

1. MIRU PU. MI and set 1-500 bbl. steam cleaned tank. RU filtering equipment and load tank with 2% KCL fresh water filtered to 2 microns (casing capacity = 163 bbls).
2. Kill well with \pm 41 bbls. (tubing volume) filtered 2% KCl water with 1 gallon surfactant and 2 gallons clay stabilizer per 1000 gallons. ND WH. NU BOP (5,000 psi). Pull Baker Model "G" locator seal assembly out of Baker Model "DB" permanent packer at 10,500'. Pull tubing to \pm 10,470'. Circulate hole with the filtered 2% KCl water + 1 gallon surfactant and 2 gallons clay stabilizer per 1000 gallons. POH.
3. RU electric line truck. Run gauge ring to top of permanent packer at \pm 10,500'. RIH and Set CIBP at \pm 10,480'.
4. Pressure test casing and bridge plug to \pm 1000 psi.
5. RIH with Baker DB permanent packer (with 10,000 psi. rating and 2.688" seal bore ID) with 3 1/2" x 6' millout extension + 6' 2 3/8" 4.7# N-80 8rd Sub + 1.81" F profile nipple + 10' 2 3/8" sub + 1.81" R profile nipple with a 1.76" ID no-go and a wireline entry guide on wireline. Correlate CCL to GR-CBL-CCL by CRC on 1-10-81. Set packer at \pm 10,350' (\pm 27' tailpipe to \pm 10,377'). POH. RD electric line.
6. Make up Baker anchor type Model E-22 seal assembly with 2 seal units (ID=1.968", OD=2.688", L=2') to the 2 3/8" 4.7# J-55 EUE 8rd tubing (see attached schematic and tool data). To keep the tubing dry install Model FSG blanking plug in 1.87" F profile located one joint above seal assembly.
7. RIH with seal assembly. Pressure test tubing going in to \pm 6,600 psi (85% of rating). Set seal assembly in packer with \pm 5,000# tension. Pressure test tubing - casing annulus to \pm 1,000 psi. RU slickline truck. POH with blanking plug (require 2 runs, one to equalize).
8. ND BOP. NU Wellhead. RU Schlumberger with full lubricator (rated for \pm 5,000 psi) with grease injector. Pressure test lubricator to \pm 3,000 psi. Connect and stake flow line to pit. RIH with 1 11/16" OD through tubing perf gun assembly (strip charge Enerjet) as follows: Top - weight bars (for \pm 4,300 psi max. BHP), CCL, Magnet, and select fire guns (1-4' and 1-8'). Total length = \pm 35'. Tie on depth with CCL to the GR-CBL-CCL log. Perf Morrow sands at 10,420-28' and 10,454-58' in one run, select fire, top to bottom, with 1 11/16" OD hollow carrier with enerjet charges at 0 phasing., 4 SPF (50 total holes) decentralized at \pm 4,000 psi. under balance (expected BHP = 4,200 psi).
9. Flow well to pit until cleans up. POH and RD electric line. Turn into separator and test. If well dies, swab test to determine water entry. Evaluate to acidize.
10. If acidizing needed: Install wellhead isolation tool (10,000 psi rating). RU acid trucks. Pressure tubing-casing annulus to 1,000 psi. (Max. annulus pressure = 5,000 psi., limited by wellhead). Monitor and increase annular pressure to maintain less than 6,500 psi. across tubing. Acidize Perfs 10,420-58 (50) down 2 3/8" tubing with 1500 gallons 7 1/2% HCL + special Morrow additives + 70 RCNBS (5/8", 1.3 s.g.) at 2 BS/Bbl. + 1000 SCF/Bbl. nirtrogen at minimum combined rate = 4 BPM. Flush with 2% KCL water + 1000 SCF/Bbl. nitrogen to bottom perf.