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Environmental Monitoring on Shallow and Deep Sea Drilling Petroleum Exploration - Mapem

It is recognized that this program is not a typical monitoring program required by Regulatory agencies. It focuses only on the environmental aspects related to NAF drilling waste discharge. MAPEM is designed to collect extensive data at two sites on the South Atlantic Ocean (Brazilian continental margin) that can be used in the future to guide development of streamlined monitoring requirements based on scientific data. Goal 1 Evaluate the effects of NAF-cuttings discharge at two sites (shallow-water and deep-water) to determine degree of environmental impact and degree of recovery from discharge up to one year following discharge Assess changes in the physical, chemical, and biological environments at both sites following discharges of NAF-cuttings. Determine status of these environments up to one year after drilling: one pre-drill, two post-drill samplings (benthic biota, metals, hydrocarbons, grain size, TOC and water quality data). Sampling strategy (including pre defined pattern) and data analysis plans will be developed with sufficient statistical power by expert statisticians. Goal 2 Provide data needed for technical calibration of drilling discharge modeling prediction; set calibrating and comparing different numerical codes. Determine whether model predictions have acceptable accuracy with available and improvements in model accuracy with current data. Goal 3 Technical information that can be used when developing recommended practices and provided to agencies when regulations are developed for drilling discharge Data base information, supports joint industry monitoring programs to answer specific questions versus routine well-specific monitoring. Provide results that justify streamlined monitoring programs and put this context of world-wide experience.