

PCS 16-13A – Remedial Cement

- 1 Remove production equipment.
- 2 MIRU Workover (WO) Rig. Control well with biocide treated water.
- 3 Set RBP at +/- 6,870'. Pressure test RBP to 1,000 psi
- 4 Run CBL to check current Sussex and Shannon formation coverage is adequate.
- 5 Unland 4-1/2" production casing and NU double entry flange.
- 6 Run in annulus to 1,250' with 1-1/4" tbg.
- 7 Mix & pump as follows: 241 sks Type III cement & 1/4 #/sk cello flake mixed at 14.8 ppg and yield of 1.33 cuft/sk (CaCl₂ amounts as determined by cementing service company) for a total of 57.1 bbl of cement. Design is for adequate fox hills formation coverage.
- 8 TOOH with 1-1/4" tbg.
- 9 Re-land 4-1/2" production casing. Shut in and WOC for 24 hours minimum.
- 10 Run CBL to verify coverage meets requirements.
- 11 Pressure test casing to 5,000 psi.
- 12 Pull RBP.
- 13 Test wellhead to 5,000 psi
- 14 RDMO. Return well to production team.

JACOB BARKER - ENGINEER

970-231-7159

Prep for multiple upcoming Pads, Sekich State 13-18 HZ ops - Earliest frac date 8/2/2014

NB top: 6,928' TOC: 6,360' Cmt coverage over Shannon/Sussex has poor CBL detail

Closest HZ offset: 632'

NPV: 255M

Well has COA for Fox Hills Coverage

Full Circle – Annular Remedial Cement