

HINKLE, COX, EATON, COFFIELD & HENSLEY

ATTORNEYS AT LAW

218 MONTEZUMA POST OFFICE BOX 2068
SANTA FE, NEW MEXICO 87504-2068
(505) 982-4554 FAX (505) 982-8623

PAUL W. EATON
CONRAD E. COFFIELD
HAROLD L. HENSLEY, JR.
STUART D. SHANOR
ERIC D. LANPHERE
C. D. MARTIN
ROBERT P. TINNIN, JR.
MARSHALL G. MARTIN
MASTON C. COURTNEY**
DON L. PATTERSON**
DOUGLAS L. LUNSFORD
NICHOLAS J. NOEDING
T. CALDER EZZELL, JR.
WILLIAM B. BURFORD*
RICHARD E. OLSON
RICHARD R. WILFONG*
THOMAS J. McBRIDE
JAMES J. WECHSLER
NANCY S. CUSACK
JEFFREY L. FORNACIARI

JEFFREY D. HEWETT
JAMES BRUCE
JERRY F. SHACKELFORD*
JEFFREY W. HELLBERG*
WILLIAM F. COUNTISS**
ALBERT L. PITTS
THOMAS M. HNASKO
JOHN C. CHAMBERS*
GARY D. COMPTON*
W. H. BRIAN, JR.**
RUSSELL J. BAILEY**
CHARLES R. WATSON, JR.**
THOMAS D. HAINES, JR.
GREGORY J. NIBERT
MARK C. DOW
FRED W. SCHWENDIMANN
JAMES M. HUDSON
JEFFREY S. BAIRD*
THOMAS E. HOOD**
REBECCA NICHOLS JOHNSON

LEWIS C. COX, JR. (1924-1993)
CLARENCE E. HINKLE (1904-1985)

OF COUNSEL
O. M. CALHOUN* JOE W. WOOD
RICHARD L. CAZZELL* RAY W. RICHARDS**
L. A. WHITE**

AUSTIN AFFILIATION:
HOFFMAN & STEPHENS, P.C.
KENNETH R. HOFFMAN*
TOM D. STEPHENS*
RONALD C. SCHULTZ, JR.*

WILLIAM P. JOHNSON
STANLEY K. KOTOVSKY, JR.
H. R. THOMAS
ELLEN S. CASEY
MARGARET CARTER LUDWIG
S. BARRY PAISNER
COLEMAN YOUNG**
MARTIN MEYERS
WYATT L. BROOKS**
DAVID M. RUSSELL**
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MOLLY MCINTOSH
MARCIA B. LINCOLN
SCOTT A. SHUART*
PAUL G. NASON
CATHRYN MCCLANAHAN
R. "TREY" ARVIZU, III
AMY C. WRIGHT*

*NOT LICENSED IN NEW MEXICO
*FORMERLY COMPRISING THE FIRM OF
CULTON, MORGAN, BRITAIN & WHITE, P.C.

July 28, 1994

HAND-DELIVERED

Michael E. Stogner
Oil Conservation Division
Santa Fe, New Mexico

Dear Mr. Stogner:

Enclosed are an original and two copies of an Application for administrative approval of an unorthodox gas well location, filed on behalf of Santa Fe Energy Operating Partners, L.P. If this Application does not qualify for administrative approval, please set this matter for hearing on the September 1, 1994 Examiner docket. Thank you.

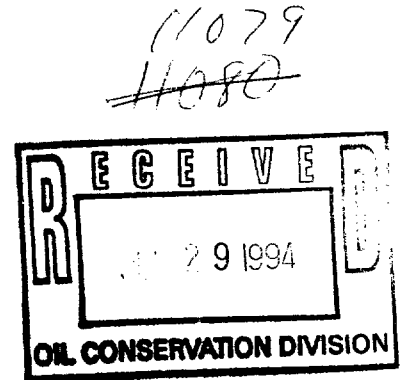
Very truly yours,

HINKLE, COX, EATON, COFFIELD
& HENSLEY

James Bruce
James Bruce

Enclosures

JGB/sp
stogner.1tr



HINKLE, COX, EATON, COFFIELD & HENSLEY

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July 28, 1994

HAND DELIVERED

Michael E. Stogner
Oil Conservation Division
Santa Fe, New Mexico

Dear Mr. Stogner:

Santa Fe Energy Operating Partners, L.P. hereby requests administrative approval of an unorthodox gas well location for the following well:

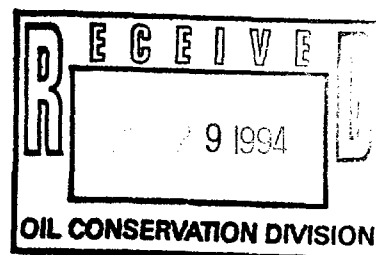
Cygnat 4 Fed. Com. Well No. 1
2310 Feet FSL and 1800 feet FEL
S½ of Section 4 - 22 South - 32 East
Lea County, New Mexico

The well will be drilled to a depth sufficient to test the Morrow formation (undesigned Bilbrey-Morrow Gas Pool).

Ownership of leases in the well unit is set forth on Exhibit A attached hereto. The well is being drilled on Federal Lease NM 81271. This lease was to expire on March 31, 1994, but was suspended pending approval of an APD. The Bureau of Land Management (BLM) has approved an APD for the well, and the approved APD is attached hereto as Exhibit B.

As requested by Division Memorandum 1-90, the following information is attached:

1. Form C-102: See page 28 of Exhibit B.
2. Land Plat: See page 24 of Exhibit B. A listing of all offset operators or lessees is attached hereto as Exhibit C. This information was obtained on July 28, 1994 from OCD well files, and State Land Office and BLM lease files, and is current and correct.



Case 11079

Michael E. Stogner
July 28, 1994
Page 2

3. Topographic Map: See page 23 of Exhibit B. The reason for the proposed well location is to avoid a raptor's nest. See Exhibits D and E attached hereto. The raptor's nest is not reflected on the topographic map.

4. Directional Drilling: The cost of drilling directionally to a standard location is approximately \$150,000. Because there are no immediately offsetting Morrow producers, the cost is not justified due to the risk involved.

5. Notice: Attached hereto as Exhibit F is an affidavit regarding notice to the offset operators and lessees. The Commissioner of Public Lands was notified because we cannot determine whether the SW $\frac{1}{4}$ of Section 3 (state land) is currently leased or unleased.

6. Other Information: The primary target of the well is the Morrow formation. The Morrow formation in the SW $\frac{1}{4}$ SE $\frac{1}{4}$ is as prospective as in the NW $\frac{1}{4}$ SE $\frac{1}{4}$. However, due to the expiring federal lease, Applicant desires to drill on that lease and have a secondary target so that if the Morrow is dry it can establish production to maintain the lease in effect. The secondary target is the Delaware (Upper Brushy Canyon) formation. A gross sand isopach of the Brushy Canyon is attached hereto as Exhibit G. The proposed location is standard in the Delaware formation.

For the foregoing reasons, Applicant requests that the above unorthodox location be administratively approved.

Very truly yours,

HINKLE, COX, EATON, COFFIELD
& HENSLEY



James Bruce

Attorneys for Santa Fe Energy
Operating Partners, L.P.

Enclosures
cc: Curtis D. Smith

JGB/sp

stogadm.1tr

TR. 1

State of NM V-3113
SW/4, S/2, SE/4
Sec 4

WI OWNERSHIP

SFEOP, L.P.

WI%

100%

ORRI

NA

Royalty

State of New Mexico

Royalty%

16.6667%

TR 2

Bureau of Land Management
NM-81271
N/2 SE/4
Sec 4

WI OWNERSHIP

Yates Petroleum

WI%

100%

ORRI

NA

Royalty

Bureau of Land
Management

Royalty%

12.50%





United States Department of the Interior

BUREAU OF LAND MANAGEMENT

New Mexico State Office

1474 Rodeo Rd.

P.O. Box 27115

Santa Fe, New Mexico 87502 0115



IN REPLY REFER TO:

3160 (067)

NMNM-81271

June 23, 1994

CERTIFIED MAIL--RETURN RECEIPT REQUESTED
P 217 221 910Santa Fe Energy Operating Partners, L.P.
Attention: Mr. Darrell Roberts
550 W. Texas, Suite 1330
Midland, TX 79701RE: Cygnet "4" Federal Com Well No. 1
NMNM-81271
2310' FSL and 1800' FEL, Sec. 4, T. 22 S., R. 32 E.
Lea County, New Mexico

Dear Mr. Roberts:

I have approved your application for permit to drill at the location requested. A copy of the approved application with stipulations is enclosed.

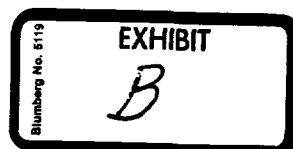
Based on the bottomhole pressure and multipoint back pressure information you provided for the wells offsetting your proposed drilling location, the variance you requested to Onshore Oil and Gas Operating Order No. 2, Item No. 3 of the Sundry Notice (part of the enclosure), is approved.

Please contact our Carlsbad Resource Area at (505) 887-6544 should you have any questions or if we can be of additional help.

Sincerely,

6- William C. Calkins
State Director

1 Enclosure



OPERATOR'S COPY**SPECIAL DRILLING STIPULATIONS****THE FOLLOWING DATA IS REQUIRED ON THE WELL SIGN**

OPERATOR'S NAME SANTA FE ENERGY OPERATING PARTNERS, L.P. WELL NO. & NAME NO. 1-CYGNET "A" FED COM
 LOCATION 2310' F S L & 1800' F E L SEC. 4, T. 22S, R. 32E
 LEASE NO. NM-81271 COUNTY LEA

The special stipulations check marked below are applicable to the above described well and approval of this application to drill is conditioned upon compliance with such stipulations in addition to the General Requirements. The permittee should be familiar with the General Requirements, a copy of which is available from a Bureau of Land Management office. EACH PERMITTEE HAS THE RIGHT OF ADMINISTRATIVE APPEAL TO THESE STIPULATIONS PURSUANT TO TITLE 43 CFR 3165.3 and 3165.4.

This permit is valid for a period of one year from the date of approval or until lease expiration or termination whichever is shorter.

I. SPECIAL ENVIRONMENT REQUIREMENTS

- () Lesser Prairie Chicken (Stips attached) () Floodplain (Stips attached)
 () San Simon Swale (Stips attached) () Other

II. ON LEASE - SURFACE REQUIREMENTS PRIOR TO DRILLING

(✓) The BLM will monitor construction of this drill site. Notify the () Carlsbad Resource Area Office at (505) 234-5272 (XX) Hobbs Office at (505) 393-3612, at least 3 working days prior to commencing construction.

(✓) Roads and the drill pad for this well must be surfaced with 6 inches of compacted caliche.

() All topsoil and vegetation encountered during the construction of the drill site area will be stockpiled and made available for resurfacing of the disturbed area after completion of the drilling operation. Topsoil on the subject location is approximately _____ inches in depth. Approximately _____ cubic yards of topsoil material will be stockpiled for reclamation.

() Other

III. WELL COMPLETION REQUIREMENTS

() A Communitization Agreement covering the acreage dedicated to the well must be filed for approval with the BLM. The effective date of the agreement must be prior to any sales.

(✓) Surface Restoration: If the well is a producer, the reserve pit(s) will be backfilled when dry, and cut-and-fill slopes will be reduced to a slope of 3:1 or less. All areas of the pad not necessary for production must be re-contoured to resemble the original contours of the surrounding terrain, and topsoil must be re-distributed and re-seeded with a drill equipped with a depth indicator (set at a depth of 1/2 inch) with the following seed mixture, in pounds of Pure Live Seed (PLS), per acre.

- () A. Seed Mixture 1 (Loamy Site)
 Lehmanns Lovegrass (*Eragrostis lehmanniana*) 1.0
 Side Oats Grass (*Bouteloua curtipendula*) 5.0
 Sand Dropseed (*Sporobolus cryptandrus*) 1.0

- () C. Seed Mixture 3 (Shallow Sites)
 Sideoats Grama (*Bouteloua curtipendula*) 1.0
 Lehmanns Lovegrass (*Eragrostis lehmanniana*) 1.0
 or Boar Lovegrass (*E. chloromelas*)

- () B. Seed Mixture 2 (Sandy Sites)
 Sand Dropseed (*Sporobolus cryptandrus*) 1.0
 Sand Lovegrass (*Eragrostis trichodes*) 1.0
 Plains Bristlegrass (*Setaria macrostachya*) 2.0

- (✓) D. Seed Mixture 4 ("Gyp" Sites)
 Alkali Sacaton (*Sporobolus airoides*) 1.0
 Four-Wing Saltbush (*Atriplex canescens*) 5.0

Seeding should be done either late in the fall (September 15 - November 15, before freeze up) or early as possible the following spring to take advantage of available ground moisture.

(✓) Other

Pad must not impact playas.
 Construction held off till mid-July as
 agreed upon by OPERATOR.

RESERVE PIT CONSTRUCTION STANDARDS

The reserve pit shall be constructed entirely in cut material and lined with 6 mil plastic.

Mineral material extracted during construction of the reserve pit may be used for development of the pad and access road as needed. Removal of any additional material on location must be purchased from BLM.

Reclamation: Reclamation of this type of deep pit will consist of pushing the pit walls into the pit when sufficiently dry to support track equipment. The pit liner is NOT TO BE RUPTURED to facilitate drying; a ten month period after completion of the well is allowed for drying of the pit contents.

The pit area must be contoured to the natural terrain with all contaminated drilling mud buried with at least 3 feet of clean soil. The reclaimed area will then be seeded as specified in this permit.

OPTIONAL PIT CONSTRUCTION STANDARDS

The reserve pit may be constructed in predominantly fill material if:

- 1) Lined as specified above and.
- 2) A borrow/caliche/gravel pit can be constructed immediately adjacent to the reserve pit and is capable of containing all reserve pit contents. The mineral material removed in the process can be used for pad and access road construction. However, a material sales contract must be purchased from BLM prior to removal of the material.

Reclamation of the reserve pit consists of bulldozing all reserve pit contents and contaminants into the borrow pit and covering with a minimum of 3 feet of clean soil material. The entire area must be recontoured, all trash removed, and reseeded as specified in this permit.-

CULTURAL

Whether or not an archaeological survey has been completed and notwithstanding that operations are being conducted as approved, the lessee/operator/grantee shall notify the BLM immediately if previously unidentified cultural resources are observed during surface disturbing operations. From the time of the observation, the lessee/operator/grantee shall avoid operations that will result in disturbance to these cultural resources until directed to proceed by BLM.

TRASH PIT STIPS

All trash, junk and other waste material shall be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not permitted.

SENT BY:

7-25-94 : 9:25AM : Santa Fe Energy -

5/32

WELL NO. 4 NAME NO. -CYGNET "4" FED COM
 LOCATION 2310' P S 1800' P E L SEC. 4 T. 22S., R. 32E.
 LEASE NO. NM-81271 LEA COUNTY NEW MEXICO

The special stipulations check marked below are applicable to the above described well and approval of this application to drill is conditioned upon compliance with such stipulations in addition to the General Requirements. The permittee should be familiar with the General Requirements, a copy of which is available from a Bureau of Land Management office. EACH PERMITTEE HAS THE RIGHT OF ADMINISTRATIVE APPEAL TO THESE STIPULATIONS PURSUANT TO TITLE 43 CFR 1165.3 and 1165.4.

DRILLING OPERATIONS REQUIREMENTS

[Secretary's Potash]
 [Consolidated Controlled Water Basin]

The Bureau of Land Management office is to be notified at (505) 393-3612, in sufficient time for a representative to witness:

- (✓) 1. Spudding (✓) 2. Cement casing $13\frac{3}{8}$ inch $9\frac{5}{8}$ inch 7 inch
 (✓) 3. DCP tests () Other Whenever a casing string is cemented in the R-Till-P Potash area, cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

CASING

(✓) $13\frac{3}{8}$ " surface casing should be cemented 650' in the Rustler Anhydrite and cement circulated to the surface. If cement does not circulate to the surface, this BLM office will be notified and a temperature survey or cement bond log will be run to verify the top of the cement. Remedial cementing will be done prior to drilling out of that string.

(✓) Minimum required fill of cement behind the $9\frac{5}{8}$ " intermediate casing is to circulate to the surface.

(✓) Minimum required fill of cement behind the 7" production casing is to tie back 600' above uppermost horizon which contains fluids capable of migration.

PRESSURE CONTROL

(✓) Before drilling below the $13\frac{3}{8}$ " casing, the blowout preventer assembly will consist of a minimum of:

(✓) One Annular Preventer, or (✓) Two RAM-Type Preventers (✓) Other Kelly Cock/

(✓) After setting the $9\frac{5}{8}$ " casing string, and before drilling into the Wolfcamp Formation, the blowout preventers and related control equipment shall be pressure-tested as described in General Requirements. Any equipment failing to test satisfactorily will be repaired or replaced.

(✓) The test will be conducted by an independent service company.

(✓) The results of the test will be reported to the appropriate BLM office.

(✓) The Bureau of Land Management office is to be notified in sufficient time for a representative to witness the test.

(✓) Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, will be installed and operating before drilling into the Wolfcamp Formation, and will be used until production casing is run and cemented. Monitoring equipment will consist of the following:

- (✓) 1. A recording pit level indicator to determine pit volume gains and losses.
 () 2. A mud-volume measuring device for accurately determining mud volume necessary to fill the hole on trips.
 (✓) 3. A flow-sensor on the flow-line to warn of any abnormal mud returns from the well.

() A Hydrogen Sulfide Contingency Plan will be approved by this BLM office before drilling below the Formation. A copy of the plan will be posted at the drilling site.

(✓) Other Gamma-ray/Neutron logs shall be run from the base of the Salado formation to the surface; cable speed not to exceed 30 feet per minute.

(✓) A Communitization Agreement covering the acreage dedicated to the well must be filed with the BLM. The effective date of the agreement must be prior to any sales.

EXHIBIT 1

BLM Lease Number: 1001-81271Company Reference: Cygnus 4 Feed Corn #STANDARD STIPULATIONS FOR PERMANENT RESOURCE ROADS
THE ROSWELL DISTRICT, BLM

The holder/grantee/permittee shall hereafter be identified as the holder in these stipulations. The Authorized Officer is the person who approves the Application for Permit to Drill (APD) and/or Right-of-Way (ROW).

GENERAL REQUIREMENTS

The holder shall minimize disturbance to existing fences and other improvements on public domain surface. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will make a documented good-faith effort to contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence.

Holder agrees to comply with the following stipulations:

1. ROAD WIDTH AND GRADE

The road will have a driving surface of 14 feet (all roads shall have a minimum driving surface of 12 feet, unless local conditions dictate a different width). The maximum grade is 10 percent unless the box below is checked. Maximum width of surface disturbance from construction will be 30 feet.

☒ Those segments of road where grade is in excess of 10% for more than 300 feet shall be designed by a professional engineer.

2. CROWNING AND DITCHING

Crowning with materials on site and ditching on one side of the road on the uphill side will be required. The road cross-section will conform to the cross section diagrams in Figure 1. If conditions dictate, ditching may be required for both sides of the road; if local conditions permit, a flat-bladed road may be considered (if these conditions exist, check the appropriate box below). The crown shall have a grade of approximately 2% (i.e., 1" crown on a 12' wide road).

☒ Ditching will be required on both sides of the roadway as shown on the attached map or as staked in the field.

☐ Flat-blading is authorized on segment(s) delineated on the attached map.

Page 2 of 5

Exhibit A
NM-

3. DRAINAGE

Drainage control shall be ensured over the entire road through the use of borrow ditches, outsloping, insloping, natural rolling topography, lead-off (turnout) ditches, culverts, and/or drainage dips.

A. All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval for lead-off ditches shall be determined according to the following table, but may be amended depending upon existing soil types and centerline road slope (in %):

SPACING INTERVAL FOR TURNOUT DITCHES	
Percent slope	Spacing interval
0% - 4%	400' - 150'
4% - 6%	250' - 125'
6% - 8%	200' - 100'
8% - 10%	150' - 75'

A typical lead-off ditch has a minimum depth of 1 foot below and a berm 6 inches above natural ground level. The berm will be on the down-slope side of the lead-off ditch. The ditch end will tie into vegetation whenever possible.

For this road the spacing interval for lead-off ditches shall be at

☒ 400 foot intervals.

☐ _____ foot intervals.

☐ locations staked in the field as per spacing intervals above.

☐ locations delineated on the attached map.

B. Culvert pipes shall be used for cross drains where drainage dips or low water crossings are not feasible. The minimum culvert diameter must be 18 inches. Any culvert pipe installed shall be of sufficient diameter to pass the anticipated flow of water. Culvert location and required diameter are shown on the attached map (Further details can be obtained from the Roswell District Office or the appropriate Resource Area Office).

C. On road slopes exceeding 2%, drainage dips shall drain water into an adjacent lead-off ditch. Drainage dip location and spacing shall be determined by the formula:

$$\text{spacing interval} = \frac{400'}{\text{road slope in \%}} + 100'$$

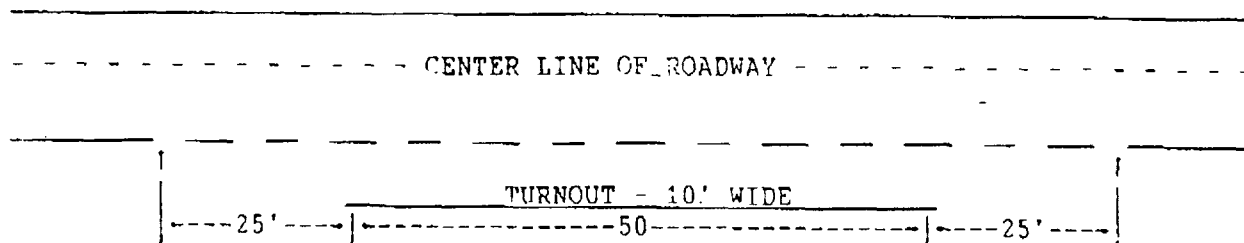
$$\text{Example: } 4\% \text{ slope: spacing interval} = \frac{400}{4} + 100 = 200 \text{ feet}$$

Page 3 of 5

Exhibit A
NM-

4. TURNOUTS

Unless otherwise approved by the Authorized Officer, vehicle turnouts will be required. Turnouts will be located at 2000-foot intervals, or the turnouts will be intervisible, whichever is less. Turnouts will conform to the following diagram:



STANDARD TURNOUT - PLAN VIEW

5. SURFACING

Surfacing of the road or those portions identified on the attached map may, at the direction of the Authorized Officer, be required, if necessary, to maintain traffic within the right-of-way with caliche, gravel, or other surfacing material which shall be approved by the Authorized Officer. When surfacing is required, surfacing materials will be compacted to a minimum thickness of six inches with caliche material. The width of surfacing shall be no less than the driving surface. Prior to using any mineral materials from an existing or proposed Federal source, authorization must be obtained from the Authorized Officer.

6. CATTLEGUARDS

Where used, all cattleguard grids and foundation designs and construction shall meet the American Association of State Highway and Transportation Officials (AASHTO) Load Rating H-20, although AASHTO U-80 rated grids shall be required where heavy loads (exceeding H-20 loading), are anticipated (See BLM standard drawings for cattleguards). Cattleguard grid length shall not be less than 8 feet and width of not less than 14 feet. A wire gate (16-foot minimum width) will be provided on one side of the cattleguard unless requested otherwise by the surface user.

7. MAINTENANCE

The holder shall maintain the road in a safe, usable condition. A maintenance program shall include, but not be limited to blading, ditching, culvert installation, culvert cleaning, drainage installation, cattleguard maintenance, and surfacing.

Page 4 of 5

Exhibit A
NM-

8. PUBLIC ACCESS

Public access along this road will not be restricted by the holder without specific written approval being granted by the Authorized Officer. Gates or cattleguards on public lands will not be locked or closed to public use unless closure is specifically determined to be necessary and is authorized in writing by the Authorized Officer.

9. CULTURAL RESOURCES

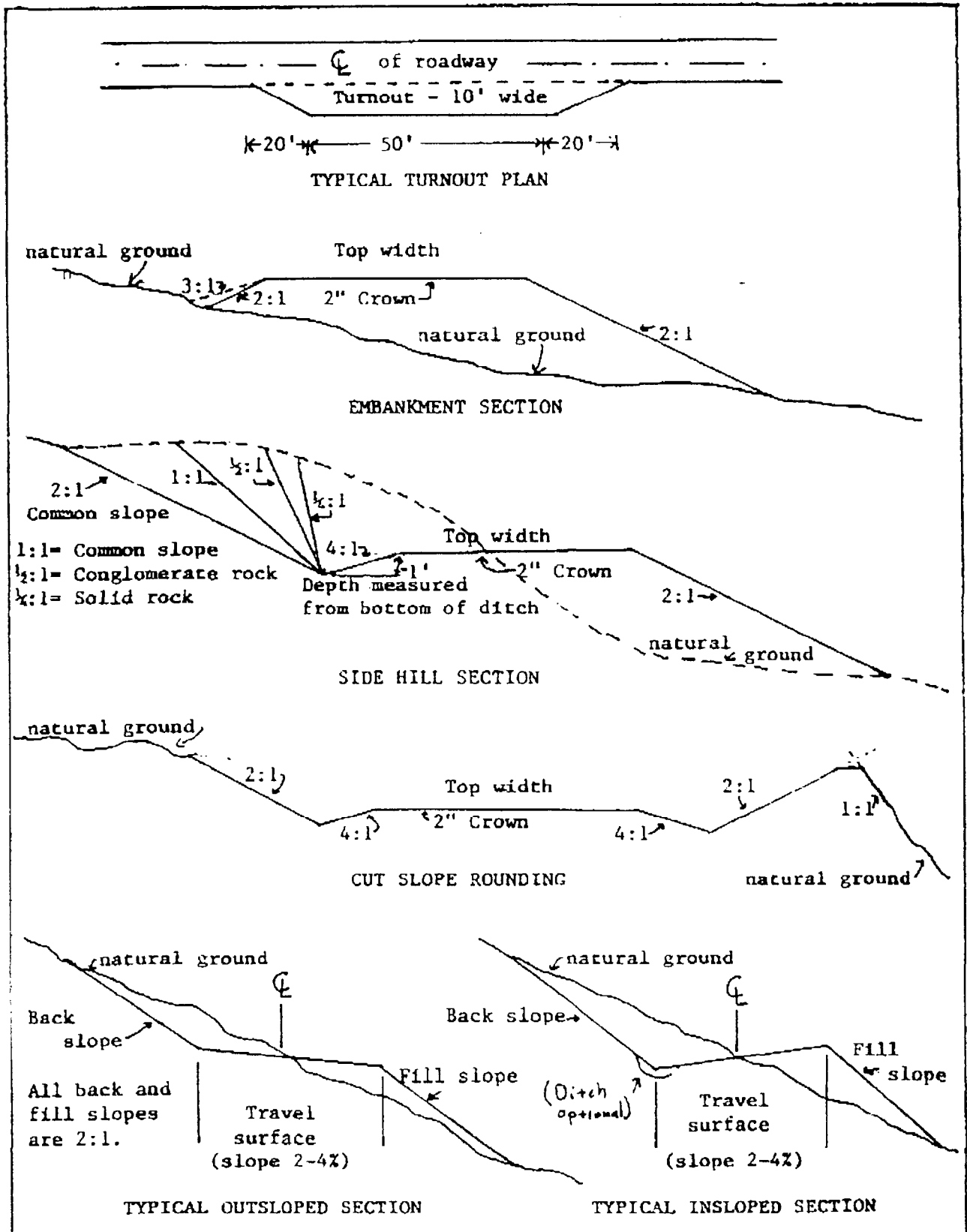
Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the authorized officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer. An evaluation of the discovery will be made by the authorized officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the authorized officer after consulting with the holder.

10. SPECIAL STIPULATIONS:

The new road must be staked
due south of center hole to avoid
playas to the east and west

FIGURE 1: CROSS-SECTIONS AND PLANS FOR TYPICAL ROAD CONSTRUCTION
REPRESENTATIVE OF BLM RESOURCE, AND HIGHER CLASS, ROADS.

(Travel way, top width, driving surface, and travel surface are synonymous.)



SENT BY:
Form 5160-3
(July 1992)

7-25-94 : 9:28AM : Santa Fe Energy -
OPERATION'S COPY - SUBMIT IN TRIPlicate*

#11/32

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1A. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. NM-81271
b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
2. NAME OF OPERATOR Santa Fe Energy Operating Partners, L.P.		7. UNIT AGREEMENT NAME
3. ADDRESS AND TELEPHONE NO. 550 W. Texas, Suite 1330, Midland, Texas 79701		8. FARMOR LEASE NAME WELL NO. Cygnar "4" Fed Com No 1
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)* J 1980 FSL, 1980 FEL At proposed prod. zone 1800 met		9. APPROVAL NO.
13. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 24 miles East of Loving, New Mexico		10. FIELD AND POOL, OR WILDCAT Bilbrey
10. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any) 660		11. SEC. T. R. M. OR BLM. AND SURVEY OR AREA Sec 4, T-22-S, R-32-E
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.		12. COUNTY OR PARISH 18. STATE Lea New Mexico
16. NO. OF ACRES IN LEASE -320*		17. NO. OF ACRES ASSIGNED TO THIS WELL 320
19. PROPOSED DEPTH 15200'		20. ROTARY OR CABLE TOOL Rotary
21. ELEVATIONS (Show whether DP, RT, GR, etc.) 3792 GR		22. APPROX. DATE WORK WILL START* March 30, 1994

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	H-40 13-3/8"	48	650'	650 sx to circulate
12-1/4"	K-55 9-5/8"	40	4800'	2300 sx to circulate
8-3/4"	S-95, P-110 7"	26	12000'	TOC @ 6000' (see steps)
6-1/8"	S-95 4-1/2"	13.5	15200'	500 sx (Circ to liner top)

We propose to drill to a depth sufficient to test the Morrow formation for gas. If productive, a 4-1/2" liner 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

* 80 Acres NM-81271 Federal, 240 Acres V-3113 State

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.

23. SIGNED <u>Daniel Rohls</u> TITLE <u>Senior Drilling Engineer</u>	
(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 <u>Mike Lora</u> TITLE <u>State Director</u> DATE <u>6/23/94</u>	

*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 in any matter within its jurisdiction.

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 1940, Hobbs, NM 88240

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

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

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

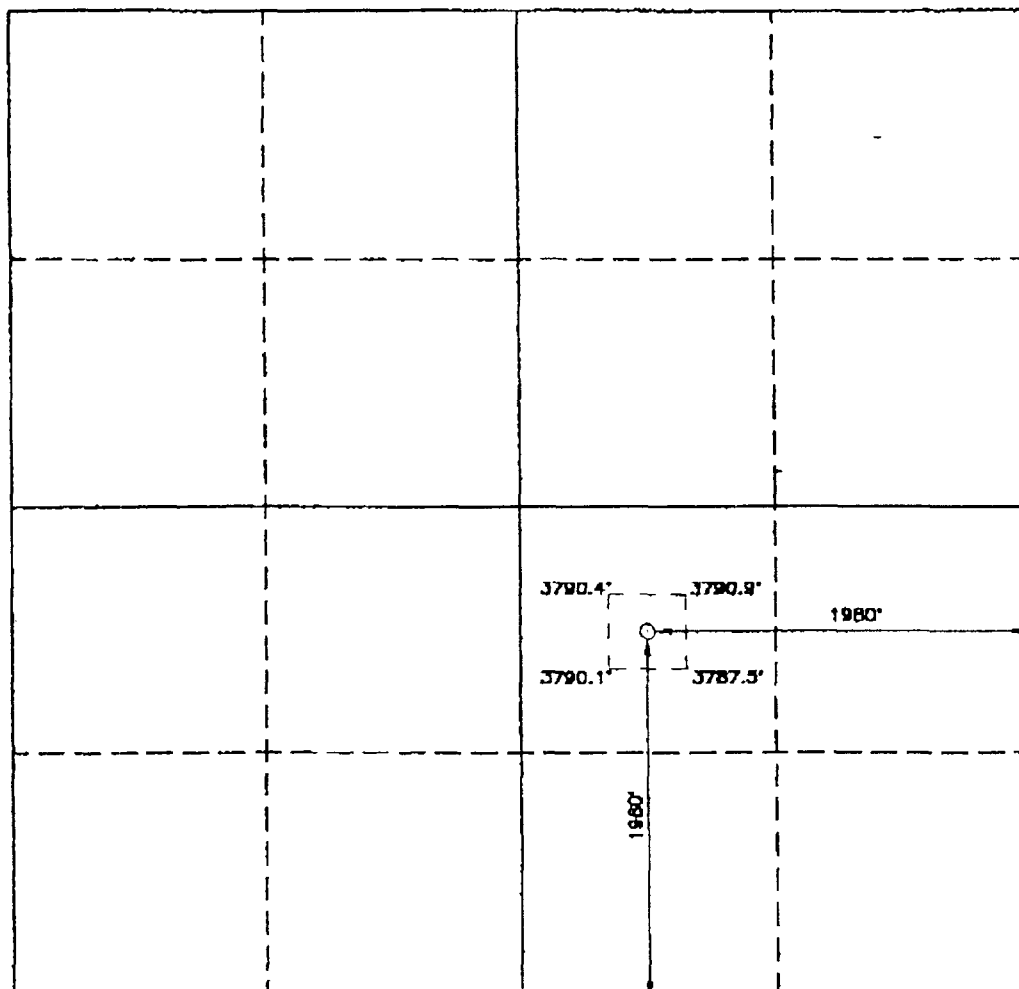
Operator SANTA FE ENERGY OPERATING PARTNERS, L.P.			Lease CYGNET 4 FEDERAL COM.		Well No. 1
Unit Letter J	Section 4	Township 22 SOUTH	Range 32 EAST	County NMPM	LEA
Actual Footage Location of Well: 1980 feet from the SOUTH line and 1980 feet from the EAST line					
Ground Level Elev. 3792'	Producing Formation		Pool	Dedicated Acreage: 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 communization, unitization, force-pooling, etc.?

☒ Yes ☐ No If answer is "yes" type of consolidation Communization

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 communization, unitization, force-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.

Darrell Roberts

Signature

Darrell Roberts

Printed Name

Senior Drilling Engineer

Position Santa Fe Energy Operating Partners, L.P.

Company

2-25-94

Date

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

FEBRUARY 22, 1994

Signature & Seal of Professional Surveyor

NEW MEXICO
7977
REGISTERED
JAMES WEST, 676
EDGON, 3239
GARY L. JONES, 1977

94-11-0340

TR. 1

State of NM V-3113
SW/4, S/2, SE/4
Sec 4

WI OWNERSHIP

SFEOP, L.P.

WI%

100%

ORRI

NA

Royalty

State of New Mexico

Royalty%

16.6667%

TR 2

Bureau of Land Management
NM-81271
N/2 SE/4
Sec 4

WI OWNERSHIP

Yates Petroleum

WI%

100%

ORRI

NA

Royalty

Bureau of Land
Management

Royalty%

12.50%

DRILLING PROGRAM
SANTA FE ENERGY OPERATING PARTNERS, L.P.
CYGNET "4" FED. COM NO. 1

In conjunction with Form 3160-3, Application For Permit 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. 1.

1. **Geologic Name of Surface Formation:** Alluvium
2. **Estimated Tops of Significant Geologic Markers:**

Rustler	750'
Base of Salt	4700'
Delaware Lamar Lime	4850'
Bone Spring	8800'
Wolfcamp	11900'
Strawn	13300'
Atoka	13450'
Morrow	13900'
Top Lower Morrow	14850'
Total Depth	15200'
3. **The estimated depths at which water, oil, or gas formations are expected:**

Water	None expected in area
Gas	Atoka @ 13450'
Gas	Morrow @ 13900'
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 4500' to TD.
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):

Atoka 13600' - 13700'

Logging:

Dual Laterolog w/MSFL and Gamma Ray	12000'-15200'
Compensated Neutron/Litho-Density/Gamma Ray	4800'-12000' & 12000'-15200'
Compensated Neutron/Gamma Ray (thru csg)	Surface-4800'

Coring: No conventional cores are planned.

DRILLING PROGRAM

Cygnat "4" Fed. Com No. 1

Page 2

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

Abnormally high pressured zones with a bottomhole pressure of approximately 9500 psi could possibly be encountered. Sufficient barite will be on location to enable the weighting up to the estimated 12.8 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 production liner. The estimated bottom hole temperature is 195°F and the estimated bottom hole pressure is 9500 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 March 30, 1994. 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 OPERATING PARTNERS, L.P.
CYGNET "4" FED. COM NO. 1
Section 4, T-22-S, R-32-E
Lea County, New Mexico

1. Drill a 17-1/2" hole to approximately 650'.
2. Run 13-3/8" 48.0 ppf H-40 ST&C casing. Cement with 650 sx Class "C" cement containing 2% CaCl₂. 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 4800'.
6. Run 9-5/8" 40.0 ppf K-55 ST&C casing. Cement with 1800 sx Cl "C" Lite containing 12 pps salt and 1/4 pps celloflake followed by 500 sx Class "C" with 2% CaCl₂. 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 5000 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 ±12000'. Run logs.
11. Run 5800' of 7" 26.0 ppf S-95 LT&C followed by 6200' of 7" 26.0 ppf P-110 LT&C casing set @ ±12000'. Cement with 1600 sx of Cl "H" 50/50 POZ mix with 6 pps salt & 0.3% Halad 322. 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'. We request a variance waiver to the BLM requirement to tie the cement back to the intermediate casing. We think it is wise not to have a stage collar in the 7" casing string and we consider it prudent to have a possible pressure relief, should the 7" casing rupture, in a zone other than the Potash Section. should the Delaware prove productive, remedial cementing will be required. ^{SSD}
12. Nipple down BOP. Set slips. Cut off casing. Nipple up 10000 psi BOP Stack. Test to 10000 psi.
13. Test casing to 5000 psi.
14. Drill 6-1/8" hole to 15200'. Log. Run and cement 4-1/2" 13.50 ppf S-95 LT&C liner from 11700'-15200'. Cement with 500 sx Cl "H" containing 0.6% Halad 22-A, 0.4% CFR-2, 0.6% Gas Stop, and 5 pps KCL. Lay down setting tool and RIH with a 6-1/8" bit to dress off the liner top. Perform negative test on liner top. If everything is secure, ND BOP and NU tree. Release drilling rig.

* No variance is needed. The "tie-back" requirement is only for the R-III-P area. However,

EXHIBIT C
DRILLING FLUID PROGRAM
SANTA FE ENERGY OPERATING PARTNERS, L.P.
CYGNET "4" FED COM NO. 1
Section 4, T-22-S,R-32-E
Lea County, New Mexico

0-650'

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, Vis-40.

650'-4800'

Drill out with brine water circulating the inner portion of the reserve pit. Utilize ground paper mixed in prehydrated fresh gel to sweep the hole. MW-10.0 ppg, Vis-28.

4800'-12000'

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.

12000'- 15200'

Drill out with brine containing MF-55, circulating the steel pits. At 13000' mud up existing brine with XCD polymer/Drispac Plus mud system to an initial mud weight of 11.6 ppg with a 38-40 VIS. Add barite as required to control formation pressures.

EXHIBIT D
AUXILIARY EQUIPMENT
Santa Fe Energy Operating Partners, L.P
Cygnat "4" Fed Com No 1
Section 4, T-22-S, R-32-E
Lea County, New Mexico

DRAWWORKS	National 80-B
ENGINES	National 3 Section Compound W/ 3 Caterpillar D379 diesel engines
ROTARY	27-1/3" 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

MULTI-POINT SURFACE USE AND OPERATIONS PLAN

SANTA FE ENERGY OPERATING PARTNERS, L.P.

CYGNET "4" FED COM NO. 1

SECTION 4, T-22-S,R-32-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 in 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 the location of the proposed wellsite and roads in the vicinity. The proposed location is situated approximately 24 miles northeast of Loving, New Mexico.

DIRECTIONS:

1. From the intersection of State Hwy 128 & hwy 31, go east 17 miles and turn north on a blacktop road, go north 7.2 miles and turn right on a lease road, continue northeasterly for ±4 miles to a SFEOP well in the SE/4 of section 9 T-22-S,R-32-E.

2. PLANNED ACCESS ROAD.

- A. Upgrade existing two track road from the SE/4 Sec 9, T-22, S, R-32-E north into the SE/4 of sec 4 T-22-S, R-32-E.
- B. Build new road north ±1500' from two track road to location.

3. LOCATION OF EXISTING WELLS.

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

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES.

- A. There are no producing oil or gas well 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. If the well is productive of oil, a gas or diesel self-contained unit will be used supply to the necessary power.

MULTI-POINT SURFACE USE AND OPERATIONS PLAN

CYGNET "4" FED COM NO. 1

Page 2

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 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

- A. 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.

Multi-Point Surface Use and Operations Plan

CYGNET "4" FED COM NO. 1

Page 3

- B. The ground surface of the location is located among several sand dunes with sparse vegetation growing on them. The location will be constructed by leveling the necessary dunes and covering the sand 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 an 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 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.

Multi-Point Surface Use and Operations Plan
CYGNET "4" FED COM NO. 1
Page 4

12. OPERATOR'S REPRESENTATIVES

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

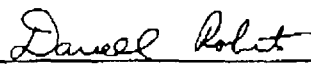
Michael R. Burton
Division Operations Manager
Santa Fe Energy Operating
Partners, L.P.
550 W. Texas, Suite 1330
Midland, Texas 79701
915-687-3551 - office
915-699-1260 - home
915-523-1474 - cellular

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

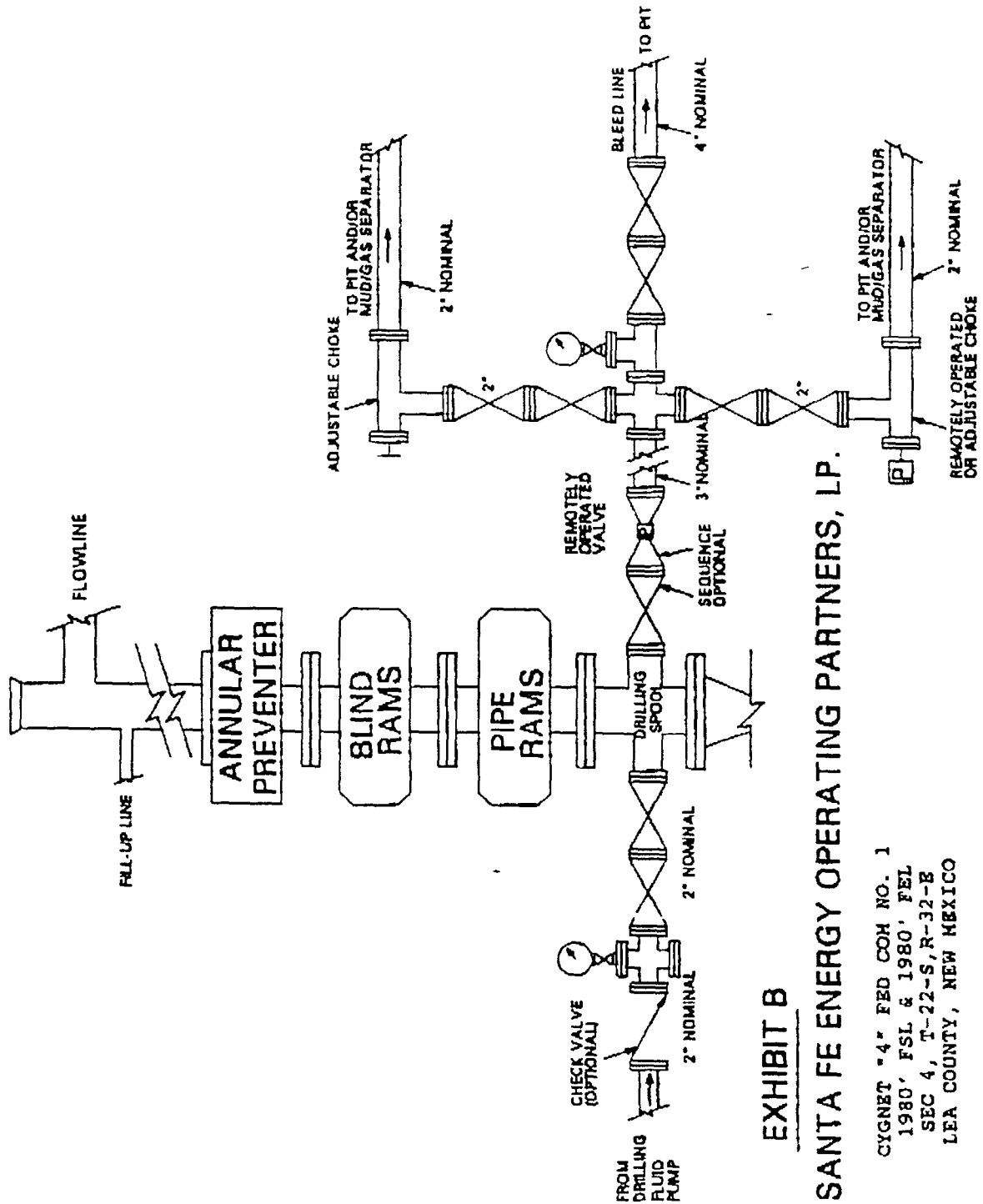
I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated 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.

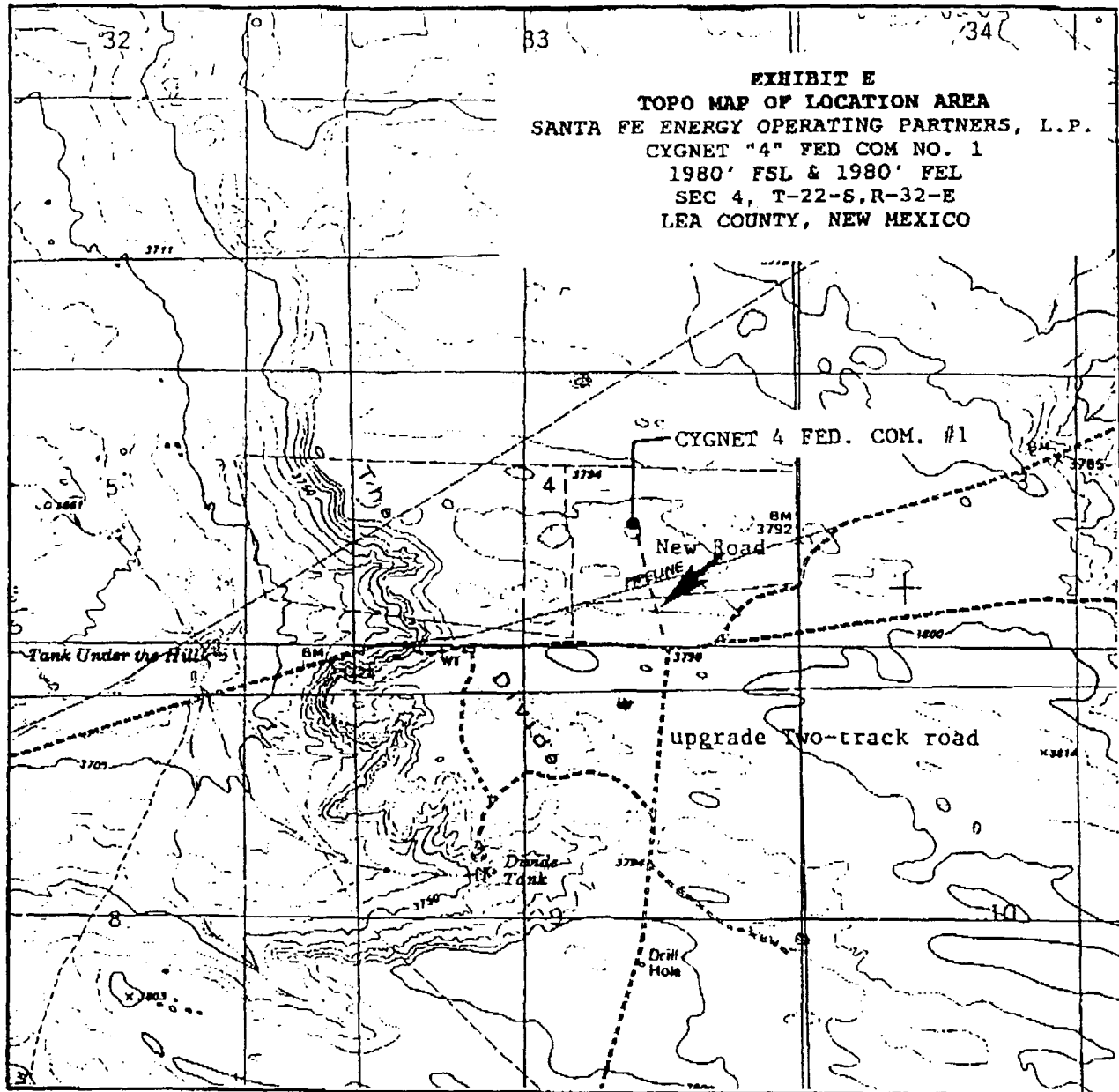
SIGNED this 25th day of February, 1994.



Darrell Roberts
Senior Drilling Engineer

PROPOSED 5-M BOPE AND CHOKE ARRANGEMENT





SCALE: 1" = 2000'

CONTOUR INTERVAL 10'

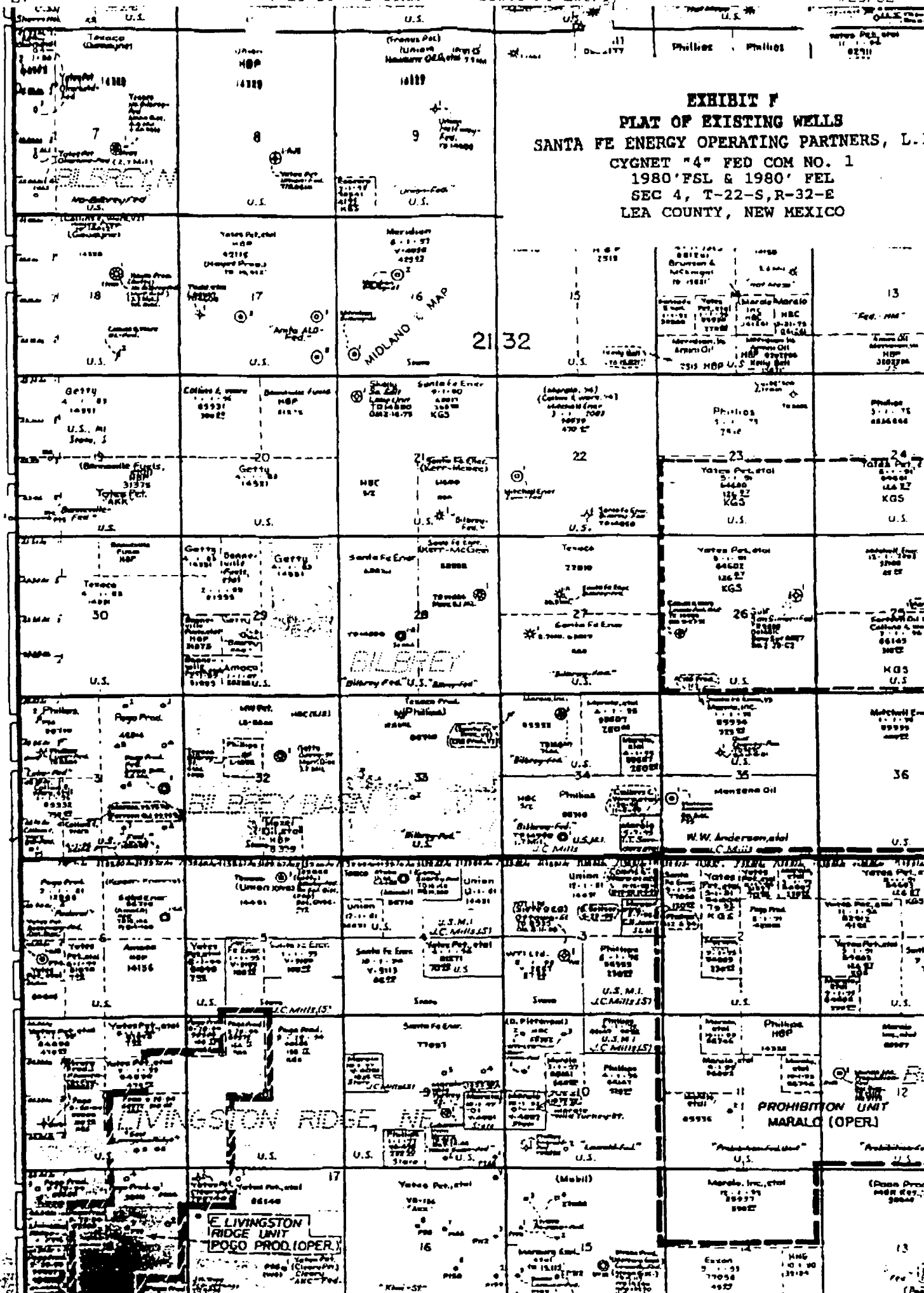
SEC. 4 TWP. 22S RGE. 32ESURVEY N.M.P.M.COUNTY LEA STATE N.M.DESCRIPTION 1980' FSL & 1980' FELELEVATION 3792'OPERATOR SANTA FE OPERATING PARTNERS, L.P.LEASE CYGNET 4 FED. COM. #1

U.S.G.S. TOPOGRAPHIC MAP

THE DIVIDE, N.M.

JOHN WEST ENGINEERING
HOBBS, NEW MEXICO
(505) 393-3117

EXHIBIT F
PLAT OF EXISTING WELLS
SANTA FE ENERGY OPERATING PARTNERS, L.P.
 CYGNET "4" FED COM NO. 1
 1980' FSL & 1980' FEL
 SEC 4, T-22-S, R-32-E
 LEA COUNTY, NEW MEXICO

T
21
S

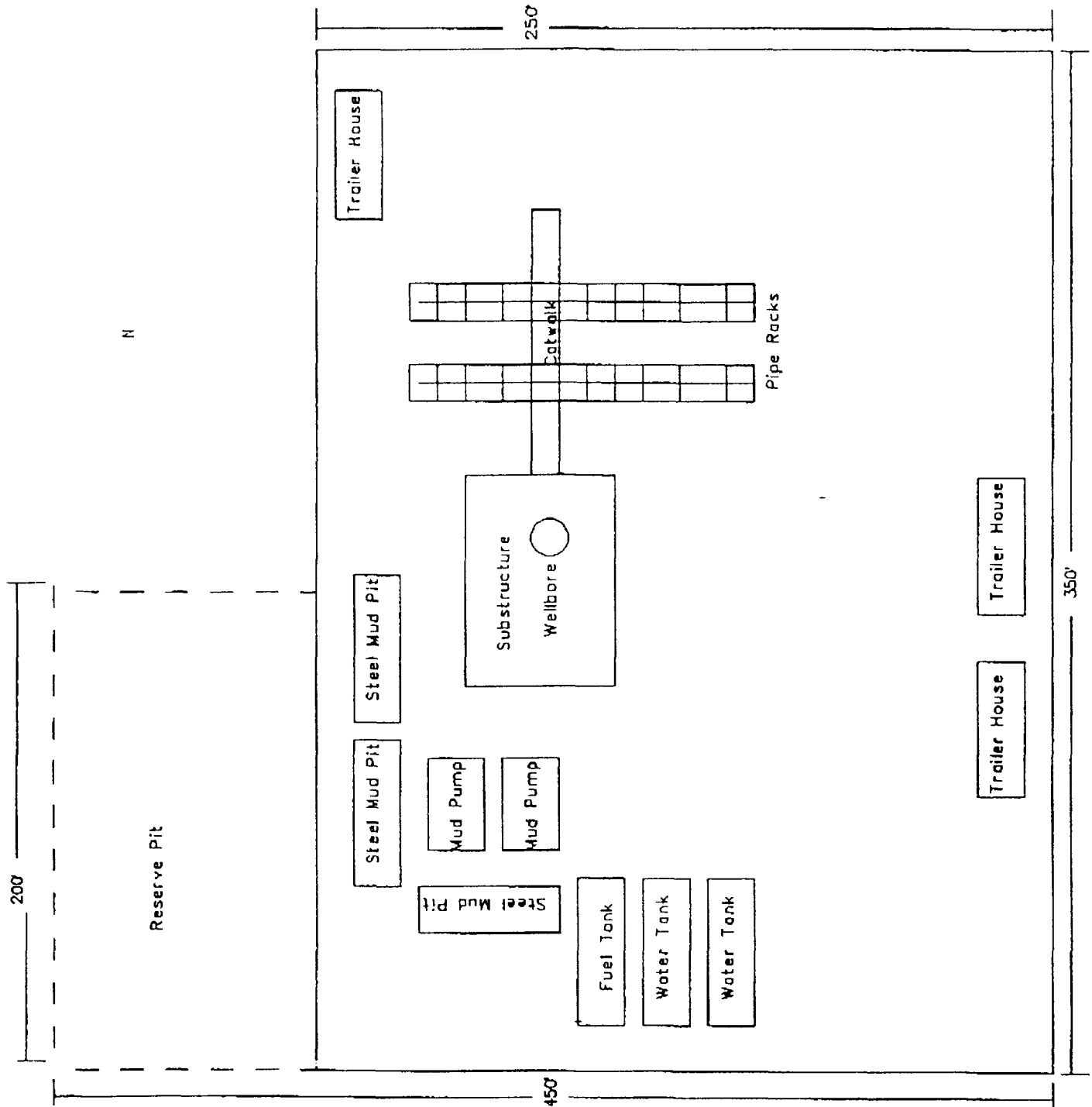


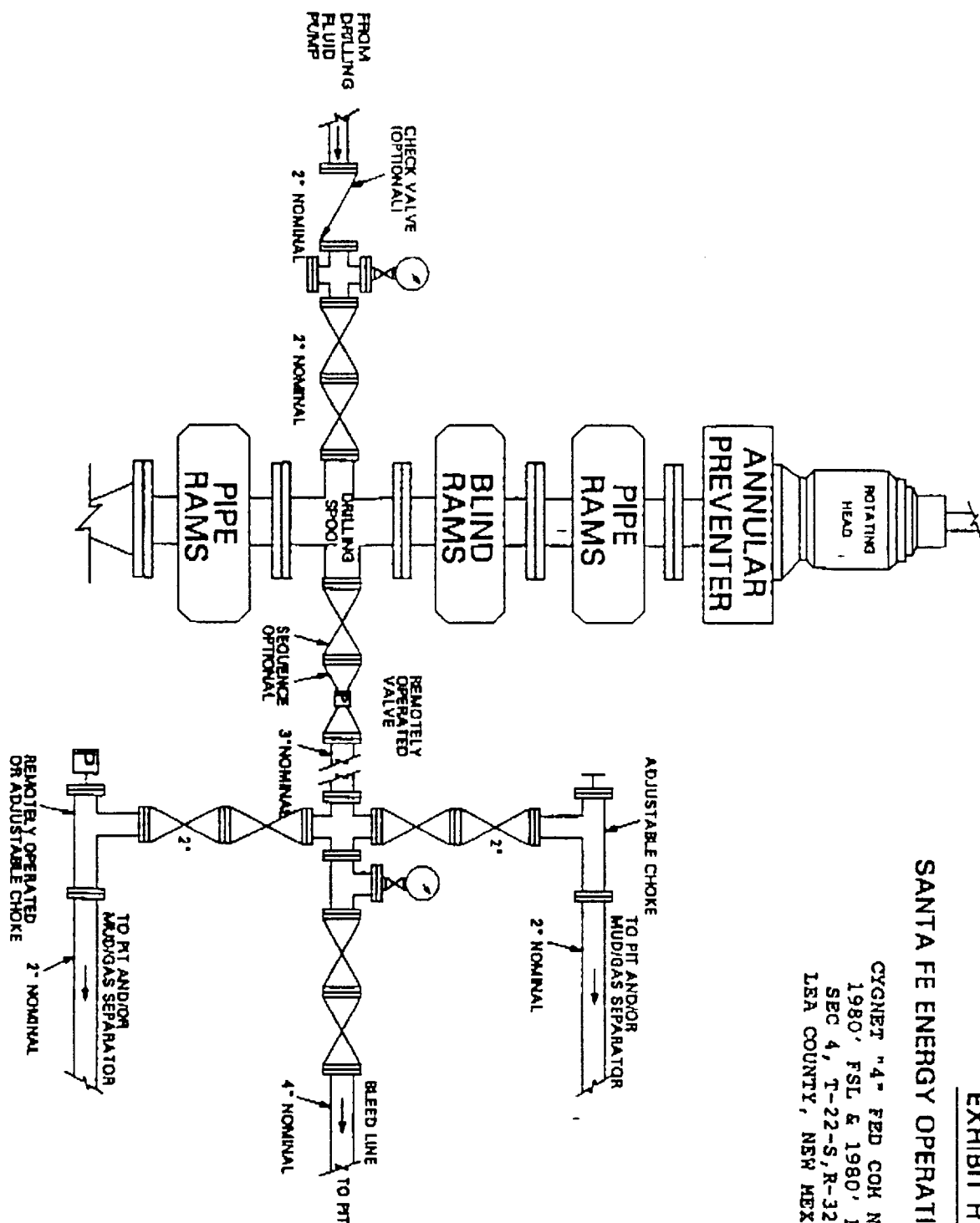
EXHIBIT G
 WELL SITE LAYOUT
 SANTA FE ENERGY OPERATING PARTNERS, L.P.
 CYGNET "4" FED COM NO. 1
 SEC 4, T-22-S,R-32-E
 LEA COUNTY, NEW MEXICO

PROPOSED 10-M BOPE AND CHOKE ARRANGEMENT

EXHIBIT H

SANTA FE ENERGY OPERATING PARTNERS, L.P.

CYGNET "4" FED COH NO. 1
1980' FSL & 1980' FEL
SEC 4, T-22-S, R-32-E
LEA COUNTY, NEW MEXICO



OPERATOR'S COPYForm 3160-5
(June 1990)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED

Budget Bureau No. 1004-0135

Expires: March 31, 1993

Lease Designation and Serial No.

NM-81271

6. If Indian, Allottee or Tribe Name

SUNDRY NOTICES AND REPORTS ON WELLSDo not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals**SUBMIT IN TRIPLICATE**

7. If Unit or C.A. Agreement Designation

Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

Santa Fe Energy Operating Partners, L.P.

3. Address and Telephone No.

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

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

(J), 2310' FSL & 1800' FEL, Sec.4, T-22S, R-32E, Lea Co., N.M.

8. Well Name and No.

Cygnet "4" Fed. Com.

9. API Well No.

1

10. Field and Pool, or Exploratory Area

Bilbrey, (Morrow)

11. County or Parish, State

Lea County, New Mexico

12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☒
- Notice of Intent
-
- ☐
- Subsequent Report
-
- ☐
- Final Abandonment Notice

TYPE OF ACTION

- ☐
- Abandonment
-
- ☐
- Recompletion
-
- ☐
- Plugging Back
-
- ☐
- Casing Repair
-
- ☐
- Altering Casing
-
- ☐
- Other

- ☒
- Change of Plans
-
- ☐
- New Construction
-
- ☐
- Non-Routine Fracturing
-
- ☐
- Water Shut-Off
-
- ☐
- Conversion to Injection
-
- ☐
- Dispose Water

(Note: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

1. Santa Fe Energy Operating Partners, L.P. desires to move the proposed location from 1980' FS & EL to 2310' FSL & 1800' FEL to avoid raptor's nest and a buffalo wallow, as requested by Kathleen Boravek.
2. We are agreeable to delay drilling the proposed well until the middle of July, to avoid possibly disturbing the raptor's nesting activity, as long as the federal lease is suspended past the primary term.
3. We are also submitting a revised Exhibit H, Proposed 10-M BOPE and Choke Arrangement. The revisions were made to conform more closely with Onshore Oil and Gas Order No.2. As you will notice the choke manifold configuration and the BOP Stack ratings do not exactly conform to the specifications of Order No.2. Santa Fe Energy Operating Partners, L.P. requests a variance to the subject specifications, with the understanding that any problem with well control will be, as always, the sole responsibility of the Operator, Santa Fe Energy. It is our opinion that our approach to well control is prudent, safe, and field practical; therefore we respectfully request the variance.
4. Based on recent offset well information, a bottomhole pressure of 8860 psi. is expected to be encountered.

14. I hereby certify that the foregoing is true and correct

Signed Daniel PolutoTitle Division Drilling EngineerDate April 24, 1994

(This space for Federal or State office use)

Approved by [Signature]
Conditions of approval if any:Title State DirectorDate 6/23/94

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.

*See instruction on Reverse Side

SENT BY:

7-25-94 : 9:53AM : Santa Fe Energy -

#29/32

DISTRICT I

P.O. Box 1080, Hobbs, NM 88240

DISTRICT II

P.O. Drawer DD, Artesia, NM 88210

DISTRICT III

1000 Rio Grande Rd., Aztec, NM 87410

State of New Mexico

Energy, Minerals and Natural Resources Department

Form C-102

Revised February 10, 1994

Instruction on back
Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT**WELL LOCATION AND ACREAGE DEDICATION PLAT**

API Number	Pool Code	Pool Name
		Bilbrey (Morrow)
Property Code	Property Name	Well Number
	CYGNET 4 FEDERAL COM.	1
OGZED No.	Operator Name	Elevation
	SANTA FE ENERGY OPERATING PARTNERS, LP	3792'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	4	22 S	32 E		2310	SOUTH	1800	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320			Communitization is planned

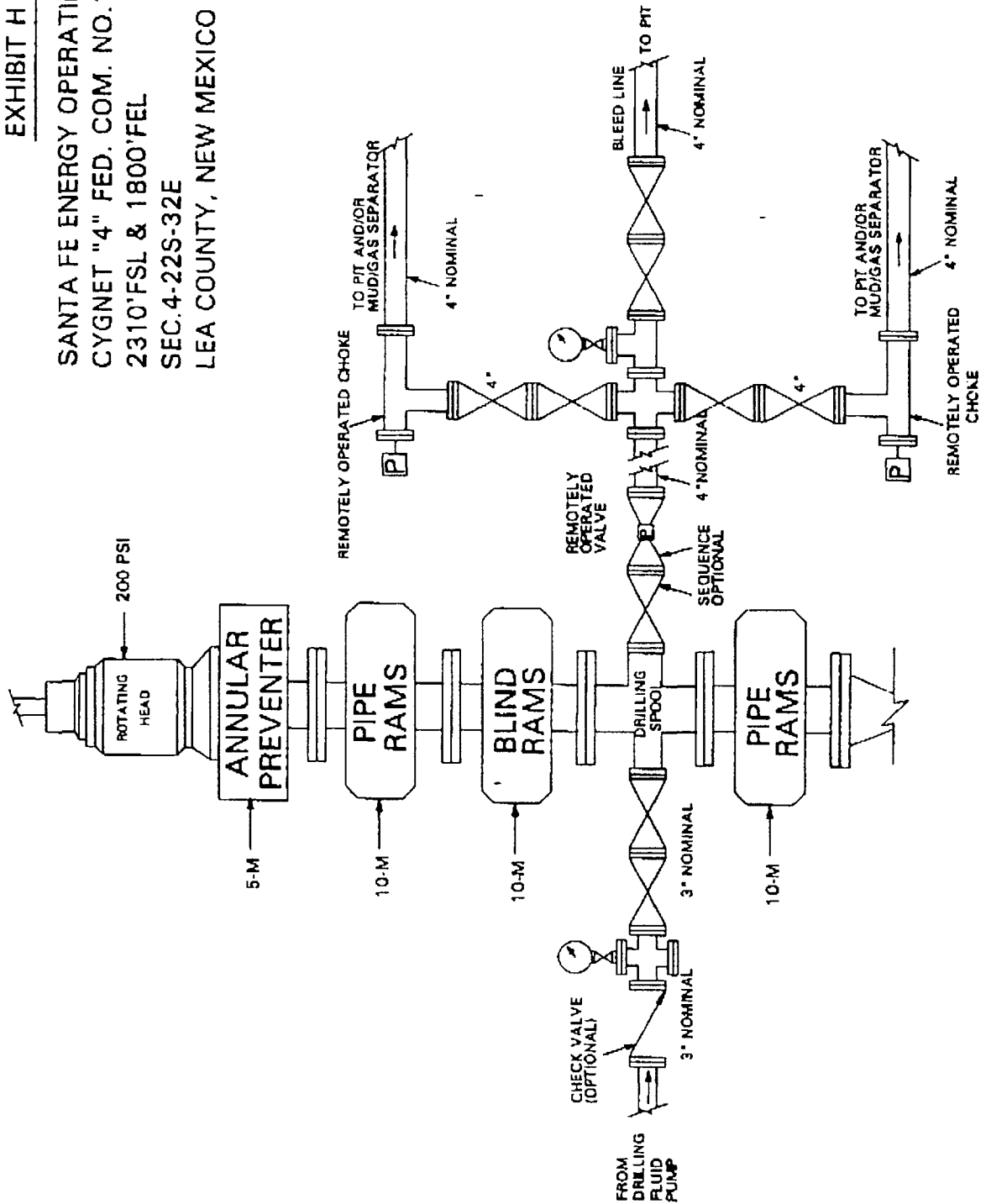
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

LOT 4 39.68 AC	LOT 3 39.76 AC	LOT 2 39.82 AC	LOT 1 39.89 AC
OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. <u>Darrell Roberts</u> Signature Darrell Roberts Printed Name Division Drilling Engineer Title April 24, 1994 Date			
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. GARY L. JONES March 21, 1994 Date Surveyed Signature & Seal of Professional Surveyor W.O. NUM 94-11-0524 Certificate No. JOHN W. WEST, 578 RONALD J. EIDSON, 3239 GARY L. JONES, 7977			

PROPOSED 10-M BOPE AND CHOKE ARRANGEMENT

EXHIBIT H

SANTA FE ENERGY OPERATING PARTNERS, L.P.
 CYGNET "4" FED. COM. NO. 1
 2310' FSL & 1800' FEL
 SEC. 4-22S-32E
 LEA COUNTY, NEW MEXICO



Santa Fe Energy Operating Partners, L.P.

Santa Fe Pacific Exploration Company
Managing General Partner

June 15, 1994

United States Department of the Interior
Bureau of Land Management
New Mexico State Land Office
P. O. Box 27115
Santa Fe, New Mexico 87502-0115

Attention: Steve Salsman

RE: APD - Cygnet "4" Fed. Com. No.1
Lease No. NMNM-81271
NW¼SE¼ Sec. 4,T-22S, R-32E
Lea County, New Mexico

Dear Steve:

Per our telephone conversation, I am enclosing data from two wells in the adjacent section offsetting the proposed well. The two wells are operated by Texaco and Santa Fe Energy has a working interest in both wells. The Bilbrey "33" Fed. No. 1 is located at 660' FNL & 1980' FWL, Sec. 33-21S-32E and was drilled in 1990. The more recent well is the Bilbrey "33" Fed. No.2 located at 1980' FSL & 2310' FWL, Sec. 33-21S-32E. This well was drilled at first of this year and I previously faxed you the drilling report from this well on May 27.

I am enclosing this data in an effort to convince you that granting the variance concerning the BOP Stack configuration, we requested on April 24, is prudent and justified. I have enclosed copies of the Bottomhole Pressure Buildup from the Bilbrey "33" Fed. No.1 dated June 5, 1990; the 4-point test for the Bilbrey "33" Fed. No.2 (Form C-122); and a gas column pressure table I used to calculate the BHP in the Bilbrey No.2.

First of all I would like to illustrate how I calculated the bottomhole pressure of 8860 psi. listed on the previous Sundry Notice. Based on a midpoint of the perforated interval of the well (14,440') and the mud weight at which the well was logged and a liner set (11.8 ppg). I calculated the BHP as being 8860 psi. by the following formula, $0.052 \times 11.8 \times 14,440' = 8,860$ psi. from the hydrostatic head of the drilling fluid in the hole.

The BHP build-up from the #1 well shows that after being shut-in for approximately 8 days the BHP at a depth of 14,270' was 5,402 psi. The 4-point test from the Bilbrey "33" Fed. No.2 shows that being shut-in for 48 hours the tubing pressure was 4100 psi. It is my understanding that one of the less obvious reasons for shutting in a well for a long period of time prior to testing is to allow the surface pressure to build up and force the wellbore fluids back into the formation. This would yield a column of gas in the wellbore prior to the test to determine the well deliverability and bottomhole pressure. Based on the attached table the bottom hole pressure at a depth of 14,440', a gas gravity of 0.60 and a surface pressure of 4,100 psi would yield the following, $4100 \text{ psi. } (1 + 0.3495) = 5532.95 \text{ psi.}$ A gas gradient of 0.0992 psi/ft.

Based on the above data a 5-M BOP stack is all that is warranted to drill wells in this immediate area. We still plan to utilize a 10-M BOP stack but would like the variance granted to allow the use of a 5-M annular BOP as illustrated in our Sundry Notice dated April 24, 1994. For the reasons stated previously, we contend that our approach to well control is prudent, safe, and field practical. This identical approach was approved a couple of months ago by the BLM on a Bass Enterprises Morrow well in the Poker Lake Area. Bass Enterprises assumed all responsibility for potential well control problems (as we have) and their APD was approved.

Central Division
550 W. Texas, Suite 1330
Midland, Texas 79701
915/687-3351

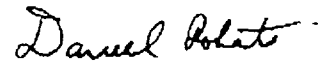
Cygnat "4" Federal No.1
BOP Variance
Page 2

It is my opinion that this request is not unwarranted and this configuration of BOP and Choke Manifold has been utilized in this area to successfully drill wells in this area and the rigs in the area have the equipment readily available at no extra cost. We should not be forced to adhere to rules drawn up to address an isolated well control problem in Rocky Mountain area where the pressures and potential problems are different set of circumstances.

This information is respectfully submitted in hopes that we will be granted the variance to the Onshore Order No.2

Sincerely,

-



Darrell Roberts
Division Drilling Engineer

cygnat.ltr

XC: Shannon Shaw - BLM - Carlsbad Area Office

Enclosures

-

WTI 1993, LTD.
4714 Valley Ridge Court
Ft. Collins, Colorado 80526

(SW $\frac{1}{4}$ § 3)

Cal-Mon Oil Company
Post Office Box 2066
Midland, Texas 79702

(SW $\frac{1}{4}$ § 3)

Commissioner of Public Lands
310 Old Santa Fe Trail
Santa Fe, New Mexico 87501

(SW $\frac{1}{4}$ § 3)

Union Oil Company of California
Post Office Box 3100
Midland, Texas 79702

(NW $\frac{1}{4}$ § 3, N $\frac{1}{2}$ § 4,
NE $\frac{1}{4}$ § 5)

Phillips Petroleum Company
4001 Penbrook, Suite 401
Odessa, Texas 79767

(N $\frac{1}{2}$ § 4)

Pogo Producing Company
Post Office Box 10340
Midland, Texas 79702

(E $\frac{1}{2}$ § 8)

David Pietenpol
4714 Valley Ridge Court
Ft. Collins, Colorado 80526

(NW $\frac{1}{4}$ § 10)

Maralo Inc.
Post Office Box 832
Midland, Texas 79702

(NW $\frac{1}{4}$ § 10)

Marbob Energy Corporation
Box 217
Artesia, New Mexico 88210

(E $\frac{1}{2}$ § 8)

Texaco Exploration and Production Inc.
Post Office Box 730
Hobbs, New Mexico 88240

(N $\frac{1}{2}$ § 4)

Santa Fe Energy Operating
Partners, L.P.
Suite 1330, 550 West Texas
Midland, Texas 79701

(N $\frac{1}{2}$ § 9)



Santa Fe Energy Operating Partners, L.P.

Santa Fe Pacific Exploration Company
Managing General Partner

July 19, 1994

Mr. Michael E. Stogner
New Mexico Oil Conservation Division
State Land Office
P. O. Box 2088
Santa Fe, New Mexico 87501

RE: Unorthodox Location
Cygnet "4" Federal Com. No.1
NMNM-81271
2310' FSL & 1800' FEL, Sec.4-22S-32E
Lea County, New Mexico

Dear Mr. Stogner:

In regard to our application for administrative approval of the captioned unorthodox location, the following is a summary of the sequence of events that require us to drill at this location.

- February 2, 1994, John West Engineering staked the well at our preferred location of 1980' FSL & 1980' FEL of Section 4, T-22S, R-32E, Lea County, New Mexico.
- February 25, 1994, Santa Fe Energy Operating Partners, L.P. submitted our APD for the captioned well to the BLM in Carlsbad, N.M.
- March 17, 1994, I received a phone call from Kathleen Boravek, Resource Specialist with the BLM, requesting that the location of the proposed well be moved. Upon performing an onsite inspection of our proposed location, she determined that our location was too close to a Playa / Buffalo Wallow and in addition there was a raptors nest in one of the mesquite trees surrounding the Playa. Since playas are related to Cave & Karst Activity, she requested that we move our proposed location north and east to 2310' FSL & 1800' FEL in order to avoid the playa. We also agreed to delay construction activity until after July 15, 1994 to avoid disturbing the raptors.
- March 21, 1994, John West Engineering staked the well at 2310' FSL & 1800' FEL.
- April 24, 1994, Santa Fe Energy Operating Partners, L.P. submitted a Sundry Notice with a new C-102 specifying the unorthodox location as requested.
- June 23, 1994, New Mexico State Office of the Bureau of Land Management approved our APD.

Central Division
550 W. Texas, Suite 1330
Midland, Texas 79701
915/687-3531



Cygnets "4" Fed. Com. No.1
Unorthodox Location
Page 2

I trust this is sufficient data to support our request for an unorthodox location. If you should require further documentation, please do not hesitate to contact me at 915-686-6614.

Sincerely,



Darrell Roberts
Division Drilling Engineer

cygnets1.ltr

cc: Mr. Curtis Smith
(SFEOP Land Dept.)

Mr. James Bruce
Hinkle Law Firm
Santa Fe, New Mexico
FAX 505-982-8623

IN REPLY
REFER TO

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Roswell District Office
1717 West Second Street
Roswell, New Mexico 88201-2019

RECEIVED

MAR 29 1994

LAND DEPT.
MIDLAND, TX

3934 (06557)

MAR 25 1994

Santa Fe Energy Operating Partners. L.P.
550 West Texas, Suite 1330
Midland, TX 79701Re: Well No.1-Cygnat "4" Fed Com
Lease No. NMNM-81271
NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 4, T. 22 S., R. 32 E.
Lea County, New Mexico

Gentlemen:

Your letter dated February 28, 1994, and received on March 1, 1994, requested a suspension of operations for lease NMNM 81271, which is in its primary term and expires on March 31, 1994.

An Application for Permit to Drill (APD) for the referenced well was submitted on February 25, 1994, with the Bureau of Land Management, Carlsbad Resource Area office. The APD is currently being processed.

Because of unresolved surface resource conflicts encountered during the on-site inspection by our resource specialist, there will be a delay in processing the APD. Therefore, the APD cannot be processed prior to the expiration date of the referenced lease.

Accordingly, pursuant to the provisions of 43 CFR 3103.4-2, the request for suspension and production is hereby approved. The suspension is effective March 1, 1994, the first day of the month in which the request for suspension was filed.

The suspension of operations and production shall terminate:

- (a) On the first day of the month in which the operator is notified in writing that the APD is denied;
- (b) On the first day of the month in which actual operations are commenced after the APD has been approved; or
- (c) If operations are not commenced within thirty (30) days from the date the APD is approved, the suspension will terminate on the first day of the following month after the 30-day period.

When the suspension lifts, there will be thirty-one (31) days left on the primary term of the lease. Since this approval is for suspension of operations and production, all rental and/or royalties will be waived during the period of suspension.



2

Please contact Armando Lopez at (505)627-0248 if any additional information is required.

Sincerely,

A handwritten signature in cursive script that reads "Tony L. Ferguson".

Tony L. Ferguson
Assistant District Manager
Minerals

**ADMINISTRATIVE APPLICATION OF
SANTA FE ENERGY PERATING PARTNERS,
L.P. FOR AN UNORTHODOX GAS WELL
LOCATION, LEA COUNTY, NEW MEXICO**

STATE OF NEW MEXICO)
) ss.
COUNTY OF SANTA FE)

5. The notice provisions of Rule 104(f) have been complied with.

SUBSCRIBED AND SWORN To before me this 28th day of July, 1994, by James Bruce.

My Commission Expires:

12/16/97
ib.aff



HINKLE, COX, EATON, COFFIELD & HENSLEY

ATTORNEYS AT LAW

218 MONTEZUMA POST OFFICE BOX 2068
SANTA FE, NEW MEXICO 87504-2068
(505) 982-4554 FAX (505) 982-8623

PAUL W. EATON
CONRAD E. COFFIELD
HAROLD L. HENSLEY, JR.
STUART D. SHANOR
ERIC D. LANPHERE
C. D. MARTIN
ROBERT P. TINNIN, JR.
MARSHALL G. MARTIN
MASTON C. COURTNEY**
DON L. PATTERSON**
DOUGLAS L. LUNSFORD
NICHOLAS J. NOEDING
T. CALDER EZZELL, JR.
WILLIAM B. BURFORD*
RICHARD E. OLSON
RICHARD R. WILFONG*
THOMAS J. MCBRIDE
JAMES J. WECHSLER
NANCY S. CUSACK
JEFFREY L. FORNACIARI

JEFFREY D. HEWETT
JAMES BRUCE
JERRY F. SHACKELFORD*
JEFFREY W. HELLBERG*
WILLIAM F. COUNTISS**
ALBERT L. PITTS
THOMAS M. HNASKO
JOHN C. CHAMBERS*
GARY D. COMPTON*
W. H. BRIAN, JR.**
RUSSELL J. BAILEY**
CHARLES R. WATSON, JR.**
THOMAS D. HAINES, JR.
GREGORY J. NIBERT
MARK C. DOW
FRED W. SCHWENDIMANN
JAMES M. HUDSON
JEFFREY S. BAIRD*
THOMAS E. HOOD**
REBECCA NICHOLS JOHNSON

LEWIS C. COX, JR. (1924-1993)
CLARENCE E. HINKLE (1901-1985)

OF COUNSEL
O. M. CALHOUN* JOE W. WOOD
RICHARD L. CAZZELL** RAY W. RICHARDS**
L. A. WHITE**

AUSTIN AFFILIATION
HOFFMAN & STEPHENS, P.C.
KENNETH R. HOFFMAN*
TOM D. STEPHENS*
RONALD C. SCHULTZ, JR.*

WILLIAM P. JOHNSON
STANLEY K. KOTOVSKY, JR.
H. R. THOMAS
ELLEN S. CASEY
MARGARET CARTER LUDEWIG
S. BARRY PAISNER
COLEMAN YOUNG**
MARTIN MEYERS
WYATT L. BROOKS**
DAVID M. RUSSELL**
ANDREW J. CLOUTIER
STEPHANIE LANDRY
KIRT E. MOELLING**
DIANE FISHER
JULIE P. NEERKEN

WILLIAM P. SLATTERY

JAMES A. GILLESPIE
MARGARET R. MCNETT
LISA K. SMITH*
NORMAN D. EWART
DARREN T. GROCE*
MOLLY MCINTOSH
MARCIA B. LINCOLN
SCOTT A. SHUART*
PAUL G. NASON
CATHRYN MCCLANAHAN
R. "TREV" ARVIZU, III
AMY C. WRIGHT*

*NOT LICENSED IN NEW MEXICO
**FORMERLY COMPRISING THE FIRM OF
CULTON, MORGAN, BRITAIN & WHITE, P.C.

July 28, 1994

TO: PERSONS ON EXHIBIT 1:

Santa Fe Energy Operating Partners, L.P. has filed an application with the New Mexico Oil Conservation Division for administrative approval of an unorthodox gas well location for Santa Fe's proposed Cygnet 4 Fed. Com. No. 1 Well, located 2310 feet from the South line and 1800 feet from the East line of Section 4, Township 22 South, Range 32 East, Lea County, New Mexico. The well will be drilled to test the Morrow formation, and the S $\frac{1}{2}$ of Section 4 will be dedicated to the Well. If you have any objection to the granting of the unorthodox well location, please notify Michael E. Stogner at the Oil Conservation Division, Post Office Box 2088, Santa Fe, New Mexico, 87504 within fifteen days of receipt of this letter.

Very truly yours,

HINKLE, COX, EATON, COFFIELD
& HENSLEY


James Bruce

Attorneys for Santa Fe Energy
Operating Partners, L.P.

JGB/sp

persons.ltr

EXHIBIT 1

WTI 1993, LTD.
4714 Valley Ridge Court
Ft. Collins, Colorado 80526

Cal-Mon Oil Company
Post Office Box 2066
Midland, Texas 79702

Commissioner of Public Lands
310 Old Santa Fe Trail
Santa Fe, New Mexico 87501

Union Oil Company of California
Post Office Box 3100
Midland, Texas 79702

Phillips Petroleum Company
4001 Penbrook, Suite 401
Odessa, Texas 79767

Pogo Producing Company
Post Office Box 10340
Midland, Texas 79702

David Pietenpol
4714 Valley Ridge Court
Ft. Collins, Colorado 80526

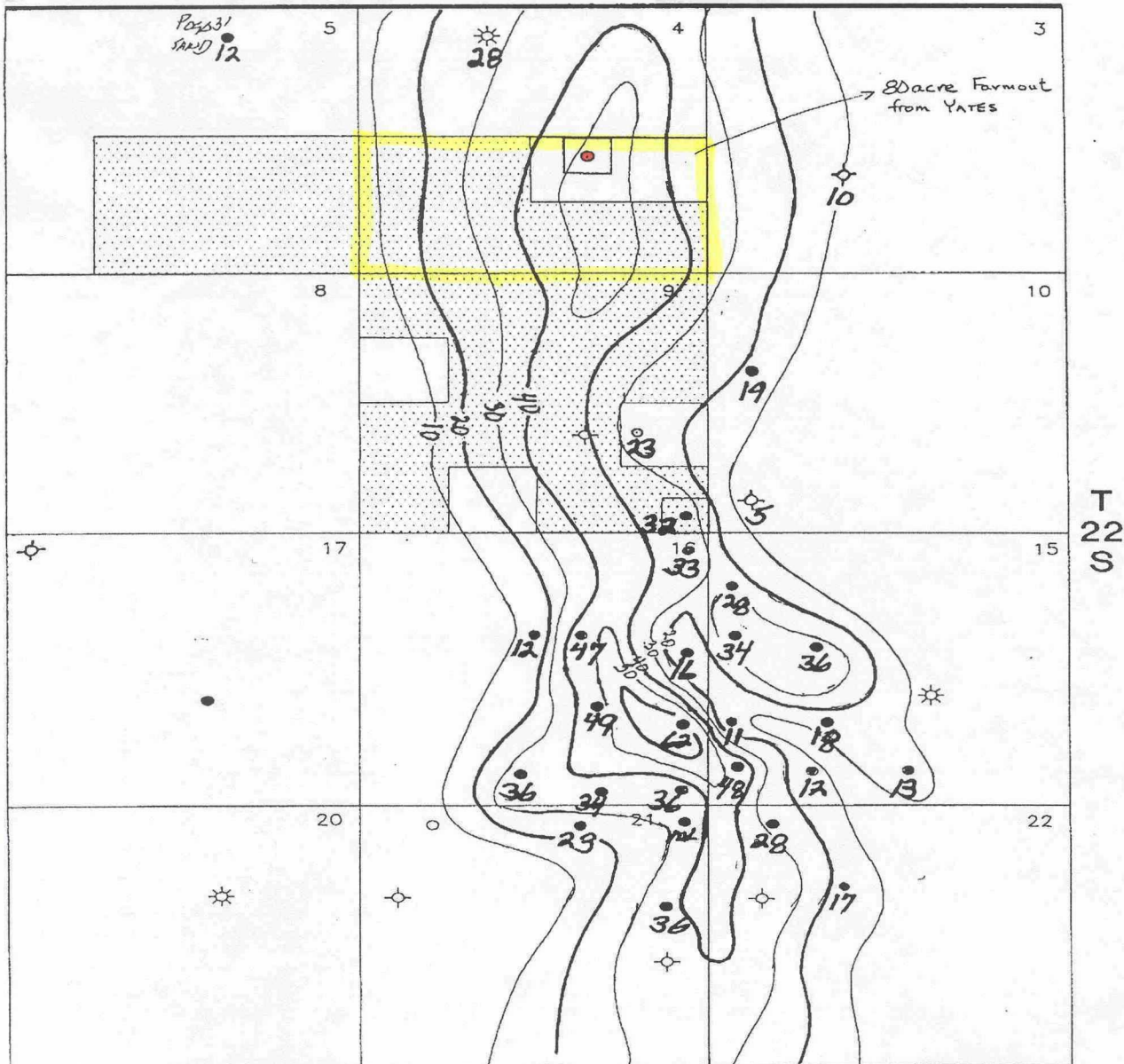
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Post Office Box 832
Midland, Texas 79702


Marbob Energy Corporation
Box 217
Artesia, New Mexico 88210


Texaco Exploration and Production Inc.
Post Office Box 730
Hobbs, New Mexico 88240

address.lst

R 32 E



 SFEOP,LP ACREAGE

 PROPOSED LOCATION



Santa Fe Energy Operating Partners, LP.
CENTRAL DIVISION
MIDLAND, TEXAS

LEA SOUTH AREA
RAFTERS PROSPECT
LEA COUNTY, NEW MEXICO

Isopach - Gross Sands
Upper Brushy Canyon Zones
(Known Pay Zones Only)

Geol. By: David White
Scale: 1"=2000'

C.I.:
Date: 1-11-93

Name: RAFTERS

File: 34-F-2

Blumberg No. 5119

EXHIBIT

G