

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

WELL API NO. 30-025-31187
5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No. VB-03934

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	
1. Type of Well: OIL WELL <input checked="" type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/>	7. Lease Name or Unit Agreement Name Buffalo Wallow "1" State
2. Name of Operator Marathon Oil Company	
3. Address of Operator P.O. Box 552, Midland, TX 79702 915/682-1626	
4. Well Location Unit Letter <u>F</u> : <u>1980</u> Feet From The <u>North</u> Line and <u>1980</u> Feet From The <u>West</u> Line Section <u>1</u> Township <u>18S</u> Range <u>36E 35</u> NMPM Lea County	
10. Elevation (Show whether DF, RKB, RT, GR, etc.) 3887' GL	

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data	
NOTICE OF INTENTION TO:	SUBSEQUENT REPORT OF:
PERFORM REMEDIAL WORK <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>
TEMPORARILY ABANDON <input checked="" type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>
OTHER: <input type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
	CASING TEST AND CEMENT JOB <input type="checkbox"/>
	OTHER: Well completion <input type="checkbox"/>

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

Marathon Oil Company on 6/25/91 initiated well completion and testing that resulted in the well being temporarily abandoned.

6/25/91 - RU X-pert Well Service. Installed 6" 1500# series hydraulic BOP. RIH w/4 5/8" bit, 4-3 1/2" DC's & 305 jts 2 7/8", 6.5#, L-80 workstring. Tagged TOC (above DV tool) @ 9303' @ 9210' KB. SWI. SDFN.
TL 0 TR 0

6/26/91 - RU power swivel, broke rev. circ & drilled out hard cmt. F/9210' to DV tool @ 9303'. DO DV tool f/9303'-9305' & fell out. Circ hole clean, RD swivel,

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I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE <u>Carl A. Bagwell</u>	TITLE <u>Engineering Tech.</u>	DATE <u>8/21/91</u>
TYPE OR PRINT NAME <u>Carl Bagwell</u>		TELEPHONE NO. <u>915/682-162</u>

(This space for State Use)

APPROVED BY _____	TITLE _____	DATE _____
CONDITIONS OF APPROVAL, IF ANY:		

- 6/26/91 - PU 30 jts. 2 7/8", 6.5# L-80 work string off rack & tagged PBD @ 10208' (F.C.). POOH w/337 jts. tbg, -3 1/2" DC & 4 5/8" bit. RIH w/4 5/8" bit on 5 1/2" csg. scraper w/4 - 3 1/2" DC & 40 jts. tbg., SI & secure well, SDFN.
TL 0 TR 0
- 6/27/91 - Finish in hole w/4 5/8" RIT, 5 1/2" csg. scraper, 4- 3 1/2" DC on 2 7/8" 6.5# L-80 work string. Dress off DV tool @ 9303'-9305' & RIH w/336 jts tbg. to PBD @ 10,208'. Displace hole w/225 bbls. 2% KCl wtr. & press. test. DV tool to 1000 psi f/15 min. & held OK. POOH laying down 2 7/8" workstring in singles. SI & secure well, SDFN.
TL 0 TR 0
- 6/28/91 - RU Apollo W/L. W/full lubricator & RIH w/GR, CCL, CBL & ran 200' log & repeat under PSI. Ran log f/loggers PBD of 10,186' to 2400' under 1000 psi (CBL indic. fair bond over zone of interest.) POOH & RD Apollo. Start in hole w/ new 2 7/8" 6.5# N-80 tubing open ended off rack. SI & secure well, SDFN.
TL 0 TR 0
- 6/29/91 - Finish in hole w/322 jts. New 2 7/8" 6.5# N-80 tbg. to 10,186' KB (tbg talley). Broke circ. w/2 bbls 2% KCl wtr & pumped 12 bbls 15% NEFE HCl acid followed by 55 bbls 2% KCl wtr @ 2 BPM to "Pickle" new tbg. Displ 6 B.A. out end of tbg & shut down. Reversed out acid to pit w/71 BW. Swab tbg down to 1600' from surface. POOH w/tbg & SN. RU Apollo w/L & RIH w/GR, CCL & 3 3/8" csg guns. (Ran 2 correlation strips) Perf. Upper Wolfcamp f/10,116'-10,140' w/2 JSPF (total of 50 holes) POOH & RD Apollo PU & RIH w/2 7/8" x 5 1/2" RTTS pkr, SN, & 30 stands tbg. SI & secure well, SDFN.
TL 18 BA, 55 BW TR 71 BW
- 6/30/91 - SITP - 0 psi, SICP - 0 psi. Finish in hole w/320 jts. 2 7/8" 6.5# N-80 tbg, 2 7/8" x 5 1/2" RTTS pkr., SN & 18' of pup jnts. to 10,142' KB. Broke circ w/48 bbls 2% KCl water & spotted 2 bbls 15% NEFE HCL acid w/additives. POOH w/pup jts. 3 jts tbg & set pkr. @ 10,038' in 15000# compression. Load annulus & press to 500 psi. Test lines to 5000 psi. Held OK (Tbg on vacuum.) Pumped 8 BW & could not catch press. Shut down. Tbg on strong vacuum. Started on acid & acidized Upper Wolfcamp perfs (10,116'-140') w/33 bbls 15% NEFE acid using 80- 1.3 sg rcn BS f/divert. Flushed to top perf w/60 bbls. 2% KCl wtr. Avg treating press 3000 psi @ avg rate of 1.8 BPM. Max press 4000 psi. ISIP - 2900 psi; 1 min - 1600 psi; 3.5 min - vacuum. Rel RTTS & RIH w/4 jts tbg to clear perfs. PU & reset RTTS in 15000# compression @ 10,038'. PU swab 4000' from surface & scattered (acid gas). SI & secure well, SDFN.
TL 53 BA, 234 BW TR 141 BW
- 7/01/91 - SITP 50 psi. Bled pressure off. WIH w/swab FSL 3500' f/surface. Made 25 SR in 9 hrs. Recovered 110 BW FFL 4000' f/surface. No sign of oil or gas on swab runs.
TL 53 BA, 234 BW TR 251 BW

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- 7/02/91 - SITP - 0 WIH w/swab. SFL 3500' f/surface. Made 18 swab runs in 9 hrs. Recovered 128 BW. FFL 4200' f/surface. No sign of oil or gas. H₂O sample analyzed @ 42,000 mg/l (parts per million).
TL 53 BA, 234 BW TR 379 BW
- 7/03/91 - SITP - 0 psi. SICP - 0 psi. RIH w/swab. FSL 3500' FS. Made 15 swab runs in 8 hrs. Recovered 104 BW. FFL 4000' FS. Open bypass on plc. Unset pkr & POOH w/270 jts tbg. SWI. SDFN.
TL 53 BA, 234 BW TR 483 BW
- 7/04/91 - Finish POH w/tbg. Lay down RTTS pkr. RU Apollo w/full lubricator. WIH w/CIBP & set 10,070'. POH. WIH w/dump bailer & dump 2 sx cmt on top of CIBP. PBTD 10,050' (est.). Wait on expendable gun. WIH w/3 3/8" expendable gun perforate 4 JSPF @ 90° phasing f/9864'-60'. POH. Rig down Apollo. WIH w/5 1/2" RTTS pkr, S/N on 300 jts 2 7/8" N-80 tbg. Secure well, SDFD.
TL 0 TR 0 New Zone
- 7/05/91 - Continue in hole w/RTTS & set pkr in 15,000# compression @ 10,016'. Test pkr seat & CIBP @ 2000 psi. Held OK. Pull pkr up & set @ 9785. Load back-side & pressure @ 500 psi. Load tbg. Pressure to 4000 unable to break. Unseat pkr, lwr tbg to BTM perf @ 9864'. Spot acid to btm of pkr. Pull up set pkr @ 9785. Reverse 2 bbls. Cut tbg pressure annulus @500. Pressure intermittently. Establish breakdown @ 4 BPM @ 6200 psi. Acidized w/750 gals 15% NEFE acid @ AIR 6100 psi @ 1.4 BPM. Max rate 1.6, Max psi 6200. Flush to perf w/2% KCl water. ISDP 5700. 5 min 5400. 10 min 5200. 15 min 5000. Shut in well. Rig down Western Co. Change out sandline on rig. Open well 3 hrs later SITP 1500 psi. Bled pressure off. Rig swab lubricator WIH w/swab. SFL @ surface made 9 SR in 2 1/2" hrs. Recovered 63 BW & 0 BO. FFL @ 6500 f/surface. No gas or oil show. Close well in, SDFD.
TL 18 BA, 28 BW TR 63 BW
- 7/06/91 - SITP - 60 psig. Bled pressure off. WIH w/swab. Sfl 4500 f/surface. 1st swab run sample showed 40% oil. Made 6 addtl swab runs w/fluid level @ 6500' f/surface. Swabbed tbg dry next 2 runs. Made 2 S/R f/ S/N waiting 1 hr between runs (500' fluid entry). Each swab run sample showed 20-30% oil. Made total of 11 swab runs in 9 hrs. Recovered 20 BO & 30 BW. Secure well, SDFD.
TL 18 BA, 28 BW TR 20 BO, 93 BW
- 7/07/91 - SITP. Open pkr bypass & equalize. Unseat pkr. POH w/tbg. Lay down pkr. Rig up Apollo w/full lubricator. WIH w/3 3/8" expendable csg gamma gun. Perforate 3rd carbonate f/9445'-50' w/4 JSPF (24 holes) using 22 gram shots @ 90° phasing. POH w/csg gun. Rig down Apollo. WIH w/HOWCO 5 1/2" RBP, RTTS pkr, S/N on 2 3/8" N-80 tbg. Attempt to set RBP @ 9537'. Unable to set. Attempt setting RBP at various depths. Unable to do so. POH w/pkr and RBP. L/D tools. Left 1 drag block & 3 springs in hole f/RBP. RIH w/20 stds 2 7/8" tbg. Secure well, SDFD.
TL 0 TR 0 New Zone

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- 7/08/91 - SITP - 0. POH w/tbg. WIH w/HOWCO 5 1/2" pkr type RBP, RTTS pkr, S/N on 70 stands 2 7/8" tbg. RBP taking wt, work tool to open bypass. Unable to continue in hole, RBP setting down. POH. Lay down RBP & RTTS pkr. Rig up Wedge W/L w/packoff. WIH w/4.330 gauge ring & junk basket to 9630'. Had no obstructions POH. Fluid level @ 4220'. WIH w/Guiberson 5 1/2" tbg retrievable w/L set REP & set @ 9537' POH. Rig down Wedge W/L w/retrieving head, RTTS pkr, S/N cn 2 7/8" N-80 tbg. Set pkr @ 9500'. Load tbg & test RBP @ 2000 psig w/Western pump. Held OK. Pull pkr up & set @ 9379'. Load backside & pressure to 1000 psig. Load tbg establish breakdown w/2% KCl water @ 2 BPM @ 2700' psi. Acidize perfs 9445'-50' w/1000 gals of 15% NEFE acid. Max rate 5.0 BPM @ 3700 psig. Avg rate 3.0 @ 2700 psig. Flush to bottom perf w/2% KCl water. ISOP - Vacuum. Rig down Western Co. Rig up swab lubricator. WIH w/swab SFL. 3500' f/surface. Made 2 S/R in 1 hr. FFL 4000' f/surface. Recovered 12 BW & 0 BO. Secure well, SDFD.
TL 24 BA, 0 BW TR 0 BO, 12 BW
- 7/09/91 - SITP - 0 psi. Well on slight vacuum. RIH w/swab. SFL 4200' FS. Made 28 swab runs in 12 hrs. Rec'd 177 BW. Very slight after each run. Final FL 4200' FS. SWI, SDFD.
TL 24 BA, 0 BW TR 0 BO, 189 BW
- 7/10/91 - SITP - 30 psi. Bled pressure off. WIH w/swab. SFL 4000' f/surface. Made 32 swab runs in 13 hrs. Recovered 187 BW & 0 BO. Open pkr bypass, equalize, unseat pkr. POH. Lay down RTTS. WIH w/Baker lok-set pkr & Nat'l Hi-Volume cavity pump on 297 jts 2 7/8" N-80 tbg. N/D BOPE. Set pkr @ 9417'. Land tbg in 15,000# tension. Drop s/v. Load tbg & annulus. Test pkr @ 500 psi. Held OK. Secure well, SDFD.
TL 24 BA, 0 BW TR 0 BO, 376 BW
- 7/11/91 - Install Unidraulics wellhead. Nat'l unidraulics surface equipment arrived @ 1:00 pm. Set unit. Weld discharge line & install. Set 4 frac tanks & manifold. Set portable generator & diesel tank.
TL 24 BA, 0 BW TR 0 BO, 376 BW
- 7/12/91 - Ran electrical wiring to motor. 440 panel, all kill switched & to portable generator. Open well. Drop Jet pump. Start unidraulics Triplex pump & seat Jet pump. Well produced for 30 min & went down on high discharge pressure. Reverse flow & pump down annulus to unseat pump & washout. Pump down tbg & seat pump. Well went down on high discharge psi. Pump Jet pump out of hole. Pump down tbg to circulate & clean out. Meanwhile break Jet pump down & found port plugged w/LCM. Redressed pump. Pump Jet, pump down & seated. Well produced 104 BW in 4 1/2 hrs & went down on high discharge pressure. Start to pump Jet pump out of hole & ran out of fluid in unidraulics reservoir. Waiting on truck to load & prime unidraulics.
TL 24 BA, 0 BW TR 0 BO, 480 BW

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- 7/13/91 - Load & prime Unidraulics. Pump jet pump out of hole. Drop new jet pump. Seated. Well pumped 6 hrs & went down on high discharge pressure tore Triplex down & cleaned. LCM from plunger seats. Well pumped 14 hrs. Total daily hrs well pumped 20 hrs. Total daily rec'd 510 BW.
TL 24 BA, 0 BW TR 0 B0, 990 BW
- 7/14/91 - Well produced 9 B0 & 660 BW in 24 hrs.
TL 24 BA, 0 BW TR 9 B0, 1650 BW
- 7/15/91 - Well produced 10 B0 & 622 BW in 24 hrs. Well began making gas.
TL 24 BA, 0 BW TR 19 B0, 2272 BW
- 7/16/91 - Well produced 10 B0 & 604 BW in 24 hrs.
TL 24 BA, 0 BW TR 29 B0, 2876 BW
- 7/17/91 - Well pumped 247 BW & 5 B0 in 10 hrs. Well down 2 hrs to replace packing on plungers in pump. (Change reporting period to 6:00 pm - 6:00 pm MST to allow time to complete reports & send to Midland by 7:00 am CST each morning.) Sent water sample to Halliburton @ 7:00 pm MST to check chlorides. Will attempt to install well tester in morning.
TL 24 BA, 0 BW TR 34 B0, 3123 BW
- 7/18/91 - RU portable well tester. Well produced 2 B0 & 582 BW w/19 MCF in 23 1/2 hrs. Oil gravity 35.2° @ 60°F. Chlorides - 91,000 ppm.
TL 24 BA, 0 BW TR 36 B0, 3705 BW
- 7/19/91 - Well produced 3 B0 & 624 BW w/21 MCF in 24 hrs. Chlorides 112,500 mg/l. SG - 1.10 @ 74°.
TL 24 BA, 0 BW TR 39 B0, 4329 BW
- 7/20/91 - Well produced 2 B0 & 586 BW w/24 MCF in 24 hrs.
TL 24 BA, 0 BW TR 41 B0, 4915 BW
- 7/21/91 - SWI.
TL 24 BA, 0 BW TR 41 B0, 4915 BW
- 7/22/91 - SWI.
TL 24 BA, 0 BW TR 41 B0, 4915 BW
- 7/23/91 - Pumped down annulus to surface jet pump w/o success. RIH w/overshot on sandline & fished pump @ 2000'. POOH. RIH w/overshot on sandline. Waited 1 hr to let fluid equalize after shearing drain valve. Worked for 2 hrs before SV came free. POOH. ND wellhead & NU 6" series 900 hydraulic BOP's w/2 7/8" pipe rams. Checked pipe rams for closure. Released Baker Lok-set pkr & POOH. RIH w/20 stands for kill string (+ 1200'). Waited on orders. SDFD.
TL 24 BA, 0 BW TR 41 B0, 4915 BW

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- 7/24/91 - POOH w/kill string. RU Wedge Wireline. Dump bail 2 sx sand on RBP @ 9537'. RD Wedge. RIH w/5 1/2" cmt retainer on 2 7/8" tbg to 9370'. Left retainer swinging. Secured well & SDFD.
TL 24 BA, 0 BW TR 41 BO, 4915 BW
- 7/25/91 - Pumped 55 BW thru retainer. Set retainer @ 9370'. Loaded annulus. Loaded tbg & tested to 2000 psig. Tested annulus & pipe rams to 1000 psig. Established inj rate @ 4 BPM & 0 psig. Mixed & pumped 50 sx Class H cmt w/0.4% Halad 9 & 100 sx Class H Neat @ 1-4 BPM on a vac. Order out cmt & Flocheck. Waited 3 hrs. Established inj rate @ 2 BPM & 650 psig. Mixed & pumped 200 sx Class H Neat cmt. Squeezed to 1550 psig. Stung out of retainer. Reverse circ 66 sx cmt to pit. POOH w/10 stands tbg. Secured well & SDFD. Note: Didn't pump Flocheck due to 2nd inj rate.
TL 0 BA TR 0 New Zone
- 7/26/91 - POOH. Finished loading hole. Tested blind rams to 1000. RIH w/4 5/8" bit, & 4-3 1/2" drill collars on 2 7/8" tbg. Tagged cmt @ 9364'. Drilled out cmt, retainer & cmt to 9382'. Reverse circ hole clean. SDFD.
TL 0 TR 0
- 7/27/91 - Drilled out cmt to 9458'. Circ hole clean. Test squeeze to 1000 psig. Bled to 800 psig in 15 mins. FIH & washed sand off plug. POOH. RIH w/overshot on 2 7/8" tbg. Latched onto RBP. PU to 9303' & SDFD.
TL 0 TR 0
- 7/28/91 - POOH. Laid down RBP. RIH w/20 stands tbg for killstring (+1200') & SDFD.
TL 0 TR 0
- 7/29/91 - SD for Sunday.
TL 0 TR 0
- 7/30/91 - SITP & SICP = 0 psig. Opened well. POOH w/20 stands for killstring. Tested full lub on ground to 1000 psig. Held OK. RU Wedge Wireline. Installed full lub. PU 3 1/8" csg gun & RIH to 8450'. Pulled 450' of Gamma Ray for correlation. Perf'd 2nd Bone Spring Carbonate 4 JSPF from 8342' to 8348' (90° phasing) for a total of 28 holes. POOH w/gun. All shots fired. PU 5 1/2" RBP, 5 1/2" RTTS tool, SN & RIH on 268 jts of 2 7/8", 6.5# N-80 EUE tbg & set plug @ 8497' KB. Pulled pkr up one jt & set. Tested RBP to 2000 psig. Held OK. Pulled 3 stands (6 jts) & set RTTS @ 8263' KB. Loaded backside w/+2 BW & left 500 psig on backside. Ru Halliburton. Attempted to break formation w/2% KCl wtr to 2000 psig. No break. Released pkr & RIH to +8350'. Spotted 1 1/2 bbls of 15% NEFE acid. Pulled pkr back to 8263' KB. Pressure backside to 1000 psig. Pressured tbg to 3500 psig. No break. Increased tbg pressure in steps to 6000 psig until spot had been pumped away. Bled off pressures. Released pkr & RIH to +8350'. Spotted 500 gals of 15% NEFE acid across perms

- 7/30/91 - 8342'-8348'. Pulled pkr to 7756' KB. Trapped 1000 psig on backside, set pkr. Pressured tbg to 4950 psig where formation broke @ 0.6 BPM. Increased rate to 3 BPM w/tbg pressure dropping to 4800 psig. Pumped away spot. ISIP on spot @ 4400 psig. 10 min SIP = 3600 psig. Opened bypass & spotted remaining acid to pkr @ 7756' KB w/5 stages of balls for divert containing 8 balls each. Closed bypass on pkr. Acidized 2nd Bone Spring w/940 gals of 15% NEFE HCl. Good ball action on 1st & 2nd stage of balls. Surged balls acidizing. ISIP = 4400 psig. 5 min SIP = 4200 psig. 10 min SIP = 4100 psig. AIR: 4 BPM. Total load of treatment - 115 bbls. RD Halliburton. SWI for 1 hr to soak. Staked down flowline to frac tank. 60 min SIP = 3250 psig. Bled backside off. Bled tbg pressure to frac tank. RU swab. 1st swab run w/fluid @ surface. Made 1 hr. Ending FL @ 4400'. Recovered 45 BW. Averaged 486' of fluid entry per swab run. SDFN.
TL 115 BA & BW TR 45 BW
- 8/01/91 - SITP = 100 psig. Bled pressure to frac tank. RIH w/swab. Had no fluid entry overnight. Waited 1 hr w/2nd run, no fluid entry. Waited 2 hrs. No fluid entry. Waited additional hr. No fluid entry. Total recovery for day 0 BF w/only a slight gas show. Secured well & SDFN.
TL 115 BA & BW TR 45 BW
- 8/02/91 - SITP = 50 psig. RIH w/swab. Found 400' of fluid entry overnight. Recovered approx 2 B0. 2nd swab run indicated no fluid entry. Waited 1 hr. No fluid entry. Opened bypass on RTTS tool. Released pkr & RIH & retrieved RBP. POOH laying down 2 7/8" tbg. Left 32 jts as kill string. Secured well & SDFN.
TL 115 BA & BW TR 2 B0, 45 BW
- 8/03/91 - SITP = 0 psig. POOH w/kill string. RU Apollo Wireline. RIH w/5 1/2" CIBP. Set @ 8250'. POOH. Made 3 runs w/dump bailer. Placed 55' of cmt on plug. Loaded hole w/62 bbls of KCl wtr & produced wtr (fluid from frac tanks). RD Apollo. Pressured csg to 540 psig w/pressure recording chart. Held pressure for 30 mins. Pressure dropped to 525 psig (within State's requirement). Secured well. RD PU. Well temporarily abandoned on 8-4-91.
TL 177 BA & BW TR 2 B0, 45 BW

FINAL TEST.