

\*(Instructions on reverse)

# OCD-ARTESIA

FORM APPROVED OMB No. 1004-0136 Expires January 31, 2004

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

5. Lease Serial No.

NM-02295

APPLICATION FOR PERMIT TO DRILL OR REENTER

MAR 2 9 2006

6. If Indian, Allottee or Tribe Name

				79 U U C C C C		
la. Type of Work: DRILL REENT	ER		355:	<u>~~~</u>	7. If Unit or CA Agree	ment, Name and No.
					8. Lease Name and We	ll No.
1b. Type of Well: Oil Well Gas Well Other	☐ s	ingle Zone	☐ Multi	ple Zone	Angel Peak 3 Federa	I #1
2. Name of Operator					9. API Well No.	
Mewbourne Oil Company - 14744		,			30-015	-34744_
3a. Address	3b. Phone N	o. (include d			10. Field and Pool, or E	xploratory
PO Box 5270 Hobbs, NM 88240	505-393-59					
4. Location of Well (Report location clearly and in accordance with	h any State requ	irements. *)			11. Sec., T., R., M., or I	3lk. and Survey or Area
At surface 1980' FNL & 660' FEL Unit H						
At proposed prod. zone Same					Sec 3-T20S-R27E	
14. Distance in miles and direction from nearest town or post office*					12. County or Parish	13. State
North from Carlsbad approx 10miles					Eddy	NM
15. Distance from proposed* location to nearest property or lease line, ft.	16. No. of a	16. No. of Acres in lease 17. Spacin		ng Unit dedicated to this well		
(Also to nearest drig. unit line, if any) 660'	320	320 320		320		
18. Distance from proposed location* to nearest well, drilling, completed,	19. Propos	19. Proposed Depth 20. BLM		20. BLM/E	/BIA Bond No. on file	
applied for, on this lease, ft.	11100'	11100		, Nationwide		
1980' 21. Elevations (Show whether DF, KDB, RT, GL, etc.)		rimate date	work will e		23. Estimated duration	
3393' GL	ASAP	22. Approximate date work will start*		tart	45	
0000 01		chments				
					· · · · · · · · · · · · · · · · · · ·	
The following, completed in accordance with the requirements of Onsl	nore Oil and Gas	order No.1	, shall be at	tached to this	s form:	
1. Well plat certified by a registered surveyor.		4. Bond	to cover th	e operation:	s unless covered by an e	xisting bond on file (see
2. A Drilling Plan.			20 above).			
3. A Surface Use Plan (if the location is on National Forest System	n Lands, the		ator certific		ormation and/or plans as	may be required by the
SUPO shall be filed with the appropriate Forest Service Office).			orized office		minution und/or plant as	may be required by the
25. Signature	Name	(Printed/T	yped)		:1	Date
Toustl' Ween	;	i Green	• /		C	2/08/06
Title						
Hobbs Regulatory						
Approved by (Signature) /S! James Stovall	Name	e (Printed/T) <b>/S</b> i	James	s Stova	11	DatMAR 2 8 2006
Title TINGU	Offic	e				
MONTHELD MANAGER				BAD F		E
Application approval does not warrant or certify that the applicant hold	s legal or equita	ble title to th	nose rights in	n the subject	lease which would entitle	the applicant to conduct
operations thereon.  Conditions of approval, if any, are attached				APG	PAOVAL FOR	1 VEAD

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United

DECLARED WATER BASIN 3 (1)
CEMENT BEHIND THE 13 8
CASING MUST BE <u>CIRCULATED</u>—
WITNESS

States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

CEMENT TO COVER ALL OIL, GAS AND WATER BEARING ZONES Approval subject to General Requirements and Special Stipulations attached

If earthen pits are used in association with the drilling of this well, an OCD pit permit must be obtained prior to pit construction.

Pistrict I 625 N. French Dr., Hobbs NM 68240 District II

1301 W. Grand Avenue, Artesia, NM 88210

District III

1000 Rio Brazos Rd., Aztec, NM 87410

District IV

State of New Mexico

Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION

> 1220 South St. Francis Dr. Santa Fe, NM 87505

Form C-102 Revised June 10, 2003

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

1220 S. St. Fran	ncis Dr., San	nta Fe, NM 87	505						AMENDED	REPOR
			WELL	LOCAT	ION AND	ACREAGE D	EDICATION	PLAT		
	<sup>1</sup> API Numb	er		7 Pool	S ( C	А	ngell Ran	<sup>3</sup> Pool Name ch Morrow		
<sup>4</sup> Proper	ty Code			Ar		perty Name k 3 Federa	1	Toka-	<sup>6</sup> Well Num	aber
<sup>7</sup> ося: 1474		Ме	wbourne	Oil Com	•	erator Name			°Elevati	
					10Surface	e Location				
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County	
Н	3	20 S	27 E		1980	North	660	East	Eddy	r
			<sup>11</sup> Bott	om Hol	e Location	If Different F	rom Surface	<b>;</b>	-	
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County	
<sup>12</sup> Dedicated Acres	B 13 Joint o	or Infill 14	Consolidation (	Code 150r	der No.		L	<u> </u>	1	
320			_							

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNITL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-

STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION <sup>17</sup>OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and Signature Kristi Green Hobbs Regulatory Angel Draw 3 Fed Com No. 1 Title and E-mail Address − 660' ¬ Alternate Elev. 3393' 02/08/06 /#NM0229**5** Leas∉ <sup>18</sup>SURVEYOR CERTIFICATION NAD 27 NM East N = 583537I hereby certify that the well location shown on this plat E= 522079 was plotted from field notes of actual surveys made by N= 32' 36' 15" W= 104' 15' 42" me or under my supervision, and that the same is true and correct to the best of my belief. L. STANFORD 04-06-2005 Date of Survey

Certificate Number

District I 1625 N. French Dr., Hobbs, NM 88240 District II 1301 W. Grand Avenue, Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

# State of New Mexico **Energy Minerals and Natural Resources**

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe

Form C-144

March 12, 2004

office

# Pit or Below-Grade Tank Registration or Closure Is pit or below-grade tank covered by a "general plan"? Yes No X

Type of action: Registration of a pit of	r below-grade tank X Closure of a pit or below-g	rade tank
Operator:Mewbourne Oil CompanyTelephone Address:PO Box 5270Hobbs, NM 88240		address:kgreen@mewbourne.com
Facility or well name: _Angel Peak 3 Federal #1API #		Sec 3 T20S R27E
County: _Eddy Latitude N=583537 Long		
Surface Owner Federal X State Private Indian		
Pit	Below-grade tank	
Type: Drilling X Production  Disposal	Volume:bbl Type of fluid:	
Workover   Emergency	Construction material:	
Lined X Unlined	Double-walled, with leak detection? Yes If r	ロニしEIVE!!
Liner type: Synthetic Thickness 12_mil Clay Volume		FEB 1 0 2006
bbl		OUU-MITEOIM
	Less than 50 feet	(20 points)
Depth to ground water (vertical distance from bottom of pit to seasonal high	50 feet or more, but less than 100 feet	(10 points)
water elevation of ground water.)	100 feet or more x	( 0 points) X
Wellhead protection area: (Less than 200 feet from a private domestic	Yes	(20 points)
water source, or less than 1000 feet from all other water sources.)	No X	( 0 points) X
Distance to surface water: (horizontal distance to all wetlands, playas,	Less than 200 feet	(20 points)
irrigation canals, ditches, and perennial and ephemeral watercourses.)	200 feet or more, but less than 1000 feet	(10 points)
and opinional value of the state of the stat	1000 feet or more X	( 0 points) X
	Ranking Score (Total Points)	0 points
If this is a pit closure: (1) attach a diagram of the facility showing the pit's onsite ☐ offsite ☐ If offsite, name of facility	. (3) Attach a general description of remedial ad	ction taken including remediation start date and end
diagram of sample locations and excavations.	-	•
I hereby certify that the information above is true and complete to the best of repearable been/will be constructed or closed according to NMOCD guidelines. a general Date:02/09/06  Printed Name/TitleKristi Green / Hobbs Regulatory Asst  Your certification and NMOCD approval of this application/closure does not a otherwise endanger public health or the environment. Nor does it relieve the or regulations.	general permit , or an (attached) alternative C Signature Signature the operator of liability should the contents of	OCD-approved plan .  All the pit or tank contaminate ground water or
Approval:  Date: Serry Guye  Printed Name/Title Compliance Officer	Signature Demy Duny	

# MULTI-POINT SURFACE USE AND OPERATIONS PLAN

# MEWBOURNE OIL COMPANY

Angel Peak "3" Federal #1 1980' FNL & 660' FEL Sec 3-T20S-R27E Eddy County, New Mexico

This plan is submitted with Form 3160-3, Application for Permit to Drill, Covering the above described well. The purpose of this plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of the surface disturbance involved, and the procedures to be followed in restoring the surface so that a complete appraisal can be made of the environmental impact associated with the proposed operations.

# 1. Existing Roads:

- A. Exhibit #3 is a road map showing the location of the proposed well. Exhibit #3 is a topographic map showing the location of the proposed well and access road. Existing roads are highlighted in black and proposed roads are highlighted in blue.
- B. Directions to location From Carlsbad: From Carlsbad Relief Route go north then west to Eddy Co 206 (Illinois Camp Road). Turn right (north) on Illinois Camp Rd and continue North 8 miles to Eddy Co 237 (Angel Ranch Rd). Turn left (west) across from Eddy Co 237 onto lease road and continue west 1 mile. Turn right (north) and continue north 1.4 miles to Angel Draw "2" St Com #1 location. Continue north off NE corner of pad and down lease road 0.5 miles. Turn left (west) and continue west 0.6 miles to Angel Draw "2" St Com #3 location. Continue west 1100' to new location.

# 2. Proposed Access Road:

- A Will need 1100' of new road.
- B. The access to the location will be limited to 16' in width and will adequately drain runoff and control erosion as presently constructed.

# 3. Location of Existing Wells:

There are producing wells within the immediate vicinity of this well site shown on Exhibit 4.

#### 4. Location of Existing and/or Proposed Facilities:

- A. There are no production facilities on this lease at the present time.
- B. In the event that the well is productive, production facilities will be located on the well pad.
- C. All production vessels left on location will be painted to conform with BLM painting stipulations within 180 days of installation.

# 5. Location and Type of Water Supply

The well will be drilled with a combination of fresh water and brine water based mud systems. The water will be obtained from commercial suppliers in the area and/or hauled to the location by transport trucks over existing and proposed roads as indicated in Exhibit #3.

Angel Peak 3 Federal #1 Page 2

#### 6. Source of Construction Materials

All material required for construction of the drill pad and access roads will be obtained from private, state, or federal pits. The construction contractor will be solely responsible for securing construction materials required for this operation and paying any royalties that may be required on those materials.

# 7. Methods of Handling Waste Disposal:

- A. Drill cuttings not retained for evaluation purposed will be disposed of in the reserve pit.
- B. Drilling fluids will be allowed to evaporate in the reserve pit prior to closure.
- C. Water produced during operations will be disposed of in the reserve pit.
- D. If any liquid hydrocarbons are produced during operations, those liquids will be stored in suitable tanks until sold.
- E. Current regulations regarding the proper disposal of human waste will be followed.
- F. All trash, junk, and other waste materials will be stored in proper containers to prevent dispersal and will be removed to an appropriate facility within one week of cessation of drilling and completion activities.

### 8. Ancillary Facilities

There are no ancillary facilities within the immediate vicinity of the proposed well site.

#### 9. Well Site Layout

- A A diagram of the drill pad is shown in Exhibit #5. Dimensions of the pad, pits, and location of major rig components are shown.
- B. The reserve pit will be lined with a high quality plastic sheeting to prevent migration of fluids.
- C. The pad dimension of 400' X 250' has been staked and flagged.
- D. An archaeological survey has been conducted on the proposed access road, location pad and pipeline.

#### 10. Plans for Restoration of Surface

- A. Upon cessation of the proposed operations, if the well is abandoned, the location and road will be ripped and re-seeded. The reserve pit area, after allowing to dry will be leveled. The entire location will be restored to the original contour as much as reasonable possible. All trash, garbage, and pit lining will be hauled to appropriate disposal to assure the location is aesthetically pleasing as reasonable possible. All restoration work will be completed within 180 days of cessation of activities.
- B. The disturbed area will be restored by re-seeding during the proper growing season.
- C. Three sides of the reserve pit will be fenced prior to and during drilling operations. The reserve pit will be fenced on the fourth side after the drilling rig is removed to prevent the endangerment of livestock. The fence will remain in place until the pit area has been leveled and restored

MULTI-POINT SURFACE USE AND OPERATIONS PLAN MEWBOURNE OIL COMPANY

Angel Peak 3 Federal #1 Page 3

D. Upon cessation of the proposed operations, if the well is not abandoned, the reserve pit area will be restored as per BLM guidelines. Any additional caliche required for production facilities will be obtained from a source as described in Section 6.

E. Within 90 days of cessation of drilling and completion operations, all equipment not necessary for production operations will be removed. The location will be cleaned of all trash and junk to assure the well site is left as aesthetically pleasing as reasonably possible.

### 11. Surface Ownership:

The surface is owned by:

USA

#### 12. Other Information:

A. Topography: Refer to the archaeological report for a detailed description of flora,

fauna, soil characteristics, dwellings, and historical or cultural sites.

B. The primary use of the surface at the location is for grazing of livestock.

### 13. Operator's Representative:

A. Through APD approval, drilling, completion and production operations:

N.M. Young, District Manager Mewbourne Oil Company PO Box 5270 Hobbs, NM 88241 505-393-5905

#### 14. Certification

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed by Mewbourne Oil Company, its contractors and subcontractors, in accordance with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

Date:	_02/08/06	Signature:	Maller	
			7 7 7	

N.M. Young, District Manager Mewbourne Oil Company PO Box 5270 Hobbs, NM 88241 (505) 393-5905

# Drilling Program Mewbourne Oil Company

Angel Peak "3" Federal #1 1980' FNL & 660' FEL Section 3-T20S-R27E Eddy County, New Mexico

# 1. The estimated top of geological markers are as follows:

Delaware	2550'
Bonespring	2860'
Wolfcamp	8136'
Strawn	9670'
Atoka	10150'
Morrow	10430'
Barnett	10825'

#### 2. Estimated depths of anticipated fresh water, oil, or gas:

Water

Below 200'

Hydrocarbons

All zones below Delaware

#### 3. Pressure control equipment:

A 2000# working pressure annular BOP will be installed on the 13 %" surface casing. A 5000# WP Double Ram BOP and a 3000# WP Annular will be installed after running 9 %" casing. Pressure tests will be conducted prior to drilling out under all casing strings. BOP controls will be installed prior to drilling under surface casing and will remain in use until completion of drilling operations. BOP's will be inspected and operated daily to insure mechanical integrity and the inspection will be recorded on the daily drilling report.

Kelly cock and a sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position when the kelly is not in use.

#### 4. Proposed casing and cementing program:

#### A. Casing Program:

Hole Size	<u>Casing</u>	Wt/Ft.	<u>Grade</u>	Depth
17 1/2"	13 % "	48#	H40	0-450'
12 1/4"	9 %"	40#	N80/J55	0-3000'
8 3/4"	5 ½"	17#	P110/N80	0-11100'

Minimum casing design factors: Collapse 1.2, Burst 1.1, Tensile strength 2.0.

# **B.** Cementing Program

- i. <u>Surface Casing</u>: 200 sacks Class C light cement containing ½#/sk cellophane flakes, 2% CaCl, 5#/sk gilsonite. 200 sks Class C cement containing 2% CaCl.
- ii. <u>Intermediate Casing:</u> 700 sacks BJ Lite Class C cement containing 6% gel, 5#/sack gilsonite. 400 sacks Class C cement containing 2% CaCl.
- iii. Production Casing: 600 sacks Class H cement containing fluid loss additive, friction reducer additive, compressive strength enhancer, and NaCl. Shallower productive zones may be protected by utilizing a multiple stage cementing tool in the production casing below potentially productive zones and cementing with a light cement slurry.

<sup>\*</sup>Mewbourne Oil Company reserves the right to change cement designs as hole conditions may warrant.

Drilling Program Angel Peak 3 Federal #1 age 2

# 5. Mud Program:

Interval	Type System	<u>Weight</u>	<u>Viscosity</u>	Fluid Loss
0'-450'	FW spud mud	8.6-9.4	32-34	NA
450'-3000'	Brine water	8.4-8.6	28-30	NA
3000'-10150'	Cut brine water	8.8-9.2	28-30	NA
10150'-TD	Cut brine water	9.2-10	28-30	<10

(Note: Any weight above 8.6 ppg would be to hold back Wolfcamp shale, rather than abnormal bottom hole pressure in Morrow formation.)

# 6. Evaluation Program:

Samples:

10' samples from intermediate casing to TD

Logging:

Compensated density and dual laterlog from intermediate casing

to TD

Coring:
Drill Stem Tests:

As needed for evaluation

As needed for evaluation

#### 7. Downhole Conditions

Zones of abnormal pressure:

None anticipated

Zones of lost circulation:

Anticipated in surface and intermediate holes

Maximum bottom hole temperature:

180 degree F

Maximum bottom hole pressure:

9.0 lbs/gal gradient or less

### 8. Anticipated Starting Date:

Mewbourne Oil Company intends to drill this well as soon as possible after receiving approval with approximately 45 days involved in drilling operations and an additional 10 days involved in completion operations on the project.

# Hydrogen Sulfide Drilling Operations Plan

# Mewbourne Oil Company

Angel Peak "3" Federal #1 1980' FNL & 660' FEL Sec 3-T20S-R27E Eddy County, New Mexico

# 1. General Requirements

Rule 118 does not apply to this well because MOC has researched this area and no high concentrations of H2S were found. MOC will have on location and working all H2S safety equipment before the Yates formation for purposes of safety and insurance requirements.

# 2. Hydrogen Sulfide Training

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will have received training from a qualified instructor in the following areas prior to entering the drilling pad area of the well:

- 1. The hazards and characteristics of hydrogen sulfide gas.
- 2. The proper use of personal protective equipment and life support systems.
- 3. The proper use of hydrogen sulfide detectors, alarms, warning systems, briefing areas, evacuation procedures.
- 4. The proper techniques for first aid and rescue operations.

Additionally, supervisory personnel will be trained in the following areas:

- The effects of hydrogen sulfide on metal components. If high tensile tubular systems are utilized, supervisory personnel will be trained in their special maintenance requirements.
- 2 Corrective action and shut in procedures, blowout prevention, and well control procedures while drilling a well.
- The contents of the Hydrogen Sulfide Drilling Operations Plan.

There will be an initial training session prior to encountering a know hydrogen sulfide source. The initial training session shall include a review of the site specific Hydrogen Sulfide Drilling Operations Plan.

# 3. Hydrogen Sulfide Safety Equipment and Systems

All hydrogen sulfide safety equipment and systems will be installed, tested, and operational prior to drilling below the intermediate casing.

# 1. Well Control Equipment

- A. Flare line with automatic igniter or continuous ignition source.
- B. Choke manifold with minimum of one adjustable choke.
- C. Blowout preventers equipped with blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit
- D. Auxiliary equipment including rotating head and annular type blowout preventer.

### 2. Protective Equipment for Essential Personnel

Thirty minute self contained work unit located at briefing area as indicated on wellsite diagram.

Hydrogen Sulfide Drilling Operations Plan Mewbourne Oil Company Angel Peak 3 Federal #1 Page 2

# 3. Hydrogen Sulfide Protection and Monitoring Equipment

Two portable hydrogen sulfide monitors positioned on location for optimum coverage and detection. The units shall have audible sirens to notify personnel when hydrogen sulfide levels exceed 20 ppm.

# 4. <u>Visual Warning Systems</u>

- A. Wind direction indicators as indicated on the wellsite diagram.
- B. Caution signs shall be posted on roads providing access to location. Signs shall be painted a high visibility color with lettering of sufficient size to be readable at reasonable distances from potentially contaminated areas.

# 4. Mud Program

The mud program has been designed to minimize the amount of hydrogen sulfide entrained in the mud system. Proper mud weight, safe drilling practices, and the use of hydrogen sulfide scavengers will minimize hazards while drilling the well.

### 5. Metallurgy

All tubular systems, wellheads, blowout preventers, drilling spools, kill lines, choke manifolds, and valves shall be suitable for service in a hydrogen sulfide environment when chemically treated.

#### 6. Communications

State & County Officials phone numbers are posted on rig floor and supervisors trailer. Communications in company vehicles and toolpushers are either two way radios or cellular phones.

# 7. Well Testing

Drill stem testing is not an anticipated requirement for evaluation of this well. A drill stem test is required, it will be conducted with a minimum number of personnel in the immediate vicinity. The test will be conducted during daylight hours only.

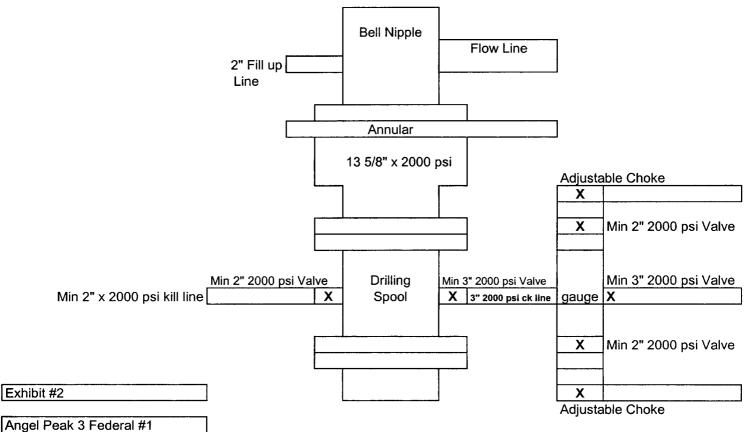
# Notes Regarding Blowout Preventer Mewbourne Oil Company

Angel Peak "3" Federal #1 1980' FNL & 660' FEL Sec 3-T20S-R27E Eddy County, New Mexico

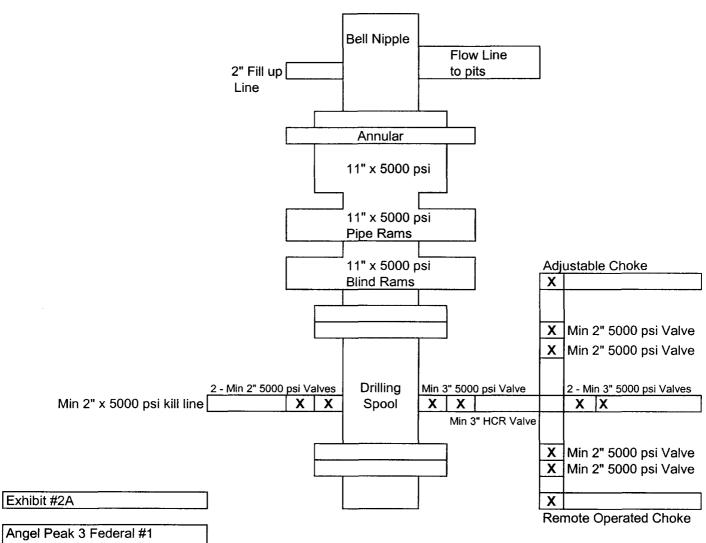
- I. Drilling nipple (bell nipple) to be constructed so that it can be removed without the use of a welder through the opening of the rotary table, with minimum internal diameter equal to blowout preventer bore.
- II. Blowout preventer and all fittings must be in good condition with a minimum 5000 psi working pressure.
- III. Safety valve must be available on the rig floor at all times with proper connections to install in the drill string. Valve must be full bore with minimum 5000 psi working pressure.
- IV. Equipment through which bit must pass shall be at least as large as internal diameter of the casing.
- V. A kelly cock shall be installed on the kelly at all times.

Blowout preventer closing equipment to include and accumulator of at least 40 gallon capacity, two independent sources of pressure on closing unit, and meet all other API specifications.

# Mewbourne Oil Company BOP Scematic for 12 1/4" Hole



Angel Peak 3 Federal #1 1980' FNL & 660' FEL Sec 3-T20S-R27E Eddy, County New Mexico



Angel Peak 3 Federal #1 1980' FNL & 660' FEL Sec 3-T20S-R27E Eddy, County New Mexico

# Exhibit #4

# **Status of Wells in Immediate Vicinity**

Mewbourne Oil Company Angel Peak 3 Federal #1 1980' FNL & 660' FEL Sec 3-T20S-R27E Eddy County, New Mexico

Section 3-T20S-R27E

Operator:

Mack Energy

Well Name: Federal TY #1

Unit letter:

Α

Status:

P&A

Field:

E Millman 7 Rivers

Operator:

John H Trigg

Well Name:

Federal TY #2-3

Unit letter:

В

Status:

P&A

Field:

E Millman 7 Rivers

Operator:

John H Trigg

Well Name:

Federal TY #3

Unit letter:

Η

Status:

P&A

Field:

E Millman 7 Rivers

# Conditions of Approval Cave and Karst

# Cave/Karst Surface Mitigation

The following stipulations will be applied to minimize impacts during construction, drilling and production.

# Berming:

Any tank batteries will be constructed and bermed large enough to contain any spills that may occur.

Bermed areas will be lined with rip-stop padding to prevent tears or punctures in liners and lined with a permanent 20 mil plastic liner.

# **Closed Mud System with Cuttings Removed:**

A closed mud system or steel tanks will be utilized to drill the well. All fluids and cuttings will be hauled off site for disposal.

# Cave/Karst Subsurface Mitigation

The following stipulations will be applied to protect cave/karst and ground water concerns:

a tradition of the first of the first in the

# Rotary Drilling with Fresh Water:

Rotary drilling techniques in cave or karst areas will include the use of fresh water as a circulating medium in zones where caves or karst features are expected. See geologist report for depth.

#### Casing:

All casing will meet or exceed National Association of Corrosion Engineers specifications pertaining to the geology of the location and be run to American Petroleum Institute and BLM standards.

# Cementing:

All casing strings will be cemented to the surface.

#### **Lost Circulation:**

ALL lost circulation zones from the surface to the base of the cave occurrence zone will be logged and reported.

Regardless of the type of drilling machinery used, if a bit drops of four feet or more and circulation losses greater then 75 percent occur simultaneously while drilling in any cavebearing zone, drilling operations will immediately stop and the BLM will be notified by the operator. The BLM will assess the consequences of the situation and work with operator on corrective actions to resolve the problem.

assimilite past

#### CONDITIONS OF APPROVAL - DRILLING

Operator's Name: Mewbourne Oil Company Well No. 1 - Angel Peak 3 Federal

Location: 1980' FNL & 660' FEL sec. 3, T. 20 S., R. 27 E.

Lease: <u>NM-02295</u>

# **I. DRILLING OPERATIONS REQUIREMENTS:**

- 1. The Bureau of Land Management (BLM) is to be notified at (505) 234-5972 in sufficient time for a representative to witness:
- A. Spudding
- B. Cementing casing: <u>13-3/8</u> inch <u>9-5/8</u> inch <u>5-1/2</u> inch

Secretaria de la constante de

- C. BOP tests
- 2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
- 3. Include the API No. assigned to well by NMOCD on the subsequent report of setting the first casing string.
- 4. A Hydrogen Sulfide Contingency Plan should be activated prior to drilling in the **Queen** formation. A copy of the plan shall be posted at the drilling site.

#### II. CASING:

- 1. 13-3/8 inch surface casing should be set at approximately 450 feet, below usable water and circulate cement to the surface. If cement does not circulate to the surface, the Carlsbad Field Office shall be notified at (505) 234-5972 and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.
- 2. Minimum required fill of cement behind the <u>9-5/8</u> inch intermediate casing is <u>sufficient to circulate to the surface.</u>
- 3. Minimum required fill of cement behind the <u>5-1/2</u> inch production casing is <u>sufficient to tie back 500 feet</u> above the uppermost perforation in the pay zone.

#### III. PRESSURE CONTROL:

- 1. Before drilling below the 13-3/8 inch surface casing, the blowout preventer assembly shall consist of a minimum of One Annular Preventer or Two Ram-Type Preventers and a Kelly Cock/Stabbing Valve. Before drilling below the 9-5/8 inch intermediate casing, the blowout preventer assembly shall consist of a minimum of One Annular Preventer, Two Ram-Type Preventers, and a Kelly Cock/Stabbing Valve.
- 2. Before drilling below the <u>13-3/8</u> inch surface casing, minimum working pressure of the blowout preventer and related equipment (BOPE) shall be <u>2000</u> psi. Before drilling below the <u>9-5/8</u> inch intermediate casing, minimum working pressure of the blowout preventer and related equipment (BOPE) shall be <u>3000</u> psi.

#### CONDITIONS OF APPROVAL - DRILLING (CONTINUED)

Operator's Name: Mewbourne Oil Company Well No. 1 - Angel Peak 3 Federal

Location: 1980' FNL & 660' FEL sec. 3, T. 20 S., R. 27 E.

Lease: NM-02295

# **III. PRESSURE CONTROL:**

- 3. After setting the <u>9-5/8</u> inch intermediate casing string and before drilling into the <u>Wolfcamp</u> formation, the BOPE shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.
- A. The Carlsbad Field Office shall be notified at (505) 234-5972 in sufficient time for a representative to witness the tests.
- B. The tests shall be done by an independent service company.
- C. The results of the test will be reported to the BLM Carlsbad Field Office at 620 East Greene Street, Carlsbad, New Mexico 88220-6292.
- D. Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.
- E. Testing must be done in a safe workman like manner Hard line connections shall be required.

#### IV. DRILLING MUD:

- 1. Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the <u>Wolfcamp</u> formation, and shall be used until production casing is run and cemented. Monitoring equipment shall consist of the following:
- A. Recording pit level indicator to indicate volume gains and losses.
- B. Flow-sensor on the flow-line to warn of abnormal mud returns from the well.