

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

P.O. Box 1416; Abingdon, VA 24212

CNX Gas Company LLC

Telephone: (276) 676-5423

CBM D18 W/PL Coalbed/Pipeline

281

BU-2884

	יווווווים						
Drilling Report Type: Original							
	DRILLING R	EPORT (DGO-GO	-14)				
1. Drilling Data							
Date drilling commenced:	2/22/2006	Drilling Contractor:	Noah Horn Well Drilling, Inc.				
Date drilling completed:	3/1/2006	Rig Type	: ☑ Rotary ☐ Cable Tool				
Driller's Total Depth (feet): 2,400							
Log Total Depth (feet): 2,402 Coal Seam At Total Depth Pocahontas							
2. Final Location Plat (as re	quired by 4 VAC25	-150-360.C.)					
Permitted State Plane X 97	8,494	Final Plat State Plane X: 978,493					
Permitted State Plane Y: 36	0,653	Final Plat State Plan	ne Y: 360,653				
✓ Plat Previously Submitted	l Or						
List of Attached Items:							
Descrip	otion		FileName				
Fresh Water At:							
Depti	n (in feet)	Rate	Unit of Measure				
Salt Water At:							
Denti	(in feet)	Rate	Unit of Measure				
Date drilling completed: Driller's Total Depth (feet): Log Total Depth (feet):  2. Final Location Plat (as reported in the permitted State Plane X 97 Permitted State Plane Y: 36 Plat Previously Submitted List of Attached Items:  Description  3. Geological Data  Fresh Water At:  Depti	3/1/2006 2,400 2,402 quired by 4 VAC25- 8,494 0,653 d Or	Rig Type Coal Seam At Total  -150-360.C.) Final Plat State Plan Final Plat State Plan	Example : ☑ Rotary ☐ Cable Tool  Depth Pocahontas  Depth Pocahontas  Depth Pocahontas  Depth Pocahontas  Depth Pocahontas  Depth Pocahontas  Depth Pocahontas				

**Tracking Number:** 

Company:

File Number:
Operations Name:

**Operation Type:** 

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

#### Coal Seams

List of Attached Items:

Description	FileName
bu2884-exh a-page 1	bu2884-exh a-page 1.tif
bu2884-exh a-page 2	bu2884-exh a-page 2.tif

#### Gas and Oil Shows

List of Attached Items:

Description	FileName		
bu2884-gas shows	bu2884-gas shows.tif		

#### **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		
Deviation	D18 Deviation.pdf		

#### 6. Casing and Tubing Program

List of Attached Items:

Description	FileName		
bu2884-casing	bu2884-casing.tif		

#### 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.

Grouted Backside of 7" to surface. Mine Void from 632'-635'.

## 8. Drillers Log

Compiled By: CNX

List of Attached Items:

Description	FileName
bu2884-drill data-page 1	bu2884-drill data-page 1.tif
bu2884-drill data-page 2	bu2884-drill data-page 2.tif

#### 9. Comments

Hard copy approved by inspector on 4/13/06. Needs deviation survey and then resubmit

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Permitee: CNX Gas Company LLC Date: 6/27/2007 (Company)

Signed By: Les Arrington Title: Manager (Signature)

# INTERNAL USE ONLY

Submit Date: <u>6/27/2007</u>

Status: Inspr Approved Date: 7/20/2007

Final PDF Date: 7/20/2007

Form DGO-GO-14-E

D-18.CMP Exhibit A

Well Name: 06-CNX-D-18 SURFACE ELEV: 2289.55 EASTING: 978492.54 NORTHING: 360653.30

SEAM	DEPTH FROM (FT)	DEPTH TO (FT)	ELEVATION (TOSE)	(FT)	
COAL		130.20 131.00 175.00	2288.55	129.20	
HG1	175.00	1/6.20	2114.33	1.20 105.80	
COAL	282 00	283.20	2007.55 2006.35 1986.75	1.20 19.60	
SD1	304.00	312.20	1986.75 1985.55	1.20 8.20	
SD2		313.00	1977.35 1976.55	0.80	
COAL	316.60 317.00	316.60 317.00	1977.35 1976.55 1972.95 1972.55	0.40	
LB1	436.10 437.20	436.10 437.20 497.00	1853.45 1852.35	1.10	
LB2	497.00 497.80	497.80 632.10	1792.55	0.80	
KN2	632.10	635.50	1657.45	3.40	MINED OUT
RA1	808.20 808.60	808.20 808.60 830.40	1657.45 1654.05 1481.35 1480.95	0.40	
RA2		831.90 954.00	1459.15 1457.65	1.50 122.10	
ЈВ1	954.00 955.00	955.00 1052.00	1335.55	1.00	
T1	1052.00 1052.30	1052.30 1219.20	1334.55 1237.55 1237.25	0.30 166.90	
COAL	1219.20 1219.40	1219.40 1298.20	1070.35 1070.15	0.20 78.80	
*GC2	1298.20 1298.60	1298.60 1385.80	991.35	0.40	
*SE2	1385.80	1386.80 1418.00	990.95 903.75 902.75	1.00 31.20	
*LS1	1418.00 1418.90	1418.90 1496.90	871.55 870.65	0.90 78.00	
*UH1	1496.90 1497.50	1497.50 1497.90	792.65 792.05	0.60	
*COAL	1497.90	1498.10	791.65	0.20	
*MH1	1567.80	1567.80 1569.40	791.45 721.75 720.15	69.70 1.60	
*P11	1657.90	1657.90 1660.90	631.65	88.50 3.00	
*P10	1660.90 1671.40	1671.40 1672.10	628.65 618.15	10.50 0.70	
*COAL	1672.10 1713.30	1713.30 1713.40	617.45 576.25	41.20 0.10	
*LH3	1713.40 1739.80	1739.80 1741.40	576.15 549.75	26.40 1.60	
*P91	1741.40 1784.50	1784.50 1785.80	548.15 505.05	43.10 1.30	
*P81	1785.80 1864.00 1866.20	1864.00 1866.20 2037.10	503.75 425.55 423.35 Page 1	78.20 2.20 170.90	

			D-18.CMP	
*P52	2037.10	2039.00	252.45	1.90
	2039.00	2121.80	250.55	82.80
*COAL	2121.80	2122.20	167.75	0.40
	2122.20	2148.78	167.35	26.58
*P3	2148.78	2150.13	140.77	1.35
	2150.13	2150.45	139.42	0.32
*P3	2150.45	2150.72	139.10	0.27
	2150.72	2150.89	138.83	0.17
*P3	2150.89	2152.68	138.66	1.79
	2152.68	2402.39	136.87	249.71

NOTE: FOOTAGE NOT ADJUSTED FOR DEVIATION

COAL SEAMS TO BE STIMULATED WERE ADJUSTED DUE TO THE GAS WELL'S PROXIMITY TO GRAPEVINE FORK.

GAMMA-CALIPER LOG FROM 0 TO 751.50

GAMMA-DENSITY LOG FROM 751.50 TO TD.

FILE: C:\APPS\D-18.CMP

DATE: 03/21/06

## Gas and Oil Shows

		(MCFD/BOPD)	PRESSURE	TESTED
1866	480	(See Below)		
2153	116	(See Below)		
		51.3 thru 1" Orifice		
-			2153 116 (See Below)	2153 116 (See Below)

# PLAN VIEW COMPU-LOG DEVIATION

CLIENT: CONSOL ENERGY

LOCATION: -

HOLE ID: 06-CNX-D-18
DATE OF LOG: 03/01/06
PROBE: 9136CH 1244

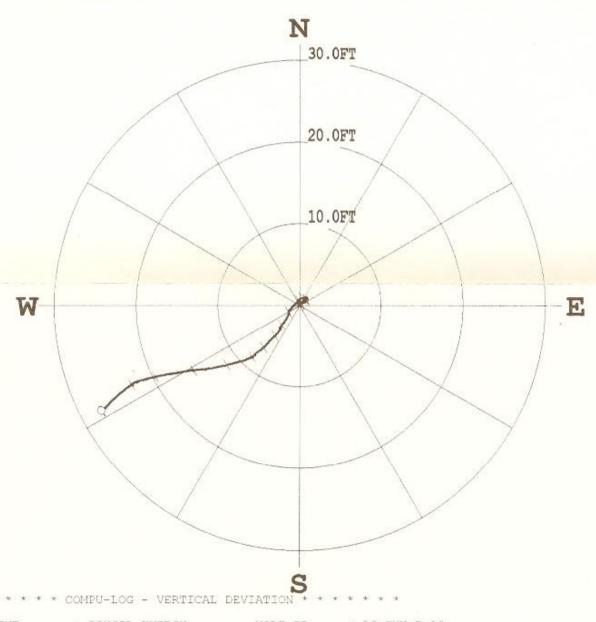


MAG DECL: -7.1

SCALE: 10 FT/IN

TRUE DEPTH: 2401.61 FT

AZIMUTH: 242.0 DISTANCE: 27.4 FT + = 150 FT INCR = BOTTOM OF HOLE



CLIENT	:	CONSOL ENERGY			06-CNX-D-18
FIELD OFFICE	:	O'DRISCOLL	DATE OF LOG	:	03/01/06
DATA FROM	:	=	PROBE	:	9136CH , 1244
MAG. DECL.	2	-7.100			
LOG: 06-CNX-I	9-1	LB_03+01-06_06-26_91	36CH .10 0.00 2	24	02.20 DEVI.log

CABLE DEPTH	TRUE DEPTH	NORTH DEV.	EAST DEV.	DISTANCE	AZIMUTH	SANG	SANGB
0.0	0.20	0.00	0.00				0.0
10.0	10.00	0.02	-0.04	0.0	303.8	0.7	322.7
20.0	20.00	0.07	-0.11	0.1	302.5		356.2
30.0	30.00	0.16	-0.10	0.2	327.6	0.6	10.9
40.0	40,00	0.26	-0.08	0.3	342.6	0.6	33.9

# **CASING AND TUBING PROGRAM**

				Cement	Cem	ented		Packers Or
		Casing	Hole	Used In	To St	urface	Date	Bridge Plugs
	Casing	Interval	Size	Cu/Ft	Yes	No	Cemented	Kind/Size/Set
Conductor	13 3/8"	19.55'	16"			X	2-22-06	
Surface	7"	751.8'	8 7/8"	177 Cu/ft		X	2-23-06	Basket @ 530'
Water Protection	4 1/2"	2210.31'	6 1/2"	341.6 Cu/ft	X		3-2-06	
Coal Protection	4 1/2"	2210.31'	6 1/2"	341.6 Cu/ft	X		3-2-06	
Other Casing And Tubing Left In Well			e - g					
Liners								

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

COMPANY: CNX

HOLE #: D-18

LOCATION: LOWER BIG BRANCH

DRILL RIG #: 88

DATE STARTED: 02-22-06

DATED COMPLETED: 03-01-06

**ELECTRIC LOGGED:YES** 

**GROUTED:YES** 

DEPTH	THICKNESS	8	STRATA REMARKS		
FROM	ТО	FT	DESCRIPTION, VOIDS ETC		
0	1	1	OVERBURDEN		
1	19.55	18.55	SAND STONE		
19.55	30	10.45	SAND STONE		
30	60	30	SAND STONE/SANDY SHALE		
60	120	60	SANDY SHALE		
120	150	30	SANDY SHALE/COAL/SAND STONE		
150	180	30	SAND/SHALE/COAL		
180	210	30	SAND/SHALE		
210	270	60	SAND/SHALE/COAL		
270	300	30	SAND/SHALE		
300	330	30	SAND/SHALE/COAL		
330	420	90	SAND/SHALE		
420	450	30	SAND/SHALE/COAL		
450	480	30	SAND/SHALE		
480	510	30	SAND/SHALE/COAL		
510	630	120	SAND/SHALE		
630	635	5	VOID		
635	660	25	SAND/SHALE		
660	690	30	SAND/SHALE/COAL		
690	720	30	SAND/SHALE		
720	750	30	SAND/SHALE/COAL		
750	780	30	SAND/SHALE		
780	810	30	SAND STONE/SANDY SHALE/SAND STONE		
810	840	30	SANDY SHALE/COAL/SANDY SHALE		
840	870	30	SAND STONE/SANDY SHALE/SAND STONE		
870	900	30	SAND STONE/SANDY SHALE		
900	930	30	SAND STONE/COAL/SANDY SHALE /SAND		
	STONE STR				
930	960	30	SANDY SHALE/COAL/SANDY SHALE /SAND		
	STONE STR				
960	990	30	SANDY SHALE/COAL/SAND STONE		
990	1020	30	SAND STONE/SANDY SHALE		
1020	1050	30	SANDY SHALE/SAND STONE /COAL/SANDY		
	SHALE/COA				
1050	1080	30	SANDY SHALE/SAND STONE		
1080	1110	30	SAND STONE/SANDY SHALE		
1110	1140	30	SANDY SHALE/COAL/SANDY SHALE/SAND		
	STONE		The second secon		
1140	1170	30	SAND STONE/SANDY SHALE/SAND STONE		
1170	1200	30	SAND STONE/SANDY SHALE		
1200	1230	30	SAND STONE/SAND1 SHALE SAND STONE/COAL/SANDY SHALE		
1230	1260	30	SAND STONE/SANDY SHALE		
1230	1200	50	STATE STOTIE STATE I SHALL		

			0.13 TD 11 011 1 T		
1260	1290	30	SANDY SHALE		
1290	1350	60	SAND/SHALE/COAL		
1350	1380	30	SAND		
1380	1410	30	SAND/SHALE/COAL		
1410	1470	60	SAND/SHALE		
1470	1500	30	SAND/SHALE/COAL		
1500	1530	30	SAND		
1530	1560	30	SAND/SHALE		
1560	1590	30	SAND STONE STR/COAL/SANDY SHALE		
1590	1620	30	SAND STONE/SANDY SHALE/SAND STONE		
1620	1650	30	SAND STONE STR/SANDY SHALE		
1650	1680	30	SANDY SHALE/COAL/SANDY		
	SHALE/COAL	SAND STONE			
1680	1710	30	SAND STONE/SANDY SHALE		
1710	1740	30	SANDY SHALE/COAL/SANDY SHALE		
1740	1770	30	SANDY SHALE		
1770	1800	30	SANDY SHALE/SAND STONE		
1800	1830	30	SAND STONE W/SANDY SHALE		
	STRKS/SAND	STRKS/SANDY SHALE			
1830	1865	35	SANDY SHALE/COAL/SANDY SHALE		
1865	1895	30	SANDY SHALE/SAND STONE		
1895	1925	30	SAND STONE		
1925	1955	30	SANDY SHALE/SAND STONE		
1955	1985	30	SAND STONE/SANDY SHALE		
1985	2000	15	SANDY SHALE/SAND STONE		
2000	2010	10	SAND		
2010	2040	30	SAND/SHALE/COAL		
2040	2070	30	SAND		
2070	2100	30	SAND/SHALE		
2100	2115	15	SAND		
2115	2120	5	COAL		
2120	2130	10	SAND/SHALE		
2130	2160	30	SAND/SHALE/COAL 3P		
2160	2190	30	SAND STONE/SHALE STR		
2190	2220	30	SANDY SHALE/SAND STONE		
2220	2250	30	SAND STONE/SHALE STRKS		
2250	2280	30	SAND STONE/SANDY SHALE STRKS /BLACK		
	SHALE OR CO	OAL STR			
2280	2310	30	SAND STONE/SHALE STRKS		
2310	2355	45	SAND STONE		
2355	2400	45	SAND		

2400.00 FT. TOTAL DEPTH 19.55 FT. OF 13 3/8" CASING 751.80 FT. OF 7" CASING 2210.31 FT. OF 4 ½" CASING