

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

N.M. OIL CONS. COMMISSION
O. BOX 1980
HOBBS, NEW MEXICO 88240

RECEIVED

OCT 5 10 56 AM '94

FORM APPROVED
Budget Bureau No. 1004-0135
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals.

SUBMIT IN TRIPLICATE

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other	5. Lease Designation and Serial No. NM-86147
2. Name of Operator MARALO, INC.	6. If Indian, Allottee or Tribe Name
3. Address and Telephone No. P. O. BOX 832, MIDLAND, TX 79702 (915) 684-7441	7. If Unit or CA, Agreement Designation
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 660' FSL & 660' FML UNIT M, SECTION 10, T22S, R32E	8. Well Name and No. EMERALD FEDERAL #1
	9. API Well No. 30-025-31976
	10. Field and Pool, or Exploratory Area LIVINGSTON RIDGE; DELAWARE EAST
	11. County or Parish, State LEA, NM

12 CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
☐ Notice of Intent	☐ Abandonment
☒ Subsequent Report	☐ Recompletion
☐ Final Abandonment Notice	☐ Plugging Back
	☐ Casing Repair
	☐ Altering Casing
	☒ Other COMPLETION
	☐ Change of Plans
	☐ New Construction
	☐ Non-Routine Fracturing
	☐ Water Shut-Off
	☐ Conversion to Injection
	☐ Dispose Water

13 Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

09-19-94: OPERATION: COMPLETE AS DELAWARE SAND OIL PRODUCER. MI RU EXPERT WELL SERVICE. NU BOP. UNLOAD 288 JTS 2-7/8" 6.5# EUE TBG. PU & STRAP IN HOLE W/4-3/4" BIT + 5-1/2" CSG SCRAPER ON 285 JTS TBG TO 8740' PBTD.

09-20-94: RU BJ SVCS. PICKLED TBG & CSG W/1000 GALS 15% NEFE TRIPLE INHIBITED ACID. DISPLACED HOLE W/2% KCL WTR. RD BJ SVCS. RU APOLLO PERFORATORS & PUMP TRUCK. LOADED HOLE & PRESSURED CSG TO 1000 PSI. LOGGERS TO @ 8741'. RAN GR/CBL/CCL FROM PBTD TO TOC @ 2800'. CORRELATED TO HALLIBURTON GR/CNL/SDL OPEN HOLE LOG RUN 6-8-93 FOR PHILLIPS PETROLEUM. TIH W/4" CARRIER GUN & PERF AS FOLLOWS IN 4 RUNS: ZONE #1 - 1 SPF @ 8553', 57, 59, 61, 64, 73, 75, 79, 82', 10 HOLES; ZONE #2 - 1 SPF @ 8045', 48, 52, 55, 59, 65, 67, 70, 72, 77', 10 HOLES; ZONE #3 - 2 SPF @ 7642', 43, 44, 45, 47, 48, 49, 53, 54, 55', 20 HOLES; ZONE #4 - 1 SPF @ 7269', 73, 81, 87, 94, 7300, 12, 16, 23, 31, 37, 45, 50, 61, 72, 76, 82, 91, 95', 19 HOLES; ZONE #5 - 2 SPF @ 7145-7153', 18 HOLES. TOTAL 77 HOLES. NO CHANGE IN FL AFTER PERF'G.

09-21-94: POH W/KILL STRING. PU TIH W/SONIC HAMMER TOOL ON TBG. NU STRIPPER HEAD. RU PUMP TRK. OPEN ANNULUS. PULLED TOOL ACROSS ALL 5 PERF'D ZONES W/PUMPING 2% KCI WTR.

09-22-94: RU TBG TESTERS. PU & TIH W/5-1/2" CUP TYPE RBP + 5-1/2" BAKER AST PACKER. TESTING TO 8000 PSI ABOVE SLIPS. SET RBP @ 8662'. PULL UP & SET PKR @ 8417' & ISOLATED ZONE #1 PERFS 8553 - 8582' (10 HOLES) RU PUMP TRK. OPEN ANNULUS. PRESSURE TBG. FORMATION BROKE @ 2200 PSI. ESTABLISHED RATE OF 3 BPM @ 2000 PSI. RD PUMP TRK. SET & FILLED FRAC TANK. PREP TO FRAC.

SEE ATTACHED PAGE

14 I hereby certify that the foregoing is true and correct

Signed Donatha Logan Title REGULATORY ANALYST

Date OCTOBER 4, 1994

(This space for Federal or State office use)

Approved by _____ Title _____
Conditions of approval, if any

CEPTEC FOR 0120:
J. Lara
21 1994

09/23/94 RU BJ Services. Opened pkr bypass. Spot acid to pkr. Closed bypass & left annulus open. Frac zone #1 perfs 8553-8582', 10 holes w/13,000 gals Spectrafrac G3000, carrying 19,500# 20/40 Ottawa sand + 7500# 20/40 Resin coated sand as follows: (a) 750 gals 7 1/2% NEFE acid spearhead; (b) 1200 gals slick 2% KCl wtr spacer; (c) 6250 gals gel pad; (d) 500 gals gel + 1#/gal 20/40 sand; (e) 500 gal gel + 2#/gal 20/40 sand; (f) 1000 gals gel + 3#/gal 20/40 sand; (g) 1000 gals gel + 4#/gal 20/40 sand; (h) 2500 gals gel + 5#/gal 20/40 sand; (i) 1250 gals gel + 6#/gal 20/40 resin coated sand; (j) flushed to top perf w/slick 2% KCl wtr. Avg pressure 2000 psi. Max pressure 2800 psi. Avg rate 9 BPM. ISIP 1060 psi, 5 min 990 psi, 10 min 960 psi, 15 min 925 psi. SIW. RD BJ. SDOM. 392 BLTR.

09/24/94 18 hr SITP 460 psi. Bled off. Released pkr. RIH. RU pump truck. Washed 60' sand off RBP & released same. PU & set RBP @ 8168'. Set pkr & test RBP to 2000 psi, ok. Pull up & set pkr @ 7924' & isolate zone #2 perfs 8045' to 8077', 10 holes. Pressure tbq. Formation broke @ 1450 psi. Establish rate @ 3 BPM @ 1450 psi. RD pump truck. SIW. SD until Monday.

09/25/94 SD.

09/26/94 RU BJ Services. Open bypass & spot acid to pkr. Closed bypass. Left annulus open. Frac zone #2 perfs 8045-8077', 10 holes w/14,000 gals Spectrafrac G3000 carrying 21,000# 20/40 Ottawa sand + 9000# 20/40 resin coated sand as follows: (a) 750 gals 7 1/2% NEFE acid spearhead; (b) 1200 gals slick 2% KCl wtr spacer; (c) 7000 gals gel pad; (d) 500 gals gel + 1#/gal 20/40 sand; (e) 500 gals gel + 2#/gal 20/40 sand; (f) 1000 gals gel + 3#/gal 20/40 sand; (g) 1000 gals gel + 4#/gal 20/40 sand; (h) 2500 gals gel + 5#/gal 20/40 sand; (i) 1500 gals gel + 6#/gal 20/40 resin coated sand; (j) flushed to top perf w/slick 2% KCl wtr. Avg pressure 1610 psi. Max pressure 2100 psi. Avg rate 8 1/2 BPM. ISIP 974 psi, 5 min 910 psi, 10 min 840 psi, 15 min 835 psi. SIW. RD BJ. SDOM to let resin cure. 417 BLTR.

09/27/94 18 hr SITP 500 psi. Bled off. Released pkr. RIH. RU BJ Services. Wash 80' sand off RBP & release same. Pull up & set RBP @ 7774'. Set pkr & test RBP to 2000 psi, ok. Pull up & set pkr @ 7536'. Isolate zone #3 perfs 7642' to 7655', 20 holes. Pressure tbq. Formation broke @ 2100 psi. Open bypass & spot acid to pkr. Closed bypass. Left annulus open. BJ Services frac'd zone #3 perfs w/9500 gals Spectrafrac G3000 carrying 14,500# 20/40 Ottawa sand + 6000# 20/40 resin coated sand as follows: (a) 750 gals 7 1/2% NEFE acid spearhead; (b) 1200 gals slick 2% KCl wtr spacer; (c) 4500 gals gel pad; (d) 500 gals gel + 1#/gal 20/40 sand; (e) 500 gals gel + 2#/gal 20/40 sand; (f) 500 gals gel + 3#/gal 20/40 sand; (g) 1000 gals gel + 4#/gal 20/40 sand; (h) 1500 gals gel + 5#/gals 20/40 sand; (i) 1000 gals gel + 6#/gal 20/40 resin coated sand; (j) flush to top perf w/slick 2% KCl wtr. Avg pressure 1360 psi, Max pressure 2100 psi. Avg rate 8.6 BPM. ISIP 990 psi, 5 min 860 psi, 10 min 800, 15 min 765 psi. SIW. RD BJ. SDOM. 312 BLTR.

09/28/94 16 hr SITP 0 psi. Released pkr & RIH. RU BJ Services. Washed 80' sand off RBP & release. Pull up & set RBP @ 7508'. Set pkr & test RBP to 2000 psi, ok. PU & set pkr @ 7173'. Isolate zone #4 perfs 7269-7395', 19 holes. Pressure tbq. Formation broke @ 1000 psi. Established rate @ 4 BPM @ 1350 psi. Open bypass & spot acid to pkr. Closed bypass. Left annulus open. BJ Serves frac'd zone #4 perfs w/21,000 gals Spectrafrac G3000 carrying 31,500# 20/40 Ottawa sand + 13,500# 20/40 resin coated sand as follows: (a) 750 gals 7 1/2% NEFE acid spearhead; (b) 1200 gals slick 2% KCl wtr spacer; (c) 10,500 gals gel pad. Zone 4 & zone 5 perfs communicated w/1800 gals pad in formation. SD frac. Released pkr. POH. LD same. TIH w/tbg open ended to RBP. Spot 5000# 20/40 Ottawa sand on RBP & across Zone 4 perfs. RD BJ Services. POH w/20 stds tbq. SIW. SDOM to let sand fall. Prep to squeeze zone 5.

09/29/94 RIH & tag sand @ 7080'. RU pump truck & reverse out sand to 7250'. SI tbq & establish injection rate into zone 5 perfs of 1 1/2 BPM @ 600 psi. RD pump truck. POH. PU & TIH w/5 1/2" cement retainer. RU Halliburton. Pump thru retainer. Set retainer @ 7061'. Pressure backside to 800 psi. Establish injection rate @ 2 BPM @ 1000 psi. Pumped 75 sx Premium cement w/3/10% Halad 9 + 75 sx Premium cement w/2% CaCl2. Attempt to stage squeeze zone 5 perfs w/no success. Overflush cement w/20 bbls. Sting out of retainer. Clear tbq. Sting into retainer. SIW SDOM. Prep to re-squeeze.

09/30/94 RU Halliburton. Pressure backside to 800 psi. Establish injection rate @ 2 BPM @ 1100 psi. Pumped 150 sx Premium cement w/2% CaCl2. Stage squeeze zone 5 perfs to 1200 psi. Sting out of retainer. Reverse out 4 sx cement. RD Halliburton. POH & LD setting tool. PU & TIH w/4 3/4" skirted bit + 6 - 3 1/2" DC's on 200 jts 2 7/8" tbq. SIW