

New Mexico Oil Conservation District I  
1625 N. French Drive  
Hobbs, NM 88240

Form 3160-3  
(August 1999)

FORM APPROVED  
OMB No. 1004-0136  
Expires November 30, 2000

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NM-26394
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator Enron Oil & Gas Company		7. If Unit or CA Agreement, Name and No.
3a. Address P.O. Box 2267, Midland, TX 79702	3b. Phone No. (include area code) (915)686-3714	8. Lease Name and Well No. Vaca Draw "20" Federal No. 1
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface 1,650' FNL & 1,650' FEL At proposed prod. Zone 1,650' FNL & 1,650' FEL		9. API Well No. 30-025-34750
14. Distance in miles and direction from nearest town or post office* 29 miles SW of Jal, NM		10. Field and Pool, or Exploratory Draper Mill (Wolfcamp)
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg. Unit line, if any) 1650'	16. No. of Acres in lease 2560	11. Sec., T., R., M., or Blk. And Survey or Area Sec 20, T25S, R33E
18. Distance from proposed location* to nearest well, drilling, completed applied for, on this lease, ft. N/A	19. Proposed Depth 14,500'	12. County or Parish Lea
21. Elevations (Show whether DF, KDB, RT, GL, etc) GL - 3419	22. Approximate date work will start* 11/1/99	13. State NM
17. Spacing Unit dedicated to this well E/2 - 320 acres		
20. BLM/BIA Bond No. on file MT 0748		
23. Estimated duration 30 days		

24. Attachments

The following completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

**CARLSBAD CONTROLLED WATER BASIN**

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office)
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above)
- Operator certification.
- Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature <i>Mike Franics</i>	Name (Printed/Typed) Mike Franics	Date 9/28/99
Title Agent		
Approved by (Signature) /S/LARRY D. BRAY	Name (Printed/Typed)	Date OCT 28 1999
Title	Office ROSWELL FIELD OFFICE	APPROVED FOR 1 YEAR

Application approval does not warrant or certify 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, are attached

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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.

\*(Instructions on Form 3160-3)

OPER. OGRID NO. 7377  
PROPERTY NO. 25021  
POOL CODE 76115  
EXP. DATE 11-1-99  
WELL NO. 30-025-34750

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS  
ATTACHED

MP  
CT

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 30-025-34750		*Pool Code 76115	*Pool Name Draper Mill (Wolfcamp)
*Property Code 25021	*Property Name VACA DRAW "20" FEDERAL		*Well Number 1
*OGRID No. 7377	*Operator Name ENRON OIL & GAS COMPANY		*Elevation 3419

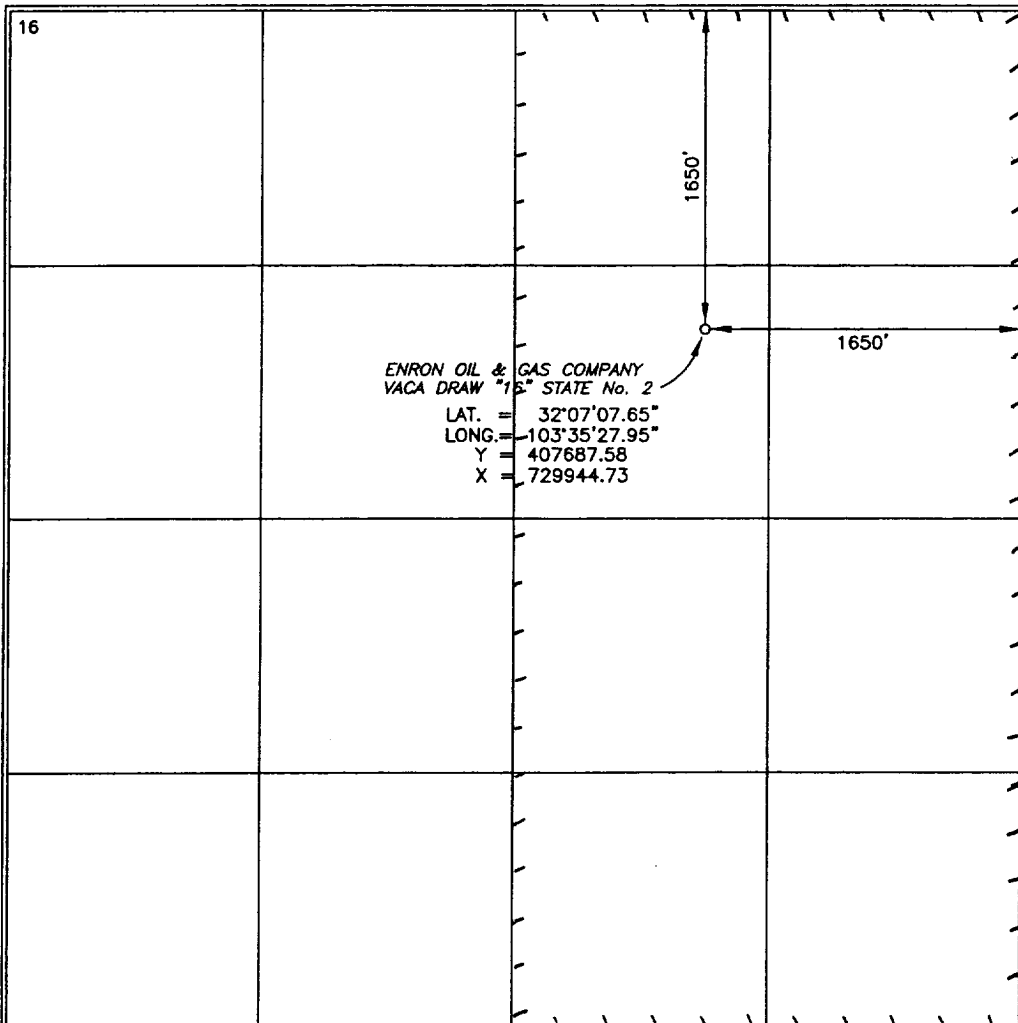
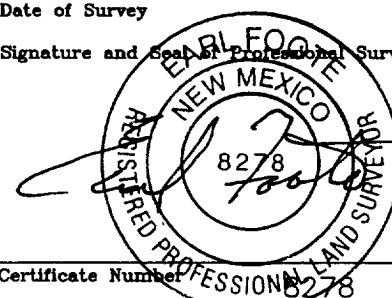
<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	20	25-S	33-E		1650	NORTH	1650	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
*Dedicated Acres 320		*Joint or Infill		*Consolidation Code		*Order No.			

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

<div>16</div> 	<div>17 OPERATOR CERTIFICATION</div> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Mike Francis</i> Signature Mike Francis Printed Name Agent Title 9/29/99 Date</p>
	<div>18 SURVEYOR CERTIFICATION</div> <p>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.</p> <p>SEPTEMBER 23, 1999 Date of Survey</p> <p>Signature and Seal of Professional Surveyor: </p> <p>Certificate Number 8278</p>

## DRILLING PROGRAM

ENRON OIL & GAS COMPANY  
VACA DRAW "20" FEDERAL NO. 1  
1,650' FNL & 1,650' FEL  
SEC. 20, T25S, R33E  
LEA COUNTY, NM

### 1. GEOLOGIC NAME OF SURFACE FORMATION:

Permian

### 2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Delaware	5050'
Bone Spring	9200'
First Bone Spring Sd	9850'
3 <sup>rd</sup> Bone Spring Sd	11900'
Wolfcamp Marker	12400'
Wolfcamp Pay	13300'
Wolfcamp Pay Lower	13750'
Bell Lake Pay	13950'

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

Upper Permian Sands	100'	Fresh Water
Upper Penn		Gas

### 4. CASING PROGRAM

Hole Size	Interval	OD Casing	Weight Grade Jt.	Cond. Type
14 3/4"	0-650'	11 3/4"	42# H-40 ST&C	<b>WITNESS</b>
11"	0-4000'	8 5/8"	32# J-55 LT&C	
11"	4000-5000'	8-5/8"	32# HCK LT&C	
7 7/8"	0-12800'	5 1/2"	17# S95/P110 L&TC	
4 3/4"	0-14300'	2 7/8"	6.5# N80	

#### Cementing Program:

11 3/4" Surface Casing:	Cement to surface with 200 sx Prem Plus, 3% Econolite, 25 Calcium Chloride, 0.25#/sx Flocele, 150 sx Prem Plus, 2% Calcium Chloride
8 5/8" 1 <sup>st</sup> Intermediate:	Cement to surface with 800 sx Interfill C, .25#/sx flocele, 250 sx Premium Plus, 2% Calcium Chloride
5 1/2" 2 <sup>nd</sup> Intermediate:	Cement w/930 sx Premium, 3% Econolite, 5#/sx Salt (3%), 0.2% HR5, .25#/sk Flocele, 250 sx Prem 50/50 Poz mix 'A', 2% Halliburton-Gel First 2%, 0.5% Halad-322. This is designed to bring TOC to 4500'.
2 7/8" Casing:	135 sx Prem, 0.3% Halad-344, 0.3% Halad-413, 0.3% Super CBL, 0.2% SCR-100 This designed to bring TOC to 12300 +/-.

## **DRILLING PROGRAM**

**ENRON OIL & GAS COMPANY  
VACA DRAW "20" FEDERAL NO. 1  
1,650' FNL & 1,650' FEL  
SEC. 20, T25S, R33E  
LEA COUNTY, NM**

### **5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:**

(SEE EXHIBIT #1 and #2)

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 BOP's and accessory equipment will be tested to 600 psi before drilling out of surface casing. Before drilling out of 1st intermediate casing, the ram-type BOP and accessory equipment will be tested to 5000/1000 psi and the annular to 3500/5000-psig pressure. The blowout preventer equipment (BOP) shown in Exhibit 2 will consist of a double ram-type (10,000 psi) preventer and an annular preventer (5,000 psi). Before drilling below 2<sup>nd</sup> Intermediate ram type BOP and accessory equipment will be installed and tested to 10,000/1,000 psi and the annulus to 3500/1000. This equipment will be used from  $\pm 12,800'$  to TD.

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.

### **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>Wt (PPG)</u>	<u>Viscosity (sec)</u>	<u>Waterloss (cc)</u>
0-650'	Fresh Water (spud)	8.5	40-45	N.C.
650'-5000'	Brine Water	10.0	30	N.C.
5000'-12800'	Fresh Water	8.4	28	N.C.
12800'-14300'	Brine & Polymer xcd	10-14.0	28/45	0/<1 CC

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 frill 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.

## **DRILLING PROGRAM**

**ENRON OIL & GAS COMPANY  
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SEC. 20, T25S, R33E  
LEA COUNTY, NM**

(C) A mud logging unit complete with H<sub>2</sub>S detector will be continuously monitoring drilling penetration rate and hydrocarbon shows from 5000' to TD.

### **8. LOGGING, TESTING AND CORING PROGRAM:**

1<sup>st</sup> Log run @ +/- 12,800' will consist of GR-Dual Induction Focused and GR-Compensated Density-Neutron from TD to intermediate casing with a GR-Compensated Neutron run from intermediate casing to surface and optional Sonic from TD to Intermediate casing.

2<sup>nd</sup> log run @ +/-14,300' will consist of GR-Compensated Density-Neutron caliper from TD to bottom of 2<sup>nd</sup> Intermediate .

Possible sidewall cores based on shows.

### **9. ABNORMAL CONDITIONS, PRESSURES, TEMPERATURES AND POTENTIAL HAZARDS:**

The estimated bottom hole temperature (BHT) at TD is 175 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 9000 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 month. If the well is productive, an additional 30-60 days will be required for completion and testing before a decision is made to install permanent facilities.

## **DRILLING PROGRAM**

**ENRON OIL & GAS COMPANY  
VACA DRAW "20" FEDERAL NO. 1  
1,650' FNL & 1,650' FEL  
SEC. 20, T25S, R33E  
LEA COUNTY, NM**

### **SURFACE USE AND OPERATIONS PLAN**

#### **1. EXISTING ROADS:**

Access to location will be made as shown on Exhibit #3

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:**

2558.3' of new road is required. Exhibit #3A

No turnouts necessary.

No culverts, cattleguards, gates, low-water crossings 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 #4 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:**

Fresh water for drilling will come from water well C-2373 in section 13,25S,33E, in addition brine water will be purchased from commercial sources and transported to the well site over the roads as shown on Exhibit #3.

## **DRILLING PROGRAM**

**ENRON OIL & GAS COMPANY  
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SEC. 20, T25S, R33E  
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 wellpad removed to promote vegetation and 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.

### **ANCILLARY FACILITIES:**

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

### **WELL SITE LAYOUT:**

Exhibit #5 shows the relative location and dimensions of the well pad.

**DRILLING PROGRAM**

**ENRON OIL & GAS COMPANY  
VACA DRAW "20" FEDERAL NO. 1  
1,650' FNL & 1,650' FEL  
SEC. 20, T25S, R33E  
LEA COUNTY, NM**

**OTHER INFORMATION:**

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

**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: 9-29-88



## **DRILLING PROGRAM**

**ENRON OIL & GAS COMPANY  
VACA DRAW "20" FEDERAL NO. 1  
1,650' FNL & 1,650' FEL  
SEC. 20, T25S, R33E  
LEA COUNTY, NM**

### **ATTACHMENT TO EXHIBIT #1 & 2**

1. Wear ring to be properly installed in head.
2. Blow out preventer and all fittings must be in good condition, 5000 psi W.P. minimum. Exhibit #1 and 10,000 psi W.P. minimum, Exhibit #2.
3. All fittings to be flanged
4. Safety valve must be available on rig floor at all times with proper connections, valve to be full bore 5000 psi W.P. minimum.
5. All choke and fill lines to be securely anchored especially ends of choke lines.
6. Equipment through which bit must pass shall be at least as large as the diameter of the casing being drilled through.
7. Kelly cock on kelly.
8. Extension wrenches and hand wheels to be properly installed.
9. Blow out preventer control to be located as close to driller's position as feasible.
10. 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

Vaca Draw "20" Federal No. 1

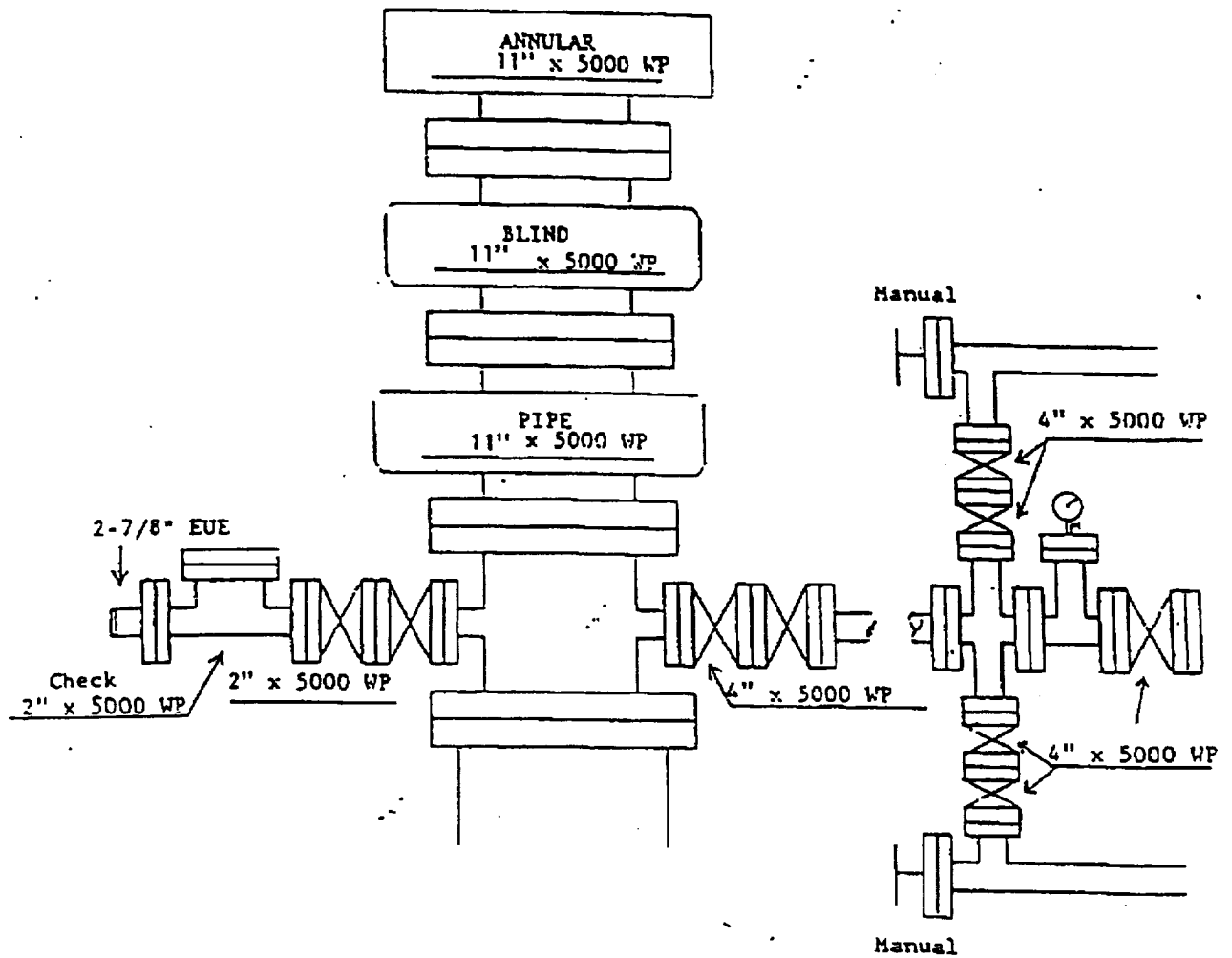
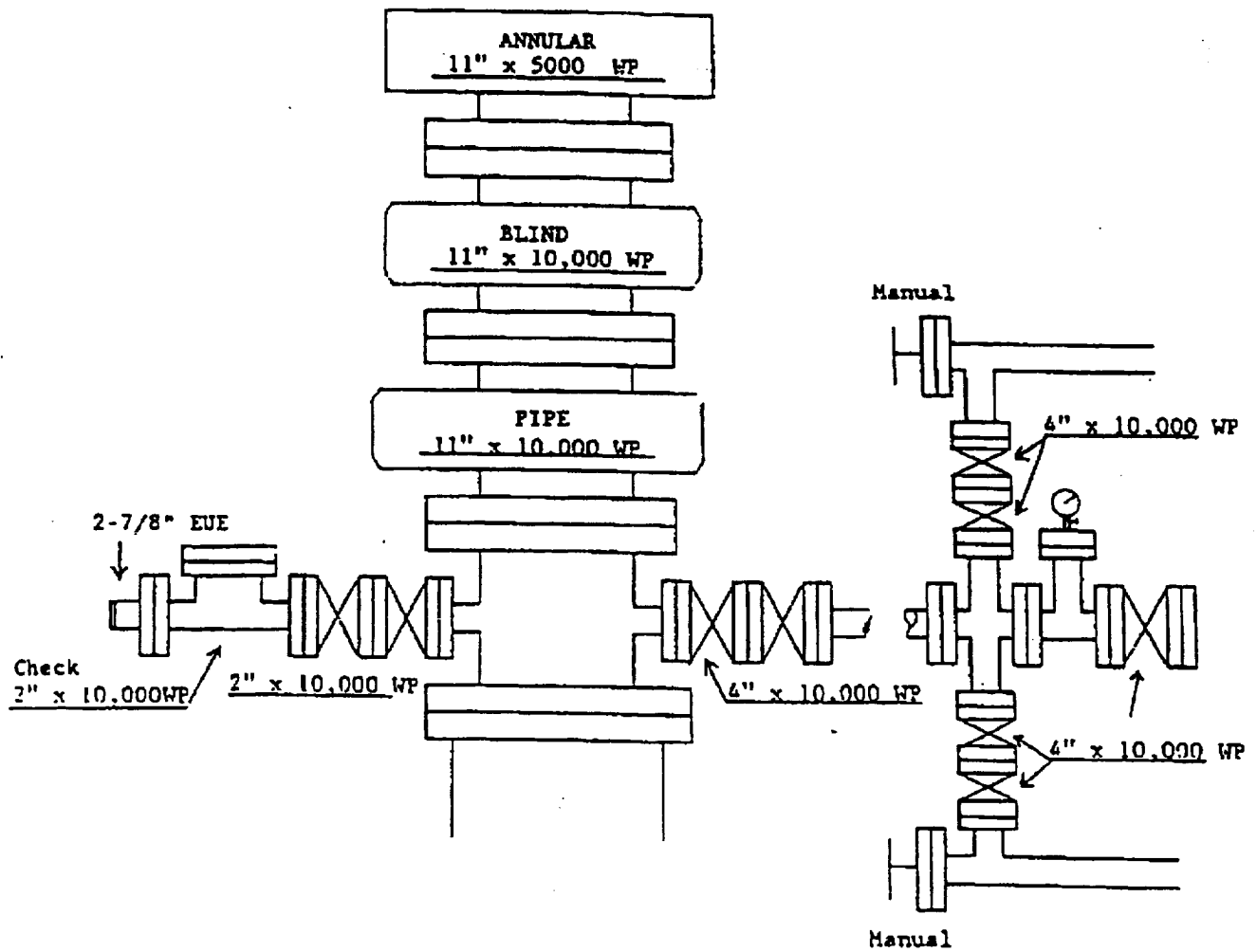
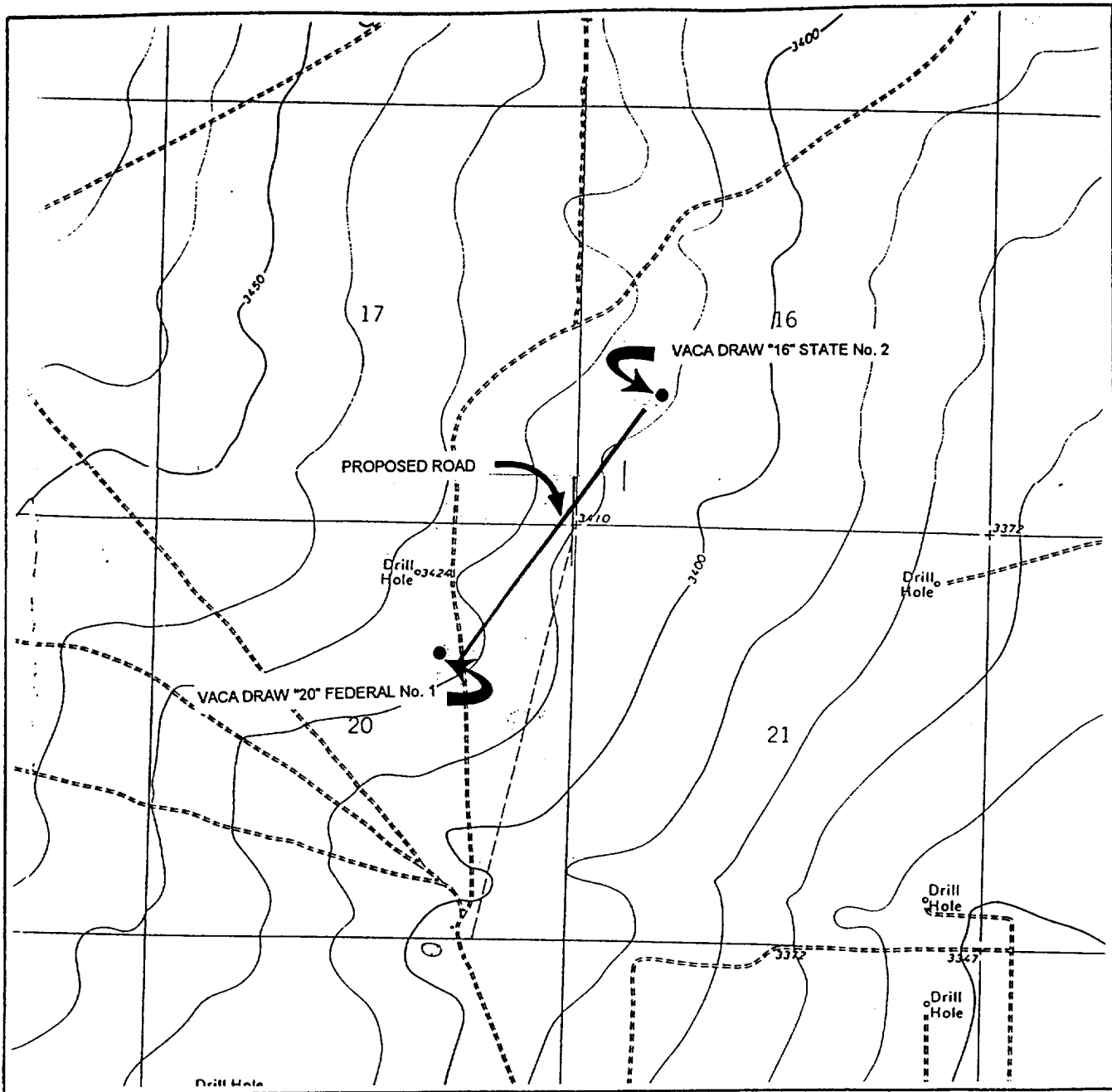


Exhibit #1

ENRON OIL & GAS COMPANY  
Vaca "20" Federal No. 1



# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'  
WTC 45689

SEC. 20 TWP. 25-S RGE. 33-E

SURVEY N.M.P.M

COUNTY LEA STATE NM

DESCRIPTION 1650' FNL & 1650' FEL

ELEVATION 3419'

OPERATOR ENRON OIL & GAS COMPANY

LEASE VACA DRAW "20" FEDERAL No. 1

USGS TOPO MAP BELL LAKE, NEW MEXICO AND  
PADUCA BREAKS EAST, NEW MEXICO

Exhibit 3

CONTOUR INTERVAL 10'

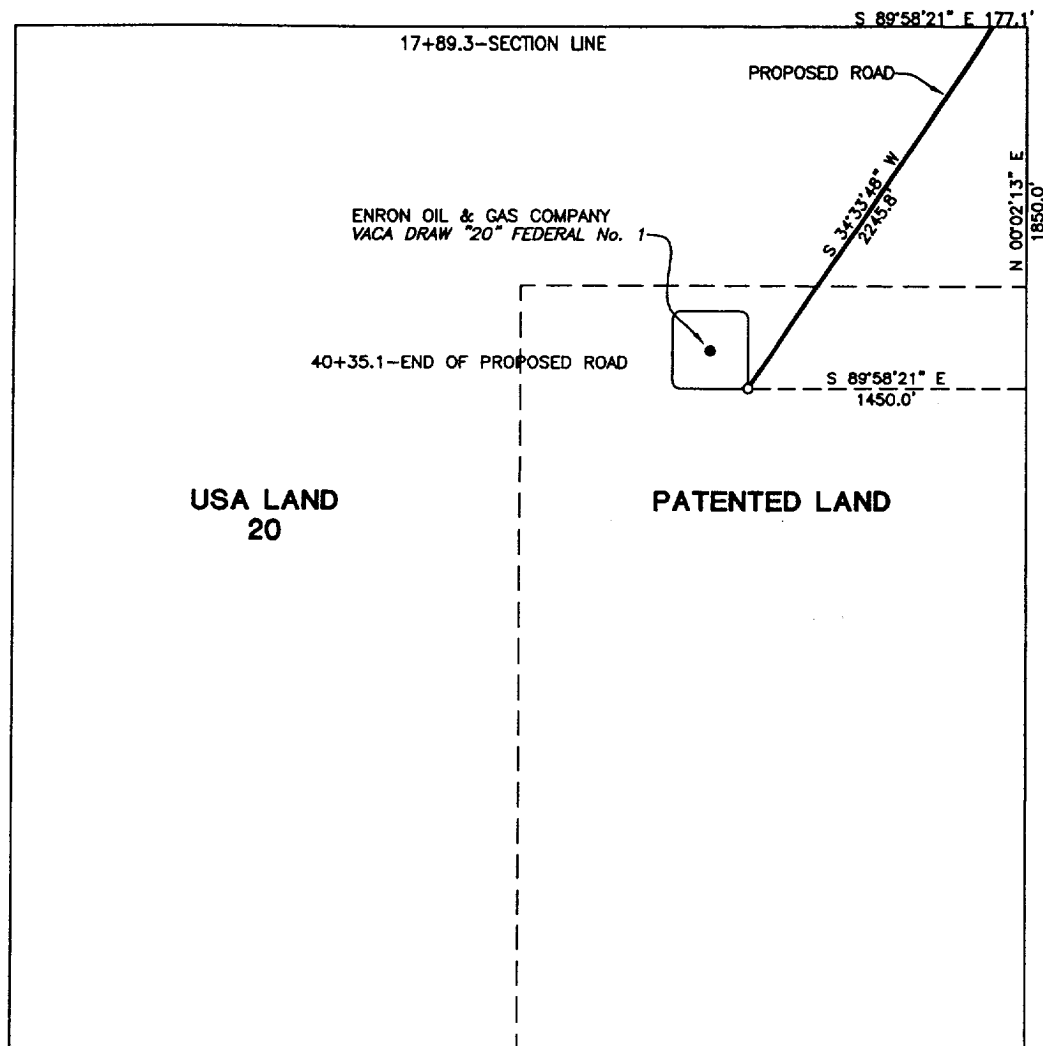
**WEST TEXAS CONSULTANTS, INC.**

**ENGINEERS-PLANNERS-SURVEYORS**

**MIDLAND, TEXAS**

**915-685-3800**

SECTION 20, TOWNSHIP 25 SOUTH, RANGE 33 EAST, N.M.P.M.  
LEA COUNTY, NEW MEXICO




CENTERLINE DESCRIPTION OF A PROPOSED ROAD:

BEGINNING at a point in the north line of Section 20, T-25-S, R-33-E, N.M.P.M., Lea County, New Mexico, from which point the northeast corner of said Section 20 bears S 89° 58' 21" E, 177.1 feet;

THENCE S 34° 33' 48" W, with the centerline of proposed road, 2245.8 feet to a point in the southeast corner of a well pad for Enron Oil & Gas Company, VACA DRAW "20" FEDERAL No. 1, for the end of this road, from which point the northeast corner of said Section 20 bears S 89° 58' 21" E, 1450.0 feet and N 00° 02' 13" E, 1850.0 feet.

PROPOSED ROAD TO SERVE  
VACA DRAW "20" FEDERAL No. 1

I hereby certify that this plot 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



ENRON OIL AND GAS COMPANY

EXHIBIT 3A  
2245.8 feet of proposed road in  
Section 20, T-25-S, R-33-E, N.M.P.M.,  
Lea County, New Mexico

WEST TEXAS CONSULTANTS, INC.

ENGINEERS-PLANNERS-SURVEYORS

MIDLAND, TEXAS

Survey Date: 9-23-99	Date: 9-25-99	Scale: 1" = 1000'
WTC No. 45689	Drawn By: JLE	Sheet 3 of 3

SECTION 17, TOWNSHIP 25 SOUTH, RANGE 33 EAST, N.M.P.M.  
LEA COUNTY, NEW MEXICO



CENTERLINE DESCRIPTION OF A PROPOSED ROAD:

BEGINNING at a point in the east line of Section 17, T-25-S, R-33-E, N.M.P.M., Lea County, New Mexico, from which point the southeast corner of said Section 17 bears S 00° 01' 18" W, 257.4 feet;

THENCE S 34° 33' 48" W, with the centerline of proposed road, 312.5 feet to a point in the south line of said Section 17, for the end of this road, from which point the southeast corner of said Section 17 bears S 89° 58' 21" E, 177.1 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.

PROPOSED ROAD TO SERVE  
VACA DRAW "20" FEDERAL No. 1

ENRON OIL AND GAS COMPANY

EXHIBIT 3A  
312.5 feet of proposed road in  
Section 17, T-25-S, R-33-E, N.M.P.M.,  
Lea County, New Mexico

WEST TEXAS CONSULTANTS, INC.

ENGINEERS-PLANNERS-SURVEYORS

MIDLAND, TEXAS

Survey Date: 9-23-99	Date: 9-25-99	Scale: 1" = 1000'
WTC No. 45689	Drawn By: JLE	Sheet 2 of 3

Earl Foote  
Registered Professional Surveyor  
New Mexico Certificate No. 8278



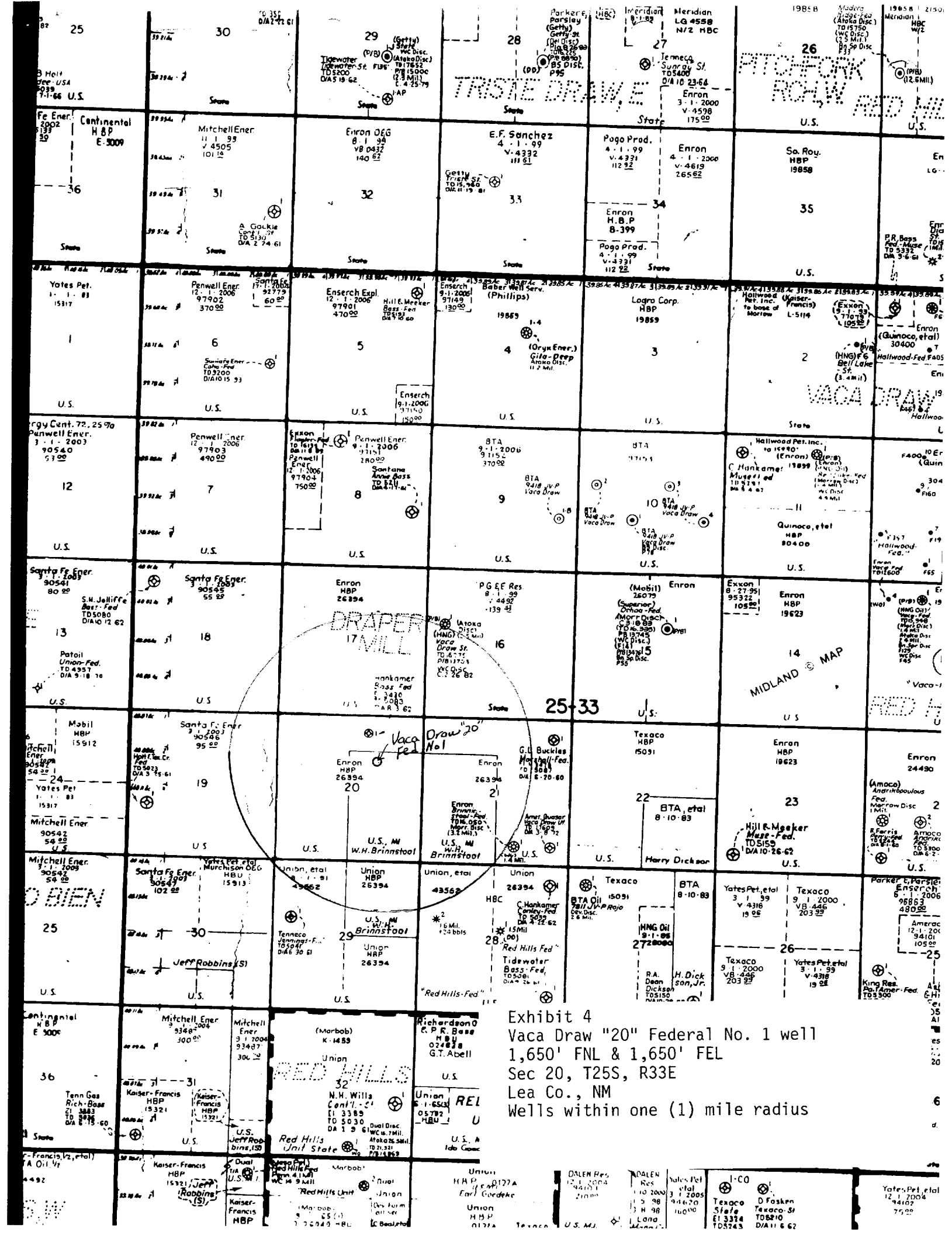
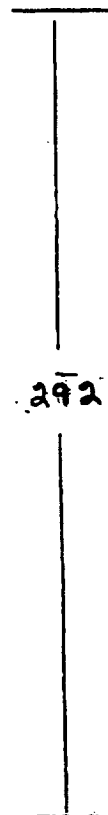
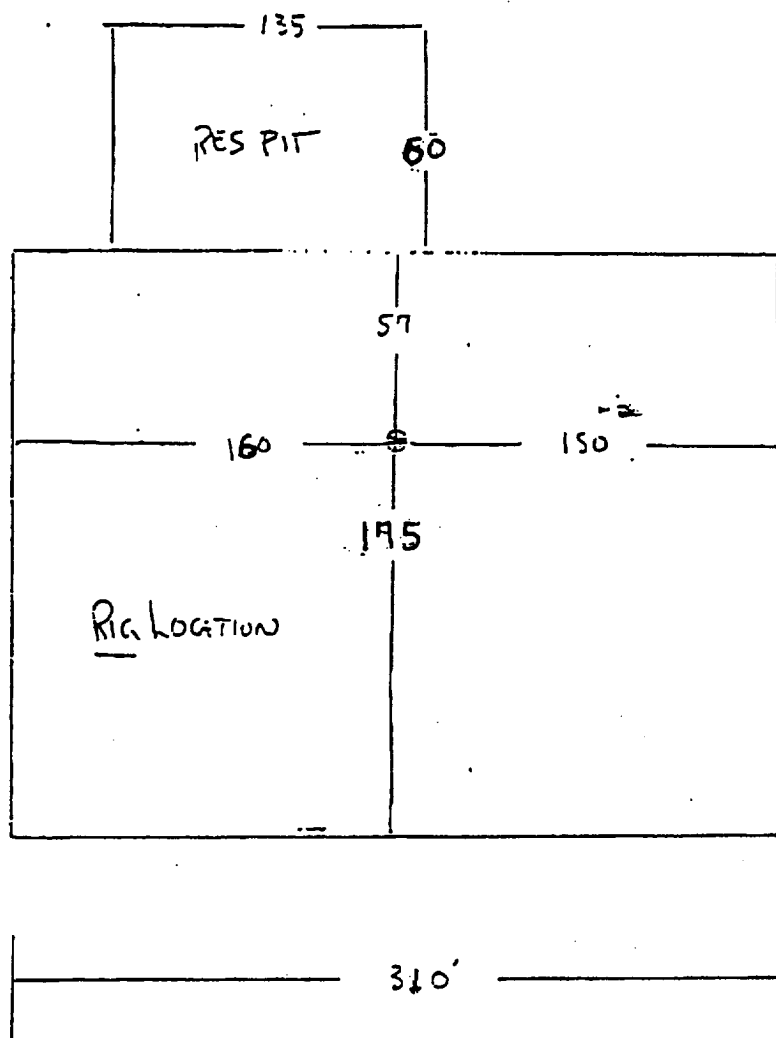


Exhibit 4  
Vaca Draw "20" Federal No. 1 well  
1,650' FNL & 1,650' FEL  
Sec 20, T25S, R33E  
Lea Co., NM  
Wells within one (1) mile radius

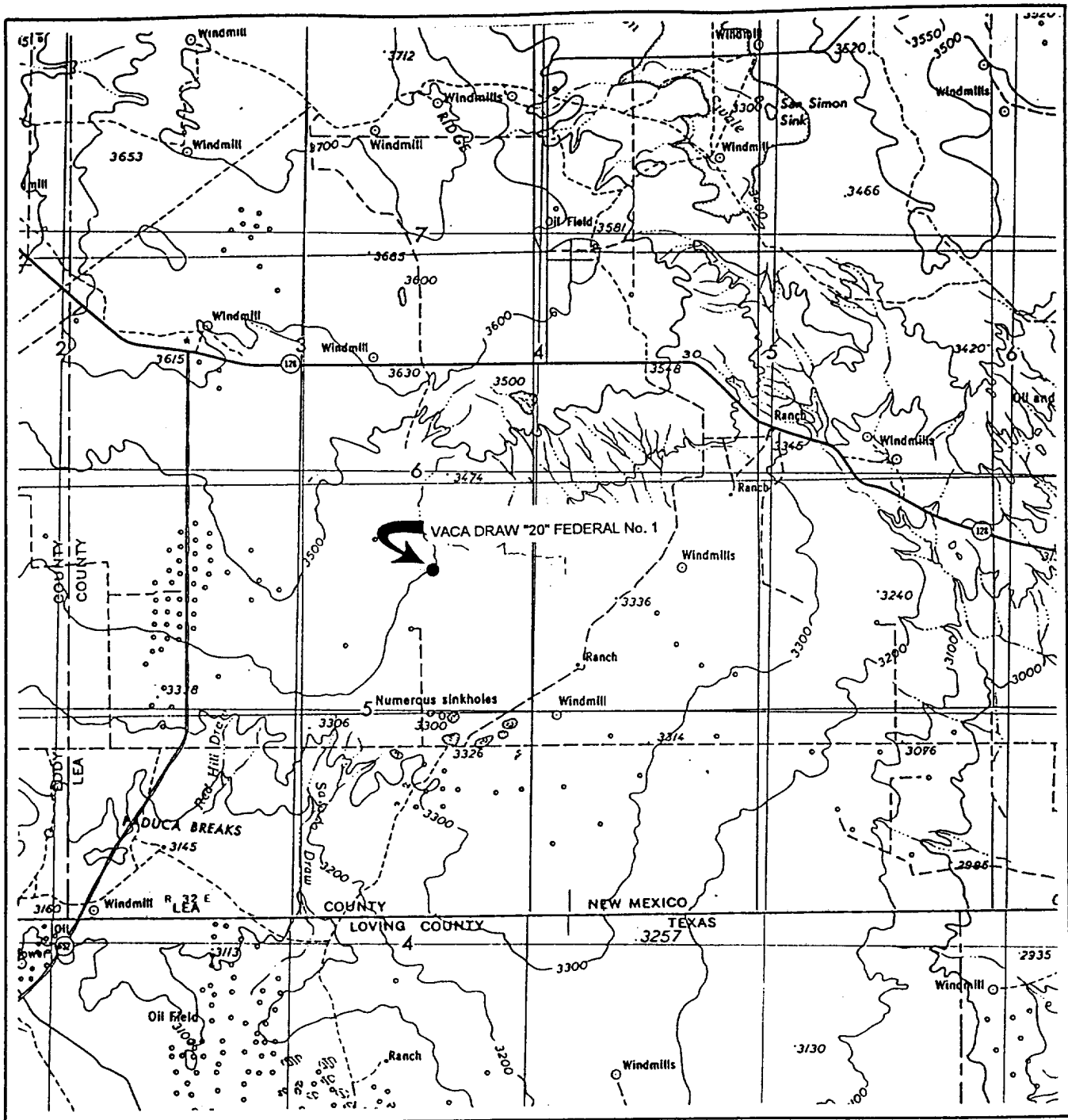
Exhibit 5  
Vaca Draw "20" Federal No. 1

NORTH





# VICINITY MAP



SCALE: 1" = 4 MILES

WTC 45689

SEC. 20 TWP. 25-S RGE. 33-E

SURVEY N.M.P.M

COUNTY LEA STATE NM

DESCRIPTION 1650' FNL & 1650' FEL

ELEVATION 3419'

OPERATOR ENRON OIL & GAS COMPANY

LEASE VACA DRAW "20" FEDERAL No. 1

**WEST TEXAS CONSULTANTS, INC.**

**ENGINEERS-PLANNERS-SURVEYORS**

**MIDLAND, TEXAS**

**915-685-3800**



**EOG Resources, Inc.**  
P.O. Box 2267  
Midland, TX 79702  
(915) 686-3600

September 30, 1999

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

RE: Surface Damage Agreement  
Vaca Draw "20" Federal No. 1 Well  
Section 20, T25S, R33E  
Lea County, NM

Gentlemen:

Please be informed that no surface damage agreement has been reached between Enron Oil & Gas Company and W.H. Brinninstool, Ltd for damages occurring as a result of drilling and producing the referenced well.

Sincerely,

  
Mike Francis  
Agent

ELF  
\_\_\_\_\_  
1/26/2000  
ABOVE DATE DOES NOT  
INDICATE WHEN  
CONFIDENTIAL LOGS  
WILL BE RELEASED