

INDIAN HILLS UNIT #12
UL "F" OF SECTION 33, T-21-S, R-24-E
API NO. 30-015-28813

1. Work began on June 2, 1998. MIRU PU. Pumped down 2-7/8" tubing. Established injection rate into perfs @ 5 BPM & 1000 psi. NU BOP. POOH w/2-7/8" tbg. RIH w/7" cement retainer and set @ 8027'.
2. RU Halliburton and squeeze perfs at 8140'-8164' w/ 100 sx this (14.5 ppg) and 250 sx premium plus. Established rate @ 5 bpm, 100 psi. Squeezed off at 2000 psi. Reverse circulate 40 sx to pit. Setting tool hung up in casing. Unable to jar loose. RU rotary. Chemical cut tbg. RIH w/overshot & collar.
3. Latched on to fish. POOH w/tbg. LD a large piece of cement. RIH w/5-3/4" shoe w/ 30' jt. of was pipe down to top of fish. Picked up swivel and drilled cement from around tbg. Circulated wellbore clean. POOH.
4. Went back to bottom with wash tool & cut over setting tool to trap it in the wash tool. POOH & LD wash tool. Did not recover fish. RIH w/overshot & latched on to fish. POOH & LD overshot. RIH w/magnet to top of cement @ 8027'.
5. Drilled 2' of cement on top of retainer. POOH. Recovered small amount of iron. RIH w/bit. Drilled from 8028'-8031'.
6. POOH. Changed out bit. RIH w/DC & tubing to 8031'. Drilled cement from 8031'-8184'. RIH to 8257'. Tested squeeze to 500 psi. POOH. LD 2-7/8" tbg. & DCs. ND BOP, removed wellhead & NU blind flange.
7. 6/16/98 started deepening. Drilled cement from 9615'-10,223'.
8. Drilled from 10,223'-11,608'. POOH & LD 23 jts. of drill pipe & thirty 4-1/4" DCs. RU Schlumberger & RIH w/Platform Express. Tagged @ 11,570'. Ran 1st pass to 10,800'. RIH to bottom and logged from 10,800'-10,200'. POOH w/logging tools.
9. RD loggers. RIH w/4-1/2" liner and set @ 10,810' - 9924'. RU wireline. Spotted liner hanger. Middle of ECP set @ 10,804'. Cemented w/145 sx modified "H" w/additives. Pulled 2 stands & reversed out 17 sx. POOH & LD drillstring.
10. ND BOP. NU blind flange.
11. 6/30/98 - MIRU PU. NU BOP. PU 6-1/8" bit on eight 2-7/8" DCs & 2-7/8" tbg. Tagged TOC @ 9802'.
12. Drilled cement from 9802' to top of liner @ 9925'. Circulated. Tested liner top to 300 psi for 30 minutes. Test witnessed by Mike Stubblefield, OCD. POOH. PU 3-7/8" bit, eight 2-7/8" OD DCs, 30 jts. 2-3/8" tbg., crossover, 2-7/8" tbg. RIH to 9925'.
13. Drilled cement from 9925'-50'. RIH to 10,795'. Tested liner to 500 psi. Drilled plugs from 10,795'-10,810'. RIH to 11,010'. POOH. LD 2-3/8" tbg. & DCs. RIH w/7" RTTS packer & set @ 9818'.
14. RU Fracmaster. Pumped a total of 10,000 gals. of 15% HCl acid and 6200 gals. of gelled brine in 7 stages. Max. pressure 4360 psi @ 10 bpm. Min. pressure 180 psi @ 10 bpm.
15. RU Arc Pressure Data & run data tools. Left them hanging above seating nipple @ 9818'. RU Halliburton & pumped down tbg. @ 2 bpm for 1 hr., 4 bpm for 1 hr., 6 bpm to end of test.
16. POOH w/Arc. No tools on wireline. Released RTTS & POOH w/tbg. Recovered pieces of wire. Pulled on last piece & gauges fell to bottom. RIH w/fishing tools on wireline. Recovered wire & wireline jars. Gauges were missing. RIH w/different fishing tools on wireline. Still didn't recover fish. RD Arc. RIH w/killstring.
17. RIH w/overshot on tbg. Tagged up @ 11,348' & worked down to 11,383'. POOH w/tbg. and overshot.
18. RIH w/Kilosocket fishing tool & hydrostatic bailer. Tagged up @ liner. Couldn't get by. POOH & RIH w/shoe & washpipe. Tagged up @ 11,348', made 1/4 turn & fell through. Tagged up @ 11,383'. Worked bailer, made it from 11,383'-11,398', fell through & tagged up on bottom. Worked bailer, made no hole. POOH.
19. RIH w/shoe to TD. Worked bailer on bottom. POOH w/shoe. Cleaned out tbg. & changed out shoe. RIH w/Kilosocket fishing tool to TD. Worked in hole. POOH w/tbg. LD 8 jts. filled w/cuttings.
20. RIH w/shoe back to TD. Worked pipe all the way down to bottom in open hole. POOH w/shoe. No fill or fish. RU Arc Pressure Data w/wireline unit & RIH w/fishing tool & worked up and down open hole. POOH w/fishing tool.
21. RIH w/RTTS packer w/bull plug & subs to 9818'. RI w/electronic gauges & hung in sub below packer. Pumped 2 bpm @ 0 psi for 1 hr. Pumped 4 bpm @ 650 psi for 1 hr. Pumped 6 BPM @ 1700 psi for 8 hrs.
22. RU Arc. RIH & fished BHP gauges. Released RTTS & POOH. RIH w/7" csg. scraper to 9850'. RU Arc. Tagged TD @ 11,515'. RD Arc. RU & pumped down tbg. w/kill truck @ 4-1/2 bpm @ 1000 psi. POOH w/csg. scraper.
23. RIH w/7" Baker packer (Model DB) to 9819'. Set packer. Tested to 500 psi. POOH. RIH w/7" RBP. Set @ 9696'. POOH.
24. RU wireline. Perforate from 8200'-8180', 8174'-8172', 8164'-8160', 8153'-8149', 8100'-8092', 8084'-70' & 8064'-8060' w/2 SPF. Perforate 7996'-7992', 7974'-7920', 7900'-7854', & 7842'-7806' w/4 SPF. RD wireline. RIH w/7" RBP & set @ 8250'.
25. RIH w/PPI tool to 8030'. Acidized bottom zone (8060'-8200') w/8400 gals. of 15% HCl gelled Fercheck SC acid @ 15 bpm. Dropped 140 balls. Good action. Pulled up w/PPI tool. Treated upper zone (7996'-7806') @ 50 gpf in 4' increments. Used a total of 7200 gals. 15% HCl acid. Pulled up to 7550'. Fished both valves.
26. Released PPI tool, POOH, & LD. RIH & latched on to RBP w/ball catcher. POOH & LD RBP. RIH w/RBP & set @ 3840'. POOH w/tbg. ND BOP & RU seaboard wellhead. NU BOP & tested seaboard wellhead.
27. RIH w/Reda sub pump. Landed tbg in seaboard wellhead & ND BOPs. RU seaboard wellhead & RD PU.