

UNITED STATES  
DEPARTMENT OF THE INTERIOR

## GEOLOGICAL SURVEY

## APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

## 1a. TYPE OF WORK

DRILL ☒DEEPEN ☐PLUG BACK ☐

## b. TYPE OF WELL

OIL  
WELL ☐GAS  
WELL ☒

OTHER

SINGLE  
ZONE ☒MULTIPLE  
ZONE ☐

## 2. NAME OF OPERATOR

Viking Petroleum, Inc.

## 3. ADDRESS OF OPERATOR

2700 Center Building, 2761 E. Skelly Dr., Tulsa, OK 74105

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

At surface

660' FEL + 1980 FSL of Sec. 5, T 12 S - R 27 E

At proposed prod. zone

same

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

## 10. DISTANCE FROM PROPOSED\*

LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, FT.  
(Also to nearest drlg. unit line, if any)

660'

## 16. NO. OF ACRES IN LEASE

1525.86

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

160

## 18. DISTANCE FROM PROPOSED LOCATION\*

TO NEAREST WELL, DRILLING, COMPLETED,  
OR APPLIED FOR, ON THIS LEASE, FT.

N/A

## 19. PROPOSED DEPTH

5600'

## 20. ROTARY OR CABLE TOOLS

rotary

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

3718.0 GR

## 22. APPROX. DATE WORK WILL START\*

8-30-81

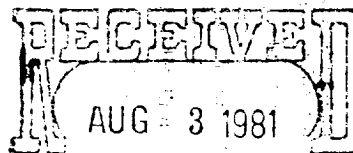
## 23.

## PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
24"	20"	culvert	40'	cement to surface CIRCULATE
17-1/2"	13-3/8"	48#	300'	good returns to surface
12 1/4"	8-5/8"	28#	1500'	750 sx
7-7/8"	4 1/2"	10.5#	5600'	500' above top of pay

1. Rig up. Drill 24" hole, set 20" culvert.
2. Drill 17 1/2" hole to 300', set 13-3/8" surface casing.
3. Drill 12 1/4" hole to 1500'; set 8-5/8" intermediate casing.
4. Log B.O.P. check in daily reports and drill 7-7/8" hole to  $\pm$  5600'.
5. Run test and logs and set 4 1/2" casing if warranted
6. Perforate and stimulate as needed.

Gas is not dedicated.

OIL & GAS  
U.S. GEOLOGICAL SURVEY  
ROSWELL, NEW MEXICO

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, 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

Jim McWilliams

Agent

DATE

7-31-81

(This space for District or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

JAMES A. GILLHAM  
DISTRICT SUPERVISOR

\*See Instructions On Reverse Side

## Instructions

**General:** This form is designed for submitting proposals to perform certain well operations, as indicated, on all types of lands and leases for appropriate action by either a Federal or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office.

**Item 1:** If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable State or Federal regulations concerning subsequent work proposals or reports on the well.

**Item 4:** If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

**Item 14:** Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on this reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal or State agency offices.

**Items 15 and 18:** If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective production zone.

**Item 22:** Consult applicable Federal or State regulations, or appropriate officials, concerning approval of the proposal before operations are started.

N MEXICO OIL CONSERVATION COMMISS.  
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102  
Supersedes C-128  
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

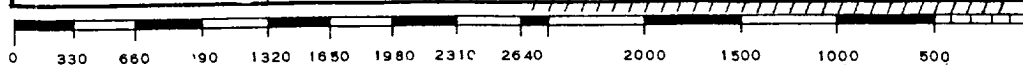
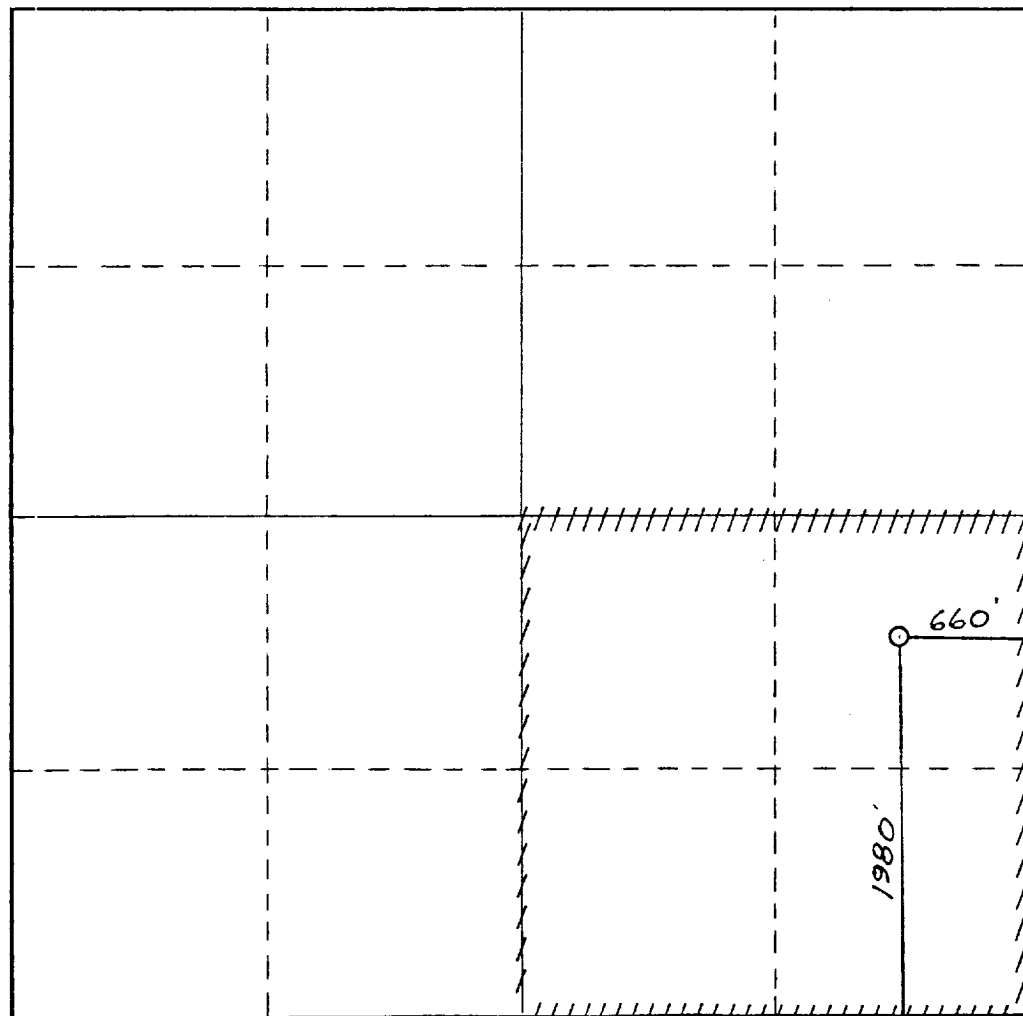
Operator <b>VIKING PETROLEUM INC.</b>			Lease <b>5 Federal 5</b>			Well No. <b>1</b>		
Unit Letter <b>I</b>	Section <b>5</b>	Township <b>12 South</b>	Range <b>27 East</b>	County <b>Chaves</b>				
Actual Footage Location of Well: <b>1980</b> feet from the <b>South</b> line and <b>660</b> feet from the <b>East</b> line								
Ground Level Elev. <b>3718.</b>	Producing Formation <b>Abo</b>		Pool <b>Wildcat</b>			Dedicated Acreage: <b>160</b> Acres		

- Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- If more than one lease of different ownership is dedicated to the well, have the interests 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 the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) \_\_\_\_\_

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



CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name **Jim McWilliams**

Position

**Drilling Superintendent**

Company **Jack Grynberg and Assoc.**  
**agent for Viking Petro., Inc.**

Date

**July 13, 1981**

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

**July 11, 1981**

Registered Professional Engineer  
and/or Land Surveyor

**Dan R. Reddy**

Certificate No.  
**NM PE&LS #5412**

TEN POINT COMPLIANCE PROGRAM  
Attachment to Form 9-133C, Application for Permit to Drill

Viking Petroleum, Inc.  
#1-5 Federal  
1980' FSL & 660' FEL  
Section 5, T 12 S - R 27 E  
Chaves County, New Mexico

1. Geologic Surface Formation  
Tansill
2. Estimated Tops of Important Geologic Marker  
Queen 700'  
San Andres 1250'  
Abo 4750'
3. Estimated Depths of Anticipated Water, Oil, Gas or Other Minerals  
Abo 5200' Gas
4. Proposed Casing Program

<u>Hole Size</u>	<u>Casing Size</u>	<u>Interval</u>	<u>Grade</u>	<u>Wt./Ft</u>	<u>New or Used</u>
24"	20" culvert	0-40		--	new
17½"	13-3/8"	40-300	K-55	48#	new
12¼"	8-5/8"	300-1500	K-55	28#	new
7-7/8"	4-1/2"	1500-5600	K-55	10.5#	new

5. Operator's Minimum Specifications For Pressure Control  
Exhibit "A" is a schematic diagram of the blowout preventor equipment. The BOP's will be hydraulically tested to the full working pressure after nipping up and after any use under pressure. Pipe rams will be operationally checked each 24 hour period, as will blind rams each time pipe is pulled out of the hole.
6. Type and Characteristic of Proposed Circulating Mediums  
Adequate stocks of sorptive agents will be on site to handle possible spills of fuel and oil on the surface. Heavier muds will be on location to be added if pressure requires.

<u>Interval</u>	<u>Type</u>	<u>Weight #/gal.</u>	<u>Visc.-sec./qt.</u>	<u>Fluid loss-cc.</u>
0-300'	fresh wtr gel	8.4	40	--
300-1500'	H <sub>2</sub> O	8.4	28	--
1500-5600'	salt gel	8.4-8.6	28	--

7. Auxiliary Equipment  
Kelly cock, a float will be used at the bit, pit level indicators and flow sensor equipment, sub with full-opening valve on floor, drill pipe connection.

8. Testing, Logging, and Coring Program

- A. DST's will be as required.
- B. The logging program will consist of a CNL-FDC and a DILL.
- C. No coring is anticipated
- D. Stimulation procedures will be determined after evaluation of logs.  
If treatment is indicated, appropriate Sundry Notice will be submitted.

9. Anticipated Abnormal Pressures or Temperatures

No abnormal pressures or temperatures are anticipated.

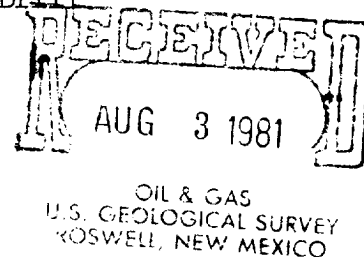
10. Anticipated Starting Date

The well will be spudded around the middle of August, no later than August 31. A completion unit will be used for completion purposes.

MULTI-POINT SURFACE USE  
AND OPERATIONS PLAN

Attachment to Form 9-331C Application for Permit to Drill

Viking Petroleum, Inc.  
#1-5 Federal  
1980' FSL & 660' FEL  
Section 5, T12S, R27E  
Chaves County, New Mexico



1. Existing Roads

Exhibit "C" shows two alternate routes to the location from Roswell. Two routes are shown since there is some uncertainty as to whether the "existing dirt road" shown in pink is available for use. In either case, the US, STATE, and county roads shown need no improvement. The Existing Trail Road in Route "A" is already improved since it was used to get to Viking Petroleum Inc.'s #1-32, located in the NWSE Section 32, T11S, R27E. The Existing Dirt Road in "B" will need light blading and will be caledched if required. Access roads for both routes will need to be built. Any necessary construction materials will be obtained from commercial sources. A sundry notice will be filed once the route has been chosen.

A. Alternate Route "A" (Location is approximately 24½ miles southeast of Roswell)

From Roswell go east approximately 16 miles on U.S. 380. Turn south on County Road 54 and proceed approximately 3¼ miles. Continue southwest on existing trail road approximately 4 miles. Access road begins. Travel south approximately 1¼ miles to location

B. Alternate Route "B" (Location is approximately 22.3 miles southeast of Roswell)

From Roswell go east approximately 9 miles on U.S. 380. Travel south on State Route 409 approximately 9 miles. Turn on existing dirt road going northeast 1 mile then east 3 miles to access road. Proceed on access road approximately 1600' to location.

2. Planned Access Roads

Exhibit "D" shows the proposed access road. Again two alternate routes are shown.

A. Proposed access road "A" will be approximately 6600 feet in length from point of origin to the edge of the drilling pad of which 1980' falls on Federal surface.

Proposed access road "B" will be approximately 1600' in length from the point of origin to the edge of the drill pad all of which falls on Federal surface.

- B. Both proposed access roads would be 12 feet in width (driving surface) except at the point of origin, adjacent to the existing road, at which point enough additional width will be provided to allow trucks and equipment to turn.
- C. The new road will be covered with the required depth of caliche. The surface will be crowned, with drainage on both sides.
- D. The access route "B" has been flagged and the road is clearly visible. If access route "A" is determined to be the route, it will be flagged immediately.

3. Location of Existing Wells

The well locations within a two mile radius of the wellsite are shown on Exhibit "E". There are no producing wells. Seven dry holes are within the radius. Besides the subject, proposed location, a location has been approved in the NWSE Section 32, T11 S - R27 E.

4. Location of Existing and/or Proposed Facilities

- A. Within a one mile radius there are no tank batteries, production facilities, oil gathering lines, gas gathering lines, injection lines or disposal lines.
- B. In the event that the well is productive, the necessary production facilities will be located on the drill pad. Any lines will be buried if required. Exhibit "F" shows the proposed production facilities.

5. Location and Type of Water Supply

- A. All water needed for the drilling of the well will be obtained from commercial sources and will be hauled to the location by truck over the existing and proposed roads shown in Exhibit "C".

6. Source of Construction Material

Any caliche required for construction of the drilling pad and the new access road will be obtained from commercial sources by the dirt contractor. We do not anticipate the need for any other construction materials.

7. Methods of Handling Waste Disposal

- A. Drill cuttings will be disposed of in the reserve pits. The reserve pits will be lined if required.
- B. Drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry.
- C. Water produced during operations will be collected in tanks or reserve pit until hauled to an approved disposal system, or separate disposal application will be submitted to the USGS for appropriate approval. Oil produced during operation will be stored in tanks until sold.

- D. Current laws and regulations pertaining to the disposal of human waste will be complied with.
  - E. Trash, waste paper, garbage and junk will be buried in a separate trash pit and covered with a minimum of 24 inches dirt. All waste material will be contained to prevent scattering by the wind.
  - F. All trash and debris will be buried or removed from the wellsite after finishing drilling and/or completion operations.
8. Ancillary Facilities  
None required
9. Wellsite Layout
- A. Exhibit "G" shows the relative location and dimensions of the well pad, the reserve pits, etc.
  - B. The location surface fairly flat, only minor cuts or fills should be needed in the pad area or access road.
10. Plans For Restoration of the Surface
- A. After finishing drilling and/or completion operations, all equipment and other material not needed for further operations will be removed. The location will be cleaned of all trash and junk.
  - B. Unguarded pits, if any, will be fenced until they have been filled.
  - C. When the proposed well is abandoned, all pits will be filled and leveled, all rehabilitation and/or vegetation requirements of the BLM and the USGS will be complied with and will be accomplished as expeditiously as possible.
11. Other Information
- A. Topography: The land surface in the vicinity of the wellsite is hilly.
  - B. Flora and Fauna: The vegetation cover consists of prairie grass, prairie flowers, greasewood and miscellaneous desert growth. Wildlife in the area includes those typical of semi-arid desert land. The area is used for cattle grazing.
  - C. There are no ponds, lakes, or rivers in the area.
  - D. There are no inhabited dwellings in the vicinity of the proposed well.
  - E. Surface Ownership: The wellsite is on federal surface and minerals.
  - F. An archeological survey is being done by Dr. J. Loring Haskell, New Mexico Archeological Services, Inc. and will be forwarded to your office when completed.



12. Operator's Representative

The field representative responsible for assuring compliance with the approved surface use plan is:

Jim McWilliams  
Jack Grynberg and Associates  
Agent for Viking Petroleum, Inc.  
P.O. Box 506  
Granbury, TX 76148

office phone 817-573-2471

home phone 817-573-4529

13. Certification

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite 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 Viking Petroleum, Inc. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Agent for VIKING PETROLEUM, INC.

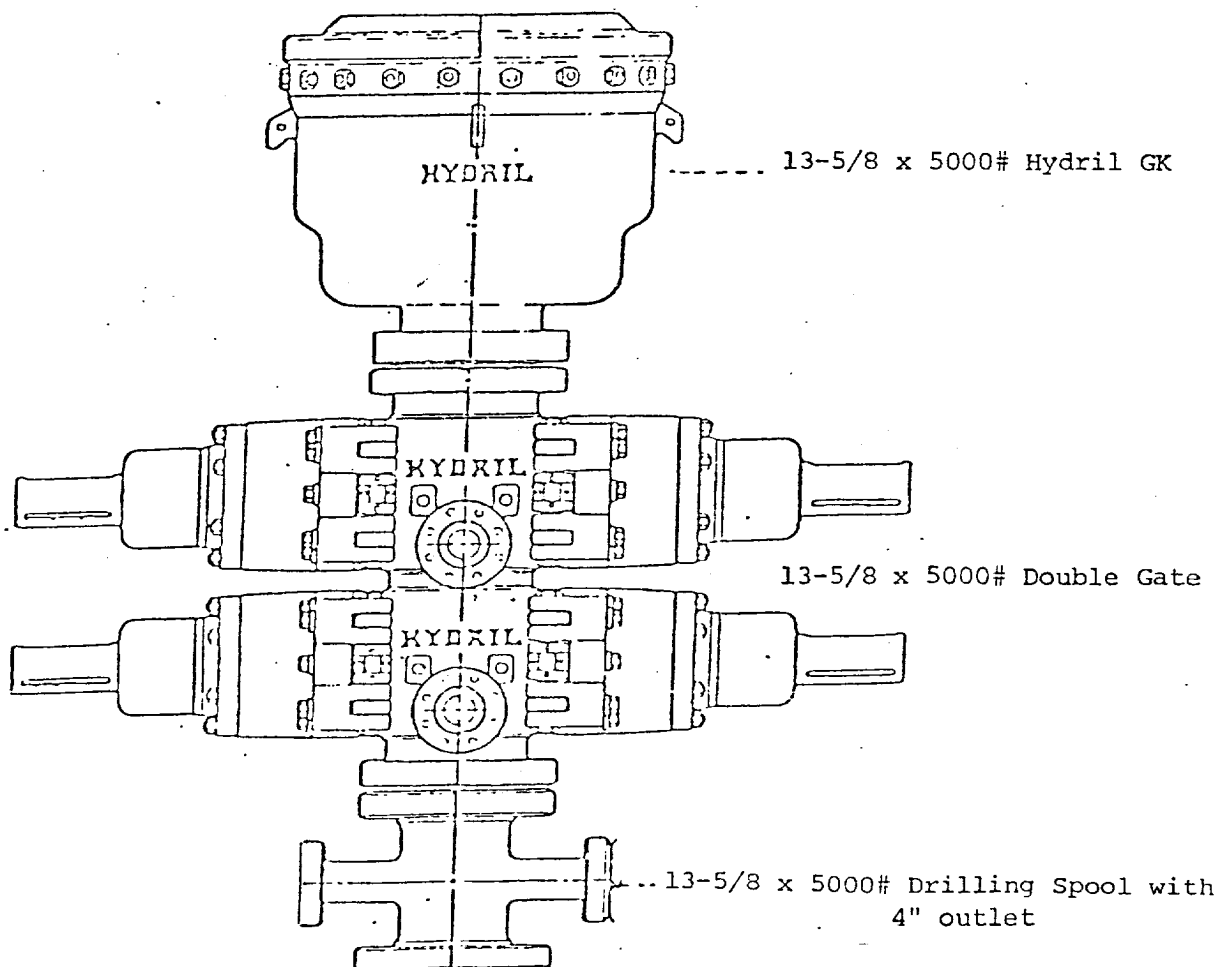
  
Jim McWilliams, Drilling Superintendent

\_\_\_\_\_  
Date

EXHIBIT "A"

Viking Petroleum, Inc.  
1-5 Federal  
1980' FSL and 660' FEL  
Sec. 5, T 12 S - R 27 E  
Chaves County, New Mexico

# B.O.P. Stack



All items H<sub>2</sub>S trimmed

EXHIBIT "B"  
STAKED LOCATION

N. MEXICO OIL CONSERVATION COMMISS.  
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102  
Supersedes C-128  
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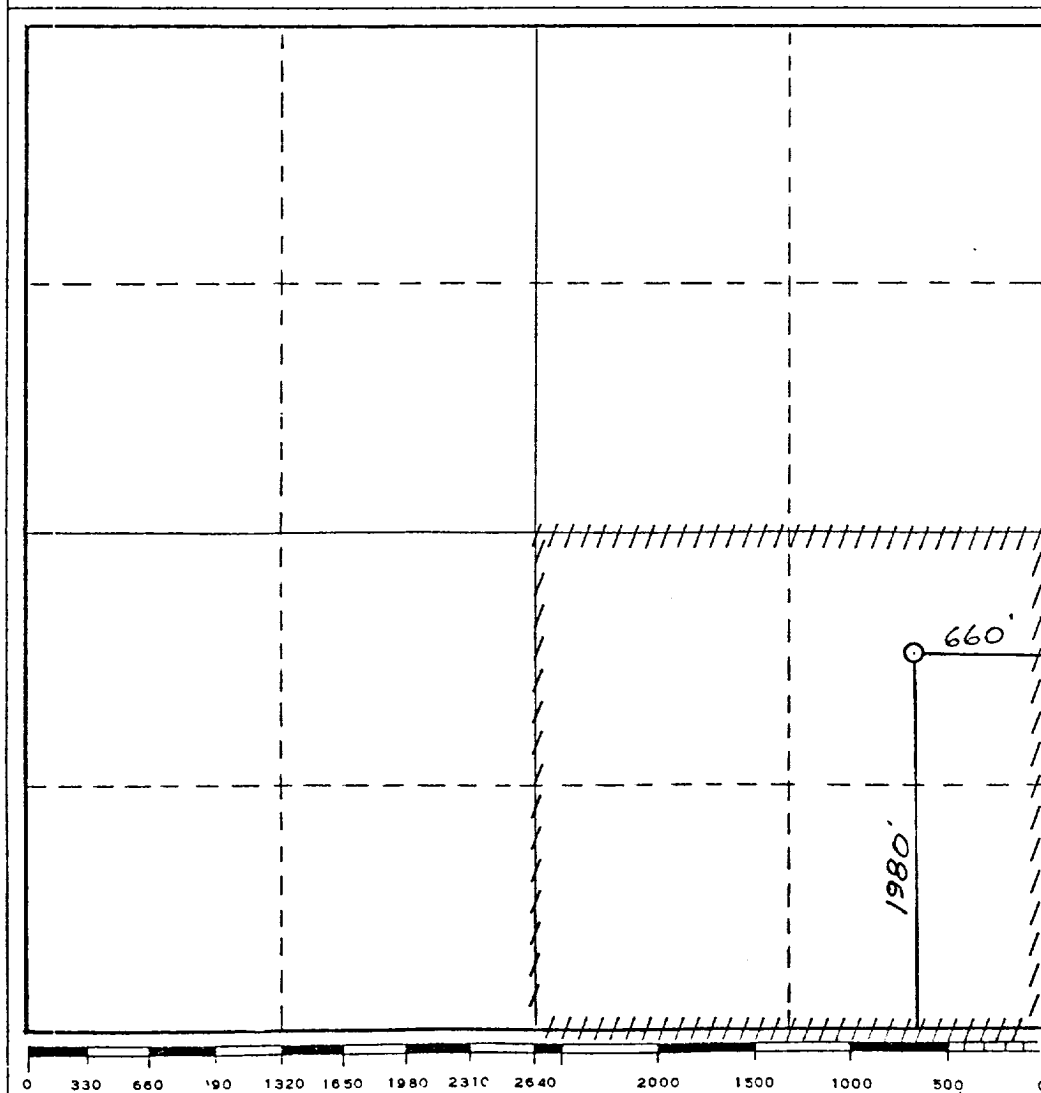
Operator <b>VIKING PETROLEUM INC.</b>			Lease <b>5 Federal</b>		Well No. <b>1</b>
Unit Letter <b>I</b>	Section <b>5</b>	Township <b>12 South</b>	Range <b>27 East</b>	County <b>Chaves</b>	
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Ground Level Elev. <b>3718.</b>	Producing Formation <b>Abo</b>		Pool <b>Wildcat</b>		Dedicated Acreage: <b>160</b> Acres

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CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Name **Jim McWilliams**

Position

**Drilling Superintendent**

Company **Jack Grynberg and Assoc.**  
**agent for Viking Petro., Inc.**

Date

**July 13, 1981**

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 correct and true to the best of my knowledge and belief.

Date Surveyed

**July 11, 1981**

Registered Professional Engineer  
and/or Land Surveyor

*Dan R. Reddy*  
Certificate No.

**NM PE&LS #5412**

## EXHIBIT "C"

Viking Petroleum Inc.

1-5 Federal

1980' FSL and 660' FEL

Sec. 5, T 12 S - R 27 E

Chaves County, New Mexico

## EXISTING ROADS

Alternate Route "A"

Alternate Route "B"

1-5 Federal

Sec. 5

T12S

R27E

660' FEL

1980' FSL

TRAIL ROAD  
Approx. 1600'

- Proposed Location
- Highway US
- County or State Road
- Existing Trail Road (needs blading)
- Access Road
- Existing Dirt Road

EXHIBIT "D"

ACCESS ROAD

Viking Petroleum, Inc.  
1-5 Federal  
1980' FSL and 660' FEL  
Sec. 5, T 12 S - R 27 E  
Chaves County, New Mexico

R27E

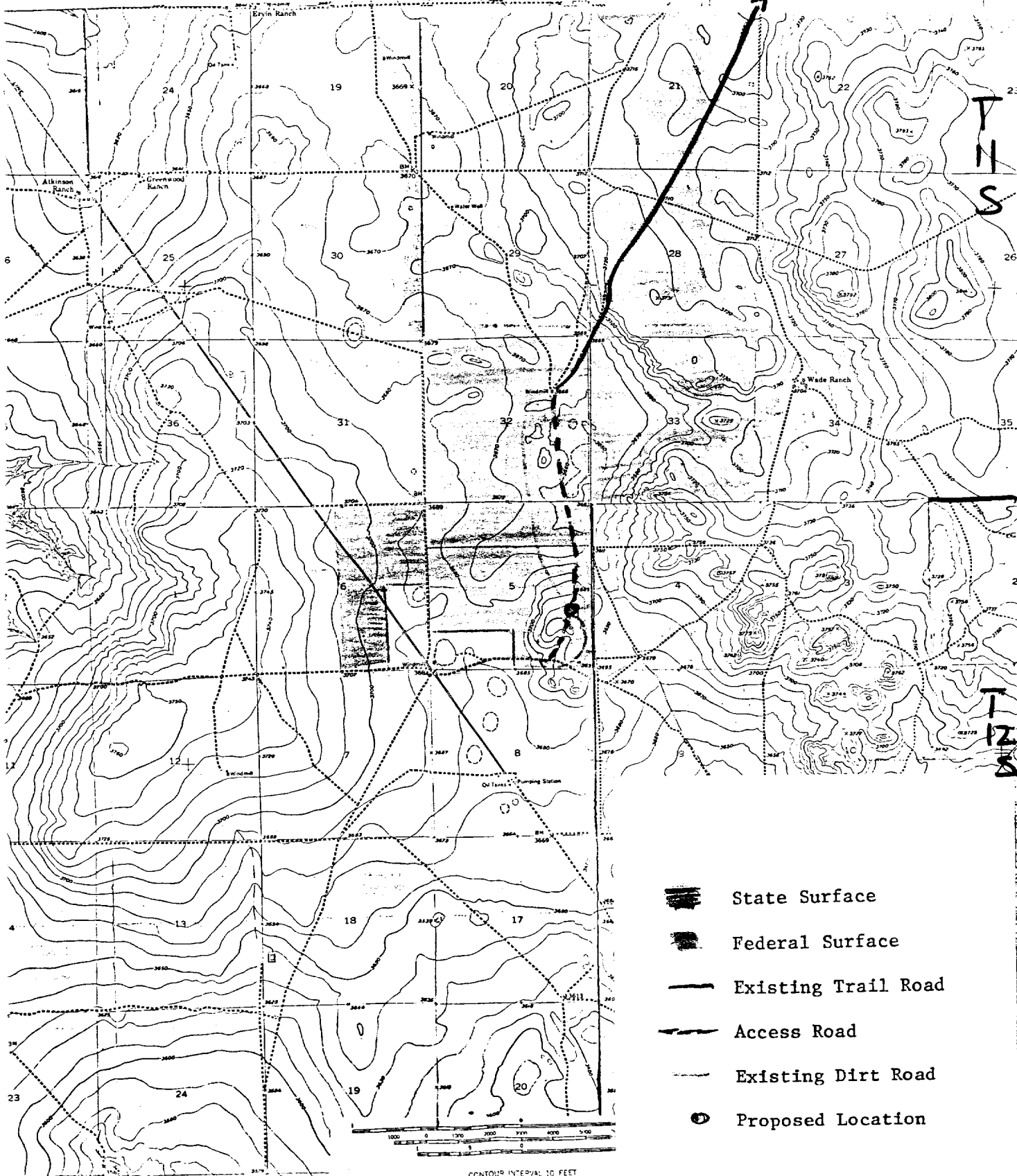


EXHIBIT "E"

EXISTING WELLS

Viking Petroleum, Inc.  
1-5 Federal  
1980' FSL and 660' FEL  
Sec. 5, T 12 S - R 27 E  
Chaves County, New Mexico

R.26E

R.27E

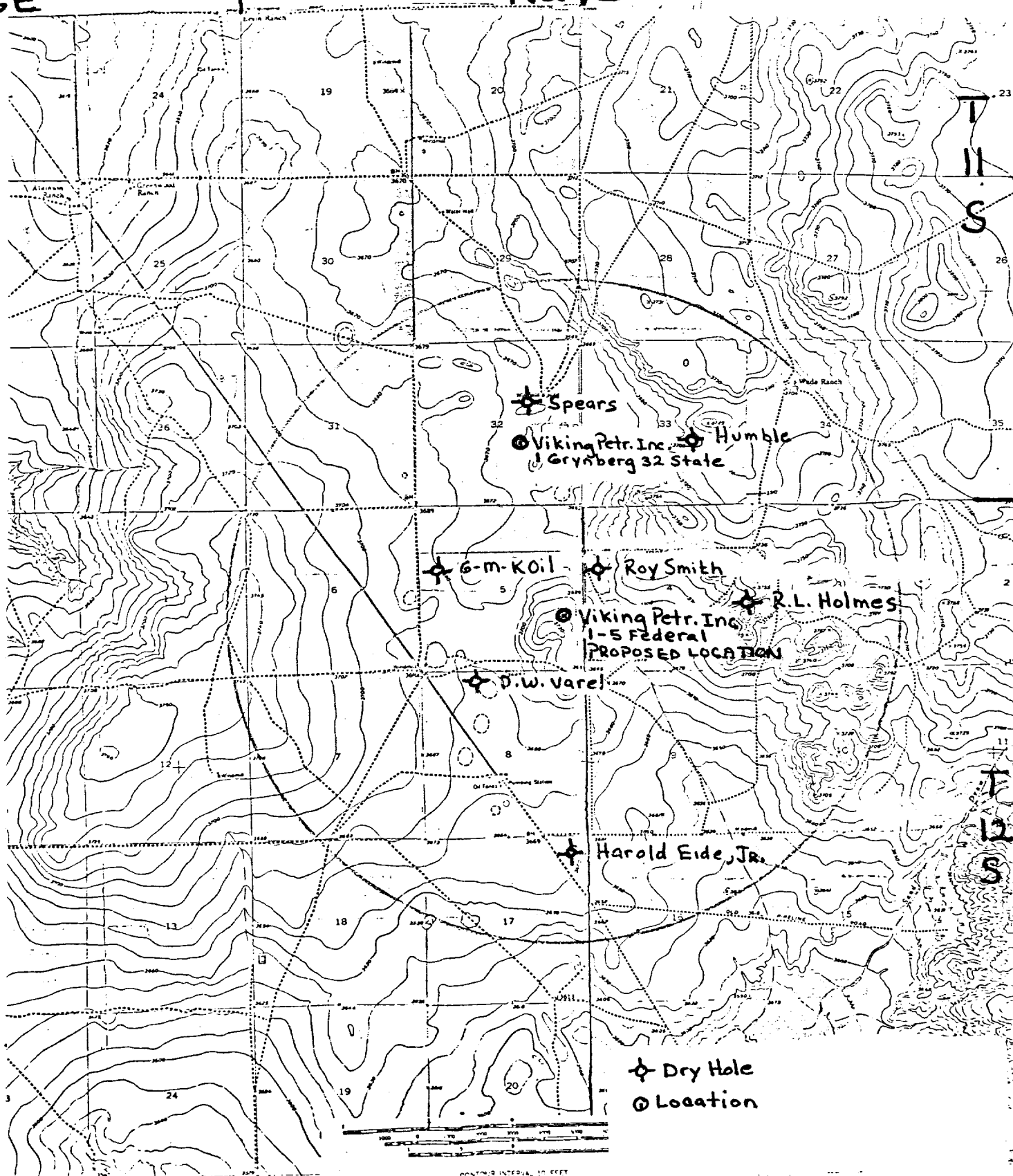
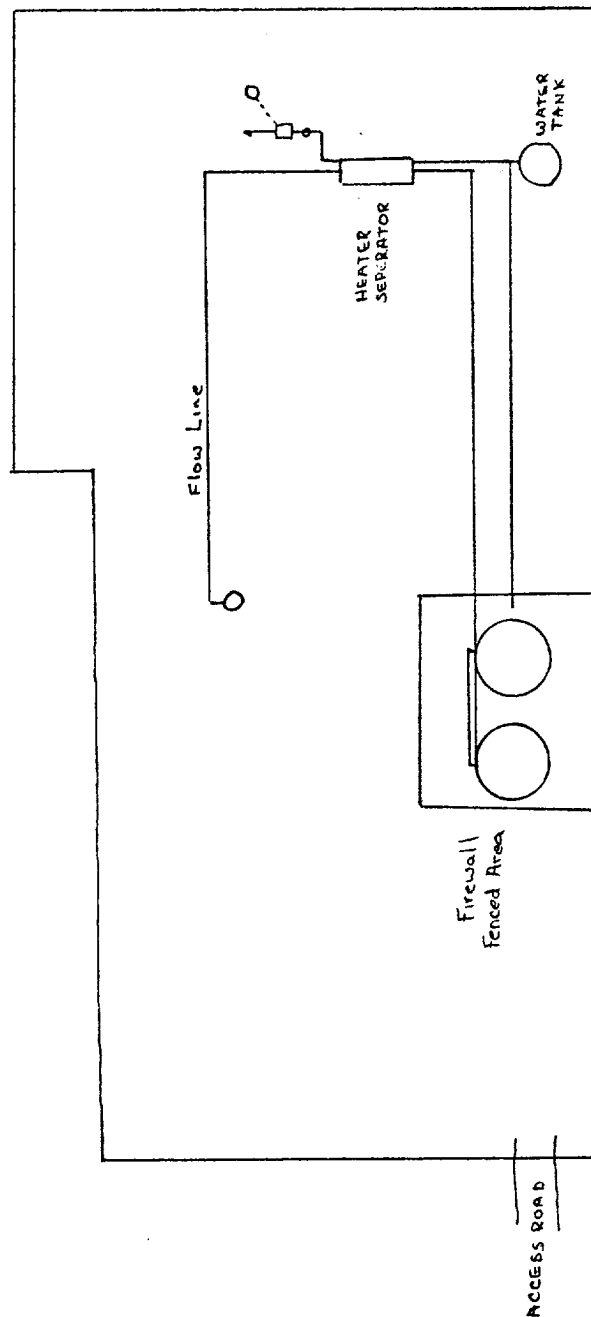


EXHIBIT "F"

PRODUCTION FACILITIES

Viking Petroleum, Inc.  
1-5 Federal  
1980' FSL and 660' FEL  
Sec. 5, T 12 S - R 27 E  
Chaves County, New Mexico



## EXHIBIT "G"

WELLSITE LAYOUT

Viking Petroleum, Inc.  
1-5 Federal  
1980' FSL and 660' FEL  
Sec. 5, T 12 S - R 27 E  
Chaves County, New Mexico

