

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 & Natural Resources

Form C-101  
May 27, 2004



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

FEB 20 2008

OCD-ARTESIA

Submit to appropriate District Office

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

|                                                                                                                          |  |                                         |
|--------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------|
| <sup>1</sup> Operator Name and Address<br>Nearburg Producing Company<br>3300 N A St., Bldg 2, Ste 120, Midland, TX 79705 |  | <sup>2</sup> OGRID Number<br>015742     |
| <sup>4</sup> Property Code                                                                                               |  | <sup>3</sup> API Number<br>30- 15-26542 |
| <sup>5</sup> Property Name<br>Amethyst 32 State Com                                                                      |  | <sup>6</sup> Well No.<br>1              |
| <sup>9</sup> Proposed Pool 1<br>Willow Lake, Delaware                                                                    |  | <sup>10</sup> Proposed Pool 2           |

<sup>7</sup> Surface Location

| UL or lot no | Section | Township | Range | Lot. Idn | Feet from the | North/South Line | Feet from the | East/West line | County |
|--------------|---------|----------|-------|----------|---------------|------------------|---------------|----------------|--------|
| E            | 32      | 24S      | 29E   |          | 1887          | North            | 991           | West           | Eddy   |

<sup>8</sup> Proposed 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 |
|--------------|---------|----------|-------|----------|---------------|------------------|---------------|----------------|--------|
| D            | 32      | 24S      | 29E   |          | 330           | North            | 330           | West           | Eddy   |

Additional Well Location

|                                                                                                                                                                                                                                                                                                                                   |                                      |                                        |                                    |                                              |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|----------------------------------------|------------------------------------|----------------------------------------------|
| <sup>11</sup> Work Type Code<br>Plugback                                                                                                                                                                                                                                                                                          | <sup>12</sup> Well Type Code<br>0    | <sup>13</sup> Cable/Rotary<br>R        | <sup>14</sup> Lease Type Code<br>S | <sup>15</sup> Ground Level Elevation<br>2918 |
| <sup>16</sup> Multiple                                                                                                                                                                                                                                                                                                            | <sup>17</sup> Proposed Depth<br>6740 | <sup>18</sup> Formation<br>Delaware    | <sup>19</sup> Contractor           | <sup>20</sup> Spud Date<br>4/1/08            |
| Depth to ground water                                                                                                                                                                                                                                                                                                             |                                      | Distance from nearest fresh water well |                                    | Distance from nearest surface water          |
| Pit: Liner: Synthetic <input type="checkbox"/> _____ mls thick Clay <input type="checkbox"/> Pit Volume _____ bbls Drilling Method:<br>Closed-Loop System <input type="checkbox"/> Fresh Water <input type="checkbox"/> Brine <input type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/> |                                      |                                        |                                    |                                              |

<sup>21</sup> Proposed Casing and Cement Program

| Hole Size          | Casing Size | Casing weight/foot | Setting Depth | Sacks of Cement | Estimated TOC   |
|--------------------|-------------|--------------------|---------------|-----------------|-----------------|
| 17-1/2             | 13-3/8      | 48                 | 600           | 650 sxs         | Surface         |
| 12-1/4             | 9-5/8       | 40                 | 2808          | 1225 sxs        | Surface         |
| 8-3/4              | 7           | 23-26-29           | 10,208        | 360             | 8400'           |
| Above csg existing |             | Pull from 6500'    |               |                 |                 |
| 7-7/8              | 5-1/2       | 17                 | MD 6740       | 1500 sxs        | Circ to surface |

<sup>22</sup> Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

P&A BS w/ CIBP @ 8850' w/ 35' cmt. Pull and cut 7" csg f/ 6500' - P&A BS 50' in and out csg stb. Set kick off plug @ 4700-5200'. Kick off @ 4950 - Horizontal by 5235 and drill to 6740 MD in Delaware. Run 5-1/2 csg and cmt to surface.

See Attached Current and Proposed Wellbore Diagrams.

|                                                                                                                                                                                                                                                                                                                                                                                                                    |                     |                                                              |                                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|--------------------------------------------------------------|-------------------------------------|
| <sup>23</sup> I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOCD guidelines <input checked="" type="checkbox"/> a general permit <input type="checkbox"/> , or an (attached) alternative OCD-approved plan <input type="checkbox"/> .<br>Signature: <i>Sarah Jordan</i> |                     | OIL CONSERVATION DIVISION                                    |                                     |
| Printed name: Sarah Jordan                                                                                                                                                                                                                                                                                                                                                                                         |                     | Approved by: <b>BRYAN G. ARRANT</b>                          |                                     |
| Title: Production Analyst                                                                                                                                                                                                                                                                                                                                                                                          |                     | Title: <b>DISTRICT II GEOLOGIST</b>                          |                                     |
| E-mail Address: sjordan@nearburg.com                                                                                                                                                                                                                                                                                                                                                                               |                     | Approval Date: <b>FEB 21 2008</b>                            | Expiration Date: <b>FEB 21 2010</b> |
| Date: <b>2-19-08</b>                                                                                                                                                                                                                                                                                                                                                                                               | Phone: 432/686-8235 | Conditions of Approval:<br>Attached <input type="checkbox"/> |                                     |

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

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102

DISTRICT II  
1301 W. GRAND AVENUE, ARTESIA, NM 88210

OIL CONSERVATION DIVISION

Revised October 12, 2005  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

DISTRICT III  
1000 Rio Brazos Rd., Aztec, NM 87410

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

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

|                                   |                                                    |                                           |
|-----------------------------------|----------------------------------------------------|-------------------------------------------|
| API Number<br><b>30-015-26540</b> | Pool Code<br><b>64455</b>                          | Pool Name<br><b>Willow Lake, Delaware</b> |
| Property Code                     | Property Name<br><b>AMETHYST STATE COM</b>         | Well Number<br><b>1</b>                   |
| OGRID No.<br><b>015740</b>        | Operator Name<br><b>NEARBURG PRODUCING COMPANY</b> | Elevation<br><b>2918'</b>                 |

Surface Location

| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | WEST/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| E             | 32      | 24-S     | 29-E  |         | 1887          | NORTH            | 991           | WEST           | EDDY   |

Bottom Hole Location If Different From Surface

| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | WEST/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|--------|
| D             | 32      | 24-S     | 29-E  |         | 330           | NORTH            | 330           | WEST           | EDDY   |

| Dedicated Acres | Joint or Infill | Consolidation Code | Order No. |
|-----------------|-----------------|--------------------|-----------|
| <b>80</b>       |                 |                    |           |

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>BOTTOM HOLE LOCATION<br/>Y=429390.7 N<br/>X=598928.2 E</p>                                                                                   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <p>GEODETIC COORDINATES<br/>NAD 27 NME<br/>SURFACE LOCATION<br/>Y=427831.8 N<br/>X=599597.6 E<br/>LAT.=32.175817° N<br/>LONG.=104.011430° W</p> |
| <p>OPERATOR CERTIFICATION</p> <p>I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the Division.</p> <p><i>Stardom</i> 2-19-08<br/>Signature Date<br/><i>Stardom</i><br/>Printed Name</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>JANUARY 19 2008<br/>Date Surveyed<br/>Signature &amp; Seal of Professional Surveyor<br/>12641<br/>GARY G. EIDSON<br/>RONALD J. EIDSON 3239</p>                                                                                                                                                                                                                  |                                                                                                                                                 |

# CURRENT WELLBORE DIAGRAM

Page 5 of 9

|                           |             |                    |                               |
|---------------------------|-------------|--------------------|-------------------------------|
| LEASE: Amethyst State Com | WELL: #1    | FIELD: Willow Lake | API: 30-015-26542             |
| LOC: 1880' FNL & 990' FWL | SEC: 32     | BLK:               | Reservoir: Morrow/Bone Spring |
| SVY: Sec 32 T24S R29E     | GL: 2903.3' | CTY/ST: Eddy / NM  | SPUD: 12/1/1990               |
| CURRENT STATUS:           | KB:         | DF:                | TD DATE: 1/23/1991            |
|                           |             |                    | COMP. DATE: 2/21/1991         |

FRESH WATER  
DEPTH:

HOLE SIZE: 17.5"  
SURF CSG & SIZE: 13-3/8" 48# K55  
SET @: 600'  
SXS CMT: 650 sx  
CIRC: yes  
TOC AT:  
TOC BY:

COMMENTS:

\*\*\*\*\*GEOLOGY\*\*\*\*\*

TOPS OF ALL ZONES  
PRODUCTIVE OF HYDRO-  
CARBONS:

Bell Canyon: 2805'

Cherry Canyon: 3708'

Brushy Canyon: 4956'

Bone Springs: 6545'

Wolfcamp: 9738'

Canyon: 11,458'

Strawn: 11846'

Atoka: 12,174'

Morrow: 12,662'

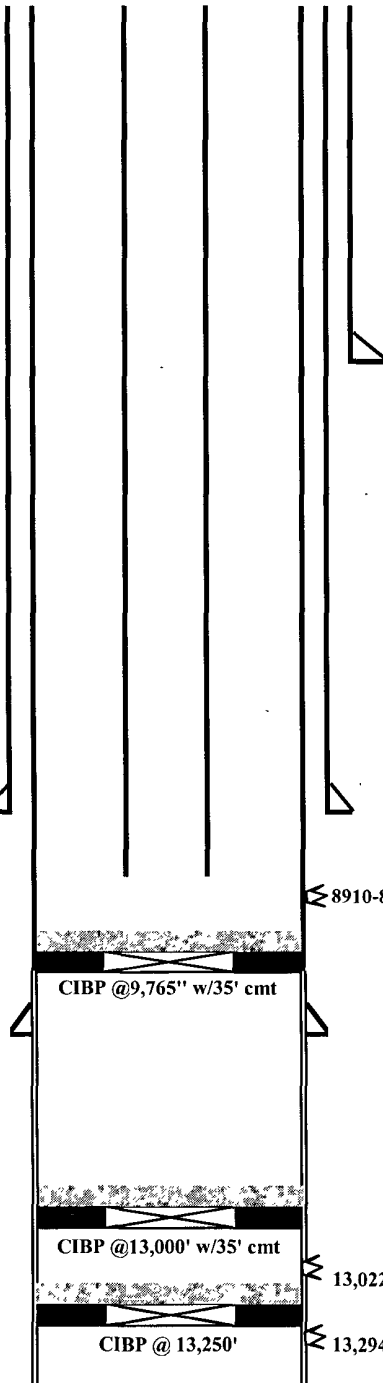
HOLE SIZE: 12.25"  
INT. CSG & SIZE: 9-5/8" 36&40# K55  
SET @: 2808'  
SXS CMT: 1225 sx  
CIRC: yes: 100 sx  
TOC AT:  
TOC BY:

CURRENT PERFS:

TBG:  
JTS:  
SN:  
TAC:  
ROD SIZE:

PKR:  
TYPE:

OH ID:  
COTD:  
PBSD:  
TD:



8910-8938' w/112 holes

SQUEEZE JOBS:

HOLE SIZE: 8-3/4"  
PROD. CSG & SIZE: 7" 23&26&29# S,L,P &N casing  
SET @: 10,208'  
SXS CMT: 300 sx  
CIRC: no  
TOC AT: 8400'  
TOC BY: TS

13,022-13,028' w/24 holes

13,294-303'

Liner & SIZE: 4-1/2" 13.5# N-80 & 11.6# S-95  
SET @: 13,489' btm / 9,797' top  
SXS CMT: 450 sx  
CIRC: no cmt at top of liner  
TOC AT: unknown  
TOC BY: BY: BHH

2/18/2008

OPEN HOLE:

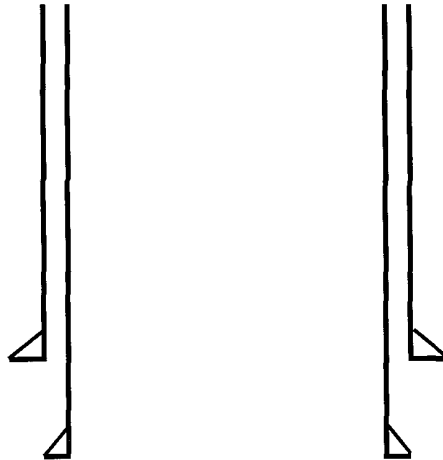
LINER: TOC BY:

# PROPOSED WELLBORE DIAGRAM

Page 6 of 9

|                           |             |                    |                       |
|---------------------------|-------------|--------------------|-----------------------|
| LEASE: Amethyst State Com | WELL: #1    | FIELD: Willow Lake | API: 30-015-26542     |
| LOC: 1880' FNL & 990' FWL | SEC: 32     | BLK: 0             | Reservoir             |
| SVY: Sec 32 T24S R29E     | GL: 2903.3' | CTY/ST: Eddy / NM  | SPUD: 12/1/1990       |
| CURRENT STATUS: #         | KB: 0       | DF: 0              | TD DATE: 1/23/1991    |
|                           |             |                    | COMP. DATE: 2/21/1991 |

FRESH WATER  
DEPTH:



HOLE SIZE: 17.5"  
SURF CSG & SIZE: 13-3/8" 48# K55  
SET @: 600'  
SXS CMT: 650 sx  
CIRC: yes  
TOC AT:  
TOC BY:

COMMENTS:

\*\*\*\*\*GEOLOGY\*\*\*\*\*

TOPS OF ALL ZONES  
PRODUCTIVE OF HYDRO-  
CARBONS:

Bell Canyon: 2805'  
Cherry Canyon: 3708'  
Brushy Canyon: 4956'  
Bone Springs: 6545'  
Wolfcamp: 9738'  
Canyon: 11,458'  
Strawn: 11846'  
Atoka: 12,174'  
Morrow: 12,662'

HOLE SIZE: 12-1/4"  
INT CSG & SIZE: 9-5/8"  
SET @: 2,808'  
SXS CMT: 1225  
CIRC: Surface

Kick off plug  
4,700' - 5,200'



Cut & pull 7" csg  
Bone Springs: 6545'  
50' inside stub & 50' above

TBG: 0  
JTS: 0  
SN: 0  
TAC: 0  
ROD SIZE:

PKR:  
TYPE:

CIBP @8,850' w/35' cmt 8910-8938' w/112 holes

CIBP @9,765' w/35' cmt

OH ID:  
COTD:  
PBTD: 0  
TD: 0

CIBP @13,000' w/35' cmt

CIBP @ 13,250'

HOLE SIZE: 8-3/4"  
PROD. CSG & SIZE: 7" 23&26&29# S,L,P & N casing  
SET @: 10,208'  
SXS CMT: 300 sx  
CIRC: no  
TOC AT: 8400'  
TOC BY: TS

CURRENT PERFS:

SQUEEZE JOBS:

OPEN HOLE:

LINER:

BY: BHH  
2/18/2008

# NEARBURG PRODUCTION

Project Eddy County, NM  
Site Amethyst State Com #1H  
Well Amethyst State Com #1H  
Wellbore Lateral  
Plan Plan #1 (Amethyst State Com #1H/Lateral)

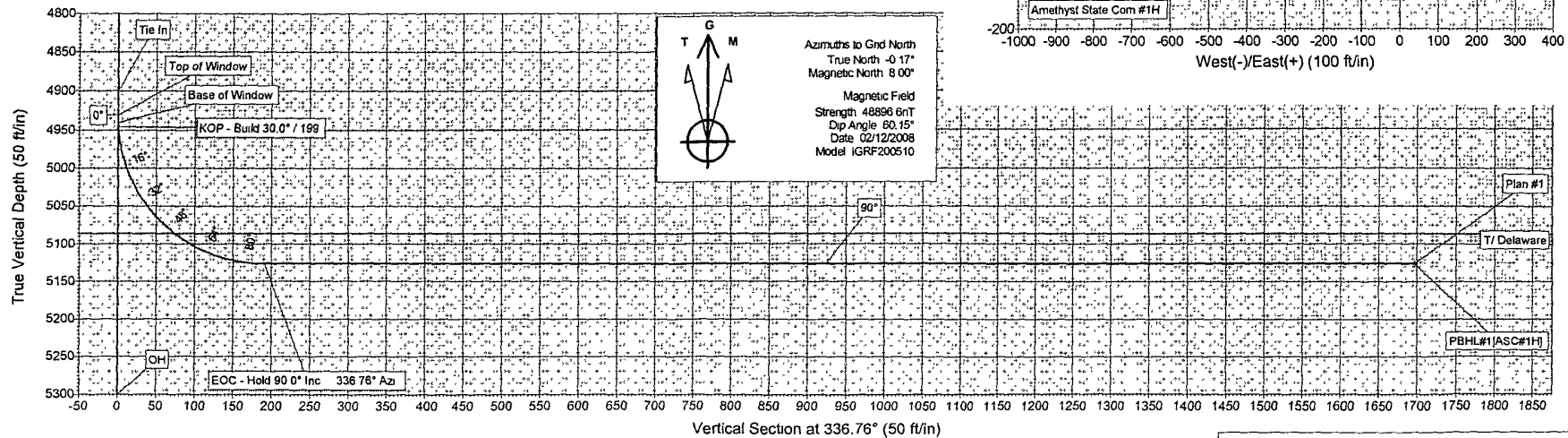


## ANNOTATIONS

| TVD     | MD      | Annotation                        |
|---------|---------|-----------------------------------|
| 4900.00 | 4900.00 | Tie In                            |
| 4930.61 | 4930.61 | Top of Window                     |
| 4940.01 | 4940.01 | Base of Window                    |
| 4945.01 | 4945.02 | KOP - Build 30.0° / 199           |
| 5126.00 | 5235.02 | EOC - Hold 90.0° Inc. 336.76° Azi |

## SECTION DETAILS

| Sec | MD      | Inc   | Azi    | TVD     | +N-S    | +E-W    | DLeg  | TFace  | VSec    | Target         |
|-----|---------|-------|--------|---------|---------|---------|-------|--------|---------|----------------|
| 1   | 4900.00 | 0.00  | 0.00   | 4900.00 | 0.00    | 0.00    | 0.00  | 0.00   | 0.00    |                |
| 2   | 4930.61 | 0.00  | 0.00   | 4930.61 | 0.00    | 0.00    | 0.00  | 0.00   | 0.00    |                |
| 3   | 4940.01 | 3.00  | 336.76 | 4940.01 | 0.23    | -0.10   | 31.91 | 336.76 | 0.25    |                |
| 4   | 4945.02 | 3.00  | 336.76 | 4945.01 | 0.47    | -0.20   | 0.00  | 0.00   | 0.51    |                |
| 5   | 5235.02 | 90.00 | 336.76 | 5126.00 | 175.72  | -75.45  | 30.00 | 0.00   | 191.23  |                |
| 6   | 6740.33 | 90.00 | 336.76 | 5126.00 | 1558.90 | -669.40 | 0.00  | 0.00   | 1696.55 | PBHL#1(ASC#1H) |



Plan Plan #1 (Amethyst State Com #1H/Lateral)  
Created By L.D. Burton Date February 12, 2008

# NEARBURG PRODUCTION

Project: Eddy County, NM  
Site: Amethyst State Corn #1H  
Well: Amethyst State Corn #1H  
Wellbore: Lateral  
Plan: Plan #1 (Amethyst State Corn #1H Lateral)

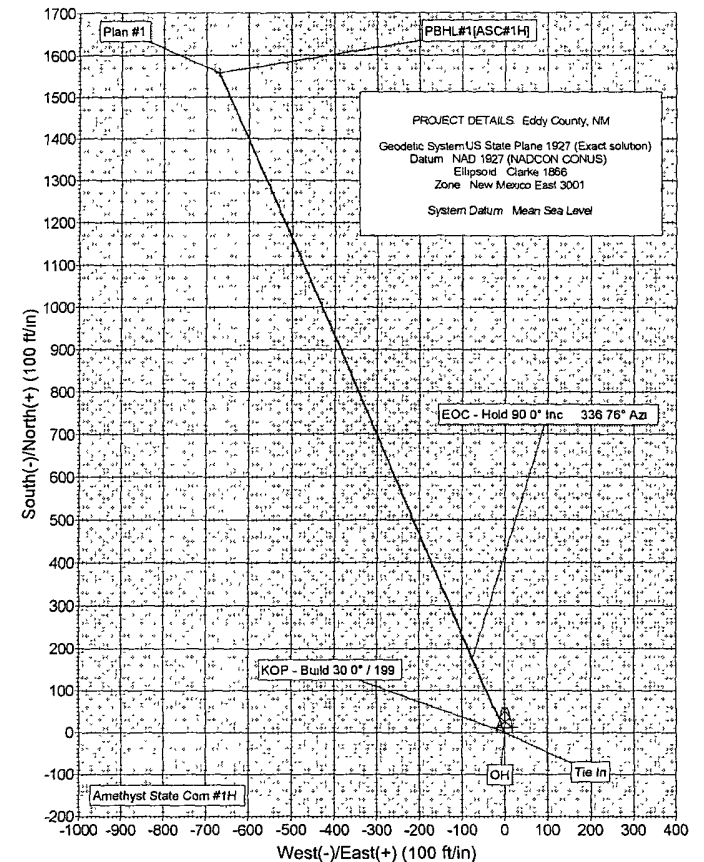
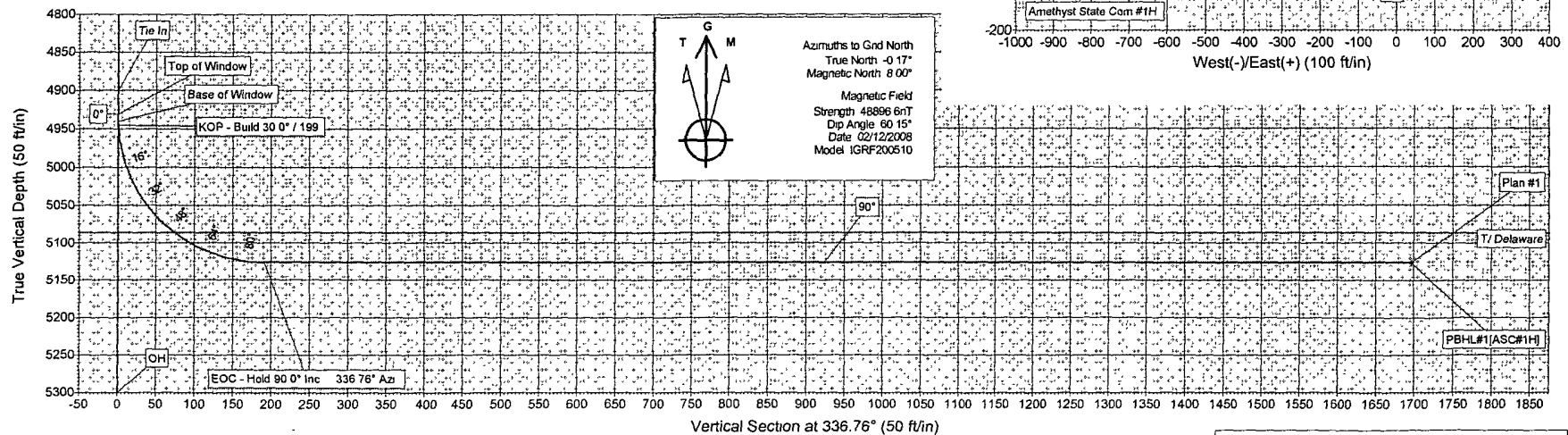


## ANNOTATIONS

| TVD     | MD      | Annotation                       |
|---------|---------|----------------------------------|
| 4900.00 | 4900.00 | Tie In                           |
| 4930.61 | 4930.61 | Top of Window                    |
| 4940.01 | 4940.01 | Base of Window                   |
| 4945.01 | 4945.02 | KOP - Build 30.0° / 199          |
| 5126.00 | 5235.02 | EOC - Hold 90.0° Inc 336.76° Azi |

## SECTION DETAILS

| Sec | MD      | Inc   | Azi    | TVD     | +N-S    | +E-W    | DLeg  | TFace  | VSec    | Target         |
|-----|---------|-------|--------|---------|---------|---------|-------|--------|---------|----------------|
| 1   | 4900.00 | 0.00  | 0.00   | 4900.00 | 0.00    | 0.00    | 0.00  | 0.00   | 0.00    |                |
| 2   | 4930.61 | 0.00  | 0.00   | 4930.61 | 0.00    | 0.00    | 0.00  | 0.00   | 0.00    |                |
| 3   | 4940.01 | 3.00  | 336.76 | 4940.01 | 0.23    | -0.10   | 31.91 | 336.76 | 0.25    |                |
| 4   | 4945.02 | 3.00  | 336.76 | 4945.01 | 0.47    | -0.20   | 0.00  | 0.00   | 0.51    |                |
| 5   | 5235.02 | 90.00 | 336.76 | 5126.00 | 175.72  | -75.45  | 30.00 | 0.00   | 191.23  |                |
| 6   | 6740.33 | 90.00 | 336.76 | 5126.00 | 1558.90 | -669.40 | 0.00  | 0.00   | 1696.55 | PBHL#1[ASC#1H] |



Plan: Plan #1 (Amethyst State Corn #1H Lateral)  
 Created By: L.D. Burton Date: February 12, 2008

# **Nearburg Producing Co.**

**Eddy County, NM.**

**Amethyst State Com #1H**

**Amethyst State Com #1H**

**Lateral**

**Plan: Plan #1**

## **Standard Survey Report**

**12 February, 2008**



# Black Viper Energy

## Survey Report



**Company:** Nearburg Producing Co.  
**Project:** Eddy County, NM.  
**Site:** Amethyst State Com #1H  
**Well:** Amethyst State Com #1H  
**Wellbore:** Lateral  
**Design:** Plan #1

**Local Co-ordinate Reference:** Well Amethyst State Com #1H  
**TVD Reference:** Rig KB @ 2938.00ft (Est Rig KB)  
**MD Reference:** Rig KB @ 2938.00ft (Est. Rig KB)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** EDM 2003, 14.1.0 Server DB

|                    |                                      |                      |                |
|--------------------|--------------------------------------|----------------------|----------------|
| <b>Project</b>     | Eddy County, NM.                     |                      |                |
| <b>Map System:</b> | US State Plane 1927 (Exact solution) | <b>System Datum:</b> | Mean Sea Level |
| <b>Geo Datum:</b>  | NAD 1927 (NADCON CONUS)              |                      |                |
| <b>Map Zone:</b>   | New Mexico East 3001                 |                      |                |

|                              |                        |                          |                  |
|------------------------------|------------------------|--------------------------|------------------|
| <b>Site</b>                  | Amethyst State Com #1H |                          |                  |
| <b>Site Position:</b>        |                        | <b>Northing:</b>         | 427,831.80 ft    |
| <b>From:</b>                 | Map                    | <b>Easting:</b>          | 599,597.60 ft    |
| <b>Position Uncertainty:</b> | 0 00 ft                | <b>Slot Radius:</b>      | "                |
|                              |                        | <b>Latitude:</b>         | 32° 10' 32.933 N |
|                              |                        | <b>Longitude:</b>        | 104° 0' 41.163 W |
|                              |                        | <b>Grid Convergence:</b> | 0 17 °           |

|                             |                        |                            |                                |
|-----------------------------|------------------------|----------------------------|--------------------------------|
| <b>Well</b>                 | Amethyst State Com #1H |                            |                                |
| <b>Well Position</b>        | +N/-S                  | 0.00 ft                    | <b>Northing:</b> 427,831.80 ft |
|                             | +E/-W                  | 0.00 ft                    | <b>Easting:</b> 599,597.60 ft  |
| <b>Position Uncertainty</b> | 0.00 ft                | <b>Wellhead Elevation:</b> | ft                             |
|                             |                        | <b>Latitude:</b>           | 32° 10' 32.933 N               |
|                             |                        | <b>Longitude:</b>          | 104° 0' 41.163 W               |
|                             |                        | <b>Ground Level:</b>       | 2,918.00 ft                    |

|                  |                   |                    |                       |
|------------------|-------------------|--------------------|-----------------------|
| <b>Wellbore</b>  | Lateral           |                    |                       |
| <b>Magnetics</b> | <b>Model Name</b> | <b>Sample Date</b> | <b>Declination</b>    |
|                  | IGRF200510        | 02/12/2008         | (°)                   |
|                  |                   |                    | 8.17                  |
|                  |                   |                    | <b>Dip Angle</b>      |
|                  |                   |                    | (°)                   |
|                  |                   |                    | 60.15                 |
|                  |                   |                    | <b>Field Strength</b> |
|                  |                   |                    | (nT)                  |
|                  |                   |                    | 48,897                |

|                          |                         |              |                               |
|--------------------------|-------------------------|--------------|-------------------------------|
| <b>Design</b>            | Plan #1                 |              |                               |
| <b>Audit Notes:</b>      |                         |              |                               |
| <b>Version:</b>          | <b>Phase:</b>           | PLAN         | <b>Tie On Depth:</b> 4,900.00 |
| <b>Vertical Section:</b> | <b>Depth From (TVD)</b> | <b>+N/-S</b> | <b>+E/-W</b>                  |
|                          | (ft)                    | (ft)         | (ft)                          |
|                          | 0 00                    | 0.00         | 0.00                          |
|                          |                         |              | <b>Direction</b>              |
|                          |                         |              | (°)                           |
|                          |                         |              | 336.76                        |

|                            |             |                          |                  |                    |
|----------------------------|-------------|--------------------------|------------------|--------------------|
| <b>Survey Tool Program</b> | <b>Date</b> | 02/12/2008               |                  |                    |
| <b>From</b>                | <b>To</b>   | <b>Survey (Wellbore)</b> | <b>Tool Name</b> | <b>Description</b> |
| (ft)                       | (ft)        |                          |                  |                    |
| 4,900.00                   | 6,739.82    | Plan #1 (Lateral)        | MWD              | MWD - Standard     |

|                                |                    |                |                       |              |              |                         |                    |                   |                  |
|--------------------------------|--------------------|----------------|-----------------------|--------------|--------------|-------------------------|--------------------|-------------------|------------------|
| <b>Planned Survey</b>          |                    |                |                       |              |              |                         |                    |                   |                  |
| <b>Measured Depth</b>          | <b>Inclination</b> | <b>Azimuth</b> | <b>Vertical Depth</b> | <b>+N/-S</b> | <b>+E/-W</b> | <b>Vertical Section</b> | <b>Dogleg Rate</b> | <b>Build Rate</b> | <b>Turn Rate</b> |
| (ft)                           | (°)                | (°)            | (ft)                  | (ft)         | (ft)         | (ft)                    | (°/100ft)          | (°/100ft)         | (°/100ft)        |
| 4,900.00                       | 0.00               | 0.00           | 4,900.00              | 0.00         | 0.00         | 0.00                    | 0.00               | 0.00              | 0.00             |
| <b>Tie In</b>                  |                    |                |                       |              |              |                         |                    |                   |                  |
| 4,930.61                       | 0.00               | 0.00           | 4,930.61              | 0.00         | 0.00         | 0.00                    | 0.00               | 0.00              | 0.00             |
| <b>Top of Window</b>           |                    |                |                       |              |              |                         |                    |                   |                  |
| 4,940.01                       | 3.00               | 336.76         | 4,940.01              | 0.23         | -0.10        | 0.25                    | 31.91              | 31.91             | 0.00             |
| <b>Base of Window</b>          |                    |                |                       |              |              |                         |                    |                   |                  |
| 4,945.02                       | 3.00               | 336.76         | 4,945.01              | 0.47         | -0.20        | 0.51                    | 0.00               | 0.00              | 0.00             |
| <b>KOP - Build 30.0° / 199</b> |                    |                |                       |              |              |                         |                    |                   |                  |
| 4,950.00                       | 4.49               | 336.76         | 4,949.98              | 0.77         | -0.33        | 0.83                    | 30.00              | 30.00             | 0.01             |
| 4,960.00                       | 7.49               | 336.76         | 4,959.92              | 1.73         | -0.74        | 1.88                    | 30.00              | 30.00             | 0.00             |
| 4,970.00                       | 10.49              | 336.76         | 4,969.80              | 3.16         | -1.36        | 3.44                    | 30.00              | 30.00             | 0.00             |
| 4,980.00                       | 13.49              | 336.76         | 4,979.58              | 5.07         | -2.18        | 5.52                    | 30.00              | 30.00             | 0.00             |
| 4,990.00                       | 16.49              | 336.76         | 4,989.24              | 7.45         | -3.20        | 8.11                    | 30.00              | 30.00             | 0.00             |

# Black Viper Energy

## Survey Report



Company: Nearburg Producing Co.  
 Project: Eddy County, NM  
 Site: Amethyst State Com #1H  
 Well: Amethyst State Com #1H  
 Wellbore: Lateral  
 Design: Plan #1

Local Co-ordinate Reference: Well Amethyst State Com #1H  
 TVD Reference: Rig KB @ 2938.00ft (Est. Rig KB)  
 MD Reference: Rig KB @ 2938.00ft (Est. Rig KB)  
 North Reference: Grid  
 Survey Calculation Method: Minimum Curvature  
 Database: EDM 2003.14.1.0 Server DB

### Planned Survey

| Measured Depth (ft)                   | Inclination (°) | Azimuth (°) | Vertical Depth (ft) | +N/-S (ft) | +E/-W (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) | Build Rate (°/100ft) | Turn Rate (°/100ft) |
|---------------------------------------|-----------------|-------------|---------------------|------------|------------|-----------------------|-----------------------|----------------------|---------------------|
| 5,000.00                              | 19.49           | 336.76      | 4,998.75            | 10.29      | -4.42      | 11.19                 | 30.00                 | 30.00                | 0.00                |
| 5,010.00                              | 22.49           | 336.76      | 5,008.08            | 13.58      | -5.83      | 14.78                 | 30.00                 | 30.00                | 0.00                |
| 5,020.00                              | 25.49           | 336.76      | 5,017.22            | 17.31      | -7.43      | 18.84                 | 30.00                 | 30.00                | 0.00                |
| 5,030.00                              | 28.49           | 336.76      | 5,026.13            | 21.48      | -9.23      | 23.38                 | 30.00                 | 30.00                | 0.00                |
| 5,040.00                              | 31.49           | 336.76      | 5,034.79            | 26.08      | -11.20     | 28.38                 | 30.00                 | 30.00                | 0.00                |
| 5,050.00                              | 34.49           | 336.76      | 5,043.17            | 31.08      | -13.35     | 33.82                 | 30.00                 | 30.00                | 0.00                |
| 5,060.00                              | 37.49           | 336.76      | 5,051.26            | 36.48      | -15.66     | 39.70                 | 30.00                 | 30.00                | 0.00                |
| 5,070.00                              | 40.49           | 336.76      | 5,059.03            | 42.26      | -18.15     | 45.99                 | 30.00                 | 30.00                | 0.00                |
| 5,080.00                              | 43.49           | 336.76      | 5,066.47            | 48.41      | -20.79     | 52.68                 | 30.00                 | 30.00                | 0.00                |
| 5,090.00                              | 46.49           | 336.76      | 5,073.54            | 54.90      | -23.58     | 59.75                 | 30.00                 | 30.00                | 0.00                |
| 5,100.00                              | 49.49           | 336.76      | 5,080.23            | 61.73      | -26.51     | 67.18                 | 30.00                 | 30.00                | 0.00                |
| 5,109.15                              | 52.24           | 336.76      | 5,086.00            | 68.25      | -29.31     | 74.28                 | 30.00                 | 30.00                | 0.00                |
| T/ Delaware                           |                 |             |                     |            |            |                       |                       |                      |                     |
| 5,110.00                              | 52.49           | 336.76      | 5,086.52            | 68.87      | -29.57     | 74.95                 | 30.00                 | 30.00                | 0.00                |
| 5,120.00                              | 55.49           | 336.76      | 5,092.40            | 76.30      | -32.76     | 83.04                 | 30.00                 | 30.00                | 0.00                |
| 5,130.00                              | 58.49           | 336.76      | 5,097.85            | 84.01      | -36.07     | 91.43                 | 30.00                 | 30.00                | 0.00                |
| 5,140.00                              | 61.49           | 336.76      | 5,102.85            | 91.96      | -39.49     | 100.08                | 30.00                 | 30.00                | 0.00                |
| 5,150.00                              | 64.49           | 336.76      | 5,107.39            | 100.15     | -43.00     | 108.99                | 30.00                 | 30.00                | 0.00                |
| 5,160.00                              | 67.49           | 336.76      | 5,111.45            | 108.54     | -46.61     | 118.13                | 30.00                 | 30.00                | 0.00                |
| 5,170.00                              | 70.49           | 336.76      | 5,115.04            | 117.12     | -50.29     | 127.46                | 30.00                 | 30.00                | 0.00                |
| 5,180.00                              | 73.49           | 336.76      | 5,118.13            | 125.86     | -54.04     | 136.97                | 30.00                 | 30.00                | 0.00                |
| 5,190.00                              | 76.49           | 336.76      | 5,120.72            | 134.73     | -57.85     | 146.63                | 30.00                 | 30.00                | 0.00                |
| 5,200.00                              | 79.49           | 336.76      | 5,122.80            | 143.72     | -61.71     | 156.41                | 30.00                 | 30.00                | 0.00                |
| 5,210.00                              | 82.49           | 336.76      | 5,124.36            | 152.79     | -65.61     | 166.28                | 30.00                 | 30.00                | 0.00                |
| 5,220.00                              | 85.49           | 336.76      | 5,125.41            | 161.93     | -69.53     | 176.23                | 30.00                 | 30.00                | 0.00                |
| 5,230.00                              | 88.49           | 336.76      | 5,125.93            | 171.10     | -73.47     | 186.21                | 30.00                 | 30.00                | 0.00                |
| 5,235.02                              | 90.00           | 336.76      | 5,126.00            | 175.72     | -75.45     | 191.23                | 30.00                 | 30.00                | 0.00                |
| EOC - Hold 90.0° Inc. :: 336.76° Azi. |                 |             |                     |            |            |                       |                       |                      |                     |
| 5,300.00                              | 90.00           | 336.76      | 5,126.00            | 235.42     | -101.09    | 256.21                | 0.00                  | 0.00                 | 0.00                |
| 5,400.00                              | 90.00           | 336.76      | 5,126.00            | 327.31     | -140.55    | 356.21                | 0.00                  | 0.00                 | 0.00                |
| 5,500.00                              | 90.00           | 336.76      | 5,126.00            | 419.20     | -180.01    | 456.21                | 0.00                  | 0.00                 | 0.00                |
| 5,600.00                              | 90.00           | 336.76      | 5,126.00            | 511.08     | -219.46    | 556.21                | 0.00                  | 0.00                 | 0.00                |
| 5,700.00                              | 90.00           | 336.76      | 5,126.00            | 602.97     | -258.92    | 656.21                | 0.00                  | 0.00                 | 0.00                |
| 5,800.00                              | 90.00           | 336.76      | 5,126.00            | 694.86     | -298.38    | 756.21                | 0.00                  | 0.00                 | 0.00                |
| 5,900.00                              | 90.00           | 336.76      | 5,126.00            | 786.75     | -337.83    | 856.21                | 0.00                  | 0.00                 | 0.00                |
| 6,000.00                              | 90.00           | 336.76      | 5,126.00            | 878.63     | -377.29    | 956.21                | 0.00                  | 0.00                 | 0.00                |
| 6,100.00                              | 90.00           | 336.76      | 5,126.00            | 970.52     | -416.75    | 1,056.21              | 0.00                  | 0.00                 | 0.00                |
| 6,200.00                              | 90.00           | 336.76      | 5,126.00            | 1,062.41   | -456.20    | 1,156.21              | 0.00                  | 0.00                 | 0.00                |
| 6,300.00                              | 90.00           | 336.76      | 5,126.00            | 1,154.29   | -495.66    | 1,256.21              | 0.00                  | 0.00                 | 0.00                |
| 6,400.00                              | 90.00           | 336.76      | 5,126.00            | 1,246.18   | -535.12    | 1,356.21              | 0.00                  | 0.00                 | 0.00                |
| 6,500.00                              | 90.00           | 336.76      | 5,126.00            | 1,338.07   | -574.57    | 1,456.21              | 0.00                  | 0.00                 | 0.00                |
| 6,600.00                              | 90.00           | 336.76      | 5,126.00            | 1,429.95   | -614.03    | 1,556.21              | 0.00                  | 0.00                 | 0.00                |
| 6,700.00                              | 90.00           | 336.76      | 5,126.00            | 1,521.84   | -653.49    | 1,656.21              | 0.00                  | 0.00                 | 0.00                |
| 6,740.33                              | 90.00           | 336.76      | 5,126.00            | 1,558.90   | -669.40    | 1,696.55              | 0.00                  | 0.00                 | 0.00                |
| PBHL#1[ASC#1H]                        |                 |             |                     |            |            |                       |                       |                      |                     |

**Black Viper Energy**  
Survey Report



**Company:** Nearburg Producing Co.  
**Project:** Eddy County, NM  
**Site:** Amethyst State Com #1H  
**Well:** Amethyst State Com #1H  
**Wellbore:** Lateral  
**Design:** Plan #1

**Local Co-ordinate Reference:** Well Amethyst State Com #1H  
**TVD Reference:** Rig KB @ 2938.00ft (Est. Rig KB)  
**MD Reference:** Rig KB @ 2938.00ft (Est. Rig KB)  
**North Reference:** Grid  
**Survey Calculation Method:** Minimum Curvature  
**Database:** EDM 2003 14.1 0 Server DB

**Targets**

| Target Name        | Dip Angle | Dip Dir. | TVD      | +N/-S    | +E/-W   | Northing   | Easting    | Latitude         | Longitude        |
|--------------------|-----------|----------|----------|----------|---------|------------|------------|------------------|------------------|
| - hit/miss target  | (°)       | (°)      | (ft)     | (ft)     | (ft)    | (ft)       | (ft)       |                  |                  |
| - Shape            |           |          |          |          |         |            |            |                  |                  |
| PBHL#1[ASC#1H]     | 0.00      | 0.00     | 5,126.00 | 1,558.90 | -669.40 | 429,390.70 | 598,928.20 | 32° 10' 48.380 N | 104° 0' 48.897 W |
| - plan hits target |           |          |          |          |         |            |            |                  |                  |
| - Point            |           |          |          |          |         |            |            |                  |                  |

**Formations**

| Measured Depth | Vertical Depth | Name        | Lithology | Dip  | Dip Direction |
|----------------|----------------|-------------|-----------|------|---------------|
| (ft)           | (ft)           |             |           | (°)  | (°)           |
| 5,109.15       | 5,086.00       | T/ Delaware |           | 0.00 | 0.00          |

**Plan Annotations**

| Measured Depth | Vertical Depth | Local Coordinates |        | Comment                              |
|----------------|----------------|-------------------|--------|--------------------------------------|
| (ft)           | (ft)           | +N/-S             | +E/-W  |                                      |
| 4,900.00       | 4,900.00       | 0.00              | 0.00   | Tie In                               |
| 4,930.61       | 4,930.61       | 0.00              | 0.00   | Top of Window                        |
| 4,940.01       | 4,940.01       | 0.23              | -0.10  | Base of Window                       |
| 4,945.02       | 4,945.01       | 0.47              | -0.20  | KOP - Build 30.0° / 199              |
| 5,235.02       | 5,126.00       | 175.72            | -75.45 | EOC - Hold 90.0° Inc. . 336.76° Azi. |

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_

Amethyst State Com #1H Lateral Plan #1 Report 2-12-08.txt  
Nearburg Producing Co.  
Amethyst State Com #1H - Plan #1

Eddy County, NM.  
Amethyst State Com #1H

| Measured<br>Dogleg<br>Depth<br>Rate<br>(ft)<br>(°/100ft) | Incl.  | Azim.   | Vertical<br>Depth<br>(ft) | Northings<br>(ft) | Eastings<br>(ft) | Vertical<br>Section<br>(ft) |
|----------------------------------------------------------|--------|---------|---------------------------|-------------------|------------------|-----------------------------|
| 4900.00                                                  | 0.000  | 0.000   | 4900.00                   | 0.00 N            | 0.00 E           | 0.00                        |
| 0.00                                                     |        |         |                           |                   |                  |                             |
| 4940.00                                                  | 2.997  | 336.760 | 4940.00                   | 0.23 N            | 0.10 W           | 0.25                        |
| 7.49                                                     |        |         |                           |                   |                  |                             |
| 4950.00                                                  | 4.494  | 336.760 | 4949.98                   | 0.77 N            | 0.33 W           | 0.83                        |
| 14.97                                                    |        |         |                           |                   |                  |                             |
| 4960.00                                                  | 7.494  | 336.761 | 4959.92                   | 1.73 N            | 0.74 W           | 1.88                        |
| 30.00                                                    |        |         |                           |                   |                  |                             |
| 4970.00                                                  | 10.494 | 336.761 | 4969.80                   | 3.16 N            | 1.36 W           | 3.44                        |
| 30.00                                                    |        |         |                           |                   |                  |                             |
| 4980.00                                                  | 13.494 | 336.761 | 4979.58                   | 5.07 N            | 2.18 W           | 5.52                        |
| 30.00                                                    |        |         |                           |                   |                  |                             |
| 4990.00                                                  | 16.494 | 336.761 | 4989.24                   | 7.45 N            | 3.20 W           | 8.11                        |
| 30.00                                                    |        |         |                           |                   |                  |                             |
| 5000.00                                                  | 19.494 | 336.761 | 4998.75                   | 10.29 N           | 4.42 W           | 11.19                       |
| 30.00                                                    |        |         |                           |                   |                  |                             |
| 5010.00                                                  | 22.494 | 336.761 | 5008.08                   | 13.58 N           | 5.83 W           | 14.78                       |
| 30.00                                                    |        |         |                           |                   |                  |                             |
| 5020.00                                                  | 25.494 | 336.761 | 5017.22                   | 17.31 N           | 7.43 W           | 18.84                       |
| 30.00                                                    |        |         |                           |                   |                  |                             |
| 5030.00                                                  | 28.494 | 336.761 | 5026.13                   | 21.48 N           | 9.23 W           | 23.38                       |
| 30.00                                                    |        |         |                           |                   |                  |                             |
| 5040.00                                                  | 31.494 | 336.761 | 5034.79                   | 26.08 N           | 11.20 W          | 28.38                       |
| 30.00                                                    |        |         |                           |                   |                  |                             |
| 5050.00                                                  | 34.494 | 336.761 | 5043.17                   | 31.08 N           | 13.35 W          | 33.82                       |
| 30.00                                                    |        |         |                           |                   |                  |                             |
| 5060.00                                                  | 37.494 | 336.761 | 5051.26                   | 36.48 N           | 15.66 W          | 39.70                       |
| 30.00                                                    |        |         |                           |                   |                  |                             |
| 5070.00                                                  | 40.494 | 336.761 | 5059.03                   | 42.26 N           | 18.15 W          | 45.99                       |
| 30.00                                                    |        |         |                           |                   |                  |                             |
| 5080.00                                                  | 43.494 | 336.761 | 5066.47                   | 48.41 N           | 20.79 W          | 52.68                       |
| 30.00                                                    |        |         |                           |                   |                  |                             |
| 5090.00                                                  | 46.494 | 336.761 | 5073.54                   | 54.90 N           | 23.58 W          | 59.75                       |
| 30.00                                                    |        |         |                           |                   |                  |                             |
| 5100.00                                                  | 49.494 | 336.761 | 5080.23                   | 61.73 N           | 26.51 W          | 67.18                       |
| 30.00                                                    |        |         |                           |                   |                  |                             |
| 5110.00                                                  | 52.494 | 336.761 | 5086.52                   | 68.87 N           | 29.57 W          | 74.95                       |
| 30.00                                                    |        |         |                           |                   |                  |                             |
| 5120.00                                                  | 55.494 | 336.761 | 5092.40                   | 76.30 N           | 32.76 W          | 83.04                       |
| 30.00                                                    |        |         |                           |                   |                  |                             |
| 5130.00                                                  | 58.494 | 336.761 | 5097.85                   | 84.01 N           | 36.07 W          | 91.43                       |
| 30.00                                                    |        |         |                           |                   |                  |                             |
| 5140.00                                                  | 61.494 | 336.761 | 5102.85                   | 91.96 N           | 39.49 W          | 100.08                      |
| 30.00                                                    |        |         |                           |                   |                  |                             |
| 5150.00                                                  | 64.494 | 336.761 | 5107.39                   | 100.15 N          | 43.00 W          | 108.99                      |
| 30.00                                                    |        |         |                           |                   |                  |                             |
| 5160.00                                                  | 67.494 | 336.761 | 5111.45                   | 108.54 N          | 46.61 W          | 118.13                      |
| 30.00                                                    |        |         |                           |                   |                  |                             |
| 5170.00                                                  | 70.494 | 336.761 | 5115.04                   | 117.12 N          | 50.29 W          | 127.46                      |
| 30.00                                                    |        |         |                           |                   |                  |                             |

|         | Amethyst State Com #1H Lateral Plan #1 Report 2-12-08.txt |         |         |          |          |        |
|---------|-----------------------------------------------------------|---------|---------|----------|----------|--------|
| 5180.00 | 73.494                                                    | 336.761 | 5118.13 | 125.86 N | 54.04 W  | 136.97 |
| 30.00   |                                                           |         |         |          |          |        |
| 5190.00 | 76.494                                                    | 336.761 | 5120.72 | 134.73 N | 57.85 W  | 146.63 |
| 30.00   |                                                           |         |         |          |          |        |
| 5200.00 | 79.494                                                    | 336.761 | 5122.80 | 143.72 N | 61.71 W  | 156.41 |
| 30.00   |                                                           |         |         |          |          |        |
| 5210.00 | 82.494                                                    | 336.761 | 5124.36 | 152.79 N | 65.61 W  | 166.28 |
| 30.00   |                                                           |         |         |          |          |        |
| 5220.00 | 85.494                                                    | 336.761 | 5125.41 | 161.93 N | 69.53 W  | 176.23 |
| 30.00   |                                                           |         |         |          |          |        |
| 5230.00 | 88.494                                                    | 336.761 | 5125.93 | 171.10 N | 73.47 W  | 186.21 |
| 30.00   |                                                           |         |         |          |          |        |
| 5240.00 | 90.000                                                    | 336.761 | 5126.00 | 180.29 N | 77.42 W  | 196.21 |
| 15.06   |                                                           |         |         |          |          |        |
| 5250.00 | 90.000                                                    | 336.761 | 5126.00 | 189.48 N | 81.36 W  | 206.21 |
| 0.00    |                                                           |         |         |          |          |        |
| 5260.00 | 90.000                                                    | 336.761 | 5126.00 | 198.67 N | 85.31 W  | 216.21 |
| 0.00    |                                                           |         |         |          |          |        |
| 5270.00 | 90.000                                                    | 336.761 | 5126.00 | 207.86 N | 89.26 W  | 226.21 |
| 0.00    |                                                           |         |         |          |          |        |
| 5280.00 | 90.000                                                    | 336.761 | 5126.00 | 217.05 N | 93.20 W  | 236.21 |
| 0.00    |                                                           |         |         |          |          |        |
| 5290.00 | 90.000                                                    | 336.761 | 5126.00 | 226.24 N | 97.15 W  | 246.21 |
| 0.00    |                                                           |         |         |          |          |        |
| 5300.00 | 90.000                                                    | 336.761 | 5126.00 | 235.42 N | 101.09 W | 256.21 |
| 0.00    |                                                           |         |         |          |          |        |
| 5310.00 | 90.000                                                    | 336.761 | 5126.00 | 244.61 N | 105.04 W | 266.21 |
| 0.00    |                                                           |         |         |          |          |        |
| 5320.00 | 90.000                                                    | 336.761 | 5126.00 | 253.80 N | 108.98 W | 276.21 |
| 0.00    |                                                           |         |         |          |          |        |
| 5330.00 | 90.000                                                    | 336.761 | 5126.00 | 262.99 N | 112.93 W | 286.21 |
| 0.00    |                                                           |         |         |          |          |        |
| 5340.00 | 90.000                                                    | 336.761 | 5126.00 | 272.18 N | 116.88 W | 296.21 |
| 0.00    |                                                           |         |         |          |          |        |
| 5350.00 | 90.000                                                    | 336.761 | 5126.00 | 281.37 N | 120.82 W | 306.21 |
| 0.00    |                                                           |         |         |          |          |        |
| 5360.00 | 90.000                                                    | 336.761 | 5126.00 | 290.56 N | 124.77 W | 316.21 |
| 0.00    |                                                           |         |         |          |          |        |
| 5370.00 | 90.000                                                    | 336.761 | 5126.00 | 299.75 N | 128.71 W | 326.21 |
| 0.00    |                                                           |         |         |          |          |        |
| 5380.00 | 90.000                                                    | 336.761 | 5126.00 | 308.93 N | 132.66 W | 336.21 |
| 0.00    |                                                           |         |         |          |          |        |
| 5390.00 | 90.000                                                    | 336.761 | 5126.00 | 318.12 N | 136.60 W | 346.21 |
| 0.00    |                                                           |         |         |          |          |        |
| 5400.00 | 90.000                                                    | 336.761 | 5126.00 | 327.31 N | 140.55 W | 356.21 |
| 0.00    |                                                           |         |         |          |          |        |
| 5410.00 | 90.000                                                    | 336.761 | 5126.00 | 336.50 N | 144.50 W | 366.21 |
| 0.00    |                                                           |         |         |          |          |        |
| 5420.00 | 90.000                                                    | 336.761 | 5126.00 | 345.69 N | 148.44 W | 376.21 |
| 0.00    |                                                           |         |         |          |          |        |
| 5430.00 | 90.000                                                    | 336.761 | 5126.00 | 354.88 N | 152.39 W | 386.21 |
| 0.00    |                                                           |         |         |          |          |        |
| 5440.00 | 90.000                                                    | 336.761 | 5126.00 | 364.07 N | 156.33 W | 396.21 |
| 0.00    |                                                           |         |         |          |          |        |
| 5450.00 | 90.000                                                    | 336.761 | 5126.00 | 373.25 N | 160.28 W | 406.21 |
| 0.00    |                                                           |         |         |          |          |        |
| 5460.00 | 90.000                                                    | 336.761 | 5126.00 | 382.44 N | 164.22 W | 416.21 |
| 0.00    |                                                           |         |         |          |          |        |
| 5470.00 | 90.000                                                    | 336.761 | 5126.00 | 391.63 N | 168.17 W | 426.21 |
| 0.00    |                                                           |         |         |          |          |        |
| 5480.00 | 90.000                                                    | 336.761 | 5126.00 | 400.82 N | 172.11 W | 436.21 |
| 0.00    |                                                           |         |         |          |          |        |
| 5490.00 | 90.000                                                    | 336.761 | 5126.00 | 410.01 N | 176.06 W | 446.21 |

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|         |        |         |         |          |          |        |
|---------|--------|---------|---------|----------|----------|--------|
| 0.00    |        |         |         |          |          |        |
| 5500.00 | 90.000 | 336.761 | 5126.00 | 419.20 N | 180.01 W | 456.21 |
| 0.00    |        |         |         |          |          |        |
| 5510.00 | 90.000 | 336.761 | 5126.00 | 428.39 N | 183.95 W | 466.21 |
| 0.00    |        |         |         |          |          |        |
| 5520.00 | 90.000 | 336.761 | 5126.00 | 437.58 N | 187.90 W | 476.21 |
| 0.00    |        |         |         |          |          |        |
| 5530.00 | 90.000 | 336.761 | 5126.00 | 446.76 N | 191.84 W | 486.21 |
| 0.00    |        |         |         |          |          |        |
| 5540.00 | 90.000 | 336.761 | 5126.00 | 455.95 N | 195.79 W | 496.21 |
| 0.00    |        |         |         |          |          |        |
| 5550.00 | 90.000 | 336.761 | 5126.00 | 465.14 N | 199.73 W | 506.21 |
| 0.00    |        |         |         |          |          |        |
| 5560.00 | 90.000 | 336.761 | 5126.00 | 474.33 N | 203.68 W | 516.21 |
| 0.00    |        |         |         |          |          |        |
| 5570.00 | 90.000 | 336.761 | 5126.00 | 483.52 N | 207.63 W | 526.21 |
| 0.00    |        |         |         |          |          |        |
| 5580.00 | 90.000 | 336.761 | 5126.00 | 492.71 N | 211.57 W | 536.21 |
| 0.00    |        |         |         |          |          |        |
| 5590.00 | 90.000 | 336.761 | 5126.00 | 501.90 N | 215.52 W | 546.21 |
| 0.00    |        |         |         |          |          |        |
| 5600.00 | 90.000 | 336.761 | 5126.00 | 511.08 N | 219.46 W | 556.21 |
| 0.00    |        |         |         |          |          |        |
| 5610.00 | 90.000 | 336.761 | 5126.00 | 520.27 N | 223.41 W | 566.21 |
| 0.00    |        |         |         |          |          |        |
| 5620.00 | 90.000 | 336.761 | 5126.00 | 529.46 N | 227.35 W | 576.21 |
| 0.00    |        |         |         |          |          |        |
| 5630.00 | 90.000 | 336.761 | 5126.00 | 538.65 N | 231.30 W | 586.21 |
| 0.00    |        |         |         |          |          |        |
| 5640.00 | 90.000 | 336.761 | 5126.00 | 547.84 N | 235.25 W | 596.21 |
| 0.00    |        |         |         |          |          |        |
| 5650.00 | 90.000 | 336.761 | 5126.00 | 557.03 N | 239.19 W | 606.21 |
| 0.00    |        |         |         |          |          |        |
| 5660.00 | 90.000 | 336.761 | 5126.00 | 566.22 N | 243.14 W | 616.21 |
| 0.00    |        |         |         |          |          |        |
| 5670.00 | 90.000 | 336.761 | 5126.00 | 575.41 N | 247.08 W | 626.21 |
| 0.00    |        |         |         |          |          |        |
| 5680.00 | 90.000 | 336.761 | 5126.00 | 584.59 N | 251.03 W | 636.21 |
| 0.00    |        |         |         |          |          |        |
| 5690.00 | 90.000 | 336.761 | 5126.00 | 593.78 N | 254.97 W | 646.21 |
| 0.00    |        |         |         |          |          |        |
| 5700.00 | 90.000 | 336.761 | 5126.00 | 602.97 N | 258.92 W | 656.21 |
| 0.00    |        |         |         |          |          |        |
| 5710.00 | 90.000 | 336.761 | 5126.00 | 612.16 N | 262.87 W | 666.21 |
| 0.00    |        |         |         |          |          |        |
| 5720.00 | 90.000 | 336.761 | 5126.00 | 621.35 N | 266.81 W | 676.21 |
| 0.00    |        |         |         |          |          |        |
| 5730.00 | 90.000 | 336.761 | 5126.00 | 630.54 N | 270.76 W | 686.21 |
| 0.00    |        |         |         |          |          |        |
| 5740.00 | 90.000 | 336.761 | 5126.00 | 639.73 N | 274.70 W | 696.21 |
| 0.00    |        |         |         |          |          |        |
| 5750.00 | 90.000 | 336.761 | 5126.00 | 648.92 N | 278.65 W | 706.21 |
| 0.00    |        |         |         |          |          |        |
| 5760.00 | 90.000 | 336.761 | 5126.00 | 658.10 N | 282.59 W | 716.21 |
| 0.00    |        |         |         |          |          |        |
| 5770.00 | 90.000 | 336.761 | 5126.00 | 667.29 N | 286.54 W | 726.21 |
| 0.00    |        |         |         |          |          |        |
| 5780.00 | 90.000 | 336.761 | 5126.00 | 676.48 N | 290.48 W | 736.21 |
| 0.00    |        |         |         |          |          |        |
| 5790.00 | 90.000 | 336.761 | 5126.00 | 685.67 N | 294.43 W | 746.21 |
| 0.00    |        |         |         |          |          |        |
| 5800.00 | 90.000 | 336.761 | 5126.00 | 694.86 N | 298.38 W | 756.21 |
| 0.00    |        |         |         |          |          |        |

|         | Amethyst State Com #1H Lateral Plan #1 Report 2-12-08.txt |         |         |          |          |         |
|---------|-----------------------------------------------------------|---------|---------|----------|----------|---------|
| 5810.00 | 90.000                                                    | 336.761 | 5126.00 | 704.05 N | 302.32 W | 766.21  |
| 0.00    |                                                           |         |         |          |          |         |
| 5820.00 | 90.000                                                    | 336.761 | 5126.00 | 713.24 N | 306.27 W | 776.21  |
| 0.00    |                                                           |         |         |          |          |         |
| 5830.00 | 90.000                                                    | 336.761 | 5126.00 | 722.42 N | 310.21 W | 786.21  |
| 0.00    |                                                           |         |         |          |          |         |
| 5840.00 | 90.000                                                    | 336.761 | 5126.00 | 731.61 N | 314.16 W | 796.21  |
| 0.00    |                                                           |         |         |          |          |         |
| 5850.00 | 90.000                                                    | 336.761 | 5126.00 | 740.80 N | 318.10 W | 806.21  |
| 0.00    |                                                           |         |         |          |          |         |
| 5860.00 | 90.000                                                    | 336.761 | 5126.00 | 749.99 N | 322.05 W | 816.21  |
| 0.00    |                                                           |         |         |          |          |         |
| 5870.00 | 90.000                                                    | 336.761 | 5126.00 | 759.18 N | 326.00 W | 826.21  |
| 0.00    |                                                           |         |         |          |          |         |
| 5880.00 | 90.000                                                    | 336.761 | 5126.00 | 768.37 N | 329.94 W | 836.21  |
| 0.00    |                                                           |         |         |          |          |         |
| 5890.00 | 90.000                                                    | 336.761 | 5126.00 | 777.56 N | 333.89 W | 846.21  |
| 0.00    |                                                           |         |         |          |          |         |
| 5900.00 | 90.000                                                    | 336.761 | 5126.00 | 786.75 N | 337.83 W | 856.21  |
| 0.00    |                                                           |         |         |          |          |         |
| 5910.00 | 90.000                                                    | 336.761 | 5126.00 | 795.93 N | 341.78 W | 866.21  |
| 0.00    |                                                           |         |         |          |          |         |
| 5920.00 | 90.000                                                    | 336.761 | 5126.00 | 805.12 N | 345.72 W | 876.21  |
| 0.00    |                                                           |         |         |          |          |         |
| 5930.00 | 90.000                                                    | 336.761 | 5126.00 | 814.31 N | 349.67 W | 886.21  |
| 0.00    |                                                           |         |         |          |          |         |
| 5940.00 | 90.000                                                    | 336.761 | 5126.00 | 823.50 N | 353.62 W | 896.21  |
| 0.00    |                                                           |         |         |          |          |         |
| 5950.00 | 90.000                                                    | 336.761 | 5126.00 | 832.69 N | 357.56 W | 906.21  |
| 0.00    |                                                           |         |         |          |          |         |
| 5960.00 | 90.000                                                    | 336.761 | 5126.00 | 841.88 N | 361.51 W | 916.21  |
| 0.00    |                                                           |         |         |          |          |         |
| 5970.00 | 90.000                                                    | 336.761 | 5126.00 | 851.07 N | 365.45 W | 926.21  |
| 0.00    |                                                           |         |         |          |          |         |
| 5980.00 | 90.000                                                    | 336.761 | 5126.00 | 860.25 N | 369.40 W | 936.21  |
| 0.00    |                                                           |         |         |          |          |         |
| 5990.00 | 90.000                                                    | 336.761 | 5126.00 | 869.44 N | 373.34 W | 946.21  |
| 0.00    |                                                           |         |         |          |          |         |
| 6000.00 | 90.000                                                    | 336.761 | 5126.00 | 878.63 N | 377.29 W | 956.21  |
| 0.00    |                                                           |         |         |          |          |         |
| 6010.00 | 90.000                                                    | 336.761 | 5126.00 | 887.82 N | 381.23 W | 966.21  |
| 0.00    |                                                           |         |         |          |          |         |
| 6020.00 | 90.000                                                    | 336.761 | 5126.00 | 897.01 N | 385.18 W | 976.21  |
| 0.00    |                                                           |         |         |          |          |         |
| 6030.00 | 90.000                                                    | 336.761 | 5126.00 | 906.20 N | 389.13 W | 986.21  |
| 0.00    |                                                           |         |         |          |          |         |
| 6040.00 | 90.000                                                    | 336.761 | 5126.00 | 915.39 N | 393.07 W | 996.21  |
| 0.00    |                                                           |         |         |          |          |         |
| 6050.00 | 90.000                                                    | 336.761 | 5126.00 | 924.58 N | 397.02 W | 1006.21 |
| 0.00    |                                                           |         |         |          |          |         |
| 6060.00 | 90.000                                                    | 336.761 | 5126.00 | 933.76 N | 400.96 W | 1016.21 |
| 0.00    |                                                           |         |         |          |          |         |
| 6070.00 | 90.000                                                    | 336.761 | 5126.00 | 942.95 N | 404.91 W | 1026.21 |
| 0.00    |                                                           |         |         |          |          |         |
| 6080.00 | 90.000                                                    | 336.761 | 5126.00 | 952.14 N | 408.85 W | 1036.21 |
| 0.00    |                                                           |         |         |          |          |         |
| 6090.00 | 90.000                                                    | 336.761 | 5126.00 | 961.33 N | 412.80 W | 1046.21 |
| 0.00    |                                                           |         |         |          |          |         |
| 6100.00 | 90.000                                                    | 336.761 | 5126.00 | 970.52 N | 416.75 W | 1056.21 |
| 0.00    |                                                           |         |         |          |          |         |
| 6110.00 | 90.000                                                    | 336.761 | 5126.00 | 979.71 N | 420.69 W | 1066.21 |
| 0.00    |                                                           |         |         |          |          |         |
| 6120.00 | 90.000                                                    | 336.761 | 5126.00 | 988.90 N | 424.64 W | 1076.21 |

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|         |        |         |         |           |          |         |  |
|---------|--------|---------|---------|-----------|----------|---------|--|
| 0.00    |        |         |         |           |          |         |  |
| 6130.00 | 90.000 | 336.761 | 5126.00 | 998.08 N  | 428.58 W | 1086.21 |  |
| 0.00    |        |         |         |           |          |         |  |
| 6140.00 | 90.000 | 336.761 | 5126.00 | 1007.27 N | 432.53 W | 1096.21 |  |
| 0.00    |        |         |         |           |          |         |  |
| 6150.00 | 90.000 | 336.761 | 5126.00 | 1016.46 N | 436.47 W | 1106.21 |  |
| 0.00    |        |         |         |           |          |         |  |
| 6160.00 | 90.000 | 336.761 | 5126.00 | 1025.65 N | 440.42 W | 1116.21 |  |
| 0.00    |        |         |         |           |          |         |  |
| 6170.00 | 90.000 | 336.761 | 5126.00 | 1034.84 N | 444.37 W | 1126.21 |  |
| 0.00    |        |         |         |           |          |         |  |
| 6180.00 | 90.000 | 336.761 | 5126.00 | 1044.03 N | 448.31 W | 1136.21 |  |
| 0.00    |        |         |         |           |          |         |  |
| 6190.00 | 90.000 | 336.761 | 5126.00 | 1053.22 N | 452.26 W | 1146.21 |  |
| 0.00    |        |         |         |           |          |         |  |
| 6200.00 | 90.000 | 336.761 | 5126.00 | 1062.41 N | 456.20 W | 1156.21 |  |
| 0.00    |        |         |         |           |          |         |  |
| 6210.00 | 90.000 | 336.761 | 5126.00 | 1071.59 N | 460.15 W | 1166.21 |  |
| 0.00    |        |         |         |           |          |         |  |
| 6220.00 | 90.000 | 336.761 | 5126.00 | 1080.78 N | 464.09 W | 1176.21 |  |
| 0.00    |        |         |         |           |          |         |  |
| 6230.00 | 90.000 | 336.761 | 5126.00 | 1089.97 N | 468.04 W | 1186.21 |  |
| 0.00    |        |         |         |           |          |         |  |
| 6240.00 | 90.000 | 336.761 | 5126.00 | 1099.16 N | 471.99 W | 1196.21 |  |
| 0.00    |        |         |         |           |          |         |  |
| 6250.00 | 90.000 | 336.761 | 5126.00 | 1108.35 N | 475.93 W | 1206.21 |  |
| 0.00    |        |         |         |           |          |         |  |
| 6260.00 | 90.000 | 336.761 | 5126.00 | 1117.54 N | 479.88 W | 1216.21 |  |
| 0.00    |        |         |         |           |          |         |  |
| 6270.00 | 90.000 | 336.761 | 5126.00 | 1126.73 N | 483.82 W | 1226.21 |  |
| 0.00    |        |         |         |           |          |         |  |
| 6280.00 | 90.000 | 336.761 | 5126.00 | 1135.91 N | 487.77 W | 1236.21 |  |
| 0.00    |        |         |         |           |          |         |  |
| 6290.00 | 90.000 | 336.761 | 5126.00 | 1145.10 N | 491.71 W | 1246.21 |  |
| 0.00    |        |         |         |           |          |         |  |
| 6300.00 | 90.000 | 336.761 | 5126.00 | 1154.29 N | 495.66 W | 1256.21 |  |
| 0.00    |        |         |         |           |          |         |  |
| 6310.00 | 90.000 | 336.761 | 5126.00 | 1163.48 N | 499.60 W | 1266.21 |  |
| 0.00    |        |         |         |           |          |         |  |
| 6320.00 | 90.000 | 336.761 | 5126.00 | 1172.67 N | 503.55 W | 1276.21 |  |
| 0.00    |        |         |         |           |          |         |  |
| 6330.00 | 90.000 | 336.761 | 5126.00 | 1181.86 N | 507.50 W | 1286.21 |  |
| 0.00    |        |         |         |           |          |         |  |
| 6340.00 | 90.000 | 336.761 | 5126.00 | 1191.05 N | 511.44 W | 1296.21 |  |
| 0.00    |        |         |         |           |          |         |  |
| 6350.00 | 90.000 | 336.761 | 5126.00 | 1200.24 N | 515.39 W | 1306.21 |  |
| 0.00    |        |         |         |           |          |         |  |
| 6360.00 | 90.000 | 336.761 | 5126.00 | 1209.42 N | 519.33 W | 1316.21 |  |
| 0.00    |        |         |         |           |          |         |  |
| 6370.00 | 90.000 | 336.761 | 5126.00 | 1218.61 N | 523.28 W | 1326.21 |  |
| 0.00    |        |         |         |           |          |         |  |
| 6380.00 | 90.000 | 336.761 | 5126.00 | 1227.80 N | 527.22 W | 1336.21 |  |
| 0.00    |        |         |         |           |          |         |  |
| 6390.00 | 90.000 | 336.761 | 5126.00 | 1236.99 N | 531.17 W | 1346.21 |  |
| 0.00    |        |         |         |           |          |         |  |
| 6400.00 | 90.000 | 336.761 | 5126.00 | 1246.18 N | 535.12 W | 1356.21 |  |
| 0.00    |        |         |         |           |          |         |  |
| 6410.00 | 90.000 | 336.761 | 5126.00 | 1255.37 N | 539.06 W | 1366.21 |  |
| 0.00    |        |         |         |           |          |         |  |
| 6420.00 | 90.000 | 336.761 | 5126.00 | 1264.56 N | 543.01 W | 1376.21 |  |
| 0.00    |        |         |         |           |          |         |  |
| 6430.00 | 90.000 | 336.761 | 5126.00 | 1273.74 N | 546.95 W | 1386.21 |  |
| 0.00    |        |         |         |           |          |         |  |

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|         |        |         |         |           |          |         |
|---------|--------|---------|---------|-----------|----------|---------|
| 6440.00 | 90.000 | 336.761 | 5126.00 | 1282.93 N | 550.90 W | 1396.21 |
| 0.00    |        |         |         |           |          |         |
| 6450.00 | 90.000 | 336.761 | 5126.00 | 1292.12 N | 554.84 W | 1406.21 |
| 0.00    |        |         |         |           |          |         |
| 6460.00 | 90.000 | 336.761 | 5126.00 | 1301.31 N | 558.79 W | 1416.21 |
| 0.00    |        |         |         |           |          |         |
| 6470.00 | 90.000 | 336.761 | 5126.00 | 1310.50 N | 562.74 W | 1426.21 |
| 0.00    |        |         |         |           |          |         |
| 6480.00 | 90.000 | 336.761 | 5126.00 | 1319.69 N | 566.68 W | 1436.21 |
| 0.00    |        |         |         |           |          |         |
| 6490.00 | 90.000 | 336.761 | 5126.00 | 1328.88 N | 570.63 W | 1446.21 |
| 0.00    |        |         |         |           |          |         |
| 6500.00 | 90.000 | 336.761 | 5126.00 | 1338.07 N | 574.57 W | 1456.21 |
| 0.00    |        |         |         |           |          |         |
| 6510.00 | 90.000 | 336.761 | 5126.00 | 1347.25 N | 578.52 W | 1466.21 |
| 0.00    |        |         |         |           |          |         |
| 6520.00 | 90.000 | 336.761 | 5126.00 | 1356.44 N | 582.46 W | 1476.21 |
| 0.00    |        |         |         |           |          |         |
| 6530.00 | 90.000 | 336.761 | 5126.00 | 1365.63 N | 586.41 W | 1486.21 |
| 0.00    |        |         |         |           |          |         |
| 6540.00 | 90.000 | 336.761 | 5126.00 | 1374.82 N | 590.36 W | 1496.21 |
| 0.00    |        |         |         |           |          |         |
| 6550.00 | 90.000 | 336.761 | 5126.00 | 1384.01 N | 594.30 W | 1506.21 |
| 0.00    |        |         |         |           |          |         |
| 6560.00 | 90.000 | 336.761 | 5126.00 | 1393.20 N | 598.25 W | 1516.21 |
| 0.00    |        |         |         |           |          |         |
| 6570.00 | 90.000 | 336.761 | 5126.00 | 1402.39 N | 602.19 W | 1526.21 |
| 0.00    |        |         |         |           |          |         |
| 6580.00 | 90.000 | 336.761 | 5126.00 | 1411.58 N | 606.14 W | 1536.21 |
| 0.00    |        |         |         |           |          |         |
| 6590.00 | 90.000 | 336.761 | 5126.00 | 1420.76 N | 610.08 W | 1546.21 |
| 0.00    |        |         |         |           |          |         |
| 6600.00 | 90.000 | 336.761 | 5126.00 | 1429.95 N | 614.03 W | 1556.21 |
| 0.00    |        |         |         |           |          |         |
| 6610.00 | 90.000 | 336.761 | 5126.00 | 1439.14 N | 617.97 W | 1566.21 |
| 0.00    |        |         |         |           |          |         |
| 6620.00 | 90.000 | 336.761 | 5126.00 | 1448.33 N | 621.92 W | 1576.21 |
| 0.00    |        |         |         |           |          |         |
| 6630.00 | 90.000 | 336.761 | 5126.00 | 1457.52 N | 625.87 W | 1586.21 |
| 0.00    |        |         |         |           |          |         |
| 6640.00 | 90.000 | 336.761 | 5126.00 | 1466.71 N | 629.81 W | 1596.21 |
| 0.00    |        |         |         |           |          |         |
| 6650.00 | 90.000 | 336.761 | 5126.00 | 1475.90 N | 633.76 W | 1606.21 |
| 0.00    |        |         |         |           |          |         |
| 6660.00 | 90.000 | 336.761 | 5126.00 | 1485.08 N | 637.70 W | 1616.21 |
| 0.00    |        |         |         |           |          |         |
| 6670.00 | 90.000 | 336.761 | 5126.00 | 1494.27 N | 641.65 W | 1626.21 |
| 0.00    |        |         |         |           |          |         |
| 6680.00 | 90.000 | 336.761 | 5126.00 | 1503.46 N | 645.59 W | 1636.21 |
| 0.00    |        |         |         |           |          |         |
| 6690.00 | 90.000 | 336.761 | 5126.00 | 1512.65 N | 649.54 W | 1646.21 |
| 0.00    |        |         |         |           |          |         |
| 6700.00 | 90.000 | 336.761 | 5126.00 | 1521.84 N | 653.49 W | 1656.21 |
| 0.00    |        |         |         |           |          |         |
| 6710.00 | 90.000 | 336.761 | 5126.00 | 1531.03 N | 657.43 W | 1666.21 |
| 0.00    |        |         |         |           |          |         |
| 6720.00 | 90.000 | 336.761 | 5126.00 | 1540.22 N | 661.38 W | 1676.21 |
| 0.00    |        |         |         |           |          |         |
| 6730.00 | 90.000 | 336.761 | 5126.00 | 1549.41 N | 665.32 W | 1686.21 |
| 0.00    |        |         |         |           |          |         |
| 6740.00 | 90.000 | 336.761 | 5126.00 | 1558.59 N | 669.27 W | 1696.21 |
| 0.00    |        |         |         |           |          |         |
| 6740.33 | 90.000 | 336.761 | 5126.00 | 1558.90 N | 669.40 W | 1696.55 |

0.00

All data are in feet unless otherwise stated. Directions and coordinates are relative to Grid North.  
Vertical depths are relative to Rig KB. Northings and Eastings are relative to well.

The Dogleg Severity is in Degrees per 100 feet.  
Vertical Section is from Slot and calculated along an Azimuth of 336.761° (Grid).

Coordinate System is NAD 1927 (NADCON CONUS) US State Plane 1927 (Exact solution), New Mexico East 3001.  
Central meridian is -104.333°.  
Grid Convergence at Surface is 0.171°.

Based upon Minimum Curvature type calculations, at a Measured Depth of 6740.33ft., the Bottom Hole Displacement is 1696.55ft., in the Direction of 336.761° (Grid).