

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

New Mexico Oil Conservation Division, District I  
1625 N. French Drive  
Hobbs, NM 88240

FORM APPROVED  
OMB NO. 1004-0137  
Expires March 31, 2007


APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMNM16357
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 Nearburg Producing Company 15742		7. Unit or CA Agreement Name and No.
3a. Address 3300 N A St., Bldg 2, Ste 120, Midland, TX 79705	3b. Phone No. (include area code) 432/686-8235	8. Lease Name and Well No. Kudu 9 Federal #3 34266
4. Location of Well (Report location clearly and in accordance with any State requirements)* At surface 1650 FSL and 330 FEL At proposed prod. zone		9. API Well No. 30-025-37079
14. Distance in miles and direction from nearest town or post office* 8 miles NE of Halfway		10. Field and Pool, or Exploratory Tonto; Seven Rivers 59470
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any) 330	16. No. of Acres in lease 240	11. Sec., T., R., M., or Blk. and Survey or Area Sec 9-19S-33E
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1980	19. Proposed Depth 4000'	12. County or Parish Lea County
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3692	22. Approximate date work will start* 10/1/04	13. State NM
20. BLM/BIA Bond No. on file NM1307		17. Spacing Unit dedicated to this well 40
23. Estimated duration 30 days		

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 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 	Name (Printed/Typed) Sarah Jordan	Date 7.8.04
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Title Production Analyst		
Approved by (Signature) /s/ James Stovall	Name (Printed/Typed) /s/ James Stoval'	Date FEB 01 2005
Title FOR 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 page 2)

Carbon Controlled Water Basin

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS  
ATTACHED

## STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS

Nearburg Producing Company  
3300 North "A" Street, Building 2, Suite 120  
Midland, Texas 77905

The undersigned accepts all applicable terms, conditions, stipulations and restrictions covering operations conducted on the leased land or portion thereof, as described below:

Lease No: NMNM16357

Legal Description of Land: 1650 FSL and 330 FEL, Sec 9, 19S, 33E  
Lea County, New Mexico

Formation(s) (if applicable): Tonto; Seven Rivers

Bond Coverage: \$25,000 statewide bond of Nearburg Producing Company

BLM Bond File No: NM1307

7.8.04

Date

H. R. Willis

Drilling Manager

## DISTRICT I

1625 N. FRENCH DR., HOBBS, NM 68240

## State of New Mexico

Energy, Minerals and Natural Resources Department

## DISTRICT II

1301 W. GRAND AVENUE, ARTESIA, NM 88210

## DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

## DISTRICT IV

1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

OIL CONSERVATION DIVISION  
1220 SOUTH ST. FRANCIS DR.  
Santa Fe, New Mexico 87505

Form C-102

Revised JUNE 10, 2003

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

## WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number <b>30-025-37079</b>	Pool Code <b>59470</b>	Pool Name <b>Tonto; Seven Rivers</b>
Property Code <b>34266</b>	Property Name <b>KUDU 9 FEDERAL</b>	Well Number <b>3</b>
OGRID No. <b>015742</b>	Operator Name <b>NEARBURG PRODUCING COMPANY</b>	Elevation <b>3692'</b>

## Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<b>1</b>	<b>9</b>	<b>19-S</b>	<b>33-E</b>		<b>1650'</b>	<b>SOUTH</b>	<b>330'</b>	<b>EAST</b>	<b>LEA</b>

## Bottom Hole Location If Different From Surface

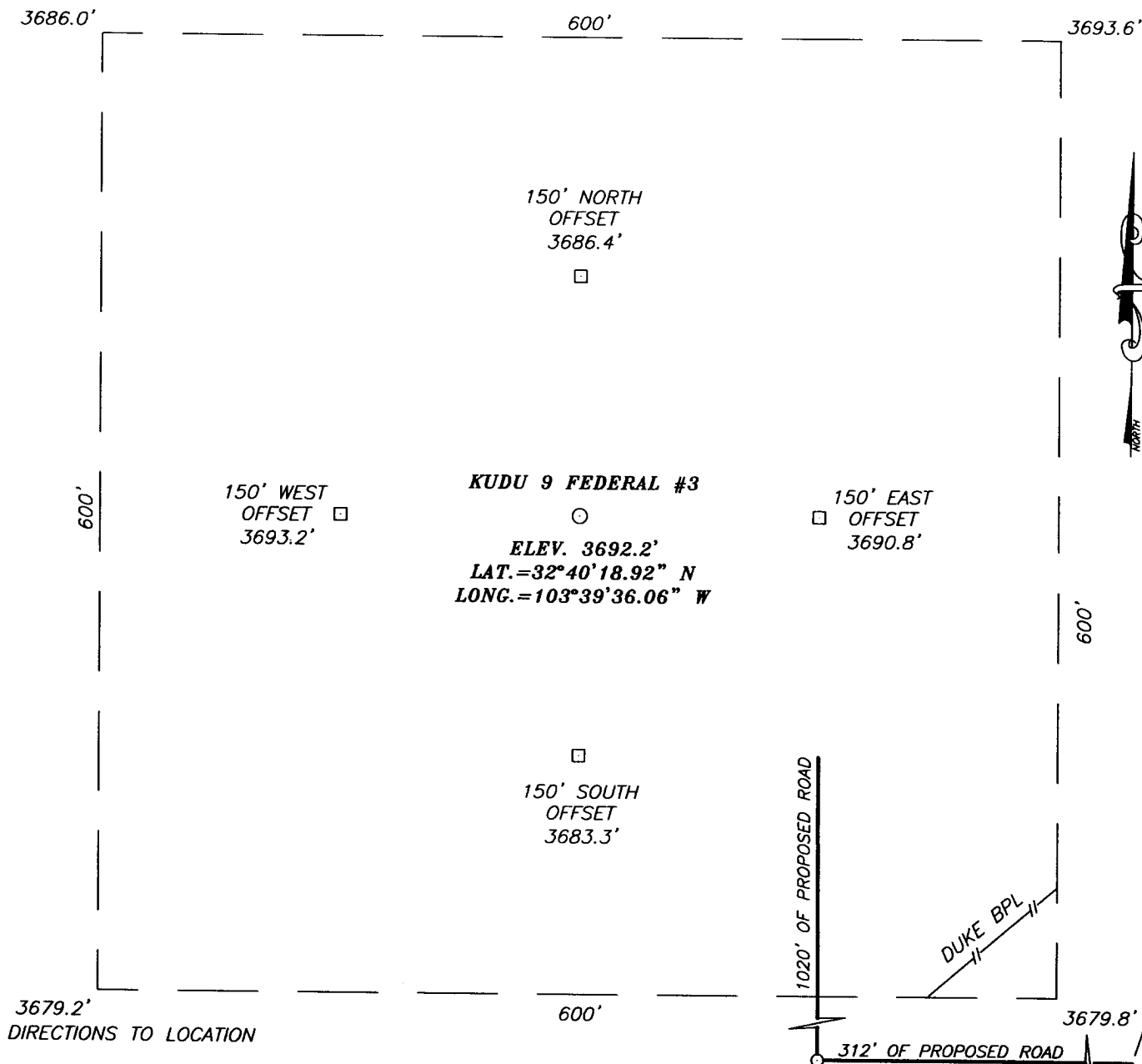
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres <b>40</b>	Joint or Infill	Consolidation Code	Order No.
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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

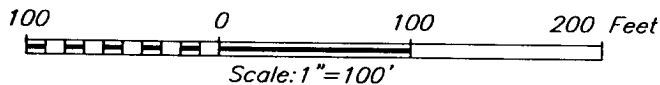
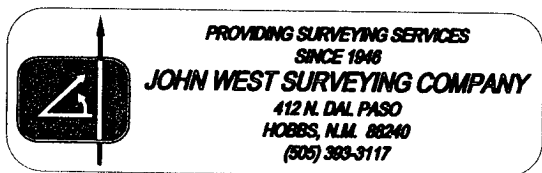
<p>GEODETIC COORDINATES NAD 27 NME</p> <p>Y=608813.6 N X=707190.5 E</p> <p>LAT.=32°40'18.92" N LONG.=103°39'36.06" W</p> <p>DETAIL</p> <p>3686.0' 3693.6' 600' 3679.2' 3679.8'</p> <p>SEE DETAIL</p> <p>330' 1650'</p>	<p><b>OPERATOR CERTIFICATION</b></p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>[Signature]</i> Signature <b>Sarah Jordan</b> Printed Name <b>Prod Analyst</b> Title <b>7.8.04</b> Date</p>
	<p><b>SURVEYOR CERTIFICATION</b></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><b>JUNE 22, 2004</b></p> <p>Date Surveyed Signature &amp; Seal of Professional Surveyor <i>[Signature]</i> GARY EIDSON 6/28/04 04.11.0732 Certificate No. GARY EIDSON 12641</p>

**SECTION 9, TOWNSHIP 19 SOUTH, RANGE 33 EAST, N.M.P.M.,**  
LEA COUNTY, NEW MEXICO



**DIRECTIONS TO LOCATION**

FROM THE INTERSECTION OF SMITH RANCH RD. (CO. RD. H55) AND U.S. HWY. 62-180 GO NORTH ON SMITH RANCH RD. 2.1 MILES TO FORK IN ROAD. STAY TO THE LEFT AND FOLLOW PAVEMENT 0.1 MILES TO A CATTLE GUARD ON THE WEST SIDE OF THE ROAD. GO NORTHWEST APPROX. 0.6 MILES TO FORK IN ROAD. STAY TO THE RIGHT AND GO NORTHWEST 0.8 MILES. TURN RIGHT (NORTH) AND GO APPROX. 0.3 MILES. TURN RIGHT (EAST) AND GO APPROX. 0.1 MILES THROUGH CURVE TO THE NORTH. FOLLOW ROAD NORTH APPROX. 1.4 MILES. TURN LEFT AND GO 0.6 MILES. TURN RIGHT AND GO 0.4 MILES. TURN LEFT AND GO APPROX. 0.4 MILES TO A STAKED ROAD. FOLLOW STAKED ROAD APPROX. 300' WEST. THEN FOLLOW STAKED ROAD APPROX. 1200' NORTH TO PROPOSED LOCATION.



NEARBURG PRODUCING COMPANY			
KUDU 9 FEDERAL #3 WELL LOCATED 1650 FEET FROM THE SOUTH LINE AND 330 FEET FROM THE EAST LINE OF SECTION 9, TOWNSHIP 19 SOUTH, RANGE 33 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO.			
Survey Date: 06/22/04	Sheet 1 of 1 Sheets		
W.O. Number: 04.11.0732	Dr By: J. RIVERO	Rev 1:N/A	
Date: 06/24/04	Disk: CD#10	04110732	Scale: 1"=100'

The map displays a 12x12 grid with numbers 1 through 36 arranged in a repeating 3x4 pattern. Key features include:

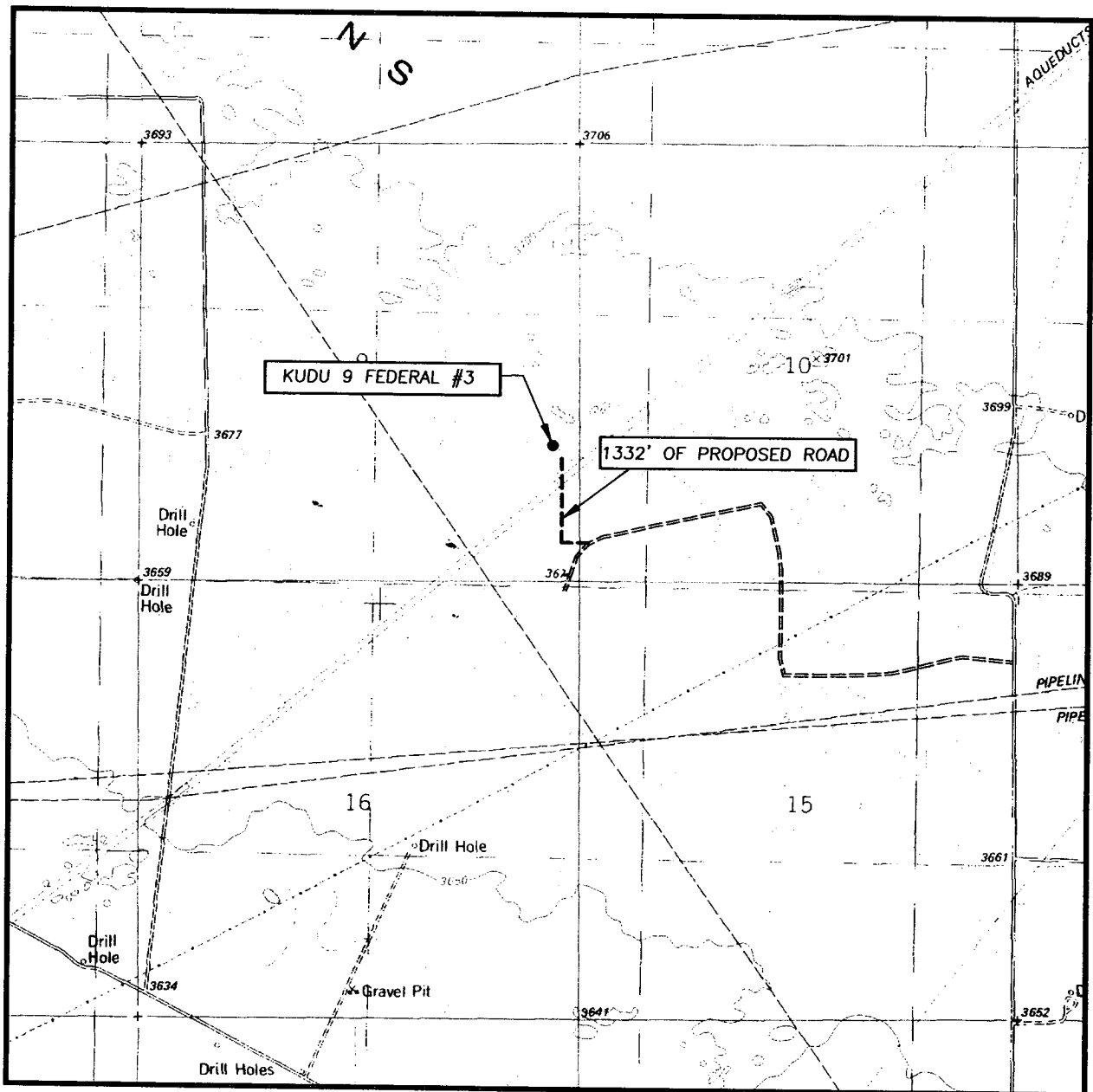
- KUDU 9 FEDERAL #3:** A label in a box with a pointer to a black dot located at the intersection of the 9th column and 9th row.
- LAGUNA TONTO:** A label near a small irregular shape in the center-right of the grid.
- LAGUNA GATUNA:** A label near a larger irregular shape in the bottom-left of the grid.
- SMITH RANCH:** A label near a diagonal line running from the bottom-left to the top-right.
- SKEEN:** A label near a vertical line running through the grid.
- U.S. 62-180:** A label near a diagonal line running from the bottom-left to the top-right.
- ST. 176:** A label near a diagonal line running from the bottom-left to the top-right.
- H27:** A label near a vertical line running through the grid.
- H55:** A label near a vertical line running through the grid.

SEC. 9 TWP. 19-S RGE. 33-E  
SURVEY \_\_\_\_\_ N.M.P.M. \_\_\_\_\_  
COUNTY \_\_\_\_\_ LEA \_\_\_\_\_  
DESCRIPTION 1650' FSL & 330' FEL  
ELEVATION \_\_\_\_\_ 3692' \_\_\_\_\_  
NEARBURG  
OPERATOR \_\_\_\_\_ PRODUCING COMPANY \_\_\_\_\_  
LEASE \_\_\_\_\_ KUDU 9 FEDERAL \_\_\_\_\_



**PROVIDING SURVEYING SERVICES  
SINCE 1946  
JOHN WEST SURVEYING COMPANY  
412 N. DAL PASO  
HOBBS, N.M. 88240  
(505) 393-3117**

# LOCATION VERIFICATION MAP

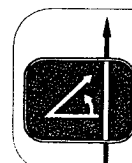


SCALE: 1" = 2000'

CONTOUR INTERVAL:  
LAGUNA GATUNA NW, N.M. - 10'

SEC. 9 TWP. 19-S RGE. 33-E  
 SURVEY N.M.P.M.  
 COUNTY LEA  
 DESCRIPTION 1650' FSL & 330' FEL  
 ELEVATION 3692'  
 OPERATOR NEARBURG PRODUCING COMPANY  
 LEASE KUDU 9 FEDERAL

U.S.G.S. TOPOGRAPHIC MAP  
LAGUNA GATUNA NW, N.M.



PROVIDING SURVEYING SERVICES  
SINCE 1946  
**JOHN WEST SURVEYING COMPANY**  
 412 N. DAL PASO  
 HOBBS, N.M. 88240  
 (505) 393-3117

**ATTACHMENT TO FORM 3160-3  
KUDU 9 FEDERAL #3  
1650 FSL AND 330 FEL, SEC 9, 19S, 33E  
LEA COUNTY, NEW MEXICO**

**DRILLING PROGRAM**

1. GEOLOGIC NAME OF SURFACE FORMATION

Red Bed

2. ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS

Anhydrite	1400
B/ Salt	3150
Yates	3350
7-Rivers	3700

3. ESTIMATED DEPTHS OF ANTICIPATED FRESH WATER, OIL, OR GAS

7-Rivers	3700
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4. CASING AND CEMENTING PROGRAM

<u>Casing Size</u>	<u>From</u> <u>To</u>	<u>Weight</u>	<u>Grade</u>	<u>Joint</u>
8-5/8"	0' – 1,550'	32#	K55	STC
4-1/2"	0' – 4,000'	11.6#	N80	LTC

Equivalent or adequate grades and weights of casing may be substituted at time casing is run, depending on availability.

We plan to drill a 12-1/4" hole to equal 1,550'. 8-5/8" casing will be cemented with 800 sxs Class "C" or volume necessary to bring cement back to surface.

7-7/8" hole will be drilled to 4,000' and 4-1/2" production casing will be cemented with approximately 800 sxs of Class "C" cement circulated to surface.

5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL

The BOP stack will consist of a 3,000 psi working pressure, dual ram type preventer and annular.

A BOP sketch is attached.

6. TYPES AND CHARACTERISTICS OF THE PROPOSED MUD SYSTEM

Spud and drill to 1,550' with fresh water mud for surface string. The production section from 1,550' to 4,000' will be 10.0 ppg Brine Water system with mud weight sufficient to control formation pressures.

7. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT

None required.

8. LOGGING, TESTING, AND CORING PROGRAM

DLL/CNL/LDT/CAL/GR logging is planned. Drill stem tests, cores and sidewall cores are possible.

9. ABNORMAL CONDITIONS, PRESSURES, TEMPERATURES & POTENTIAL HAZARDS

None anticipated.

BHP expected to be 1,100 psi.

10. ANTICIPATED STARTING DATE:

Is planned that operations will commence on October 1, 2004 with drilling and completion operation lasting about 30 days.



**SURFACE USE AND OPERATIONS PLAN FOR**  
**DRILLING, COMPLETION, AND PRODUCING**

**NEARBURG PRODUCING COMPANY**  
**KUDU 9 FEDERAL #3**  
**1650 FSL AND 330 FEL, SEC 9, 19S, 33E**  
**LEA COUNTY, NEW MEXICO**

**LOCATED**

8 miles NE of Halfway

**OIL & GAS LEASE**

NMNM16357

**RECORD LESSEE**

Chase Oil Corporation

**BOND COVERAGE**

\$25,000 statewide bond of Nearburg Producing Company

**ACRES IN LEASE**

240

**GRAZING LEASE**

Kenneth Smith

**POOL**

Tonto; Seven Rivers

**EXHIBITS**

- A. Area Road Map
  - B. Drilling Rig Layout
  - C. Vicinity Oil & Gas Map
  - D. Topographic & Location Verification Map
  - E. Well Location & Acreage Dedication Map
- This well will be drilled to a depth of approximately 4,000'.

1. EXISTING ROADS

A. Exhibit A is a portion of a section map showing the location of the proposed well as staked.

B. Exhibit C is a plat showing existing roads in the vicinity of the proposed well site.

2. ACCESS ROADS

A. Length and Width

The access road will be built and is shown on Exhibit D.

B. Surface Material

Existing.

C. Maximum Grade

Less than five percent

D. Turnouts

None necessary.

E. Drainage Design

Existing.

F. Culverts

None necessary.

G. Gates and Cattle Guards

None needed.

3. LOCATION OF EXISTING WELLS

Existing wells in the immediate area are shown in Exhibit C.

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES

Necessary production facilities for this well will be located on the well pad.

5. LOCATION AND TYPE OF WATER SUPPLY

It is not contemplated that a water well will be drilled. Water necessary for drilling will be purchased and hauled to the site over existing roads shown on Exhibit D.

6. METHODS OF HANDLING WASTE DISPOSAL

- A. Drilling fluids will be allowed to evaporate in the drilling pits until the pits are dry.
- B. Water produced during tests will be disposed of in the drilling pits.
- C. Oil produced during tests will be stored in test tanks.
- D. Trash will be contained in a trash trailer and removed from well site.
- E. All trash and debris will be removed from the well site within 30 days after finishing drilling and/or completion operations.

7. ANCILLARY FACILITIES

None required.

8. WELL SITE LAYOUT

Exhibit B shows the relative location and dimensions of the well pad, mud pits, reserve pit, and trash pit, and the location of major rig components.

9. PLANS FOR RESTORATION OF THE SURFACE

- A. After completion of drilling and/or completion operations, all equipment and other material not needed for operations will be removed. The well site will be cleaned of all trash and junk to leave the site in an as aesthetically pleasing condition as possible.
- B. After abandonment, all equipment, trash, and junk will be removed and the site will be clean.

10. OTHER INFORMATION

A. Topography

The land surface at the well site is rolling native grass with a regional slope being to the east.

B. Soil

Topsoil at the well site is sandy soil.

C. Flora and Fauna

The location is in an area sparsely covered with mesquite and range grasses.

D. Ponds and Streams

There are no rivers, lakes, ponds, or streams in the area.

E. Residences and Other Structures

There are no residences within a mile of the proposed well site.

F. Archaeological, Historical, and Cultural Sites

None observed on this area.

G. Land Use

Grazing

H. Surface Ownership

Bureau of Land Management (USA)

11. OPERATOR'S REPRESENTATIVE

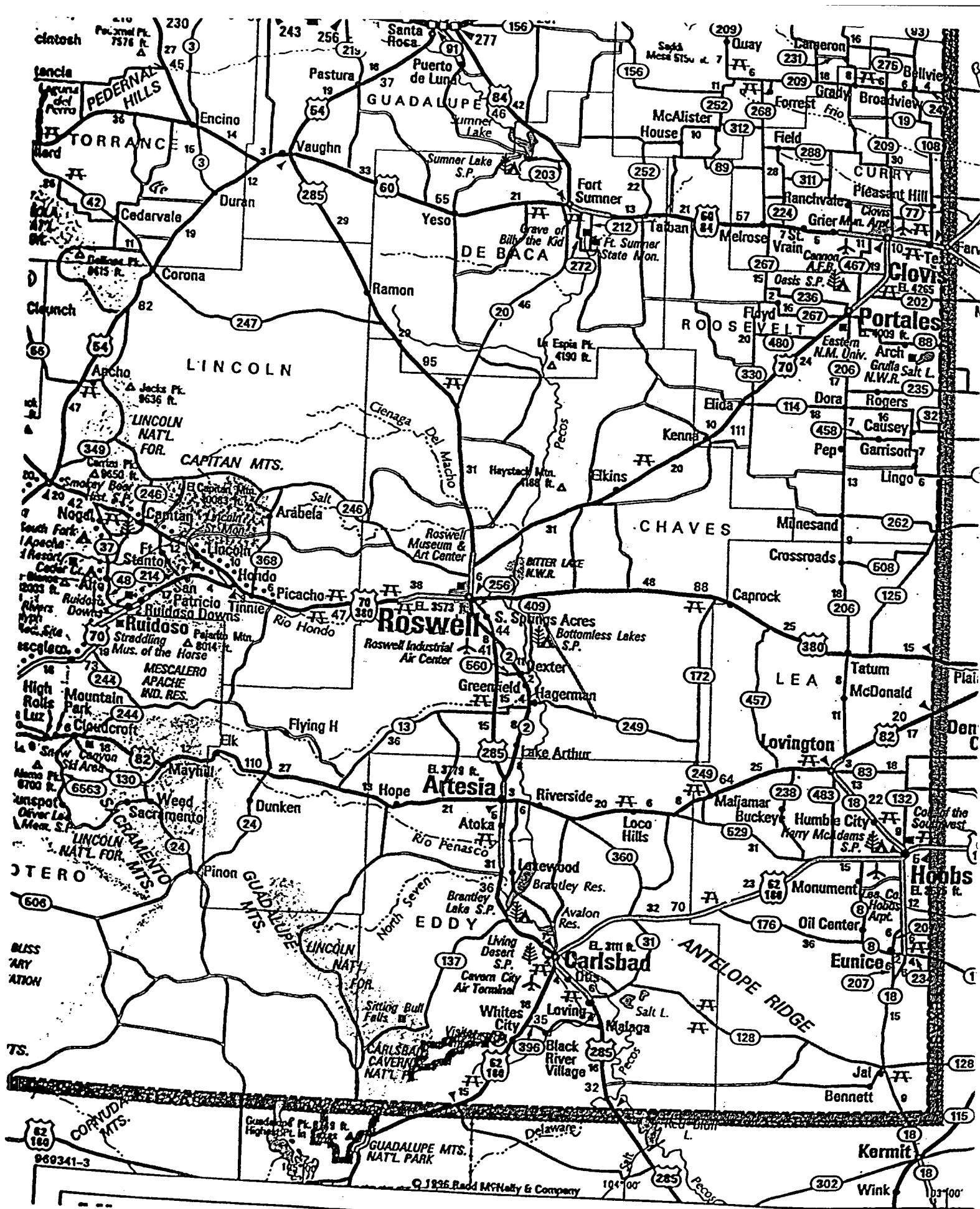
H. R. Willis  
3300 North "A" Street, Bldg 2, Suite 120  
Midland, Texas 79705  
Office: (432) 686-8235  
Home: (432) 697-2484

12. 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 presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by Nearburg Producing Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

7.8.04  
Date

H. R. Willis  
H. R. Willis  
Drilling Manager



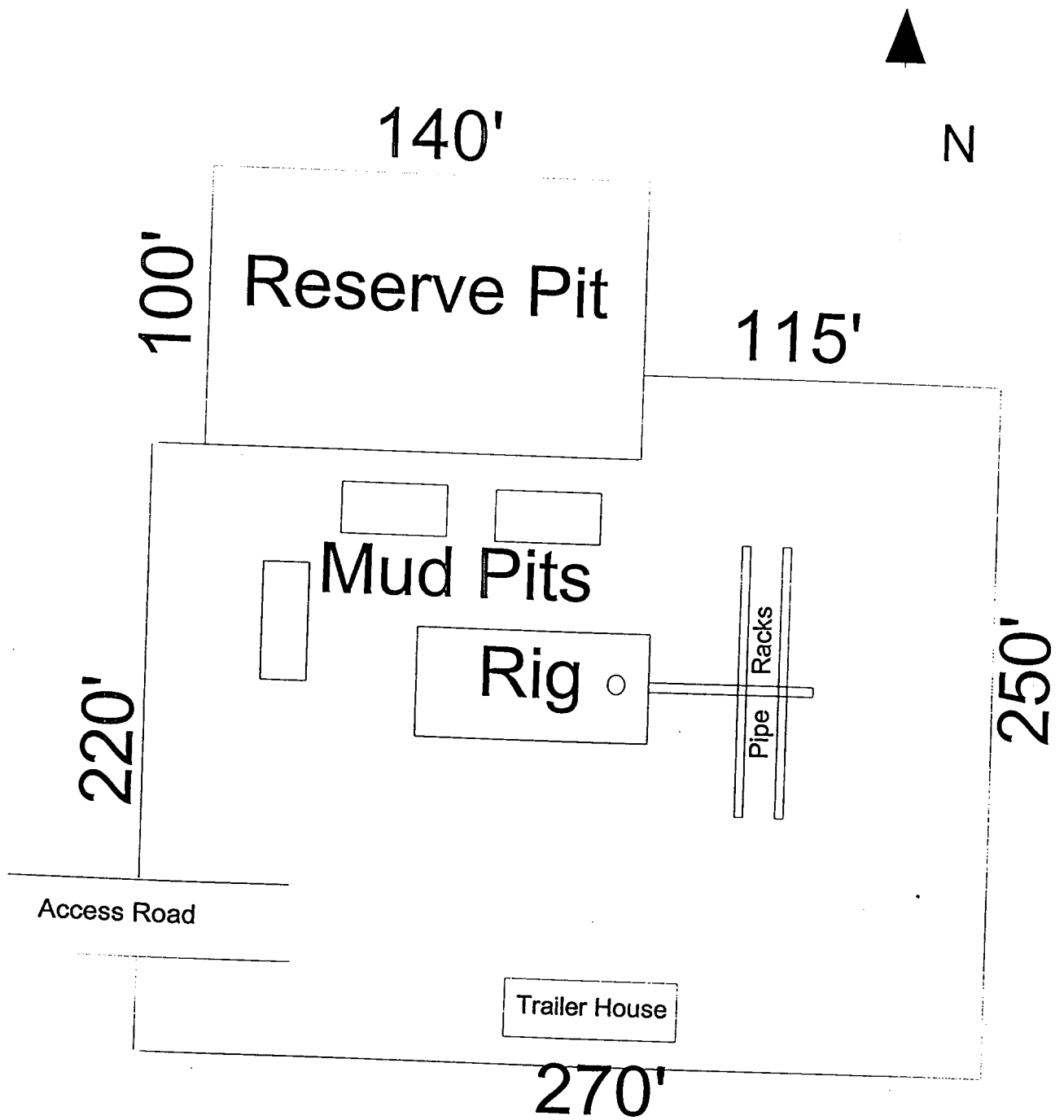
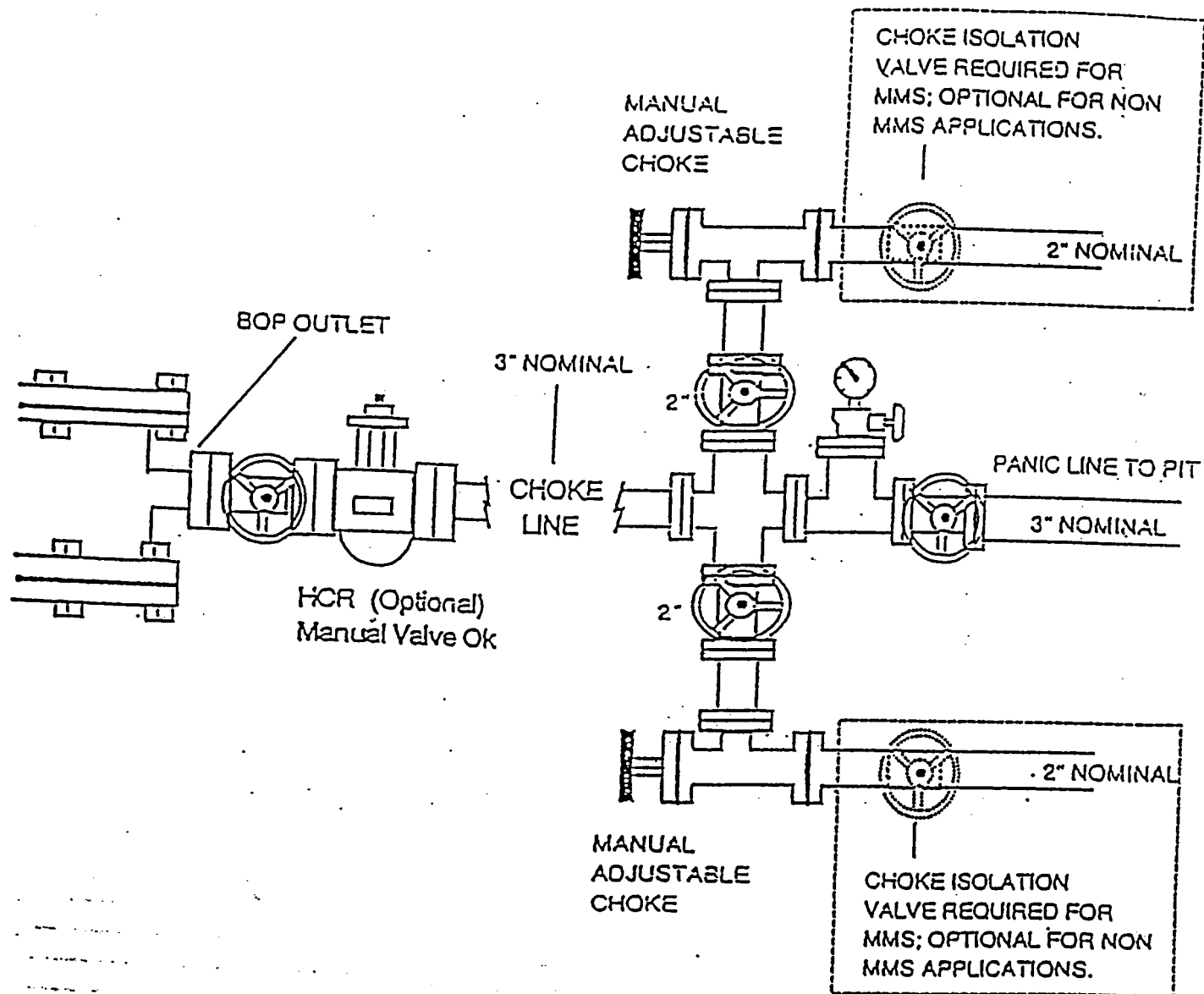


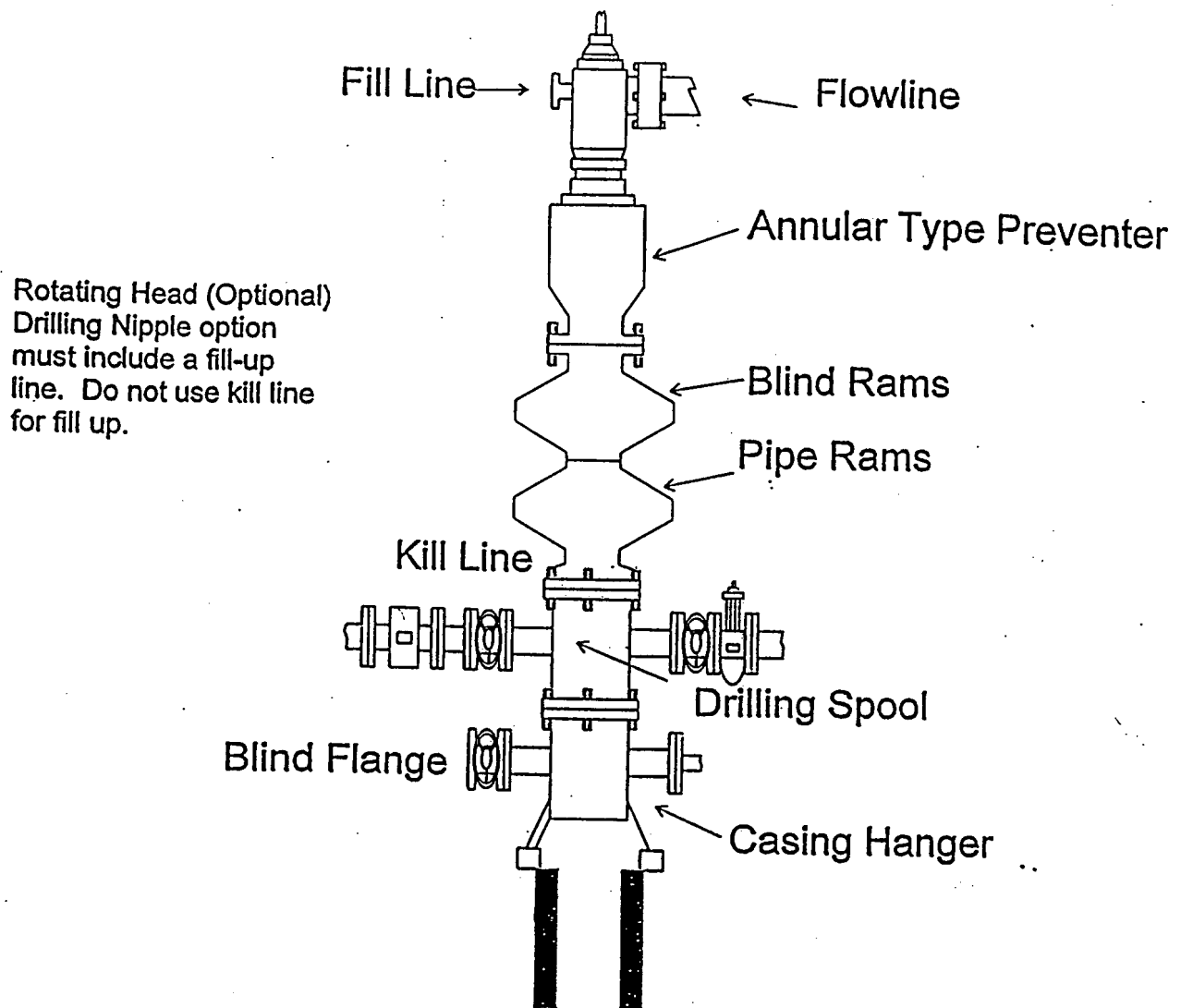
EXHIBIT B  
DRILLING RIG LAYOUT  
NEARBURG PRODUCING COMPANY

SCALE 1" = 50'

NEARBURG PRODUCING COMPANY  
CHOKE MANIFOLD  
2M AND 3M SERVICE



NEARBURG PRODUCING COMPANY  
BOPE SCHEMATIC



900 Series



**HYDROGEN SULFIDE DRILLING OPERATIONS PLANS  
NEARBURG PRODUCING COMPANY  
KUDU 9 FEDERAL #3**

**1. HYDROGEN SULFIDE TRAINING**

- A. All regularly assigned personnel, contracted or employed by Nearburg Producing Company, will receive training from a qualified instructor in the following areas prior to commencing drilling potential hydrogen sulfide bearing formations in this well:
  - 1. The hazards and characteristics of hydrogen sulfide (H<sub>2</sub>S).
  - 2. The proper use and maintenance of personal protective equipment and life support systems.
  - 3. The proper use of H<sub>2</sub>S detectors, alarms, warning systems, briefing areas, evacuation procedures and prevailing winds.
  - 4. The proper techniques for first aid and rescue procedures.
- B. In addition, supervisory personnel will be trained in the following areas:
  - 1. The effects of H<sub>2</sub>S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
  - 2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
  - 3. The contents and requirements of the H<sub>2</sub>S Drilling Operations Plan.
- C. There will be an initial training session just prior to encountering a known or probable H<sub>2</sub>S zone (within 3 days or 500 feet) and weekly H<sub>2</sub>S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H<sub>2</sub>S Drilling Operations Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

## **HYDROGEN SULFIDE DRILLING OPERATIONS PLANS**

### **PAGE 2**

#### **2. H2S SAFETY EQUIPMENT AND SYSTEMS**

Note: All H2S safety equipment and systems will be installed, tested and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H2S.

##### **A. Well Control Equipment:**

1. Flare line with continuous pilot.
2. Choke manifold with a minimum of one remote choke.
3. Blind rams and pipe rams to accommodate all sizes with properly sized closing unit.
4. Auxiliary equipment to include: annular preventer, mud-gas separator, rotating head and flare gun with flares as needed.

##### **B. Protective Equipment for Essential Personnel:**

Mark II Surviveair 30-minute units located in the dog house and at briefing areas, as indicated on well site diagram.

##### **C. H2S Detection and Monitoring Equipment:**

1. Two portable H2S monitors positioned and location for best coverage and response. These units have warning lights and audible sirens when H2S levels of 20 ppm are reached.
2. One portable SO2 monitor positioned near flare line.

##### **D. Visual Warning systems:**

1. Wind direction indicators as shown on well site diagram.
2. Caution/Danger signs shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used when appropriate. See example attached.

**HYDROGEN SULFIDE DRILLING OPERATIONS PLANS**  
**PAGE 3**

**E. Mud Program**

1. The Mud Program has been designed to minimize the volume of H<sub>2</sub>S circulated to the surface. Proper mud weights, safe drilling practices and the use of H<sub>2</sub>S scavengers will minimize hazards when penetrating H<sub>2</sub>S bearing zones.
2. A mud-gas separator will be utilized as needed.

**F. Metallurgy**

All drill strings, casing, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifold and line and valves shall be suitable for H<sub>2</sub>S service.

**G. Communication**

1. Cellular telephone communications in company vehicles and mud logging trailer.
2. Land line (telephone) communications at area office.

**H. Well Testing**

Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity, which are necessary to safely and adequately conduct the test. The drill stem testing in an H<sub>2</sub>S environment will be conducted during the daylight hours.

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: Nearburg Producing Company Telephone: 686-8235 e-mail address: s.jordan@nearburg.com  
Address: 3300 N A St., Bldg 2, Ste 120, Midland, TX 79705  
Facility or well name: Kudu 9 Fed #3 API #: 30-025-37079 U/L or Qtr/Qtr I Sec 9 T 19S R 33E  
County: Lea Latitude \_\_\_\_\_ Longitude \_\_\_\_\_ NAD: 1927 ☒ 1983 ☐ Surface Owner Federal ☐ State ☒ Private ☐ Indian ☐

#### Pit

Type: Drilling ☒ Production ☐ Disposal ☐  
Workover ☐ Emergency ☐  
Lined ☒ Unlimited ☐  
Liner type: Synthetic ☒ Thickness 12mil Clay ☐ Volume \_\_\_\_\_ bbl

#### Below-grade tank

Volume: \_\_\_\_\_ bbl Type of fluid: \_\_\_\_\_  
Construction material: \_\_\_\_\_  
Double-walled, with leak detection? Yes ☐ If not, explain why not. \_\_\_\_\_

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	(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	(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	(0 points)	X
Ranking Score (Total Points)			0

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: 7/8/04

Printed Name/Title: Sarah Jordan, Production Analyst

Signature: [Signature]

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: \_\_\_\_\_

PETROLEUM ENGINEER

Printed Name/Title: FEB 07 2005

Signature: [Signature]

PREPARED FOR:

Mr. Butch Willis  
**NEARBURG PRODUCING COMPANY**  
Midland, Texas



**Kudu 9 Federal # 3**  
Section 9  
T-19-S  
R-33-E  
Lea County, New Mexico

Prepared by:  
Jason Edwards  
July 15, 2004

## DRILLING FLUID SYNOPSIS

Kudu 9 Federal # 3  
Section 9  
T-19-S  
R-33-E  
Lea County, New Mexico

### Recommended Casing

8 5/8"      at      1,550'  
4 1/2"      at      4,000'

DEPTH	MUD WEIGHT	VISCOSITY	FLUID LOSS	DRILL SOLIDS	COMMENTS
0'-1,550'	8.4 to 8.5	28 to 29	No Control	<1%	Fresh Water, Star NP-110, Lime, Paper
1,550'-3,000'	9.0 to 10.0	28 to 29	No Control	<1%	Cut Brine, Star NP-110, Caustic, Paper
3,000'-4,000'	9.0 to 10.0	30 to 32	<20cc	<5%	Star NP-110, Starch, Caustic

## ESTIMATED FORMATION TOPS

RUSTLER	1,530'
TANSILL	3,120'
YATES	3,350'
SEVEN RIVER	3,680'
TD	4,000'

## RECOMMENDED CASING PROGRAM

8 5/8" at 1,550'

4 1/2" at 4,000'

## RECOMMENDED DRILLING FLUID PROGRAM

DEPTH	WEIGHT	VISCOSITY	FILTRATE
0'-1,550'	8.4-8.5	28-29	No Control

Spud with a Fresh Water Gel and Lime type fluid, circulating through the working pits. Use Paper, as needed, for seepage control. . If lost returns are encountered, please refer to **Ambar Lone Star's Lost Circulation Procedure**.

DEPTH	WEIGHT	VISCOSITY	FILTRATE
1,550'-3,000'	9.0-10.0	28-29	No Control

Drill out with cut brine, circulating through the reserve. Use Caustic to control pH at 9-10. Utilize Star NP-110 for sweeps and to control solids. Additions of Paper should be made as needed for seepage. While drilling this interval, monitor back ground gas and adjust the fluid weight if needed, with additions of brine. There is a potential for lost returns in this interval. If lost returns are encountered, please refer to **Ambar Lone Star Mud's Lost Circulation Procedure**. If a mud is required in this interval for evaluation, we recommend you mud up as discussed in the next interval.

DEPTH	WEIGHT	VISCOSITY	FILTRATE
3,000'-4,000'	9.0-10.0	30-32	<20cc

At 3,600', or as hole conditions dictate, return to the working pits and mud up with a **Star NP-110/Starch** system. Use Caustic Soda to control pH at 9.0 to 9.5. Use Starch for an API fluid loss of less than 20cc. It will be necessary to monitor sulfite-reducing bacteria with this system. Our engineer will perform this test at the well, and recommend additions of bactericide as needed to control. If abnormal pressure is encountered, adjust the fluid weight with brine as needed. There is a potential for lost returns in this interval. If lost returns are encountered, please refer to **Ambar Lone Star's Lost Circulation Procedure**. Prior to evaluation or running pipe, sweep the hole with a viscous Salt Gel sweep.

**Estimated Drilling Fluid Cost: \$4,000.00 to \$8,000.00**

**Estimated Drilling Days: 7 to 9**

Cost is based on a 600 bbl system and does not reflect lost circulation, water flows, or abnormal pressures.



## **AMBAR LONE STAR FLUID SERVICES LOST CIRCULATION PROCEDURES**

Loss of circulation is a possibility on this well. Although each well is different, there are some basic procedures and drilling practices that can aid in reducing the severity or, in some cases, prevent lost circulation. Below is a list, which may prove helpful.

1. Maintain viscosities as low as possible and still clean the hole. We recommend a viscosity of 28 to 32 on this well.
2. Maintain mud weights as low as possible without jeopardizing safety.
3. Use slow trip speeds to prevent swabbing and surging.
4. Break circulation in stages with reduced pump strokes while tripping in the hole.
5. Rotate pipe prior to and while tripping in the hole.
6. Use an optimum hydraulics program.

Severe seepage to total loss of circulation may occur even when the above procedures are followed. For severe seepage, we recommend circulating pills (50-100 bbls. depending on hole size) containing 10-30 ppb of various (fibrous and flake) lost circulation material. It would be helpful to reduce pump rates until full returns are established. Once full returns are regained, normal pump rates should be returned to in stages. The inclusion of lost circulation material in the entire system is recommended only if the above procedures do not adequately seal off the loss zone.

For total loss of circulation, we recommend pulling enough stands to place the bit above the loss zone. A viscous pill containing the appropriate type of loss circulation material should be spotted. The size of the pill should be determined by hole size and should contain at least 30 ppb lost circulation material. Several attempts should be made before considering other alternatives. After returns are regained, we recommend staging back to bottom using the procedure outlined above.

If returns are not fully re-established, consideration should be given to dry drilling while pumping periodic sweeps to ensure hole cleaning.

**Midland, TX 79705**

RECEIVED  
Hobbs  
000

**Kudu 9 Federal #3  
1650 FSL and 330 FEL  
Sec 9, T19S, R33E  
Lea County, New Mexico**

**PUBLIC PROTECTION PLAN  
NEARBURG PRODUCING COMPANY**

**TABLE OF CONTENTS**

	SECTION
PURPOSE .....	1
SCOPE .....	2
DEFINITIONS .....	3
THE PLAN .....	4
DISTRIBUTION AND REVIEW .....	5
APPROVALS .....	6
APPENDIX A      ROE calculation data .....	7
APPENDIX B      Contact Information .....	8
APPENDIX C      Site specific plans .....	9
APPENDIX D      Emergency Equipment .....	10
APPENDIX E      Layout Diagram .....	11
APPENDIX F      Revision Log .....	12

# **PUBLIC PROTECTION PLAN**

## **NEARBURG PRODUCING COMPANY**

### **1. PURPOSE**

This plan is intended to protect the health and safety of the public, contractors and Nearburg Producing Company (NPC) personnel should an unanticipated release of a potentially hazardous volume of Hydrogen Sulfide (H<sub>2</sub>S) occur.

Further to:

- Comply with the Bureau of Land Management's (BLM) Onshore Oil and Gas Operations Onshore Oil and Gas Order No. 6, Hydrogen Sulfide Operations (43 CFR Part 3160).
- Comply with the State of New Mexico Oil Conservation Division's (NMOCD) rule 19 NMAC 15.C 118.
- Assure proper notification of the appropriate parties and agencies.

### **2. SCOPE**

The provisions of this document are intended to address Hydrogen Sulfide (H<sub>2</sub>S) releases and H<sub>2</sub>S emergencies at Nearburg Producing Companies production batteries and all surrounding operated field locations in the McKittrick Hills Field. Facilities for which calculations indicate a potential hazardous volume of H<sub>2</sub>S could occur have additional site specific response information and radius of exposure drawn on the attached plat map. The field is located approximately 20 miles west of Carlsbad, New Mexico (Eddy County).

This plan is intended to be used in conjunction with the Emergency Response plan that is available at the Artesia Field Office and applies to RMS Level 1 incidents.

### **3. DEFINITIONS**

**All Clear** - Notification of effected personnel, by the response leader, that the incident has ended and the area is safe to re-enter.

**A Potentially Hazardous Volume** - a volume of Hydrogen Sulfide (H<sub>2</sub>S) gas of such concentrate that:

- The 100-ppm ROE includes any public area.
- The 500-ppm ROE includes any public road.
- The 100-ppm ROE exceeds 3,000 feet.

**Facility** – Equipment involved in producing, processing, or transporting natural gas and/or crude oil, including the property to the edge of the pad or fence.

## **PUBLIC PROTECTION PLAN NEARBURG PRODUCING COMPANY**

**Hydrogen Sulfide Gas (H<sub>2</sub>S)** – is extremely flammable, colorless, poisonous gas that may occur naturally as a component of production streams, such as crude oil, produced water and natural gas. At low concentrations it has a rotten egg odor, but at higher concentrations deadens the sense of smell. Its specific gravity is heavier than air giving it a tendency to collect in low-lying areas on still days. The permissible exposure limit is 10 ppm and the short term exposure limit is 15 ppm. It is considered to be immediately dangerous to life and health at 300 ppm. H<sub>2</sub>S is readily dispersed in air and is water soluble.

**ICS (Incident Command System)** – A team based concept for emergency response in which roles and responsibilities are predetermined.

**Incident Commander (IC)** – Senior Nearburg Producing Company employee in charge of an emergency response.

**Incipient Stage Fire** – A fire in the beginning or very early stages of development, which can be effectively extinguished by one or more persons with portable fire fighting equipment.

**Muster Site** – A pre-defined staging or meeting area.

**RMS Level I** – an emergency that can be reasonably addressed by Artesia Area Office in which the incident occurs and that can be resolved in approximately two days or less.

**ROE (Radius of Exposure)** – The radius constructed with the point of escape (of gas) as its starting point and its length calculated using the Pasquill-Gifford derived equation or computer modeling where the H<sub>2</sub>S concentration is greater than 10%.

**PPM** – Parts per Million

**Public Area** – Any building or structure that is not associated with the well, facility or operation for which the ROE is being calculated and that is used as a dwelling, office, place of business, church, school, hospital or government building, or any portion of a park, city, town, village, or designated school bus stop or other similar area where members of the public may reasonably be expected to be present.

**Public Road** – Any federal, state, municipal or county road or highway.

**Serious Incident** – An event which results or has the potential to result in severe personal injury and/or significant equipment damage.

**Sulfur Dioxide (SO<sub>2</sub>)** – A heavy colorless toxic gas that is formed when hydrogen sulfide is burned. It has a pungent odor and is a respiratory irritant. The permissible exposure limit is 2 ppm, the short term exposure limit is 5 ppm. It is considered to be immediately dangerous to life and health at 100 ppm. SO<sub>2</sub> is readily dispersed in air and is water soluble.

**Total Personnel Evacuation** – An evacuation of all persons (contract employees, or visitors) from the emergency area to a muster area.

## **PUBLIC PROTECTION PLAN NEARBURG PRODUCING COMPANY**

### **4. THE PLAN**

#### **Training:**

All personnel (company, contractors and sub-contractors) working in the field for NPC are required to complete hydrogen sulfide training before beginning work and annually thereafter.

Training on the contents of this plan shall be provided to all NPC and appropriate contract personnel working for NPC:

- whenever the employees' responsibilities or designated actions under the plan change,
- whenever the contents of the plan are changed/revised
- whenever a new employee begins employment, and
- periodically as needed for all employees.

Nearburg Producing Company supervision is responsible for this training.

#### **Orientation:**

All persons visiting or working at Indian Basin shall receive an orientation covering the following minimum items:

- ☐ What types of emergencies are possible,
- ☐ What the emergency evacuation alarm sounds like in the gas plant,
- ☐ How to report an incident/emergency,
- ☐ Who will be in charge during an emergency,
- ☐ How to safely evacuate the plant, and
- ☐ Where to assemble so that all persons can be accounted for.

The NPC representative responsible for the contractors or visitors shall conduct the orientations and shall document attendees and dates.

#### **H2S Monitors:**

All personnel working at the Indian Basin are required to wear personal H2S monitor at all times when working in the plant or field. Monitors should have a vibrating alarm if used in high noise areas.

#### **Activation:**

Phase I – activated when:

1. Sustained H2S concentration reaches 10 parts per million (ppm) in any work area and the source is not readily identified and/or controllable.
2. Continuous H2S levels are detected at 10 ppm (or greater) at any public road, near an occupied residence or bus stop, and the source is not readily identified and/or immediately controlled.

Phase II – activated when:

1. A potentially hazardous volume of H2S is detected.
2. When sustained H2S concentrations exceed 50 ppm at any facility boundary.

## PUBLIC PROTECTION PLAN NEARBURG PRODUCING COMPANY

### **Phase I:**

Upon discovery on-site personnel should:

- ☐ Make others on-site aware of the presence of H<sub>2</sub>S and leave the area upwind or crosswind to a safe location. (Pre-determine if a pre-job tailgate meeting was conducted).
- ☐ Prevent unauthorized persons from entering the area. Request assistance if needed.
- ☐ If a residence or other public area is in the vicinity, monitor for H<sub>2</sub>S to ensure exposure is less than 10 ppm. Notify supervisor if higher exposures are noted or if any other questions arise about steps necessary to protect these sensitive areas.
- ☐ If considering re-entering the area to assess the H<sub>2</sub>S source, ensure you have been properly trained to respond. Use an H<sub>2</sub>S monitor with digital display (preferably a multi-gas monitor) and have a supplied air respirator (SAR) and back up person with SAR readily available. Consider notification of supervisor if appropriate.
- ☐ Proceed with caution. If H<sub>2</sub>S concentration reaches 10 ppm in your breathing zone, back out and use SAR to re-enter. **If H<sub>2</sub>S concentration reaches 50 ppm at the facility boundary, immediately notify supervision.**
- ☐ If source can be safely controlled, monitor area to ensure H<sub>2</sub>S levels are below 10 ppm. End response here and sound all clear to allow others to re-enter the area. Report length of release and volume to supervisor.
- ☐ If the source of H<sub>2</sub>S cannot be identified and/or controlled, or if you cannot do so without exposing yourself to danger, leave the area to a safe distance.
- ☐ Notify supervision.
- ☐ Continue to monitor for H<sub>2</sub>S and maintain site security until instructed by supervision to do otherwise.

Supervision:

- ☐ Gather necessary information to determine the course of action and level of response.
- ☐ Mobilize any additional man power or equipment necessary.
- ☐ Ensure Phase II measures are implemented if appropriate.
- ☐ Continue to monitor situation until incident is over.
- ☐ Make notifications if required.
- ☐ Complete reports if required.
- ☐ Investigate as indicated.

### **Phase II**

Upon discovery on-site personnel should:

- ☐ Make others on-site aware of the presence of H<sub>2</sub>S and leave the area upwind or crosswind to a safe location. (Pre-determined if a pre-job tailgate meeting was conducted).
- ☐ Prevent authorized persons from entering the area.
- ☐ **Notify Supervisor.**

Supervision:

- ☐ Initiate the Incident Command System as deemed appropriate.
- ☐ Mobilize the resources necessary to maintain site security and provide for the protection of personnel and the public.
- ☐ Issue warnings to all NPC personnel by radio and/or phone (IB Contact List) to make them aware of the incident and its location. Have non-essential personnel leave the area. If deemed necessary, order a total personnel evacuation of the area.

## **PUBLIC PROTECTION PLAN NEARBURG PRODUCING COMPANY**

- ☐ Notify non-company personnel known to work or reside in the area (IB Contact List). If necessary to ensure their safety, dispatch NPC personnel with the appropriate monitor, supplied air respirators and means of communication to these locations. (*Appendix B*)
- ☐ Have NPC personnel set up road blocks to prevent unauthorized entry into impacted areas until relieved by law enforcement or other authorized personnel.
- ☐ Make all appropriate notifications to NPC, Federal, State and local authorities.
- ☐ When the release has been contained and monitoring indicates the area is safe to re-enter, terminate operations and sound the all clear.
- ☐ Complete records if required.
- ☐ Investigate as indicated.
- ☐ For spills, well blowouts, fires, natural disasters and terrorist or bomb threats

All other personnel not involved in the immediate response:

- ☐ If a total evacuation is ordered, report to the incident command center or nearest muster site to which you have safe access. (See Appendix A for muster site locations)
- ☐ Ensure all contract personnel working for you (or in your area) are accounted for and have them report to a safe muster site.
- ☐ Senior employee at each muster site should make a roster of all personnel reporting to that muster site and be prepared to make it available to the incident commander (IC).
- ☐ Maintain communication with the IC and be prepared to offer assistance as it is requested.

### **Ignition of H<sub>2</sub>S:**

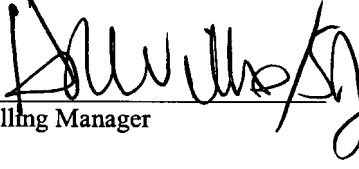
While no uncontrollable release of H<sub>2</sub>S is anticipated, should ignition of gas be necessary for the protection of personnel or the public, the determination would be made by the NPC Incident Commander. The method of ignition will maintain the safety of the person performing this task as the primary concern. The most likely method would be the use of a flare gun from a safe distance.

If this becomes necessary, monitoring will include sulfur dioxide (SO<sub>2</sub>) in addition to H<sub>2</sub>S.



**PUBLIC PROTECTION PLAN  
NEARBURG PRODUCING COMPANY**

**6. APPROVALS**

Approved by: Name:  Date: 7.19.01  
Title: Drilling Manager

Name:  Date:   
Title: Production Supervisor

**NEARBURG PRODUCING COMPANY  
REGULATORY CONTACTS**

Agency	Contact Name		Division/Area	Main Phone #	Cell Phone	Home Phone #
	First	Last				
NMOCD	Emergency Number		District 1	505-370-7106		
NMOCD	Field Rep On-Call		District 1	505-370-7106		
NMOCD	Chris	Williams	District 1	505-393-6161	505-370-3182	
NMOCD	Sylvia	Dickey	District 1	505-393-6161		
NMOCD	Elidio	Gonzales	District 1	505-393-6161	505-370-3177	
NMOCD	Buddy	Hill	District 1	505-393-6161	505-370-3180	
NMOCD	Larry	Johnson	District 1	505-393-6161	505-370-3184	
NMOCD	Lori	Wortenberhy	Santa Fe Division Ofc.	505-827-7131	505-476-3460	505-466-0134
NMOCD	Ed	Martin	Santa Fe Division Ofc.	505-827-7131	505-476-3492	505-685-4056
NMOCD	Roger	Anderson	Santa Fe Division Ofc.	505-827-7131	505-476-3490	505-471-2017
NM State Police			District 1, Hobbs	505-392-5588		
BLM			Hobbs	505-393-3612		
US Coast Guard			National Response Center	800-424-8802		
NMED			Air Quality Bureau	505-827-1494		
	State Emergency Response Center			505-827-9126		
NM OSHA	New Mexico OSHA Ofc.			505-827-2850		

## EMERGENCY SERVICES

Service Provider	Description	Main Phone	
<b>General Emergency</b>	<b>Police, Fire, Ambulance</b>	<b>911</b>	
Hobbs Police, Fire, Ambulance Service		505-397-9265	
Lea Regional Hospital	Medical Services	505-392-1979	
Hobbs Fire Dept.	Fire Control	505-397-9308	
Lea County Sheriff		505-394-2020	

**NEARBURG PRODUCING COMPANY  
EMERGENCY RESPONSE PLAN**

<b>Position</b>	<b>Office Phone</b>	<b>Cell Phone #</b>	<b>Home Phone #</b>
<b>Drilling Superintendent</b>			
Butch Willis	432-686-8235 (223)		
<b>Production Superintendent</b>			
Matt Lee	505-746-0422	505-365-6662	505-746-0932
<b>Operations</b>			
Roger King	505-746-0422	505-361-3605	505-885-3605
Rick Foutch	505-746-0422	505-361-4211	505-887-7844
Jerry Stark	505-746-0422	505-365-4672	505-746-3862
<b>Planning Section</b>			
Fred White	214-739-1778	469-644-1326	972-931-8845
Bob Shelton	432-686-8235 (214)	432-682-3100	432-528-6134
<b>Public Affairs</b>			
Bob Shelton	432-686-8235 (214)	432-682-3100	432-528-6134