

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE\*  
(Other instructions on re-  
verse side)

Form approved,  
Budget Bureau No. 1004-0135  
Expires August 31, 1985

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—" for such proposals.)

1. OIL WELL ☒ GAS WELL ☐ OTHER ☐

2. NAME OF OPERATOR  
Mallon Oil Company

3. ADDRESS OF OPERATOR  
2750 Security Life Building, Denver, CO 80202

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.\*  
See also space 17 below)  
At surface  
1850' FNL & 1670' FWL

14. PERMIT NO.

15. ELEVATIONS (Show whether OF, RT, GR, etc.)  
7450' GL

BUREAU OF LAND MANAGEMENT  
FARMINGTON RESOURCE AREA

5. LEASE DESIGNATION AND SERIAL NO.  
NM 43753

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME  
Post Federal

9. WELL NO.  
#13-6

10. FIELD AND POOL, OR WILDCAT  
Gavilan Mancos/Gavilan  
Greenhorn-Graneros-Dakota

11. SEC., T., R., M., OR B.L.E. AND  
SURVEY OR AREA  
Sec. 13, T25N, R2W

12. COUNTY OR PARISH  
Rio Arriba

13. STATE  
NM

RECEIVED

MAR 11 1986

18. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

TEST WATER SHUT-OFF ☐

FRACTURE TREAT ☐

SHOOT OR ACIDIZE ☐

REPAIR WELL ☐

(Other) ☐

PULL OR ALTER CASING ☐

MULTIPLE COMPLETION ☐

ABANDON\* ☐

CHANGE PLANS ☐

WATER SHUT-OFF ☐

FRACTURE TREATMENT ☒

SHOOTING OR ACIDIZING ☒

(Other) ☐

REPAIRING WELL ☐

ALTERING CASING ☐

ABANDONMENT\* ☐

(NOTE: Report results of multiple completion on Well  
Completion or Recompletion Report and Log forms.)

17. 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.)\*

- 2-18-86 Move in and rig up Bayless Rig 6. Nipple up wellhead. Nipple up BOP. Problems with soft location and mud due to recent weather. SDFN.
- 2-19-86 Pick up 4-3/4" bit, casing scraper, and 2-7/8" tubing. Tag cement above upper DV tool @ 3741' RKB. Drill 15' cement and upper DV tool @ 3756' RKB. Pressure test casing and wellhead to 4000 psi. Held OK. Pick up 2-7/8" tubing. Tag cement on top of lower DV tool @ 6051' RKB. SDFN.
- 2-20-86 Drill 10' cement and lower DV tool @ 6061' RKB. Pressure test casing and wellhead to 4000 psi. Held OK. Pick up 2-7/8" tubing. Tag cement on top of DFFC @ 8110' RKB. Drill 3' of cement to top of DFFC (PBTD) @ 8113' RKB. Pressure test casing and wellhead to 4000 psi. Held OK. Leave tubing hanging in hole. Wait on better weather conditions to finish remainder of completion. SDFN.
- 2/21-26/86 Shut down. Wait on weather.
- 2-27-86 Rigged up Smith Energy Services. Attempted to pressure test to 4000 psi. Well would not pressure test. Pump into well down the tubing @ 3.0 BPM @ 3600 psi. ISIP = 600 psi. Trip tubing out of hole. Trip in hole with Baker packer on tubing. Searched for hole in casing as follows:

(cont.)

18. I hereby certify that the foregoing is true and correct

SIGNED Kevin H. McNeil

TITLE Agent

DATE 3-11-86

(This space for Federal or State office use)

APPROVED BY \_\_\_\_\_  
CONDITIONS OF APPROVAL, IF ANY:

TITLE

DATE

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OIL CON. DIV.

\*See Instructions on Reverse Side

NMOC

|         |                 | Upper D.V. = 3756<br>Lower D.V. - 6061<br>D.F.F.C. - 8113 |   | TUBING<br>(Casing Below)<br>Pressure test<br>to (psi) - Result |  | ANNULUS<br>(Casing Above)<br>Pressure test<br>to (psi) - Result |  | Results and<br>Conclusions |
|---------|-----------------|---|---|--|--|---|--|----------------------------|
| Setting | Packer<br>Depth | Remarks   |   |  |  |   |  |                            |
| 1       | 3811            | 55' below upper DV  | 3000 - lost 200 psi in 5 min.   |  | 3000 - lost 700 psi in 5 min.          |   | Upper DV leaking   |                            |
| 2       | 3811            | 2nd test-same place                                       | 4000 - lost 0 psi in 8 min.<br>then pressure broke back to 500<br>psi. Pumped in - 3.2 BPM @ 1400<br>ISIP = 800 |  | 4000 - lost 1000 psi in 10 min.        |   | Could we be setting in the middle of bad casing?           |                            |
| 3       | 3687            | 69' above upper DV  | Pumped in-3.3 BPM @ 1700, ISIP=850  |  | 4000 - lost 0 in 10 min.               |   | Casing OK above upper D.V.                                 |                            |
| 4       | 3873            | 117' below upper DV                                       | Pumped in-3.2 BPM @ 1600, ISIP=850  |  | 4000 - lost 1200 psi in 10 min.        |   | 2 leaks. Upper leaking-leak below casing OK below lower DV |                            |
| 5       | 6109            | 48' below lower DV  | 4000 - lost 0 in 10 min.  |  | Pumped in-3.2 BPM @ 1400<br>ISIP - 800 |   | Casing OK below lower DV                                   |                            |
| 6       | 6019            | 42' above lower DV  | 4000 - held pressure  |  | Pumped in-3.3 BPM @ 1300<br>ISIP - 800 |   | Lower DV tool OK   |                            |
| 7       | 4982            | Look for hole   | Pumped in-3.2 BPM @ 1500, ISIP=800  |  | 4000 - Held pressure                   |   | Hole below   |                            |
| 8       | 5469            | Look for hole   | Pumped in-3.2 BPM @ 1600, ISIP=800  |  | 4000 - Held pressure                   |   | Hole below   |                            |
| 9       | 5777            | Look for hole   | 4000 - Held pressure  |  | Pumped in-3.3 BPM @ 1300<br>ISIP = 800 |   | Hole above   |                            |
| 10      | 5653            | Look for hole   | 4000 - Held pressure  |  | Pumped in-3.2 BPM @ 1400<br>ISIP = 800 |   | Hole above   |                            |
| 11      | 5592            | Look for hole   | 4000 - Held pressure  |  | Not checked                            |   | Hole above   |                            |
| 12      | 5530            | Look for hole   | 4000 - Held pressure  |  | Pumped in-3.2 BPM @ 1400<br>ISIP = 800 |   | Hole is somewhere between 5469 and 5530'                   |                            |

2-27-86 (cont.) Set packer @ 3811' (55' below upper DV tool). Pressure tested tubing to 3000 psi. Lost 200 psi in 5 minutes. Pressure tested annulus to 3000 psi. Lost 700 psi in 5 minutes. Pressure tested annulus to 4000 psi. Lost 600 psi in 5 minutes and 1000 psi in 10 minutes. Pressure tested tubing to 4000 psi. Lost 0 psi in 5 minutes, pressure broke from 4000 psi to 400 psi after 8 minutes. Pumped into tubing @ 3.2 BPM at 1400 psi - ISIP = 800 psi. Moved packer to 3687' (69' above upper DV tool). Pumped into tubing at 3.3 BPM @ 1700 psi, ISIP = 850 psi. Pressure tested annulus to 4000 psi. Lost 9 psi in 10 minutes (casing above upper DV tool is OK). Moved packer to 3873 (117' below upper DV tool and 62' below 1st packer setting). Pumped into tubing @ 3.2 BPM @ 1600 psi. ISIP = 850 psi. Pressure tested annulus to 4000 psi. Lost 1200 psi in 10 minutes. (There are 2 leaks in casing. One leak is at upper DV tool, losing 1000-1200 psi in 10 minutes from 4000 psi. Moved packer to 6109' (48' below lower D.V. tool). Pressure tested tubing to 4000 psi. Lost 9 psi in 10 minutes (casing good from lower DV tool to TD). Pumped down the annulus at 3.2 BPM @ 1400 psi. ISIP = 800 psi. Moved packer to 6019' (42' above lower DV tool). Pressure tested tubing to 4000 psi. Held pressure (lower DV tool OK). Pumped into annulus at 3.3 BPM @ 1300 psi. ISIP = 800 psi. Moved packer to 4982'. Pumped into tubing at 3.2 BPM @ 1500 psi. ISIP = 800 psi. Pressure tested annulus to 4000 psi. Held pressure. Moved packer to 5469'. Pumped into tubing at 3.2 BPM @ 1600 psi. ISIP = 800. Pressure tested annulus to 4000 psi. Held pressure. Moved packer to 5777'. Held tubing pressure. Pumped into annulus at 3.3 BPM @ 1300 psi. ISIP = 800 psi. Moved packer to 5653'. Pressure tested tubing to 4000 psi. Held pressure. Pumped into annulus at 3.2 BPM @ 1400 psi. ISIP = 800 psi. Moved packer to 5592'. Pressure tested tubing to 4000 psi. Held pressure. Moved packer to 5530'. Pressure tested tubing to 4000 psi. Held pressure. Pumped into annulus at 3.2 BPM @ 1400 psi. ISIP = 800 psi. Hole is between 5469 and 5530 feet.

Moved packer to 5166'. Rigged up Dowell. Squeezed 5469-5530 interval with 50 sacks of Class B cement with 3%  $\text{CaCl}_2$ . Squeezed casing to 2500 psi. Pulled 5 stands of tubing. SDFN.

2-28-86 Trip out of hole with packer. Trip in hole with casing scraper and bit on 2-7/8" tubing. Tag cement at 5224' RKB. Drill 301 feet of cement to 5525'. Pressure tested casing to 3000. Lost 700 psi in 10 minutes. SDFN.

3-1-86 Trip tubing and bit out of hole. Trip in the hole with Baker packer. Set packer at 3811' (55' below DV tool). Rigged up Dowell. Pressure tested tubing to 3000 psi. Lost 800 psi in 10 minutes. Pressure tested annulus to 3000 psi. Lost 0 psi in 10 minutes. Pressure tested annulus to 4000 psi. Lost 0 psi in 10 minutes. Uper DV tool holding pressure. Pressure tested tubing. Pressure broke at 3300 psi. Pumped into formation @ 2 BPM @ 3000 psi, ISIP = 1600 psi. Moved packer to 5530'. Pressure tested tubing to 4000 psi. Pressure held. Pumped into annulus at 2 BPM @ 3500 psi, ISIP = 1800 psi. Moved packer to 5500. Pumped into tubing at 2 BPM @ 3300 psi, ISIP = 1500 psi. Pressure tested annulus to 4000 psi. Lost 0 psi in 10 minutes. Hole isolated between 5500-5530. Moved packer to 4920'. Squeezed 5500-5530' interval with 50 sacks Class B cement with 3%  $\text{CaCl}_2$ . Squeezed casing to 3000 psi. Pulled 5 stands of tubing. SDFN.

3-2-86 Trip tubing and packer out of hole. Trip in the hole with casing scraper and bit on 2-7/8" tubing. Tag cement at 5389' RKB. Drill 136 feet of cement from 5389 to 5525. Attempted to pressure test casing. Pumped into formation at 2400 psi. Lost 950 psi in 10 minutes. Trip tubing, bit and scraper out of hole. SDFN.

3-3-86 Trip in the hole with packer on 2-7/8" tubing. Set packer @ 5530'. Rigged up Dowell. Pressure tested tubing to 3000 psi. Lost 0 psi in 10 minutes. Pumped into annulus at 2½ BPM @ 2300 psi, ISIP = 1000 psi. Moved packer to 5500'. Pumped into tubing @ 2 BPM @ 2700 psi, ISIP = 1600 psi. Pressure tested annulus to 3000 psi. Lost 0 psi in 10 minutes. Casing leak isolated between 5500-5530'. Moved packer to 4920'. Squeeze cemented 5500-5530 foot interval with 50 sacks of Class B cement with .6% fluid loss additive. Squeezed casing to 2500 psi. Waiting 15 minutes, and bled back pressure. Tubing started flowing. Pressured to 2500 psi. Lost 900 psi in 3 minutes. Pressured to 2500 psi. Lost 150 psi in 15 minutes. Left pressure on well. SDFN.

3-4-86 Trip out of hole with packer. Trip in the hole with casing scraper and bit. Tag cement at 5436' drill 89 feet of cement to 5525. Cement had not set up well. Was very easy to drill. Pressure tested casing to 3000 psi. Lost 0 psi in 10 minutes. Tripped tubing in the hole. Drilled out cement stringers as follows:

15' from 6863 to 6878  
10' from 7019 to 7029  
12' from 7144 to 7156  
60' from 8053 to 8113

Pressure tested casing to 3000 psi. Lost 0 psi in 10 minutes. SDFN.

3-5-86 Shut down for the day.

3-6-86 Rigged up Smith Energy Services. Pressure tested casing to 3000 psi. Lost 0 psi in 15 minutes. Circulated hole clean with 1% KCL water, ½ gal/1000 clay stabilization agent and 1 gal/1000 surfactant. Move tubing to 7588' RKB. Spotted 1000 gallons of 7½% D.I. HCL acid. Trip tubing, scraper, and bit out of hole. Rig up Petro Wireline. Ran GR-CLL-CBC from 8102' RKB to 2800' RKB. Top of cement on 1st stage was 6742', top of cement on 2nd stage was 4356', Ojo Alamo top was covered by the 3rd stage. Perforated Gallup interval with 4" select fire perforation gun as follows:

|      |      |      |      |      |      |      |      |      |      |      |
|------|------|------|------|------|------|------|------|------|------|------|
| 6780 | 6849 | 6916 | 6986 | 7034 | 7109 | 7176 | 7220 | 7292 | 7404 | 7543 |
| 6786 | 6856 | 6926 | 6990 | 7042 | 7124 | 7181 | 7252 | 7308 | 7414 | 7548 |
| 6806 | 6861 | 6944 | 7000 | 7048 | 7143 | 7187 | 7265 | 7312 | 7474 | 7568 |
| 6815 | 6873 | 6956 | 7011 | 7053 | 7147 | 7193 | 7270 | 7325 | 7496 | 7588 |
| 6823 | 6883 | 6968 | 7017 | 7063 | 7152 | 7202 | 7278 | 7344 | 7518 |      |
| 6828 | 6899 | 6975 | 7021 | 7080 | 7161 | 7206 | 7282 | 7378 | 7530 |      |
| 6841 | 6906 | 6982 | 7025 | 7096 | 7168 | 7215 | 7287 | 7399 | 7537 |      |

Total 74 perforations, (.500" diameter)

Pumped 30 bbls of water into wellbore to displace spot acid. Trip packer and tubing in hole. SDFN.

3-7-86 Set packer @ 6440' RKB. Rigged up Smith Energy Services. Pumped 1000 psi on annulus. Established rate down the tubing of 8 BPM @ 1900 psi, ISIP = 200 psi. Acidized the Gallup formation with 750 gallons of 7½% DI weighted HCL acid containing 111 1.1 s.g. RCN ball sealers. Acid rate of 11 BPM @ 2000 psi. Saw 1000 psi pressure increase as balls hit the formation. Did not get a balloff. Final injection rate of 11 BPM @ 3000 psi, ISIP = 300 psi. Moved tubing and packer below perforations to knock ball sealers off perforations. Trip tubing and packer out of hole. Fracture stimulated Gallup interval with 135,000 gallons of 25#/1000 gallon cross-linked gelled water with 1% KCL water, ½ gal/1000 clay stabilization agent and 1 gal/1000 surfactant containing 180,000 lbs of 20-40 sand with 90 mc radioactive sand as follows:

|                                       |                           |
|---------------------------------------|---------------------------|
| 35,000 gallons pad                    | 60 BPM @ 1000 psi         |
| 40,000 gallons of 1 ppg 20-40 sand    | 60 BPM @ 1100-1000 psi    |
| 40,000 gallons of 2 ppg 20-40 sand    | 60 BPM @ 1000-1250 psi    |
| 20,000 gallons of 3 ppg 20-40 sand    | 60 BPM @ 1250-1650 psi    |
| 6,606 gallons uncrosslinked gel flush | 60-40 BPM @ 1650-2800 psi |

ISIP = 600 psi, 5 = 375 psi, 10 = 300 psi, 15 ±.300 psi.

Average rate 60 BPM. Average Pressure 1150 psi, Maximum Pressure 2800 psi. Minimum Pressure 900 psi. Load to recover 3464 bbls. Shut well in to allow gel to break. SDFN.

3-8-86 Trip tubing seating nipple, and sawtooth collar in the hole. Tagged sand fill @ 6799' RKB. Circulated out 1314 feet of sand stringers to PBTD of 8113' RKB. Moved tubing to 6768. Rigged to swab. SDFN.

3-9-86 Shut down - Sunday