CONCLUSIONS

1. Drill-stem testing has shown the unpredictability of reservoir characterization by conventional wireline log analyses in the Pelican-5 well.

2. The Pelican-5 Paleocene and Early Eocene hydrocarbon bearing sandstones have demonstrated through testing to have low permeabilities. Petrological studies (Petrography, S.E.M. and XRD - see Appendix 4) have shown that the poor permeabilities encountered in many of the sandstones are attributable to diagenetic effects (primarily compaction) acting on a high percentage of contained lithic materials that along with quartz made up the bulk of the sediments deposited in the non-to marginal marine environments in the vicinity of the Pelican-5 structure. Authigenic quartz and carbonate are also responsible for the loss of primary porosity and permeability.

3. Vitrinite and inertinite account for a large percentage of the organic matter present in the sedimentary rocks of the EVCM in the Pelican-5 well. Mostly gas would be expected to have been generated from this type of organic matter.

4. The coal beds in the Pelican-5 well are considered (by the presence of exsudatinite) to have generated liquid hydrocarbons. However, the low permeability in general of the Pelican-5 sandstones of the EVCM may have prevented the migration and economic accumulation of hydrocarbons generated from these coals.

5. Some of the shales of Cretaceous age in the Pelican-5 well are quite rich in exinite (mostly micrinitized bituminite). Although these rocks are now considered to be overmature for the generation of liquid hydrocarbons, they could have been prolific sources for liquid hydrocarbons at an earlier stage of thermal maturity.

6. There may be areas within T/22P that contain Lower Eocene sandstones that have permeabilities adequate enough to reservoir commercial quantities of liquid hydrocarbons generated from the Cretaceous exinite-rich shales and/or the Paleocene/Eocene coals. A regional depositional facies study may help to localize such areas.