N. M. Oil Cons. Division

811 S. 1ST ST.

Form 3160-3 (July 1992)

UNITEL STATES DEPARTMENT OF THE INTERIOR

AFITESIA, NM 882905-2834 Other instructions on reverse side)

FORM APPROVED OMB NO. 1004-0136

5. LEASE DESIGNATION AND SERIAL NO

6. IF INDIAN, ALLOTTEE OR TRIBE N

Expires: February 28, 1995

BUREAU OF LAND MANAGEMENT

DEEPEN | |

			
APPLICATION	FOR PERMIT	TO DRILL	OR DEEPEN

1a TYPE OF WORK DRILLX

b. TYPE OF WELL Oil WELL ! !

GAS X

2. NAME OF OPERATOR

Mewbourne Oil Co

14744

3. ADDRESS AND TELEPHONE NO

PO Box 5270 Hobbs, New Mexico 88241 505-393-5905

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)

At surface 1980 FSL & 1780 FEL

At proposed prod. zone

1780'

200'

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

6 miles SE Loco Hills, New Mexico

15. DISTANCE FROM PROPOSED LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT
(Also to nearest drig unit line, if any)

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED OR APPLIED FOR, ON THIS LEASE, FT

21, ELEVATIONS (Show whether DF, RT, GR, etc.)

3685

23

SINGLE

7. UNIT AGREEMENT NAME 8 FARM OR LEASE

50-0158

10. FIELD AND POOL, OR WILDCAT

North Shugart Morrow

11. SEC., T., R., M., OR BLK AND SURVEY OR AREA

Sec.8 T-18S R-31E

12. COUNTY OR PARISH Eddy

NM

17. NO OF ACRES ASSIGNED TO THIS WELL

320 20. ROTARY OR CABLE TOOLS

RT

22. APPROX. DATE WORK WILL START*

06/15/00

5 * 6 * 1 *	4.2 60 E 0 2 C 0 C			
QUANTITY OF CEMENT	SETTING DEPTH	WEIGHT PER FOOT	GRADE, SIZE OF CASING	SIZE OF HOLE
Circl to Surfact ITNESS	600'	48#	13 3/8"-H40	17 1/2"
Circl to Surface	4500'	36#	9 5/8"-J-55	12 1/4"
Tie into intermediate csg	12200	17#	5 1/2"-N80	8 3/4"

16. NO OF ACRES IN LEASE

19. PROPOSED DEPTH

320

12300

Mewbourne Oil Company proposes to drill a well sufficient to test the Morrow Formation. If successful, production casing will be

total depth & cemented as required. If noncommercial, the well will be plugged as required. The following exhibits are attached:

Drilling Plans

Surface use & Operation Plans

Location & Elevation Plat (Form C-102) Exhibit #1 Schematic of BOP & Choke Manifold Exhibit #2 & 2A

Exhibit #3

Plat of existing road & proposed new construction

Exhibit #4

List of wells in Immediate vicinity

Exhibit #5

Schematic of Drilling Rig

Exhibit #6 Exhibit #7 Schematic of proposed Production Facilities **H2S Contingency Plan**

IN ABOVE SPACE DESCRIBE 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

TITLE NM Young District Manager

DATE 05/22/00

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.

(ORIG. SGD.) ARMANDO A. LOPEZ

Acting Assistant Field Manager. Lands And Minerals

APPROVED BY

TITLE

*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

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

Fren "8" Federal Com #3 1980'FSL & 1780' FEL Section 8- T18S-R31E Eddy County, New Mexico Lease Number NMNM 33437

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

Yates	1936'
Queen	3082'
Penrose	3300'
San Andres	3800'
Delaware	4700'
Bone Spring	5200'
1st Bone Spring	7360'
2 nd Bone Spring	7942'
3 rd Bone Spring	8848'
Wolfcamp	9160'
Strawn	10726'
Atoka	11013'
Morrow	11658'

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.

MULTI-POINT SURFACE USE AND OPERATIONS PLAN MEWBOURNE OIL COMPANY

Fren "8" Federal Com #3 1980' FSL & 1780' FEL 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 on Highway 82 approximately 5 miles turn south on Eddy County Road #222 (Shugart Road). Go south approximately 4 miles and turn right on caliche road at Altura Field Office sign. Go West .3 mile. Turn left and go South .5 mile. Turn left & go east .4 mile to location.

2. Proposed Access Road:

- A No additional roads will be needed. The location will connect to an existing location.
- 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 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 #3 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 #3 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 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 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 #3 Page 4

13. Operator's Representative:

A. Through APD approval and drilling operations:

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

B. Through completion and production operations:

N.M. Micky 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: 5/22/00

Signature:

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

Drilling Program

Mewbourne Oil Company

Fren "8" Federal Com #3

Page 2

4. Proposed casing and cementing program:

A. Casing Program:

Hole Size	Casing	<u>Wt/Ft.</u>	<u>Grade</u>	<u>Depth</u>
17-1/2"	13-3/8"	48#	1140	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.

B. Cementing Program

- i. Surface Casing: 200 sacks Class "C" light cement containing ½ #/sk cellophane flakes, 3% CaCl, 5 lbs/sack gilsonite. 200 sacks Class "C" penmen 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. Production Casing: 600 sacks Class "II" 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:

Interval	Type System	<u>Weight</u>	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	32-42	8-12

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

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

Drilling Program Mewbourne Oil Company

Fren "8" Federal Com #3 Page 3

Downhole Conditions 7.

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 35 days involved in drilling operations and an additional 10 days involved in completion operations on the project.

HOLINICH . P.O. Box 1980, John, RQ 88840 State of New Mexico

Form C-102 Revised February 10, 1994 Instruction on back

Submit to Appropriate District Office State Lease - 4 Copies

DISTRICT II P.O. Druser CD, Artonia, NM 88210

DISTRICT III 1000 Rio Branco Rd., Asten, RM 67410

OIL CONSERVATION DIVISION P.O. Box 2088

Santa Fe, New Mexico 87504-2088

□ AMENDED REPORT

Foe Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Poel Code	N. Shugait Morrow	
Property Code	Propert FREN "8" FEDE	y Name	Well Number
OGRID No.	Operato	Elevation	
	MEWBOURNE	3671	

Surface Location

UL or lot No.	Section	Township	Pange	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County	ĺ
J	8	18S	31E		1780	SOUTH	1780	EAST	EDDY	

Bottom Hole Location If Different From Surface

_										
	UL or lot No.	Section	Township	Range	Let Idn	Fact from the	North/South line	Foot from the	East/West line	County
\vdash	Dedicated Acres	Joint o	r Infill Co	nsolidation (ode Or	ier No.				
	320				-					

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

			OPERATOR CERTIFICATION I hereby cartify the the information contented herein to true and complete to the heat of my herealedge and heliof. Signification
			NMYOUNG Printed Name Dictrict Manager Title 6/5/2000 Date SURVEYOR CERTIFICATION
	3672 3676 3673 3675	1780'	I hereby certify that the well leculies about on this plat was plotted from field notes of actual surveys made by me or under my supervison, and that the same is true and correct to the best of my bolist.
	1780:		Date Surprise Mallocate L Jones RLS 3840 REC. SERVING COMPANY

Mewbourne Oil Company BOP Scenatic for 12 1/4 Hole

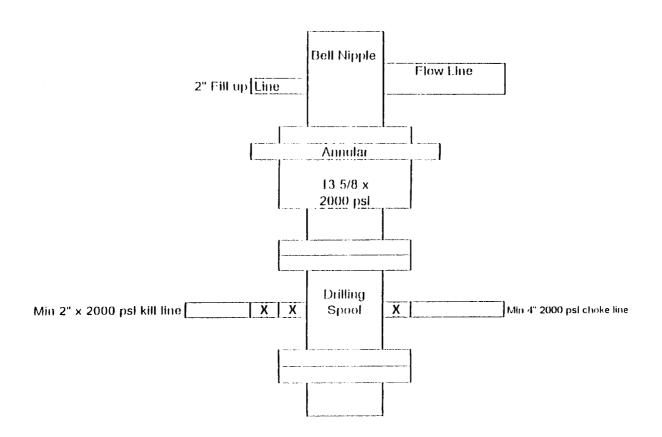


Exhibit #2

BOP Schematic
Mewbourne Oil Company
Fren "8" Fed Com # 3
Section 8-T18S-R31E
Eddy County, New Mexico

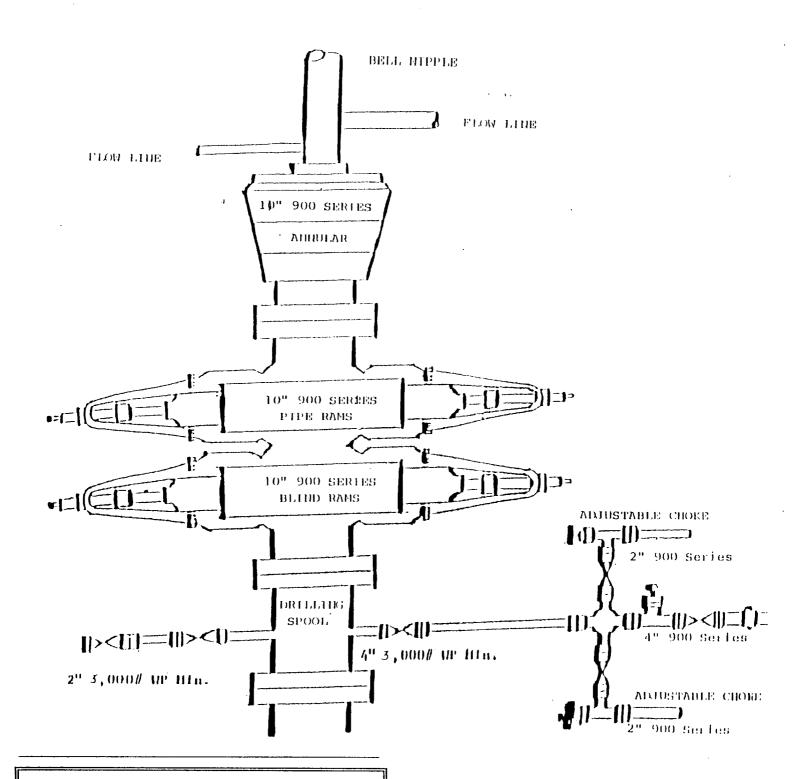


Exhibit #2A

BOP and Choke Manifold Schematic Mewbourne Oil Company Fren "8" Fed Com # 3 Section 8-T18S-R31E Eddy County, New Mexico

11

Notes Regarding Blowout Preventer Mewbourne Oil Company

Fren "8" Federal Com #3
1980'FSL & 1780' FEL
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 and accumulator of at least 40 gallon capacity, two independent sources of pressure on closing unit, and meet all other API specifications.

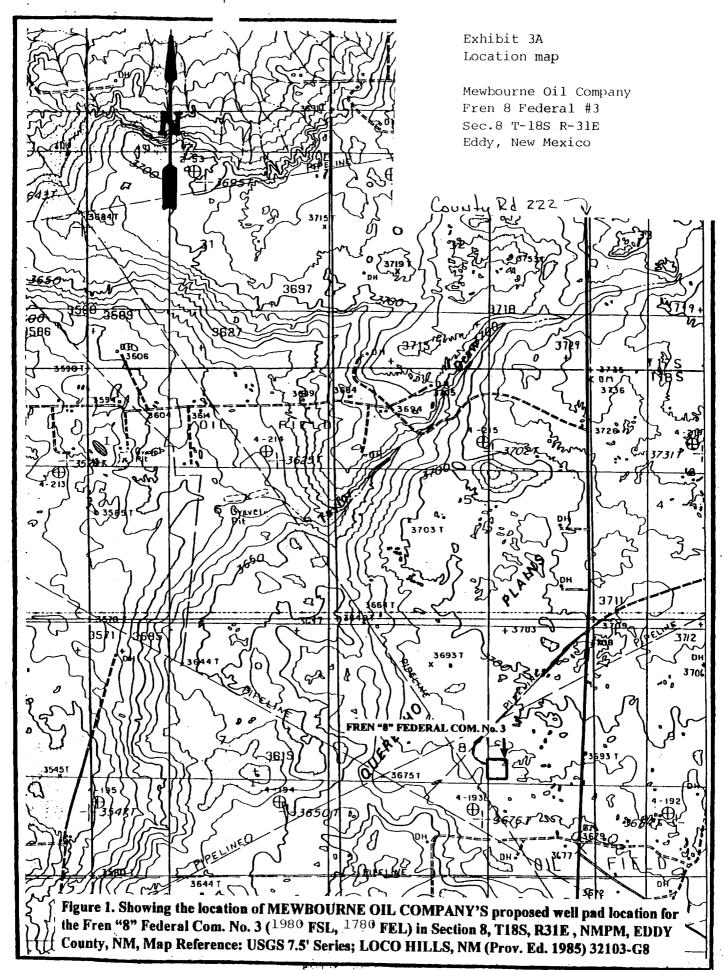


Exhibit #4

Status of Wells in Immediate Vicinity

Mewbourne Oil Company

Fren 8 Federal #3 1980' FSL & 1780' FEL Section 8 T-18S R-31E Eddy County, New Mexico Lease # LC 029393A

Section 8 T-18S R-31E

Operator:

Mewbourne Oil Company Well Name: Fren 8 Federal Comm #1

Unit letter:

D

Status:

Producing

Field:

North Shugart Morrow

Operator:

Harvey E. Yates Company

Well Name: Arco 8 Federal #1

Unit letter:

K

Status:

Producing

Field:

North Shugart Bone Springs

Operator:

Harvey E. Yates Company

Well Name: Arco 8 Federal #4 Unit letter:

Ν

Status:

Producing

Field:

North Shugart Bone Springs

Operator:

Harvey E. Yates Company

Well Name: Arco 8 Federal #5

Unit letter:

Status:

Producing

Field:

North Shugart Bone Springs

Operator:

Harvey E. Yates Company

Well Name: PMS 8 Federal #1

Unit letter:

Status:

Producing

Field:

North Shugart Bone Springs

Operator:

Harvey E. Yates Company

Well Name: PMS 8 Federal #2

Unit letter:

C

Status:

Producing

Field:

North Shugart Bone Springs

Operator:

Harvey E. Yates Company

Well Name: PMS 8 Federal #3

Unit letter:

Ε

Status:

Producing

Field:

North Shugart Bone Springs

Operator:

Harvey E. Yates Company

Well Name: PMS 8 Federal #4

Unit letter:

G

Status:

Producing

Field:

North Shugart Bone Springs

Operator:

Harvey E. Yates Company

Well Name: Arco 8 Federal #2

Unit letter:

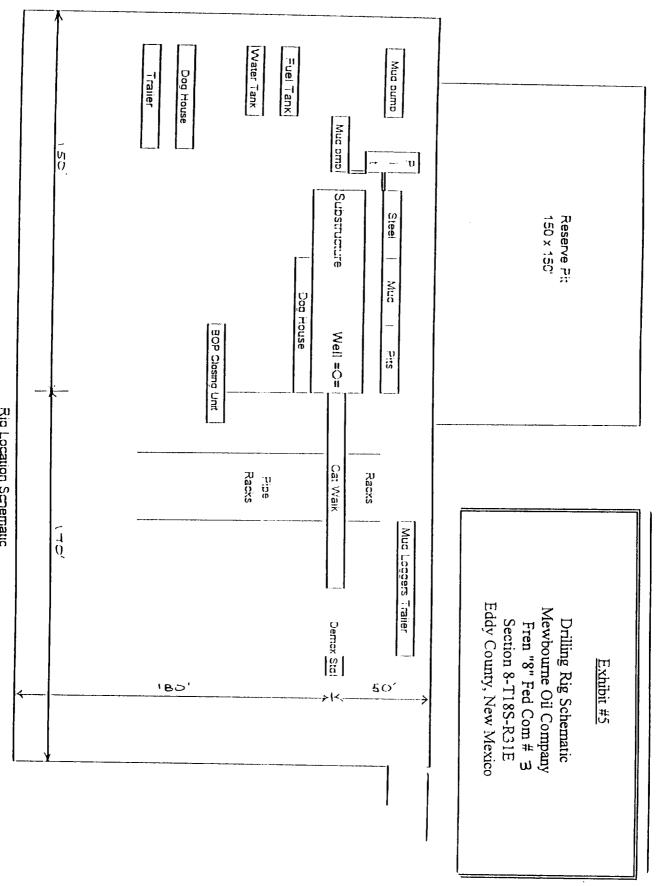
J

Status:

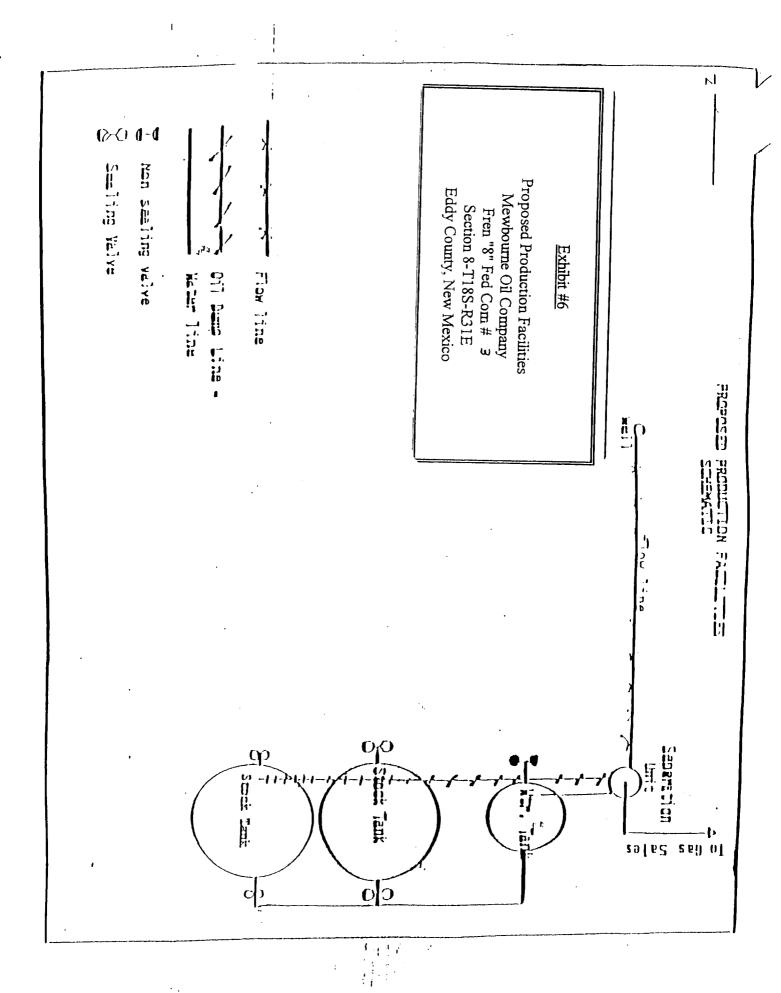
Producing

Field:

North Shugart Bone Springs



Rig Location Schematic



П

Hydrogen Sulfide Drilling Operations Plan

Mewbourne Oil Company

Fren "8" Federal Com #3 1980'FSL & 1780' FEL 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:

- 1 The hazards and characteristics of hydrogen sulfide gas.
- The proper use of personal protective equipment and life support systems.
- 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.

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.

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.

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. Visual Warning Systems

- 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.

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

Communications in company vehicles and toolpushers 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.

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 5570

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, NMNM-029393A

Legal Description of Land:

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

1980' FSL & 1780' FEL 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: May 22, 2000