

NM OIL & GAS COMMISSION  
DRAWER DD  
ARTESIA, NM 88210  
UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE\*  
(Other instructions on  
reverse side)

30-015-10588  
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 ☒ RE-ENTER 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. DEC 13 1993

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 (D), 841' FNL and 1065' FWL, Sec. 8, T-22S, R-24E  
At proposed prod. zone (Re-survey)

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE  
17 miles West of Carlsbad, New Mexico

15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT.  
Also to nearest drig. unit line, if any: 841'

16. NO. OF ACRES IN LEASE 440  
19. PROPOSED DEPTH TD 10,230'

21. ELEVATIONS (Show whether DF, RT, GR, etc.)  
4232.5' GR

23. ACTUAL 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"		352'	Cemented w/ 100 sx
12-1/4"	9-5/8"		3500'	Cemented w/ 1600 sx
8-3/4"	5-1/2"		8352'	600 sx

Santa Fe Energy Operating Partners, L.P. proposes to re-enter the previous John H. Trigg well, Azotea Mesa 8 Federal No. 1 by drilling out plugs, cement squeezing the existing perforations and completing lower in the Cisco/Canyon per the attached procedure.

Mud Program: Will utilize a fresh water mud system

BOP Program: Ram type BOP's will be installed at the beginning of the re-entry and tested daily.

Post FD-1  
1-14-94  
Re-entry

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 Rohrbach TITLE Sr. Drilling Engineer DATE July 27, 1993

(This space for Federal or State office use)

PERMIT NO. APPROVAL DATE

APPROVED BY TITLE DATE 12/10/93

CONDITIONS OF APPROVAL, IF ANY:

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS  
ATTACHED

\*See Instructions On Reverse Side

Section 1001. makes it a crime for any person knowingly and willfully to make to any department or agency of the

88241 - 216-02

(H-24754)

1. **DATE:** \_\_\_\_\_  
 2. **TIME:** \_\_\_\_\_  
 3. **LOCATION:** \_\_\_\_\_  
 4. **WIND DIRECTION:** \_\_\_\_\_  
 5. **WIND SPEED:** \_\_\_\_\_  
 6. **WAVE HEIGHT:** \_\_\_\_\_  
 7. **WAVE PERIOD:** \_\_\_\_\_  
 8. **WAVE DIRECTION:** \_\_\_\_\_  
 9. **WAVE TYPE:** \_\_\_\_\_  
 10. **WAVE COLOR:** \_\_\_\_\_  
 11. **WAVE SHAPE:** \_\_\_\_\_  
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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

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

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

All Distances must be from the outer boundaries of the section

Operator SANTA FE ENERGY OPERATING PARTNERS, L.P.			Lease OLD RANCH KNOLL "8" FEDERAL		Well No. 1
Unit Letter D	Section 8	Township 22 SOUTH	Range 24 EAST	NMPM	County EDDY
Actual Footage Location of Well: 841 feet from the NORTH line and 1065 feet from the WEST line					
Ground Level Elev. 4232.5'	Producing Formation Upper Penn		Pool Indian Basin (Upper Penn)		Dedicated Acreage: 320 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.

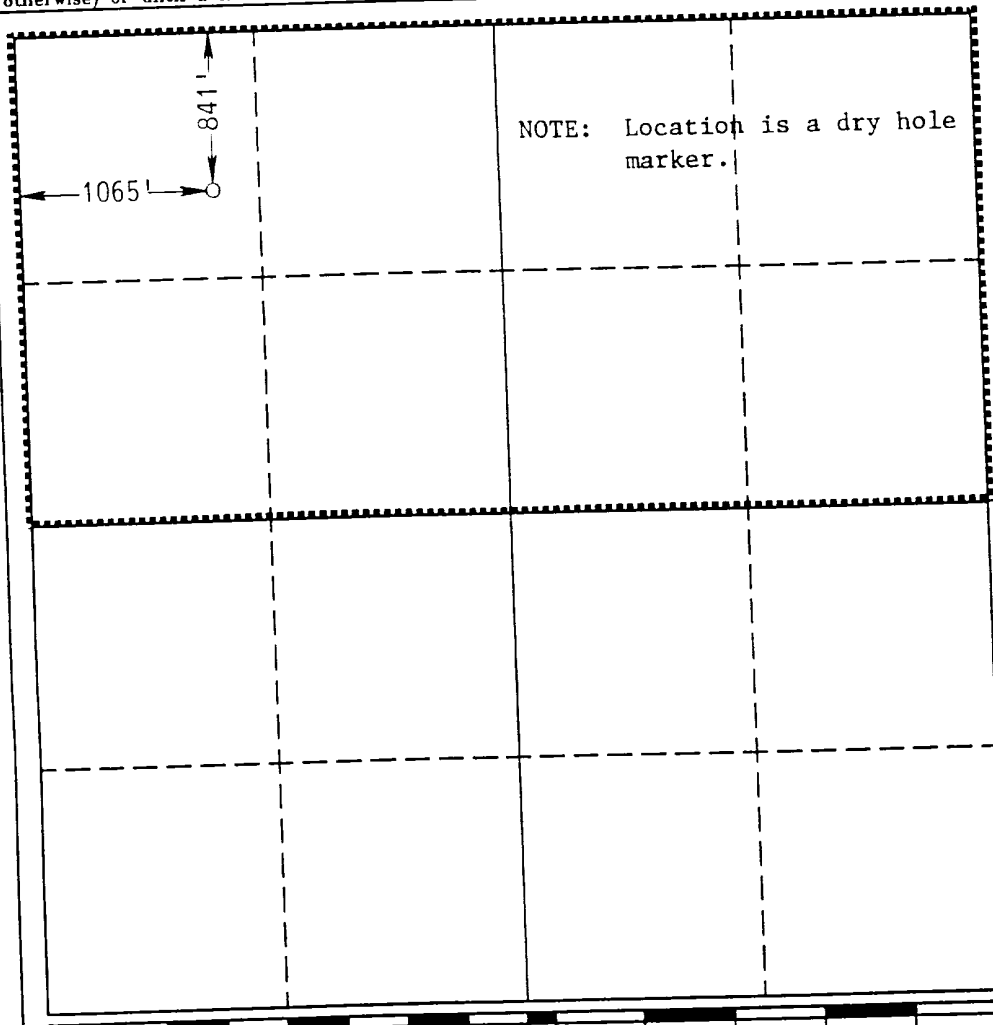
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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.?

☐ Yes ☐ No If answer is "yes" type of consolidation \_\_\_\_\_

If answer is "no" list of owners and tract descriptions which have actually been consolidated. (Use reverse side of this form necessary.)

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.



**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

July 27, 1993

**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

JUNE 15, 1993

Signature & Seal of  
Professional Surveyor

*[Signature]*  
Certificate No. 7977  
JOHN W. WEST 876  
RONALD J. EIDSON 3239  
GARY A. JONES 7977  
PROFESSIONAL SURVEYOR

**GENERAL RE-ENTRY PROCEDURE**  
Old Ranch Knoll "8" Fed. Com. No.1  
743' FNL & 1055' FWL  
Sec.8,T22S,R24E, Eddy County,N.M.

Objective: Re-enter an existing wellbore that has all casing strings intact, and complete in a prospective oil zone in the Cisco/Canvon with perforations at 8,000'-8300'.

Procedure:

1. Remove dry hole marker, uncover casing stubs, and weld casinghead on the 8-5/8" casing.
2. MIPU, back-off 5-1/2" casing stub, and make up a full joint. Pull tension on the 5-1/2" casing string and set same in wellhead slips.
3. RU reverse unit and drill out cement plugs, retainer, and cast iron bridge plug to the 5-1/2" float collar.
4. Squeeze existing perfs @ 7864'-7970' with a retainer and at least 100sx of cement.
5. Drill out retainer and cement. Test perfs to 500 psi.
6. Spot 7 1/2% HCl over the zone of interest at 8000'-8300'. Perf the zone and put away acid.
7. Swab to test and stimulate as necessary.
8. Place well on pump to probably handle large volumes of fluid.

AZOMESA.DDR

OLD RANCH KNOLL "B" FED. COM. No. 1  
 743' FNL + 1055' FNL, SEC. 8, T22S, R24E  
 EDDY COUNTY, NEW MEXICO

RE-ENTER THE JOHN H TRIGG

AROSTEA MESA "B" FED. COM. No. 1

DAIDDED 5/24/65

IP = 2 MMCFD ON 20164' PL

W/ 1000 PSI T.P.

CISCO DEEPS 7864-7970'

ELEV. -4230'

K.B. -4248'

13 3/8" SET @ 352'  
 CMT W/ 100 SX

WELL TAKEN OVER BY  
 PAN AMERICAN/AMOCO  
 CALLED THE FEDERAL A' COM # L.

ON 10/10/82

PULLED TBG

SET CIBP @ 7800' CPM W/ 75' CMT

TEST CASING TO 1200 PSI.

SPOTTED 200' CMT PLUG

@ 6350-6350'

PERF SQZ HOLES @ 3600'

EST INJ RATE

SET RETAINER @ 3400'

SQZ DEEPS W/ 10 SX CL 2"

PUMP 25 SX CMT ON TOP  
 OF RETAINER

SET 25 SX SURFACE PLUG

CUT OFF W.H. + INSIDE

DAY HOLE MARKER

SQZ  
 HOLES  
 @ 3600'

9 5/8" SET @ 3500'  
 CMT W/ 1600 SX

200 CMT  
 PLUG  
 @ 6350-6350'

DEEPS  
 @ 7864-7970'

CIBP @ 7800'

5" CASING @ 3352'  
 CMT W/ 600 SX  
 WELL DRILLED TO  
 10,230'



RECEIVED

SEP 11 11 53 AM '93

### RE-ENTRY PROGRAM

SANTA FE ENERGY OPERATING PARTNERS, L.P.  
OLD RANCH KNOLL "8" FEDERAL COM. NO.1

In conjunction with Form 3160-3, Application to Re-enter 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:**

San Andres	1087'
Glorieta	2624'
Bone Spring	4653'
Wolfcamp	7196'
Cisco	7861'
Canyon	8367'
Total Depth	8352'

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

Water	None expected in area
Oil/Gas/Water	Cisco/Canyon 8000'-8300'

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

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

6. **Drilling Fluid Program:** Will utilize a fresh water/KCL circulating system for the re-entry of this existing wellbore.

7. **Auxiliary Equipment:** None required for this re-entry

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

We plan to perforate the 5-1/2" casing set at 8352', at an interval from 8000'-8300' to test the Cisco Canyon interval that was not previously tested in this well.

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

No abnormal pressures or temperatures are anticipated. The estimated bottom hole temperature is 130 °F and the estimated bottom hole pressure is 2500 psi. A Blow Out Preventer System as outlined in Exhibit B will be utilized should the need arise to shut the well. The Cisco/Canyon zones are our primary objective. The zone is hydrogen sulfide productive in the area. Our plan is to have everyone on location trained in H<sub>2</sub>S safety procedures and install monitors and Scott Air Packs at strategic locations around the location when we rig up. It is our understanding that H<sub>2</sub>S is only detected in the area whenever the reservoir fluids are produced up the wellbore. Our circulating fluid hydrostatic head will prevent fluid entry due to the reservoir being overbalanced. We will have a BOP system installed and monitors operational during the re-entry. Due to the remote location of this drillsite, H<sub>2</sub>S warning signs will be placed prior to entry of the drillsite, a public protection plan is not required for this location.

## **RE-ENTRY PROGRAM**

Old Ranch Knoll "8" Federal Com. No.1

Page 2

### **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 re-entry date is November 15, 1993. Once rigged up, the re-entry 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 hooked up.

SANTA FE ENERGY OPERATING PARTNERS, L.P.  
OPERATIONS PLAN  
OLD RANCH KNOLL "8" FEDERAL COM. NO.1

Objective: Re-enter an existing wellbore that has all casing strings intact, and complete in a prospective oil zone in the Cisco/Canyon with perforations at 8,000'-8,300'.

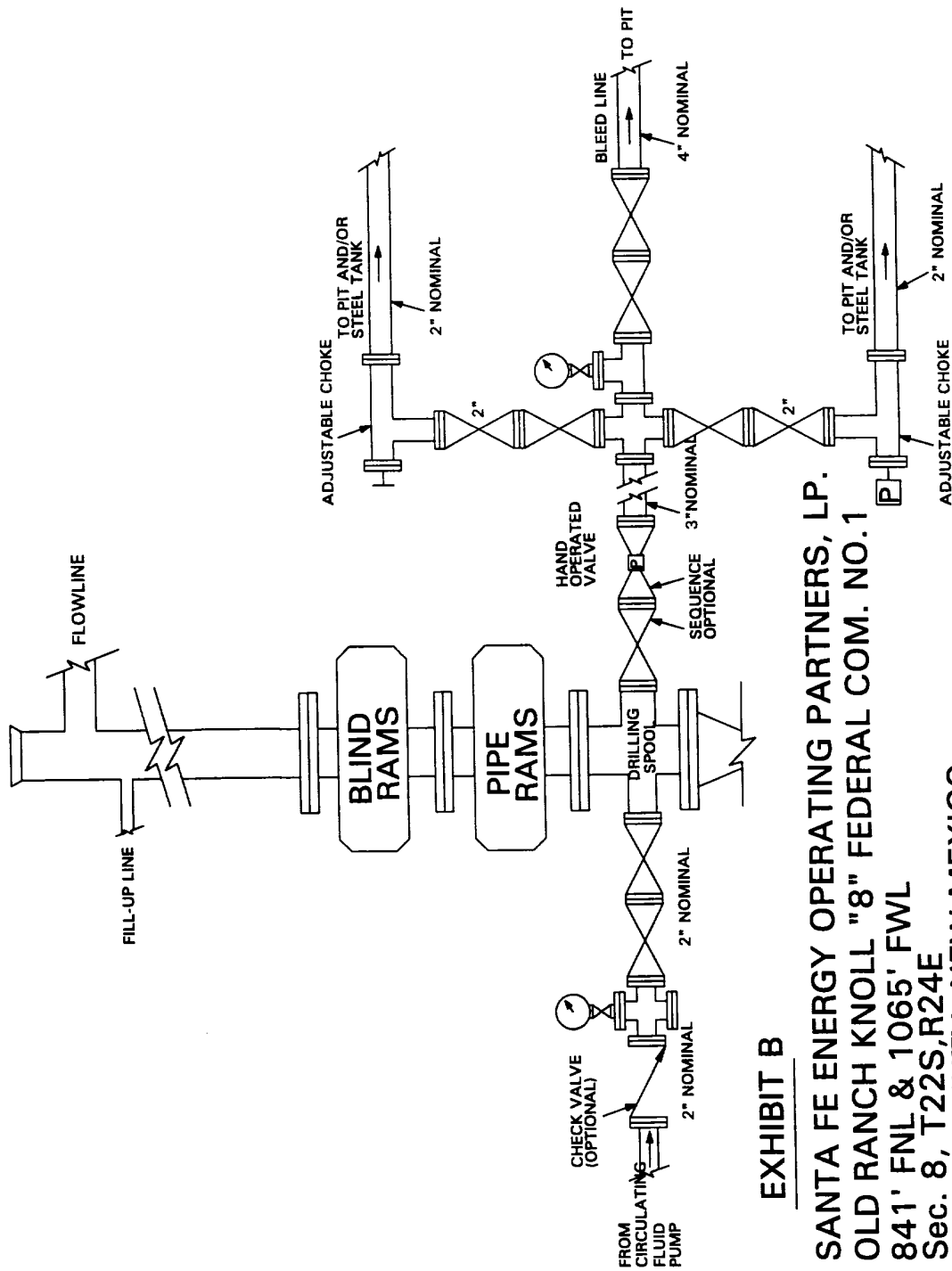
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2. MIPU, back-off 5-1/2" casing stub, and make up a full joint. Pull tension on the 5-1/2" casing string and set same in wellhead slips.
3. RU reverse unit and drill out cement plugs, retainer, and cast iron bridge plug to the 5-1/2" float collar.
4. Squeeze existing perms @ 7864'-7970' with a retainer and at least 100 sx of cement.
5. Drill out retainer and cement. Test perms to 500 psi.
6. Spot 7-1/2% HCl over the zone of interest at 8000'-8300'. Perf the zone and put away acid.
7. Swab to test and stimulate as necessary.
8. Place well on pump to probably handle large volumes of fluid.

Exhibit A  
Santa Fe Energy Operating Partners, L.P.  
Old Ranch Knoll "8" Federal Com. No.1  
Section 8, T-22S, R-24E  
Eddy County, New Mexico

DDR:ORKNOL81.PMT



# PROPOSED 3-M BOPE AND CHOKE ARRANGEMENT



## EXHIBIT B

SANTA FE ENERGY OPERATING PARTNERS, LP.  
 OLD RANCH KNOLL "8" FEDERAL COM. NO.1  
 841' FNL & 1065' FWL  
 Sec. 8, T22S, R24E  
 EDDY COUNTY, NEW MEXICO

## PROPOSED RE-ENTRY FLUID PROGRAM

0-8320'

For this Re-Entry we will utilize fresh water w/KCl to circulate the cased wellbore for the clean out operations. MW-8.3, Vis-28.

### Exhibit C

Santa Fe Energy Operating Partners,L.P.  
Old Ranch Knoll "8" Federal Com. No.1  
Sec.8,T-22S,R-24E  
Eddy County, New Mexico

DDR:ORKNOL81.PMT

## **AUXILIARY EQUIPMENT**

The equipment required for this re-entry is as follows:

Pulling Unit- Double Scoping Derrick with diesel engines for hoisting and hydraulic power.

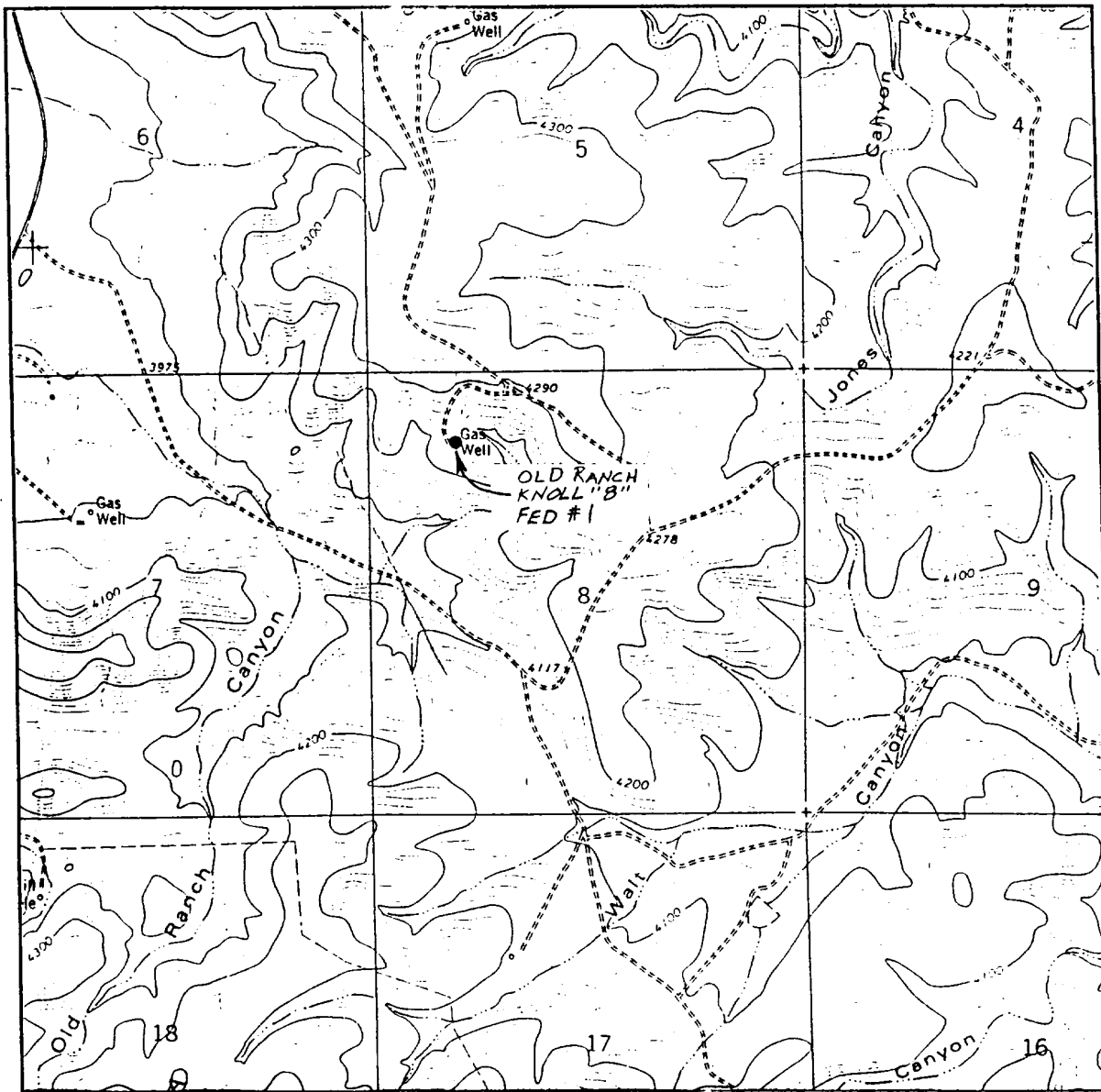
Reverse Unit- Hydraulic Power Swivel to rotate the tubing for the clean out operations and a Duplex Pump with a Steel Circulating Pit to contain the circulating fluid.

BOP System - Double 3M rated stack with blind and tubing rams. A 3M rated choke manifold.

We will only conduct operations during daylight hours.

Exhibit D  
Santa Fe Energy Operating Partners, L.P.  
Old Ranch Knoll "8" Federal Com. No.1  
Section 8, T-22S, R-24E  
Eddy County, New Mexico

DDR:ORKNOL81.PMT

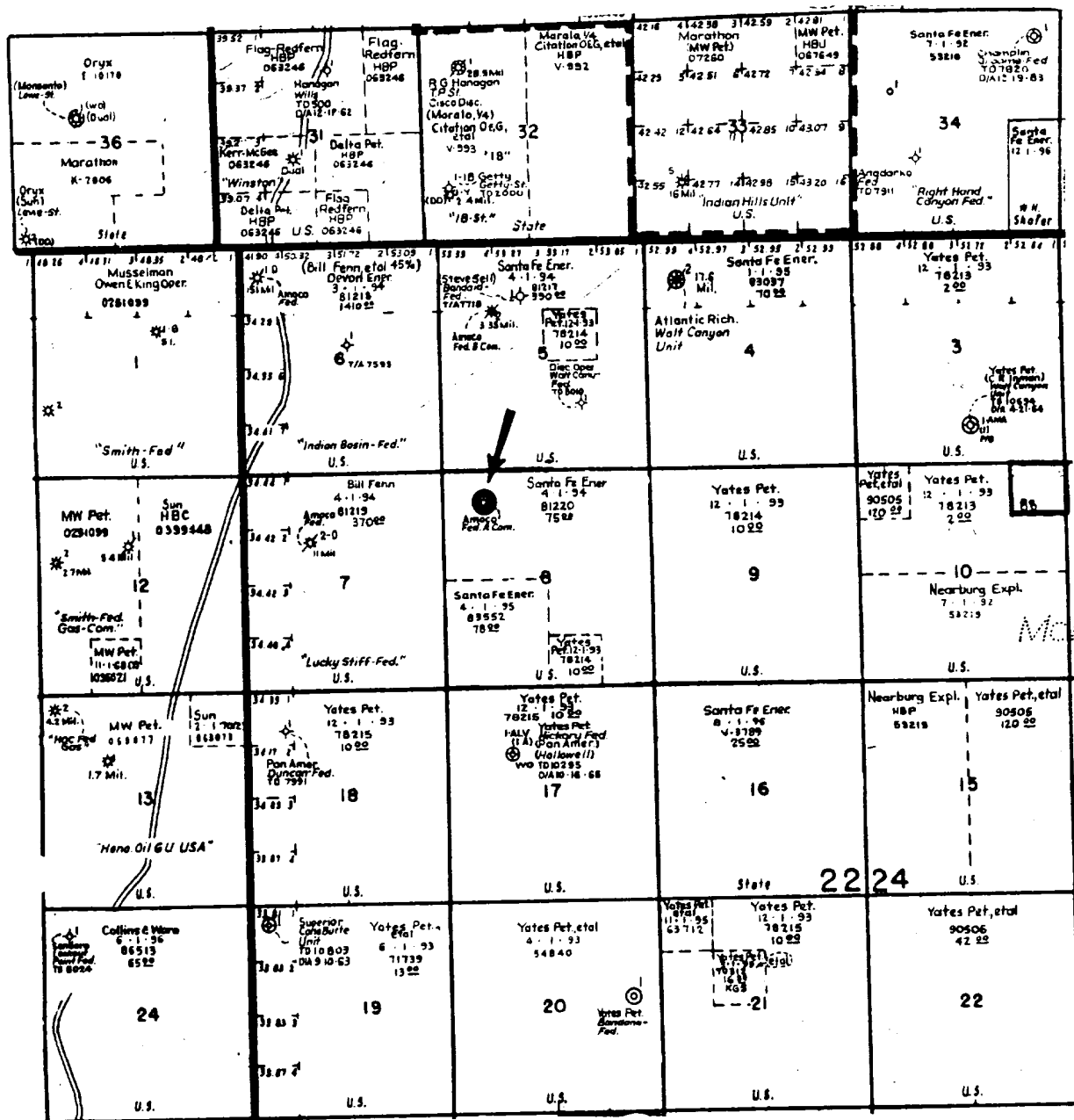


SCALE: 1" = 2000'

CONTOUR INTERVAL 20'

# EXHIBIT E

SANTA FE ENERGY OPERATING PARTNERS, L.P.  
 OLD RANCH KNOLL "8" FEDERAL COM. NO.1  
 841' FNL & 1065' FWL  
 SEC.8, T22S, R24E  
 EDDY COUNTY, NEW MEXICO



## EXHIBIT F

SANTA FE ENERGY OPERATING PARTNERS, L.P.  
 OLD RANCH KNOLL "8" FEDERAL COM. NO.1  
 841' FNL & 1065' FWL  
 SEC.8, T22S, R24E  
 EDDY COUNTY, NEW MEXICO

EXHIBIT G  
WELL SITE LAYOUT  
FOR RE-ENTRY OF EXISTING WELLBORE

SANTA FE ENERGY OPERATING PARTNERS, LP.  
OLD RANCH KNOLL "8" FEDERAL COM. NO.1  
841' FNL & 1065' FWL  
Sec. 8, T22S, R24E  
EDDY COUNTY, NEW MEXICO

