

MARATHON OIL COMPANY

Buchanan "33" State # 2
830' FNL & 447' FEL
Sec. 33, T- 18-S, R-28-E
Eddy County, New Mexico

MIRU United # 5, spud 17.5" hole @ 0200 hrs 7/1/98. Drilled to 438'. Ran 10 jts, 13.375", H-40 casing to 438'. Shoe @ 438, insert @ 392'. RU BJ, Cemented surface casing W/ 170 sx 35:65:6,2% cacl, wt 12.3, yield - 2.02. Tailed in W/ 200 sx "C" wt- 14.8, yield - 1.34. Bumped plug and circulated 86 sx to pit. WOC 4 hrs, cut casing and installed 13.625" X 13.375" SOW casing head, NU rotating head and TIH w/ 12.25" bit. WOC 10 hrs. Drilled float equip and air drilled formation to 2980'. TD @ 0445 hrs 7/13/98.

Ran 9-5/8" Intermediate casing as follows: 67 jts 36#, K-55 LTC new casing to 2960'. Shoe @ 2960, float collar @ 2912'. Cemented w/ 650 sx BJ lite, 5 p.p.s. gilsonite, .25 p.p.s. cello, wt - 12.5 ppg, yield - 2.04. Tailed in w/ 200 sx "C" neat wt - 14.8, yield 1.34. Circulated spacer, did not circ cement to pit. ND BOPE and set slips w/ 80K. NU 13-5/8" 3M X 11" 3M casing head and tested weld to 1000 psi.

Rigged down United, released rig @ 1430 7/13/98. MIRU McVay # 7, 7/16/98. Installed 11" 5m dual ram BOPE. Tested rams to 200/1900 psi. PU 12.25" bit and BHA and TIH. Drilled float and cement.

Drilled formation to 9990', TD @ 0345 hrs, 7/30/98.

Logged well as follows: Platform Express/HALS/BHC Sonic/NGT TD - 2800'. CNL/GR/CAL - surface.

Ran 7" production casing as follows: 83 jts, (3090') 26#, L-80, 49 jts, (2193') 26#, K-55, 105 jts (4463') 23# K-55, 2 jts, (84.84) 26#, L-80. Shoe @ 9741', collar @ 9666', DV @ 8248'. Stuck casing at +/- 9750', set slips, and NU 11" 3m X 7-1/16" 5M tubing head. Released rig @ 1700 hrs 8/1/98.

Opened stage tool @ 8248' w/ 2500 psi, circ'd 150 bbls to tank. Dropped closing plug and displaced w/ 355 bbls 2% kcl, closed tool. MIRU Sierra # 412, Tih w/ 6-1/8" bit on 2-7/8" tbg. Drilled out DV @ 8265', float collar @ 9682' (tbg meas). Ran CBL-FPL 9753' - 9400', pipe was free to 9736'.

Perf'd production casing @ 9735' - 36' w/ 4 jspf. Set cibp @ 9752', retainer @ 9685'. Stung into retainer and cemented casing w/ 245 sx modified super H wt - 13.0, yield - 1.67. Stung out of retainer. Drilled retainer, cement and CIBP to shoe @ 9753'. Drilled shoe and open hole to 9999'.

RIH w/ packer assy, swabbed open hole w/ no fluid entry, fired propellant 9905' - 9915'. Swabbed dry. Set 7" CIBP @ 9740' Ran GR-CCL-CBL 9740 - 9100'. TOC @ 9380'. Spotted 250 gals Fercheck 9720' - 9565'. Perforated Strawn w/ 4 jspf 9607' - 14', 9621' - 26', 9705' - 22'. 116 Holes. Set packer @ 9563'. Swabbed 38 bbls fluid w/ 5% oil cut. Acidized Strawn perf's 9607' - 9722' w/ 7500 fercheck and 150 ball sealers. Avg rate - 10.7 bpm, max - 17 bpm, avg - 5371 psi, max - 6726 psi, had good ball action at end of job. ISIP - 2312, 5 min - 1934 psi, 10 min - 1721 psi, 15 min - 1575 psi 30 min - vacuum. Swabbed back load and turned well over to production.