

5-14-96

MIRU DA&S Well Service. Installed 11'' 3000# x 7 1/16'' 5000# tbg. Head. Tested to 2500# - held ok, 30 minutes. RU reverse unit, swivel & steel pit. Unloaded & racked 310 jts. 2 3/8'' tbg. NU 1500 series double ram BOP w/2 3/8'' rams & blind rams. PU & RIH w/4 3/4'' skirted mill tooth bit, 6 3 1/2'' drill collars & 171 jts. 2 3/8'' tbg. Tagged cement @ 5761'. Pressure tested csg to 1000# before drilling out DV tool. Held ok. PU swivel, drilled cement & DV tool. Drilled through DV tool @ 5791'. Circ. Hole clean. Pressure tested csg. & DV tool to 1000#. Held ok. SWI & SDFN.  
Daily Cost: \$4,254.

5-15-96

Finish TIH to cement on top of float collar @ 9940'. Drilled cement to float collar @ 9945'. POOH & laid down drill collars. PU & RIH w/Baker style csg. scraper & 4 3/4'' bit & tbg. Ran through DV Tool several times to ensure tool was completely drilled out. Continued in hole to float collar. MIRU Halliburton. Pickled 300 jts. 2 3/8'' tbg. (total 9945') w/500 gals. of 15% hydrochloric acid & reversed out to reserve pit. Displaced hole w/clean 2% KCL water containing 1% Halliburton packer fluid additive. Spotted 150 gallons 10% acetic acid across intervals to be perforated. PU 62' & reversed out acid. Top to bottom: 9729 to 9767. POOH w/2 stands. SWI & SDFN  
Daily Cost: \$6,436.00

5-16-96

Finished TOOH w/tbg. Laid down bit & scraper. MIRU Jarell Services, Inc. & ran CBL from 9945' to 1700'. PU & RIH w/Halliburton Van perforating guns, spacing jts. & Halliburton PLS production packer & tbg. Tested tbg. In hole below slips to 9000#. Set packer & guns after getting on depth w/gamma strip. Closed BOP's. Placed 2'' valve in tbg. & SDFN.  
Daily Cost: \$11,475.

5-17-95

ND BOP, NU wellhead. Tested free to 5,000# for 30 min., held o.k. MIRU production testing equipment. Dropped perforating bar @ 11:53 A.M. @ 12:53 P.M. TP 0#, @ 1:53 P.M. TP 0#, @ 2:53 P.M. TP 0#. SWIFN. Tubing string as follows:

1 jt. 2 3/8'', 4.70#, 8rd AB Mod. L-80 tbg.	32.18'
1 jt. 2 3/8'', 4.70#, 8rd AB Mod. L-80 tbg. sub	8.00'
294 jts. 2 3/8'', 4.70#, 8rd AB Mod. L-80 tbg.	9555.10'
1 - 2 3/8'', 4.70#, 8rd, AB Mod., L-80, Radioactive Marker Sub.	6.08'
1 jt. 2 3/8'', 4.70#, 8rd, AB Mod., L-80 tbg.	32.54'
1 - 2 3/8'', OSTSD	1.20'
1 - 2 3/8'' x 5 1/2'' Perma-Latch 10K Shorty Retrievable pkr.	4.03'
1 - 2 3/8'' x 2 7/8'' x-over	.41'
1 jt. 2 3/8'', 4.70#, 8rd AB Mod. L-80 tbg.	32.52'
1 - 2 3/8'' Maximum differential vent bar	2.31'
1 jt. 2 3/8'', 4.70#, 8rd AB Mod. L-80 tbg.	32.52'
1 - 2 3/8'' x 2 7/8'' x-over	.83'
2 - 2 7/8'' x 6.50#, 8rd EUE, N-80 tbg. subs.	16.00'
1 - 2 7/8'' Auto release head.	1.93'
Total tubing, Packer, & Accessories	
9725.65'	

Packer @ 9692' G.L.  
Perf'd well in Strawn formation via tbg. Conveyed 3 3/8'' casing guns. Perfs as follows:

9729	2 holes	1'
9736	2 holes	1'
9739-48	9 holes	9'
9751-67	16 holes	16'
	29 holes	27'

Daily Cost: \$18,725. Cum. Cost: \$217,690.67

5-18-96

165 psi SITP. MIRU Halliburton. Acidized perfs. @ 9729, 9736, 9739-48 and 9751 -67' (29 holes) w/2000 gals. 15% NEFE HCL w/50 quality CO<sub>2</sub> (9tons) foam., flushed w/1600 gals. 2% KCL w/50 quality CO<sub>2</sub>. Formation broke @ 4480 psi. Min. 4260 psi.; max. 5735 psi.; avg. 5200 psi.; Min rate 5 BPM, avg rate 6 BPM, max. rate 6.3 BPM, ISIP 2400, 5 min. 2290, 20 min, 2150, 30 min. 2090. Total acid 48 bbls. Total flush 38 bbls. Total fluid 86 bbls. Shut well in @ 9:38 A.M. RD Halliburton. Open up well for flow back @ 10:00 A.M. Tbg. 1960 psi. 12/64'' choke 11:00 A.M. tbg. 1050 psi; 12/64'' choke 12 noon tbg. 700psi, 17/64'' choke; 1:00 P.M. tbg. 700psi; 17/64'' choke 2:00 P.M. tbg 650psi; 24/64'' choke; 20% gas; 80% CO<sub>2</sub>. 3:00 P.M. tbg. 100 psi, 28/64'' choke. Left well open overnight on 24/64'' choke and SDFN.  
Daily Cost: \$15,394. Cum. Cost: \$233,084.67

5-19-96

Left well open over night on 24/64'' choke. Tbg.. max. 60 psi, min. 40 psi. RU to swab. Fluid level on first swab run @ 9100'. Recovered 1 1/2 bbls spent acid water. Made 5 hourly runs. Recovered 0 fluid. MIRU Pro Wireline Testers. PU & RIH w/72 hr buildup test tool. 3:55 P.M. shut well in for bottom hole build up test.  
Daily Cost: \$1,750. Cum. Cost: \$234,834.67

5-20-96

SI for BHP build up. 24 hr. SITP: 2300#