Form 3160-3
(September 2001)

Oil Cons.
N.M. DIV-Dist. 2
1301 W. Grand Avenue
Artesia, NM 88210

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NM-89881

6. If Indian, Allottee or Tribe Name

1a. Type of Work: ☑ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.

1b. Type of Well: ☐ Oil Well ☑ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone

8. Lease Name and Well No.
Tamano "10" Federal Com # 4

2. Name of Operator
Mewbourne Oil Company 14744 Undes. Shugart; Morrow, North

9. API Well No.
30-015-32981

3a. Address
P.O. Box 5270 Hobbs, NM 88241

3b. Phone No. *(include area code)*
(505) 393-5905

10. Field and Pool, or Exploratory
Wildcat Morrow

4. Location of Well *(Report location clearly and in accordance with any State requirements. *)*
At surface 990' FNL & 1310' FWL
At proposed prod. zone (D)

11. Sec., T., R., M., or Blk. and Survey or Area
Sec. 10; T18S; R31E

14. Distance in miles and direction from nearest town or post office*
7 miles SE Loco Hills

12. County or Parish
Eddy

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 990'	16. No. of Acres in lease 320	17. Spacing Unit dedicated to this well 320
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 660'	19. Proposed Depth 12,200'	20. BLM/BIA Bond No. on file NM-1693, Nationwide
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3720' GL	22. Approximate date work will start* August 25, 2003	23. Estimated duration 45 days

24. Attachments

CAPITAN CONTROLLED WATER BASIN

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.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature Terry Burke	Name *(Printed/Typed)* Terry Burke	Date 07-25-03
Title Drilling Foreman		
Approved by *(Signature)* /s/ Joe G. Lara	Name *(Printed/Typed)* /s/ Joe G. Lara	Date 28 AUG 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.
Conditions of approval, if any, are attached.

APPROVAL FOR 1 YEAR

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.

(Instructions on reverse)

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

SEP 2003
RECEIVED
OCD - ARTESIA

1625 N. French Dr., Hobbs, NM 88240
DISTRICT II
811 South First, Artesia, NM 88210
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Revised March 17, 1999
Instruction on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
		Wildcat Morrow

Property Code	Property Name	Well Number
	TAMANO "10" FEDERAL COM.	4

OGRID No.	Operator Name	Elevation
14744	MEWBOURNE OIL COMPANY	3720

Surface Location

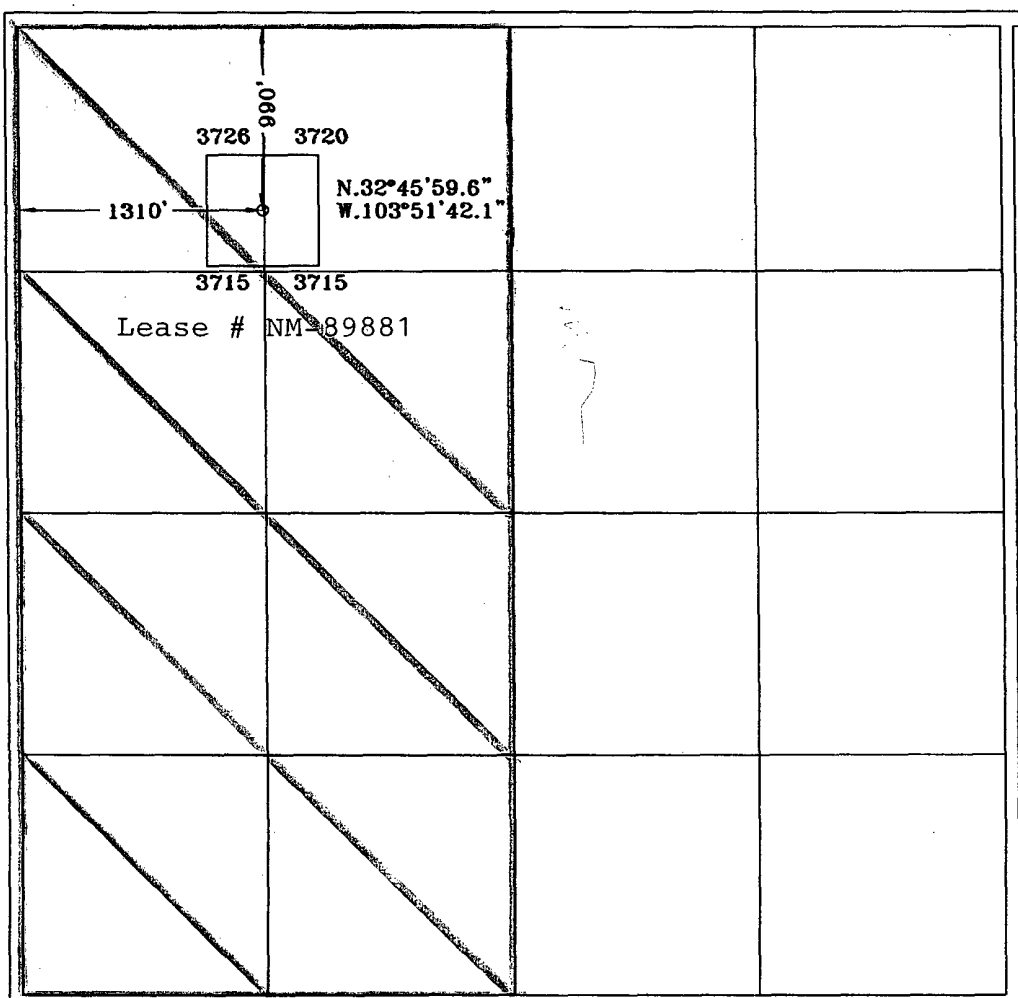
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	10	18S	31E		990	NORTH	1310	WEST	EDDY

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	Consolidation Code	Order 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 certify the the information contained herein is true and complete to the best of my knowledge and belief.

Signature

Terry Burke
Printed Name

Drilling Foreman
Title

July 25, 2003
Date

SURVEYOR CERTIFICATION

I hereby certify that the well location shown 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 belief.

7/22/2003
Date Surveyed

Signature & Seal of Professional Surveyer

HERSCHEL L. JONES NEW MEXICO 3640 REGISTERED PROFESSIONAL LAND SURVEYOR

Certificate No. Herschel L. Jones RLS 3640

TAMANO TOPO
GENERAL SURVEYING COMPANY

Drilling Program
Mewbourne Oil Company
Tamano "10" Federal Com # 4
990' FNL & 1310' FWL
Section 10 -T18S-R31E
Eddy County, New Mexico
Lease Number NM-89881

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

Delaware	4430'
Bone Springs	5,102'
Wolfcamp	9,350'
Strawn	10,650'
Atoka	11,300'
Morrow	11,550'
TD	12,200'

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 BOP's will be installed on the 13-3/8" surface casing. Five thousand psi working pressure BOP's and two thousand psi working pressure Hydril will be installed on the 9-5/8" intermediate casing. Pressure tests with rig pump will be conducted prior to drilling out under all casing strings. A third party Safety Test Company will pressure test and record on chart the approved testing pressure of the BOP, Choke, Hydril, Kelly Cock Valves before we drill below the Bone Springs 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.

4. Proposed casing and cementing program:

A. Casing Program:

Hole Size	Casing	Wt/Ft.	Grade	Depth
17-1/2"	13-3/8"	48#	H40	0-765'
12-1/4"	9-5/8"	40#	N80/J55	0-4,500'
8-3/4"	5-1/2"	17#	P110/S95	0-12,200'

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

B. Cementing Program

WITNESS

i. Surface Casing: 450 sacks Class "C" light cement containing .25 lbs/sack cellophane flakes, 2% CaCl, 6% bwoc Bentonite. 200 sacks Class "C" cement containing 2% CaCl.

ii. Intermediate Casing: 900 sacks 35:65 pozmix cement containing 6% gel, 5 lbs/sack LCM-1. 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.

**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'-765'	FW spud mud	8.6-9.4	32-34	NA
765'-4500'	Brine Water	10.0-10.2	28-30	NA
4500'-9000'	Cut brine water	8.8-9.2	28-30	NA
9000'-12,200'	Cut brine water	9.2-10.0	32-42	8-12

(Note: Any Weight Above 8.6#/gallon would be to hold back Wolfcamp shale, rather than abnormal BHP.)

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.

Mewbourne Oil Company

BOP Scematic for
12 1/4" Hole

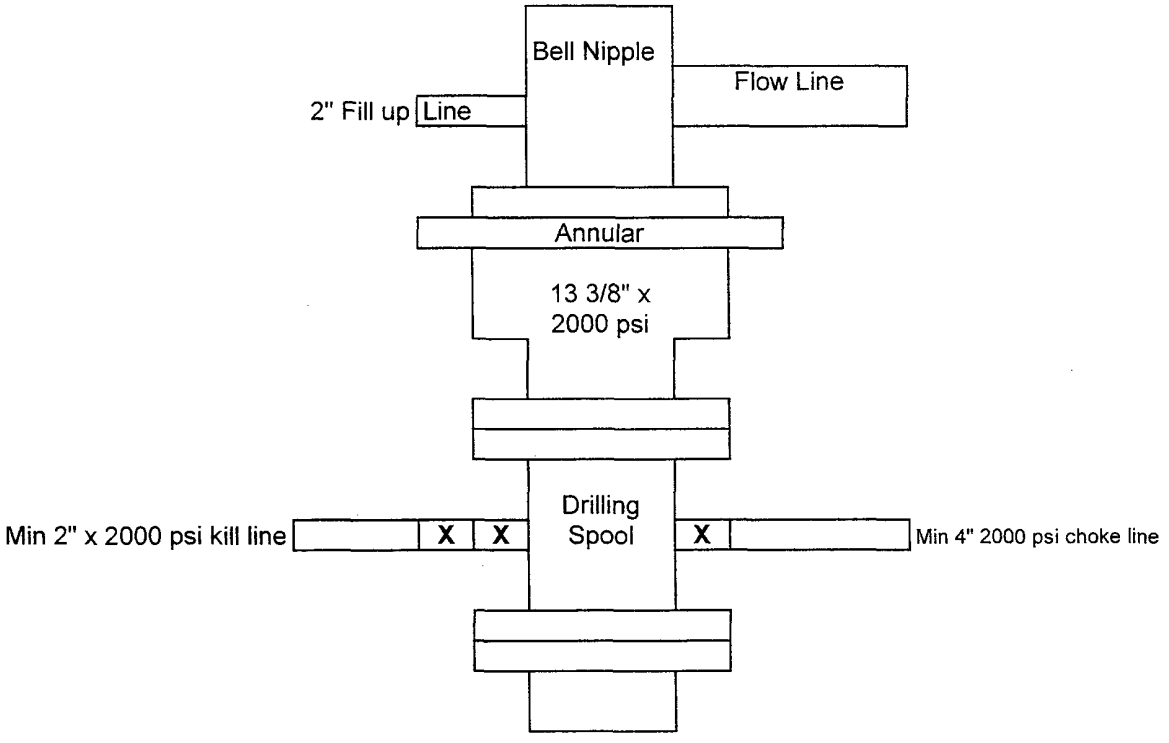


Exhibit #2

Tamano "10" Federal Com # 4
990' FNL & 1310' FWL
Sec.10-18S; R31E
Eddy County, New Mexico

Mewbourne Oil Company

BOP Scematic for
8 3/4" or 7 7/8" Hole

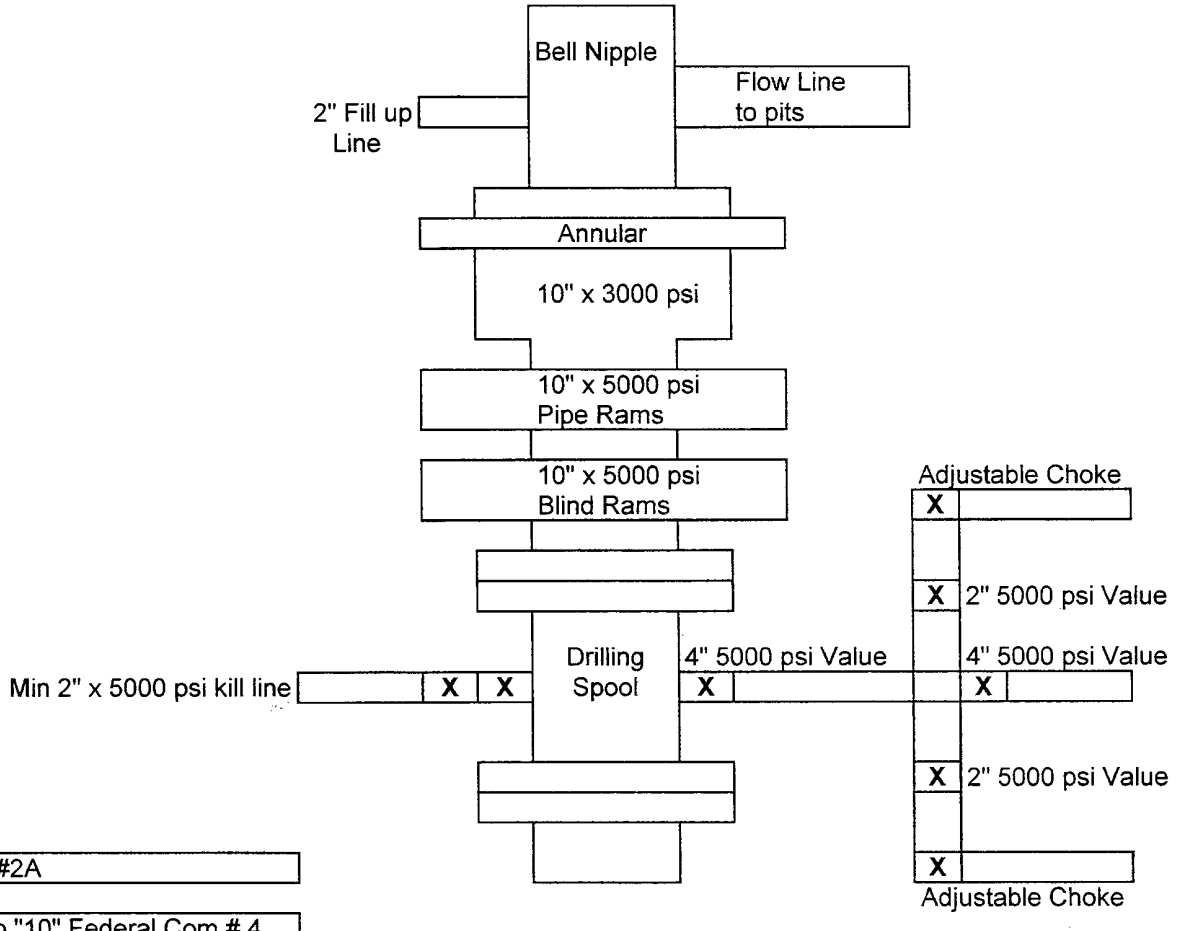


Exhibit #2A

Tamano "10" Federal Com # 4
990' FNL & 1310' FWL
Sec.10; T18S; R31E
Eddy County, New Mexico

Notes Regarding Blowout Preventer
Mewbourne Oil Company
Tamano "10" Federal Com # 4
990' FNL & 1310' FWL
Section 10- T18S-R31E
Eddy County, New Mexico

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
Tamano "10" Federal Com # 4
990' FNL & 1310' FWL
Section 10 T-18S R-31E
Eddy County, New Mexico
Lease Number NM-89881

Section 10 T-18S R-31E

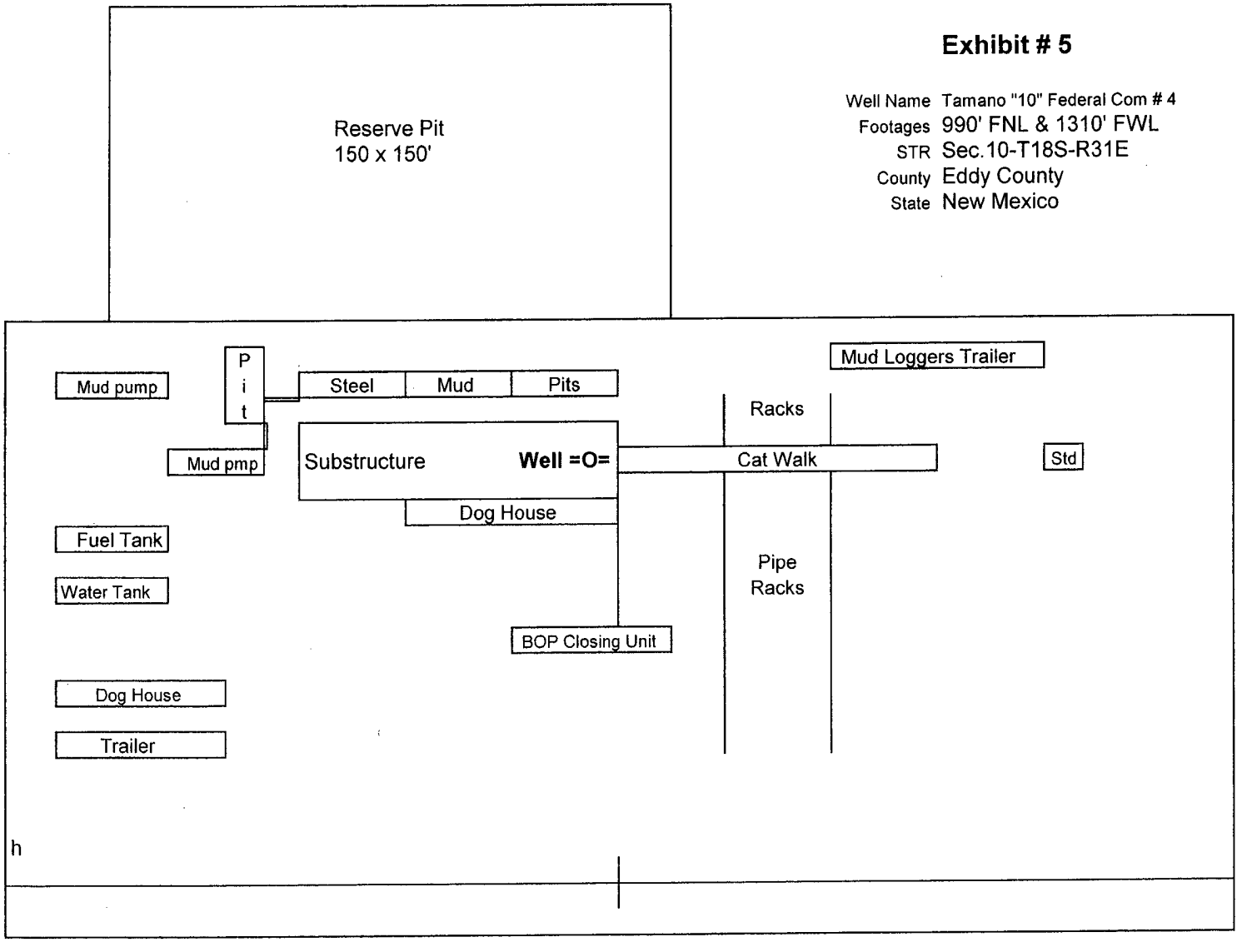
Operator: Brothers Production Co., Inc.
Well Name: Johnson "A" Federal # 5
Unit letter: D
Status: Producing
Field: Shurgart Yates 7RVRS QN Grayburg

Operator: Brothers Production Co., Inc.
Well Name: Tamano (BSSC) Unit # 303
Unit letter: J
Status: Producing
Field: Tamano Bone Springs

Mewbourne Oil Company

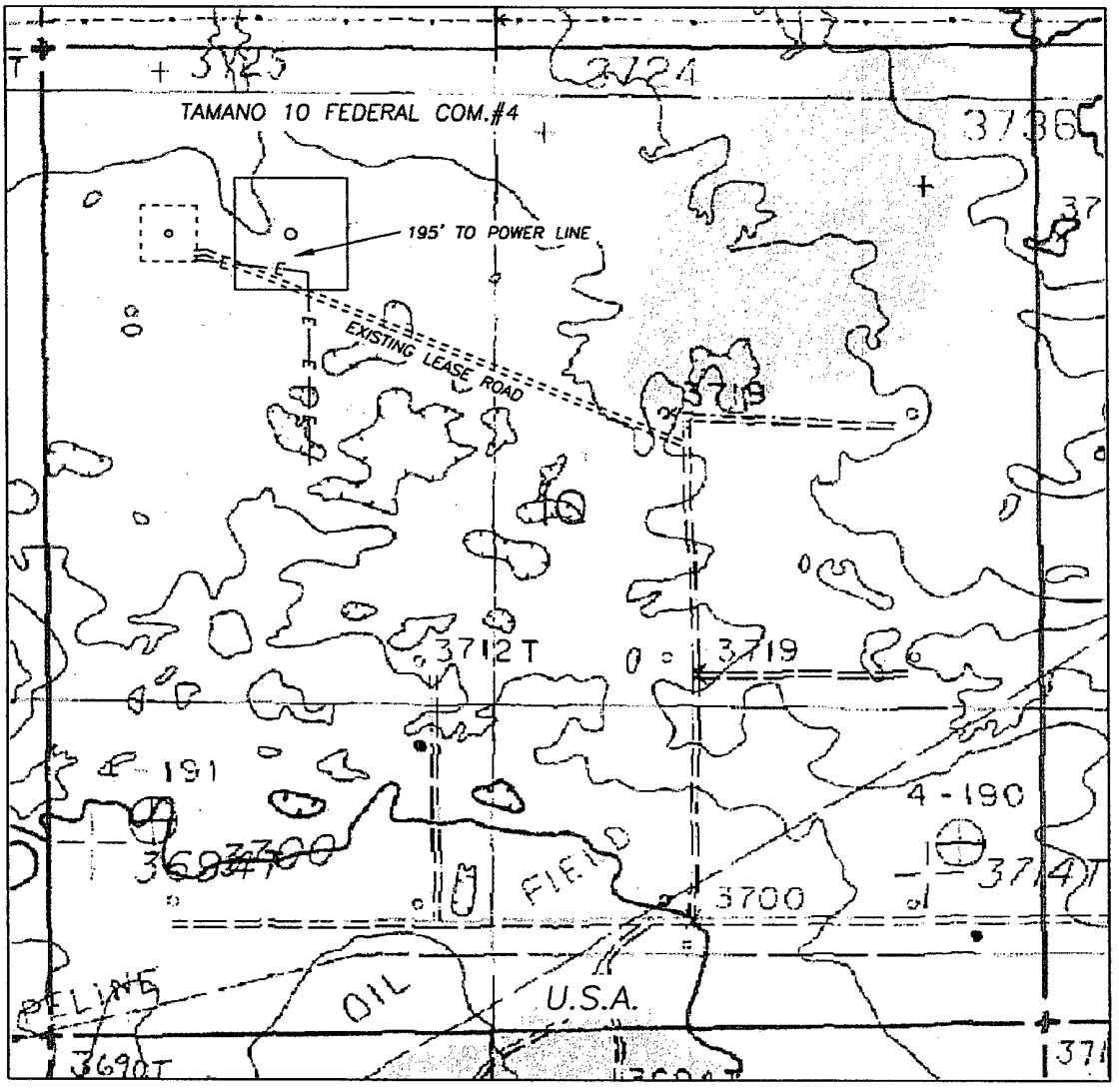
Exhibit # 5

Well Name	Tamano "10" Federal Com # 4
Footages	990' FNL & 1310' FWL
STR	Sec.10-T18S-R31E
County	Eddy County
State	New Mexico



Rig Location Schematic

SECTION 10, TOWNSHIP 18 SOUTH, RANGE 31 EAST, NMPM, EDDY COUNTY, NEW MEXICO.



1000' 0 1000' 2000'

Scale 1" = 1000'

THE PREPARATION OF THIS PLAT AND THE PERFORMANCE OF THE SURVEY UPON WHICH IT IS BASED WERE DONE UNDER MY DIRECTION AND THE PLAT ACCURATELY DEPICTS THE RESULTS OF SAID SURVEY AND MEET THE REQUIREMENTS OF THE STANDARDS FOR LAND SURVEYS IN NEW MEXICO AS ADOPTED BY THE NEW MEXICO STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS.

REGISTERED PROFESSIONAL LAND SURVEYOR 3640

REASCHEL L. JONES R.L.S. No.3640

GENERAL SURVEYING COMPANY P.O. BOX 1928
LOVINGTON, NEW MEXICO 88260

MEWBOURNE OIL COMPANY

LEASE ROAD TO ACCESS THE MEWBOURNE TAMANO "1D" FEDERAL COM. #4 WELL, LOCATED IN SECTION 10, TOWNSHIP 18 SOUTH, RANGE 31 EAST, NMPM, EDDY COUNTY, NEW MEXICO.

Survey Date: 7/22/2003	Sheet 1 of 1 Sheets	
Drawn By: Ed Blevins	W.O. Number	
Date: 7/22/03	Scale 1" = 1000'	TAMANO10—4

Hydrogen Sulfide Drilling Operations Plan

Mewbourne Oil Company
Tamano "10" Federal Com # 4
990' FNL & 1310' FWL
Section 10-T18S-R31E
Eddy County, New Mexico

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.
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:

1 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 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

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.

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. General Requirements

MOC has researched this area and no high concentrations of H2S was found. MOC will have on location and working all H2S safety equipment before Yates and Delaware formations.