

N.M. OIL CONS. COMMISSION
P.O. BOX 1980

HOBBS, NEW MEXICO 88249

(Other instructions on reverse side)

Form 3160-3
(July 1992)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/>			5. LEASE DESIGNATION AND SERIAL NO. NM 24490	
2. NAME OF OPERATOR Enron Oil & Gas Company			6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
3. ADDRESS AND TELEPHONE NO. P. C. Box 2267, Midland, Texas 79702			7. UNIT AGREEMENT NAME	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At surface 660' FNL & 1980' FWL At proposed prod. zone 660' FNL & 1980' FWL			8. FARM OR LEASE NAME, WELL NO. Diamond 18 Federal #2	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE 29 miles west from Jal, NM			9. API WELL NO.	
15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 660			10. FIELD AND POOL, OR WILDCAT Red Hills Bone Spring	
16. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL, DRILLING COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 1320' to #1			11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec 18, T25S, R34E	
17. NO. OF ACRES IN LEASE 640			12. COUNTY OR PARISH 13. STATE Lea NM	
18. NO. OF ACRES ASSIGNED TO THIS WELL 80			19. PROPOSED DEPTH 12600	
20. ROTARY OR CABLE TOOLS Rotary			21. APPROX. DATE WORK WILL START Aug 20, 1994	
22. ELEVATIONS (Show whether DF, RT, GR, etc.) 3348' GR				

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 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#	12600	1400 sx 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

Federal Bond # is MT 0748 with endorsement to New Mexico

OPER. CGRID NO. 232

PROPERTY NO. 15375

POOL CODE 37620

EFF. DATE 7-27-94

API NO. 31-25-326D

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.

SIGNED Betty Gildon TITLE Regulatory Analyst DATE 6/17/94

(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 Richard C. Manus TITLE AREA MANAGER DATE 7-21-94

*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 Department

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

Form C-102
Revised February 10, 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

API Number 32-6-25-3225-4	Pool Code 51020	Pool Name Red Hills Bone Spring
Property Code 15347	Property Name Diamond "18" Federal	Well Number 2
OGRID No. 2375377	Operator Name Enron Oil & Gas Company	Elevation 3348'

¹⁰ Surface Location

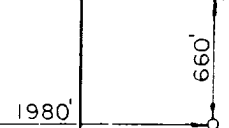
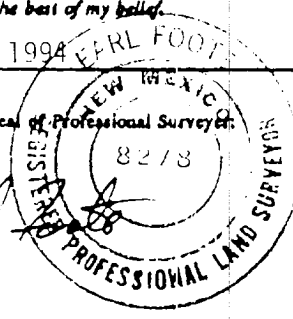
UL or lot no. C	Section 18	Township 25-S	Range 34-E	Lot Idn	Feet from the 660	North/South line North	Feet from the 1980	East/West line West	County Lea
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¹¹ Bottom Hole Location If Different From Surface

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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¹² Dedicated Acres 80	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ 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

¹⁶ 	¹⁷ 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: <u>Betty Gildon</u> Title: <u>Regulatory Analyst</u> Date: <u>6/17/94</u>			
	¹⁸ 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. Date of Survey: <u>June 7, 1994</u> Signature and Seal of Professional Surveyor: <u>[Signature]</u> Certificate Number: <u>8278</u>			
				
	Certificate Number 8278			

DRILLING PROGRAM

Enron Oil & Gas Company
Diamond "18" Federal, Well No. 2
660' FNL & 1980' FWL
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>
11-3/4"	0 - 650'	11-3/4"	42# H-40 A ST&C
8-5/8"	0 - 5200'	8-5/8"	32# J-55 ST&C
5-1/2"	0 - 12600'	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% CaCl₂ + 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% CaCl₂
- 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.

ENRON OIL & GAS COMPANY

Diamond 18 Federal #2

