

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

30-045-28999

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APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

075 FARMINGTON, NM

1a. Type of Work DRILL	5. Lease Number NM-03493
1b. Type of Well GAS	6. If Indian, All. or Tribe
OCT 12 1993	
2. Operator MERIDIAN OIL 14538	7. Unit Agreement Name Huerfano Unit
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700	8. Farm or Lease Name Huerfano Unit 7139
	9. Well Number 505
4. Location of Well 945' FNL, 935' FEL Latitude 36° 27' 50", Longitude 107° 49' 29"	10. Field, Pool, Wildcat 71629 Basin Fruitland Coal
	11. Sec., Twn, Rge, Mer. A Sec 30, T-26-N, R-9-W NMPM
14. Distance in Miles from Nearest Town 5 miles to Huerfano Trading Post	12. County San Juan
	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 935'	
16. Acres in Lease 1772.740	17. Acres Assigned to Well 320 E/2
18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease 200'	
19. Proposed Depth 2340'	20. Rotary or Cable Tools Rotary
21. Elevations (DF, FT, GR, Etc.) 6509' GR	22. Approx. Date Work will Start 4th quarter 1993
23. Proposed Casing and Cementing Program See Operations Plan attached	
24. Authorized by: <u>[Signature]</u> Regional Drilling Engineer	Date <u>9/17/93</u>

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE \_\_\_\_\_

APPROVED  
AS AMENDED

Archaeological Report to be submitted  
Threatened and Endangered Species Report submitted 09-15-93  
NOTE: This format is issued in lieu of U.S. BLM Form 3160-3

OCT 07 1993

DISTRICT MANAGER

Submit to Assessor  
District Office  
State Lands - 4 copies  
Fee Lands - 3 copies

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised 1-1-89  
BLM

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

SEP 22 PM 1:51

OTO FARMINGTON, NM

DISTRICT I  
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II  
P.O. Drawer DD, Arama, NM 88210

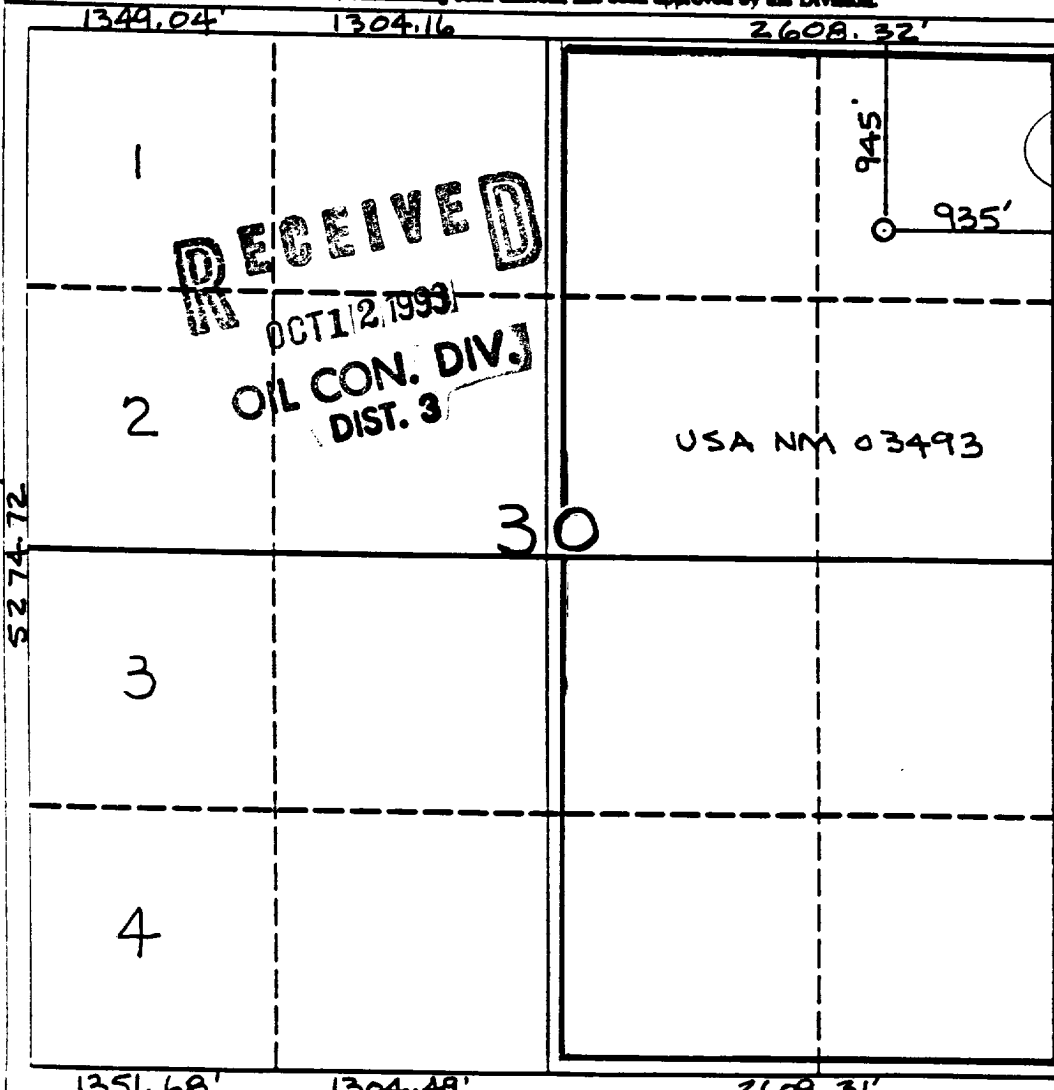
DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator Meridian Oil Inc.			Lease Huerfano Unit		Well No. 505
Unit Letter A	Section 30	Township 26 North	Range 9 West	County NM/PM	San Juan
Actual Footage Location of Well: 945 feet from the North line and 935 feet from the East line					
Ground level Elev. 6509'		Producing Formation Fruitland Coal		Pool Basin	
					Dedicated Acreage 320 Acres

- Outline the acreage dedicated to the subject well by colored pencil or inkline 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, force-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.

*Peggy Bradfield*  
Signature

Peggy Bradfield

Printed Name

Regulatory Rep

Position

Meridian Oil Inc.

Company

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. 8-23-93

Date Surveyed

*C. Edwards*

Professional Surveyor

8857

*[Signature]*

Certificate No.

*[Signature]*

8857

OPERATIONS PLAN

**Well Name:** Huerfano Unit #505  
**Location:** 945'FNL, 935'FEL, Section 30, T-26-N, R-9-W  
 San Juan County, New Mexico  
 Latitude 36° 27' 50", Longitude 107° 49' 29"  
**Formation:** Basin Fruitland Coal  
**Elevation:** 6509'GL

Formation:	Top	Bottom	Contents
Surface	Nacimiento	1193'	
Ojo Alamo	1193'	1293'	aquifer
Kirtland	1293'	1841'	
Fruitland	1841'	2021'	
Fruitland Coal Top	2013'	2020'	gas & salt water
Pictured Cliffs	2021'		
Total Depth	2340'		

**Logging Program:** Mud logs from 1800' to Total Depth.  
 Dens/Neut/GR; Dens/GR; Micro/GR: TD - 1800'  
 Ind/GR/SP: TD - surface

**Mud Program:**

Interval	Type	Weight	Vis.	Fluid Loss
0- 200'	Spud	8.4-8.9	40-50	no control
200-2340'	Non-dispersed	8.4-9.5	30-60	no control

**Casing Program:**

Hole Size	Depth Interval	Csg.Size	Wt.	Grade
12 1/4"	0 - 200'	8 5/8"	24.0#	K-40
7 7/8"	0 - 2340'	4 1/2"	10.5#	K-55

**Tubing Program:**

0 - 2340'	2 3/8"	4.7#	J-55
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**Float Equipment:** 8 5/8" surface casing - saw tooth guide shoe.  
 Centralizers will 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 centralizers run every 3rd joint to the base of the Ojo Alamo @ 1293'. Two turbolizing type centralizers - one below and one into the base of the Ojo Alamo @ 1293'. Standard centralizers thereafter every fourth joint up to the base of the surface pipe.

**Wellhead Equipment:** 8 5/8" x 4 1/2" x 2 3/8" x 11" 2000 psi xmas tree assembly.

September 17, 1993

**Cementing:**

8 5/8" surface casing - cement with 235 sx Class "B" cement with 1/4# flocele/sx and 3% calcium chloride (298 cu.ft. of slurry, 200% excess to circulate to surface). WOC 12 hrs. Test casing to 600psi/30 minutes.

4 1/2" production casing - Lead w/536 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 (1066 cu.ft. of slurry, 125% excess to circulate to surface). WOC 12 hrs. If cement does not circulate to surface, a temperature log will be run after 8 hours to determine TOC.

**BOP and tests:**

Surface to TD - 11" 2000 psi (minimum double gate BOP stack (Reference Figure #1 and #2). 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 and casing to 2000 psi/15 min.

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

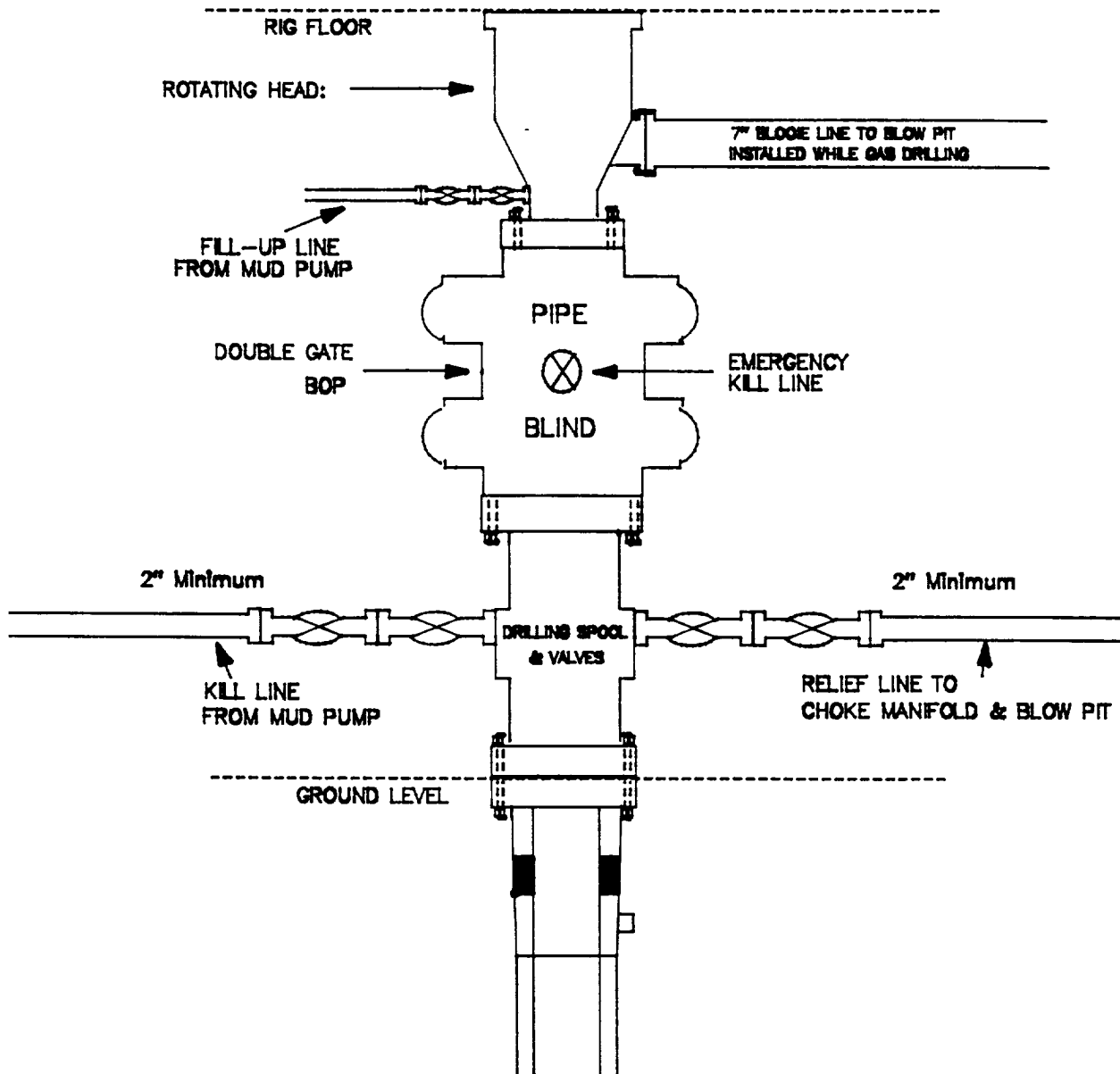
Pipe rams will be actuated to least once each day and blind rams actuated once each trip to test proper functioning. An upper kelly cock valve with handle and drill string safety valves to fit each drill string will be maintained and available on the rig floor.

**Additional information:**

- \* The Fruitland Coal formation will be completed.
- \* Anticipated pore pressure for the Fruitland is 300 psi.
- \* This gas is dedicated.
- \* The east half of the section is dedicated to this well.
- \* New casing will be utilized.
- \* Pipe movement (either rotation or reciprocation) will be done if hole conditions permit.

# MERIDIAN OIL INC.

## BOP Configuration 2M psi SYSTEM



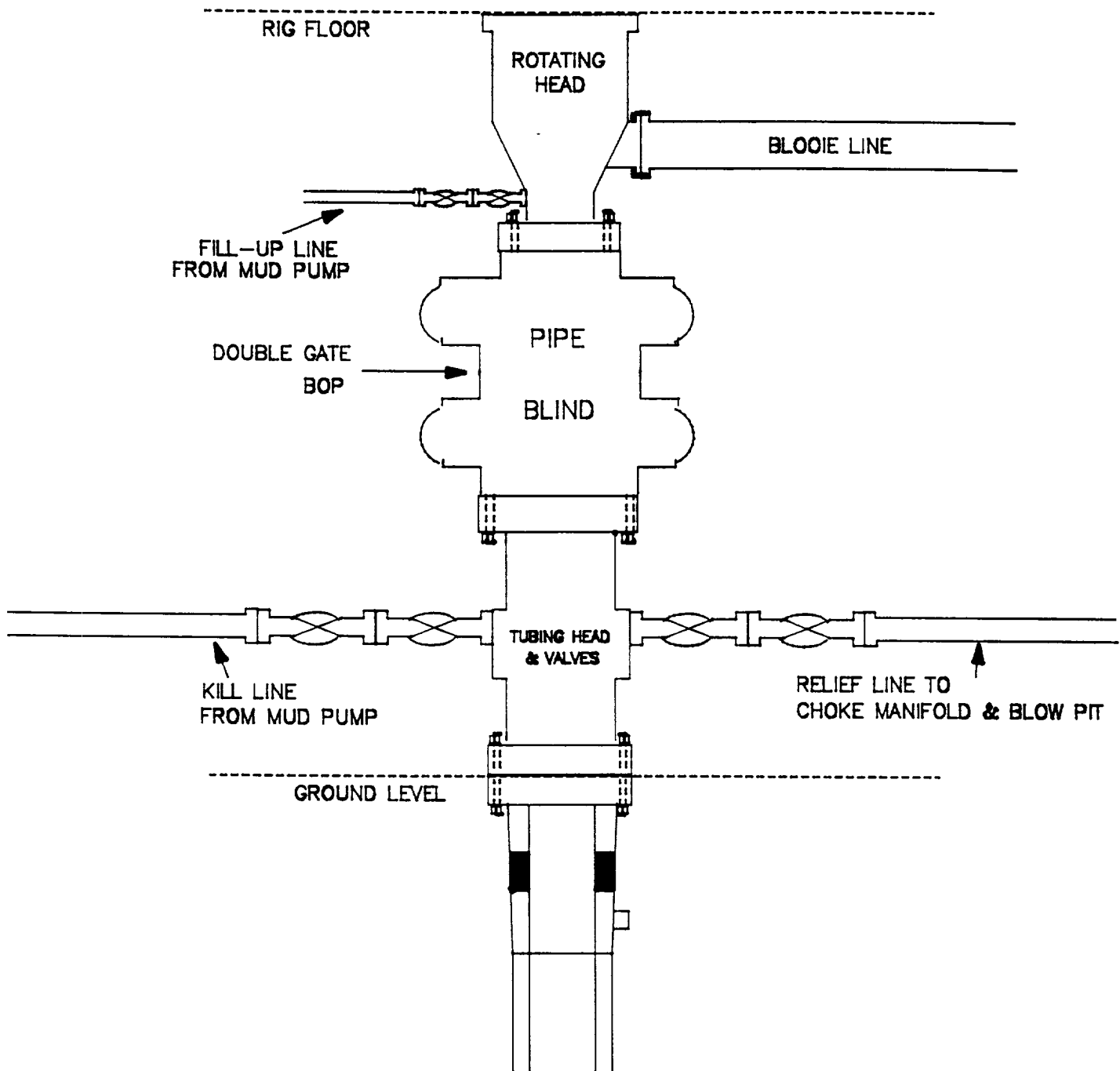
11" Bore, 2000psi minimum working pressure double gate BOP to be equipped with blind and pipe rams. A Schaffer Type 50 or equivalent rotating head to be installed on the top of the BOP. All equipment is 2000psi working pressure/or greater.

Figure #1

# MERIDIAN OIL INC.

BOP Configuration

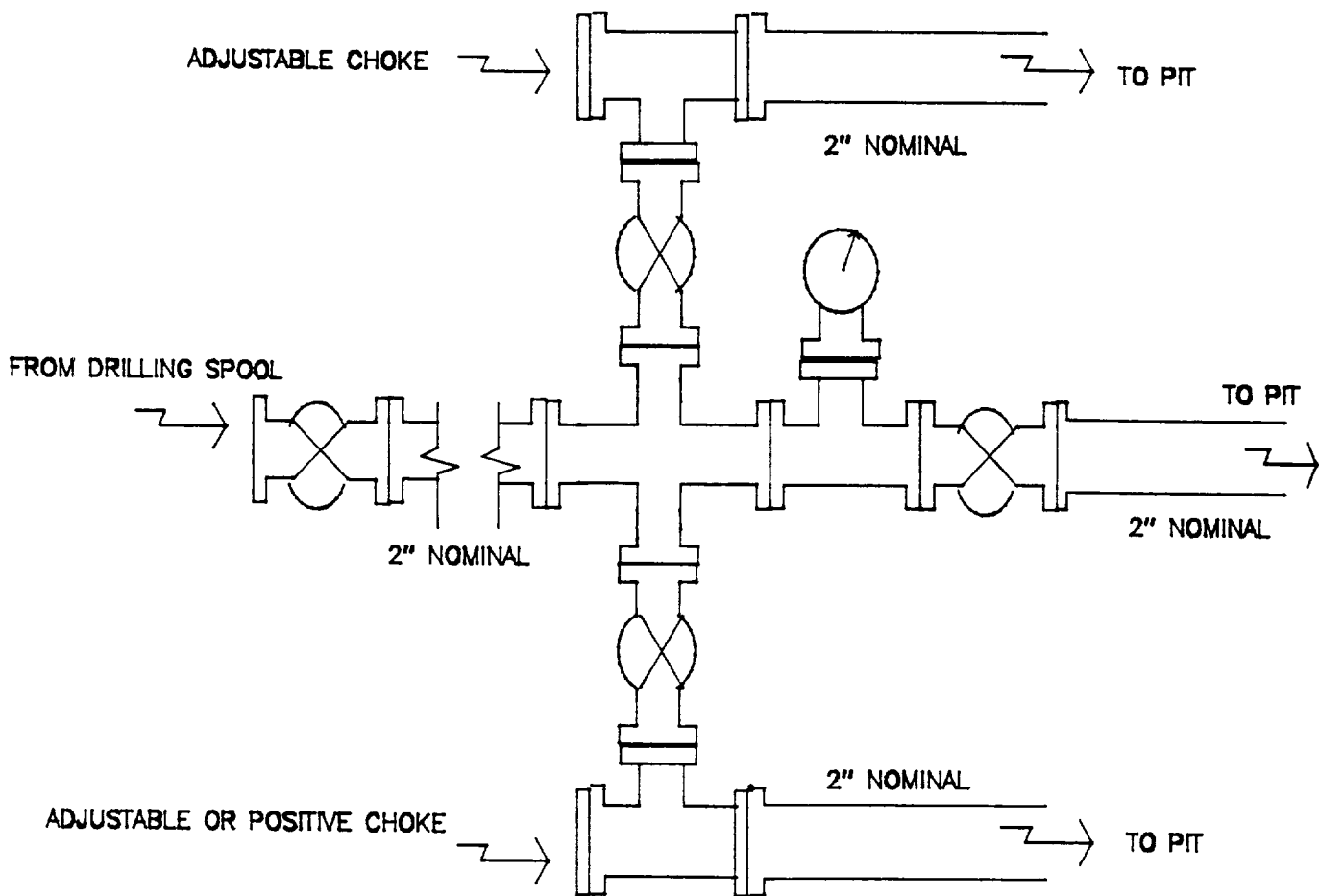
2M psi SYSTEM



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.

Figure #3

**MERIDIAN OIL**  
Huerfano Unit #505  
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 Huerfano Unit Water Well #2 located SE Section 25, T-26-N, R-10-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.

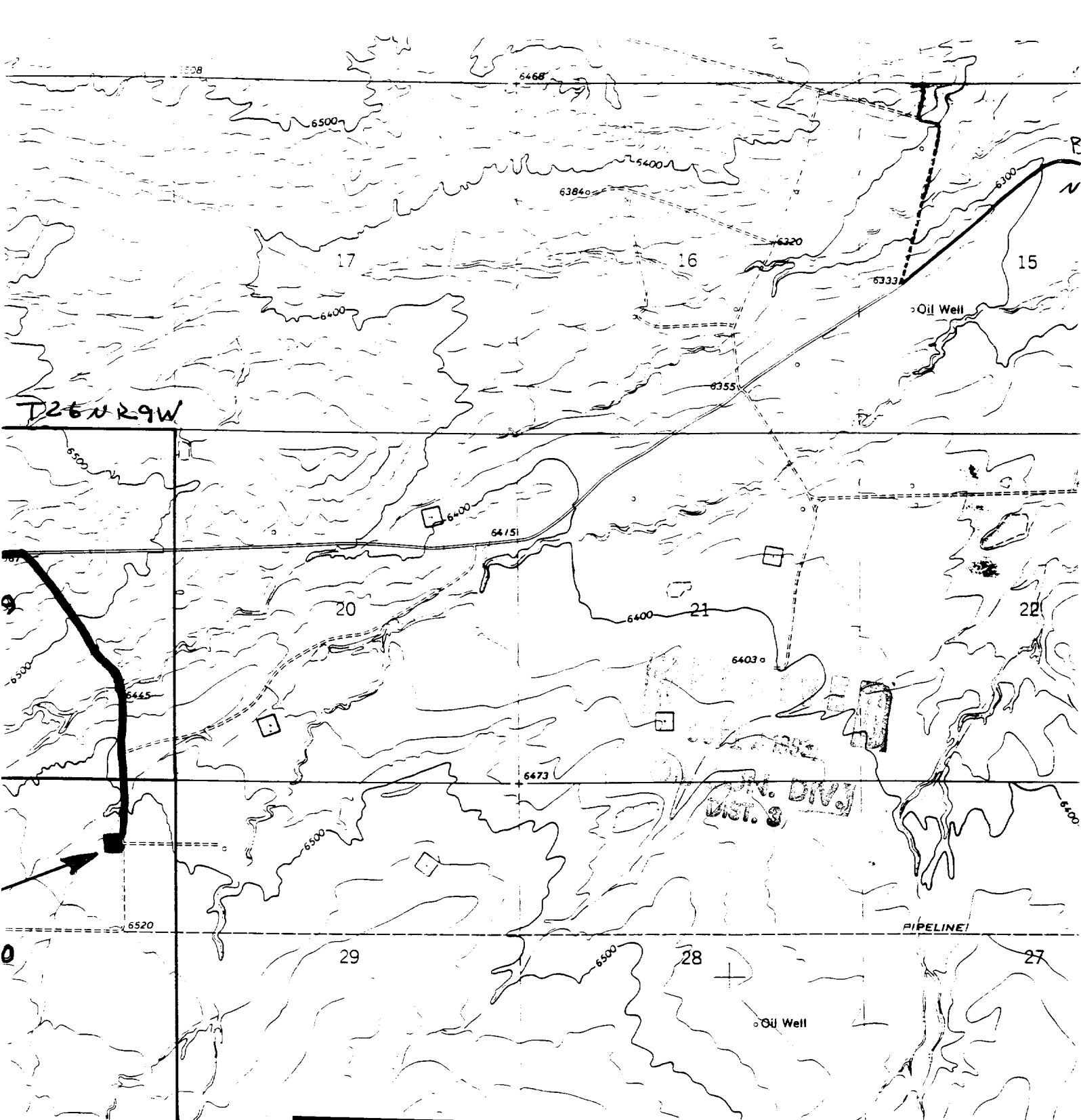


10. Plans for Restoration of the Surface - After completion of the proposed project, the location will be cleaned and leveled. The location will be left in such a condition that will enable reseeding operations to be carried out. Seed mixture as designated by the responsible government agency will be 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

9/17/93  
Date

JWC:pb



**MERIDIAN OIL INC**  
**HUERFANO UNIT #505**

**T 26 N, R 09 W**

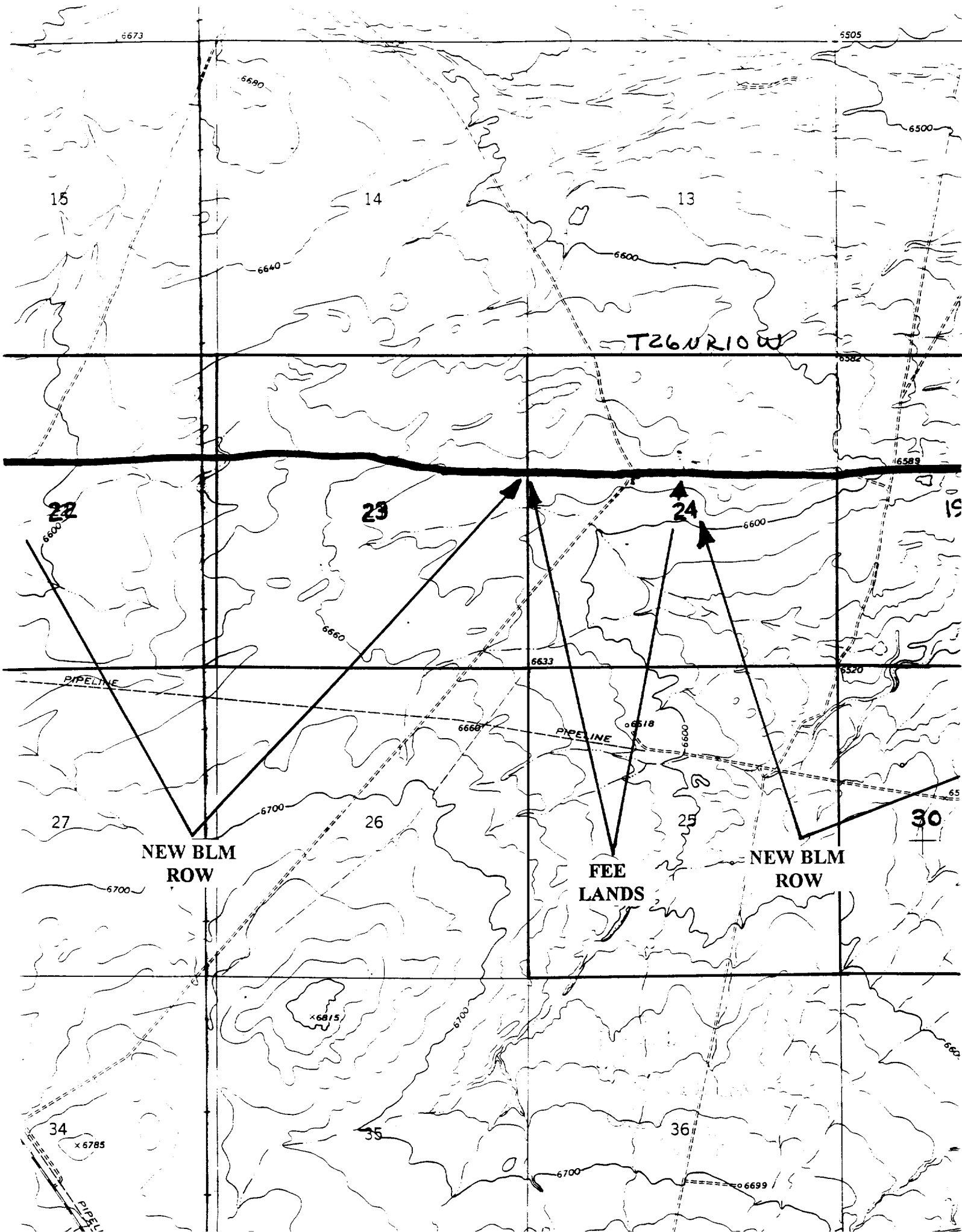
No New Construction

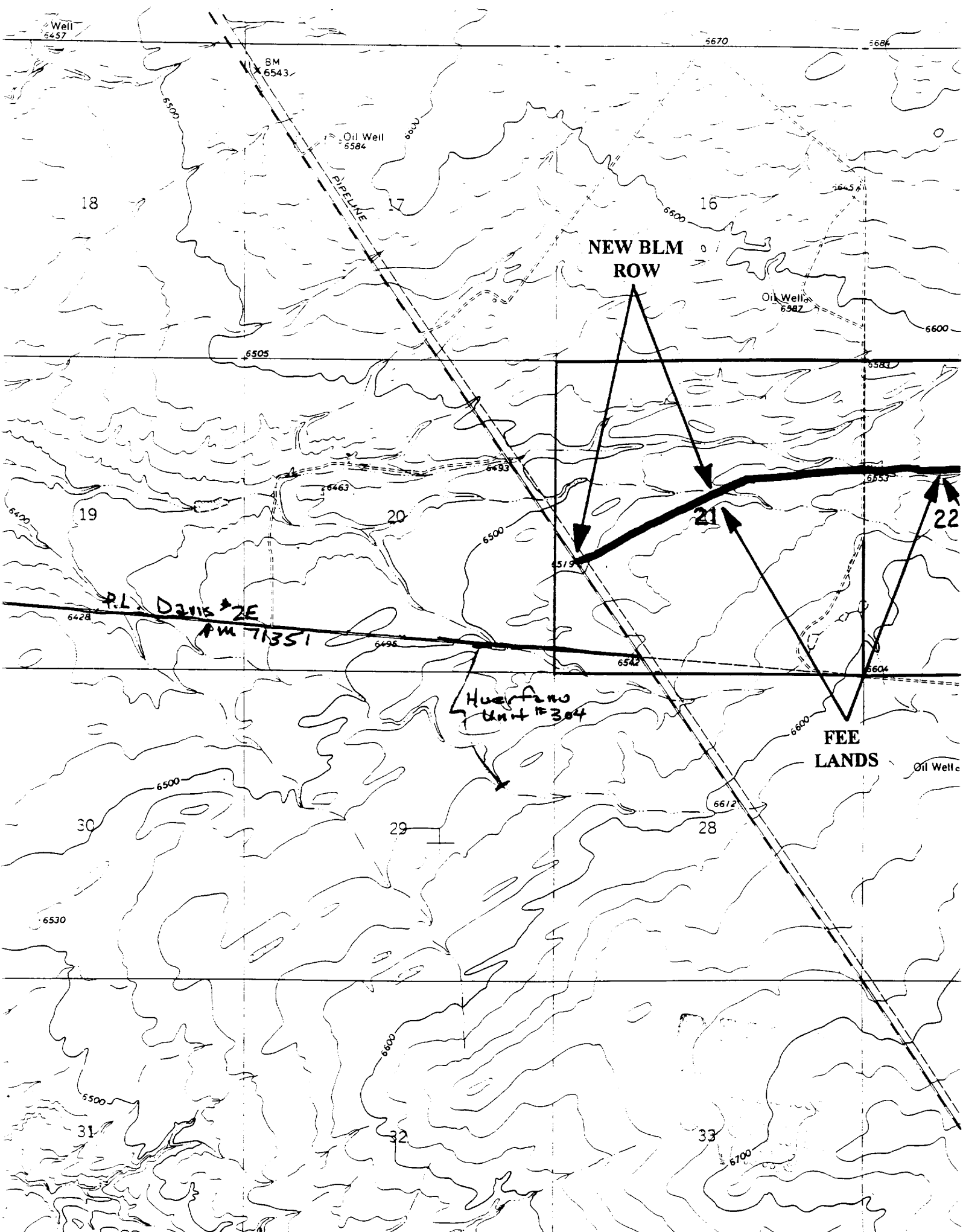
**T 26 N, R 09 W**

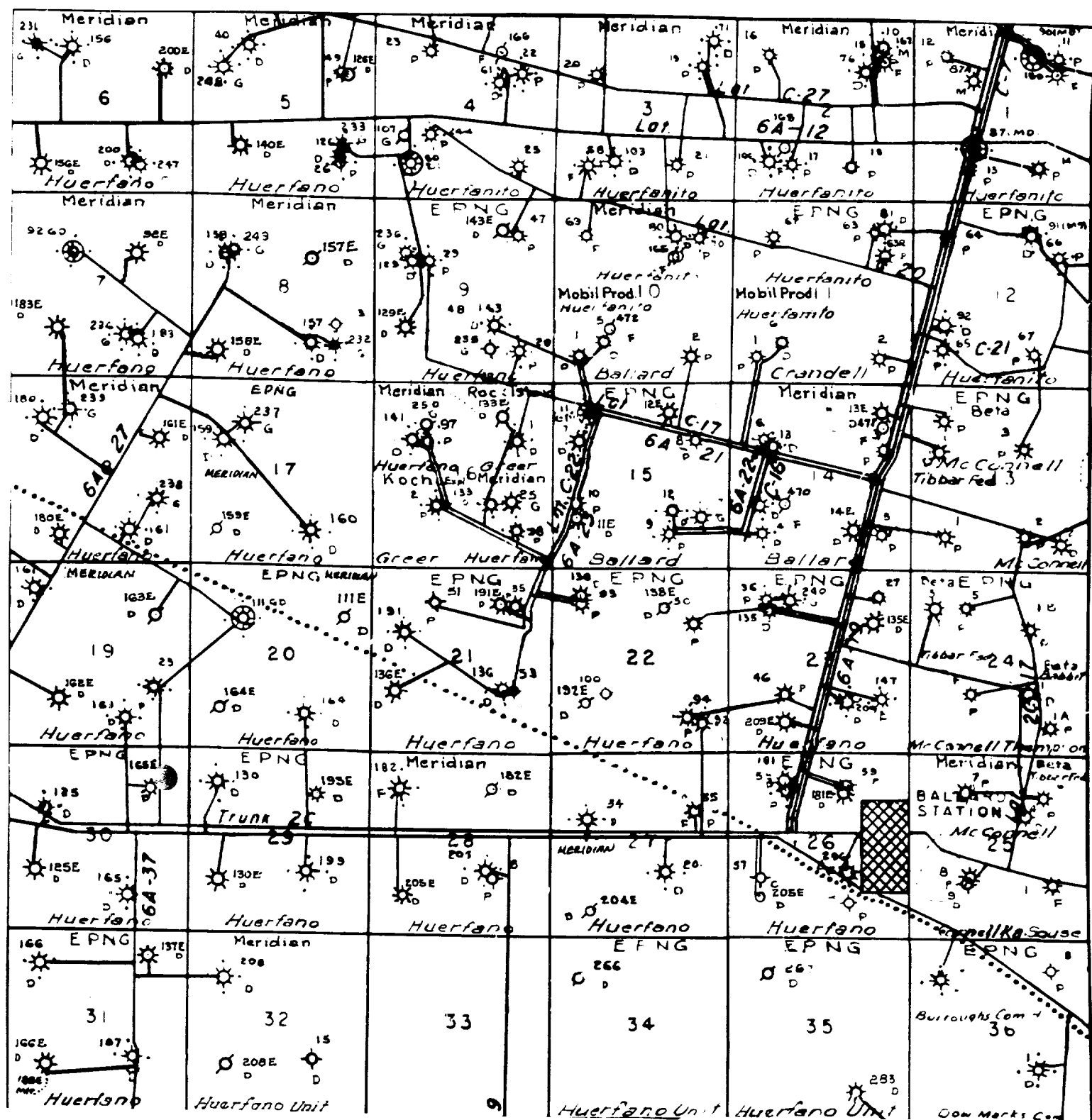
Section 30:	NENE	1000'
19:	E2SE	2500'
	NWSE	400'
	SWNE	1400'
	S2NW	2700'

**T 26 N, R 10 W**

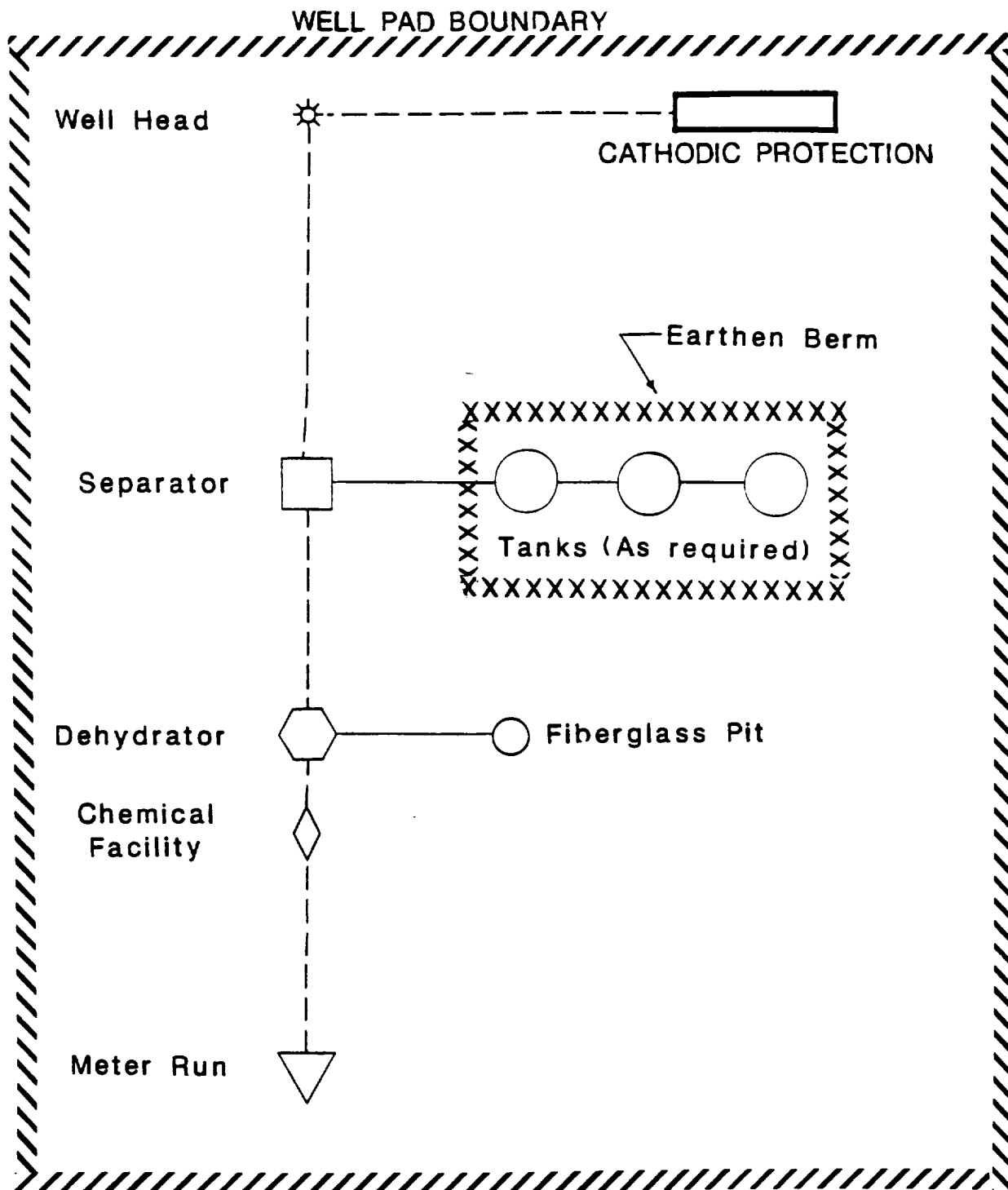
Section 24:	S2NE	2700'
23:	S2N2	5500'
22:	S2NE	2700'
	SENE	1400'
21:	SENE	800'
	N2SW	2000'







MERIDIAN OIL INC.  
 Pipeline Map  
 T-26-N, R-09-W  
 Rio Arriba County, New Mexico  
 Huerfano Unit #505  
 Map #1A



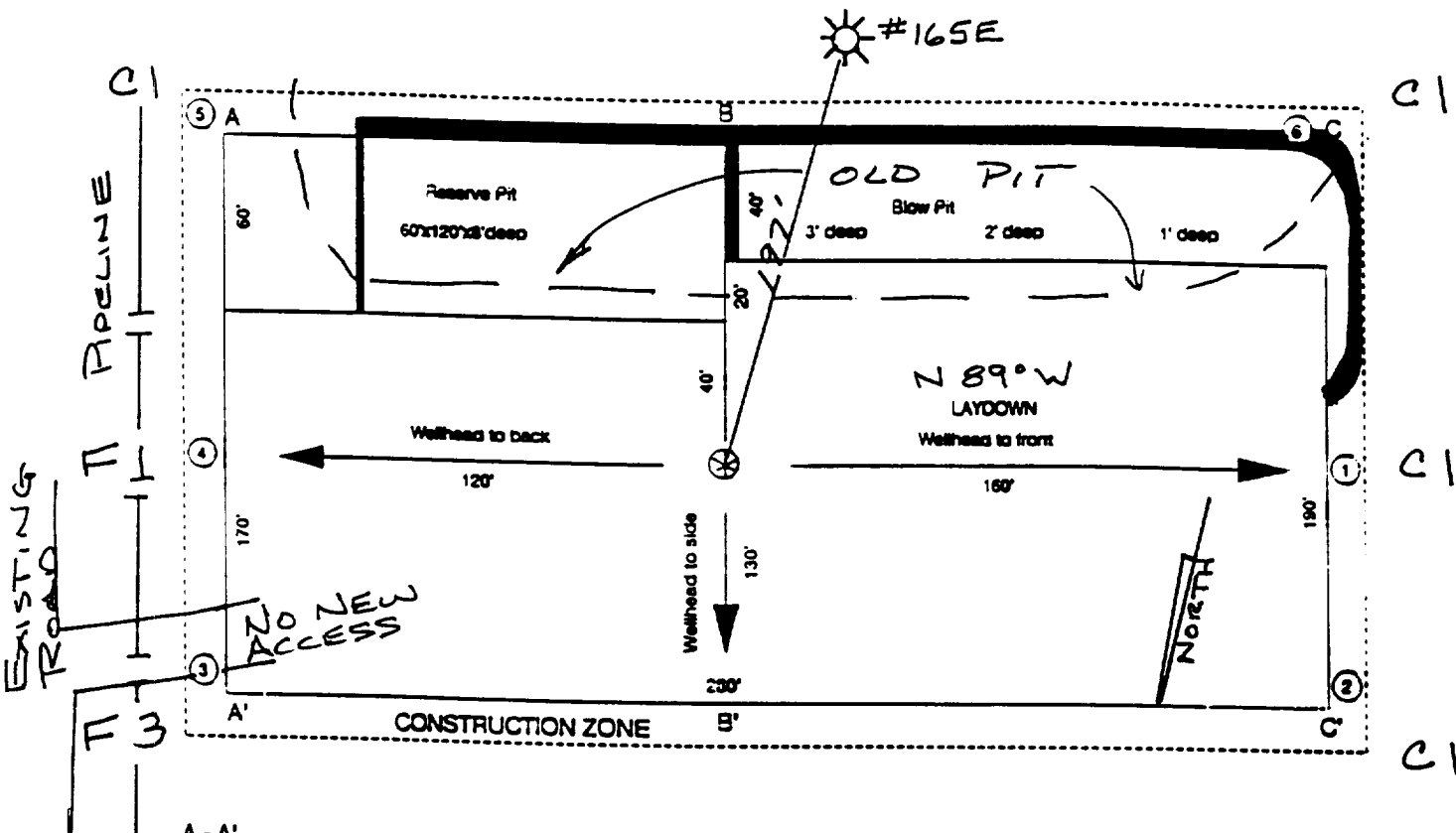
**PLAT #1**

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

# MERIDIAN OIL

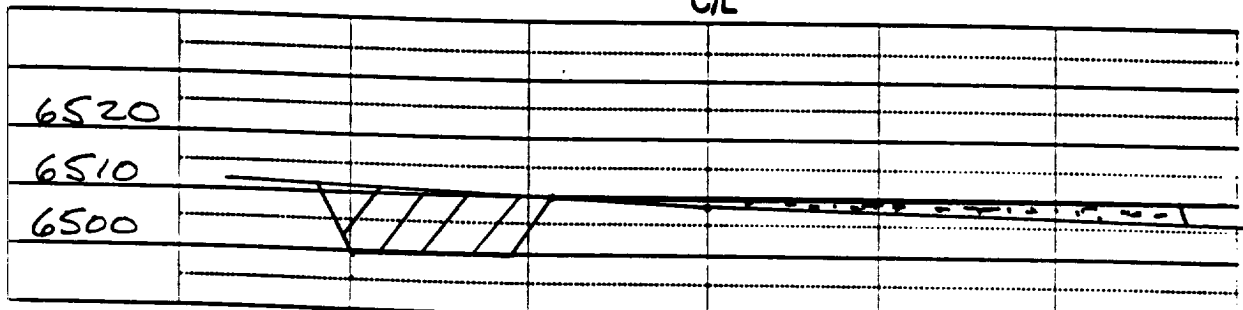
## Plat 2

Name: MOI HUERFANO UNIT #505  
 Footage: 945 FNL 935 FEL  
 Sec 30 T. 26 N.R. 9 W NMPM  
 Co. SAN JUAN St. N.M.  
 Elevation: 6509 Date: 8/23/93



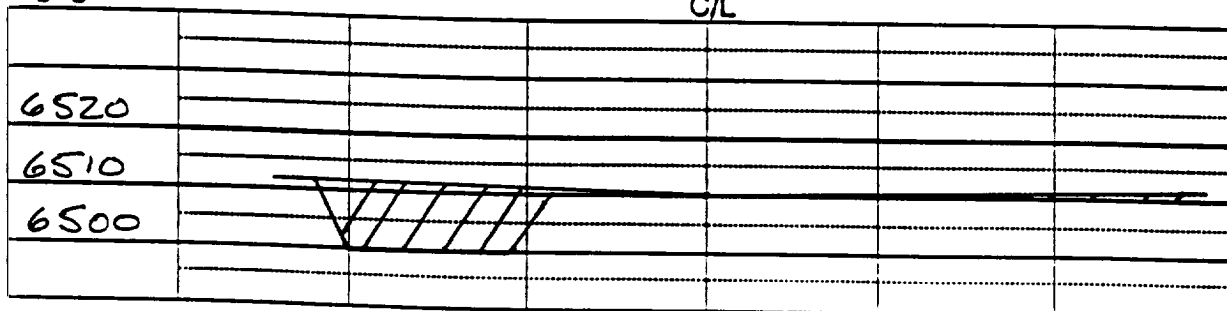
A-A'

C/L



B-B'

C/L



C-C'

C/L

