

CNX WDTN-5X-HXM Surveys 0ft to 14955ft MD Survey Geodetic Report

(Def Survey)

Report Date: July 27, 2022 - 09:43 AM
 Client: CNX
 Field: WV Monongalia County (NAD 27)
 Structure / Slot: CNX WDTN-5 Pad / WDTN-5X-HSM
 Well: WDTN-5X-HSM
 Borehole: Original Borehole
 UWI / API#: Unknown / Unknown
 Survey Name: CNX WDTN-5X-HXM Surveys 0ft to 14955ft MD
 Survey Date: July 19, 2022
 Tort / AHD / DDI / ERD Ratio: 289.422 ° / 8888.891 ft / 6.678 / 1.101
 Coordinate Reference System: NAD27 West Virginia State Plane, Northern Zone, US Feet
 Location Lat / Long: N 39° 42' 23.96078", W 80° 20' 14.66922"
 Location Grid N/E Y/X: N 440589.647 ftUS, E 1764399.381 ftUS
 CRS Grid Convergence Angle: -0.5341 °
 Grid Scale Factor: 0.99994173
 Version / Patch: 2.10.832.2

Survey / DLS Computation: Minimum Curvature / Lubinski
 Vertical Section Azimuth: 325.000 ° (Grid North)
 Vertical Section Origin: 0.000 ft, 0.000 ft
 TVD Reference Datum: KB
 TVD Reference Elevation: 1418.000 ft above MSL
 Seabed / Ground Elevation: 1389.000 ft above MSL
 Magnetic Declination: -8.913 °
 Total Gravity Field Strength: 999.3311mgn (9.80665 Based)
 Gravity Model: GARM
 Total Magnetic Field Strength: 51826.944 nT
 Magnetic Dip Angle: 66.408 °
 Declination Date: July 19, 2022
 Magnetic Declination Model: HDGM 2022
 North Reference: Grid North
 Grid Convergence Used: -0.5341 °
 Total Corr Mag North->Grid North: -8.3793 °
 Local Coord Referenced To: Well Head

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	BR (°/100ft)	TR (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
SHL	0.00	0.00	0.00	0.00	-1418.00	0.00	0.00	0.00	N/A	N/A	N/A	440589.65	1764399.38	39.70665577	-80.33740812
	100.00	0.27	239.25	100.00	-1318.00	0.02	-0.12	-0.20	0.27	0.27	0.00	440589.53	1764399.18	39.70665544	-80.33740883
	125.00	0.30	214.49	125.00	-1293.00	0.00	-0.20	-0.29	0.50	0.12	-99.04	440589.44	1764399.09	39.70665520	-80.33740914
	150.00	0.29	221.58	150.00	-1268.00	-0.04	-0.31	-0.37	0.15	-0.04	28.36	440589.34	1764399.01	39.70665492	-80.33740942
	175.00	0.30	231.03	175.00	-1243.00	-0.06	-0.39	-0.46	0.20	0.04	37.80	440589.25	1764398.92	39.70665468	-80.33740974
	200.00	0.36	224.73	200.00	-1218.00	-0.08	-0.49	-0.57	0.28	0.24	-25.20	440589.16	1764398.81	39.70665441	-80.33741012
	225.00	0.38	220.25	225.00	-1193.00	-0.11	-0.61	-0.68	0.14	0.08	-17.92	440589.04	1764398.70	39.70665408	-80.33741050
	250.00	0.37	231.50	250.00	-1168.00	-0.14	-0.72	-0.79	0.30	-0.04	45.00	440588.92	1764398.59	39.70665376	-80.33741091
	275.00	0.41	233.55	275.00	-1143.00	-0.14	-0.83	-0.93	0.17	0.16	8.20	440588.82	1764398.45	39.70665348	-80.33741139
	300.00	0.38	234.45	300.00	-1118.00	-0.15	-0.93	-1.07	0.12	-0.12	3.60	440588.72	1764398.31	39.70665320	-80.33741188
	325.00	0.36	237.66	325.00	-1093.00	-0.15	-1.02	-1.20	0.12	-0.08	12.84	440588.63	1764398.18	39.70665294	-80.33741235
	350.00	0.41	237.18	349.99	-1068.01	-0.14	-1.11	-1.34	0.20	0.20	-1.92	440588.54	1764398.04	39.70665269	-80.33741285
	375.00	0.40	236.02	374.99	-1043.01	-0.13	-1.21	-1.49	0.05	-0.04	-4.64	440588.44	1764397.89	39.70665242	-80.33741338
	400.00	0.37	242.77	399.99	-1018.01	-0.12	-1.29	-1.64	0.22	-0.12	27.00	440588.35	1764397.75	39.70665218	-80.33741388
	425.00	0.40	261.06	424.99	-993.01	-0.07	-1.34	-1.79	0.50	0.12	73.16	440588.30	1764397.59	39.70665204	-80.33741444
	450.00	0.39	275.27	449.99	-968.01	0.02	-1.35	-1.96	0.39	-0.04	56.84	440588.30	1764397.42	39.70665202	-80.33741505
	475.00	0.51	291.16	474.99	-943.01	0.17	-1.30	-2.15	0.69	0.48	63.56	440588.35	1764397.23	39.70665215	-80.33741572
	500.00	0.61	297.90	499.99	-918.01	0.38	-1.20	-2.37	0.48	0.40	26.96	440588.45	1764397.01	39.70665242	-80.33741651
	525.00	0.69	295.77	524.99	-893.01	0.63	-1.07	-2.63	0.33	0.32	-8.52	440588.58	1764396.75	39.70665277	-80.33741742
	550.00	0.58	304.16	549.99	-868.01	0.88	-0.93	-2.87	0.58	-0.44	33.56	440588.71	1764396.51	39.70665313	-80.33741828
	575.00	0.56	305.30	574.99	-843.01	1.11	-0.79	-3.07	0.09	-0.08	4.56	440588.85	1764396.31	39.70665352	-80.33741901
	600.00	0.49	302.16	599.99	-818.01	1.33	-0.66	-3.26	0.30	-0.28	-12.56	440588.98	1764396.12	39.70665386	-80.33741969
	625.00	0.45	302.25	624.98	-793.02	1.52	-0.56	-3.44	0.16	-0.16	0.36	440589.09	1764395.95	39.70665416	-80.33742031
	650.00	0.38	303.97	649.98	-768.02	1.68	-0.46	-3.59	0.28	-0.28	6.88	440589.19	1764395.79	39.70665443	-80.33742085
	675.00	0.45	293.73	674.98	-743.02	1.84	-0.37	-3.75	0.41	0.28	-40.96	440589.28	1764395.64	39.70665466	-80.33742142
	700.00	0.37	293.35	699.98	-718.02	2.00	-0.30	-3.91	0.32	-0.32	-1.52	440589.35	1764395.47	39.70665485	-80.33742200
	725.00	0.42	310.68	724.98	-693.02	2.15	-0.21	-4.05	0.52	0.20	69.32	440589.44	1764395.33	39.70665510	-80.33742252
	750.00	0.44	311.71	749.98	-668.02	2.34	-0.08	-4.19	0.09	0.08	4.12	440589.56	1764395.19	39.70665543	-80.33742302
	775.00	0.33	319.76	774.98	-643.02	2.50	0.03	-4.31	0.49	-0.44	32.20	440589.68	1764395.07	39.70665576	-80.33742344
	800.00	0.28	312.14	799.98	-618.02	2.63	0.13	-4.40	0.26	-0.20	-30.48	440589.78	1764394.98	39.70665602	-80.33742377
	825.00	0.16	327.17	824.98	-593.02	2.73	0.20	-4.47	0.53	-0.48	60.12	440589.85	1764394.91	39.70665621	-80.33742400
	850.00	0.05	13.88	849.98	-568.02	2.77	0.24	-4.49	0.52	-0.44	186.84	440589.89	1764394.90	39.70665632	-80.33742406
	875.00	0.14	154.71	874.98	-543.02	2.75	0.22	-4.47	0.73	0.36	563.32	440589.87	1764394.91	39.70665627	-80.33742401
	900.00	0.21	131.85	899.98	-518.02	2.67	0.17	-4.42	0.39	0.28	-91.44	440589.81	1764394.96	39.70665611	-80.33742384
	925.00	0.34	131.54	924.98	-493.02	2.56	0.09	-4.33	0.52	0.52	-1.24	440589.73	1764395.05	39.70665590	-80.33742352
	950.00	0.29	107.06	949.98	-468.02	2.43	0.02	-4.22	0.57	-0.20	-97.92	440589.67	1764395.16	39.70665571	-80.33742310
	975.00	0.30	97.51	974.98	-443.02	2.34	-0.01	-4.09	0.20	0.04	-38.20	440589.64	1764395.29	39.70665564	-80.33742266
	1000.00	0.32	84.89	999.98	-418.02	2.26	-0.01	-3.96	0.28	0.08	-50.48	440589.64	1764395.42	39.70665564	-80.33742218
	1025.00	0.28	49.42	1024.98	-393.02	2.23	0.03	-3.84	0.75	-0.16	-141.88	440589.68	1764395.54	39.70665577	-80.33742177
	1050.00	0.26	20.35	1049.98	-368.02	2.27	0.13	-3.78	0.55	-0.08	-116.28	440589.77	1764395.61	39.70665603	-80.33742154
	1075.00	0.33	358.59	1074.98	-343.02	2.36	0.25	-3.76	0.52	0.28	-87.04	440589.90	1764395.62	39.70665637	-80.33742148
	1100.00	0.33	337.25	1099.98	-318.02	2.49	0.39	-3.79	0.49	0.00	-85.36	440590.04	1764395.59	39.70665675	-80.33742159

...CNX WDTN-5 Pad\WDTN-5X-HSM\Original Borehole\CNX WDTN-5X-HXM Surveys 0ft to 14955ft MD

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 Office of Oil and Gas
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 WV Department of
 Environmental Protection

Comments	MD (ft)	Incl (°)	Azlm Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	BR (°/100ft)	TR (°/100ft)	Northing (ft)	Easting (ft)	Latitude (°)	Longitude (°)
	1125.00	0.33	309.96	1124.98	-293.02	2.63	0.50	-3.87	0.62	0.00	-109.16	440590.15	1764395.51	39.70665706	-80.33742188
	1150.00	0.29	271.17	1149.98	-268.02	2.74	0.55	-3.99	0.84	-0.16	-155.16	440590.20	1764395.39	39.70665718	-80.33742231
	1175.00	0.26	232.37	1174.98	-243.02	2.77	0.52	-4.10	0.74	-0.12	-155.20	440590.16	1764395.28	39.70665709	-80.33742269
	1200.00	0.16	200.25	1199.98	-218.02	2.75	0.45	-4.15	0.60	-0.40	-128.48	440590.10	1764395.23	39.70665690	-80.33742289
	1225.00	0.05	338.00	1224.98	-193.02	2.74	0.43	-4.17	0.80	-0.44	551.00	440590.07	1764395.21	39.70665684	-80.33742295
	1250.00	0.20	23.35	1249.98	-168.02	2.78	0.48	-4.16	0.67	0.60	181.40	440590.13	1764395.22	39.70665698	-80.33742290
	1275.00	0.33	21.36	1274.98	-143.02	2.84	0.59	-4.11	0.52	0.52	-7.96	440590.23	1764395.27	39.70665727	-80.33742275
	1300.00	0.40	5.70	1299.98	-118.02	2.94	0.74	-4.08	0.48	0.28	-62.64	440590.39	1764395.30	39.70665770	-80.33742263
	1325.00	0.17	41.39	1324.97	-93.03	3.02	0.85	-4.04	1.12	-0.22	142.76	440590.50	1764395.34	39.70665801	-80.33742252
	1338.00	0.29	337.03	1337.97	-80.03	3.06	0.90	-4.04	2.04	0.92	-495.08	440590.55	1764395.34	39.70665814	-80.33742252
Final Gyro	1443.00	0.56	330.01	1442.97	24.97	3.83	1.59	-4.40	0.26	0.26	-6.69	440591.23	1764394.98	39.70666002	-80.33742382
	1537.00	1.03	334.45	1536.96	118.96	5.12	2.75	-5.00	0.50	0.50	4.72	440592.39	1764394.38	39.70666319	-80.33742597
	1631.00	1.58	336.66	1630.94	212.94	7.22	4.70	-5.88	0.59	0.59	2.35	440594.35	1764393.50	39.70666852	-80.33742916
	1724.00	0.66	343.55	1723.92	305.92	8.98	6.39	-6.54	1.00	-0.99	7.41	440596.04	1764392.84	39.70667315	-80.33743156
	1818.00	0.80	92.06	1817.91	399.91	9.10	6.89	-6.03	1.26	0.15	115.44	440596.53	1764393.35	39.70667452	-80.33742979
	1912.00	2.66	121.61	1911.87	493.87	6.70	5.72	-3.52	2.13	1.98	31.44	440595.37	1764395.86	39.70667138	-80.33742082
	2005.00	4.65	110.87	2004.68	586.66	1.60	3.25	1.84	2.25	2.14	-11.55	440592.89	1764401.22	39.70666473	-80.33740168
	2099.00	5.95	101.44	2098.27	680.27	-5.08	0.92	10.18	1.66	1.38	-10.03	440590.57	1764409.56	39.70665856	-80.33737198
	2192.00	6.19	91.38	2190.76	772.76	-11.55	-0.16	19.91	1.17	0.26	-10.82	440589.49	1764419.29	39.70665585	-80.33733734
	2286.00	7.42	76.25	2284.10	866.10	-16.95	0.96	30.92	2.10	1.31	-13.97	440590.61	1764430.30	39.70665919	-80.33729825
	2380.00	7.66	66.60	2377.29	959.29	-20.61	4.68	42.62	1.64	0.26	-12.39	440594.33	1764441.99	39.70666972	-80.33725681
	2473.00	6.39	68.46	2469.59	1051.59	-23.06	9.04	53.12	1.39	-1.37	2.00	440598.69	1764452.50	39.70668196	-80.33721963
	2566.00	6.17	89.76	2562.04	1144.04	-27.11	10.97	62.93	2.50	-0.24	22.90	440600.61	1764462.31	39.70668749	-80.33718482
	2660.00	7.53	105.42	2655.38	1237.38	-34.74	9.35	73.92	2.45	1.45	16.66	440599.00	1764473.30	39.70668333	-80.33714571
	2754.00	6.24	114.42	2748.70	1330.70	-43.89	5.60	84.51	1.79	-1.37	9.57	440595.25	1764483.89	39.70667331	-80.33710795
	2847.00	5.39	117.01	2841.22	1423.22	-52.10	1.53	93.01	0.96	-0.91	2.78	440591.17	1764492.38	39.70666234	-80.33707763
	2941.00	4.20	96.00	2934.90	1516.90	-58.25	-0.84	100.36	2.24	-1.27	-22.35	440588.81	1764499.74	39.70665604	-80.33705140
	2985.00	4.22	80.89	2978.78	1560.78	-60.02	-0.75	103.56	2.51	0.05	-34.34	440588.90	1764502.94	39.70665636	-80.33704003
	3042.00	4.42	64.03	3035.62	1617.62	-61.28	0.54	107.61	2.25	0.35	-29.58	440590.19	1764506.98	39.70666002	-80.33702569
	3135.00	8.28	60.47	3128.03	1710.03	-62.48	5.41	116.66	4.17	4.15	-3.83	440595.06	1764516.04	39.70667362	-80.33699369
	3232.00	6.80	71.44	3224.20	1806.20	-64.77	10.69	128.18	2.12	-1.53	11.31	440600.33	1764527.56	39.70668838	-80.33695291
	3325.00	7.28	100.38	3316.53	1898.53	-70.52	11.38	139.20	3.81	0.52	31.12	440601.02	1764538.58	39.70669056	-80.33691377
	3418.00	10.62	97.44	3408.38	1990.38	-80.50	9.20	153.50	3.62	3.59	-3.16	440598.85	1764552.87	39.70668497	-80.33686289
	3512.00	12.60	98.99	3500.45	2082.45	-93.47	6.48	172.22	2.13	2.11	1.65	440596.13	1764571.59	39.70667797	-80.33679628
	3605.00	14.67	104.32	3590.83	2172.83	-109.45	1.98	193.65	2.60	2.23	5.73	440591.63	1764593.02	39.70666617	-80.33671996
	3698.00	15.96	104.43	3680.53	2262.53	-128.09	-4.12	217.44	1.39	1.39	0.12	440585.53	1764616.81	39.70665003	-80.33663519
	3791.00	18.15	107.40	3769.43	2351.43	-149.29	-11.64	243.65	2.53	2.35	3.19	440578.01	1764643.02	39.70663006	-80.33654180
	3884.00	21.61	109.83	3856.88	2438.88	-174.77	-21.78	273.59	3.82	3.72	2.61	440567.87	1764672.96	39.70660298	-80.33643506
	3977.00	24.69	109.84	3942.38	2524.38	-204.65	-34.18	307.98	3.31	3.31	0.01	440555.46	1764707.35	39.70659800	-80.33631243
	4070.00	27.23	110.81	4025.99	2607.99	-238.14	-48.34	346.15	2.77	2.73	1.04	440541.31	1764745.51	39.70653193	-80.33617632
	4163.00	30.03	110.14	4107.61	2689.61	-274.84	-63.91	387.89	3.03	3.01	-0.72	440525.74	1764787.25	39.70649024	-80.33602745
	4256.00	29.26	108.26	4188.44	2770.44	-312.15	-79.05	431.33	3.30	-0.83	-2.02	440510.60	1764830.68	39.70644980	-80.33587259
	4349.00	27.11	107.19	4270.41	2852.41	-347.11	-92.43	473.16	2.37	-2.31	-1.15	440497.22	1764872.51	39.70641412	-80.33572348
	4446.00	28.42	106.83	4356.24	2938.24	-382.72	-105.65	516.37	1.36	1.35	-0.37	440484.00	1764915.72	39.70637895	-80.33556948
	4539.00	26.27	103.57	4438.85	3020.85	-415.56	-116.89	557.57	2.82	-2.31	-3.51	440472.77	1764956.91	39.70634915	-80.33542270
	4632.00	27.71	103.11	4521.71	3103.71	-447.08	-126.62	598.63	1.56	1.55	-0.49	440463.03	1764997.98	39.70632348	-80.33527643
	4726.00	28.45	102.77	4604.65	3186.65	-479.93	-136.53	641.76	0.81	0.79	-0.36	440453.13	1765041.10	39.70629738	-80.33512284
	4820.00	26.12	100.11	4688.19	3270.19	-511.18	-145.11	683.97	2.80	-2.48	2.22	440444.55	1765083.31	39.70627490	-80.33497253
	4913.00	25.80	102.17	4771.81	3353.81	-540.52	-152.97	723.91	1.03	-0.34	2.82	440436.69	1765123.25	39.70625434	-80.33483034
	5007.00	26.11	105.66	4856.33	3438.33	-571.52	-162.87	763.82	1.66	0.33	3.71	440426.79	1765163.16	39.70622819	-80.33468815
	5100.00	27.17	105.43	4939.46	3521.46	-603.72	-174.04	804.00	1.15	1.14	-0.25	440415.62	1765203.33	39.70619854	-80.33454501
	5195.00	28.80	102.40	5023.35	3605.35	-637.29	-184.73	847.26	2.28	1.72	-3.19	440404.93	1765246.59	39.70617031	-80.33439091
	5289.00	30.69	100.29	5104.96	3686.96	-671.01	-193.88	892.98	2.30	2.01	-2.24	440395.78	1765292.31	39.70614636	-80.33422811
	5382.00	28.07	95.78	5186.00	3768.00	-702.17	-200.32	938.12	3.69	-2.82	-4.85	440389.34	1765337.44	39.70612982	-80.33406749
	5475.00	27.66	96.29	5268.22	3850.22	-730.71	-204.89	981.34	0.51	-0.44	0.55	440384.77	1765380.67	39.70611838	-80.33391372
	5568.00	27.86	100.04	5350.52	3932.52	-760.33	-211.04	1024.20	1.89	0.22	4.03	440378.62	1765423.52	39.70610258	-80.33376121
	5662.00	28.24	100.30	5433.48	4015.48	-791.68	-218.85	1067.71	0.42	0.40	0.28	440370.81	1765467.03	39.70608226	-80.33360633
	5757.00	29.49	100.29	5516.68	4098.68	-824.28	-227.04	1112.83	1.32	1.32	-0.01	440362.62	1765512.14	39.70606091	-80.33344570
	5855.00	29.68	105.38	5601.91	4183.91	-860.11	-237.79	1159.97	2.57	1.99	5.19	440351.87	1765559.28	39.70603261	-80.33327783
	5949.00	27.09	100.56	5684.62	4266.62	-893.33	-247.89	1203.46	3.68	-2.76	-5.13	440341.77	1765602.77	39.70600600	-80.33312293
	6042.00	27.78	101.10	5767.16	4349.16	-924.07	-255.94	1245.54	0.79	0.74	0.58	440333.72	1765644.85	39.70598496	-80.33297130
	6136.00	29.46	103.97	5849.67	4431.67	-957.29	-265.74	1289.48	2.31	1.79	3.05	440323.92	1765688.78	39.70595918	-80.33281665
	6229.00	27.19	102.97	5931.53	4513.53	-990.33	-276.03	1332.38	2.49	-2.44	-1.08	440313.63	1765731.68	39.70593202	-80.33266383
	6324.00	26.99	105.46	6016.11	4598.11	-1023.08	-286.65	1374.31	1.21	-0.21	2.62	440303.02	1765773.61	39.70590394	-80.33251446
	6419.00	28.86	105.85	6100.05	4682.05	-1057.49	-298.66	1417.15	1.98	1.97	0.41	440291.01	1765816.44	39.70587206	-80.33236183
	6513.00	27.77	104.14	6182.80	4764.80	-1091.64	-310.20	1460.21	1.45	-1.16	-1.82	440279.46	1765859.50	39.70584146	-80.33220842</

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	BR (°/100ft)	TR (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
Last 3rd Party MWD	7116.00	26.33	97.85	6718.98	5300.98	-1302.31	-381.02	1726.35	1.04	-0.08	-2.33	440208.65	1766125.63	39.70565381	-80.33126023
First SLB_MWD	7211.00	26.03	101.36	6804.24	5386.24	-1331.73	-388.01	1767.66	1.66	-0.32	3.69	440201.66	1766166.94	39.70563569	-80.33111319
	7304.00	26.16	103.85	6887.76	5469.76	-1361.93	-396.94	1807.58	1.19	0.14	2.68	440192.74	1766206.85	39.70561220	-80.33097105
	7398.00	26.21	103.75	6972.11	5554.11	-1393.14	-406.83	1847.86	0.07	0.05	-0.11	440182.84	1766247.13	39.70558606	-80.33082757
	7492.00	26.18	103.48	7056.46	5638.46	-1424.28	-416.60	1888.19	0.13	-0.03	-0.29	440173.08	1766287.45	39.70556027	-80.33068393
	7585.00	26.07	104.05	7139.96	5721.96	-1455.07	-426.34	1927.96	0.29	-0.12	0.61	440163.33	1766327.23	39.70553453	-80.33054225
	7680.00	22.23	85.75	7226.75	5808.75	-1480.07	-430.08	1966.20	8.81	-4.04	-19.26	440159.59	1766365.46	39.70552523	-80.33040623
	7772.00	16.66	62.77	7313.59	5895.59	-1490.77	-422.74	1995.35	10.18	-6.05	-24.98	440166.93	1766394.61	39.70554612	-80.33030289
	7866.00	18.52	46.57	7403.25	5985.25	-1490.41	-406.30	2018.19	5.55	1.98	-17.23	440183.37	1766417.44	39.70559183	-80.33022227
	7960.00	19.54	30.64	7492.17	6074.17	-1481.73	-382.50	2037.05	5.61	1.09	-16.95	440207.17	1766436.31	39.70565766	-80.33015600
	8053.00	21.84	7.09	7579.31	6161.31	-1462.44	-351.89	2047.13	9.22	2.47	-25.32	440237.78	1766446.39	39.70574193	-80.33012118
	8148.00	28.82	355.84	7665.18	6247.18	-1429.61	-311.45	2047.65	8.90	7.35	-11.84	440278.22	1766446.91	39.70585297	-80.33012066
	8242.00	37.15	349.13	7743.98	6325.98	-1384.16	-260.87	2040.64	9.66	8.86	-7.14	440328.79	1766439.90	39.70599164	-80.33014723
	8336.00	45.69	343.74	7814.43	6396.43	-1326.28	-200.58	2025.84	9.84	9.09	-5.73	440389.08	1766425.10	39.70615677	-80.33020182
	8430.00	52.82	339.36	7875.76	6457.76	-1258.04	-133.14	2003.19	8.36	7.59	-4.66	440456.51	1766402.45	39.70634132	-80.33028454
	8524.00	60.63	336.83	7927.30	6509.30	-1181.55	-60.32	1973.82	8.61	8.31	-2.69	440529.33	1766373.09	39.70654048	-80.33039129
	8618.00	68.60	334.54	7967.57	6549.57	-1098.16	16.98	1938.84	8.76	8.48	-2.44	440606.62	1766338.10	39.70675178	-80.33051817
	8712.00	75.37	332.83	7996.62	6578.62	-1009.85	97.04	1899.21	7.41	7.20	-1.82	440686.68	1766298.48	39.70697057	-80.33066163
	8807.00	80.99	331.52	8016.08	6598.08	-917.63	179.24	1855.82	6.07	5.92	-1.38	440768.87	1766255.09	39.70719511	-80.33081855
	8901.00	86.44	327.88	8026.37	6608.37	-824.56	259.86	1808.69	6.96	5.80	-3.87	440849.49	1766207.96	39.70741523	-80.33098869
	8994.00	90.35	328.02	8028.97	6610.97	-731.74	338.64	1759.37	4.21	4.20	0.15	440928.26	1766158.64	39.70763024	-80.33116658
	9087.00	90.38	326.97	8028.38	6610.38	-638.83	417.06	1709.39	1.13	0.03	-1.13	441006.69	1766108.67	39.70784426	-80.33134676
	9180.00	89.92	325.81	8028.14	6610.14	-545.86	494.52	1657.91	1.34	-0.49	-1.25	441084.13	1766057.20	39.70805557	-80.33153226
	9274.00	90.09	325.30	8028.13	6610.13	-451.86	572.03	1604.75	0.57	0.18	-0.54	441161.65	1766004.03	39.70826702	-80.33172377
	9367.00	90.59	325.64	8027.58	6609.58	-358.87	648.65	1552.03	0.65	0.54	-0.37	441238.26	1765951.32	39.70847600	-80.33191364
	9462.00	91.02	325.82	8026.24	6608.24	-263.88	727.15	1498.54	0.49	0.45	0.19	441316.75	1765897.83	39.70869013	-80.33210632
	9556.00	92.35	326.52	8023.48	6605.48	-169.95	805.20	1446.23	1.60	1.41	0.17	441394.80	1765845.53	39.70890306	-80.33229480
	9651.00	91.52	324.93	8020.27	6602.27	-75.01	883.65	1392.77	1.89	-0.87	-1.67	441473.25	1765792.06	39.70911707	-80.33248741
	9744.00	91.81	324.73	8017.57	6599.57	17.95	959.64	1339.22	0.38	0.31	-0.22	441549.23	1765738.52	39.70932431	-80.33268022
	9837.00	91.28	325.00	8015.06	6597.06	110.91	1035.67	1285.72	0.64	-0.57	0.29	441625.25	1765685.02	39.70953166	-80.33287288
	9931.00	90.62	325.16	8013.50	6595.50	204.90	1112.73	1231.92	0.72	-0.70	0.17	441702.31	1765631.22	39.70974184	-80.33306663
	10023.00	89.96	324.04	8013.04	6595.04	296.89	1187.72	1178.63	1.41	-0.72	-1.22	441777.30	1765577.94	39.70994635	-80.33325851
	10117.00	89.88	324.38	8013.17	6595.17	390.88	1263.97	1123.65	0.37	-0.09	0.36	441853.54	1765522.97	39.71015426	-80.33345640
	10212.00	90.02	324.13	8013.25	6595.25	485.88	1341.08	1068.16	0.30	0.15	-0.26	441930.64	1765467.47	39.71036451	-80.33365619
	10305.00	89.58	324.44	8013.57	6595.57	578.87	1416.58	1013.87	0.58	-0.47	0.33	442006.15	1765413.19	39.71057041	-80.33385163
	10399.00	89.20	323.93	8014.58	6596.58	672.85	1492.81	958.86	0.68	-0.40	-0.54	442082.36	1765358.19	39.71077825	-80.33404963
	10492.00	89.38	324.04	8015.73	6597.73	765.83	1568.02	904.19	0.23	0.19	0.12	442157.58	1765303.51	39.71098334	-80.33424645
	10586.00	89.13	324.56	8016.95	6598.95	859.82	1644.35	849.34	0.61	-0.27	0.55	442233.90	1765248.67	39.71119148	-80.33444391
	10680.00	89.22	324.25	8018.30	6600.30	953.80	1720.78	794.63	0.34	0.10	-0.33	442310.32	1765193.96	39.71139989	-80.33464087
	10773.00	89.18	324.41	8019.60	6601.60	1046.79	1796.33	740.41	0.18	-0.04	0.17	442385.87	1765139.74	39.71160589	-80.33483609
	10868.00	89.09	325.22	8021.04	6603.04	1141.77	1873.96	685.67	0.86	-0.09	0.85	442463.49	1765085.01	39.71181761	-80.33503319
	10961.00	89.31	326.09	8022.33	6604.33	1234.76	1950.74	633.21	0.96	0.24	0.94	442540.27	1765032.55	39.71202704	-80.33522219
	11056.00	88.55	324.59	8024.11	6606.11	1329.74	2028.86	579.19	1.77	-0.80	-1.58	442618.39	1764978.54	39.71224013	-80.33541675
	11150.00	88.69	324.92	8026.37	6608.37	1423.71	2105.61	524.96	0.38	0.15	0.35	442695.13	1764924.31	39.71244942	-80.33561203
	11244.00	87.88	323.88	8029.19	6611.19	1517.66	2182.01	470.27	1.40	-0.86	-1.11	442771.52	1764869.62	39.71265774	-80.33580895
	11338.00	88.20	324.57	8032.40	6614.40	1611.59	2258.22	415.35	0.81	0.34	0.73	442847.73	1764814.71	39.71286557	-80.33600667
	11433.00	87.88	324.94	8035.65	6617.65	1706.54	2335.76	360.56	0.51	-0.34	0.39	442925.27	1764759.92	39.71307703	-80.33620398
	11526.00	87.99	324.69	8039.00	6621.00	1799.48	2411.72	307.01	0.29	0.12	-0.27	443001.22	1764706.37	39.71328418	-80.33639663
	11619.00	88.12	325.10	8042.16	6624.16	1892.42	2487.76	253.56	0.46	0.14	0.44	443077.26	1764652.92	39.71349156	-80.33658933
	11713.00	87.78	324.07	8045.52	6627.52	1986.36	2564.32	199.12	1.15	-0.36	-1.10	443153.81	1764598.49	39.71370033	-80.33678535
	11806.00	87.81	323.92	8049.10	6631.10	2079.27	2639.50	144.49	0.16	0.03	-0.16	443228.99	1764543.86	39.71390531	-80.33698201
	11901.00	88.12	324.67	8052.47	6634.47	2174.21	2716.59	89.08	0.85	0.33	0.79	443306.08	1764488.46	39.71411552	-80.33718150
	11994.00	88.01	325.27	8055.61	6637.61	2267.15	2792.70	35.73	0.66	-0.12	0.65	443382.18	1764435.11	39.71432309	-80.33737365
	12088.00	87.89	324.41	8058.97	6640.97	2361.09	2869.50	-18.37	0.92	-0.13	-0.91	443458.97	1764381.02	39.71453253	-80.33756847
	12182.00	88.13	325.03	8062.24	6644.24	2455.03	2946.19	-72.62	0.71	0.26	0.66	443535.66	1764326.76	39.71474167	-80.33776386
	12276.00	89.08	324.96	8064.53	6646.53	2549.00	3023.16	-126.53	1.01	1.01	-0.07	443612.63	1764272.86	39.71495159	-80.33795802
	12369.00	88.74	323.93	8066.30	6648.30	2641.98	3098.81	-180.60	1.17	-0.37	-1.11	443688.27	1764218.79	39.71515786	-80.33815270
	12464.00	88.65	325.26	8068.46	6650.46	2736.95	3176.22	-235.62	1.40	-0.09	1.40	443765.67	1764163.77	39.71536896	-80.33835084
	12558.00	88.95	324.20	8070.43	6652.43	2830.93	3252.95	-289.89	1.17	0.32	-1.13	443842.40	1764109.51	39.71557820	-80.33854625
	12651.00	89.98	325.30	8071.30	6653.30	2923.92	3328.89	-343.56	1.62	1.11	1.18	443918.33	1764055.84	39.71578529	-80.33873955
	12745.00	89.21	323.64	8071.96	6653.96	3017.91	3405.38	-398.18	1.95	-0.82	-1.77	443994.82	1764001.22	39.71599388	-80.33893624
	12838.00	90.08	325.25	8072.54	6654.54	3110.90	3481.04	-452.25	1.97	0.94	1.73	444070.47	1763947.15	39.71620018	-80.33913096
	12932.00	91.22	324.93	8071.47	6653.47	3204.89	3558.12	-506.05	1.26	1.21	-0.34	444147.55	1763893.37	39.71641039	-80.33932471
	13025.00	91.48	324.78	8069.28	6651.28	3297.87	3634.14	-559.57	0.32	0.28	-0.16	444223.57	1763839.85	39.71661772	-80.33951747
	13118.00														

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	BR (°/100ft)	TR (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)
	13679.00	91.30	324.14	8054.86	6636.86	3951.54	4162.94	-944.01	0.32	-0.04	-0.32	444752.33	1763455.43	39.71805948	-80.34090154
	13773.00	91.48	325.38	8052.58	6634.58	4045.51	4239.69	-998.23	1.33	0.19	1.32	444829.08	1763401.21	39.71826878	-80.34109682
	13867.00	90.85	323.48	8050.67	6632.67	4139.48	4316.13	-1052.89	2.13	-0.67	-2.02	444905.52	1763346.55	39.71847721	-80.34129368
	13961.00	91.45	325.99	8048.79	6630.79	4233.45	4392.86	-1107.15	2.74	0.64	2.67	444982.24	1763292.30	39.71868645	-80.34148909
	14054.00	90.34	325.04	8047.33	6629.33	4326.43	4469.50	-1159.80	1.57	-1.19	-1.02	445058.88	1763239.65	39.71889550	-80.34167878
	14148.00	91.13	326.15	8046.13	6628.13	4420.42	4547.05	-1212.91	1.45	0.84	1.18	445136.42	1763186.55	39.71910701	-80.34187014
	14242.00	90.98	325.35	8044.40	6626.40	4514.40	4624.74	-1265.80	0.87	-0.16	-0.85	445214.10	1763133.66	39.71931891	-80.34206075
	14337.00	91.90	326.41	8042.01	6624.01	4609.35	4703.36	-1319.07	1.48	0.97	1.12	445292.72	1763080.39	39.71953336	-80.34225272
	14432.00	91.39	326.09	8039.28	6621.28	4704.29	4782.31	-1371.83	0.63	-0.54	-0.34	445371.67	1763027.64	39.71974875	-80.34244288
	14525.00	91.08	325.62	8037.28	6619.28	4797.26	4859.26	-1424.02	0.61	-0.33	-0.51	445448.62	1762975.45	39.71995865	-80.34263095
	14619.00	91.78	326.17	8034.93	6616.93	4891.22	4937.07	-1476.71	0.95	0.74	0.59	445526.42	1762922.76	39.72017089	-80.34282084
	14712.00	91.39	325.62	8032.36	6614.36	4984.17	5014.05	-1528.83	0.72	-0.42	-0.59	445603.39	1762870.64	39.72038085	-80.34300870
	14805.00	91.50	325.95	8030.01	6612.01	5077.13	5090.93	-1581.11	0.37	0.12	0.35	445680.27	1762818.37	39.72059055	-80.34319709
	14899.00	91.45	325.69	8027.59	6609.59	5171.09	5168.66	-1633.90	0.28	-0.05	-0.28	445758.00	1762765.58	39.72080260	-80.34338734
Final Survey	14928.00	90.92	325.66	8026.99	6608.99	5200.08	5192.61	-1650.25	1.83	-1.83	-0.10	445781.94	1762749.23	39.72086791	-80.34344625
Projection to TD	14955.00	90.92	325.66	8026.56	6608.56	5227.07	5214.90	-1665.48	0.00	0.00	0.00	445804.23	1762734.00	39.72092871	-80.34350113

Survey Type: Def Survey

Survey Error Model: ISCWSA Rev 3 *** 3-D 95.000% Confidence 2.7955 sigma
 Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	29.000	1/98.425	17.500	13.375	A020Ga_GYRO-NS-Depth Only	Original Borehole / CNX WDTN-5X-HXM Surveys 0ft to 14955ft MD
	1	29.000	29.000	Act Stns	17.500	13.375	A020Ga_GYRO-NS-Depth Only	Original Borehole / CNX WDTN-5X-HXM Surveys 0ft to 14955ft MD
	1	29.000	1338.000	Act Stns	17.500	13.375	A020Ga_GYRO-NS	Original Borehole / CNX WDTN-5X-HXM Surveys 0ft to 14955ft MD
	1	1338.000	1433.000	Act Stns	17.500	13.375	A001Mb_MWD	Original Borehole / CNX WDTN-5X-HXM Surveys 0ft to 14955ft MD
	1	1433.000	2960.000	Act Stns	12.250	9.625	A001Mb_MWD	Original Borehole / CNX WDTN-5X-HXM Surveys 0ft to 14955ft MD
	1	2960.000	7116.000	Act Stns	8.750	5.500	A001Mb_MWD	Original Borehole / CNX WDTN-5X-HXM Surveys 0ft to 14955ft MD
	1	7116.000	14955.000	Act Stns	8.500	5.500	B006Mb_MWD+IGRF	Original Borehole / CNX WDTN-5X-HXM Surveys 0ft to 14955ft MD

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...CNX WDTN-5 Pad\WDTN-5X-HSM\Original Borehole\CNX WDTN-5X-HXM Surveys 0ft to 14955ft MD