

## **Encana Oil & Gas (USA) Inc.**

N. Parachute MF03C-4 C04 696, 05-045-15769

Surface: NENW Sec 4- T6S-R96W

BHL: NENW Sec 4-T6S-R96W

Repair Casing Leak

Verbal approval from COGCC Dave Andrews on 9/4/2013

9/3/2013

24 Hr Summary: Run in set bridge plug at 4756.83' 149 joints 10' out and BHA. Make up packer and start at 420' casing to bridge plug test to 2000 psi for 15 minutes, casing to BOP pipe rams pressure to 2000 psi bleed to 0 in 2 minutes. Test every stand to 23' below ground level (No KB) with same results.

9/4/2013

24 Hr Summary: Test both sides of casing mandrel 5000 psi good test. Cut casing @ 500' KB'. Nipple down BOP. Prepare hot work permit. Jackhammer concrete out of cellar.

9/5/2013

24 Hr Summary: Determine 4 ½" LT&C pup joint under hanger was not tight, causing leak. Make in with 6.4' OAL 5 ¾" OD 4" ID Logan packer type casing patch (2.4' without swallow) 1.75' of 4 ½" LT&C crossover 4" ID. Run 11 joints 4 ½" 11.6# L-80 BTC casing. Latch on to casing. Pull to 50,000 lbs. Pressure test casing to 2500 psi for 10 minutes. Land casing in slips at 85,000 lbs. Rig down work floor. Install B section.

9/6/2013

24 Hr Summary: Pressure test casing to 2500 psi for 35 minutes. Release bridge plug at 4756.83' 149 joints 10' out and BHA. Pull out of well with tubing and BHA. Rig up sand line and lubricator. Run in casing with maximum outer diameter of 1.71" tag at 8293'.