



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

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[Loss of Well Control While Drilling Surface Hole](#)

Recently an operator drilled a well from a producing platform. Though the track of the new well was within 100 ft of the tracks of the four previous wells drilled from the platform, an anomalous, thick, highly porous sand deposit was encountered at a shallow depth.

Throughout the drilling of the conductor casing hole and the setting of the conductor casing, significant drilling fluid losses were experienced, and drilling and cementing returns were erratic in nature or entirely absent due to unexpectedly permeable morphology. After the conductor casing was set, the operator continued to face severe lost circulation problems during the drilling of the surface casing hole, and the anomalous, thick sand deposits continued to be encountered to a depth where the Operator planned to set surface casing.

While the crew was tripping to prepare to set surface casing, the hole first went on vacuum, then ceased taking fluid, and then began flowing. The annular was closed, the diverter system opened, and the flow, mostly water, was placed into the downwind diverter line. After eight hours, flow ceased and the well again began taking fluid. Normal lost circulation operations were initiated and surface casing was run, sealing off the thief zone and the zone of influx.

The failure or inability to forecast the presence of the thick anomalous sand deposit, through use of sparker and shallow gas hazard surveys, may have contributed to the failure to anticipate the difficult circulation problems encountered.

In the Gulf of Mexico, several shallow formation loss-of-well-control events have recently occurred during drilling from producing platforms. The MMS recommends to operators and drilling contractors that they thoroughly review shallow hazard information even when operating from a previously drilled platform. Attention to formation anomalies, in addition to actual shallow gas markers, may allow precautionary actions that prevent potential loss of control situations.

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