

April 27, 1979

9. Casing Setting Depth and Cementing Program:
- Surface casing will be 10-3/4" casing set at 2100' and cemented with 1100 sacks of lightweight cement plus 200 sacks of Class "C" Neat cement with 2%  $\text{CaCl}_2$ .
  - Intermediate casing will be 7-5/8" set at approximately 8600' and cemented with 625 sacks Class "H" cement with a .5% friction reducer and 1/4# flocele per sack for estimated top of cement 6000'.
  - Production casing will be a 5" liner set from 8600' to 11650' cemented with Class "H" cement with 1.0% friction reducer and .5% Halad-9. Cement volume will be determined from caliper log.
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' - 2,100'       | Fresh water spud mud;   |
| 2,100' - 8,600'   | Brackish water with brine water as needed to increase weight; Polymer as required for samples and DST's;                                  |
| 8,600' - 11,000'  | Brine water polymer with 3-4% KCl; Weight adjusted upwards from 10 ppg as well conditions dictate; Viscosity minimum; Filtrate 10-15 cc's |
| 11,000' - 11,650' | Brine water polymer as above; Filtrate, 4 cc's or less.   |
12. Testing, Logging and Coring Programs:
- Formation testing may be done at any depth where samples, drilling rate or log information indicate a possible show of oil or gas.
  - Open hole logs will be run at total depth.
  - No cores are anticipated.
13. Abnormal Pressure or Temperature and Hydrogen Sulfide Gas: We do not anticipate any abnormal pressure or temperature; however, BOP's with remote control and choke manifold as shown on Drawing No. 4 will be installed prior to drilling below surface casing.
- The presence of hydrogen sulfide gas is not anticipated.
14. Anticipated Starting Date: Drilling operations should begin approximately July 1, 1979.
15. Other Facets of the Proposed Operation: None.

Yours very truly,

  
R. C. ANDERSON  
Area Production Manager