

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE
RECEIVED
(Other instructions on reverse side)

30-015-26903
Form approved.
Budget Bureau No. 1004-0136
Expires August 31, 1985

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' FSL & 1980' FEL, Sec. 15, T-19S, R-31E

At proposed prod. zone

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

13 miles southeast of Loco Hills, New Mexico

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

(Also to nearest drilg. unit line, if any)

18. DISTANCE FROM PROPOSED LOCATION*

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

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

3523.1' GR

23.

SIZE OF HOLE	SIZE OF CASING
17-1/2"	13-3/8"
12-1/4"	8-5/8"
7-7/8"	5-1/2"

Move in drilling rig. Dri
to surface with 1500 sx Cl
flake. WOC 8 hours. Nipp
hole to 3500'. Run 8-5/8"
300 sx Cl "C" + 2% CaCl₂.
7-7/8" hole to 7000'. Run
fluid loss additive. SUFF
shoe

IN ABOVE SP
zone. If pr
preventer pr
24.

SIGNED

This sp

PERMIT NO

APPROVED
CONDITION

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.

5. LEASE DESIGNATION AND SERIAL NO.

NM-67713

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Lusk 15 Federal

9. WELL NO.

2

10. FIELD AND POOL, OR WILDCAT

X Undesignated Delaware

11. SEC., T., R., M., OR BLK.
AND SURVEY OR AREA

Sec. 15, T19S, R31E

12. COUNTY OR PARISH 13. STATE

Eddy

NM

17. NO. OF ACRES ASSIGNED
TO THIS WELL

40

ROTARY OR CABLE TOOLS

Rotary

22. APPROX. DATE WORK WILL START*

December 27, 1991

QUANTITY OF CEMENT

100 SX CIRCULATE

10 SX CIRCULATE

Below (tie back)

8" casing and cement
Cl₂ + 1/4 pps cello-
300 psi. Drill 12-1/4"
" Lite followed by
to 2000 psi. Drill
w/ Cl "C" + 0.5%
to 8-5/8" casing

API

productive zone and proposed new productive
ured and true vertical depths. Give blowout

Sr. Drilling Engineer

DATE Nov. 12, 1991

APPROVAL DATE

DATE 12-13-91

Submit to Appropriate
District Office
State Lease - 4 copies
Fee Lease - 3 copies

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised 1-1-89

OIL CONSERVATION DIVISION

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

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

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

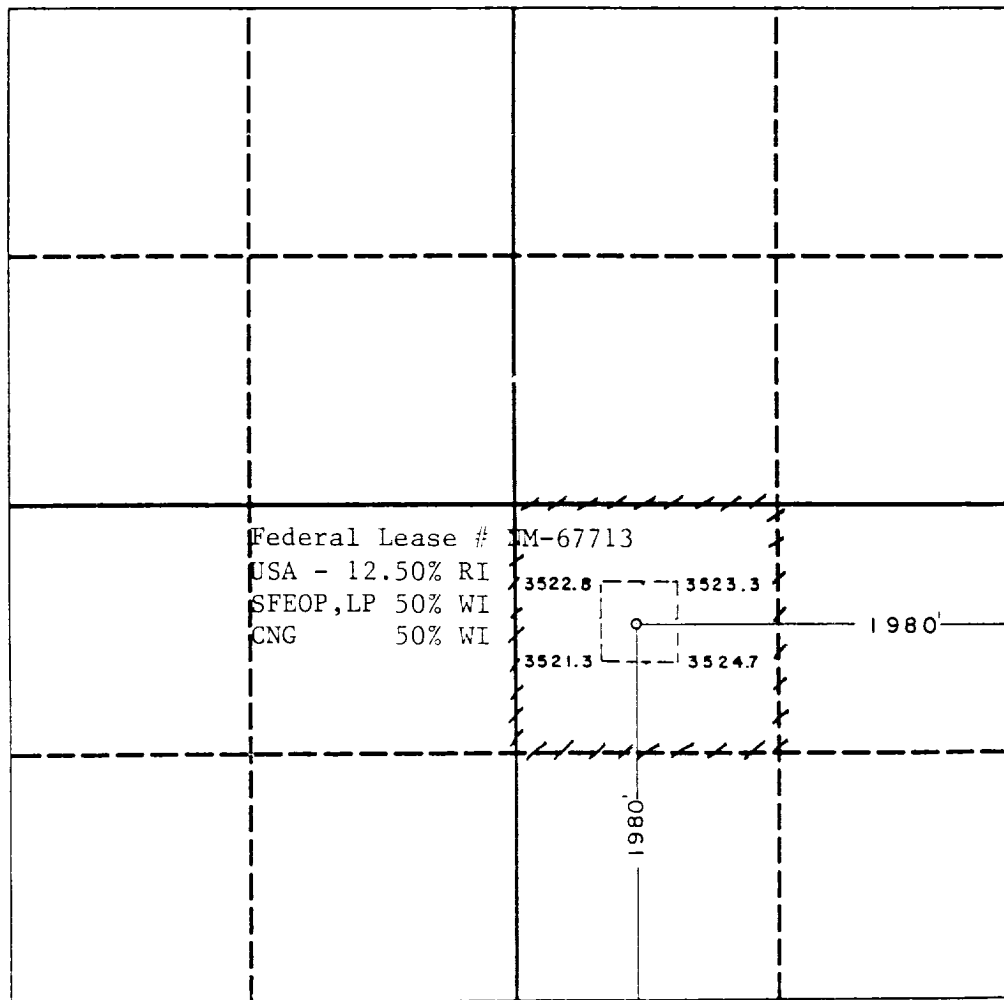
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator SANTA FE ENERGY OPERATING PARTNERS LP			Lease LUSK 15 FEDERAL		Well No. 2
Unit Letter J	Section 15	Township 19 SOUTH	Range 31 EAST	County EDDY	
Actual Footage Location of Well: 1980 feet from the SOUTH line and 1980 feet from the EAST line					
Ground level Elev. 3523.1	Producing Formation Delaware		Pool Undesignated (Delaware)	Dedicated Acreage: 40 Acres	

- Outline the acreage dedicated to the subject well by colored pencil or hatchure 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 interest 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 interest, has been approved by the Division.



OPERATOR CERTIFICATION

I hereby certify that 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

November 12, 1991

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

11-5-91

Signature & Seal of
Professional Surveyor

Ronald J. Edson
Certificate No. JOHN W. WEST, 676
RONALD J. EDSON, 3239

APPLICATION FOR DRILLING
SANTA FE ENERGY OPERATING PARTNERS, L.P.
LUSK "15" FEDERAL NO. 2

In conjunction with Form 3160-3, Application to Drill subject well, Santa Fe Energy Operating Partner, L.P., submits the following ten items of pertinent information in accordance with BLM requirements.

1. The geologic surface formation is sand.
2. The estimated tops of geologic markers are as follows:

Rustler	500'
Salado	700'
Base Salt	2,200'
Yates	2,300'
Capitan Reef	2,500'
Queen	3,500'
Delaware	4,460'
Bone Spring	6,850'
Total Depth	7,000'

3. The estimated depth at which water, oil, or gas formations are expected to be encountered:

Water	Water is not expected to be encountered	
Oil or Gas	Delaware	4,460' - TD

4. Proposed Casing Program: See Form 3160-3 and Exhibit A.
5. Pressure Control Equipment: See Form 3160-3 and Exhibit B.
6. Drilling Fluid Program: See Exhibit C.
7. Auxiliary Equipment: See Exhibit D.
8. Testing, Logging and Coring Programs:

Drill Stem Tests - None Planned

Cores - 60' in Brushy Canyon

Application for Drilling
Lusk "15" Federal No. 2
Page 2

Logging:

Logging from 3500' - 7000' and 2250' - 3500'
Dual Laterolog with Gamma Ray
Neutron-Density with Gamma Ray
Computer Process Log over selected intervals
Bore Hole Compensated Sonic

Logging from 2250' - surface:
Neutron with Gamma Ray

9. Abnormally high pressured zones are not expected at this location. A Blow Out Preventer System as outlined in Exhibit B will be utilized should the need arise to shut the well in prior to running and cementing production casing.
10. Starting Date: December 27, 1991

Darrell Roberts
11-13-91

SANTA FE ENERGY OPERATING PARTNERS, L.P.
OPERATIONS PLAN
Lusk "15" Federal No. 2

1. Drill a 17-1/2" hole to 2250'±.
2. Run 13 3/8" 54.5 ppf S-80 ST&C casing. Cement with 1500 sacks Class "C" Lite + 10% NaCl and 1000 sx Class "C" cement containing 2% Calcium Chloride and 1/4 pps celloflake. Run 10 centralizers with one on every other joint above shoe. Apply thread lock to bottom two joints, float collar and guide shoe.
3. Wait on cement eight hours.
4. Cut off casing. Nipple up and install BOP system.
5. Test casing to 600 psi.
6. Drill a 12 1/4" hole to 3500'±.
7. Run 8 5/8" 28.0 ppg S-80 ST&C casing. Cement with 500 sacks Cl "C" followed by 300 sacks Class C with 2% CaCl₂. Run guide shoe on bottom and float collar one joint off of bottom. Centralize every other joint for bottom 600' of casing. Thread lock bottom 2 joints.
8. Wait on cement eight hours.
9. Cut off casing. Nipple up and install BOP system and choke manifold.
10. Test BOP to 2000 psi. Test casing to 1500 psi.
11. Drill 7-7/8" hole to 7000'. Run logs.
12. Either run and cement 5-1/2" production casing or plug and abandon as per BLM instructions.

Exhibit A
Santa Fe Energy Operating Partners, LP
Lusk "15" Federal No. 2
Section 15, T19S-R31E
Eddy County, New Mexico

PROPOSED BOPE AND CHOKE ARRANGEMENT

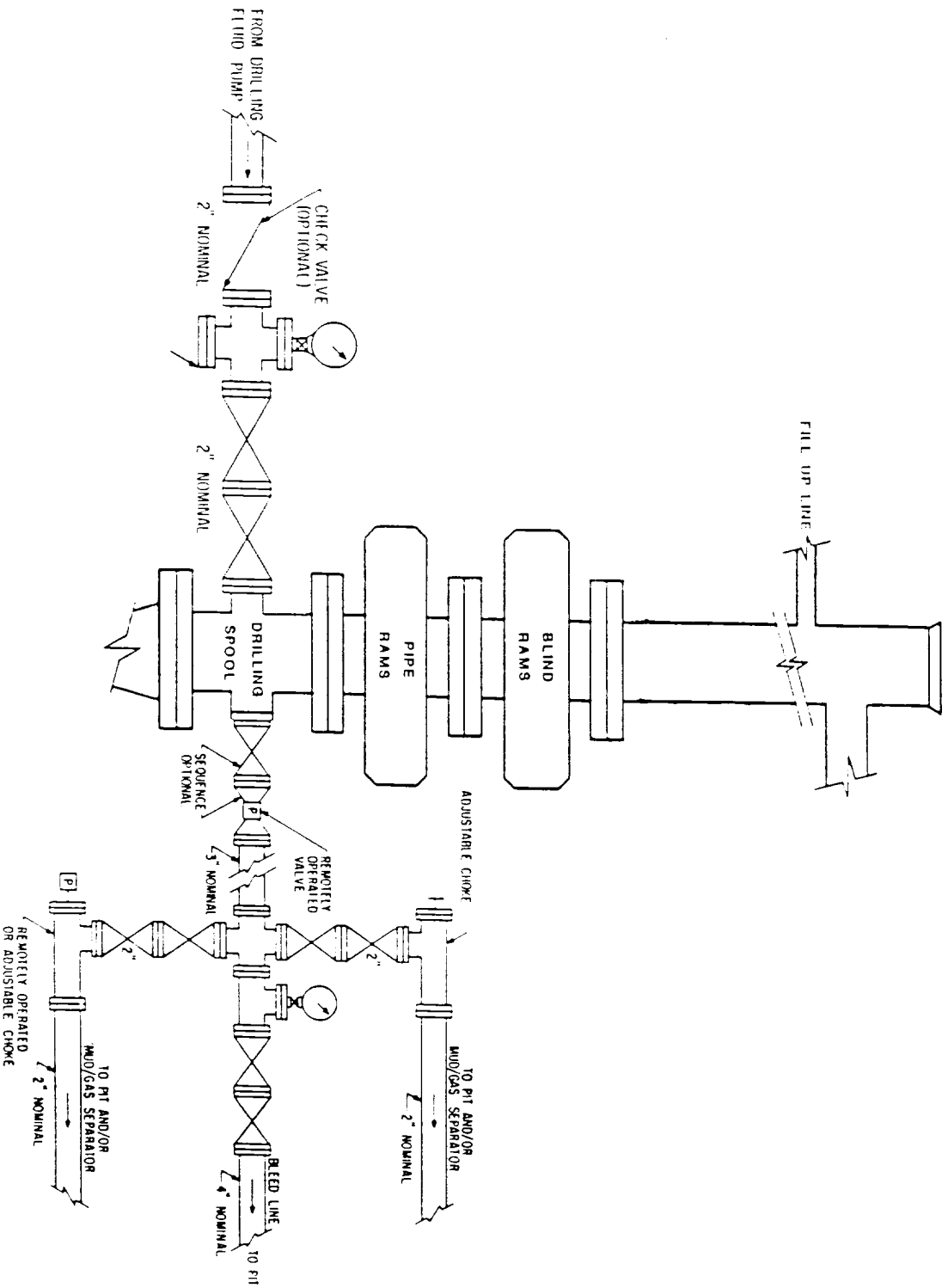


EXHIBIT B

PROPOSED DRILLING FLUID PROGRAM

0 - 2,250'

Drill out with brine water and treat with CON DET and BEN-EX/MF-1 to flocculate solids. Circulate controlled section of the reserve pit. Use ground paper for seepage loss. Use pre-hydrated AQUAGEL or ZEOGEL/paper slugs as needed to sweep hole. For corrosion control, use Filming Amine.

2,250 - 3,500'

Drill out with fresh water circulating a controlled section of the reserve pit using MF-1 to control solids buildup. Use ground paper or pre-hydrated bentonite pills to sweep the hole free of cuttings when necessary, use lime for a 9.0 - 9.5 pH. Use a filming amine at 600-800 ppm concentration for drill pipe and casing corrosion control.

3,500 - 7,000'

Drill out with fresh water or cut brine circulating a controlled section of the reserve pit using BEN-EX/MF-1 and CON DET for control of solids build up. The fluid weight in this interval should be 8.5-9.0 ppg. Use ZEOGFL/ground paper or pre-hydrated AQUAGEL pills to sweep the hole free of cuttings when needed and prior to trips. Use Lime for a 9.0-9.5 pH. Use filming amine at 600-800 ppm concentration for drill pipe and casing corrosion control.

The additions of MF-1/BEN-EX and CON DET may be used for control of solids build up. Use ZEOGEL/ground paper sweeps for seepage and additional hole cleaning.

Exhibit C
Santa Fe Energy Operating Partners, LP
Lusk "15" Federal No. 2
Section 15, T19, R31E
Eddy County, New Mexico

AUXILIARY EQUIPMENT

DRAW WORKS	Weiss W-45
COMPOUND/ENGINES	Weiss 2 Section Compound Two Caterpillar 3408 diesel engines @ 385 H.P. each
ROTARY	17-1/2" IDECO 175-F
MAST/SUBSTRUCTURE	Derrick Service International 131' jackknife. 12' high substructure, 500,000# gross normal capacity.
TRAVELLING EQUIPMENT	IDECO 160 ton hook and block. IDECO TL-200 200 ton swivel.
PUMPS	Cont. Emsco DA-500 powered by CAT 3412. Cont. Emsco D-500 powered by CAT D-353.
PIT SYSTEM	Two - 6'x8'x32' steel pits with high pressure guns and jets
GENERATORS	Two 150 KW AC generators each powered by a 3406 diesel engine.
BOP EQUIPMENT	One annular and two ram preventers rated at 3000 psi. Choke manifold rated at 3000 psi.

Exhibit D
Santa Fe Energy Operating Partners, LP
Lusk "15" Federal No. 2
Section 15, T19S, R31E
Eddy County, New Mexico

A:Permit.doc

R 31 E

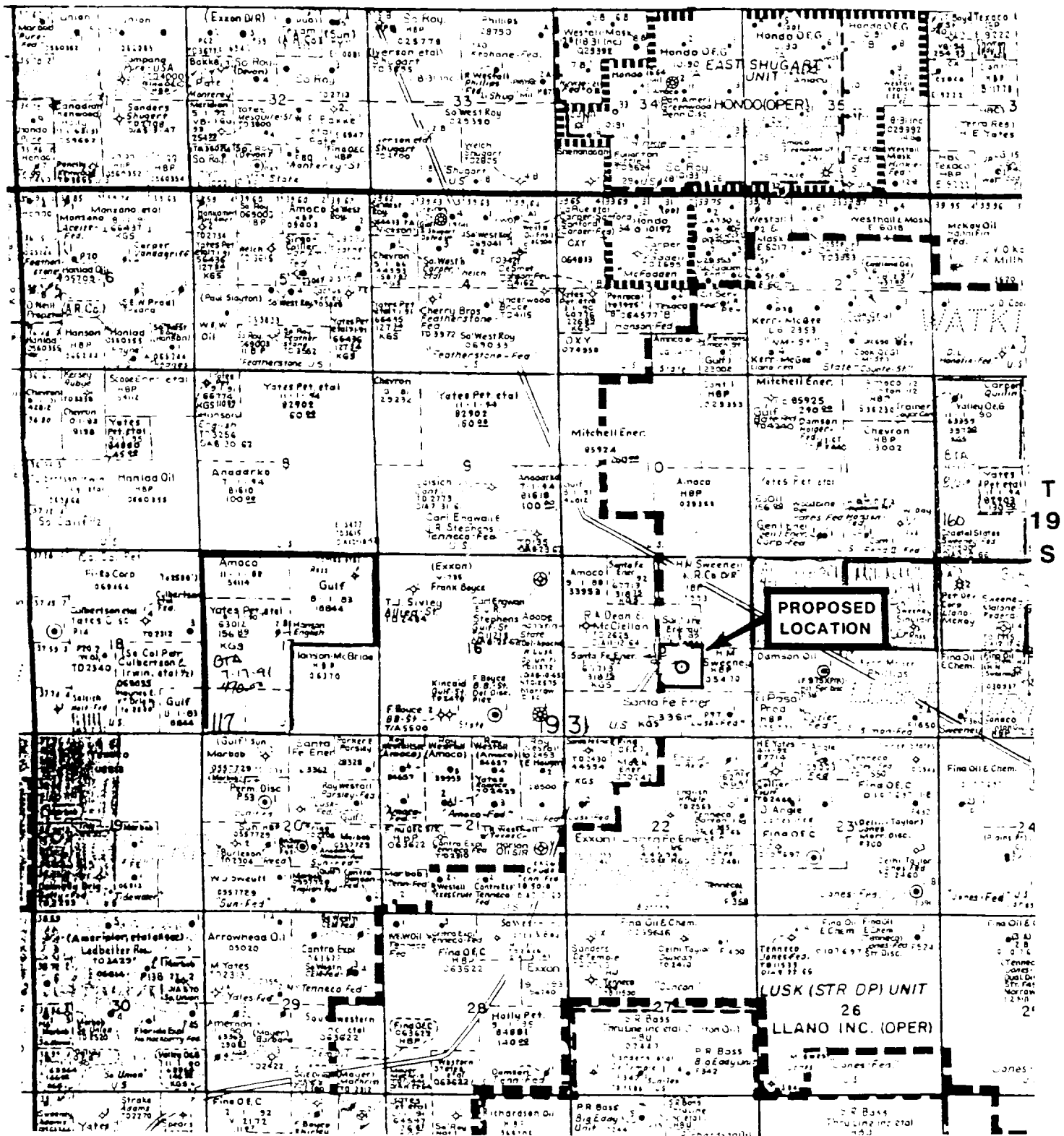
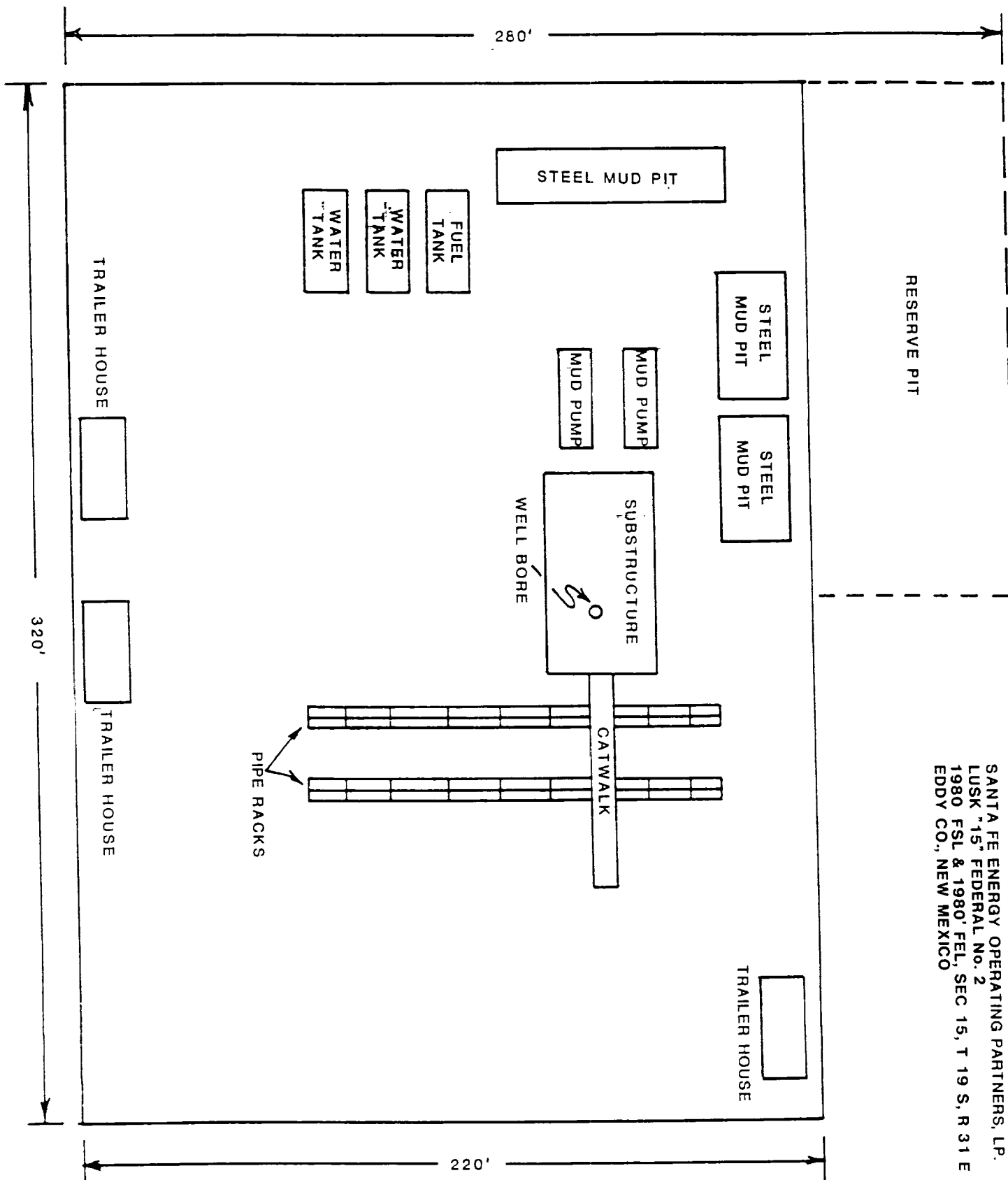


EXHIBIT F

SANTA FE ENERGY OPERATING PARTNERS, LP.
LUSK #15 FEDERAL No. 2
1980 FSL & 1980' FEL, SEC 15, T 19 S, R 31 E
EDDY CO., NEW MEXICO

EXHIBIT G
WELL SITE LAYOUT

SANTA FE ENERGY OPERATING PARTNERS, L.P.
LUSK "15" FEDERAL No. 2
1980 FSL & 1980' FEL, SEC. 15, T 19 S, R 31 E
EDDY CO., NEW MEXICO



MULTI-POINT SURFACE USE AND OPERATIONS PLAN
SANTA FE ENERGY OPERATING PARTNER, L.P.

Lusk "15" Federal No. 2
1980' FSL & 1980' FEL
Section 15, T19S, R31E
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 7.5 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, past the Lusk Plant road, continue south 1 mile. Turn left (east) on lease road and go by Mack Energy well and continue east 3/4 mile. Turn north and 1/4 mile to Santa Fe's Lusk "15" Federal No. 1. Go NW 2500' to location.

2. PLANNED ACCESS ROAD.

A 14' wide access road will extend west from an existing well location 2200' southeast of the proposed well, this road will tie-in with an existing two-track to the proposed location, which will be upgraded.

3. LOCATION OF EXISTING WELLS.

- A. The well locations in the vicinity of the proposed well are shown in Exhibit F.

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES.

- A. There is one producing well in this section at this time.
- B. In the event the well is productive, the necessary production equipment will be installed on the drilling pad due to lease differences. If the well is productive of oil, a gas or diesel self-contained unit will be used to provide 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.

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 USGS for appropriate approval.
- D. Oil produced during operations will be stored in tanks until sold.
- E. Human waste will be buried.
- F. Trash, waste paper, garbage, and junk will be buried in a separate trash pit and covered with a minimum of 24" of dirt. All waste materials will be contained to prevent scattering by the wind.
- G. All trash and debris will be buried or 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 on a fairly level plane. Cutting will not be required to level the pad area, which will be covered 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.
- B. Unguarded pits, if any, containing fluids 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 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 yucca, and miscellaneous weeds.
- D. No wildlife was observed but it is likely that rabbits, lizards, insects, 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 representative responsible for assuring compliance with the approved surface use plan are:

Lou Shuflin
District Manager
Santa Fe Energy Operating
Partners, L.P.
550 W. Texas, Suite 1330
Midland, Texas 79701
915-687-3551 - office

Michael R. Burton
District 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
915-683-1118 - mobile

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 day of NOVEMBER, 1991.

Darrell Roberts
Darrell Roberts
Senior Drilling Engineer