N. W. Ca Com

SUBMIT IN TRIP ICATE*

FORM APPROVED OMB NO. 1004-0136 Expires: February 28, 1995

STATES

DEPARTMENT OF THE INTERIOR TESTA NIN SECTION

5. LEASE DESIGNATION AND SERIAL NO. NMLC 029393-B

BUREAU OF LAND MA	NMLC 02939	3-B			
APPLICATION FOR PERMIT	TO DRILL OR DEEPEN		6. IF INDIAN, ALLOTTEE OR	TRIBE NAME	
1a. TYPE OF WORK DRILL X D	EEPEN 🗌		7. UNIT AGREEMENT NAME	;	
D. TYPE OF WELL OIL WELL GAS WELL OTHER	SINGLE 2223 2 NO	TIPLE	8. FARM OR LEASE NAME,	WELL NO.	
2. NAME OF OPERATOR Mewbourne Oil Company /4744	A	(37	Shugart "18" Fed 9. API WELL NO.		
3. ADDRESS AND TELEPHONE NO. P.O. Box 5270 Hobbs, NM 88241 (505)393-590			30 - 0 5 - 10. FIELD AND POOL, OR V	VILDCAT	
LOCATION OF WELL (Report location clearly and in accordance with an At surface At proposed prod. zone	y State requirements ARIESIA		North Shugart M 11. SEC., T., R., M., OR BLK AND SURVEY OR AREA		
1830' FSL & 1980' FEL U L T	POST OFFICE*		Sec.18,T18S,I	13. STATE	
5 miles West of Loco Hills	28744		Eddy	NM	
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT (Also to nearest drig, unit line, if any) 660'	16. NO. OF ACRES IN LEASE 320	17. NO. OF A	CRES ASSIGNED WELL 320		
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	8. DISTANCE FROM PROPOSED LOCATION* 19. PROPOSED DEPTH 20. ROTARY OR CABLE TOOLS TO NEAREST WELL, DRILLING, COMPLETED, 12. 200' Rotary				
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 3648, GT.			22. APPROX. DATE WORK 10/31/00	K WILL START*	

PROPOSED CASING AND CEMENTING PROGRAM

WITH:	QUANTITY OF CEMENT	SETTING DEPTH	WEIGHT PER FOOT	GRADE, SIZE OF CASING	SIZE OF HOLE
face	400 sacks circulate to surfa	600'	48#	H-40 13-3/8"	17-1/2"
face	1100 sacks circulate to sur	4500'	36#	J55, 9-5/8"	12-1/4"
8"csg.	600 sacks tie back into 8-5/8	12,200'	17#	N80, 5-1/2"	8-3/4"

1) Drilling Program

23.

2) Surface Use and Operaation Plan

3) Location and Elevation Plat (NMOCD Form C102)

- 4) Schematic Diagram of Blowout Preventer and Choke Manifold (Exhibits 2 & 2A)
- 5) Map of Existing and Planned Access Road and location (Exhibits 3 & 3A)

6) List of Offset Wells (Exhibit 4)

- 7) Proposed Drilling Rig Layout (Exhibit 5)
- 8) Proposed Production Facilities Layout (Exhibit 6)
- 9) Hydrogen Sulfide Contingency Plan (Exhibit 7)

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS

Application approval does not warrant or certify that CONDITIONS OF APPROVAL, IF ANY:	at the applicant flores legal or equitable the to his so highly in the easy server in	THE THOUGHT WITH A PERIOD TO CONTRACT OF THE C
	at the applicant holds legal or equitable title to those rights in the subject lease wh	high would entitle the applicant to concurt operations thereon
PERMIT NO.	APPROVAL DATE	
This space for Federal or State office use)		
IGNED A-MAJUL	птье District Manager	DATE09-08-00

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.

Energy, Minerals and Natural Resources Department

Revised February 10, 1994 Submit to Appropriate District Office

State Lease - 4 Copies Fee Lease - 3 Copies

DISTRICT II P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III 1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV P.O. BOX 2065, SANTA FE, N.M. 87504-2088

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 Name
Property Code	Property Name SHURGART 18 FEDERAL	Well Number
OGRID No.	Operator Name	Elevation
•	MEWBOURNE OIL CO.	3648

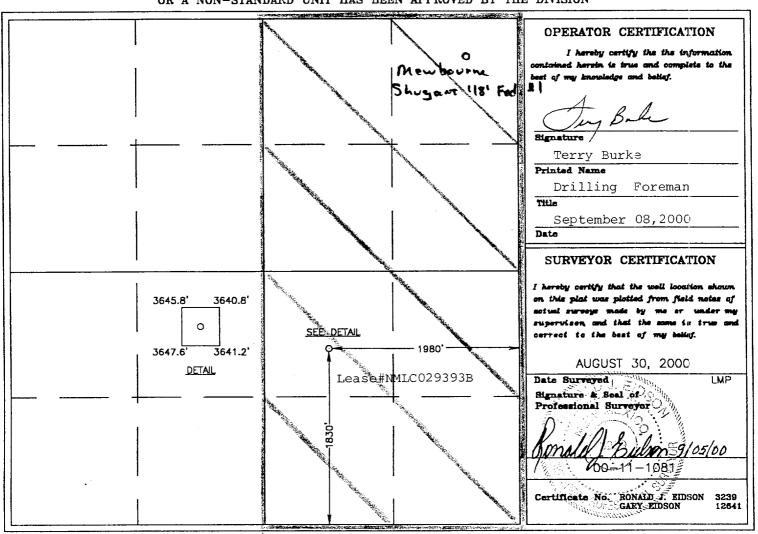
Surface Location

ſ	UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
ļ	J	18	18 S	31 E		1830	SOUTH	1980	EAST	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 Consolidation Code Order No.									
320		į							

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

Shugart "18" Federal #3
1830'FSL & 1980' FEL
Section 18- T18S-R31E
Eddy County, New Mexico
Lease Number NMNM-33437, NMLC-029393B

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

Yates	1936'
Queen	3082'
Penrose	3300'
San Andres	3800'
Delaware	4700'
Bone Spring	5200'
1 st Bone Spring	7360'
2 nd Bone Spring	7942'
3 rd 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:

M.C.

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.

a 3000 pri BOP will be used when Irilling below 9 & carring.

Drilling Program

Mewbourne Oil Company

Shugart "18" Federal #3

Page 2

4. Proposed casing and cementing program:

A. Casing Program:

Hole Size	Casing	Wt/Ft.	<u>Grade</u>	<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.

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 "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	Weight	<u>Viscosity</u>	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

Shugart "18" Federal #3

Page 3

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 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

Shugart "18" Federal #3
1830' FSL & 1980' FEL
Section 18-T18S-R31E
Eddy County, New Mexico
Lease Number NMNM-33437, NMLC-029393B

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 5 miles and turn west on cacliche road. Go west 1.3 miles and turn North into.

2. Proposed Access Road:

- A The access road will be built from an existing lease road approximately 25' South of the location pad and will enter the location pad from the Southeast 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 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

Shugart "18" Federal #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

Shugart "18" Federal #3 Page 3

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 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

Shugart "18" Federal #3 Page 4

13. Operator's Representative:

A. Through APD approval and drilling operations:

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

B. Through completion and production operations:

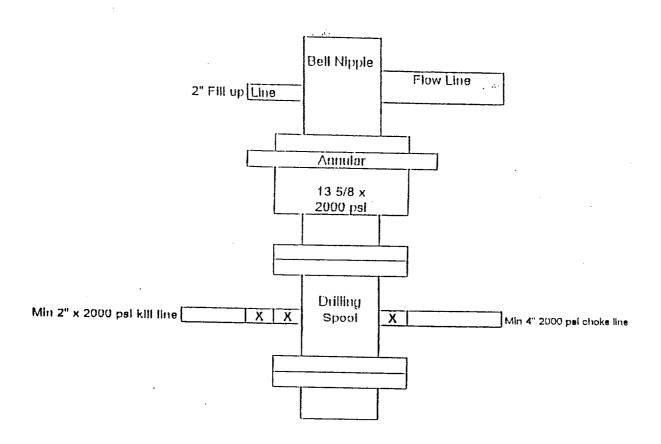
Mickey Young, District Manager Mewbourne Oil Company PO Box 5270 Hobbs, NM 88241 505-393-5905

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: 9/15/00 Signature: 4-M///

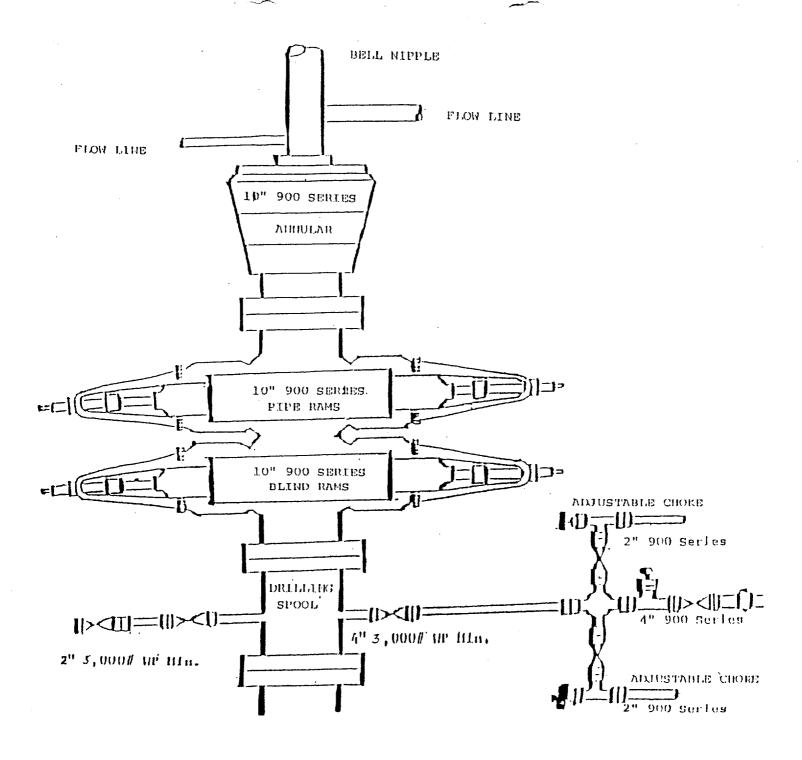
Mickey Young, District Manager Mewbourne Oil Company PO Box 5270 Hobbs, NM 88241 (505) 393-5905



Mewbourne Oil Company

Exhibit #2
Schematic of BOP for Intermediate Hole

Shugart "18" Federal #3 Sec.18;T18S;R31E 1830' FSL & 1980' FEL Eddy County, NM NMLC 029393B



Mewbourne Oil Company

Exhibit #2A Schematic of BOP for Production Hole

Shugart "18" Federal #3 Sec.18;T18S;R31E 1830' FSL & 1980' FEL Eddy County, NM NMLC 029393B

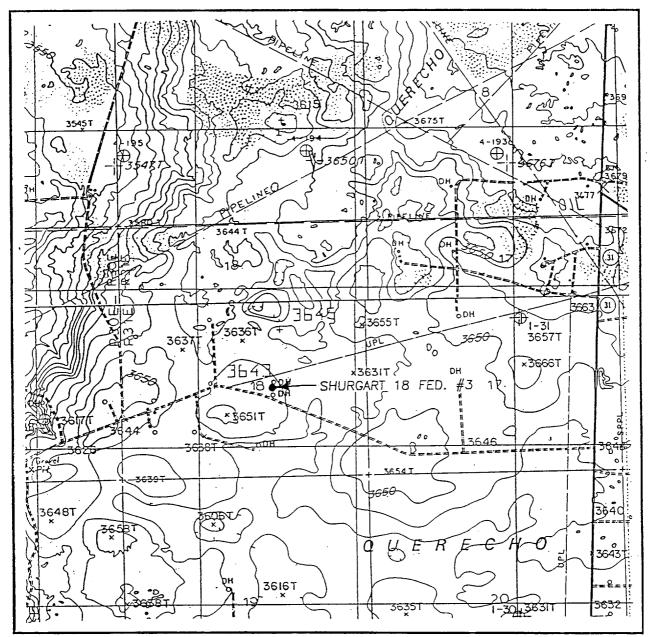
NOTES REGARDING BLOWOUT PREVENTER

MEWBOURNE OIL COMPANY

Shugart "18" Federal #3 Sec.18;T18S;R31E 1830' FSL & 1980' FEL Eddy County, NM NMLC 029393B

- 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.
- 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.
- A kelly cock shall be installed on the kelly at all times.
- 8. Blowout preventer closing equipment to include an accumulator of at least 40 galion capacity, two independent sources of pressure on closing unit, and meet all other API specifications.

LOCAT N VERFICAT N MAP



SCALE: 1" = 2000'

SEC. 18 TWP. 18-S RGE. 31-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 1830' FSL & 1980' FEL

ELEVATION______3648

OPERATOR MEWBOURNE OIL CO.

LEASE SHURGART 18 FED.

U.S.G.S. TOPOGRAPHIC MAP HACKBERRY LAKE, N.M. CONTOUR INTERVAL: HACKBERRY LAKE, N.M. - 10'

Mewbourne Oil Company <u>Exhibit #3</u> <u>Proposed Location Construction</u>

Shugart "18" Federal #3

Sec.18;T-18S;R-31E

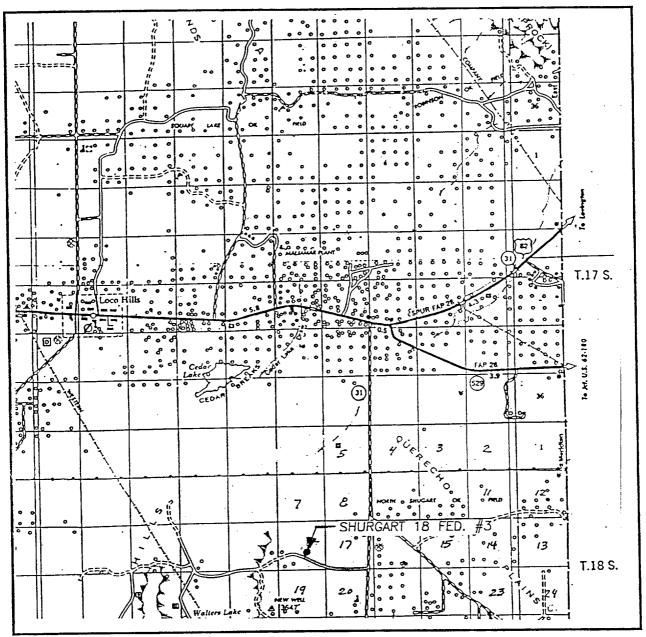
1980' FSL & 1980' FEL

Eddy County, NM

NMLC 029393-B



~/ICINITY MAI~



SCALE: 1" = 2 MILES

SEC. <u>18</u> T	WP. <u>18-S</u> RGE. <u>31-E</u>
SURVEY	N.M.P.M.
COUNTY	EDDY
	1830' FSL & 1980' FEL
	3648
-	
OPERATOR	MEWBOURNE OIL CO.
LEASE.	SHURGART 18 FED.

Mewbourne Oil Company <u>Exhibit #3A</u> Existing and Planned Road Access

Shugart "18" Federal #3 Sec.18;T-18S;R-31E 1980' FSL & 1980' FEL Eddy County, NM NMLC 029393-B

Exhibit #4

Status of Wells in Immediate Vicinity

Mewbourne Oil Company

Shugart "18" Federal #3 1830' FSL & 1780' FEL Section 18 T-18S R-31E Eddy County, New Mexico Lease # NMLC 029393B

Section 8 T-18S R-31E

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

Unit letter:

Producing Status:

Field: North Shugart Morrow

Harvey E. Yates Company Operator:

Well Name: Arco 8 Federal #1

Unit letter: K

Producing Status:

North Shugart Bone Springs Field:

Operator: Harvey E. Yates Company

Well Name: Arco 8 Federal #4

Unit letter: N

Status: **Producing**

Field: North Shugart Bone Springs

Harvey E. Yates Company Operator:

Well Name: Arco 8 Federal #5

Unit letter: L

Status: Producing

Field: North Shugart Bone Springs

Operator: Harvey E. Yates Company

Well Name: PMS 8 Federal #1

Unit letter: Α

Status: Producing

North Shugart Bone Springs Field:

Operator:

Harvey E. Yates Company

Well Name: PMS 8 Federal #2

Unit letter:

Status:

Producing

Field:

North Shugart Bone Springs

Operator:

Harvey E. Yates Company

Well Name: PMS 8 Federal #3 Unit letter:

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:

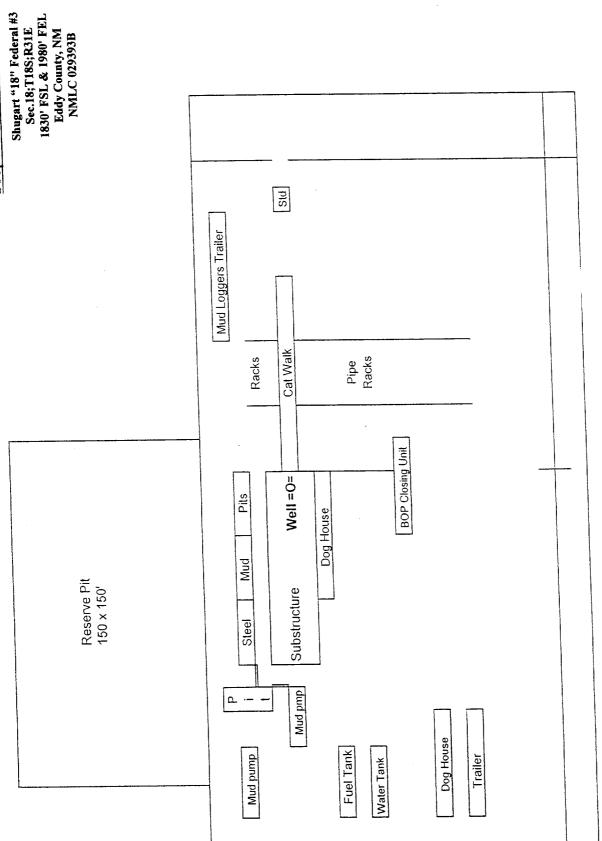
Status:

Producing

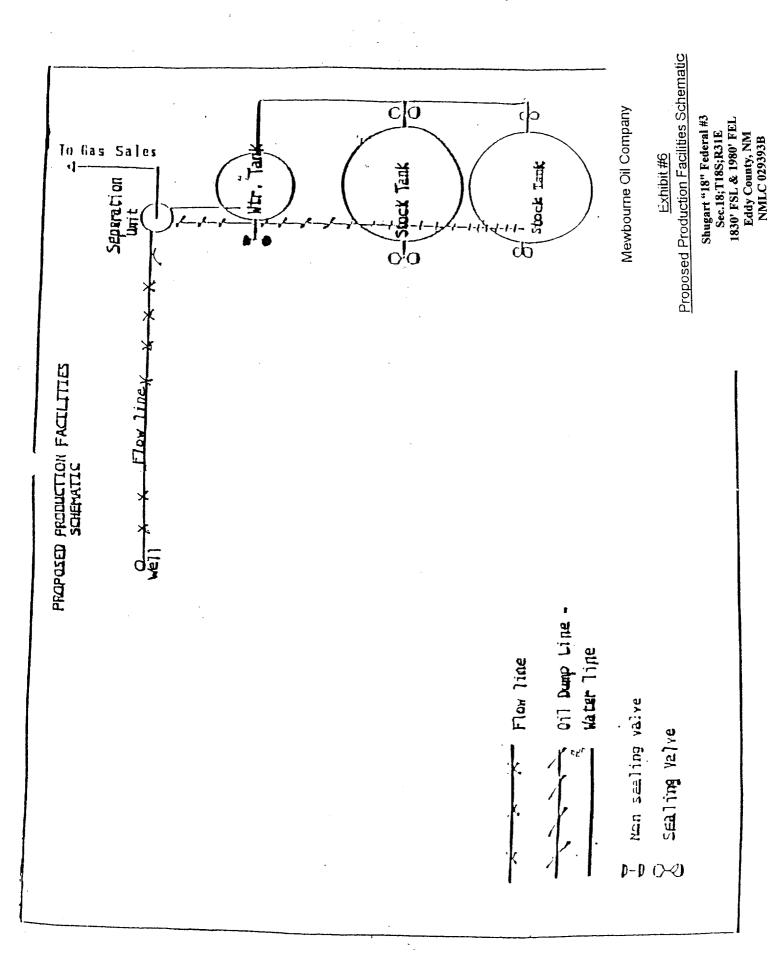
Field:

North Shugart Bone Springs

Mewbourne Oil Company



Rig Location Schematic



Hydrogen Sulfide Drilling Operations Plan

Mewbourne Oil Company

Shugart "18" Federal #3 1830'FSL & 1980' FEL Section 18- T18S-R31E Eddy County, New Mexico Lease Number NMNM-33437, NMNM-029393A

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.
- 3 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

2. <u>Protective Equipment for Essential Personnel</u>

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. <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.

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, NMLC-029393A

Legal Description of Land:

Section 18, T18S, R31E, Eddy County, New Mexico. Location

1830' FSL & 1980' FEL of Section 18.

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