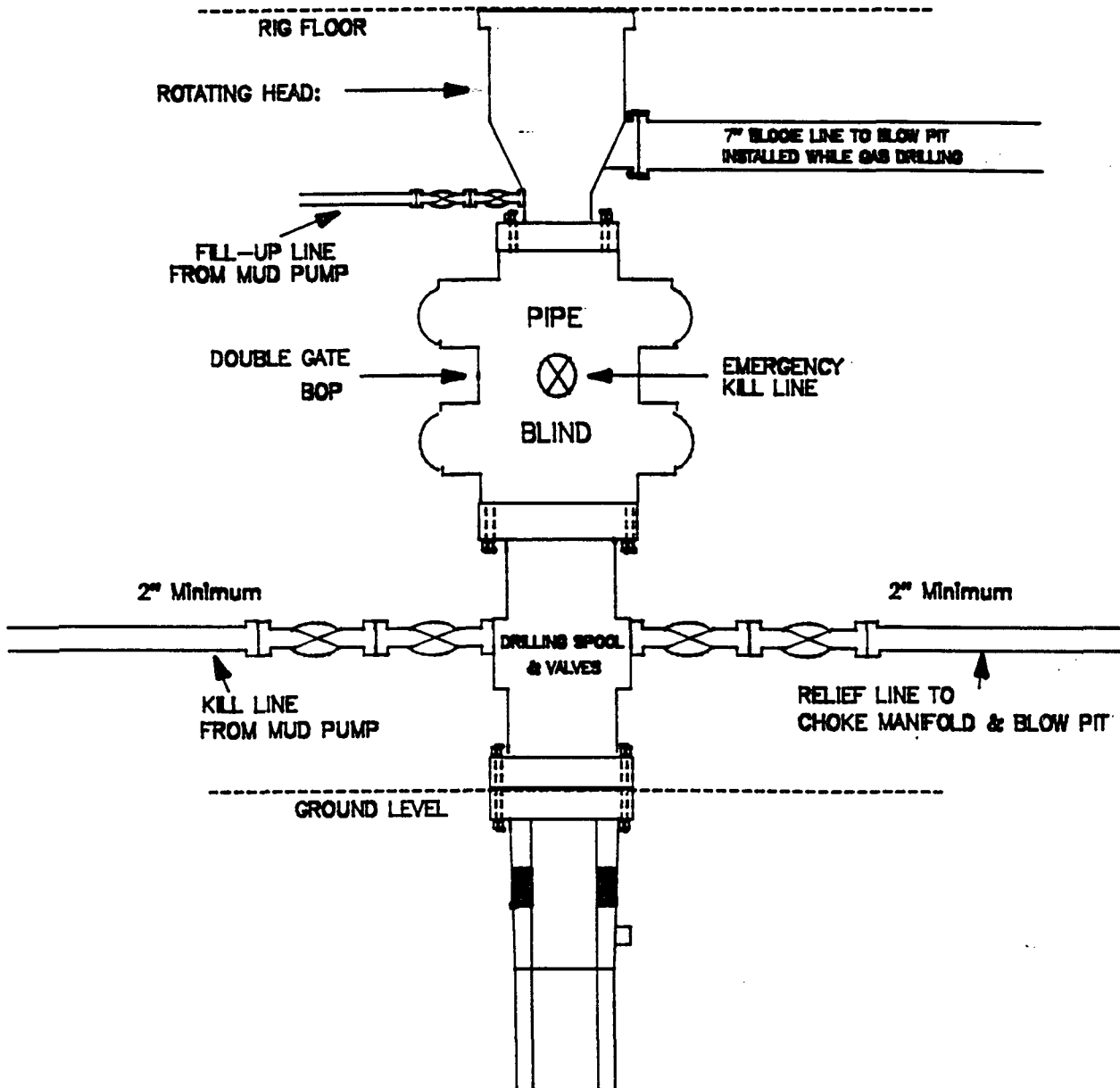
Additional Information:

- The Mesa Verde formation will be completed.
- No abnormal temperatures or hazards are anticipated.
- Anticipated pore pressures are as follows:

Fruitland Coal	1000 psi
Pictured Cliffs	1000 psi
Mesa Verde	700 psi
- 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 west half of Section 14 is dedicated to this well.
- This gas is dedicated.

# MERIDIAN OIL INC.

## BOP Configuration 2M psi SYSTEM



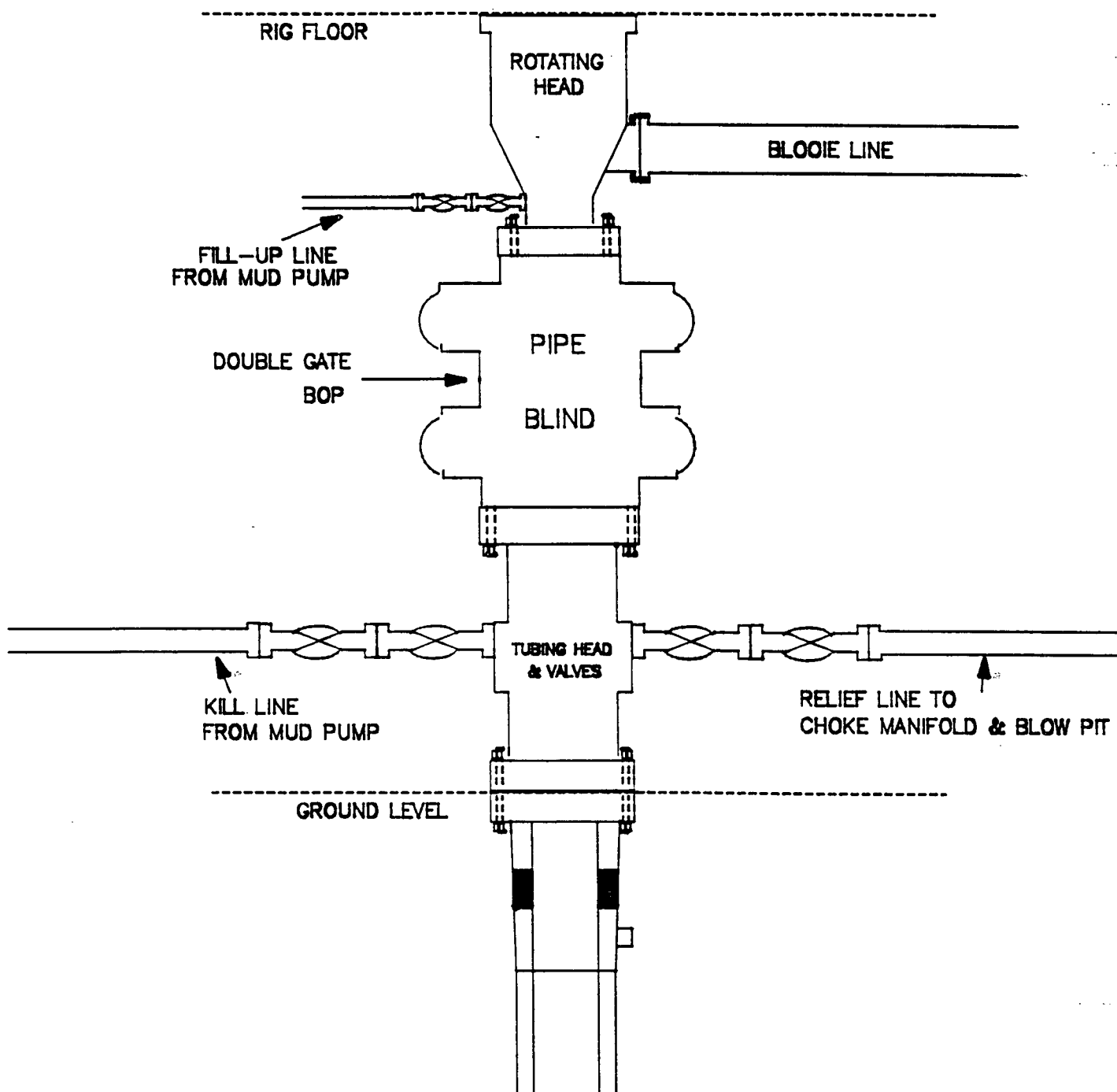
11" Bore, 2000psi minimum working pressure double gate BOP to be equipped with blind and pipe rams. A Schaffer Type 50 or equivalent rotating head to be installed on the top of the BOP. All equipment is 2000psi working pressure/or greater.

Figure #1

# MERIDIAN OIL INC.

BOP Configuration

2M psi SYSTEM

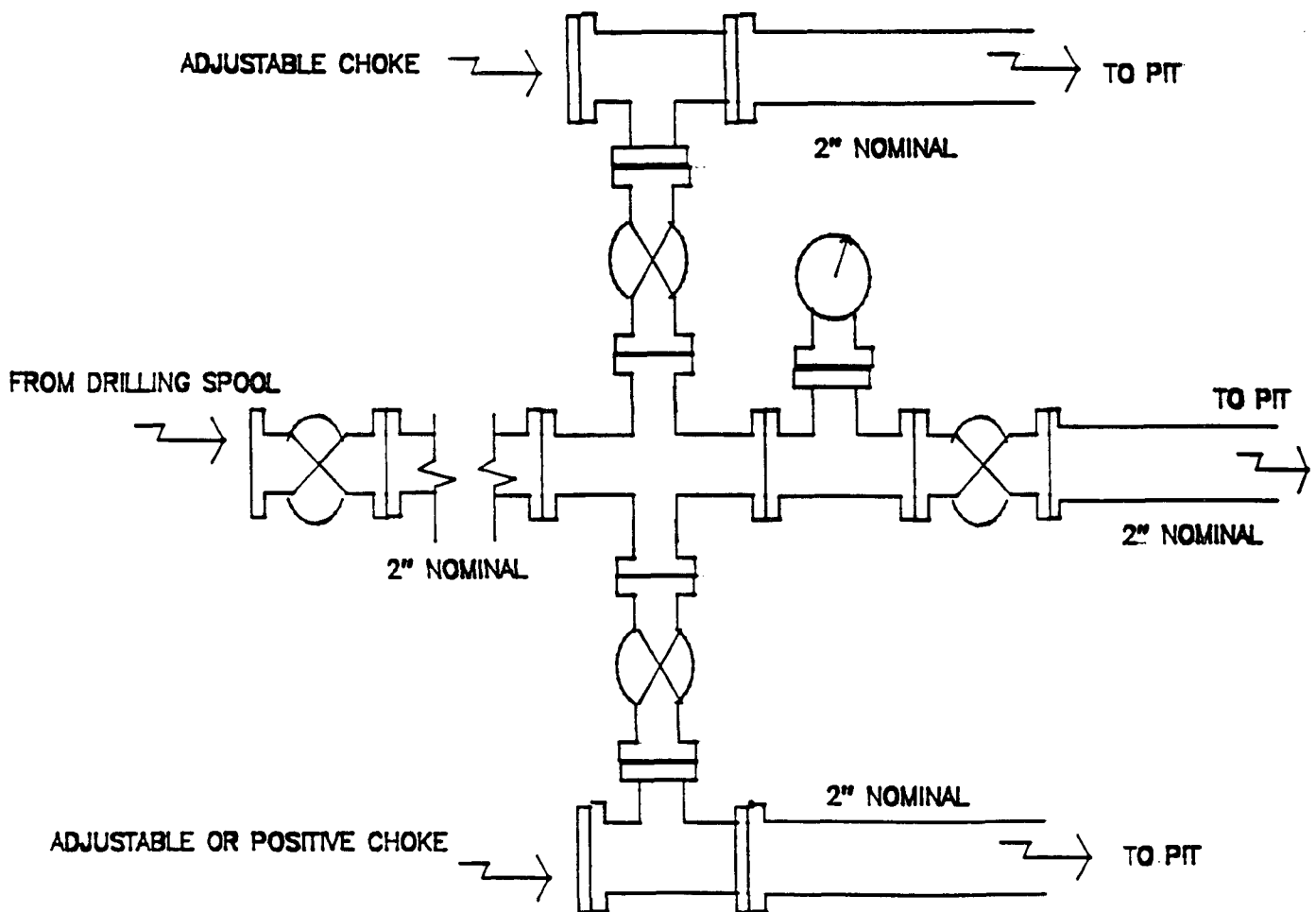


Minimum BOP installation for Completion operations. 7 1/16" Bore (6" Nominal), 3000psi minimum working pressure double gate BOP to be equipped with blind and pipe rams.

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.

**Figure #3**

**MERIDIAN OIL**  
San Juan 30-6 Unit #66R  
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. None required.
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 Navajo Dam at Francis Creek located in SE/4 Section 14, T-30-N, R-7-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 Reclamation.
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

11/10/93  
Date

JWC:pb

BUREAU OF  
RECLAMATION

31  
FEE  
LANDS

BUREAU OF  
RECLAMATION

22  
NEW BLM  
ROW

MERIDIAN OIL INC  
SAN JUAN 30-6 UNIT #66R

T 30 N, R 7 W

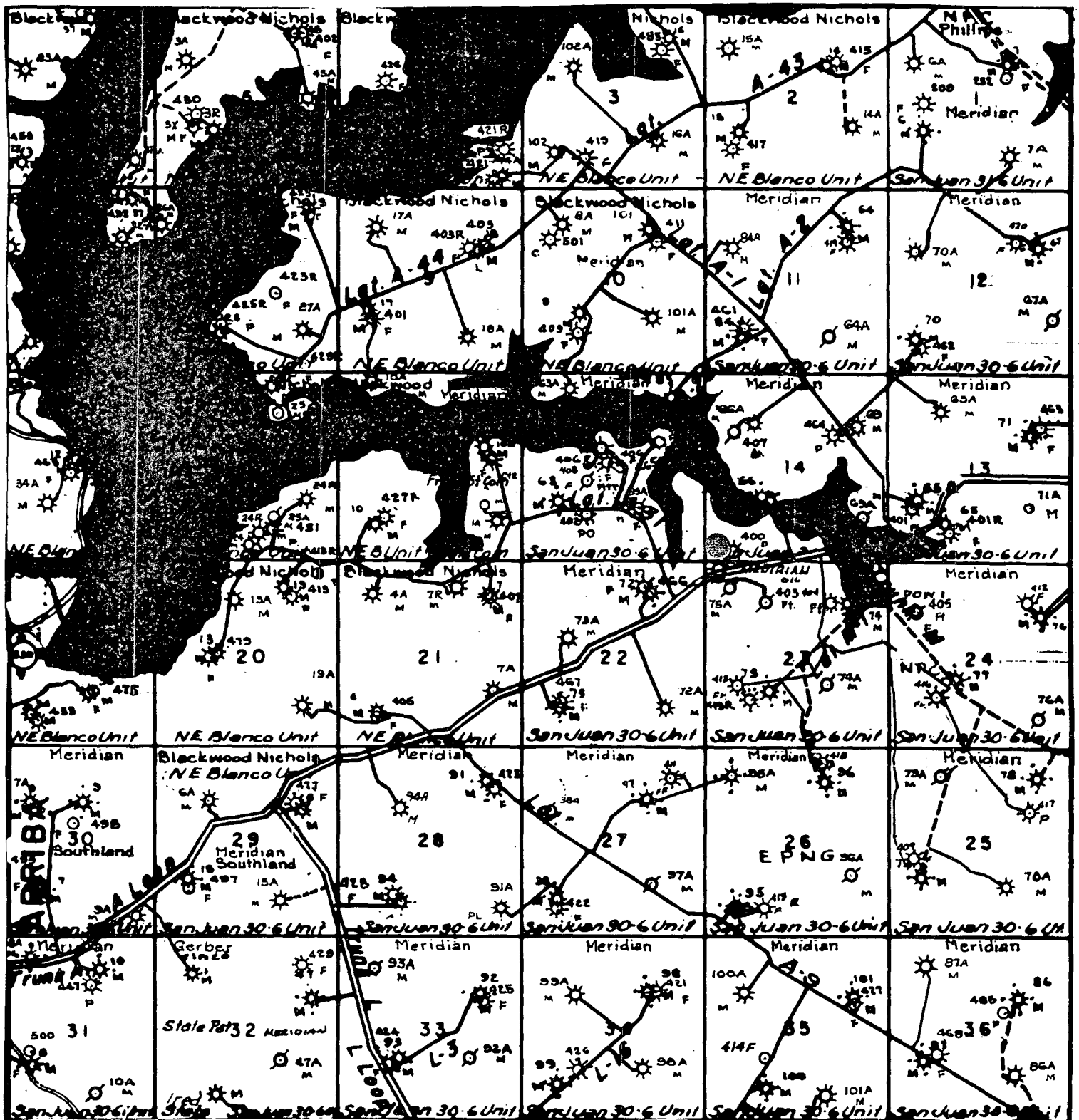
No New Construction

Section 22: N2NE  
NWNW

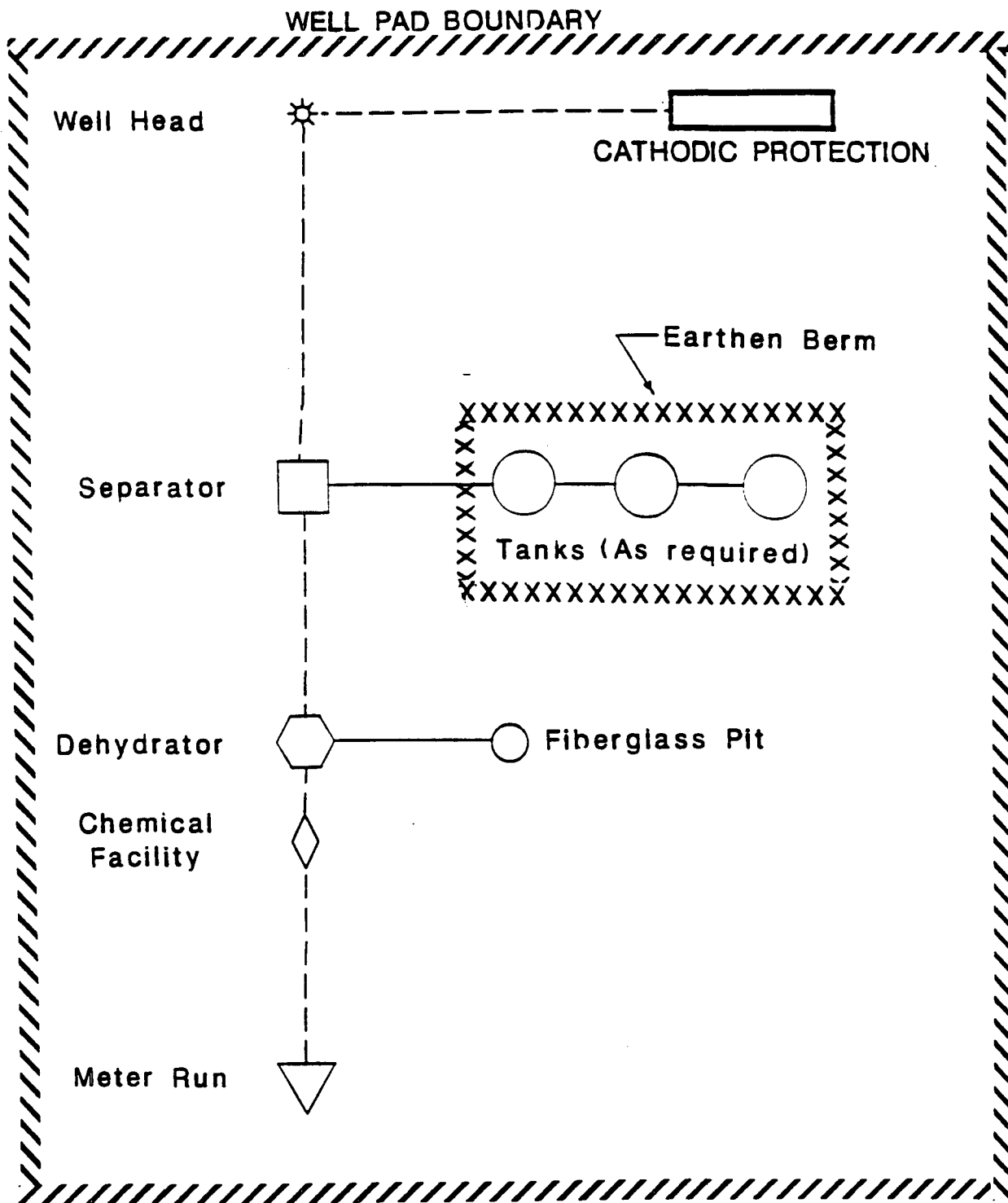
2500'  
400'

Remaining BLM Roads are covered by ROW's NM 76751

APD MAP #1



MERIDIAN OIL INC.  
 Pipeline Map  
 T-30-N, R-07-W  
 San Juan County, New Mexico  
 San Juan 30-6 Unit #66R  
 Map #1A



**PLAT #1**

**MERIDIAN OIL**  
ANTICIPATED  
PRODUCTION FACILITIES  
FOR A  
MESA VERDE WELL

KFR 2/90

# MERIDIAN OIL

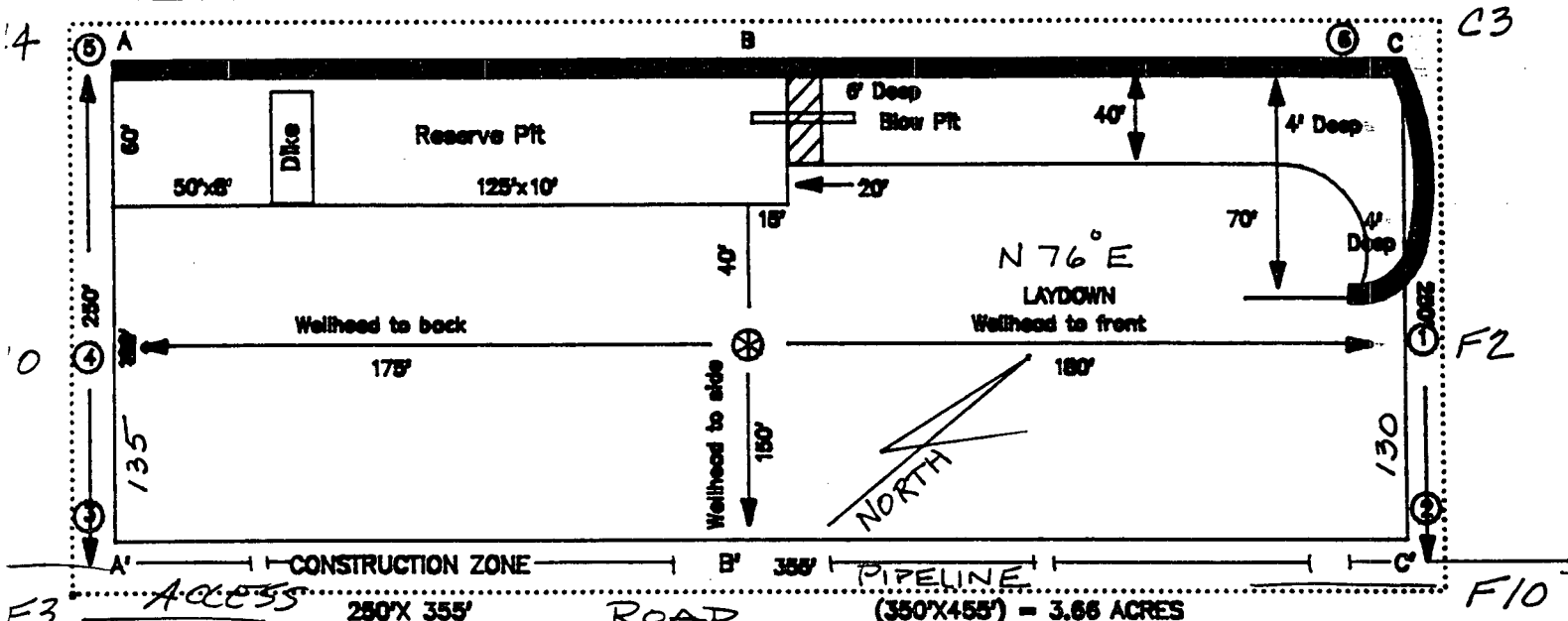
PLAT #2

FC HIGH POTENTIAL

ALL MV

ALL DK

NAME:	MOI San Juan 30-6 Unit #66R		
FOOTAGES:	255' ESTL.	190' FWT.	
SEC:	14	TWN:	30 N.R. 7 W NMPM
CO:	Rio Arriba	ST:	NM
ELEVATION:	6265'	DATE:	9-26-93

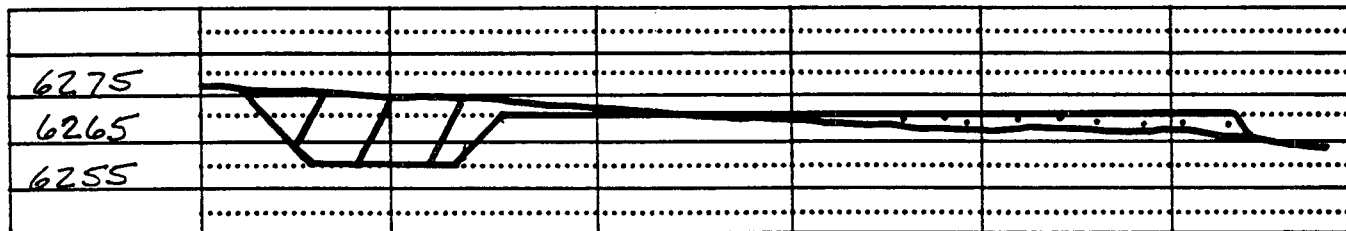


Reserve Pit Dike : to be 8' above Deep side; ( overflow - 3' wide and 1' above shallow side. )

Blow Pit : overflow pipe halfway between top and bottom and extend over plastic liner and into blow pit.

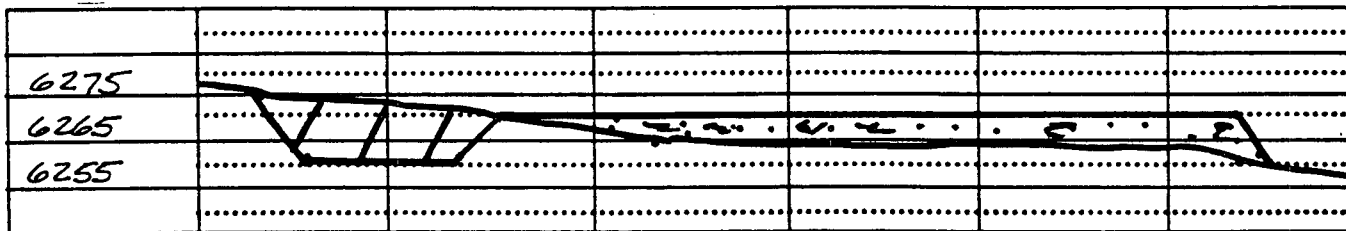
A-A'

C/L



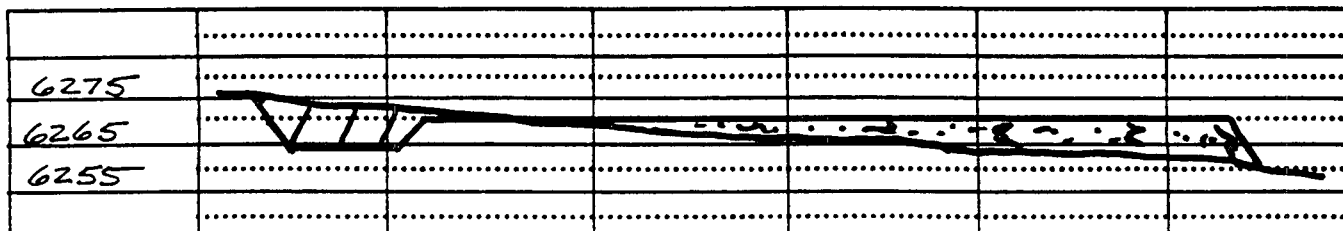
B-B'

C/L



C-C'

C/L



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 1-1-80

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 DD, Artesia, NM 88210

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

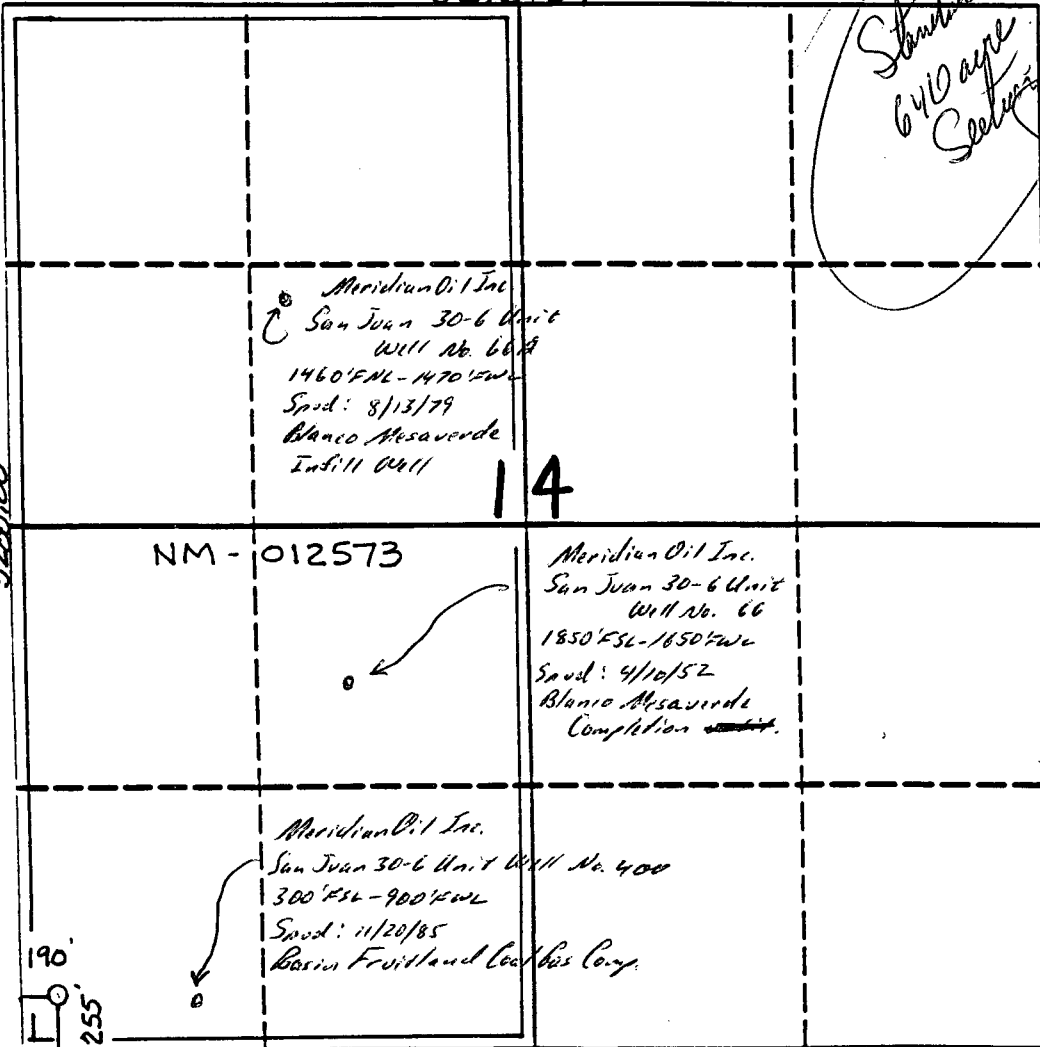
Operator Meridian Oil Inc.		Lease San Juan 30-6 Unit		Well No. 66R
Unit Letter M	Section 14	Township 30 North	Range 7 West	County Rio Arriba
Actual Footage Location of Well: 255 feet from the South line and 190 feet from the West line				
Ground level Elev. 6265'	Producing Formation Mesa Verde	Pool Blanco	Dedicated Acreage: 320 Acres	

- Outline the acreage dedicated to the subject well by colored pencil or ink on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- 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 unitization

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, force-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.

5276.04



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  
11-8-93

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. 9-26-93

Date Surveyed  
Needle C. Edwards

Signature of State Professional Surveyor

6857

Classification No.

6857



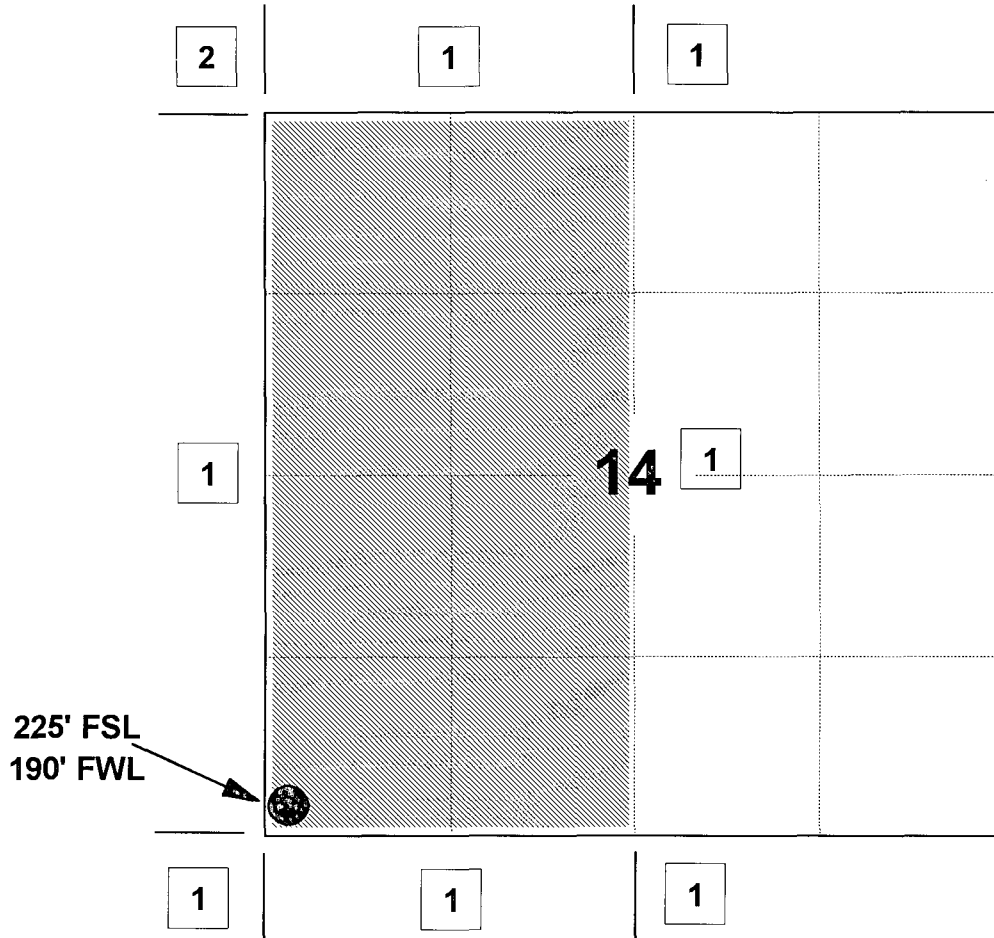
# MERIDIAN OIL INC

SAN JUAN 30-6 UNIT #66R

OFFSET OPERATOR \ OWNER PLAT

Unorthodox Mesaverde Well Location

Township 30 North, Range 7 West



1) Meridian Oil Inc

2) Blackwood & Nichols Co., Ltd.

PO Box 1237, Durango, CO 81302-1237

Re: Meridian Oil Inc. San Juan 30-6 Unit #66R  
225'FSL, 190'FWL, Section 14, T-30-N, R-7-W - Rio Arriba County, New Mexico  
API # 30-039-(not assigned)

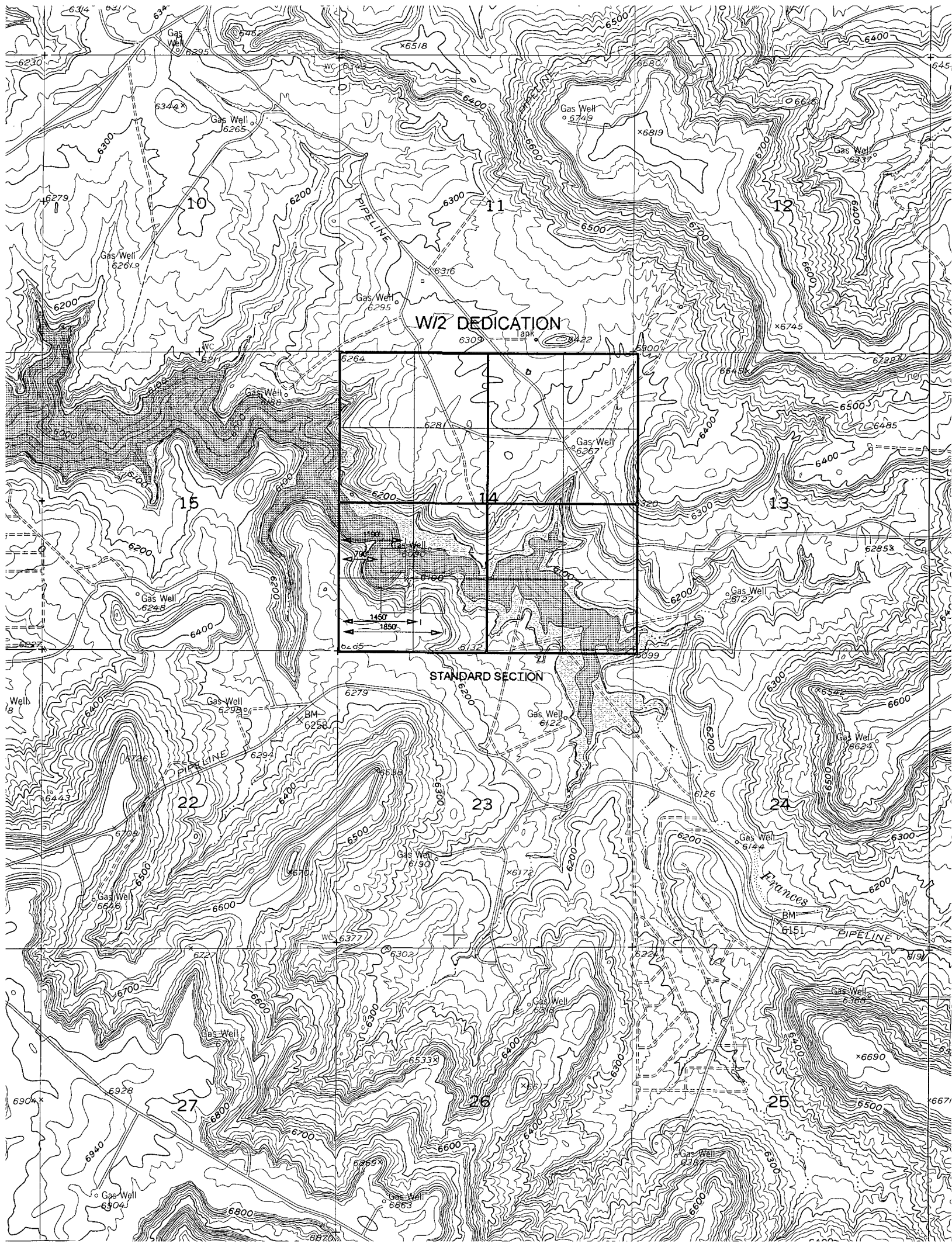
I hereby certify that the following offset operators/owners have been mailed notification of our application for non-standard location to drill the referenced well.

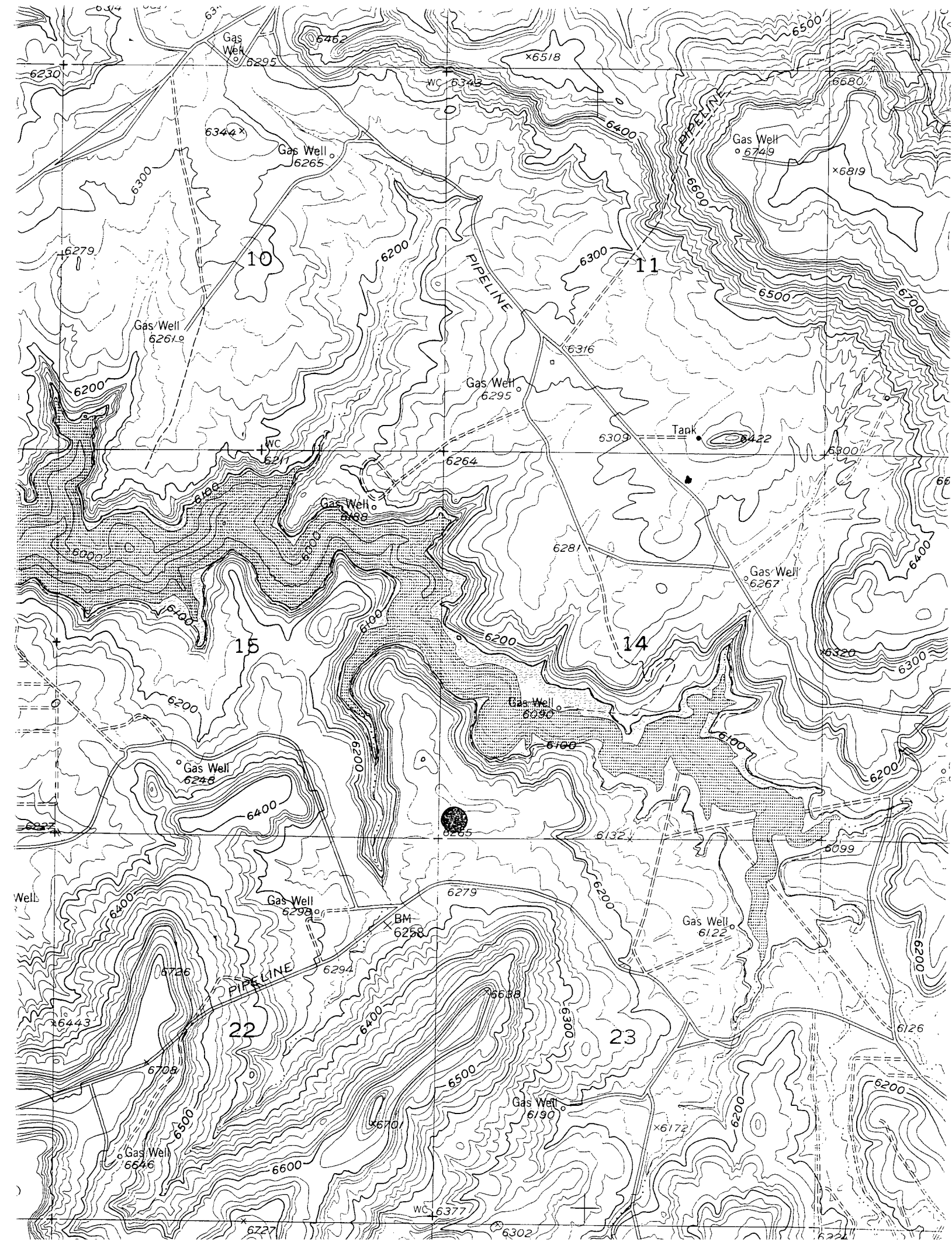
Blackwood & Nichols  
Post Office Box 1237  
Durango, CO 81302-1237

A handwritten signature in cursive script, reading "Peggy A. Bradfield". The signature is written in black ink and is positioned above the printed name.

Peggy A. Bradfield  
San Juan County  
State of New Mexico

My commission expires August 17, 1996





## Mike Stogner

---

From: Ernie Busch  
To: Mike Stogner  
Subject: MERIDIAN OIL INC. (NSL)  
Date: Thu, Apr 7, 1994 1:45PM  
Priority: High

WELL NAME: ~~C~~SAN JUAN-30-6-UNIT-#66R  
LOCATION: M-14-30N-07W  
FOOTAGE: 255' FSL; 190' FWL  
RECOMMEND: APPROVAL

**BLACKWOOD & NICHOLS CO. A LIMITED PARTNERSHIP**

1500 Mid-America Tower  
20 North Broadway  
Oklahoma City, Oklahoma 73102-8260

OIL CONSERVATION DIVISION  
RECEIVED

94 MAY 3 AM 8 50

405/235-3611  
FAX 405/236-4258

*NSL-3384* April 29, 1994

Mr. William LeMay  
New Mexico Oil Conservation Division  
P.O. Box 2088  
Santa Fe, NM 87501

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225' FSL, 190' FWL, Section 14, T-30-N,  
R-7-W, Rio Arriba County, New Mexico  
API #30-039-(not assigned)

Dear Mr. LeMay:

Enclosed please find a letter dated March 14, 1994 from Meridian Oil which has been executed on behalf of Blackwood & Nichols Co. Ltd.

BLACKWOOD & NICHOLS CO. A LIMITED  
PARTNERSHIP, by Devon Energy  
Corporation (Nevada), Operating  
General Partner



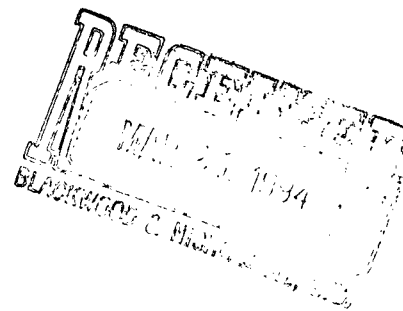
Bill A. Penhall  
District Landman

BAP:mkb\NEBU.18

Enclosure

cc w/att: Meridian Oil Inc.

# MERIDIAN OIL



March 14, 1994

Sent Federal Express

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

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Sincerely,

  
Peggy Bradfield  
Regulatory/Compliance Representative

encs.

## WAIVER

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By:  Date: 4/28/94

xc: Blackwood & Nichols