Fonn 3160-3
(July 1992)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUBMIT IN TRIPLICATE
(Other instructions on reverse side)

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

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

5. LEASE DESIGNATION AND SERIAL NO: MDA 701-98-0013 Tract 4

1a. TYPE OF WORK: Drill [ ] Deepen [ ]

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: Jicarilla Apache

b. TYPE OF WELL: Oil Well [ ] Gas Well [X] Other — Single Zone [X] Multiple Zone [ ]

7. UNIT AGREEMENT NAME: N/A

32537

2. NAME OF OPERATOR: Mallon Oil Company

8. FARM OR LEASE NAME, WELL NO.: Jicarilla 29-02-21 No. 1

3. ADDRESS AND TELEPHONE NO.: P.O. Box 2797, Durango, Colorado ((505) 885-4596

9. API WELL NO.: 30-039-27463

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 560'FNL and 865' FWL (NW/4 NW/4) Unit D
At proposed prod. zone

10. FIELD AND POOL, OR WILDCAT: East Blanco Pictured Cliffs

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec 21, T29N-R2W

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE *: 60 Miles East of Bloomfield, New Mexico

12. COUNTY OR PARISH: Rio Arriba

13. STATE: NM

15. DISTANCE FROM PROPOSED * LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)	16. NO. OF ACRES IN LEASE	17. NO. OF ACRES ASSIGNED TO THIS WELL
1100'	39,360	160 NW/4
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	**19. PROPOSED DEPTH**	**20. ROTARY OR CABLE TOOLS**
4000'	4000'	Rotary
21. ELEVATIONS (SHOW WHETHER DF, RT, GR, Etc.) 7123	22. APPROX. DATE WORK WILL START	

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	8 5/8"	24#	250'	175 sx circ. To surface
7 7/8"	5 1/2"	15.5#	4000'	900 sx to circ. To surface

Mallon Oil Company proposes to drill to a depth sufficient to test the pictured cliffs formation. If productive, casing will be cemented at TD. If non-productive, the well will be plugged and abandoned in a manner consistent with Federal regulations. Specific programs as per on-shore Oil and Gas Order No. 1 are outlined in the following attachments:

Drilling Program

Exhibit I:	Drilling Program	Exhibit C:	One Mile Radius Map
Exhibit II:	Surface Use Plan	Exhibit D:	Drilling Site Layout
Exhibit A:	Location and Elevation Plat	Exhibit E:	Production Facilities
Exhibit B:	Roads and Pipelines	Exhibit F:	Environmental Assessment

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: Robert Haylock TITLE: Engineering Manager DATE 5/8/03

(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 BY /s/ Brian A. Lloyd TITLE Acting Assistant Field Manager DATE JUN 26 2003

***See Instructions On Reverse Side**

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

JUN 2003 RECEIVED OIL CONS. DIV. DIST. 3

03 MAY 12 AM 10:51
070 FARMINGTON NM

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II
P.O. Drawer DD, Artesia, N.M. 88211-0719

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

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

Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-039-27463	72400	East Blanco Pictured Cliffs

[4] Property Code	[5] Property Name	[6] Well Number
32537	JICARILLA 29-02-21	1

[7] OGRID No.	[8] Operator Name	[9] Elevation
013925	MALLON OIL COMPANY	7123'

[10] Surface Location

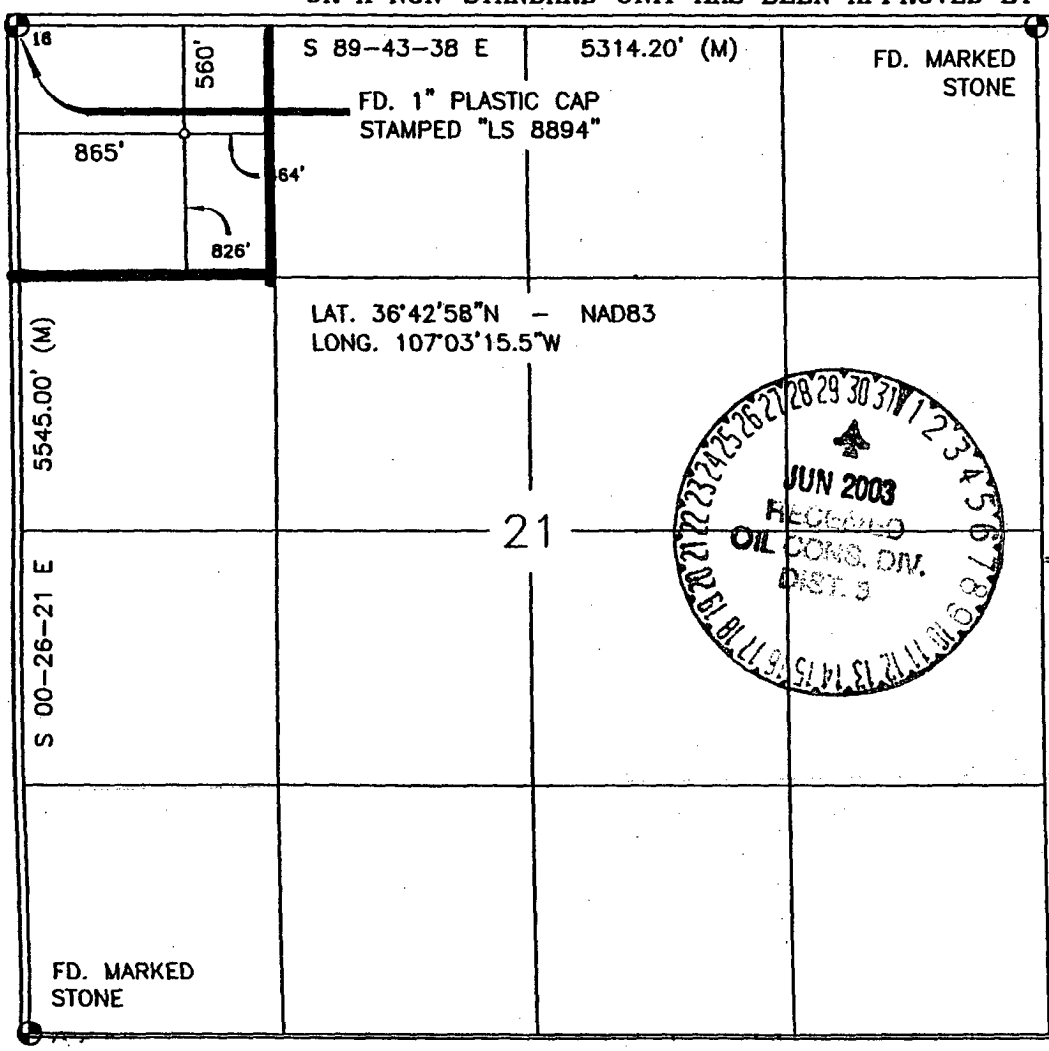
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	21	29-N	2-W		560'	NORTH	865'	WEST	RIO ARRIBA

[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

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
160			

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



[17] OPERATOR CERTIFICATION

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

Signature

Robert Blaylock
Printed Name

Engineering Manager
Title

April 29, 2003
Date

[18] SURVEYOR CERTIFICATION

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.

12-13-02
Date of Survey

Signature and Seal of Professional Surveyor:

DAVID R. JOHNSON
NEW MEXICO
14827
REGISTERED PROFESSIONAL SURVEYOR

Certificate Number

Exhibit A

DRILLING PROGRAM

(Per Rule 320)

Mallon Oil Company
Lease: **Jicarilla 29-02-21 No. 1**
560' FNL and 865' FWL (NW/NW) Unit D
Sec. 21, T29N- R-2W
Rio Arriba County, New Mexico

LEASE NUMBER: MDA 701-98-0013 Tract 4

1. **Geologic name of surface formation**: San Jose

2. **Estimated tops of important geologic markers:**

San Jose		**Surface**
Nacimiento	2633'	Sandstone,shales & siltstones
Ojo Alamo	3063'	Sandstone,shales & siltstones
Kirtland	3391'	Sandstone,shales & siltstones
Fruitland	3501'	Sandstone,shales & siltstones
Pictured Cliffs	3693'	Sandstone,shales & siltstones
Lewis	3805'	Sandstone,shales & siltstones
Total Depth	4000'	Sandstone,shales & siltstones

3. **Estimated depths of anticipated fresh water, oil, or gas:**

San Jose	1333'	Gas
Nacimiento	2633'	Gas
Ojo Alamo	3063'	Gas
Fruitland	3601'	Gas
Pictured Cliffs	3793'	Gas

No other formations are expected to produce oil, gas, or fresh water in measurable quantities. The surface fresh water sands will be protected by setting 8-5/8" casing at 250' and circulating cement back to surface.

4. **Proposed casing program:**

Hole Size	Interval	Casing OD	Casing weight, grade, and thread
12-1/4"	250'	8-5/8"	24 lb/ft, K55, ST&C
7-7/8"	4000'	5-1/2"	15.5 lb/ft, K55, LT&C

Cement program:

8-5/8" surface casing: Cemented to surface with 175 sks Class B, or Type III cement containing 2% $CaCl_2$, 0.25 lb/sk Cello Seal, slurry to be mixed at 15.6 lb/gal, yield 1.18 cu ft/sk. Circulate cement to surface. 100% excess.

5-1/2" production casing: 1170 sks 50/50 POZ, containing 6- 1/4 lb/sk Gilsonite, .3% Fluid loss, 3% KCl mixed at 13.7 lb/gal, 1.26 cu ft/sk, 30% excess. Circulate cement to surface.

5. **Minimum specifications for pressure control (2M System):**
The blowout preventor equipment (BOP) to be used on this well will consist of a double ram type preventor with a rating of 2000 PSIG working pressure. The unit will be hydraulically operated and the ram type preventor will be equipped with one set of blind rams and one set of pipe rams. The BOP will be nippled up on the 8 5/8" surface casing and in continuous use until production casing has been cemented or the well abandoned. The BOP, choke manifold, and accessory equipment will be tested to a pressure of 600 PSIG before drilling out of the surface casing. The pipe rams and blind 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 connected to the BOP stack below the bottom set of rams, as shown on Exhibit 1. The drilling spool in Exhibit 1 is optional depending on the drilling rig selected for this well. Other accessories to the BOP equipment will include a Kelly cock, floor safety valve, choke lines, and choke manifold with two chokes all with a minimum pressure rating of 2000 PSIG.

STATEMENT ON ACCUMULATOR SYSTEM AND LOCATION OF HYDRAULIC CONTROLS

The drilling rig has not yet been selected for this well. Selection will take place after approval of this application. Manual and/or hydraulic controls will be in compliance with Onshore Order No. 2 for 2,000 psi systems.

6. **Types and characteristics of the proposed mud system:**

The well will be drilled to TD with a combination of fresh water and fresh water polymer mud system. The applicable depths and properties of this system are as follows:

Depth	Type	Weight (ppg)	Viscosity (sec)	Water loss (cc)
0-250'	FW or Air	± 8.5	30-33	NC
250' - TD	FW (Gel polymer)	± 9.0	32-35	10 - 20 cc

REB

Sufficient mud materials to maintain mud properties, control lost circulation and to contain "kick" will be available at well site.

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, and 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 pressure (BHP) is 1240' psig.