

WELL CONTROL

Absence of fatalities in blowouts encouraging in MMS study of OCS incidents 1992-2006

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WELL CONTROL OPERATIONS are critical to protecting the safety of the employees and the environment. Loss of well control incidents (blowouts) are known to be expensive and cause delays in bringing important production online. Blowouts may also lead to fires, explosions, injuries, property damage and pollution. It is important for industry to minimize the occurrence of these events by implementing safety programs and procedures that will prevent and reduce the severity of blowouts during drilling operations.

This article summarizes information about blowouts that occurred during drilling operations on the Outer Continental Shelf (OCS) from 1992 through 2006 and compares this information with the previous study conducted for drilling blowouts that occurred from 1971 through 1991. The paper utilizes data collected from incident reports submitted by OCS oil and gas

Figure 1: The percentage of blowouts per well spud decreased in 2006.

Percent of blowouts by water depth (ft.), 1992-2006

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Number of well spuds and drilling blowouts, 1992-2006

(API) are working on a series of new standards detailing best operating practices for offshore oil and gas operations. During the review period, one backhoe loading an unattended flare dismounted on a Bering drilling rig resulted in a blowout. As drilling activity in deeper waters, procedures for these operations should continue to be evaluated to identify how

One of the most important factors in the planning and conduct of oil and gas operations is the control of underground pressure. With continued increases in drilling depth, more increasingly higher formation pressures that need to be controlled during the drilling process. Inappropriate well control procedures can result in sudden, uncontrolled escape of hydrocarbons.

Water Depth (ft.)	Oil and Gas Exploration Wells	Oil and Gas Development Wells	Total Oil and Gas Wells	Total blowouts (includes surface blowouts)	Wells drilled per blowout (includes surface wells)
0 - 200	3,156	5,566	8,722	15	459
201 - 500	995	2,251	3,246	14	230
501 - 1,000	203	443	646	1	646
> 1,000	1,347	1,146	2,493	5	499
Total, all depths	5,671	9,406	15,077	29	387

Table 1: From 1992 through 2006, the average blowout rate was one every 387 wells drilled, compared with the 1971-1991 rate of one every 246 wells.