

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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

1301 W. Grand Avenue

Artesia, NM 88210

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

## APPLICATION FOR PERMIT TO DRILL OR REENTER

JAN 20 2005

5. Lease Serial No.  
NMNM97110

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No.

8. Lease Name and Well No.

9. API Well No.

10. Field and Pool, or Exploratory

11. Sec., T., R., M., or Blk. and Survey or Area

Sec 13, 22S, 24E

12. County or Parish

13. State

Eddy

NM

17. Spacing Unit dedicated to this well

160

20. BLM/BIA Bond No. on file

NM1307

1a. Type of Work

☒ DRILL☐ REENTER

1b. Type of Well

☒ Oil Well☐ Gas Well☐ Other☐ Single Zone☐ Multiple Zone

2. Name of Operator

Nearburg Producing Company

3a. Address

3300 N A St., Bldg 2, Suite 120, Midland, TX 79705

3b. Phone No. (include area code)

432/686-8235

4. Location of Well (Report location clearly and in accordance with any State requirements)\*

At surface

990 FSL and 1650 FEL

2008 FNL + 991 FWL - 13

At proposed prod. zone

1980 FSL and 1650 FEL

1980 FSL + 1980 FEL - 13

14. Distance in miles and direction from nearest town or post office\*

13-1/2 miles west of Carlsbad

15. Distance from proposed\*  
location to nearest  
property or lease line, ft.  
(Also to nearest drg. unit line, if any)SUBJECT TO LIKE  
990 APPROVAL BY STATE 16018. Distance from proposed location\*  
to nearest well, drilling, completed,  
applied for, on this lease, ft.

1140

19. Proposed Depth

8600'

21. Elevations (Show whether DF, KDB, RT, GL, etc.)

3914

22. Approximate date work will start\*

9/1/04

23. Estimated duration

30 days

24. Attachments

CARLSBAD 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

Name (Printed/Typed)

Date

Title

Sarah Jordan

6/28/04

Production Analyst

Approved by (Signature)

Name (Printed/Typed)

Date

/s/ Joe G. Lara

/s/ Joe G. Lara

JAN 14 2005

Title

Office

ACTING FIELD MANAGER

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)

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: NMNM97110

Legal Description of Land: SHL: 2008 FNL and 991 FWL, Sec 13, 22S, 24E  
BHL: 1980 FSL and 1980 FEL, Sec 13, 22S, 24E  
Eddy County, New Mexico

Formation(s) (if applicable): Upper Penn, Associated

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

BLM Bond File No: NM1307

1-13-05  
Date

H. R. Willis  
Drilling Manager

Post-it® Fax Note	7671	Date	1-13-05	# of pages	1
To	Linda Dennison	From	Sarah Jordan		
Co./Dept.	BLM	Co.	Nearburg Prod.		
Phone #		Phone #	432/686-8235		
Fax #	505/885-9264	Fax #			x: 203



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**  
Governor

May 10, 2004

**Joanna Prukop**  
Cabinet Secretary  
Acting Director  
Oil Conservation Division

Nearburg Exploration Company, L.L.C.  
c/o Holland & Hart LLP  
P. O. Box 2208  
Santa Fe, New Mexico 87504-2208

Attention: William F. Carr

**RECEIVED**

MAY 18 2004

**HOLLAND & HART LLP**

*Administrative Order NSP-1872*

Dear Mr. Carr:

Reference is made to the following: (i) your application dated April 16, 2004 (*administrative application reference No. pMES0-412139757*) on behalf of the operator, Nearburg Exploration Company, L.L.C. ("Nearburg"); and (ii) the records of the New Mexico Oil Conservation Division ("Division") in Santa Fe: all concerning Nearburg's request for the formation of the following described non-standard 160-acre deep gas spacing unit to be applicable to any and all formations and/or pools from the top of the Wolfcamp to the base of the Morrow formation that are:

- (1) developed on 320-acre spacing; and
- (2) governed under the provisions of Division Rule 104.C (2), revised by Division Order No. R-11231, issued by the New Mexico Oil Conservation Commission in Case No. 12119 on August 12, 1999, which presently includes but is not necessarily limited to the Undesignated McKittrick Hills-Upper Pennsylvanian Gas Pool (81160), Undesignated McKittrick Hills-Strawn Gas Pool (81200), Undesignated McKittrick Hills-Atoka Gas Pool (81120), and Undesignated McIver Ranch-Morrow Gas Pool (81070):

**EDDY COUNTY, NEW MEXICO**  
**TOWNSHIP 22 SOUTH, RANGE 24 EAST, NMPM**  
Section 13: SE/4.

This unit is to be dedicated to Nearburg's proposed U. S. Federal "13" Well No. 2, to be drilled at a standard gas well location thereon and pursuant to Division Rule 104.C (2) (a), as revised.

This application has been duly filed under the provisions of Division Rule 104.D (2), as revised.

Nearburg Exploration Company, L.L.C.  
May 10, 2004  
Page 2

Division Administrative Order NSP-1872

By the authority granted me under the provisions of Division Rule 104.D (2) (b), as revised, the above-described 160-acre non-standard deep gas spacing unit for any and all formations from the top of the Wolfcamp formation to the base of the Morrow formation for Nearburg's proposed U. S. Federal "13" Well No. 2.

Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

Sincerely,



Michael E. Stogner  
Engineer/Hearing Officer

MS/ms

cc: New Mexico Oil Conservation Division - Artesia  
U. S. Bureau of Land Management, Carlsbad Resource Area - Carlsbad  
U. S. Bureau of Land Management, New Mexico State Office - Santa Fe

**ATTACHMENT TO FORM 3160-3**  
**US 13 FEDERAL #3**  
**SHL: 990 FSL AND 1650 FEL, SEC 13, 22S, 24E**  
**BHL: 1980 FSL AND 1650 FEL, SEC 13, 22S, 24E**  
**EDDY COUNTY, NEW MEXICO**

**DRILLING PROGRAM**

1. GEOLOGIC NAME OF SURFACE FORMATION

Permian Artesia Group

2. ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS

Delaware	1334 TVD
Bone Spring	2904 TVD
Wolfcamp Shale	7459 TVD
Cisco	7879 TVD

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

Cisco/ Canyon      7879 TVD

4. CASING AND CEMENTING PROGRAM

<u>Casing Size</u>	<u>From</u>	<u>To</u>	<u>Weight</u>	<u>Grade</u>	<u>Joint</u>	<u>WITNESS</u>
WITNESS 9-5/8"	0' - 1,500'	To 1570'	36#	J55	STC	
7"	0' - 8,600'		23 & 26#	K55, N80	LTC & BTC	

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

We plan to drill a 14-3/4" hole to equal 1500'. 9-5/8" casing will be cemented with 700 sxs Class "C" or volume necessary to bring cement back to surface.

8-3/4" hole will be drilled to 8,600' and 7" production casing will be cemented with approximately 1000 sxs of Class "H" 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 1,500' with fresh water mud for surface string. The production section from 1,600' to 8,600' will be 8.3 ppg Fresh 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

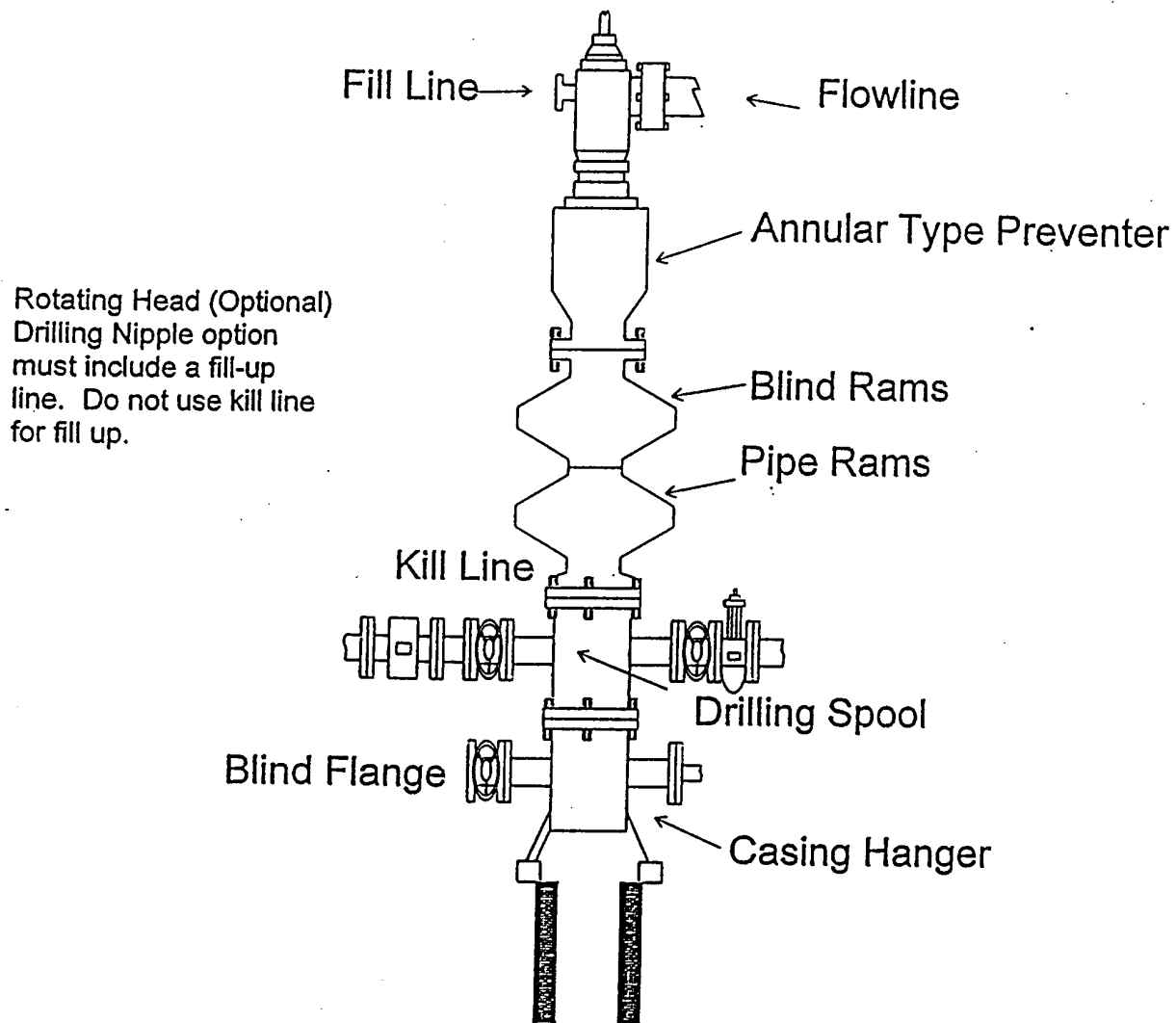
None anticipated.

BHP expected to be 1,100 psi.

10. ANTICIPATED STARTING DATE:

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

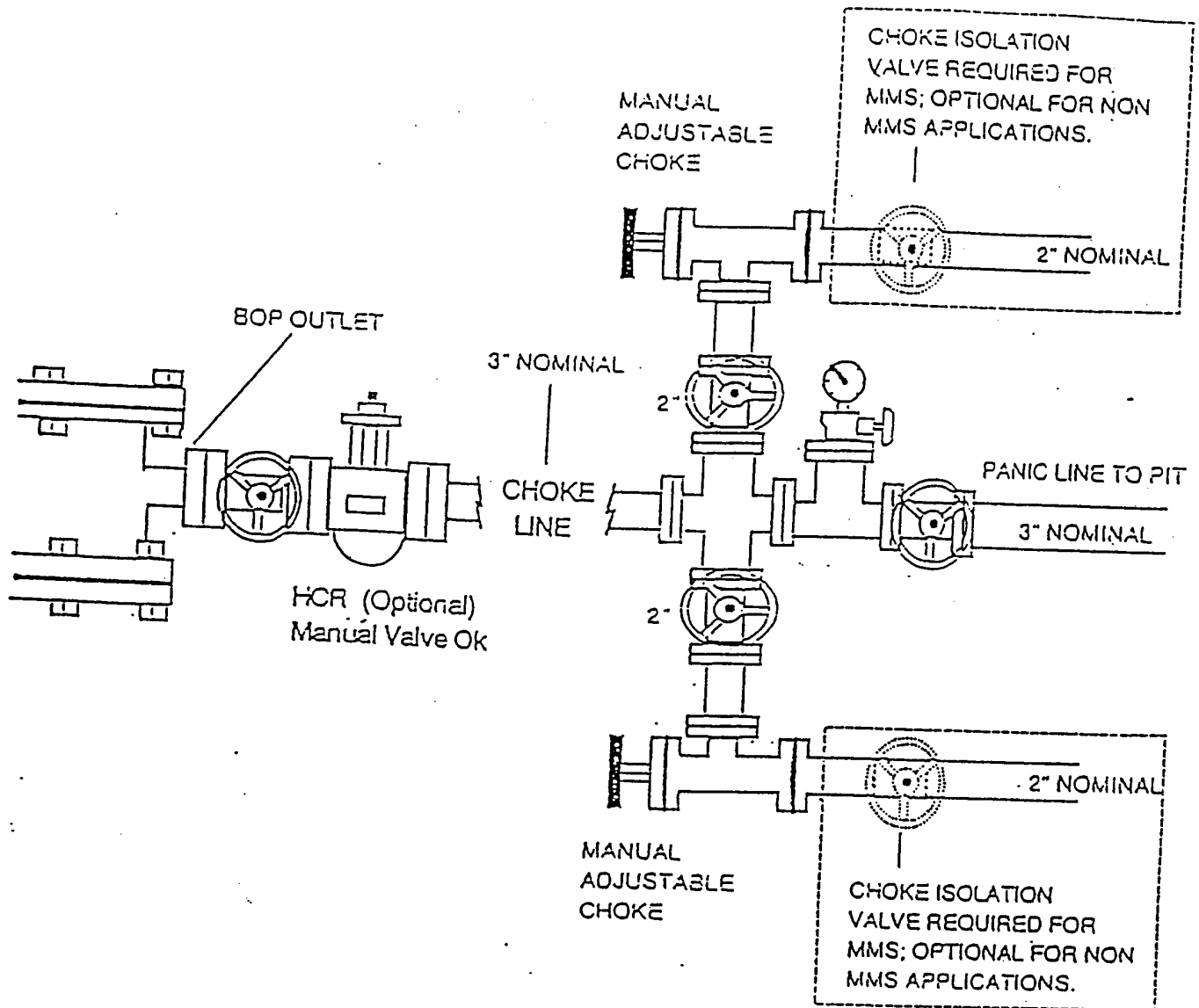
# BOPE SCHEMATIC NEARBURG PRODUCING COMPANY



900 Series

U.S. 13 FEDERAL #1-Y  
1,977' FNL & 998' FWL  
Eddy County, New Mexico

CHOKE MANIFOLD  
2M AND 3M SERVICE



U.S. 13 Federal #1-Y  
1,977' FNL & 998' FWL  
Eddy County, New Mexico

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

**NEARBURG PRODUCING COMPANY**  
**US 13 FEDERAL #3**  
**SHL: 990 FSL AND 1650 FEL, SEC 13, 22S, 24E**  
**BHL: 1980 FSL AND 1650 FEL, SEC 13, 22S, 24E**

**LOCATED**

13-1/2 miles west of Carlsbad

**OIL & GAS LEASE**

NMNM97110

**RECORD LESSEE**

Nearburg Exploration Company

**BOND COVERAGE**

\$25,000 statewide bond of Nearburg Producing Company

**ACRES IN LEASE**

160 acres

**GRAZING LEASE**

Private Surface

**POOL**

Indian Basin; Upper Penn, Associated

**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 8,600'.

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

Agricultural

H. Surface Ownership

Gregory Ranch, Larry Gregory  
617 Queen Hwy, Carlsbad, NM 88220

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.

6-28-04  
Date

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

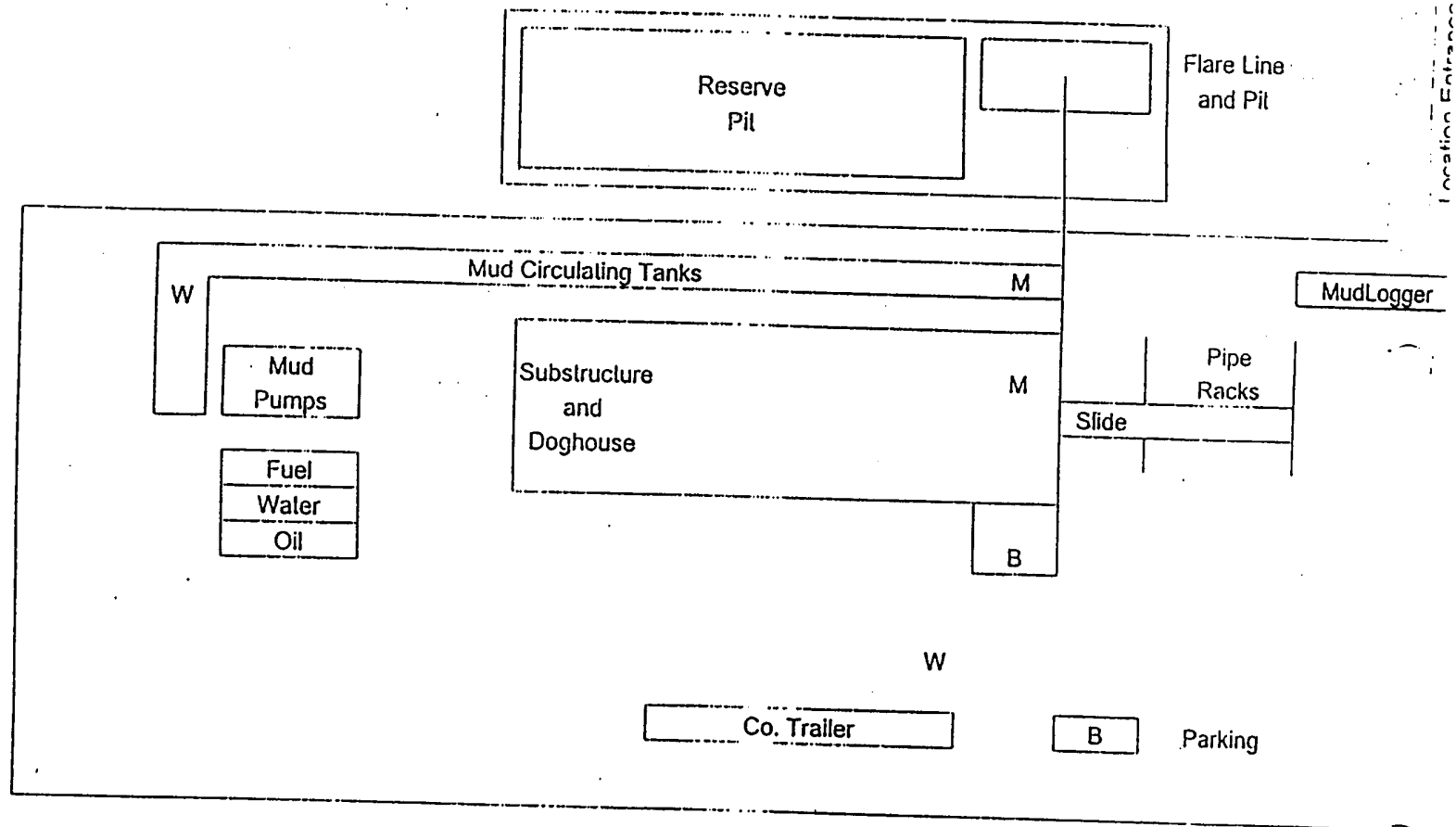
# WARNING

YOU ARE ENTERING AN H S AREA  
2  
AUTHORIZED PERSONNEL ONLY

1. BEARDS OR CONTACT LENSES NOT ALLOWED.
2. HARD HATS REQUIRED.
3. SMOKING IN DESIGNATED AREAS ONLY.
4. BE WIND CONSCIOUS AT ALL TIMES.
5. CHECK WITH NPC SUPT AT MAIN OFFICE.

*Nearburg Producing Company*  
1-432-686-8235

Nearburg Producing Company  
Hydrogen Sulfide Drilling Operations Location Plan



M - H2S Monitors with alarms at bell nipple and shale shaker

W - Wind Direction Indicators

B - Safe Briefing areas with caution signs and protective breathing equipment.  
Minimum 150' from wellhead.

Prevailing Wind Directions: Summer - South/Southwest  
Winter - North/Northwest

**HYDROGEN SULFIDE DRILLING OPERATIONS PLANS  
NEARBURG PRODUCING COMPANY  
US 13 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.

**Nearburg Producing Company**

**3300 N A St., Bldg 2, Suite 120**

**Midland, TX 79705**

**Hydrogen Sulfide (H<sub>2</sub>S) Contingency  
Plan**

**For**

**McKittrick 14 Federal #2**

**SHL: 2008 FNL and 991 FWL, Sec 13, 22S, 24E**

**BHL: 990 FNL and 660 FEL, Sec 14, 22S, 24E**

**Eddy County, New Mexico**

**RECEIVED**

**AUG 02 2005**

**OCD-ARTECIA**

**PUBLIC PROTECTION PLAN  
NEARBURG PRODUCING COMPANY**

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# **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 H2S 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 H2S 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 H2S source, ensure you have been properly trained to respond. Use an H2S 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 H2S concentration reaches 10 ppm in your breathing zone, back out and use SAR to re-enter. **If H2S concentration reaches 50 ppm at the facility boundary, immediately notify supervision.**
- ☐ If source can be safely controlled, monitor area to ensure H2S 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 H2S 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 H2S 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 H2S 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.

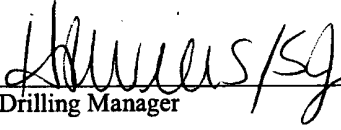
**PUBLIC PROTECTION PLAN  
NEARBURG PRODUCING COMPANY**

**6. APPROVALS**

Approved by:

Name:

Title: Drilling Manager

/sg

Date:

3.24.05

**NEARBURG PRODUCING COMPANY  
REGULATORY CONTACTS**

Agency	Contact Name		Division/Area	Main Phone #	Cell Phone	Home Phone #
	First	Last				
NMOCD	Emergency Number		District 2	505-746-4302		
NMOCD	Field Rep On-Call		District 2	505-939-8622		
NMOCD	Tim	Gum	District 2	505-748-1283	505-626-0824	505-324-1387
NMOCD	Mike	Stubblefield	District 2	505-748-1283	505-626-0831	505-746-6422
NMOCD	Gerry	Guye	District 2	505-748-1283	505-626-0843	505-887-3254
NMOCD	Phil	Hawkins	District 2	505-748-1283	505-626-0836	505-746-9272
NMOCD	Bryan	Arrant	District 2	505-748-1283	505-626-0830	505-748-2092
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 3, Roswell	505-827-9312		
NM State Police			Sub-District 3, Roswell	505-622-7200 (call this # for dispatch to our area)		
BLM			Carlsbad	505-887-6544		
US Coast Guard			National Response Center	800-424-8802		
NMED			Air Quality Bureau	505-827-1494		
	State Emergency Response Center			505-827-9126		
LEPC	Local Emerg. Planning Commission - Eddy County			505-885-2111		
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>	
Carlsbad Police, Fire, Ambulance Service		505-885-2111	
Artesia General Hospital	Medical Services	505-748-3333	
Carlsbad Fire Dept.	Fire Control	505-885-3124	
Artesia Fire Dept.	Fire Control	505-746-2701	
Happy Valley Fire Dept.	Fire Control	505-885-1982	
NM State Police	Sub-District 3, Carlsbad		
NM State Police (Dispatcher)	District 3, Roswell	505-622-7200	
Eddy County Sheriff	Law Enforcement	505-887-7551	

**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

## AREA RESIDENTS AND OFFSET OPERATIONS

Location Description	Contact	Title	Address	City/ST/Zip	Phone 1	Cell	Location Info.
4TK + (Boles)	Wilkie, Mark & Sandi		1073 Marathon Rd.	Carlsbad, NM 88220	505-457-2022		
Foster Ranch	Foster, John		P.O. Box 103	Artesia, NM 88211-0103	505-457-2165		
Forrest Lee Ranch	Lee, Dean		P.O. Box 89	Lakewood, NM 88254	505-457-2301		Trailer house near NIBU 24
Gissler Ranch	Cox, Billy		344 Pinderosa Pine	Carlsbad, NM 88220	505-457-2397		
Gregory's	Gregory, Wayne		617 Queens Hwy.	Carlsbad, NM 88220	505-457-2245		
HH Ranch	Houchtaling, Harold		P.O. Box 234	Artesia, NM 88211-0234	505-457-2245		
Howell Ranch	Howell, Richard		P.O. Box 94	Lakewood, NM 88254	505-457-2602		
Kincaid Ranch	Kincaid, Gene		2913 Octotilly Canyon Dr.	Carlsbad, NM 88220	505-887-6918		
Kincaid Ranch	Kincaid, Hugh		2911 Octotilly Canyon Dr.	Carlsbad, NM 88220	505-885-9458		
							Lives at ranch house just E of Hwy 137 About 2 miles past mile marker 42 towrds Queens.
Kincaid Ranch	Marbauch, Jim		1762 Qureen Hwy.	Carlsbad, NM 88220	505-457-2233		
Old Jones Ranch	Lasiter, Rick				505-457-2108		
Schafer Ranch	Biebelle, Stacey		646 Qureen Hwy.	Carlsbad, NM 88220	505-457-2360		House near low water crossing on Hwy 137
Patsy's old house	DeMoss, Neil				none		
Chevron Oil	Boles, Randy					505-390-7232	
Chevron Oil	Angel, Kenneth					505-390-1540	
Devon	Daniel				505-390-5850		
Devon	Crosbey, Owen				505-748-7749		
Devon	Huber, Mark				505-748-5502		
Devon	Canada, Don				505-748-5503		
Devon	Brady				505-390-5431		
Devon	Huber, Joe	Superintendent			505-390-5438		
Devon	"Doghouse"				505-457-2613		
Duke Energy	Lamb, Johnny	Foreman			505-390-2791		
Duke Energy	Main Office		Carlsbad		505-628-0282		
Duke Energy	Valenzuela, Oscar				505-910-4675		
El Paso	Jacquez, David	Gas Measurement			505-857-2158		
KMG (Kerr McGee)	Deese, Tommy	Superintendent			505-234-2703	505-706-3423	
KMG (Kerr McGee)	Chalker, Andy	Prod. Foreman			505-234-2703	505-910-0342	
KMG (Kerr McGee)	Hess, Bobby	Team Leader			505-234-2703	505-706-3543	
KMG (Kerr McGee)	Wilson, James						
KMG (Kerr McGee)	Brannon, Steve				505-390-1540	505-706-3669	
Yates Petroleum (Agave)	Main Office				505-784-1471		
Yates Petroleum (Agave)	Johnson, Bill	Foreman			505-748-6816	505-365-4615	
Yates Petroleum (Agave)	Moorehead, Robert				505-748-6815	505-365-4840	

PREPARED FOR:

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

**McKittrick 14 Federal # 2**  
Section 13  
T-22-S  
R-24-E  
Eddy County, New Mexico

**RECEIVED**

AUG 02 2005

**OCU-ARTERIA**

Prepared by:  
Randy Auburg  
March 22, 2005

## DRILLING FLUID SYNOPSIS

### NEARBURG PRODUCING CORPORATION

MCKITTRICK 14 FEDERAL # 2

Section 13

T-22-S

R-24-E

Eddy County, New Mexico

#### CASING

9 5/8" at 1,500'

5 1/2" at 8,600'

DEPTH	MUD WEIGHT	VISCOSITY	FLUID LOSS	DRILL SOLIDS	COMMENTS
0-1,500'	8.4 to 8.5	28 to 29	No Control	<1%	Fresh Water, Fresh Gel Sweeps, Lime, Paper
1,500'-8,600'	8.4 to 8.5	28 to 29	No Control	<1%	Fresh Water, Star NP-110, Paper, Lime Starch if needed

## ESTIMATED FORMATION TOPS

SAN ANDRES	495'
GLORIETA	2,018'
YESO	2,110'
BONE SPRINGS	4,600'
WOLFCAMP	7,548'
PENN (CISCO)	7,775'
CANYON	7,895'
TD	8,600'

## RECOMMENDED CASING PROGRAM

9 5/8" at 1,600'

5 1/2" at 8,600'

## RECOMMENDED DRILLING FLUID PROGRAM

<u>DEPTH</u>	<u>WEIGHT</u>	<u>VISCOSITY</u>	<u>FILTRATE</u>
0-1,500'	8.4-8.5	28-29	No Control

Spud with Fresh Water circulating the working pits. Sweep the hole with Amgel flocculated with Lime, mixed at a 10 to 1 ratio. Use Paper for seepage control and for sweeps. There is a potential for lost returns in this interval. If lost returns are encountered and circulation cannot be regained after pumping several viscous LCM pills, you should consider dry drilling to casing point. While dry drilling, we recommend periodically pumping viscous LCM sweeps to prevent solid accumulation in annulus.

<u>DEPTH</u>	<u>WEIGHT</u>	<u>VISCOSITY</u>	<u>FILTRATE</u>
1,500'-8,600'	8.4-8.5	28-29	No Control

Drill out from surface with Fresh Water circulating the reserve pit. Use Star NP-110 for sweeps and for solids control. Maintain a 9.0 to 10.0 pH with Lime. Paper should be used for seepage control and for sweeps. Sweep the hole every 200', or as needed, with pre-hydrated Amgel in order to minimize solids buildup in the annulus and to reduce the possibility of lost circulation while drilling the Upper Pennsylvanian and other sub-normally pressured formations. There is a potential for lost returns in this interval. If lost returns are encountered and circulation cannot be regained after pumping several viscous LCM pills, you should consider dry drilling to casing point. While dry drilling, we recommend periodically pumping viscous LCM sweeps, to prevent solid accumulation in annulus. There is a possibility of encountering H<sub>2</sub>S from the Bone Springs and the Upper Pennsylvanian. If H<sub>2</sub>S is encountered, we recommend additions of an H<sub>2</sub>S Scavenger for personnel safety and a Filming Amine to protect the drill string. We recommend utilizing a ±200 bbl premix pit for sweeps and LCM pills.

Note: we recommend use of an LCM blend of Fiber Plug, Nut Shell, Maxi-Seal (Chem-Seal), and Mica in this interval.

If a drilling fluid is desired for evaluation of this interval, we recommend returning to the working pits and mudding up with a Star NP-110/Starch system. Reduce the API fluid loss too less than 15cc with Starch. Maintain a 9.0 to 10.0 pH with Lime. Use Amgel if additional viscosity is required.

**Estimated Drilling Fluid Cost: \$4,000.00 to \$5,000.00**

**Estimated Drilling Days: 13 to 16**

**Estimates are based on a 1,000 bbl system and do not reflect lost circulation, abnormal pressure, H<sub>2</sub>S, unstable hole conditions requiring elevated viscosities or mud in production interval.**

## **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 29 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.

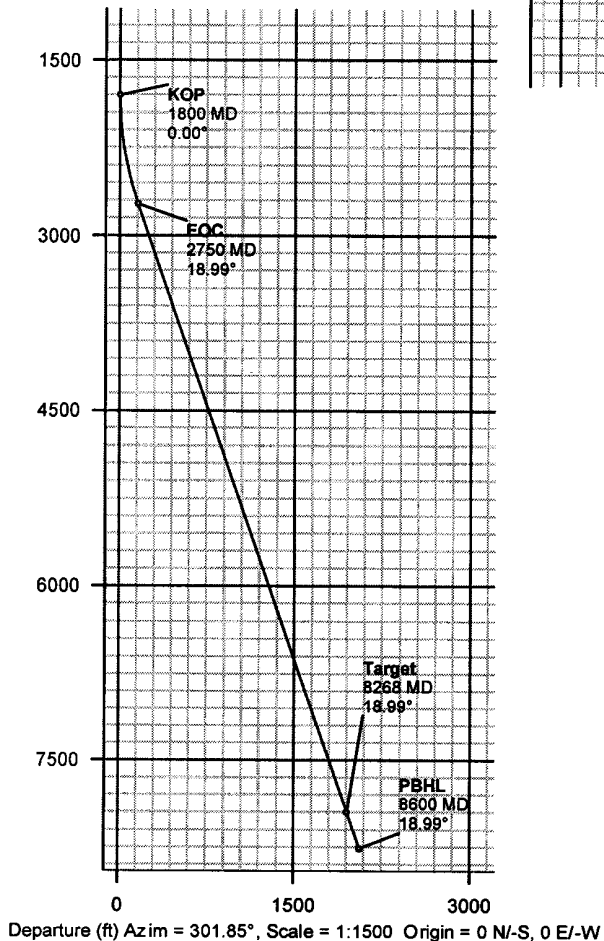
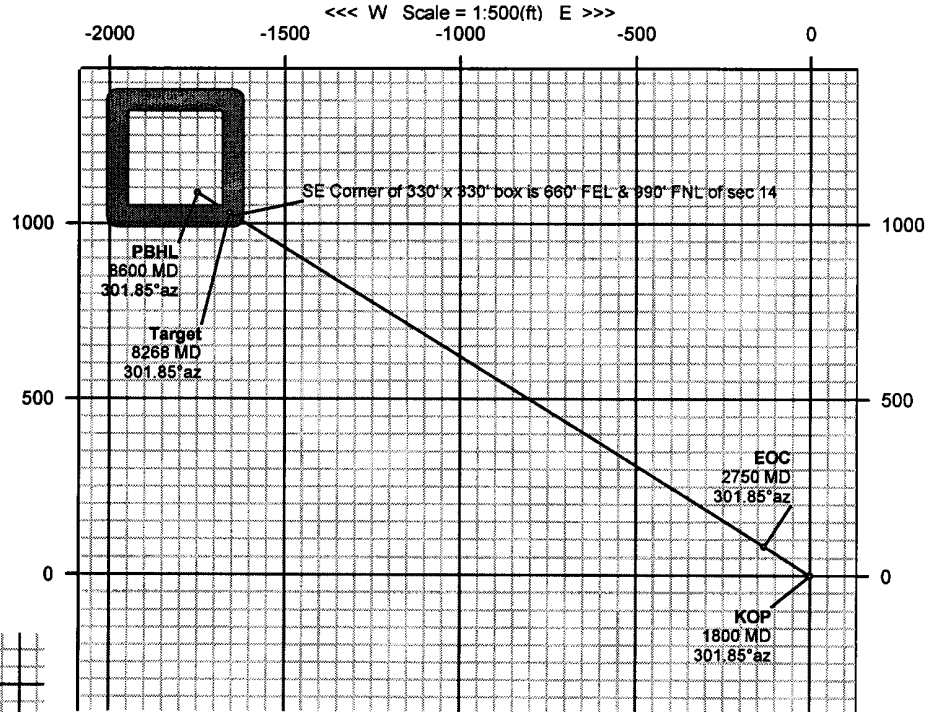
Severe seepage to total loss of circulation may occur even when the above procedures are followed. For severe seepage, we recommend circulating pills (50-100 bbls. depending on hole size) containing 10-30 ppb of various (fibrous and flake) lost circulation material. It would be helpful to reduce pump 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.

# Nearburg Producing Company

WELL <b>Mckittrick 14 Fed #2</b>	FIELD <b>Eddy County, NM</b>	STRUCTURE <b>Mckittrick 14 Fed #2</b>
<b>Magnetic Parameters</b> Model: IGRF 2005    Dip: 60.325°    Date: August 01, 2005 Mag Dec: +9.882°    FS: 49238.4 nT	<b>Surface Location</b> Lat: N32 23 33.498    Northing: 508578.80 RUS Lon: W104 27 24.804    Easting: 461862.20 RUS NAD27 New Mexico State Plane, Eastern Zone, US Feet Grid Conv: -0.00619183° Scale Fact: 0.9999107567	<b>Miscellaneous</b> Slot: Mckittrick 14 Fed #2    TVD Ref: RKB (6.00 ft above) Plan: Mckittrick 14-2_r1    Srvy Date: Mon 10:39 AM August 01, 2005



**INTREPID**  
Directional Drilling Specialists



# Proposal



<b>Report Date:</b> August 1, 2005 <b>Client:</b> Nearburg Producing Company <b>Field:</b> Eddy County, NM <b>Structure / Slot:</b> Mckittrick 14 Fed #2 / Mckittrick 14 Fed #2 <b>Well:</b> Mckittrick 14 Fed #2 <b>Borehole:</b> Mckittrick 14 Fed #2 <b>UWI/API#:</b> <b>Survey Name / Date:</b> Mckittrick 14-2_r1 / August 1, 2005 <b>Tort / AHD / DDI / ERD ratio:</b> 18.994° / 2060.03 ft / 4.610 / 0.249 <b>Grid Coordinate System:</b> NAD27 New Mexico State Planes, Eastern Zone, US Feet <b>Location Lat/Long:</b> N 32 23 33.499, W 104 27 24.804 <b>Location Grid N/E Y/X:</b> N 506578.600 ftUS, E 461862.200 ftUS <b>Grid Convergence Angle:</b> -0.06619163° <b>Grid Scale Factor:</b> 0.99991076	<b>Survey / DLS Computation Method:</b> Minimum Curvature / Lubinski <b>Vertical Section Azimuth:</b> 301.850° <b>Vertical Section Origin:</b> N 0.000 ft, E 0.000 ft <b>TVD Reference Datum:</b> RKB <b>TVD Reference Elevation:</b> 0.0 ft relative to <b>Sea Bed / Ground Level Elevation:</b> 0.000 ft relative to <b>Magnetic Declination:</b> 8.682° <b>Total Field Strength:</b> 49239.443 nT <b>Magnetic Dip:</b> 60.325° <b>Declination Date:</b> August 01, 2005 <b>Magnetic Declination Model:</b> IGRF 2005 <b>North Reference:</b> Grid North <b>Total Corr Mag North -&gt; Grid North:</b> +8.748° <b>Local Coordinates Referenced To:</b> Well Head
--	---

Comments	Measured Depth ( ft )	Inclination ( deg )	Azimuth ( deg )	TVD ( ft )	Vertical Section ( ft )	NS ( ft )	EW ( ft )	Closure ( ft )	Closure Azimuth ( deg )	DLS ( deg/100 ft )	Tool Face ( deg )
Tie-In	0.00	0.00	301.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-58.15M
KOP	1800.00	0.00	301.85	1800.00	0.00	0.00	0.00	0.00	0.00	0.00	-58.15M
	1900.00	2.00	301.85	1899.98	1.75	0.92	-1.48	1.75	301.85	2.00	-58.15M
	2000.00	4.00	301.85	1999.84	6.98	3.68	-5.93	6.98	301.85	2.00	-58.15M
	2100.00	6.00	301.85	2099.45	15.69	8.28	-13.33	15.69	301.85	2.00	0.00G
	2200.00	8.00	301.85	2198.70	27.88	14.71	-23.68	27.88	301.85	2.00	0.00G
	2300.00	10.00	301.85	2297.47	43.52	22.97	-36.97	43.52	301.85	2.00	0.00G
	2400.00	12.00	301.85	2395.62	62.60	33.03	-53.18	62.60	301.85	2.00	0.00G
	2500.00	14.00	301.85	2493.06	85.10	44.90	-72.28	85.10	301.85	2.00	0.00G
	2600.00	16.00	301.85	2589.64	110.98	58.56	-94.27	110.98	301.85	2.00	0.00G
	2700.00	18.00	301.85	2685.27	140.21	73.99	-119.10	140.21	301.85	2.00	0.00G
EOC	2749.68	18.99	301.85	2732.38	155.97	82.31	-132.49	155.97	301.85	2.00	0.00G
Target	8267.73	18.99	301.85	7950.00	1951.89	1030.00	-1658.00	1951.89	301.85	0.00	0.00G
PBHL	8600.00	18.99	301.85	8264.18	2060.03	1087.07	-1749.86	2060.03	301.85	0.00	0.00G

PREPARED FOR:

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

**McKittrick 14 Federal # 2**  
Section 14  
T-22-S  
R-24-E  
Eddy County, New Mexico

RECEIVED  
APR 05 2005  
OCCUPATIONAL

Prepared by:  
Randy Auburg  
March 22, 2005

## DRILLING FLUID SYNOPSIS

### NEARBURG PRODUCING CORPORATION

MCKITTRICK 14 FEDERAL # 2

Section 14

T-22-S

R-24-E

Eddy County, New Mexico

#### CASING

9 5/8" at 1,500'

5 1/2" at 8,600'

DEPTH	MUD WEIGHT	VISCOSITY	FLUID LOSS	DRILL SOLIDS	COMMENTS
0-1,500'	8.4 to 8.5	28 to 29	No Control	<1%	Fresh Water, Fresh Gel Sweeps, Lime, Paper
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## **ESTIMATED FORMATION TOPS**

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<b>TD</b>	<b>8,600'</b>

## RECOMMENDED CASING PROGRAM

9 5/8" at 1,600'

5 1/2" at 8,600'

## RECOMMENDED DRILLING FLUID PROGRAM

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**Estimated Drilling Days: 13 to 16**

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**PERMIAN BASIN REGION  
PERSONNEL**

**MIDLAND OFFICE**

**800-669-7146**

Larry Wadzeck	Regional Manager Permian/MidCon
Carlton Crownover	Engineering Manager
Randy Auburg	Technical Service Manager
Gerald Huff	Regional Sales & Marketing

**WEST TEXAS ENGINEERING**

**800-669-7146**

Jim Paysinger	Senior Sales and Service Engineer
Tom O'Reilley	Senior Sales and Service Engineer
Joseph Abraham	Sales and Service Engineer
Blake Arthur	Sales and Service Engineer
Jeff Donnell	Sales and Service Engineer

**NEW MEXICO ENGINEERING**

**800-669-7146**

Gregg Scarbro	Senior Sales and Service Engineer
Marshall Fleming	Senior Sales and Service Engineer
Manny Heald	Sales and Service Engineer
Clay Gamble	Sales and Service Engineer