

NMOCT Hobbs

Form 3160-3  
(July 1992)

SUBMIT IN TRIPLICATE\*  
(Other instructions on reverse side)

FORM APPROVED  
OMB NO. 1004-0136  
Expires: February 28, 1995

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

b. TYPE OF WELL

OIL WELL ☒

GAS WELL ☐

OTHER ☐

SINGLE ZONE ☒

MULTIPLE ZONE ☐

2. NAME OF OPERATOR

Enron Oil & Gas Company

3. ADDRESS AND TELEPHONE NO.

P. O. Box 2267, Midland, Texas 79702

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\*)

At surface

510' FNL & 660' FEL

At proposed prod. zone

510' FNL & 660' FEL

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*

29 miles west of Jal, NM

15. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

(Also to nearest drlg. unit line, if any)

510

510

16. NO. OF ACRES IN LEASE

640

17. NO. OF ACRES ASSIGNED TO THIS WELL

80

18. DISTANCE FROM PROPOSED LOCATION\* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.

1328' to #3

19. PROPOSED DEPTH

12600

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

3339' GR

22. APPROX. DATE WORK WILL START\*

January 1995

23. SJS

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
14-3/4	11-3/4 H-40 A	ST&C 42	650	250 sx Circulated
11	8-5/8 J-55 ST&C	32	5200	1100 sx Circulated
7-7/8	5-1/2 P-110 LT&C	17	6500	1200 sx
	5-1/2 S-95 LT&C	17	12600	TOC est at 4500'

The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on leased land or portions thereof as shown below:

NM 24490

Sec 18, T25S, R34E

Bone Spring Formation

Federa Bond No. MT 0748

with endorsement to NM.

OPER. OGRID NO. 7377

PROPERTY NO. 15397

POOL CODE 51020

EFF. DATE 3/14/95

API NO. 30-025-32882

Acreage is dedicated to a pipeline

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.

SIGNATURE

*Betty Gildon*

Betty Gildon

TITLE Regulatory Analyst

DATE 1/3/95

(This space for Federal or State office use)

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS  
ATTACHED

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 operations thereon.  
CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY

TITLE

*acting*

DATE

MAR 1 1995

\*See Instructions On Reverse Side

District I  
PO Box 1980, Hobbs, NM 88241-1980  
District II  
PO Drawer DD, Artesia, NM 88211-0719  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico  
Energy, Minerals & Natural Resources Deptmte.

OIL CONSERVATION DIVISION  
PO Box 2088  
Santa Fe, NM 87504-2088

Form C-102  
Revised February 21, 1994  
Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-025-32882	<sup>2</sup> Pool Code 51020	<sup>3</sup> Pool Name Red Hills Bond Spring
<sup>4</sup> Property Code 15397	<sup>5</sup> Property Name DIAMOND "18" FEDERAL	<sup>6</sup> Well Number 4
<sup>7</sup> GRID No. 7377	<sup>8</sup> Operator Name ENRON OIL AND GAS COMPANY	<sup>9</sup> Elevation 3339

<sup>10</sup>Surface Location


UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	18	25-S	34-E		510	NORTH	660	EAST	LEA

<sup>11</sup>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

<sup>12</sup> Dedicated Acres 80	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> 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

<sup>16</sup>		<sup>17</sup> OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.  Signature: <u>Betty Gildon</u> Printed Name: Betty Gildon Title: Regulatory Analyst Date: 1/3/95
		<sup>18</sup> 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 best of my belief.  Date of Survey: <u>1/3/95</u> Signature and Seal of Professional Surveyor: <u>Earl Foote</u> Certificate Number: 8278

## DRILLING PROGRAM

Enron Oil & Gas Company  
Diamond "18" Federal, Well No. 4  
510' FNL & 660' FEL  
Sec. 18, T25S, R34E  
Lea County, New Mexico

1. Geologic Name of Surface Formation:

Permian

2. Estimated Tops of Important Geologic Markers:

Rustler	850'
Delaware Mt. Group	5175'
Bone Spring Lime	9275'
3rd Bone Spring Sand	12400'
TD	12600'

3. Estimated Depths of Anticipated Fresh Water, Oil or Gas:

Upper Permian Sands	100'	Fresh Water
3rd Bone Spring Sand	12400'	Oil

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 11-3/4" casing at 650' and circulating cement back to surface, and 8-5/8" casing will be set at 5200' with cement circulated back to surface.

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4. Casing Program:

<u>Hole Size</u>	<u>Interval</u>	<u>OD csg</u>	<u>Weight Grade Jt. Cond. Type</u>
14-3/4	0- 650'	11-3/4	42# H-40 A ST&C
11	0- 5200'	8-5/8	32# J-55 ST&C
7-7/8	0- 6500'	5-1/2	17# P-110 LT&C
7-7/8	6500' - 12600'	5-1/2	17# S-95 LT&C

Cementing Program:

11-3/4" Surface casing: Cement to surface with 250 sx of Class C + 2% CaCl<sub>2</sub> + 1/4#/sx flocele.

8-5/8" Intermediate: Cement to surface with 800 sx of Premium Plus lite + 15#/sx salt + 1/4#/sx Flocele and 300 sx Cl C + 2% CaCl<sub>2</sub>

5-1/2" Prod casing: Cement with 1200 sx 50/50 Cl H/Poz + 2% gel + .4% CF-14, .1% Diacel LWL. This cement slurry is designed to bring TOC to 4500'.

5. Minimum Specifications for Pressure Control:

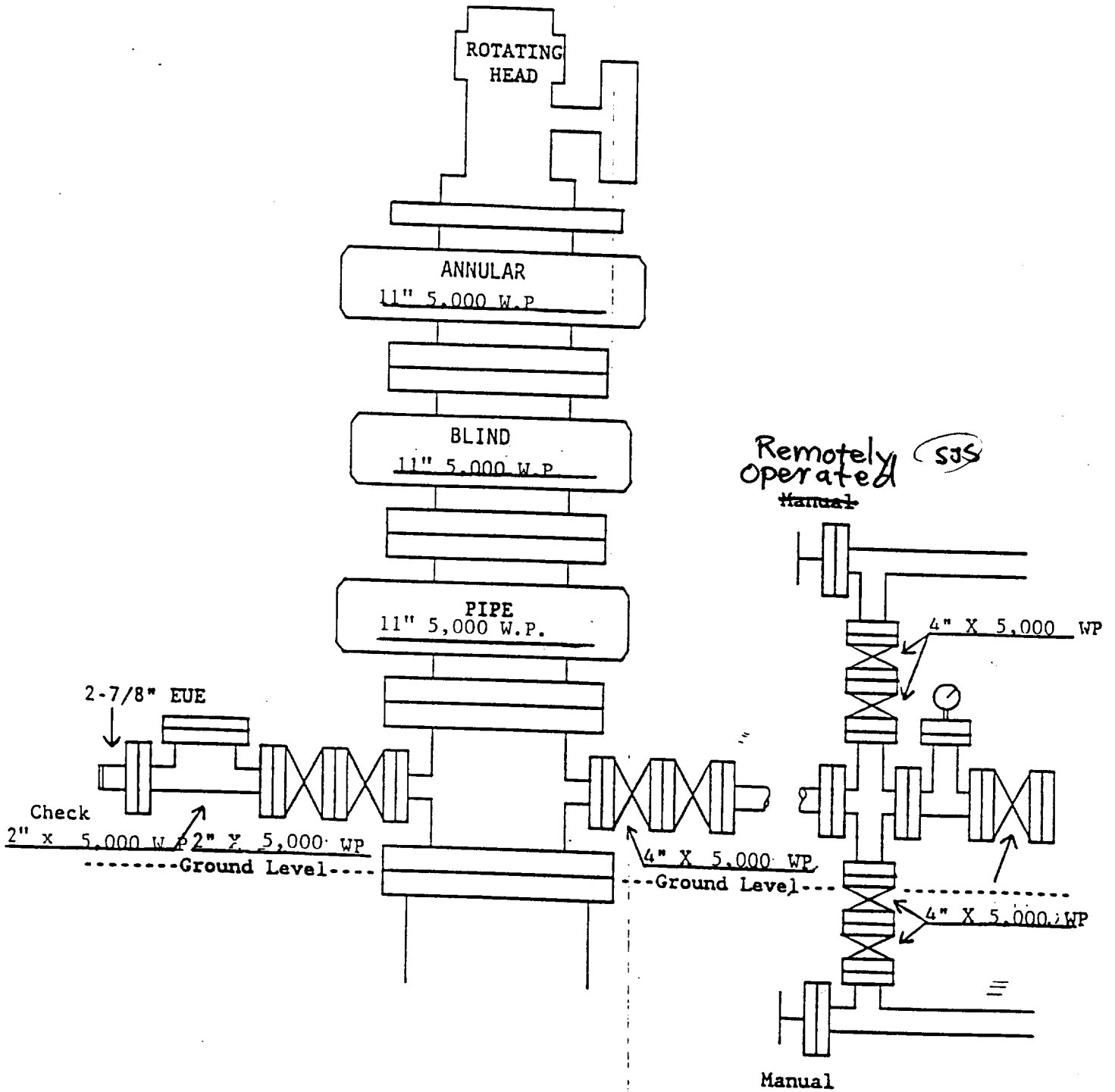
The blowout preventer equipment (BOP) shown in Exhibit #1 will consist of a double ram-type (5000 psi WP) preventer and an annular preventer (5000 psi WP). Units will be hydraulically operated and the ram-type will be equipped with blind rams on top and drill pipe rams on bottom. All will be installed on the 11-3/4" surface casing and used continuously until TD is reached. All BOP's and accessory equipment will be tested to 600 psi before drilling out of surface casing. Before drilling out of intermediate casing, the ram-type BOP and accessory equipment will be tested to 5000 psi and the annular to 70% of rated working pressure (3500 psi).

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. A 2" kill line and 4" choke line will be included in the drilling spool located below the ram-type BOP. Other accessories to the BOP equipment will include a kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold with 5000 psi WP rating.

ENRON OIL & GAS COMPANY

Diamond 18 Federal #4

EXHIBIT #1



Attachment to Exhibit #1  
ENRON OIL & GAS COMPANY  
Diamond "18" Federal, Well No. 4

1. Blow out preventer and all fittings must be in good condition, 3000 psi W.P. minimum.
2. All fittings to be flanged.
3. Safety valve must be available on rig floor at all times with proper connections, valve to be full bore 5000 psi W.P. minimum.
4. All choke and fill lines to be securely anchored, especially ends of choke lines.
5. Equipment through which bit must pass shall be at least as large as the diameter of the casing being drilled through.
6. Kelly cock on kelly.
7. Extension wrenches and hand wheels to be properly installed.
8. Blow out preventer control to be located as close to driller's position as feasible.
9. Blow out preventer closing equipment to include minimum 40 gallon accumulator, two independent sources of pump power on each closing unit installation, and meet all API specifications.

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6. Types and Characteristics of the Proposed Mud System:

The well will be drilled to TD with a combination of brine, cut brine, and polymer/KCl mud system. The applicable depths and properties of this system are as follows:

<u>Depth</u>	<u>Type</u>	<u>Weight (ppg)</u>	<u>Viscosity (sec)</u>	<u>Waterloss (cc)</u>
0-650'	Fresh water (spud)	8.5	40-45	N.C.
650'-5200'	Brine water	10.0	30	N.C.
5200'-TD	Cut Brine & Polymer/KCL	8.8-9.2	28	N.C.

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the wellsite at all times.

7. Auxiliary Well Control and Monitoring Equipment:

- (A) A kelly cock will be kept in the drill string at all times.
- (B) A full opening drill pipe stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.
- (C) A mud logging unit complete with H2S detector will be continuously monitoring drilling penetration rate and hydrocarbon shows from 4500' to TD.