OBRIANT ENGINEERING

Midland, Texas 79701
915-688-8611
915-683-3177

Mr. Robert A. Enfield
[illegible]
Santa Fe, New Mexico 87501

September 16, 1989

Re: General Completion Procedure & Cost Estimate
Hudson Federal No. 3
Lea County, New Mexico

Dear Mr. Enfield:

The following procedure and cost estimate have been prepared after discussions with you, Halliburton and Santa Fe Energy Personnel, Hugh & Mike Hanagan, Edsel Neff, Randy McAnally, Bill Chrane, et al. The basic premise is to initially complete the well in the Strawn; either open hole or through a liner. Initial testing will be done under a Lynes open hole type packer. If the Strawn is not commercially productive, it will be plugged and the well completed in the Wolfcamp and/or Bone Springs zones. If it is productive, the well will be dually completed in the Strawn and Wolfcamp.

The following outlines the basic steps to accomplish the above objective. A cost estimate was made for each major section of the planned operations.

1. Cut off casing and install well head.
2. Prepare location for completion equipment; load a clean tank with 500 bbls. of 2% KCl water. Move-in and rig up pulling unit. Nipple-up 3000 psig manual BOP with pipe and blind rams. Unload, rack, tally and clean appx. 12,350 feet of new 2-3/8" EU, 8 rd, 4.7#/ft., N-80 tubing.
3. Go in hole with tubing and 6-1/8" bit to PBD estimated to be at 12,250' KB.
4. Displace hole with clean 2% KCL water at 5 to 6 BPM. Circulate 200 gallons of 15% HCl to bottom of tubing; reverse acid to pit and finish displacement with KCl water.
5. Circulate 500 gallons of 7-1/2% acetic acid to spot.
6. Pull out of hole and remove bit; keep hole full.
7. Go in hole with 140 feet of tail pipe, Lynes open hole packer and tubing to appx. 12,240' KB; reverse circulate with 12 bbls. KCl water. Space out and set packer in interval 12,090' to 12,110' KB, remove BOP & nipple-up well head.
8. Displace acid using KCL water; attempt to achieve 2 BPM but do no exceed 2200 psig.
9. Swab and/flow to test.
10. Re-acidize with 5000 gal. 15% NE-FE w/2 gal. Penn-88 per 1000 gal. acid; displace acid with KCL water; maximum pressure of 4500 psig (0.81 psi/ft. gradient).
11. Swab and/flow to test; BHP test(s) if needed to evaluate possible depletion and/or potential.