

1220 S. St. Francis Dr., Santa Fe, NM
87505

APPROVED BY Paul J. Kautz TITLE PETROLEUM ENGINEER DATE SEP 10 2003

Matador Operating Company

Cooper 4 #1
Sec 4. T20S, R37E

API # 30-025-35794
Lea County, New Mexico

- 02/18/02 Backhoe started leveling the location. Roustabout crew installed fence around the front of the reserve pit.
- 02/19/02 Roustabout crew plumbing the cellar valves to surface.
- 02/21/02 Contractor set used 210bbls fiberglass tank.
- 02/22/02 Set matting boards. MIRUPU
- 02/25/02 Installed BOP, filled reverse pit with 130 bbls FW. Received 201 joints 2-3/8" EUE 8rd J-55 4.7# 6391.49 threads on from Phillips Casing and Tubing. Tally on 201 joints threads off 6352.54'. Transferred 14 joints ditto tubing from Shelley St 35 # 2, length (threads off) 442.19'. Transfer # 00421- date 2/25/02. Total pipe on location 215 joints ditto tubing length 6794.73' threads off. RIH with RR 3-7/8" bit (from Laughlin 6 & Shelley 35 # 2) 4-1/2" casing scrapper, 4 3-1/8" DC and tubing. Tagged up on DV at 3867' KB. PU swivel and test casing to 2500 psi - ok. Drilled DV, passed through tool 15 times rotating and 15 times rotating 1/4 turn on each pass. Tested casing to 2500 psi for 10 mins - ok. Laid down swivel and CIH with tubing. Tagged PBTD at 6754.40' KB. Circulated bottoms up, laid down 2 joints. SWI, SDON. Roustabout crew received and set 2-500 bbl stock tanks and 4x20 heater treater. Crew started building battery.
- 02/26/02 Thaw Key and Schlumberger pump truck. Spotted 10 bbls 10# brine 6750-6105'. Laid down 5 joints tubing. Reversed tubing/casing annulus with 35 bbls FW. Spotted 500 gals 15% NEFE HCL DI LST from 6575-5808'. POH with tubing and loaded hole with 12 bbls FW. RU Jarrel Services and ran GR-CCL from 6748-5900. Perforated 6552-58, 6564-70 with 3-1/8" casing guns, 3 spf, 120 deg phasing, .34 entry hole, 23.8" penetration, 12 gram charges. RIH with SN and 204 joints tubing. EOT is at 6464.44' KB. ND BOP. NU tree consisting of 7-1/16" 5M x 2-3/8" RND x 2-1/16" 5M adapter, 4 2-1/16" 5M KNSG valves, 2-1/16" studded tee, 2-1/16" 5M choke to line pipe. Reversed 7.5 bbls 10# brine in tubing/casing annulus. Tie on tubing and pump spot acid away. Rate .3, 1 bp - 2460 formation broke, increase rate 2.5 bpm, 3 bp tubing - 3000/ann - 2513, rate 3.5 bpm, 5 bp tubing 3509/ ann 2604, rate 4 bpm, 7.3 bp tubing 3918/ ann 2650, rate 4 bpm, 10 bp tubing 3850/ ann 2692, rate 4 bpm, 12 bp tubing 3850/ ann 2632, rate 4 bpm, 13 bp tubing 3850/ ann 2610. ISIP 2518 tubing, 2600 annulus, 5 min 2218/2118, 10 min 2176/2138, 15 min 2145/2115. RD Schlumberger. Bled tubing down to 0 psi. SWI SDON. Tubing Detail:
- | | |
|--|----------------|
| 2-3/8" x 1-25/32" seating nipple with cplg | 1.32 |
| 204 jts 2-3/8" EUE 8rd J-55 4.7# | <u>6447.12</u> |
| Total tubing and tools | 6448.44 |
| KB adjustment | <u>16.00</u> |
| EOT | 6464.44 |
- 02/27/02 RU Schlumberger and acidize 6552-58, 6564-70 with 2500 gals 15% NEFE HCL DI LST with 30 1.3 sg ball sealers. Test lines to 7000 psi. Spotted 23 bbls acid to end of the tubing and closed tubing/casing annulus. Pumped 30 bbls acid and dropped 30 balls followed by 29 bbls acid and 28 bbls flush. Pumped at 5 bpm at 4250 psi avg, max 4317 psi and annulus at 2637 psi with balls on formation. ISIP 2925 tbg/2467 csg, 5 min 2367/2376, 10 min 2316/2325, 15 min 2284/2293. RD Schlumberger and open tubing with pressure bleeding off. Start swabbing. IFL surface, 1st hour 1800' rec 25 bbls, 2nd 3200' rec 15 bbls, 3rd 3600' rec 18 bbls, 4th 5000' rec 18 bbls, 5th 5900' rec 19 bbls with 2% oil cut, 5th 6100' rec 8 bbls 2% oil cut. SD. LWOTT. Roustabout crew building battery.
- 02/28/02 Start swabbing. IFL 5100, 1st hour 1800' rec 5 bbls, 2nd 6100' rec 4 bbls, 3rd 6100' rec 4 bbls, 4th 6100' rec 3 bbls, 5th 6100' rec 2 bbls, 5th 6100' rec 2 bbls, 6th 6100' rec 2 bbls, 7th 6100' rec 2 bbls, 8th 6100' rec 2 bbls. Color cut at end of the day showed 2 bbls oil in tank. Total recovered today 23 bbls water 1 bbl oil. SD. LWOTT. Roustabout crew building battery. SD on gas line installation and battery building.

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Date : 3/1/2002

Activity: Swabbing

Remarks : Start swabbing. IFL 5900, 1st hour 6100' rec 5 bbls, 2nd 6200' rec 2 bbls, 3rd 6200' rec 2 bbls, 4th 6200' rec 2 bbls, 5th 6200' rec 2 bbls, 6th 6200' rec 2 bbls. Total rec today 15 bbls. Sample cut at the end of the day 1-2% oil, casing pressure is 65 psi. SD, LWOTT. Roustabout crew building battery and repairing cattle guard at road entrance.

Date : 3/4/2002

Activity: Swabbing

Remarks : Start swabbing. IFL 3900, 1st hour 5600' rec 4 oil 5 water, 2nd 5900' rec 7 bbls 2% oil cut, 3rd 5900' rec 2 bbls, 4th 6100' rec 2 bbls. RDMOPU. MIRUSU. IFL 5700', made 10 runs and recovered 10 bbls fluid. Samples are cutting 1-2% oil. Total rec today 30 bbls. Sample cut at the end of the day 1-2% oil, casing pressure is 100 psi. SD LWOTT.

Date : 3/5/2002

Activity: Swabbing

Remarks : Start swabbing. IFL 6200'. Made 12 runs, recovered 9 bbls total fluid. Samples showing 1-2% oil cut. EFL 6400' SN depth. Casing pressure 80 psi.

Date : 3/6/2002

Activity: Swabbing

Remarks : Start swabbing. IFL 6100' made 13 runs. Recovered 8.25 bbls total fluid. Samples showing 1-2% oil cut. EFL 6400' SN depth. Casing pressure 100 psi.

Date : 3/7/2002

Activity: Swabbing

Remarks : Casing pressure 120 psi. Start swabbing. IFL 6100'. Made 12 runs, recovered 9 bbls total fluid. Samples showing 1-2% oil cut. EFL 6400' SN depth. Casing pressure 60 psi.

Date : 3/8/2002

Activity: Swabbing

Remarks : Casing pressure 80 psi. Start swabbing. IFL 6000'. Made 10 runs, recovered 8 bbls total fluid. Samples showing 1-2% oil cut. EFL 6400' SN depth. Casing pressure 60 psi.

Date : 3/9/2002 – 3/10/2002

Activity: SDFWE

Date : 3/11/2002

Activity: Swabbing

Remarks : Casing pressure 120 psi. Start swabbing. IFL 5300'. Made 8 runs, recovered 14 bbls total fluid. Samples showing 1-2% oil cut. EFL 6400' SN depth. Casing pressure 60 psi. RDMOSU.

Date : 3/12/2002 – 3/13/2002

Activity: WO Frac

Date : 3/14/2002

Activity: Frac

Remarks : Open well at 2:00 pm CST with 1800 psi. Flowed to pit and tank. Recovered 41 bbls and well would not flow. Start swabbing IFL 400'. Made 8 runs, recovered 23 bbls. SD for sandline cut. Made 7 more runs and recovered 31 bbls with trace sand. SD swabbing at 1:00 am 3/15/02. EFL 1800'. LTR 625, LR 95, LLTR 530.

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Date : 3/15/2002

Activity: Swabbing

Remarks : Start swabbing. IFL 1200'. Swabbed 12 hours, recovered 119 bbls water with trace of oil. EFL 5400'. SD. LWOTT. LTR 625, LR 214, LLTR 411. Well was fraced on 3/13/02. Frac schedule will be provided on 3/19/02.

Date : 3/16/2002

Activity: Swabbing

Remarks : Start swabbing. IFL 2400'. Swabbed 9.5 hours, made 20 runs, recovered 4 bbls oil and 96 water with 17 psi on casing. EFL 5400'. SD. LWOTT. LTR 625, LR 310, LLTR 315. Swab unit broke down. RDSU. MIRUPU and start swabbing.

Date : 3/17/2002

Activity: Swabbing

Remarks : Start swabbing. IFL 2400'. Swabbed 7 hours, made 18 runs, recovered 4 bbls oil and 65 water with casing vacuum. EFL 6200'. Last 3 runs recovering 1.3 bbls per run. SD. LWOTT. LTR 625, LR 375, LLTR 250.

Date : 3/18/2002

Activity: Swabbing

Remarks : Start swabbing. IFL 2800'. Casing 25 psi. RDMOPU. MIRU repaired swab unit. Made 30 runs, recovered 4 bbls oil and 97 water with casing at 40 psi. EFL 5900'. SD, LWOTT. LTR 625, LR 472, LLTR 153. RU Dowell. RU TSI tree saver. Frac Tubb perfs 6552-6520 down 2-3/8" tubing with 44060 lbs 20/40 sand in 24269 gals gelled xlink. Pump schedule as pumped on 3/14/02 as follows:

Stage name	Slurry rate	Fluid name	Fluid Vol	Prop name	Prop mass
Pad	10.5	YF130	9989	None	0
1 ppa	15.0	YF130	2004	20/40 Jordan	1914
2 ppa	15.1	YF130	2006	20/40 Jordan	3878
3 ppa	15.0	YF130	3005	20/40 Jordan	8883
4 ppa	15.0	YF130	3001	20/40 Jordan	11972
5 ppa	14.9	YF130	2006	20/40 Jordan	9839
6 ppa	14.7	YF130	1304	20/40 Jordan	7501
Flush	1.4	YF130	952	None	73

Date : 3/19/2002

Activity: Swabbing

Remarks : Start Swabbing IFL 2800' csg 100 psi. Made 23 runs, recovered 4 bbls oil & 101 water w/csg at 60 psi. ELF 6400'. SD LWOTT LTR 625 LR 573 LLTR 52 Swapped out swab units during the day.

Date : 3/20/2002

Activity: Swabbing

Remarks : Start swabbing. IFL 2800'. Casing 90 psi. Made 18 runs, recovered 4 bbls oil and 64 water with casing at 700 psi. EFL 6400'. Last 3 runs total recovery 4 bbls water. SD, LWOTT. LTR 625, LR 637, LLTR 0 + 12 bbls overload.

Date : 3/21/2002

Activity: Swabbing

Remarks : Start swabbing IFL 3700' csg 160psi. Recovered 3bbls oil & 35 water w/ csg at 100psi. EFL 6200'. RDMOSU LWOTT LTR 625 LR 672 LLTR 0 + 47bbls overload.

Date : 3/22/2002 – 3/23/2002

Activity: Shut In

Remarks : Shut In – Pending SWD Approval.