

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

5. LEASE DESIGNATION AND SERIAL NO.
NM-04452

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
NA

7. UNIT AGREEMENT NAME
NA

8. FARM OR LEASE NAME WELL NO.
Mallon 27 Federal

9. AP WELL NO.
3

10. FIELD AND POOL, OR WILDCAT
Delaware

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 27, T19S-R34E

12. COUNTY OR PARISH | 13. STATE
Lea | NM

17. NO. OF ACRES ASSIGNED TO THIS WELL
40

20. ROTARY OR CABLE TOOLS
Rotary

22. APPROX. DATE WORK WILL START
August 29, 1994

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.
999 18th St., Suite 1700, Denver, CO 80202 (303) 293-2333

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*
At surface
1980' FNL & 660' FWL (SW NW)
At proposed prod. zone
1980' FNL & 660' FWL (SW NW) Unit E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
36 miles S.W. of Hobbs, New Mexico

15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)
660

16. NO. OF ACRES IN LEASE
560

18. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.
1450

19. PROPOSED DEPTH
6200

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
3722 GR

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
25"	20"	0.3 wall	40'	Redi - Mix to surface
13-3/4"	9-5/8"	36#	1,500'	700 SX Lite, 200 SX Class H
7-7/8"	5-1/2"	14 & 15.5#	TD	710 SX Lite, 200 SX Class H

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 & Gas Order #1 are outlined in the following attachments:

Drilling Program

- Surface Use & Operating Plan
- Exhibit #1 - Blow Out Preventor Equipment
- Exhibit "A" - Location & Elevation Plat
- Exhibit "B" - Existing Roads
- Exhibit "C" - Planned Access Roads
- Exhibit "D" - One Mile Radius Map

- Exhibit "E" - Well Site Layout
- Exhibit "F" - Production Facility
- Exhibit "G" - Central Battery
- Exhibit "H" - Choke Manifold

Approved Subject to
General Requirements and
Special Stipulations

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

24. SIGNER [Signature] TITLE Production Superintendent

(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.

APPROVED BY (ORIG. SGD.) RICHARD L. MANUS TITLE AREA MANAGER

*See Instructions On Reverse Side

APR. OGRID NO. 15525

PROPERTY NO. 15552

POOL CODE 96034

EFF. DATE 8-31-94

APINO. 3D-025-32654

RECEIVED
JUL 21 1994
BUREAU OF LAND MANAGEMENT
DIST. 8 N.M.
DATE 8-26-94

RECEIVED

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DRILLING PROGRAM

Attached to Form 3160-3
Mallon Oil Company
Mallon "27" Federal No.3
1980 FNL, 660 FWL, Sec.27 T19S R34E
Lea County, New Mexico

Lease Number: NM-04452

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	6200

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, 0.30" wall thickness
13 3/4"	0-1500'	9 5/8"	36# K-55 STC
7 7/8"	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 710 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: August 21, 1994

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

MINIMUM BLOWOUT PREVENTER REQUIREMENTS

3,000 psi Working Pressure

3 MWP

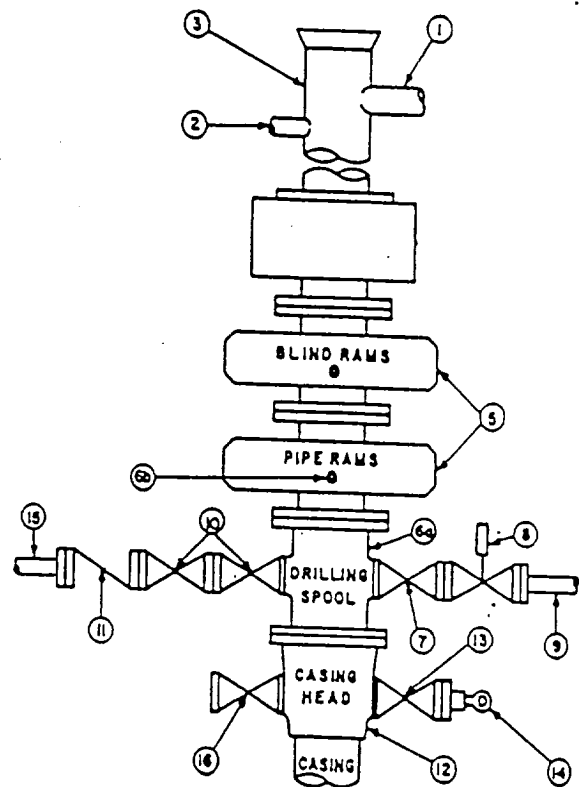
STACK REQUIREMENTS

No.	Item	Min. I.D.	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 and 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 choke. 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 choke, 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 kept open.

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.

Mallon 27 Federal No 3
Lea County New Mexico
Exhibit "1"

DISTRICT I
P.O. Box 1900, Hobbs, NM 88240

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

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

OIL CONSERVATION DIVISION

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

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

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number		Pool Code	Pool Name
Property Code	Property Name MALLON "27" FEDERAL		Well Number 3
OGRID No.	Operator Name MALLON OIL COMPANY		Elevation 3722'

Surface Location

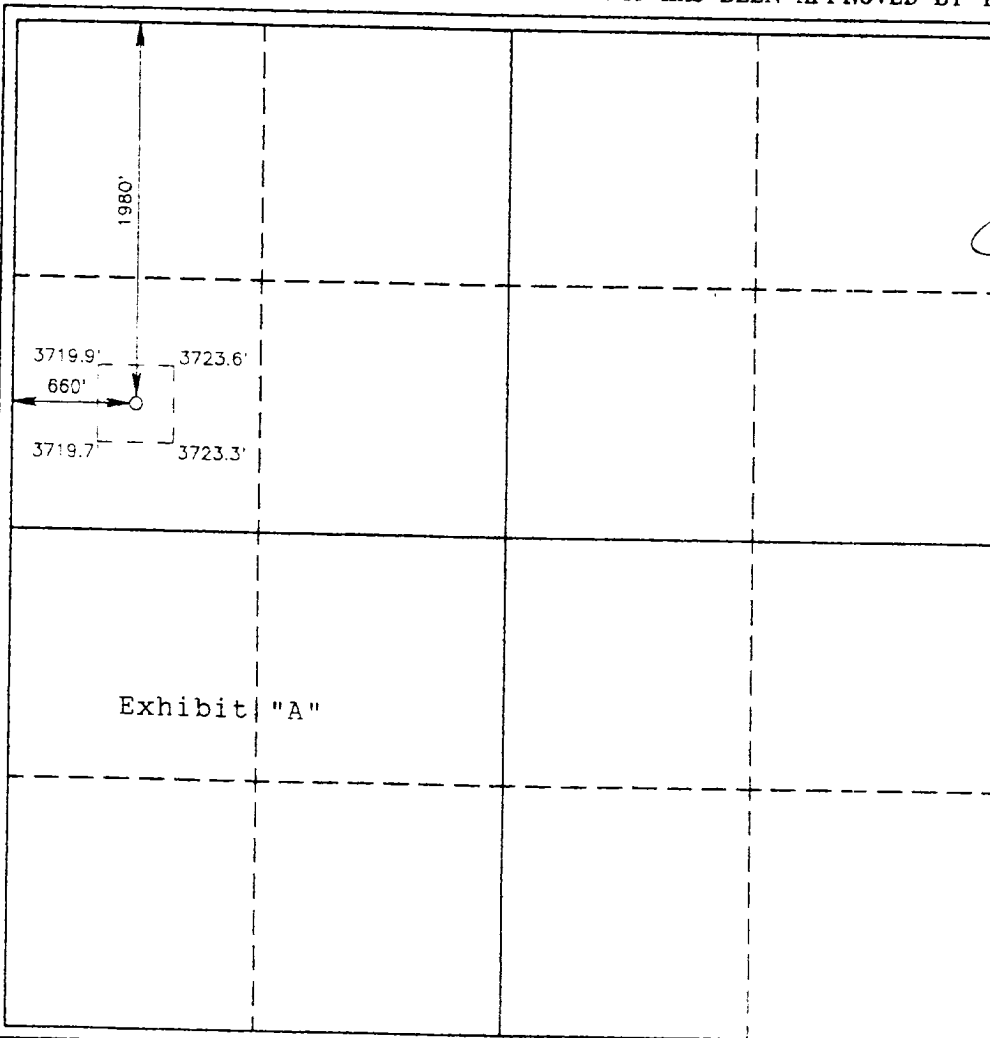
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	27	19S	34E		1980	NORTH	660	WEST	LEA

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	Joint or Infill	Consolidation Code	Order No.

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</p> <p>Duane C Winkler Printed Name</p> <p>Production Superintendent Title</p> <p>7-21-94 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>JUNE 8, 1994 Date Surveyed</p> <p><i>[Signature]</i> Signature & Seal of Professional Surveyor</p> <p>W.O. Num. 94-11-0989</p> <p>Certificate No. JOHN W. WEST, 676 RONALD J. EIDSON, 3238 GARY L. JONES, 7977</p>	