

Marathon Oil Company  
McGrail State Well No. 9  
Cement Production Casing  
Attachment to C-103  
March 11, 1997

1. 2/6/97 RU wireline unit, set plug in 1.81 profile. Test tbg, OK. RD wireline unit. ND wellhead. NU BOP. Got off on/off tool. Disp hole w/2% KCL. POOH w/tbg. RIH w/RBP, set at 5600'. Spot 12' sand on RBP. Test to 1000 psi, OK.
2. RU wireline and run logs. Perforate 6080' w/4 JSPF. RD wireline. RIH and set pkr at 6014'. Load and test to 500, OK. Pumped down tbg and circ out 8 5/8" head. POOH w/pkr. Run cement ret to 6014'. Set cement ret at 6010'. Load and test, OK. Cement w/975 sxs light premium w/1.5% CACL w/.6% halad-447. Lead cmt 343.8 bbls total. Pumped 303 bbls cement and lost returns. Fin pumping lead cmt. Pump tail cmt, 100 sxs premium plus cmt. Did not circulate. POOH w/ret and rev out 1 bbls of cmt. Pulled tbg.
3. RU wireline and run temperature survey. Cement top 556' from surface. RIH w/bit and dc's, tagged at 6004'. Drill cmt from 6004' to 6020'. Circ hole clean. Test csg to 1000 psi, OK. TIH and tagged sand at 6488'. POOH w/dc's and bit. RIH, retrieve RBP. POOH. Run top half of on/off tool and disp hole w/packer fluid. Latched on on/off tool. Test tbg to 1000 psi, OK.
4. ND BOP and NU wellhead. Test backside to 500 psi, OK. Swab tbg to 3000'. RU wireline and pulled plug in 1.81 profile. Pulled dual electronic bombs. RD wireline. Turned well to production.