

## **Assessment of the effects of an oil spill on coastal archaeological sites in Louisiana**

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Following the *Deepwater Horizon* disaster and Mississippi Canyon 252 (MC252) oil spill of 2010, archaeologists became involved in Shoreline Cleanup Assessment Technique teams to examine the impacts of the spill on cultural resources and historic properties. Seven years later, we are only beginning to understand the effects of the MC252 oil spill on archaeological sites along the Gulf Coast. This study represents a cooperative agreement between the BOEM and Louisiana Public Archaeology Lab at the University of Louisiana at Lafayette. The goals are to address the immediate and long-term effects of the MC252 oil spill on prehistoric archaeological sites, formation processes and archaeological investigations along the Louisiana Gulf Coast. Investigators assessed eight sites as part of this study, including six sites where oil was observed during or after the MC252 response and two sites where oil was not previously reported. The results indicate that oil from MC252 and other sources is present on the surface and in subsurface cultural deposits at archaeological sites. Hydrocarbon contamination adversely affects radiocarbon dating and must be taken into consideration in the pretreatment of samples. While the presence of oil does not appear to affect trace element analysis, absorbed residue studies of pottery are negatively affected by hydrocarbons and the dispersants used in the response. The results of this investigation will inform future archaeological investigations along the Gulf Coast and provide cultural resource managers with information relevant for responding to oil spills on archaeological sites.