

N.M. OIL & GAS OPER. OGRID NO. 15725
P.O. BOX 19 PROPERTY NO. 15398
HOBBS, NEW MEXICO POOL CODE 37584
DEPARTMENT EFF. DATE 3/29/96
BUREAU OF LAND MANAGEMENT API NO. 30-025-32518

Resubmitted
FORM APPROVED
OMB NO. 1004-0136
Expires February 28, 1995

1a. TYPE OF WORK

Drill ☒

Deepen ☐

b. TYPE OF WELL

Oil Well ☒

Gas Well ☐

Other ☐

Single Zone ☐

Multiple Zone ☐

2. NAME OF OPERATOR

Mallon Oil Company

3. ADDRESS AND TELEPHONE NO.

P.O. Box 3256

Carlsbad, NM 88220

(505) 885-4596

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. *)

At surface

1980' FSL and 660' FWL (NW SW) Unit L

At proposed prod. zone

1980' FSL and 660' FWL (NW SW) Unit L

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE *

35 miles southwest of Hobbs, New Mexico

15. DISTANCE FROM PROPOSED *

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

660'

(Also to nearest drlg. unit line, if any)

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED,

OR APPLIED FOR, ON THIS LEASE, FT.

1320'

21. ELEVATIONS (SHOW WHETHER DF, RT, GR, Etc.)

3678' GR

16. NO. OF ACRES IN LEASE

640

19. PROPOSED DEPTH

6300'

22. APPROX. DATE WORK WILL START

3/15/96

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
25"	20"	0.25	40'	Redi-mix to surface
14-3/4"	9-5/8"	36#	1500'	700 sx Lite, 200 sx Class C
8-3/4"	5-1/2"	14# & 15.5#	TD	800 sx Lite, 200 sx Class C

The Operator proposes to drill to a depth sufficient to test the Delaware formation for oil. If productive, 5-1/2" casing will be cemented. If non-productive, the well will be plugged and abandoned in a manner consistent with Federal regulations. Specific programs as per Onshore Oil and Gas Order No. 1 are outlined in the following attachments:

Previously Approved 1/10/95

Drilling Program

Surface Use and Operating Plan

Exhibit #1 - Blow Out Preventor Equipment

Exhibit "A" - Location and Elevation Plat

Exhibit "B" - Existing Roads

Exhibit "C" - Planned Access Roads

Exhibit "C-1" - Planned Access Roads

Exhibit "D" - One Mile Radius Map

Exhibit "E" - Well Site Layout

Exhibit "F" - Production Facilities

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED

TITLE

Production Superintendent

DATE

2/15/96

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

CONDITIONS OF APPROVAL, IF ANY:

APPROVED

(ORIG. SGD.) RICHARD L. MANUS

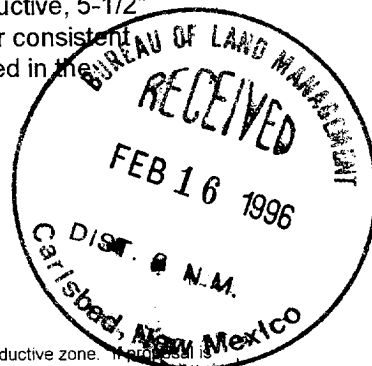
TITLE

AREA MANAGER

DATE

MAR 2 1996

*See Instructions On Reverse Side



APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS

DRILLING PROGRAM

Attached to Form 3160-3
Mallon Oil Company
Mallon "34" Federal No. 16
1980 FSL, 660 FWL, Sec.34 T19S R34E
Lea County, New Mexico

Lease Number: NM-052

1. Geologic Name of Surface Formation is :
Quaternary Alluvium
2. Estimated Tops of Important Geologic Markers

Quaternary Alluvium	Surface
Rustler	1590
Top of Salt	1720
Base of Salt	3326
Yates	3513
Seven Rivers	3821
Queen	4516
Delaware	5800
Total Depth	6300

3. The Estimated Depths of Anticipated Fresh water, Oil or Gas:

Quaternary Alluvium	300'	Fresh Water.
Yates	3513'	Oil
Queen	4516'	Oil
Delaware	5800'	Oil

No other formations are expected to give up Oil, Gas, or Fresh Water in measurable quantities. The surface fresh water sands will be protected by setting 9 5/8" csg at 1500' and circulating cement back to surface. Potash will be protected by setting 5 1/2" csg at total depth and circulating cement back to 1300' from surface.

4. Proposed Casing Program:

<u>Hole Size</u>	<u>Interval</u>	<u>Csg OD</u>	<u>Csg weight grade, Jt., Type Cond</u>
25"	0-40'	20"	Conductor, 0.25" wall thickness
14 3/4"	0-1500'	9 5/8"	36# K-55 STC
8 3/4"	0-5300	5 1/2"	14# K-55 STC
	5300-TD	5 1/2"	15.5# K-55 STC

Cement Program:

20" Conductor csg:	Cemented with ready-mix to surface
9 5/8" Surface csg:	Cemented to Surface with 700 sx Pacesetter Lite 6.00% Gel (Bentonite)+0.25 lb/sk Cello-Seal 105.% Fresh Water
5 1/2" Production csg.	Cemented with 800 sacks Pacesetter Lite (C) 6.00% Gel (Bentonite)+0.25 lb/sk Cello-Seal 5.00% Salt+105.00% Fresh Water, This cement slurry is designed to bring TOC to 1300'.

5. Minimum Specifications for Pressure Control:

The blowout preventer equipment (BOP) shown in Exhibit #1 will consist of a double ram type (3000psi WP) preventer. The unit will be hydraulically operated and the ram type preventer will be equipped with blind rams on top and drill pipe rams on bottom. The BOP will be nipped up on the 9-5/8" surface csg and used continuously until TD is reached. BOP and accessory equipment will be tested to 1000 psi before drilling out of surface casing. Pipe rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. A 2" kill line and 2" choke line will be included in the drilling spool located below the ram-type BOP. Other accessories to the BOP equipment will include a kelly cock and floor safety valve and choke lines and choke manifold with 3000 psi WP rating.

6. Types and Characteristics of the Proposed Mud System:

The well will be drilled to TD with a combination of brine, cut brine, and polymer/KCL mud system. The applicable depths and properties of this system are as follows:

Depth	Type	Weight (ppg)	Viscosity (sec)	Waterloss (cc)
0-40	Fresh Water (spud)	8.5	40-45	N.C.
0-1500	F.W. (Gel/Lime)	8.5-9.0	32-36	N.C.
1500-TD	Brine Water	10.0	32-34	10-12cc

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the wellsite at all times.

7. Auxiliary Well Control and Monitoring Equipment:

- (A) A Kelly cock will be kept in the drill string at all times.
- (B) A full opening drill pipe stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.
- (C) The drilling fluids systems will be visually monitored at all times.

8. Testing, Logging and Coring Program:

Drill Stem Tests:	None Anticipated
Logging:	TD to Surface casing, GR, CNL-FDC, DLL, MSFL
Coring:	None Planned

9. Abnormal Conditions, Pressures, Temperatures, & Potential Hazards:

No abnormal pressures or temperatures are anticipated. The proposed mud program will be modified to control excess pressure if abnormal pressures are encountered. The estimated bottom hole temperature (BHT) at TD is 150 F and estimated maximum bottom-hole pressure (BHP) is 2800 psig.

No hydrogen sulfide or other hazardous gases or fluids have been encountered, reported or are known to exist at this depth in this area.

No major loss circulation zones have been reported in offsetting wells.

10. Anticipated starting date: March 15, 1996.

Anticipated completion of Drilling operations: Expected duration of 3 weeks.

MINIMUM BLOWOUT PREVENTER REQUIREMENTS

3,000 psi Working Pressure

3 MWP

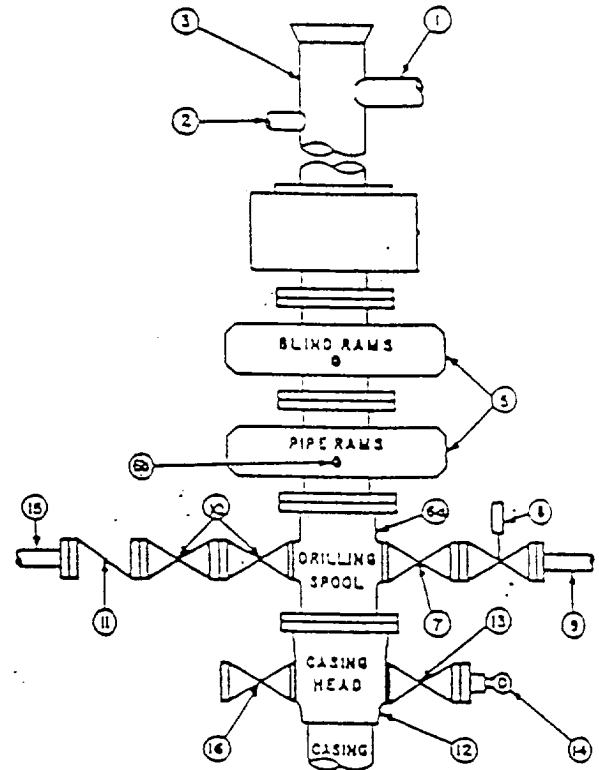
STACK REQUIREMENTS

No.	Item	Min. I.O.	Min. Nominal
1	Flowline		
2	Fill up line		2"
3	Drilling nipple		
5	Two single or one dual hydraulically operated rams		
6a	Drilling spool with 2" min. kill line and 3" min choke line outlets		
6b	2" min. kill line and 3" min. choke line outlets in ram. (Alternate to 6a above.)		
7	Valve Gate <input type="checkbox"/> Plug <input type="checkbox"/>	3-1/8"	
8	Gate valve—power operated	3-1/8"	
9	Line to choke manifold		3"
10	Valves Gate <input type="checkbox"/> Plug <input type="checkbox"/>	2-1/16"	
11	Check valve	2-1/16"	
12	Casing head		
13	Valve Gate <input type="checkbox"/> Plug <input type="checkbox"/>	1-13/16"	
14	Pressure gauge with needle valve		
15	Kill line to rig mud pump manifold		2"

OPTIONAL

16	Flanged valve	1-13/16"	
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CONFIGURATION A



CONTRACTOR'S OPTION TO FURNISH:

1. All equipment and connections above bradenhead or casinghead. Working pressure of preventers to be 3,000 psi, minimum.
2. Automatic accumulator (80 gallon, minimum) capable of closing BOP in 30 seconds or less and, holding them closed against full rated working pressure.
3. BOP controls, to be located near drillers position.
4. Kelly equipped with Kelly cock.
5. Inside blowout preventer or its equivalent on derrick floor at all times with proper threads to fit pipe being used.
6. Kelly saver-sub equipped with rubber casing protector at all times.
7. Plug type blowout preventer tester.
8. Extra set pipe rams to fit drill pipe in use on location at all times.
9. Type RX ring gaskets in place of Type R.

MEC TO FURNISH:

1. Bradenhead or casinghead and side valves.
2. Wear bushing, if required.

GENERAL NOTES:

1. Deviations from this drawing may be made only with the express permission of MEC's Drilling Manager.
2. All connections, valves, fittings; piping, etc., subject to well or pump pressure must be flanged (suitable clamp connections acceptable) and have minimum working pressure equal to rated working pressure of preventers up through chokes. Valves must be full opening and suitable for high pressure mud service.
3. Controls to be of standard design and each marked, showing opening and closing position.
4. Chokes will be positioned so as not to hamper or delay changing of choke beans. Replaceable parts for adjustable chokes, other bean sizes, retainers, and choke wrenches to be conveniently located for immediate use.
5. All valves to be equipped with handwheels or handles ready for immediate use.
6. Choke lines must be suitably anchored.

7. Handwheels and extensions to be connected and ready for use.
8. Valves adjacent to drilling spool to be kept open. Use outside valves except for emergency.
9. All seamless steel control piping (3000 psi working pressure) to have flexible joints to avoid stress. Hoses will be permitted.
10. Casinghead connections shall not be used except in case of emergency.
11. Do not use kill line for routine fill-up operations.

Exhibit 1

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

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

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

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
Instruction on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-32818	Pool Code 37584	Pool Name NE Lea Delaware
Property Code 15398	Property Name MALLON 34 FEDERAL	Well Number 16
OGRID No. 13925	Operator Name MALLON OIL COMPANY	Elevation 3678'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	34	19S	34E		1980	SOUTH	660	WEST	LEA

¹¹ Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres 40	Joint or Infill	Consolidation Code	Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

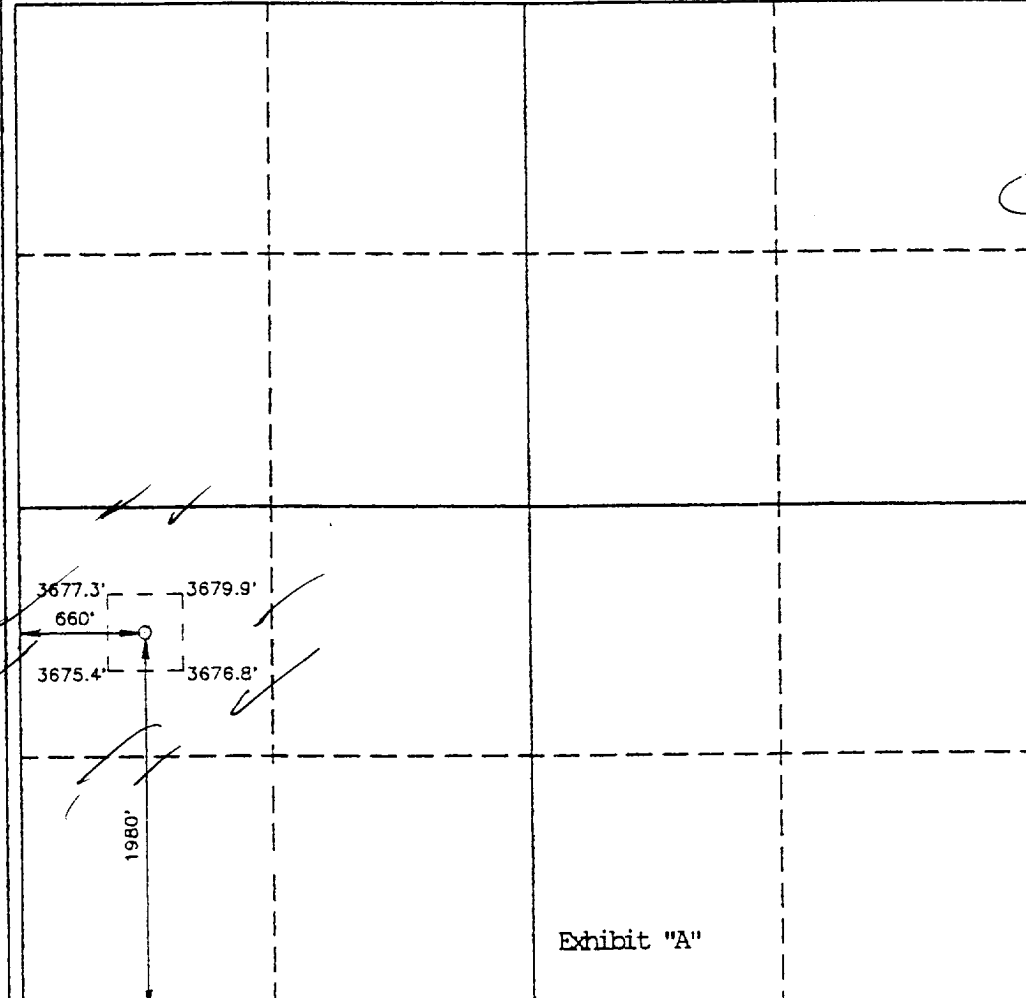
	<p>OPERATOR CERTIFICATION</p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Duane C Winkler</i> Signature Duane C Winkler Printed Name Production Superintendent Title 11-29-94 Date</p> <p>SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>NOVEMBER 24 1994 Date Surveyed Signature & Seal of Professional Surveyor W.O. 11-29-94 Certificate No. JOHN W. WEST, 676 RONALD J. EIDSON, 3239</p>
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Exhibit "A"