

Form 100-13
(July 1992)

OPER. CORR. NO. 73
PROPOSED NO. 19973
FOOTAGE 26500
EFF. DATE 11/19/96
APPL. NO. 30-025-33689

FORM APPROVED

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

UNITED STATES
DEPARTMENT OF
BUREAU OF LAND

APPLICATION FOR PERMIT

1. TYPE OF WORK

DRILL ☒

DEEPEN ☐

2. TYPE OF WELL

OIL
WELL ☒

GAS
WELL ☐

OTHER ☐

SINGLE
ZONE ☒

MULTIPLE
ZONE ☐

3. NAME OF OPERATOR

Enron Oil & Gas Company

4. ADDRESS AND TELEPHONE NO.

P. O. Box 2267, Midland, Texas 79702 (915) 686-3714

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

At surface
330' FNL & 650' FEL

At proposed prod. zone

330' FNL & 650' FEL

Unit A

6. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE

6 miles NE from Jal

7. DISTANCE FROM PROPOSED

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT. 330

330

8. NO. OF ACRES IN LEASE

320

9. NO. OF ACRES ASSIGNED
TO THIS WELL

40

10. DISTANCE FROM PROPOSED LOCATION
TO NEAREST WELL, DRILLING COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT. 1000

11. PROPOSED DEPTH

12000

12. ROTARY OR CABLE TOOLS

Rotary

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

14. APPROX. DATE WORK WILL START

15.

PROPOSED CASING AND CEMENT

CAPITAN CONTROLLED WATER BASIN

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#	450	250 sx CIRCULATED
11	8-5/8 J-55 LT&C	32#	4200	1100 sx CIRCULATED
7-7/8	5-1/2 S-95 & N-80 LT&C	17#	12000	735 sx TOC 7000'

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

NM 90558

Sec 18, T24S, R38E

Ellenburger Formation

Federal Bond # is MT 0748 with
endorsement to New Mexico

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

16. 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.

17.

SIGNED

Betty Seldon

Gildon

TITLE Regulatory Analyst

DATE 10/16/96

(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 MRS. BOB FERGUSON

MINERALS

APPROVED BY

TITLE

DATE

*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 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

¹ API Number 30-025-33689	² Pool Code 26500 26410	³ Pool Name East Fowler Ellenburger
⁴ Property Code 19973	⁵ Property Name GREENBACK FEDERAL	⁶ Well Number 1
⁷ GRID No. 7377	⁸ Operator Name ENRON OIL AND GAS COMPANY	⁹ Elevation 3203

¹⁰Surface Location

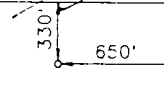
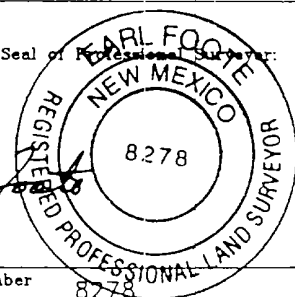
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	13	24-S	38-E		330	NORTH	650	EAST	LEA

¹¹Bottom 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

¹² Dedicated Acres 40	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>10/15/96</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 best of my belief. SEPT. 23, 1996 Date of Survey Signature and Seal of Professional Surveyor:  Certificate Number <u>8278</u>

DRILLING PROGRAM

Enron Oil & Gas Company
Greenback Federal, Well No. 1
330' FNL & 650' FEL
Sec. 18, T24S, R38E
Lea County, New Mexico

1. Geologic Name of Surface Formation:

Permian

2. Estimated Tops of Important Geologic Markers:

Rustler	850'
Bone Spring	6700'
Ellenburger	11600'
TD	12000'

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

Upper Permian Sands	100'	Fresh Water
Ellenburger	11600'	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 450' and circulating cement back to surface, and 8-5/8" casing will be set at 4200' 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- 450'	11-3/4"	42# H-40 A ST&C
11"	0- 4200'	8-5/8"	32# J-55 LT&C
7-7/8"	0-12000'	5-1/2"	17# S-95 & N-80 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 735 sx 50/50 Cl H/Poz + 2% gel + .4% CF-14, .1% Diacel LWL. This cement slurry is designed to bring TOC to 7000'.

5. Minimum Specifications for Pressure Control:

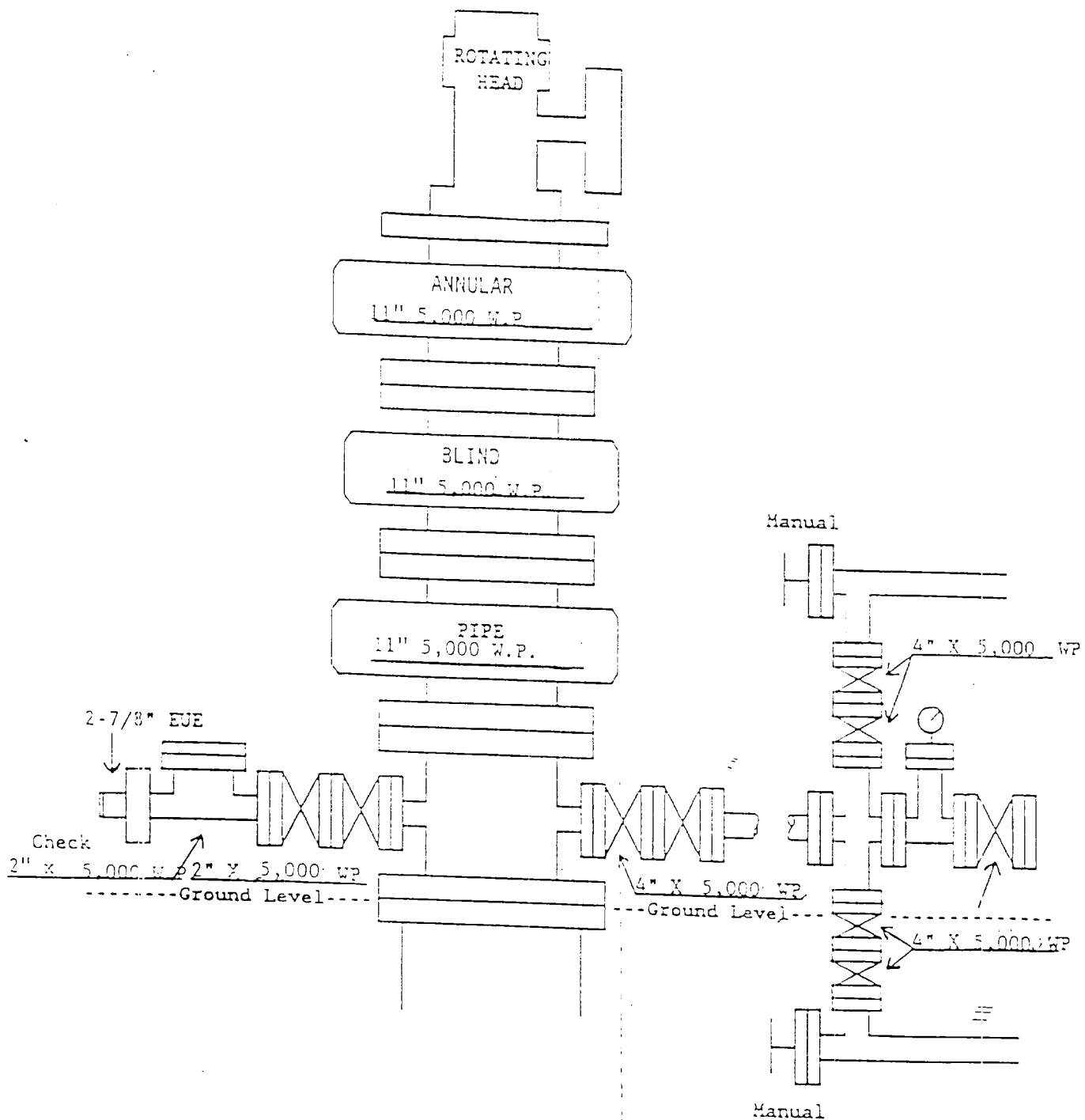
The blowout preventer equipment (BOP) shown in Exhibit #1 will consist of a double ram-type (5000 psi WP) preventer and an annular preventer (5000 psi WP). Units will be hydraulically operated and the ram-type will be equipped with blind rams on top and drill pipe rams on bottom. All will be installed 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 BCP) and choke lines and choke manifold with 5000 psi WP rating.

Attachment to Exhibit #1
ENRON OIL & GAS COMPANY
Greenback Federal, Well No. 1

1. Drilling nipple to be so constructed that it can be removed without use of a welder through rotary table opening, with minimum I.D. equal to preventer bore.
2. Wear ring to be properly installed in head.
3. Blow out preventer and all fittings must be in good condition, 5000 psi W.P. minimum.
4. All fittings to be flanged.
5. Safety valve must be available on rig floor at all times with proper connections, valve to be full bore 5000 psi W.P. minimum.
6. All choke and fill lines to be securely anchored, especially ends of choke lines.
7. Equipment through which bit must pass shall be at least as large as the diameter of the casing being drilled through.
8. Kelly cock on kelly.
9. Extension wrenches and hand wheels to be properly installed.
10. Blow out preventer control to be located as close to driller's position as feasible.
11. 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.

ENRON OIL & GAS COMPANY
Greenback Federal, Well No. 1



Enron Oil & Gas Company
Greenback Federal, Well No. 1
330' FNL & 650' FEL
Sec. 18, T24S, R38E
Lea County, New Mexico

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>
0-450'	Fresh water (spud)	8.5	40-45	N.C.
450'-4200'	Brine water	10.0	30	N.C.
4200'-TD	Fresh water/ Bentonite/Lo Solids	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 2000' to TD.

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330' FNL & 650' FEL
Sec. 18, T24S, R38E
Lea County, New Mexico

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 4900 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.

10. Anticipated Starting Date and Duration of Operations:

The drilling operation should be finished in approximately one week. 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
Greenback Federal, Well No. 1
330' FNL & 650' FEL
Sec. 18, T24S, R38E
Lea County, New Mexico

SURFACE USE AND OPERATIONS PLAN

1. Existing Roads:

Access to location will be made as shown on Exhibit. No 2.

Routine grading and maintenance of existing roads will be conducted as necessary to maintain their condition as long as any operations continue on this lease.

2. Proposed Access Road:

Exhibit #2 shows the 450 feet of proposed new access road. Proposed road will measure 30' in width. Surface material will consist of six (6) inches of caliche, water compacted and graded with a minimum grade of 3 percent. Drainage will have a drop of 6 inches from the center line on each side.

No turnouts required.

No culverts, cattleguards, gates, low-water crossings are necessary.

Surfacing material consist of native caliche to be obtained from the nearest BLM-approved caliche pit. Any additional materials required will be purchased from the dirt contractor.

3. Location of Existing Wells:

Exhibit #3 shows all existing wells within a one-mile radius of this well.

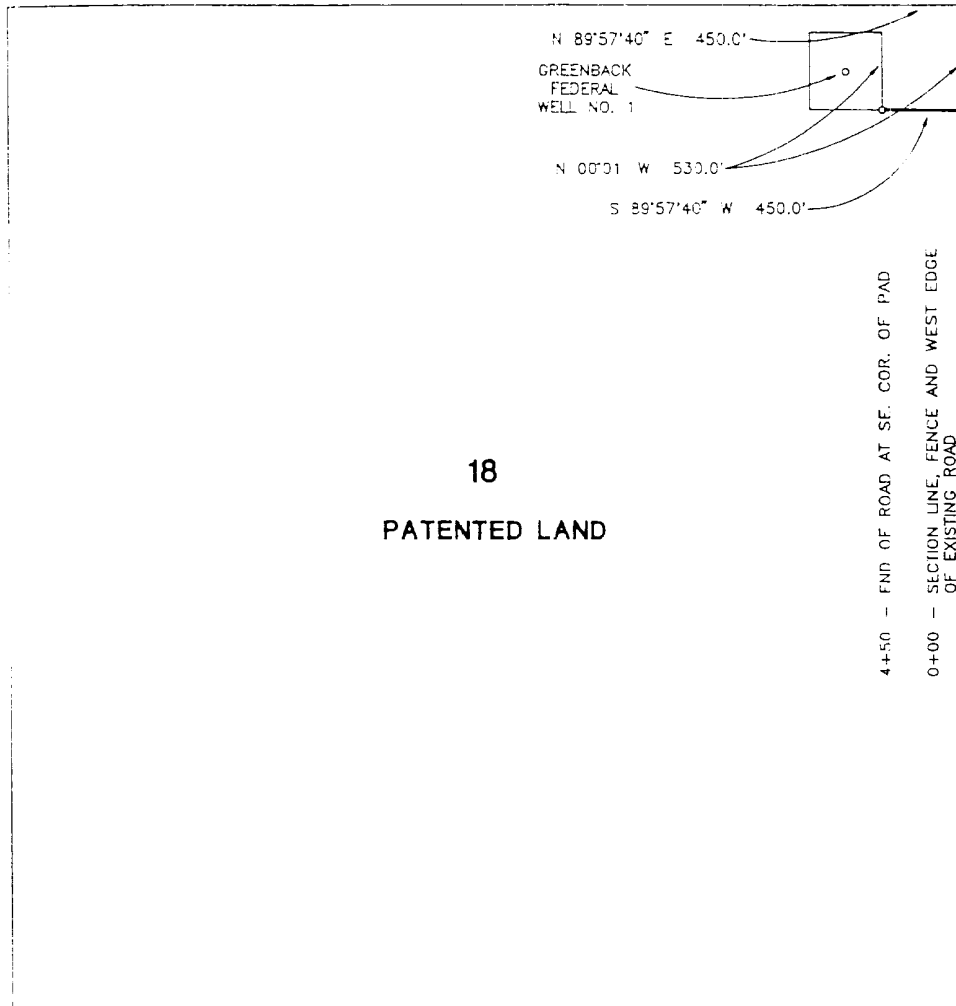
4. Location of Existing and/or Proposed Facilities:

There are no existing production facilities. If production is encountered a temporary facility will be established on the drill pad, and if warranted a production facility would be built at a later date in the immediate area of the drill-pad location. If the well is productive, the flowline would also be located on the drill-pad site and no additional disturbance will occur.

SECTION 18, TOWNSHIP 24 SOUTH, RANGE 38 EAST, N.M.P.M.

LEA COUNTY,

NEW MEXICO

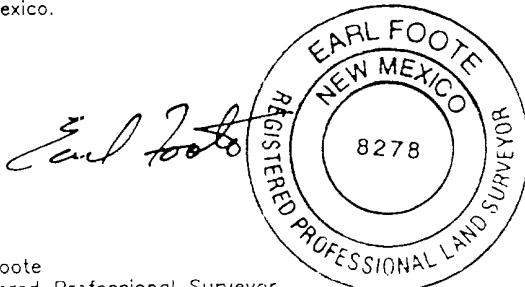


CENTERLINE DESCRIPTION OF AN EXISTING ROAD:

BEGINNING at a point in the West line of an existing road and the East line of Section 18, T-24-S, R-38-E, NMPM, Lea County, New Mexico, from which point the Northeast corner of Section 18 bears N 00° 01' W, 530.0 feet;

THENCE S 89° 57' 40" W, with the centerline of proposed road 450.0 feet to the Southeast corner of well pad for Greenback Federal Well No. 1, for the end of this road, from which point the Northeast corner of Section 13 bears N 00° 01' W, 530.0 feet and N 89° 57' 40" E, 450.0 feet.

I hereby certify, that this plat was prepared from an actual survey made on the ground and meets or exceeds all requirements for land surveys as specified by the state of New Mexico.



Earl Foote
Registered Professional Surveyor
New Mexico Certificate No. 8278

PROPOSED ROAD TO SERVE ENRON WELL
GREENBACK FEDERAL NO. 1

ENRON OIL AND GAS COMPANY

450.0 feet of proposed ROAD in
Section 18, T-24-S, R-38-E, NMPM
Lea County, New Mexico

WEST TEXAS CONSULTANTS, INC.

ENGINEERS-PLANNERS-SURVEYORS

MIDLAND, TEXAS

Survey Date: 9-23-96	Date: 9-25-96	Scale: 1" = 1000'
WTC No. 44640	Drawn By: MEB	Sheet 1 of 1

EXHIBIT #2

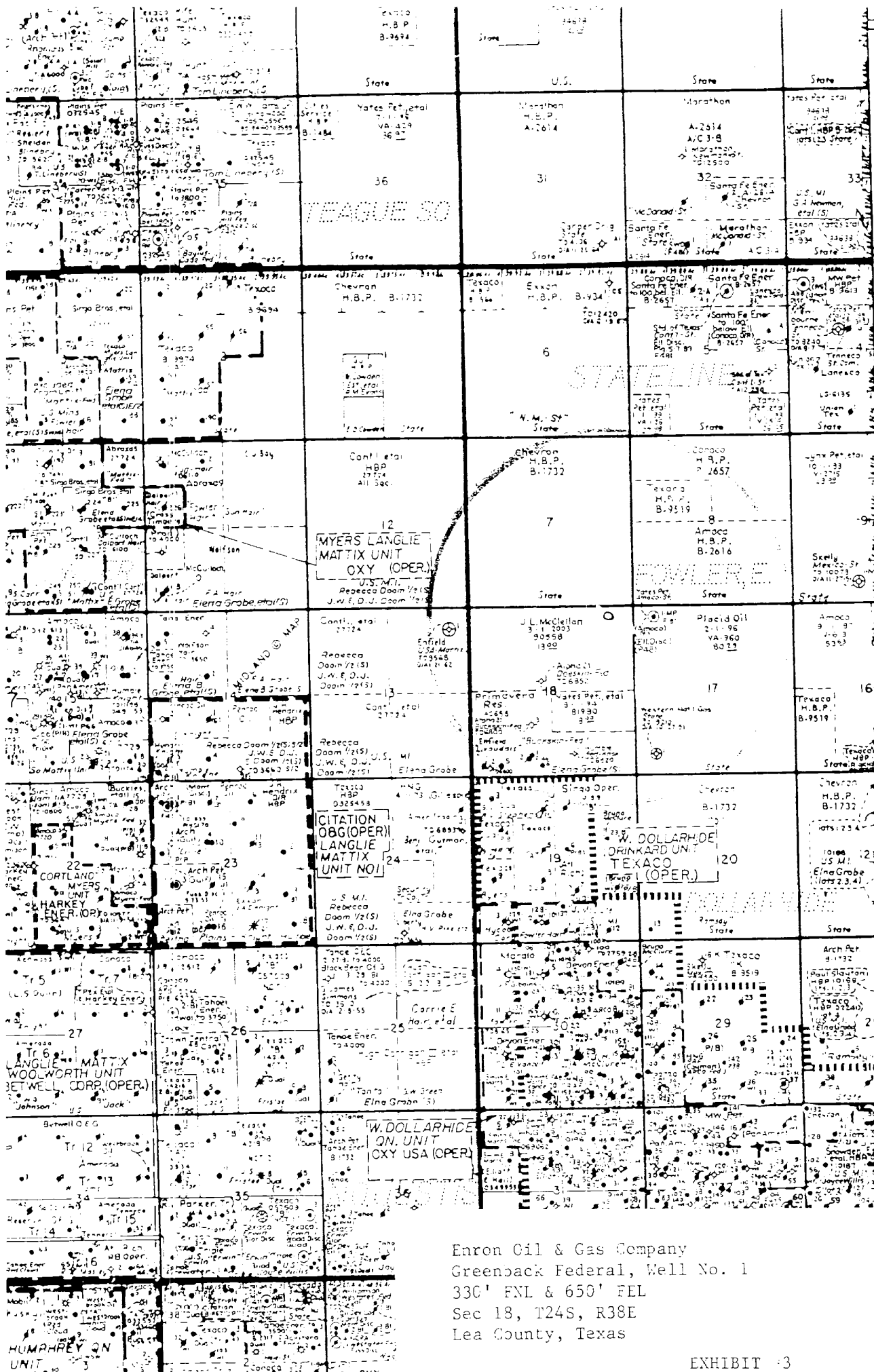
BLK. A

ANDREWS COUNTY

T
24
S

BLK. A-52

32°10'



Enron Oil & Gas Company
Greenback Federal, Well No. 1
330' FNL & 650' FEL
Sec 18, T24S, R38E
Lea County, Texas

EXHIBIT #3

Enron Oil & Gas Company
Greenback Federal, Well No. 1
330' FNL & 650' FEL
Sec. 18, T24S, R38E
Lea County, New Mexico

5. LOCATION AND TYPE OF WATER SUPPLY:

Brine water for drilling will be purchased from commercial sources and transported to the well site over the roads as shown on Exhibit #2.

Fresh water from water well .9 miles SW in SW/4 Sec 18. Water is being purchased from William J. Grobe.

6. PLANS FOR RESTORATION OF THE SURFACE:

After completion of drilling and/or completion operations, all equipment and other material not needed for operations will be removed. Location will be cleaned of all trash and junk to leave the well in an aesthetically pleasing condition as possible.

Any unguarded pits containing fluid will be fenced until they are dry and back filled.

After abandonment of the well, surface restoration will be in accordance with current Federal laws and regulations. Location will be cleaned, and the well pad removed to promote vegetation. Reseeding will be as per BLM specifications.

7. METHODS OF HANDLING WASTE DISPOSAL:

A small reserve pit will be utilized. Reserve pit will be evacuated of drilling fluid within 10 days after the well is completed.

Drill cuttings will be encapsulated in plastic and buried 2' below ground level.

Water produced during tests and waste water will be saved and hauled to a disposal well. Oil produced during tests will be in test tanks until sold.

Current laws and regulations pertaining to the disposal of human waste will be complied with.

Trash, waste paper, garbage and junk will be hauled to an approved disposal site in an enclosed trash trailer.

All trash and debris will be removed from the well site within 30 days after finishing drilling and/or completion operations.

8. ANCILLARY FACILITIES:

No airstrip, campsite, or other facilities will be built.

Enron Oil & Gas Company
Greenback Federal, Well No. 1
330' FNL & 650' FEL
Sec. 18, T24S, R38E
Lea County, New Mexico

9. WELL SITE LAYOUT:

Exhibit #4 shows the relative location and dimensions of the well pad.

10. OTHER INFORMATION:

The area around the well site is grassland and the top soil is duned and sandy. The vegetation is native scrub grasses with abundant oakbrush, sagebrush, yucca, and prickly pear.

There is no permanent or live water in the immediate area.

Copy of cultural resources examination completed by Archaeology Survey Consultants is attached.

11. OPERATORS REPRESENTATIVE:

The field representative responsible for assuring compliance with the approved surface-use and operations plan is as follows:

Mr. Dewey Smeltzer

Phones: Business - 1-915/686-3601
Home - 1-915/697-7719

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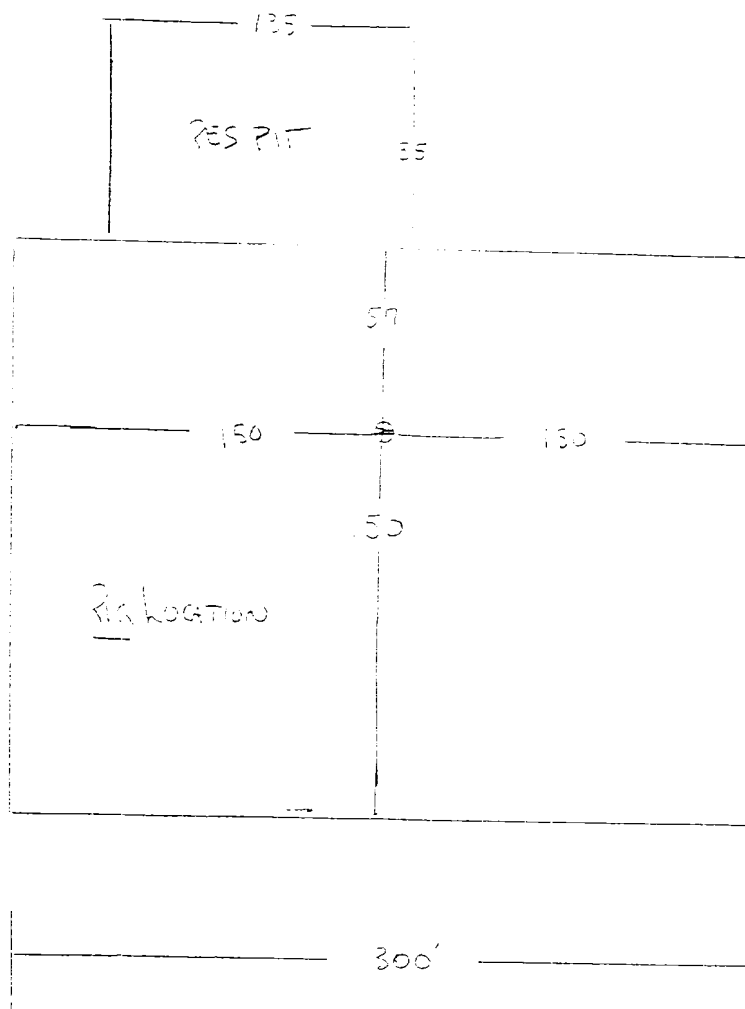
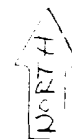
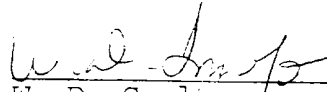


EXHIBIT #4

Enron Oil & Gas Company
Greenback Federal, Well No. 1
330' FNL & 650' FEL
Sec. 18, T24S, R38E
Lea County, New Mexico

12. CERTIFICATION:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Enron Oil & Gas Company and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.


W. D. Smeltzer
Drilling Manager

Date: 10-16-76

ENRON
Oil & Gas Company

P. O. Box 2267 Midland, Texas 79702 (915) 686-3600

October 16, 1996

Bureau of Land Management
2909 West Second Street
Roswell, NM 88201

In Re: Greenback Federal, Wells Nos. 1 & 2
Section 18, T24S, R38E
Eddy County, NM
NM 90558

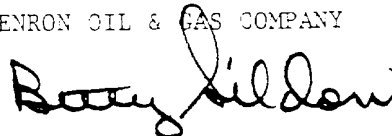
Gentlemen:

Please be advised that a Surface Use, Damage, and Right-of-Way agreement was reached, as of October 14, 1996, with Mr. William J. Grobe, Surface Owner of the above-named lease.

If you need additional information or have any other questions, please let me know.

Very truly yours,

ENRON OIL & GAS COMPANY



Betty Gildon
Regulatory Analyst

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