



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

Special Information

July 2005

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*Relative Contribution of Produced Water Discharge Oxygen Demand
in the Development of Hypoxia*

OCS Study MMS 2005-044

The Minerals Management Service (MMS), Gulf of Mexico OCS Region, announces the availability of a new study report, *Relative Contribution of Produced Water Discharge Oxygen Demand in the Development of Hypoxia*.

This report discusses the relative contribution of produced water's organic and nutrient constituents in comparison to those of the Mississippi and Atchafalaya River discharges in the occurrence of hypoxia. A zone of hypoxic waters (dissolved oxygen less than 2 mg/L) forms annually in the northern Gulf of Mexico. The discharge of the Mississippi River, which directly influences the formation and dynamics of hypoxia on the continental shelf, has made it difficult to isolate the influences of the river from those of offshore oil and gas production activities.

The report discusses the geographic extent, severity, and duration of the hypoxic zone and the causes of hypoxia, as well as produced water constituents, produced water volumes and geographic location, and estimates of produced water oxygen utilization. First order estimates made in this report, have led to the conclusion that produced water loads of nitrogen and organic carbon do not likely contribute in a significant way to the dynamics of hypoxia in the OCS.

This report was prepared to summarize existing available information to describe the preliminarily relative contribution of produced water to the hypoxic zone. The U.S. Environmental Protection Agency's National Pollutant Discharge Elimination System (NPDES) permit, issued in November 2004, requires a study of produced water. That study is ongoing.

This report is available only in compact disc format from the Minerals Management Service, Gulf of Mexico OCS Region, at a charge of \$15.00, by referencing OCS Study MMS 2005-044. The report may be ordered through the Minerals Management Service's on-line ordering system at <http://www.gomr.mms.gov/WebStore/front.asp>. 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, 1-800-200-GULF, or FAX: (504) 736-2620	U.S. Department of Commerce 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
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MMS, part of the U.S. Department of the Interior, oversees 1.76 billion acres of the Outer Continental Shelf, managing offshore energy and minerals while protecting the human, marine, and coastal environments. The OCS provides 30 percent of oil and 21 percent of natural gas produced domestically, as well as sand used for coastal restoration. MMS collects, accounts for, and disburses mineral revenues from Federal and American Indian lands, and contributes to the Land and Water Conservation Fund and other special use funds, with Fiscal Year 2004 disbursements of about \$8 billion and more than \$143 billion since 1982.

MMS Main Website: www.mms.gov
Gulf of Mexico Website: www.gomr.mms.gov

*** MMS: Securing Ocean Energy and Economic Value for America ***

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