

Form 3160-3  
(July 1992)

NAT. OIL & GAS COMMISSION  
P.O. BOX 10000  
ALBUQUERQUE, NM 87136-0000  
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, Tx 79702

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

330' 460' FNL & 1963' FWL

330' At proposed prod. zone  
460' FNL & 1963' FWL

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

25 miles west of Jal, NM

10. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, FT.

460

460

(Also to nearest drig. unit line, if any)  
18. DISTANCE FROM PROPOSED LOCATION\*  
TO NEAREST WELL, DRILLING, COMPLETED,  
OR APPLIED FOR, ON THIS LEASE, FT.

1821

16. NO. OF ACRES IN LEASE

320

19. PROPOSED DEPTH

12,650'

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

40

20. ROTARY OR CABLE TOOLS

Rotary

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

3,448' GL

22. APPROX. DATE WORK WILL START\*

2/25/94

23.

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	42# H-40 A ST&C	650	250 sx CIRCULATED
11	8-5/8	32# J-55 ST&C	5200	1100 sx CIRCULATED
7-7/8	5-1/2	17# P-110 LT&C	12650	1200 sx Est TOC 7500'

OPER. GRID NO. DD7377

PROPERTY NO. 13208

POOL CODE 96040

EFF. DATE 2-28-94

API NO. 30-025-32434

Acreage is dedicated.

Approval Subject to  
General Requirements and  
Special Stipulations  
Attached

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 Betty Gildon Betty Gildon TITLE Regulatory Analyst

DATE 11/18/93

(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:

(ORIG. SCD.) RICHARD L. MANNIS

APPROVED

FEB 23 1994

APPROVED BY \_\_\_\_\_

DATE \_\_\_\_\_

\*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.

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 Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

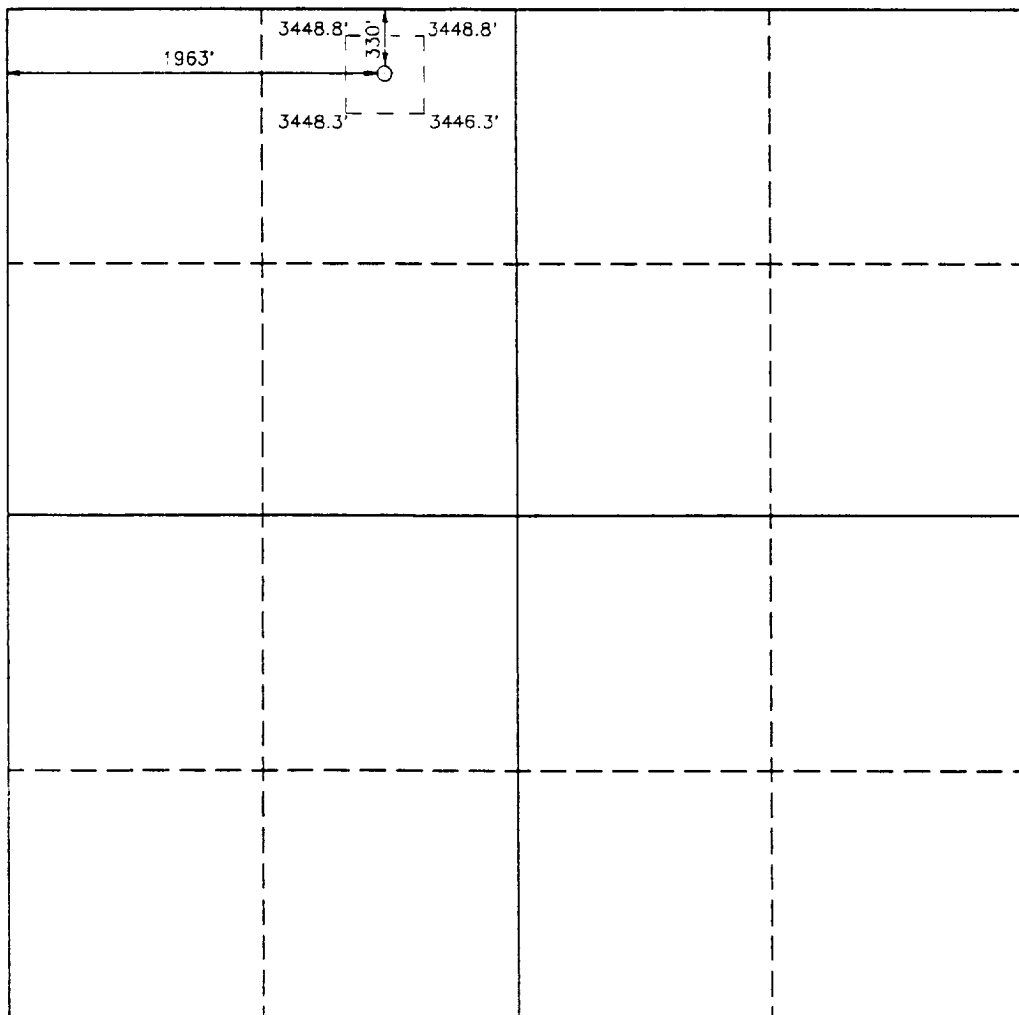
Operator ENRON OIL & GAS CO.			Lease DIAMOND 7 FEDERAL		Well No. 3
Unit Letter C	Section 7	Township 25 SOUTH	Range 34 EAST	NMPM	County LEA
Actual Footage Location of Well: 330 feet from the NORTH line and 1963 feet from the WEST line					
Ground Level Elev. 3448.4'	Producing Formation Bone Spring		Pool Red Hills Wildcat	Dedicated Acreage: 40 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. 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 \_\_\_\_\_

If answer is "no" list of owners and tract descriptions which have actually been consolidated. (Use reverse side of this form necessary.) \_\_\_\_\_

No allowable will be assigned to the well unit all interests have been consolidated (by communitization, unitization, forced-pooling, otherwise) or until a non-standard unit, eliminating such interest, 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

Betty Gildon

Printed Name

Betty Gildon

Position

Regulatory Analyst

Company

Enron Oil & Gas Company

Date

12/29/93

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.

Date Surveyed

DECEMBER 9, 1993

Signature & Seal of  
Professional Surveyor

GARY L. JONES  
NEW MEXICO  
7977  
Certificate No. JOHN E. WEST, 876  
RONALD J. EDSON, 3239  
GARY L. JONES, 7977

93-11-2494

## DRILLING PROGRAM

Enron Oil & Gas Company  
Diamond "7" Federal, Well No. 3  
460' FNL & 1963' FWL  
Sec. 7, 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	12340'
TD	12650'

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

Upper Permian Sands	100'	Fresh Water
3rd Bone Spring Sand	12340'	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 csq</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 LT&C
7-7/8	0-12650'	5-1/2	17# P-110 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 7500'.

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.

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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.

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8. Logging, Testing and Coring Program:

- (A) The electric logging program will consist of GR-Dual Laterolog-MSFL and GR-Compensated Density-Neutron from TD to intermediate casing with a GR-Compensated Neutron ran from intermediate casing to surface.
- (B) Possible side wall cores based on shows.

9. Abnormal Conditions, Pressures, Temperatures, & Potential Hazards:

No abnormal pressures or temperatures are anticipated. The estimated bottom hole temperature (BHT) at TD is 175 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 5900 psig. No hydrogen sulfide or other hazardous gases or fluids have been encountered, reported or are known to exist at this depth in this area. No major loss circulation zones have been reported in offsetting wells.

Anticipated Starting Date and Duration of Operations:

Road and location work will not begin until approval has been received from the BLM. Anticipated spud date is February 25, 1994. Once drilling has commenced, the drilling operation should be finished in approximately 30 days. If the well is productive, an additional 30 to 45 days will be required for completion and testing before a decision is made to install permanent facilities.

ENRON OIL & GAS COMPANY

Diamond 7 Federal #3

