



Safety Alert

From the International Association of Drilling Contractors

ALERT 98-31

Drilling Breaks

WHAT HAPPENED:

A drilling rig experienced a chain of events, which could have resulted in a loss of well control. The rig was drilling ahead when it experienced a drilling break. They continued to drill as instructed by the Operator. A few minutes later the rig was struck by lightning, which damaged the Pit Volume Totalizer (PVT) system and knocked one mud pump offline. They slowed the other pump and made quick repairs to the offline pump. When pumping resumed the toolpusher noticed zero pump pressure and realized a gas bubble had worked its way into the wellbore. The wear busing was blown out of the stack. When the toolpusher closed the Hydril Annular Preventer, fluid cut through the rubber. He then closed upper rams but it appeared the rams did not function. He then closed the lower rams to shut in well. Rig personnel then proceeded to properly kill the well.

CORRECTIVE ACTIONS:

The contractor involved issued the following recommendations:

1. Drilling breaks are sudden changes in the penetration rate while drilling with constant parameters (the break may be either fast or slow). All drilling breaks should be treated as potential kicks and as, one should not proceed further without first checking the flow. Inform all parties concerned that a drilling break has occurred. Pick up off bottom and shut off pumps. Observe well for flow (approx. 10 minutes). If well is stable, proceed with drilling another 10 feet or as instructed and check flow again. Ensure all concerned parties are notified and all safety equipment is in place. If the well is flowing sound the alarm, shut in well and take all necessary steps to secure the well.
2. Wear bushings should be secured in position when installed and locked down with wear bushing lock down bolts.
3. BOP Testing should be done a minimum of once every two weeks, before drilling into known high-pressure formations or when requested by the operator or regulatory agency. Pressures should be held for 10 minutes to make sure there are no leaks.
4. Function Testing of all BOP controls should be done every trip. Do not close the "U" pipe rams on a void, as rubber elements will be extruded with possible damage.

The Corrective Actions stated in this alert are one company's attempts to address the incident, and do not necessarily reflect the position of IADC or the IADC HSE Committee.

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