

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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

Santa Fe Energy Operating Partners, L.P.

3. ADDRESS OF OPERATOR

550 W. Texas, Suite 1330, Midland, Texas 79701

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

At surface

1980' FNL & 1980' FEL

At proposed prod. zone

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

13 miles S/E of Loco Hills, N.M.

15. DISTANCE FROM PROPOSED\*  
LOCATION TO NEAREST  
PROPERTY OR LEASE LINE, FT.  
(Also to nearest drig. unit line, if any)

660'

16. NO. OF ACRES IN LEASE

40

17. NO. OF ACRES ASSIGNED  
TO THIS WELL

40

18. DISTANCE FROM PROPOSED LOCATION\*  
TO NEAREST WELL, DRILLING, COMPLETED,  
OR APPLIED FOR, ON THIS LEASE, FT.

None

19. PROPOSED DEPTH

7000'

20. ROTARY OR CABLE TOOLS

Rotary

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

3540.9' GR

22. APPROX. DATE WORK WILL START\*

November 20, 1992

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8"	54.50	2250'	2500 sx to circulate
12 1/4"	8 5/8"	32.00	3500'	1500 sx to circulate
7 7/8"	5 1/2"	15.50	7000'	To tie back to 3300'

\*See NOTE TO FILE

We propose to drill to a depth sufficient to test the Delaware formation for oil. If productive, 5 1/2" casing will be cemented at TD. If non-productive, the well will be plugged and abandoned in a manner consistent with Federal Regulations. Specific programs as per Onshore Oil and Gas Order No.1 are outlined in the following attachments:

Drilling Program  
Exhibit A-Operations Plan  
Exhibit B- BOP and Choke  
Exhibit C- Drilling Fluid Program  
Exhibit D- Auxiliary Equipment  
Exhibit E- Topo Map of Location

Exhibit F - Plat Showing Existing Wells  
Exhibit G - Well Site Layout  
Surface Use and Operations Plan

Post ID-1  
11-20-92  
New loc & API

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 Daniel Roberts TITLE Senior Drilling Engineer DATE 10/14/1992

(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE 11-17-92

CONDITIONS OF APPROVAL, IF ANY:

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS

\*See Instructions On Reverse Side

ATTACHED  
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.

**OIL CONSERVATION DIVISION**

P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

**DISTRICT I**  
P.O. Box 1980, Hobbs, NM 88240

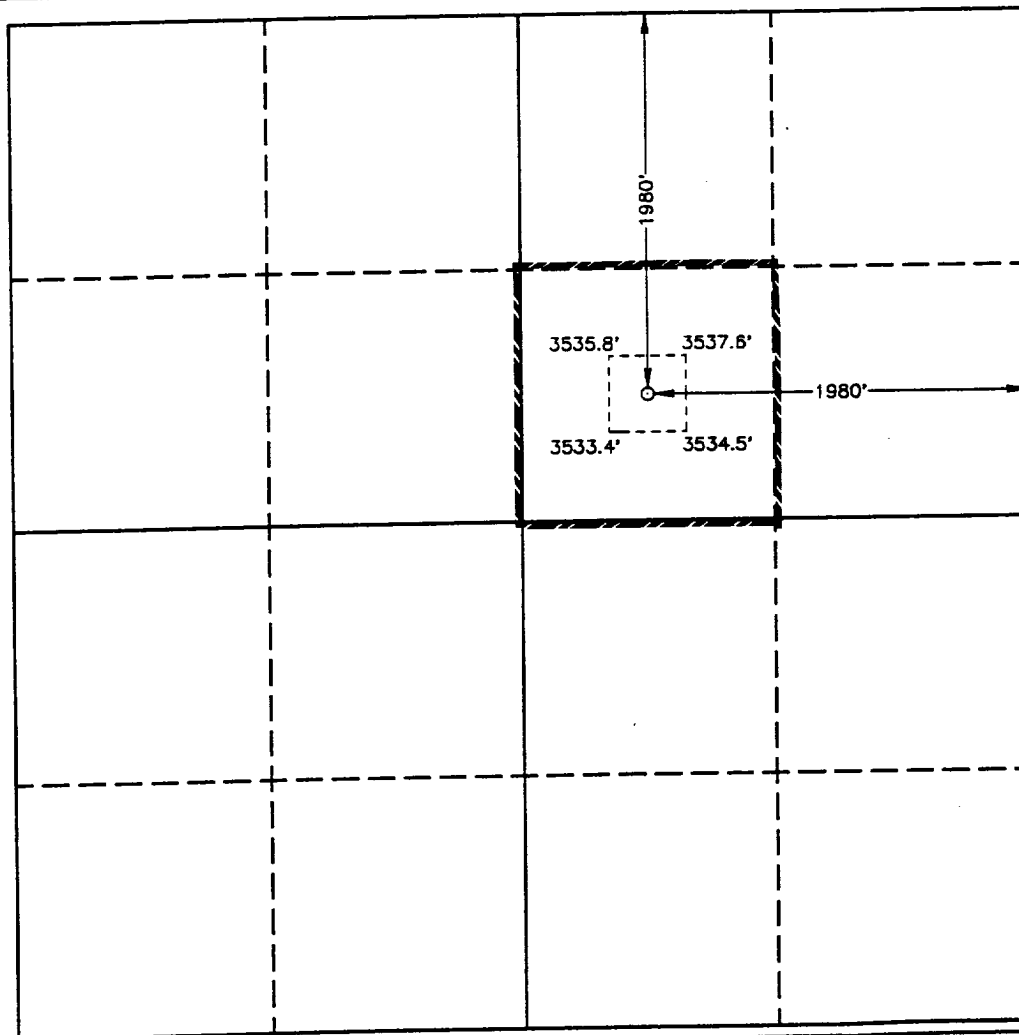
**DISTRICT II**  
P.O. Drawer DD, Artesia, NM 88210

**DISTRICT III**  
1000 Rio Brazos Rd., Artesia, NM 87410

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

All Distances must be from the outer boundaries of the section

Operator <b>SANTA FE ENERGY OPERATING PARTNERS L.P.</b>		Lease <b>RUNNING WOLF</b>		Well No. <b>1</b>
Unit Letter <b>G</b>	Section <b>15</b>	Township <b>19 SOUTH</b>	Range <b>31 EAST</b> NMPM	County <b>EDDY</b>
Actual Footage Location of Well: <b>1980</b> feet from the <b>NORTH</b> line and <b>1980</b> feet from the <b>EAST</b> line				
Ground Level Elev. <b>3540.9'</b>	Producing Formation <b>Delaware</b>	Pool <b>Undesignated(Delaware)</b>	Dedicated Acreage: <b>40</b> Acres	
<p>1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.</p> <p>2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).</p> <p>3. If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc.?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No If answer is "yes" type of consolidation _____</p> <p>If answer is "no" list of owners and tract descriptions which have actually been consolidated. (Use reverse side of this form necessary.) _____</p> <p>No allowable will be assigned to the well unit all interests have been consolidated (by communitization, unitization, forced-pooling, otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.</p>				



**OPERATOR CERTIFICATION**

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

Signature

*Darrell Roberts*

Printed Name

Darrell Roberts

Position

Sr. Drilling Engineer

Company Santa Fe Energy  
Operating Partners, L.P.

Date

10/14/92

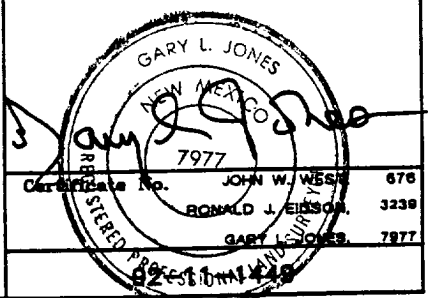
**SURVEYOR CERTIFICATION**

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 knowledge and  
belief.

Date Surveyed

SEPTEMBER 30, 1992

Signature & Seal of  
Professional Surveyor



**DRILLING PROGRAM**  
**SANTA FE ENERGY OPERATING PARTNERS, L.P.**  
**Running Wolf No.1**

In conjunction with Form 3160-3, Application to Drill the subject well, Santa Fe Energy Operating Partners, L.P., submits the following ten items of pertinent information in accordance with Onshore Oil & Gas Order No. 10.

1. **Geologic Name of Surface Formation:** Alluvium

2. **Estimated Tops of Significant Geologic Markers:**

Rustler Anhydrite	500'
Salado	700'
Base of Salt	2200'
Yates	2300'
Capitan Reef	2500'
Queen	3500'
Delaware	4460'
Bone Spring	6850'
Total Depth	7000'

3. **The estimated depths at which water, oil, or gas formations are expected:**

Water	None expected in area
Oil	Delaware Sand @ 4700'
Oil	Lower Brushy Canyon @ 6500'

4. **Proposed Casing Program:** See Form 3160-3 and Exhibit A.

5. **Pressure Control Equipment:** See Exhibit B.

6. **Drilling Fluid Program:** See Exhibit C.

7. **Auxiliary Equipment:** A mud logging unit will be utilized to monitor penetration rate and hydrocarbon shows while drilling below the intermediate casing at 2250'.

8. **Testing, Logging and Coring Program:**

Drill Stem Tests: None planned.

Logging:

Dual Laterolog w/MSFL and Gamma Ray      2250'-3500' & 3500'-7000'  
Compensated Neutron/Litho-Density/Gamma Ray      2250'-3500' & 3500'-7000'  
Compensated Neutron/Gamma Ray (thru csg)      Surface-2250'

Coring: 60' of Brushy Canyon section of the Delaware.

## **DRILLING PROGRAM**

Running Wolf No.1

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### **9. Abnormal Conditions, Pressures, Temperatures, & Potential Hazards:**

No abnormal pressures or temperatures are anticipated. The estimated bottom hole temperature is 135 °F and the estimated bottom hole pressure is 3000 psi. 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 lost circulation zones have been reported in the 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. The anticipated spud date is November 20, 1992. Once spudded, the drilling operation should be completed in approximately 15 days. If the well is productive, an additional 30 days will be required for completion and testing before permanent facilities are installed.

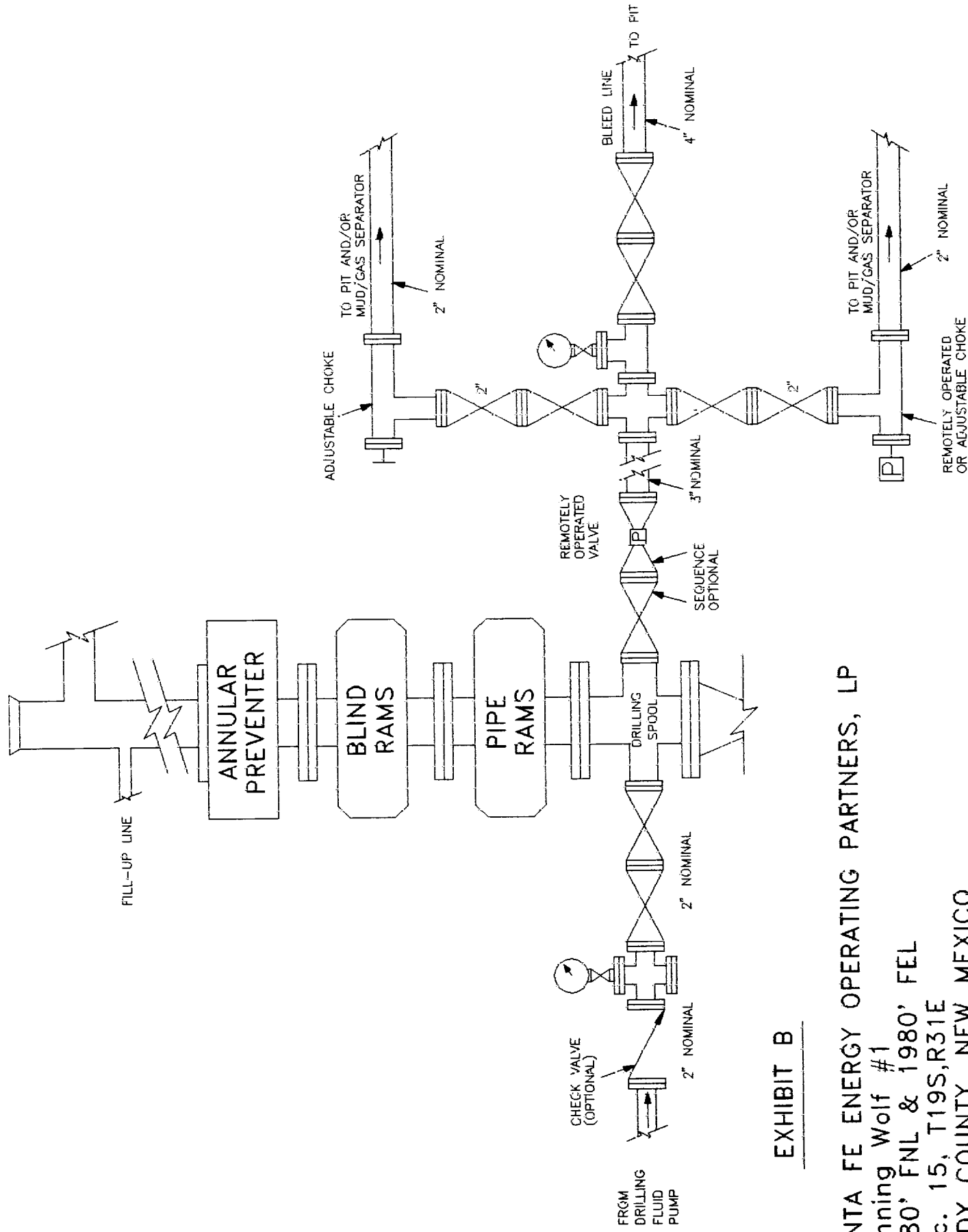
SANTA FE ENERGY OPERATING PARTNERS,L.P.  
OPERATIONS PLAN  
Running Wolf No.1

1. Drill a 17 1/2" hole to approximately 2250'.
2. Run 13 3/8" 54.50 ppf S-80 ST&C casing. Cement with 1500 sx Class "C" Lite cement + 10% NaCl and tail in with 1000 sx Class "C" contain 2%  $\text{CaCl}_2$  + 1/4 pps celloflake. Run 10 centralizers with one on every other joint above the shoe. Apply thread lock to bottom two joints, float collar, and guide shoe.
3. Wait on cement four hours prior to cutting off.
4. Nipple up a annular BOP system and test casing to 600 psi.
5. Drill a 12 1/4" hole to approximately 3500'.
6. Run 8 5/8" 32.0 ppf K-55 ST&C casing. Cement with 1250 sx Cl "C" Lite containing 12 pps salt and 1/4 pps celloflake followed by 250 sx Class "C" with 2%  $\text{CaCl}_2$ . Run guide shoe on bottom and float collar two joints of bottom. Centralize every other joint for bottom 400' of casing and place two centralizers in surface casing. Thread lock bottom 2 joints.
7. Wait on cement for six hours prior to cutting off.
8. Nipple up and install a 3000 psi. Double Ram and Annular BOP system with choke manifold.
9. Test BOP system to 2000 psi. Test casing to 1500 psi.
10. Drill 7 7/8" hole to 7000'. Run logs.
11. Either run and cement 5 1/2" 15.50 ppf K-55 LT&C casing or plug and abandon as per BLM requirements.

Exhibit A  
Santa Fe Energy Operating Partners,L.P.  
Running Wolf No.1  
Section 15,T-19S,R-31E  
Eddy County , New Mexico

DDR:RUNGWOLF

# PROPOSED 3-M BOPE AND CHOKE ARRANGEMENT



## EXHIBIT B

SANTA FE ENERGY OPERATING PARTNERS, LP  
 Running Wolf #1  
 1980' FNL & 1980' FEL  
 Sec. 15, T19S, R31E  
 EDDY COUNTY, NEW MEXICO

## PROPOSED DRILLING FLUID PROGRAM

### 0 - 2250'

Spud mud consisting of fresh water gel flocculated with Lime. As the Salt section is drilled, the system will brine up and add only brine from this point on to make up for volume of hole drilled. Use ground paper for seepage control and to sweep the hole. Circulate a controlled section of the reserve pit. MW-10.0 ppg and Vis-30~~0~~<sup>25</sup>

### 2250-3500'

Drill out with fresh water circulating the outer portion of the reserve pit. Utilize ground paper mixed in prehydrated fresh gel to sweep the hole. MW-8.4 ppg and Vis-28.

### 3500-7000'

Drill out with cut brine (30,000 ppm chlorides minimum) circulating the outer portion of the reserve pit. Maintain pH at 8.5-9.5 with caustic and sweep the hole as necessary with ground paper. If it becomes necessary to mud up due to hole conditions, utilize a cut brine/Drispac system for 15-20 WL and a Vis of 30-32. MW-8.5/8.9 ppg.

Exhibit C  
Santa Fe Energy Operating Partners, L.P.  
Running Wolf No.1  
Section 15, T-19S, R-31E  
Eddy County, New Mexico

DDR:RUNGWOLF

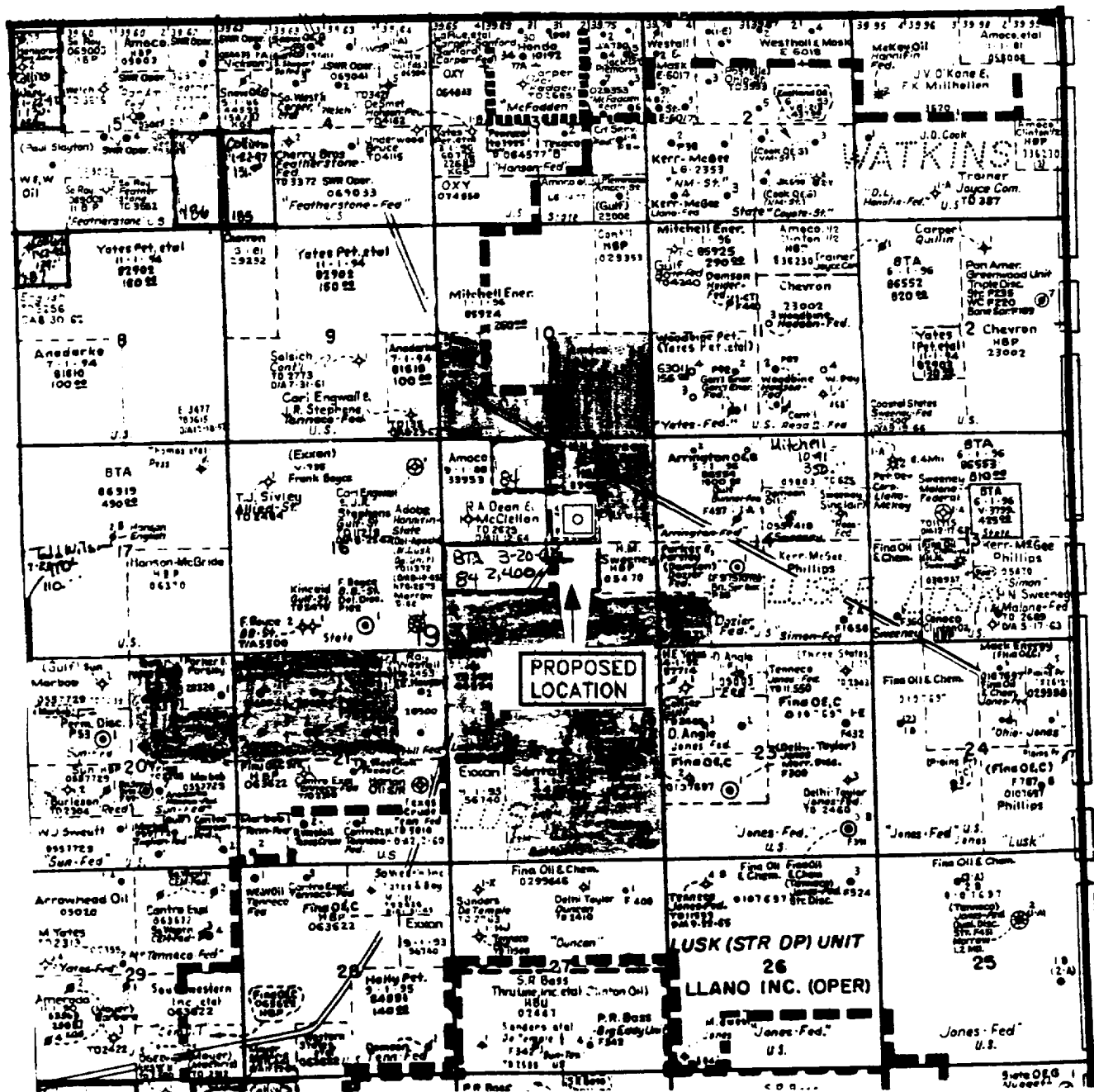
## AUXILIARY EQUIPMENT

DRAWWORKS	BDW 650M 650 HP, with Parmac Hydromatic brake
ENGINES	Two Caterpillar D-353 diesels rated at 425 HP each
ROTARY	Ideco 23", 300 ton capacity
MAST/SUB	Ideal 132',550,000 lb rated static hook load with 10 line Wagner 15' high substructure
TRAVELLING EQUIPMENT	Gardner-Denver,300 ton,5 sheave w/ BJ 250 ton hook. Brewster Model 7 SX 300 ton swivel.
PUMPS	Continental-EMSCO DC-700 and DB-550, 5 1/2 X 16" Duplex, Compound driven.
PIT SYSTEM	1-Shale Pit 6X7X35',1-Settling Pit 6X7X38', 1-Suction Pit 6X7X34' w/ 5 mud agitators. Two centrifugal mud mixing pumps and a Double Screen Shale Shaker.
LIGHT PLANT	Two CAT 3306 diesel electric sets 180 KW prime power.
BOP EQUIP	13 5/8" 5000 psi WP double ram and 13 5/8" 5000 psi WP Shaffer Annular Preventer. Choke manifold rated at 5000 psi. Valvcon 5-station 80 gallon closing unit.

Exhibit D  
Santa Fe Energy Operating Partners,L.P.  
Running Wolf No.1  
Section 15,T-19S,R-31E  
Eddy County, New Mexico

DDR:RUNGWOLF



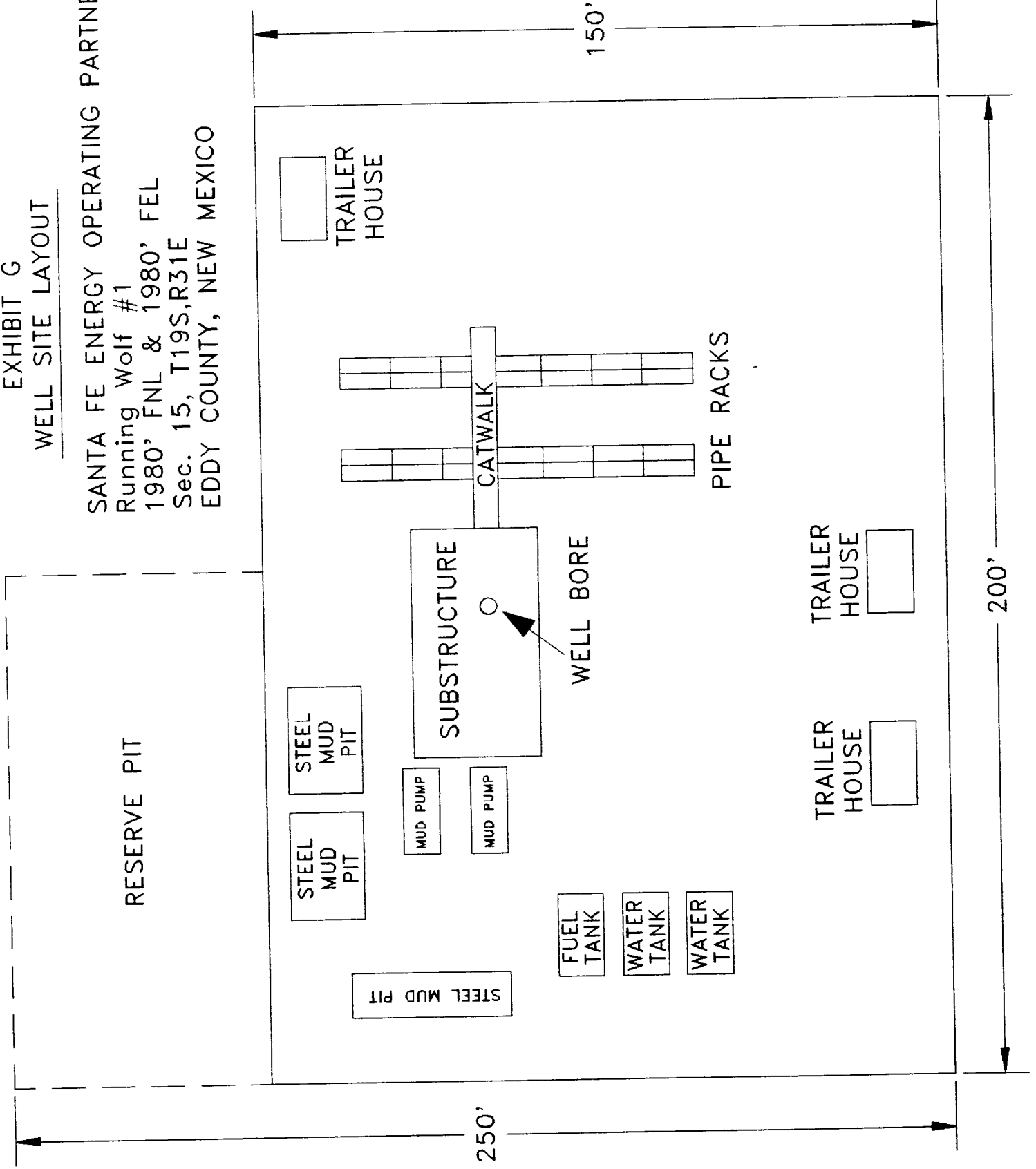


# EXHIBIT F

SANTA FE ENERGY OPERATING PARTNERS, LP  
Running Wolf #1  
1980' FNL & 1980' FEL  
Sec. 15, T19S, R31E  
EDDY COUNTY, NEW MEXICO

EXHIBIT G  
WELL SITE LAYOUT

SANTA FE ENERGY OPERATING PARTNERS, LP  
Running Wolf #1  
1980' FNL & 1980' FEL  
Sec. 15, T19S, R31E  
EDDY COUNTY, NEW MEXICO



**MULTI-POINT SURFACE USE AND OPERATIONS PLAN**  
**SANTA FE ENERGY OPERATING PARTNERS,L.P.**  
**Running Wolf No.1**  
**1980' FNL & 1980' FEL**  
**Section 15, T-19S, R-31E**  
**Eddy County, New Mexico**

This plan is submitted with Form 3160-3, Application for Permit to Drill, covering the above described well. The purpose of this plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of necessary surface disturbance involved, and the procedures to be followed by rehabilitating the surface after completion of the operations, so that a complete appraisal can be made of the environmental effects associated with the operation.

**1. EXISTING ROADS.**

- A. Exhibit E is a 15 minute topographic map which shows location of the proposed wellsite and roads in the vicinity. The proposed location is situated approximately 13 miles southeast of Loco Hills, New Mexico.

**DIRECTIONS:**

1. Travel west out of Hobbs, N.M. on Hwy 62-180 for 14 miles, turn NW onto Hwy 529, travel entire length of Hwy 529, at the intersection of Hwy 82, turn left and go 1/2 mile then turn south on Hwy 222.
2. Travel south on Hwy 222 for 12 miles, to the Lusk Plant road, continue S/E on lease road for 1/4 mile to the location.

**2. PLANNED ACCESS ROAD.**

A 14' wide access road will extend from existing Hwy 222 for <sup>1000'</sup>~~2500'~~ to the proposed location.

**3. LOCATION OF EXISTING WELLS.**

- A. The well Locations in the vicinity of the proposed well are shown Exhibits E & F.

**4. LOCATION OF EXISTING AND/ OR PROPOSED FACILITIES.**

- A. There are no existing producing oil wells on this lease at this time, this is only a 40 acre lease.
- B. In the event the well is productive, the necessary production equipment will be installed on the drilling pad. If the well is productive of oil, a gas or diesel self-contained unit will be used to the necessary power.

**5. LOCATION AND TYPE OF WATER SUPPLY**

- A. It is planned to drill the well with both fresh water and brine water systems. Both types of waters will be hauled to the location by truck over existing roads. Both types will be obtained from commercial sources.

## **Multi-Point Surface Use and Operations Plan**

Running Wolf No.1

Page 2

### **6. SOURCES OF CONSTRUCTION MATERIALS.**

- A. Any caliche required for construction of the drilling pad will be obtained from a pit located off the wellsite.

### **7. METHODS OF HANDLING WASTE DISPOSAL**

- A. Drill cuttings will be disposed of in the reserve pits.
- B. Drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry.
- C. Water produced during operations will be either placed in the reserve pits and allowed to evaporate or collected in tanks until hauled to an approved disposal system or a separate disposal application will be submitted to the BLM for appropriate approval.
- D. Oil produced during operations will be stored in tanks until sold.
- E. Human waste will be disposed of per current standards.
- F. Trash, waste paper, garbage, and junk will be collected in trash trailers and disposed of in an approved waste facility such as a land fill. The trash trailers contain all of the material to prevent scattering by the wind.
- G. All debris will be removed from the wellsite within 30 days after finishing drilling and/or completion operations.

### **8. ANCILLARY FACILITIES.**

None required

### **9. WELLSITE LAYOUT**

- A. Exhibit G shows the dimensions of the well pad and reserve pits, and the location of major rig components.
- B. The ground surface of the location is located on a sandy plain covered with prairie grasses. The location will be constructed by leveling the necessary soil and covering the area with at least six inches of compacted caliche.
- C. The reserve pits will be plastic lined.
- D. A 400' X 400' work area which will contain the pad and pit area has been staked and flagged.

### **10. PLAN 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 cleared of all trash and junk, to leave the wellsite in as aesthetically pleasing a condition as possible.

## Multi-Point Surface Use and Operations Plan

Running Wolf No.1

Page 3

- B. Unguarded pits, if any, containing fluid will be fenced until they have been filled.
- C. If the proposed well is non-productive, all rehabilitation and/or vegetation requirements of the Bureau of Land Management and the United States Geological Survey will be complied with and will be accomplished as expeditiously as possible. All pits will be filled and levelled within 300 days after abandonment.

### 11. TOPOGRAPHY

- A. The wellsite and access route are located in a relatively flat area.
- B. The top soil at the wellsite is sandy.
- C. The vegetation cover at the wellsite is moderately sparse, with prairie grasses, some mesquite bushes, and shinnery oak.
- D. No wildlife was observed but it is likely that deer, rabbits, coyotes, and rodents traverse the area.
- E. There are no ponds, lakes, streams, or rivers within one mile of the wellsite.
- F. There is no evidence of any archaeological, historical, or cultural sites in the vicinity of the location.

### 12. OPERATOR'S REPRESENTATIVES.

- A. The field representatives responsible for assuring compliance with the approved surface use plan are:

Michael R. Burton  
Division Operations Manager  
Santa Fe Energy Operating  
Partners, L.P.  
550 W. Texas, Suite 1330  
Midland, Texas 79701  
915-687-3551 - office  
915-699-1260 - home  
915-523-1474 - cellular

Darrell Roberts  
Senior Drilling Engineer  
Santa Fe Energy Operating  
Partners, L.P.  
550 W. Texas, Suite 1330  
Midland, Texas 79701  
915-687-3551 - office  
915-684-4130 - home  
915-553-1214 - cellular

### 13. 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 Santa Fe Energy Operating Partners, L.P., and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

SIGNED this 14<sup>th</sup> day of October, 1992. Darrell Roberts  
Darrell Roberts, Senior Drilling Engineer