

ATS-12-470

OCD-HOBBS

COPY

Form 3160-3  
(April 2004)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

HOBBS OCD

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

APPLICATION FOR PERMIT TO DRILL OR REENTER

JUL 24 2012

RECEIVED

|                                                                                                                                                                                                                                      |  |                                                                     |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------|--|
| 1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER                                                                                                                                         |  | 5. Lease Serial No.<br>BHL-NM078273;SHL-LC0066126                   |  |
| 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<br>Nearburg Producing Company OGRID #15742                                                                                                                                                                       |  | 7. If Unit or CA Agreement, Name and No.                            |  |
| 3a. Address 3300 N. A Street, Bldg. 2 Suite 120<br>Midland, TX 79705                                                                                                                                                                 |  | 8. Lease Name and Well No.<br>Laguna/23 Federal Com #2H             |  |
| 3b. Phone No. (include area code)<br>432-686-8235                                                                                                                                                                                    |  | 9. API Well No.<br>30-025-40697                                     |  |
| 4. Location of Well (Report location clearly and in accordance with any State requirements.)<br>At surface 175' FSL and 660' FWL, Unit M Penetration Pt. 310' FSL & 659' FWL<br>At proposed prod. zone 330' FNL and 660' FWL, Unit D |  | 10. Field and Pool, or Exploratory<br>Lea Bone Spring South (37580) |  |
| 11. Distance in miles and direction from nearest town or post office*<br>2.5 miles from intersection of Hwy 176 and Marathon Road                                                                                                    |  | 11. Sec., T. R. M. or Blk. and Survey or Area<br>23, T20S, R34E     |  |
| 12. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)<br>330'                                                                                                        |  | 12. County or Parish<br>Lea                                         |  |
| 13. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.<br>365'                                                                                                                   |  | 13. State<br>NM                                                     |  |
| 14. No. of acres in lease<br>NM 78273 - 400<br>NM 124612 - 440<br>280 all leases penetrated<br>LC 066126 - 800                                                                                                                       |  | 17. Spacing Unit dedicated to this well<br>160 acres                |  |
| 19. Proposed Depth<br>TVD 11,150'; MD 15,680'                                                                                                                                                                                        |  | 20. BLM/BIA Bond No. on file<br>NMB000153                           |  |
| 21. Elevations (Show whether DF, KDB, RT, GL, etc.)<br>3679.8' GL                                                                                                                                                                    |  | 22. Approximate date work will start*<br>05/15/2012                 |  |
| 23. Estimated duration<br>30 days                                                                                                                                                                                                    |  |                                                                     |  |

UNORTHODOX  
LOCATION

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<br><i>Vicki Johnston</i> | Name (Printed/Typed)<br>Vicki Johnston | Date<br>3/26/12 |
|----------------------------------------|----------------------------------------|-----------------|

Title  
Gray Surface Specialties - Regulatory Agent for Nearburg Producing Company

|                                                    |                                          |                     |
|----------------------------------------------------|------------------------------------------|---------------------|
| Approved by (Signature)<br><i>Aden L. Seidlitz</i> | Name (Printed/Typed)<br>Aden L. Seidlitz | Date<br>Jul 12 2012 |
|----------------------------------------------------|------------------------------------------|---------------------|

Title  
STATE DIRECTOR NM STATE OFFICE

Application approval does certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations.

Conditions of approval: APPROVAL FOR TWO YEARS

Title 18 U.S. States any person knowingly and willfully to make to any department or agency of the United States any false statement or report within its jurisdiction.

\*(Instructions)  
CAPTAN CONTROLLED WATER BASIN

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS  
AND SPECIAL STIPULATIONS  
ATTACHED

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

JUL 26 2012

## STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS

Nearburg Producing Company OGRID #15742  
3300 North A Street, Building 2, Suite 120  
Midland, TX 79705

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:

<sup>LC</sup>  
SHL- NMDM #066126

BHL: NM 78273 ✓ *BA*

Well Name:

Laguna 23 Federal Com #2H

Legal Description of Land:

SL: 175' FSL & 660' FWL, Unit M  
BHL: 330' FNL & 330' FWL, Unit D  
Sec 23, T20S, R34E  
Lea County, New Mexico

Formation(s) (if applicable):

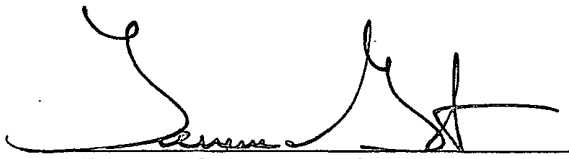
Lea Bone Spring South (37580)

Bond Coverage:

Statewide

BLM Bond File No:

NMB000153

  
Terrence Gant  
Midland Manager  
Nearburg Producing Company

Date

3/7/2012

Office Phone: (432) 818-2901  
Cell Phone: (432) 528-1121  
E-mail: [tgant@nearburg.com](mailto:tgant@nearburg.com)

**ATTACHMENT TO FORM 3160-3**  
**Nearburg Producing Company**  
**Laguna 23 Federal Com #2H**  
**SL: 175' FSL & 660' FWL, UNIT M**  
**BHL: 330' FNL & 660' FWL, UNIT D**  
**Sec 23, T20S, R34E**  
**Lea County, New Mexico**

**DEFICIENCY RESPONSE – CHANGES NOTED IN RED**

**1. ESTIMATED FORMATION TOPS**

|                             | <u>DEPTH (RKB)</u> | <u>SUBSURFACE</u> | <u>LITHOLOGY</u> |
|-----------------------------|--------------------|-------------------|------------------|
| Rustler                     | 1600'              | 2100'             | Anhydrite        |
| Salt                        | 1975'              | 1725'             | Salt             |
| Base Salt                   | 3450'              | 250               | Salt             |
| Yates                       | 3525'              | 175'              | Sand             |
| Capitan Reef                | 3645'              | 55'               | Limestone        |
| Delaware                    | 5175'              | -1475'            | Sand             |
| Bone Spring                 | 8400'              | -4700'            | Sand/Lime        |
| 1 <sup>st</sup> Bone Spring | 9600'              | -5900'            | Sand/Lime        |
| 2 <sup>nd</sup> Bone Spring | 10,200'            | -6500'            | Sand/Lime        |
| 3 <sup>rd</sup> Bone Spring | 10,950'            | -7250'            | Sand/Shale       |
| TVD                         | 11,150'            | -7450'            | Sand/Shale       |

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

Anticipated Formation Tops: RKB +/- 2929'      Ground Elevation: 3679.8'

|             |             |                           |
|-------------|-------------|---------------------------|
| Fresh Water | 100' – 730' | Surface Fresh Water Sands |
| Oil/Gas     | 5700'       | Cherry Canyon             |
| Oil/Gas     | 6300'       | Brushy Canyon             |
| Oil/Gas     | 8400'       | Bone Spring               |

**3. CASING AND CEMENTING PROGRAM**

*See PDA*

| Casing Size | Hole Size | From To       | Weight | Grade   | Joint | Condition | Purpose      |
|-------------|-----------|---------------|--------|---------|-------|-----------|--------------|
| 13-3/8"     | 17-1/2"   | 0' - 1700'    | 54.5#  | J-55    | ST&C  | New       | Surface      |
| 9-5/8"      | 12-1/4"   | 0' – 4600'    | 40.0#  | N-80    | LT&C  | New       | Intermediate |
| 9-5/8"      | 12-1/4"   | 4600' – 5500' | 40.0#  | HCN-80  | LT&C  | New       | Intermediate |
| 5-1/2"      | 8-3/4"    | 0' – 15680'   | 17.0#  | HCP-110 | LT&C  | New       | Production   |

| Casing Size   | Burst Rating, psi | Safety Factor | Collapse Rating, psi | Safety Factor | Tension Rating, 1000 lbs. | Safety Factor |
|---------------|-------------------|---------------|----------------------|---------------|---------------------------|---------------|
| 13-3/8"       | 2730              | 2.27          | 1130                 | 1.50          | 514                       | 12.20         |
| 9-5/8" N-80   | 5750              | 2.40          | 3090                 | 1.29          | 737                       | 3.35          |
| 9-5/8" HCN-80 | 5750              | 2.01          | 4230                 | 1.48          | 837                       | 3.35          |
| 5-1/2"        | 10,640            | 1.93          | 8580                 | 1.56          | 445                       | 1.70          |

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

**SURFACE CASING:**

|          |                                                                                                                                                                                                                        |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Tension  | Calculated using weight of casing times landing depth without utilizing buoyancy effects                                                                                                                               |
| Collapse | Calculated with full internal evacuation and a collapse force equal to the mud gradient in which the casing will be run. The effects of axial load on collapse will be considered.                                     |
| Burst    | In all cases a conservative fracture pressure will be used such that it represents the upper limit of potential fracture gradients up to a 1.0 psi/ft. gradient. The effects of tension on burst will not be utilized. |

**Attachment to Form 3160-3  
Nearburg Producing Company  
Laguna 23 Federal Com #2H**

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**DEFICIENCY RESPONSE – CHANGES NOTED IN RED**

**INTERMEDIATE CASING:**

- Tension      Calculated using weight of casing times landing depth without utilizing buoyancy effects
- Collapse      Calculated with full internal evacuation and a collapse force equal to the mud gradient in which the casing will be run. The effects of axial load on collapse will be considered.
- Burst      In all cases a conservative fracture pressure will be used such that it represents the upper limit of potential fracture gradients up to a 1.0 psi/ft. gradient. The effects of tension on burst will not be utilized

**PRODUCTION CASING:**

- Tension      Calculated using weight of casing times landing depth without utilizing buoyancy effects.
- Collapse      Calculated with full internal evacuation and a collapse force equal to the mud gradient in which the casing will be run. The effects of axial load on collapse will be considered.
- Burst      Maximum surface treating pressure will be limited to 70% of the rated burst pressure.

4. **PRESSURE CONTROL EQUIPMENT:** All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as stated in Onshore Oil & Gas Order No. 2. The minimum working pressure of the BOP and BOPE will be 5,000 psi and will be tested accordingly before drilling out the surface casing shoe. The appropriate BLM office will be notified a minimum of four hours in advance of any tests. In addition, the tests will be performed by an independent service company, and all tests will be recorded on a calibrated test chart and submitted to the appropriate BLM office. The test will also include a low-pressure test at 250 psi for 10 minutes using a test plug.

The BOP will be nipped up to the 13 3/8" casing and tested to API specifications. A 13 5/8" 5M BOP will be used on the intermediate hole, and either the same 13 5/8" BOP or an 11" 5M BOP will be used on the production hole. In addition, a 5M-rated choke manifold will be used in conjunction with the BOP. See Exhibits G-1 – G-3.

5. **MUD PROGRAM**

| DEPTH                            | MUD TYPE        | WEIGHT    | FV    | PV  | YP   | FL   |
|----------------------------------|-----------------|-----------|-------|-----|------|------|
| 0– <del>1700'</del> <i>1665'</i> | Fresh Water/Gel | 8.4-8.8   | 34-36 | 3-5 | 5-7  | NC   |
| <del>1700'</del> – 5500'         | Brine           | 10-10.2   | 28-30 | 1   | 1    | NC   |
| 5500' – 8000'                    | Fresh Water     | 8.4 – 8.6 | 28-30 | 1   | 1    | NC   |
| 8000' – 15680'                   | Cut Brine       | 9 – 9.5   | 32-34 | 4-5 | 6-10 | 9-10 |

- 0-~~1700'~~      Paper and gel sweeps to clean hole.
- ~~1700'~~-5500'      Salt gel sweeps to clean hole and LCM pill for loss circulation. At TD sweep hole with a high vis sweep allowing full bottoms up and spot high vis pill prior to running casing. If hole cleaning is a problem, mud up with salt gel to 34-45 vis.
- 5500'-8000'      Salt gel sweeps to clean hole and LCM pill for loss circulation. Only acid soluble LCM below intermediate casing.
- 8000'-15680'      Salt gel sweeps to clean hole and LCM pill for loss circulation. Only acid soluble LCM below intermediate casing. Raise vis to 40+ at TD for logging if necessary. At TD sweep hole with a high vis sweep allowing full bottoms up. Spot high vis pill on bottom prior to logging or casing operations.

Hydrostatic Mud Weights: 8.6 = 4986 psi   9 = 5218 psi   9.5 = 5508 psi.

**Attachment to Form 3160-3  
Nearburg Producing Company  
Laguna 23 Federal Com #2H**

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**DEFICIENCY RESPONSE – CHANGES NOTED IN RED**

Mud additions will be coordinated through NPC representative. This program is only a guide, and hole conditions will dictate mud system requirements and changes. Sufficient mud materials will be kept on location at all times in order to combat lost circulation, or unexpected kicks. In order to run open-hole logs and casing, the viscosity and water loss may have to be adjusted to meet these needs.

Mud system monitoring equipment with derrick floor indicators and visual / audio alarms shall be installed and operative prior to drilling into the Bone Spring formation. This equipment will remain in use until the production casing is run and cemented. Monitoring equipment shall consist of the following:

- A recording pit level indicator.
- A pit volume totalizer.
- A flowline sensor.

**6. TECHNICAL STAGES OF OPERATION**

A. Testing: None planned.

B. Logging:

- A one-man logging unit will be in service from 4500' to total depth.
- Cased Hole GammaRay-Neutron BIC-Surface, unless up hole warrants open-hole logging. Geologist or Geologist's representative will be on location while logging.
- If TD varies over +/- 50' of approved depth, operator will request BLM approval before proceeding.

C. Conventional Coring: None anticipated.

D. Cement:

**13.375" Surface Casing - Cementing Program**

**Lead:** 1800 sacks Class C Cement+2% bwoc Calcium Chloride+0.125 bwoc Cello

Flakes+4% Gel+81.4% Fresh Water. Weight: 13.58 ppg; Yield: 1.75 cfs.

**Tail:** 250 sacks tail slurry of Class C Cement+2% bwoc Calcium Chloride+0.125 bwoc Cello

Flakes+56.3% Fresh Water. Weight: 14.8 ppg; Yield: 1.32 cfs.

These volumes based on circulating cement to surface. 100% excess.

**9.625" Intermediate Casing - Cementing Program**

**Lead:** 1600 sacks of 50:50 Poz (Fly Ash): Class C Cement+10% bwoc Bentonite+0.125% bwoc Cello Flake+5% bwoc Sodium Chloride+0.3% bwoc FL-52+5% bwoc LCM-1+135.5% Fresh Water. Weight: 11.8 ppg; Yield: 2.45 cfs; Mix Water: 13.65 bps

**Tail:** 370 sacks "C" Neat. Weight: 14.8 ppg; Yield: 1.33 cfs; Mix Water: 6.33 gps.

These volumes based on circulating cement to surface. 100% excess.

**5.5" Production Casing - Cementing Program**

**First Stage:**

**Lead:** 500 sacks (65/35) Poz (Fly Ash): Class H Cement+5% bwoc FL-25+2% bwoc Bentonite+5% bwoc Sodium Chloride+3% bwoc CD-32+0.2% bwoc R-3+0.5% bwoc FL-32A+102.5% Fresh Water. Weight: 12.5 ppg; Yield: 2.01 cfs

**Tail:** 1500 sacks (50/50) Poz (Fly Ash): Class H Cement+0.2% bwoc R-3+0.125 2% bwoc Cello Flakes+1% bwoc Sodium Chloride+0.5% bwoc BA-10A+4% bwoc MPA-5 58.3% Fresh Water. Weight: 14.2 ppg; Yield: 1.28 cfs

These volumes based on 50% excess.

**Second Stage:**

**Lead:** 400 sacks Class C Cement+1% bwoc CACL+0.125% Cello Flakes 157.8% Fresh Water. Weight: 11.4 ppg; Yield: 2.89 cfs

**Tail:** 100 sacks (60/40) Poz (Fly Ash) Class C Cement 1% Sodium Chloride+0.2% R-3+0.125% Cello Flakes 0.5% BA-10A+4% bwoc MPA-5+63.2% Fresh Water. Weight: 13.80 ppg; Yield: 1.37 cu. ft./sack.

These volumes based on 50% excess. Final cement volumes for production casing to be calculated off of open hole logs. Circulate cement to surface. Set DV tool at 6500'.

E. Directional Drilling:

**Attachment to Form 3160-3  
Nearburg Producing Company  
Laguna 23 Federal Com #2H**

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**DEFICIENCY RESPONSE – CHANGES NOTED IN RED**

Teledrift will be picked up and run from surface to kick-off point. Proposed kick-off point is 10,577'. Directional tools will be run per directional plan. DV tool depth=6500'. Surveys will be run as required by directional company. Maximum deviation from vertical shall be no more than 2° per 110' if possible. BHL will be monitored at all times to maintain the target. Directional adjustment will be made as necessary to maintain target. See plat and legals.

**7. ANTICIPATED RESERVOIR CONDITIONS**

No abnormal temperatures or pressures are anticipated. Low levels of H2S have been monitored in producing wells in the area, so H2S may be present while drilling the well. An H2S Plan is attached to the Drilling Program. Anticipated Bottom Hole Pressure is 5000 PSI (maximum), and anticipated static Bottom Hole Temperature is 115 degrees Fahrenheit.

**8. OTHER PERTINENT INFORMATION**

**A. Auxiliary Equipment**

- Upper and lower Kelly cocks. Full opening stab in valve on the rig floor.

**B. Anticipated Starting Date**

- Upon approval
- 48 days drilling operations with drilling rig
- 4 days completion operations with drilling rig
- 30 days after that to complete the well and construct production facilities

# Nearburg Producing Co.

Laguna 23 Federal Com, Well No. 2H  
Lea County, New Mexico  
Sec. 23-20S-34E  
Quote No. 012512036

**Aim**  
Directional Services, LLC

## SITE DETAILS

Laguna 23 Federal Com #2H

Site Centre Northing: 565347.90  
Easting: 745411.60

Ground Level: 3680.00  
Positional Uncertainty: 0.00  
Convergence: 0.43

## FIELD DETAILS

Lea County, New Mexico

Geodetic System: US State Plane Coordinate System 1927  
Ellipsoid: NAD27 (Clarke 1866)  
Zone: New Mexico, Eastern Zone  
Magnetic Model: WMM\_2010

System Datum: Mean Sea Level  
Local North: Grid North

## ANNOTATIONS

| No | TVD      | MD       | Annotation                   |
|----|----------|----------|------------------------------|
| 1  | 10577.00 | 10577.00 | KOP, Build 10.00°/100'       |
| 2  | 11149.96 | 11476.99 | Hold 90.00°, 359.53° Azimuth |
| 3  | 11150.00 | 15680.80 | PBHL - Lateral               |



Azimuths to Grid North  
True North: -0.43°  
Magnetic North: 7.11°

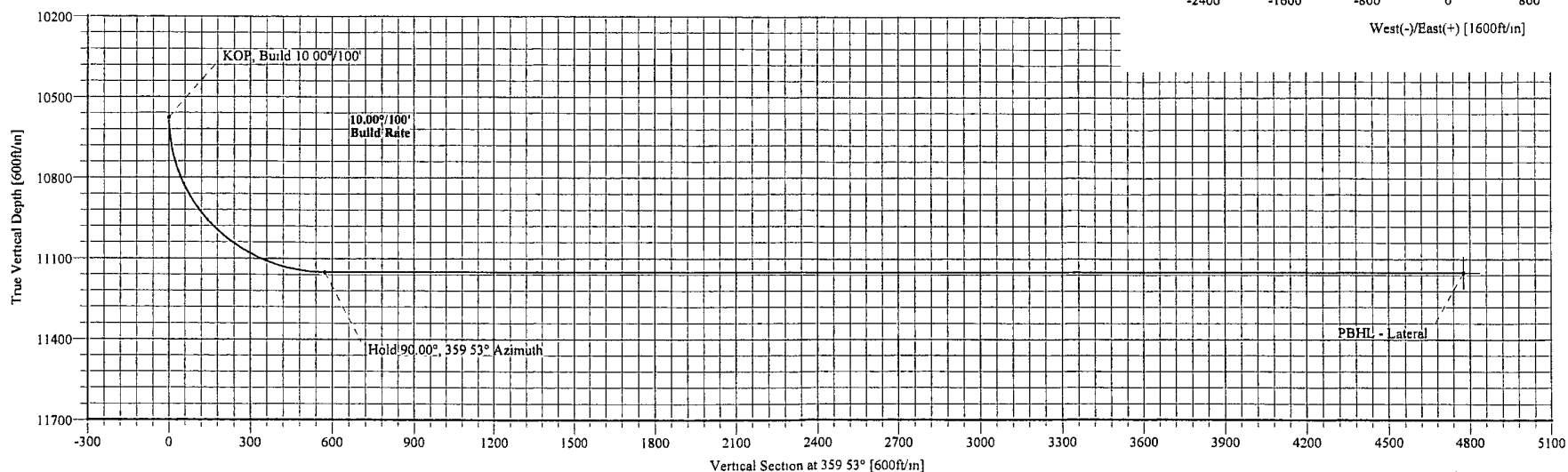
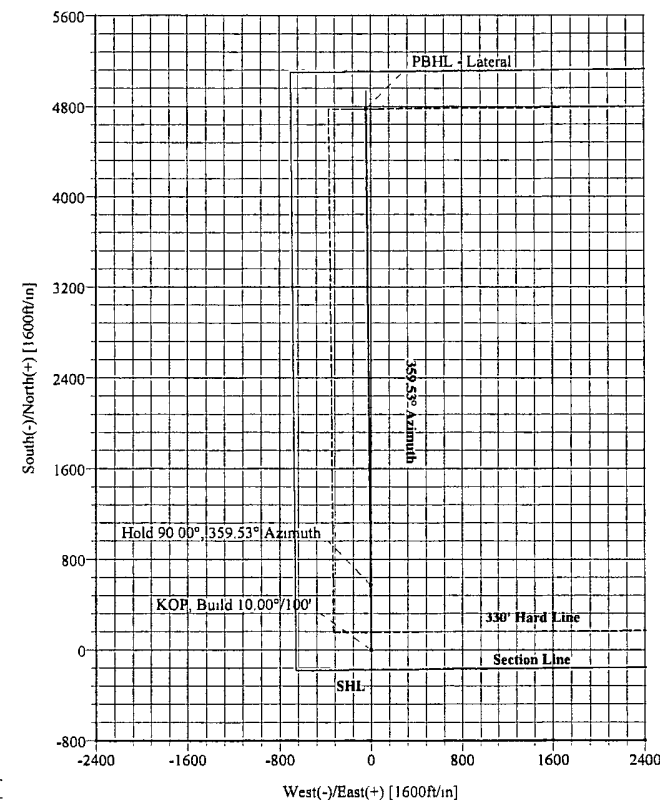
Magnetic Field  
Strength: 4878 InT  
Dip Angle: 60.48°  
Date: 01/25/2012  
Model: WMM\_2010

## TARGET DETAILS

| Name           | TVD      | +N/-S   | +E/-W  | Northing  | Easting   | Latitude      | Longitude      | Shape |
|----------------|----------|---------|--------|-----------|-----------|---------------|----------------|-------|
| PBHL - Lateral | 11150.00 | 4776.60 | -39.60 | 570124.50 | 745372.00 | 32°33'53.481N | 103°32'12.793W | Point |

## SECTION DETAILS

| Sec | MD       | Inc   | Azi    | TVD      | +N/-S   | +E/-W  | DLeg  | TFace  | VSec    | Target         |
|-----|----------|-------|--------|----------|---------|--------|-------|--------|---------|----------------|
| 1   | 10577.00 | 0.00  | 0.00   | 10577.00 | 0.00    | 0.00   | 0.00  | 0.00   | 0.00    |                |
| 2   | 11476.99 | 90.00 | 359.53 | 11149.96 | 572.93  | -4.75  | 10.00 | 359.53 | 572.95  |                |
| 3   | 15680.81 | 90.00 | 359.53 | 11150.00 | 4776.60 | -39.60 | 0.00  | 0.00   | 4776.76 | PBHL - Lateral |



Drawn By: ALR  
Date Created: 01/25/12  
Date Revised: 01/26/12  
File: Nearburg Producing - Laguna 23 Fed Com #2H Lateral 1rl.gpf32

# Aim Directional Services, LLC

## Planning Report - Geographic

**Company:** Nearburg Producing Company  
**Field:** Lea County, New Mexico  
**Site:** Laguna 23 Federal Com #2H  
**Well:** #2H  
**Wellpath:** Lateral 1r1

**Date:** 01/26/2012  
**Co-ordinate(NE) Reference:** Well: #2H, Grid North  
**Vertical (TVD) Reference:** SITE 3680.0  
**Section (VS) Reference:** Well (0.00N,0.00E,359.53Azi)  
**Plan:** Lateral 1r1

**Page:** 1

**Field:** Lea County, New Mexico

**Map System:** US State Plane Coordinate System 1927  
**Geo Datum:** NAD27 (Clarke 1866)  
**Sys Datum:** Mean Sea Level

**Map Zone:** New Mexico, Eastern Zone  
**Coordinate System:** Well Centre  
**Geomagnetic Model:** WMM\_2010

**Site:** Laguna 23 Federal Com #2H

**Site Position:** Northing: 565347.90 ft Latitude: 32 33 6.214 N  
**From:** Map Easting: 745411.60 ft Longitude: 103 32 12.748 W  
**Position Uncertainty:** 0.00 ft North Reference: Grid  
**Ground Level:** 3680.00 ft Grid Convergence: 0.43 deg

**Well:** #2H

**Slot Name:**

**Well Position:** +N/-S 0.00 ft Northing: 565347.90 ft Latitude: 32 33 6.214 N  
 +E/-W 0.00 ft Easting: 745411.60 ft Longitude: 103 32 12.748 W  
**Position Uncertainty:** 0.00 ft

**Wellpath:** Lateral 1r1

**Drilled From:** Surface  
**Tie-on Depth:** 0.00 ft  
**Above System Datum:** Mean Sea Level  
**Declination:** 7.54 deg  
**Mag Dip Angle:** 60.48 deg  
**+E/-W** Direction  
 ft deg

**Current Datum:** SITE Height 3680.00 ft  
**Magnetic Data:** 01/25/2012  
**Field Strength:** 48781 nT  
**Vertical Section:** Depth From (TVD) +N/-S  
 ft ft

0.00 0.00 0.00 359.53

**Plan:** Lateral 1r1

**Date Composed:** 01/25/2012  
**Version:** 1  
**Tied-to:** User Defined

**Principal:** Yes

### Plan Section Information

| MD<br>ft | Incl<br>deg | Azim<br>deg | TVD<br>ft | +N/-S<br>ft | +E/-W<br>ft | DLS<br>deg/100ft | Build<br>deg/100ft | Turn<br>deg/100ft | TFO<br>deg | Target         |
|----------|-------------|-------------|-----------|-------------|-------------|------------------|--------------------|-------------------|------------|----------------|
| 10577.00 | 0.00        | 0.00        | 10577.00  | 0.00        | 0.00        | 0.00             | 0.00               | 0.00              | 0.00       |                |
| 11476.99 | 90.00       | 359.53      | 11149.96  | 572.93      | -4.75       | 10.00            | 10.00              | -0.05             | 359.53     |                |
| 15680.81 | 90.00       | 359.53      | 11150.00  | 4776.60     | -39.60      | 0.00             | 0.00               | 0.00              | 0.00       | PBHL - Lateral |

### Section 1 : Start DLS 10.00 TFO 359.53

| MD<br>ft | Incl<br>deg | Azim<br>deg | TVD<br>ft | +N/-S<br>ft | +E/-W<br>ft | VS<br>ft | DLS<br>deg/100ft | Build<br>deg/100ft | Turn<br>deg/100ft | TFO<br>deg |
|----------|-------------|-------------|-----------|-------------|-------------|----------|------------------|--------------------|-------------------|------------|
| 10577.00 | 0.00        | 0.00        | 10577.00  | 0.00        | 0.00        | 0.00     | 0.00             | 0.00               | 0.00              | 0.00       |
| 10600.00 | 2.30        | 359.53      | 10599.99  | 0.46        | 0.00        | 0.46     | 10.00            | 10.00              | 0.00              | 0.00       |
| 10650.00 | 7.30        | 359.53      | 10649.80  | 4.64        | -0.04       | 4.64     | 10.00            | 10.00              | 0.00              | 0.00       |
| 10700.00 | 12.30       | 359.53      | 10699.06  | 13.15       | -0.11       | 13.15    | 10.00            | 10.00              | 0.00              | 0.00       |
| 10750.00 | 17.30       | 359.53      | 10747.38  | 25.92       | -0.21       | 25.92    | 10.00            | 10.00              | 0.00              | 0.00       |
| 10800.00 | 22.30       | 359.53      | 10794.41  | 42.85       | -0.36       | 42.85    | 10.00            | 10.00              | 0.00              | 0.00       |
| 10850.00 | 27.30       | 359.53      | 10839.79  | 63.82       | -0.53       | 63.82    | 10.00            | 10.00              | 0.00              | 0.00       |
| 10900.00 | 32.30       | 359.53      | 10883.16  | 88.66       | -0.73       | 88.66    | 10.00            | 10.00              | 0.00              | 0.00       |
| 10950.00 | 37.30       | 359.53      | 10924.21  | 117.18      | -0.97       | 117.19   | 10.00            | 10.00              | 0.00              | 0.00       |
| 11000.00 | 42.30       | 359.53      | 10962.61  | 149.18      | -1.24       | 149.18   | 10.00            | 10.00              | 0.00              | 0.00       |
| 11050.00 | 47.30       | 359.53      | 10998.08  | 184.39      | -1.53       | 184.40   | 10.00            | 10.00              | 0.00              | 0.00       |
| 11100.00 | 52.30       | 359.53      | 11030.34  | 222.57      | -1.85       | 222.58   | 10.00            | 10.00              | 0.00              | 0.00       |
| 11150.00 | 57.30       | 359.53      | 11059.15  | 263.41      | -2.18       | 263.42   | 10.00            | 10.00              | 0.00              | 0.00       |
| 11200.00 | 62.30       | 359.53      | 11084.29  | 306.61      | -2.54       | 306.62   | 10.00            | 10.00              | 0.00              | 0.00       |
| 11250.00 | 67.30       | 359.53      | 11105.58  | 351.84      | -2.92       | 351.85   | 10.00            | 10.00              | 0.00              | 0.00       |
| 11300.00 | 72.30       | 359.53      | 11122.83  | 398.75      | -3.31       | 398.76   | 10.00            | 10.00              | 0.00              | 0.00       |
| 11350.00 | 77.30       | 359.53      | 11135.94  | 446.98      | -3.71       | 447.00   | 10.00            | 10.00              | 0.00              | 0.00       |
| 11400.00 | 82.30       | 359.53      | 11144.79  | 496.17      | -4.11       | 496.19   | 10.00            | 10.00              | 0.00              | 0.00       |
| 11450.00 | 87.30       | 359.53      | 11149.32  | 545.95      | -4.53       | 545.97   | 10.00            | 10.00              | 0.00              | 0.00       |
| 11476.99 | 90.00       | 359.53      | 11149.96  | 572.93      | -4.75       | 572.95   | 10.00            | 10.00              | 0.00              | 0.00       |



# Aim Directional Services, LLC

## Planning Report - Geographic

Company: Nearburg Producing Company  
 Field: Lea County, New Mexico  
 Site: Laguna 23 Federal Com #2H  
 Well: #2H  
 Wellpath: Lateral 1r1

Date: 01/26/2012 Time: 07:26:54  
 Co-ordinate(NE) Reference: Well: #2H, Grid North  
 Vertical (TVD) Reference: SITE 3680.0  
 Section (VS) Reference: Well (0.00N,0.00E,359.53Azi)  
 Plan: Lateral 1r1

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### Section 2 : Start Hold

| MD<br>ft | Incl<br>deg | Azim<br>deg | TVD<br>ft | +N/-S<br>ft | +E/-W<br>ft | VS<br>ft | DLS<br>deg/100ft | Build<br>deg/100ft | Turn<br>deg/100ft | TFO<br>deg |
|----------|-------------|-------------|-----------|-------------|-------------|----------|------------------|--------------------|-------------------|------------|
| 11500.00 | 90.00       | 359.53      | 11149.96  | 595.94      | -4.94       | 595.96   | 0.00             | 0.00               | 0.00              | 180.00     |
| 11600.00 | 90.00       | 359.53      | 11149.96  | 695.93      | -5.77       | 695.96   | 0.00             | 0.00               | 0.00              | 180.00     |
| 11700.00 | 90.00       | 359.53      | 11149.96  | 795.93      | -6.60       | 795.96   | 0.00             | 0.00               | 0.00              | 180.00     |
| 11800.00 | 90.00       | 359.53      | 11149.96  | 895.93      | -7.43       | 895.96   | 0.00             | 0.00               | 0.00              | 180.00     |
| 11900.00 | 90.00       | 359.53      | 11149.96  | 995.92      | -8.26       | 995.96   | 0.00             | 0.00               | 0.00              | 180.00     |
| 12000.00 | 90.00       | 359.53      | 11149.96  | 1095.92     | -9.09       | 1095.96  | 0.00             | 0.00               | 0.00              | 180.00     |
| 12100.00 | 90.00       | 359.53      | 11149.96  | 1195.92     | -9.91       | 1195.96  | 0.00             | 0.00               | 0.00              | 180.00     |
| 12200.00 | 90.00       | 359.53      | 11149.97  | 1295.91     | -10.74      | 1295.96  | 0.00             | 0.00               | 0.00              | 180.00     |
| 12300.00 | 90.00       | 359.53      | 11149.97  | 1395.91     | -11.57      | 1395.96  | 0.00             | 0.00               | 0.00              | 180.00     |
| 12400.00 | 90.00       | 359.53      | 11149.97  | 1495.91     | -12.40      | 1495.96  | 0.00             | 0.00               | 0.00              | 180.00     |
| 12500.00 | 90.00       | 359.53      | 11149.97  | 1595.90     | -13.23      | 1595.96  | 0.00             | 0.00               | 0.00              | 180.00     |
| 12600.00 | 90.00       | 359.53      | 11149.97  | 1695.90     | -14.06      | 1695.96  | 0.00             | 0.00               | 0.00              | 180.00     |
| 12700.00 | 90.00       | 359.53      | 11149.97  | 1795.90     | -14.89      | 1795.96  | 0.00             | 0.00               | 0.00              | 180.00     |
| 12800.00 | 90.00       | 359.53      | 11149.97  | 1895.89     | -15.72      | 1895.96  | 0.00             | 0.00               | 0.00              | 180.00     |
| 12900.00 | 90.00       | 359.53      | 11149.97  | 1995.89     | -16.55      | 1995.96  | 0.00             | 0.00               | 0.00              | 180.00     |
| 13000.00 | 90.00       | 359.53      | 11149.97  | 2095.89     | -17.38      | 2095.96  | 0.00             | 0.00               | 0.00              | 180.00     |
| 13100.00 | 90.00       | 359.53      | 11149.97  | 2195.88     | -18.20      | 2195.96  | 0.00             | 0.00               | 0.00              | 180.00     |
| 13200.00 | 90.00       | 359.53      | 11149.98  | 2295.88     | -19.03      | 2295.96  | 0.00             | 0.00               | 0.00              | 180.00     |
| 13300.00 | 90.00       | 359.53      | 11149.98  | 2395.88     | -19.86      | 2395.96  | 0.00             | 0.00               | 0.00              | 180.00     |
| 13400.00 | 90.00       | 359.53      | 11149.98  | 2495.87     | -20.69      | 2495.96  | 0.00             | 0.00               | 0.00              | 180.00     |
| 13500.00 | 90.00       | 359.53      | 11149.98  | 2595.87     | -21.52      | 2595.96  | 0.00             | 0.00               | 0.00              | 180.00     |
| 13600.00 | 90.00       | 359.53      | 11149.98  | 2695.87     | -22.35      | 2695.96  | 0.00             | 0.00               | 0.00              | 180.00     |
| 13700.00 | 90.00       | 359.53      | 11149.98  | 2795.86     | -23.18      | 2795.96  | 0.00             | 0.00               | 0.00              | 180.00     |
| 13800.00 | 90.00       | 359.53      | 11149.98  | 2895.86     | -24.01      | 2895.96  | 0.00             | 0.00               | 0.00              | 180.00     |
| 13900.00 | 90.00       | 359.53      | 11149.98  | 2995.85     | -24.84      | 2995.96  | 0.00             | 0.00               | 0.00              | 180.00     |
| 14000.00 | 90.00       | 359.53      | 11149.98  | 3095.85     | -25.67      | 3095.96  | 0.00             | 0.00               | 0.00              | 180.00     |
| 14100.00 | 90.00       | 359.53      | 11149.98  | 3195.85     | -26.49      | 3195.96  | 0.00             | 0.00               | 0.00              | 180.00     |
| 14200.00 | 90.00       | 359.53      | 11149.99  | 3295.84     | -27.32      | 3295.96  | 0.00             | 0.00               | 0.00              | 180.00     |
| 14300.00 | 90.00       | 359.53      | 11149.99  | 3395.84     | -28.15      | 3395.96  | 0.00             | 0.00               | 0.00              | 180.00     |
| 14400.00 | 90.00       | 359.53      | 11149.99  | 3495.84     | -28.98      | 3495.96  | 0.00             | 0.00               | 0.00              | 180.00     |
| 14500.00 | 90.00       | 359.53      | 11149.99  | 3595.83     | -29.81      | 3595.96  | 0.00             | 0.00               | 0.00              | 180.00     |
| 14600.00 | 90.00       | 359.53      | 11149.99  | 3695.83     | -30.64      | 3695.96  | 0.00             | 0.00               | 0.00              | 180.00     |
| 14700.00 | 90.00       | 359.53      | 11149.99  | 3795.83     | -31.47      | 3795.96  | 0.00             | 0.00               | 0.00              | 180.00     |
| 14800.00 | 90.00       | 359.53      | 11149.99  | 3895.82     | -32.30      | 3895.96  | 0.00             | 0.00               | 0.00              | 180.00     |
| 14900.00 | 90.00       | 359.53      | 11149.99  | 3995.82     | -33.13      | 3995.96  | 0.00             | 0.00               | 0.00              | 180.00     |
| 15000.00 | 90.00       | 359.53      | 11149.99  | 4095.82     | -33.96      | 4095.96  | 0.00             | 0.00               | 0.00              | 180.00     |
| 15100.00 | 90.00       | 359.53      | 11149.99  | 4195.81     | -34.79      | 4195.96  | 0.00             | 0.00               | 0.00              | 180.00     |
| 15200.00 | 90.00       | 359.53      | 11150.00  | 4295.81     | -35.61      | 4295.96  | 0.00             | 0.00               | 0.00              | 180.00     |
| 15300.00 | 90.00       | 359.53      | 11150.00  | 4395.81     | -36.44      | 4395.96  | 0.00             | 0.00               | 0.00              | 180.00     |
| 15400.00 | 90.00       | 359.53      | 11150.00  | 4495.80     | -37.27      | 4495.96  | 0.00             | 0.00               | 0.00              | 180.00     |
| 15500.00 | 90.00       | 359.53      | 11150.00  | 4595.80     | -38.10      | 4595.96  | 0.00             | 0.00               | 0.00              | 180.00     |
| 15600.00 | 90.00       | 359.53      | 11150.00  | 4695.80     | -38.93      | 4695.96  | 0.00             | 0.00               | 0.00              | 180.00     |
| 15680.81 | 90.00       | 359.53      | 11150.00  | 4776.60     | -39.60      | 4776.76  | 0.00             | 0.00               | 0.00              | 180.00     |

### Survey

| MD<br>ft | Incl<br>deg | Azim<br>deg | TVD<br>ft | +N/-S<br>ft | +E/-W<br>ft | Map<br>Northing<br>ft | Map<br>Easting<br>ft | ← Latitude →<br>Deg Min Sec |    |         | ← Longitude →<br>Deg Min Sec |    |          |
|----------|-------------|-------------|-----------|-------------|-------------|-----------------------|----------------------|-----------------------------|----|---------|------------------------------|----|----------|
| 10577.00 | 0.00        | 0.00        | 10577.00  | 0.00        | 0.00        | 565347.90             | 745411.60            | 32                          | 33 | 6.214 N | 103                          | 32 | 12.748 W |
| 10600.00 | 2.30        | 359.53      | 10599.99  | 0.46        | 0.00        | 565348.36             | 745411.60            | 32                          | 33 | 6.219 N | 103                          | 32 | 12.748 W |
| 10650.00 | 7.30        | 359.53      | 10649.80  | 4.64        | -0.04       | 565352.54             | 745411.56            | 32                          | 33 | 6.260 N | 103                          | 32 | 12.748 W |
| 10700.00 | 12.30       | 359.53      | 10699.06  | 13.15       | -0.11       | 565361.05             | 745411.49            | 32                          | 33 | 6.345 N | 103                          | 32 | 12.748 W |
| 10750.00 | 17.30       | 359.53      | 10747.38  | 25.92       | -0.21       | 565373.82             | 745411.39            | 32                          | 33 | 6.471 N | 103                          | 32 | 12.748 W |
| 10800.00 | 22.30       | 359.53      | 10794.41  | 42.85       | -0.36       | 565390.75             | 745411.24            | 32                          | 33 | 6.638 N | 103                          | 32 | 12.748 W |
| 10850.00 | 27.30       | 359.53      | 10839.79  | 63.82       | -0.53       | 565411.72             | 745411.07            | 32                          | 33 | 6.846 N | 103                          | 32 | 12.748 W |
| 10900.00 | 32.30       | 359.53      | 10883.16  | 88.66       | -0.73       | 565436.56             | 745410.87            | 32                          | 33 | 7.092 N | 103                          | 32 | 12.748 W |
| 10950.00 | 37.30       | 359.53      | 10924.21  | 117.18      | -0.97       | 565465.08             | 745410.63            | 32                          | 33 | 7.374 N | 103                          | 32 | 12.749 W |
| 11000.00 | 42.30       | 359.53      | 10962.61  | 149.18      | -1.24       | 565497.08             | 745410.36            | 32                          | 33 | 7.691 N | 103                          | 32 | 12.749 W |
| 11050.00 | 47.30       | 359.53      | 10998.08  | 184.39      | -1.53       | 565532.29             | 745410.07            | 32                          | 33 | 8.039 N | 103                          | 32 | 12.749 W |
| 11100.00 | 52.30       | 359.53      | 11030.34  | 222.57      | -1.85       | 565570.47             | 745409.75            | 32                          | 33 | 8.417 N | 103                          | 32 | 12.750 W |
| 11150.00 | 57.30       | 359.53      | 11059.15  | 263.41      | -2.18       | 565611.31             | 745409.42            | 32                          | 33 | 8.821 N | 103                          | 32 | 12.750 W |

# Aim Directional Services, LLC

## Planning Report - Geographic

Company: Nearburg Producing Company  
Field: Lea County, New Mexico  
Site: Laguna 23 Federal Com #2H  
Well: #2H  
Wellpath: Lateral 1r1

Date: 01/26/2012 Time: 07:26:54  
Co-ordinate(NE) Reference: Well: #2H, Grid North  
Vertical (TVD) Reference: SITE 3680.0  
Section (VS) Reference: Well (0.00N,0.00E,359.53Azi)  
Plan: Lateral 1r1

Page: 3

### Survey

| MD<br>ft | Incl<br>deg | Azim<br>deg | TVD<br>ft | +N/-S<br>ft | +E/-W<br>ft | Map<br>Northing<br>ft | Map<br>Easting<br>ft | ← Latitude →<br>Deg Min Sec |    |          | ← Longitude →<br>Deg Min Sec |    |          |
|----------|-------------|-------------|-----------|-------------|-------------|-----------------------|----------------------|-----------------------------|----|----------|------------------------------|----|----------|
| 11200.00 | 62.30       | 359.53      | 11084.29  | 306.61      | -2.54       | 565654.51             | 745409.06            | 32                          | 33 | 9.249 N  | 103                          | 32 | 12.750 W |
| 11250.00 | 67.30       | 359.53      | 11105.58  | 351.84      | -2.92       | 565699.74             | 745408.68            | 32                          | 33 | 9.696 N  | 103                          | 32 | 12.751 W |
| 11300.00 | 72.30       | 359.53      | 11122.83  | 398.75      | -3.31       | 565746.65             | 745408.29            | 32                          | 33 | 10.160 N | 103                          | 32 | 12.751 W |
| 11350.00 | 77.30       | 359.53      | 11135.94  | 446.98      | -3.71       | 565794.88             | 745407.89            | 32                          | 33 | 10.638 N | 103                          | 32 | 12.752 W |
| 11400.00 | 82.30       | 359.53      | 11144.79  | 496.17      | -4.11       | 565844.07             | 745407.49            | 32                          | 33 | 11.124 N | 103                          | 32 | 12.752 W |
| 11450.00 | 87.30       | 359.53      | 11149.32  | 545.95      | -4.53       | 565893.85             | 745407.07            | 32                          | 33 | 11.617 N | 103                          | 32 | 12.753 W |
| 11476.99 | 90.00       | 359.53      | 11149.96  | 572.93      | -4.75       | 565920.83             | 745406.85            | 32                          | 33 | 11.884 N | 103                          | 32 | 12.753 W |
| 11500.00 | 90.00       | 359.53      | 11149.96  | 595.94      | -4.94       | 565943.84             | 745406.66            | 32                          | 33 | 12.112 N | 103                          | 32 | 12.753 W |
| 11600.00 | 90.00       | 359.53      | 11149.96  | 695.93      | -5.77       | 566043.83             | 745405.83            | 32                          | 33 | 13.101 N | 103                          | 32 | 12.754 W |
| 11700.00 | 90.00       | 359.53      | 11149.96  | 795.93      | -6.60       | 566143.83             | 745405.00            | 32                          | 33 | 14.091 N | 103                          | 32 | 12.755 W |
| 11800.00 | 90.00       | 359.53      | 11149.96  | 895.93      | -7.43       | 566243.83             | 745404.17            | 32                          | 33 | 15.080 N | 103                          | 32 | 12.756 W |
| 11900.00 | 90.00       | 359.53      | 11149.96  | 995.92      | -8.26       | 566343.82             | 745403.34            | 32                          | 33 | 16.070 N | 103                          | 32 | 12.757 W |
| 12000.00 | 90.00       | 359.53      | 11149.96  | 1095.92     | -9.09       | 566443.82             | 745402.51            | 32                          | 33 | 17.059 N | 103                          | 32 | 12.758 W |
| 12100.00 | 90.00       | 359.53      | 11149.96  | 1195.92     | -9.91       | 566543.82             | 745401.69            | 32                          | 33 | 18.049 N | 103                          | 32 | 12.759 W |
| 12200.00 | 90.00       | 359.53      | 11149.97  | 1295.91     | -10.74      | 566643.81             | 745400.86            | 32                          | 33 | 19.038 N | 103                          | 32 | 12.760 W |
| 12300.00 | 90.00       | 359.53      | 11149.97  | 1395.91     | -11.57      | 566743.81             | 745400.03            | 32                          | 33 | 20.028 N | 103                          | 32 | 12.761 W |
| 12400.00 | 90.00       | 359.53      | 11149.97  | 1495.91     | -12.40      | 566843.81             | 745399.20            | 32                          | 33 | 21.017 N | 103                          | 32 | 12.762 W |
| 12500.00 | 90.00       | 359.53      | 11149.97  | 1595.90     | -13.23      | 566943.80             | 745398.37            | 32                          | 33 | 22.007 N | 103                          | 32 | 12.763 W |
| 12600.00 | 90.00       | 359.53      | 11149.97  | 1695.90     | -14.06      | 567043.80             | 745397.54            | 32                          | 33 | 22.996 N | 103                          | 32 | 12.764 W |
| 12700.00 | 90.00       | 359.53      | 11149.97  | 1795.90     | -14.89      | 567143.80             | 745396.71            | 32                          | 33 | 23.986 N | 103                          | 32 | 12.765 W |
| 12800.00 | 90.00       | 359.53      | 11149.97  | 1895.89     | -15.72      | 567243.79             | 745395.88            | 32                          | 33 | 24.975 N | 103                          | 32 | 12.766 W |
| 12900.00 | 90.00       | 359.53      | 11149.97  | 1995.89     | -16.55      | 567343.79             | 745395.05            | 32                          | 33 | 25.965 N | 103                          | 32 | 12.766 W |
| 13000.00 | 90.00       | 359.53      | 11149.97  | 2095.89     | -17.38      | 567443.79             | 745394.22            | 32                          | 33 | 26.954 N | 103                          | 32 | 12.767 W |
| 13100.00 | 90.00       | 359.53      | 11149.97  | 2195.88     | -18.20      | 567543.78             | 745393.40            | 32                          | 33 | 27.944 N | 103                          | 32 | 12.768 W |
| 13200.00 | 90.00       | 359.53      | 11149.98  | 2295.88     | -19.03      | 567643.78             | 745392.57            | 32                          | 33 | 28.933 N | 103                          | 32 | 12.769 W |
| 13300.00 | 90.00       | 359.53      | 11149.98  | 2395.88     | -19.86      | 567743.78             | 745391.74            | 32                          | 33 | 29.923 N | 103                          | 32 | 12.770 W |
| 13400.00 | 90.00       | 359.53      | 11149.98  | 2495.87     | -20.69      | 567843.77             | 745390.91            | 32                          | 33 | 30.912 N | 103                          | 32 | 12.771 W |
| 13500.00 | 90.00       | 359.53      | 11149.98  | 2595.87     | -21.52      | 567943.77             | 745390.08            | 32                          | 33 | 31.902 N | 103                          | 32 | 12.772 W |
| 13600.00 | 90.00       | 359.53      | 11149.98  | 2695.87     | -22.35      | 568043.77             | 745389.25            | 32                          | 33 | 32.891 N | 103                          | 32 | 12.773 W |
| 13700.00 | 90.00       | 359.53      | 11149.98  | 2795.86     | -23.18      | 568143.76             | 745388.42            | 32                          | 33 | 33.881 N | 103                          | 32 | 12.774 W |
| 13800.00 | 90.00       | 359.53      | 11149.98  | 2895.86     | -24.01      | 568243.76             | 745387.59            | 32                          | 33 | 34.870 N | 103                          | 32 | 12.775 W |
| 13900.00 | 90.00       | 359.53      | 11149.98  | 2995.85     | -24.84      | 568343.75             | 745386.76            | 32                          | 33 | 35.860 N | 103                          | 32 | 12.776 W |
| 14000.00 | 90.00       | 359.53      | 11149.98  | 3095.85     | -25.67      | 568443.75             | 745385.93            | 32                          | 33 | 36.849 N | 103                          | 32 | 12.777 W |
| 14100.00 | 90.00       | 359.53      | 11149.98  | 3195.85     | -26.49      | 568543.75             | 745385.11            | 32                          | 33 | 37.839 N | 103                          | 32 | 12.778 W |
| 14200.00 | 90.00       | 359.53      | 11149.99  | 3295.84     | -27.32      | 568643.74             | 745384.28            | 32                          | 33 | 38.828 N | 103                          | 32 | 12.779 W |
| 14300.00 | 90.00       | 359.53      | 11149.99  | 3395.84     | -28.15      | 568743.74             | 745383.45            | 32                          | 33 | 39.818 N | 103                          | 32 | 12.780 W |
| 14400.00 | 90.00       | 359.53      | 11149.99  | 3495.84     | -28.98      | 568843.74             | 745382.62            | 32                          | 33 | 40.808 N | 103                          | 32 | 12.781 W |
| 14500.00 | 90.00       | 359.53      | 11149.99  | 3595.83     | -29.81      | 568943.73             | 745381.79            | 32                          | 33 | 41.797 N | 103                          | 32 | 12.782 W |
| 14600.00 | 90.00       | 359.53      | 11149.99  | 3695.83     | -30.64      | 569043.73             | 745380.96            | 32                          | 33 | 42.787 N | 103                          | 32 | 12.783 W |
| 14700.00 | 90.00       | 359.53      | 11149.99  | 3795.83     | -31.47      | 569143.73             | 745380.13            | 32                          | 33 | 43.776 N | 103                          | 32 | 12.783 W |
| 14800.00 | 90.00       | 359.53      | 11149.99  | 3895.82     | -32.30      | 569243.72             | 745379.30            | 32                          | 33 | 44.766 N | 103                          | 32 | 12.784 W |
| 14900.00 | 90.00       | 359.53      | 11149.99  | 3995.82     | -33.13      | 569343.72             | 745378.47            | 32                          | 33 | 45.755 N | 103                          | 32 | 12.785 W |
| 15000.00 | 90.00       | 359.53      | 11149.99  | 4095.82     | -33.96      | 569443.72             | 745377.64            | 32                          | 33 | 46.745 N | 103                          | 32 | 12.786 W |
| 15100.00 | 90.00       | 359.53      | 11149.99  | 4195.81     | -34.79      | 569543.71             | 745376.81            | 32                          | 33 | 47.734 N | 103                          | 32 | 12.787 W |
| 15200.00 | 90.00       | 359.53      | 11150.00  | 4295.81     | -35.61      | 569643.71             | 745375.99            | 32                          | 33 | 48.724 N | 103                          | 32 | 12.788 W |
| 15300.00 | 90.00       | 359.53      | 11150.00  | 4395.81     | -36.44      | 569743.71             | 745375.16            | 32                          | 33 | 49.713 N | 103                          | 32 | 12.789 W |
| 15400.00 | 90.00       | 359.53      | 11150.00  | 4495.80     | -37.27      | 569843.70             | 745374.33            | 32                          | 33 | 50.703 N | 103                          | 32 | 12.790 W |
| 15500.00 | 90.00       | 359.53      | 11150.00  | 4595.80     | -38.10      | 569943.70             | 745373.50            | 32                          | 33 | 51.692 N | 103                          | 32 | 12.791 W |
| 15600.00 | 90.00       | 359.53      | 11150.00  | 4695.80     | -38.93      | 570043.70             | 745372.67            | 32                          | 33 | 52.682 N | 103                          | 32 | 12.792 W |
| 15680.81 | 90.00       | 359.53      | 11150.00  | 4776.60     | -39.60      | 570124.50             | 745372.00            | 32                          | 33 | 53.481 N | 103                          | 32 | 12.793 W |

# Aim Directional Services, LLC

## Planning Report - Geographic

**Company:** Nearburg Producing Company  
**Field:** Lea County, New Mexico  
**Site:** Laguna 23 Federal Com #2H  
**Well:** #2H  
**Wellpath:** Lateral 1r1

**Date:** 01/26/2012      **Time:** 07:26:54  
**Co-ordinate(NE) Reference:** Well: #2H, Grid North  
**Vertical (TVD) Reference:** SITE 3680.0  
**Section (VS) Reference:** Well (0.00N,0.00E,359.53Azi)  
**Plan:** Lateral 1r1

**Page:** 4

### Targets

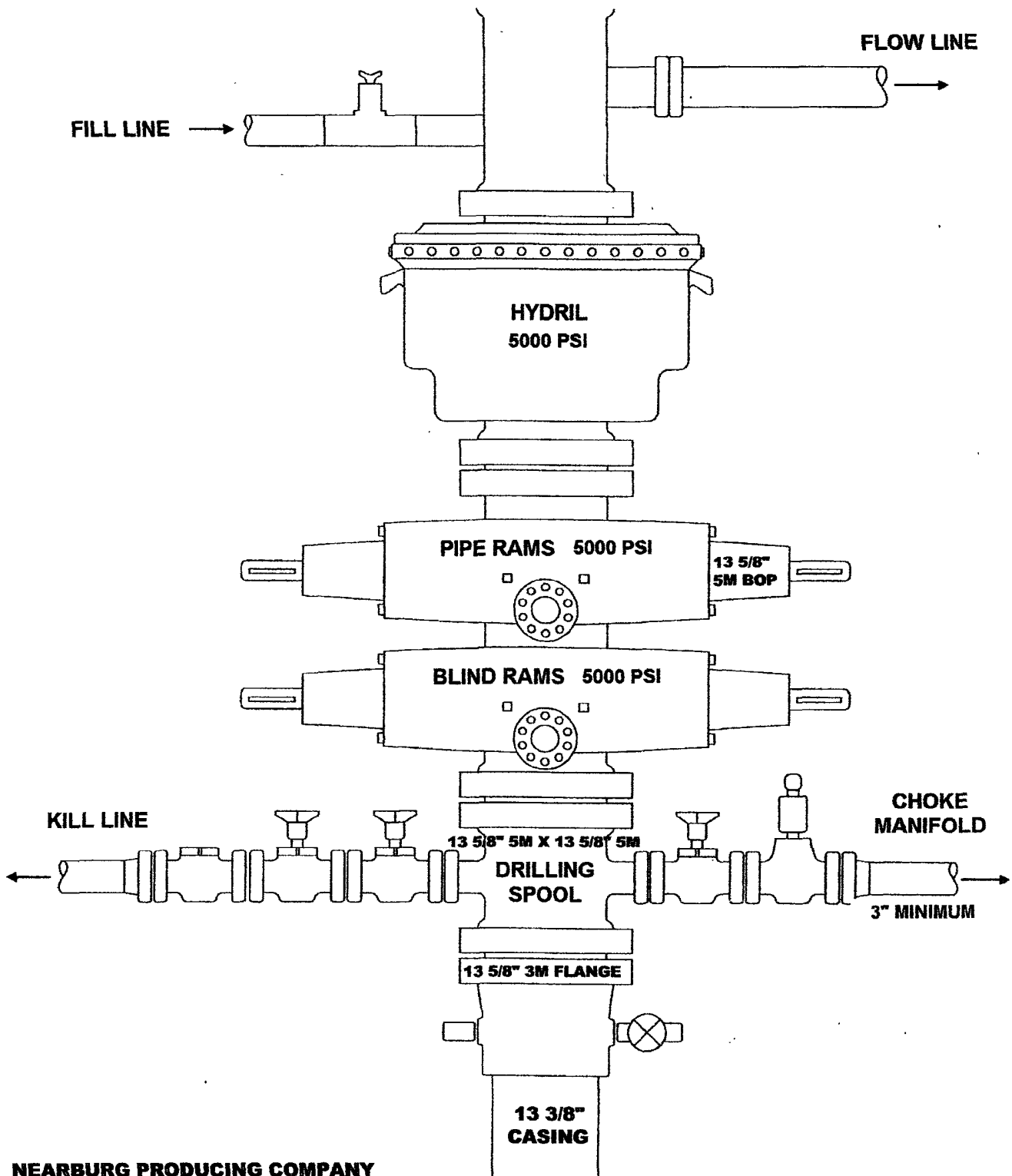
| Name           | Description<br>Dip. | Dir. | TVD<br>ft | +N/-S<br>ft | +E/-W<br>ft | Map<br>Northing<br>ft | Map<br>Easting<br>ft | ← Latitude →<br>Deg Min Sec |    |          | ← Longitude →<br>Deg Min Sec |    |          |
|----------------|---------------------|------|-----------|-------------|-------------|-----------------------|----------------------|-----------------------------|----|----------|------------------------------|----|----------|
| PBHL - Lateral |                     |      | 11150.00  | 4776.60     | -39.60      | 570124.50             | 745372.00            | 32                          | 33 | 53.481 N | 103                          | 32 | 12.793 W |

### Annotation

| MD<br>ft | TVD<br>ft |                              |
|----------|-----------|------------------------------|
| 10577.00 | 10577.00  | KOP, Build 10.00°/100'       |
| 11476.99 | 11149.96  | Hold 90.00°, 359.53° Azimuth |
| 15680.80 | 11150.00  | PBHL - Lateral               |

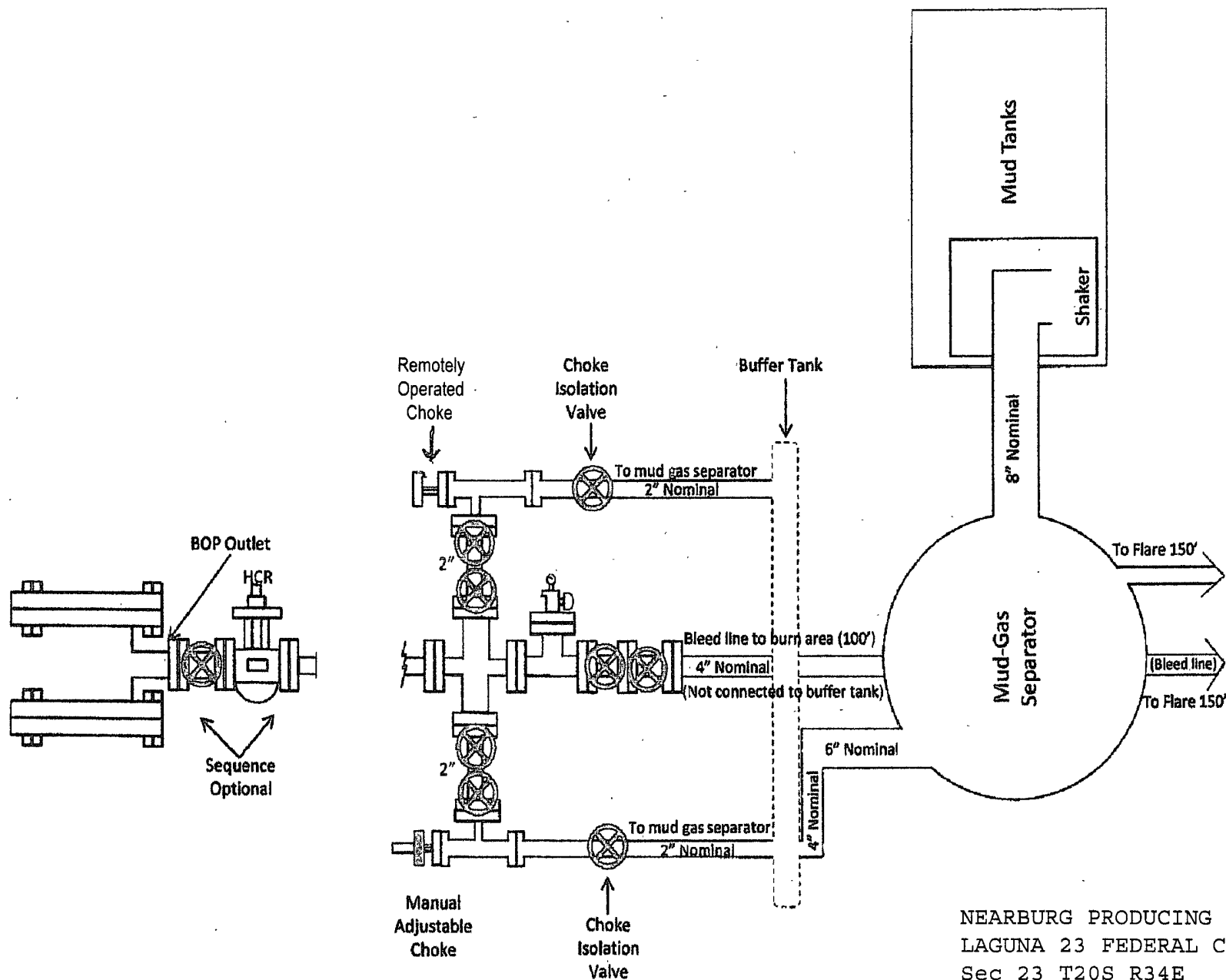
# EXHIBIT G-1

## BOP STACK



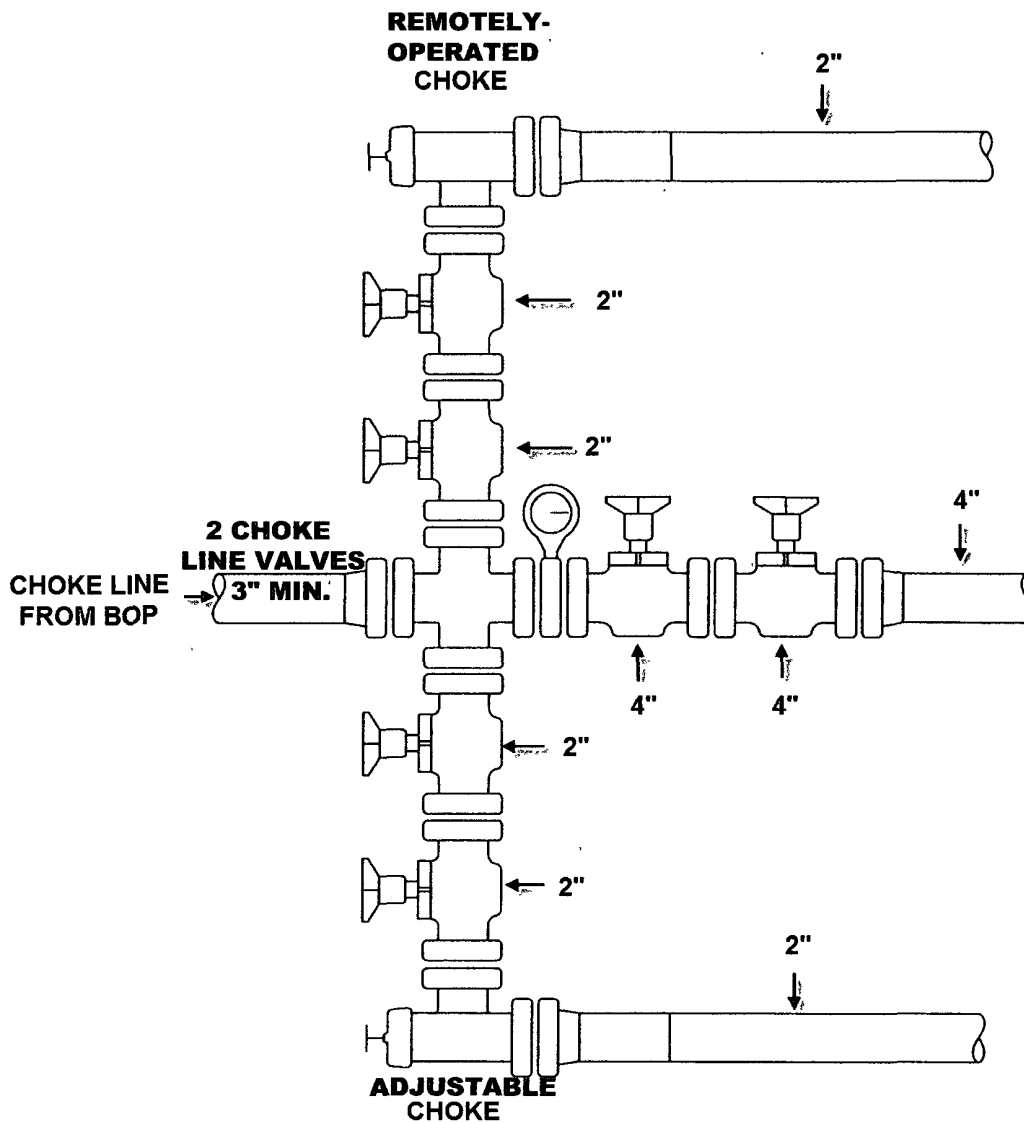
NEARBURG PRODUCING COMPANY  
LAGUNA 23 FEDERAL COM #2H  
Sec 23 T20S R34E  
Lea County, New Mexico

# **EXHIBIT G-2** **CHOKE MANIFOLD**



NEARBURG PRODUCING COMPANY  
LAGUNA 23 FEDERAL COM #2H  
Sec 23 T20S R34E  
Lea County, New Mexico

**EXHIBIT G-3**  
**CHOKE MANIFOLD**



**NEARBURG PRODUCING COMPANY**  
**LAGUNA 23 FEDERAL COM #2H**  
**Sec 23 T20S R34E**  
**Lea County, New Mexico**

NEARBURG PRODUCING COMPANY  
LAGUNA 23 FEDERAL COM #2H

HOBBS OCD

JUL 24 2012

RECEIVED

**Hydrogen Sulfide Drilling Plan Summary**  
(attach to detailed H2S Plan submitted with APD)

- A. All personnel shall receive proper H2S training according to Onshore Order III.C.3.a.
- B. Briefing Area: two perpendicular areas will be designated by signs and readily accessible.
- C. Required Emergency Equipment:
  - Well control equipment
    - a. Flare line 150' from wellhead to be ignited by flare gun
    - b. Choke manifold with a remotely-operated choke
    - c. Mud/gas separator
  - Protective equipment for essential personnel
    - Breathing Apparatus:
      - a. Rescue Packs (SCBA): One unit placed at each breathing area; two units stored in the safety trailer.
      - b. Work/Escapes packs: Four packs stored on the rig floor with sufficient air hose not to restrict work activity.
      - c. Emergency Escape Packs: Four packs stored in the doghouse for emergency evacuation.
    - Auxiliary Rescue Equipment:
      - a. Stretcher
      - b. Two OSHA full body harnesses
      - c. 100' of 5/8" OSHA-approved rope
      - d. 1-20# Class ABC fire extinguisher
  - H2S Detection and Monitoring Equipment:

The stationary detector with three sensors will be placed in the upper dog house if equipped, set to visually alarm at 10 ppm and audible at 15 ppm. Calibrate a minimum of every 30 days or as needed. Sensors will be placed in the following places: Rig floor; Bell nipple; End of flow line or where well bore fluid is being discharged. (Gas sample tubes will be stored in the safety trailer)
  - Visual warning systems.
    - a. One color-code condition sign placed at site entrance reflecting possible conditions at the site.
    - b. A colored condition flag on display, reflecting the current condition at the site.
    - c. Two wind socks placed in strategic locations, visible from all angles.
  - Mud program:

The mud program has been designed to minimize the volume of H2S circulated to surface. The operator will have the necessary mud products to minimize hazards while drilling in H2S bearing zones.
  - Metallurgy:
    - a. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.
    - b. All elastomers used for packing and seals shall be H2S trim.
  - Communication:

Communication will be via cell phones and land lines.

**Nearburg Producing Company**

Exploration and Production  
3300 North "A" Street  
Building 2, Suite 120  
Midland, TX 79705-5421  
432-686-8235  
FAX 432-686-7806

March 1, 2012

DESIGNATION OF AGENT

Bureau of Land Management  
ATTN: BETTY HILL  
Carlsbad Field Office  
620 E. Greene Street  
Carlsbad, NM 88220

Re: Agent Authorization

Dear Ms. Hill:

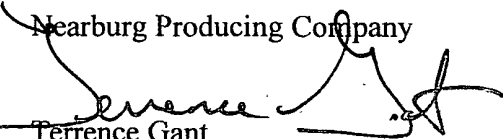
Please be informed that Vicki Johnston is an Agent employed by Gray Surface Specialties. She is authorized to prepare and submit APDs, Sundry Notices, Right-of-Way applications, and other BLM-required forms on behalf of Nearburg Producing Company.

Vicki can be contacted as follows:

- Telephone: (281) 265-6874 or (281) 468-2448
- Email: [vjohnston1@gmail.com](mailto:vjohnston1@gmail.com)
- Mailing Address: 1631 Berkoff Drive, Sugar Land, TX 77479

Sincerely,

Nearburg Producing Company

  
Terrence Gant

Midland Manager *RW* *ZC*