

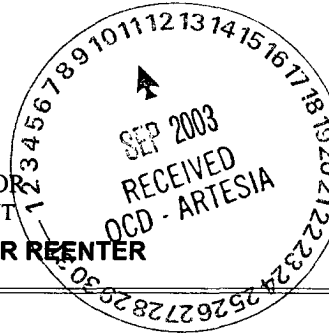
Oil Cons.  
N.M. DIV-Dist. 2  
1301 W. Grand Avenue  
Artesia, NM 88210

Form 3160-3  
(September 2001)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED  
OMB No. 1004-0136  
Expires January 31, 2004



1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NM29279
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator Marbob Energy Corporation		7. If Unit or CA Agreement, Name and No.
3a. Address PO Box 227, Artesia, NM 88211-0227		8. Lease Name and Well No. O D Federal #1
3b. Phone No. (include area code) 505-748-3303 Fax 505-746-2523		9. API Well No. 30-C15-32995
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 330' FSL & 2310' FEL At proposed prod. zone 330' FSL & 2310' FEL		10. Field and Pool, or Exploratory Red Lake; Glorieta Yeso, Northeast
14. Distance in miles and direction from nearest town or post office*		11. Sec., T., R., M., or Blk. and Survey or Area Sec. 34 T17S R27E
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of Acres in lease	17. Spacing Unit dedicated to this well 40
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth 4300'	20. BLM/BIA Bond No. on file
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3601' GL	22. Approximate date work will start* August 31 2003	23. Estimated duration 21 Days
24. Attachments ROS WELL CONTROLLED WATER BASIN		

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

- |   |  |
|---|--|
| 1. Well plat certified by a registered surveyor.  | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).    |
| 2. A Drilling Plan.   | 5. Operator certification.   |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature 	Name (Printed/Typed) Melanie J. Parker	Date 07/30/03
Title Authorized Representative		
Approved by (Signature) /s/ Joe G. Lara	Name (Printed/Typed) /s/ Joe G. Lara	Date 9 SEP 2003
Title ACTING FIELD MANAGER		
Office CARLSBAD FIELD OFFICE		

Application approval does not warrant or certify the 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, are attached.

APPROVAL FOR 1 YEAR

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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.

\*(Instructions on reverse)

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS  
AND SPECIAL STIPULATIONS  
ATTACHED

DISTRICT I  
P.O. Box 390, Hobbs, NM 88241-1990

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88211-0719

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

DISTRICT IV  
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

JUL 16 2003

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised February 10, 1994  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

## OIL CONSERVATION DIVISION

P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

### WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code 96836	Pool Name RED LAKE; GLORIETA YESO, NORTHEAST
Property Code	Property Name OD FEDERAL	Well Number 1
OGRID No. 14049	Operator Name MARBOB ENERGY CORPORATION	Elevation 3601'

#### Surface Location

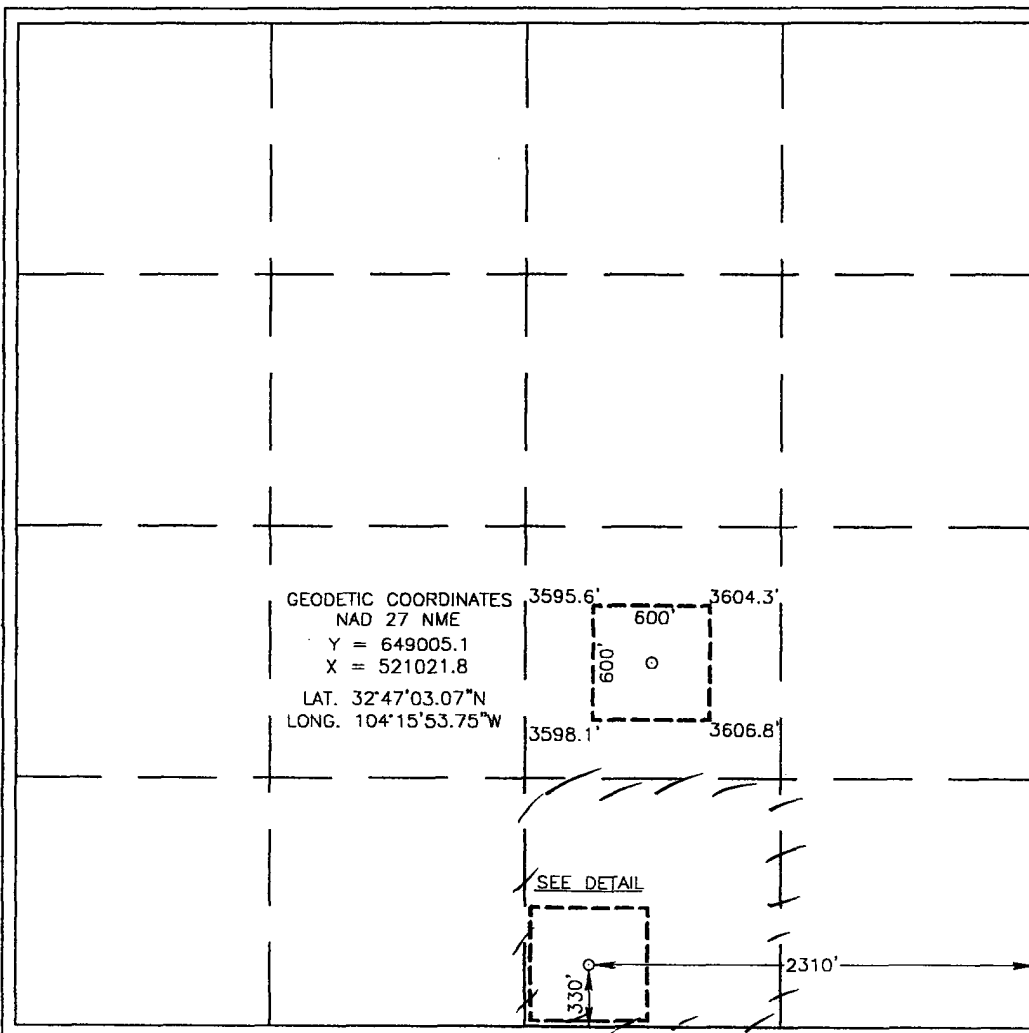
UL or lot No. 0	Section 34	Township 17-S	Range 27-E	Lot Idn	Feet from the 330	North/South line SOUTH	Feet from the 2310	East/West line EAST	County EDDY
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#### Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
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Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



#### OPERATOR CERTIFICATION

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

Signature

Melanie J. Parker  
Printed Name

Land Department  
Title

July 30, 2003  
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 belief.

JULY 11, 2003

Date Surveyed  
Signature and Seal of  
Professional Surveyor

RONALD J. EIDSON  
7/13/03  
03.11.0724

Certificate NO. 3239  
RONALD J. EIDSON  
12641

**MARBOB ENERGY CORPORATION**  
**DRILLING AND OPERATIONS PROGRAM**

**O D Federal #1**  
**330' FSL & 2310' FEL**  
**Section 34, T17S, R27E**  
**Eddy County, New Mexico**

In conjunction with Form 3160-3, Application for Permit to Drill subject well, Marbob Energy Corporation submits the following items of pertinent information in accordance with BLM requirements.

1. The geological surface formation is Permian:
2. The estimated tops of geologic markers are as follows:

Yates	830'	San Andres	2418'
Queen	1765'	Glorieta	3888'
Grayburg	2078'	Yeso	3954'

3. The estimated depths at which anticipated water, oil or gas formations are expected to be encountered:

Water:	Approximately 200'
Oil or Gas:	Approximately 2078'

No other formations are expected to give up oil, gas, or fresh water in measurable quantities. The surface fresh water sands will be protected by setting 8 5/8" casing at 1500' and circulating cement back to surface. Any shallower zones above TD which contain commercial quantities of oil and/or gas will have cement circulated across them by inserting a float shoe joint into the 5 1/2" production casing which will be run at TD to sufficiently cover all known oil and gas horizons above 200'.

4. Proposed Casing Program:

Hole Size	Interval	OD Casing	Wt	Grade
12 1/4"	0 – 350'	8 5/8"	24#	J-55 LTC New R-3
7 7/8"	0 – TD	5 1/2"	17#	J-55 LTC New R-3

Proposed Cement Program:

<b>WITNESS</b>	8 5/8" Surface Casing:	Cement w/ 350 sx Class C. Circulate to surface.
	5 1/2" Production Casing:	Cement w/ 750 sx Class C. Will attempt to circulate to cover 200' above all oil and gas horizons to tie into surface.

5. Pressure Control Equipment: See Exhibit 1.

6. Mud Program: The applicable depths and properties of this system are as follows:

Depth	Type	Weight (ppg)	Viscosity (sec)	Waterloss (cc)
0 -350'	Fresh Water	8.5 - 8.8	28 - 32	N.C.
350-4300'	Cut Brine	9.8 - 10.2	40 -45	N.C.

7. Auxiliary Equipment: Kelly Cock; Sub with full opening valve on floor; and drill pipe connections.

8. Testing, Logging and Coring Program:

No drillstem tests are anticipated.

The electric logging program will consist of Dual Laterolog Micro SFL, Spectral Density Dual Spaced Neutron Csgng Log, and Depth Control Log.

No conventional coring is anticipated.

9. No abnormal pressures or temperatures are anticipated.

10. Anticipated starting date: As soon as possible after approval.

## **MARBOB ENERGY CORPORATION**

### **HYDROGEN SULFIDE DRILLING OPERATIONS PLAN**

#### **I. HYDROGEN SULFIDE TRAINING**

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

- A. The hazards and characteristics of hydrogen sulfide (H<sub>2</sub>S).
- B. The proper use and maintenance of personal protective equipment and life support systems.
- C. The proper use of H<sub>2</sub>S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
- D. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

- A. The effects of H<sub>2</sub>S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
- B. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
- C. The contents and requirements of the H<sub>2</sub>S Drilling Operations Plan and the Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H<sub>2</sub>S zone (within 3 days or 500 feet) and weekly H<sub>2</sub>S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H<sub>2</sub>S Drilling Operations Plan and the Public Protection Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

## **II. H<sub>2</sub>S SAFETY EQUIPMENT AND SYSTEMS**

Note: All H<sub>2</sub>S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H<sub>2</sub>S.

### **A. Well Control Equipment:**

Flare line.

Choke manifold.

Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.

Auxiliary equipment to include: annular preventer, mud-gas separator, rotating head.

### **B. Protective equipment for essential personnel:**

Mark II Surviveair 30-minute units located in the dog house and at briefing areas.

### **C. H<sub>2</sub>S detection and monitoring equipment:**

2 - portable H<sub>2</sub>S monitor positioned on location for best coverage and response. These units have warning lights and audible sirens when H<sub>2</sub>S levels of 20 ppm are reached.

### **D. Visual warning systems:**

Caution/Danger signs shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used, when appropriate. See example attached.

E. Mud Program:

The mud program has been designed to minimize the volume of H<sub>2</sub>S circulated to the surface.

A mud-gas separator will be utilized.

F. Metallurgy:

All drill strings, casings, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H<sub>2</sub>S service.

G. Communication:

Company vehicles equipped with cellular telephone and 2-way radio.

# **W A R N I N G**

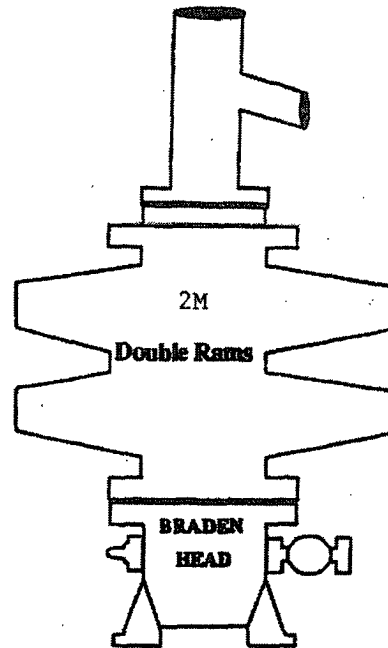
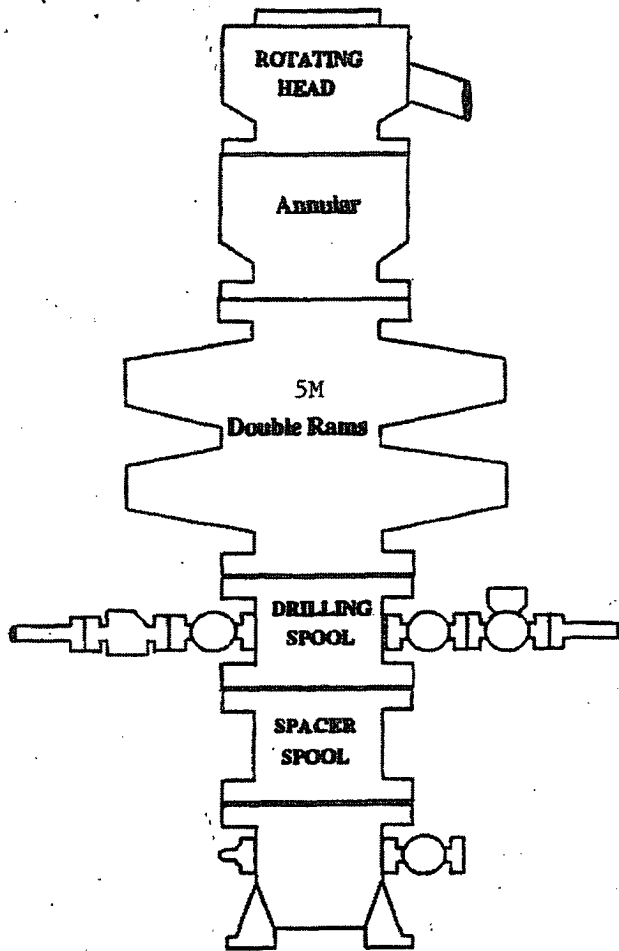
**YOU ARE ENTERING AN H<sub>2</sub>S AREA  
AUTHORIZED PERSONNEL ONLY**

- 1. BEARDS OR CONTACT LENSES NOT ALLOWED**
- 2. HARD HATS REQUIRED**
- 3. SMOKING IN DESIGNATED AREAS ONLY**
- 4. BE WIND CONSCIOUS AT ALL TIMES**
- 5. CK WITH MARBOB FOREMAN AT MAIN OFFICE**

**MARBOB ENERGY CORPORATION**

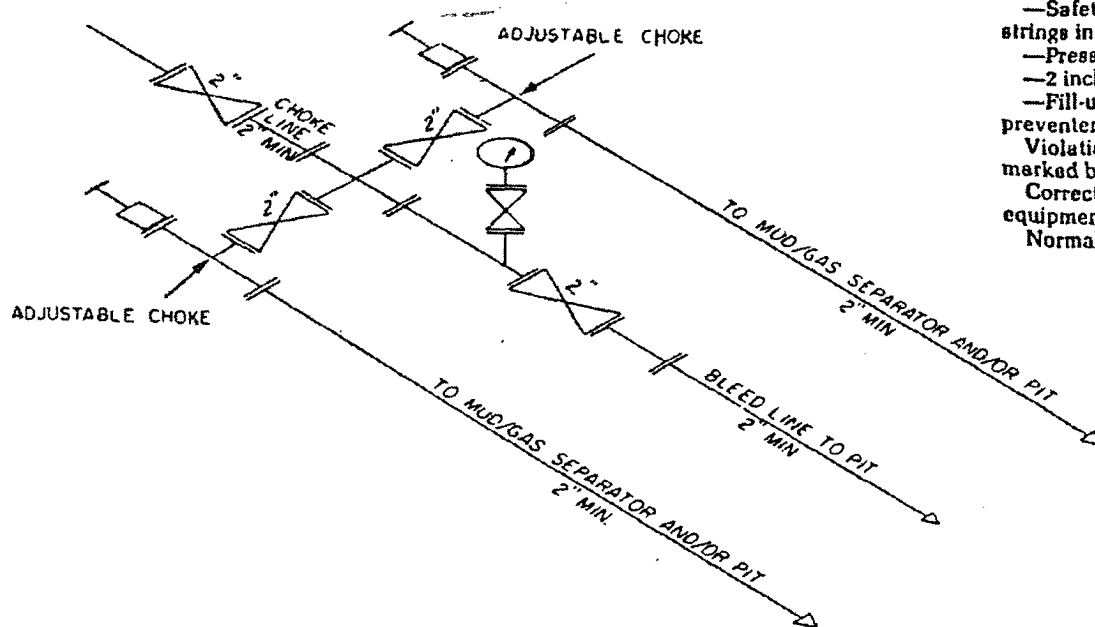
**1-505-748-3303**

## BOPE SCHEMATIC



ONSHORE OIL AND GAS ORDER NO. 2

- 2M system:
- Annular preventer, or, double ram, or two rams with one being blind and one being a pipe ram \*
  - Kill line (2 inch minimum)
  - 1 kill line valve (2 inch minimum)
  - 1 choke line valve
  - 2 chokes (refer to diagram in Attachment 1)
  - Upper kelly cock valve with handle available
  - Safety valve and subs to fit all drill strings in use
  - Pressure gauge on choke manifold
  - 2 inch minimum choke line
  - Fill-up line above the uppermost preventer.
- Violation: Minor (all items unless marked by asterisk).
- Corrective Action: Install the equipment as specified.
- Normal Abatement Period: 24 hours.



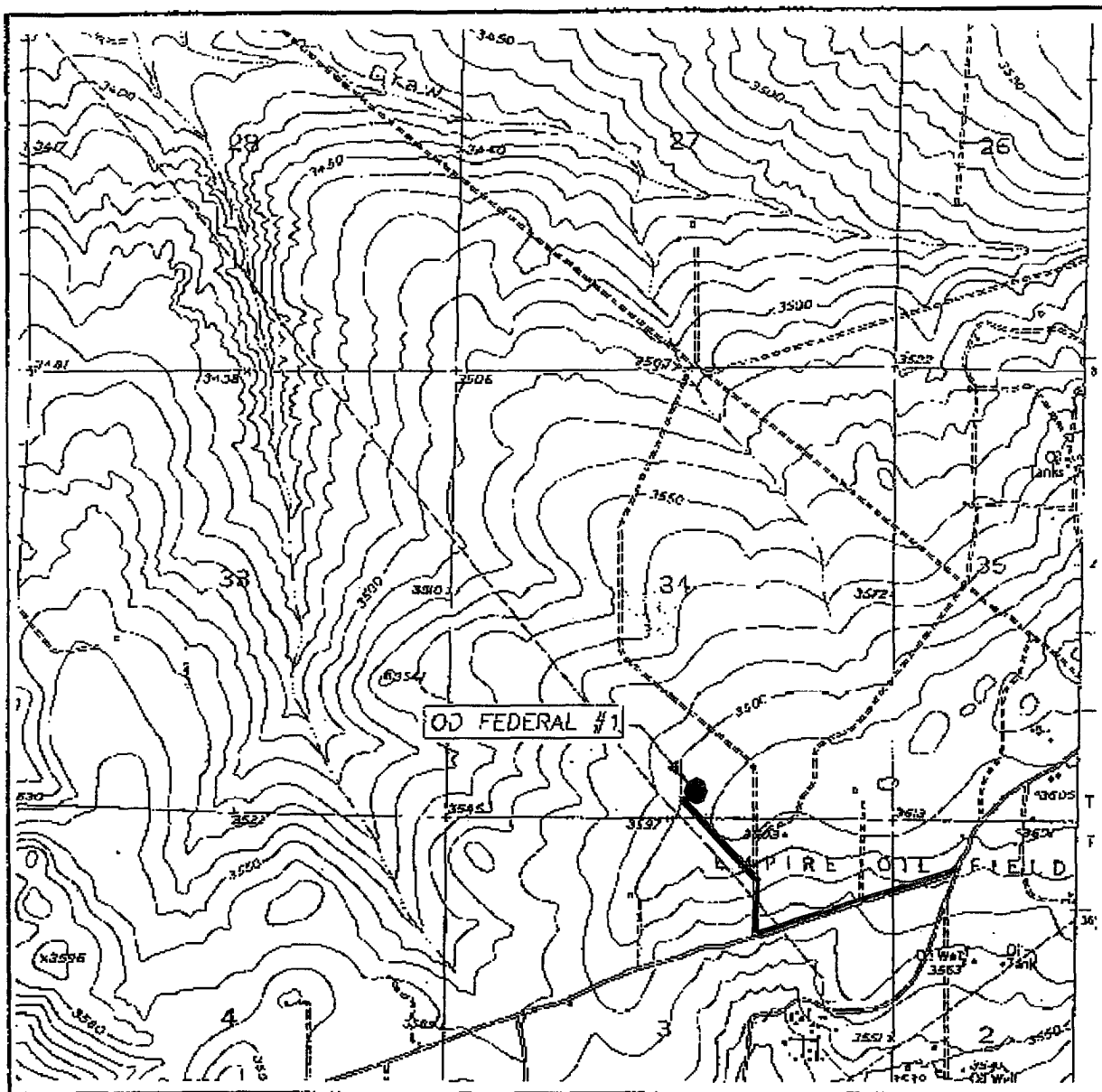
2M CHOKE MANIFOLD EQUIPMENT — CONFIGURATION OF CHOKES

MAY VARY

Exhibit One



# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL: 10'  
SPRING LAKE, N.M.

SEC. 34 TWP. 17-S RGF. 27-E

SURVEY V.M.P.M.

COUNTY EDDY

DESCRIPTION 330' FSL & 2310' FEL

ELEVATION 3601'

OPERATOR MARBOE ENERGY

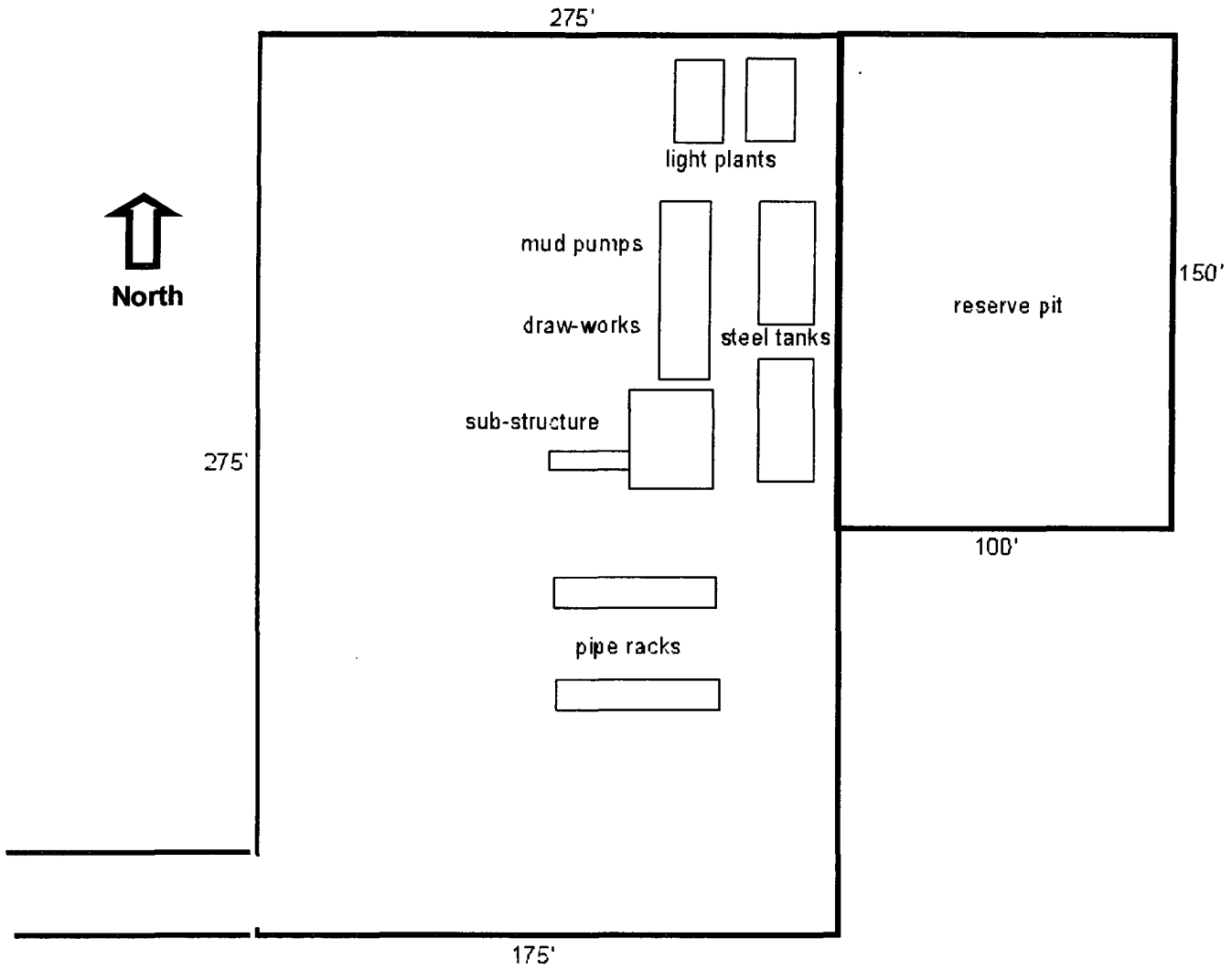
LEASE OD FEDERAL

U.S.G.S. TOPOGRAPHIC MAP  
SPRING LAKE, N.M.

JOHN WEST SURVEYING  
HOBBS, NEW MEXICO  
(505) 393-3117

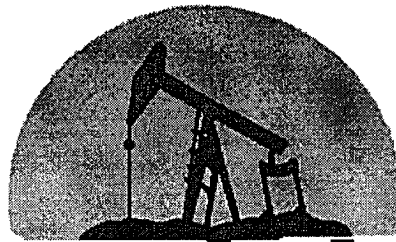
— Road

# Well Site Lay-Out Plat



O D Federal No. 1  
330' FSL & 2310' FEL  
Section 34, T17S, R27E  
Eddy County, New Mexico

EXHIBIT FOUR



**marbob**  
**ENERGY CORPORATION**  
ARTESIA, NEW MEXICO

September 12, 2003

Oil Conservation Division  
1301 W. Grand Ave.  
Artesia, NM 88210

Attention: Bryan Arrant

Re: OD Federal #1  
330' FSL & 2310' FEL, Unit O  
Section 34, T17S, R27E  
Eddy County, New Mexico

Dear Bryan:

We plan to complete in the Yeso which is sweet and we don't anticipate cutting any formations that contain H2S gas during the drilling of the above referenced well. Therefore, we do not believe that an H2S contingency plan is necessary.

If you have questions or need further information, please call.

Sincerely,

Melanie J. Parker  
Land Department

/mp