

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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

N.M. Oil Cons. DIV-Dist. 2  
1901 W. Grand Avenue  
Artesia, NM 88210

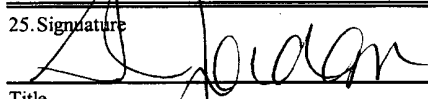
APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMNM97112
1b. Type of Well <input type="checkbox"/> Oil Well <input checked="" 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		7. Unit or CA Agreement Name and No. 34382
3a. Address 3300 N A St., Bldg 2, Suite 120, Midland, TX 79705		8. Lease Name and Well No. US 13 Federal #3
3b. Phone No. (include area code) 432/686-8235		9. API Well No. 30-015-34272
4. Location of Well (Report location clearly and in accordance with any State requirements)* At surface 2405 1048 2305 FNL and 990 FEL, Sec 13-22S-24E per SNO dated 4/26/05 At proposed prod. zone 1980/E 1980/E 13-22-24 660 FNL and 1980 FWL, Sec 18-22S-25E		10. Field and Pool, or Exploratory McKittrick Hills; Upper Penn
14. Distance in miles and direction from nearest town or post office* 10 miles W of Carlsbad		11. Sec., T., R., M., or Blk. and Survey or Area Sec 13, 22S, 24E
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any) 660		12. County or Parish Eddy
16. No. of Acres in lease 320		13. State NM
17. Spacing Unit dedicated to this well W/2 Sec 18		
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 3630		19. Proposed Depth 8600'
20. BLM/BIA Bond No. on file NM1307		
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3876		22. Approximate date work will start* 5/1/05
		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.  | 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 3.23.05
Title Production Analyst		
Approved by (Signature) /s/ Tony J. Herrell	Name (Printed/Typed) /s/ Tony J. Herrell	Date MAY 16 2005
Title 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)

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS  
AND SPECIAL STIPULATIONS  
ATTACHED

RECEIVED  
MAY 18 2005  
Witness Surface Casing. OCC-ARTESIA

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

NMOC

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

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side

RECEIVED

JUL 07 2005

OGD-ARTEDM

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

Nearburg Producing Company

3a. Address

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

3b. Phone No. (include area code)

432/686-8235 x 203

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

SHL: 2405 FNL and 1040 FEL, Sec 13-22S-24E

BHL: 660 FNL and 1980 FWL, Sec 18, 22S, 25E

5. Lease Serial No.

NMNM97112

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.

McKittrick 18 Fed #1

9. API Well No.

30-015-34272

10. Field and Pool, or Exploratory Area

McKittrick Hills; Upper Penn

11. County or Parish, State

Eddy NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

☒ Notice of Intent

☐ Subsequent Report

☐ Final Abandonment Notice

TYPE OF ACTION

☐ Acidize

☐ Alter Casing

☐ Casing Repair

☒ Change Plans

☐ Convert to Injection

☐ Deepen

☐ Fracture Treat

☐ New Construction

☐ Plug and Abandon

☐ Plug Back

☐ Production (Start/Resume)

☐ Reclamation

☐ Recomplete

☐ Temporarily Abandon

☐ Water Disposal

☐ Water Shut-Off

☐ Well Integrity

☐ Other

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the final site is ready for final inspection.)

NPC requests to change the name and BHL on subject well from:

McKittrick 18 Federal #1 (NMNM97112)

SHL: 2405 FNL and 1040 FEL, Sec 13, 22S, 24E

BHL: 660 FNL and 1980 FWL, Sec 18, 22S, 25E

to:

US 13 Federal #3 (NMNM97110)

SHL: 2405 FNL and 1040 FEL, Sec 13, 22S, 24E

BHL: 1980 FSL and 1980 FEL, Sec 13, 22S, 24E

Plats will follow in mail.

14. I hereby certify that the foregoing is true and correct

Name (Printed/Typed)

Sarah Jordan

Title

Production Analyst

Date 6/28/05

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

(ORIG. SGD.) ALEXIS C. SWOBODA

Title PETROLEUM ENGINEER

Date JUL 06 2005

Conditions of approval, if any, are attached. Approval of this notice 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.

Office

RFO

Title 18 U.S.C. Section 1001, and Title 43 U.S.C. Section 1212, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

DISTRICT I  
1625 N. FRENCH DR., HOBBS, NM 88240

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

State of New Mexico  
Energy, Minerals and Natural Resources Department

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	Pool Code 81160	Pool Name McKittrick Hills Upper Penn (Gas)
Property Code 34322	Property Name U.S. 13 FEDERAL	Well Number 3
OGRID No. 015742	Operator Name NEARBURG PRODUCING COMPANY	Elevation 3877'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	13	22-S	24-E		2405	NORTH	1040	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	13	22-S	24-E		1980	SOUTH	1980	EAST	EDDY

Dedicated Acres 320	Joint or Infill	Consolidation Code	Order No.
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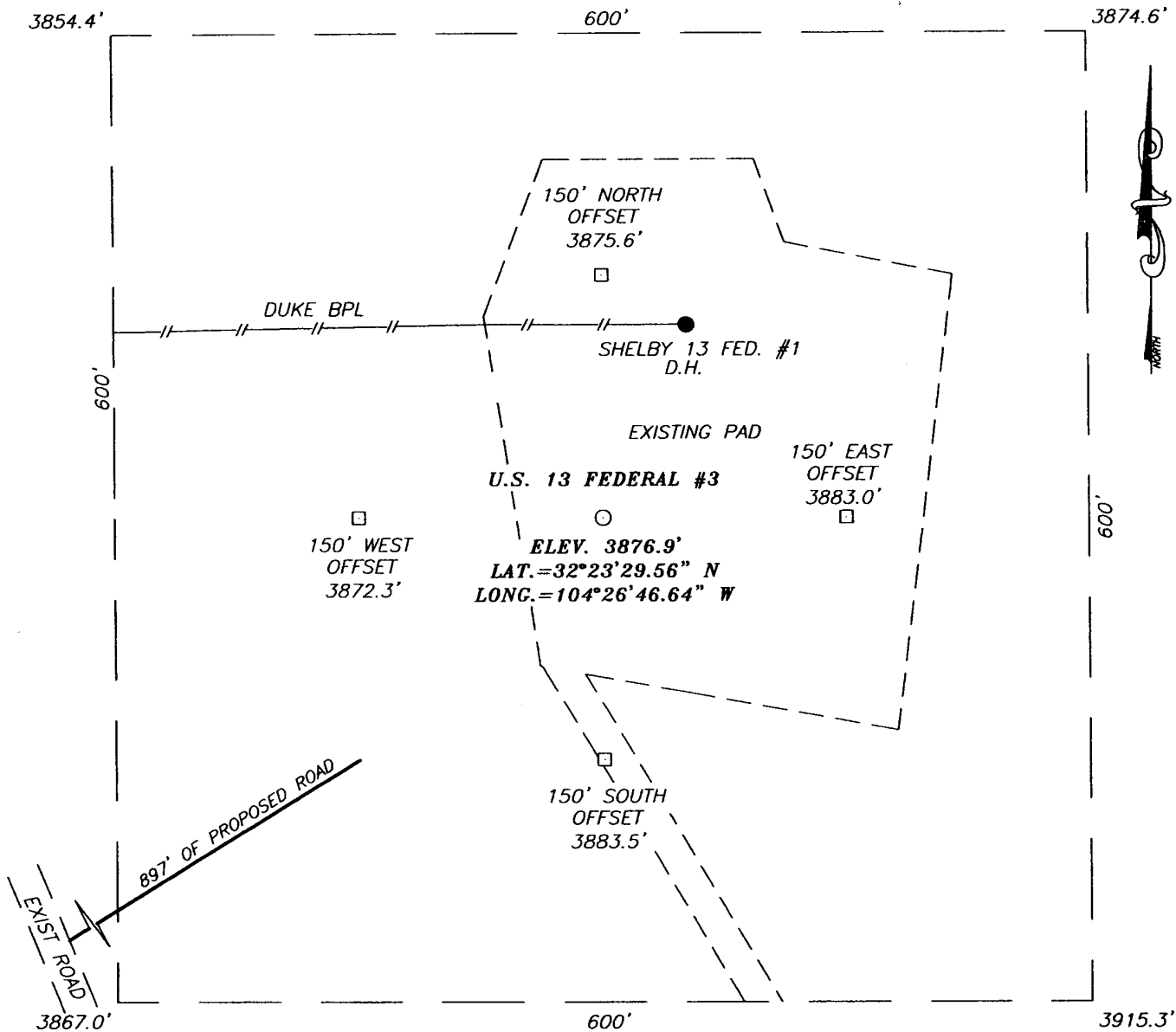
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<p>GEODETIC COORDINATES NAD 27 NME SURF. Y=506176.8 N X=465133.6 E</p> <p>LAT.=32°23'29.56" N LONG.=104°26'46.64" W</p> <p>RECEIVED JUL 07 2005 OOD-ARTESIA</p> <p>GRAZ.=226°29'45" HD=1298.2</p> <p>B.H. Y=505283.3 N X=464192.2 E</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>Signature Sarah Jordan</p> <p>Printed Name Prod. Analyst</p> <p>Title 6-30-05</p> <p>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>APRIL 21, 2005</p> <p>Date Surveyed Signature &amp; Seal of Professional Surveyor NEW MEXICO GARY E. ELSON 05.13.1028 6/29/05 Certificate No. GARY E. ELSON 12641</p>
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SECTION 13, TOWNSHIP 22 SOUTH, RANGE 24 EAST, N.M.P.M.,

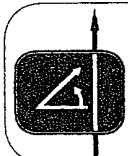
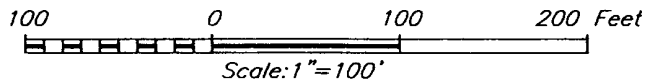
EDDY COUNTY,

NEW MEXICO



*DIRECTIONS TO LOCATION*

FROM THE INTERSECTION OF ST. HWY. #285 AND ST. HWY. #137 (QUEENS HWY.) GO WEST ON ST. HWY. #137 FOR APPROX. 6.1 MILES. TURN LEFT (SOUTH) AND GO APPROX. 0.2 MILES, BEND LEFT (SE) AND GO APPROX. 1.1 MILES, BEND RIGHT (SW) AND GO APPROX. 2.0 MILES. BEND LEFT AND RIGHT FOR APPROX. 2.0 MILES TO A ROAD INTERSECTION. TURN RIGHT (SOUTH) AND GO APPROX. 3.0 MILES TO A ANOTHER ROAD INTERSECTION. TURN LEFT AND GO (SE) APPROX. 0.2 MILES OT ANOTHER INTERSECTION. TURN LEFT (NE) AND GO APPROX. 0.2 MILES. BEND LEFT AND GO APPROX. 0.1 MILES, BEND RIGHT (EAST) AND GO APPROX. 0.3 MILES, BEND RIGHT AND GO APPROX. 0.2 MILES, BEND LEFT AND GO APPROX. 0.1 MILES TO A PROPOSED ROAD SURVEY. FOLLOW PROPOSED ROAD SURVEY SE APPROX. 897' TO THIS LOCATION.



**PROVIDING SURVEYING SERVICES  
SINCE 1948  
JOHN WEST SURVEYING COMPANY  
412 N. DAL PASO  
HOBBS, N.M. 88240  
(505) 393-3117**

**NEARBURG PRODUCING COMPANY**

U.S. 13 FEDERAL #3 WELL  
LOCATED 2405 FEET FROM THE NORTH LINE  
AND 1040 FEET FROM THE EAST LINE OF SECTION 13,  
TOWNSHIP 22 SOUTH, RANGE 24 EAST, N.M.P.M.,  
EDDY COUNTY, NEW MEXICO.

Survey Date: 4/21/05      Sheet 1 of 1 Sheets

W.O. Number: 05.13.1028	Dr By: J.R.
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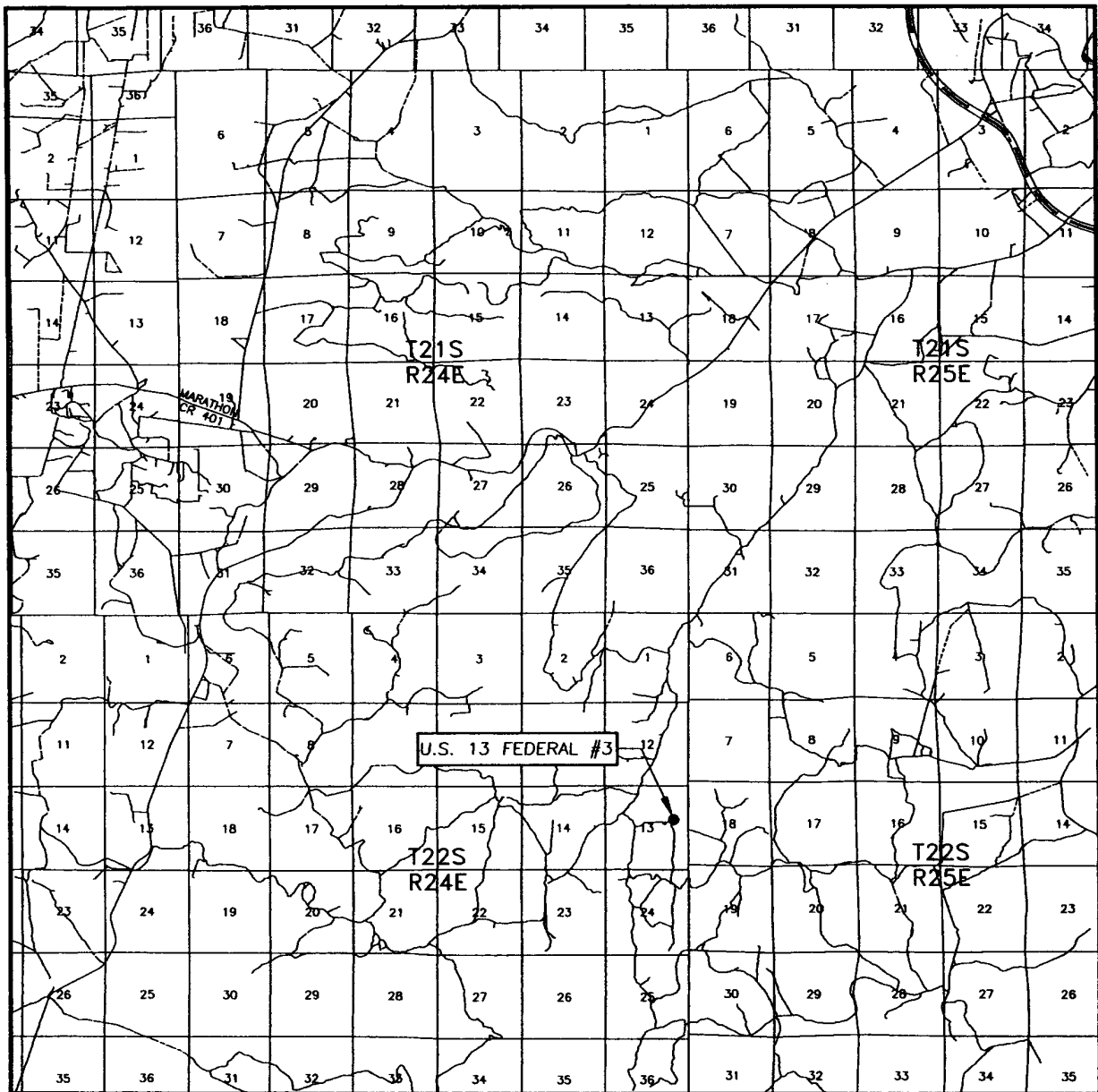
Rev 1:N/A

Date: 06/28/05	Disk: CD#5
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05131028

Scale: 1" = 100'

# VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 13 TWP. 22-S RGE. 24-E

SURVEY N.M.P.M.

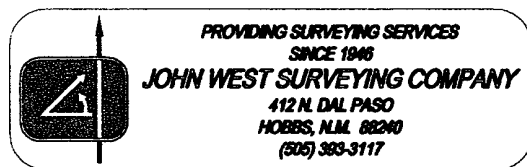
COUNTY EDDY

DESCRIPTION 2405' FNL & 1040' FEL

ELEVATION 3877'

NEARBURG  
OPERATOR PRODUCING COMPANY

LEASE U.S. 13 FEDERAL

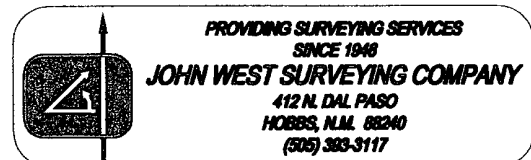


Eaton



CONTOUR INTERVAL:  
AZOTEA PEAK, N.M. - 20'

U.S.G.S. TOPOGRAPHIC MAP  
AZOTEA PEAK, N.M.



## 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: NMNM97112

Legal Description of Land: SHL: Unit H, 2305 FNL and 990 FEL, Sec 13-22S-24E  
BHL: Unit C, 660 FNL and 1980 FWL, Sec 18-22S-~~24E~~ 25E  
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

3-23-05  
Date

H. R. Willis / SG  
H. R. Willis  
Drilling Manager

**ATTACHMENT TO FORM 3160-3  
MCKITTRICK 18 FEDERAL #1  
SHL: 2305 FNL AND 990 FEL, SEC 13-22S-24E  
BHL: 660 FNL AND 1980 FWL, SEC 18-22S-25E  
EDDY COUNTY, NEW MEXICO**

**DRILLING PROGRAM**

**1. GEOLOGIC NAME OF SURFACE FORMATION**

Artesia GP

**2. ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS**

3rd Bone Spring	7276'
Wolfcamp Shale	7676'

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

Cisco/ Canyon	8076'
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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>	<u>WITNESS</u>
9-5/8"	0'	1,500'	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 1500' with fresh water mud for surface string. The production section from 1,500' to 8,600' will be 8.3 ppg Fresh Water system with mud weight sufficient to control formation pressures.

**7. AUXILLARY 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.

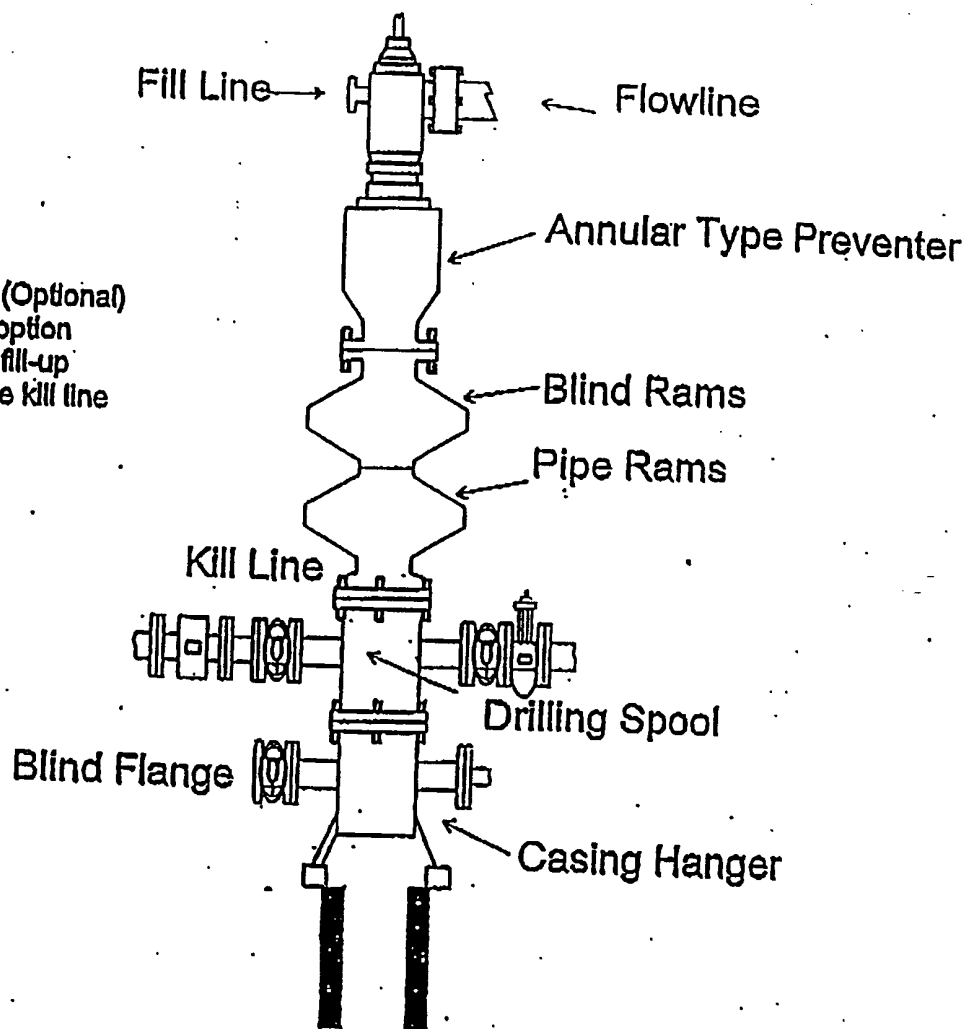
BHP expected to be 1,100 psi.

**10. ANTICAPATED STARTING DATE:**

Is planned that operations will commence on May 1, 2005 with drilling and completion operation lasting about 30 days.

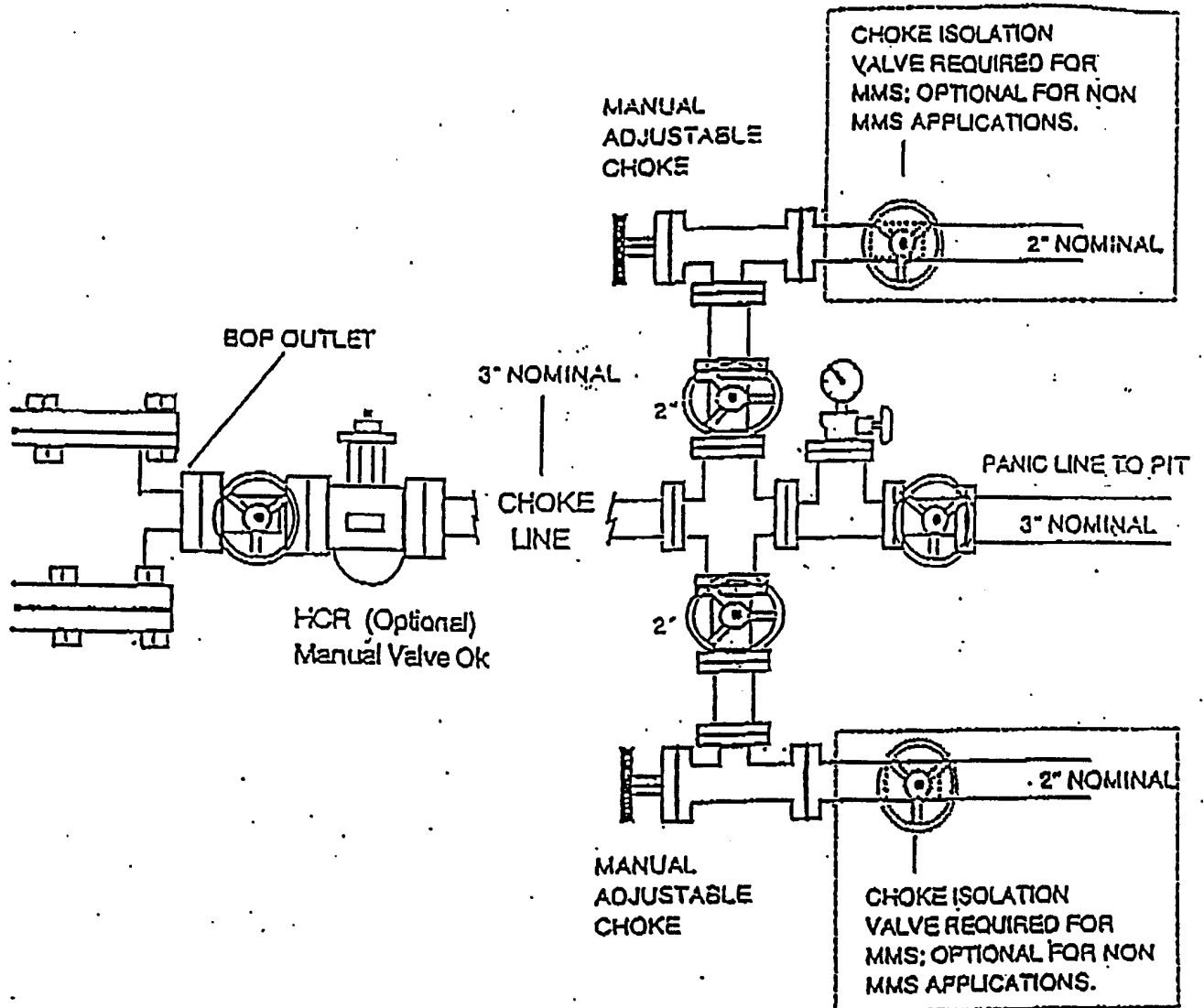
# BOPE SCHEMATIC

Rotating Head (Optional)  
Drilling Nipple option  
must include a fill-up  
line. Do not use kill line  
for fill up.



1500 Series

SEARBURG PRODUCING COMP 1"  
CHOKE MANIFOLD  
5M SERVICE



**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.

**MCKITTRICK 18 FEDERAL #1**

**Page 4**

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

Rockhouse Ranch

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.

3.23.05  
Date

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

**HYDROGEN SULFIDE DRILLING OPERATIONS PLANS  
NEARBURG PRODUCING COMPANY  
McKITTRICK 18 FEDERAL #1**

**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.



## **WARNING**

**YOU ARE ENTERING A H2S AREA  
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 NEARBURG SUPERINTENDENT AT MAIN OFFICE

**NEARBURG PRODUCING COMPANY**

**(432) 686-8235**

RECEIVED

JUN 10 2005

OCU-ARTESIA

PREPARED FOR:

Mr. Butch Willis

**NEARBURG PRODUCING CORPORATION**

Midland, Texas

**US 13 Federal # 3**

Section 13

T-22-S

R-24-E

Eddy County, New Mexico

30 - 015 - 34272

Prepared by:  
Jason Edwards  
July 13, 2004

## DRILLING FLUID SYNOPSIS

### NEARBURG PRODUCING CORPORATION

US 13 FEDERAL # 3  
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'

RECEIVED

JUN 10 2005

ODD-ARTERIA

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 1,500'

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 through the working pits. Sweep the hole with Fresh Water Gel flocculated with Lime mixed at a 10 to 1 ratio. Use Paper for seepage control. 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 under surface with fresh water circulating through the reserve pit. Use Star NP-110 for sweeps and to control solids. Use Lime for 9.0 to 10.0 pH. Paper should be used for seepage. The hole should be swept every 200', or as needed, with pre-hydrated Fresh Water Gel. This will minimize solids buildup in the annulus and reduce the possibility of lost circulation while drilling the Upper Penn and other under 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 as well as the Upper Penn. 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 pipe. We recommend utilizing a ±200 bbl premix pit for sweeps and LCM pills.

Note: we recommend a blend of Fiber Plug, Nut Shell, Maxi-Seal (Chem-Seal), and Mica may be used as LCM in this interval.

If a drilling fluid is desired for evaluation of this interval, we recommend returning to the working pits and utilizing a Star NP-110/Starch type fluid. Use Starch to reduce the API fluid loss below 15cc. Maintain pH at 9.0 to 10.0 with Lime. If additional viscosity is desired we recommend using Fresh Gel. This fluid should be sufficient for evaluation in this area.

**Estimated Drilling Fluid Cost: \$4,000.00 to \$5,000.00**  
**Estimated Drilling Days: 13 to 16**

**Cost is based on a 1,000 bbl system and does 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**

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

**Midland, TX 79705**

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

**For**

**US 13 Federal #3**

**SHL: 2008 FNL and 991 FWL**

**BHL: 1980 FSL and 1980 FEL**

**Sec 13, 22S, 24E**

**Eddy County, New Mexico**

**RECEIVED**

**JUN 10 2005**

**000-AMT-001**

**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: H. Williams Date: 9.8.04  
Title: Drilling Manager

**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)	505-369-5852	432-697-2484
<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		
Kincaid Ranch	Marbauch, Jim		1762 Qureen Hwy.	Carlsbad, NM 88220	505-457-2233		Lives at ranch house just E of Hwy 137 About 2 miles past mile marker 42 towrds Queens.
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	