

Pressure	1,000 psi [69 MPa]
Temperature	190 degF [87 degC]
Duration	24 and 48 h

Background

Reliability of elastomeric seals directly correlates with protection against blowouts, particularly in severe service conditions. Cameron drilling compounds were put to H₂S tests that consisted of gas mix (45% H₂S, 10% CO₂, and balance CH₄), diesel, and water and demonstrated a milestone in elastomeric sealing reliability at 45% H₂S concentration. To simulate service conditions, these controlled tests were conducted under conditions of 1,000 psi for 24 and 48 h at 190 degF. This new elastomer demonstrates a 29% increase in H₂S concentration accommodation compared with existing compounds used in BOPs, which have passed testing at 35%.

Technology

- Cameron high-H₂S elastomer technology

Laboratory Testing Proves Elastomeric Seal Integrity at 45% H₂S Concentration

Industry-first elastomer material qualification demonstrates compatibility with severe sour service conditions



Top image: Test cells for exposing elastomer samples to simulated well conditions.

Bottom left image: Test pit (covered) for full-scale testing of BOPs in the presence of H₂S.

Bottom right image: Schlumberger technicians monitoring elastomer performance.

