

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
N.M. ENV. COM. COMMISSION
P.O. BOX 1980
HOBBS, NEW MEXICO 88240

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK DRILL ☒ DEEPEN ☐ SIDE TRACK ☒			5. LEASE DESIGNATION AND SERIAL NO. NM 96780	
b. TYPE OF WELL OIL WELL ☐ GAS WELL ☐ OTHER ☒ SINGLE ZONE ☒ MULTIPLE ZONE ☐			6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
2. NAME OF OPERATOR Meridian Oil Inc.			7. UNIT AGREEMENT NAME	
3. ADDRESS AND TELEPHONE NO. P.O. Box 51810, Midland, TX 79710-1810 915-688-6943			8. FARM OR LEASE NAME, WELL NO. Federal '21' # 3	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. *) At surface 2007' FNL & 2124' FWL At proposed prod. zone Unit F			9. API WELL NO. 30-025-30690	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 13 miles southeast of Maljamar, NM			10. FIELD AND POOL, OR WILDCAT South Corbin Wolfcamp	
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 2007'			11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 21, T18S, R33E	
16. NO. OF ACRES IN LEASE 80			12. COUNTY OR PARISH Lea	
17. NO. OF ACRES ASSIGNED TO THIS WELL 80			13. STATE NM	
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. N/A			20. ROTARY OR CABLE TOOLS Rotary	
21. ELEVATIONS (Show whether DF, RT, GR, etc.)			22. APPROX. DATE WORK WILL START* Upon Approval	

23. Existing / PROPOSED CASING AND CEMENTING PROGRAM				
SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8"	48#	351'	370 sxs/Circ.
12 1/4"	8 5/8"	24#	2903'	1250 sxs/Circ.
7 7/8"	5 1/2"	15.5#/17#	11,538'	1510 sxs/TOC@2500'

No Hydrogen Sulfide expected.

Aforementioned csg program is existing.

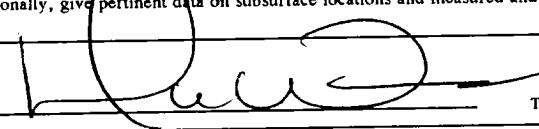
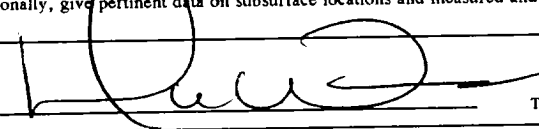
Sidetrack of existing producing well, same field & reservoir

No surface plan required due to no additional disturbance anticipated. Will be using existing well pad. Archeological report submitted July 10, 1989, Report No. NMAS-1989-02-JY.

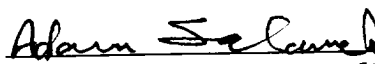
Contact Person: Donna Williams, 915-688-6943

OPER. GRID NO. 26485
PROPERTY NO. 18345
POOL CODE 13320
EFF. DATE 9/17/96
API NO. 30-025-30690

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.  SIGNED  TITLE Regulatory Compliance DATE 8/28/96
(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____
Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY  TITLE PETROLEUM ENGINEER DATE 9/10/96
*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

OPERATORS NAME:	<u>Meridian Oil Inc.</u>
LEASE NAME AND WELL NO.:	<u>Federal '21' Well No. 3 (Sidetrack)</u>
LOCATION:	<u>2007' FNL & 2124' FWL, Sec. 21, T18S, R33E</u>
FIELD NAME:	<u>South Corbin Wolfcamp</u>
COUNTY:	<u>Lea County, NM</u>
LEASE NUMBER:	<u>NM 96780</u>

The following information is to supplement BLM form 3160-3 Application for permit to drill in accordance with Onshore Oil and Gas Order No. 1:

9 - POINT DRILLING PLAN

1. Name and estimated tops of important geologic formation/marker horizons.

<u>FORMATION</u>	<u>DEPTH</u>
Yates	3040'
Queen	4190'
San Andres	4800'
Delaware	5090'
Bone Spring	7194'
Lower Leonard	10,398'
Wolfcamp	10,802'

2. Estimated depths at which the top and bottom of formations potentially containing usable water, oil, gas, or prospectively valuable deposits of other minerals are expected to be encountered and the operator's plans for protecting such resources.

Wolfcamp	10,875' (KOP)
----------	---------------

SEP 1960
Receiver
Hobbs
OCD

3. The operator's minimum specifications for Blowout Preventer (BOP) and related equipment to be used and schematic diagrams thereof showing sizes, pressure ratings, and the testing procedures and testing frequency. BOP and BOP - related equipment (BOPE) schematics shall include schematics of choke manifold equipment. Accumulator systems and remote controls shall be utilized.

7 1/16" 3000 lb WP BOP w/rotating head to be installed on the 5 1/2" csg.

4. The proposed casing program including size, grade, weights, type of thread and coupling, and the setting depth of each string and its condition (new or acceptably reconditioned). For exploratory wells, or for wells as otherwise specified by the authorized officer, the operator shall include the minimum design factors for tensions, burst, and collapse that are incorporated into the casing design. In cases where tapered casing strings are utilized, the operator shall also include and/or setting depths of each portion.

EXISTING CASING:

17 1/2" hole, 13 3/8" H-40 48# csg, set @ 351'

12 1/4" hole, 8 5/8" K-55 24# csg, set @ 2903'

7 7/8" hole, 5 1/2" 17#/15.5# csg, set @ 11,538'

NEW HOLE:

Curve: KOP = 10,875' TVD/MD
Build radius - 300', BUR = 19.1 deg/100'
EOC = 11,175' TVD/11,346' MD
Inclination @ EOC = 90 Azimuth @ EOC = 276.25

Lateral: Inclination = 90 , Azimuth = 276.25
EOL = 11,175' TVD/ 12,662' MD

The entire curve and lateral will be in the Wolfcamp formation

5. The amount and type(s) of cement, including anticipated additives to be used in setting each casing string, shall be described. If stage cementing techniques are to be employed, the setting depth of the stage collars and amount and type of cement, including additives, and preflush amounts to be used in each stage, shall be given. The expected linear fill-up of each cemented string, or each stage when utilizing stage-cementing techniques, shall also be given.

- a. 13 3/8" csg: Cmted w/370 sxs 'C' + 2% CaCl₂. Circulated
- b. 8 5/8" csg: Cmted w/1050 sxs Pacesetter Lite Premium + 6% gel + 15% salt + 1 pps Hi-Seal, tail w/200 sxs 'C' + 2% CaCl₂. Circulated.
- c. 5 1/2" csg: Cmted w/1st stage: 510 sxs Super 'H'. DV tool @ 8022'. Circulated. 2nd Stage: 1000 sxs Super 'H'. Estimated TOC @ 2500'.

6. The anticipated characteristics, additives, use, and testing of drilling mud to be employed, along with the types and quantities of mud products to be maintained, shall be given. When air or gas drilling is proposed, the operator shall submit the following specific information:

Mud Program:

10,875' (window): Will be using fresh water mud to drill open hole section.

7. The anticipated testing, logging, and coring procedures to be used, including drill stem testing procedures, equipment, and safety measures.

- a. DST Program: None
- b. Core: None
- c. Mud Logging: From KOP (10,875') to EOL
- d. Logs to be run: None

The expected bottom-hole pressure and any anticipated abnormal pressures, temperatures or potential hazards that are expected to be encountered, such as lost circulation zones and hydrogen sulfide. The operator's plans for mitigating such hazards shall be discussed. Should the potential to encounter hydrogen sulfide exist, the mitigation procedures shall comply with the provisions of Onshore Oil and Gas Order No. 6.

No abnormal pressures are anticipated. Bottom hole pressures at TD expected to be 4400 psi. Bottom hole temperature 167 F. There is no anticipated Hydrogen Sulfide in this known drilling area

9. Any other facets of the proposed operation which the operator wishes for BLM to consider in reviewing the application.

Anticipated drilling time expected to be 15 days from window to TD.

OPERATORS CERTIFICATION

I hereby certify that I, **Tim Friesenhahn, Drilling Engineer**, under my direct supervision, have inspected the proposed drill site and access route that I am familiar with the conditions that currently exist; that the statements made in the APD package are, to the best of my knowledge, true and correct, and that the work associated with operations proposed herein will be performed by **not yet determined** contractors and subcontractors in conformity with this APD package and the terms and conditions under which it is approved. I also certify responsibility for the operations conducted on that portion of the leased lands associated with this application, with bond coverage being provided under BLM **statewide** bond. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

DATE:

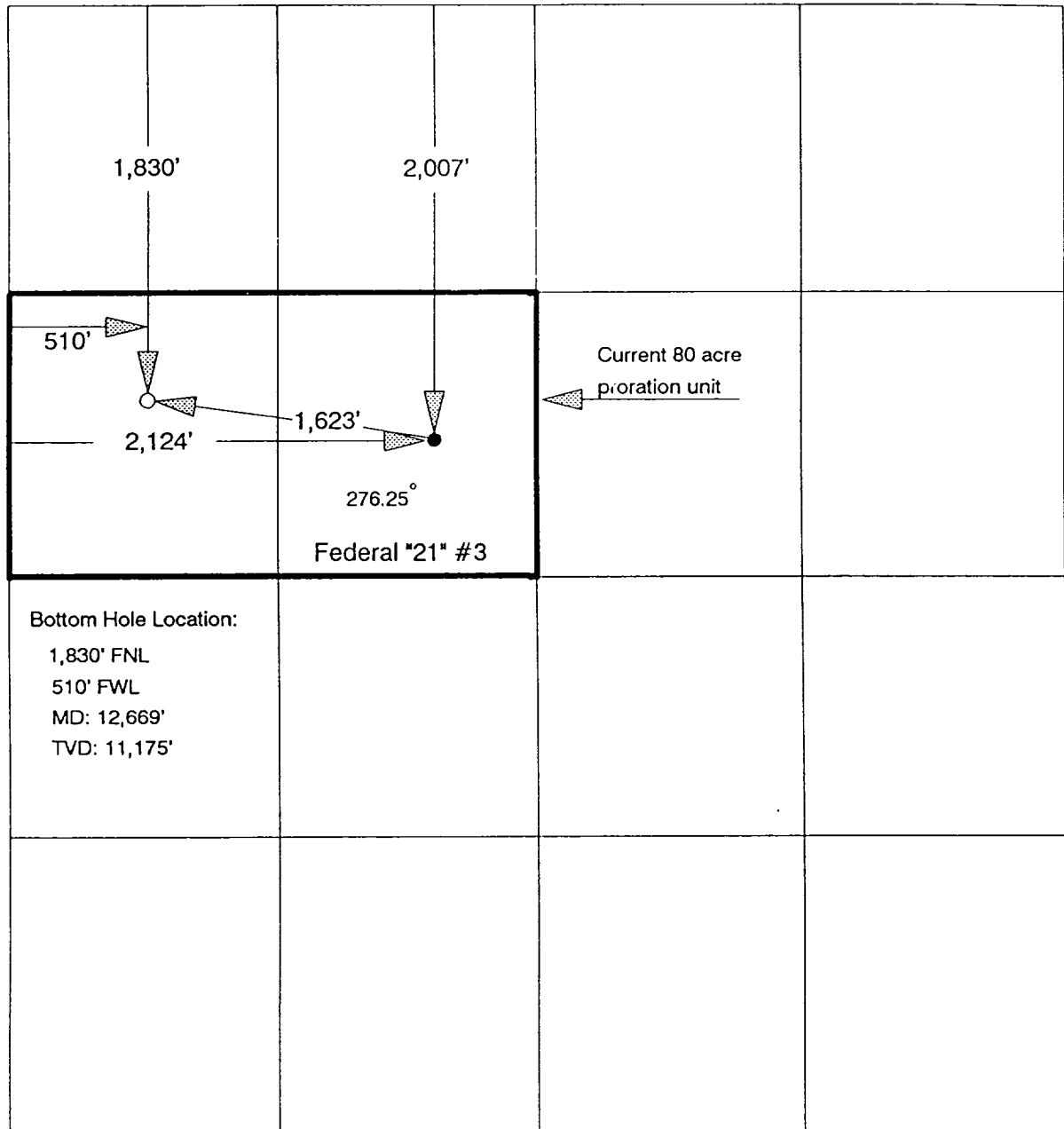
8/28/96

NAME AND TITLE: Tim Friesenhahn, Drilling Engineer

SIGNATURE:

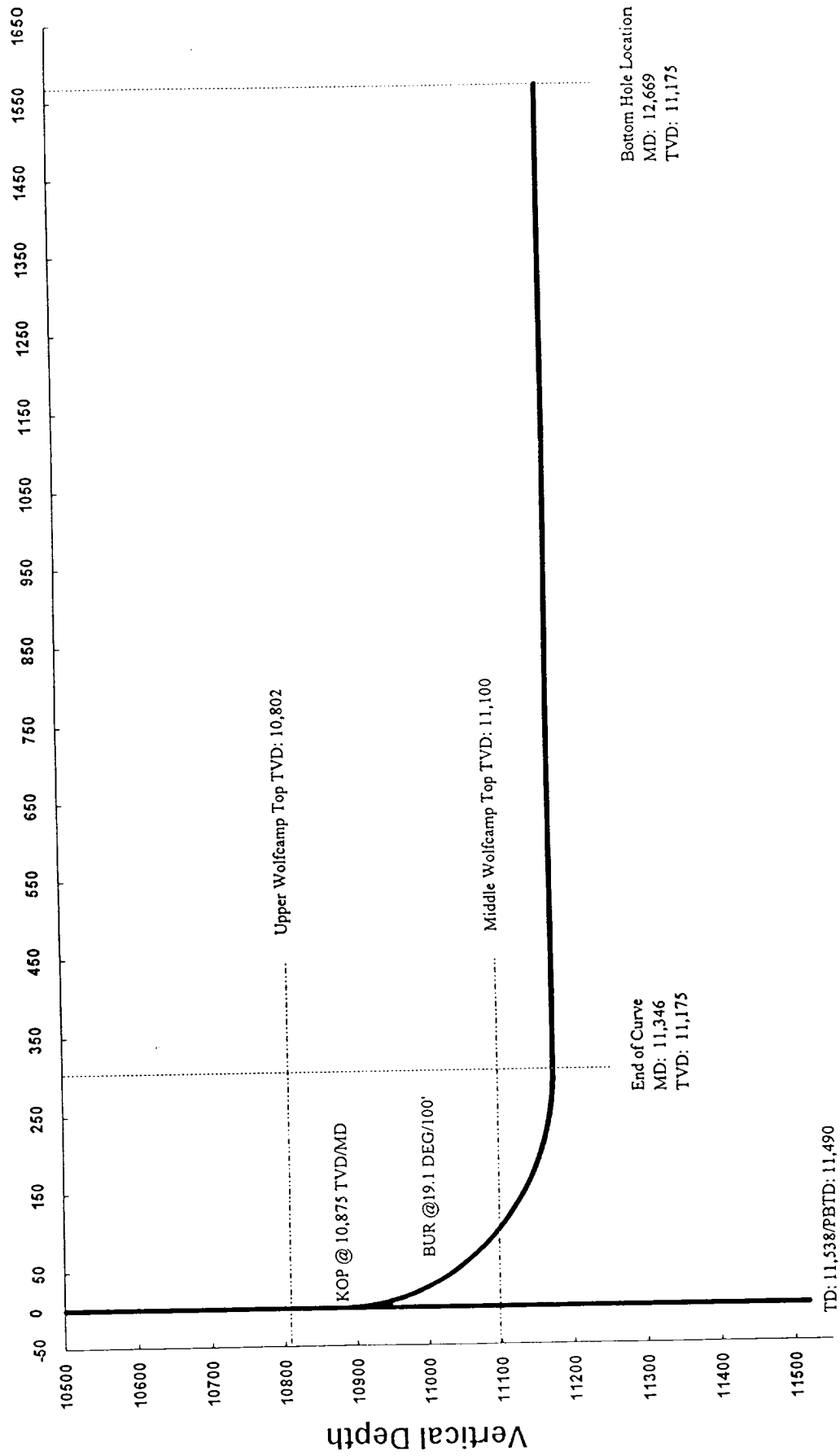
Tim Friesenhahn

T18S - R33E SECTION 21



Plan View of Horizontal Wellbore
Illustrating Azimuth & Lateral Extent

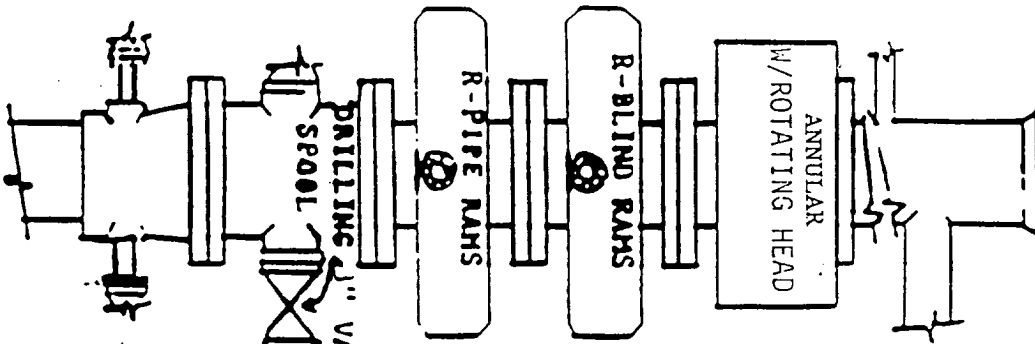
Vertical Section



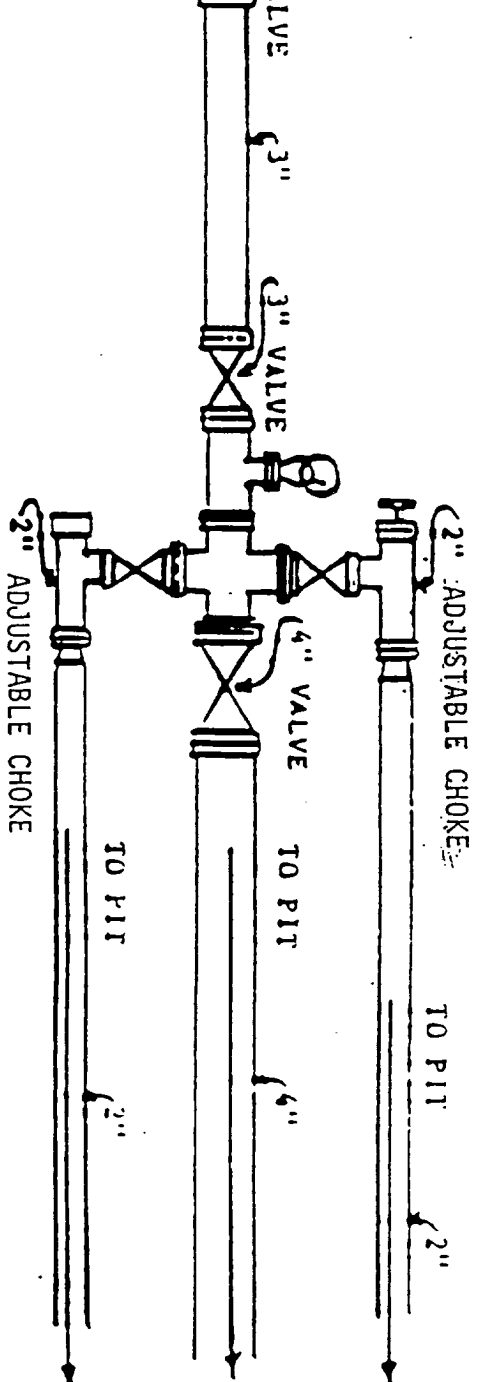
Prepared by: C. A. Babin
 July 1, 1996
 rev. 1

Vertical Section Direction: 276.25 degrees
 (All measurements in feet)

DOUBLE RAM



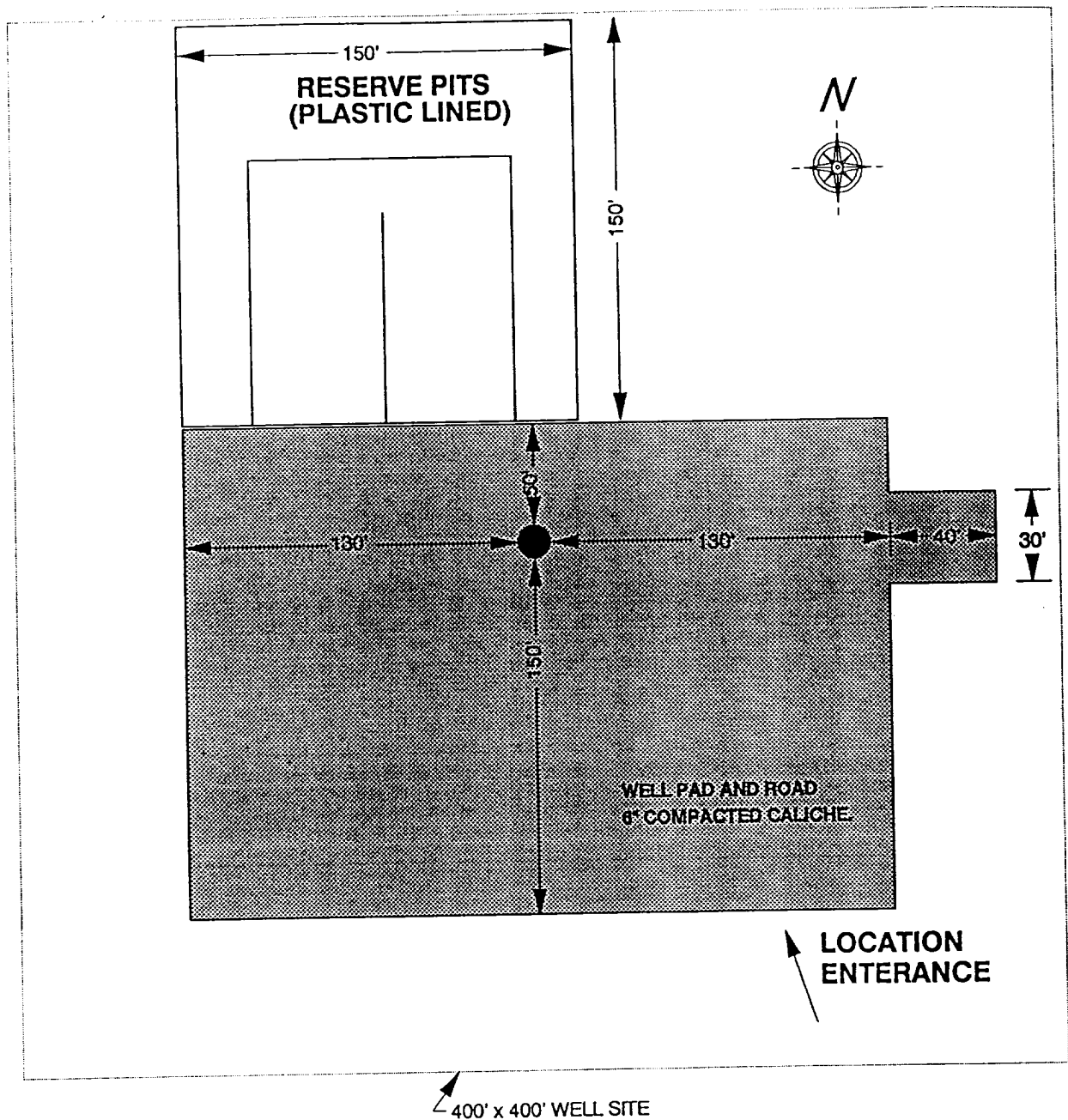
BLOW OUT PREVENTION EQUIPMENT
 10" 900s ALL FLANGED CONNECTIONS
 3000# WORKING PRESSURE



MERIDIAN OIL

MIDLAND REGION

DRILL WELL LOCATION SPECIFICATIONS

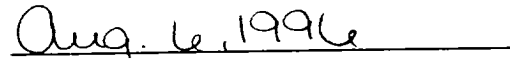


MERIDIAN OIL INC.
FEDERAL '21' WELL NO. 3
PROPOSED SIDETRACK
SEC. 21, T18S, R33E
LEA COUNTY, NEW MEXICO
NM 96780

I hereby certify that Meridian Oil Inc. is the only offset operator affected by the proposed sidetrack operations for the Federal '21' well no. 3.



Donna J. Williams



Date

