



CNX WDTN19BHSM Surveys 0ft to 17196ft MD Survey Geodetic Report

(Def Survey)

Report Date: February 21, 2023 - 02:26 PM
 Client: CNX
 Field: WV Monongalia County (NAD 27)
 Structure / Slot: CNX WDTN19 Pad / WDTN19BHSM
 Well: WDTN19BHSM
 Borehole: Original Borehole
 UWI / AP#: Unknown / Unknown
 Survey Name: CNX WDTN19BHSM Surveys 0ft to 17196ft MD
 Survey Date: January 11, 2023
 Tort / AHD / DDI / ERD Ratio: 224.172 / 10264.469 ft / 6.697 / 1.292
 Coordinate Reference System: NAD27 West Virginia State Plane, Northern Zone, US Feet
 Location Lat / Long: N 39° 41' 35.92229", W 80° 20' 7.67336"
 Location Grid N/E Y/X: N 435724.349 fTUS, E 1764900.901 fTUS
 CRS Grid Convergence Angle: -0.5328"
 Grid Scale Factor: 0.99994143
 Version / Patch: 2.10.834.0

Survey / DLS Computation: Minimum Curvature / Lubinski
 Vertical Section Azimuth: 320.000 ° (Grid North)
 Vertical Section Origin: 0.000 ft. 0.000 ft
 TVD Reference Datum: KB
 TVD Reference Elevation: 1293.000 ft above MSL
 Seabed / Ground Elevation: 1264.000 ft above MSL
 Magnetic Declination: -8.914"
 Total Gravity Field Strength: 999.3417mgn (9.80665 Based)
 Gravity Model: GARM
 Total Magnetic Field Strength: 51772.140 nT
 Magnetic Dip Angle: 66.360"
 Declination Date: January 11, 2023
 Magnetic Declination Model: HDGM 2022
 North Reference: Grid North
 Grid Convergence Used: -0.5328"
 Total Corr Mag North->Grid North: -8.3816"
 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 (°)
Surface	0.00	0.00	0.00	0.00	-1293.00	0.00	0.00	0.00	N/A	N/A	N/A	435724.35	1764900.90	39.69331175	-80.33546482
	100.00	0.15	90.73	100.00	-1193.00	-0.09	0.00	0.13	0.15	0.15	0.00	435724.35	1764901.03	39.69331175	-80.33546436
	125.00	0.18	59.82	125.00	-1168.00	-0.11	0.02	0.20	0.37	0.12	-123.64	435724.37	1764901.10	39.69331180	-80.33546412
	150.00	0.08	100.69	150.00	-1143.00	-0.13	0.03	0.25	0.52	-0.40	163.48	435724.38	1764901.15	39.69331185	-80.33546394
	175.00	0.16	187.09	175.00	-1118.00	-0.17	0.00	0.26	0.70	0.32	345.60	435724.35	1764901.16	39.69331174	-80.33546389
	200.00	0.24	189.84	200.00	-1093.00	-0.23	-0.09	0.25	0.32	0.32	11.00	435724.26	1764901.15	39.69331151	-80.33546394
	225.00	0.26	179.66	225.00	-1068.00	-0.31	-0.20	0.24	0.19	0.08	-40.72	435724.15	1764901.14	39.69331121	-80.33546396
	250.00	0.39	183.71	250.00	-1043.00	-0.41	-0.34	0.23	0.53	0.52	16.20	435724.01	1764901.14	39.69331082	-80.33546398
	275.00	0.47	185.66	275.00	-1018.00	-0.54	-0.53	0.22	0.33	0.32	7.80	435723.82	1764901.12	39.69331031	-80.33546403
	300.00	0.42	189.13	300.00	-993.00	-0.68	-0.72	0.19	0.23	-0.20	13.88	435723.63	1764901.10	39.69330978	-80.33546411
	325.00	0.31	188.47	325.00	-968.00	-0.78	-0.88	0.17	0.44	-0.44	-2.64	435723.47	1764901.07	39.69330935	-80.33546419
	350.00	0.24	170.41	350.00	-943.00	-0.87	-1.00	0.17	0.44	-0.28	-72.24	435723.35	1764901.07	39.69330902	-80.33546419
	375.00	0.21	151.10	375.00	-918.00	-0.96	-1.09	0.20	0.32	-0.12	-77.24	435723.26	1764901.10	39.69330877	-80.33546408
	400.00	0.23	129.36	400.00	-893.00	-1.06	-1.16	0.26	0.34	0.08	-86.96	435723.19	1764901.16	39.69330857	-80.33546386
	425.00	0.22	117.93	425.00	-868.00	-1.15	-1.21	0.34	0.18	-0.04	-45.72	435723.14	1764901.24	39.69330843	-80.33546357
	450.00	0.25	134.29	450.00	-843.00	-1.25	-1.27	0.42	0.29	0.12	65.44	435723.08	1764901.32	39.69330826	-80.33546328
	475.00	0.23	146.69	475.00	-818.00	-1.35	-1.35	0.49	0.22	-0.08	49.60	435723.00	1764901.39	39.69330804	-80.33546304
	500.00	0.19	153.08	500.00	-793.00	-1.44	-1.43	0.54	0.19	-0.16	25.56	435722.92	1764901.44	39.69330783	-80.33546287
	525.00	0.06	167.23	525.00	-768.00	-1.49	-1.48	0.56	0.53	-0.52	56.60	435722.87	1764901.46	39.69330769	-80.33546279
	550.00	0.07	282.47	550.00	-743.00	-1.49	-1.49	0.55	0.44	0.04	460.96	435722.86	1764901.45	39.69330767	-80.33546283
	575.00	0.06	356.92	575.00	-718.00	-1.47	-1.48	0.53	0.32	-0.04	297.80	435722.87	1764901.43	39.69330771	-80.33546289
	600.00	0.06	90.24	600.00	-693.00	-1.47	-1.46	0.54	0.35	0.00	373.28	435722.89	1764901.44	39.69330775	-80.33546285
	625.00	0.03	51.30	625.00	-668.00	-1.48	-1.46	0.56	0.16	-0.12	-155.76	435722.89	1764901.46	39.69330776	-80.33546278
	650.00	0.02	318.62	650.00	-643.00	-1.47	-1.45	0.56	0.15	-0.04	-370.72	435722.90	1764901.46	39.69330778	-80.33546278
	675.00	0.05	24.49	675.00	-618.00	-1.46	-1.44	0.56	0.18	0.12	263.48	435722.91	1764901.47	39.69330781	-80.33546277
	700.00	0.07	232.00	700.00	-593.00	-1.46	-1.44	0.56	0.47	0.08	-609.96	435722.91	1764901.46	39.69330782	-80.33546280
	725.00	0.16	219.62	725.00	-568.00	-1.46	-1.47	0.52	0.37	0.36	-49.52	435722.88	1764901.42	39.69330772	-80.33546292
	750.00	0.21	175.48	750.00	-543.00	-1.51	-1.55	0.50	0.59	0.20	-176.56	435722.80	1764901.40	39.69330752	-80.33546298
	775.00	0.21	175.73	775.00	-518.00	-1.58	-1.64	0.51	0.00	0.00	1.00	435722.71	1764901.41	39.69330727	-80.33546295
	800.00	0.25	187.83	799.99	-493.01	-1.66	-1.74	0.51	0.25	0.16	48.40	435722.61	1764901.41	39.69330699	-80.33546296
	825.00	0.22	179.09	824.99	-468.01	-1.73	-1.84	0.50	0.19	-0.12	-34.96	435722.51	1764901.40	39.69330671	-80.33546298
	850.00	0.20	176.32	849.99	-443.01	-1.80	-1.93	0.50	0.09	-0.08	-11.08	435722.42	1764901.40	39.69330646	-80.33546297
	875.00	0.14	218.25	874.99	-418.01	-1.84	-2.00	0.49	0.54	-0.24	167.72	435722.35	1764901.39	39.69330627	-80.33546302
	900.00	0.11	233.41	899.99	-393.01	-1.85	-2.04	0.45	0.18	-0.12	60.64	435722.31	1764901.35	39.69330617	-80.33546316
	925.00	0.14	212.97	924.99	-368.01	-1.86	-2.08	0.41	0.21	0.12	-81.76	435722.27	1764901.31	39.69330606	-80.33546328
	950.00	0.14	177.08	949.99	-343.01	-1.89	-2.13	0.40	0.35	0.00	-143.56	435722.22	1764901.30	39.69330590	-80.33546334
	975.00	0.14	135.74	974.99	-318.01	-1.94	-2.19	0.42	0.40	0.00	-165.36	435722.16	1764901.32	39.69330576	-80.33546325
	1000.00	0.14	142.52	999.99	-293.01	-2.01	-2.23	0.46	0.07	0.00	27.12	435722.12	1764901.36	39.69330563	-80.33546311
	1025.00	0.19	190.51	1024.99	-268.01	-2.06	-2.30	0.47	0.57	0.20	191.96	435722.05	1764901.37	39.69330546	-80.33546307
	1050.00	0.24	227.44	1049.99	-243.01	-2.09	-2.37	0.43	0.58	0.20	147.72	435721.98	1764901.33	39.69330525	-80.33546323
	1075.00	0.21	241.27	1074.99	-218.01	-2.08	-2.43	0.35	0.25	-0.12	55.32	435721.92	1764901.25	39.69330509	-80.33546351
	1100.00	0.10	243.95	1099.99	-193.01	-2.07	-2.46	0.29	0.44	-0.44	10.72	435721.89	1764901.19	39.69330500	-80.33546372

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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 (°)
	1125.00	0.16	292.42	1124.99	-168.01	-2.03	-2.46	0.24	0.48	0.24	193.88	435721.89	1764901.14	39.69330501	-80.33546390
	1150.00	0.16	299.11	1149.99	-143.01	-1.97	-2.43	0.17	0.07	0.00	26.76	435721.92	1764901.07	39.69330509	-80.33546413
	1175.00	0.30	355.31	1174.99	-118.01	-1.88	-2.35	0.14	1.00	0.56	224.80	435722.00	1764901.04	39.69330531	-80.33546426
	1180.00	0.26	343.93	1179.99	-113.01	-1.86	-2.32	0.13	1.37	-0.80	-227.60	435722.03	1764901.03	39.69330538	-80.33546427
	1265.00	0.10	34.92	1264.99	-28.01	-1.67	-2.08	0.12	0.25	-0.19	59.99	435722.27	1764901.02	39.69330605	-80.33546432
	1360.00	0.22	9.97	1359.99	66.99	-1.53	-1.83	0.20	0.14	0.13	-26.26	435722.52	1764901.10	39.69330674	-80.33546405
	1454.00	0.91	81.43	1453.99	160.99	-1.80	-1.54	0.97	0.92	0.73	76.02	435722.81	1764901.87	39.69330755	-80.33546132
	1549.00	1.14	91.01	1548.97	255.97	-2.82	-1.44	2.66	0.30	0.24	10.08	435722.91	1764903.56	39.69330785	-80.33545532
	1643.00	0.97	57.05	1642.96	349.96	-3.53	-1.03	4.26	0.68	-0.18	-36.13	435723.32	1764905.16	39.69330904	-80.33544964
	1742.00	1.35	48.25	1741.94	448.94	-3.59	0.21	5.84	0.42	0.38	-8.89	435724.55	1764906.74	39.69331246	-80.33544409
	1837.00	1.12	31.54	1836.92	543.92	-3.27	1.74	7.16	0.45	-0.24	-17.59	435726.09	1764908.06	39.69331671	-80.33543945
	1932.00	0.98	23.38	1931.90	638.90	-2.61	3.28	7.97	0.22	-0.15	-8.59	435727.63	1764908.87	39.69332095	-80.33543663
	2026.00	1.30	27.52	2025.88	732.88	-1.84	4.96	8.78	0.35	0.34	4.40	435729.31	1764909.68	39.69332560	-80.33543380
	2121.00	1.94	33.34	2120.84	827.84	-0.97	7.26	10.16	0.69	0.67	6.13	435731.61	1764911.06	39.69333194	-80.33542896
	2216.00	1.81	357.70	2215.79	922.79	0.68	10.10	10.98	1.21	-0.14	-37.52	435734.45	1764911.88	39.69333977	-80.33542613
	2311.00	1.30	352.71	2310.76	1017.76	2.77	12.67	10.79	0.55	-0.54	-5.25	435737.02	1764911.69	39.69334681	-80.33542692
	2405.00	1.01	19.20	2404.74	1111.74	4.10	14.51	10.92	0.64	-0.31	28.18	435738.86	1764911.82	39.69335187	-80.33542649
	2500.00	0.36	46.22	2499.73	1206.73	4.54	15.51	11.41	0.75	-0.68	28.44	435739.86	1764912.31	39.69335462	-80.33542478
	2594.00	0.98	104.90	2593.73	1300.73	3.91	15.51	12.40	0.90	0.66	62.43	435739.86	1764913.30	39.69335463	-80.33542126
	2689.00	0.68	141.13	2688.72	1395.72	2.68	14.86	13.54	0.62	-0.32	38.14	435739.21	1764914.44	39.69335289	-80.33541719
	2783.00	0.44	142.36	2782.71	1489.71	1.76	14.14	14.11	0.26	-0.26	1.31	435738.49	1764915.01	39.69335092	-80.33541514
	2878.00	0.47	216.27	2877.71	1584.71	1.30	13.54	14.11	0.58	0.03	77.80	435737.88	1764915.01	39.69334927	-80.33541515
	2972.00	0.57	239.90	2971.71	1678.71	1.29	12.99	13.47	0.25	0.11	25.14	435737.34	1764914.37	39.69334775	-80.33541738
	3045.00	0.96	214.90	3044.70	1751.70	1.19	12.31	12.81	0.69	0.53	-34.25	435736.66	1764913.71	39.69334586	-80.33541972
	3171.00	2.40	182.49	3170.65	1877.65	-1.03	8.81	12.09	1.33	1.14	-25.72	435733.15	1764912.99	39.69333623	-80.33542215
	3266.00	3.55	194.01	3265.52	1972.52	-4.22	3.96	11.29	1.36	1.21	12.13	435728.31	1764912.19	39.69332292	-80.33542483
	3360.00	3.68	174.91	3359.33	2066.33	-8.41	-1.86	10.85	1.28	0.14	-20.32	435722.49	1764911.76	39.69330691	-80.33542619
	3455.00	3.82	204.81	3454.14	2161.14	-12.25	-7.77	9.80	2.04	0.15	31.47	435716.58	1764910.70	39.69329066	-80.33542975
	3549.00	2.96	223.91	3547.98	2254.98	-13.84	-12.36	6.80	1.50	-0.91	20.32	435711.99	1764907.70	39.69327798	-80.33544025
	3644.00	2.72	237.42	3642.86	2349.86	-13.81	-15.35	3.20	0.75	-0.25	14.22	435709.00	1764904.10	39.69326970	-80.33545295
	3739.00	3.67	246.26	3737.71	2444.71	-12.67	-17.78	-1.48	1.12	1.00	9.31	435706.57	1764899.42	39.69326289	-80.33546950
	3834.00	3.90	249.19	3832.51	2539.51	-10.76	-20.16	-7.29	0.32	0.24	3.08	435704.20	1764893.62	39.69325623	-80.33549005
	3928.00	4.81	251.74	3926.23	2633.23	-8.25	-22.53	-14.02	0.99	0.97	2.71	435701.82	1764886.88	39.69324955	-80.33551388
	4023.00	5.53	240.26	4020.85	2727.85	-5.95	-26.04	-21.77	1.32	0.76	-12.08	435698.31	1764879.13	39.69323970	-80.33554133
	4118.00	6.82	229.88	4115.30	2822.30	-5.15	-31.95	-30.06	1.79	1.36	-10.93	435692.40	1764870.84	39.69323227	-80.33557059
	4213.00	8.09	226.20	4209.49	2916.49	-5.61	-40.21	-39.20	1.43	1.34	-3.87	435684.14	1764861.70	39.69320036	-80.33560279
	4307.00	8.54	220.85	4302.51	3009.51	-7.15	-50.07	-48.54	0.95	0.48	-5.69	435674.28	1764852.36	39.69317306	-80.33563564
	4402.00	9.15	221.25	4396.38	3103.38	-9.43	-61.08	-58.13	0.65	0.64	0.42	435663.27	1764842.77	39.69314258	-80.33566937
	4497.00	9.90	225.16	4490.07	3197.07	-11.26	-72.52	-68.91	1.04	0.79	4.12	435651.83	1764832.00	39.69311090	-80.33570727
	4591.00	9.84	228.18	4582.68	3289.68	-12.20	-83.58	-80.62	0.55	-0.06	3.21	435640.78	1764820.28	39.69308026	-80.33574853
	4686.00	10.97	225.04	4676.11	3383.11	-13.24	-95.38	-93.07	1.33	1.19	-3.31	435628.98	1764807.84	39.69304755	-80.33579236
	4785.00	9.91	226.05	4773.47	3480.47	-14.64	-107.95	-105.87	1.09	-1.07	1.02	435616.41	1764795.04	39.69301272	-80.33583743
	4880.00	9.82	222.96	4867.07	3574.07	-16.20	-119.55	-117.27	0.57	-0.09	-3.25	435604.81	1764783.63	39.69298057	-80.33587757
	4974.00	11.93	227.92	4959.38	3666.38	-17.53	-131.93	-129.95	2.45	2.24	5.28	435592.43	1764770.96	39.69294627	-80.33592220
	5069.00	10.63	229.47	5052.54	3759.54	-17.97	-144.20	-143.90	1.41	-1.37	1.63	435580.16	1764757.01	39.69291221	-80.33597136
	5163.00	11.15	226.43	5144.85	3851.85	-18.62	-156.10	-157.07	0.82	0.55	-3.23	435568.26	1764743.84	39.69287921	-80.33601778
	5258.00	12.08	226.54	5237.90	3944.90	-19.79	-169.27	-170.94	0.98	0.98	0.12	435555.09	1764729.97	39.69284271	-80.33606663
	5353.00	10.45	234.57	5331.08	4038.08	-19.70	-181.10	-185.18	2.38	-1.72	8.45	435543.26	1764715.73	39.69280986	-80.33611683
	5463.00	12.17	216.56	5438.97	4145.97	-21.60	-196.21	-200.22	3.55	1.56	-16.37	435528.16	1764700.69	39.69276802	-80.33616977
Last 3rd Party MWD	5520.00	11.90	215.06	5494.72	4201.72	-24.51	-205.84	-207.18	0.72	-0.47	-2.63	435518.52	1764693.74	39.69274139	-80.33619416
First SLB_MWD	5585.00	11.73	221.83	5558.34	4265.34	-27.18	-216.25	-215.43	2.15	-0.26	10.42	435508.11	1764685.48	39.69271260	-80.33622316
	5680.00	11.47	226.72	5651.40	4358.40	-29.09	-229.92	-228.75	1.07	-0.27	5.15	435494.44	1764672.16	39.69267473	-80.33627002
	5775.00	11.61	226.38	5744.48	4451.48	-30.24	-242.99	-242.55	0.16	0.15	-0.36	435481.37	1764658.37	39.69263850	-80.33631861
	5870.00	11.69	226.73	5837.53	4544.53	-31.39	-256.18	-256.47	0.11	0.08	0.37	435468.18	1764644.44	39.69260193	-80.33636767
	5965.00	11.68	226.95	5930.56	4637.56	-32.45	-269.35	-270.51	0.05	-0.01	0.23	435455.02	1764630.41	39.69256544	-80.33641710
	6060.00	11.50	225.71	6023.62	4730.62	-33.67	-282.52	-284.32	0.32	-0.19	-1.31	435441.84	1764616.60	39.69252891	-80.33646572
	6155.00	11.25	226.47	6116.75	4823.75	-34.95	-295.52	-297.81	0.31	-0.26	0.80	435428.85	1764603.11	39.69249289	-80.33651325
	6250.00	11.36	225.29	6209.91	4916.91	-36.29	-308.48	-311.18	0.27	0.12	-1.24	435415.89	1764589.74	39.69245696	-80.33656032
	6345.00	11.19	225.66	6303.08	5010.08	-37.75	-321.51	-324.42	0.19	-0.18	0.39	435402.86	1764576.50	39.69242087	-80.33660694
	6440.00	11.37	226.70	6396.24	5103.24	-38.99	-334.37	-337.83	0.29	0.19	1.09	435390.00	1764563.09	39.69238521	-80.33665415
	6535.00	11.24	226.28	6489.40	5196.40	-40.13	-347.19	-351.34	0.16	-0.14	-0.44	435377.18	1764549.59	39.69234967	-80.33670172
	6630.00	11.26	226.52	6582.57	5289.57	-41.29	-359.97	-364.76	0.05	0.02	0.25	435364.40	1764536.16	39.69231424	-80.33674899
	6725.00	11.22	226.00	6675.75	5382.75	-42.50	-372.78	-378.14	0.11	-0.04	-0.55	435351.59	1764522.79	39.69227875	-80.33679610
	6820.00	11.25	225.28	6768.93	5475.93	-43.91	-385.72	-391.37	0.15	0.03	-0.76	435338.65	1764509.55	39.69224289	-80.33684269
	6915.00	11.46	225.70	6862.07	5569.07	-45.38	-398.83	-404.71	0.24	0.22	0.44	435325.54	1764496.22	39.69220655	-80.33688965
	7010.00	11.19	225.86	6955.22	5662.22	-46.75	-411.84	-418.08	0.29	-0.28	0.17	435312.53	1764482.85	39.69217049	-80.33693673
	7105.00	11.27	226.29	7											

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 (°)
	7485.00	21.13	296.41	7418.89	6125.89	-5.07	-427.77	-501.92	8.20	8.13	-3.78	435296.60	1764399.01	39.69212462	-80.33723409
	7580.00	32.45	294.11	7503.55	6210.55	33.68	-409.68	-540.64	11.96	11.92	-2.42	435314.69	1764360.29	39.69217328	-80.33737229
	7675.00	41.65	292.88	7579.29	6286.29	84.82	-386.95	-593.10	9.72	9.68	-1.29	435337.42	1764307.83	39.69223434	-80.33755945
	7769.00	44.61	298.29	7647.91	6354.91	143.32	-359.15	-650.98	5.04	3.15	5.76	435365.22	1764249.96	39.69230919	-80.33776601
	7863.00	47.82	307.71	7713.02	6420.02	208.11	-322.15	-707.68	7.99	3.41	10.02	435402.22	1764193.27	39.69240931	-80.33796870
	7958.00	55.07	316.72	7772.27	6479.27	281.57	-272.14	-762.36	10.63	7.63	9.48	435452.23	1764138.58	39.69254519	-80.33816467
	8052.00	66.87	317.46	7817.80	6524.80	363.51	-212.02	-818.20	12.57	12.55	0.79	435512.34	1764082.75	39.69270878	-80.33836507
	8147.00	74.97	316.89	7848.83	6555.83	453.11	-146.24	-879.19	8.55	8.53	-0.60	435578.12	1764021.77	39.69288781	-80.33858395
	8241.00	76.14	316.60	7872.28	6579.28	543.99	-79.94	-941.57	1.28	1.24	-0.31	435644.41	1763959.39	39.69306820	-80.33880779
	8335.00	82.13	318.77	7889.99	6596.99	636.18	-11.70	-1003.67	6.76	6.37	2.31	435712.65	1763897.29	39.69325394	-80.33903071
	8429.00	88.36	319.01	7897.78	6604.78	729.79	58.84	-1065.23	6.63	6.63	0.26	435783.19	1763835.74	39.69344602	-80.33925180
	8524.00	88.15	318.93	7900.67	6607.67	824.73	130.47	-1127.56	0.24	-0.22	-0.08	435854.81	1763773.41	39.69364106	-80.33947567
	8619.00	88.25	320.45	7903.66	6610.66	919.68	202.88	-1188.99	1.60	0.11	1.60	435927.22	1763711.98	39.69383825	-80.33969633
	8713.00	90.21	320.36	7904.92	6611.92	1013.67	275.30	-1248.89	2.09	2.09	-0.10	435999.63	1763652.08	39.69403553	-80.33991159
	8808.00	90.33	320.23	7904.47	6611.47	1108.66	348.39	-1309.58	0.19	0.13	-0.14	436072.72	1763591.40	39.69423461	-80.34012966
	8902.00	90.34	320.03	7903.92	6610.92	1202.66	420.53	-1369.84	0.21	0.01	-0.21	436144.86	1763531.15	39.69443111	-80.34034618
	8997.00	90.85	321.01	7902.94	6609.94	1297.65	493.85	-1430.24	1.16	0.54	1.03	436218.17	1763470.75	39.69463083	-80.34056322
	9091.00	90.91	321.11	7901.49	6608.49	1391.62	566.96	-1489.31	0.12	0.06	0.11	436291.27	1763411.68	39.69483000	-80.34077556
	9186.00	91.21	321.32	7899.74	6606.74	1486.59	641.00	-1548.81	0.39	0.32	0.22	436365.31	1763352.19	39.69503172	-80.34098944
	9280.00	90.75	320.74	7898.13	6605.13	1580.56	714.07	-1607.91	0.79	-0.49	-0.62	436438.38	1763293.08	39.69523080	-80.34120190
	9374.00	90.87	321.07	7896.80	6603.80	1674.54	787.02	-1667.19	0.37	0.13	0.35	436511.32	1763233.82	39.69542952	-80.34141494
	9564.00	90.83	321.18	7893.98	6600.98	1864.48	934.92	-1786.42	0.06	-0.02	0.06	436659.21	1763114.59	39.69583247	-80.34184355
	9658.00	90.19	320.33	7893.14	6600.14	1958.46	1007.71	-1845.89	1.13	-0.68	-0.90	436732.00	1763055.13	39.69603077	-80.34205728
	9752.00	89.78	320.74	7893.17	6600.17	2052.46	1080.28	-1905.63	0.62	-0.44	0.44	436804.56	1762995.38	39.69622845	-80.34227200
	9847.00	90.06	320.91	7893.30	6600.30	2147.45	1153.93	-1965.64	0.34	0.29	0.19	436878.21	1762935.38	39.69642907	-80.34248769
	9941.00	89.88	321.18	7893.35	6600.35	2241.43	1227.02	-2024.74	0.35	-0.19	-0.29	436951.30	1762876.28	39.69662822	-80.34270013
	10036.00	89.70	320.72	7893.70	6600.70	2336.42	1300.80	-2084.59	0.52	-0.19	0.48	437025.07	1762816.44	39.69682920	-80.34291526
	10130.00	89.22	320.45	7894.59	6601.59	2430.41	1373.42	-2144.27	0.59	-0.51	-0.29	437097.68	1762756.76	39.69702701	-80.34312975
	10225.00	89.35	320.90	7895.77	6602.77	2525.40	1446.90	-2204.47	0.49	0.14	0.47	437171.16	1762696.56	39.69722718	-80.34334612
	10320.00	89.58	320.04	7896.66	6603.66	2620.39	1520.17	-2264.93	0.94	0.24	-0.91	437244.43	1762636.11	39.69742676	-80.34356341
	10415.00	89.74	320.48	7897.22	6604.22	2715.39	1593.22	-2325.67	0.49	0.17	0.46	437317.47	1762575.38	39.69762572	-80.34378166
	10509.00	89.25	319.32	7898.05	6605.05	2809.38	1665.12	-2386.21	1.34	-0.52	-1.23	437389.37	1762514.84	39.69782154	-80.34399920
	10604.00	89.62	320.40	7898.99	6605.99	2904.37	1737.74	-2447.45	1.20	0.39	1.14	437461.98	1762453.60	39.69801931	-80.34421924
	10699.00	90.51	320.32	7898.88	6605.88	2999.37	1810.89	-2508.05	0.94	0.94	-0.08	437535.13	1762393.00	39.69821857	-80.34443704
	10793.00	90.50	319.84	7898.05	6605.05	3093.37	1882.98	-2568.37	0.51	-0.01	-0.51	437607.22	1762332.68	39.69841491	-80.34465379
	10888.00	90.16	319.99	7897.50	6604.50	3188.36	1955.66	-2629.54	0.39	-0.36	0.16	437679.89	1762271.52	39.69861286	-80.34487360
	10983.00	89.87	319.76	7897.48	6604.48	3283.36	2028.31	-2690.77	0.39	-0.31	-0.24	437752.53	1762210.30	39.69881069	-80.34509358
	11078.00	89.82	319.64	7897.74	6604.74	3378.36	2100.76	-2752.21	0.14	-0.05	-0.13	437824.98	1762148.86	39.69900799	-80.34531435
	11173.00	89.39	319.32	7898.39	6605.39	3473.36	2172.97	-2813.93	0.56	-0.45	-0.34	437897.19	1762087.14	39.69920464	-80.34553610
	11268.00	89.37	319.70	7899.42	6606.42	3568.35	2245.22	-2875.61	0.40	-0.02	0.40	437969.43	1762025.46	39.69940137	-80.34575770
	11363.00	89.59	320.10	7900.28	6607.28	3663.34	2317.88	-2936.80	0.48	0.23	0.42	438042.09	1761964.28	39.69959927	-80.34597757
	11458.00	89.23	320.24	7901.26	6608.26	3758.34	2390.83	-2997.65	0.41	-0.38	0.15	438115.04	1761903.43	39.69979796	-80.34619623
	11553.00	89.32	319.68	7902.46	6609.46	3853.33	2463.56	-3058.76	0.60	0.09	-0.59	438187.76	1761842.33	39.69999602	-80.34641583
	11648.00	89.12	318.96	7903.75	6610.75	3948.31	2535.60	-3120.68	0.79	-0.21	-0.76	438259.79	1761780.41	39.70019217	-80.34663827
	11743.00	89.00	320.34	7905.31	6612.31	4043.30	2607.98	-3182.18	1.46	-0.13	1.45	438332.18	1761718.92	39.70038930	-80.34685924
	11838.00	88.95	320.81	7907.01	6614.01	4138.28	2681.36	-3242.50	0.50	-0.05	0.49	438405.54	1761658.60	39.70058915	-80.34707605
	11933.00	87.98	319.66	7909.56	6616.56	4233.24	2754.35	-3303.24	1.58	-1.02	-1.21	438478.53	1761597.86	39.70078796	-80.34729435
	12028.00	88.78	319.96	7912.24	6619.24	4328.20	2826.89	-3364.52	0.90	0.84	0.32	438551.07	1761536.58	39.70098552	-80.34751455
	12123.00	88.78	320.05	7914.27	6621.27	4423.18	2899.66	-3425.57	0.09	0.00	0.09	438623.83	1761475.54	39.70118368	-80.34773393
	12219.00	88.27	320.05	7916.74	6623.74	4519.14	2973.23	-3487.19	0.53	-0.53	0.00	438697.40	1761413.92	39.70138204	-80.34795338
	12314.00	88.36	320.16	7919.53	6626.53	4614.10	3046.08	-3548.09	0.15	0.09	0.12	438770.25	1761353.02	39.70158246	-80.34817426
	12409.00	88.25	319.99	7922.34	6629.34	4709.06	3118.90	-3609.04	0.21	-0.12	-0.18	438843.06	1761292.08	39.70178079	-80.34839327
	12504.00	88.36	320.40	7925.15	6632.15	4804.02	3191.85	-3669.83	0.45	0.12	0.43	438916.01	1761231.30	39.70197947	-80.34861175
	12599.00	87.77	320.64	7928.36	6635.36	4898.96	3265.14	-3730.19	0.67	-0.62	0.25	438989.29	1761170.93	39.70217908	-80.34882874
	12694.00	87.45	320.43	7932.32	6639.32	4993.87	3338.41	-3790.52	0.40	-0.34	-0.22	439062.56	1761110.61	39.70237867	-80.34904559
	12776.00	88.56	320.01	7935.17	6642.17	5075.82	3401.39	-3842.96	1.45	1.35	-0.51	439125.53	1761058.18	39.70255020	-80.34926245
	12792.00	88.37	320.20	7935.60	6642.60	5091.82	3413.66	-3853.22	1.68	-1.19	1.19	439137.80	1761047.92	39.70258362	-80.34927091
	12887.00	88.08	321.32	7938.55	6645.55	5186.76	3487.20	-3913.28	1.22	-0.31	1.18	439211.34	1760987.86	39.70278394	-80.34948684
	12982.00	89.63	319.99	7940.44	6647.44	5281.73	3560.65	-3973.49	2.15	1.63	-1.40	439284.79	1760927.65	39.70298401	-80.34970329
	13076.00	89.35	319.29	7941.28	6648.28	5375.72	3632.28	-4034.36	0.80	-0.30	-0.74	439356.41	1760866.78	39.70317904	-80.34992200
	13171.00	89.42	319.95	7942.30	6649.30	5470.72	3704.64	-4095.91	0.70	0.07	0.69	439428.76	1760805.24	39.70337609	-80.35014315
	13266.00	89.35	319.91	7943.32	6650.32	5565.71	3777.33	-4157.06	0.08	-0.07	-0.04	439501.45	1760744.10	39.70357407	-80.35036291
	13361.00	90.18	319.37	7943.71	6650.71	5660.71	3849.72	-4218.58	1.04	0.87	-0.57	439573.84	1760682.58	39.70377118	-80.35058398
	13455.00	90.23	316.65	7943.37	6650.37	5754.64	3919.58	-4281.46	2.89	0.05	-2.89	439643.69	1760619.70	39.70396132	-80.35080

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (*/100ft)	BR (*/100ft)	TR (*/100ft)	Northing (RUS)	Easting (RUS)	Latitude (°)	Longitude (°)
	14306.00	90.25	320.82	7927.72	6634.72	6604.77	4563.04	-4837.17	1.14	-0.92	-0.67	440287.12	1760064.02	39.70571326	-80.35280639
	14400.00	91.16	321.44	7926.56	6633.56	6698.74	4636.22	-4896.16	1.17	0.97	0.66	440360.29	1760005.04	39.70591261	-80.35301848
	14495.00	90.99	319.86	7924.78	6631.78	6793.72	4709.67	-4956.38	1.67	-0.18	-1.66	440433.73	1759944.82	39.70611267	-80.35323499
	14590.00	91.09	320.10	7923.05	6630.05	6888.70	4782.41	-5017.46	0.27	0.11	0.25	440506.47	1759883.75	39.70631076	-80.35345452
	14685.00	91.60	321.57	7920.82	6627.82	6983.66	4856.04	-5077.44	1.64	0.54	1.55	440580.10	1759823.77	39.70651133	-80.35367017
	14780.00	91.47	321.28	7918.28	6625.28	7078.60	4930.29	-5136.65	0.33	-0.14	-0.31	440654.34	1759764.56	39.70671359	-80.35388312
	14875.00	91.65	320.91	7915.69	6622.69	7173.54	5004.19	-5196.29	0.43	0.19	-0.39	440728.23	1759704.92	39.70691491	-80.35409757
	14970.00	91.07	319.60	7913.44	6620.44	7268.51	5077.21	-5257.02	1.51	-0.61	-1.38	440801.25	1759644.20	39.70711378	-80.35431584
	15065.00	91.41	320.07	7911.38	6618.38	7363.49	5149.79	-5318.28	0.61	0.36	0.49	440873.83	1759582.95	39.70731142	-80.35453601
	15160.00	91.51	320.18	7908.96	6615.96	7458.46	5222.68	-5379.16	0.16	0.11	0.12	440946.71	1759522.07	39.70750991	-80.35475486
	15255.00	92.36	322.37	7905.75	6612.75	7553.38	5296.74	-5438.55	2.47	0.89	2.31	441020.77	1759462.68	39.70771169	-80.35496845
	15350.00	91.64	320.70	7902.44	6609.44	7648.28	5371.08	-5497.61	1.91	-0.76	-1.76	441095.10	1759403.62	39.70791420	-80.35518084
	15444.00	91.85	321.29	7899.57	6606.57	7742.22	5444.09	-5556.74	0.67	0.22	0.63	441168.11	1759344.49	39.70811309	-80.35539348
	15539.00	91.99	321.45	7896.39	6603.39	7837.14	5518.26	-5616.02	0.22	0.15	0.17	441242.28	1759285.22	39.70831515	-80.35560665
	15634.00	92.16	319.93	7892.95	6599.95	7932.07	5591.72	-5676.16	1.61	0.18	-1.60	441315.73	1759225.08	39.70851522	-80.35582288
	15728.00	91.65	318.46	7889.83	6596.83	8026.00	5662.83	-5737.55	1.65	-0.54	-1.56	441386.83	1759163.70	39.70870882	-80.35604348
	15823.00	91.88	318.77	7886.90	6593.90	8120.93	5734.07	-5800.33	0.41	0.24	0.33	441458.07	1759100.92	39.70890276	-80.35626900
	15917.00	91.71	318.74	7883.96	6590.96	8214.86	5804.71	-5862.27	0.18	-0.18	-0.03	441528.71	1759038.99	39.70909506	-80.35649154
	16012.00	91.78	318.94	7881.06	6588.06	8309.80	5876.20	-5924.77	0.22	0.07	0.21	441600.20	1758976.49	39.70928968	-80.35671608
	16106.00	91.72	318.45	7878.19	6585.19	8403.73	5946.78	-5986.78	0.52	-0.06	-0.52	441670.77	1758914.48	39.70948181	-80.35693889
	16201.00	92.05	319.09	7875.07	6582.07	8498.66	6018.19	-6049.36	0.76	0.35	0.67	441742.18	1758851.90	39.70967619	-80.35716372
	16294.00	91.74	318.59	7871.99	6578.99	8591.59	6088.17	-6110.54	0.63	-0.33	-0.54	441812.15	1758790.73	39.70986669	-80.35738351
	16388.00	92.06	319.00	7868.88	6575.88	8685.51	6158.85	-6172.43	0.55	0.34	0.44	441882.83	1758728.85	39.71005910	-80.35760587
	16482.00	92.84	319.34	7864.86	6571.86	8779.42	6229.91	-6233.83	0.91	0.83	0.36	441953.88	1758667.45	39.71025256	-80.35782651
	16576.00	92.54	319.08	7860.45	6567.45	8873.30	6301.00	-6295.17	0.42	-0.32	-0.28	442024.97	1758606.11	39.71044611	-80.35804694
	16671.00	92.09	318.08	7856.61	6563.61	8968.20	6372.18	-6357.97	1.15	-0.47	-1.05	442096.14	1758543.32	39.71063986	-80.35827254
	16765.00	92.17	318.80	7853.12	6560.12	9062.10	6442.47	-6420.28	0.77	0.09	0.77	442166.43	1758481.01	39.71083117	-80.35849641
	16860.00	92.32	318.99	7849.39	6556.39	9157.01	6514.00	-6482.69	0.25	0.16	0.20	442237.95	1758418.60	39.71102589	-80.35872065
	16954.00	92.15	319.76	7845.73	6552.73	9250.93	6585.29	-6543.85	0.84	-0.18	0.82	442309.24	1758357.45	39.71121999	-80.35894043
	17049.00	91.86	318.82	7842.40	6549.40	9345.86	6657.25	-6605.77	1.03	-0.31	-0.99	442381.20	1758295.53	39.71141592	-80.35916297
	17143.00	91.42	318.55	7839.71	6546.71	9439.80	6727.83	-6667.81	0.55	-0.47	-0.29	442451.77	1758233.50	39.71160803	-80.35938584
Final Surveys	17167.00	91.20	319.07	7839.17	6546.17	9463.79	6745.88	-6683.61	2.35	-0.92	2.17	442469.82	1758217.70	39.71165718	-80.35944262
Projection to TD	17196.00	91.20	319.07	7838.56	6545.56	9492.78	6767.79	-6702.60	0.00	0.00	0.00	442491.73	1758198.70	39.71171681	-80.35951087

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 WDTN19BHSM Surveys 0ft to 17196ft MD
	1	29.000	29.000	Act Sins	17.500	13.375	A020Ga_GYRO-NS-Depth Only	Original Borehole / CNX WDTN19BHSM Surveys 0ft to 17196ft MD
	1	29.000	1180.000	Act Sins	17.500	13.375	A020Ga_GYRO-NS	Original Borehole / CNX WDTN19BHSM Surveys 0ft to
	1	1180.000	3100.000	Act Sins	12.250	9.625	A001Mb_MWD	Original Borehole / CNX WDTN19BHSM Surveys 0ft to
	1	3100.000	5520.000	Act Sins	8.750	5.500	A001Mb_MWD	Original Borehole / CNX WDTN19BHSM Surveys 0ft to
	1	5520.000	17196.000	Act Sins	8.500	5.500	B006Mb_MWD+IGRF	Original Borehole / CNX WDTN19BHSM Surveys 0ft to

...CNX WDTN19 Pad\WDTN19BHSM\Original Borehole\CNX WDTN19BHSM Surveys 0ft to 17196ft MD

