



U.S. Department of the Interior
Minerals Management Service
Gulf of Mexico OCS Region

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Environmental Impacts of Synthetic-Based Drilling Fluids

OCS Study MMS 2000-064

The Minerals Management Service (MMS), Gulf of Mexico OCS Region, announces the availability of a new study report, *Environmental Impacts of Synthetic-Based Drilling Fluids*.

This study discusses the recently developed synthetic-based drilling fluids (SBF's) and reviews the literature concerning the environmental impacts on the marine environment from the discharge of muds and cuttings derived from the drilling of wells with SBF's. Developed as a more environmentally friendly option to oil-based drilling fluids, the SBF's are used in drilling situations where water-based drilling fluids are not suitable.

The information about SBF's discussed in the review formed the basis for a qualitative risk assessment for SBF cuttings discharges from a platform in deep continental slope waters of the northern Gulf of Mexico. The SBF's clump together and settle rapidly through the water column. Biological effects of the SBF cuttings would be restricted to the sediments near the platform. The estimated biodegradation half-life of the SBF's was estimated to be in the 65- to 104-day range. Synthetics are unlikely to accumulate to concentrations that are directly toxic to the benthic fauna. It is probable that within 3-5 years of cessation of SBF cuttings discharges, concentrations of synthetic in sediments will have fallen to low enough levels, and oxygen concentrations will have increased enough throughout the previously affected area that complete recovery will be possible.

For more information about this study or the Environmental Studies Program in general, contact the Environmental Sciences Section (MS 5430), 1201 Elmwood Park Boulevard, New Orleans, Louisiana 70123-2394, telephone (504) 736-2789.

You can obtain copies of the report from the Minerals Management Service, Gulf of Mexico OCS Region, at a charge of \$10.00 by referencing OCS Study MMS 2000-064. You will be able to obtain this report also from the National Technical Information Service in the near future. Here are the addresses. You may also inspect copies at selected Federal Depository Libraries.

Minerals Management Service
Gulf of Mexico OCS Region
Public Information Office (MS 5034)
1201 Elmwood Park Boulevard
New Orleans, Louisiana 70123-2394
Telephone requests may be placed at
(504) 736-2519 or 1-800-200-GULF
or FAX: (504) 736-2620

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National Technical Information Service
5285 Port Royal Road
Springfield, Virginia 22161
(703) 487-4650
or FAX: (703) 321-8547
Rush Orders: 1-800-336-4700

MMS is the Federal agency that manages the Nation's natural gas, oil and other mineral resources on the OCS, and collects, accounts for and disburses about \$4 billion yearly in revenues from offshore Federal mineral leases and from onshore mineral leases on Federal and Indian lands.

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Homepage Address on the Internet: <http://www.mms.gov>

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