9. Casing Setting Depth and Cementing Program:

a. Surface casing will be set at 620', cemented with 300 sacks Howco Lightweight cement and 200 sacks Class C neat with 2% $CaCl_2$.

b. Intermediate casing will be set at 4510' and cemented with 500 sacks Class C neat with .5% CFR-2. Estimated top of cement outside 9-5/8" casing is 2400'.

c. Production casing will be set at 11,900' and cemented with adequate volume of Class H Cement with .75% CFR-2 and 5 pounds KCl per sack to bring cement top to approximately 9000' or above Wolfcamp formation. NOTE: Volume of cement to be determined after running caliper log at total depth.

10. Pressure Control Equipment: The minimum specifications for pressure control equipment can be seen on the attached drawing No. 4 of Gulf's blowout preventer hook-up for 5000 psi working pressure.

11. Circulating Media: 0-620' freshwater spud mud; 620-10,000' brine water; 10,000-11,900' saltwater polymer with the following properties: viscosity 32-37 sec., water loss 20-4 cc, weight 10-10.5 ppg. Heavier weight mud will be used if required by well conditions.

12. Testing, Logging and Coring Programs:

a. Formation testing may be done at any depth where samples, drilling rate or log information indicate a possible show of oil or gas.

b. Open-hole logs will be run prior to running casing at total depth.

c. Coring is not planned.

13. Abnormal Pressure or Temperature and Hydrogen Sulfide Gas: We do not anticipate any abnormal pressure or temperature; however, the following equipment will be installed while nippling up on intermediate casing for pressure control and detection: remote-controlled adjustable choke on flow manifold, drilling separator with gas vent line to burn pit, pit level sensors, flow line sensors and remote control BOP as shown on drawing No. 4.

The presence of hydrogen sulfide gas is not anticipated.

14. Anticipated Starting Date: Drilling operations should start between August 15, 1977 and September 15, 1977.

15. Other Facets of the Proposed Operation: None

C. D. BORLAND
Area Production Manager

By: C D Borland

RLV:rm
Att'd