

N.M. OIL CONS. COMMISSION  
P.O. BOX 1980  
HOBBES, NEW MEXICO 88240SUBMIT IN TRIPLICATE\*  
(Other instructions on  
reverse side)FORM APPROVED  
OMB NO. 1004-0136  
Expires: February 28, 1995DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

## APPLICATION FOR PERMIT TO DRILL OR DEEPEN

## 1a. TYPE OF WORK

DRILL ☒DEEPEN ☐

## 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 AND TELEPHONE NO.

550 W. Texas, Suite 1330, Midland, TX 79701 915/687-3551

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

At surface

(D), 660' FNL and 660' FWL, Sec. 5, T-18S, R-33E

At proposed prod. zone

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

10 miles Southeast from Maljamar, New Mexico

## 15. 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

320

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.

1507'

## 19. PROPOSED DEPTH

9550'

## 20. ROTARY OR CABLE TOOLS

Rotary

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

3994' GR

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

September 29, 1994

## 23.

## PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	13-3/8"	48.0	450'	450 sx to circulate
12-1/4"	8-5/8"	32.0	3100'	1500 sx to circulate
7-7/8"	5-1/2"	15.5 & 17.0	9550'	TOC 600' above possible pays

We propose to drill to a depth sufficient to test the Bone Spring 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 No. 1 are outlined in the following attachments:

## Drilling Program

Exhibit A - Operations Plan

Exhibit B - BOP and Choke Schematic

Exhibit C - Drilling Fluids Program

Exhibit D - Auxiliary Equipment

Exhibit E - Topo Map of Location

Exhibit F - Plat Showing Existing Wells

Exhibit G - Well Site Layout

Hydrogen Sulfide Drilling Operations Plan

OPER. OGRID NO. 20290PROPERTY NO. 9967POOL CODE 1355EFF. DATE 10/17/94

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM. If proposal is to deepen, 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. API NO. 30-065-32675

SIGNED

Daniel Rohde

TITLE

Division Drlg Engineer

DATE

Aug. 26, 1994

(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_

APPROVAL DATE \_\_\_\_\_

Application approval does not warrant or certify that 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:

B/ (CRIG. SGD.) RICHARD L. MANUS

APPROVED BY \_\_\_\_\_

TITLE

AREA MANAGER

DATE

9/30/94

\*See Instructions On Reverse Side

REC-750

107-11-1954

OFFICE

DISTRICT I  
P. O. Box 1980  
Hobbs, NM 88241-1980

State of New Mexico  
Encls Minerals, and Natural Resources Department

Form C-102  
Revised 02-10-94  
Instructions on back

DISTRICT II  
P. O. Drawer DD  
Artesia, NM 88211-0719

**OIL CONSERVATION DIVISION**  
**P. O. Box 2088**  
**Santa Fe, New Mexico 87504-2088**

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

DISTRICT III  
1000 Rio Brazos Rd.  
Aztec, NM 87410

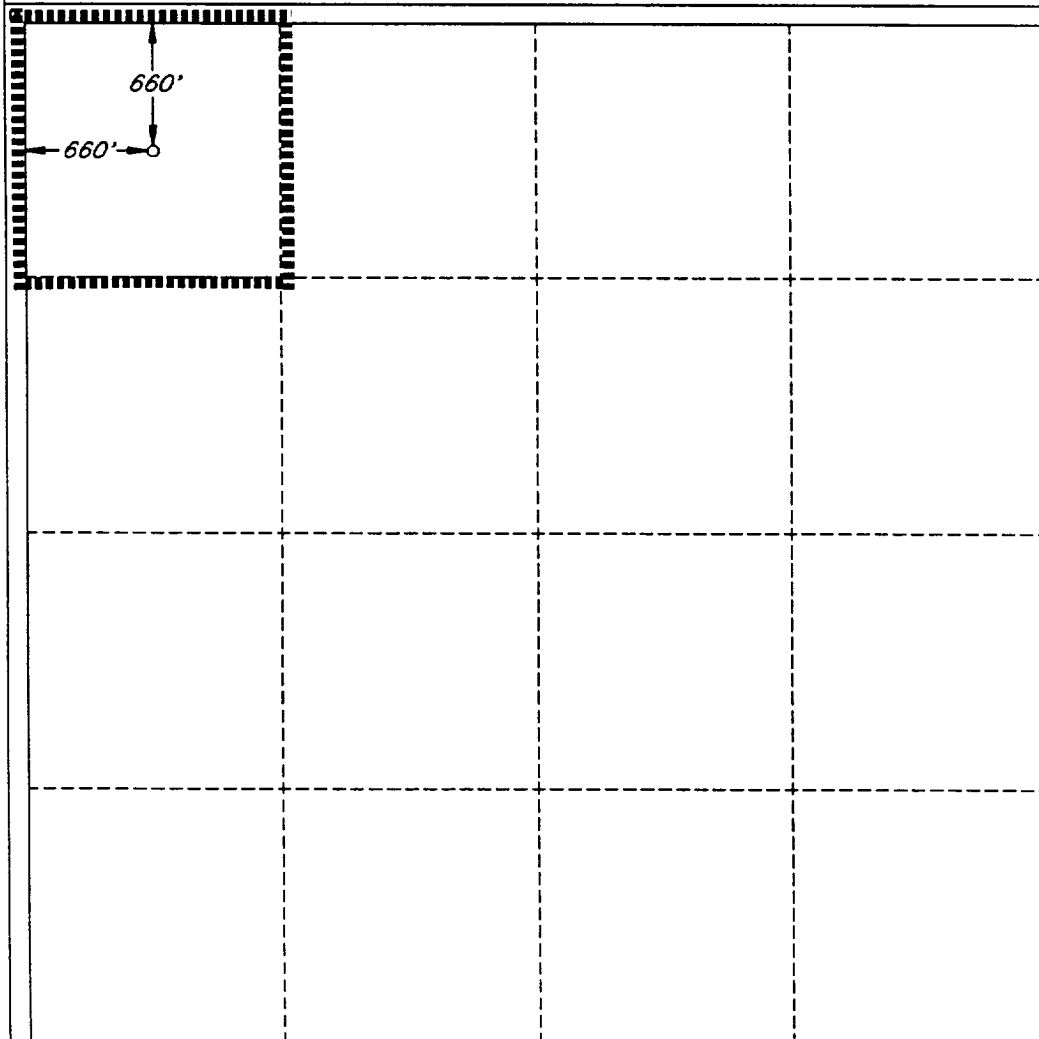
☐ AMENDED REPORT

DISTRICT IV  
P. O. Box 2088  
Santa Fe, NM 87507-2088

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

1 API Number		2 Pool Code 13155		3 Pool Name Corbin (Bone Spring)					
4 Property Code 009967		5 Property Name KACHINA '5' FEDERAL						6 Well Number 8	
7 OGRID, No. 020290		8 Operator Name SANTA FE ENERGY OPER. PART, L.P.						9 Elevation 3994'	
10 SURFACE LOCATION									
UL or lot no. D	Section 5	Township 18 SOUTH	Range 33 EAST, N.M.P.M.	Lot Ida	Feet from the 660'	North/South line NORTH	Feet from the 660'	East/West line WEST	County LEA
11 BOTTOM HOLE LOCATION IF DIFFERENT FROM SURFACE									
UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
12 Dedicated Acres 40		13 Joint or Infill N		14 Consolidation Code		15 Order No.			

NO ALLOWABLE WELL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN  
CONSOLIDATED OR A NON-STANDARD UNIT 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

Title

Division Drilling Engineer

Date

August 26, 1994

**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 belief.

Date of Survey

August 18, 1994

Signature of Professional Surveyor

*V. Lynn Bezner*  
V. LYNN  
BEZNER  
NO. 7920

Certified

V. L. BEZNER

P.S. #7920

JOB #34335 / 97 SW / V.H.B.

**DRILLING PROGRAM**  
**SANTA FE ENERGY OPERATING PARTNERS, L.P.**  
Kachina "5" Federal No.8

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	1450'
Base of Salt	2880'
Yates	3120'
Seven Rivers	3250'
Queen	4075'
San Andres	5040'
Delaware	5270'
Bone Spring	5775'
1st Bone Spring Sand	7840'
2nd Bone Spring Carbonate	8020'
2nd Bone Spring Sand	8280'
3rd Bone Spring Carbonate	9050'
3rd Bone Spring Sand	9320'
Total Depth	9550'

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

Water	None expected in area
Oil	Bone Spring 9000'-9500'.

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 3100'.

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

Drill Stem Tests: (all DST's to be justified on the basis of a valid show of oil or gas):  
Bone Spring (7840'-9550')

Logging:	
Dual Laterolog w/MSFL and Gamma Ray	3100'- 9550'
Compensated Neutron/Litho-Density/Gamma Ray	3100'- 9550'
Compensated Neutron/Gamma Ray (thru csg)	Surface-3100'
Sonic and Gamma Ray	3100'- 9550'

## **DRILLING PROGRAM**

Kachina "5" Federal No.8

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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 3500 psi. No Hydrogen Sulfide or other hazardous gases or fluids have been encountered in our wells, but hydrogen sulfide has been measured during production operations in the Central Corbin Queen Unit operated by Oxy. Our Hydrogen Sulfide Drilling Operations Plan addresses this potential situation. 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 September 29, 1994. Once spudded, the drilling operation should be completed in approximately 30 days. If the well is productive, an additional 30 days will be required for completion and testing before permanent facilities are installed.

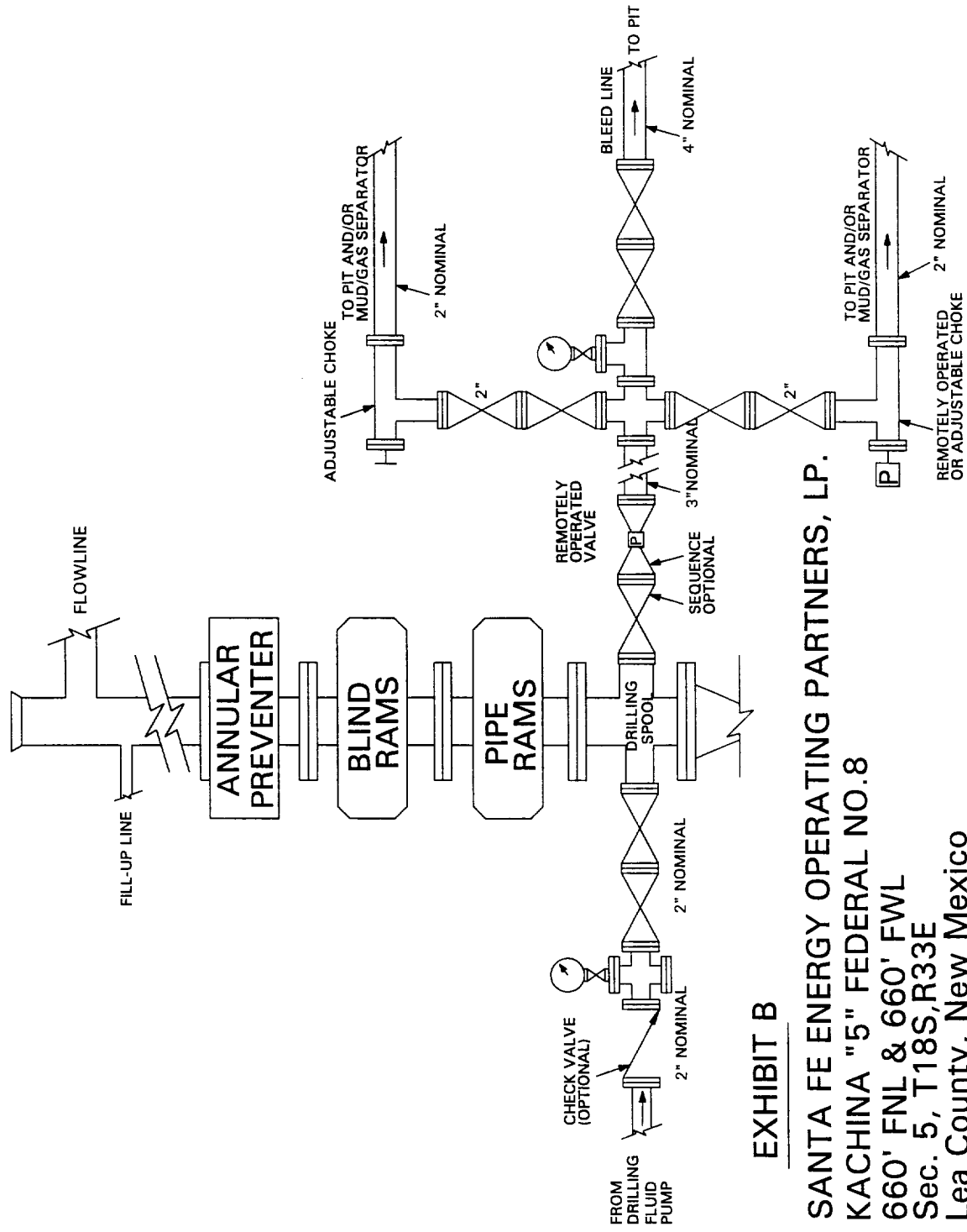
SANTA FE ENERGY OPERATING PARTNERS, L.P.  
OPERATIONS PLAN  
Kachina "5" Federal No.8

1. Drill a 17 1/2" hole to approximately 450'.
2. Run 13 3/8" 48.0 ppf H-40 ST&C casing. Cement with 450 sx Class "C" cement containing 2% CaCl<sub>2</sub>. Run centralizers on every other joint above the shoe. Apply thread lock to bottom two joints 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. WOC 12 hrs prior to drilling out.
5. Drill a 12 1/4" hole to approximately 3100'.
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% CaCl<sub>2</sub>. Run guide shoe on bottom and float collar two joints off 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. WOC 12 hours prior to drilling out.
9. Test BOP system to 3000 psi. Test casing to 1500 psi.
10. Drill 7 7/8" hole to 9550'. Run logs.
11. Either run and cement 5 1/2" 15.50 & 17.0 ppf K-55 LT&C casing or plug and abandon as per BLM requirements.

Exhibit A  
Santa Fe Energy Operating Partners, L.P.  
Kachina "5" Federal No.8  
Section 5, T-18S, R-33E  
Lea County, New Mexico

DDR:KACH5-8.PMT

# PROPOSED 3-M BOPE AND CHOKE ARRANGEMENT



## EXHIBIT B

SANTA FE ENERGY OPERATING PARTNERS, LP.

KACHINA "5" FEDERAL NO.8

660' FNL & 660' FWL

Sec. 5, T18S, R33E

Lea County, New Mexico