Form 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

1a. TYPE OF WORK: Drill [X] 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

2. NAME OF OPERATOR: Mallon Oil Company

8. FARM OR LEASE NAME, WELL NO.: Jicarilla 30-03-34 #4

3. ADDRESS AND TELEPHONE NO.: P.O. Box 2797, Durango, CO 81302 (970) 382-9100

9. API WELL NO.: 30-039-26733

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

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 2066' FSL and 2018' FEL (NW/SE) Unit J
At proposed prod. zone: 2066' FSL and 2018' FEL (NW/SE) Unit J

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: J Sec. 34, T30N-R03W

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 56 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
2039'	39,360	SE/4 160
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**
2800'	4000'	Rotary

21. ELEVATIONS (SHOW WHETHER DF, RT, GR, Etc.): 7259' GR

22. APPROX. DATE WORK WILL START: 12/10/00

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'	Circulate to surface
7-7/8"	5-1/2"	15.5#	4000'	730 sks circ. To surface

Mallon Oil Company proposes to drill to a depth sufficient to test the Pictured Cliffs formation. The well will be drilled on an existing pad with no additional disturbance required.
Specific programs as per on-shore Oil and Gas Order No. 1 are outlined in the following attachments:

Drilling Program

Exhibit 1: Blow Out Preventor Equipment/Plan
Exhibit A: Location and Elevation Plat
Exhibit B: Roads and Pipelines
Exhibit C: One Mile Radius Map
Exhibit D: Drilling Site Layout
Exhibit E: Production Facilities
Exhibit F: H2S Contingency Plan
Exhibit G: Environmental Assessment / Arch survey

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: Terry Lindeman TITLE: Operations Superintendent DATE 03/06/01

(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 W. Davis TITLE Acting Asst Field Mgr DATE APR 06 2001

***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.

HOLD C104 FOR NSL

CONFIDENTIAL

DISTRICT I
1625 N. French Dr., Hobbs, N.M. 88240

DISTRICT II
811 South First, Artesia, N.M. 88210

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

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, NM 87505

Form C-102
Revised August 15, 2000

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
30-039-26733	72400	East Blanco; Pictured Cliffs

[4] Property Code	[5] Property Name	[6] Well Number
00024236	JICARILLA 30-3-34	4

[7] OGRID No.	[8] Operator Name	[9] Elevation
13925	MALLON OIL COMPANY	7259'

[10] Surface Location

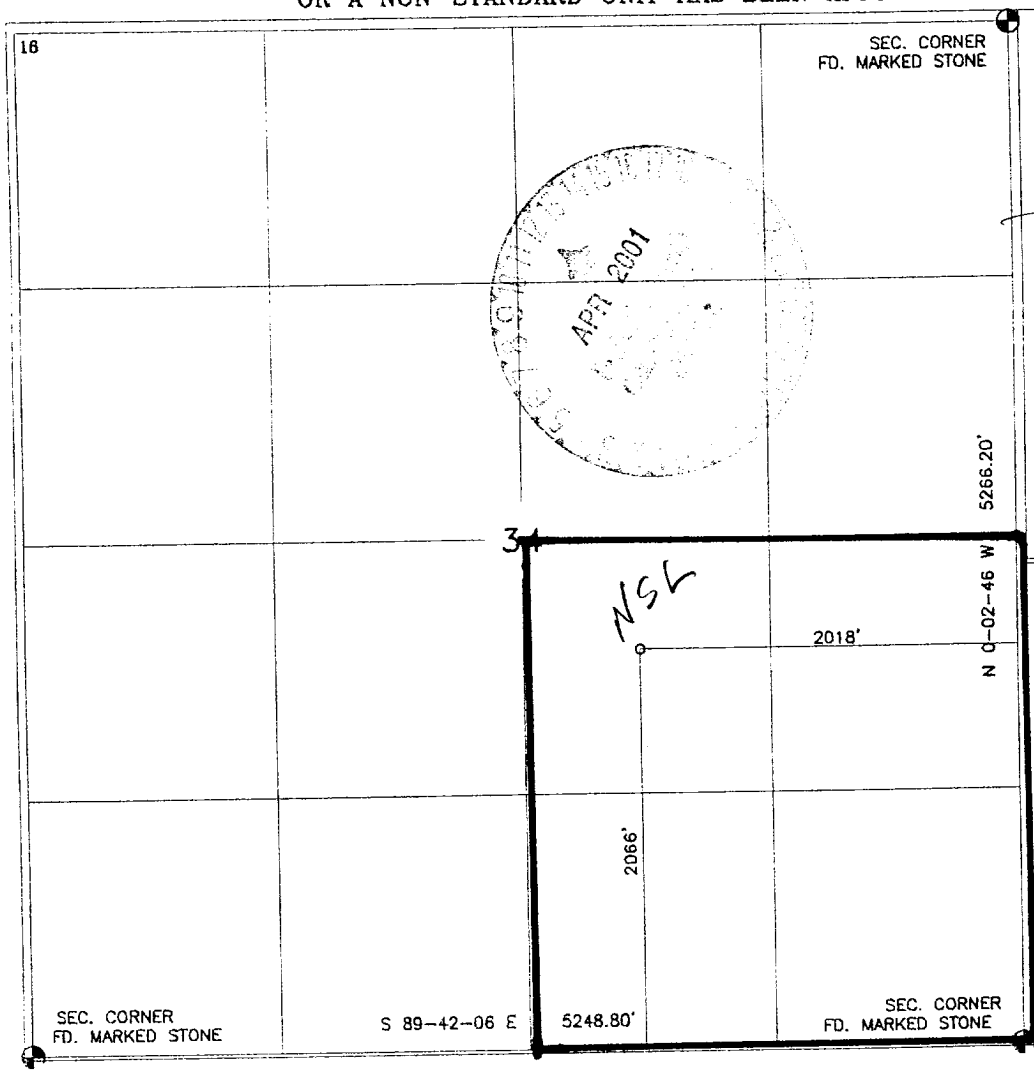
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	34	30-N	3-W		2066	SOUTH	2018	EAST	RIO ARRIBA

[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.

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

T. G. Lindeman
Printed Name

Operations Superintendent
Title

03/07/01
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.

NOVEMBER 28, 2000
Date of Survey

Signature and Seal of Professional Surveyor:

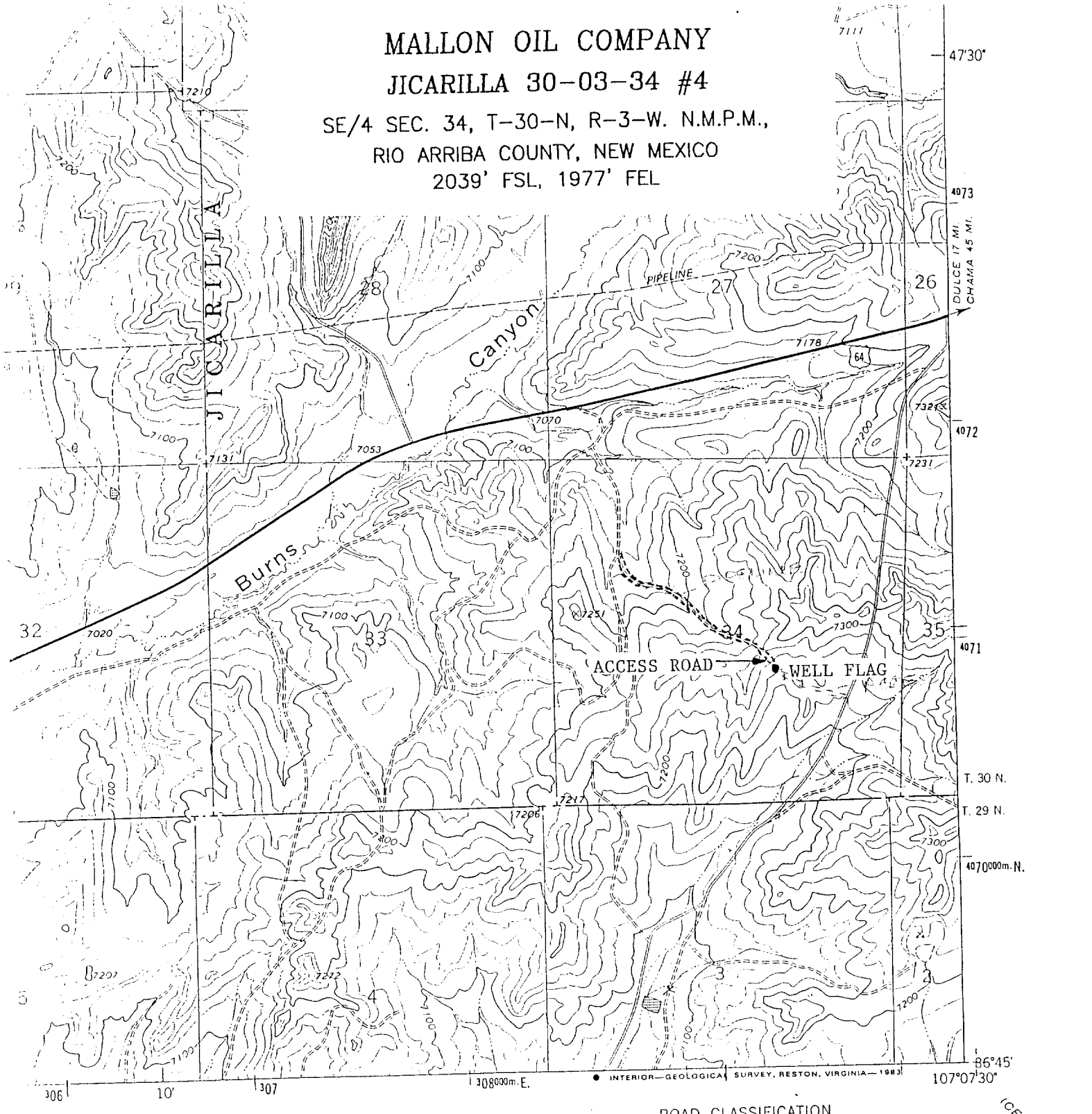
RONALD J. EIDSON
NEW MEXICO
8894
REGISTERED PROFESSIONAL LAND SURVEYOR

8894
Certificate Number

MALLON OIL COMPANY

JICARILLA 30-03-34 #4

SE/4 SEC. 34, T-30-N, R-3-W. N.M.P.M.,
RIO ARRIBA COUNTY, NEW MEXICO
2039' FSL, 1977' FEL



ROAD CLASSIFICATION

Primary highway, hard surface
Secondary highway, hard surface
Light-duty road, hard or improved surface
Unimproved road
Interstate Route
U. S. Route
State Route

1 MILE

000 FEET

ETER

NEW MEXICO

QUADRANGLE LOCATION

Revisions shown in purple compiled from aerial photographs taken 1981 and other source data. Partial field check by U.S. Forest Service. Map edited 1982

BIXLER RANCH, N. MEX.
N3645-W10707.5/7.5

1963
PHOTOREVISED 1982
DMA 4557 I SW-SERIES V881

INTERIOR—GEOLOGICAL SURVEY, RESTON, VIRGINIA—1983

(CEMENT LAKE)
4557 I I NE

RGINIA 22092
EST

DRILLING PROGRAM

Attached to Form 3160-3
Mallon Oil Company
Jicarilla 30-03-34 No. 4
2066' FSL and 2018' FEL (NW/SE) Unit J
Sec. 34, T30N-R03W
Rio Arriba County, New Mexico

LEASE NUMBER: MDA 701-98-0013

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

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

San Jose	Surface
Nacimiento	2600'
Ojo Alamo	3030'
Kirtland	3358'
Fruitland	3468'
Pictured Cliffs	3660'
Lewis	3800'
Total Depth	4000'

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

San Jose	1300'	Gas
Nacimiento	2600'	Gas
Ojo Alamo	3030'	Gas
Fruitland	3468'	Gas
Pictured Cliffs	3660'	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"	0-250'	8-5/8"	24 lb/ft, K55, ST&C
7-7/8"	0-4000'	5-1/2"	15.5 lb/ft, K55, LT&C

Cement program:

8-5/8" surface casing: Cemented to surface with 110 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.

5-1/2" production casing: 950 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) shown in Exhibit 1 will consist of a double ram-type (2000 psi WP) preventor. The unit will be hydraulically operated and the ram-type preventor will be equipped with blind rams on top and drill pipe rams on bottom. The BOP will be nippled up on the 8-5/8" surface casing 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 2000 psi WP rating.

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	± 8.5	30-33	NC
250' - TD	FW (Gel polymer)	± 9.0	32-35	10 - 20 cc

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 1200 psig. Hydrogen sulfide gas is potentially present in the San Jose and Ojo Alamo formation and an H_2S drilling plan is attached.

10. Anticipated starting date: March 30, 2001
Anticipated completion of drilling operations: Expected duration of 6 days