DRILLING PROGNOSIS

I. Well Identification:

Lease Name: Santa Fe Federal

Well No.: 1

Location: 660 FSL & 660 FWL Section 27

T-25-S, R-37-E

County: Lea

State: New Mexico

Elevations: 3012 G. L. (3022 RKB)

II. Drilling Objective:

Zone: Yates-Seven Rivers

Total Depth: 3300

Pool Name: Jalmat Gas Pool

Productive Interval: 2850-3150

III. Formation Tops:

Zone	Tops		Gross Interval Drilled	Probable Fluid Production
	Drilling Depth	Subsea Depth		
Rustler Anhydrite	820	+2202	100	
Salado Salt	920	+2102	1577	
Tansil	2497	+ 525	150	
Yates	2647	+ 375	333	Hydrocarbons
Seven Rivers	2980	+ 42	320	Hydrocarbons
TOTAL DEPTH	3300	- 278	3300	---

IV. Hole Size:

Hole	Bit Size	T.D.	Gross Interval
Conductor	15	40	40
Surface	12 1/4	800	760
Production	7 7/8	3300	2500

V. Casing Program:

A. Casing Design

String	Casing Size O.D.	Wt.	Grade	Threads	Amount	Cond.
Conductor	13 3/8	33	B	8 Rd	30	New
Surface	8 5/8	28	B	8 Rd	800	Used
Production	5 1/2	17.0	J-55	8 Rd	3300	New

B. Float Equipment:

Surface Casing: 8 5/8-inch guide-shoe and 8 5/8-inch insert float.

Production Casing: 5 1/2-inch guide-shoe and 5 1/2-inch float collar with automatic fill.

C. Centralizers:

Surface Casing: One centralizer at the float collar and one centralizer two joints above float collar.

Production Casing: Run a total of 8 centralizers. Place one centralizer at the guide shoe and one centralizer at the float collar with the remaining being placed 80 to 90 feet apart or every other joint.

D. Wellhead Equipment:

Larkin 8 5/8 x 5 1/2 Fig 92 Casinghead. Larkin 5 1/2 x 2 3/8 Type TH tubinghead complete with slips and bell nipple.

VI. Mud Program

A. Surface Hole:

Drill surface hole with a fresh water gel (approximately 8.5 lb/gal) while maintaining a high enough viscosity to adequately clean hole. Add paper as needed to control excess seepage.

Before drilling below surface pipe, jet cuttings out of working pit into reserve pit and then switch from circulating through working pit to circulating through reserve pit.

B. Production Hole:

Before entering salt section, switch mud system to a saturated salt system (10.1 lb/gal). At 2600, switch back out of reserve pit and back into working pit. Also at this point, start adding starch and brine gel to lower water loss and raise viscosity. The mud shall have a water loss of 10 cc/30 min and a viscosity of 34 to 36 sec. before

reaching 2750 (top of Yates pay).

In order to protect the drill string, sufficient lime shall be added to the mud to maintain a safe PH level.

VII. Cementing Program

A. Surface Pipe:

Cement surface pipe with approximately 500 sacks (or as required) of API Class-C cement containing 2% Calcium Chloride. Before resuming drilling operations, allow cement to set for a sufficient time to gain a 500-psi compressive strength (18 hours). Also before drilling plug, the pipe shall be tested to 700 psi for 30 minutes.

B. Production String:

Cement long string with approximately 350 sacks API Class-C cement containing 3% Halliburton Econolite mixed to a slurry weight of 11.3 lb/gal followed by 250 sacks of a 50-50 blend of Pozmix "A" and API Class-C cement containing 18% salt and 2% gel and having a slurry weight of 14.1 lb/gal. Pump 30 barrels of water ahead of the cement to help remove the mud filter cake.

Once top plug is bumped, pressure test casing to 1500 psi.

The total specified cement volume of 600 sacks provides for an

excess that should be sufficient to bring the cement top back to the surface. Before the cement job is actually performed, the required cement volume will be checked against the open hole caliper log to determine the actual amount of cement necessary to bring the cement back to the surface.

VIII. Formation Evaluation:

A. Drilling Rate:

1. The drilling rate shall be monitored with a geolograph from the surface to total depth.

2. As part of their farmout agreement, El Paso Natural Gas Company requires that the penetration rate be tabulated in 10-feet increments over the entire hole.

B. Well Cutting Samples:

One set of well cutting samples shall be gathered every 10 feet from the surface to total depth. Each sample is to be cleaned, bagged, and tagged and then grouped into bundles of ten samples per bundle with one bundle representing each 100-feet drilled.

After the drill cuttings have been reviewed by the wellsite geologist, they shall be delivered weekly to Midland Sample Cut, 704 S. Pecos Street, Midland, Texas.

If requested by the wellsite geologist, a second set of samples shall be gathered over the Yates and Seven Rivers interval.

C. Mud Logging: None

D. Drill-Stem Testing: None

E. Coring: None

F. Well Logging:

Open-Hole Logs

Log	Interval	
	2" = 100'	5" = 100'
CDL-Neutron-GR	T.D. - Surface	T.D. - 2400
Guard -Forxo	T.D. - 2400	T.D. - 2400

Cased-Hole Logs

Log	Interval	
	2" = 100'	5" = 100'
GRN-CCL	T.D. - 2400	T.D. - 2400

Log Distribution

Company	No. of Copies	
	Field Prints	Final Prings
Doyle Hartman 508 C & K Petroleum Building Midland, Texas 79701	5	5
United States Geological Survey P. O. Box 1157 Hobbs, New Mexico 88240	2	2

Company	No. of Copies	
	Field Prints	Final Prints
El Paso Natural Gas Company P. O. Box 1492 El Paso, Texas 79978 Attention: Land Department	2	4

Note: Logs shall be delivered to the above parties within 24 hrs. after becoming available.

IX. Blowout Preventer System:

A 10 3/4 2000-psi rotating head will be used while drilling the surface hole. Before drilling out from under the surface pipe, the well will be equipped with a 3000-psi 10-inch series 900 double-ram hydraulic preventer. The blowout preventer shall be used through the running of the production string.

Attached is a diagram of the required BOP system.

X. Hazardous Zones:

None anticipated.

XI. Duration of Operations:

The total elapsed time required for drilling and completing the subject well is expected to be thirty days.