

(Drafted at the direction of counsel)

EOG Resources Closed Loop Gas Capture Pilot Project

Clarification of calculations used to satisfy requests in NMOCD letter “Re: EOG Resources Closed Loop Gas Capture Pilot Project” dated October 24, 2019 in reference to the proposed pilot well, the Caballo 23 Federal #2H.

Item v, part (a): “the casing burst pressure shall be at least 120% of the maximum allowable surface pressure plus the hydrostatic pressure from a full column of reservoir fluid”

- Max Allowable Surface Pressure (MASP) + Hydrostatic Pressure of Column of Fluid
= 3500 psi + (9,456’ TVD x 0.433 psi/ft) = 7,594 psi
- 5½” 20# P-110 casing burst pressure rating = 12,640 psi
- The casing burst pressure rating is 166% higher than the max allowable surface pressure plus the hydrostatic pressure from a full column of reservoir fluid.

Item vii: “Demonstrate that the mechanical integrity of the well complies with 19.15.26.11(A)(1) NMAC to a minimum pressure of 110% of the maximum allowable surface pressure.”

- A Mechanical Integrity Test (MIT) was conducted on 11/24/19 by setting a Retrievable Bridge Plug (RBP) at 9,000’ (at the top of the curve), loading the casing with fresh water, and pressuring up to 1650 psi for 30 minutes.
- Pressure at 9,000’ during the MIT
= 1650 psi + (9,000’ x 0.433 psi/ft) = 5,547 psi
- Max expected pressure during temporary gas injection operations
MASP + Hydrostatic Pressure from Column of Gas
= 3500 psi + (9,000’ x 0.14 psi/ft) = 4,760 psi
- The MIT conducted verifies the mechanical integrity of casing at 9,000’ at pressures up to 116% higher than the max expected pressures at the same depth during temporary gas injection operations.