

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 C21A W/PL

560

BU-3277

	Operation	n Type:	Coalbed/Pipeline				
	Drilling I	Report Type:	Original				
DRILLING REPORT (D		PORT (DGC	)-GO-14)				
1. Drilling Data	1. Drilling Data						
Date drilling commenced:	4/12/2007	Drilling Contra	actor: Noa	h Horn			
Date drilling completed:	4/17/2007	J	Type: ☑ Rotary ☐ Cable Tool				
Driller's Total Depth (feet):	1,830	3	, ,	, 🗀			
Log Total Depth (feet):	1,803	Coal Seam At	Total Depth	Pocahontas			
				_			
2. Final Location Plat (as red	uired by 4 VAC25-1	50-360.C.)					
Permitted State Plane X 983,100 F		Final Plat State Plane X: 983,100					
Permitted State Plane Y: 362,153		Final Plat State Plane Y: 362,146					
☐ Plat Previously Submitted	Or						
List of Attached Items:							
Descrip	tion		File	Name			
plat			C21A	Plat.pdf			
3. Geological Data	3. Geological Data						
Fresh Water At:							
Depth	(in feet)		Rate	Unit of Measure			
Salt Water At:							
Depth	(in feet)		Rate	Unit of Measure			

**Tracking Number:** 

**Operations Name:** 

Company:

File Number:

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

#### Coal Seams

List of Attached Items:

Description	FileName
exhibit A	C21A Exhibit A.pdf

#### Gas and Oil Shows

List of Attached Items:

Description	FileName
Gas Show	C21A Gas Show.xls

# **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		
deviatiion	C21A Deviation.pdf		

# 6. Casing and Tubing Program

List of Attached Items:

Description	FileName
casing	C21A Casing.xls

### 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: Noah Horn

List of Attached Items:

Description	FileName		
Drill Data	C21A Drill Data.pdf		

# 9. Comments

10. Signature

Permitee: CNX Gas Company LLC Date: 7/24/2007 (Company)

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

INTERNAL USE ONLY

Submit Date: 7/24/2007

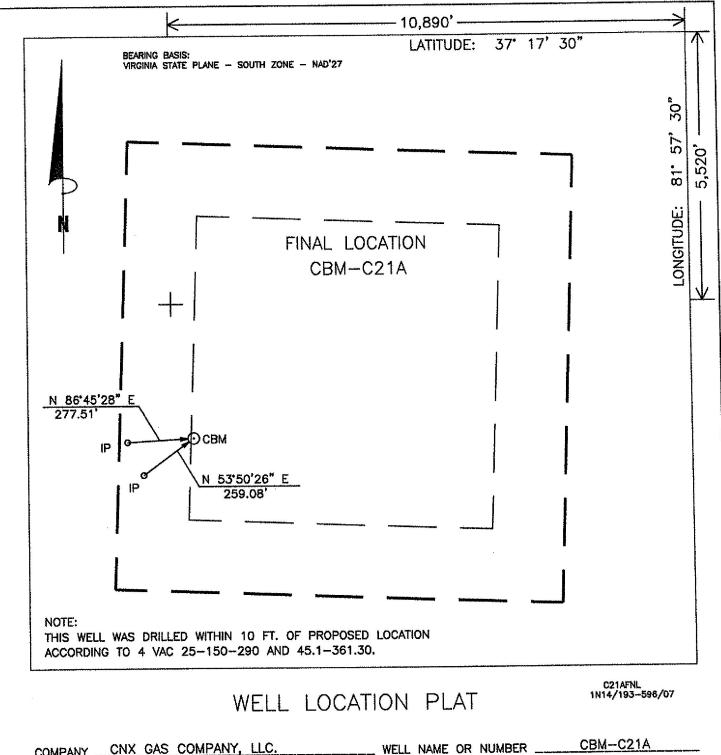
Status: Inspr Approved Date: 8/9/2007

Final PDF Date: 8/9/2007

Form DGO-GO-14-E

Page 3 of 3

Rev. 1/2007



COMPANY CNX GAS COMPANY, LLC. WELL NAME OR NUMBER CBM-C21A
TRACT NUMBER CONSOLIDATION COAL QUADRANGLE PATTERSON
DISTRICT: GARDEN
WELL COORDINATES (VIRGINIA STATE PLANE): STATE PLANE: N 362,146.35 E 983,099.64
FLEVATION: 1629.19' METHOD USED TO DETERMINE ELEVATION: BY TRIG. LEVELS FROM CONSOL INC BM'S
COUNTY BUCHANAN Scale: 1" = 400' Date 04-19-07
THIS PLAT IS A NEW PLAT; AN UPDATED PLAT; OR A FINAL LOCATION NET _X
Denotes the location of a well on United States Topographic Maps, scale to 20,000, PRICE latitude and longitude lines being represented by border lines as shown (applicable).
LICENSE No. 8540
Licensed Professional Engineer or Licensed Land Surveyor (Affix Seal)
Form DGO-GO-7 Rev. 10/96

# Exhibit A

Well Name: 07 CBM C21A

SURFACE ELEV: 1629.19 EASTING: 983099.64 NORTHING: 362146.35

GEAM DEPTH DEPTH ELEVATION THE REMARKS

Exhibit A

Well Name: 07 CBM C21A

SURFACE ELEV: 1629.19 EASTING: 983099.64 NORTHING: 362146.35

SEAM	DEPTH FROM (FT)	DEPTH TO (FT)	ELEVATION (TOSE)	ELEVATION THK. (TOSE) (FT)	
KN2	54.80 55.90	55.90 173.30	1574.39 1573.29	1.10 117.40	
AL2	173.30	174.10 261.00	1455.89 1455.09	0.80	
RA2		262.60 384.10	1368.19 1366.59	1.60 121.50	
JB1	384.10 385.10	385.10 414.80	1245.09 1244.09	1.00 29.70	
ЈВ3	414.80 416.40	416.40 443.30	1214.39 1212.79	1.60 26.90	
T2	444.10	444.10 475.10		0.80 31.00	
T1	475.50	475.50 587.80	1153.69		
US1	587.90	587.90 734.20	1041.39	0.10 146.30	
GC2 GC2	734.20 734.60	734.60 734.90 735.50	894.99 894.59	0.40 0.30	
GC2	735.50	824.50		0.60 89.00	
*SE2	825.50	826.10	803.69	1.00 0.60	
*SE3	827.10	850.90	803.09 802.09	1.00 23.80	
*LS1	851.20	851.20 925.00	778.29 777.99	0.30 73.80	
*UH1	925.00 925.50	925.50 973.40	704.19 703.69	0.50 47.90	
*UH2	974.00	974.00 1015.30		0.60 41.30	
	1017.00	1017.00 1123.20	613.89 612.19	1.70 106.20	
*P11 *P10	1123.20 1126.00 1127.50	1126.00 1127.50 1234.00	505.99 503.19 501.69	2.80 1.50 106.50	
*P92	127.30 1234.00 1235.30	1234.00 1235.30 1329.20	395.19 393.89	1.30 93.90	
*P81	1329.20 1331.00	1331.00 1498.70	299.99 298.19	1.80 167.70	
*P52	1498.70 1504.10	1504.10 1521.50	130.49 125.09	5.40 17.40	
*P41	1521.50 1522.00	1522.00 1525.90	107.69 107.19	0.50 3.90	
*P42	1525.90 1526.20	1526.20 1604.90	103.29 102.99	0.30 78.70	
*P3	1604.90 1608.80	1608.80 1666.00	24.29 20.39	3.90 57.20	

*P01	1666.00	1666.30	-36.81	0.30
	1666.30	1667.20	-37.11	0.90
*COAL	1667.20	1667.70	-38.01	0.50
	1667.70	1783.50	-38.51	115.80
*SJ1	1783.50	1784.10	-154.31	0.60
	1784.10	1830.00	-154.91	45.90

COAL SEAMS TO BE STIMULATED WERE ADJUSTED DUE TO THE GAS WELL'S PROXIMITY TO LOWER BIG BRANCH.

GAMMA-CALIPER LOG FROM 0 TO 220.00

GAMMA-DENSITY LOG FROM 220.00 TO TD.

NOTE: FOOTAGE NOT ADJUSTED FOR DEVIATION FILE: D:\PROJECTS\VP\_JJK\GAS\C21A.CMP
DATE: 05/03/07

# Oil & Gas Show

Formation	Top	Bottom	Thickness	IPF	Pressure
	-			(MCFD/BOPD)	
Lee/Norton	824	1331	507		
Pocahontas	1499	1609	110		
				No Show	
					_

Hours Tested

# PLAN VIEW COMPU-LOG DEVIATION

IENT: CNX-GAS CATION: -

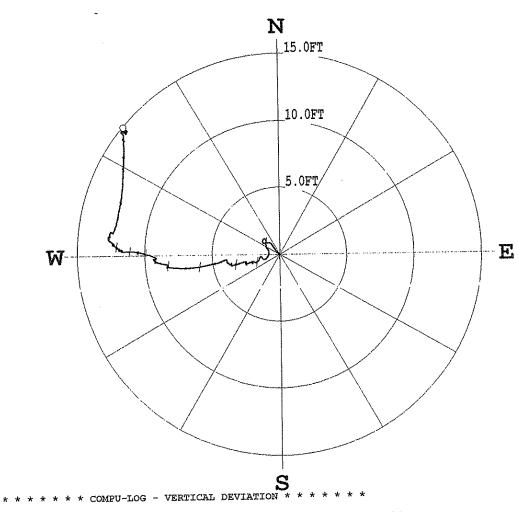
)LE ID: 07-CNX-C-21A TE OF LOG: 04/17/07 OBE: 9136CH 1244

MAG DECL: -7.1

SCALE: 5 FT/IN

TRUE DEPTH: 1802.60 FT

AZIMUTH: 309.9 DISTANCE: 14.9 FT + = 150 FT INCR O = BOTTOM OF HOLE



HOLE ID. : 07-CNX-C-21.
DATE OF LOG : 04/17/07
PROBE : 9136CH ,
DEPTH UNITS : FEET : 07-CNX-C-21A CLIENT : CNX-GAS FIELD OFFICE : O'DRISCOLL 1244 DATA FROM : -MAG. DECL: -7.100 MAG. DECL. : -7.100 DEPTH UNITS : FEET LOG: 07-CNX-C-21A 04-17-07 09-58 9136CH .10 0.00 1803.00 DEVI.log

	ABLE DEPTH	TRUE DEPTH	NORTH DEV.	EAST DEV.	DISTANCE	AZIMUTH		angb
	0.50	0.50	0.00	0.00	0.0	0.0	0.0	0.0
		10.00	0.02	-0.03	0.0	306.3	1.2	157.1
	10.00	20.00	0.09	-0.03	0.1	342.8	1.3	286.4
	20.00		0.15	-0.16	0.2	311.8	1.2	233.7
	30.00	29.99	0.21	-0.25	0,3	310.4	1.2	32.9
	40.00	39.99	0.21	-0.26	0.4	317.1	1.2	321.9
	50.00	49.99	0.44	-0.39	0.6	318.6	1.3	317.1
	60.00	59.99		-0.51	0.8	320.6	1.3	321.2
	70.00	69.99	0,62		1.0	321.6	1.1	326.1
	80.00	79.98	0.79	-0.62 -0.82	1.2	316.8	1,2	272.8
	90.00	89.98	0.87		1.3	308.1	1.4	
	100.00	99.98	0.83	-1.06		305.4	1.1	336.3
	110.00	109.98	0.89	-1.25	1.5	309.7	0.8	2.5
	120,00	119.97	1.04	-1.25	1.6		0.8	
	130.00	129.97	1,15	-1.18	1.6	314.2	1.2	158.6
	140.00	139.97	1,10	-1.03	1.5	316.9	1.2	178 2
	150.00	149.97	0.88	-1.00	1.3	311.3		176.3
	160.00	159.97	0.65	-1.00	1.2	303.1	1.3	
	170.00	169,96	0.45	-0.93	1.0	295.7	1.1	139.8
	180.00	179.96	0.28	-0.82	0.9	289.1	1.1	148.0
	190.00	189.96	0.06	-0.81	0.8	274.5	1.3	191.3
	200.00	199.96	-0.15	-0.88	0.9	260.3	1.3	207.2
	210.00	209.95	-0.34	-1.04	1.1	251.8	1.4	
		219.95	-0.34	-1.24	1.3	254.7	1.2	
	220.00	219,90	A 4A	_4 a=	T A	261 8	1,2	306.9
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160.00 170.00 180.00 120.00 220.00 220.00 220.00 220.00 220.00 220.00 220.00 220.00 220.00 230.00 330.00 330.00 340.00 350.00 340.00 440.00 440.00 440.00 440.00 440.00 450.00 470.00
159.96 169.96 179.96 179.96 189.96 189.96 189.95 189.95 189.95 189.95 189.95 189.95 189.95 189.95 189.95 189.95 189.95 189.95 189.95 189.95 189.95 189.97 189.97 189.97 189.97 189.97 189.97 189.97 189.97 189.88 189.87 18
55566669406527793121788499945748499958886594330066692354782309100000000000000000000000000000000000
03218445671466185799415837516804746649397759037827075440630075016248215889148784493792691957
20989134555667890111113465668134567892588035702568012467913434690223422456890023455555557801245677c
1715387826323020996988661280865814971177382976555792026802581637360762105991234350266666666678889912322222222222222222222222222222222
1.3

1010.00	1009.80	0.30	-10.54	10.5	271.6	0.8	253.7	
1020.00	1019.80	0.29	-10.69	10.7	271.6	0.7	276.8	
1030.00	1029.80	0.31	-10.83	10.8	271.6	1.0	264.9	
1040.00	1039.80	0.30	-10.97	11.0	271.6	0.8	273.4	
1050.00	1049.80	0.31	-11.09	11.1	271 6	0.6	261.8	
			44.00	44.0	071 6	0.0		
1060,00	1059.80	0.31	-11.22	11.2	271.6	0.8	270.1	
1070.00	1069.80	0.30	-11.09 -11.22 -11.36	11.4	271.6 271.6 271.5	0.7	272.0	
			44 40	44 6	077 6	o . ,		
1080.00	1079.80	0.32	-11.49	11.5	271.6 271.5 271.7	0.7		
1090.00	1089.80	0.31	-11.61	11.6	271.5	0.8	266.7	
1100.00	1099.80	0.34	-11.69	11.7	071 7	0.8	81.5	
					211.1	0.0		
1110.00	1109.80	0.37	-11.65	11.7	271.8	1.1	348.3	
1120.00	1119.79	0.42	-11.77	11.8	272 0	0 6	320.9	
					272.0	0.0		
1130.00	1129.79	0.44	-11.72	11.7	271.8 272.0 272.1	0.2	317.1	
1140.00	1139.79	0.40	-11.84 -11.88 -11.99	11.8	271.9 272.4 272.6	0.8	271.8	
		0.49	11 00	11.9	220 4	1.0		
1150.00	1149.79		TT.00	41.9	212.4	1.0	6.6	
1160.00	1159.79	0.55	-11.99	12.0	272.6	0,8	278.3	
1170.00	1169.79	0.61	-12 10	10 1	272 0	0.8	29.0	
				14.1	212.3	0.0		
1180.00	1179.79	0.58	-12.07	12.1	272.9 272.8 272.7	0.8	223.5	
1190.00	1189.79	0.57	~12 05	12 1	272 7	0.9	96.2	
			-12.10 -12.07 -12.05	***	47411	0.5		
1200,00	1199.79	0.65	-12.09	12.1	273.1	0.7	315.8	
1210.00	1209.79	0.70	-12.16	12.2	273.3	0.7	261.5	
1220.00	1219.78	0.75	10 00	10.0	070 F	~ ~		
			-12.20	12.3	273.1 273.3 273.5	0.6	294.0	
1230.00	1229.78	0.81	-12.09 -12.16 -12.26 -12.38 -12.34 -12.29	12.4	273.7 273.5 274.1	0.9	340.4	
1240.00	1239.78	0.76	-10 24	12.4	272 =	Δ 4	112.8	
			.c. 34	12.2	413.5	V . N		
1250.00	1249.78	0.89	~12.29	12.3	274.1	0.9	318.4	
1260.00	1259.78	0.97	-12.41 -12.52 -12.62	12.4	274 5	0.9	289.2	
			-c - 3+		274.5 274.8 275.1	0.5		
1270.00	1269.78	1.06	-12.52	12.6	274.8	0.8	306.4	
1280.00	1279.78	1.14	-12.62	12.7	275.1	0.7	297.8	
			40	**** -	~,~	Ž , į		
1290.00	1289.78	1.21	-12.67	12.7	275.5	♥.7	190.4	
1300.00	1299.78	1.23	-12.66	12.7	275.5	0.2	138.3	
					270.0	~ ~		
1310.00	1309.78	1.31	-12.69	12.8	275.5 275.5 275.9	0.8	12.0	
1320.00	1319.78	1.38	-12.68	12.8	276.2	0.3	17.1	
1330.00		1.40	10 61	10 7	276 2	0,2	37.4	
	1329.78		-12.68 -12.64 -12.59	12.7	276.2 276.3 276.4	0,2		
1340.00	1339.78	1.42	-12.59	12.7	276.4	0.5	71.4	
1350.00	1349.78	1.41	-12.56 -12.59 -12.59	12.6	276.4 276.5 276.8	0.5	238.4	
			-12.50	٠	2.707.73	0.5		
1360.00	1359.77	1.43	-12.59	12.7	276.5	0.7	332.8	
1370.00	1369.77	1.51	-12 59	12.7	276 8	0.4	54.2	
			12.00	4	270.0	V ( 74		
1380.00	1379.77	1.58	-12.57 -12.53 -12.44	12.7	277.2 277.7 278.1	1.0	338.9	
1390.00	1389.77	1.69	-12.53	12.6	277.7	1.0	7.5	
			10.44	***	~~~	4.0		
1400.00	1399.77	1.77	12.44	1.2.6	218.1	1.0	96.4	
1410.00	1409.77	1.69	-12.33	12.4	277.8	1.0	14.2	
1420.00	1419.77							
		1.83	-12.25	12.4	278.5	1.1	29.9	
1430.00	1429.77	2.02	-12.18	12.3	279.4	1.2	29.2	
1440.00	1439.76	2.21	-12.11	12.3	280.4	1.2	19.2	
				32.3	200.4	I.Z		
1450.00	1449.76	2.43	-12.05 -11.99 -11.94 -11.90 -11.85 -11.80	12.3	281.4	1.5	26.8	
1460.00	1459.76	2.65	11 99	12.3	282.5	1.4	6.9	
	4460 56	2.00	44.00	46.0				
1470.00	1469.70	2.55	"AL. 574	12.3	283.5	1.2	22.0	
1480.00	1479.75	3.09	~11.90	12.3	284.6	1.5	20.6	
1490.00	1489.75	3 33	11 DE	12.3			29.0	
	1409.75	3.33	II. 00	14.3	285.7 286.7	1.4		
1500.00	1499.75	3.54	-11.80	12.3	286.7	1.3	20.4	
1510.00	1509.74	3 77	-11.76	122	287 8	1.4	22.5	
	2000-12	3.77	44.70		201.0	# · *		
1520.00	1519.74	3.91	-11.71	12.3	288.5	1.5	351.9	
1530.00	1529.74	4.07	-11.70	12.4	289.2	1.8	3.4	
	1500 43	4 20	41 62	10.4	000 3	4 5		
1540.00	1539.73	2.65 2.65 3.09 3.33 3.54 3.77 3.91 4.07 4.32 4.57 4.83	-11.65	12.3 12.3 12.4 12.4	287.8 288.5 289.2 290.3 291.5	1.5	4.3	
1550.00	1549.73	4.57	-11.63	12.5	291.5	1.5	8.8	
1560.00	1559.73	4.83		12.6	292.6	1 1		
1570.00	1569.72	5.06	-11,57	12.6	293.6	1.5	2,5	
1580.00	1579.72	5.31	-11,54	12.7	004 7	1.6	352.4	
					294.7			
1590.00					294.7		11 2	
	1589.72	5.56	-11.53	12.8	295.7	1.5	11.3	
1600.00			-11.52				22.5	
1600.00	1589.72 1599.71	5.56 5.83	-11.52	12.8 12.9	295.7 296.8	1.5 1.5	22.5	
1600.00 1610.00	1589.72 1599.71 1609.71	5.56 5.83 6.08	-11.52 -11.51	12.8 12.9 13.0	295.7 296.8 297.8	1.5 1.5 1.6	22.5 354.5	
1600.00 1610.00 1620.00	1589.72 1599.71 1609.71 1619.71	5.56 5.83 6.08 6.34	-11.52 -11.51 -11.49	12.8 12.9 13.0 13.1	295.7 296.8 297.8 298.9	1.5 1.5 1.6 1.5	22.5 354.5 21.1	
1600.00 1610.00 1620.00	1589.72 1599.71 1609.71	5.56 5.83 6.08 6.34	-11.52 -11.51 -11.49	12.8 12.9 13.0 13.1	295.7 296.8 297.8	1.5 1.5 1.6 1.5	22.5 354.5 21.1	
1600.00 1610.00 1620.00 1630.00	1589.72 1599.71 1609.71 1619.71 1629.70	5.56 5.83 6.08 6.34 6.45	-11.52 -11.51 -11.49 -11.51	12.8 12.9 13.0 13.1 13.2	295.7 296.8 297.8 298.9 299.3	1.5 1.5 1.6 1.5 1.9	22.5 354.5 21.1 116.9	
1600.00 1610.00 1620.00 1630.00 1640.00	1589.72 1599.71 1609.71 1619.71 1629.70 1639.70	5.56 5.83 6.08 6.34 6.45 6.68	-11.52 -11.51 -11.49 -11.51 -11.47	12.8 12.9 13.0 13.1 13.2 13.3	295.7 296.8 297.8 298.9 299.3 300.2	1.5 1.6 1.5 1.9	22.5 354.5 21.1 116.9 359.6	
1600.00 1610.00 1620.00 1630.00	1589.72 1599.71 1609.71 1619.71 1629.70	5.56 5.83 6.08 6.34 6.45	-11.52 -11.51 -11.49 -11.51	12.8 12.9 13.0 13.1 13.2	295.7 296.8 297.8 298.9 299.3	1.5 1.5 1.6 1.5 1.9	22.5 354.5 21.1 116.9	
1600.00 1610.00 1620.00 1630.00 1640.00 1650.00	1589.72 1599.71 1609.71 1619.71 1629.70 1639.70 1649.70	5.56 5.83 6.08 6.34 6.45 6.68 6.93	-11.52 -11.51 -11.49 -11.51 -11.47 -11.45	12.8 12.9 13.0 13.1 13.2 13.3	295.7 296.8 297.8 298.9 299.3 300.2 301.2	1.5 1.6 1.5 1.9 1.6	22.5 354.5 21.1 116.9 359.6 11.2	
1600.00 1610.00 1620.00 1630.00 1640.00 1650.00	1589.72 1599.71 1609.71 1619.71 1629.70 1639.70 1649.70 1659.69	5.56 5.83 6.08 6.34 6.45 6.68 6.93 7.18	-11.52 -11.51 -11.49 -11.51 -11.47 -11.45 -11.46	12.8 12.9 13.0 13.1 13.2 13.3 13.4	295.7 296.8 297.8 298.9 299.3 300.2 301.2	1.5 1.5 1.5 1.9 1.6 1.5	22.5 354.5 21.1 116.9 359.6 11.2 338.8	
1600.00 1610.00 1620.00 1630.00 1640.00 1650.00	1589.72 1599.71 1609.71 1619.71 1629.70 1639.70 1649.70	5.56 5.83 6.08 6.34 6.45 6.68 6.93	-11.52 -11.51 -11.49 -11.51 -11.47 -11.45	12.8 12.9 13.0 13.1 13.2 13.3	295.7 296.8 297.8 298.9 299.3 300.2 301.2	1.5 1.6 1.5 1.9 1.6	22.5 354.5 21.1 116.9 359.6 11.2 338.8 284.1	
1600.00 1610.00 1620.00 1630.00 1640.00 1650.00 1660.00	1589.72 1599.71 1609.71 1619.71 1629.70 1639.70 1649.70 1659.69	5.56 5.83 6.08 6.34 6.45 6.68 6.93 7.18 7.34	-11.52 -11.51 -11.49 -11.51 -11.47 -11.45 -11.46	12.8 12.9 13.0 13.1 13.2 13.3 13.4 13.5	295.7 296.8 297.8 298.9 299.3 300.2 301.2 302.1	1.5 1.6 1.5 1.9 1.6 1.5	22.5 354.5 21.1 116.9 359.6 11.2 338.8 284.1	
1600.00 1610.00 1620.00 1630.00 1640.00 1650.00 1660.00	1589.72 1599.71 1609.71 1619.71 1629.70 1639.70 1649.70 1659.69 1669.69	5.56 5.83 6.08 6.34 6.45 6.68 6.93 7.18 7.34 7.47	-11.52 -11.51 -11.49 -11.51 -11.47 -11.46 -11.46 -11.42	12.8 12.9 13.0 13.1 13.2 13.3 13.4 13.5 13.6 13.6	295.7 296.8 297.8 298.9 299.3 300.2 301.2 302.1 302.6 303.2	1.5 1.6 1.5 1.9 1.6 1.5 1.6	22.5 354.5 21.1 116.9 359.6 11.2 338.8 284.1 2.9	
1600.00 1610.00 1620.00 1630.00 1640.00 1650.00 1660.00 1670.00 1680.00	1589.72 1599.71 1609.71 1619.71 1629.70 1639.70 1649.70 1659.69 1669.69 1669.69	5.56 5.83 6.08 6.34 6.45 6.68 6.93 7.18 7.34 7.74	-11.52 -11.51 -11.49 -11.47 -11.47 -11.45 -11.46 -11.46 -11.42	12.8 12.9 13.0 13.1 13.2 13.3 13.4 13.5 13.6 13.6	295.7 296.8 297.8 298.9 299.3 300.2 301.2 302.6 303.2 304.1	1.5 1.6 1.5 1.9 1.6 1.5 1.6 1.4	22.5 354.5 21.1 116.9 359.6 11.2 338.8 284.1 2.9 6.6	
1600.00 1610.00 1620.00 1630.00 1640.00 1650.00 1660.00	1589.72 1599.71 1609.71 1619.71 1629.70 1639.70 1649.70 1659.69 1669.69	5.56 5.83 6.08 6.34 6.45 6.68 6.93 7.18 7.34 7.47	-11.52 -11.51 -11.49 -11.51 -11.47 -11.46 -11.46 -11.42	12.8 12.9 13.0 13.1 13.2 13.3 13.4 13.5 13.6 13.6	295.7 296.8 297.8 298.9 299.3 300.2 301.2 302.6 303.2 304.1	1.5 1.6 1.5 1.9 1.6 1.5 1.6	22.5 354.5 21.1 116.9 359.6 11.2 338.8 284.1 2.9	
1600.00 1610.00 1620.00 1630.00 1640.00 1650.00 1660.00 1670.00 1680.00	1589.72 1599.71 1609.71 1619.71 1629.70 1639.70 1649.70 1659.69 1669.69 1679.69 1689.68	5.56 5.83 6.08 6.34 6.68 6.93 7.18 7.34 7.47 8.01	-11.52 -11.51 -11.49 -11.51 -11.47 -11.45 -11.46 -11.46 -11.42 -11.42	12.8 12.9 13.0 13.1 13.2 13.3 13.4 13.5 13.6 13.6 13.8 14.0	295.7 296.8 297.8 298.9 299.3 301.2 301.2 302.6 303.2 304.1 305.0	1.5 1.6 1.5 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6	22.5 354.5 21.1 116.9 359.6 11.2 338.8 284.1 2.9 6.6 13.3	
1600.00 1610.00 1620.00 1630.00 1640.00 1650.00 1660.00 1670.00 1690.00 1700.00	1589.72 1599.71 1609.71 1619.71 1629.70 1639.70 1649.70 1659.69 1669.69 1669.69 1689.68 1699.68	5.56 5.83 6.08 6.34 6.45 6.68 6.93 7.18 7.47 7.74 8.01	-11.52 -11.51 -11.49 -11.51 -11.47 -11.45 -11.46 -11.46 -11.42 -11.42	12.8 12.9 13.0 13.1 13.2 13.3 13.4 13.5 13.6 13.6 13.8 14.0 14.2	295.7 296.8 297.8 299.3 300.2 301.2 302.6 303.2 304.1 305.0 306.1	1.556 1.596 1.596 1.646 1.681 1.685 2.3	22.5 354.5 21.1 116.9 359.6 11.2 338.8 284.1 2.9 6.6 13.3 291.3	
1600.00 1610.00 1620.00 1630.00 1640.00 1650.00 1660.00 1670.00 1680.00	1589.72 1599.71 1609.71 1619.71 1629.70 1639.70 1649.70 1659.69 1669.69 1679.69 1689.68	5.56 5.83 6.08 6.34 6.68 6.93 7.18 7.34 7.47 8.01	-11.52 -11.51 -11.49 -11.51 -11.47 -11.45 -11.46 -11.46 -11.42 -11.42	12.8 12.9 13.0 13.1 13.2 13.3 13.4 13.5 13.6 13.6 13.8 14.0	295.7 296.8 297.8 298.9 299.3 301.2 301.2 302.6 303.2 304.1 305.0	1.5 1.6 1.5 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6	22.5 354.5 21.1 116.9 359.6 11.2 338.8 284.1 2.9 6.6 13.3	
1600.00 1610.00 1620.00 1630.00 1640.00 1650.00 1670.00 1680.00 1690.00 1700.00 1710.00	1589.72 1599.71 1609.71 1619.71 1629.70 1639.70 1649.69 1669.69 1679.69 1689.68 1699.68 1709.67	5.56 5.83 6.08 6.45 6.68 6.93 7.34 7.74 8.01 8.57	-11.52 -11.51 -11.49 -11.51 -11.47 -11.45 -11.46 -11.46 -11.42 -11.42 -11.42	12.8 12.9 13.0 13.1 13.2 13.3 13.4 13.5 13.6 13.6 13.8 14.0 14.2	295.7 296.8 297.8 299.3 300.2 301.2 302.1 303.2 304.1 305.0 306.8	1.5565961.661.681.6812.39	22.5 354.5 211.1 116.9 359.6 11.2 338.8 284.1 2.9 6.6 131.3 292.2	
1600.00 1610.00 1620.00 1630.00 1640.00 1650.00 1660.00 1670.00 1690.00 1700.00 1710.00 1720.00	1589.72 1599.71 1609.71 1619.71 1629.70 1639.70 1649.70 1659.69 1669.69 1679.69 1689.68 1699.68 1709.67 1719.66	5.56 5.83 6.34 6.48 6.48 6.93 7.14 7.74 8.01 8.34 8.78	-11.52 -11.51 -11.49 -11.47 -11.45 -11.46 -11.46 -11.42 -11.42 -11.42 -11.42	12.8 12.9 13.0 13.1 13.2 13.3 13.4 13.6 13.6 13.6 14.2 14.3	295.7 296.8 297.8 298.9 300.2 301.2 302.1 302.1 303.2 304.1 305.0 306.1 306.8 307.5	1.55659651.64 1.65641.685399	22.5 354.5 211.1 116.9 351.2 338.8 284.1 2.9 6.6 13.3 291.3 292.2 2.7	
1600.00 1610.00 1620.00 1630.00 1640.00 1650.00 1670.00 1680.00 1690.00 1700.00 1710.00	1589.72 1599.71 1609.71 1619.71 1629.70 1639.70 1649.69 1669.69 1679.69 1689.68 1699.68 1709.67	5.56 5.83 6.08 6.45 6.68 6.93 7.34 7.74 8.01 8.57	-11.52 -11.51 -11.49 -11.51 -11.47 -11.45 -11.46 -11.46 -11.42 -11.42 -11.42	12.8 12.9 13.0 13.1 13.2 13.3 13.4 13.5 13.6 13.6 13.8 14.0 14.2	295.7 296.8 297.8 299.3 300.2 301.2 302.1 303.2 304.1 305.0 306.8	1.5565961.661.681.6812.39	22.5 354.5 211.9 359.6 11.2 338.8 284.1 6.3 291.3 292.7 344.3	
1600.00 1610.00 1620.00 1630.00 1650.00 1650.00 1660.00 1670.00 1690.00 1700.00 1710.00 1720.00 1730.00	1589.72 1599.71 1609.71 1619.71 1629.70 1639.70 1649.70 1659.69 1669.69 1669.69 1689.68 1699.68 1709.67	5.56 5.83 6.08 6.345 6.68 6.93 7.18 7.347 7.74 8.01 8.57 9.10	-11.52 -11.51 -11.49 -11.47 -11.45 -11.46 -11.46 -11.42 -11.42 -11.42 -11.45 -11.45 -11.45	12.8 12.9 13.0 13.1 13.2 13.3 13.4 13.6 13.6 13.8 14.0 14.2 14.3 14.7	295.7 296.8 297.8 298.9 300.2 301.2 302.1 302.1 305.1 305.1 306.1 307.8	1.5565961.6591.6551.646853998	22.5 354.5 211.9 359.6 11.2 338.8 284.1 6.3 291.3 292.7 344.3	
1600.00 1610.00 1620.00 1630.00 1640.00 1650.00 1660.00 1670.00 1680.00 1700.00 1710.00 1720.00 1730.00 1740.00	1589.72 1599.71 1609.71 1619.71 1629.70 1639.70 1649.70 1659.69 1669.69 1669.68 1699.68 1709.67 1719.66 1729.66	5.56 5.83 6.08 6.34 6.48 6.93 7.18 7.34 7.74 8.34 8.57 8.78 9.43	-11.52 -11.51 -11.49 -11.51 -11.47 -11.45 -11.46 -11.42 -11.42 -11.42 -11.45 -11.45 -11.45	12.8 12.9 13.0 13.1 13.2 13.3 13.4 13.5 13.6 13.8 14.0 14.2 14.3 14.7 14.9	295.7 296.8 297.8 298.9 299.2 300.2 301.2 302.6 303.1 305.1 306.8 306.8 307.5 4	1.5561.659 1.65646853998 1.6081.686	22.5 354.5 211.9 359.6 11.2 338.8 284.1 6.6 13.3 291.3 292.2 344.3 128.7	
1600.00 1610.00 1620.00 1630.00 1650.00 1650.00 1660.00 1670.00 1690.00 1700.00 1710.00 1720.00 1730.00	1589.72 1599.71 1609.71 1619.71 1629.70 1639.70 1649.69 1669.69 1679.69 1689.68 1699.68 1719.66 1719.66 1729.66 1729.66	5.56 5.83 6.34 6.45 6.68 7.13 7.74 8.37 8.57 8.78 9.10 9.17	-11.52 -11.51 -11.47 -11.45 -11.46 -11.46 -11.42 -11.42 -11.45 -11.45 -11.45 -11.59	12.8 12.9 13.0 13.1 13.2 13.3 13.4 13.6 13.6 13.6 14.0 14.2 14.3 14.4 14.7 14.8	295.7 296.8 297.8 298.3 300.2 301.2 302.1 303.1 305.0 306.8 307.5 308.4 308.3	1.5565.965646853998665 11.65965646853998665	22.5 354.5 211.9 359.2 338.8 284.1 613.3 291.3 292.2 344.7 3128.8	
1600.00 1610.00 1620.00 1630.00 1640.00 1650.00 1660.00 1670.00 1680.00 1700.00 1710.00 1720.00 1730.00 1740.00 1750.00	1589.72 1599.71 1609.71 1619.71 1629.70 1639.70 1649.69 1669.69 1679.69 1689.68 1699.68 1719.66 1719.66 1729.66 1729.66	5.56 5.83 6.34 6.45 6.68 7.13 7.74 8.37 8.57 8.78 9.10 9.17	-11.52 -11.51 -11.47 -11.45 -11.46 -11.46 -11.42 -11.42 -11.45 -11.45 -11.45 -11.59	12.8 12.9 13.0 13.1 13.2 13.3 13.4 13.6 13.6 13.6 14.0 14.2 14.3 14.4 14.7 14.8	295.7 296.8 297.8 298.3 300.2 301.2 302.1 303.1 305.0 306.8 307.5 308.4 308.3	1.5565.965646853998665 11.65965646853998665	22.5 354.5 211.9 359.2 338.8 284.1 613.3 291.3 292.2 344.7 3128.8	
1600.00 1610.00 1620.00 1630.00 1640.00 1650.00 1660.00 1670.00 1690.00 1710.00 1720.00 1730.00 1750.00 1760.00	1589.72 1599.71 1609.71 1629.70 1639.70 1649.69 1659.69 1669.69 1679.69 1689.68 1799.66 1719.66 1729.66 1739.65 1749.64 1759.64	5.56 5.83 6.34 6.45 6.68 7.18 7.34 7.74 8.35 8.78 9.10 9.43 9.41	-11.52 -11.51 -11.49 -11.47 -11.45 -11.46 -11.42 -11.42 -11.42 -11.42 -11.45 -11.45 -11.45 -11.45	12.8 12.9 13.0 13.1 13.2 13.3 13.4 13.6 13.6 13.6 14.2 14.3 14.4 14.7 14.9 14.8	295.7 296.8 297.8 299.3 3001.2 3002.1 3003.2 3004.0 3006.8 307.4 309.4 309.4	1.5565965646853998655	22.5 354.5 116.6 118.8 118.8 284.1 6.6 13.3 291.3 292.7 344.7 128.7 128.7 148.7	
1600.00 1610.00 1620.00 1630.00 1640.00 1650.00 1670.00 1690.00 1700.00 1710.00 1720.00 1740.00 1750.00 1760.00	1589.72 1599.71 1609.71 1619.70 1639.70 1649.70 1659.69 1669.69 1679.69 1689.68 1699.68 1709.67 1719.66 1729.66 1739.65 1749.64 1759.64 1759.63 1759.63	5.56 5.83 6.34 6.48 6.48 7.18 7.74 7.74 8.34 7.74 8.34 9.43 9.43 9.42	-11.52 -11.51 -11.49 -11.47 -11.45 -11.46 -11.42 -11.42 -11.42 -11.45 -11.45 -11.45 -11.45 -11.45 -11.43	12.8 12.9 13.0 13.1 13.2 13.3 13.4 13.6 13.6 13.8 14.0 14.2 14.3 14.7 14.8 14.8 14.6	295.7 296.8 297.8 298.9 300.2 301.2 302.1 302.2 304.1 305.1 306.5 306.5 308.4 309.4	1.556596564685399865554	22.5 354.5 21.1.9 359.6 11.2 338.8 2.6 6.6 13.3 2.9 2.7 344.3 128.7 1.3 1.2 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3	
1600.00 1610.00 1620.00 1630.00 1640.00 1650.00 1660.00 1670.00 1690.00 1710.00 1720.00 1730.00 1750.00 1760.00	1589.72 1599.71 1609.71 1629.70 1639.70 1649.69 1659.69 1669.69 1679.69 1689.68 1799.66 1719.66 1729.66 1739.65 1749.64 1759.64	5.56 5.83 6.34 6.45 6.68 7.18 7.34 7.74 8.35 8.78 9.10 9.43 9.41	-11.52 -11.51 -11.49 -11.47 -11.45 -11.46 -11.42 -11.42 -11.42 -11.42 -11.45 -11.45 -11.45 -11.45	12.8 12.9 13.0 13.1 13.2 13.3 13.4 13.6 13.6 13.6 14.2 14.3 14.4 14.7 14.9 14.8	295.7 296.8 297.8 299.3 3001.2 3002.1 3003.2 3004.0 3006.8 307.4 309.4 309.4	1.5565965646853998655	22.5 354.5 21.1.9 359.6 11.2 338.8 2.6 6.6 13.3 2.9 2.7 344.3 128.7 1.3 1.2 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3	
1600.00 1610.00 1620.00 1630.00 1640.00 1650.00 1660.00 1670.00 1690.00 1710.00 1720.00 1730.00 1740.00 1750.00 1760.00 1770.00	1589.72 1599.71 1609.71 1619.71 1629.70 1639.70 1649.70 1659.69 1669.69 1669.68 1699.68 1709.67 1719.66 1729.66 1739.65 1749.64 1759.63 1769.63 1779.62	5.56 5.83 6.08 6.45 6.93 7.18 7.347 7.701 8.347 8.701 8.710 9.143 9.143 9.17 9.22	-11.52 -11.51 -11.49 -11.47 -11.45 -11.46 -11.46 -11.42 -11.42 -11.45 -11.45 -11.45 -11.45 -11.45 -11.45 -11.45	12.8 12.9 13.0 13.1 13.2 13.3 13.4 13.6 13.6 14.0 14.3 14.7 14.9 14.8 14.8 14.6	295.7 296.8 297.8 298.9 300.2 301.2 302.1 303.1 305.1 306.5 306.5 308.4 309.4 309.8	1.5.5.5.9.6.5.5.4.6.8.5.3.9.9.8.6.5.5.4.4.1.1.1.1.1.1.1.2.1.1.2.2.2.2.2.2.2.2	22.5 354.1.9 359.6.2 3384.1.9 6.3 291.3 292.2 344.3 128.8 129.2 344.3 128.8 129.1 128.8 129.1 12	
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1600.00 1610.00 1620.00 1630.00 1640.00 1650.00 1660.00 1670.00 1690.00 1710.00 1720.00 1730.00 1740.00 1750.00 1760.00 1770.00	1589.72 1599.71 1609.71 1619.71 1629.70 1639.70 1649.70 1659.69 1669.69 1669.68 1699.68 1709.67 1719.66 1729.66 1739.65 1749.64 1759.63 1769.63 1779.62	5.56 5.83 6.08 6.45 6.93 7.18 7.347 7.701 8.347 8.701 8.710 9.143 9.143 9.17 9.22	-11.52 -11.51 -11.49 -11.47 -11.45 -11.46 -11.46 -11.42 -11.42 -11.45 -11.45 -11.45 -11.45 -11.45 -11.45 -11.45	12.8 12.9 13.0 13.1 13.2 13.3 13.4 13.6 13.6 14.0 14.3 14.7 14.9 14.8 14.8 14.6	295.7 296.8 297.8 298.9 300.2 301.2 302.1 303.1 305.1 306.5 306.5 308.4 309.4 309.8	1.5.5.5.9.6.5.5.4.6.8.5.3.9.9.8.6.5.5.4.4.1.1.1.1.1.1.1.2.1.1.2.2.2.2.2.2.2.2	22.5 354.1.9 359.6.2 3384.1.9 6.3 291.3 292.2 344.3 128.8 129.2 344.3 128.8 129.1 128.8 129.1 12	

**Casing & Tubing Program** 

	Casing	Casing	Hole	Cement	Cemen	ted	Date
		Interval	Size	used in cu/ft	to Surf	ace	Cemented
					Yes	No	
Conductor	13 3/8"	45.20'	15"			Χ	4/12/07
Surface	7"	222'	8 7/8"	88.5	Χ		4/12/07
Water Protection	4 1/2"	1666.59'	6 1/2"	256.2	Χ		4/17/07
Coal Protection	4 1/2"	1666.59'	6 1/2"	256.2	Χ		4/17/07
Other Casing & Tubing							
Other Casing & Tubing							
Liners							

Packers or Bridge Plugs Kind/Size/Set
Bkt @ 88'

# DRILL DATA HOLE-NOAH HORN WELL DRILLING, INC

COMPANY: CNX

HOLE #: C-21A

LOCATION: LOWER BIG BRANCH

DRILL RIG#: 17

DATE STARTED: 04/12/07

DATED COMPLETED: 04-17-07

ELECTRIC LOGGED:YES

GROUTED:YES

DEPTH THICKNESS		STRATA REMARKS			
EDOM	TO	FT	DESCRIPTION, VOIDS ETC		
FROM	TO 45		DESCRIPTION, VOIDS ETC		
0	45 60	45 15	CANTA CTANTE		
45			SAND STONE		
60	90	30	SAND STONE/COAL		
90	150	60	SANDY SHALE		
150	180	30	SANDY SHALE/COAL/SANDY SHALE		
180	240	60	SANDY SHALE/CEMENT		
240	270	30	SANDY SHALE/COAL/SANDY SHALE		
270	330	60	SAND STONE		
330	360	30	SAND STONE/COAL/SANDY SHALE		
360	420	60	SANDY SHALE/COAL/SANDY SHALE		
420	450	30	SAND STONE/COAL/SANDY SHALE		
450	480	30	SANDY SHALE/COAL/SANDY SHALE		
480	510	30	SAND STONE		
510	540	30	SAND STONE/SANDY SHALE		
540	570	30	SANDY SHALE		
570	600	30	SANDY SHALE/SAND STONE/SANDY		
SHALE					
600	630	30	SANDY SHALE/SAND STONE		
630	660	30	SANDY SHALE		
660	720	60	SHALE		
720	750	30	SHALE		
750	780	30	SAND STONE		
780					
780	810	30	SANDY SHALE		
810	840	30	SANDY SHALE/COAL/SAND		
840	870	30	SAND/SANDY SHALE		
870	900	30	SANDY SHALE/COAL/SANDY SHALE		
900	930	30	SANDY SHALE/SAND		
930	960	30	SAND/COAL/SANDY SHALE		
960	990	30	SANDY SHALE/COAL/SANDY SHALE		
990	1020	30	SHALE		
1020	1050	30	SANDY SHALE/COAL/SANDY SHALE		
1050	1080	30	SAND/SANDY SHALE		
1080	1140	60	SANDY SHALE/COAL/SANDY SHALE		
1140	1170	30	SAND/SANDY SHALE		
1170	1230	60	SANDY SHALE/COAL/SANDY SHALE		
1230	1260	30	SANDY SHALE/COAL/SANDY SHALE		
1260	1290	30	SANDY SHALE		
1200	1320	30	SANDY SHALE/COAL/SAND		
1320	1410	90	SAND STONE		
		30 30	SAND STONE SAND/SANDY SHALE		
1410	1440	30	SANDY SHALE/COAL/SANDY SHALE		
1440	1470	30	SAINDI SHALE/CUAL/SAINDI SHALE		

1470			
1470	1500	30	SANDY SHALE/COAL/SANDY SHALE
1500	1530	30	SANDY SHALE
1530	1560	30	SANDY SHALE/COAL/SANDY SHALE
1560	1562	2	SANDY SHALE
1562	1565	3	COAL P-3
1565	1590	25	SANDY SHALE
1590	1620	30	SANDY SHALE/SHALE
1620	1680	60	SANDY SHALE
1680	1710	30	SANDY SHALE/SHALE
1710	1740	30	SHALE/SANDY SHALE
1740	1770	30	SANDY SHALE/SAND STONE
1770	1800	30	SANDY SHALE
1800	1830	30	SANDY SHALE/RED SHALE

TOTAL DEPTH – 1830' 45.2' – 13 3/8" CASING 222' – 7" CASING 1666.59' – 4 ½" CASING