SUMMARY

Drilling, Drill Stem Tests, Casing and Cementing Programs

- 1. Drill 17-1/2" hole to 550'± using a Fresh Water Mud System. Will set surface in the Rustler formation. May lose circulation from 300'-450' in the Rustler formation with the possibility of dry drilling.
- 2. Run 550'± of 13-3/8", 48#, H-40, ST&C surface casing with a Texas Pattern (notched) Guide Shoe on the bottom of shoe joint and an insert float valve in top of shoe joint. Thread lock shoe w/Halliburton Weld-A. Place a stop ring 3'± above guide shoe, then install a centralizer directly above guide shoe. Thread lock the collar at the top of the shoe joint w/Halliburton Weld-A. Place a second centralizer on top of the shoe joint. The third and fourth centralizers should be spaced out on every other collar (total of four centralizers).
- 3. Circulate casing capacity plus (in order to clear casing). Cement 13-3/8" with 575±sx Class C w/2% CaCl. Slurry weight 14.8#/gal w/ a slurry volume of 1.32 cu ft/sx and a water ratio of 6.30 gal/sx. Use one wooden plug to displace cement.
- 4. Nipple up and install BOP. Test 13-3/8" casing to 600# after 18 hrs. Drill out cement.
- 5. Drill 12-1/4" hole to 3500'± in top of San Andres using a Brine Water Mud System. May lose circulation at 953'± in the salt section with the possibility of dry drilling to 3500'±.
- 6. Run 300' of 9-5/8", 36#, S-80, ST&C casing and 3200'± of 9-5/8", 36#, K-55, ST&C Intermediate casing w/a Texas Pattern (notched) Guide Shoe on the bottom of shoe joint and insert float valve in top of shoe joint. Thread lock shoe w/Halliburton Weld-A. Place a stop ring 3'± above guide shoe, then install a centralizer directly above guide shoe. Thread lock the collar at the top of the shoe joint w/Halliburton Weld-A. Place a second centralizer at the top of the shoe joint. The third and fourth centralizers should be spaced out on every other collar (total of four centralizers).
- 7. Circulate casing capacity plus (in order to clear casing). Cement 9-5/8" with 925sx Halliburton Lite Premium plus cement w/\frac{1}{4}/sx flocele & 12\frac{1}{2}/sx salt. Slurry weight 13.0\frac{1}{2}/gal w/a slurry volume of 1.96 cu ft/sx and a water ratio of 10.35 gal/sx. Tail-in w/200sx Class C w/2\frac{1}{2} CaCl. Slurry weight 14.8\frac{1}{2}/gal and a slurry volume of 6.30 gal/sx.