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			ND MANAGEMENT	·	· · · · · · · · · · · · · · · · · · ·		LEASE DESIGNATION A		
	APPLICATIO	N FOR PE	RMIT TO DRILL	OR DEEPEN	<u> </u>		1DA 701-98-0013		
Ia. TYPE OF WORK	Drill		Deepen				IF INDIAN, ALLOTTEE O icarilla Apache	R TRIBE NAM	
Oil Well	Gas Well X	Other		Single Zone	X Multiple Zone	7.	UNIT AGREEMENT NAM N/A	± <del>5</del> 34	
NAME OF OPERATO	or Mallon Oil Compa	any	13925	45.0	700		FARM OR LEASE NAME		
ADDRESS AND TELI			( (970)382-9100	6		9	<del></del>	275	
	<u></u>		ance with any State require	ements.*) [-[-]	000A 3		ast Blanco Picture		
Al surface	- (Noport location cloan)	and in accord	arice with any State requir	Maine / PED	(COO)	_	1. SEC., T., R., M., OR BL		
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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** Location and Elevation Plat **Production Facilities** Exhibit A: Exhibit E: 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 🗬 ent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any 24 TITLE: Engineering Manager DATE 06/10/03 SIGNED. **Robert** (This space for Federal or State office use) APPROVAL DATE PERMIT NO

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:

/s/ David R. Sitzler

Acting Assistant Field Manager

5 2004 **FEB** 

\*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.

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

# State of New Mexico Energy, Minerals & Natural Resources Department

Form C-102 Revised August 15, 2000

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

DISTRICT III 1000 Rio Brazos Rd., Aztec, N.M. 87410 OIL CONSERVATION DIVISION 2040 South Pacheco Santa Fe, NM 87505 Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

DISTRICT IV 2040 South Pacheco, Santa Fe, NM 87505

# WELL LOCATION AND ACREAGE DEDICATION PLAT

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Property C	ode	79	74 72400 EBlancoPC  Property Name						Well Number			
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OGRID No	).	*Operator Name						• Elevation				
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# **DRILLING PROGRAM**

(Per Rule 320)

# **Mallon Oil Company**

Lease: **Jicarilla 29-02-18 No. 3** 1740' FSL and 2140' FEL (NW/SW)

Sec. 18, 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	<u>Interval</u>	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, 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.

Page 2

### 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:

<u>Depth</u>	Type	Weight (ppg)	Viscosity (sec)	Water loss (cc)
0-250'	FW	± 8.5	30-33	NC
250' - TD	FW (Gel po	lymer) $\pm 9.0$	32-35	10 - 20 cc

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.