Pioneer 25-12 Bradenhead Procedure

1 ND BOP's, ND wellhead, Un-land 4 ½" casing, NU dual entry flange, NU BOP.

2 PU 1-1/4" 2.3#/ft J-55 10rd IJ tubing, and TIH outside 4-1/2" casing in open hole to ~1900'. Circulate with the rig pump while TIH to clean up the annulus. Use sweeps as necessary until clean returns are seen. Make sure no pressure is present on bradenhead before moving on to the next step. If gas is detected, contact engineering to discuss plan moving forward.

3 Contact Imperial mud (min of 24hrs. in advance) to bring out 40bbls of 10.0ppg mud. Pump 40bbls of mud at 1900'. Leave 1-1/4" tbg full of mud to avoid wet trip and PUH to 1500' to place cement in annulus.

4 MIRU cement services. Pump 10 bbls water, 10 bbls mud flush and 10 bbls water. Prepare to cement.

5 Mix and pump **180sx (~42.6bbls)** of 14.8 ppg (1.33 cuft/sk) Type III w/ ¼ lb/sk cello-flake. The cement is to be retarded for 80 °F and 3 hour pump time. Design is for coverage from ~1500' to ~671' using 8" hole size and 20% excess.

6 TOOH ~35 joints to ~400' and circulate 1.5 times the hole volume of water or until no cement returns are seen. TOOH with 1-1/4" tubing.

7 RDMO cementing company.

8 ND BOP. ND dual entry flange and crossover. Pick up and land 4-1/2" casing in slips.

9 Install new GE 5000 psi 4-1/2" bottom threaded tbg head with 7-1/16" flanged top, 7-1/16" flanged 5000 psi tbg head adaptor with 2-1/16" studded top, 2-1/16" flanged 5000 psi master valve, flanged 5000 psi 2-3/8" plunger lubricator (side outlets threaded). All valves, fittings, plugs on well head need to be rated for 5000 psi. NU BOP.

10 Leave well shut in for ~24hrs.

11 MIRU wireline and run CCL-GR-CBL-VDL from **3200' to surface**. If top of cement is below 671' notify Engineering. In addition to normal handling of logs/job summaries, email copies of all cement job logs/job summaries and invoices to rscDJVendors@anadarko.com within 24 hours of the completion of the job.

12 RDMO wireline.