

205-09  
Bureau

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

1301 W. Grand Avenue

Artesia, NM 88210

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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

APPLICATION FOR PERMIT TO DRILL OR REENTER

RECEIVED

FEB 02 2005

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NM-27282
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator Mewbourne Oil Company - 14744		7. If Unit or CA Agreement, Name and No.
3a. Address PO Box 5270 Hobbs, NM 88240		8. Lease Name and Well No. Santo Nino 29 Federal Com #7
3b. Phone No. (include area code) 505-393-5905		9. API Well No. 30-015-33996
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 660' FSL & 960' FWL Unit M At proposed prod. zone Same <b>Secretary's Potash</b>		10. Field and Pool, or Exploratory Santo Nino Bone Spring
14. Distance in miles and direction from nearest town or post office* 7 miles south of Loco Hills		11. Sec., T., R., M., or Blk. and Survey or Area Sec 29-T18S-R30E
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 360'	16. No. of Acres in lease 40	12. County or Parish Eddy
17. Spacing Unit dedicated to this well 80	13. State NM	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1050'	19. Proposed Depth 7600'	20. BLM/BIA Bond No. on file NM1693, Nationwide
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3421' GL	22. Approximate date work will start* ASAP	23. Estimated duration 45

24. Attachments **Capton 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.  | 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 SUPO shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature <i>Kristi Green</i>	Name (Printed/Typed) Kristi Green	Date 12/01/04
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Title

Hobbs Regulatory

Approved by (Signature) <i>1st Ron Danton</i>	Name (Printed/Typed) 1st Ron Danton	Date JAN 28 2005
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Title  
STATE DIRECTOR

Office  
NM STATE 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**

NSL-5167 (5D)

DISTRICT I  
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

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised March 17, 1999

Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

2040 South Pacheco  
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
		Santa Nino Bone Spring
Property Code	Property Name	Well Number
	SANTO NINO "29" FEDERAL COM	7
OGRID No.	Operator Name	Elevation
14744	MEWBOURNE OIL COMPANY	3421'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	29	18 S	30 E		660	SOUTH	960	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.						
80									

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

<p>MOC's Santo Nino 29 Fed #3</p> <p>Lease # NM 212062</p> <p>3421.0' 3429.7'</p> <p>960'</p> <p>3429.7' 3411.8'</p> <p>Lat.: N32°42'47.0" Long.: W103°59'58.6"</p> <p>MOC's Santo Nino 29 Fed Com #4</p>	<p>OPERATOR CERTIFICATION</p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Kristi Green</i> Signature</p> <p>Kristi Green Printed Name</p> <p>Hobbs REgulatory Title</p> <p>12/01/04 Date</p> <p>SURVEYOR CERTIFICATION</p> <p>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 supervision, and that the same is true and correct to the best of my belief.</p> <p>NOVEMBER 18, 2004</p> <p>Date Surveyed</p> <p>GARY L. JONES Signature &amp; Seal of Professional Surveyor</p> <p>7977</p> <p>W.O. No. 481</p> <p>Certificate No. Gary L. Jones 7977</p> <p>BASIN SURVEYS</p>
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District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-144  
March 12, 2004

For drilling and production facilities, submit to appropriate NMOCD District Office.  
For downstream facilities, submit to Santa Fe office

**Pit or Below-Grade Tank Registration or Closure**

Is pit or below-grade tank covered by a "general plan"? Yes ☒ No ☐

Type of action: Registration of a pit or below-grade tank ☒ Closure of a pit or below-grade tank ☐

Operator: Mewbourne Oil Company Telephone: 505-393-5905 e-mail address: kgreen@mewbourne.com  
Address: PO Box 5270 Hobbs, NM 88240 **33996**  
Facility or well name: Santo Nino 29 Federal Corn #7 **30-05-28644** API #:                      U/L or Qtr/Qtr M Sec 29 T18S R30E  
County: Eddy Latitude 32-42-47.0N Longitude 103-59-58.6W NAD: 1927 ☐ 1983 ☒  
Surface Owner Federal ☒ State ☐ Private ☐ Indian ☐

**Pit**

Type: Drilling ☒ Production ☐ Disposal ☐

Workover ☐ Emergency ☐

Lined ☒ Unlined ☐

Liner type: Synthetic ☒ Thickness 12 mil Clay ☐ Volume  
24,000 bbl

**Below-grade tank**

Volume:            bbl Type of fluid:                                     

Construction material:                                     

Double-walled, with leak detection? Yes ☐ If not, explain why not **RECEIVED**

**DEC - 6 2004**

**DEPT. OF ARTESIA**

Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)

Less than 50 feet

(20 points)

50 feet or more, but less than 100 feet

(10 points)

100 feet or more x

( 0 points) X

Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)

Yes

(20 points)

No X

( 0 points) X

Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)

Less than 200 feet

(20 points)

200 feet or more, but less than 1000 feet

(10 points)

1000 feet or more X

( 0 points) X

**Ranking Score (Total Points)**

**0 points**

**If this is a pit closure:** (1) attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location:

onsite ☐ offsite ☐ If offsite, name of facility                                     . (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface                      ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒ a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Date: 12/01/04

Printed Name/Title Kristi Green / Hobbs Regulatory Asst

Signature Kristi Green

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:

Date: **DEC 9 2004**

Printed Name/Title Wild Sep 20

Signature WR

**Drilling Program**  
**Mewbourne Oil Company**  
Santo Nino 29 Federal Com #7  
660' FSL & 960' FWL  
Sec 29-T18S-R30E  
Eddy County, New Mexico

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

Bone Spring 7200'

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

Water Approximately 200'  
Hydrocarbons All zones below Yates.

**3. Pressure control equipment:**

A 2000 psi working pressure annular BOP will be installed on the 13-3/8" surface casing. A 3000 psi WP Double Ram BOP and a 1500 psi WP Annular will be installed after running 8 5/8" 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:**

**A. Casing Program:**

<u>Hole Size</u>	<u>Casing</u>	<u>Wt/Ft.</u>	<u>Grade</u>	<u>Depth</u>
17 1/2"	13 3/8"	48#	H40	0-400'
12 1/4"	8 5/8"	32#	K55	0-2000'
7 7/8"	5 1/2"	17#	N80	0-7600'

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

## **Drilling Program**

**Mewbourne Oil Company**

Santa Nino 29 Fed Com #7

Page 2

### **B. Cementing Program**

**WITNESS:**

- Surface Casing: 300 sacks Class "C" light cement containing ½ #/sk cellophane flakes, 2% CaCl, 5 lbs/sack gilsonite. 200 sacks Class "C" cement containing 2% CaCl.
- ii. Intermediate Casing: 500 sacks 35:65 pozmix cement containing 6% gel, 5 lbs/sack gilsonite. 400 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 a 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:**

<u>Interval</u>	<u>Type System</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
0'-400'	FW spud mud	8.6-9.4	32-34	NA
400'-2000'	Brine water	10.0-10.2	28-30	NA
2000'-TD	Cut brine water	8.8-9.0	28-30	NA

### **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: 8.6 lbs/gal gradient or less

**Drilling Program**

**Mewbourne Oil Company**

Santa Nino 29 Fed Com #7

Page 3

**8. Anticipated Starting Date:**

Mewbourne Oil Company intends to drill this well as soon as possible after receiving approval with approximately 20 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**

Santo Nino 29 Federal Com #7

660' FSL & 960' FWL

Sec 29-T18S-R30E

Eddy County, New Mexico

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 red and proposed roads are highlighted in yellow.
- B. **From Carlsbad: East on US 62/180 approx 15 miles. Turn left (north) on NM 360 and continue North & NW 11.6 miles. Turn right (north) on Eddy Co 251 ((Duval Shaft Rd) and continue north 2.3 miles. Turn left (east) 1.5 miles to location on left.**

**2. Proposed Access Road:**

- A Will need 1088' of new road.
- B. The access to the location will be limited to 16' in width and will adequately drain runoff and control erosion as presently constructed.

**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. All production vessels left on location will be painted to conform with BLM painting stipulations within 180 days of installation.

## **Hydrogen Sulfide Drilling Operations Plan**

### **Mewbourne Oil Company**

Santo Nino 29 Federal Com #6

2130' FSL & 1830' FWL

Sec 29-T18S-R30E

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:

- 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 known 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.



Protective Equipment for Essential Personnel

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

B. 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.

C. 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 & County Officials phone numbers are posted on rig floor and supervisors trailer. Communications in company vehicles and tool pushers 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 H<sub>2</sub>S was found. MOC will have on location and working all H<sub>2</sub>S safety equipment before Yates formation.

**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 #NM-27282

Legal Description of Land: Section 29, T-18S, R-30E Eddy County, New Mexico.  
Location @ 660' FSL & 960' FWL.

Formation (if applicable):

Bond Coverage: \$150,000

BLM Bond File: NM1693, Nationwide

Authorized Signature: \_\_\_\_\_



Name: NM (Micky) Young  
Title: District Manager  
Date: December 1, 2004

**Notes Regarding Blowout Preventer**

**Mewbourne Oil Company**

Santo Nino 29 Federal Com #7

660' FSL & 960' FWL

Sec 29-T18S-R30E

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 3000 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 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.

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

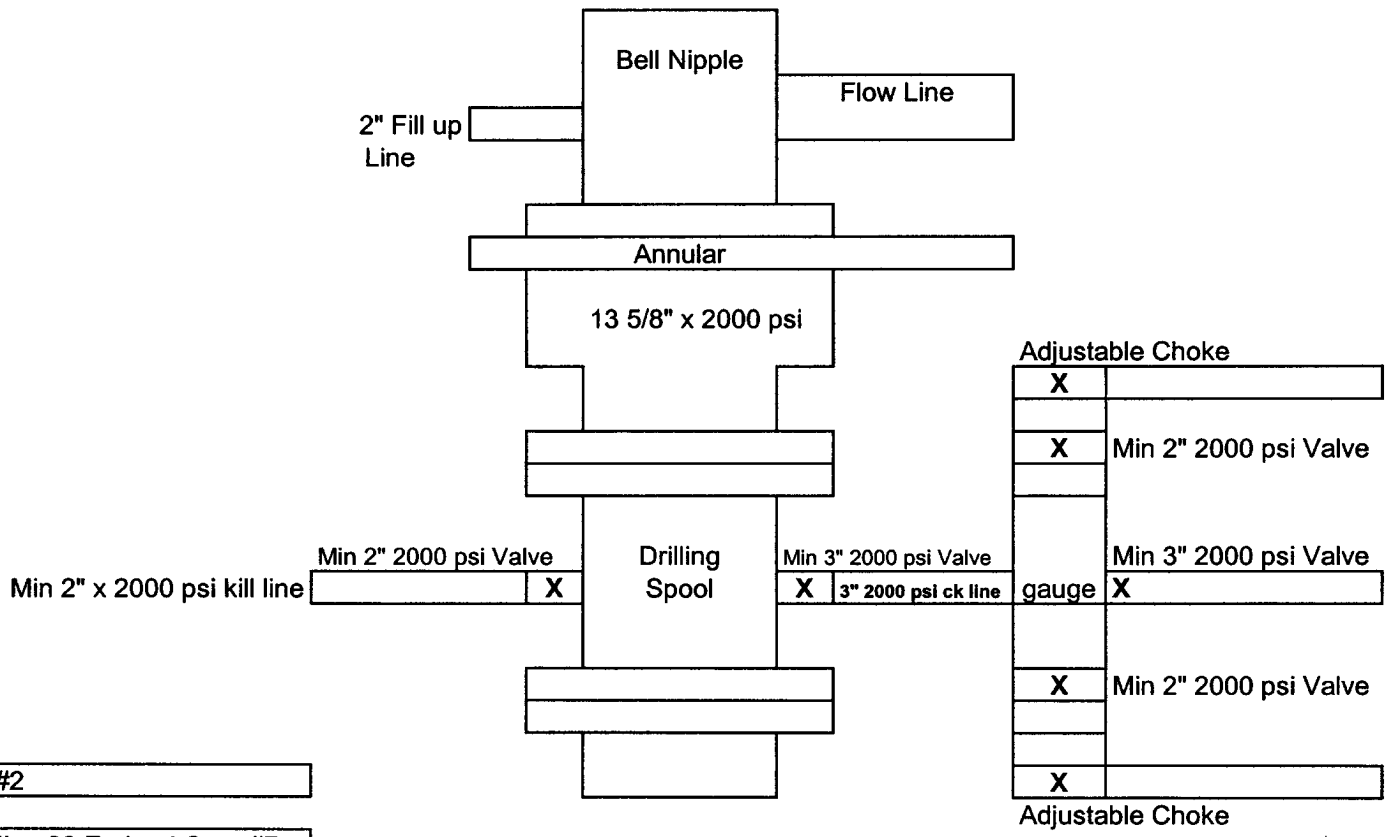
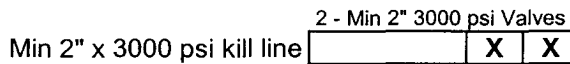


Exhibit #2

Santo Nino 29 Federal Com #7  
660' FSL & 960' FWL  
Sec 29-T18S-R30E  
Eddy, County  
New Mexico

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



Santo Nino 29 Federal Com #7  
660' FSL & 960' FWL  
Sec 29-T18S-R30E  
Eddy, County  
New Mexico

**SECTION 29, TOWNSHIP 18 SOUTH, RANGE 30 EAST, N.M.P.M.,  
EDDY COUNTY, NEW MEXICO.**

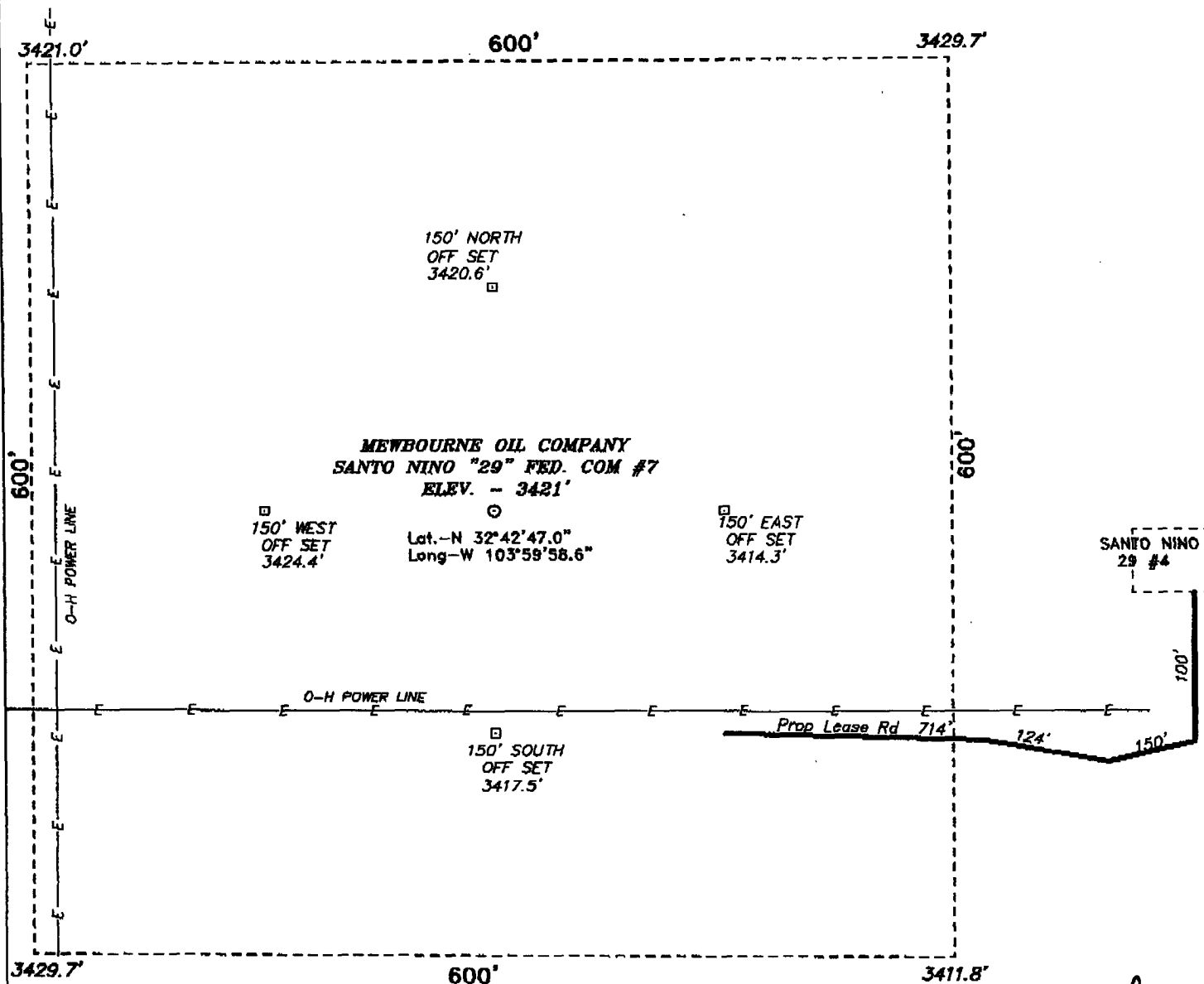


Exhibit 3A

100 0 100 200 FEET

SCALE: 1" = 100'

**DIRECTIONS TO LOCATION:**

FROM THE JUNCTION OF US HWY 62-180 AND STATE  
HWY 360, GO NORTH ON HWY 360 FOR 11.1 MILES TO  
CO. RD. 251; THENCE 2.5 MILES ON 251 TO LEASE  
ROAD; THENCE GO 1.1 MILE TO "T"; THENCE SOUTH  
0.2 MILE TO LEASE ROAD TO THE #4 AND PROPOSED  
LEASE ROAD.

**BASIN SURVEYS** P.O. BOX 1786-HOBBS, NEW MEXICO

W.O. Number: 4814

Drawn By: K. GOAD

Date: 11-24-2004

Disk: KJG CD#7 - 4814A.DWG

**MEWBOURNE OIL COMPANY**

REF: SANTO NINO "29" FEDERAL COM No. 7 / Well Pad Tapo

THE SANTO NINO "29" FED. COM No. 7 LOCATED 660'

FROM THE SOUTH LINE AND 960' FROM THE WEST LINE OF  
SECTION 29, TOWNSHIP 18 SOUTH, RANGE 30 EAST,

N.M.P.M., EDDY COUNTY, NEW MEXICO.

Survey Date: 11-19-2004

Sheet 1 of 1 Sheets

**Exhibit #4**  
**Status of Wells in Immediate Vicinity**  
**Mewbourne Oil Company**  
Santo Nino 29 Federal Com #7  
660' FSL & 960' FWL  
Sec 29-T18S-R30E  
Eddy County, New Mexico

**Section 29-T18S-R30E**

Operator: Mewbourne Oil Company  
Well Name: Santa Nino 29 Federal #3  
Unit letter: L  
Status: Producing  
Field: Bone Spring

Operator: Mewbourne Oil Company  
Well Name: Santa Nino 29 Federal #4  
Unit letter: N  
Status: Producing  
Field: Bone Spring

Operator: Arena Resources, Inc  
Well Name: North Benson Queen Unit #11  
Unit letter: K  
Status: Well is TA  
Field: Benson North Queen Grayburg

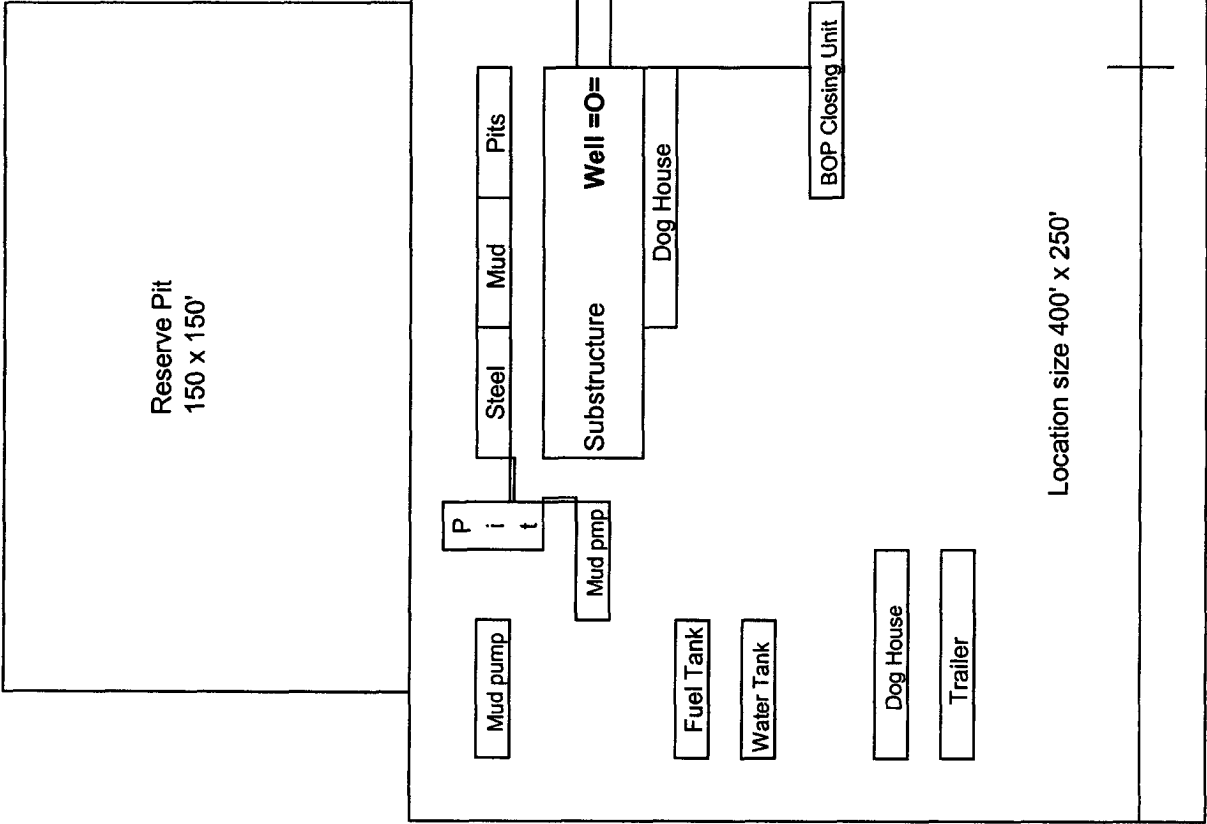
Operator: Arena Resources, Inc  
Well Name: North Benson Queen Unit #12  
Unit letter: J  
Status: Well is TA  
Field: Benson North Queen Grayburg

Mewbourne Oil Company

Exhibit #5

Pits to the North  
or West

Well Name Santo Nino 29 Federal Com #7  
Footages 660' FSL & 960' FWL  
STR Sec 29-T18S-R30E  
County Eddy, County  
State New Mexico



Rig Location Schematic