Form 3160-3
(July 1992)

OPER. GRID NO. 20305
PROPERTY NO. 24179
POOL CODE 96665
EFF. DATE 2/17/99
API NO. 30-025-34576

FORM APPROVED
OMB NO. 1004-0136
Expires: February 28, 1995

UNITI
DEPARTMENT
BUREAU OF I

APPLICATION FOR PE

1a. TYPE OF WORK: DRILL ☒

b. TYPE OF WELL: OIL WELL ☐ GAS WELL ☒ OTHER — SINGLE ZONE ☐ MULTIPLE ZONE ☐

5. LEASE DESIGNATION AND SERIAL NO.: NM-94623

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME, WELL NO.: Gaucho "28" Fed #1

9. API WELL NO.: 30-025-34576

2. NAME OF OPERATOR: Santa Fe Energy Resources, Inc.

3. ADDRESS AND TELEPHONE NO.: 550 W. Texas, Suite 1330; Midland, Texas 79701 (915)682-6373

10. FIELD AND POOL, OR WILDCAT: ~~North Bell Lake~~ West (Chi SO) - Morrow

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: (L) 1980' FSL & 660' FWL
At proposed prod. zone

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 28, T-22-S, R-34-E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 20 miles west of Jal, New Mexico

12. COUNTY OR PARISH: Lea | 13. STATE: New Mexico

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)	16. NO. OF ACRES IN LEASE	17. NO. OF ACRES ASSIGNED TO THIS WELL
660'	640	320

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	19. PROPOSED DEPTH	20. ROTARY OR CABLE TOOLS
NA	13700'	Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3419' GR

CAPITAN CONTROLLED WATER BASIN

22. APPROX. DATE WORK WILL START*: January 12, 1999

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
26"	H-40 20"	94.0	800'	1025 sx to circulate
12 1/4"	K-55 9 5/8"	40.0	5000'	1550 sx to circulate
8 3/4"	S-95 & P-110 7"	26.0	11800'	800 sx to TOC @ 6000'
6 1/8"	S-95 4 1/2"	13.5	13700'	225 sx (circ to liner top)

WITNESS

We propose to drill to a depth sufficient to test the Morrow formation for gas. If productive, a 4 1/2" liner will be run to 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 Schematic 5-M
- Exhibit B(A) - BOP and Choke Schematic 10-M
- Exhibit C - Drilling Fluid Program
- Exhibit D - Auxiliary Equipment
- Exhibit E - Topo Map at Location
- Exhibit F - Map Showing Existing Wells
- Exhibit F (A) - Plat of Location
- Exhibit G - Well Site Layout

Surface Use and Operations Plan

Santa Fe Energy Resources, Inc. accepts all applicable terms, conditions, stipulations and restrictions concerning operations conducted on the leased land or portion thereof, as described above.

Bond Coverage: Blanket Bond BLM Bond File No.: MT 0750

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.

SIGNED James P. "Phil" Stinson TITLE Agent for Santa Fe Energy DATE 12-17-98

(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.

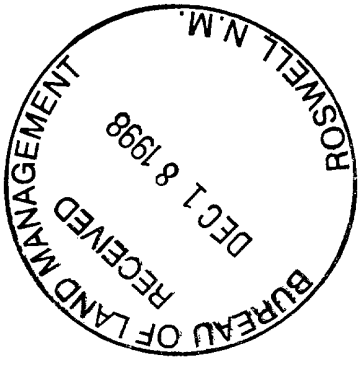
CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY /s/ Earle Smith TITLE Acting Assistant Field Office Manager, Lands and Minerals DATE JAN 25 1999

*See Instructions On Reverse Side

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.

dp


BUREAU OF LAND MANAGEMENT
RECEIVED
DEC 1 8 1998
ROSWELL N.M.

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

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

DISTRICT III
1000 Rio Brazos Rd.
Aztec, NM 87410

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

State of New Mexico
Energy, Minerals, and Natural Resources Department

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

Form C-102
Revised 02-10-94

Instructions on back

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name	
30-025-34576	96665	West Ojo Chiso ~~North Bell Lake~~ (Morrow)	
4 Property Code 24179	**5 Property Name** GAUCHO "28" FEDERAL		**6 Well Number** 1
7 OGRID No. 20305	**8 Operator Name** SANTA FE ENERGY RESOURCES, INC.		**9 Elevation** 3419'

10 SURFACE LOCATION

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
L	28	22 SOUTH	34 EAST, N.M.P.M.		1980'	SOUTH	660'	WEST	LEA

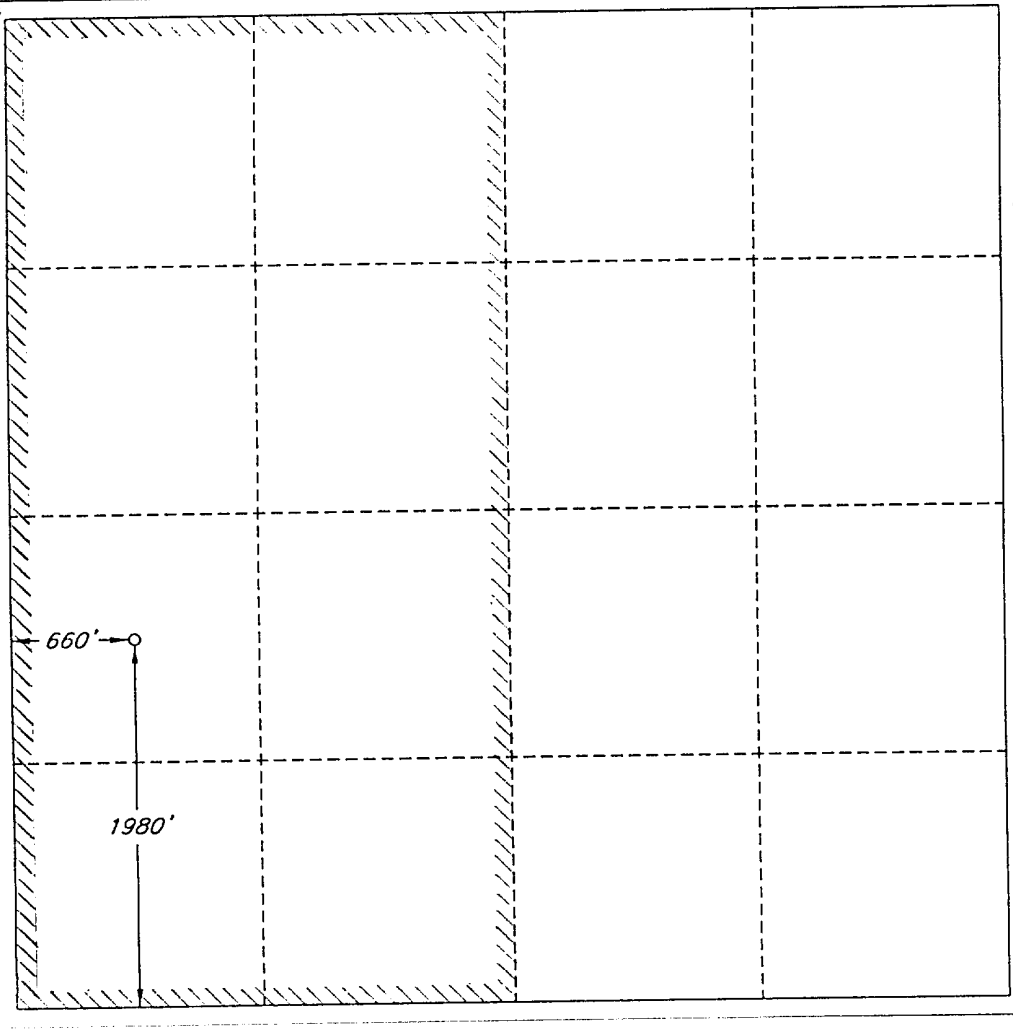
11 BOTTOM HOLE LOCATION IF DIFFERENT FROM SURFACE

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	13 Joint or Infill	14 Consolidation Code	15 Order No.
320			

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

16



OPERATOR CERTIFICATION

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

Signature: James P. "Phil" Stinson

Printed Name: James P. "Phil" Stinson

Title: Agent for Santa Fe Energy

Date: 12-17-98

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: DECEMBER 9, 1998

Signature and Seal of Professional Surveyor: ROGER M. ROBBINS NEW MEXICO 12128 REGISTERED PROFESSIONAL SURVEYOR

Roger M. Robbins

Certificate No. ROGER M. ROBBINS, R.P.S. #12128

JOB #61627 / 46 SW / V.H.B.

DRILLING PROGRAM

SANTA FE ENERGY RESOURCES, INC.

Gaucho "28" Fed No. 1

In conjunction with Form 3160-3, Application to Drill the subject well, Santa Fe Energy Resources, Inc. submits the following ten items of pertinent information in accordance with Onshore Oil & Gas Order No. 1.

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

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

Rustler	1790'
Salado	1400'
Delaware	5000'
Bone Spring	8450'
Wolfcamp	10970'
Strawn	11900'
Atoka	12100'
Morrow	12700'
Total Depth	13700'

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

Water	None expected in area
Oil	Bone Spring @ 9100'
Gas	Upper Morrow @ 13100'

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 4600' to TD.

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

Drill Stem Tests: (all DST's to be justified on the basis of valid show of oil or gas):

Bone Spring	9100'- 9200'
Atoka	12200'-12250'
Morrow	13100'-13150'

Logging:
Dual Laterolog W/MSFL and Gamma Ray 11850'-13700'
Compensated Neutron/Litho-Density/Gamma Ray 5000'-11850' & 11850'- 13700'
Compensated Neutron/Gamma Ray (thru csg) Surface-5000'

Coring: No conventional cores are planned.

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

Abnormally high pressured zones with a bottomhole pressure of approximately 7500 psi could possibly be encountered while drilling the Pennsylvanian interval. Sufficient barite will be on location to enable the weighting up to the estimated 11.5 ppg to control any high pressure zone encountered. Along with the above mentioned primary control, 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 the drilling liner. The estimated bottom hole temperature is 170°F. 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 B.L.M. The anticipated spud date is January 12, 1999. Once spudded, the drilling operation should be completed in approximately 70 days. If the well is productive, an additional 30 days will be required for completion and testing before permanent facilities are installed.

EXHIBIT A
OPERATIONS PLAN
SANTA FE ENERGY RESOURCES, INC.
Gaucho "28" Fed No. 1
Section 28, T-22-S, R-34-E
Lea County, New Mexico

1. Drill a 26" hole to approximately 800'.

2. Run 20" 94.0 ppf H-40 ST&C casing. Cement with 775 sx 35/65 POZ w 6% gel & 1/4 pps Cello-Flake followed by 250 sx Class "C" cement containing 2% $CaCl_2$. Run centralizers on every other joint above the shoe. Apply thread lock to bottom two joints and guide shoe.

3. Wait on cement twelve hours prior to cutting off.

4. Nipple up an annular BOP system and test casing to 600 psi. WOC twenty-four (24) hours prior to drilling out.

5. Drill a 12-1/4" hole to approximately 5000'.

6. Run 9-5/8" 40.0 ppf K-55 ST&C casing. Cement with 1150sx Cl "C" Lite containing 12 pps salt and 1/4 pps celloflake followed by 400 sx Class "C" with 2% $CaCl_2$. Run guide shoe on bottom and float collar two joints from 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 twelve hours prior to cutting off.

8. Nipple up and install a Double Ram and Annular BOP system with choke manifold.

9. Test BOP system to 3000 psi. Test casing to 1500 psi.

10. Drill 8-3/4" hole to the first good lime section after drilling into the Wolfcamp, which is anticipated to be at approximately ±11850'. Run logs.

11. Run 11850' of 7" 26.0 ppf S-95 & P-110 LT&C casing set @ 11850'. Cement with 500 sx "Light" cement followed with 300 sx Class "H". Run guide shoe on bottom and float collar two joints off bottom. Centralize bottom 1000' of casing with one centralizer on every other joint. Thread lock bottom two joints. Our plan is to bring the top of cement to ±6000'.

12. Nipple down BOP. Set slips. Cut off casing. Nipple up 10000 psi BOP Stack. Test to 10000 psi.

13. Test casing to 2500 psi.

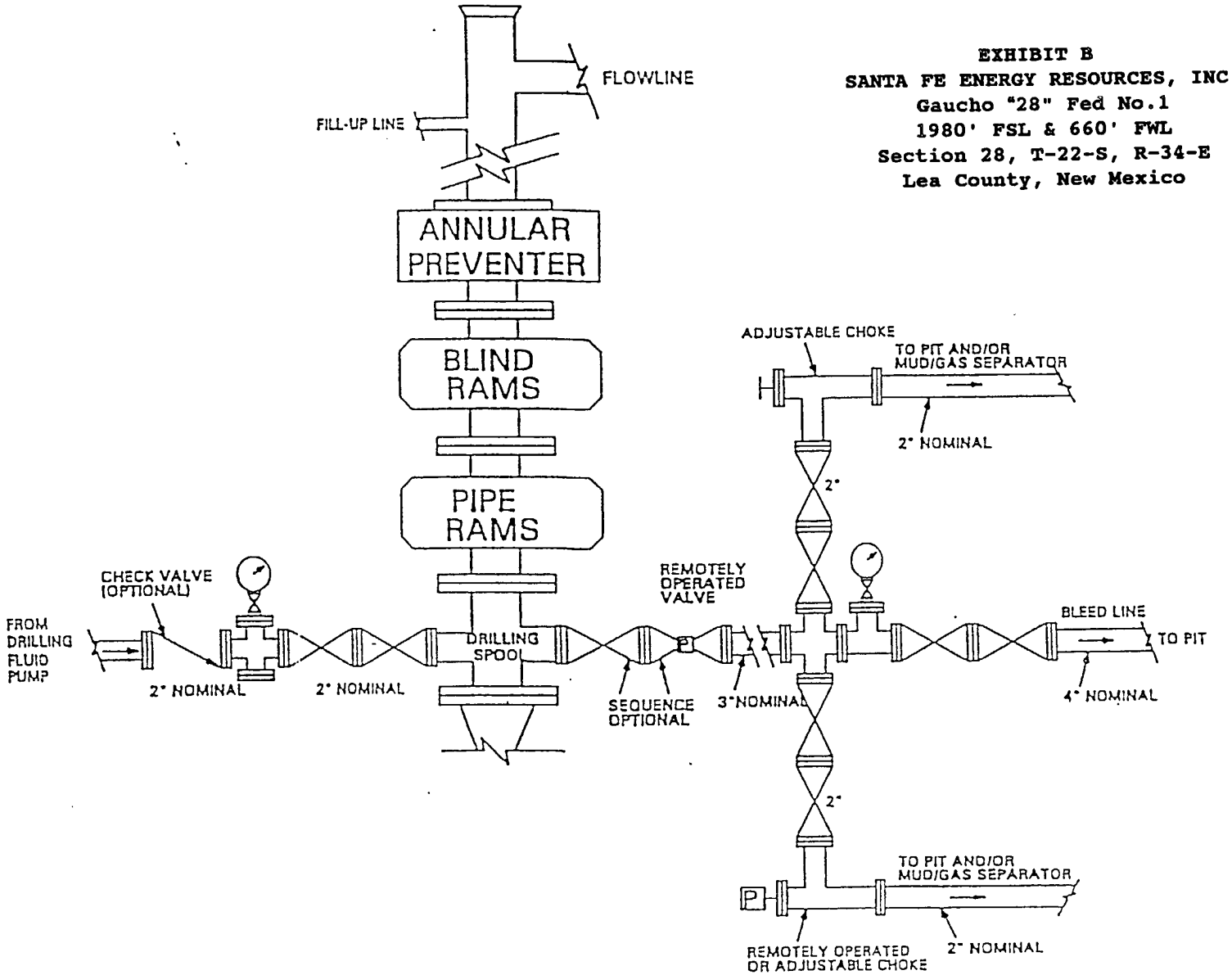
14. Drill a 6-1/8" hole to ±13600. Log. Run and cement a 4-1/2" 13.5 ppf S-95 flush joint liner from 11650'-13600'. Cement with 225 sx Class "H" containing necessary additives. Lay down setting tool and RIH with a 6-1/8" bit to dress off the liner top. Perform negative test on liner top.

15. Clean out inside of 4-1/2" liner.

16. Run production equipment and test well as necessary.

PROPOSED 5-M BOPE AND CHOKE ARRANGEMENT

EXHIBIT B
SANTA FE ENERGY RESOURCES, INC.
Gaucho "28" Fed No.1
1980' FSL & 660' FWL
Section 28, T-22-S, R-34-E
Lea County, New Mexico



PROPOSED 10-M BOPE AND CHOKE ARRANGEMENT

EXHIBIT B (A)
SANTA FE ENERGY RESOURCES, INC.
Gaucho "28" Fed No.1
1980' FSL & 660' FWL
Section 28, T-22-S, R-34-E
Lea County, New Mexico

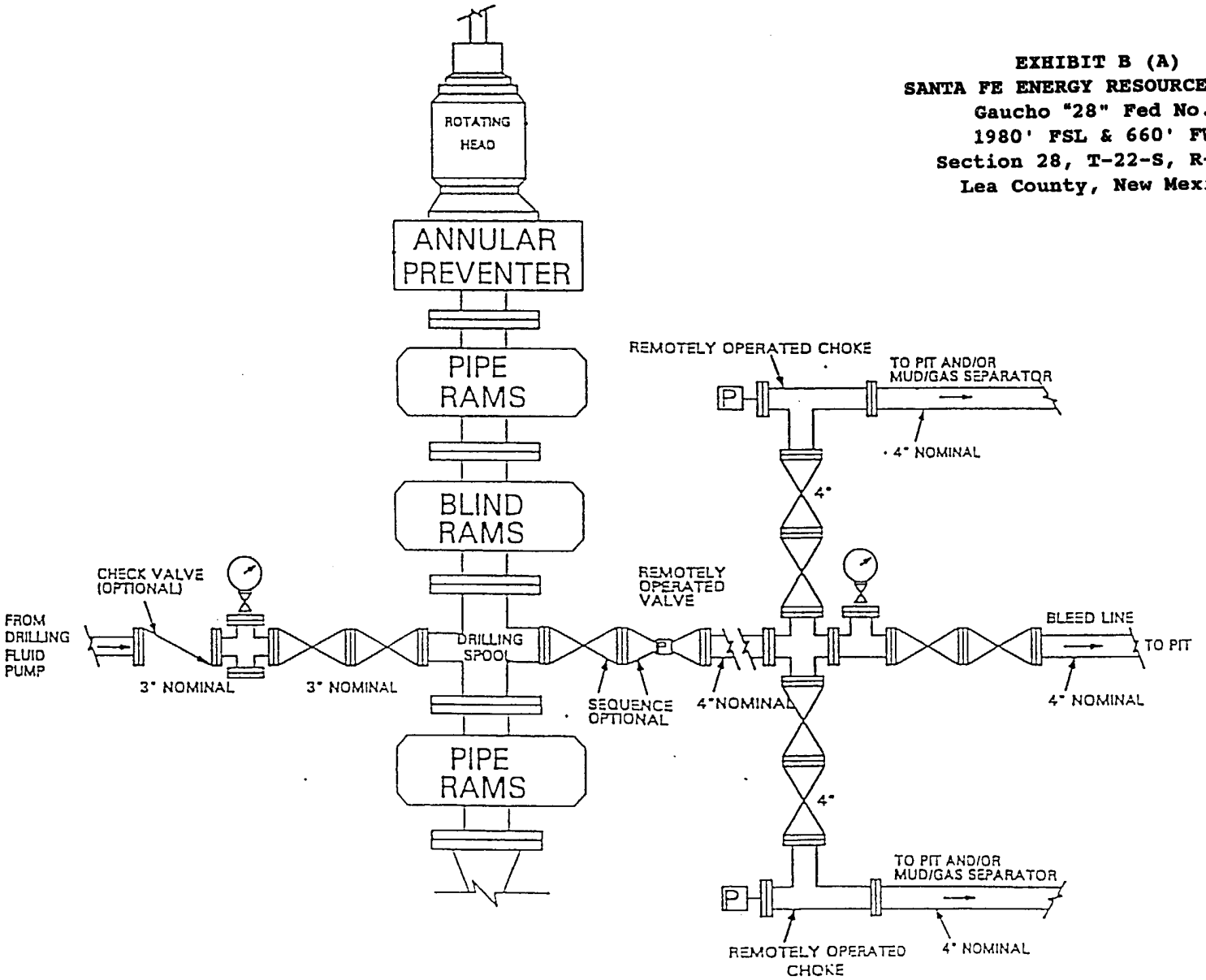


EXHIBIT C
DRILLING FLUID PROGRAM
SANTA FE ENERGY RESOURCES, INC.
Gaucho "28" Fed No. 1
Section 28, T-22-S, R-34-E
Lea County, New Mexico

0 - 800'

Spud mud consisting of fresh water gel flocculated with Lime. Use ground paper for seepage control and to sweep the hole. MW-8.5 ppg and Vis-40.

800 - 5000'

Drill out with fresh water circulating the reserve pit. Utilize ground paper mixed in prehydrated fresh gel to sweep the hole. MW-8.5 - 8.8 ppg and Vis-28.

5000 - 11850'

Drill out with fresh water 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. Keep mud weight as low as possible. MW-8.4/8.6 ppg and Vis-28.

11850'-13700'

Drill out with brine containing MF-55, circulating the steel pits. At 12000' mud up existing brine with XCD polymer/Drispac Plus mud system to an initial mud weight of 11.0 ppg with a 38-40 VIS. Add barite as required to control formation pressures and shale.

EXHIBIT D
AUXILIARY EQUIPMENT
Santa Fe Energy Resources, Inc.
Gaucho "28" Fed No. 1
Section 28, T-22-S, R-34-E
Lea County, New Mexico

DRAWWORKS	National 80-B
ENGINES	National 3 Section Compound w/3 Caterpillar D379 diesel engines
ROTARY	27-1/2" National C-275
MAST/SUB	Derrick Service International 142' jackknife. 25' high substructure
TRAVELLING EQUIPMENT	National 545-G 350 ton hook and block. National P-400 ton swivel
PUMPS	Two National 8-P-80,6-1/4" x 8-1/2" 800 HP triplex pumps charged by 6" x 8" centrifugal pump
PIT SYSTEM	Three steel mud pits with lightning mixers. Two 6" x 8" centrifugal pumps each driven by a 75 HP electric motor
LIGHT PLANT	Two 320 KW AC generators each powered by a turbocharged diesel engine
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.

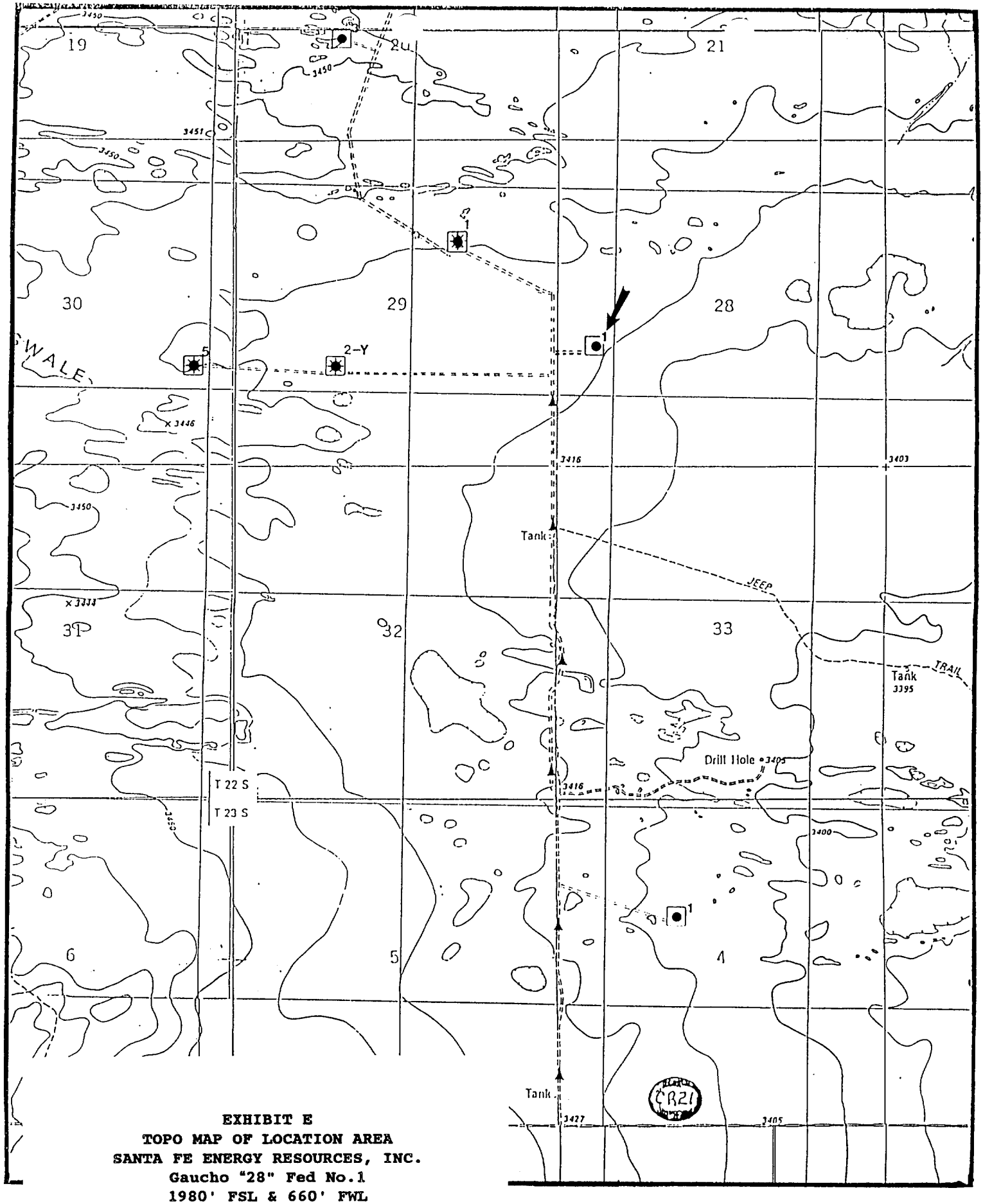


EXHIBIT E
TOPO MAP OF LOCATION AREA
SANTA FE ENERGY RESOURCES, INC.
Gaucho "28" Fed No.1
1980' FSL & 660' FWL
Section 28, T-22-S, R-34-E
Lea County, New Mexico

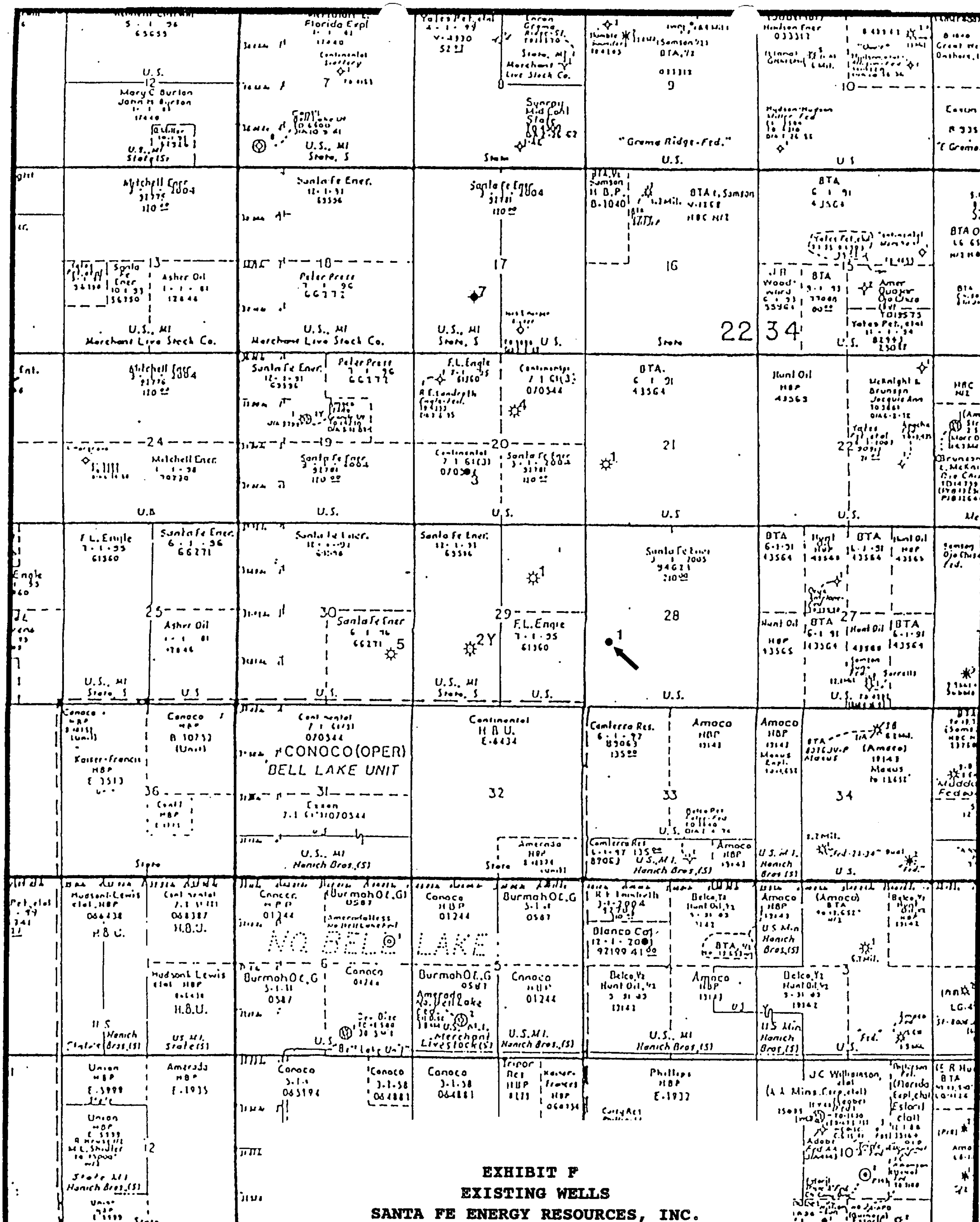
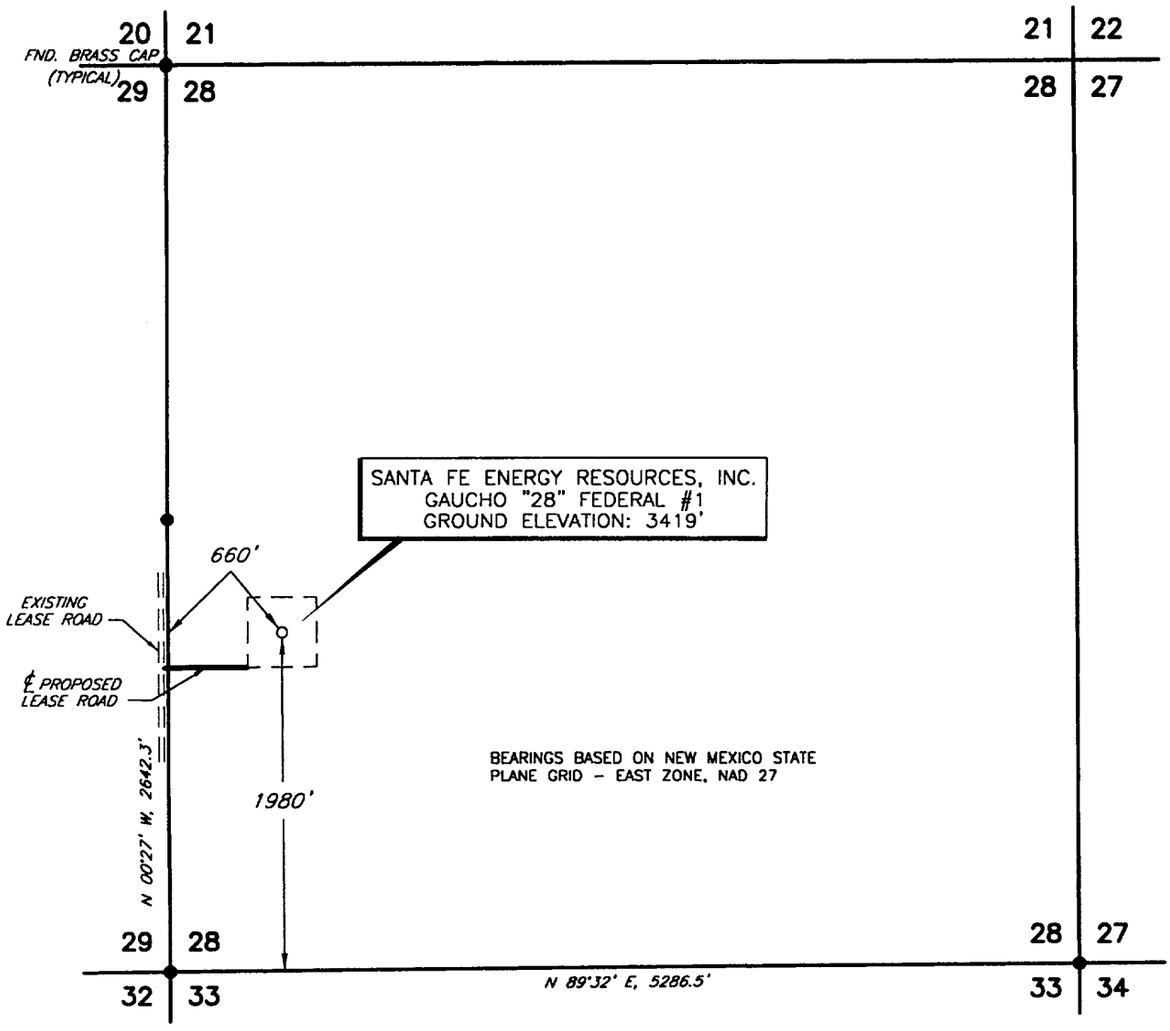
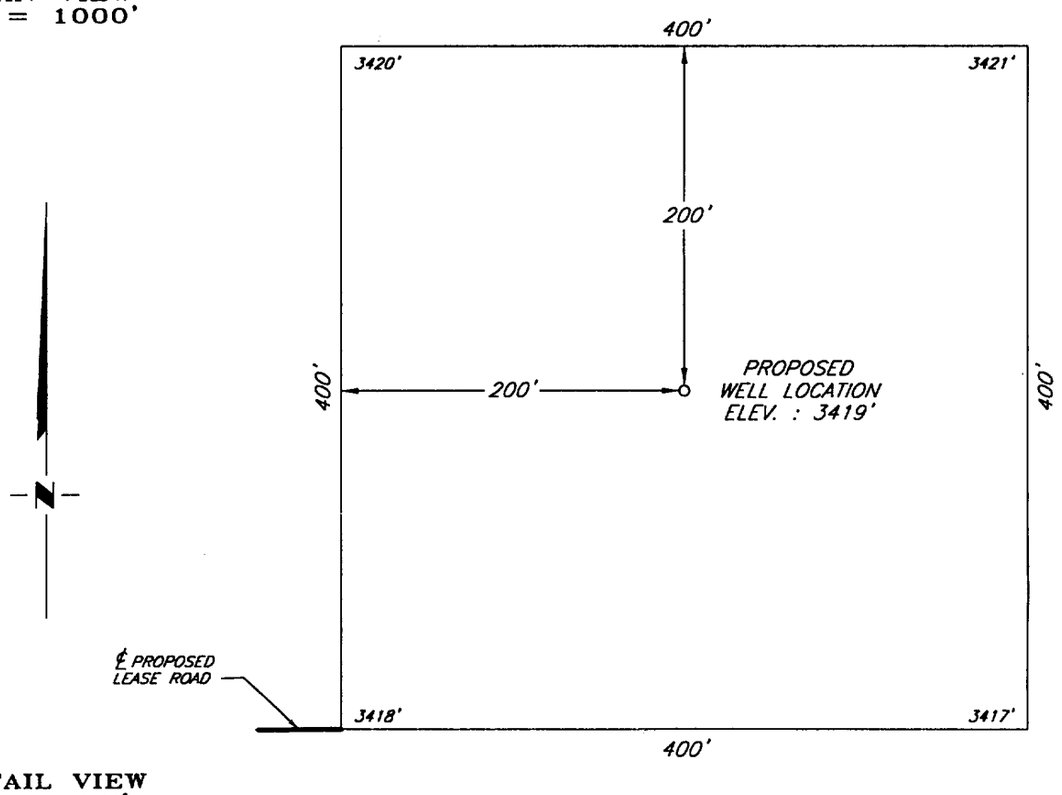


EXHIBIT F
EXISTING WELLS
SANTA FE ENERGY RESOURCES, INC.
Gaucho "28" Fed No.1
1980' FSL & 660' FWL
Section 28, T-22-S, R-34-E
Lea County, New Mexico

EXHIBIT F(A)
PLAT OF LOCATION
SANTA FE ENERGY RESOURCES, INC.
Gaucho "28" Fed No.1
1980' FSL & 660' FWL
Section 28, T-22-S, R-34-E
Lea County, New Mexico



PLAN VIEW
1" = 1000'



DETAIL VIEW
1" = 100'

NO.	REVISION	DATE	BY

SURVEYED BY: R.J.O.
DRAWN BY: V.H.B.
APPROVED BY: R.M.R.

SANTA FE ENERGY RESOURCES, INC.

SURVEYING AND MAPPING BY
TOPOGRAPHIC LAND SURVEYORS
MIDLAND, TEXAS

SCALE: AS SHOWN
DATE: DECEMBER 9, 1998
JOB NO.: 61627-F
QUAD NO.: 46 SW
SHEET : 1 OF 1

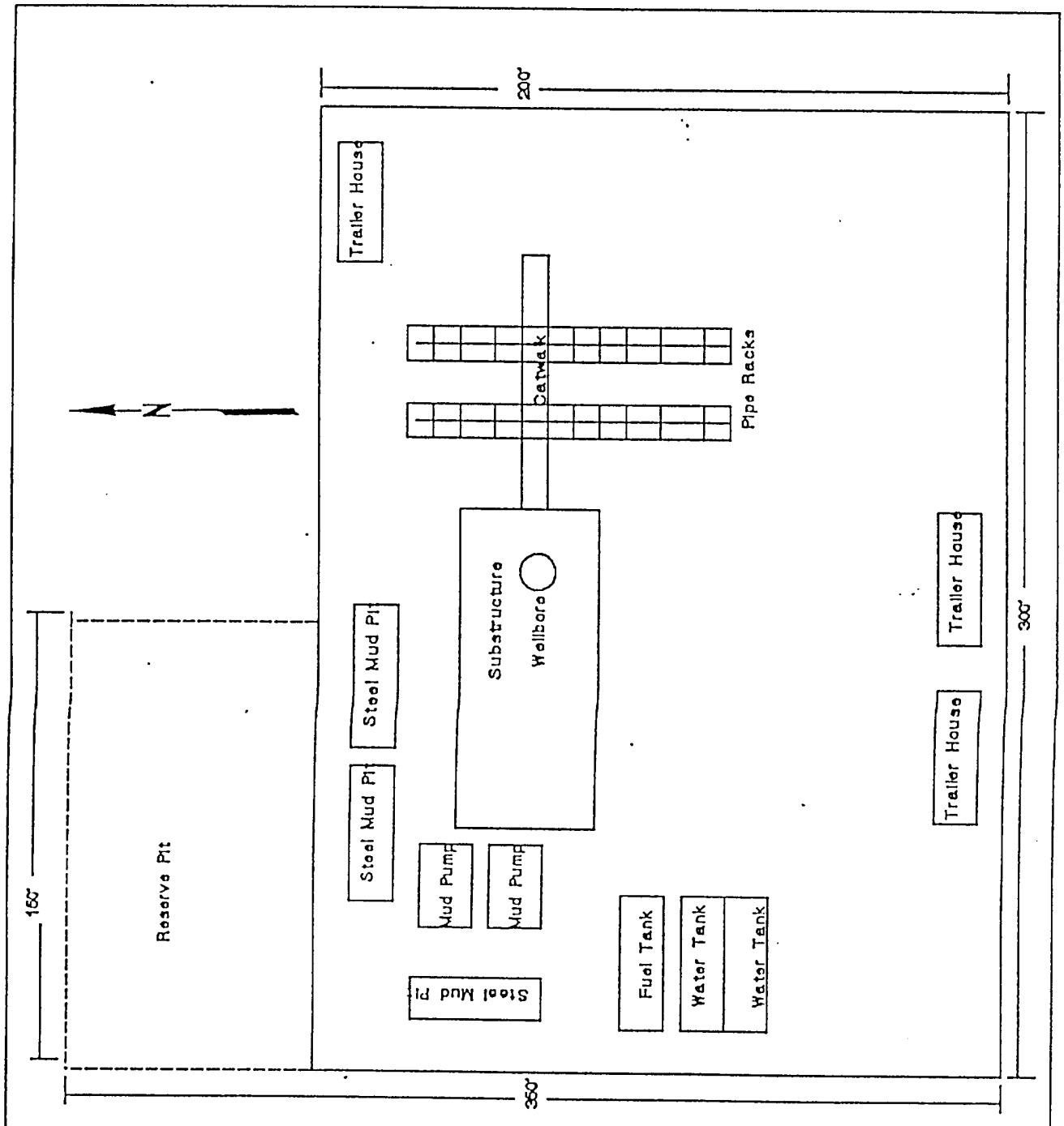


EXHIBIT G
WELL SITE LAYOUT
SANTA FE ENERGY RESOURCES, INC.
Gaucho "28" Fed No.1
1980' FSL & 660' FWL
Section 28, T-22-S, R-34-E
Lea County, New Mexico

SANTA FE ENERGY RESOURCES, INC.
MULTI-POINT SURFACE USE AND OPERATIONS PLAN
Gaucho "28" Fed No. 1
Section 28, T-22-S, R-34-E
Lea 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 the location of the proposed wellsite and roads in the vicinity. The proposed location is situated approximately 20 miles West of Jal, New Mexico.

   DIRECTIONS

   1. From the intersection of State Hwy 128 & CR-21, go North and back East 9.6 miles, turn North 2.5 miles and turn right 0.1 miles to the proposed location.

2. PLANNED ACCESS ROAD.

   A. Build ±0.1 miles of new road from the existing road to the proposed location.

3. LOCATION OF EXISTING WELLS.

   A. The well locations in the vicinity of the proposed well are shown in Exhibits E.

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES

   A. There are no producing gas wells on this lease at this time.

   B. In the event the well is productive, the necessary production equipment will be installed on the drilling pad.

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 approved by the BLM.

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 will contain all of the material to prevent scattering by the wind.

G. All trash and debris will be removed from the wellsite within 30 days after finishing drilling and/or completion operations.

8. ANCILLARY FACILITIES

None Required at this time.

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 relatively flat. Minor cutting will 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 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 and access route 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.

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 Resouces, Inc.
550 W. Texas, Suite 1330
Midland, Texas 79701
915-686-6616 - office
915-556-7063 - cellular

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 Resources, Inc. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which is approved.

SIGNED this 17th day of December, 1998

James P. "Phil" Stinson

James P. (Phil) Stinson
Agent for Santa Fe Energy Resources, Inc.