KELLAHIN AND KELLAHIN
ATTORNEYS AT LAW
EL PATIO BUILDING
117 NORTH GUADALUPE
POST OFFICE BOX 2265
SANTA FE, NEW MEXICO 87504-2265

W. THOMAS KELLAHIN*
*NEW MEXICO BOARD OF LEGAL SPECIALIZATION RECOGNIZED SPECIALIST IN THE AREA OF NATURAL RESOURCES-OIL AND GAS LAW
JASON KELLAHIN (RETIRED 1991)

TELEPHONE (505) 982-4285
TELEFAX (505) 982-2047

October 4, 1994

Rec'd 10-4-94 OCD Santa Fe

VIA FACSIMILE AND HAND DELIVERED

Mr. Jim Morrow
Hearing Examiner
Oil Conservation Division
310 Old Santa Fe Trail
Santa Fe, New Mexico 87504

URGENT

Re: NMOCD Case 11077
Application of Santa Fe Operating Partners, L.P. for compulsory pooling, an unorthodox gas well location and directional drilling, Lea County, New Mexico

Dear Mr. Morrow:

On September 1, 1994, you heard the referenced case at which I expressed Mr. Walter Krug's concerns about the Santa Fe Operating Partners damaging the Yates formation from which Mr. Krug's offsetting wells produce.

On September 26, 1994, I received a copy of Santa Fe Operating Partners' proposed drilling plan for the referenced well which Mr. Darrell Roberts submitted to you in response to my request.

On behalf of Walter Krug dba Wallen Production Company, I wish to express his concern that:

(1) Based upon Mr. Krug's contour map, the Santa Fe well is in the "dead center" of the Yates sand and is close to and in line with Mr. Krug's water injection pattern for his proposed Yates sand waterflood project (See attachment "A");

(2) That the Santa Fe will set the 17-1/2" casing at 3300 feet, just above the top of the Yates pay in the Krug wells;

(3) That Santa Fe will then leave the Yates sand open to and exposed to mud contamination while it drills to 5,200 feet and then sets the 13-3/8" casing;

(4) That the Yates sand will be open to mud contamination for almost 2,000 feet;

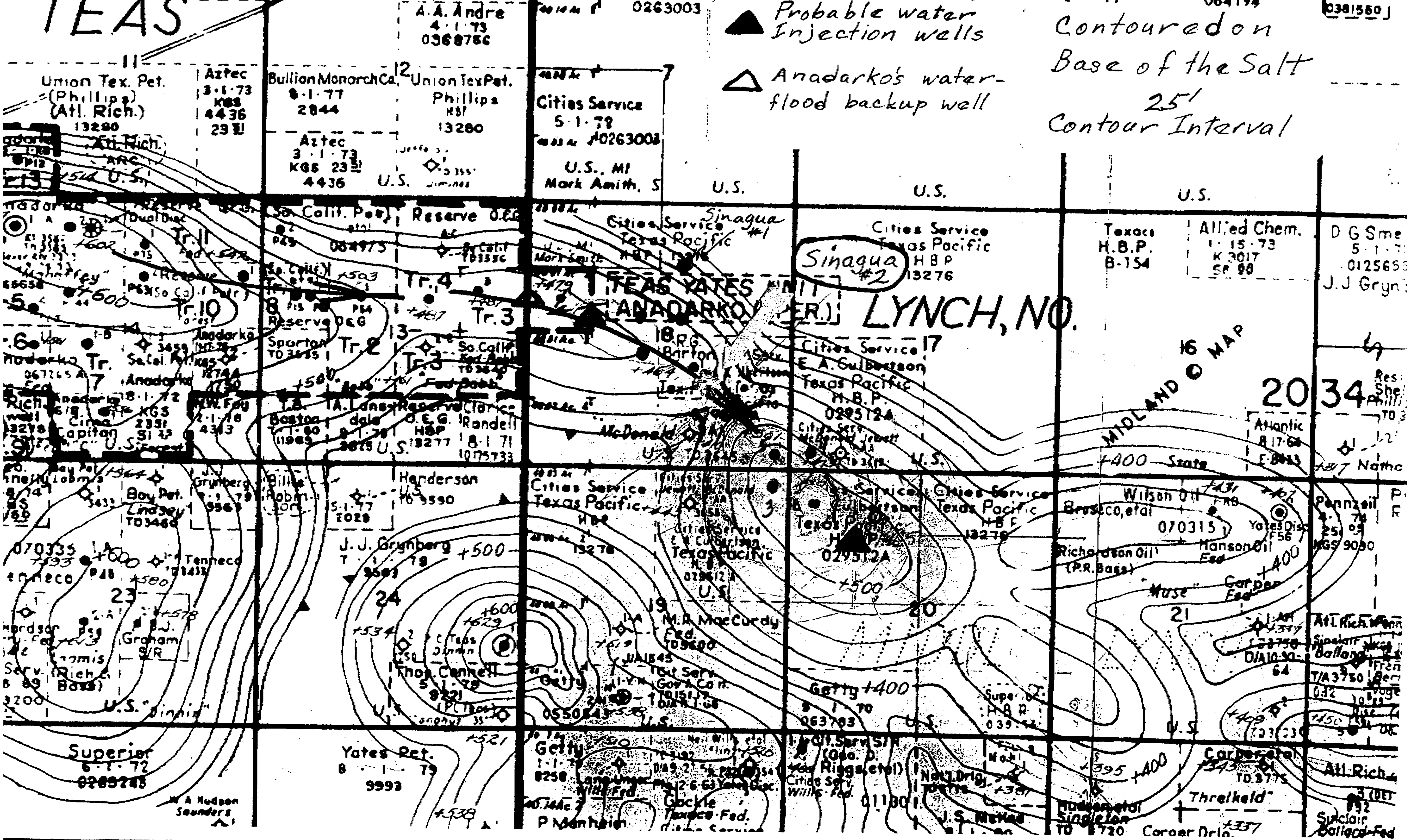
(5) That the water used for drilling this interval will be a fairly thick mud within about 15 minutes and they will put a large mud ball (because of hydrostatic head and surface pump pressure) right in the way of Krug's water flood pattern thereby substantially impairing his correlative rights and causing waste of recoverable hydrocarbons from the Yates sand.

While Mr. Krug prefers that Santa Fe not drill this well at this location, should you decide to approve the location, then Mr. Krug urges you to require Santa Fe to amend its drilling program to insure Mr. Krug's Yates production will be protected. It is our understand that Santa Fe Operating will commence the subject well on or before October 12, 1994 and therefore time is of the essence.

Very truly yours,

W. Thomas Kellahin

cc: VIA FACSIMILE: Jim Bruce, Esq.
Attorney for Santa Fe Operating Partners. LP
cc: VIA FACSIMILE:
Walter Krug



Probable water Injection wells
Anadarko's water-flood backup well
Contoured on Base of the Salt
25' Contour Interval
TEAS YATES UNIT ANADARKO (OPER.)
LYNCH, NO.
MIDLAND MAP
Sinagua #1
Sinagua #2
Union Tex. Pet. (Phillips) (Atl. Rich.) 13280
Aztec 3-1-73 KGS 4436 23 3/4
Bullion Monarch Co. 8-1-77 2844
Union Tex Pet. Phillips HBP 13280
Cities Service 5-1-78 0263003
A. A. Andre 4-1-73 0368756
U.S., MI Mark Amith, S
Cities Service Texas Pacific HBP 13276
Texaco H.B.P. B-154
Allied Chem. 1-15-73 K 3017
D G Sme
J.J Gryn
So. Calif. Pet.
Reserve O.&G.
Tr. 11
Tr. 10
Tr. 4
Tr. 3
Tr. 2
Tr. 7
Cities Service E. A. Culbertson Texas Pacific H.B.P. 029512A
Henderson
Cities Service Texas Pacific HBP 13276
J. J. Grynberg
M.R. MacCurdy Fed.
Superior 6-1-72
Yates Pet.
Getty
Wilson Oil
Richardson Oil (P.R. Bass)
Hanson Oil Fed
Atl. Rich.
Carper et al
Threlkeld
State
U.S.

Santa Fe Energy Operating Partners, L.P.

Santa Fe Pacific Exploration Company
Managing General Partner

September 22,1994

Mr. Jim Morrow
New Mexico Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87504-2066

Dear Mr. Morrow:

As part of the testimony for NMOCD Docket No.25-94, Case 11077, Application of Santa Fe Energy Operating Partners, L.P, for compulsory pooling, an unorthodox gas well location, and directional drilling, Lea County, New Mexico; Santa Fe Energy Operating Partners, L.P. agreed to supply the NMOCD and Wallen Production Co. with a detailed drilling plan for our Sinagua "18" Fed. Com. No.2. Attached is a copy of the subject drilling plan.

Should questions arise, please feel free to contact me at 915-686-6614.

915-499-5301

Sincerely,

Darrell Roberts

Darrell Roberts
Division Drilling Engineer

Additional Transmittals

Mr. James Bruce - Hinkle Law Firm - Santa Fe, NM
Mr. Jerry Sexton - NMOCD - Hobbs, NM
Mr. Walter Krug - Wallen Prod. Co. - Midland, TX
Mr. Tom Kellahin - Kellahin and Kellahin - Santa Fe, NM
Mr. Curtis Smith - SFEOP,LP - Midland, TX

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

SANTA FE ENERGY OPERATING PARTNERS,L.P.
DRILLING INFORMATION PACKAGE

Well Name: Sinagua "18" Fed. Com. No.2 **AFE:** J94046
ACTIVITY: W-4598–2

Surface Location: 2041' FSL & 2171' FEL, Section 18-20S-34E, Lea County, N.M.
Bottomhole Location: 1300' FSL & 1300' FEL, Section 18

Elevation: 3626' G.L.
?????' K.B.

Directions to location:

From Hobbs, N.M., traveling west on Hwy 62/180, go 26.0 miles between MM 77 & 76 and turn south on caliche County Road. Continue south on CR for approximately 2.2 miles, turn west and go 0.3 mile to the location..

Notification:

Governmental Agency	Drilling Operations - BLM – Hobbs	505-393-3612
	Surface Use - BLM - Hobbs	505-393-3612
County Sheriff:	911	
Ambulance:	911	

Santa Fe Energy Resources, Inc. - 915-687-3551/ 1-800-776-3551

PERSON	HOME	MOBILE	OFFICE	PAGER
Darrell Roberts	915-684-4130	915-553-1214	915-686-6614	915-499-5307
Mike Burton	915-699-1260	915-559-6842	915-686-6616	915-499-5304
Paul Baker	915-689-9611	915-559-3459	915-686-6701	
Mike White	918-426-5229	505-369-3085		800-405-5196
Dugan Douglas	915-694-7663	915-559-7496		915-499-5308

Formation Tops:

Rustler	1,480'
Top of Salt	1,630'
Base of Salt	3,130'
Yates	3,300'
Delaware	5,500'
Bone Spring	8,400'
Wolfcamp	10,500'
Strawn	12,280'
Atoka	12,500'
Morrow	12,900'
Lower Morrow	13,450'
Total Depth	13,800'

Operations Plan:

1. Move in and rig up rotary rig.

2. Drill 26" hole to ±450'.

3. Run 20" 94.0 ppf J-55 BT&C casing to TD. Install stab-in float collar on bottom for an inner string cement job. Thread lock bottom 2 joints. Fill casing with Brine water. Run centralizers placed on the top of joint Nos. 1, 3, 5, and 7. Cement with 550 sx Pacesetter Lite Cl C + 6% gel + 2% $CaCl_2$ and tail-in with 200 sx Cl "C" + 2% $CaCl_2$. Displace plug to float valve to circulate cement to surface. WOC 12 hrs prior to cutting off. .

4. Cut off casing and weld on rental 20" casinghead. NU an annular preventer BOP system or a rotating head. WOC 24 hrs prior to drilling out.Test casing to 600 psi.

5. Drill 17-1/2" hole to ±3300'. T.D. should be at least 100' below the base of the Salt.

6. Run 13-3/8" 68.0 ppf S-80 BT&C casing. Cement with an estimated 2400 sx Pacesetter "C" Lite (35:65:6) + 9 pps salt + 1/4 pps cello-flakes and 250 sx Class "C" + 2% $CaCl_2$ to circulate cement to surface. A fluid caliper should be run prior to reaching TD and the cement volumes adjusted to fluid caliper volume + 30% excess. Run guide shoe on bottom and float collar one joint above shoe. Apply thread lock to bottom two joints, float collar and shoe. Place 15 centralizers one on every third collar, starting with the shoe joint.

7. Wait on cement 12 hours prior to cutting off. Cut off 20" casinghead. Orange peel 20" casing back to 13-3/8" casing, weld on rental 13-3/8" casinghead. NU an annular preventer BOP system. Test casing to 600 psi. WOC 24 hours prior to drilling out. Rig up H_2S monitoring equipment (minimum compliance package) for the drilling of the Yates section.

8. Drill 12-1/4" hole to ±5200'. T.D. should be in a competent Dolomite.

9. Run 8-5/8" 32.0 ppf K-55 & S-80 ST&C casing. Cement with an estimated 600 sx Pacesetter "C" Lite (35:65:6) + 6 pps gilsonite + 1/4 pps cello-flakes and 400 sx Class "C" + 2% $CaCl_2$ to circulate cement at least 200' inside the 13-3/8" casing. Loss of circulation is probable in this section. A fluid caliper would be helpful to determine cement volumes. Run a guide shoe on bottom and a float collar two joints above shoe. Apply thread lock to bottom two joints, float collar and shoe. Place 18 centralizers one on every third collar, starting with the shoe joint.

10. Wait on cement 12 hours prior to cutting off. Cut off 13-3/8" casinghead. Orange peel 13-3/8" casing back to 8-5/8" casing, weld on 8-5/8" SOW X 11" 5M casinghead. Install 5000 psi. BOP stack, manifold and rotating head body. Test stack and manifold to 5000 psi. Test casing to 1500 psi. WOC 24 hours prior to drilling out. Release the H_2S monitoring equipment.

11. Install rotating head bearing assembly and have the mud/gas separator, hydraulic choke, and PVT & flow sensor equipment operational prior to drilling into the Wolfcamp at ±10,500'.

12. Drill 7-7/8" hole on footage basis to ±9,800'. Run Gyro Survey from TD back to the surface through the drill pipe. GIH w/ 7-7/8' insert bit, Slo Speed Dyna Drill, 1-1/2° Bent Sub, and Steering Tool. Directionally drill ±200' to a deviation of 5-6° at an azimuth of 130°. POH and GIH w/ a build assembly and build angle to approximately 20°. POH and GIH w/ a hold assembly and drill to intersect the target at a TVD of 13,800' (TMD of 14,016'.)

13. Run open hole logs.

14. Run 5-1/2", 4,016' 17.0 ppf S-95 LT&C and 10,000' 17.0 ppf N-80 LT&C. Cement in two stages with a stage collar at ±10,000'to bring cement to at least 200'inside the 8-5/8" casing. Volumes should be calculated from open hole caliper plus 20% excess. Cement 1st stage with Class "H" + 0.8% CF-14A + 5 % salt. Cement 2nd stage with Cl "H" + 8.0 pps CSE + 0.6% CF-14A + 3.0% salt + 1% Thrifty Lite.

15. ND BOP stack, install Tubing Head, and release rig

NOTES: (1) Fax in morning report to Central Division Office 915-686-6651 every morning by 7:30 a.m. CTD. Call in report to Darrell Roberts on Saturday and Sunday by 8:00 a.m. CDT.

(2) Have mud logger (2 man team) rigged up and logging prior to drilling below 4700'to help pick casing point.

(3) Run deviation surveys every 500'.

Casing Program:

SIZE	PPF	GRD	THRD	INTERVAL	LOCATION PRIOR TO SPUD
20"	94.0	J-55	BT&C	0 - 450'	Pipe Yard - Houston
13-3/8"	68.0	S-80	BT&C	0 - 3300'	Pipe Yard - Houston(HCK-55 Lone Star)
8-5/8"	32.0	K-55	ST&C	0 - 4500'	Pipe Yard - Houston
8-5/8"	32.0	K-55	ST&C	4500-5200'	Pipe Yard - Houston
5-1/2"	17.0	N-80	LT&C	0 - 10000'	Pipe Yard - Houston
5-1/2"	17.0	S-95	LT&C	10000-14016'	Pipe Yard - Houston

Call Houston Purchasing to have pipe delivered,1-800-733-9697, Andrew Lauden @ ext. 5415 or Connie Redwine @ ext. 5414.

Wellhead Equipment:

Casinghead: 8-5/8" SOW x 11" 5000 psi w/ new 5-1/2" casing slips
Spool: N/A

Tubinghead: 11" 5000 psi x 7-1/16" 5000 psi w/ extended neck tbg hanger and 5000 psi. tree.

Location prior to spud: ERC Industries, Inc. 915-550-0661

13-3/8" & 20" rental casingheads rented at no charge.

Cementing Program: Western Co. Telephone: 505-392-5556

Include weight, yield, water requirements, cement type, additives, total slurry volume, float equipment required, and cement company for all slurries on all strings.

Surface Casing:

20"
Circulate to surface.

Cement with 550 sx Pacesetter Lite Cl "C" + 6% Gel + 2% $CaCl_2$ mixed at 12.39 ppg, 2.00 ft^3/sk yield, and 10.96 GPS H_2O.Tail-in with 200 sx Class "C" + 2% $CaCl_2$ mixed at 14.82 ppg, 1.34 ft^3/sk yield, and 6.32 GPS H_2O Install stab-in float collar on bottom for an inner string cement job. Thread lock bottom 2 joints. Fill casing with Brine water for cement job. Run 4 centralizers.

1st Intermediate Casing:

13-3/8""
Run sufficient cement to circulate.

Lead Slurry - approximately 2400 sx Pacesetter"C" Lite (35:65:6) + 9 pps salt + 1/4 pps cello-flake. Mixed at 12.67 ppg, 2.03 ft^3/sk yield, 10.96 GPS H_2O.

Tail Slurry - 250 sx Class "C" + 2% $CaCl_2$. Mixed at 14.82 ppg, 1.34 ft^3/sk yield, 6.32 GPS H_2O.

The actual volume to be adjusted based on a fluid caliper + 30% excess. Run a guide shoe on bottom and float collar one joint above shoe. Thread lock bottom 2 joints, Run 15 centralizers.

2nd Intermediate Casing:

8-5/8"
Run sufficient cement to tie back at least 200' inside the 13-3/8".

Lead Slurry - approximately 600 sx Pacesetter "C" Lite (35:65:6) + 6 pps gilsonite + 1/4 pps cello-flakes. Mixed at 12.22 ppg, 2.08 ft^3/sk yield, 10.96 GPS H_2O.

Tail Slurry - 400 sx Class "C" + 2% $CaCl_2$. Mixed at 14.82 ppg, 1.34 ft^3/sk yield, 6.32 GPS H_2O.

The actual volume to be adjusted based on a fluid caliper + 30% excess, if it possible to run a fluid caliper, otherwise estimate volumes.
Run a guide shoe on bottom and float collar two joints above shoe. Thread lock bottom 2 joints. Run 18 centralizers.

Production Casing:

5-1/2"
TOC @ ±5000' with a stage collar @ ±10000'.

1st Stage:

Pre-flush - 500 gal Surebond.

Slurry - estimated 650 sx Class "H" + 0.8% CF-14A + 5 % salt mixed at 15.69 ppg, 1.19 ft^3/sk yield, 5.19 GPS H_2O.

2nd Stage:

Pre-flush - 500 gal Surebond.

Slurry - estimated 650 sx Cl "H" + 8.0 pps CSE + 0.6% CF-14A + 3.0% salt + 1% Thrifty Lite mixed at 13.61 ppg, 1.79 ft^3/sk yield, 9.14 GPS H_2O.

The above to be calculated based on open hole caliper + 20% excess (all slurries must be lab tested prior to pumping). Circulate 6 hrs between stages. Sand blast casing over pay zones. Run a float shoe and float collar two joints above the shoe. Run centralizers on every other joint over potential pay zones. Include depth orientation markers or short joints above potential pay zones.

Mud Program:

Company West Texas Drilling Fluids. Telephone:915-682-8382

Interval	Type
0 - 450'	Spud Mud
450' - 3,300'	Brine - using lime for pH and paper f/sweeps.
3,300' - 5,200'	Fresh water - using lime for pH and paper & Magma Fiber f/sweeps.
5,200' - 10,000'	Fresh water - using lime for pH and paper & Magma Fiber f/ sweeps.
10,000' - 12,000'	Cut Brine/Drispac - using caustic soda for a pH of 9.0-9.5 and control the WL to 15cc for the directional work.
12,000'- TD	Mud up with XCD/Drispac/MF-55 for a viscosity of 36-38, WL of 10-12cc, and a MW of 9.0-9.3 ppg depending on pressures encountered. Use caustic Soda for a pH of 9.0-9.5

Mud Logging Program:

Company Morco Telephone: 505-887-1483

Have mudloggers rigged up and logging at 4700', prior to drilling to the 8-5/8" casing point.

Electric Logging Program:

Company Schlumberger Telephone: 505-393-4107

Interval	Log
5200' - TD	CNL/LDT/GR/CAL (GR to surface in casing)
5200' - TD	DLL/MSFL/GR
5200' - TD	BHC SONIC
5200' - TD	Rotary Sidewall Cores (25 to be selected from logs)

Coring Program:

None Planned

Drill Stem Test Program:

Company Schlumberger Telephone: 505-392-4109

Interval	Remarks
9,400 - 9,500'	Bone Spring
13,300 - 13,400'	Morrow

Santa Fe Energy Operating Partners,L.P.
Sinagua "18" Fed. Com. #2
Projected Drilling Time