ENVIRONMENTAL CONCERNS AND FUTURE OIL AND GAS DEVELOPMENTS IN COASTAL WETLANDS OF LOUISIANA

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ABSTRACT

Recent studies have confirmed that much oil and natural gas, especially in many major producing areas (past and current), has been overlooked. Increases in future recoverable reserves will come from drilling in these areas after detailed research and study of reservoir heterogeneity and architecture. Increased production will result from identifying unexploited compartmentalized reservoirs, new infield reservoirs, bypassed reservoirs, and by using enhanced recovery technologies for hydrocarbon recovery for incompletely drained reservoirs previously left unproduced due to economic reasons. Most of South Louisiana's hydrocarbon reserves underlie coastal wetland areas of the state. Major environmental concerns associated with the future development of existing reserves are canal dredging and destruction of wildlife habitat, use and disposal of oil-based muds, mitigation for wetland damage, and the recently emerging issue of surface contamination by naturally occurring radioactive materials (NORM) with potential liabilities and future remedial regulation. To reduce wetland environmental damage caused by access canals to drilling sites, the Coastal Management Division of the Louisiana Department of Natural Resources instituted a "Geologic Review" program to review drilling permit applications in the coastal wetlands. This process provides a mechanism for all the concerned state and federal agencies to comment on the requested drilling permit. As a result of this process, the total average wetland disturbed area has been reduced from 767 acres per year in 1982 to approximately 76 acres per year in 1991. Average lengths of access canals have also been reduced by approximately 78% during this period. Oil and gas companies are becoming increasingly aware of the environmental consequences of drilling in wetlands and are taking that into account in their planning for development activities. In the current climate of increasing public consciousness about the environment, addressing environmental concerns in the planning state will go a long way in helping to alleviate future environmental problems.