

Pre- and Post-Incident Foam Cement Testing



Target Density: 14.5 ppg | D-Air 3000 Defoamer (0.25%) | Zone Sealant 2000 (0.11 gpg)

Lab Sheet Date	Foam Stability Test	Conditioning Time	Foam Testing Observations	Shared with BP	Result
Feb 12, 2010	Density 16.8/17.6	0 minutes	"Slurry is settling, will repeat" (Foam Cube Crush Compressive Strength Test)	No	Unstable
Feb 16, 2010	Density 15.9/15.9	2 hours	"Hard on bottom, soft on top" (Foam Cube Crush Compressive Strength Test)	Partial Results	Unstable
Apr 13, 2010	Density 15.7/15.1	1.5 hours	J. Gagliano: "The test results came off and showed instability"	No	Unstable
Apr 17, 2010	Density 15.0/15.0	3 hours	J. Gagliano never saw test results before cement pumped.	After Accident	Unstable
Apr 18, 2010	Recommended Procedure provided to BP with D-Air 3000, Zone Sealant, and 0.09 gpg retarder - Oct 28, 2010 Halliburton Press Release: "A foam stability test was not conducted on the 9 gallon formulation."				
Late Apr/ Early May 2010	No Density Recorded	0 minutes	"Slurry would not foam." Results and sample not kept by R. Morgan to not be "misinterpreted in the litigation"	No	Unstable
Mid May 2010	No Density Recorded	3 hours	Claimed to be stable, but records destroyed. Test done "off the side" and T. Quirk "got rid of" notes and samples.	No	?
Late May 2010	No Density Recorded	3 hours	Claimed to be stable, but no records kept by R. Morgan.	No	?