

NORTH INDIAN BASIN UNIT #31

UL "J", 1980' FSL & 1980' FEL

Section 10, T-21-S, R-23-E

Eddy County, New Mexico

API # 30-015-30111

Drill and Complete Horizontal Lateral

1. On 2/8/00, MIRU PU. Unseat pump, install rod stripper & POOH L/D rods & pump. RU wireline & ran BHP @ 7889' (640 psi). RD wireline, killed well, ND wellhead & NU BOP. Couldn't release or shear TAC. RU wireline & RIH w/jet cutter. Found TAC @ 7444', cut tbg @ 7434', and POOH w/tbg and CT string. RIH w/overshot, dressed off fish, latched on & POOH L/D fish. Left 18' of mud anchor in hole, top @ 8043'.
2. RIH w/bit & scraper, tag obstruction @ 7549'. RIH to 8000', fished standing valve & POOH. RU Baker & RIH w/gauge ring to 7700'. Set retainer @ 7600' & RIH w/stinger on 2-7/8" tbg. Stung into retainer. Squeezed perfs from 7626'-7830' w/500 gals. Flochek + 240 sx Premium cement. Squeezed to 1200 psi & had 129 sx in tbg after stinging out of retainer. POOH to 1260', which sealed off the perfs from 7370'-7573' after the 129 sx of cement fell out of the tbg, loaded & tested top perfs to 500 psi.
3. POOH PU bit & DCs on 2-7/8" tbg. RIH & tagged cement at 7276'. Drilled cement to 7600'. Injected water into perfs from 7370'-7573', 2 bpm @ 500 psi. POOH. RIH w/retainer & set @ 7330'. Squeezed perfs from 7370'-7573' w/250 sx Premium cement w/2% CaCl₂. Pumped 134 sx in the perfs. POOH.
4. RIH w/bit & tagged @ 7330'. Drilled retainer & cement to 7600', top of second retainer. Pressure tested squeeze to 500 psi. Drilled out second retainer & cement to 7835'. Pressure tested to 500 psi. & finished RIH w/bit to top of PBTD @ 7980'. Reversed wellbore clean, L/D swivel & POOH L/D tbg.
5. RD PU and RU Drilling Rig. RU Baker Atlas & ran gauge ring. RIH w/CIBP w/gamma ray. Set CIBP @ 7430' & RD wireline. NU Hydril & rotating head, made up flat nose and string mills on 2-7/8" AOH pipe & RIH to top of CIBP. Set 20 pts. & test BOPs. RU Scientific & orient whipstock, sheared off bolt. Milled out w/starting mill. POOH w/starting mill & RIH w/window mill. Milled window from 7404'-7419'. Pumped sweep & cleaned out wellbore.
6. POOH w/pipe & L/D mills. Made up MWD tools, motor & bit and installed. RIH w/motors on AOH pipe, RU Scientific to gyro & orient motor & started drilling lateral. Drilled to 7447', POOH to change out sub & RIH reaming from 7432'-7447'. Time drilled from 7447'-7448'. Reamed from 7445' -7448'.
7. Re-oriented motor & drilled to 7450'. Motor stalled. POOH, L/D BHA, ran gyro thru csg, whipstock was set correctly. RIH open ended to 7450'. Spotted 4 sx Class "H" w/.1% CFR-3 from 7450'-7419'. Pulled up to 7419' & reversed out 1/4 sx. POOH & WOC.
8. PU bit & RIH, tagging @ 7419'. POOH w/bit & RIH w/motor & BHA tagging cement @ 7447'. Washed from 7447'-7450', circulated & POOH. RIH open ended and tagged 2nd plug @ 7450'. RU Halliburton.
9. Spotted 20 sx of Premium cement from 7450'-7412'. Reversed our 2 bbls cement & POOH. RIH w/bit to 7290' & WOC. Tagged top of cement plug @ 7414'. Drilled cement from 7414' to 7420'. Circulated & POOH. RIH w/bit & motor. Oriented tool face to 47° & time drilled from 7420 to 7737'. Ran Gyro.
10. Drilled to 7520', POOH and changed motor. RIH & tagged @ 7498'. Washed & reamed to bottom. Pumped sweep & continued drilling to 7590'. Circulated & POOH changing bit & motor. RIH & drilled to 8903'. Pumped sweep, made short trip & RIH to bottom. No fill. Drilled to 8985', pumped sweep & POOH. Replaced BHA & RIH washing & reaming last 60' to bottom. Drilled on to 9446'.
11. Pumped sweep & circulated. Made short trip & pumped N-Squeeze on bottom. POOH to surface, replace MWD & RIH to top of whipstock. PU swivel & continued drilling to 9691'. Hung off Drill pipe, ND Hydril, set drill pipe off on slips above BOP & rigged down drilling rig.
12. MIRU PU. POOH w/drill pipe, RIH w/hook & fished whipstock @ 7412'. POOH & RIH w/bullnose & bent jt. on drill pipe, tagging @ 9570'. RU Halliburton & spotted 1000 gals. 15% acid to bottom of tbg & attempted to work pipe to TD @ 9691'.
13. RIH w/Surgifrac tool to 9555'. Acidized open hole in 12 stages pumping a total of 16,000 gals. 20% CSA @ 8 bpm. Pumped 4000 gals of 20% CSA acid down annulus foamed w/N₂ & flushed w/350 BW. Avg. pressure - 6500 psi @ 8 bpm & 750 SCF of N₂. POOH.
14. POOH w/drill pipe & RIH w/Spectra Scan logging tool to 9570'. POOH, logging. Logged to 6800'. POOH L/D log tool. RIH w/bent jt. to 7996'. RU swab. Swabbed recovering 58 bbls fluid. Swabbed well recovering 129 bbls fluid in 19 runs. Swabbed recovering 35 bbls fluid in 4 runs. POOH & RIH w/overshot to fish a bailer that was dropped. RIH w/ RBP & set @ 3181'. Loaded & tested annulus to 500 psi. ND BOP & NU seaboard flange. NU BOP & pressure test flange. POOH w/RBP.
15. PU & RIH w/submersible pump on 249 jts. of 2-7/8" tubing. Landed bottom @ 7904'. ND BOP, NU seaboard head. RD PU and turned well over to production on 4/5/00.

