

**N. M. OIL CONS. COMMISSION**  
**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**

<b>1a. TYPE OF WORK</b> <div style="display: flex; justify-content: space-around;"><span><b>DRILL</b> <input checked="" type="checkbox"/></span><span><b>DEEPEN</b> <input type="checkbox"/></span></div> <b>b. TYPE OF WELL</b> OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> <div style="display: flex; justify-content: space-around;"><span>SINGLE ZONE <input checked="" type="checkbox"/></span><span>MULTIPLE ZONE <input type="checkbox"/></span></div>		<b>5. LEASE DESIGNATION AND SERIAL NO.</b> <b>NM 24490</b>
<b>2. NAME OF OPERATOR</b> <b>Enron Oil &amp; Gas Company</b>		<b>6. IF INDIAN, ALLOTTEE OR TRIBE NAME</b>
<b>3. ADDRESS AND TELEPHONE NO.</b> <b>P.O. Box 2267 Midland, TX 79702</b>		<b>7. UNIT AGREEMENT NAME</b>
<b>4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. *)</b> At surface <b>990' FSL &amp; 330' FWL</b> At proposed prod. zone <span style="margin-left: 100px;">M</span> <b>990' FSL &amp; 330' FWL</b>		<b>8. FARM OR LEASE NAME, WELL NO.</b> <b>Diamond 18 Federal # 7</b>
<b>14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*</b> <b>29 miles west of Jal, NM</b>		<b>9. API WELL NO.</b> <b>30-025-34659</b>
<b>15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drilg. unit line, if any)</b> <b>330</b>		<b>10. FIELD AND POOL, OR WILDCAT</b> <b>Red Hills Bone Spring</b>
<b>16. NO. OF ACRES IN LEASE</b> <b>640</b>		<b>11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA</b> <b>Sec 18, 25S, 34E</b>
<b>17. NO. OF ACRES ASSIGNED TO THIS WELL</b> <b>80</b>		<b>12. COUNTY OR PARISH</b> <b>Lea</b>
<b>18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.</b> <b>2100' to #6 well</b>		<b>13. STATE</b> <b>NM</b>
<b>19. PROPOSED DEPTH</b> <b>12,600</b>		<b>20. ROTARY OR CABLE TOOLS</b> <b>Rotary</b>
<b>21. ELEVATIONS (Show whether DF, RT, GR, etc.)</b> <b>3346' GR</b>		<b>22. APPROX. DATE WORK WILL START*</b> <b>July 5, 1999</b>

23. PROPOSED CASING AND CEMENTING PROGRAM					
SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT	
14-3/4 H-40 A	ST&C 11-3/4	42#	WITNESS 50'	250 sx circulated	
11 J-55	ST&C 8-5/8	32#	5200'	1100 sx circulated	
7-7/8 P-110	LT&C 5-1/2	17#	6500'	1200 sx TOC est at 4500'	
& S-95	LT&C 5-1/2	17#	12,600'		

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 18-25S-34E  
Federal Bond # 1s MT 0748 with endorsement to New Mexico

**APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS  
ATTACHED**

OPER. OGRID NO. 7377  
PROPERTY NO. 15397  
POOL CODE 51020  
EFF. DATE 7-8-99  
API NO. 30-025-34659

IN ABOVE SPACE DESCRIBE PROPOSED PRC  
deepen directionally, give pertinent data on subsurface locations and measured and proposed new productive zone. If proposal is to drill or without preventer program, if any.

24. SIGNED Mike Francis TITLE Mike Francis, Agent DATE 6/2/99  
(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 Larry D. Gray TITLE Acting Assistant Field Office Manager, Lands and Minerals DATE JUL 02 1999

\*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.

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

*API Number 30-025-34659		*Pool Code 51020	*Pool Name Red Hills Bone Spring
*Property Code 15397	*Property Name DIAMOND 18 FEDERAL NO. 7		*Well Number 7
*OGRID No. 7377	*Operator Name ENRON OIL & GAS COMPANY		*Elevation 3346

<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
M	18	25-S	34-E		990	SOUTH	330	WEST	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 80.19	<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.  <i>Mike Francis</i> Signature Mike Francis Printed Name Agent Title 6/2/99 Date
LAT. = 32°07'33.6" LONG. = 103°30'59.2" Y = 410476.984 X = 753034.020				<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.  MAY 25, 1999 Date of Survey Signature and Seal of Professional Surveyor: <i>David M. Young, Jr.</i> 14274 Certificate Number 14274
330' 990'				

## DRILLING PROGRAM

ENRON OIL & GAS COMPANY  
Diamond "18" Federal No. 7  
990' FSL & 330' FWL  
SEC. 18, T25S, R34E  
LEA COUNTY, NM

1. GEOLOGIC NAME OF SURFACE FORMATION:

Permian

2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Rustler	850'
Delaware Mt. Group	5175'
Bone Spring Lime	9275'
3 <sup>rd</sup> Bone Spring Sand	12400'
TD +/-	12600'

3. ESTIMATED DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:

Upper Permian Sands	100'	Fresh Water
3 <sup>rd</sup> 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.

4. CASING PROGRAM:

<u>Hole Size</u>	<u>Interval</u>	<u>OD Casing</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"	0-6500'	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 Class C + 2% CaCl <sub>2</sub> + 1/4#/sx flocele
8 5/8" Intermediate:	Cement to surface with 800 sx Premium Plus lite + 15#/sx Salt + 1/4#/sx Flocele and 300 sx CL C + 2% CaCl <sub>2</sub> .
5 1/2" Production Casing:	Cement with 1200 sx 50/50 sx CL H/Poz + 2% gel + 4% CF-14, .1% Diacel LWL. This cement slurry is designed to bring TOC to 4500'.

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SEC. 18, T25S, R34E  
LEA COUNTY, NM

### 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.

### 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:

Depth	Type	Wt (ppg)	Viscosity (sec)	Waterloss (cc)
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. Auxillary 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.

## DRILLING PROGRAM

### ENRON OIL & GAS COMPANY

Diamond "18" Federal No. 7

990' FSL & 330' FWL

SEC. 18, T25S, R34E

LEA COUNTY, NM

#### 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 AND 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.

#### 10. 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 unknown at the present time. 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 the completion and testing before a decision is made to install permanent facilities.

DRILLING PROGRAM

ENRON OIL & GAS COMPANY

Diamond "18" Federal No. 7

990' FSL & 330' FWL

SEC. 18, T25S, R34E

LEA COUNTY, NM

**SURFACE USE AND OPERATIONS PLAN**

1. EXISTING ROADS:

Access to location will be made as shown on Exhibit #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:

1,275' of new access road is required.

No turnouts necessary.

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

Surfacing material consists 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.

5. LOCATION AND TYPE OF WATER SUPPLY:

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

DRILLING PROGRAM

ENRON OIL & GAS COMPANY

Diamond "18" Federal No. 7

990' FSL & 330' FWL

SEC. 18, T25S, R34E

LEA COUNTY, NM

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.

9. WELL SITE LAYOUT:

Exhibit #4 shows the relative location and dimensions of the well pad, steel mud pits, and location of major rig components. Pad area has been staked and flagged.

Only minor leveling of the well site will be required..

DRILLING PROGRAM

ENRON OIL & GAS COMPANY

Diamond "18" Federal No. 7

990' FSL & 330' FWL

SEC. 18, T25S, R34E

LEA COUNTY, NM

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 sagebrush, yucca, and prickly pear.

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

Cultural resources examination has been completed by Desert West Archaeology Consultants.

11. OPERATORS REPRESENTATIVE:

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

Mr. Dewey Smeltzer

Phone: Business 1/915/686-3601  
Home 1/915/520-9608



DRILLING PROGRAM

ENRON OIL & GAS COMPANY

Diamond "18" Federal No. 7

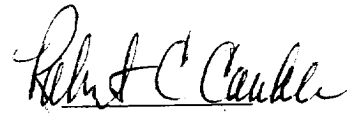
990' FSL & 330' FWL

SEC. 18, T25S, R34E

LEA COUNTY, NM

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.



Robert C. Cauble  
Drilling Superintendent

Date: 6-2-99

ENRON OIL & GAS COMPANY

Diamond 18 Federal #7

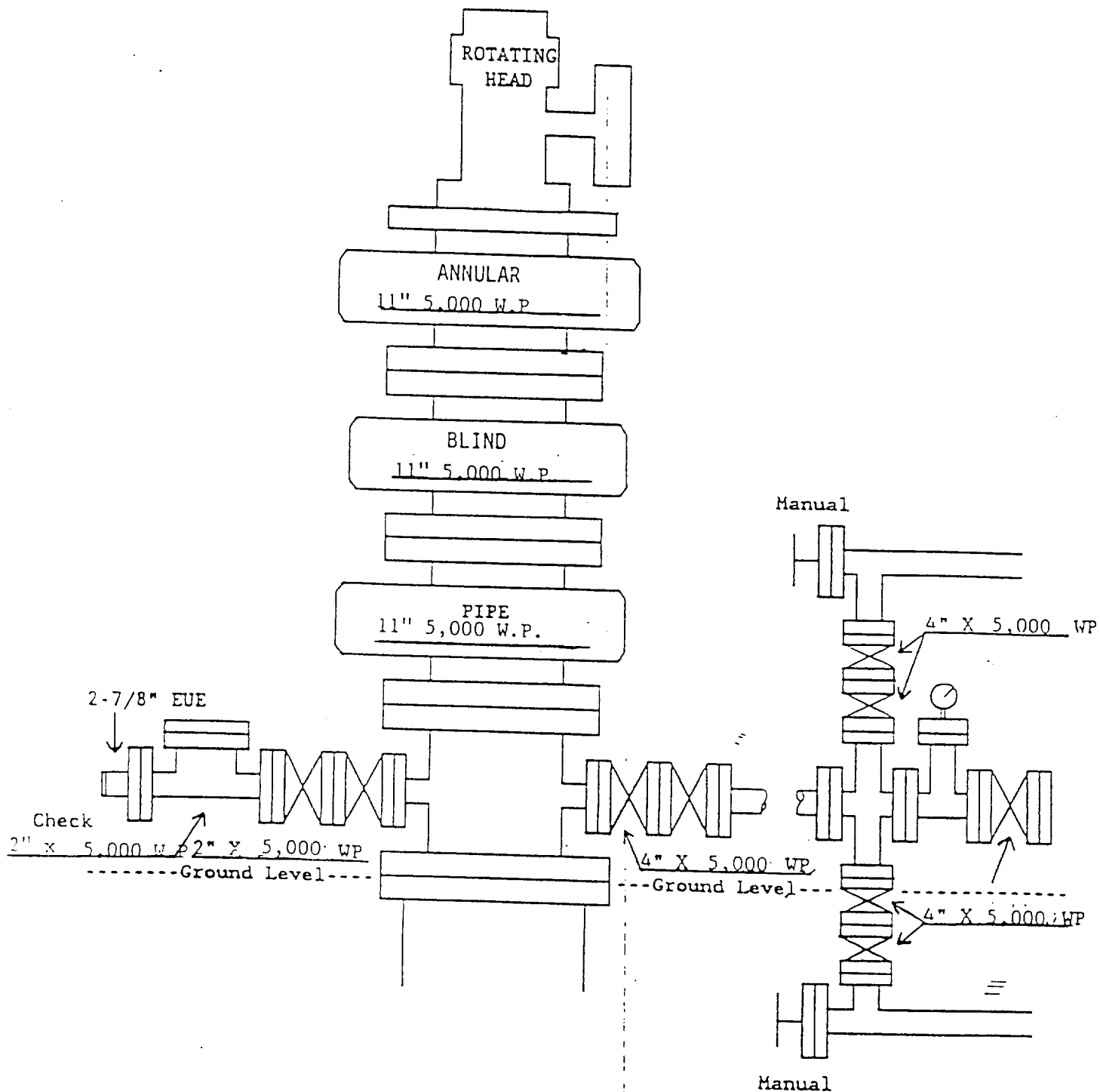


EXHIBIT #1

## DRILLING PROGRAM

### ENRON OIL & GAS COMPANY

Diamond "18" Federal No. 7

990' FSL & 330' FWL

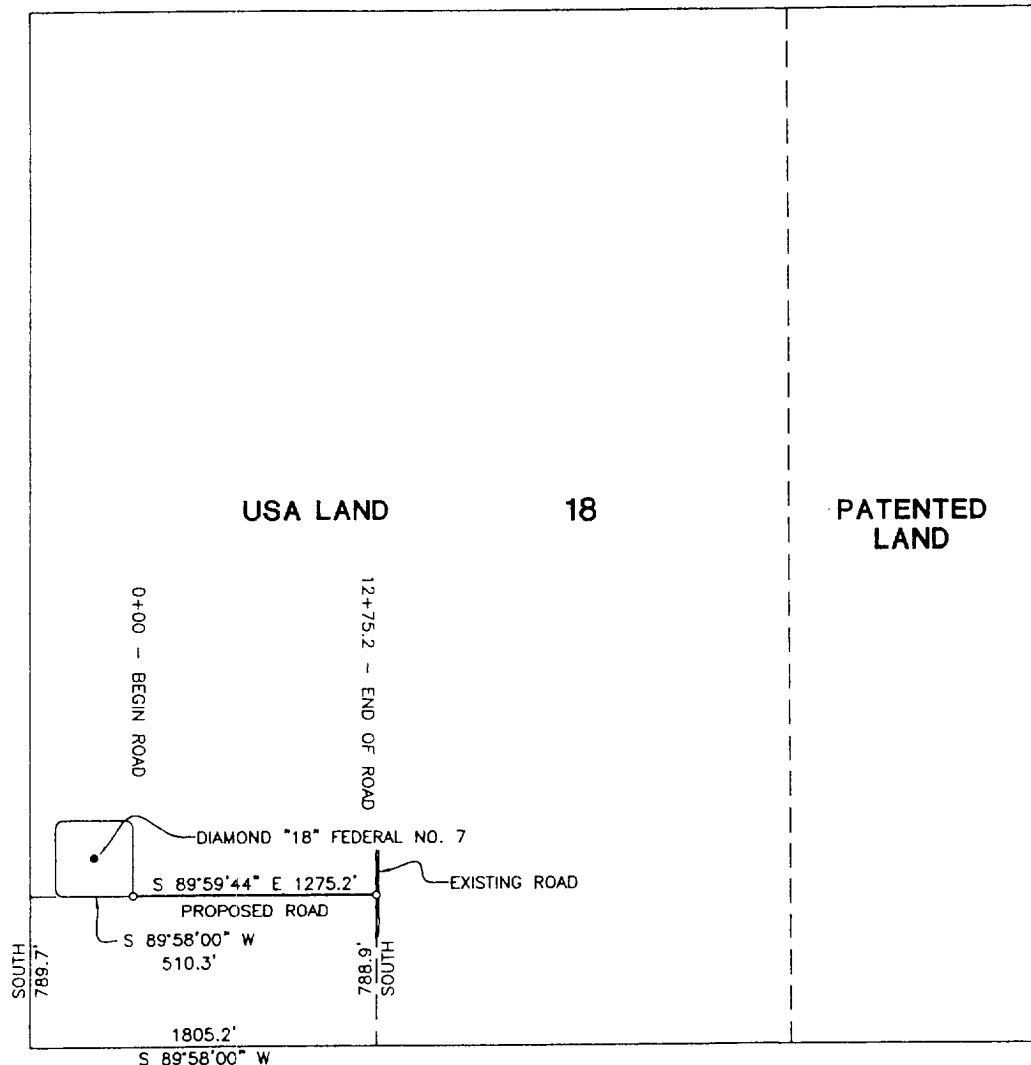
SEC. 18, T25S, R34E

LEA COUNTY, NM

### ATTACHMENT TO EXHIBIT #1

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.

SECTION 18, TOWNSH. 25 SOUTH, RANGE 34 EAST, N. P.M.  
LEA COUNTY, NEW MEXICO



CENTERLINE DESCRIPTION OF A PROPOSED ROAD:

BEGINNING at a point in the southeast corner of a well pad for Enron Oil & Gas Company DIAMOND "18" FEDERAL No. 7, from which point the southwest corner of Section 18, T-25-E, R-34-E, N.M.P.M., Lea County, New Mexico, bears S 89° 58' 00" W, 510.3 feet and South 789.7 feet;

THENCE S 89° 59' 44" E, with the centerline of proposed road, 1275.2 feet to a point in an existing road, for the end of this road, from which point the southwest corner of said Section 18 bears South 788.9 feet and S 89° 58' 00" W, 1805.2 feet.

EXHIBIT 2

PROPOSED ROAD TO SERVE  
DIAMOND "18" FEDERAL No. 7

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.

David M. Young, Jr.  
Registered Professional Surveyor  
New Mexico Certificate No. 14274

ENRON OIL AND GAS COMPANY

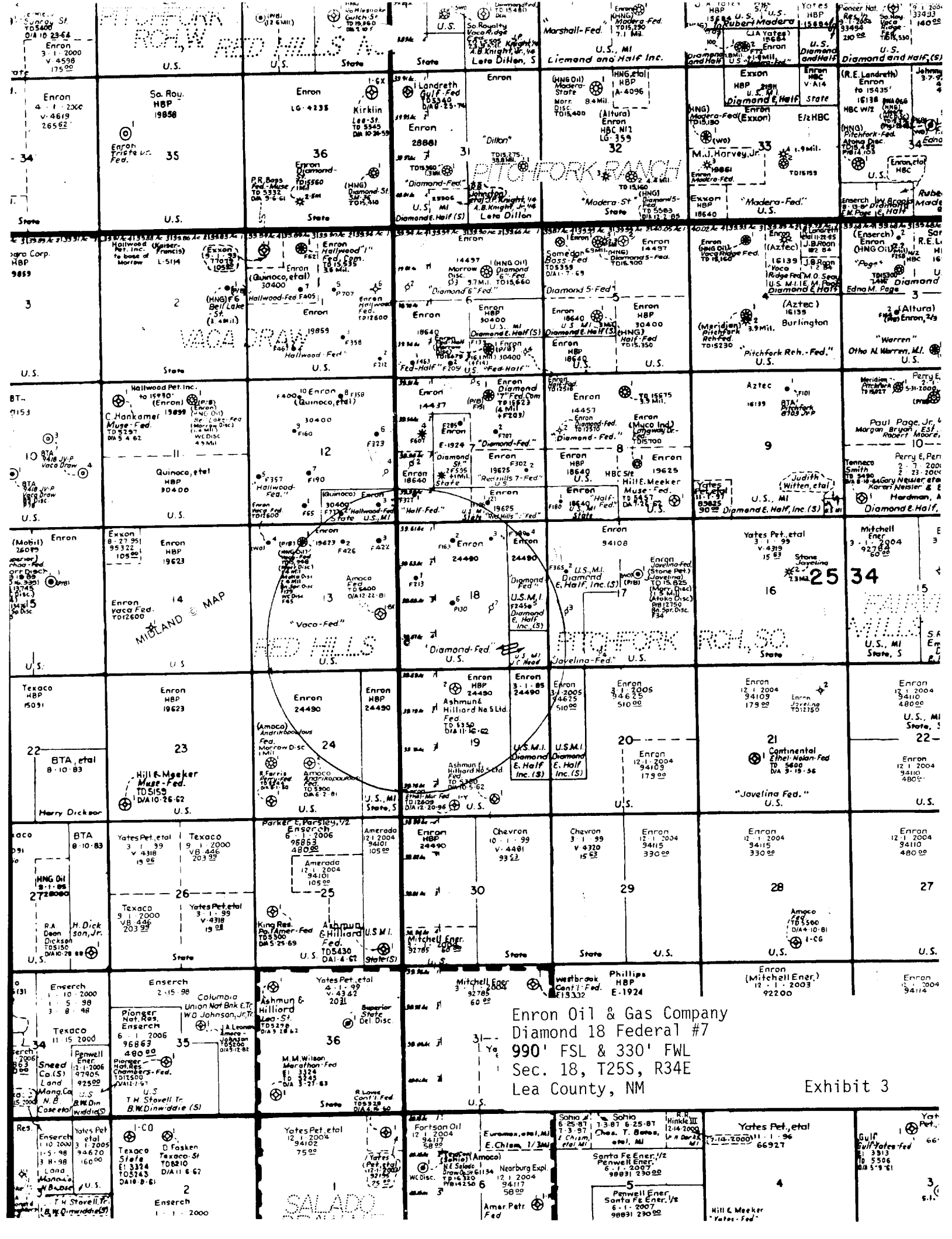
1275.2 feet of proposed road in  
Section 18, T-25-S, R-34-E, N.M.P.M.,  
Lea County, New Mexico

WEST TEXAS CONSULTANTS, INC.

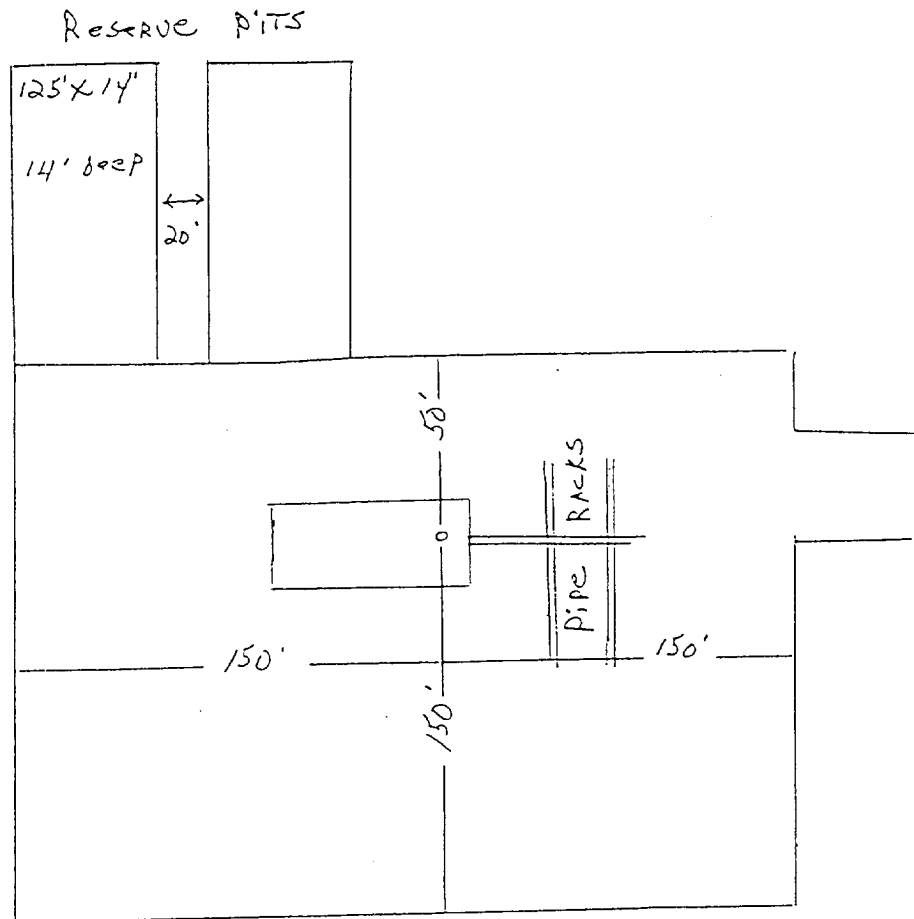
ENGINEERS-PLANNERS-SURVEYORS

MIDLAND, TEXAS

Survey Date: 5-25-99	Date: 5-26-99	Scale: 1" = 1000'
WTC No. 45604	Drawn By: JLE	Sheet 1 of 1



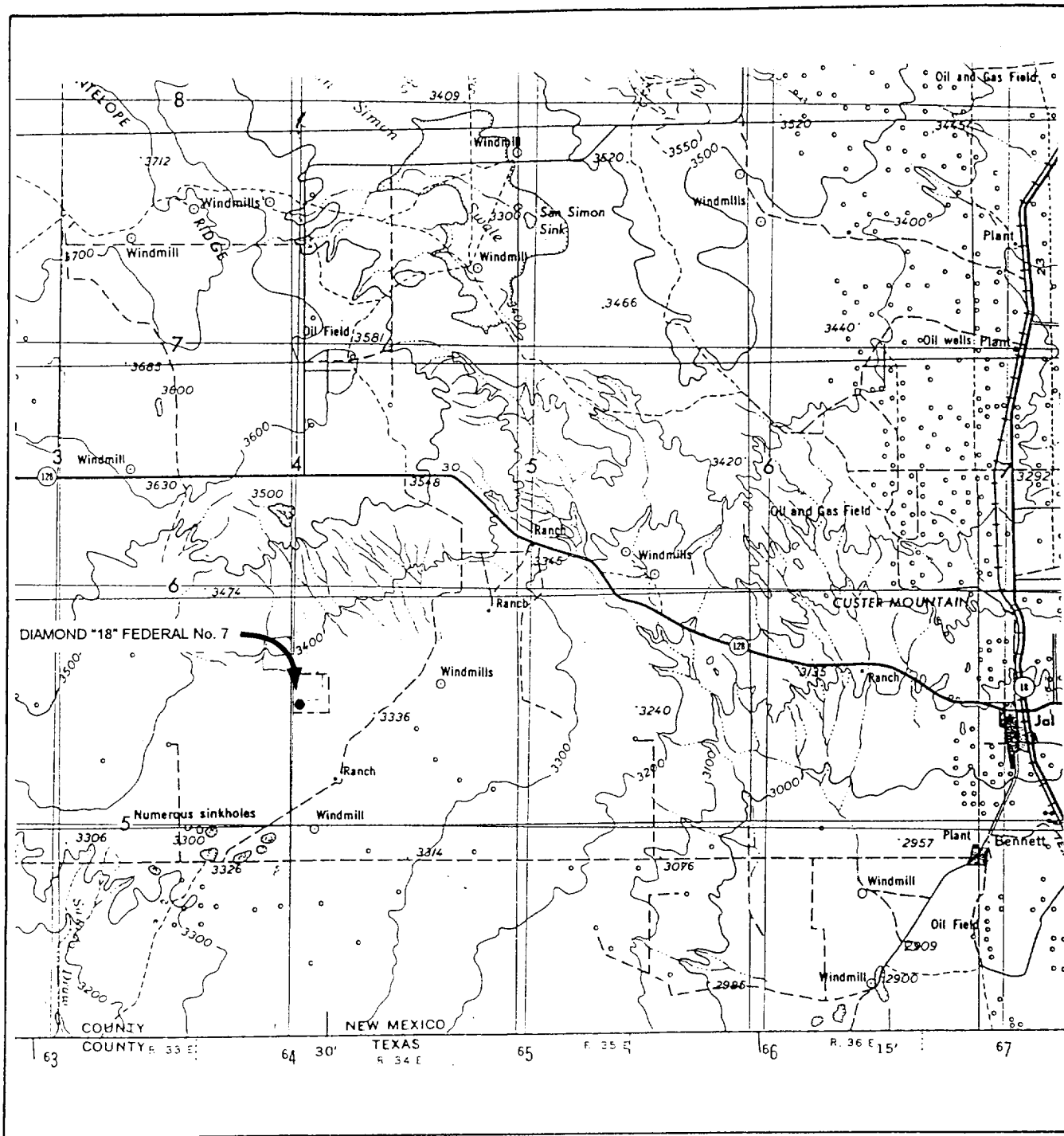
Enron Oil & Gas Company  
Diamond 18 Federal #7  
990' FSL & 330' FWL  
Sec 18, T25S, R34E  
Lea County, NM



200' x 300' well pad  
No Scale

EXHIBIT #4

# V. JINITY MAP



SCALE: 1" = 4 MILES

WTC 45604

SEC. 18 TWP. 25-S RGE. 34-E

SURVEY N.M.P.M

COUNTY LEA STATE NM

DESCRIPTION 990' FSL & 330' FWL

ELEVATION 3346'

OPERATOR ENRON OIL & GAS CO.

LEASE DIAMOND 18" FEDERAL NO. 7

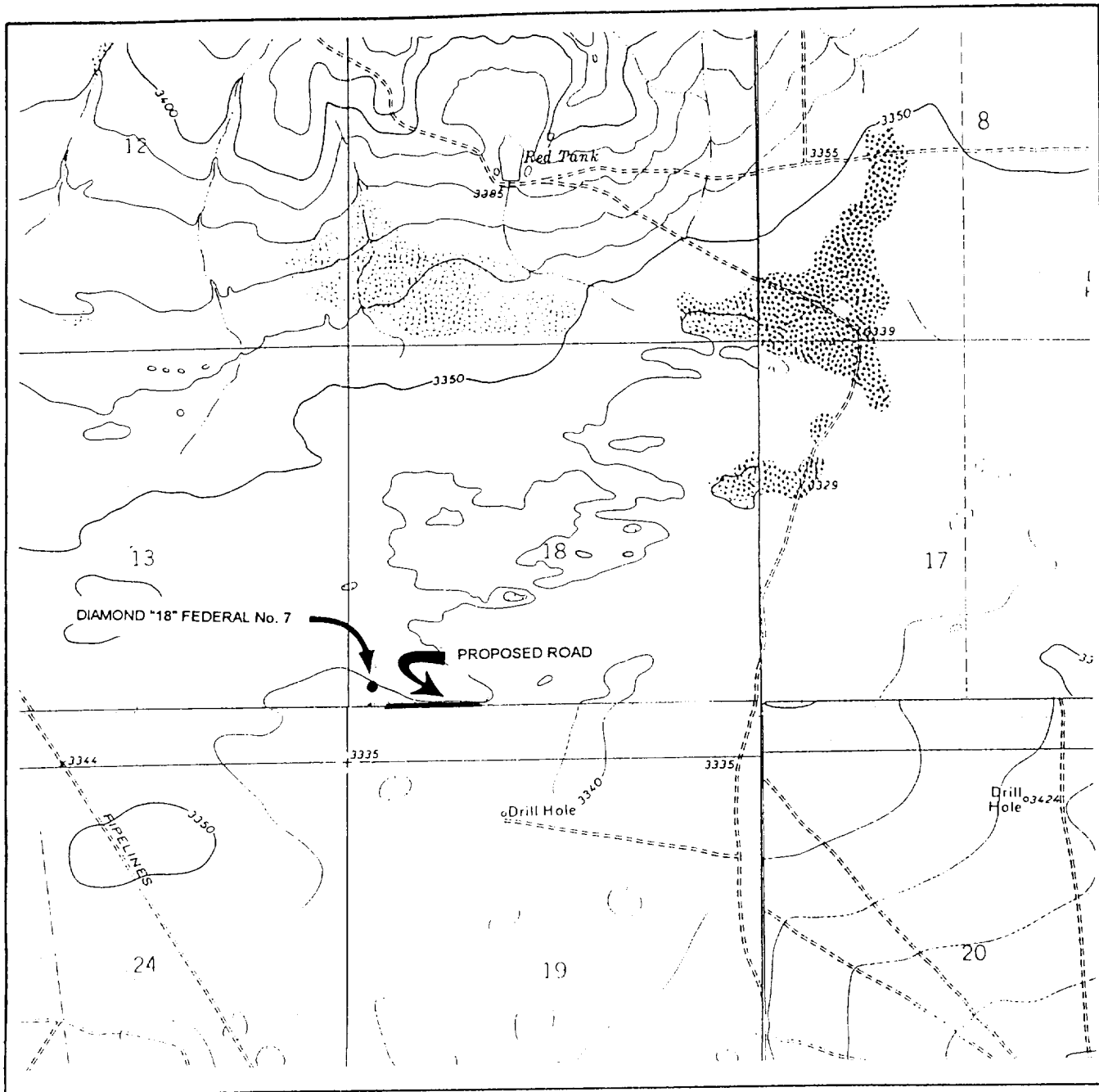
WEST TEXAS CONSULTANTS, INC.

ENGINEERS-PLANNERS-SURVEYORS

MIDLAND, TEXAS

915-685-3800

# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'  
WTC 45604

SEC. 18 TWP. 25-S RGE. 34-E

SURVEY N.M.P.M

COUNTY LEA STATE NM

DESCRIPTION 990' FSL & 330' FWL

ELEVATION 3346'

OPERATOR ENRON OIL & GAS CO.

LEASE DIAMOND "18" FEDERAL NO. 7

USGS TOPO MAP BELL LAKE & WOODLEY FLAT, NM  
ANDREWS PLACE & PADUCA BREAKS EAST, NM-TX

CONTOUR INTERVAL 10'

**WEST TEXAS CONSULTANTS, INC.**

**ENGINEERS-PLANNERS-SURVEYORS**

**MIDLAND, TEXAS**

**915-685-3800**



ABOVE DATE DOES NOT  
INDICATE WHEN  
CONFIDENTIAL LOGS  
WILL BE RELEASED

ELF

11/20/99