

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

1034

TA-0441

	Operations Name:		CBM AZ140 W/PL			
		Operation Type:		Coall	ped/Pipeline	
		Drilling Re	port Type:	Original		
	DRILL	ING REPO	ORT (DGC	o-GO	-14)	
1. Drilling Data						
Date drilling commenced:	12/3/2007	D	rilling Contra	actor:	Noah Horn	
Date drilling completed:	12/8/2007		Rig	Туре	: ☑ Rotary ☐ Cable Tool	
Driller's Total Depth (feet):	2,530				_ , _	
Log Total Depth (feet):	2,546	Co	Coal Seam At Total Depth Pocahontas			
2. Final Location Plat (as rec	quired by 4	VAC25-150	-360.C.)			
Permitted State Plane X 1,032,406 Final Plat State Plane X: 1,032,403					e X: 1,032,403	
Permitted State Plane Y: 298	8,696	Fin	al Plat State	e Plan	e Y: <u>298,694</u>	
☐ Plat Previously Submitted	Or					
List of Attached Items:						
Descrip	tion				FileName	
Pla	t				AZ140 Plat.pdf	
3. Geological Data						
Fresh Water At:						
Depth	(in feet)			Rate	Unit of Measure	
Salt Water At:						
Denth	(in feet)			Rate	Unit of Measure	
Бери	(mileet)			vaic	Offic of Micasure	

Tracking Number:

Company: File Number:

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

Coal Seams

List of Attached Items:

Description	FileName		
Exhibit A	AZ140 Exhibit A.pdf		

Gas and Oil Shows

List of Attached Items:

Description	FileName			
Gas Show	AZ140 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		
Deviation	AZ140 Deviation.pdf		

6. Casing and Tubing Program

List of Attached Items:

Description	FileName
Casing	AZ140 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	AZ140 Drill Data.pdf		

Form DGO-GO-14-E

9. Comments

10. Signature

Permitee: CNX Gas Company LLC Date: 1/12/2008 (Company)

Signed By: Les Arrington Title: Manager (Signature)

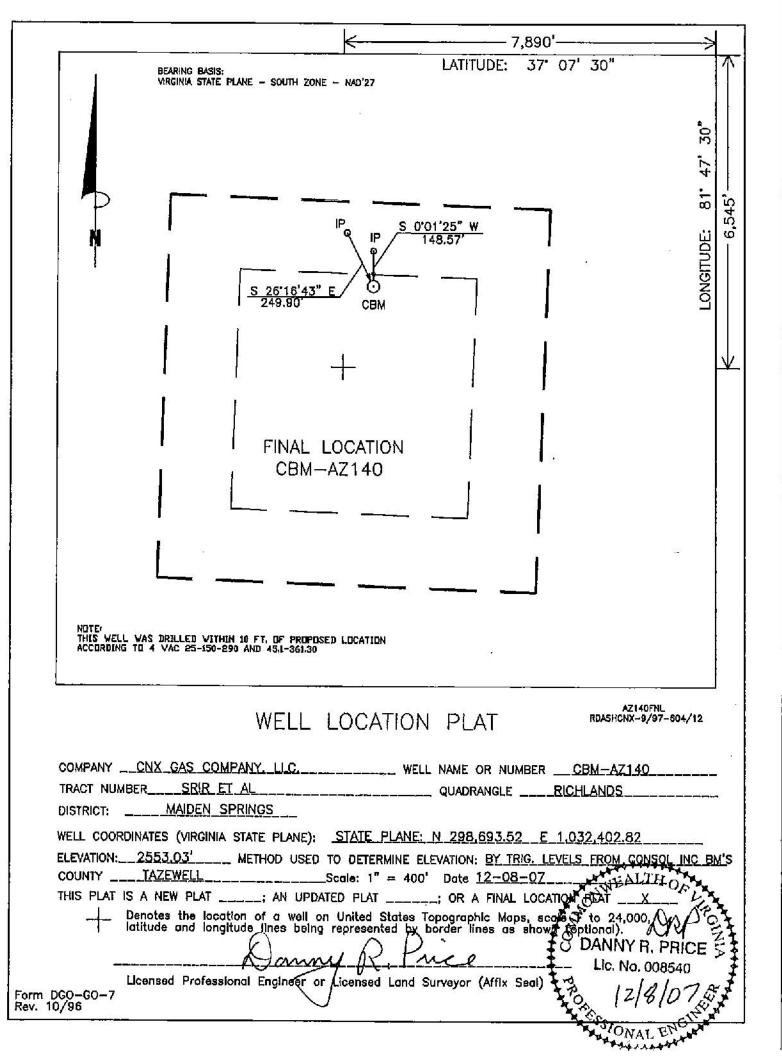
INTERNAL USE ONLY

Submit Date: 1/12/2008

Status: Inspr Approved Date: 1/15/2008

Final PDF Date: 1/22/2008

Form DGO-GO-14-E



AZ140.CMP Exhibit A

Well Name: 07 CBM AZ140 SURFACE ELEV: 2553.03 EASTING: 1032402.82 NORTHING: 298693.52

SEAM	DEPTH FROM (FT)	DEPTH TO (FT)	ELEVATION (TOSE)	THK. (FT)	REMARKS
RA1	174.20 175.60	TO (FT) 175.60 198.80 202.10 360.70 362.90 427.80 431.80 471.90 473.30 474.80 669.80 670.90 891.50 892.70 893.10 894.00 945.10 1011.10 1011.70 1037.10 1037.10 1039.90 1099.10 1100.00 1101.60 1127.80 1127.80 1127.80 1127.80 1127.90 1129.70 1129.70 1129.70 1129.70 1129.70 1180.80 1181.10 1181.20 1226.30 1227.90 1233.00 1233.30 1267.60 1269.00	2376.80 2375.40	1.40 23.20	
RA2	198.80	202.10 360.70	2352.20	3.30	
JB1	360.70 362.90	362.90 427.80	2190.30 2188 10	2.20	
J83	427.80	431.80	2123.20	4.00	
Т2	471.90	473.00 473.30	2079.10	1.10	
Т2	473.30	474.80 660.80	2077.70	1.50	
US 1	669.80	670.90	1881.20	1.10	
GC1	891.50	892.70	1659.50	1.20	
GC1	893.10	894.00	1657.90	0.40	
≑GC2	945.10	947.10 947.10	1605.90	2.00	
*SE1	1011.10	1011.10	1539.90	0.60	
*SE2	1011.70	1037.10	1513.90	23.40	
*LS1	1039.90	1100.00	1451.90	0.90	
*LSZ	1100.00	1127.00	1451.00	25.40	
*LS3	1127.00	1127.10	1424.00	0.10	
"COAL	1127.80	1127.90	1423.20	1.60	
*COAL	1129.50	1129.70 1179.60	1421.30	49.90	
*UH1	$1179.60 \\ 1180.80$	1180.80 1181.10	1371.40 1370.20	1.20 0.30	
*COAL	$1181.10 \\ 1181.20$	1181.20 1226.30	1369.90 1369.80	0.10 45.10	
*UH2	1181.20 1226.30 1227.90 1233.00 1233.30	1227.90 1233.00	1324.70 1323.10	1.60 5.10	
*UH3	1233.00 1233.30	1233.30 1267.60	$1318.00 \\ 1317.70$	0.30 34.30	
	1269.00	1345.10	1282.00	76.10	
*MH2	1345.10 1346.90	1346.90 1392.10	1205.90 1204.10	1.80 45.20	
*P11	1392.10 1395.10	1395.10 1417.60	$1158.90 \\ 1155.90$	3.00 22.50	
*P10	1417.60 1418.40	1418.40 1448.90	$1133.40 \\ 1132.60$	0.80 30.50	
*LH1	$1448.90 \\ 1450.10$	1450.10 1507.70	1102.10 1100.90	1.20 57.60	
*LH3	1507.70 1507.90	1507.90 1573.10	1043.30 1043.10 Page 1	0.20 65.20	

			AZ140.CMP	
*P81	1573.10	1573.90	977.90	0.80
	1573.90	1574.00	977.10	0.10
*P81	1574.00	1574.50	977.00	0.50
	1574.50	1574.70	976.50	0.20
*COAL	1574.70	1574.90	976.30	0.20
	1574.90	1603.70	976.10	28.80
*P71	1603.70	1605.10	947.30	1.40
	1605.10	1678.80	945.90	73.70
*COAL	1678.80	1679.20	872.20	0.40
	1679.20	1694.10	871.80	14.90
*P72	1694.10	1695.20	856.90	1.10
	1695.20	1745.60	855.80	50.40
*COAL	1745.60	1746.30	805.40	0.70
	1746.30	1751.90	804.70	5.60
*COAL	1751.90	1752.10	799.10	0.20
****	1752.10	1762.50	798.90	10.40
*COAL	1762.50	1762.60	788.50	0.10
****	1762.60	1778.10	788.40	15.50
*COAL	1778.10	1778.50	772.90	0.40
*P61	1778.50	1880.90	772.50	102.40
"POT	1880.90 1881.40	1881.40 1911.90	670.10	0.50
*P51	1911.90	1912.70	669.60 639.10	30.50 0.80
6.3.1	1912.70	1938.00	638.30	25.30
*P52	1938.00	1939.00	613.00	1.00
F 32	1939.00	2036.80	612.00	97.80
*P41	2036.80	2040.00	514.20	3.20
	2040.00	2134.10	511.00	94.10
*P31	2134.10	2135.10	416.90	1.00
*P32	2135.10	2137.10	415.90	2.00
*P33	2137.10	2138.20	413.90	1.10
	2138.20	2166.50	412,80	28.30
*P35	2166.50	2167.20	384.50	0.70
	2167.20	2300.30	383.80	133.10
∻P1L	2300.30	2300.60	250.70	0.30
	2300.60	2355.90	250.40	55.30
*COAL	2355.90	2356.10	195.10	0.20
	2356.10	2357.40	194.90	1.30
*SJ3	2357.40	2357.60	193.60	0.20
	2357.60	2369.00	193.40	11.40
*SJ2	2369.00	2369.70	182.00	0.70
	2369.70	2370.10	181.30	0.40
*SJ2	2370.10	2372.10	180.90	2.00
	2372.10	2381.60	178.90	9.50
*SJ1	2381.60	2381.90	169.40	0.30
	2381.90	2546.17	169.10	164.27

* Coal seam subject to coalbed methane stimulation.
Estimated cutoff elevation: 1630 ft above sea level.
All seams with a single asterisk (*) below this elevation to the top of the red and green shales (RG) are subject to stimulation. Certain seams are omitted from this predict because they are not believed to exist at this location.
If any of these unexpected coal seams are found to be present after the drilling

of this well, those which lie below the first single asterisk are also subject to coalbed methane production.

COAL SEAMS TO BE STIMULATED WERE ADJUSTED DUE TO THE GAS WELL'S PROXIMITY TO BROWN HOLLOW AND WATER WELL AZ140-1.

GAMMA-CALIPER LOG FROM 0 TO 453.00 GAMMA-DENSITY LOG FROM 453.00 TO TD.

NOTE: FOOTAGE NOT ADJUSTED FOR DEVIATION FILE: H:\JIMHAZ~1\PROJECTS\GAS\AZ140.CMP Page 2 DATE: 12/10/07

Well: <u>AZ140</u>

Oil & Gas Show

Formation	Top	Bottom	Thickness	IPF	Pressure	Hours
				(MCFD/BOPD)		Tested
Lee/Norton	945	1450	505			
Pocahontas	1604	2138	534			
Total IPF				Not Taken		

PLAN VIEW COMPU-LOG DEVIATION

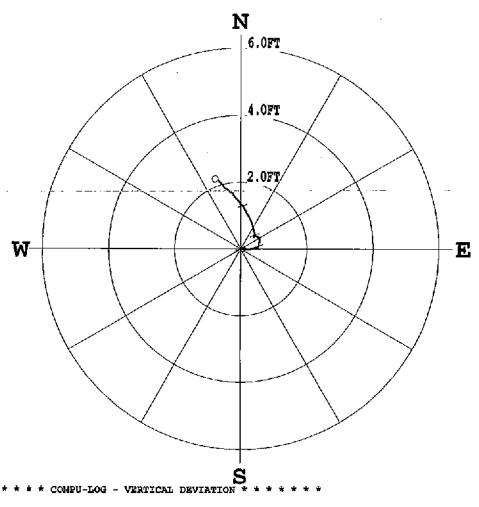
CLIENT: CONSOL ENERGY

LOCATION:

HOLE ID: 07-CNX-AZ-140 DATE OF LOG: 12/06/07 PROBE: 9136CH 1279 MAG DECL: -7.1

SCALE: 2 FT/IN TRUE DEPTH: 452.88 F AZIMUTH: 339.8

DISTANCE: 2.2 FT + = 100 FT INCR O = BOTTOM OF HOLE



	: CONSOL ENERGY : O'DRISCOLL	HOLE ID. DATE OF LOG		07-CNX-AZ-140
DATA FROM MAG. DECL.	:		:	9136CH , 1279
	AZ-140_12-06-07_23-44			

CABLE DEPTH	TRUE DEPTH	NORTH DEV.	EAST DEV.	DISTANCE	AZIMUTH	DMAR	SANGB
0.50	0.50	0.00	0.00	0.0	0.0	0.0	0.0
10.00	10.00	-0.00	-0.00	0.0	180.5	0.2	343.0
20.00	20.00	0.02	0.00	0.0	6.1	0.1	334.4
30.00	30.00	0.04	0.01	0.0	15.0	0.2	50.9
40.00	40.00	0.03	0.04	0.1	50.8	0.2	126.1
50.00	50.00	0.02	0.07	0.1	72.8	0.2	134.6
60.00	60.00	-0.01	0.09	0.1	94.1	0.2	110.6
70700	70.00	0.01	0.11	0.1	86.9	0.2	45.7
80.00	80.00	-0.00	0.15	0.1	90.5	0.2	128.2
90.00	90.00	-0.01	0.18	0.2	94.4	0.2	100.4
100.00	100.00	-0.02	0.21	0.2	94.9	0.2	96.4
110.00	110.00	-0.02	0.24	0.2	94.3	0.2	94.6
120.00	120.00	-0.01	0.27	0.3	92.9	0.2	86.9
130.00	130.00	-0.00	0.31	0.3	90.0	0.2	72.8
140.00	140.00	0.01	0.34	0.3	67.9	0.2	54.3
90.00 100.00 110.00 120.00 130.00	90.00 100.00 110.00 120.00 130.00	-0.01 -0.02 -0.02 -0.01 -0.00	0.18 0.21 0.24 0.27 0.31	0.2 0.2 0.2 0.3 0.3	94.4 94.9 94.3 92.9 90.0	0.2 0.2 0.2 0.2 0.2	100 96 94 86 72

-	11.11	72.77	0.04	0.01	0.0	10.U	V.2	50.9
	40.00 50.00	40.00 50.00	0.03 0.02	0.04	0.1	50.8	0.2	126.1
	60.00	60.00	-0.01	0.07 0.09	0.1 0.1	72.8 94.1	0.2	134.6
	70.00	70.00	0.01	0.11	···ŏ:1	86.9	0.2	110.8 45.7
	80.00 90.00	80.00 90.00	-0.00	0.15	0.1	90.5	0.2	128.2
	100.00	100.00	-0.01 -0.02	0.18 0.21	0.2 0.2	94.4	0.2	100.4
	110.00	110.00	-0.02	0.24	0.2	94.9 94.3	0.2 0.2	96.4 94.6
	120.00 130.00	120.00	-0.01	0.27	0.3	92.9	0.2	86.9
	140.00	130.00 140.00	-0.00 .0.01	0.31	. 0.3	90.0	0.2	72.8
	150.00	150.00	0.02	0.34 0.37	0.3 0.4	87.9 87.6	0.2	54.3 110.4
	160.00	160.00	0.01	0.41	0.4	88.6	0.2	68.0
	170.00 180.00	170.00	0.01	0.45	0.4	88.5	0.1	66.0
	190.00	180.00 190.00	0.02 0.04	0.48	0.5	87.5	0.3	96.3 49.2
	200.00	200.00	0.08	0.51 0.54	0.5 0.5	85.2 81.2	0.3	49.2
	210.00	210.00	0.14	0.54	0.6	76.0	0.3	20.9 15 .1
	220.00 230.00	220.00 2 3 0.00	0.18	0.54	0.6	71.8	0.2	50.7
	240.00	240.00	0.20 0.25	0.57 0.58	0.6	70.7	0.2	35.5
	250.00	250.00	0.33	0.55	0.6 0.6	66.5 59.6	0.4 0.5	345.0 349.7
	260.00	260.00	0.36	0.48	0.6	53.0	0.5	286.3
	270.00 280.00	270.00 200.00	0.36 0.35	0.41	0.Б	49.2	0.2	195.0
	290.00	290.00	0.36	0.40 0.40	0.5 0.5	49.5 48.0	0.0	07.5 3.3
	300.00	300.00	0.40	0.42	0.6	46.1	0.4 0.6	326.9
	310.00 320.00	310.00	0.45	0.41	0.6	42.9	0.2	7.6
	330.00	320.00 330.00	0. 49 0.54	0.40 0.39	0.6	39.4	0.4	330.8
	340.00	340.00	0.60	0.39	0.7 0.7	35.9 32.2	0.4	329.4
	350.00	350.00	0.68	0.36	ŏ.á	27.8	0.5	3.2 335.7
	360.00 370.00	360.00	0.77	0.33	0.8	23.9	0.5	338.6
	380.00	369.99 379.99	0.88 1.01	0.29 0.22	0.9	18.2	0.8	328.1
	390.00	369.99	1.15	0.15	1.0 1.2	12.0 7.2	0.9 1.0	331.8 327.4
	400.00	399.99	1.29	0.06	1.3	2.6	1.1	306.2
	410.00 420.00	409.99 419.99	1.43	-0.06	1,4	357.6	1.0	317.3
	430.00	429.88	1.59 1.72	-0.20 -0.35	1.6 1.8	352.8	1.3	317.7
	440.00	439.98	1.87	-0.52	1.9	348.5 344.6	1.2 1.5	324.5 329.3
	450.00	449.98	2.06	-0.70	2,2	341.3	1.9	300.4
	460.00 470.00	459.98 469.97	2.19 2.30	-0.84	2.3	339.0	1.2	312.4
	480.00	479.97	2.39	-0.98 -1.12	2.5 2.6	336.9 334.9	0.7	266.2 311.1
	490.00	489.97	2.51	-1.27	2.8	333.2	1.0 1.3	309.1
	.500.00 510.00	<u>499.97</u> _	2.62	1.44	3.0	331.2	. 1.2 .	296,0
	520.00	509.97 519.96	2.75 2.86	-1.61 -1.81	3.2	329.6	1.3	310.0
	530.00	B29.96	3.01	-1,97	3.4 3.6	327.6 326.8	1.3 1.4	287.5 335.5
	540.00	539.96	8.03	-2.18	3.7	324,3	1.3	310.1
	550.00 560.00	549.95 559.95	3.16	-2.38	4.0	323.0	1.4	295.5
	570.00	569.95	3.29 3.27	-2.59 -2.81	4.2 4.3	321.0 319.4	1.5 1.8	267.9
	580.00	579.94	3.39	-3.03	4.5	310.2	1.6	297.3 285.8
	590.00 600.00	589.94	3,47	-3.25	4.8	316.9	1.4	278.3
	610.00	599.94 609.93	3.56 3.66	-3.48 -3.73	5.0	315.7	1.6	289.4
	620.00	619.93	3.71	-3.98	5.2 5.4	314.5 313.0	1.6 1.6	282.2 327.1
	630.00	629.92	3.76	-4.25	5.7	311.5	1.6	285.7
	640.00 650.00	639.92 649.91	3.92	~4.48	6.0	311.2	1.6	339.0
	660,00	659.91	4.02 4.05	-4.76 -5.07	6.2 6.5	310.2 300.7	1.9	304.9
	670.00	669.90	4.26	-5.32	6.8	306.7	1.9 2.1	279.3 327.2
	680.00	679.90	4.40	-5.61	7.1	300.1	2.1	305.7
	690.00 700.00	609.69 699.88	4.64 4.82	-5.89 -6.19	7.5 7.8	308.2	2.1	288.5
	710.00	709.68	5.00	-6.51	6.2	307.9 307.5	2.0 2.2	283.8 299.8
	720.00	719.87	5.16	~6.85	8.6	307.0	2.2	314.9
	730.00 740.00	729.86 739.86	5.36	-7.16	8.9	306.6		298.6
	750.00	749.85	5.56 5.72	-7.4B -7.76	9.3 9.6	306.8 306.4	2.1 1.9	307.8 295.2
	760.00	759.84	5.91	-8.05	10.0	306.3	2.1	299.4
	770.00	769.84	6.07	-0.36	10.3	306.0	2.0	300.3
	780.00 790.00	779.83 789.83	6.24 6.42	-0.66 -8.94	10.7	305.8		302.5
	800.00	799.82	6.59	~9.25	11.0 11.4	305.7 305.5		308.4 317.1
	810.00	809.81	6.76	-9.54	11.7	305.3		302.9
	820,00 830.00	819.81	6.96	-9.83	12.0	305.3	2.2	315.1
	B40.00	829.80 639.79	7.20 7.41	-10,12 -10,42	12.4 12.8	305.4		313.5
1	950.00	849.79	7.63	-10.72	13.2	305.4 305.4		307.2 301.1
	860.00	859.76	7.89	-11.00	13.5	305.6		322.7
	370.00 980.00	869.77 879.76	0.17 8.43	-11.28	13.9	305.9	2.3	331.1
	990.00	869.76	8.43 8.60	-11.57 -11.83	14.3 14.7	306.1 306.3		312.9
5	900.00	899.75	8.94	-12.09	15.0	306.5		313.9 321.6
	910.00	909.74	9.22	-12.33	15.4	306.8	2.1	301.9
	920.00 930.00	919.74 929.73	9.45 9.74	-12.60	15.7	306.9	2.1	
	940.00			-12.79 -12.41	16.1 15.5	307.3 3072	2.5 -2.1	306.1 314. D
5	950.00	949.71	10.23	-13.95	16.8	307.5		305.1
	960.00 970.00	959.71 969 70	10.46	-13.61	17.2	307.5	1.9	317.8
	980.00	969.70 979.70	10.69 10.92	-13.85 -14.08	17.5 17.8	307.6 307.8		300.7
	200,00	000 40	73.22	73100	-1.0	301.0	1.6	311.7

			 .		_		
870.00	869.77	8.17	-11,28	13.9	305.9	2.3	331.1
880.00 820.00	679.7 <i>6</i> 889.76	8.43	-11.57	14.3	306.1	2.2	312.9
900.00	699.75	8.68 8.94	-11.83 -12.09	14.7 15.0	306.3 306.5	2.1 2.1	313.9 321.8
910.00	909.74	9.22	-12.33	15.4	306.8	2.1	301.9
920.00 930.00	919.74 929.73	9.45 9.74	-12.60 -12.79	15.7 16.1	306.9 307.3	2.1 2.5	204.0 306.1
940.00	939.72	· -9-, 96- —	- 425.44	15 5	307.2	2.1	316.9
950.00 960.00	949.71 959.71	10.23 10.46	-13.35 -13.61	16.0 17.2	307.5 307.5	2.1 1.9	305.1 317.8
970.00	969.70	10.69	-13.85	17.5	307.6	1.6	300.7
980.00 990.00	979.70 989.69	10.92 11.09	-14.00 -14.35	17.8 16.1	307.8 307.7	1.6 1.6	311.7 303.8
1000.00	999.69	11.34	-14.36	18.3	308.3	2.1	343.5
1010.00 1020.00	1009.68 1019.67	11.40 11.66	-14.66 -14.87	10.6 18.9	307.9 308.1	1.7 2.0	314.9 347.6
1030.00	1029.67	11.93	-15.12	19.3	308.3	1.9	302.0
1040.00 1050.00	1039.66 1049.66	12.16 12.41	-15.36 -15.57	19.6	308.4	2.0	308.6
1060.00	1059.65	12.67	-15.78	19.9 20.2	308.6 308.8	1.9 2.0	310.6 323.3
1070.00	1069.64	12.89	-16.02	20.6	308.6	1.8	311.5
1080.00	1079.64 1089.63	13.06 13.30	-16.27 -16.50	20.9 21.2	308.8 308.9	1.9 1.7	1.0 298.7
1100.00	1099.63	13.48	-16.69	21.5	308.9	1.6	334,2
1110.00 1120.00	1109.62 1119.62	13.63 13.88	-16.94 -17.15	21.7 22.1	308.8 309.0	1.7 2.0	297.5 321.5
1130.00	1129.61	14.08	-17.41	22.4	309.0	1.0	311.9
1140.00 1150.00	1139.61 1149.60	14.26 14.46	-17.65 -17.06	22.7 23.0	308.9 309.0	1.7 1.7	269.4 315.6
1160.00	1159.60	14.64	-18.11	23.3	309.0	1.7	312.7
1170.00 1180.00	1169.59 1179.59	14.02 15.03	~18.33 -18.51	23.6 23.8	308.9	1.6	303.6
1190.00	1189.59	15.15	-18.77	24.1	309.1 308.9	1.8 1.6	314.9 309.5
1200.00 1210.00	1199.88	15.32	-19,00	24.4	308.9	1.7	313.9
1220.00	1209.58 1219.57	15.50 15.62	-19,23 -19,46	24.7 24.9	308.9 308.7	1.7 1.5	304.7 324.7
1230.00	1229.57	15.82	-19.65	25.2	300.8	1.7	305.5
1240.00 1250.00	1239.57 1249.56	16.01 16.06	-19.82 -20.04	25.5 25.7	308.9 308.7	1.6 1.4	270.0 244.0
1260.00	1259,56	16.22	-20.08	25.8	308.9	1.7	302.6
1270.00 1260.00	1269.56 1279.85	16.27 16.37	-20.29 -20.49	26.0 26.2	308.7 308.6	1.2 1.3	343.8 325.0
1290.00	1289.65	16.58	-20.64	26.5	308.8	1.4	304.7
1300.00 1310.00	1299.55 1309.54	16.68 16.85	-20.84 -20.98	26.7 26.9	308.7 308.8	1.3	306.2 303.4
1320.00	1319.54	16.99	-21.15	27.1	308.8	1.2	319.2
1330.00 1340.00	1329.54 1339.54	17.15 17.16	-21.25 -21.37	27.3	308.9	1.1	276.0
1350.00	1349.54	17.29	-21.49	27.4 27.6	308.8 308.8	D.9 1.1	12.9 300.5
1360.00	1359.53	17.41	-21.62	27.8	306.9	1.0	311.3
1370.00 1380.00	1369.53 1379.59	17.50 17.60	-21.74 21.84 -	27.9 28 .1 -	308.8 -30879	9.8 9.8	206.4 314-1
1390.00	1389.53	17.69	-21.96	26.2	308.9	0.9	231.2
1400.00 1410.00	1399.53 1409.53	17.68 17.65	-22.11 -22.33	26.3 26.5	308.6 308.3	1.2 1.6	244.9 300.0
1420.00	1419.52	17.87	-22.41	28.7	308.6	1.5	11.3
1430.00 1440.00	1429.52 1439.51	18.13 18.37	-22.41 -22.50	28.8 29.0	309.0 309.2	1.4 1.6	324.9 359.7
1450.00	1449.51	18.57	-22.63	29.3	309.4	1.4	308.5
1460.00 1470.00	1459.51 1469.50	18.01 19.07	-22.72 -22.78	29.5 29.7	309.6 309.9	1.6 1.6	346.9 344.7
1480.00	1479.50	19.32	-22.85	29.9	310.2	1.4	347.6
1490.00 1500.00	1489.50 1499.50	19.56 19.80	-22.90 -22.97	30.1 30.3	310.5 310.6	1.6 1.4	344.7 345.9
1510.00	1509.49	20.04	-23.04	30.5	311.0	1.5	345.4
1520.00 1530.00	1519.49 1629.49	20.28 20.53	-23.09 -23.18	30.7 31.0	311.3 311.5	1.3 1,6	342.3 322.8
1840.00	1539.48	20.76	-23.20	31.1	311.8	1.4	355.0
1550.00 1560.00	1549.48	21.04 21.28	-23.25 -03.31	31.4	312.1 312.4	1.4 1.3	342.4
1570.00	1559.40 1569.47	21.47	-23.31 -23.41	31.6 31.8	312.5	1.1	349.2 357.9
1980.00	1579.47	21.65	-23.38	31.9	312.0	1.1	3.2
1590.00 1600.00	1509.47 1599.47	21.87 22.11	-23.39 -23.42	32.0 32.2	313.1 313.4	1.2 1.3	355.0 346.3
1610.00	1609.46	22.36	-23.40	32.4	313.7	1.6	356.1
1620.00 1630.00	1619.46 1629.46	22.61 22.83	-23.42 -23.39	32.6 32.7	314.0 314.3	1.3 1.4	10.9 5.4
1640.00	1639.45	23.06	-23.37	32.8	314.6	1.3	6.9
1650.00 1660.00	1649.45 1659.45	23.31 23.54	-23.35 -23.31	33.0 33.1	315.0 315.3	1.4 1.5	2.0 15.2
1670.00	1669.45	23.78	-23.28	33.3	315.6	1.4	1.3
1680.00 1690.00	1679.44 1689.44	24.03 24.28	-23.23 -23.17	33.4 33.6	316.0 316.3	1.5 1.6	15.7 357.1
1700.00	1699.44	24.38	-23.17 -23.11	33.6	316.5 316.5	0.7	258.5
1710.00	1709.43	24.59	-23.07	33.7	316.8	1.4	7.7
1720.00 1730.00	1719.43 1729.43	24.85 25.07	-23.00 -22. 94	33.9 34.0	317.2 317.5	1.4 1.3	15.5 22.2
1740.00	1739.42	25.31	-22.86	34.1	317.9	1.6	8.0
1750.00 1760.00	1749.42 1759.42	25.54 25.80	-22.79 -22.71	34.2 34.4	310.3 310.6	1.4 1.5	26.4 15.7
1770.00	1769.41	26.04	-22.64	34.5	319.0	1.3	19.2
1780.00 1790.00	1779.41 1789.41	26.25 26.47	-22.60 -22.53	34.6 34.8	319.3 319.6	1.3 1.3	10.3 28.3
1800.00	1799.41	26.71	-22.46	34.9	319.9	1.8	12,3
1810.00	<u>1609.40</u> 1619.40	$-\frac{27}{27},\frac{00}{20}$	-22.39 -22.35	35.1 35.3	320.3 320.7	1.7	13.0 11.7
1020.00	1019.40	27.30	-22.35	30.3	320. f	1.0	71,1

								
11	/4U.UU .	L/39.42	20.31	-26.00	22.4	441.5	ALW VIV	
17	150.00	L749.42		-22.79			1.4 26.4	
12	60.00	1759.42	25.80	-22.71	34.4	318.6	1.5 15.7	
				-22.64	34.5	319.0	1.3 19.2	
				-22.60		319.3	1.3 10.3	
				-22.63			1.9 28.3	
						319.9	1.8 12.3	1
				-22.39		320.3	1.7 13.0	
							1.611.7	
11			27.30	-22.35				
			27.61	-22.29			1.9 10.4	
				-22.25	35.7		1.8 9.1	
. 16			28.25				1.9 6.1	
16	160.00	L859.37	28.60	-22.18	36.2	322.2	2.1 2.1	· •
16	70.00	L869.37	28.98	-22.17	36.8		2.3 359.9	
			29.38	-22.17	36.B	323.0	2.4 353.7	
			29.78	-22,20		323.3	2.3 359.1	1
				-22.24			2.4 350.3	•
11				-22.29		323.9	2.2 354.4	_
			31.00	-22.34		324.2	2.3 350.8	
				-22.40		324.5	2.1 349.1	
			31.39			324.7	2.2 350.7	
			31.75	-22.46			2.0 341.9	
			32.11	-22.54				
			32.44	-22.61			2.0 345.9	
19			32.74	-22.72			1.6 338.9	
18	980.00	1979.29	33.03	-22.51			1.9 339.0	
19	990.00	1909.28	33.34	-22.92	40.5		1.8 342.4	
20	00.00	1999.28	33.63	-23.02			1.8 342.2	
			33.93	-23.12	41.1	325.7	1.8 336.7	
			34.22	-23,22	41.4	325.8	1.8 341.3	
			34.52	-23.34	41.7	325.9	1.8 338.1	
	040.00			-23.45		326.0	1.5 344.7	
		2049.26	35.06	-23.54		326.1	1.6 337.0	
				-09 69	42.5	326.2	1.6 340.3	
			35.33				1.6 339.7	
			35.60	-23.72	42.8	326.3		
2			35.86	-23.80	43.0	326.4	1.6 341.0	
21	090.00	2089.24	36.11	-23.88	43.3		1.7 355.6	
2	100.00	2099.24	36.38	-23.95	43.6	326.6	1.6 351.9	
2	110.00	2109.23	36.65	-24.02	43.8	326.8	1.6 345.0	
		2119.23	36.93	-24.09	44.1	326.9	1.6 346.4	
			37.21	-24.16	44.4	327.0	1.5 320.3	
		2139.22	37.33	-24.15	44.5	327.1	1.0 264.4	
		2149.22	37.57	-24.21	44.7	327.2	1.7 344.9	
		2159.21	37.85	-24.29	45.0	327.3	1.7 339.6	
			36.12	-24.38	45.2	327.4	1.8 356.4	
		2169.21		-24.44	45.5	327.5	1.8 347.6	
		2179.20	38.42				1.7 346.0	
		2189.20	38.72	-24.51	45.8	327.7		
		2199,19	39.01	-24.59	46.1	327.8	1.6 347.3	
		2209.19	39.32	-24.65	46.4	327.9	1.8 ,350,5	
2		2219.18	39.63	-24.73	46.7	328.0	1.8 333.3	
. 2	230.00	2229.18	99.95	-24.80	47.0	328.2	2.0 351.0	
2	240.00	2239.17	40.27	-24.87	47.3	328.3	1.9 347.8	
2	25000	2249,17	40.59	-24.87 -24.9 <u>6</u>	A7.7	328.4.	1.9 346.6	
	260.00	2259.16	40.91		48.0	326.5	1.9 350.0	
		2269,16	41.23	-25.03 -25.11	48.3	328.7	1.8 345.0	
_		2279.15	41.55	-25,18	48.6	328.8	1.8 348.8	
		2269.15	41.67	-25.26	48.9	328.9	2.0 347.1	
		2299.14	42.23	-25.36	49.3	329.0	2.2 342.9	
		2309.13	42.60	-25.45	49.6	329.1	2.2 350.3	
		2319.12	42.97	-25.85	50.0	329.3	2.1 341.6	
			43.31	-25.64	50.3	329.4	2.1 348.4	
		2329.12		-25.72	50.7	329.5	2.3 347.6	
		2339.11	43.70		50.1 51.1	329.7	2.5 341.2	
		2349.10	44.12	-25.82				
		2359.09	44.51	-25.95	51.5	329.8		
2		2369.08	44.90	-26.04	51.9	329.9	2.4 343.7	
2		2379.08	45.29	-26.13	52.3	330.0	2.3 349.0	
2	390.00	2309.07	45.70	-26.24	52.7	330.1	2.5 343.3	
		2399.06	46.11	-26.36	53.1	330.2	2.4 350.8	
		2409.05	46.51	-26.49	53.5	330.3	2.4 342.7	
		2419.04	46.89	-26.60	53.9	330.4	2.4 340.9	
		2429.03	47.29	-26.71	54.3	330.5	2.4 342.7	
		2439.02	47.69	-26.93	54.7	330.6	2.4 345.5	
		2449.01	48.09	-26.95	55.1	330.7	2.4 346.2	
		2459.01	48.48	-27.07	55.5	330.8	2.3 341.9	
			48.86	-27.19	55.9	330.9	2.4 341.2	
		2469.00	40.00		56.3	331.0	2.4 343.4	
		2478.99	49.26	-27.31			2.4 346.3	
		2488.98	49.65	-27.43	56.7	331.1	2.2 339.6	
		2498.97	50.03	-27.55	57.1	331.2		
		2508.97	50.40	-27.70	57.5	331.2	2.3 347.5	
		2518.96	50.79	-27.81	57.9	331.3	2.4 352.2	
1 2	530.00	2528.95	51.15	-27.92	50.3	331.4	2.4 342.9	
	540.00	2530.94	51.81	-27.94	59.6	331.5	2.5 35.0	
	546.10	2545.03	51.72	-27.76	58.7	331.6	2.4 46,1	
•			-					

Well: <u>AZ140</u>

Casing & Tubing Program

	Casing	Casing	Hole	Cement	Cement	ted	Date	Packers or
		Interval	Size	used in cu/ft	to Surfa	ace	Cemented	Bridge Plugs
					Yes 1	No		
Conductor	13 3/8"	27'	15"			Χ	13/03/2007	
Surface	9 5/8"	445'	12 3/8"	224.2	Х		12/4/2007	bskt @ 88'
Water Protection	4 1/2"	2400'	6 1/2"	439.4	Х		12/7/2007	
Coal Protection	4 1/2"	2400'	6 1/2"	439.4	Х		12/7/2007	
Other Casing & Tubing								
Other Casing & Tubing								
Liners								

NOAH HORN WELL DRILLING DRILL DATA

COMPANY: CNX HOLE: AZ-140 RIG #: 141

LOCATION: WEST FORK, VA

DATE STARTED: 12/3/2007 DATE COMPLETED 12/8/2007

ELECTRIC LOGGED: YES

GROUTED: YES

DEPTH	THICKNESS	STRATA
FROM	TO	FT DESCRIPTION, VOIDS ETC
0	27	27 OVERBURDEN
27	30	3 SANDY SHALE
30	60	30 SANDY SHALE/COAL/SANDY SHALE
60	90	30 SANDY SHALE
90	120	30 SANDY SHALE/COAL/SANDY SHALE
120	150	30 SANDY SHALE
150	180	30 SANDY SHALE/COAL/SANDY SHALE
180	210	30 SANDY SHALE
210	240	30 SANDY SHALE
240	270	30 SAND
270	300	30 SAND
300	330	30 SAND
330	365	35 SAND/COAL/SAND
365	395	30 SAND/SHALE
395	425	30 SAND/SHALE/COAL
425	455	30 SAND/SHALE/COAL
455	465	10 SAND
465	480	15 SANDY SHALE/COAL/SANDY SHALE
480	510	30 SANDY SHALE
510	540	30 SANDY SHALE
540	570	30 SANDY SHALE/COAL/SANDY SHALE
570	575	5 SAND
575	605	30 SAND/SHALE
605	635	30 SAND/SHALE
635	665	30 SAND/SHALE
665	695	30 SAND/SHALE
695	725	30 SAND/SHALE
725	755	30 SAND
755	785	30 SAND/SHALE
785	815	30 SAND/SHALE
815	845	30 SAND/SHALE/COAL
845	875	30 SAND/SHALE
875	905	30 SAND/SHALE/COAL
905	935	30 SAND/SHALE
935	965	30 SAND/SHALE
965	995	30 SAND/SHALE/COAL

DEPTH	THICKNESS	STRATA
FROM	TO	FT DESCRIPTION, VOIDS ETC
99	05 1025	30 SAND/SHALE
102	25 1055	30 SAND/SHALE/COAL
105	55 1085	30 SAND/SHALE/COAL
108	35 1115	30 SAND/SHALE/COAL
111	1145	30 SAND/SHALE
114	1175	30 SAND/SHALE/COAL
117	75 1210	35 SAND/SITALE
121	0 1240	30 SAND/SHALE/COAL
124	10 1270	30 SAND/SHALE/COAL
127	70 1300	30 SAND
130	00 1330	30 SAND
133	30 1360	30 SAND/COAL/SAND
136	50 1390	30 SAND/COAL/SAND
139	00 1420	30 SAND
142		30 SAND
145		30 SAND
148		30 SAND
151		30 SAND
154		30 SAND/COAL/SAND
157		30 SAND
160		30 SAND
163		30 SAND/COAL/SAND
160		30 SAND/COAL/SAND
169		30 SAND
172		30 SAND
175		30 SAND
178		30 SAND
181		30 SAND
184		30 SAND/COAL/SAND
187		30 SAND/COAL/SAND
190		30 SAND
193		30 SAND
196		30 SAND
199		30 SAND
202		30 SAND/SHALE/COAL
205		30 SAND/SHALE/COAL
208		30 SAND/SHALE/COAL
211		14 SAND/SHALE
212		8 SAND/SHALE/COAL MAYBE 3 SEAM
212		8 SAND
213		30 SAND/SHALE/COAL
217		30 SAND/SHALE/COAL
220		30 SAND
		30 SAND/SHALE
223		
226		30 SAND/SHALE
229		30 SAND
232		30 SAND
235		30 SAND/SHALE
238		30 SAND/SHALE
241	0 2440	30 SAND/SHALE

_	DEPTH	THICKNESS	YEM!	STRATA	
	FROM	ТО	F <u>T</u>	DESCRIPTION, VOIDS ETC	
	2440	2470		30 SAND/SHALE	
	2470	2500		30 SAND	
	2500	2530		30 SAND	

TI	M	A.	1 9

TOTALS		
2530'	TOTAL DEPTH	
27'	13 3/8" CASING	
445'	9 5/8" CASING	
2400.45'	4 1/2" CASING	