Form 3160-3 RECEIVED (September 2001)

N.M. Oil Cons. DIV-Dist. 2

FORM APPROVED OMB No. 1004-0136

UNITED STATES 1301 W. Grand Avenues, Lease Serial No. Expires January 31, 2004 OCT 8 1 2003 UNITED STATES TOOT VV. Grand Avenua Department of the interior of 6. If Indian, Allottee or Tribe Name APPLICATION FOR PERMIT TO DRILL OR REENTER 7. If Unit or CA Agreement, Name and No. la. Type of Work: ☑ DRILL ☐ REENTER 8. Lease Name and Well No. Oil Well Gas Well Other Multiple Zone 1b. Type of Well: ✓ Single Zone Fren "8" Federal Com #7 2. Name of Operator 9. API Well No. 30-015-3309 Mewbourne Oil Company 14744 3b. Phone No. (include area code) 3a. Address 10. Field and Pool, or Exploratory PO Box 5270 Hobbs, NM 88241 505-393-5905 Shugart Strawn 11. Sec., T., R., M., or Blk. and Survey or Area 4. Location of Well (Report location clearly and in accordance with any State requirements. \*) At surface 1650' FNL & 1980' FWL (Unit Letter F) At proposed prod. zone Sec 8-T18S-R31E 13. State 14. Distance in miles and direction from nearest town or post office\* 12. County or Parish MM 7 miles SE Loco Hills Eddy 15. Distance from proposed\* 17. Spacing Unit dedicated to this well 16. No. of Acres in lease location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 660' 18. Distance from proposed location\* 20. BLM/BIA Bond No. on file 19. Proposed Depth to nearest well, drilling, completed, applied for, on this lease, ft. NM-1693, Nationwide 11,350 23. Estimated duration 21. Elevations (Show whether DF, KDB, RT, GL, etc.) 22. Approximate date work will start\* 3690' GL 45 davs CAPITAN CONTROLLED WATER BASIN 24. Attachments The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form: 1. Well plat certified by a registered surveyor. 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). 2. A Drilling Plan. 5. Operator certification. 3. A Surface Use Plan (if the location is on National Forest System Lands, the 6. Such other site specific information and/or plans as may be required by the SUPO shall be filed with the appropriate Forest Service Office).

		authorized of	ilcel.		
25. Signature Loute		Name (Printed/Typed)		Date	
		FC Lathan	09-24-2003		
Title					
Hobbs District Drillin	g Foreman				
Approved by (Signature)	/s/ Joe G. Lara	Name (Printed/Typed)	/s/ Joe G. Lara	Day 8 OCT 2003	
Title ACTING	FIELD MANAGER	Office (	CARLSBAD FIELD	OFFICE	

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. APPROVAL FOR 1

Conditions of approval, if any, are attached.

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

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS **ATTACHED** 

<sup>\*(</sup>Instructions on reverse)

1625 N. French Dr., Hobbs, NM 68240

Energy, Minerals and Natural Resources Department

Revised March 17, 1999 Instruction on back Submit to Appropriate District Office

State Lease - 4 Copies Fee Lease - 3 Copies

anergy, minerals and Matural Resources Department

DISTRICT II
1000 Rio Brazos Rd., Aztec, NM 87410
DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

#### OIL CONSERVATION DIVISION P.O. Box 2088

Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

#### WELL LOCATION AND ACREAGE DEDICATION PLAT

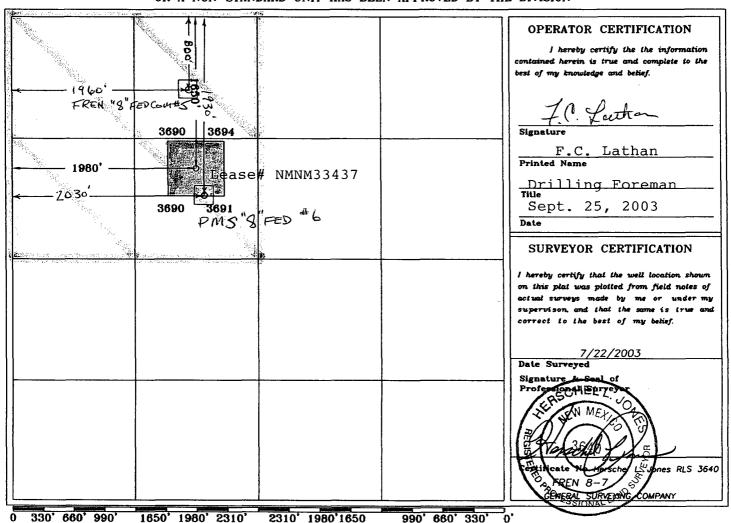
API Number	Pool Code	Pool Code Pool Na				ne		
			Shugari	t Strawn				
Property Code		Property Name			Well Number			
	FREI	N "8" FEDERAL (	СОМ.		7			
OGRID No.		Operator Nam	e		Elevat	ion		
14744	MEWB	OURNE OIL COM	PANY		3690			
		Surface Loca	tion					
L or lot No. Section Township	Range Lot Idn	Feet from the	North/South line	Feet from the	East/West line	Count		

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	8	185	31E		1650	NORTH	1980	WEST	EDDY

#### 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
Dedicated Acres	Joint or	Infill Co	nsolidation (	Code Ore	der 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



# <u>Drilling Program</u> Mewbourne Oil Company

Fren "8" Federal Com #7 1650' FNL & 1980' FWL Section 8, T18S, R31E Eddy County, New Mexico Lease Number NMNM-33437

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

Delaware	4,430'
Bone Spring	5,100'
Wolfcamp	9,080'
Strawn	10,570'
Atoka	11,030'
TD	11,350'

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

Water

Approximately 200'

Hydrocarbons

All zones below Wolfcamp

#### 3. Pressure control equipment:

Two thousand psi working pressure annular preventer will be installed on the 13-3/8" surface casing. Five thousand psi working pressure BOP's will be installed on the 9 5/8" intermediate casing. Pressure tests will be conducted with the rig pump prior to drilling out all casing strings. A third party tester will pressure test and record the approved testing pressures of the pipe rams, blinds, Annular, kill manifold and all valves prior to drilling into the Wolfcamp formation.

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.

#### **Drilling Program**

#### Mewbourne Oil Company

Fren "8" Fed Com #7

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# 4. Proposed casing and cementing program:

### A. Casing Program:

Hole Size	Casing	Wt/Ft.	<u>Grade</u>	<b>Depth</b>
17-1/2"	13-3/8"	48#	H40	0-625'
12-1/4"	9-5/8"	40#	N80/J55	0-4,500'
8-3/4"	5-1/2"	17#	P110/N80	0-11,350'

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

#### B. Cementing Program

- i. Surface Casing: 200 sacks Class "C" 35:65 pozmix cement containing
  WITNESS

  1/4#/sk cellophane flakes, 2% CaCl2, 5 lbs/sack gilsonite and 6% Gel. 200 WITNESS sacks Class "C" cement containing 2% CaCl2.
  - ii. <u>Intermediate Casing:</u> 900 sacks Class "C" 35:65 pozmix cement containing 6% gel and 5 lbs/sack gilsonite. 200 sacks Class "C" cement containing 2% CaCl2.
  - iii. <u>Production Casing</u>: 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 and multiple stage cementing tool in the production casing below potentially productive zones and cementing with a light cement slurry.

#### 5. Mud Program:

<u>Interval</u>	Type System	<u>Weight</u>	<u>Viscosity</u>	Fluid Loss
0'-625'	FW spud mud	8.6-9.4	32-34	NA
625'-4500'	Brine water	10.0-10.2	28-30	NA
4500'-9000'	Cut brine water	8.8-9.2	28.30	NA
9000'-11,350'	Cut brine water	9.2-10.0	32-42	8-12

(Note: Any weight above 8.6 ppg would be to hold back Wolfcamp shale, rather than abnormal BHP.)

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

### **Drilling Program**

#### **Mewbourne Oil Company**

Fren "8" Fed Com #7

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#### 6. **Evaluation Program:**

Samples:

10'samples from intermediate casing to TD

Logging:

Compensated density and dual laterlog from intermediate casing

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 degree F

Maximum bottom hole pressure:

8.3 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.

# MULTI-POINT SURFACE USE AND OPERATIONS PLAN MEWBOURNE OIL COMPANY

Fren "8" Federal Com #7 1650' FNL & 1980' FWL Section 8, T18S, R31E Eddy County, New Mexico Lease Number NMNM-33437

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, NM, on US 82 5.5 miles. Turn right (South) on Eddy Co 222 and continue south 3.0 miles. Turn right (West) on lease road and continue 0.2 miles to "Y". Bear right and continue west 0.5 miles to Fren "8" Fed Com #5 location. Turn left (South) and continue south 850 feet to location on right.

#### 2. Proposed Access Road:

- A The access to this location will be from the existing road and will enter the location pad from the South-East 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 well site. Exhibit #4 shows the proposed well and existing wells in the immediate vicinity.

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

- A. There are no production facilities on this location 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 #7

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 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.

# MULTI-POINT SURFACE USE AND OPERATIONS PLAN

MEWBOURNE OIL COMPANY

Fren "8" Federal Com #7 Page 3

#### 9. Well Site Layout

- 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 600' X 600' 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 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 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 #7

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#### 13. Operator's Representative:

A. Through APD approval and drilling operations:

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

B. Through completion and production operations:

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

#### 14. Certification

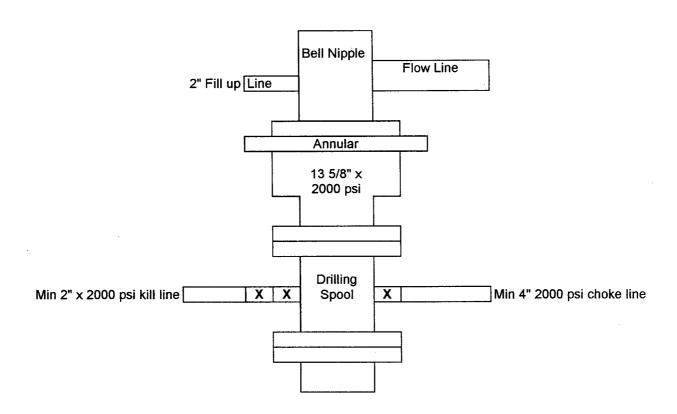
I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are to the best of my knowledge, true and correct; and the work associated with 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: 9 25 03

Signature: 7/1///

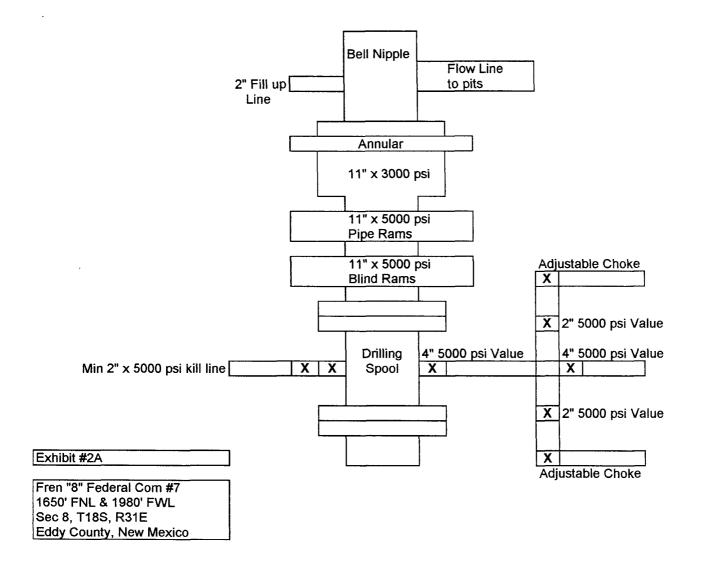
N.M. Young, District Manager Mewbourne Oil Company PO Box 5270 Hobbs, NM 88241 (505) 393-5905

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



### Exhibit #2

Fren "8" Federal Com #7 1650' FNL & 1980' FWL Sec 8, T18S, R31E Eddy County, New Mexico

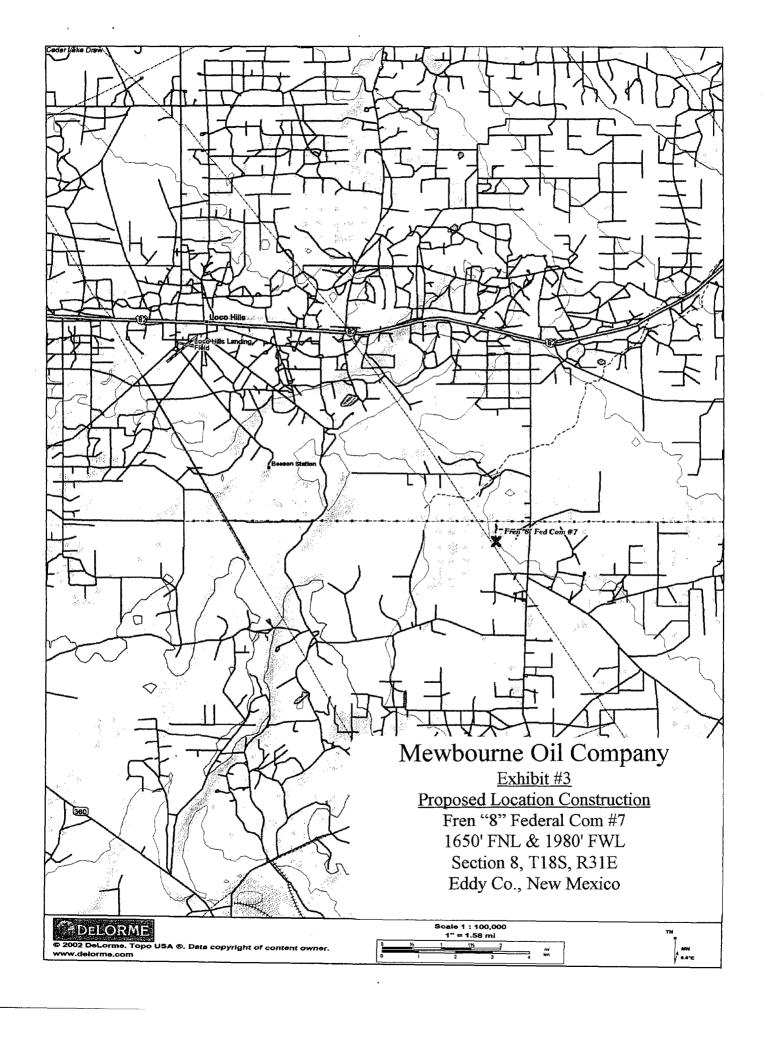


# Notes Regarding Blowout Preventer

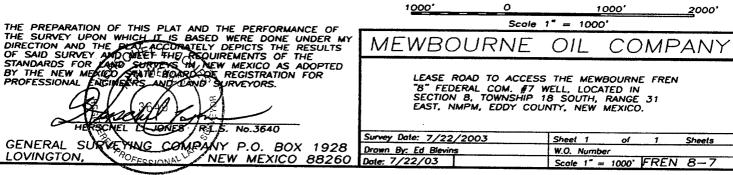
# **Mewbourne Oil Company**

Fren "8" Federal Com #7 1650' FNL & 1980' FWL Section 8, T18S, R31E Eddy County, New Mexico Lease Number NM-33437

- 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 3000 psi working pressure.
- 3. Safety valve must be available on the rig floor after drilling below the Wolfcamp formation with proper connections to install in the drill string. Valve must be full bore with minimum 3000 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 and accumulator of at least 40 gallon capacity, two independent sources of pressure on closing unit, and meet all other API specifications.



SECTION 8, TOWNSHIP 18 SOUTH, RANGE 31 EAST, NMPM, EDDY COUNTY, NEW MEXICO. REN "8" **FEDERAL** COM.#5 ROAD FLOW LINES POWER LINE ្ជី188' EAST FEDERAL COM. **43** 0 PRODUCING WELL S.10°11'E., 283.2 FROM CENTER HOLE 19359 3675T 4-193 Mewbourne Oil Company Exhibit #3A Existing and Planned Road Access Fren "8" Federal Com #7 1650' FNL & 1980' FWL Section 8, T18S, R31E Eddy Co., New Mexico 1000 1000' <u> 2</u>000'



#### Exhibit #4

# Status of Wells in Immediate Vicinity Mewbourne Oil Company

Fren "8" Federal Com #7 1650' FNL & 1980' FWL Section 8, T18S, R31E Eddy County, New Mexico Lease Number NMNM-33437

#### Section 8, T18S, R31E

Operator:

Mewbourne Oil Company Well Name: Fren "8" Federal Com #5

Unit letter:

C

Status:

Producina

Field:

Shugart Strawn

Operator:

Mewbourne Oil Company Well Name: Fren "8" Federal Com #2

Unit letter:

Α

Status:

**Producing** 

Field:

Shugart Strawn

Operator:

Mewbourne Oil Company Well Name: Fren "8" Federal Com #3

Unit letter:

G

Status:

Producing

Field:

Shugart Strawn

Operator:

Concho Exploration Well Name: PMS 8 Federal #6

Unit letter:

Status:

Producing

Field:

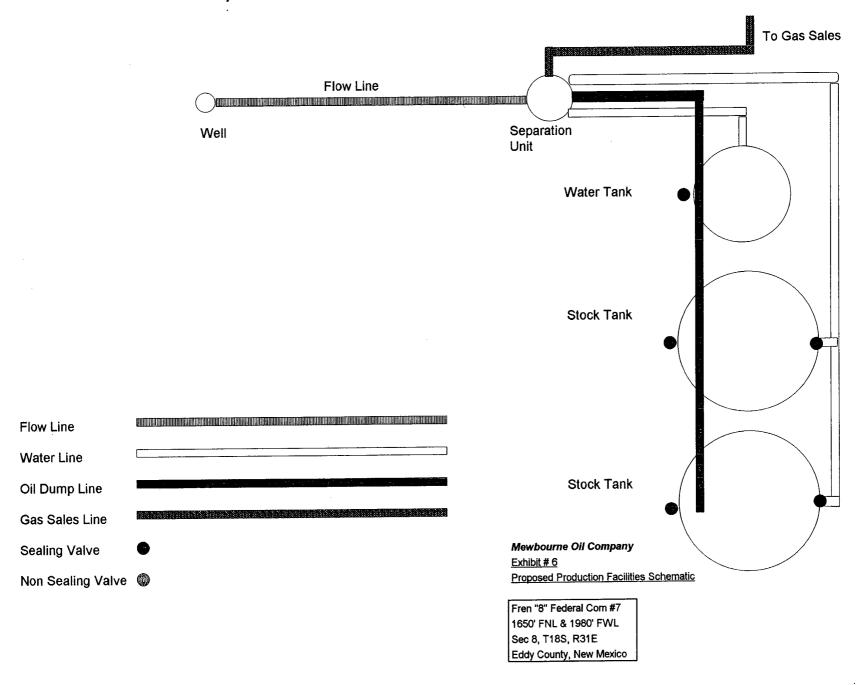
North Shugart Bone Springs

# Mewbourne Oil Company Exhibit #5 Well Name Fren "8" Federal Com #7 Footages 1650' FNL & 1980' FWL Reserve Pit STR Sec 8, T18S, R31E 150 x 150' County Eddy County State New Mexico Mud Loggers Trailer Steel Mud Pits Mud pump Racks t Std Well =O= Cat Walk Substructure Mud pmp Dog House Fuel Tank Pipe Water Tank Racks BOP Closing Unit Dog House Trailer

Location Size: 365' x 320'

Rig Location Schematic

# **Proposed Production Facilities Schematic**



# Hydrogen Sulfide Drilling Operations Plan Mewbourne Oil Company

Fren "8" Federal Com #7 1650' FNL & 1980' FWL Section 8, T18S, R31E Eddy County, New Mexico Lease Number NMNM-33437

#### 1. 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:

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

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

- A. 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.
- B. Corrective action and shut in procedures, blowout prevention, and well control procedures while drilling a well.
- C. 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.

# 2. 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.

### A. Well Control Equipment

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

#### B. Protective Equipment for Essential Personnel

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

#### C. 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.

#### D. Visual Warning Systems

- 1. Wind direction indicators as indicated on the well site diagram.
- 2. 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.

#### 3. 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.

## 4. 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.

#### 5. Communications

State and County phone numbers, as well as emergency numbers, are posted in the top doghouse and supervisor's trailer. Communications in supervisor's vehicles are either two way radios or cellular phones.

#### 6. 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.

#### 7. Area Review

Upon review of past drilling in this area, no appreciable amounts of H<sub>2</sub>S should be encountered while drilling this well. This plan will be kept in place while drilling, however, to increase the overall safety for the personnel on site.

# United States Department of the Interior Bureau of Land Management Roswell Field Office 2909 West Second Street Roswell, New Mexico 88201-1287

# **Statement Accepting Responsibility for Operations**

Operator Name:

Mewbourne Oil Company

Street or Box:

P.O. Box 5270

City, State:

Hobbs, New Mexico

Zip Code:

88241

The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted of the leased land or portion thereof, as described below.

Lease Number:

Lease Number NMNM-33437

Legal Description of Land:

Section 8, T18S, R31E, Eddy County, New Mexico. Location at

1650' FNL & 1980' FWL of Section 8.

Formation (if applicable):

Bond Coverage:

\$150,000

BLM Bond File:

NM1693, Nationwide

Authorized Signature:

Name: NM (Micky) Young Title: District Manager

Date: September 25, 2003