

Matador Operating Company

Bertha Barber #20
Sec 5, T20S, R37E

API #30-025-35945
Lea County, NM

Date : 9/9/2002

Activity: Swabbing

Remarks : Well is open to test tank, with 40 psig, 24/64" choke. The well unloaded 10 bbls fluid overnight. Started swabbing. IFL 5600', made 3 runs, recovered 8 bbls 90% oil. Continued swabbing 3 runs recovered 4 bbls 30% oil. Hour 3, made 2 runs, recovered 2 bbls 30% oil. With limited entry started SD 1 hour between runs. Recovered .5 bbls 30% oil on each run, for 5 hours. Total recovery 6.5 bbls oil, 10 bbls water. EFL 6400'. LWOTT, SDON. TLTR 909, TLR 177.5, TLLTR 731.5.

Date : 9/10/2002

Activity: Swabbing

Remarks : Well is open to tank with 50 psig on a 24/64" choke. Bled tubing down. RIH with swab, found IFL at 4700' and scattered. Made 3 runs and recovered 4 bbls oil. Second hour made 3 runs recovered 5 bbls with FL at SN on last run. Continue swabbing with 1 hour SD between runs. Recovered .5 bbls per hour for 2 hours. Total recovery 7 bbls oil and 3.5 bbls water. RD swab, pumped 20 bbls FW in tubing and ND tree. Released packer, pulled wrap-around and tree. Installed BOP and POH with tubing. RU Howco and RIH with 3.60 gauge ring to 6450'. RIH with 4-1/2" Howco EZ-Dril 10K CIBP and set at 6340'. RD wireline. RIH with SN and 3000' tubing. SD, LWOTT on a 24/64" choke.

Date : 9/11/2002

Activity: Perforate

Remarks : The well is open to tank. FIH with tubing to 6325'. Circulate hole with 110 bbls FW. Test CIBP to 3050 psig - ok. Spot 15 bbls 10# brine with packer fluid. Laid down 6 joints with EOT at 6133'. Reversed excess 10# with 40 bbls of FW to test tank. Spotted 500 gals 15% NEFE DI LST HCL from 6133 to 5364. POH with tubing. Loaded hole with FW. RU Howco and perforate Blindbry 6106-08, 6131-33, 4 SPF 90 deg phasing, .34 EH, 12.5 gram, 15.13" penetration. RD Howco. RU Cudd and pumped 30 bbls FW with casing on a vacuum. RD Cudd. RIH with 4-1/2" packer, SN and 190 joints tubing. Set packer at 6016.24. RU swab with IFL at 1300 FFS. Swab runs as follows: 2800', 3400', 3400', 3400', 3400', 3400', 3400'. Recovered 70 bbls black water. Some gas on last runs. SWI, SDON.

Date : 9/12/2002

Activity: Swabbing

Remarks : The well is SI with 50 psig. Started swabbing with IFL at 2000 FFS with 3% oil cut on first run. Swab runs as follows: Hour 1- FL 3400', recovered 25 bbls black water. Hour 2- FL 3400', recovered 27 bbls black water. Hour 3- FL 3400', recovered 31 bbls black water. Hour 4- FL 3400', recovered 20 bbls black water. Hour 5- FL 2700', recovered 20 bbls black water. (tubing on vacuum for 2 mins then gas blow). Hour 6- FL 2700', recovered 24 bbls black water. Hour 7- FL 2000', recovered 25 bbls black water. Hour 8- FL 2000', recovered 20 bbls black water. Hour 9- FL 2000' recovered 22 bbls black water. Recovered 214 bbls black water. SWI, SDON. Sent water sample to Schlumberger.

Date : 9/13/2002

Activity: Swabbing

Remarks : The well is shut in with 50 psig. Started swabbing with IFL at 2000' first run. Swabbed 9 hours. Recovered 194 bbls black water. Sent water sample to Schlumberger in Hobbs. EFL 2000'. SWI, SDON.
Water Analysis from 9/12/02:

Date : 9/16/2002

Activity: Swabbing

Remarks : The well is shut in with 70 psig. Started swabbing with IFL at 2000' first run. Swabbed 7 hours. Recovered 147 bbls black water. EFL 2000'. RD swab. Released packer and POH with tubing and tools. SWI, SDON.

Date : 9/17/2002

Activity: Squeeze

Remarks : RIH with 4-1/2" Bolt cement retainer. RU Schlumberger and pumped 34 bbls FW through retainer. Set retainer at 6046' KB. Tested tubing to 3000 psig - ok. Shear off and sting out of retainer. Circulated hole with FW. Sting into retainer. Pressured tubing/casing annulus to 450 psig. Pumped 100 sx Class C low water loss cement (14.8 ppg, 1.32 cuft/sx) followed by 50 sx Class C Neat (14.8 ppg, 1.32 cuft/sx). With 37 sxs through perfs the pressure began to increase from 600 psi at 2 bpm to 1200 psi at 1.1 bpm with 65 sxs through perfs. Slowed rate to .7 bpm at 1529 psi. Slowed rate to .4 bpm at 1378 psi. Slowed rate to .3 bpm at 1039 psi. Pumped 1.5 bbls at .3 bpm with pressure increasing to 1144 psi. With 78 sxs in formation, pumps were shut down. Immediately sting out of retainer. Reversed approximately 55

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sxs to pit. POH with tubing. RIH with SN and tubing incomplete. SWI, SDON.

Date : 9/18/2002

Activity: Perforate

Remarks : FIH with tubing. Broke circulation. Tested cement retainer to 2000 psig - ok. Spotted 500 gals 15% NEFE DI LST HCL from 5820 to 5048'. POH with tubing. Loaded casing with FW. RU JSI and **perforated** Blinbry from 5816-20 with 3-3/8" casing guns, 6 SPF, .43 EH, 31.83" penetration, 22.7 gram and 24 holes. RD wireline. RIH with 4-1/2" AS-1 packer, SN, 180 joints 2-3/8" tubing. Pumped 85 bbls FW containing packer fluid in tubing/casing annulus with no returns from the tubing. Set packer, tested tubing/casing annulus to 500 psig - ok. RD Schlumberger. ND BOP, installed wrap around and tree. Packer has 8 points compression. RU swab. IFL 1300'. Made 10 runs, recovered 84 bbls 100% water. EFL 1400'. SWI, SDON. Total load to recover is 129 bbls. 45 BTLTR.

Date : 9/19/2002

Activity: Swabbing

Remarks : Continue swabbing. IFL 1300'. Swabbed 8 hours, recovered 194 bbls 100% water. EFL 1300'. SWI, SDON. Hauling water out of reserve pit.

Date : 9/20/2002

Activity: Swabbing

Remarks : Swab 180 BW in 8 hours. BFL at 1300'. FFL @ 1300'.

Date : 9/21/2002

Activity: Swabbing

Remarks : Swab 102 BW in 4 hours. BFL at 1300'. FFL at 1300'.

Date : 9/23/2002

Activity: Swabbing

Remarks : BFL at 1300'. Swabbed 100 BW in 4 hours. No hydrocarbon. FFL at 1300'. Removed tree, NU BOP. Pumped 50 BFW down tubing. Released packer. POH with tubing and packer. Will perforate 5748-54 in am 9/24/02.

Date : 9/24/2002

Activity: Perforate

Remarks : RU JSI. **Perforated** Blinbry from 5748-54, with 3-3/8" expendable guns, 6 JSPF, .40 EH, 31" penetration, 21 gram, 60 deg phasing. RIH with 4-1/2" RBP, with ball catcher, 4-1/2" packer, SN and tubing. Set RBP at 5797.74 with 183 joints in hole. Set packer and tested RBP to 4000 psig. Set packer at 5639.94 with 178 joints in hole. Loaded tubing/casing annulus with FW and tested to 500 psig. Started swabbing. IFL 1000', made 10 runs, recovered 100 bbls water. EFL 2000'. SWI, SDON.

Date : 9/25/2002

Activity: Perforate

Remarks : Well is shut in. Started swabbing. IFL 1300'. Made 12 runs, recovered 90 bbls water. EFL 2000'. Released packer, RIH, engaged RBP and released. Reset RBP at 5720'. Tested to 3500 psig - ok. POH with tubing and packer. RU JSI and perforated Blinbry from 5710-14 with 3-3/8" casing gun, 6 JSPF, 60 deg phasing, .40 EH, 31" penetration, 21 gram. RIH with 4-1/2" packer, SN and tubing. Set packer at 5605. SWI, SDON.

Date : 9/26/2002

Activity: Acidize

Remarks : Well is shut in. Started swabbing. IFL 350', swabbed 7 hours, recovered 22.5 bbls water, 3 bbls oil. EFL 5600' (SN). RD swab. RU Schlumberger. Acidize Blinbry perms from 5710-14 with 1500 gals 15% NEFE DI LST HCL. Pressured tubing/casing annulus to 500 psig. Pumped 22 bbls acid, with tubing loading. Pumped .7 bpm at 4800 psi. Pressure began dropping and then increased to 5214. Pumped 1 bpm at 5214 with formation break. Pressure began dropping so rate was increased to 5 bpm with pressure falling to 1309 at the end on the acid. ISIP vacuum. RD Schlumberger. RU swab. IFL 1500'. Began swabbing. After the 5th run oil cut increased to 5%. At the end of the 8th

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run oil cut was 35%. 60 BTL. Recovered 62 bbls total fluid with 22.5% average oil cut. LWOTT, SDON.

Date : 9/27/2002

Activity: Swabbing

Remarks : The well is open to tank. IFL at 1500'. Swabbed 9 hours. Recovered 29 bbls oil and 179 bbls water. EFL at 1300'. LWOTT, SDON.

Date : 9/28/2002

Activity: Swabbing

Remarks : The well is open to tank. IFL at 1300'. Swabbed 4 hours. Recovered 18 bbls oil and 88 bbls water. EFL at 1300'. First run was 60% oil. LOWTT, SDOWE.

Date : 9/30/2002

Activity: Swabbing

Remarks : IFL 1500'. Made 33 BO and 214 BW. EFL 1300'. SDON.

Date : 10/1/2002

Activity: Swabbing

Remarks : The well is open to tank. IFL 1500'. Swabbed 9 hours. Recovered 23 bbls oil and 207 bbls water. EFL 1500'. Last oil cuts running 12-13%. Sent water to Schlumberger. LWOTT, SDON.

Date : 10/2/2002

Activity: Run gauge ring

Remarks : Released packer and POH with tubing and packer. RU JSI and RIH with 3.9375" gauge ring. Ring stopped at 1778'. POH and found groove on side of ring. RIH with 3.875 gauge ring to 5680'. POH with all tools. RD wireline. LWOTT, SDON.

Date : 10/3/2002

Activity: Set CIBP

Remarks : RIH with retrieving tool and tubing. Engaged and released RBP. POH with tubing and RBP. RU Howco. RIH with 3.650 gauge ring to 5800'. RIH with 4-1/2" EZ-Drill 10K CIBP. Set top of CIBP at 5722' KB. POH with wireline and setting tools. RD wireline. Tessco removed 3 10KVA transformers and install 3- 50KVA transformers. Schlumberger set in reda drive unit and electricians wired panels. LWOTT, SDON.

Date : 10/4/2002

Activity: Run Sub Pump

Remarks : Pick up and RIH with Schlumberger Sub Pump. ND BOP, installed reda wellhead. Roustabout crew built wellhead and connected to flowline. Electricians installed safety shut down on flowline. Started sub pump with fluid to surface in 6 mins. The BHP was 1836 psig before pump was started. After one hour of running, pressure leveled at 1789 psig. All fluid is going to Marathon battery. Transferred 39 joints 2-3/8" EUE 8rd 4.7# J-55 tubing 1231.06' to Matador Stock.

Date : 10/9/2002

Activity: MIRUPU

Date : 10/10/2002

Activity: Pull pump

Remarks : W.O.O. ND reda wellhead, NU BOP. POH w/tbg and reda pump. LWOTT SDON.

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Date : 10/11/2002

Activity: Perforate

Remarks : RIH w/4 1/2" RBP w/ball catcher. Set RBP 174 jts at 5500'. Circulate well w/ FW. Test RBP to 3000 psig. Spot 750 gals 15% NEFE LST DI HCL at 5390'. POH w/tbg. RU JSI and perforate Paddock 5383-90 w/3 3/8 Expendable csg gun, 6 SPF, .40EH, 21gram, 34.8" penetration. RUWL RU Schlumberger and pump perf acid away as follows: .2 bpm at 2449 w/1.6 BIF, .5 bpm at 2573 w/3 BIF, 1.5 bpm at 2637 w/6.1 BIF, 2.5 bpm at 2650 w/ 10.4 BIF, 3.5 bpm at 2829 w/ 17 BIF, 3.5bpm at 2586 w/ 24 BIF, 3.5bpm, at 2531 w/ 29.4 BIF, ISIP 2461, 5#-1373, 10#-645, 15#- 233. Formation broke at 2461psig. RD Schlumberger. RIH w/4 1/2" packer, SN, and 167 jts tbg. Set packer at 5289' K.B. w/ 18 pts compression. LWOTT SDON Electricians removed 3-50 KVA transformers and returned 3 10 KVA's. Moved reda panels to Cooper 5 # 9.

Date : 10/12/2002

Activity: Swabbing

Remarks : Start swabbing IFL 1900', made 40 swab runs, recovered 134 bbls water, EFL 4600'. Fluid level held at 4600' from the 5th swab run. LWOTT SDON

Date : 10/13/2002

Activity: Swabbing

Remarks : Start swabbing IFL 1500', swabbed 5 hrs recovered 60bbls water, EFL 4800'. SD Swabbing, Set rental slips. SWI RDMOPU

Date : 10/17/2002

Activity: Pull Packer

Remarks : MIRUPU. Started swabbing. IFL 1800', made 4 runs, recovered 24 bbls black water. EFL 4600'. Sent water sample to Schlumberger. RD swab. Released packer and POH. Laid down packer and RIH with RBP retrieving head. Released RBP. Moved RBP to 5250'. Circulated well with 80 bbls FW. Laid down 2 joints with EOT at 5174'. SWI, SDON.

Date : 10/18/2002

Activity: Perforate

Remarks : RU Cudd Pumping Services onto tubing. Spotted 750 gals 15% NEFE LST DI HCL acid at 5174' KB. OH with tubing, seating nipple, packer and RBP on/off tool. RU JSI. Perforated Glorietta from 5148'-5150' and 5168'-5174' with 3-3/8" expendable casing gun, 6 JSPF, .43" EH, 31.83" penetration, 22.7 gram, 60 deg phasing. RD JSI. RU Cudd on casing valve and closed BOP. Pumped 1/2 bbl fresh water and casing loaded. Pressured casing up to 2600 psi 3 times and allowed pressure to bleed off into formation. Pressured up to 2620# and formation started taking acid. Started pumping acid into formation at .4 bpm and pressure dropped to 2450 psi. Increased rate to 1 bpm at 2500 psi. Pumped 2 bbls into formation and pressure dropped to 2200 psi. Increased rate to 2 bpm and pressure increased to 2440 psi. Pumped 2 bbls and pressure remained at 2440 psi. Increased rate to 4 bpm and pressure increased to 2480 psi. With all of acid pumped into formation pressure was at 2380 psi. ISIP 2050 psi., 5 mins 780 psi, 10 mins 115 psi, 12 mins 0 psi. Load left to recover was 25 bbls. RD Cudd. RIH with 4-1/2" treating packer, seating nipple and tubing. Set packer in 15 points compression at 5097.59' KB. Began swabbing. IFL was 450'. Swabbed well down to seating nipple in 4 runs and recovered 31 bbls of load water. Had an oil cut of 3% and 97% black water with a little gas blow after the 5th run. Fluid entry was slow and operator shut down 15 mins between runs. EFL was 4700'. Recovered 39 bbls total fluid with 11 swab runs. Oil cut at end of swabbing was 3%. LWOTT, SDON.

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Lea County, NM

Date : 10/19/2002

Activity: Acidize

Remarks : Opened up well to test tank and began swabbing. IFL was 2500'. Swabbed well down to seating nipple with 2 swab runs. Oil cut on first run was 5%. After first hour of swabbing fluid entry was slow, so operator waited 15 mins between runs. Fluid level stayed at 4800'. Swabbed well for 3 hours. Made 7 swab runs and recovered 13-3/4 bbls total fluid with an average oil cut of 3%. RU Schlumberger. Pressured annulus up to 500 psi. RU on tubing and acidized Glorietta perforations with 2000 gals 5% NEFE LST DI HCL acid and 20 ball sealers for diversion. Pumped 24 bbls of acid and dropped all ball sealers. Tubing loaded with 19 bbls of acid pumped. Pressure after tubing loaded was 2600 psi at 4 bpm. After 50 bbls pumped ball sealers were on formation. Had some blocking action up to 3100 psi and then pressure broke back to 2733 psi at 4 bpm. Flushed acid to bottom perforation. ISIP was 1900 psi., 5 mins 1126 psi, 10 mins 453 psi., and 15 mins 137 psi. Load left to recover was 83 bbls. RD Schlumberger. Began swabbing. IFL was 150'. Swabbed well down to seating nipple with 4 swab runs. Had trace of oil showing on 6th swab run. At end of swabbing, fluid level was at 4400'. Oil cut was at an average of 3% with very good gas blow after each run. Total fluid swabbed was 58 bbls in 4 hours with a total of 12 swab runs. Load left to recover is 25 bbls. LWOTT, SDON.

Date : 10/20/2002

Activity: Swabbing

Remarks : Opened up well to test tank and began swabbing. IFL was 2400'. Swabbed well down to seating nipple with 2 swab runs. Oil cut on first run was 15%. Fluid entry became slow after recovering 56 bbls total fluid. Fluid level was staying at 4800'. Operator started waiting 15 mins between runs the last 3 hours of swabbing. At the end of swabbing fluid level was staying at 4600' with an average oil cut of 3%. Total recovery for the day was 2 bbls of oil and 63 bbls of water. Swabbed 9 hours and made 31 swab runs. LWOTT, SDON.

Date : 10/21/2002

Activity: Swabbing

Remarks : 1st run tubing FL at 2500'. Recovered 8 bbls, 10% oil cut. Continued swabbing to SN at 5097' making 6 bph 2-3% oil cut. 9 hours swabbing, 58 bbls total recovery. LWOTT, SDON.

Date : 10/22/2002

Activity: Release Packer

Remarks : Release 4-1/2" AS-1 packer. RIH with 3 joints 2-3/8" tubing to RBP. Engaged and released RBP. POH laying down tubing and tools. ND BOP. NU type B wellhead and shut in. Rig down.

Date : 10/23/2002

Activity: SI

Remarks : Off report until plugging order is received.

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State of New Mexico
Energy, Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-105
Revised March 25, 1999

WELL API NO.

30-025-35945

5. Indicate Type of Lease

STATE ☐ FEE ☒

State Oil & Gas Lease No.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. Type of Well:

OIL WELL ☐ GAS WELL ☒ DRY ☐ OTHER _____

b. Type of Completion:

NEW ☒ WORK ☐ DEEPEN ☐ PLUG ☐ DIFF.
WELL OVER BACK RESVR. ☐ OTHER

2. Name of Operator

Matador Operating Company

3. Address of Operator

310 W. Wall, Suite 906 Midland, TX 79701

7. Lease Name or Unit Agreement Name

Bertha Barber

8. Well No.

20

9. Pool name or Wildcat

NA

4. Well Location

Unit Letter E : 1840 Feet From The North Line and 660 Feet From The West LineSection 5 Township 20S Range 37E NMPM Lea County

10. Date Spudded

7/30/02

11. Date T.D. Reached

8/21/02

12. Date Compl. (Ready to Prod.)

13. Elevations (DF& RKB, RT, GR, etc.)

3558 GR

14. Elev. Casinghead

15. Total Depth

6714

16. Plug Back T.D.

6659

17. If Multiple Compl. How Many Zones?

18. Intervals Drilled By

Rotary Tools

X

Cable Tools

19. Producing Interval(s), of this completion - Top, Bottom, Name

none

20. Was Directional Survey Made

No

21. Type Electric and Other Logs Run

DLL, Density/Neutron, Long Space Sonic Log

22. Was Well Cored

No

23. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
8 5/8	24	1212	12 1/4	360 sx @ 1.99 yld	
				200 sx @ 1.32 yld	Circ 145 sx to Pit
4 1/2	11.6	6714	7 7/8	550 sx Super H	
				1000 sx Class C	Circ 50 sx to Pit

24. LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN

25. TUBING RECORD

SIZE	DEPTH SET	PACKER SET

26. Perforation record (interval, size, and number)

5148-50, 5168-74, 5383-90, 5710-14 6 SPF CIBP @ 5722

5748-54, 5816-20 6 SPF Cmt Ret @ 6046 Sqz w/ 78 sx

6106-08, 6131-33 4 SPF CIBP @ 6340

6364-66, 6392-96, 6434-37 4 SPF

27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.

DEPTH INTERVAL AMOUNT AND KIND MATERIAL USED

5148-5174 2500 gal 15%

5383-90 750 gal 15%

5710-14 1500 gal 15%

6364-6437 12500 gal 15%, 20000 pad

28. PRODUCTION

Date First Production

Production Method (Flowing, gas lift, pumping - Size and type pump)

Well Status (Producing or Shut-in)

Dry Hole

Date of Test Hours Tested Choke Size Prod'n For Test Period Oil - Bbl Gas - MCF Water - Bbl Gas - Oil Ratio

Flow Tubing Press. Casing Pressure Calculated 24-Hour Rate Oil - Bbl. Gas - MCF Water - Bbl. Oil Gravity - API - (Corr.)

29. Disposition of Gas (Sold, used for fuel, vented, etc.)

Test Witnessed By

30. List Attachments

Logs, Deviation Report, C103

31. I hereby certify that the information shown on both sides of this form as true and complete to the best of my knowledge and belief

Signature Russ Mathis

Printed

Name Russ Mathis

Title Production Manager

Date 12/17/02

INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, items 25 through 29 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico

Northwestern New Mexico

T. Amy
T. Salt 1070
B. Salt
T. Yates 2398
T. 7 Rivers 2632
T. Queen 3239
T. Grayburg 3445
T. San Andres
T. Gloriaeta 5116
T. Paddock 5222
T. Blinnebry 5635
T. Tubb 6240
T. Drinkard 6596
T. Abo
T. Wolfcamp
T. Penn
T. Cisco (Bough C)
T. Canyon
T. Strawn
T. Kirtland-Fruitland
T. Pictured Cliffs
T. Cliff House
T. Menefee
T. Point Lookout
T. Mancos
T. Gallup
Base Greenhorn
T. Dakota
T. Morrison
T. Todilto
T. Entrada
T. Wingate
T. Chinle
T. Permian
T. Penn "A"
T. Ojo Alamo
T. J. B.
T. Penn. "C"
T. Penn. "D"
T. Leadville
T. Madison
T. Eibert
T. McCracken
T. Ignacio Otzie
T. Granite

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from to feet.

No. 2, from to feet.

No. 3, from to feet.

LITHOLOGY RECORD

(Attach additional sheet if necessary)

[illegible]