NOTES REGARDING BLOWOUT PREVENTER MEWBOURNE OIL COMPANY Fren "8" Federal Com #2 1750' FSL & 1650' FWL Section 8-T18S-R31E Eddy County, New Mexico Lease Number NMNM-33437, NMNM-029393A

- 1. 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.
- 2. Blowout preventer and all fittings must be in good condition with a minimum 2000 psi working pressure.
- 3. 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 2000 psi working pressure.
- 4. Equipment through which bit must pass shall be at least as large as internal diameter of the casing.
- 5. A kelly cock shall be installed on the kelly at all times.
- 6. Blowout preventer closing equipment to include an accumulator of at least 40 gallon capacity, two independent sources of pressure on closing unit, and meet all other API specifications.

# DRILLING PROGRAM

MEWBOURNE OIL COMPANY Fren "8" Federal Com #2 1750' FSL & 1650' FWL Section 8-T18S-R31E Eddy County, New Mexico Lease Number NMNM-33437, NMNM-029393A

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

Yates	1936'
Queen	3082'
Penrose	3300'
San Andres	3800'
Delaware	4470'
Bone Spring	5220'
1 <sup>st</sup> Bone Spring	7360'
2 <sup>nd</sup> Bone Spring	7942'
3 <sup>rd</sup> Bone Spring	8848'
Wolfcamp	9160'
Strawn	10726'
Atoka	11013'
Morrow	11508'

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

	•	• .
Water	Approximately 200'	••
Hydrocarbons	All zones below San Andres	

## 3. Pressure control equipment:

Two thousand psi working pressure annular BOP's will be installed on the 13-3/8" surface 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:

Α.	Casing program:				
	Hole Size	Casing	<u>Wt/Ft.</u>	Grade	<u>Depth</u>
	17-1/2"	13-3/8"	48#	H40	0-600'
	12-1/4"	9-5/8"	36#	J55	0-4500'
	8-3/4"	5-1/2"	17#	N80	0-12200'

Minimum casing design factors: Collapse 1.125, Burst 1.0, Tensile strength 1.8.

DRILLING PROGRAM MEWBOURNE OIL COMPANY Fren "8" Federal Com #2 Page 2

#### B. Cementing Program

- i. <u>Surface Casing</u>: 200 sacks Class "C" light cement containing ½#/sk cellophane flakes, 3% CaCl, 5 lbs/sack gilsonite. 200 sacks Class "C" cement containing 3% CaCl.
- ii. <u>Intermediate Casing:</u> 900 sacks 35:65 pozmix cement containing 6% gel, 5 lbs/sack gilsonite. 200 sacks Class "C" cement containing 2% CaCl.
- iii. <u>Production Casing:</u> 600 sacks Class "H" cement containing fluid loss additive, friction reducer additive, compressive strength enhancer, and NaCI. Shallower productive zones may be protected by utilizing and multiple stage cementing tool in the production casing below potentially productive zones and cementing with a light cement slurry.

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

#### 5. Mud Program:

Interval	Type System	Weight	Viscosity	Fluid Loss
0'-600'	FW spud mud	8.6-9.4	32-34	NA
600'-4500'	Brine water	10.0-10.2	28-30	NA
4500'-10700'	Cut brine water	8.8-9.2	28-30	NA
10700'-12200'	Cut brine water	9.2-9.8	34-42	8-12

### 6. Evaluation Program:

Samples:	10' samples from intermediate casing to TD
Logging:	Compensated density and dual laterlog from intermediate casing
00 0	to TD
Coring:	As needed for evaluation
Drill Stem Tests:	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° F
Maximum bottom hole pressure:	8.3 lbs/gal gradient or less

DRILLING PROGRAM MEWBOURNE OIL COMPANY Fren "8" Federal Com #2 Page 3

# 8. Anticipated Starting Date:

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Mewbourne Oil Company intends to drill this well as soon as possible after receiving approval with approximately 35 days involved in drilling operations and an additional 10 days involved in completion operations on the project.

## MULTI-POINT SURFACE USE AND OPERATIONS PLAN MEWBOURNE OIL COMPANY Fren "8" Federal Com #2 1750' FSL & 1650' FWL Section 8-T18S-R31E Eddy County, New Mexico Lease Number NMNM-33437, NMNM-029393A

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 #3A is a topographic map showing the location of the proposed well and access road. Existing roads are highlighted in yellow and proposed roads are highlighted in green.
- B. Directions to Location: East from Loco Hills on Highway 82 approximately 5 miles turn south on Eddy County Road #222 (Shugart Road). Go south approximately 3-1/2 miles and turn right on caliche road at Altura Field Office sign. Go West 1.3 miles (through "S" curve). Turn left and go South 1/4 mile to location.

## 2. Proposed Access Road:

- A. The access road will be built from an existing lease road approximately 200' North of the location pad and will enter the location pad from the Northeast corner.
- B. The access to the location will be limited to 16' in width and will adequately drain runoff and control erosion as presently constructed.
- C. Access to location has an existing grade to facilitate adequate drainage.

## 3. Location of Existing Wells:

There are producing wells within the immediate vicinity of the wellsite. Exhibit #4 shows the proposed well and existing wells within a one mile radius.

#### 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. If the well is productive, restoration plans are as follows:

#### MULTI-POINT SURFACE USE AND OPERATIONS PLAN

MEWBOURNE OIL COMPANY Fren "8" Federal Com #2 Page 2

- i. The reserve pit will be back-filled after the contents of the pit are allowed to dry (within 180 days after the well is completed).
- ii. 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.
- iii. 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 hauled to the location by transport trucks over existing and proposed roads as indicated in Exhibit #3.

#### 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 purposes 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.

# MULTI-POINT SURFACE USE AND OPERATIONS PLAN MEWBOURNE OIL COMPANY Fren "8" Federal Com #2

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## 8. Ancillary Facilities

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

### 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 400' has been staked and flagged.
- D. An archaeological survey has been conducted on the proposed access road and location pad.

## 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 per BLM guidelines. The reserve pit area, after allowing to dry, will be levelled. The entire location will be restored to the original contour as much as reasonably possible. All trash, garbage, and pit lining will be hauled to appropriate disposal to assure the location is aesthetically pleasing as reasonably 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 with a mixture of native grasses as stipulated by the BLM.
- 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.
- D. Upon cessation of the proposed operations, if the well is not abandoned, the reserve pit area will be treated as outlined above within the prescribed amount of time. Any additional caliche required for production facilities will be obtained from a source as described in Section 6.

## 11. Surface Ownership:

The surface is owned by: Bureau of Land Management

## 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.

# MULTI-POINT SURFACE USE AND OPERATIONS PLAN MEWBOURNE OIL COMPANY Fren "8" Federal Com #2 Page 4

#### 13. Operator's Representative:

A. Through APD approval and drilling operations:

Jerry Elgin, District Manager Mewbourne Oil Company P. O. Box 5270 Hobbs, NM 88241 505-393-5905

B. Through completion and production operations:

Jerry Elgin, District Manager Mewbourne Oil Company P. O. 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: APRIC 5 2000

Signature: (/ Jeen Eden

Jerry Elgin, District Manager Mewbourne Oil Company P. O. Box 5270 Hobbs, NM 88241 (505) 393-5905