



ANTERO RESOURCES CORPORATION

Location: Tyler County, WV
Field: Tyler
Facility: Roma Lou Pad

Slot: Slot #08
Well: Calvin Unit 2H
Wellbore: Calvin Unit 2H PWB

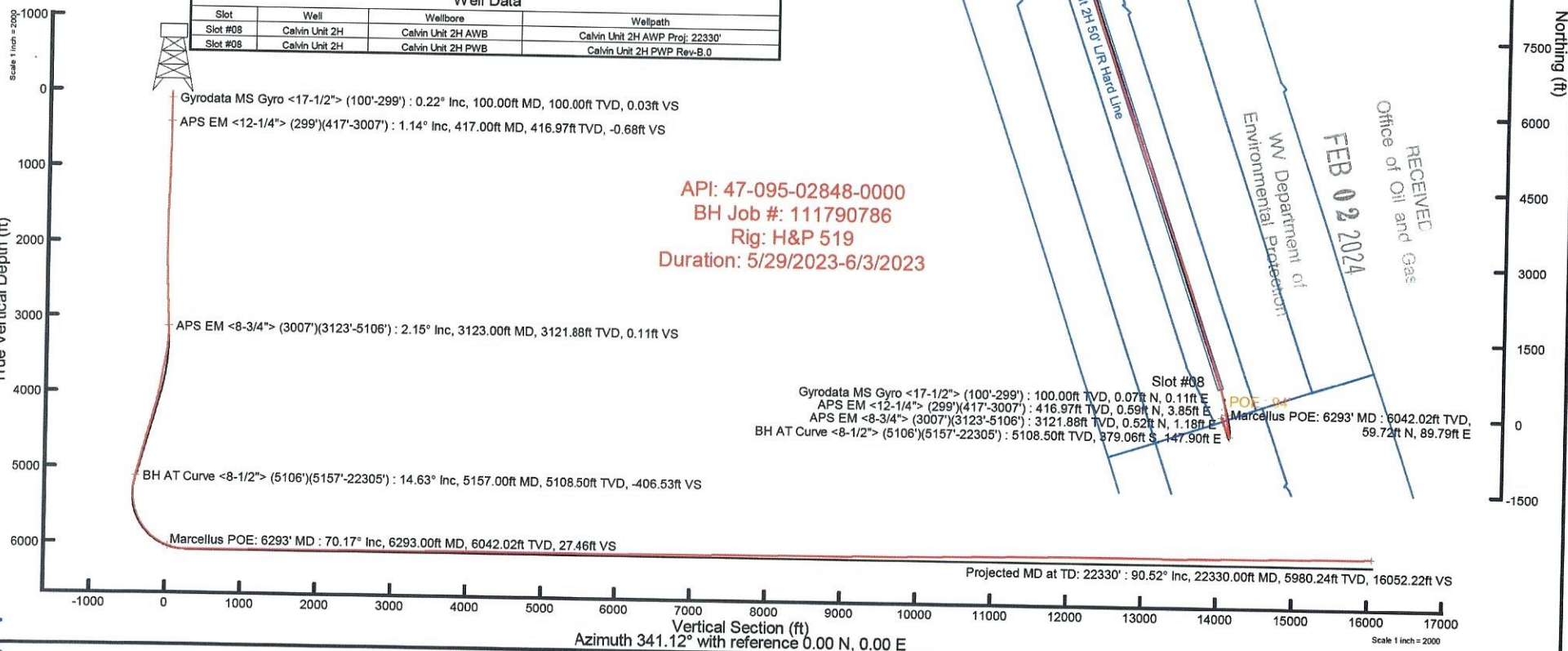


Plot reference wellpath is Calvin Unit 2H PWP Rev-B.0	Grid System: NAD27 / UTM Zone 17 North, US feet
True vertical depths are referenced to H&P 519 (RKB)	North Reference: Grid north
Reference wellpath measured depths are referenced to H&P 519 (RKB)	Scale: True distance
H&P 519 (RKB) to Mean Sea Level: 913 feet	Coordinates are in feet referenced to Slot
Mean Sea Level to Ground level (At Slot: Slot #08): -883 feet	Depths are in feet
Offset wellpath MDs are referenced to each path's default MD datum	Created by: edsanyar on 2023-06-29; Database: WA_MPL_EASTERNUS_Delta

Location Information				
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Roma Lou Pad	1647741.529	14338818.190	39°29'5.9000"N	80°58'26.5400"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)
Slot #08	-308.51	-45.65	1647695.900	14338509.800
			Latitude	Longitude
			39°29'5.8510"N	80°58'27.1233"W
Comment: Calvin Unit 2H - Plat SHL				
H&P 519 (RKB) to Ground level (At Slot: Slot #08)	30ft			
Mean Sea Level to Ground level (At Slot: Slot #08)	-883ft			
H&P 519 (RKB) to Mean Sea Level	913ft			

Well Profile Data								
Design Comment	MD (ft)	Inc (")	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS ("/100ft)	VS (ft)
Tie On	3007.00	2.280	327.270	3005.97	-3.17	3.73	0.17	-4.20
Proj. to Bottom	3082.00	2.280	327.270	3080.91	-0.66	2.12	0.00	-1.31
KOP 1	3162.00	2.280	327.270	3160.85	2.02	0.40	0.00	1.78
End of 3D Arc	4051.99	15.574	160.696	4041.24	-96.64	30.57	2.00	-101.33
Curve KOP	5232.37	15.574	160.696	5178.28	-395.74	135.34	0.00	-418.25
Avoid NGZ	5794.44	30.000	0.000	5720.50	-322.65	161.65	8.00	-357.60
POE	6302.87	69.581	346.848	6043.00	52.33	105.04	8.00	15.53
Landing Pt.	6558.10	90.000	346.848	6088.00	295.64	48.19	8.00	264.14
On AZI	6844.48	90.000	341.120	6088.00	570.79	-30.79	2.00	550.04
BHL	22370.17	90.000	341.120	6088.00	15261.21	-5054.58	0.00	16075.73

Well Data			
Slot	Well	Wellbore	Wellpath
Slot #08	Calvin Unit 2H	Calvin Unit 2H AWB	Calvin Unit 2H AWP Proj: 22330'
Slot #08	Calvin Unit 2H	Calvin Unit 2H PWB	Calvin Unit 2H PWP Rev-B.0





Actual Wellpath Report

Calvin Unit 2H AWP Proj: 22330'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Calvin Unit 2H
Field	Tyler	API	47-095-02848-0000
Facility	Roma Lou Pad	Wellbore	Calvin Unit 2H AWB
Slot	Slot #08		

REPORT SETUP INFORMATION

Projection System	NAD27 / UTM Zone 17 North, US feet	Software System	WellArchitect® 6.0
North Reference	Grid	User	Edsaryar
Scale	0.999600	Report Generated	6/29/2023 at 2:45:59 AM
Convergence at slot	0.02° East	Database	WA_MPL_EASTERNUS_Defn

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-308.51	-45.65	1647695.90	14338509.80	39°29'5.8510"N	80°58'27.1233"W
Facility Reference Pt			1647741.53	14338818.19	39°29'8.9000"N	80°58'26.5400"W
Field Reference Pt			0.00	0.00	0°00'0.0000"	85°29'19.3013"W

WELLPATH DATUM

Calculation method	Minimum curvature	H&P 519 (RKB) to Facility Vertical Datum	913.00ft
Horizontal Reference Pt	Slot	H&P 519 (RKB) to Mean Sea Level	913.00ft
Vertical Reference Pt	H&P 519 (RKB)	H&P 519 (RKB) to Ground Level at Slot (Slot #08)	30.00ft
MD Reference Pt	H&P 519 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	341.12°

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Calvin Unit 2H AWP Proj: 22330'

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Operator	ANTERO RESOURCES CORPORATION	Well	Calvin Unit 2H
Field	Tyler	API	47-095-02848-0000
Facility	Roma Lou Pad	Wellbore	Calvin Unit 2H AWB
Slot	Slot #08		

WELLPATH DATA (240 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]	Comments
0.00†	0.000	58.610	0.00	0.00	0.00	0.00	1647695.90	14338509.80	39°29'5.8510"N	80°58'27.1233"W	0.00	0.000	0.00	0.00	0.00	
30.00	0.000	58.610	30.00	0.00	0.00	0.00	1647695.90	14338509.80	39°29'5.8510"N	80°58'27.1233"W	0.00	0.000	0.00	0.00	0.00	
100.00	0.220	58.610	100.00	0.03	0.07	0.11	1647696.01	14338509.87	39°29'5.8517"N	80°58'27.1219"W	0.13	58.610	0.31	0.31	0.00	Gyrodata MS Gyro <17-1/2"> (100'-299')
200.00	0.440	68.450	200.00	0.09	0.31	0.64	1647696.54	14338510.11	39°29'5.8540"N	80°58'27.1152"W	0.71	63.930	0.23	0.22	9.84	
299.00	0.920	77.930	298.99	0.01	0.62	1.77	1647697.67	14338510.42	39°29'5.8571"N	80°58'27.1008"W	1.87	70.751	0.50	0.48	9.58	
417.00	1.140	100.870	416.97	-0.68	0.59	3.85	1647699.74	14338510.39	39°29'5.8568"N	80°58'27.0743"W	3.89	81.226	0.39	0.19	19.44	APS EM <12-1/4"> (299')(417'-3007')
506.00	1.200	107.840	505.95	-1.68	0.14	5.60	1647701.50	14338509.94	39°29'5.8523"N	80°58'27.0519"W	5.60	88.557	0.17	0.07	7.83	
596.00	1.200	113.620	595.93	-2.88	-0.53	7.36	1647703.26	14338509.28	39°29'5.8458"N	80°58'27.0294"W	7.38	94.080	0.13	0.00	6.42	
687.00	1.260	114.370	686.91	-4.21	-1.32	9.15	1647705.04	14338508.48	39°29'5.8379"N	80°58'27.0067"W	9.24	98.210	0.07	0.07	0.82	
777.00	1.260	116.750	776.89	-5.59	-2.17	10.93	1647706.83	14338507.63	39°29'5.8295"N	80°58'26.9839"W	11.15	101.245	0.06	0.00	2.64	
866.00	1.230	116.720	865.87	-6.98	-3.04	12.66	1647708.55	14338506.76	39°29'5.8209"N	80°58'26.9619"W	13.02	103.518	0.03	-0.03	-0.03	
956.00	1.380	117.580	955.85	-8.45	-3.98	14.48	1647710.38	14338505.82	39°29'5.8116"N	80°58'26.9386"W	15.02	105.364	0.17	0.17	0.96	
1047.00	1.400	122.030	1046.82	-10.11	-5.08	16.40	1647712.29	14338504.73	39°29'5.8008"N	80°58'26.9142"W	17.16	107.203	0.12	0.02	4.89	
1141.00	1.640	127.770	1140.79	-12.12	-6.51	18.43	1647714.33	14338503.29	39°29'5.7866"N	80°58'26.8883"W	19.55	109.450	0.30	0.26	6.11	
1236.00	1.870	134.470	1235.74	-14.64	-8.43	20.61	1647716.51	14338501.38	39°29'5.7676"N	80°58'26.8604"W	22.27	112.237	0.32	0.24	7.05	
1330.00	1.980	140.060	1329.69	-17.53	-10.75	22.75	1647718.64	14338499.06	39°29'5.7447"N	80°58'26.8332"W	25.16	115.286	0.23	0.12	5.95	
1425.00	2.040	145.300	1424.63	-20.69	-13.40	24.77	1647720.66	14338496.41	39°29'5.7185"N	80°58'26.8075"W	28.16	118.408	0.20	0.06	5.52	
1519.00	2.040	149.980	1518.57	-23.94	-16.22	26.56	1647722.45	14338493.59	39°29'5.6906"N	80°58'26.7847"W	31.12	121.415	0.18	0.00	4.98	
1614.00	1.340	176.470	1613.53	-26.67	-18.79	27.47	1647723.36	14338491.01	39°29'5.6652"N	80°58'26.7730"W	33.28	124.376	1.09	-0.74	27.88	
1708.00	0.990	207.760	1707.51	-28.29	-20.61	27.16	1647723.05	14338489.20	39°29'5.6472"N	80°58'26.7770"W	34.09	127.190	0.76	-0.37	33.29	
1803.00	0.870	212.970	1802.50	-29.30	-21.94	26.39	1647722.27	14338487.87	39°29'5.6341"N	80°58'26.7869"W	34.32	129.744	0.15	-0.13	5.48	
1897.00	0.930	213.770	1896.49	-30.20	-23.17	25.57	1647721.46	14338486.64	39°29'5.6219"N	80°58'26.7972"W	34.51	132.181	0.07	0.06	0.85	
1992.00	0.730	202.890	1991.48	-31.12	-24.37	24.91	1647720.80	14338485.44	39°29'5.6100"N	80°58'26.8057"W	34.85	134.374	0.27	-0.21	-11.45	
2086.00	0.930	281.370	2085.47	-31.18	-24.77	23.93	1647719.82	14338485.04	39°29'5.6061"N	80°58'26.8182"W	34.44	135.993	1.13	0.21	83.49	
2180.00	1.470	306.630	2179.45	-29.80	-23.90	22.21	1647718.10	14338485.91	39°29'5.6147"N	80°58'26.8401"W	32.63	137.098	0.79	0.57	26.87	
2275.00	1.810	304.820	2274.41	-27.59	-22.32	20.00	1647715.90	14338487.49	39°29'5.6303"N	80°58'26.8683"W	29.97	138.131	0.36	0.36	-1.91	
2369.00	1.750	308.350	2368.37	-25.19	-20.58	17.66	1647713.55	14338489.23	39°29'5.6475"N	80°58'26.8982"W	27.12	139.369	0.13	-0.06	3.76	
2463.00	1.890	311.220	2462.32	-22.64	-18.67	15.37	1647711.26	14338491.14	39°29'5.6664"N	80°58'26.9274"W	24.18	140.540	0.18	0.15	3.05	
2558.00	1.900	317.140	2557.27	-19.84	-16.48	13.12	1647709.01	14338493.32	39°29'5.6880"N	80°58'26.9561"W	21.06	141.484	0.21	0.01	6.23	
2652.00	1.930	319.180	2651.21	-16.95	-14.14	11.02	1647706.92	14338495.66	39°29'5.7112"N	80°58'26.9828"W	17.93	142.064	0.08	0.03	2.17	

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Actual Wellpath Report

Calvin Unit 2H AWP Proj: 22330'

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Operator	ANTERO RESOURCES CORPORATION	Well	Calvin Unit 2H
Field	Tyler	API	47-095-02848-0000
Facility	Roma Lou Pad	Wellbore	Calvin Unit 2H AWB
Slot	Slot #08		

WELLPATH DATA (240 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]	Comments
2747.00	2.060	323.520	2746.16	-13.84	-11.56	8.96	1647704.86	14338498.25	39°29'5.7367"N	80°58'27.0091"W	14.63	142.210	0.21	0.14	4.57	
2841.00	2.170	328.810	2840.09	-10.49	-8.68	7.04	1647702.93	14338501.13	39°29'5.7652"N	80°58'27.0336"W	11.17	140.962	0.24	0.12	5.63	
2936.00	2.220	330.010	2935.02	-6.92	-5.55	5.19	1647701.08	14338504.26	39°29'5.7962"N	80°58'27.0572"W	7.59	136.922	0.07	0.09	1.26	
3007.00	2.280	327.270	3005.97	-4.20	-3.17	3.73	1647699.63	14338506.64	39°29'5.8197"N	80°58'27.0757"W	4.90	130.293	0.17	0.08	-3.86	
3123.00	2.150	323.170	3121.88	0.11	0.52	1.18	1647697.08	14338510.32	39°29'5.8561"N	80°58'27.1082"W	1.29	66.388	0.18	-0.11	-3.53	APS EM <8-3/4"> (3007')(3123'-5106')
3218.00	1.230	210.480	3216.86	1.14	1.06	-0.40	1647695.50	14338510.86	39°29'5.8615"N	80°58'27.1285"W	1.14	339.237	3.01	-0.97	-118.62	
3312.00	4.410	168.720	3310.74	-3.10	-3.35	-0.21	1647695.69	14338506.45	39°29'5.8179"N	80°58'27.1260"W	3.36	183.558	3.82	3.38	-44.43	
3407.00	6.780	160.600	3405.28	-12.33	-12.22	2.37	1647698.27	14338497.58	39°29'5.7302"N	80°58'27.0932"W	12.45	169.031	2.62	2.49	-8.55	
3501.00	9.420	160.580	3498.33	-25.58	-24.71	6.77	1647702.67	14338485.10	39°29'5.6067"N	80°58'27.0371"W	25.62	164.679	2.81	2.81	-0.02	
3596.00	10.930	153.600	3591.84	-42.28	-40.11	13.36	1647709.26	14338469.70	39°29'5.4545"N	80°58'26.9531"W	42.28	161.579	2.05	1.59	-7.35	
3690.00	10.250	153.610	3684.24	-59.41	-55.59	21.04	1647716.93	14338454.23	39°29'5.3015"N	80°58'26.8552"W	59.44	159.268	0.72	-0.72	0.01	
3785.00	10.080	161.060	3777.75	-76.10	-71.02	27.50	1647723.39	14338438.80	39°29'5.1489"N	80°58'26.7729"W	76.16	158.837	1.39	-0.18	7.84	
3879.00	10.040	151.970	3870.31	-92.42	-86.04	34.02	1647729.90	14338423.80	39°29'5.0005"N	80°58'26.6898"W	92.52	158.428	1.69	-0.04	-9.67	
3974.00	11.640	155.860	3963.62	-110.14	-102.10	41.83	1647737.71	14338407.75	39°29'4.8418"N	80°58'26.5902"W	110.33	157.721	1.85	1.68	4.09	
4068.00	12.530	161.120	4055.53	-129.78	-120.40	49.01	1647744.89	14338389.45	39°29'4.6609"N	80°58'26.4987"W	129.99	157.852	1.51	0.95	5.60	
4163.00	15.150	166.120	4147.77	-152.45	-142.20	55.32	1647751.20	14338367.65	39°29'4.4453"N	80°58'26.4183"W	152.59	158.743	3.03	2.76	5.26	
4257.00	15.060	165.800	4238.52	-176.86	-165.97	61.26	1647757.14	14338343.90	39°29'4.2105"N	80°58'26.3426"W	176.91	159.740	0.13	-0.10	-0.34	
4352.00	13.730	163.210	4330.54	-200.43	-188.73	67.55	1647763.42	14338321.15	39°29'3.9855"N	80°58'26.2625"W	200.45	160.307	1.56	-1.40	-2.73	
4446.00	15.560	160.650	4421.48	-224.19	-211.30	74.95	1647770.82	14338298.58	39°29'3.7623"N	80°58'26.1682"W	224.20	160.471	2.06	1.95	-2.72	
4541.00	15.800	159.330	4512.95	-249.86	-235.43	83.74	1647779.60	14338274.47	39°29'3.5239"N	80°58'26.0562"W	249.88	160.421	0.45	0.25	-1.39	
4635.00	14.760	153.060	4603.63	-274.51	-258.08	93.68	1647789.54	14338251.83	39°29'3.3000"N	80°58'25.9295"W	274.55	160.050	2.08	-1.11	-6.67	
4729.00	15.230	155.870	4694.43	-298.66	-280.02	104.15	1647800.01	14338229.89	39°29'3.0831"N	80°58'25.7960"W	298.76	159.598	0.92	0.50	2.99	
4824.00	14.750	157.840	4786.20	-323.16	-302.61	113.81	1647809.67	14338207.31	39°29'2.8598"N	80°58'25.6729"W	323.30	159.388	0.74	-0.51	2.07	
4918.00	14.160	153.010	4877.23	-346.49	-323.94	123.55	1647819.40	14338185.99	39°29'2.6490"N	80°58'25.5488"W	346.70	159.124	1.43	-0.63	-5.14	
5013.00	14.600	156.800	4969.25	-369.93	-345.30	133.54	1647829.38	14338164.64	39°29'2.4379"N	80°58'25.4215"W	370.22	158.857	1.09	0.46	3.99	
5106.00	14.920	157.720	5059.18	-393.57	-367.15	142.69	1647838.54	14338142.80	39°29'2.2219"N	80°58'25.3048"W	393.90	158.761	0.43	0.34	0.99	
5157.00	14.630	155.000	5108.50	-406.53	-379.06	147.90	1647843.74	14338130.89	39°29'2.1041"N	80°58'25.2384"W	406.90	158.685	1.47	-0.57	-5.33	BH AT Curve <8-1/2"> (5106')(5157'-22305')
5231.00	11.100	160.280	5180.63	-422.95	-394.24	154.26	1647850.10	14338115.71	39°29'1.9541"N	80°58'25.1574"W	423.35	158.631	5.02	-4.77	7.14	
5326.00	4.570	157.480	5274.69	-435.88	-406.36	158.80	1647854.64	14338103.60	39°29'1.8343"N	80°58'25.0995"W	436.29	158.655	6.88	-6.87	-2.95	
5420.00	4.010	38.930	5368.56	-437.87	-407.27	162.30	1647858.14	14338102.70	39°29'1.8253"N	80°58'25.0548"W	438.41	158.272	7.85	-0.60	-126.12	



Actual Wellpath Report

Calvin Unit 2H AWP Proj: 22330'
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Field	Tyler		API	47-095-02848-0000
Facility	Roma Lou Pad		Wellbore	Calvin Unit 2H AWB
Slot	Slot #08			

WELLPATH DATA (240 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]	Comments
5515.00	10.280	359.900	5462.82	-428.06	-396.19	164.38	1647860.21	14338113.77	39°29'1.9348"N	80°58'25.0283"W	428.94	157.466	7.99	6.60	-41.08	
5609.00	15.210	347.800	5554.49	-407.86	-375.73	161.76	1647857.59	14338134.22	39°29'2.1370"N	80°58'25.0617"W	409.07	156.708	5.94	5.24	-12.87	
5704.00	22.560	345.870	5644.31	-377.28	-345.84	154.67	1647850.50	14338164.10	39°29'2.4325"N	80°58'25.1520"W	378.85	155.905	7.76	7.74	-2.03	
5798.00	29.330	346.780	5728.79	-336.35	-305.89	144.99	1647840.83	14338204.03	39°29'2.8273"N	80°58'25.2753"W	338.51	154.640	7.21	7.20	0.97	
5893.00	37.260	350.990	5808.14	-284.78	-254.75	135.15	1647830.99	14338255.15	39°29'3.3328"N	80°58'25.4006"W	288.38	152.054	8.69	8.35	4.43	
5935.00†	40.631	351.732	5840.81	-258.80	-228.65	131.19	1647827.03	14338281.24	39°29'3.5907"N	80°58'25.4510"W	263.61	150.156	8.10	8.03	1.77	Sycamore: 5935' MD
5987.00	44.810	352.520	5879.00	-224.18	-193.71	126.36	1647822.21	14338316.16	39°29'3.9361"N	80°58'25.5124"W	231.29	146.883	8.10	8.04	1.52	
6073.00†	52.170	352.255	5935.96	-161.07	-129.93	117.83	1647813.68	14338379.92	39°29'4.5665"N	80°58'25.6210"W	175.40	137.795	8.56	8.56	-0.31	Middlesex: 6073' MD
6082.00	52.940	352.230	5941.43	-154.05	-122.85	116.87	1647812.72	14338387.00	39°29'4.6365"N	80°58'25.6333"W	169.56	136.430	8.56	8.56	-0.27	
6176.00	60.340	351.810	5993.08	-77.01	-45.15	105.96	1647801.82	14338464.67	39°29'5.4044"N	80°58'25.7721"W	115.18	113.080	7.88	7.87	-0.45	
6225.00†	64.445	351.352	6015.79	-34.32	-2.21	99.60	1647795.46	14338507.59	39°29'5.8289"N	80°58'25.8530"W	99.63	91.270	8.42	8.38	-0.93	Burkett: 6225' MD
6271.00	68.300	350.950	6034.22	7.17	39.43	93.12	1647788.98	14338549.21	39°29'6.2404"N	80°58'25.9355"W	101.12	67.053	8.42	8.38	-0.87	
6293.00†	70.173	350.436	6042.02	27.46	59.72	89.79	1647785.65	14338569.50	39°29'6.4410"N	80°58'25.9779"W	107.84	56.370	8.79	8.51	-2.34	Marcellus POE: 6293' MD
6365.00	76.310	348.830	6062.77	95.61	127.50	77.38	1647773.24	14338637.25	39°29'7.1109"N	80°58'26.1360"W	149.14	31.252	8.79	8.52	-2.23	
6459.00	81.570	348.540	6080.80	187.02	217.93	59.28	1647755.16	14338727.64	39°29'8.0047"N	80°58'26.3665"W	225.85	15.217	5.60	5.60	-0.31	
6554.00	90.180	347.930	6087.62	280.96	310.61	39.97	1647735.86	14338820.28	39°29'8.9207"N	80°58'26.6123"W	313.17	7.334	9.09	9.06	-0.64	
6648.00	90.490	346.270	6087.07	374.44	402.23	18.99	1647714.88	14338911.87	39°29'9.8263"N	80°58'26.8796"W	402.68	2.703	1.80	0.33	-1.77	
6742.00	90.370	342.620	6086.37	468.27	492.77	-6.21	1647689.69	14339002.37	39°29'10.7212"N	80°58'27.2008"W	492.81	359.278	3.88	-0.13	-3.88	
6837.00	90.770	342.270	6085.42	563.24	583.34	-34.86	1647661.05	14339092.91	39°29'11.6164"N	80°58'27.5659"W	584.38	356.580	0.56	0.42	-0.37	
6931.00	90.400	342.270	6084.46	657.21	672.87	-63.49	1647632.44	14339182.40	39°29'12.5014"N	80°58'27.9306"W	675.86	354.610	0.39	-0.39	0.00	
7026.00	90.580	342.050	6083.65	752.19	763.30	-92.59	1647603.35	14339272.79	39°29'13.3952"N	80°58'28.3015"W	768.89	353.084	0.30	0.19	-0.23	
7121.00	90.310	341.980	6082.91	847.18	853.65	-121.92	1647574.03	14339363.11	39°29'14.2883"N	80°58'28.6753"W	862.32	351.872	0.29	-0.28	-0.07	
7215.00	90.430	342.210	6082.31	941.16	943.10	-150.82	1647545.14	14339452.52	39°29'15.1724"N	80°58'29.0435"W	955.08	350.914	0.28	0.13	0.24	
7309.00	90.370	342.190	6081.65	1035.14	1032.60	-179.56	1647516.41	14339541.98	39°29'16.0570"N	80°58'29.4097"W	1048.09	350.136	0.07	-0.06	-0.02	
7404.00	90.180	342.280	6081.19	1130.13	1123.07	-208.54	1647487.44	14339632.41	39°29'16.9512"N	80°58'29.7791"W	1142.26	349.481	0.22	-0.20	0.09	
7498.00	90.370	342.480	6080.74	1224.10	1212.66	-237.00	1647459.00	14339721.97	39°29'17.8368"N	80°58'30.1417"W	1235.60	348.942	0.29	0.20	0.21	
7592.00	90.370	342.090	6080.14	1318.08	1302.20	-265.60	1647430.41	14339811.47	39°29'18.7218"N	80°58'30.5062"W	1329.01	348.472	0.41	0.00	-0.41	
7687.00	90.430	342.240	6079.47	1413.06	1392.63	-294.69	1647401.32	14339901.87	39°29'19.6157"N	80°58'30.8770"W	1423.47	348.052	0.17	0.06	0.16	
7781.00	90.370	342.060	6078.82	1507.04	1482.10	-323.51	1647372.52	14339991.31	39°29'20.5000"N	80°58'31.2442"W	1517.00	347.687	0.20	-0.06	-0.19	
7876.00	90.430	342.310	6078.15	1602.03	1572.54	-352.57	1647343.47	14340081.71	39°29'21.3940"N	80°58'31.6145"W	1611.58	347.363	0.27	0.06	0.26	

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Actual Wellpath Report

Calvin Unit 2H AWP Proj: 22330'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Calvin Unit 2H
Field	Tyler	API	47-095-02848-0000
Facility	Roma Lou Pad	Wellbore	Calvin Unit 2H AWB
Slot	Slot #08		

WELLPATH DATA (240 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]	Comments
7970.00	89.200	341.620	6078.46	1696.01	1661.92	-381.67	1647314.38	14340171.05	39°29'22.2774"N	80°58'31.9854"W	1705.19	347.066	1.50	-1.31	-0.73	
8065.00	90.680	342.110	6078.56	1791.00	1752.20	-411.24	1647284.82	14340261.30	39°29'23.1698"N	80°58'32.3622"W	1799.81	346.792	1.64	1.56	0.52	
8159.00	90.280	342.060	6077.77	1884.98	1841.64	-440.15	1647255.92	14340350.70	39°29'24.0538"N	80°58'32.7307"W	1893.51	346.558	0.43	-0.43	-0.05	
8253.00	90.280	342.650	6077.31	1978.96	1931.22	-468.65	1647227.44	14340440.24	39°29'24.9392"N	80°58'33.0938"W	1987.27	346.360	0.63	0.00	0.63	
8348.00	90.310	342.520	6076.82	2073.93	2021.86	-497.08	1647199.02	14340530.85	39°29'25.8351"N	80°58'33.4562"W	2082.07	346.188	0.14	0.03	-0.14	
8442.00	90.310	342.300	6076.31	2167.90	2111.46	-525.49	1647170.63	14340620.41	39°29'26.7208"N	80°58'33.8182"W	2175.87	346.025	0.23	0.00	-0.23	
8537.00	90.710	342.700	6075.47	2262.87	2202.06	-554.05	1647142.07	14340710.98	39°29'27.6163"N	80°58'34.1823"W	2270.69	345.877	0.60	0.42	0.42	
8632.00	90.580	342.810	6074.40	2357.83	2292.79	-582.21	1647113.92	14340801.66	39°29'28.5130"N	80°58'34.5412"W	2365.55	345.752	0.18	-0.14	0.12	
8726.00	90.060	342.050	6073.87	2451.80	2382.40	-610.59	1647085.56	14340891.24	39°29'29.3988"N	80°58'34.9028"W	2459.40	345.625	0.98	-0.55	-0.81	
8820.00	90.860	341.920	6073.12	2545.79	2471.79	-639.66	1647056.50	14340980.59	39°29'30.2823"N	80°58'35.2733"W	2553.21	345.491	0.86	0.85	-0.14	
8915.00	90.370	342.590	6072.10	2640.76	2562.26	-668.61	1647027.56	14341071.03	39°29'31.1766"N	80°58'35.6423"W	2648.06	345.375	0.87	-0.52	0.71	
9009.00	89.970	342.630	6071.82	2734.73	2651.96	-696.70	1646999.48	14341160.70	39°29'32.0632"N	80°58'36.0003"W	2741.95	345.280	0.43	-0.43	0.04	
9104.00	90.800	340.570	6071.18	2829.72	2742.10	-726.69	1646969.50	14341250.80	39°29'32.9541"N	80°58'36.3825"W	2836.76	345.157	2.34	0.87	-2.17	
9198.00	90.340	340.240	6070.25	2923.70	2830.65	-758.21	1646937.99	14341339.31	39°29'33.8294"N	80°58'36.7843"W	2930.44	345.005	0.60	-0.49	-0.35	
9292.00	89.780	340.220	6070.15	3017.69	2919.11	-790.01	1646906.21	14341427.74	39°29'34.7038"N	80°58'37.1896"W	3024.12	344.857	0.60	-0.60	-0.02	
9387.00	90.180	339.210	6070.18	3112.66	3008.22	-822.94	1646873.29	14341516.81	39°29'35.5845"N	80°58'37.6094"W	3118.75	344.700	1.14	0.42	-1.06	
9481.00	90.250	341.430	6069.83	3206.65	3096.72	-854.60	1646841.65	14341605.27	39°29'36.4593"N	80°58'38.0129"W	3212.48	344.572	2.36	0.07	2.36	
9576.00	89.820	337.870	6069.77	3301.60	3185.78	-887.63	1646808.63	14341694.29	39°29'37.3396"N	80°58'38.4339"W	3307.12	344.431	3.77	-0.45	-3.75	
9670.00	90.490	341.070	6069.52	3395.55	3273.79	-920.59	1646775.68	14341782.28	39°29'38.2095"N	80°58'38.8541"W	3400.77	344.294	3.48	0.71	3.40	
9764.00	92.090	340.310	6067.40	3489.52	3362.48	-951.66	1646744.62	14341870.93	39°29'39.0861"N	80°58'39.2501"W	3494.56	344.197	1.88	1.70	-0.81	
9858.00	90.120	340.390	6065.59	3583.49	3450.98	-983.26	1646713.03	14341959.40	39°29'39.9609"N	80°58'39.6530"W	3588.33	344.097	2.10	-2.10	0.09	
9953.00	90.280	339.730	6065.25	3678.47	3540.29	-1015.66	1646680.65	14342048.66	39°29'40.8436"N	80°58'40.0660"W	3683.10	343.993	0.71	0.17	-0.69	
10048.00	90.150	339.880	6064.90	3773.44	3629.45	-1048.46	1646647.86	14342137.79	39°29'41.7249"N	80°58'40.4840"W	3777.85	343.887	0.21	-0.14	0.16	
10142.00	90.650	339.640	6064.24	3867.41	3717.64	-1080.98	1646615.36	14342225.95	39°29'42.5966"N	80°58'40.8985"W	3871.61	343.787	0.59	0.53	-0.26	
10237.00	90.710	340.760	6063.11	3962.39	3807.02	-1113.15	1646583.19	14342315.29	39°29'43.4801"N	80°58'41.3087"W	3966.42	343.701	1.18	0.06	1.18	
10426.00	89.750	340.720	6062.36	4151.39	3985.43	-1175.50	1646520.88	14342493.63	39°29'45.2436"N	80°58'42.1034"W	4155.17	343.567	0.51	-0.51	-0.02	
10520.00	90.280	338.130	6062.33	4245.34	4073.43	-1208.53	1646487.86	14342581.59	39°29'46.1134"N	80°58'42.5245"W	4248.93	343.475	2.81	0.56	-2.76	
10614.00	88.860	340.910	6063.04	4339.29	4161.48	-1241.41	1646454.99	14342669.60	39°29'46.9836"N	80°58'42.9437"W	4342.69	343.390	3.32	-1.51	2.96	
10709.00	91.450	340.930	6062.78	4434.28	4251.25	-1272.46	1646423.95	14342759.34	39°29'47.8709"N	80°58'43.3395"W	4437.60	343.337	2.73	2.73	0.02	
10803.00	88.960	339.720	6062.44	4528.26	4339.75	-1304.11	1646392.32	14342847.81	39°29'48.7457"N	80°58'43.7429"W	4531.46	343.274	2.95	-2.65	-1.29	

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Actual Wellpath Report

Calvin Unit 2H AWP Proj: 22330'
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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Well	Calvin Unit 2H
Field	Tyler		API	47-095-02848-0000
Facility	Roma Lou Pad		Wellbore	Calvin Unit 2H AWB
Slot	Slot #08			

WELLPATH DATA (240 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]	Comments
10992.00	89.510	340.000	6064.97	4717.19	4517.18	-1369.18	1646327.27	14343025.16	39°29'50.4995"N	80°58'44.5724"W	4720.12	343.138	0.33	0.29	0.15	
11087.00	89.780	340.720	6065.56	4812.18	4606.65	-1401.11	1646295.36	14343114.60	39°29'51.3838"N	80°58'44.9794"W	4815.01	343.083	0.81	0.28	0.76	
11181.00	89.940	341.080	6065.79	4906.18	4695.47	-1431.87	1646264.61	14343203.39	39°29'52.2618"N	80°58'45.3716"W	4908.94	343.041	0.42	0.17	0.38	
11370.00	90.590	340.420	6064.91	5095.17	4873.90	-1494.18	1646202.33	14343381.74	39°29'54.0254"N	80°58'46.1659"W	5097.79	342.956	0.49	0.34	-0.35	
11464.00	89.080	338.490	6065.18	5189.13	4961.92	-1527.16	1646169.35	14343469.72	39°29'54.8953"N	80°58'46.5864"W	5191.61	342.893	2.61	-1.61	-2.05	
11559.00	91.200	339.800	6064.95	5284.06	5050.69	-1560.98	1646135.55	14343558.46	39°29'55.7727"N	80°58'47.0176"W	5286.41	342.826	2.62	2.23	1.38	
11653.00	89.570	339.700	6064.32	5378.03	5138.87	-1593.51	1646103.03	14343646.61	39°29'56.6444"N	80°58'47.4323"W	5380.27	342.772	1.74	-1.73	-0.11	
11748.00	90.580	339.000	6064.19	5472.98	5227.77	-1627.01	1646069.54	14343735.46	39°29'57.5230"N	80°58'47.8594"W	5475.10	342.713	1.29	1.06	-0.74	
11842.00	90.490	339.990	6063.32	5566.94	5315.80	-1659.94	1646036.63	14343823.47	39°29'58.3932"N	80°58'48.2792"W	5568.95	342.658	1.06	-0.10	1.05	
11936.00	90.280	340.400	6062.68	5660.93	5404.24	-1691.79	1646004.79	14343911.87	39°29'59.2674"N	80°58'48.6852"W	5662.86	342.617	0.49	-0.22	0.44	
12031.00	90.580	340.540	6061.97	5755.92	5493.77	-1723.55	1645973.05	14344001.37	39°30'0.1523"N	80°58'49.0901"W	5757.79	342.582	0.35	0.32	0.15	
12126.00	90.090	341.200	6061.42	5850.91	5583.53	-1754.68	1645941.93	14344091.08	39°30'1.0394"N	80°58'49.4870"W	5852.75	342.554	0.87	-0.52	0.69	
12220.00	89.780	340.110	6061.52	5944.91	5672.22	-1785.81	1645910.80	14344179.74	39°30'1.9160"N	80°58'49.8840"W	5946.70	342.524	1.21	-0.33	-1.16	
12314.00	90.030	340.660	6061.68	6038.90	5760.76	-1817.37	1645879.26	14344268.25	39°30'2.7912"N	80°58'50.2863"W	6040.63	342.491	0.64	0.27	0.59	
12409.00	90.120	340.630	6061.55	6133.90	5850.39	-1848.85	1645847.79	14344357.84	39°30'3.6771"N	80°58'50.6877"W	6135.58	342.462	0.10	0.09	-0.03	
12503.00	91.010	340.430	6060.63	6227.89	5939.01	-1880.18	1645816.47	14344446.43	39°30'4.5531"N	80°58'51.0871"W	6229.52	342.433	0.97	0.95	-0.21	
12597.00	90.030	340.550	6059.77	6321.88	6027.61	-1911.58	1645785.09	14344534.99	39°30'5.4288"N	80°58'51.4873"W	6323.46	342.404	1.05	-1.04	0.13	
12692.00	89.850	340.670	6059.87	6416.87	6117.22	-1943.12	1645753.57	14344624.56	39°30'6.3145"N	80°58'51.8894"W	6418.42	342.378	0.23	-0.19	0.13	
12786.00	91.140	338.570	6059.06	6510.83	6205.33	-1975.85	1645720.85	14344712.63	39°30'7.1854"N	80°58'52.3068"W	6512.30	342.338	2.62	1.37	-2.23	
12881.00	89.820	340.630	6058.27	6605.79	6294.36	-2008.96	1645687.75	14344801.63	39°30'8.0654"N	80°58'52.7289"W	6607.18	342.299	2.58	-1.39	2.17	
12975.00	90.090	341.080	6058.34	6699.78	6383.16	-2039.79	1645656.93	14344890.39	39°30'8.9431"N	80°58'53.1220"W	6701.15	342.278	0.56	0.29	0.48	
13069.00	89.630	339.800	6058.57	6793.78	6471.73	-2071.26	1645625.48	14344978.93	39°30'9.8185"N	80°58'53.5232"W	6795.10	342.253	1.45	-0.49	-1.36	
13163.00	90.400	339.830	6058.54	6887.75	6559.96	-2103.69	1645593.06	14345067.12	39°30'10.6906"N	80°58'53.9367"W	6889.02	342.220	0.82	0.82	0.03	
13258.00	89.910	336.150	6058.29	6982.59	6648.02	-2139.29	1645557.47	14345155.15	39°30'11.5610"N	80°58'54.3906"W	6983.75	342.162	3.91	-0.52	-3.87	
13352.00	92.250	341.460	6056.51	7076.46	6735.61	-2173.25	1645523.52	14345242.70	39°30'12.4267"N	80°58'54.8237"W	7077.53	342.118	6.17	2.49	5.65	
13447.00	89.660	340.420	6054.93	7171.43	6825.38	-2204.27	1645492.52	14345332.43	39°30'13.3140"N	80°58'55.2192"W	7172.49	342.102	2.94	-2.73	-1.09	
13541.00	90.280	340.520	6054.98	7265.43	6913.97	-2235.69	1645461.11	14345420.99	39°30'14.1896"N	80°58'55.6198"W	7266.45	342.081	0.67	0.66	0.11	
13636.00	91.010	340.880	6053.91	7360.42	7003.62	-2267.09	1645429.72	14345510.61	39°30'15.0758"N	80°58'56.0202"W	7361.42	342.063	0.86	0.77	0.38	
13730.00	91.850	341.640	6051.56	7454.39	7092.61	-2297.28	1645399.54	14345599.56	39°30'15.9554"N	80°58'56.4051"W	7455.38	342.053	1.20	0.89	0.81	
13825.00	90.060	340.740	6049.98	7549.37	7182.52	-2327.90	1645368.93	14345689.43	39°30'16.8440"N	80°58'56.7956"W	7550.35	342.042	2.11	-1.88	-0.95	

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Actual Wellpath Report

Calvin Unit 2H AWP Proj: 22330'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Calvin Unit 2H
Field	Tyler	API	47-095-02848-0000
Facility	Roma Lou Pad	Wellbore	Calvin Unit 2H AWB
Slot	Slot #08		

WELLPATH DATA (240 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]	Comments
13919.00	90.090	341.200	6049.86	7643.37	7271.38	-2358.55	1645338.29	14345778.26	39°30'17.7223"N	80°58'57.1864"W	7644.33	342.029	0.49	0.03	0.49	
14014.00	90.150	341.010	6049.66	7738.37	7361.26	-2389.32	1645307.54	14345868.11	39°30'18.6107"N	80°58'57.5786"W	7739.32	342.018	0.21	0.06	-0.20	
14108.00	90.090	341.290	6049.46	7832.37	7450.22	-2419.69	1645277.18	14345957.03	39°30'19.4900"N	80°58'57.9659"W	7833.31	342.007	0.30	-0.06	0.30	
14203.00	90.030	340.600	6049.36	7927.37	7540.02	-2450.70	1645246.18	14346046.79	39°30'20.3775"N	80°58'58.3613"W	7928.29	341.994	0.73	-0.06	-0.73	
14297.00	89.880	340.320	6049.44	8021.36	7628.60	-2482.14	1645214.75	14346135.34	39°30'21.2531"N	80°58'58.7622"W	8022.26	341.976	0.34	-0.16	-0.30	
14391.00	90.710	340.290	6048.95	8115.35	7717.10	-2513.82	1645183.09	14346223.80	39°30'22.1278"N	80°58'59.1662"W	8116.22	341.957	0.88	0.88	-0.03	
14486.00	91.140	341.580	6047.42	8210.33	7806.88	-2544.85	1645152.07	14346313.54	39°30'23.0152"N	80°58'59.5618"W	8211.19	341.945	1.43	0.45	1.36	
14580.00	90.220	342.090	6046.30	8304.32	7896.18	-2574.15	1645122.78	14346402.81	39°30'23.8979"N	80°58'59.9354"W	8305.18	341.944	1.12	-0.98	0.54	
14675.00	89.720	342.550	6046.35	8399.30	7986.70	-2603.00	1645093.94	14346493.29	39°30'24.7925"N	80°59'0.3033"W	8400.18	341.948	0.72	-0.53	0.48	
14769.00	89.750	342.120	6046.79	8493.28	8076.26	-2631.53	1645065.43	14346582.82	39°30'25.6778"N	80°59'0.6670"W	8494.17	341.953	0.46	0.03	-0.46	
14863.00	91.420	342.920	6045.83	8587.24	8165.91	-2659.76	1645037.21	14346672.43	39°30'26.5639"N	80°59'1.0269"W	8588.16	341.959	1.97	1.78	0.85	
14958.00	89.350	340.280	6045.19	8682.22	8256.04	-2689.74	1645007.24	14346762.52	39°30'27.4547"N	80°59'1.4093"W	8683.14	341.955	3.53	-2.18	-2.78	
15052.00	91.020	341.920	6044.89	8776.21	8344.97	-2720.19	1644976.81	14346851.41	39°30'28.3336"N	80°59'1.7975"W	8777.12	341.946	2.49	1.78	1.74	
15146.00	90.800	342.570	6043.39	8870.18	8434.48	-2748.85	1644948.16	14346940.89	39°30'29.2183"N	80°59'2.1629"W	8871.11	341.949	0.73	-0.23	0.69	
15241.00	89.660	341.970	6043.01	8965.16	8524.96	-2777.78	1644919.24	14347031.34	39°30'30.1127"N	80°59'2.5318"W	8966.11	341.952	1.36	-1.20	-0.63	
15336.00	90.250	341.890	6043.09	9060.15	8615.28	-2807.24	1644889.78	14347121.61	39°30'31.0053"N	80°59'2.9076"W	9061.11	341.952	0.63	0.62	-0.08	
15430.00	91.660	341.430	6041.52	9154.13	8704.49	-2836.82	1644860.22	14347210.79	39°30'31.8871"N	80°59'3.2847"W	9155.09	341.949	1.58	1.50	-0.49	
15524.00	89.630	340.260	6040.46	9248.12	8793.27	-2867.66	1644829.40	14347299.54	39°30'32.7646"N	80°59'3.6779"W	9249.06	341.938	2.49	-2.16	-1.24	
15619.00	90.150	342.130	6040.64	9343.11	8883.20	-2898.28	1644798.79	14347389.43	39°30'33.6534"N	80°59'4.0684"W	9344.05	341.930	2.04	0.55	1.97	
15713.00	89.570	340.850	6040.87	9437.11	8972.33	-2928.12	1644768.96	14347478.52	39°30'34.5344"N	80°59'4.4490"W	9438.04	341.926	1.49	-0.62	-1.36	
15808.00	90.980	343.330	6040.42	9532.08	9062.72	-2957.33	1644739.76	14347568.87	39°30'35.4278"N	80°59'4.8215"W	9533.03	341.928	3.00	1.48	2.61	
15902.00	90.550	342.470	6039.16	9626.03	9152.55	-2984.97	1644712.13	14347658.67	39°30'36.3157"N	80°59'5.1739"W	9627.01	341.937	1.02	-0.46	-0.91	
15997.00	91.140	343.200	6037.76	9720.97	9243.31	-3013.00	1644684.11	14347749.39	39°30'37.2127"N	80°59'5.5313"W	9721.98	341.946	0.99	0.62	0.77	
16091.00	91.050	342.390	6035.97	9814.92	9333.09	-3040.80	1644656.32	14347839.14	39°30'38.1001"N	80°59'5.8858"W	9815.96	341.954	0.87	-0.10	-0.86	
16185.00	90.890	342.380	6034.37	9908.88	9422.67	-3069.24	1644627.89	14347928.68	39°30'38.9855"N	80°59'6.2485"W	9909.94	341.958	0.17	-0.17	-0.01	
16280.00	90.550	342.790	6033.18	10003.84	9513.30	-3097.67	1644599.47	14348019.28	39°30'39.8813"N	80°59'6.6111"W	10004.93	341.964	0.56	-0.36	0.43	
16374.00	90.710	342.570	6032.15	10097.80	9603.04	-3125.66	1644571.50	14348108.98	39°30'40.7682"N	80°59'6.9679"W	10098.91	341.971	0.29	0.17	-0.23	
16468.00	90.860	342.340	6030.86	10191.77	9692.66	-3153.99	1644543.18	14348198.56	39°30'41.6540"N	80°59'7.3292"W	10192.90	341.975	0.29	0.16	-0.24	
16562.00	90.830	343.640	6029.47	10285.70	9782.53	-3181.49	1644515.69	14348288.40	39°30'42.5423"N	80°59'7.6799"W	10286.87	341.984	1.38	-0.03	1.38	
16657.00	91.290	344.140	6027.72	10380.58	9873.78	-3207.84	1644489.35	14348379.62	39°30'43.4443"N	80°59'8.0159"W	10381.80	342.002	0.72	0.48	0.53	

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Actual Wellpath Report

Calvin Unit 2H AWP Proj: 22330'
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REFERENCE WELLPATH IDENTIFICATION			
Operator	ANTERO RESOURCES CORPORATION	Well	Calvin Unit 2H
Field	Tyler	API	47-095-02848-0000
Facility	Roma Lou Pad	Wellbore	Calvin Unit 2H AWB
Slot	Slot #08		

WELLPATH DATA (240 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]	Comments
16751.00	90.980	341.450	6025.85	10474.51	9963.55	-3235.64	1644461.56	14348469.35	39°30'44.3315"N	80°59'8.3704"W	10475.77	342.009	2.88	-0.33	-2.86	
16845.00	90.090	341.470	6024.98	10568.50	10052.67	-3265.52	1644431.69	14348558.43	39°30'45.2123"N	80°59'8.7516"W	10569.76	342.004	0.95	-0.95	0.02	
16939.00	91.480	342.130	6023.69	10662.48	10141.96	-3294.88	1644402.34	14348647.68	39°30'46.0948"N	80°59'9.1259"W	10663.75	342.002	1.64	1.48	0.70	
17128.00	90.740	341.710	6020.03	10851.43	10321.59	-3353.52	1644343.72	14348827.24	39°30'47.8703"N	80°59'9.8738"W	10852.71	342.001	0.45	-0.39	-0.22	
17222.00	90.950	342.660	6018.64	10945.40	10411.07	-3382.28	1644314.98	14348916.69	39°30'48.7547"N	80°59'10.2405"W	10946.70	342.002	1.03	0.22	1.01	
17316.00	90.680	343.360	6017.30	11039.34	10500.96	-3409.74	1644287.53	14349006.54	39°30'49.6431"N	80°59'10.5908"W	11040.67	342.011	0.80	-0.29	0.74	
17411.00	90.860	341.440	6016.03	11134.30	10591.50	-3438.47	1644258.82	14349097.04	39°30'50.5380"N	80°59'10.9571"W	11135.66	342.014	2.03	0.19	-2.02	
17505.00	91.350	343.550	6014.21	11228.25	10681.12	-3466.73	1644230.56	14349186.63	39°30'51.4238"N	80°59'11.3176"W	11229.63	342.018	2.30	0.52	2.24	
17599.00	90.830	342.560	6012.43	11322.18	10771.02	-3494.12	1644203.18	14349276.50	39°30'52.3124"N	80°59'11.6669"W	11323.60	342.027	1.19	-0.55	-1.05	
17693.00	90.710	342.130	6011.16	11416.15	10860.59	-3522.63	1644174.69	14349366.02	39°30'53.1976"N	80°59'12.0305"W	11417.59	342.030	0.47	-0.13	-0.46	
17787.00	90.550	341.830	6010.13	11510.13	10949.97	-3551.71	1644145.62	14349455.37	39°30'54.0811"N	80°59'12.4013"W	11511.58	342.029	0.36	-0.17	-0.32	
17882.00	90.400	342.010	6009.34	11605.12	11040.28	-3581.19	1644116.15	14349545.64	39°30'54.9737"N	80°59'12.7773"W	11606.58	342.028	0.25	-0.16	0.19	
17976.00	90.620	343.010	6008.50	11699.09	11129.93	-3609.44	1644087.91	14349635.25	39°30'55.8597"N	80°59'13.1376"W	11700.57	342.032	1.09	0.23	1.06	
18071.00	90.310	342.600	6007.73	11794.04	11220.68	-3637.52	1644059.84	14349725.97	39°30'56.7567"N	80°59'13.4957"W	11795.56	342.038	0.54	-0.33	-0.43	
18165.00	90.310	342.610	6007.22	11888.01	11310.38	-3665.62	1644031.75	14349815.63	39°30'57.6433"N	80°59'13.8542"W	11889.55	342.043	0.01	0.00	0.01	
18259.00	89.970	342.750	6006.99	11981.97	11400.12	-3693.61	1644003.78	14349905.33	39°30'58.5302"N	80°59'14.2111"W	11983.55	342.048	0.39	-0.36	0.15	
18354.00	90.060	341.810	6006.97	12076.95	11490.61	-3722.52	1643974.87	14349995.79	39°30'59.4246"N	80°59'14.5798"W	12078.54	342.050	0.99	0.09	-0.99	
18448.00	90.680	341.330	6006.36	12170.95	11579.78	-3752.24	1643945.17	14350084.93	39°31'0.3060"N	80°59'14.9589"W	12172.54	342.046	0.83	0.66	-0.51	
18543.00	89.940	340.940	6005.85	12265.95	11669.68	-3782.96	1643914.47	14350174.79	39°31'1.1945"N	80°59'15.3506"W	12267.52	342.039	0.88	-0.78	-0.41	
18637.00	90.000	340.500	6005.90	12359.94	11758.41	-3813.99	1643883.44	14350263.48	39°31'2.0715"N	80°59'15.7465"W	12361.50	342.029	0.47	0.06	-0.47	
18732.00	89.970	340.740	6005.92	12454.94	11848.02	-3845.52	1643851.93	14350353.06	39°31'2.9572"N	80°59'16.1486"W	12456.47	342.018	0.25	-0.03	0.25	
18826.00	90.060	340.490	6005.90	12548.94	11936.69	-3876.72	1643820.74	14350441.70	39°31'3.8337"N	80°59'16.5466"W	12550.44	342.008	0.28	0.10	-0.27	
18921.00	89.940	340.110	6005.90	12643.93	12026.13	-3908.74	1643788.73	14350531.10	39°31'4.7177"N	80°59'16.9550"W	12645.40	341.995	0.42	-0.13	-0.40	
19015.00	89.970	339.830	6005.97	12737.91	12114.45	-3940.94	1643756.55	14350619.38	39°31'5.5905"N	80°59'17.3657"W	12739.34	341.980	0.30	0.03	-0.30	
19110.00	90.150	340.190	6005.87	12832.89	12203.72	-3973.41	1643724.08	14350708.62	39°31'6.4729"N	80°59'17.7800"W	12834.29	341.965	0.42	0.19	0.38	
19204.00	89.750	340.670	6005.95	12926.88	12292.29	-4004.90	1643692.61	14350797.15	39°31'7.3483"N	80°59'18.1816"W	12928.25	341.954	0.66	-0.43	0.51	
19299.00	89.850	340.740	6006.29	13021.88	12381.96	-4036.29	1643661.23	14350886.78	39°31'8.2345"N	80°59'18.5820"W	13023.23	341.945	0.13	0.11	0.07	
19393.00	89.750	340.350	6006.61	13115.87	12470.59	-4067.60	1643629.94	14350975.38	39°31'9.1106"N	80°59'18.9813"W	13117.20	341.935	0.43	-0.11	-0.41	
19488.00	89.390	340.690	6007.33	13210.87	12560.15	-4099.28	1643598.27	14351064.90	39°31'9.9957"N	80°59'19.3854"W	13212.17	341.925	0.52	-0.38	0.36	
19583.00	89.660	339.050	6008.11	13305.84	12649.34	-4131.97	1643565.59	14351154.05	39°31'10.8773"N	80°59'19.8025"W	13307.10	341.910	1.75	0.28	-1.73	



Actual Wellpath Report

Calvin Unit 2H AWP Proj: 22330'
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REFERENCE WELLPATH IDENTIFICATION				
Operator	ANTERO RESOURCES CORPORATION		Well	Calvin Unit 2H
Field	Tyler		API	47-095-02848-0000
Facility	Roma Lou Pad		Wellbore	Calvin Unit 2H AWB
Slot	Slot #08			

WELLPATH DATA (240 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]	Comments
19677.00	89.570	339.950	6008.75	13399.80	12737.38	-4164.89	1643532.69	14351242.06	39°31'11.7475"N	80°59'20.2224"W	13401.02	341.893	0.96	-0.10	0.96	
19771.00	89.910	340.080	6009.17	13493.78	12825.72	-4197.01	1643500.57	14351330.37	39°31'12.6206"N	80°59'20.6322"W	13494.96	341.880	0.39	0.36	0.14	
19866.00	90.990	341.350	6008.43	13588.77	12915.39	-4228.39	1643469.21	14351419.99	39°31'13.5068"N	80°59'21.0324"W	13589.94	341.872	1.75	1.14	1.34	
19960.00	90.490	340.290	6007.21	13682.76	13004.16	-4259.27	1643438.35	14351508.73	39°31'14.3842"N	80°59'21.4263"W	13683.91	341.865	1.25	-0.53	-1.13	
20054.00	91.380	342.040	6005.68	13776.74	13093.11	-4289.61	1643408.02	14351597.65	39°31'15.2634"N	80°59'21.8133"W	13777.89	341.860	2.09	0.95	1.86	
20149.00	90.280	340.810	6004.30	13871.73	13183.15	-4319.87	1643377.77	14351687.65	39°31'16.1533"N	80°59'22.1993"W	13872.87	341.857	1.74	-1.16	-1.29	
20243.00	90.920	340.250	6003.32	13965.71	13271.77	-4351.20	1643346.45	14351776.23	39°31'17.0292"N	80°59'22.5990"W	13966.84	341.848	0.90	0.68	-0.60	
20338.00	91.260	340.980	6001.51	14060.69	13361.36	-4382.72	1643314.94	14351865.79	39°31'17.9147"N	80°59'23.0011"W	14061.80	341.840	0.85	0.36	0.77	
20432.00	90.340	340.650	6000.20	14154.68	13450.13	-4413.61	1643284.07	14351954.53	39°31'18.7921"N	80°59'23.3951"W	14155.78	341.833	1.04	-0.98	-0.35	
20527.00	90.920	340.850	5999.15	14249.67	13539.82	-4444.93	1643252.76	14352044.17	39°31'19.6785"N	80°59'23.7946"W	14250.75	341.826	0.65	0.61	0.21	
20621.00	90.650	341.280	5997.87	14343.66	13628.72	-4475.43	1643222.27	14352133.04	39°31'20.5572"N	80°59'24.1837"W	14344.74	341.821	0.54	-0.29	0.46	
20716.00	90.340	340.760	5997.05	14438.66	13718.55	-4506.32	1643191.39	14352222.84	39°31'21.4451"N	80°59'24.5779"W	14439.72	341.815	0.64	-0.33	-0.55	
20810.00	90.520	340.860	5996.34	14532.66	13807.33	-4537.22	1643160.50	14352311.58	39°31'22.3225"N	80°59'24.9720"W	14533.71	341.809	0.22	0.19	0.11	
20904.00	90.620	340.030	5995.41	14626.64	13895.90	-4568.68	1643129.06	14352400.11	39°31'23.1979"N	80°59'25.3734"W	14627.67	341.800	0.89	0.11	-0.88	
20999.00	90.650	339.690	5994.35	14721.61	13985.08	-4601.39	1643096.36	14352489.26	39°31'24.0794"N	80°59'25.7906"W	14722.61	341.788	0.36	0.03	-0.36	
21094.00	90.370	339.570	5993.51	14816.58	14074.14	-4634.46	1643063.31	14352578.28	39°31'24.9596"N	80°59'26.2125"W	14817.54	341.774	0.32	-0.29	-0.13	
21188.00	90.950	340.880	5992.42	14910.56	14162.59	-4666.26	1643031.52	14352666.70	39°31'25.8338"N	80°59'26.6181"W	14911.50	341.764	1.52	0.62	1.39	
21282.00	90.860	340.120	5990.94	15004.54	14251.19	-4697.63	1643000.16	14352755.26	39°31'26.7095"N	80°59'27.0184"W	15005.47	341.756	0.81	-0.10	-0.81	
21376.00	90.860	341.010	5989.53	15098.52	14339.82	-4728.90	1642968.90	14352843.85	39°31'27.5855"N	80°59'27.4174"W	15099.43	341.749	0.95	0.00	0.95	
21470.00	90.400	340.530	5988.49	15192.52	14428.57	-4759.86	1642937.95	14352932.57	39°31'28.4627"N	80°59'27.8123"W	15193.41	341.743	0.71	-0.49	-0.51	
21565.00	90.430	340.130	5987.81	15287.51	14518.02	-4791.84	1642905.99	14353021.99	39°31'29.3468"N	80°59'28.2203"W	15288.38	341.734	0.42	0.03	-0.42	
21659.00	90.280	339.800	5987.22	15381.48	14606.33	-4824.04	1642873.80	14353110.26	39°31'30.2196"N	80°59'28.6311"W	15382.34	341.723	0.39	-0.16	-0.35	
21753.00	90.180	340.340	5986.85	15475.47	14694.70	-4856.08	1642841.77	14353198.59	39°31'31.0930"N	80°59'29.0399"W	15476.30	341.713	0.58	-0.11	0.57	
21847.00	90.890	340.540	5985.97	15569.46	14783.27	-4887.55	1642810.31	14353287.13	39°31'31.9684"N	80°59'29.4414"W	15570.27	341.705	0.78	0.76	0.21	
21942.00	90.650	340.110	5984.69	15664.44	14872.72	-4919.53	1642778.34	14353376.54	39°31'32.8525"N	80°59'29.8494"W	15665.23	341.697	0.52	-0.25	-0.45	
22036.00	90.680	340.350	5983.60	15758.42	14961.17	-4951.33	1642746.56	14353464.96	39°31'33.7267"N	80°59'30.2550"W	15759.20	341.688	0.26	0.03	0.26	
22130.00	90.490	340.430	5982.64	15852.41	15049.71	-4982.87	1642715.03	14353553.46	39°31'34.6019"N	80°59'30.6575"W	15853.17	341.681	0.22	-0.20	0.09	
22225.00	90.920	340.150	5981.47	15947.39	15139.14	-5014.91	1642683.01	14353642.86	39°31'35.4857"N	80°59'31.0662"W	15948.13	341.672	0.54	0.45	-0.29	
22305.00	90.520	336.840	5980.47	16027.29	15213.55	-5044.23	1642653.70	14353717.24	39°31'36.2212"N	80°59'31.4403"W	16027.99	341.656	4.17	-0.50	-4.14	
22330.00†	90.520	336.840	5980.24	16052.22	15236.54	-5054.06	1642643.87	14353740.21	39°31'36.4484"N	80°59'31.5658"W	16052.90	341.649	0.00	0.00	0.00	Projected MD at TD: 22330'

HOLE & CASING SECTIONS - Ref Wellbore: Calvin Unit 2H AWB Ref Wellpath: Calvin Unit 2H AWP Proj: 22330'										
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	30.00	130.00	100.00	30.00	130.00	0.00	0.00	0.13	0.23	
17.5in Open Hole	130.00	386.00	256.00	130.00	385.98	0.13	0.23	0.68	3.26	
13.375in Casing Surface	30.00	356.00	326.00	30.00	355.98	0.00	0.00	0.71	2.71	
12.25in Open Hole	386.00	3082.00	2696.00	385.98	3080.91	0.68	3.26	-0.74	2.10	
9.625in Casing Intermediate	30.00	3052.00	3022.00	30.00	3050.93	0.00	0.00	-1.69	2.76	
8.75in Open Hole	3082.00	5180.00	2098.00	3080.91	5130.81	-0.74	2.10	-384.16	150.21	
8.5in Open Hole	5180.00	22330.00	17150.00	5130.81	5980.24	-384.16	150.21	15236.54	-5054.06	
5.5in Casing Production	30.00	22310.00	22280.00	30.00	5980.42	0.00	0.00	15218.15	-5046.20	



Actual Wellpath Report

Calvin Unit 2H AWP Proj: 22330'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Calvin Unit 2H
Field	Tyler	API	47-095-02848-0000
Facility	Roma Lou Pad	Wellbore	Calvin Unit 2H AWB
Slot	Slot #08		

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
Calvin Unit 2H POE Rev-3	6043.00	52.33	105.04	1647800.90	14338562.11	39°29'6.3679"N	80°58'25.7834"W	point
Calvin Unit 2H AZI Rev-1	6088.00	570.79	-30.79	1647665.12	14339080.36	39°29'11.4924"N	80°58'27.5139"W	point
Calvin Unit 2H BHL Rev-3	6088.00	15261.21	-5054.58	1642643.35	14353764.88	39°31'36.6922"N	80°59'31.5724"W	point
Calvin Unit 2H LP Rev-1	6088.00	295.64	48.19	1647744.07	14338805.32	39°29'8.7728"N	80°58'26.5076"W	point
Calvin Unit 2H 50' L/R Hard Line	6250.00	7914.21	-2542.07	1645154.85	14346420.83	39°30'24.0760"N	80°58'59.5261"W	rectangle

2D Rectangle 15529.5 x 100.

WELLPATH COMPOSITION - Ref Wellbore: Calvin Unit 2H AWB Ref Wellpath: Calvin Unit 2H AWP Proj: 22330'

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
30.00	299.00	Gyrodatta 2015 - GC+WIR+DPIPE	01 Gyrodatta MS Gyro <17-1/2"> (100'-299')	Calvin Unit 2H AWB	5/15/2023
299.00	3007.00	BH NaviTrak (2019) (Axial Corr+HRGM)	02 APS EM <12-1/4"> (299')(417'-3007')	Calvin Unit 2H AWB	5/15/2023
3007.00	5106.00	BH NaviTrak (2019) (Axial Corr+HRGM)	03 APS EM <8-3/4"> (3007')(3123'-5106')	Calvin Unit 2H AWB	5/25/2023
5106.00	22330.00	BH AutoTrak Curve/eXpress (2019) (HRGM, Short spacing)	04 BH AT Curve <8-1/2"> (5106')(5157'-22305')	Calvin Unit 2H AWB	5/25/2023

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Actual Wellpath Report

Calvin Unit 2H AWP Proj: 22330'

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REFERENCE WELLPATH IDENTIFICATION

Operator	ANTERO RESOURCES CORPORATION	Well	Calvin Unit 2H
Field	Tyler	API	47-095-02848-0000
Facility	Roma Lou Pad	Wellbore	Calvin Unit 2H AWB
Slot	Slot #08		

COMMENTS

Wellpath general comments

API: 47-095-02848-0000

BH Job #: 111790786

Rig: H&P 519

Duration: 5/29/2023-6/3/2023

Gyrodata MS Gyro <17-1/2"> (100'-299')

APS EM <12-1/4"> (299')(417'-3007')

APS EM <8-3/4"> (3007')(3123'-5106')

BH AT Curve <8-1/2"> (5106')(5157'-22305')

Sycamore: 5935' MD

Middlesex: 6073' MD

Burkett: 6225' MD

Marcellus POE: 6293' MD

Projected MD at TD: 22330'

WV Department of Environmental Protection

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