

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

CBM C22A W/PL

Coalbed/Pipeline

Telephone: (276) 676-5423

114

BU-3108

Drilling Report Type: Original								
DRILLING REPORT (DGO-GO-14)								
1. Drilling Data								
Date drilling commenced:	9/6/2006	D	rilling Contractor:	Noah H	orn Well Drilling Inc			
Date drilling completed:	9/12/2006		Rig Type:					
Driller's Total Depth (feet):	2,460		3 71	_ ,	_			
Log Total Depth (feet):	2,465	Co	al Seam At Total [Depth Po	ocahontas			
P. Final Location Plat (as required by 4 VAC25-150-360.C.)								
Permitted State Plane X 985,039			nal Plat State Plane	e X: <u>985,0</u>	39			
Permitted State Plane Y: 362,408			nal Plat State Plane	e Y: <u>362,4</u>	.08			
☐ Plat Previously Submitted	Or							
List of Attached Items:								
Descrip	Description FileName							
Plat Plat.pdf				df				
3. Geological Data								
Fresh Water At:								
Depth (in feet) Rate Unit of Measure								
Salt Water At:								
2 3 1. 2.00 / 7.00								
Depth	(in feet)		Rate	Uni	it of Measure			

Tracking Number:

Operations Name:

Operation Type:

Company:

File Number:

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

Coal Seams

List of Attached Items:

Description	FileName
Exhibit A	Exhibit A.pdf

Gas and Oil Shows

List of Attached Items:

Description	FileName
Gas Show	C22A Gas Show.doc

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

List all logs run: Caliper, Gamma, Density, 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	C22A Deviations.pdf

6. Casing and Tubing Program

List of Attached Items:

Description	FileName
Casing	C22A Casing.doc

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 7' casing to surface to backside

8. Drillers Log

Compiled By: Noah Horn Well Drilling Inc

List of Attached Items:

Description	FileName
Drill Data	Drill Data.pdf

Form DGO-GO-14-E

9. Comments

10. Signature

Permitee: CNX Gas Company LLC Date: 1/13/2007 (Company)

Signed By: Leslie K Arrington Title: Manager Permitting (Signature)

Environmental

INTERNAL USE ONLY

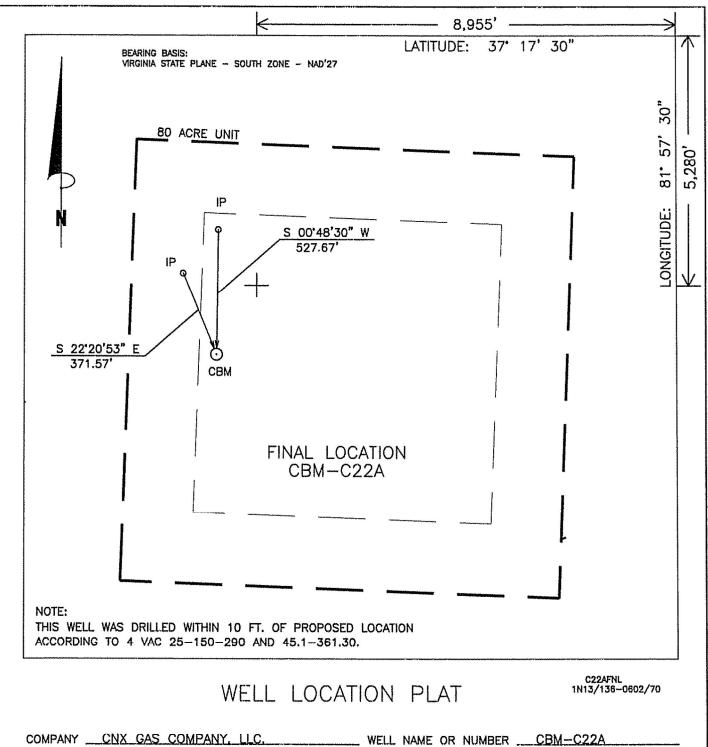
Submit Date: 1/13/2007

Status: Inspr Approved Date: 1/25/2007

Final PDF Date: 1/30/2007

Form DGO-GO-14-E

Page 3 of 3



TRACT NUMBI	CNX GAS COMPANY. ER C.L. RITTER GARDEN	LLC. WELL NAME OR NUMBER CBM-C22 QUADRANGLE PATTERSON	Α
ELEVATION:E COUNTYE THIS PLAT IS	2215.10' METHO BUCHANAN A NEW PLAT;	AN UPDATED PLAT; OR A FINAL LOCATION PLAT; or a well on United States Topographic Maps, scale 1 to 240 nes being represented by border lines as shown (optional).	ALTH OF BM'S X PRICE T. PRICE CENSE No.
Li DGO-GO-7 IO/96	icensed Professional En	ngineer or Licensed Land Surveyor (Affix Seal)	8540 9/15/06 ONAL EXE

Form Rev.

Exhibit A

Well Name: CBM-C22A

SURFACE ELEV: 2215.10 EASTING: 985039.42 NORTHING: 362408.19

SEAM	DEPTH FROM (FT)	DEPTH TO (FT)	ELEVATION (TOSE)	THK. (FT)	REMARKS
	1.00	123.90	2214.10	122.90	
NR1	123.90	124.70	2091.20	0.80	
HG1	124.70 185.60	185.60 186.00	2090.40 2029.50	60.90 0.40	
ng.	186.00	270.60	2029.30	84.60	
SD1	270.60	270.90	1944,50	030	
	270.90	302.60	1944.20	31.70	
SD2	302.60	302.80	1912.50	0.20	
TTD O	302.80	369.00	1912.30	66.20	
UB2	369.00 369.70	369.70 446.00	1846.10 1845.40	0.70 76.30	
LB1	446.00	447.00	1769.10	1.00	
-,	447.00	501.00	1768.10	54.00	
LB2	501.00	502.30	1714.10	1.30	
	502.30	640.90	1712.80	138.60	
KN1	640.90	641.80	1574.20	0.90 1.20	
COAL	641.80 643.00	643.00 643.20	1573.30 1572.10	0.20	
~~~	643.20	653.50	1571,90	10.30	
KN2	653.50	654.00	1561.60	0 , 50	
	654.00	654.30	1561.10	0 3 0	
KN2	654.30	655.00	1560.80	0.70	
71 T T	655.00	766.80	1560.10	111.80	
AL1	766.80 767.00	767.00 860.20	1448.30 1448.10	0.20 93.20	
RA2	860.20	861.70	1354.90	1.50	
	861.70	983.80	1353.40	122.10	
JB1	983.80	984.20	1231.30	0.40	
TT- 2	984.20	1019.80	1230.90	3560	
JB3	1019.80	1021.70 1045.00	1195.30 1193.40	1.90 23.30	
COAL	1021.70 1045.00	1045.90	1170.10	0.90	
001111	1045.90	1076.70	1169.20	30.80	
Tl	1076.70	1077.20	1138.40	0.50	
	1077.20	1186.00	1137.90	108.80	
*US1	1186.00	1186.30	1029.10	0.30	
*COAL	1186.30 1227.50	1227.50 1227.70	1028.80 987.60	41.20 0.20	
COMB	1227.70	1325.50	987.40	97.80	
*GC2	1325.50	1325.80	889.60	0.30	
	1325.80	1325.90	889.30	0.10	
*GC2	1325.90	1326.30	889.20	0.40	
* C TO O	1326.30	1417.10	888.80	90.80 0.70	
*SE2	1417.10 1417.80	1417.80 1418.00	798.00 797.30	0.70	
*SE2	1418.00	1418.40	797.10	0.40	
	1418.40	1523.80	796.70	105.40	
*UH1	1523.80	1524.80	691.30	1.00	
-1- T T T T T	1524.80	1574.00	690.30	49.20	
*UH2	1574.00	1574.70	641.10 640.40	0.70	
*MH1	1574.70 1617.50	1617.50 1619.00	640.40 597.60	42.80 1.50	
	1619.00	1731.60	596.10	112.60	
*P11	1731.60	1736.70	483.50	5.10	

C22A.CMP 10/2/2006

1736.70	1755.50	478.40	18.80
1755.50	1755.90	459.60	0.40
1755.90	1827.20	459.20	71.30
1827.20	1827.70	387.90	050
1827.70	1827.90	387.40	0.20
1827.90	1828.70	387.20	0 80
1828.70	1835.70	386.40	700
1835.70	1837.00	379.40	1.30
1837.00	1926.00	378.10	89.00
1926.00	1926.50	289.10	050
1926.50	1926.70	288.60	0.20
1926.70	1927.50	288.40	0 ~ 8 0
1927.50	1929.80	287.60	230
1929.80	1930.20	285.30	0.40
1930.20	2108.00	284.90	177.80
2108.00	2110.00	107.10	2.00
2110.00	2113.00	105.10	3 ~ 0 0
2113.00	2138.90	102.10	25.90
2138.90	2139.20	76.20	0.30
2139.20	214200	75 90	2.80
2142.00	2142.60	73 . 10	0.60
2142.60	2224.00	72.50	81.40
2224.00	2228.40	-8.90	4.40
2228.40	2464.60	-13.30	236.20
	1755.50 1755.90 1827.20 1827.70 1827.90 1828.70 1835.70 1835.70 1926.00 1926.50 1926.70 1927.50 1927.50 1929.80 1930.20 2108.00 2110.00 2113.00 2138.90 2139.20 2142.00 2242.00	1755.50       1755.90         1755.90       1827.20         1827.20       1827.70         1827.70       1827.90         1827.90       1828.70         1828.70       1835.70         1835.70       1837.00         1837.00       1926.00         1926.00       1926.50         1926.70       1927.50         1927.50       1929.80         1929.80       1930.20         1930.20       2108.00         2108.00       2110.00         213.00       2138.90         2139.20       2142.00         2142.00       2142.60         224.00       2224.00         2224.00       2228.40	1755.50       1755.90       459.60         1755.90       1827.20       459.20         1827.20       1827.70       387.90         1827.70       1827.90       387.40         1827.90       1828.70       387.20         1828.70       1835.70       386.40         1835.70       1837.00       379.40         1837.00       1926.00       378.10         1926.00       1926.50       289.10         1926.50       1926.70       288.60         1926.70       1927.50       288.40         1927.50       1929.80       287.60         1929.80       1930.20       285.30         1930.20       2108.00       284.90         2108.00       2110.00       107.10         2113.00       2138.90       102.10         2138.90       2139.20       76.20         2142.00       2142.60       73.10         2142.60       2224.00       72.50         2224.00       2228.40       -8.90

NOTE: FOOTAGE NOT ADJUSTED FOR DEVIATION

COAL SEAMS TO BE STIMULATED WERE ADJUSTED DUE TO THE GAS

WELL'S PROXIMITY TO MIDWAY BRANCH. GAMMA-CALIPER LOG FROM 0 TO 232.00 GAMMA-DENSITY LOG FROM 232.00 TO TD.

FILE: C:\VP\APPS\C22A.CMP

DATE: 10/02/06

# Oil & Gas Show

				IPF		HOURS
FORMATION	TOP	BOTTOM	THICKNESS	(MCFD/BOPD)	PRESSURE	TESTED
Lee/Norton	1524	1837	313	No Show		
Pocahontas	2108	2228	120	No Show		

# PLAN VIEW COMPU-LOG DEVIATION

IENT: CONSOL ENERGY

CATION: -

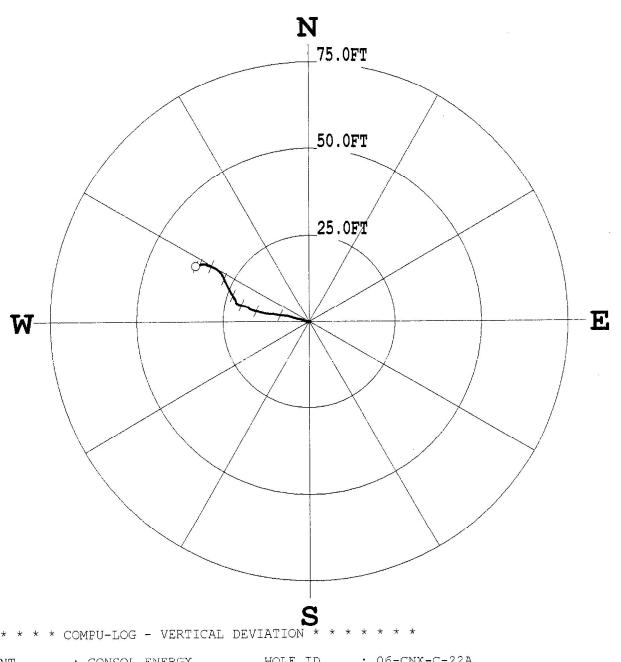
LE ID: 06-CNX-C-22A TE OF LOG: 09/11/06 OBE: 9136CH 1244 **A** 

MAG DECL: -7.1

SCALE: 25 FT/IN

TRUE DEPTH: 2463.96 FT

AZIMUTH: 296.1
DISTANCE: 36.6 FT
+ = 300 FT INCR
= BOTTOM OF HOLE



MAG. DECL. : -7.100 DEPTH UNITS : FEET LOG: 06-CNX-C-22A 09-11-06_14-40_9136CH1_0.00_2464.50_DEVI.log
-------------------------------------------------------------------------------------------------------

BLE DEPTH	TRUE DEPTH	NORTH DEV.	EAST DEV.	DISTANCE	AZIMUTH	SANG	SANGB
	0.00		0.00	0.0	ũ.O	0.0	0.0
10.0	10.00	-0.05	0.02	0.1	157.1	0.5	154.1
20.0	20.00	-0.05	-0.00	0.1	182.4	1.1	246.8
30.0	30.00	-0.09	-0.11	0.1	231.3	0.5	329.5
30.0	50,00	0.03	9,11		7 7		

# Casing & Tubing Program

	-			Cement	Ceme	ented	-	Packers Or
		Casing	Hole	Used In	To Su	ırface	Date	Bridge Plugs
	Casing	Interval	Size	Cu/Ft	Yes	No	Cemented	Kind/Size/Set
Conductor	13 3/8"	14'	15"			X	9-6-06	
Surface	7"	221'	8 7/8"	59 Cu/ft		X	9-7-06	Basket@88'
Water Protection	4 1/2"	2290.85	6 1/2"	366 Cu/ft	X		9-11-06	
Coal Protection	4 1/2"	2290.85'	6 1/2"	366 Cu/ft	X		9-11-06	
Other Casing And								
Tubing Left In Well								
Liners								

# DRILL DATA HOLE-NOAH HORN WELL DRILLING, INC

COMPANY: CNX HOLE #: C-22A

LOCATION: LOWER BIG BRANCH DRILL RIG #: 17

DATE STARTED: 09-06-06 DATED COMPLETED: 09-12-06

ELECTRIC LOGGED:YES GROUTED:YES

DEPTH	THICKNE	SS	STRATA REMARKS		
FROM	то	FT	DESCRIPTION VOIDS ETC		
,			DESCRIPTION, VOIDS ETC		
0	14	14	OVERBURDEN/COAL/SAND STONE		
14	35	21	SAND/SANDY SHALE		
35	65 0.5	30	SANDY SHALE/SAND		
65	95	30	SAND/SANDY SHALE		
95	125	30	SANDY SHALE		
125	155	30	SANDY SHALE/ COAL /SAND/COAL		
155	185	30	SANDY SHALE/SAND		
185	215	30	SAND/COAL/SAND		
215	245	30	SAND/SANDY SHALE		
245	270	25	SANDY SHALE		
270	360	90	SAND		
360	390	30	SAND/COAL		
390	420	30	SAND/SANDY SHALE		
420	450	30	SANDY SHALE/COAL		
450	510	60	SAND/SHALE/COAL		
510	570	60	SANDY SHALE		
570	630	60	SANDY SHALE		
630	660	30	SANDY SHALE/COAL		
660	690	30	SANDY SHALE/SAND		
690	720	30	SAND/SANDY SHALE		
7.20	750	30	SANDY SHALE		
750	780	30	SANDY SHALE/COAL/SANDY SHALE		
780	810	30	SAND/SANDY SHALE		
810	840	30	SANDY SHALE/SAND		
840	870	30	SAND/COAL/SAND		
870	900	30	SANDY SHALE/COAL/SAND		
900	930	30	SANDY SHALE/SAND		
930	960	30	SANDY SHALE/COAL/SAND		
960	990	30	SANDY SHALE/SAND/SANDY SHALE		
990	1020	30	SANDY SHALE/COAL/SANDY SHALE		
1020	1050	30	SANDY SHALE/SAND/SANDY SHALE		
1050	1080	30	SANDY SHALE/COAL/SANDY SHALE		
			SANDY SHALE/SAND		
1080	1110	30 30	SANDY SHALE/SAND SAND/SANDY SHALE		
1110	1140	30			
1140	1170	30	SANDY SHALE		
1170	1200	30	SANDY SHALE/COAL/SANDY SHALE		
1200	1260	60	SANDY SHALE		
1260	1290	30	SANDY SHALE/COAL		
1290	1320	30	COAL/SAND/SANDY SHALE		
1320	1350	30	SANDY SHALE/SAND		
1350	1380	30	SAND/SANDY SHALE		
1380	1410	30	SANDY SHALE/COAL/SAND		

1410	1470	60	SANDY SHALE/SAND
1470	1500	30	SAND/COAL/SANDY SHALE
1500	1530	30	SANDY SHALE/COAL/SAND
1530	1560	30	SAND/SANDY SHALE
1560	1590	30	SANDY SHALE/COAL/SANDY SHALE
1590	1620	30	SAND/SHALE/COAL
1620	1650	30	SANDY SHALE
1650	1680	30	SANDY SHALE/SAND
1680	1710	30	SAND/SANDY SHALE
1710	1740	30	SAND/SANDY SHALE/COAL
1740	1800	60	SAND
1800	1830	30	SAND/COAL/SANDY SHALE
1830	1860	30	SAND
1860	1890	30	SAND/SANDY SHALE
1890	1920	30	SANDY SHALE
1920	1980	60	SAND/SANDY SHALE
1980	.2070	90	SAND
2070	2100	30	SAND/SANDY SHALE
2100	2130	30	SANDY SHALE/COAL/SANDY SHALE
2130	2160	30	SANDY SHALE/SAND
2160	2190	30	SANDY SHALE/COAL/SAND
2190	.2192	2	COAL P-3
2192	2220	.28	SANDY SHALE/SAND
2220	2250	30	SAND/SANDY SHALE
2250	2280	30	SANDY SHALE
2280	2340	60	SAND/SANDY SHALE
2340	2370	30	SANDY SHALE
2370	2400	30	SAND/SANDY SHALE
2400	2430	30	SANDY SHALE
2430	2460	30	SAND/SHALE

2460.00 FT. TOTAL DEPTH 14.00 FT. OF 13 3/8" CASING 221.00 FT. OF 7" CASING 2290.85 FT. OF 4 ½" CASING