

**MERIDIAN OIL**

October 17, 1990

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

Re: Meridian Oil Inc. Rosa Unit #296  
1190'N, 670'W, Section 12, T-31-N, R-4-W  
Rio Arriba County, New Mexico  
Order DD 39 NSBHL

Dear Mr. LeMay:

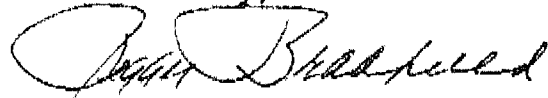
Meridian Oil Inc. is applying for amendment to Order DD 39 NSBHL in order to drill a vertical hole at the referenced location. Parker & Parsley Petroleum Co. applied for and received the referenced Order for this non-standard location and to drill a directional hole.

The following are for your review:

1. A summary explaining operatorship of this well.
2. This well would be deemed economically unfeasible to drill directionally to a standard bottom hole location due to incremental directional drilling costs of \$70,000.00. Since all the subject acreage is unitized, and correlative rights are not an issue, Meridian Oil Inc. believes that economic waste will occur to the Unit owners if the Unit owners are required to directionally drill this well.
3. Land plat showing the well location and also the location of all existing Fruitland coal wells in the immediate area.
4. Topographic map showing terrain features and west-half dedication. The U.S. Forest Service prefers that this well not be drilled in the SW/4, due to several archaeological sites and the topography. Access to Carson National Forest will be effectively closed November 1, 1990 to oil and gas operators per the attached letter dated September 17, 1990. Meridian cannot economically justify a major highway construction project as set forth in paragraph 3 of the U.S. Forest Service letter.

Please let me know if you require any other information.

Sincerely,



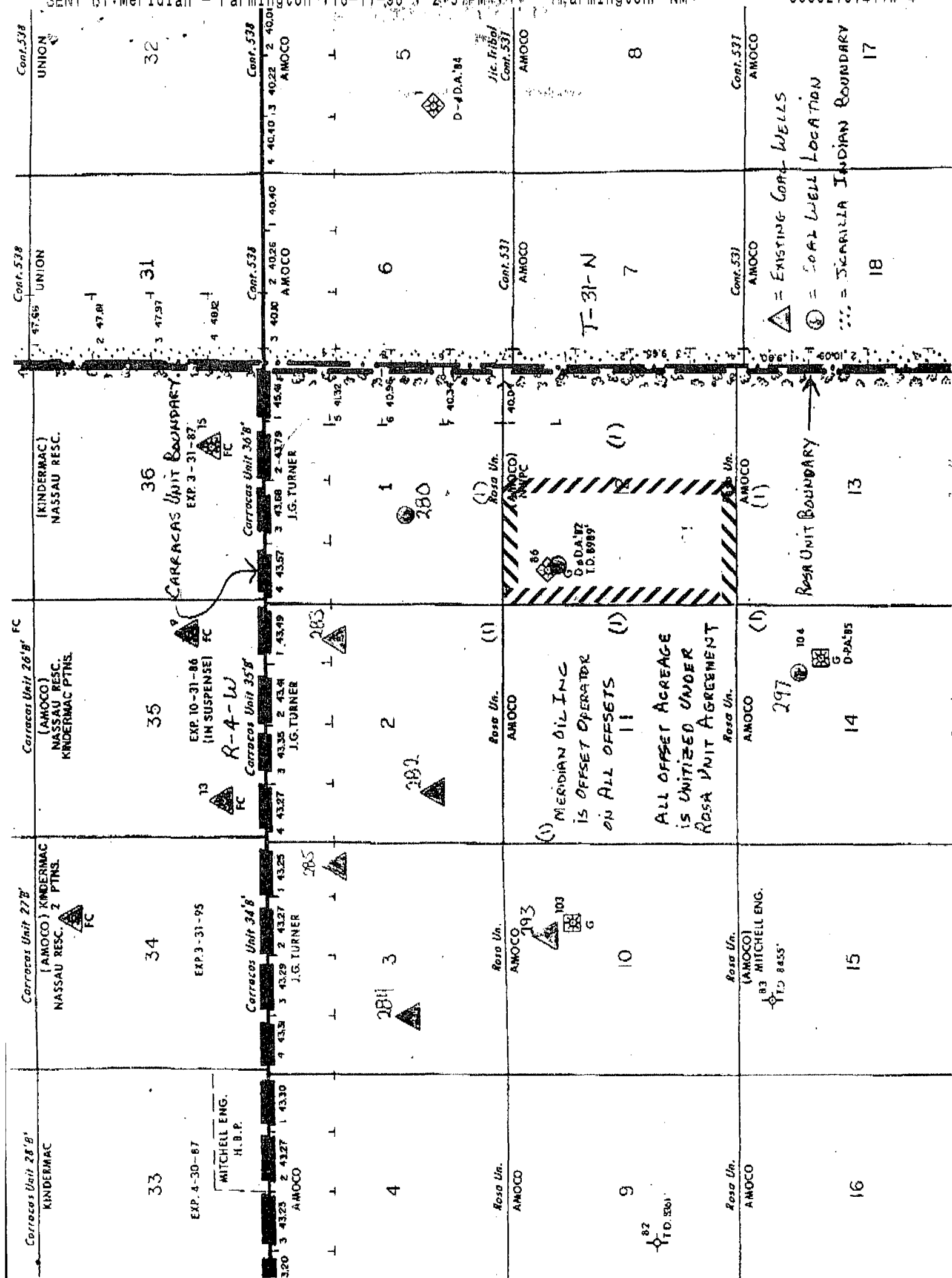
Peggy Bradfield

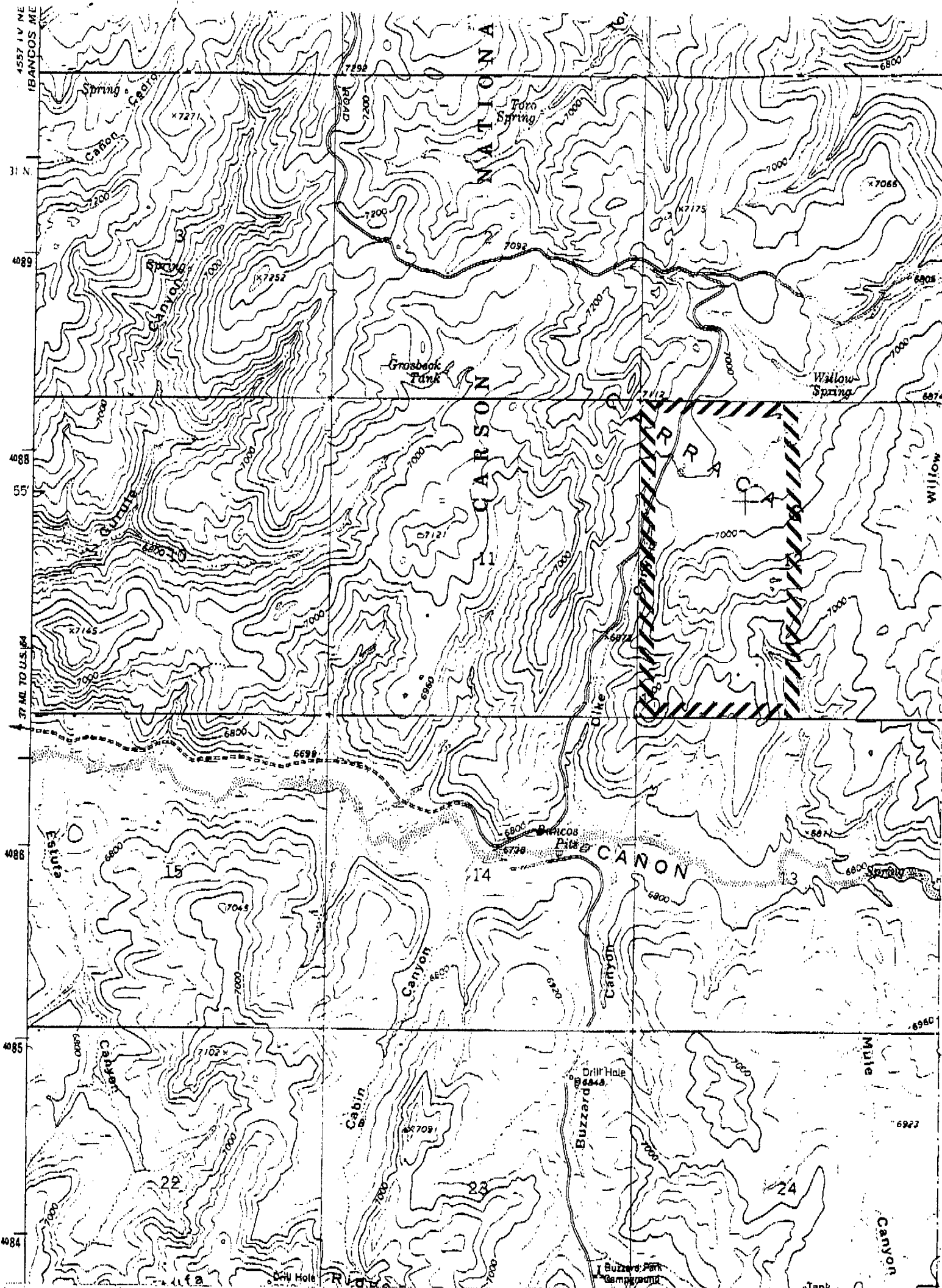
xc: Bureau of Land Management, Farmington District  
New Mexico Oil Conservation Division - Aztec District

Rosa Unit #296  
1190'N, 670'W, Section 12, T-31-N, R-4-W  
Rio Arriba County, New Mexico

Parker & Parsley Petroleum Company was designated as agent to drill the Rosa Unit #296 well located in the NW/4 of Section 12, T-31-N, R-4-W. This designation was given to Parker & Parsley by Meridian Oil Inc., as Unit Sub-Operator, under an agreement dated June 25, 1990. Parker & Parsley does not have a rig available to drill the Rosa Unit #296 before the Carson National Forest closes access to oil and gas operators on November 1, 1990. Since Parker & Parsley and Evergreen Resources Inc. were drilling this well under a farmout agreement from Amoco Production Company, Meridian Oil Inc. has negotiated a farmout agreement with Evergreen/Parker & Parsley and Amoco to take over the drilling, completing and operating of this well.

As indicated on the attached land plat, the dedicated drill block for this well is described as being the W/2 of Section 12, T-31-N, R-4-W. This drill block and all offsetting drill blocks are located entirely within the Rosa Unit boundaries.





United States  
Department of  
AgricultureForest  
ServiceJicarilla  
Ranger DistrictGobernador Route  
Blanco, NM 87412JWC ✓  
KOB ✓  
LDJ ✓  
CEW ✓

Reply to: 2820

Date: September 17, 1990

**MERIDIAN OIL**

SEP 18 1990

**FARMINGTON, NEW MEXICO  
REGULATORY**Mr. Donald Walker  
Meridian Oil Company  
P.O. Box 4289  
Farmington, New Mexico 87499

Dear Mr. Walker:

The question of drilling on the Jicarilla Ranger District during the months of November and December of 1990 has been raised. So that your company may plan its drilling activity, I am sharing our response to the inquiry.

After careful and extended discussion and consideration, we will allow operations (drilling and gas gathering systems) under the following conditions:

1. No operations other than normal switching activities will be allowed November 1 through November 30, 1990. Although this timeframe seems to be short-term to us, it does not appear as that to the Forest user. The user conflicts at that time would be so large that we cannot justify allowing November 1 through November 30 operations as per the current environmental assessment.
2. Operation may be conducted from December 1 through December 31, 1990 (and even until March 31, 1991) if there is no disturbance to critical wildlife habitat, threatened and endangered species, cultural resources or damage to natural resources. We need a plan of your proposed drilling and associated work for the period of November and December, 1990 prior to October 15, 1990 so that enough leadtime can be given to determine if any of these areas will be disturbed.
3. Operations may be conducted from December 1 through December 31, 1990 only if access roads from U.S. Highway 64 to the well locations have been surfaced to allow all-weather travel. Your company will be responsible for total funding of this work. Current estimates for gravel surfacing from U.S. Highway 64 to the Forest Road 310-218 junction is approximately \$1,500,000. The other alternative is to surface roads with natural materials (crushed sandstone) and the approximate cost for the same amount of Forest road would be \$250,000. If you choose to surface with crushed sandstone, we need to know as soon as possible so that we can determine quarry sites for the sandstone.



Caring for the Land and Serving People

FS-8200-11b (7/81)

Meridian

2

I hope this answers all questions that you have concerning your proposed operations. If I have failed to answer them, please contact either Jim Tensfield or myself at this office. Our telephone number is (505) 326-2036.

Sincerely,



PHILIP R. SETTLES  
District Forest Ranger

# MERIDIAN OIL

OIL CONSERVATION DIVISION  
RECEIVED

'90 NOV 16 AM 9 16

November 13, 1990

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

Re: Meridian Oil Inc. Rosa Unit #296  
1230'N, 680'W, Section 12, T-31-N, R-4-W  
Rio Arriba County, New Mexico  
NSL 2909

Dear Mr. LeMay:

This is to inform you that Meridian Oil has resurveyed the referenced location, and found it to be 1230'FNL, 680'FWL, Section 12, T-31-N, R-4-W. As shown on the attached sundry notice, Meridian Oil Inc. did not move the stake, but would like to revise the footages to reflect the corrected survey.

The Rosa Unit #296 was originally submitted to directionally drill by Parker & Parsley Petroleum at 1190'FNL, 670'FWL (surface location), Section 12, T-31-N, R-4-W, Rio Arriba County, New Mexico, and received DD-39 (NSBHL). Meridian Oil Inc. applied for amendment to vertically drill the well at the approved non-standard location, and received NSL 2909 on October 18, 1990.

Thank you for your consideration of this revision.

Sincerely,



Peggy Bradfield  
Regulatory Affairs

xc: Bureau of Land Management  
New Mexico Oil Conservation Division - Aztec Office

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

Sundry Notices and Reports on Wells

<p>1. Type of Well GAS</p> <hr/> <p>2. Name of Operator Meridian Oil Inc.</p> <hr/> <p>3. Address &amp; Phone No. of Operator Box 4289, Farmington, NM 87499 (505) 326-9700</p> <hr/> <p>4. Location of Well, Footage, Sec, T, R, M. 1230'N, 680'W Sec. 12, T-31-N, R-4-W, NMPM</p>	<p>5. Lease Number SF-078887</p> <p>6. If Indian, All. or Tribe Name</p> <p>7. Unit Agreement Name Rosa Unit</p> <p>8. Well Name &amp; Number Rosa Unit #296</p> <p>9. API Well No.</p> <p>10. Field and Pool Basin Fruitland Coal</p> <p>11. County and State Rio Arriba County, NM</p>																					
<p>12. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OTHER DATA</p> <table border="0" style="width: 100%;"><thead><tr><th style="text-align: left;">Type of Submission</th><th colspan="2" style="text-align: left;">Type of Action</th></tr></thead><tbody><tr><td><input type="checkbox"/> Notice of Intent</td><td><input type="checkbox"/> Abandonment</td><td><input checked="" type="checkbox"/> Change of Plans</td></tr><tr><td><input type="checkbox"/> Subsequent Report</td><td><input type="checkbox"/> Recompletion</td><td><input type="checkbox"/> New Construction</td></tr><tr><td><input type="checkbox"/> Final Abandonment</td><td><input type="checkbox"/> Plugging Back</td><td><input type="checkbox"/> Non-Routine Fracturing</td></tr><tr><td></td><td><input type="checkbox"/> Casing Repair</td><td><input type="checkbox"/> Water Shut Off</td></tr><tr><td></td><td><input type="checkbox"/> Altering Casing</td><td><input type="checkbox"/> Conversion to Injection</td></tr><tr><td></td><td><input type="checkbox"/> Other</td><td></td></tr></tbody></table>		Type of Submission	Type of Action		<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment	<input checked="" type="checkbox"/> Change of Plans	<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion	<input type="checkbox"/> New Construction	<input type="checkbox"/> Final Abandonment	<input type="checkbox"/> Plugging Back	<input type="checkbox"/> Non-Routine Fracturing		<input type="checkbox"/> Casing Repair	<input type="checkbox"/> Water Shut Off		<input type="checkbox"/> Altering Casing	<input type="checkbox"/> Conversion to Injection		<input type="checkbox"/> Other	
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	<input type="checkbox"/> Altering Casing	<input type="checkbox"/> Conversion to Injection																				
	<input type="checkbox"/> Other																					

13. Describe Proposed or Completed Operations

Reference is made to Evergreen Operating Corp's Application for Permit to Drill the Rosa Unit #296 submitted 06-13-90 at 1190'FNL, 670'FWL.

Meridian Oil Inc. will operate and drill this well as the Rosa Unit #296 at 1230'FNL, 680'FWL of Section 12, T-31-N, R-4-W.

Meridian Oil did not move the stake, but revised the footages as a result of resurveying the location. Meridian Oil has obtained an amended NSL for a vertical hole - NSL 2909.

Attached for your review: C-102, Operations Plan, BOP Diagrams and Facilities Diagram.

14. I hereby certify that the foregoing is true and correct  
Signed *Reggie Starfield* Title Regulatory Affairs Date 11-12-90

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_  
CONDITION OF APPROVAL, IF ANY:



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

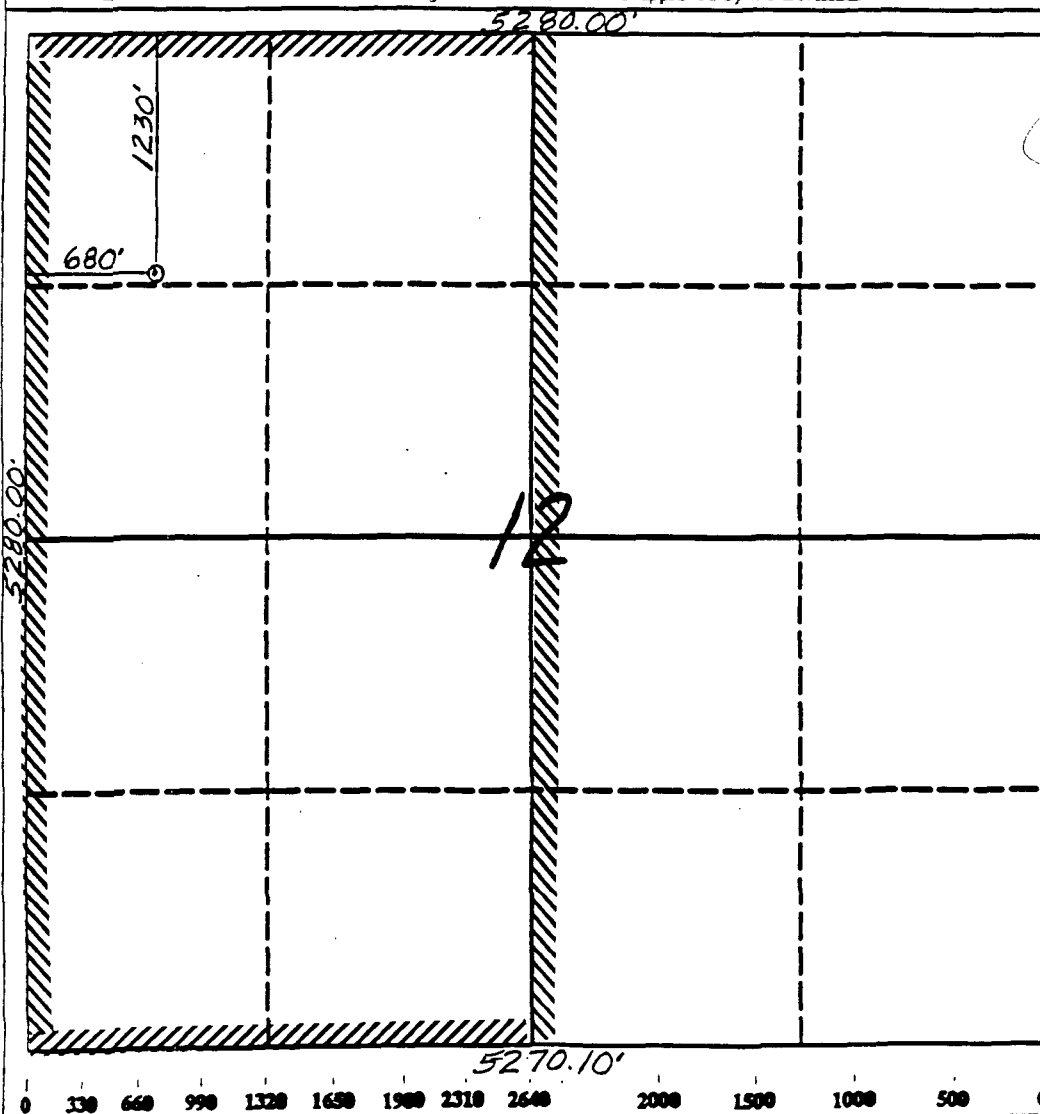
1000 Rio Brizos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator Meridian Oil Inc.			Lease Rosa Unit		Well No. 296
Unit Letter D	Section 12	Township 31 North	Range 4 West	County NMPM Rio Arriba	
Actual Footage Location of Well: 1230 feet from the North line and 680 feet from the West line					
Ground level Elev. 7001'	Producing Formation Fruitland Coal		Pool Basin		Dedicated Acreage: 320 Acres

- Outline the acreage dedicated to the subject well by colored pencil or highlighter marks 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, 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  
Regulatory Affairs  
Position  
Meridian Oil Inc.  
Company  
11-12-90  
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.

Date Surveyed  
10-10-90  
Signature  
Neale C. Edwards  
Professional Surveyor  
NEW MEXICO  
6857  
REGISTERED LAND SURVEYOR  
Certificate No.

Well Name: 296 ROSA UNIT  
 Sec. 12 T31N R04W  
 BASIN FRUITLAND COAL

1230'FNL, 680'FWL  
 RIO ARriba NEW MEXICO  
 Elevation 7001'GL

Formation tops: Surface- SAN JOSE

Ojo Alamo- 3365

Kirtland- 3490

Fruitland- 3820

Fruitland Coal Top- 3897

Fruitland Coal Base- 3949

Pictured Cliffs- 3954

Intermediate TD- 3877

Total Depth- 3951

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 - 3877	Non-dispersed	8.4 - 9.1	30-60	no control
	3877 - 3951	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 - 3877	7"	20.0#	K-55
	6 1/4"	3827 - 3951	5 1/2"	15.5#	K-55
Tubing Program:		0 - 3951	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 @ 3490'. 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# flocculent/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 578 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. 1234 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.

## BOP and Tests:

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

Intermediate TD to TD - 7 1/16" 2000 psi(minimum) double gate BOP stack (Reference Figure #2). Prior to drilling out intermediate casing, test blind rams and casing to 2500 psi for 30 minutes; all pipe rams and casing to 2500 psi for 30 minutes each.

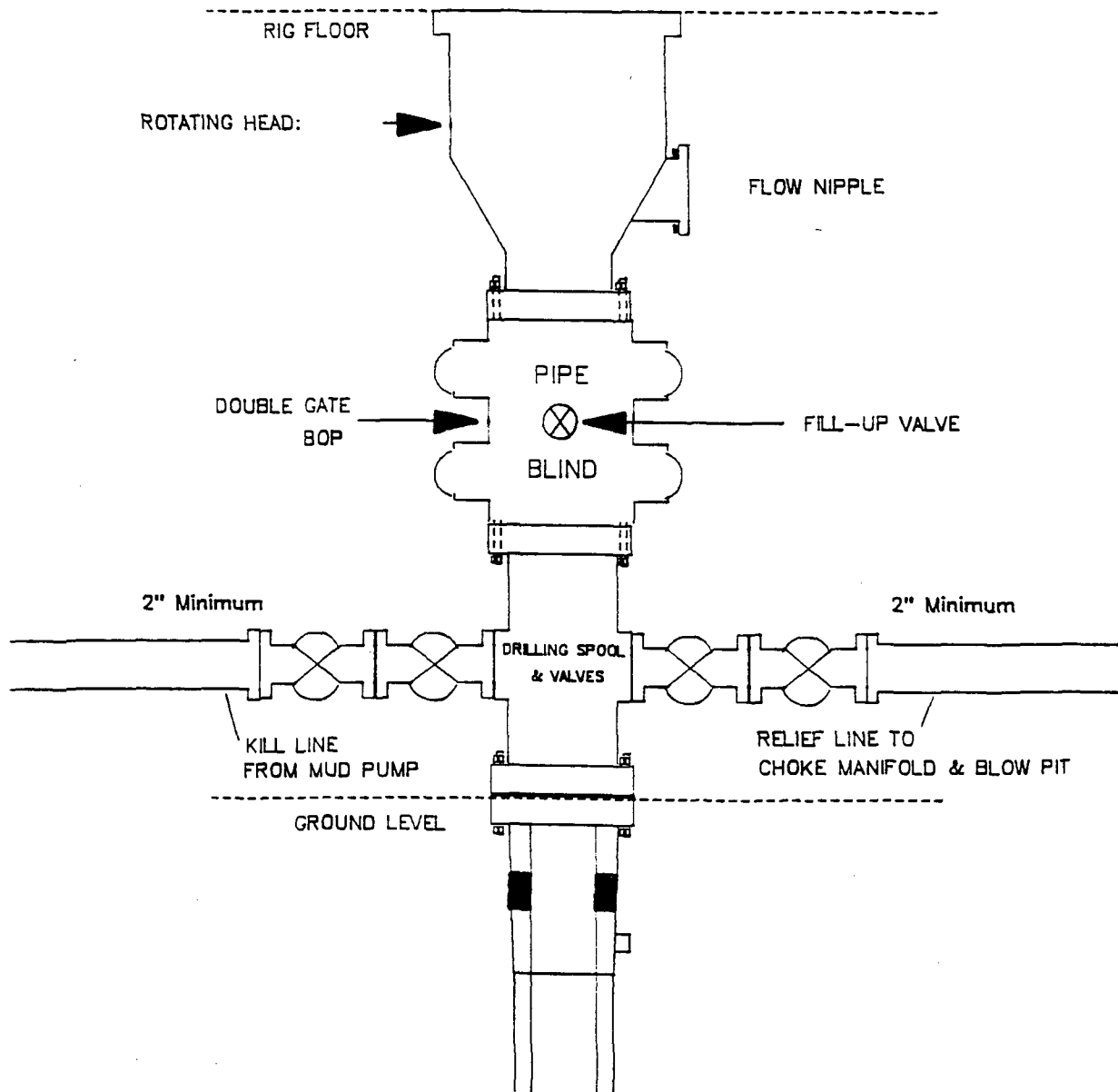
From surface to TD - choke manifold (Reference Figure #3).

Pipe rams will be actuated at 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 Fruitland coal formation will be completed.
- \* Anticipated Fruitland pore pressure is 1228 psi.
- \* This gas is dedicated.
- \* The W/2 of Section 12 is dedicated to this well.
- \* New casing will be utilized.
- \* Cementing Contractor will provide the 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.

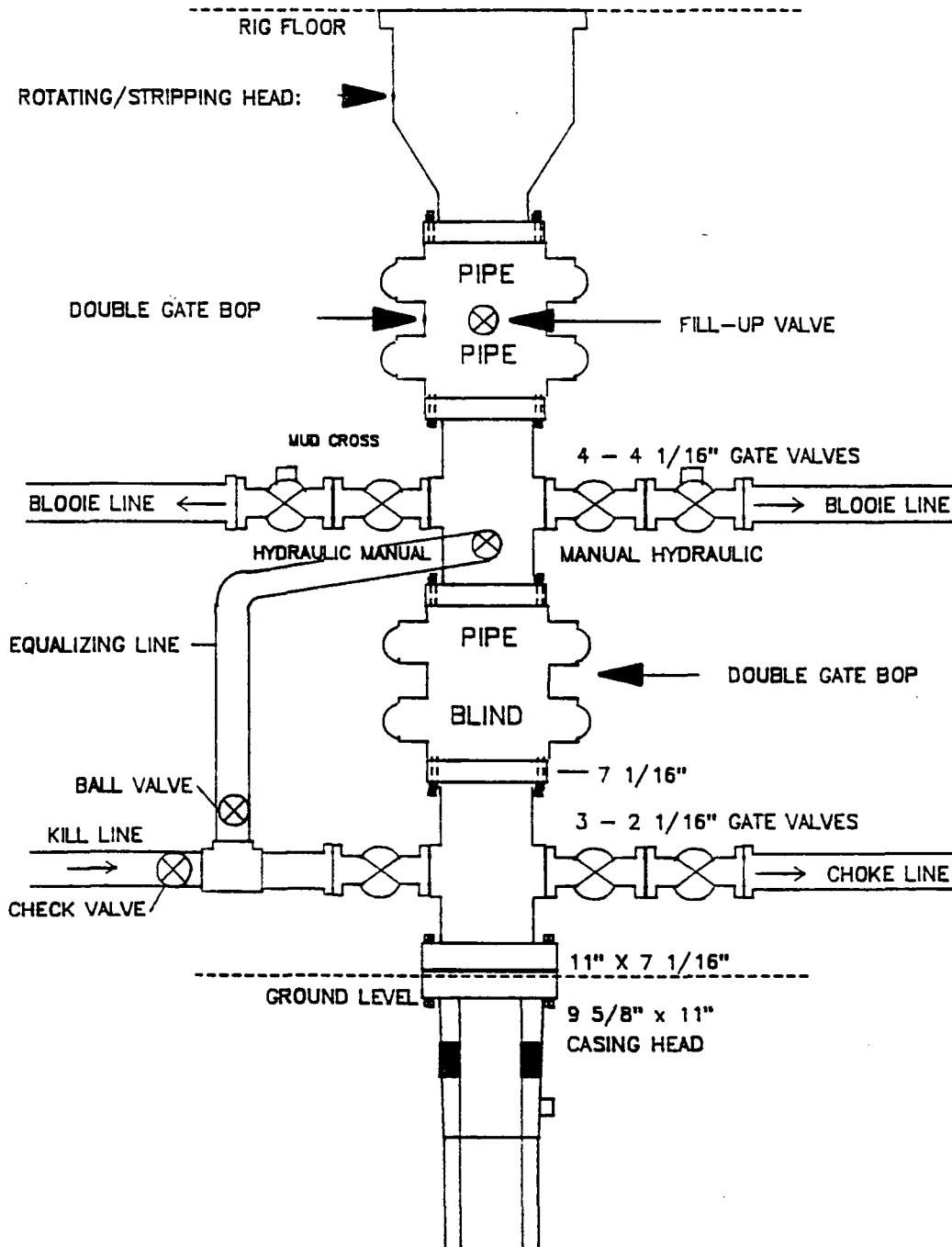
**MERIDIAN OIL INC.**  
Drilling Rig  
BOP Configuration



Minimum BOP installation for a typical Fruitland Coal well from surface to Intermediate casing point. 11" Bore (10" Nominal), 2000psi minimum working pressure double gate BOP to be equipped with blind and pipe rams. A Schaffer Type 50 equivalent rotating head to be installed on the top of BOP. All equipment is 2000psi working pressure/or greater.

**Figure #1**

**MERIDIAN OIL INC.**  
Completion Rig  
BOP Configuration

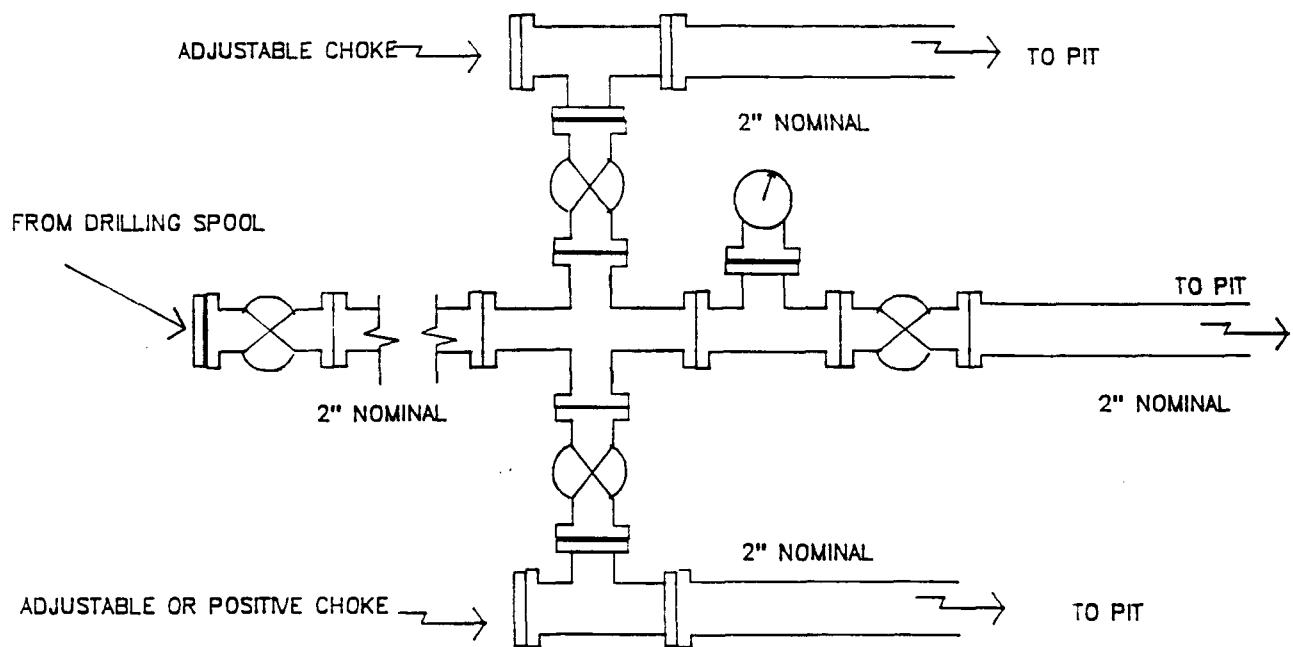


Minimum BOP installation for a typical open-hole Fruitland Coal well from intermediate TD to TD. 7 1/16" Bore (6" Nominal), 2000psi working pressure/ or greater double stack double gate BOP equipped with three pipe and one blind ram.

**Figure #2**

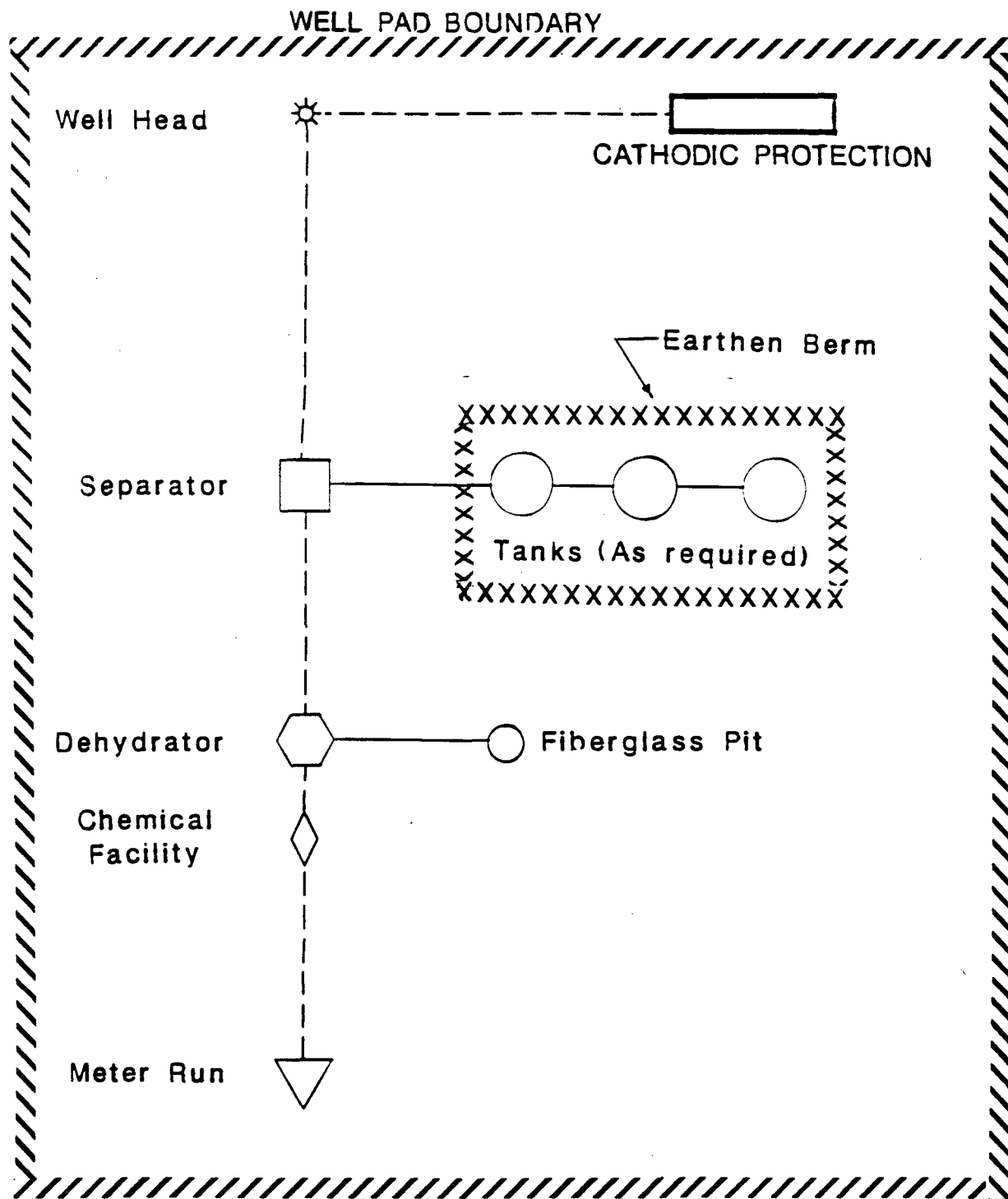
## MERIDIAN OIL INC.

### Typical Fruitland Coal Well Choke Manifold Configuration



Minimum choke manifold installation for a typical Fruitland Coal well from surface to Total Depth. 2", 2000psi working pressure equipment with two chokes.

**Figure #3**



**PLAT #1**

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

KFR 2/90