

SOUTHWESTERN ENERGY

Location: Wetzel County, WV
 Field: Wetzel
 Facility: Daniel Durg Pad
 Slot: Slot 210H
 Well: Daniel Durg WTZ 210H
 Wellbore: Daniel Durg WTZ 210H PWB

Grid System: NAD83 UTM Zone 17 North, US feet
* Wellpath was transformed from a different geoidic datum
North Reference: Grid north
Scale: True distance
Depth: are in feet
Created by: thornauz on 2018-03-01
Database: WA_Pennsylvania

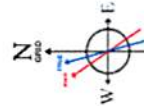
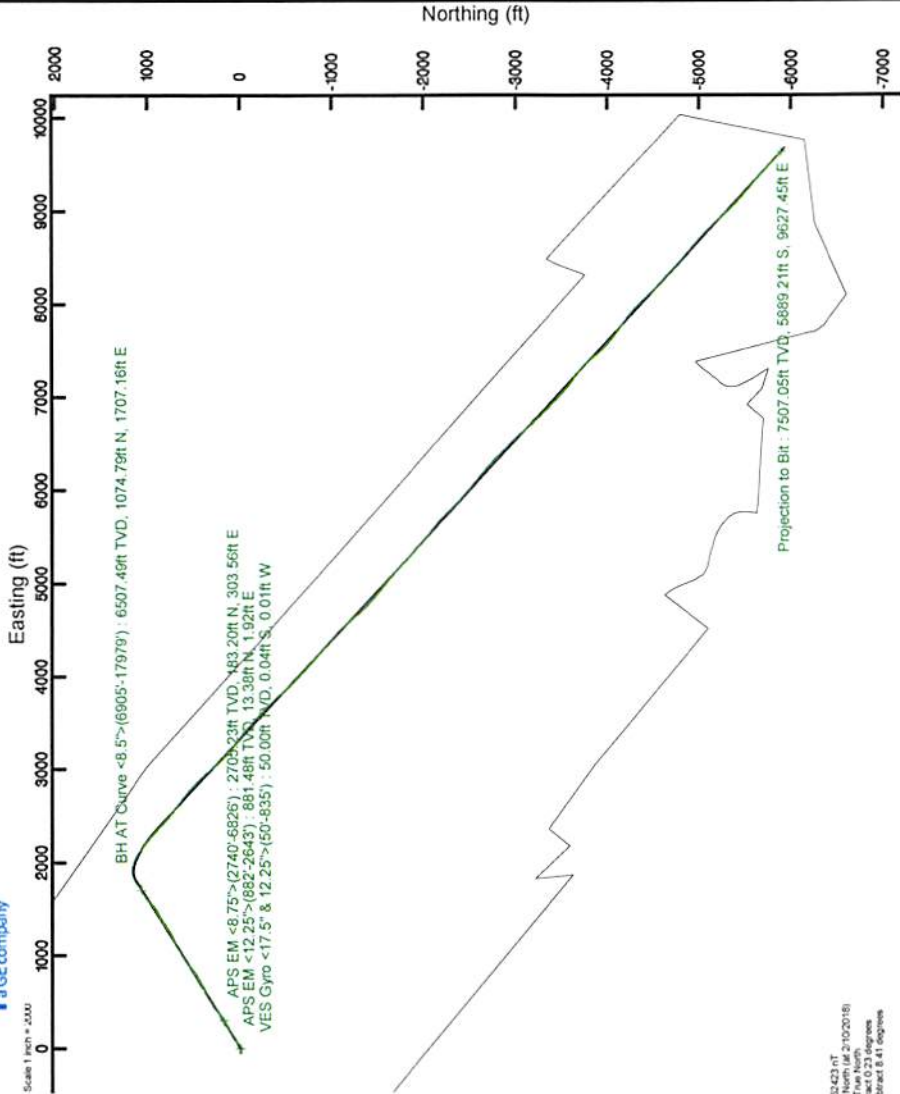
API: 47-103-03205-0000
Job #: 8841916
Rig: SDC 46
Duration: 02/23/2018 - 02/28/2018

True vertical depth is referenced to SDC 46 (KB)
 Measured depths are referenced to SDC 46 (KB)
 SDC 46 (KB) to Mean Sea Level: 1427 feet
 Mean Sea Level to Ground level (At Slot, Slot 210H): -1401 feet
 Coordinates are in feet referenced to Slot

20in Conductor: 0.34° Inc, 126.00ft MD, 126.00ft TVD, -0.19ft VS
 13.375in Casing Surface 0.18° Inc, 537.00ft MD, 537.00ft TVD, -1.71ft VS
 APS EM <12.25>(60-835) : 0.19° Inc, 50.00ft MD, 50.00ft TVD, 0.01ft VS
 APS EM <6.75>(2740-6826) : 5.76° Inc, 2740.00ft MD, 2705.23ft TVD, 163.05ft VS
 APS EM <12.25>(682-2643) : 6.60° Inc, 862.00ft MD, 861.46ft TVD, -5.36ft VS

Location Information

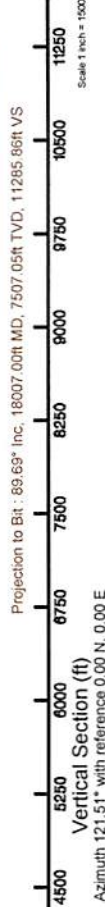
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Daniel Durg Pad	1741901.656	1442390.627	39°43'00.527"N	80°38'20.787"W
Slot	Local E (ft)	Local N (ft)	Latitude	Longitude
Slot 210H	18.58	15.71	39°43'00.717"N	80°38'20.581"W
SDC 46 (KB) to Ground level (At Slot, Slot 210H)	26ft			
Mean Sea Level to Ground level (At Slot, Slot 210H)	-1401ft			
SDC 46 (KB) to Mean Sea Level	1427ft			



User specified Dip: 66.91° Feet: 52423 ft
 Magnetic North is 0.23 degrees East of True North
 Grid North is 0.23 degrees East of True North
 To correct azimuth from True to Grid subtract 0.23 degrees
 To correct azimuth from Magnetic to Grid subtract 8.41 degrees

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BH AT Curve <8.5>(6905-17979) : 6507.46ft TVD, 1074.79ft N, 1707.16ft E



REFERENCE WELLPATH IDENTIFICATION			
Operator	SOUTHWESTERN ENERGY	Slot	Slot 210H
Area	Wetzel County, WV	Well	Daniel Durig WTZ 210H
Field	Wetzel	Wellbore	Daniel Durig WTZ 210H AWP
Facility	Daniel Durig Pad		

REPORT SETUP INFORMATION			
Projection System	NAD83 / UTM Zone 17 North, US feet	Software System	WellArchitect® 5.0
North Reference	Grid	User	Thomsuzc
Scale	0.999612	Report Generated	3/1/2018 at 1:42:32 PM
Convergence at slot	0.24° East	Database/Source file	WA_Pennsylvania/Daniel_Durig_WTZ_210H_AWP_Proj__18007_MD.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	18.58	15.71	1741917.36	14423839.20	39°43'00.712"N	80°38'20.581"W
Facility Reference Pt			1741901.66	14423820.63	39°43'00.529"N	80°38'20.783"W
Field Reference Pt			0.00	0.00	0°00'00.000"	85°29'19.478"W

WELLPATH DATUM			
Calculation method	Minimum curvature	SDC 46 (KB) to Facility Vertical Datum	1427.00ft
Horizontal Reference Pt	Slot	SDC 46 (KB) to Mean Sea Level	1427.00ft
Vertical Reference Pt	SDC 46 (KB)	SDC 46 (KB) to Ground Level at Slot (Slot 210H)	26.00ft
MD Reference Pt	SDC 46 (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	121.51°

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Area	Wetzel County, WV	Well	Daniel Durig WTZ 210H
Field	Wetzel	Wellbore	Daniel Durig WTZ 210H AWB
Facility	Daniel Durig Pad		

WELLPATH DATA (212 stations) † = interpolated/extrapolated station															
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
0.00†	0.000	195.750	0.00	0.00	0.00	0.00	1741917.36	14423839.20	39°43'00.712"N	80°38'20.581"W	0.00	0.000	0.00	0.00	0.00
26.00	0.000	195.750	26.00	0.00	0.00	0.00	1741917.36	14423839.20	39°43'00.712"N	80°38'20.581"W	0.00	0.000	0.00	0.00	0.00
50.00	0.190	195.750	50.00	0.01	-0.04	-0.01	1741917.35	14423839.16	39°43'00.712"N	80°38'20.581"W	0.04	195.750	0.79	0.79	-684.38
100.00	0.360	257.150	100.00	-0.08	-0.15	-0.19	1741917.17	14423839.05	39°43'00.710"N	80°38'20.583"W	0.24	230.623	0.63	0.34	122.80
150.00	0.330	259.070	150.00	-0.30	-0.22	-0.48	1741916.88	14423838.98	39°43'00.710"N	80°38'20.587"W	0.53	245.889	0.06	-0.06	3.84
200.00	0.290	292.260	200.00	-0.53	-0.19	-0.74	1741916.62	14423839.01	39°43'00.710"N	80°38'20.590"W	0.76	255.254	0.36	-0.08	66.38
250.00	0.340	317.320	250.00	-0.80	-0.04	-0.96	1741916.40	14423839.16	39°43'00.712"N	80°38'20.593"W	0.96	267.748	0.29	0.10	50.12
300.00	0.070	266.910	300.00	-0.96	0.07	-1.09	1741916.27	14423839.27	39°43'00.713"N	80°38'20.595"W	1.09	273.669	0.60	-0.54	-100.82
350.00	0.230	317.540	350.00	-1.09	0.14	-1.19	1741916.17	14423839.34	39°43'00.713"N	80°38'20.596"W	1.19	276.833	0.39	0.32	101.26
400.00	0.270	324.240	400.00	-1.29	0.31	-1.32	1741916.04	14423839.51	39°43'00.715"N	80°38'20.598"W	1.36	283.261	0.10	0.08	13.40
450.00	0.170	338.380	450.00	-1.46	0.48	-1.42	1741915.94	14423839.68	39°43'00.717"N	80°38'20.599"W	1.50	288.555	0.23	-0.20	28.28
500.00	0.270	350.210	500.00	-1.60	0.66	-1.47	1741915.89	14423839.86	39°43'00.719"N	80°38'20.600"W	1.61	294.275	0.22	0.20	23.66
550.00	0.210	269.700	550.00	-1.75	0.78	-1.58	1741915.78	14423839.98	39°43'00.720"N	80°38'20.601"W	1.76	296.213	0.63	-0.12	-161.02
600.00	0.950	329.070	599.99	-2.20	1.13	-1.88	1741915.48	14423840.33	39°43'00.723"N	80°38'20.605"W	2.20	301.017	1.72	1.48	118.74
650.00	1.350	318.350	649.98	-3.13	1.93	-2.49	1741914.87	14423841.13	39°43'00.731"N	80°38'20.613"W	3.15	307.776	0.91	0.80	-21.44
700.00	1.900	331.350	699.96	-4.41	3.10	-3.28	1741914.09	14423842.29	39°43'00.743"N	80°38'20.623"W	4.51	313.373	1.32	1.10	26.00
750.00	2.470	356.200	749.93	-5.75	4.90	-3.75	1741913.62	14423844.10	39°43'00.785"N	80°38'20.629"W	6.17	322.597	2.18	1.14	49.70
800.00	3.740	29.680	799.86	-6.43	7.39	-3.01	1741914.35	14423846.59	39°43'00.785"N	80°38'20.619"W	7.98	337.845	4.32	2.54	66.96
835.00	5.540	36.640	834.74	-6.31	9.74	-1.44	1741915.93	14423848.93	39°43'00.808"N	80°38'20.599"W	9.84	351.615	5.38	5.14	19.89
882.00	6.600	47.660	881.48	-5.36	13.38	1.92	1741919.27	14423852.57	39°43'00.844"N	80°38'20.556"W	13.51	8.148	3.34	2.26	23.45
928.00	7.080	55.070	927.15	-3.49	16.78	6.19	1741923.55	14423855.97	39°43'00.878"N	80°38'20.501"W	17.89	20.258	2.18	1.04	16.11
1021.00	8.920	65.860	1019.25	2.87	23.01	17.47	1741934.83	14423862.20	39°43'00.939"N	80°38'20.356"W	28.89	37.210	2.55	1.98	11.60
1068.00	9.510	69.760	1065.64	7.33	25.85	24.44	1741941.79	14423865.04	39°43'00.966"N	80°38'20.267"W	35.57	43.401	1.83	1.26	8.30
1160.00	8.950	68.710	1156.45	16.36	31.07	38.24	1741955.59	14423870.26	39°43'01.018"N	80°38'20.090"W	49.27	50.903	0.64	-0.61	-1.14
1253.00	8.760	68.270	1248.34	24.97	36.32	51.56	1741968.90	14423875.51	39°43'01.069"N	80°38'19.919"W	63.07	54.837	0.22	-0.20	-0.47
1346.00	8.650	63.260	1340.27	32.89	42.09	64.38	1741981.72	14423881.27	39°43'01.125"N	80°38'19.755"W	76.92	56.826	0.82	-0.12	-5.39
1438.00	9.360	56.090	1431.14	39.64	49.38	76.77	1741994.10	14423888.56	39°43'01.197"N	80°38'19.596"W	91.28	57.252	1.44	0.77	-7.79
1531.00	11.230	52.530	1522.64	46.04	59.11	90.24	1742007.56	14423898.28	39°43'01.293"N	80°38'19.423"W	107.87	56.774	2.12	2.01	-3.83
1624.00	12.330	52.650	1613.68	52.87	70.64	105.32	1742022.64	14423909.81	39°43'01.406"N	80°38'19.230"W	126.81	56.149	1.18	1.18	0.13
1669.00	12.550	54.110	1657.62	56.48	76.42	113.10	1742030.41	14423915.59	39°43'01.463"N	80°38'19.130"W	136.50	55.953	0.85	0.49	3.24

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Actual Wellpath Report

Daniel Durig WTZ 210H AWP Proj: 18007 MD

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REFERENCE WELLPATH IDENTIFICATION

Operator	SOUTHWESTERN ENERGY
Area	Wetzel County, WV
Field	Wetzel
Facility	Daniel Durig Pad
Well	Daniel Durig WTZ 210H
Well	Daniel Durig WTZ 210H AWB
Wellbore	Daniel Durig WTZ 210H AWB

WELLPATH DATA (212 stations)

MD [ft] Inclination Azimuth [°] TVD [ft] Vert Sect North [ft] East [ft] Grid East [US ft] Grid North [US ft] Latitude Longitude Closure Dist Closure Dir DLS Build Rate Turn Rate [°/100ft]

1717.00	12.330	1704.50	60.52	82.43	121.51	1742038.83	14423921.60	39°43'01.522"N	80°38'19.022"W	146.83	55.849	0.57	-0.46	1.56
1809.00	14.420	61.900	1794.00	70.21	93.48	139.66	1742056.96	39°43'01.630"N	80°38'18.789"W	168.05	56.203	2.88	2.27	7.65
1902.00	14.400	62.470	1884.08	82.01	104.28	160.12	1742077.42	39°43'01.736"N	80°38'18.527"W	191.09	56.926	0.15	-0.02	0.61
1995.00	14.100	62.130	1974.21	93.73	114.92	180.39	1742097.68	39°43'01.841"N	80°38'18.267"W	213.89	57.501	0.33	-0.32	-0.37
2088.00	13.410	62.250	2064.55	105.01	125.24	199.95	1742117.23	39°43'01.942"N	80°38'18.016"W	235.93	57.940	0.74	-0.74	0.13
2180.00	12.440	62.140	2154.21	115.52	134.83	218.15	1742135.43	39°43'02.036"N	80°38'17.782"W	256.46	58.281	1.05	-1.05	-0.12
2272.00	11.880	59.040	2244.15	124.94	144.34	235.04	1742152.30	39°43'02.129"N	80°38'17.566"W	275.82	58.446	0.93	-0.61	-3.37
2365.00	11.520	59.500	2335.22	133.72	153.98	251.25	1742168.51	39°43'02.224"N	80°38'17.358"W	294.67	58.498	0.40	-0.39	0.49
2458.00	10.720	60.130	2426.47	142.23	163.00	266.75	1742184.00	39°43'02.312"N	80°38'17.159"W	312.61	58.573	0.87	-0.86	0.68
2551.00	9.660	61.780	2518.00	150.30	170.99	281.12	1742198.37	39°43'02.391"N	80°38'16.975"W	329.04	58.690	1.18	-1.14	1.77
2643.00	7.880	62.130	2608.92	157.41	177.59	293.50	1742210.75	39°43'02.455"N	80°38'16.816"W	343.05	58.823	1.94	-1.93	0.38
2740.00	5.760	59.170	2705.23	163.05	183.20	303.56	1742220.80	39°43'02.510"N	80°38'16.687"W	354.56	58.889	2.21	-2.19	-3.05
2833.00	7.810	54.920	2797.58	167.73	189.22	312.74	1742229.98	39°43'02.570"N	80°38'16.569"W	365.53	58.824	2.27	2.20	-4.57
2925.00	11.720	51.500	2888.23	173.41	198.63	325.17	1742242.41	39°43'02.662"N	80°38'16.410"W	381.04	58.581	4.29	4.25	-3.72
3018.00	12.000	55.540	2979.24	180.58	209.98	340.54	1742257.76	39°43'02.774"N	80°38'16.212"W	400.07	58.341	0.94	0.30	4.34
3111.00	13.570	58.320	3069.94	189.44	221.18	357.79	1742275.01	39°43'02.884"N	80°38'15.991"W	420.64	58.276	1.81	1.69	2.99
3204.00	21.100	54.440	3158.65	200.90	236.67	380.73	1742297.94	39°43'03.036"N	80°38'15.697"W	448.30	58.134	8.19	8.10	-4.17
3296.00	24.300	50.920	3243.52	213.64	258.24	408.91	1742326.11	39°43'03.248"N	80°38'15.335"W	483.62	57.726	3.78	3.48	-3.83
3389.00	24.510	53.090	3328.21	227.10	281.89	439.18	1742356.37	39°43'03.480"N	80°38'14.946"W	521.87	57.306	0.99	0.23	2.33
3482.00	25.070	58.230	3412.65	243.05	303.85	471.36	1742388.54	39°43'03.696"N	80°38'14.533"W	560.81	57.193	2.39	0.60	5.53
3575.00	24.560	58.200	3497.06	260.59	324.41	504.54	1742421.71	39°43'03.898"N	80°38'14.108"W	599.84	57.260	0.55	-0.55	-0.03
3667.00	25.460	62.540	3580.43	277.80	345.15	537.44	1742454.59	39°43'04.102"N	80°38'13.686"W	638.73	57.291	1.05	0.98	-0.91
3760.00	26.750	67.500	3663.96	297.31	365.59	572.85	1742489.99	39°43'04.302"N	80°38'13.231"W	679.57	57.454	2.81	1.39	5.57
3856.00	26.680	64.890	3749.71	320.31	384.70	611.54	1742528.66	39°43'04.489"N	80°38'12.735"W	722.48	57.827	1.10	-0.07	2.45
3949.00	25.100	63.040	3833.38	342.11	402.50	648.03	1742565.14	39°43'04.664"N	80°38'12.267"W	762.86	58.155	1.91	-1.70	-1.99
4041.00	26.050	60.450	3916.36	362.09	421.31	683.00	1742600.09	39°43'04.848"N	80°38'11.819"W	802.49	58.331	1.59	1.03	-2.82
4134.00	27.970	60.950	3999.22	382.69	441.98	719.83	1742636.91	39°43'05.051"N	80°38'11.346"W	844.69	58.450	2.08	2.06	0.54
4227.00	27.890	62.270	4081.38	404.54	462.69	758.15	1742675.22	39°43'05.254"N	80°38'10.855"W	888.19	58.605	0.67	-0.09	1.42
4320.00	27.250	54.510	4163.85	423.99	485.18	794.75	1742711.80	39°43'05.475"N	80°38'10.385"W	931.14	58.597	3.92	-0.69	-8.34
4412.00	26.210	52.820	4246.02	439.60	509.68	828.09	1742745.13	39°43'05.716"N	80°38'09.958"W	972.37	58.388	1.40	-1.13	-1.84

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Daniel Durig WTZ 210H AWP Proj: 18007MD
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Field	Wetzel	Wellbore	Daniel Durig WTZ 210H AWB
Facility	Daniel Durig Pad		

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4505.00	24.380	52.960	4330.10	454.09	533.66	859.78	1742776.80	14424372.65	39°43'05.952"N	80°38'09.551"W	1011.93	58.172	1.97	-1.97	0.15
4598.00	23.070	52.870	4415.24	467.74	556.22	889.63	1742806.64	14424395.20	39°43'06.173"N	80°38'09.168"W	1049.20	57.985	1.41	-1.41	-0.10
4691.00	22.400	55.150	4501.01	481.49	577.35	918.70	1742835.70	14424416.32	39°43'06.381"N	80°38'08.795"W	1085.05	57.853	1.19	-0.72	2.45
4784.00	23.480	54.330	4586.66	495.78	598.28	948.29	1742865.28	14424437.24	39°43'06.587"N	80°38'08.415"W	1121.25	57.752	1.21	1.16	-0.88
4876.00	25.960	61.800	4670.24	513.05	618.49	980.94	1742897.92	14424457.45	39°43'06.785"N	80°38'07.996"W	1159.64	57.768	4.33	2.70	8.12
4969.00	24.910	58.020	4754.23	532.06	638.48	1015.50	1742932.46	14424477.43	39°43'06.981"N	80°38'07.553"W	1199.54	57.841	2.08	-1.13	-4.06
5062.00	25.480	56.290	4838.38	549.19	659.96	1048.75	1742965.70	14424498.90	39°43'07.192"N	80°38'07.126"W	1239.12	57.819	1.00	0.61	-1.86
5154.00	25.080	58.720	4921.57	566.40	681.06	1081.88	1742998.81	14424520.00	39°43'07.399"N	80°38'06.701"W	1278.40	57.809	1.21	-0.43	2.64
5247.00	25.280	61.600	5005.74	585.37	700.74	1116.19	1743033.12	14424539.67	39°43'07.593"N	80°38'06.261"W	1317.92	57.879	1.33	0.22	3.10
5340.00	25.990	66.510	5089.60	607.01	718.31	1152.35	1743069.26	14424557.23	39°43'07.765"N	80°38'05.797"W	1357.90	58.063	2.41	0.76	5.28
5432.00	26.840	63.690	5171.99	629.64	735.55	1189.46	1743106.35	14424574.47	39°43'07.934"N	80°38'05.321"W	1398.52	58.268	1.65	0.92	-3.07
5525.00	27.910	63.930	5254.58	652.49	754.42	1227.83	1743144.71	14424593.33	39°43'08.119"N	80°38'04.829"W	1441.08	58.432	1.16	1.15	0.26
5618.00	26.970	57.570	5337.13	673.43	775.30	1265.19	1743182.06	14424614.20	39°43'08.323"N	80°38'04.350"W	1483.85	58.500	3.31	-1.01	-6.84
5713.00	25.640	54.000	5422.30	690.76	798.94	1300.01	1743216.86	14424637.83	39°43'08.556"N	80°38'03.903"W	1525.88	58.427	2.18	-1.40	-3.76
5806.00	23.970	54.000	5506.71	705.68	821.87	1331.57	1743248.41	14424660.75	39°43'08.781"N	80°38'03.498"W	1564.79	58.316	1.80	-1.80	0.00
5899.00	23.280	53.760	5591.92	719.86	843.84	1361.68	1743278.51	14424682.71	39°43'08.997"N	80°38'03.112"W	1601.95	58.213	0.75	-0.74	-0.26
5991.00	23.090	61.960	5676.51	735.90	863.07	1392.27	1743309.09	14424701.94	39°43'09.186"N	80°38'02.719"W	1638.08	58.205	3.51	-0.21	8.91
6084.00	23.830	62.450	5761.82	754.80	880.34	1425.02	1743341.83	14424719.19	39°43'09.355"N	80°38'02.299"W	1675.02	58.293	0.82	0.80	0.53
6177.00	25.840	59.220	5846.22	773.88	899.40	1459.10	1743375.89	14424738.25	39°43'09.542"N	80°38'01.862"W	1714.03	58.350	2.61	2.16	-3.47
6270.00	25.850	56.040	5929.92	791.73	921.10	1493.33	1743410.11	14424759.94	39°43'09.755"N	80°38'01.423"W	1754.55	58.333	1.49	0.01	-3.42
6362.00	25.120	55.110	6012.97	807.87	943.47	1525.98	1743442.75	14424782.31	39°43'09.975"N	80°38'01.004"W	1794.09	58.273	0.90	-0.79	-1.01
6455.00	25.290	48.520	6097.13	821.59	967.93	1557.06	1743473.82	14424806.75	39°43'10.215"N	80°38'00.605"W	1833.39	58.133	3.02	0.18	-7.09
6548.00	24.500	50.410	6181.49	833.65	993.38	1586.81	1743503.55	14424832.19	39°43'10.466"N	80°38'00.223"W	1872.10	57.953	1.21	-0.85	2.03
6641.00	23.930	54.560	6266.32	847.28	1016.60	1617.04	1743533.77	14424855.41	39°43'10.694"N	80°37'59.835"W	1910.05	57.843	1.93	-0.61	4.46
6734.00	24.170	54.610	6351.24	862.13	1038.57	1647.92	1743564.64	14424877.36	39°43'10.910"N	80°37'59.438"W	1947.89	57.780	0.26	0.26	0.05
6826.00	23.860	59.320	6435.29	878.20	1058.97	1679.28	1743595.99	14424897.76	39°43'11.110"N	80°37'59.036"W	1985.30	57.764	2.11	-0.34	5.12
6905.00	24.020	61.540	6507.49	893.71	1074.79	1707.16	1743623.86	14424913.57	39°43'11.265"N	80°37'58.678"W	2017.32	57.807	1.16	0.20	2.81
6997.00	25.780	56.260	6590.95	911.46	1094.82	1740.27	1743656.95	14424933.60	39°43'11.462"N	80°37'58.254"W	2056.01	57.825	3.08	1.91	-5.74
7090.00	25.760	52.850	6674.70	927.28	1118.26	1773.19	1743689.86	14424957.03	39°43'11.692"N	80°37'57.831"W	2096.36	57.762	1.59	-0.02	-3.67
7183.00	25.830	54.560	6758.44	942.56	1142.22	1805.81	1743722.46	14424980.97	39°43'11.928"N	80°37'57.412"W	2136.73	57.686	0.80	0.08	1.84

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Actual Wellpath Report

Daniel Durig WTZ 210H AWP Proj: 18007 MD
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REFERENCE WELLPATH IDENTIFICATION

Operator	SOUTHWESTERN ENERGY
Area	Well County, WV
Field	Wellbore
Facility	Daniel Durig Pad
	Daniel Durig WTZ 210H AWP
	Daniel Durig WTZ 210H
	Slot 210H

WELLPATH DATA (212 stations)															
MD	Inclination	Azimuth	TVD	Vert Sect	North	East	Grid East	Grid North	Latitude	Longitude	Closure Dist	Dist	Closure Dir	Turn Rate	
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(US ft)	(US ft)	(°)	(°)	(ft)	(ft)	(°)	(°/100ft)	
7275.00	27.290	64.830	6840.77	962.01	1162.82	1841.25	1743757.89	14425001.57	39°43'12.130"N	80°37'56.958"W	2177.69	2177.69	57.726	5.23	1.59
7368.00	32.560	82.800	6921.51	993.33	1175.06	1885.49	1743802.11	14425013.80	39°43'12.249"N	80°37'56.391"W	2221.67	2221.67	58.068	11.13	5.67
7461.00	39.070	99.510	6997.06	1040.20	1173.34	1939.41	1743856.01	14425012.09	39°43'12.230"N	80°37'55.701"W	2266.73	2266.73	58.826	12.58	7.00
7553.00	46.290	113.640	7064.81	1100.23	1155.16	1998.68	1743915.26	14424993.90	39°43'12.048"N	80°37'54.944"W	2308.49	2308.49	59.974	13.00	7.85
7646.00	54.570	120.210	7124.04	1171.58	1122.53	2062.37	1743978.92	14424961.30	39°43'11.723"N	80°37'54.130"W	2348.07	2348.07	61.441	10.43	8.90
7739.00	63.410	123.100	7171.91	1251.20	1080.67	2130.09	1744046.62	14424919.45	39°43'11.306"N	80°37'53.266"W	2388.54	2388.54	63.100	9.87	9.51
7785.00	68.680	125.160	7190.58	1293.17	1057.08	2164.86	1744081.38	14424895.87	39°43'11.072"N	80°37'52.822"W	2409.16	2409.16	63.974	12.16	11.46
7832.00	71.480	126.380	7206.59	1337.23	1031.25	2200.71	1744117.21	14424870.05	39°43'10.815"N	80°37'52.365"W	2430.35	2430.35	64.892	6.44	5.96
7878.00	76.790	128.640	7219.17	1381.22	1004.31	2235.79	1744152.28	14424843.12	39°43'10.547"N	80°37'51.917"W	2451.00	2451.00	65.810	12.47	11.54
7925.00	79.950	130.590	7228.64	1426.78	974.96	2271.24	1744187.72	14424813.78	39°43'10.256"N	80°37'51.465"W	2471.66	2471.66	66.768	7.86	6.72
7971.00	84.600	132.770	7234.82	1471.63	944.66	2305.27	1744221.73	14424783.49	39°43'09.955"N	80°37'51.031"W	2491.32	2491.32	67.717	11.15	10.11
8018.00	84.950	133.240	7239.10	1517.50	912.73	2339.50	1744255.95	14424751.58	39°43'09.638"N	80°37'50.595"W	2511.24	2511.24	68.687	1.24	0.74
8064.00	87.070	133.440	7242.30	1562.41	881.24	2372.87	1744289.31	14424720.10	39°43'09.326"N	80°37'50.169"W	2531.23	2531.23	69.626	4.63	4.61
8110.00	89.140	133.530	7243.82	1607.38	849.60	2406.23	1744322.65	14424688.47	39°43'09.012"N	80°37'49.744"W	2551.81	2551.81	70.553	4.50	0.20
8203.00	89.230	130.720	7245.15	1698.77	787.24	2475.19	1744391.58	14424626.13	39°43'08.392"N	80°37'48.865"W	2597.36	2597.36	72.357	3.02	0.10
8296.00	89.080	127.910	7246.52	1790.89	728.33	2547.13	1744463.49	14424567.24	39°43'07.807"N	80°37'47.947"W	2649.21	2649.21	74.043	3.03	-0.16
8389.00	88.890	128.190	7248.17	1883.27	671.02	2620.35	1744536.69	14424509.95	39°43'07.238"N	80°37'47.013"W	2704.90	2704.90	75.636	0.36	-0.20
8481.00	88.680	127.900	7250.12	1974.65	614.33	2692.79	1744609.09	14424453.29	39°43'06.675"N	80°37'46.089"W	2761.97	2761.97	77.149	0.39	-0.23
8574.00	88.250	129.650	7252.61	2066.87	556.11	2765.26	1744681.54	14424395.09	39°43'06.096"N	80°37'45.165"W	2820.62	2820.62	78.629	1.94	-0.46
8667.00	88.120	133.600	7255.56	2158.36	494.38	2834.73	1744750.98	14424333.39	39°43'05.483"N	80°37'44.279"W	2877.52	2877.52	80.107	4.25	-0.14
8759.00	88.520	139.050	7258.25	2247.23	427.89	2898.21	1744814.44	14424266.92	39°43'04.824"N	80°37'43.470"W	2929.63	2929.63	81.602	5.94	0.43
8852.00	89.420	137.400	7259.93	2336.28	358.55	2960.15	1744876.36	14424197.61	39°43'04.136"N	80°37'42.681"W	2981.79	2981.79	83.094	2.02	0.97
8945.00	89.420	138.280	7260.87	2425.52	289.62	3022.57	1744938.75	14424128.70	39°43'03.452"N	80°37'41.886"W	3036.42	3036.42	84.527	0.95	0.00
9038.00	89.350	136.630	7261.87	2514.94	221.10	3085.45	1745001.61	14424060.22	39°43'02.773"N	80°37'41.085"W	3093.36	3093.36	85.901	1.78	-0.08
9130.00	89.660	133.890	7262.66	2604.29	155.77	3150.20	1745066.33	14423994.90	39°43'02.124"N	80°37'40.260"W	3154.05	3154.05	87.169	3.00	0.34
9223.00	89.320	129.490	7263.49	2695.80	93.93	3219.63	1745135.73	14423933.09	39°43'01.510"N	80°37'39.375"W	3221.00	3221.00	88.329	4.75	-0.37
9315.00	88.710	127.400	7265.07	2787.11	36.74	3291.67	1745207.74	14423875.92	39°43'00.942"N	80°37'38.456"W	3291.87	3291.87	89.361	2.37	-0.66
9408.00	88.950	127.260	7266.97	2879.61	-19.65	3365.60	1745281.65	14423819.56	39°43'00.382"N	80°37'37.513"W	3365.66	3365.66	90.334	0.30	0.26
9501.00	88.890	129.340	7268.72	2971.93	-77.27	3438.57	1745354.59	14423761.96	39°42'59.809"N	80°37'36.582"W	3439.44	3439.44	91.287	2.24	-0.06
9593.00	88.650	132.100	7270.70	3062.72	-137.27	3508.27	1745424.27	14423701.98	39°42'59.213"N	80°37'35.694"W	3510.96	3510.96	92.241	3.01	-0.26

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Actual Wellpath Report

Daniel Durig WTZ 210H AWP Proj: 18007'MD
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REFERENCE WELLPATH IDENTIFICATION			
Operator	SOUTHWESTERN ENERGY	Slot	Slot 210H
Area	Wetzel County, WV	Well	Daniel Durig WTZ 210H
Field	Wetzel	Wellbore	Daniel Durig WTZ 210H AWB
Facility	Daniel Durig Pad		

WELLPATH DATA (212 stations)															
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
9686.00	88.890	133.490	7272.69	3153.90	-200.44	3576.50	1745492.46	14423638.84	39°42'58.586"N	80°37'34.824"W	3582.11	93.208	1.52	0.26	1.49
9779.00	89.020	135.400	7274.39	3244.52	-265.54	3642.88	1745558.82	14423573.76	39°42'57.940"N	80°37'33.978"W	3652.55	94.169	2.06	0.14	2.05
9872.00	88.150	135.100	7276.69	3334.83	-331.57	3708.33	1745624.25	14423507.76	39°42'57.285"N	80°37'33.144"W	3723.13	95.109	0.99	-0.94	-0.32
9965.00	87.690	138.810	7280.06	3424.39	-399.48	3771.76	1745687.65	14423439.88	39°42'56.611"N	80°37'32.336"W	3792.85	96.046	4.02	-0.49	3.99
10057.00	87.450	137.810	7283.97	3512.39	-468.12	3832.89	1745748.76	14423371.27	39°42'55.930"N	80°37'31.557"W	3861.37	96.963	1.12	-0.26	-1.09
10150.00	87.810	134.980	7287.81	3602.18	-535.39	3896.97	1745812.81	14423304.01	39°42'55.263"N	80°37'30.741"W	3933.58	97.823	3.06	0.39	-3.04
10243.00	87.540	134.050	7291.58	3692.72	-600.54	3963.23	1745879.04	14423238.89	39°42'54.616"N	80°37'29.896"W	4008.47	98.616	1.04	-0.29	-1.00
10336.00	88.280	133.140	7294.98	3783.60	-664.63	4030.54	1745946.33	14423174.83	39°42'53.980"N	80°37'29.039"W	4084.97	99.364	1.26	0.80	-0.98
10428.00	87.480	132.700	7298.38	3873.72	-727.23	4097.86	1746013.63	14423112.25	39°42'53.359"N	80°37'28.180"W	4161.89	100.063	0.99	-0.87	-0.48
10521.00	87.720	131.050	7302.27	3965.11	-789.25	4167.05	1746082.78	14423050.25	39°42'52.743"N	80°37'27.298"W	4241.13	100.725	1.79	0.26	-1.77
10614.00	87.510	130.000	7306.14	4056.89	-849.63	4237.68	1746153.38	14422989.90	39°42'52.143"N	80°37'26.398"W	4322.01	101.337	1.15	-0.23	-1.13
10707.00	87.630	130.430	7310.09	4148.73	-909.62	4308.63	1746224.31	14422929.93	39°42'51.547"N	80°37'25.493"W	4403.60	101.921	0.48	0.13	0.46
10799.00	86.430	132.810	7314.85	4239.17	-970.64	4377.31	1746292.96	14422868.94	39°42'50.942"N	80°37'24.618"W	4483.63	102.503	2.89	-1.30	2.59
10892.00	87.480	132.600	7319.80	4330.27	-1033.62	4445.55	1746361.18	14422805.98	39°42'50.316"N	80°37'23.748"W	4564.13	103.089	1.15	1.13	-0.23
10985.00	87.540	134.070	7323.84	4421.21	-1097.38	4513.13	1746428.73	14422742.24	39°42'49.683"N	80°37'22.886"W	4644.63	103.666	1.58	0.06	1.58
11075.00	87.910	137.550	7327.41	4508.34	-1161.86	4575.81	1746491.38	14422677.80	39°42'49.044"N	80°37'22.088"W	4721.01	104.247	3.89	0.41	3.87
11167.00	87.940	140.370	7330.74	4596.04	-1231.20	4636.17	1746551.72	14422608.48	39°42'48.356"N	80°37'21.319"W	4796.86	104.872	3.06	0.03	3.07
11260.00	88.180	139.440	7333.89	4684.24	-1302.30	4696.03	1746611.56	14422537.41	39°42'47.651"N	80°37'20.557"W	4873.26	105.500	1.03	0.26	-1.00
11353.00	88.830	133.690	7336.32	4773.98	-1369.78	4759.92	1746675.42	14422469.96	39°42'46.981"N	80°37'19.743"W	4953.09	106.054	6.22	0.70	-6.18
11446.00	87.600	130.940	7339.22	4865.27	-1432.35	4828.65	1746744.12	14422407.41	39°42'46.360"N	80°37'18.867"W	5036.61	106.522	3.24	-1.32	-2.96
11538.00	87.540	129.410	7343.12	4956.14	-1491.64	4898.88	1746814.33	14422348.14	39°42'45.771"N	80°37'17.971"W	5120.94	106.935	1.66	-0.07	-1.66
11631.00	87.660	129.150	7347.01	5048.20	-1550.47	4970.80	1746886.22	14422289.33	39°42'45.187"N	80°37'17.054"W	5207.00	107.324	0.31	0.13	-0.28
11724.00	87.600	128.710	7350.86	5140.34	-1608.86	5043.09	1746958.48	14422230.97	39°42'44.606"N	80°37'16.133"W	5293.50	107.694	0.48	-0.06	-0.47
11816.00	87.470	131.560	7354.81	5231.21	-1668.10	5113.35	1747028.72	14422171.75	39°42'44.018"N	80°37'15.237"W	5378.56	108.068	3.10	-0.14	3.10
11909.00	87.450	132.530	7358.94	5322.55	-1730.32	5182.35	1747097.68	14422109.55	39°42'43.400"N	80°37'14.357"W	5463.58	108.464	1.04	-0.02	1.04
12002.00	87.480	134.280	7363.05	5413.46	-1794.16	5249.84	1747165.15	14422045.74	39°42'42.767"N	80°37'13.497"W	5547.96	108.868	1.88	0.03	1.88
12094.00	87.510	133.480	7367.07	5503.24	-1857.87	5316.09	1747231.38	14421982.05	39°42'42.134"N	80°37'12.653"W	5631.39	109.264	0.87	0.03	-0.87
12187.00	87.410	132.180	7371.19	5594.34	-1921.03	5384.23	1747299.49	14421918.92	39°42'41.507"N	80°37'11.784"W	5716.67	109.636	1.40	-0.11	-1.40
12280.00	87.660	132.730	7375.19	5685.56	-1983.75	5452.78	1747368.01	14421856.22	39°42'40.884"N	80°37'10.910"W	5802.42	109.992	0.65	0.27	0.59
12373.00	87.940	130.300	7378.76	5777.07	-2045.34	5522.36	1747437.56	14421794.66	39°42'40.273"N	80°37'10.023"W	5888.96	110.323	2.63	0.30	-2.61



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REFERENCE WELLPATH IDENTIFICATION			
Operator	SOUTHWESTERN ENERGY	Slot	Slot 210H
Area	Wetzel County, WV	Well	Daniel Durig WZ 210H
Field	Wetzel	Wellbore	Daniel Durig WZ 210H AWB
Facility	Daniel Durig Pad		

WELLPATH DATA (212 stations)																
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	
12466.00	88.000	127.680	7382.06	5869.22	-2103.81	5594.59	1747509.77	14421736.21	39°42'39.692"N	80°37'09.102"W	5977.08	110.608	2.82	0.06	-2.82	
12555.00	87.880	131.260	7385.26	5957.29	-2160.34	5663.24	1747578.39	14421679.70	39°42'39.130"N	80°37'08.227"W	6061.30	110.880	4.02	-0.13	4.02	
12648.00	87.910	135.820	7388.68	6048.16	-2224.35	5730.59	1747645.72	14421615.72	39°42'38.495"N	80°37'07.369"W	6147.15	111.214	4.90	0.03	4.90	
12740.00	88.800	136.990	7391.32	6137.03	-2290.95	5794.00	1747709.10	14421549.15	39°42'37.834"N	80°37'06.561"W	6230.48	111.574	1.60	0.97	1.27	
12833.00	88.890	133.600	7393.19	6227.32	-2357.02	5859.40	1747774.48	14421483.10	39°42'37.178"N	80°37'05.728"W	6315.71	111.913	3.65	0.10	-3.65	
12926.00	88.740	132.240	7395.12	6318.46	-2420.34	5927.49	1747842.54	14421419.81	39°42'36.550"N	80°37'04.860"W	6402.59	112.211	1.47	-0.16	-1.46	
13019.00	88.680	130.660	7397.21	6410.04	-2481.88	5997.18	1747912.20	14421358.29	39°42'35.939"N	80°37'03.972"W	6490.45	112.482	1.70	-0.06	-1.70	
13111.00	88.800	130.320	7399.23	6500.89	-2541.61	6067.13	1747982.12	14421298.59	39°42'35.345"N	80°37'03.080"W	6577.98	112.729	0.39	0.13	-0.37	
13204.00	88.800	130.340	7401.18	6592.77	-2601.78	6138.01	1748052.97	14421238.43	39°42'34.748"N	80°37'02.176"W	6666.67	112.971	0.02	0.00	0.02	
13297.00	88.210	130.720	7403.61	6684.59	-2662.20	6208.67	1748123.61	14421178.04	39°42'34.148"N	80°37'01.275"W	6755.36	113.209	0.75	-0.63	0.41	
13390.00	88.340	131.330	7406.41	6776.26	-2723.21	6278.80	1748193.71	14421117.05	39°42'33.542"N	80°37'00.381"W	6843.92	113.447	0.67	0.14	0.66	
13482.00	88.180	136.210	7409.20	6866.10	-2786.81	6345.18	1748260.07	14421053.48	39°42'32.910"N	80°36'59.535"W	6930.20	113.711	5.30	-0.17	5.30	
13575.00	88.370	136.240	7412.00	6956.01	-2853.93	6409.50	1748324.35	14420986.39	39°42'32.244"N	80°36'58.716"W	7016.16	114.002	0.21	0.20	0.03	
13667.00	88.430	133.250	7414.57	7045.52	-2918.66	6474.81	1748389.64	14420921.68	39°42'31.602"N	80°36'57.884"W	7102.23	114.264	3.25	0.07	-3.25	
13760.00	87.850	136.570	7417.59	7135.93	-2984.27	6540.63	1748455.43	14420856.09	39°42'30.951"N	80°36'57.045"W	7189.27	114.526	3.62	-0.62	3.57	
13852.00	87.880	138.640	7421.02	7224.25	-3052.16	6602.61	1748517.39	14420788.23	39°42'30.277"N	80°36'56.256"W	7273.94	114.810	2.25	0.03	2.25	
13945.00	88.150	137.810	7424.24	7313.27	-3121.48	6664.53	1748579.29	14420718.94	39°42'29.590"N	80°36'55.468"W	7359.32	115.097	0.94	0.29	-0.89	
14038.00	87.940	135.020	7427.41	7403.08	-3188.80	6728.60	1748643.34	14420651.65	39°42'28.922"N	80°36'54.651"W	7445.97	115.357	3.01	-0.23	-3.00	
14130.00	87.880	135.850	7430.77	7492.31	-3254.30	6793.12	1748707.83	14420586.17	39°42'28.271"N	80°36'53.830"W	7532.39	115.597	0.90	-0.07	0.90	
14223.00	87.880	134.360	7434.21	7582.64	-3320.13	6858.71	1748773.39	14420520.36	39°42'27.618"N	80°36'52.994"W	7620.05	115.830	1.60	0.00	-1.60	
14316.00	88.280	135.730	7437.32	7673.01	-3385.91	6924.38	1748839.04	14420454.61	39°42'26.965"N	80°36'52.157"W	7707.88	116.058	1.53	0.43	1.47	
14408.00	89.200	134.900	7439.35	7762.33	-3451.30	6989.06	1748903.69	14420389.25	39°42'26.316"N	80°36'51.333"W	7794.77	116.281	1.35	1.00	-0.90	
14501.00	88.860	131.110	7440.92	7853.43	-3514.71	7057.05	1748971.65	14420325.86	39°42'25.687"N	80°36'50.467"W	7883.85	116.475	4.09	-0.37	-4.08	
14594.00	88.030	128.500	7443.45	7945.42	-3574.22	7128.46	1749043.04	14420266.37	39°42'25.095"N	80°36'49.556"W	7974.33	116.629	2.94	-0.89	-2.81	
14687.00	88.120	126.690	7446.57	8037.84	-3630.92	7202.10	1749116.65	14420209.69	39°42'24.532"N	80°36'48.617"W	8065.60	116.755	1.95	0.10	-1.95	
14780.00	87.880	128.470	7449.82	8130.26	-3687.60	7275.76	1749190.28	14420153.04	39°42'23.969"N	80°36'47.678"W	8156.90	116.877	1.93	-0.26	1.91	
14872.00	88.120	134.590	7453.03	8220.75	-3748.53	7344.55	1749259.05	14420092.13	39°42'23.364"N	80°36'46.801"W	8245.85	117.039	6.65	0.26	6.65	
14965.00	88.770	140.190	7455.55	8310.14	-3816.93	7407.47	1749321.94	14420023.76	39°42'22.685"N	80°36'46.000"W	8333.04	117.261	6.06	0.70	6.02	
15058.00	87.780	140.310	7458.35	8398.16	-3888.40	7466.91	1749381.35	14419952.32	39°42'21.976"N	80°36'45.243"W	8418.69	117.508	1.07	-1.06	0.13	
15150.00	88.800	135.670	7461.10	8486.32	-3956.71	7528.43	1749442.86	14419884.04	39°42'21.298"N	80°36'44.460"W	8504.87	117.725	5.16	1.11	-5.04	

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Actual Wellpath Report

Daniel Durig WTZ 210H AWP Proj: 18007MD
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REFERENCE WELLPATH IDENTIFICATION			
Operator	SOUTHWESTERN ENERGY	Slot	Slot 210H
Area	Wetzel County, WV	Well	Daniel Durig WTZ 210H
Field	Wetzel	Wellbore	Daniel Durig WTZ 210H AWB
Facility	Daniel Durig Pad		

WELLPATH DATA (212 stations)																
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]	
15243.00	88.890	129.300	7462.98	8577.55	-4019.47	7596.97	1749511.36	14419821.30	39°42'20.675"N	80°36'43.587"W	8594.77	117.883	6.85	0.10	-6.85	
15336.00	88.830	125.890	7464.83	8670.00	-4076.19	7670.63	1749585.00	14419764.60	39°42'20.112"N	80°36'42.647"W	8686.42	117.986	3.67	-0.06	-3.67	
15429.00	88.890	126.310	7466.68	8762.68	-4130.97	7745.76	1749660.10	14419709.84	39°42'19.567"N	80°36'41.689"W	8778.48	118.072	0.46	0.06	0.45	
15522.00	88.770	128.050	7468.58	8855.20	-4187.16	7819.84	1749734.15	14419653.67	39°42'19.008"N	80°36'40.744"W	8870.30	118.167	1.88	-0.13	1.87	
15614.00	89.140	128.620	7470.26	8946.54	-4244.22	7891.99	1749806.27	14419596.64	39°42'18.442"N	80°36'39.824"W	8960.85	118.271	0.74	0.40	0.62	
15707.00	89.080	134.160	7471.70	9038.11	-4305.67	7961.72	1749875.98	14419535.21	39°42'17.831"N	80°36'38.935"W	9051.40	118.404	5.96	-0.06	5.96	
15800.00	89.260	136.900	7473.05	9128.32	-4372.03	8026.86	1749941.09	14419468.88	39°42'17.173"N	80°36'38.106"W	9140.30	118.576	2.95	0.19	2.95	
15892.00	89.200	136.350	7474.29	9217.13	-4438.89	8090.04	1750004.24	14419402.04	39°42'16.509"N	80°36'37.301"W	9227.81	118.753	0.60	-0.07	-0.60	
15985.00	89.260	135.030	7475.54	9307.29	-4505.43	8155.00	1750069.17	14419335.52	39°42'15.849"N	80°36'36.474"W	9316.81	118.920	1.42	0.06	-1.42	
16078.00	89.170	132.770	7476.81	9398.11	-4569.91	8222.00	1750136.15	14419271.07	39°42'15.209"N	80°36'35.620"W	9406.66	119.066	2.43	-0.10	-2.43	
16171.00	89.200	131.400	7478.13	9489.51	-4632.23	8291.01	1750205.13	14419208.77	39°42'14.590"N	80°36'34.741"W	9497.28	119.192	1.47	0.03	-1.47	
16263.00	88.650	133.610	7479.86	9579.80	-4694.38	8358.81	1750272.91	14419146.65	39°42'13.973"N	80°36'33.877"W	9586.81	119.319	2.48	-0.60	2.40	
16356.00	88.830	131.940	7481.90	9670.99	-4757.52	8427.06	1750341.13	14419083.54	39°42'13.346"N	80°36'33.007"W	9677.26	119.447	1.81	0.19	-1.80	
16449.00	88.650	130.560	7483.95	9762.62	-4818.82	8496.96	1750411.01	14419022.26	39°42'12.737"N	80°36'32.116"W	9768.29	119.559	1.50	-0.19	-1.48	
16542.00	88.770	132.270	7486.04	9854.21	-4880.32	8566.69	1750480.70	14418960.78	39°42'12.126"N	80°36'31.227"W	9859.29	119.670	1.84	0.13	1.84	
16634.00	88.710	133.240	7488.07	9944.42	-4942.76	8634.22	1750548.21	14418898.36	39°42'11.506"N	80°36'30.367"W	9948.90	119.790	1.06	-0.07	1.05	
16727.00	88.680	132.140	7490.18	10035.63	-5005.80	8702.56	1750616.53	14418835.35	39°42'10.880"N	80°36'29.496"W	10039.55	119.908	1.18	-0.03	-1.18	
16820.00	88.550	133.680	7492.43	10126.77	-5069.10	8770.65	1750684.59	14418772.08	39°42'10.252"N	80°36'28.628"W	10130.16	120.026	1.66	-0.14	1.66	
16913.00	89.290	137.090	7494.19	10217.02	-5135.28	8835.95	1750749.86	14418705.92	39°42'09.595"N	80°36'27.797"W	10219.84	120.164	3.75	0.80	3.67	
17005.00	89.720	136.680	7494.98	10305.73	-5202.44	8898.83	1750812.71	14418638.79	39°42'08.928"N	80°36'26.996"W	10307.98	120.311	0.65	0.47	-0.45	
17098.00	89.320	136.860	7495.76	10395.44	-5270.20	8962.52	1750876.39	14418571.06	39°42'08.256"N	80°36'26.185"W	10397.20	120.457	0.47	-0.43	0.19	
17191.00	89.600	136.450	7496.64	10485.21	-5337.83	9026.35	1750940.19	14418503.46	39°42'07.585"N	80°36'25.372"W	10486.54	120.598	0.53	0.30	-0.44	
17284.00	89.480	133.020	7497.38	10575.73	-5403.27	9092.41	1751006.22	14418438.04	39°42'06.935"N	80°36'24.530"W	10576.73	120.721	3.69	-0.13	-3.69	
17376.00	89.260	131.710	7498.39	10666.07	-5465.26	9160.38	1751074.16	14418376.07	39°42'06.320"N	80°36'23.664"W	10666.84	120.821	1.44	-0.24	-1.42	
17469.00	89.110	130.810	7499.72	10757.72	-5526.58	9230.28	1751144.04	14418314.77	39°42'05.711"N	80°36'22.773"W	10758.31	120.911	0.98	-0.16	-0.97	
17562.00	89.170	130.840	7501.11	10849.48	-5587.38	9300.64	1751214.38	14418254.00	39°42'05.107"N	80°36'21.877"W	10849.92	120.995	0.07	0.06	0.03	
17654.00	89.230	131.490	7502.40	10940.17	-5647.93	9369.90	1751283.60	14418193.48	39°42'04.505"N	80°36'20.994"W	10940.48	121.080	0.71	0.07	0.71	
17747.00	89.110	132.850	7503.74	11031.55	-5710.35	9438.82	1751352.49	14418131.08	39°42'03.885"N	80°36'20.116"W	11031.74	121.173	1.47	-0.13	1.46	
17840.00	89.200	134.670	7505.12	11122.42	-5774.67	9505.97	1751419.62	14418066.79	39°42'03.247"N	80°36'19.260"W	11122.51	121.278	1.96	0.10	1.96	
17933.00	89.170	133.360	7506.44	11213.20	-5839.28	9572.85	1751486.47	14418002.20	39°42'02.605"N	80°36'18.408"W	11213.23	121.382	1.41	-0.03	-1.41	

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REFERENCE WELLPATH IDENTIFICATION			
Operator	SOUTHWESTERN ENERGY	Slot	Slot 210H
Area	Wetzel County, WV	Well	Daniel Durig WTZ 210H
Field	Wetzel	Wellbore	Daniel Durig WTZ 210H AWB
Facility	Daniel Durig Pad		

WELLPATH DATA (212 stations)															
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Build Rate [°/100ft]	Turn Rate [°/100ft]
17979.00	89.690	132.030	7506.90	11258.33	-5870.47	9606.65	1751520.27	14417971.02	39°42'02.296"N	80°36'17.977"W	11258.34	121.428	3.10	1.13	-2.89
18007.00	89.690	132.030	7507.05	11285.86	-5889.21	9627.45	1751541.06	14417952.28	39°42'02.109"N	80°36'17.712"W	11285.86	121.455	0.00	0.00	0.00

HOLE & CASING SECTIONS - Ref Wellbore: Daniel Durig WTZ 210H AWB Ref Wellpath: Daniel Durig WTZ 210H AWP Proj: 18007'MD									
String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
20in Conductor	26.00	126.00	100.00	26.00	126.00	0.00	0.00	-0.19	-0.34
17.5in Open Hole	126.00	550.00	424.00	126.00	550.00	-0.19	-0.34	0.78	-1.58
13.375in Casing Surface	26.00	537.00	511.00	26.00	537.00	0.00	0.00	0.77	-1.54
12.25in Open Hole	550.00	2732.00	2182.00	550.00	2697.27	0.78	-1.58	182.78	302.86
9.625in Casing Intermediate	26.00	2712.00	2686.00	26.00	2677.39	0.00	0.00	181.70	301.01
8.75in Open Hole	2732.00	6898.00	4166.00	2697.27	6501.10	182.78	302.86	1073.42	1704.66
8.5in Open Hole	6898.00	18007.00	11109.00	6501.10	7507.05	1073.42	1704.66	-5889.21	9627.45

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REFERENCE WELLPATH IDENTIFICATION			
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Area	Wetzel County, WV	Well	Daniel Durig WZ 210H
Field	Wetzel	Wellbore	Daniel Durig WZ 210H AWB
Facility	Daniel Durig Pad		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Daniel Durig WZ 210H TP	6780.00	1136.32	1820.45	1743737.10	14424975.08	39°43'11.869"N	80°37'57.225"W	point
Daniel Durig WZ 210H LP Rev-5	7242.00	902.67	2363.76	1744280.20	14424741.52	39°43'09.538"N	80°37'50.285"W	point
Daniel Durig Unleased	7480.00	0.00	0.00	1741917.36	14423839.20	39°43'00.712"N	80°38'20.581"W	polygon
Daniel Durig WZ 210H BHL Rev-6	7484.00	-5930.00	9673.41	1751587.00	14417911.51	39°42'01.704"N	80°36'17.127"W	point

WELLPATH COMPOSITION - Ref Wellbore: Daniel Durig WZ 210H AWB						Ref Wellpath: Daniel Durig WZ 210H AWP Proj: 18007'MD
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment		Wellbore	
26.00	835.00	VESSI GyroFlex v4	02_VES Gyro <17.5" & 12.25">(50'-835')		Daniel Durig WZ 210H AWB	
835.00	2643.00	BHI NaviTrak (Axial)	03_APS EM <12.25"> (835')(882'-2643')		Daniel Durig WZ 210H AWB	
2643.00	6826.00	BHI NaviTrak (Axial)	04_APS EM <8.75"> (2643')(2740'-6826')		Daniel Durig WZ 210H AWB	
6826.00	17979.00	BHI AutoTrak Curve (Short)	05 <8.5">(6826')(6905'-17979')		Daniel Durig WZ 210H AWB	
17979.00	18007.00	Blind Drilling (std)	Projection to bit		Daniel Durig WZ 210H AWB	

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REFERENCE WELLPATH IDENTIFICATION			
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Area	Wetzel County, WV	Well	Daniel Durig WTZ 210H
Field	Wetzel	Wellbore	Daniel Durig WTZ 210H AWB
Facility	Daniel Durig Pad		

COMMENTS
<p>Wellpath general comments API: 47-103-03205-0000 Job #: 8841916 Rig: SDC 46 Duration: 02/23/2018 - 02/28/2018</p>