Blowout After Cementing Surface Casing

While drilling a well, an operator noted a slight gas flow coming from the annulus between the surface and conductor casing shortly after cementing the surface casing. The diverter was closed and pressure started increasing on the annulus. Attempts to bleed off the pressure were unsuccessful. Two days later, gas belched from the drive pipe of an adjacent well. Soon thereafter, gas bubbles were noticed coming from other wells at the water line. The platform was safely evacuated, and the flow eventually ceased.

The subsequent MMS investigation of the incident noted the following conditions encountered by the operator while performing the surface casing cement procedure: a delay in initiating the cement job because of a top drive electrical problem, a temporary loss of returns while pumping cement, and premature cement returns while pumping the cement.

It has been concluded in part by the MMS investigation of this event that the well control problem was probably caused by the regression of the cement density to a seawater gradient and/or the formation of a channel because of the delay in pumping cement. MMS stresses the importance of and recommends pumping cement as soon as possible after landing casing and circulating at least one casing volume.

Other aspects of this incident are currently being studied by MMS.

For details of the accident, see OCS Report MMS 2002-080. Copies of the report may be obtained from the MMS Public Information Office located at 1201 Elmwood Park Boulevard, New Orleans, Louisiana 70123 (1-800-200-GULF or local 504-736-2519), or can be read and downloaded at the Regional website.

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