

Commonwealth of Virginia Department of Mines, Minerals, and Energy Division of Gas and Oil

P.O. Box 1416; Abingdon, VA 24212

Telephone: (276) 676-5423

| Fracking Number: | 9 |
|------------------|---|
|------------------|---|

Company: CNX Gas Company LLC

File Number: RU-0350

Operations Name: CBM BI110 W/PL
Operation Type: Coalbed/Pipeline

**Drilling Report Type:** Original

### **DRILLING REPORT (DGO-GO-14)**

| 1. Drilling Data               |                      |                      |                            |
|--------------------------------|----------------------|----------------------|----------------------------|
| Date drilling commenced:       | 7/23/2006 D          | rilling Contractor:  | NOAH HORN WELL<br>DRILLING |
| Date drilling completed:       | 7/26/2006            | Rig Type:            | ✓ Rotary                   |
| Driller's Total Depth (feet):  | 2,575                | 3 71 .               | _ , _                      |
| Log Total Depth (feet):        | 2,579 Co             | al Seam At Total De  | epth Pocahontas            |
|                                |                      |                      |                            |
| 2. Final Location Plat (as req | uired by 4 VAC25-150 | -360.C.)             |                            |
| Permitted State Plane X 984    | 1,601 Fir            | nal Plat State Plane | X: <u>984,602</u>          |
| Permitted State Plane Y: 284   | 1,802 Fir            | nal Plat State Plane | Y: <u>284,802</u>          |
| ✓ Plat Previously Submitted    | Or                   |                      |                            |
| List of Attached Items:        |                      |                      |                            |
| Descrip                        | tion                 |                      | FileName                   |

#### 3. Geological Data

### Fresh Water At:

| Depth (in feet) | Rate | Unit of Measure |
|-----------------|------|-----------------|
| 1,255           | DAMP | GPM             |
| 30              | 4    | GPM             |

#### Salt Water At:

| Depth (in feet) Rate | Unit of Measure |
|----------------------|-----------------|
|----------------------|-----------------|

Form DGO-GO-14-E Rev. 1/2007

#### Coal Seams

List of Attached Items:

| Description     | FileName            |
|-----------------|---------------------|
| BI110 EXHIBIT A | BI110 EXHIBIT A.pdf |

#### Gas and Oil Shows

List of Attached Items:

| Description | FileName      |
|-------------|---------------|
| BI110 GAS   | BI110 GAS.pdf |

#### **4. Electric Logs** (As required by 4VAC25-150-280.A.)

List all logs run: DENSITY, GAMMA, CALIPER, TEMP, DEVIATION

Did logs disclose vertical locations of a coal seam? ✓ Yes □ No

#### **5. Survey Results** (As required by 4VAC25-150-280.B.2)

List of Attached Items:

| Description | FileName            |
|-------------|---------------------|
| BI110       | BI110 DEVIATION.pdf |

#### 6. Casing and Tubing Program

List of Attached Items:

| Description  | FileName         |
|--------------|------------------|
| BI110 CASING | BI110 CASING.pdf |

#### 7. Remarks

Use this space to note any conditions or occurrences, such as lost circulation, fishing jobs, junk left in hole, sidetracks, squeeze jobs, etc., not shown above. Include data and depth of condition/occurence.

#### 8. Drillers Log

Compiled By: LES ARRINGTON

List of Attached Items:

| Description | FileName            |
|-------------|---------------------|
| BI110 DRIL  | BI110 DRILL LOG.pdf |

Form DGO-GO-14-E

### 9. Comments

HARDCOPY APPROVED BY INSPECTOR

10. Signature

Permitee: CNX Gas Company LLC Date: 10/27/2006 (Company)

Signed By: LES ARRINGTON Title: MANAGER (Signature)

INTERNAL USE ONLY

Submit Date: 10/27/2006

Status: Inspr Approved Date: 10/27/2006

Final PDF Date: 1/5/2007

Form DGO-GO-14-E

Page 3 of 3

Rev. 1/2007

Exhibit A

Well Name: CBM-BI110 SURFACE ELEV: 2294.04 EASTING: 984602.24 NORTHING: 284801.64

| SEAM              | DEPTH<br>FROM | DEPTH<br>TO | ELEVATION (TOSE) | THK. (FT) | REMARKS |
|-------------------|---------------|-------------|------------------|-----------|---------|
|                   | (FT)          | (FT)        |                  |           |         |
|                   | 1.00          | 193.00      | 2293.04          | 192.00    |         |
| KN2               | 193.00        | 194.20      | 2101.04          | 1 20      |         |
| MVZ               | 194.20        | 285.00      | 2099.84          | 90.80     |         |
| COAL              | 285.00        | 286.00      | 2009.04          | 1.00      |         |
| COAL              | 286.00        | 319.20      | 2008.04          | 33.20     |         |
| AL1               | 319.20        | 319.90      | 1974.84          | 0.70      |         |
| VIII              | 319.90        | 381.90      | 1974.14          | 62.00     |         |
| AL2               | 381.90        | 383.20      | 1912.14          | 1.30      |         |
| ADZ               | 383.20        | 487.00      | 1910.84          | 103.80    |         |
| RA2               |               | 489.00      | 1807.04          | 2.00      |         |
| 1012              | 489.00        | 621.80      | 1805.04          | 132.80    |         |
| COAL              | 621.80        | 622.00      | 1672.24          | 0.20      |         |
| 00112             | 622.00        | 638.20      | 1672.04          | 16.20     |         |
| JB1               | 638.20        | 640.30      | 1655.84          | 2.10      |         |
| 021               | 640.30        | 663.00      | 1653.74          | 22.70     |         |
| JB3               | 663.00        | 664.20      | 1631.04          | 1.20      |         |
| 3.5               | 664.20        | 728.00      | 1629.84          | 63.80     |         |
| T2                | 728.00        | 729.90      | 1566.04          | 1.90      |         |
| 12                | 729.90        | 799.80      | 1564.14          | 69.90     |         |
| *T1               | 799.80        | 800.70      | 1494.24          | 0.90      |         |
|                   | 800.70        | 804.70      | 1493.34          | 4.00      |         |
| *TI               | 804.70        | 804.80      | 1489.34          | 0.10      |         |
|                   | 804.80        | 935.60      | 1489.24          | 130.80    |         |
| *US1              |               | 937.20      | 1358.44          | 1.60      |         |
| 051               |               | 966.40      | 1356.84          | 29.20     |         |
| *LC4              | 966.40        | 969.10      | 1327.64          | 2.70      |         |
| 101               | 969.10        | 1113.80     | 1324.94          | 144.70    |         |
| *GC1              | 1113.80       | 1114.50     | 1180.24          | 0.70      |         |
| 001               | 1114.50       | 1114.80     | 1179.54          | 0.30      |         |
| *GC1              | 1114.80       | 1116.00     | 1179.24          | 1.20      |         |
|                   | 1116.00       | 1225.10     | 1178.04          | 109.10    |         |
| *SE1              | 1225.10       | 1225.50     | 1068.94          | 0.40      |         |
| CAROLESCE CONTROL | 1225.50       | 1258.10     | 1068.54          | 32.60     |         |
| *SE2              | 1258.10       | 1259.10     | 1035.94          | 1.00      |         |
|                   |               | 1291.70     | 1034.94          | 32.60     |         |
| *COAL             | 1291.70       | 1291.90     | 1002.34          | 0.20      |         |
|                   | 1291.90       | 1304.10     | 1002.14          | 12.20     |         |
| *COAL             | 1304.10       | 1304.50     | 989.94           | 0.40      |         |
|                   | 1304.50       | 1305.40     | 989.54           | 0.90      |         |
| *LS1              | 1305.40       | 1306.60     | 988.64           | 1.20      |         |
|                   | 1306.60       | 1375.30     | 987.44           | 68.70     |         |
| *LS3              | 1375.30       | 1379.00     | 918.74           | 3.70      |         |
|                   | 1379.00       | 1408.80     | 915.04           | 29.80     |         |
| *COAL             | 1408.80       | 1409.40     | 885.24           | 0.60      |         |
|                   | 1409.40       | 1414.70     | 884.64           | 5.30      |         |
| *UH2              | 1414.70       | 1416.00     | 879.34           | 1.30      |         |
|                   | 1416.00       | 1418.00     | 878.04           | 2.00      |         |
| *COAL             | 1418.00       | 1418.30     | 876.04           | 0.30      |         |
|                   | 1418.30       | 1436.00     | 875.74           | 17.70     |         |
| *UH3              | 1436.00       | 1436.70     | 858.04           | 0.70      |         |
|                   | 1436.70       | 1483.00     | 857.34           | 46.30     |         |
| *MH1              | 1483.00       | 1485.00     | 811.04           | 2.00      |         |
|                   | 1485.00       | 1564.20     | 809.04           | 79.20     |         |
| *MH2              | 1564.20       | 1566.00     | 729.84           | 1.80      |         |

|        | 1566.00 | 1588.10 | 728.04  | 22.10  |
|--------|---------|---------|---------|--------|
| *COAL  | 1588.10 | 1588.80 | 705.94  | 0.70   |
| COILD  | 1588.80 | 1590.10 | 705.24  | 1.30   |
| *P11   | 1590.10 | 1591.50 | 703.94  | 1.40   |
|        | 1591.50 | 1615.00 | 702.54  | 23.50  |
| *P10   | 1615.00 | 1616.30 | 679.04  | 1.30   |
| 110    | 1616.30 | 1661.40 | 677.74  | 45.10  |
| *LH1   | 1661.40 | 1665.30 | 632.64  | 3.90   |
|        | 1665.30 | 1703.00 | 628.74  | 37.70  |
| *P91   | 1703.00 | 1706.20 | 591.04  | 3.20   |
| 171    | 1706.20 | 1755.70 | 587.84  | 49.50  |
| *P81   | 1755.70 | 1757.60 | 538.34  | 1.90   |
| 101    | 1757.60 | 1758.60 | 536.44  | 1.00   |
| *P82   | 1758.60 | 1759.10 | 535.44  | 0.50   |
| 102    | 1759.10 | 1767.00 | 534.94  | 7.90   |
| *P71   | 1767.00 | 1767.80 | 527.04  | 0.80   |
| 1,1    | 1767.80 | 1813.30 | 526.24  | 45.50  |
| *COAL  | 1813.30 | 1814.30 | 480.74  | 1.00   |
| 001111 | 1814.30 | 1904.80 | 479.74  | 90.50  |
| *P72   | 1904.80 | 1906.80 | 389.24  | 2.00   |
| 1,2    | 1906.80 | 1930.90 | 387.24  | 24.10  |
| *COAL  | 1930.90 | 1931.10 | 363.14  | 0.20   |
| 001111 | 1931.10 | 1942.90 | 362.94  | 11.80  |
| *COAL  | 1942.90 | 1943.10 | 351.14  | 0.20   |
| COM    | 1943.10 | 2038.10 | 350.94  | 95.00  |
| *P61   | 2038.10 | 2038.40 | 255.94  | 0.30   |
| 101    | 2038.40 | 2101.60 | 255.64  | 63.20  |
| *P51   | 2101.60 | 2102.40 | 192.44  | 0.80   |
| 131    | 2102.40 | 2105.20 | 191.64  | 2.80   |
| *COAL  | 2105.20 | 2105.90 | 188.84  | 0.70   |
| COILL  | 2105.90 | 2229.00 | 188.14  | 123.10 |
| *P43   | 2229.00 | 2233.70 | 65.04   | 4.70   |
| 143    | 2233.70 | 2260.30 | 60.34   | 26.60  |
| *P31   | 2260.30 | 2261.90 | 33.74   | 1.60   |
| 131    | 2261.90 | 2261.91 | 32.14   | 0.01   |
| *P32   | 2261.91 | 2262.70 | 32.13   | 0.79   |
| FJ2    | 2262.70 | 2307.90 | 31.34   | 45.20  |
| *P35   | 2307.90 | 2308.60 | -13.86  | 0.70   |
| 133    | 2308.60 | 2399.10 | -14.56  | 90.50  |
| *P01   | 2399.10 | 2399.80 | -105.06 | 0.70   |
| FUI    | 2399.80 | 2578.86 | -105.76 | 179.06 |
|        | 2377.00 | 2570.00 | 100.70  |        |

NOTE: FOOTAGE NOT ADJUSTED FOR DEVIATION

COAL SEAMS TO BE STIMULATED WERE ADJUSTED DUE TO THE GAS

WELL'S PROXIMITY TO FLATROCK CREEK. GAMMA-CALIPER LOG FROM 0 TO 266.00 GAMMA-DENSITY LOG FROM 266.00 TO TD.

FILE: C:\VP\APPS\BI110.CMP

DATE: 08/08/06

## Gas and Oil Shows

| 822 | (See Below) |  |
|-----|-------------|--|
|     |             |  |
| 449 | (See Below) |  |
|     | No Show     |  |
|     | 449         |  |

# PLAN VIEW COMPU-LOG DEVIATION

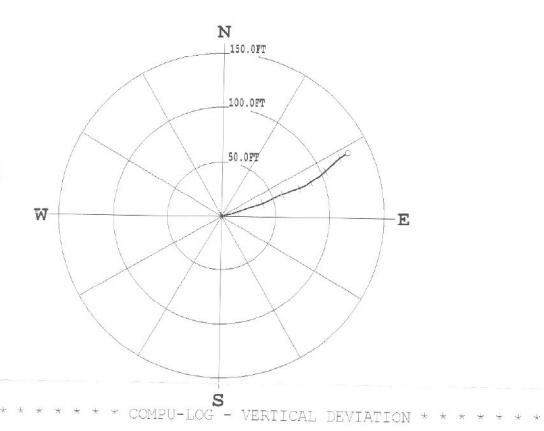
CLIENT: Consol Energy LOCATION:

HOLE ID: 06-CNX-BI-110 DATE OF LOG: 07/26/06 PROBE: 9136CA 955



SCALE: 50 FT/IN TRUE DEPTH: 2561.12 FT

AZIMUTH: 62.8 DISTANCE: 129.9 FT + = 300 FT INCRO = BOTTOM OF HOLE



DATA FROM :

MAG. DECL. : -6.900

CLIENT : Consol Energy HOLE ID. : 06-CNX-BI-110 FIELD OFFICE : Vansant, Va DATE OF LOG : 07/26/06

PROBE : 9136CA , 955

DEPTH UNITS : FEET

LOG: 06-CNX-BI-110\_07-26-06\_09-20\_9136CA\_.02\_-0.02\_2566.96\_DEVI.log

## CASING AND TUBING PROGRAM

|  | Casing  | Casing<br>Interval | Hole<br>Size | Cement<br>Used In<br>Cu/Ft |   | ented<br>urface<br>No | Date<br>Cemented | Packers Or<br>Bridge Plugs<br>Kind/Size/Set |
|--|---------|--------------------|--------------|----------------------------|---|-----------------------|------------------|---|
| Conductor                                  | 13 3/8" | 19'                | 16"          |                            |   | X                     | 7-23-06          |   |
| Surface                                    | 7"      | 266'               | 8 7/8"       | 94.4 Cu/ft                 | X |                       | 7-24-06          | Basket @ 23'                                |
| Water Protection                           | 4 1/2"  | 2330.13            | 6 1/2"       | 354.9 Cu/ft                | X |                       | 7-26-06          |   |
| Coal Protection                            | 4 1/2"  | 2330.13            | 6 1/2"       | 354.9 Cu/ft                | X | П                     | 7-26-06          |   |
| Other Casing And<br>Tubing Left In<br>Well |         |                    |              |                            |   |                       |                  |   |
| Liners                                     |         |                    |              |                            |   |                       |                  |   |

### DRILL DATA HOLE-NOAH HORN WELL DRILLING, INC

COMPANY: CNX

HOLE #: BI-110

LOCATION: DRILL

DRILL RIG #: 90

DATE STARTED: 07-23-06

DATED COMPLETED: 07-26-06

ELECTRIC LOGGED:YES

**GROUTED:YES** 

| DEPTH      | THICKNESS    |     | STRATA REMARKS                  |  |  |  |
|------------|--------------|-----|---------------------------------|--|--|--|
| FROM       | TO FT        |     | DESCRIPTION, VOIDS ETC          |  |  |  |
| 0          | 19           | 19  | OVERBURDEN                      |  |  |  |
| 19         | 30           | 11  | SAND                            |  |  |  |
| 30         | 180          | 150 | SAND/SHALE                      |  |  |  |
|            | 210          | 30  |                                 |  |  |  |
| 180<br>210 | 285          | 75  | SAND/SHALE/COAL                 |  |  |  |
|            |              |     | SAND/SHALE                      |  |  |  |
| 285        | 295          | 10  | SAND/SHALE                      |  |  |  |
| 295        | 325          | 30  | SAND/SHALE/COAL                 |  |  |  |
| 325        | 355          | 30  | SAND/SHALE                      |  |  |  |
| 355        | 385          | 30  | SAND                            |  |  |  |
| 385        | 535          | 150 | SAND/SHALE/COAL                 |  |  |  |
| 535        | 595          | 60  | SAND/SHALE                      |  |  |  |
| 595        | 625          | 30  | SAND                            |  |  |  |
| 625        | 685          | 60  | SAND/SHALE/COAL                 |  |  |  |
| 685        | 715          | 30  | SAND                            |  |  |  |
| 715        | 745          | 30  | SAND/SHALE/COAL                 |  |  |  |
| 745        | 775          | 30  | SAND/SHALE                      |  |  |  |
| 775        | 805          | 30  | SAND                            |  |  |  |
| 805        | 835          | 30  | SAND/SHALE                      |  |  |  |
| 835        | 865          | 30  | SAND/SHALE/COAL                 |  |  |  |
| 865        | 925          | 60  | SAND/SHALE                      |  |  |  |
| 925        | 985          | 60  | SAND/SHALE/COAL                 |  |  |  |
| 985        | 1045         | 60  | SAND/SHALE                      |  |  |  |
| 1045       | 1075         | 30  | SAND                            |  |  |  |
| 1075       | 1255         | 180 | SAND/SHALE                      |  |  |  |
| 1255       | 1270         | 15  | SAND/SHALE/COAL                 |  |  |  |
| 1270       | 1285         | 15  | SAND                            |  |  |  |
| 1285       | 1315         | 30  | SANDY SHALE/COAL                |  |  |  |
| 1315       | 1345         | 30  | SAND/SHALE                      |  |  |  |
| 1345       | 1375         | 30  | SANDY SHALE                     |  |  |  |
| 1375       | 1435         | 60  | SAND/SHALE<br>SAND/SHALE        |  |  |  |
| 1435       | 1465         | 30  | SANDY SHALE                     |  |  |  |
| 1465       | 1495         | 30  | SANDY SHALE/COAL                |  |  |  |
| 1495       | 1555         | 60  | SANDY SHALE/COAL<br>SANDY SHALE |  |  |  |
| 1555       | 1615         | 60  | SANDY SHALE/COAL                |  |  |  |
|            |              | 30  |                                 |  |  |  |
| 1615       | 1645<br>1675 | 30  | SAND/SHALE/COAL                 |  |  |  |
| 1645       |              |     | SAND/SHALE/COAL                 |  |  |  |
| 1675       | 1705         | 30  | SANDY SHALE/COAL                |  |  |  |
| 1705       | 1765         | 60  | SANDY SHALE                     |  |  |  |
| 1765       | 1795         | 30  | SANDY SHALE/COAL                |  |  |  |
| 1795       | 1885         | 90  | SAND                            |  |  |  |
| 1885       | 1915         | 30  | SAND/SHALE/COAL                 |  |  |  |
| 1915       | 1945         | 30  | SANDY SHALE/COAL                |  |  |  |

| 1975 | 30   | SAND  |
|------|--|---|
| 2005 | 30   | SANDY SHALE   |
| 2035 | 30   | SAND  |
| 2125 | 90   | SAND/SHALE  |
| 2155 | 30   | SAND/SHALE/COAL   |
| 2230 | 75   | SAND/SHALE  |
| 2233 | 3  | COAL P-3  |
| 2260 | 27   | SAND/SHALE  |
| 2264 | 4  | COAL P-3  |
| 2275 | 11   | SAND/SHALE  |
| 2305 | 30   | SAND/SHALE/COAL   |
| 2335 | 30   | SAND/SHALE  |
| 2365 | 30   | SAND/SHALE/COAL   |
| 2395 | 30   | SAND/SHALE  |
| 2425 | 30   | SAND  |
| 2455 | 30   | SAND/SHALE  |
| 2545 | 90   | SAND/SHALE  |
| 2575 | 30   | SAND  |
|      | 2005<br>2035<br>2125<br>2155<br>2230<br>2233<br>2260<br>2264<br>2275<br>2305<br>2335<br>2365<br>2395<br>2425<br>2455<br>2545 | 2005     30       2035     30       2125     90       2155     30       2230     75       2233     3       2260     27       2264     4       2275     11       2305     30       2335     30       2365     30       2395     30       2425     30       2455     30       2545     90 |

2575.00 FT. TOTAL DEPTH 19.00 FT. OF 13 3/8" CASING 265.50 FT. OF 7" CASING 2330.13 FT. OF 4 ½" CASING