



<b>Company:</b>	Tug Hill Operating LLC	<b>Local Co-ordinate Reference:</b>	Well Evad 02HM (D)
<b>Project:</b>	Marshall County, West Virginia	<b>TVD Reference:</b>	RKB=1291+18 @ 1309.00ft (Precision 528)
<b>Site:</b>	Accettolo/Evad Pad	<b>MD Reference:</b>	RKB=1291+18 @ 1309.00ft (Precision 528)
<b>Well:</b>	Evad 02HM (D)	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Original Hole	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys Original Hole	<b>Database:</b>	DB_Jul2216dt_v14

<b>Project</b>	Marshall County, West Virginia		
<b>Map System:</b>	Universal Transverse Mercator (US Survey Feet)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD83 West Virginia - HARN		
<b>Map Zone:</b>	Zone 17N (84 W to 78 W)		

<b>Site</b>	Accettolo/Evad Pad				
<b>Site Position:</b>		<b>Northing:</b>	14,433,724.12 usft	<b>Latitude:</b>	39.74438861
<b>From:</b>	Lat/Long	<b>Easting:</b>	1,698,524.31 usft	<b>Longitude:</b>	-80.79327927
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b>	0.132 "

<b>Well</b>	Evad 02HM (D)					
<b>Well Position</b>	<b>+N/-S</b>	0.00 ft	<b>Northing:</b>	14,433,705.55 usft	<b>Latitude:</b>	39.74433754
	<b>+E/-W</b>	0.00 ft	<b>Easting:</b>	1,698,534.09 usft	<b>Longitude:</b>	-80.79324462
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b>	ft	<b>Ground Level:</b>	1,291.00 ft

<b>Wellbore</b>	Original Hole				
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	5/20/2019	-8.682	66.774	51,939.38502921

<b>Design</b>	Surveys Original Hole				
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<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	150.64

Survey Program	Date	From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	RECEIVED Office of Oil and Gas  JUL 20 2020  WV Department of Environmental Protection
	6/3/2019	202.00	978.00	MWD surf (Original Hole)	MWD	MWD - Standard	
		1,078.00	2,779.00	MWD int (Original Hole)	MWD	MWD - Standard	
		2,877.00	15,049.00	MWD (Original Hole)	MWD	MWD - Standard	
		15,100.00	15,100.00	Projection (Original Hole)	MWD	MWD - Standard	

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	14,433,705.55	1,698,534.09	39.74433754	-80.79324462
202.00	0.23	170.14	202.00	-0.40	0.07	14,433,705.15	1,698,534.16	39.74433644	-80.79324438
<b>MWD surveys</b>									
248.00	0.35	168.56	248.00	-0.63	0.11	14,433,704.92	1,698,534.20	39.74433582	-80.79324422
278.00	0.39	114.00	278.00	-0.76	0.22	14,433,704.79	1,698,534.31	39.74433545	-80.79324383
309.00	0.26	255.57	309.00	-0.82	0.25	14,433,704.73	1,698,534.34	39.74433529	-80.79324373
339.00	0.43	118.13	339.00	-0.89	0.29	14,433,704.66	1,698,534.38	39.74433510	-80.79324361
370.00	0.45	226.12	370.00	-1.03	0.30	14,433,704.52	1,698,534.39	39.74433471	-80.79324356
400.00	0.13	21.00	400.00	-1.08	0.23	14,433,704.47	1,698,534.32	39.74433458	-80.79324382

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<b>Site:</b>	Accettolo/Evad Pad	<b>MD Reference:</b>	RKB=1291+18 @ 1309.00ft (Precision 528)
<b>Well:</b>	Evad 02HM (D)	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Original Hole	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys Original Hole	<b>Database:</b>	DB_Jul2216dt_v14

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Survey										JUL 20 2020
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ustf)	Map Easting (ustf)	WV Department of Environmental Protection		
								Latitude	Longitude	
431.00	0.21	237.17	431.00	-1.08	0.19	14,433,704.47	1,698,534.28	39.74433458	-80.79324394	
521.00	0.08	143.87	521.00	-1.22	0.09	14,433,704.33	1,698,534.18	39.74433420	-80.79324431	
612.00	0.25	221.80	612.00	-1.42	0.00	14,433,704.13	1,698,534.09	39.74433365	-80.79324464	
703.00	0.18	136.13	703.00	-1.67	-0.04	14,433,703.88	1,698,534.05	39.74433296	-80.79324476	
793.00	0.03	110.03	793.00	-1.78	0.08	14,433,703.77	1,698,534.17	39.74433266	-80.79324434	
888.00	0.47	92.24	887.99	-1.80	0.50	14,433,703.75	1,698,534.59	39.74433259	-80.79324287	
978.00	0.30	123.21	977.99	-1.94	1.06	14,433,703.60	1,698,535.15	39.74433219	-80.79324086	
1,078.00	0.24	143.06	1,077.99	-2.26	1.41	14,433,703.29	1,698,535.50	39.74433134	-80.79323963	
1,173.00	1.18	128.62	1,172.98	-3.03	2.29	14,433,702.52	1,698,536.38	39.74432922	-80.79323650	
1,268.00	2.58	145.16	1,267.93	-5.39	4.28	14,433,700.16	1,698,538.37	39.74432271	-80.79322945	
1,361.00	3.90	144.56	1,360.78	-9.69	7.31	14,433,695.86	1,698,541.40	39.74431090	-80.79321871	
1,456.00	4.56	133.04	1,455.52	-14.90	11.94	14,433,690.65	1,698,546.03	39.74429656	-80.79320227	
1,551.00	4.80	137.29	1,550.21	-20.39	17.40	14,433,685.15	1,698,551.49	39.74428143	-80.79318290	
1,645.00	5.26	126.30	1,643.85	-25.83	23.54	14,433,679.71	1,698,557.63	39.74426644	-80.79316110	
1,740.00	4.84	127.61	1,738.48	-30.86	30.22	14,433,674.69	1,698,564.31	39.74425260	-80.79313736	
1,835.00	3.73	132.71	1,833.21	-35.40	35.67	14,433,670.15	1,698,569.76	39.74424010	-80.79311803	
1,930.00	2.72	136.19	1,928.06	-39.12	39.50	14,433,666.42	1,698,573.59	39.74422985	-80.79310443	
2,025.00	2.42	152.59	2,022.96	-42.53	41.98	14,433,663.02	1,698,576.07	39.74422048	-80.79309562	
2,120.00	2.57	159.82	2,117.87	-46.31	43.64	14,433,659.24	1,698,577.73	39.74421009	-80.79308975	
2,216.00	3.39	162.54	2,213.74	-51.04	45.23	14,433,654.51	1,698,579.32	39.74419709	-80.79308412	
2,311.00	4.02	157.39	2,308.54	-56.79	47.36	14,433,648.76	1,698,581.45	39.74418128	-80.79307661	
2,406.00	4.23	163.98	2,403.30	-63.23	49.60	14,433,642.31	1,698,583.69	39.74416357	-80.79306867	
2,500.00	3.21	173.20	2,497.10	-69.18	50.87	14,433,636.37	1,698,584.96	39.74414724	-80.79306421	
2,595.00	1.46	191.82	2,592.02	-73.00	50.94	14,433,632.54	1,698,585.03	39.74413673	-80.79306400	
2,690.00	0.92	231.11	2,687.00	-74.67	50.10	14,433,630.88	1,698,584.19	39.74413216	-80.79306701	
2,779.00	1.19	250.35	2,775.99	-75.43	48.67	14,433,630.12	1,698,582.76	39.74413009	-80.79307209	
2,877.00	1.27	254.76	2,873.96	-76.05	46.67	14,433,629.49	1,698,580.76	39.74412838	-80.79307923	
2,972.00	2.68	197.41	2,968.91	-78.45	44.98	14,433,627.10	1,698,579.08	39.74412181	-80.79308523	
3,065.00	3.06	173.60	3,061.80	-82.99	44.61	14,433,622.55	1,698,578.70	39.74410934	-80.79308660	
3,160.00	3.51	165.28	3,156.64	-88.33	45.63	14,433,617.22	1,698,579.72	39.74409469	-80.79308301	
3,255.00	3.13	161.61	3,251.48	-93.60	47.19	14,433,611.95	1,698,581.28	39.74408019	-80.79307751	
3,350.00	2.69	160.45	3,346.36	-98.16	48.75	14,433,607.39	1,698,582.84	39.74406765	-80.79307198	
3,444.00	2.45	158.52	3,440.27	-102.11	50.23	14,433,603.44	1,698,584.32	39.74405680	-80.79306677	
3,539.00	2.29	158.54	3,535.18	-105.76	51.67	14,433,599.78	1,698,585.76	39.74404675	-80.79306169	
3,634.00	1.96	149.40	3,630.12	-108.93	53.19	14,433,596.62	1,698,587.28	39.74403805	-80.79305630	
3,728.00	2.87	223.39	3,724.05	-112.02	52.39	14,433,593.52	1,698,586.48	39.74402956	-80.79305917	
3,823.00	3.40	232.31	3,818.91	-115.47	48.53	14,433,590.07	1,698,582.62	39.74402011	-80.79307294	
3,918.00	2.96	232.86	3,913.77	-118.68	44.34	14,433,586.87	1,698,578.43	39.74401134	-80.79308785	
4,013.00	2.55	233.00	4,008.66	-121.43	40.70	14,433,584.12	1,698,574.79	39.74400380	-80.79310084	
4,108.00	3.41	194.09	4,103.54	-125.44	38.32	14,433,580.10	1,698,572.41	39.74399279	-80.79310932	
4,203.00	3.20	188.02	4,198.38	-130.81	37.26	14,433,574.74	1,698,571.35	39.74397806	-80.79311313	
4,298.00	2.71	181.45	4,293.25	-135.68	36.84	14,433,569.87	1,698,570.93	39.74396469	-80.79311469	
4,393.00	2.20	173.39	4,388.16	-139.74	36.99	14,433,565.81	1,698,571.08	39.74395355	-80.79311417	
4,487.00	1.66	197.05	4,482.11	-142.83	36.80	14,433,562.72	1,698,570.89	39.74394505	-80.79311488	
4,584.00	1.75	215.44	4,579.07	-145.38	35.53	14,433,560.17	1,698,569.62	39.74393806	-80.79311942	
4,678.00	1.88	219.92	4,673.02	-147.73	33.71	14,433,557.81	1,698,567.80	39.74393161	-80.79312592	
4,772.00	1.83	218.44	4,766.97	-150.09	31.78	14,433,555.46	1,698,565.87	39.74392515	-80.79313278	
4,868.00	1.73	223.27	4,862.93	-152.35	29.84	14,433,553.20	1,698,563.93	39.74391896	-80.79313972	
4,963.00	3.17	177.44	4,957.85	-156.02	28.97	14,433,549.53	1,698,563.06	39.74390889	-80.79314283	
5,057.00	3.32	173.35	5,051.69	-161.32	29.40	14,433,544.23	1,698,563.49	39.74389434	-80.79314134	
5,151.00	3.58	171.62	5,145.52	-166.92	30.15	14,433,538.63	1,698,564.24	39.74387893	-80.79313875	
5,246.00	1.51	185.24	5,240.43	-171.10	30.46	14,433,534.44	1,698,564.55	39.74386745	-80.79313765	
5,341.00	0.85	179.20	5,335.41	-173.05	30.36	14,433,532.49	1,698,564.45	39.74386209	-80.79313804	
5,435.00	0.62	195.02	5,429.40	-174.24	30.24	14,433,531.30	1,698,564.33	39.74385883	-80.79313848	
5,530.00	2.36	200.49	5,524.36	-176.57	29.42	14,433,528.98	1,698,563.51	39.74385244	-80.79314141	



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Survey									JUL 20 2020	
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	WV Department of Environmental Protection		
								Latitude	Longitude	
5,625.00	2.57	194.43	5,619.27	-180.47	28.20	14,433,525.08	1,698,562.29	39.74384175	-80.79314577	
5,719.00	3.33	183.12	5,713.15	-185.23	27.53	14,433,520.31	1,698,561.62	39.74382866	-80.79314820	
5,746.00	3.80	178.75	5,740.10	-186.91	27.51	14,433,518.64	1,698,561.60	39.74382405	-80.79314830	
5,834.00	6.29	171.19	5,827.75	-194.59	28.31	14,433,510.96	1,698,562.40	39.74380296	-80.79314551	
5,858.00	6.55	171.37	5,851.60	-197.24	28.72	14,433,508.30	1,698,562.81	39.74379567	-80.79314408	
5,953.00	11.34	171.01	5,945.42	-211.84	30.99	14,433,493.71	1,698,565.08	39.74375558	-80.79313611	
6,048.00	15.96	162.49	6,037.72	-233.53	36.38	14,433,472.02	1,698,570.47	39.74369597	-80.79311711	
6,144.00	23.03	156.25	6,128.17	-263.35	47.93	14,433,442.20	1,698,582.02	39.74361401	-80.79307626	
6,239.00	31.43	150.98	6,212.58	-302.09	67.47	14,433,403.46	1,698,601.56	39.74350749	-80.79300708	
6,333.00	38.86	146.05	6,289.40	-348.06	95.87	14,433,357.49	1,698,629.96	39.74338107	-80.79290641	
6,428.00	44.53	145.35	6,360.31	-400.22	131.49	14,433,305.32	1,698,665.58	39.74323758	-80.79278015	
6,522.00	51.08	145.35	6,423.41	-457.48	171.06	14,433,248.07	1,698,705.15	39.74308008	-80.79263984	
6,616.00	58.90	147.81	6,477.30	-521.73	213.36	14,433,183.82	1,698,747.45	39.74290337	-80.79248989	
6,712.00	67.16	152.65	6,520.82	-595.97	255.67	14,433,109.58	1,698,789.76	39.74269922	-80.79233998	
6,759.00	74.02	155.63	6,536.44	-635.84	274.97	14,433,069.71	1,698,809.06	39.74258960	-80.79227165	
6,807.00	81.05	156.42	6,546.79	-678.64	294.00	14,433,026.91	1,698,828.09	39.74247194	-80.79220431	
6,854.00	81.45	156.60	6,553.94	-721.24	312.51	14,432,984.31	1,698,846.60	39.74235482	-80.79213880	
6,902.00	81.89	156.34	6,560.90	-764.78	331.48	14,432,940.76	1,698,865.57	39.74223511	-80.79207170	
6,997.00	90.37	149.92	6,567.31	-849.20	374.28	14,432,856.35	1,698,908.37	39.74200301	-80.79192014	
7,092.00	89.93	149.57	6,567.06	-931.26	422.14	14,432,774.29	1,698,956.23	39.74177734	-80.79175054	
7,187.00	89.71	150.62	6,567.36	-1,013.61	469.50	14,432,691.94	1,699,003.59	39.74155089	-80.79158274	
7,283.00	89.54	151.41	6,567.99	-1,097.58	516.02	14,432,607.97	1,699,050.11	39.74131997	-80.79141795	
7,378.00	89.32	150.27	6,568.93	-1,180.54	562.31	14,432,525.01	1,699,096.40	39.74109186	-80.79125398	
7,472.00	89.05	150.71	6,570.27	-1,262.33	608.61	14,432,443.22	1,699,142.70	39.74086693	-80.79108996	
7,566.00	88.79	150.27	6,572.04	-1,344.12	654.90	14,432,361.42	1,699,188.99	39.74064201	-80.79092596	
7,661.00	87.91	149.66	6,574.78	-1,426.33	702.43	14,432,279.22	1,699,236.52	39.74041594	-80.79075756	
7,756.00	90.55	148.34	6,576.05	-1,507.75	751.35	14,432,197.80	1,699,285.44	39.74019204	-80.79058422	
7,851.00	89.71	148.43	6,575.84	-1,588.65	801.15	14,432,116.90	1,699,335.24	39.73996954	-80.79040774	
7,946.00	89.32	148.78	6,576.64	-1,669.74	850.63	14,432,035.81	1,699,384.72	39.73974653	-80.79023238	
8,040.00	89.05	148.34	6,577.98	-1,749.93	899.66	14,431,955.62	1,699,433.75	39.73952599	-80.79005865	
8,135.00	88.84	148.07	6,579.73	-1,830.66	949.71	14,431,874.89	1,699,483.79	39.73930395	-80.78988130	
8,230.00	91.78	147.64	6,579.21	-1,911.08	1,000.25	14,431,794.47	1,699,534.33	39.73908275	-80.78970219	
8,325.00	91.74	147.02	6,576.29	-1,991.02	1,051.50	14,431,714.53	1,699,585.59	39.73886291	-80.78952052	
8,420.00	91.78	150.36	6,573.38	-2,072.13	1,100.84	14,431,633.42	1,699,634.93	39.73863982	-80.78934569	
8,515.00	91.03	151.06	6,571.05	-2,154.96	1,147.30	14,431,550.59	1,699,681.39	39.73841205	-80.78918111	
8,611.00	91.08	150.71	6,569.28	-2,238.82	1,194.00	14,431,466.74	1,699,728.09	39.73818146	-80.78901568	
8,706.00	89.80	152.12	6,568.55	-2,322.23	1,239.45	14,431,383.32	1,699,773.54	39.73795208	-80.78885471	
8,801.00	89.63	151.94	6,569.02	-2,406.13	1,284.01	14,431,299.42	1,699,818.10	39.73772137	-80.78869692	
8,895.00	89.76	151.06	6,569.52	-2,488.74	1,328.86	14,431,216.81	1,699,862.95	39.73749422	-80.78853807	
8,990.00	90.07	150.10	6,569.66	-2,571.49	1,375.53	14,431,134.07	1,699,909.61	39.73726667	-80.78837277	
9,086.00	88.79	150.54	6,570.62	-2,654.89	1,423.06	14,431,050.67	1,699,957.14	39.73703732	-80.78820439	
9,180.00	88.97	150.45	6,572.46	-2,736.68	1,469.34	14,430,968.87	1,700,003.43	39.73681239	-80.78804043	
9,274.00	88.53	150.71	6,574.51	-2,818.54	1,515.51	14,430,887.01	1,700,049.59	39.73658728	-80.78787692	
9,369.00	87.56	150.36	6,577.75	-2,901.20	1,562.21	14,430,804.35	1,700,096.29	39.73635996	-80.78771149	
9,464.00	86.77	150.01	6,582.45	-2,983.52	1,609.38	14,430,722.03	1,700,143.47	39.73613357	-80.78754438	
9,558.00	91.12	148.51	6,584.18	-3,064.28	1,657.41	14,430,641.27	1,700,191.50	39.73591148	-80.78737422	
9,653.00	90.42	148.51	6,582.90	-3,145.28	1,707.03	14,430,560.27	1,700,241.12	39.73568870	-80.78719841	
9,749.00	92.35	149.31	6,580.58	-3,227.46	1,756.58	14,430,478.09	1,700,290.67	39.73546268	-80.78702283	
9,844.00	92.13	148.87	6,576.87	-3,308.91	1,805.35	14,430,396.64	1,700,339.43	39.73523869	-80.78685006	
9,939.00	91.43	150.71	6,573.92	-3,390.96	1,853.12	14,430,314.59	1,700,387.21	39.73501303	-80.78668082	
10,034.00	91.25	150.71	6,571.69	-3,473.80	1,899.59	14,430,231.76	1,700,433.67	39.73478525	-80.78651625	
10,129.00	89.23	151.06	6,571.30	-3,556.79	1,945.81	14,430,148.77	1,700,479.90	39.73455703	-80.78635254	
10,224.00	89.19	151.06	6,572.61	-3,639.92	1,991.77	14,430,065.64	1,700,525.86	39.73432843	-80.78618975	
10,320.00	88.79	151.06	6,574.30	-3,723.92	2,038.22	14,429,981.64	1,700,572.31	39.73409744	-80.78602525	
10,415.00	87.78	151.50	6,577.14	-3,807.19	2,083.85	14,429,898.36	1,700,617.94	39.73386844	-80.78586365	



<b>Company:</b>	Tug Hill Operating LLC	<b>Local Co-ordinate Reference:</b>	Well Evad 02HM (D)
<b>Project:</b>	Marshall County, West Virginia	<b>TVD Reference:</b>	RKB=1291+18 @ 1309.00ft (Precision 528)
<b>Site:</b>	Accetolo/Evad Pad	<b>MD Reference:</b>	RKB=1291+18 @ 1309.00ft (Precision 528)
<b>Well:</b>	Evad 02HM (D)	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Original Hole	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys Original Hole	<b>Database:</b>	DB_Jul2216dt_v14

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Survey JUL 20 2020

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	WV Department of Environmental Protection Longitude
10,510.00	88.31	149.83	6,580.38	-3,889.96	2,130.36	14,429,815.60	1,700,664.45	39.73364084	-80.78569891
10,604.00	89.80	149.22	6,581.93	-3,970.96	2,178.03	14,429,734.60	1,700,712.11	39.73341807	-80.78553006
10,699.00	89.01	149.66	6,582.92	-4,052.76	2,226.33	14,429,652.80	1,700,760.41	39.73319311	-80.78535896
10,793.00	90.68	149.22	6,583.17	-4,133.70	2,274.12	14,429,571.86	1,700,808.20	39.73297051	-80.78518966
10,888.00	90.81	148.78	6,581.94	-4,215.12	2,323.04	14,429,490.44	1,700,857.13	39.73274658	-80.78501633
10,984.00	90.73	147.81	6,580.65	-4,296.78	2,373.49	14,429,408.77	1,700,907.58	39.73252197	-80.78483759
11,079.00	90.24	147.55	6,579.84	-4,377.06	2,424.28	14,429,328.49	1,700,958.37	39.73230116	-80.78465762
11,174.00	89.10	146.58	6,580.39	-4,456.79	2,475.93	14,429,248.76	1,701,010.01	39.73208186	-80.78447460
11,268.00	90.68	149.92	6,580.57	-4,536.71	2,525.38	14,429,168.84	1,701,059.47	39.73186206	-80.78429938
11,362.00	89.63	149.39	6,580.32	-4,617.83	2,572.87	14,429,087.72	1,701,106.96	39.73163896	-80.78413116
11,457.00	89.67	148.69	6,580.90	-4,699.29	2,621.74	14,429,006.26	1,701,155.83	39.73141492	-80.78395803
11,552.00	89.10	149.13	6,581.92	-4,780.64	2,670.80	14,428,924.91	1,701,204.88	39.73119118	-80.78378426
11,648.00	91.16	150.54	6,581.70	-4,863.64	2,719.03	14,428,841.92	1,701,253.12	39.73096294	-80.78361340
11,743.00	91.43	150.18	6,579.55	-4,946.18	2,766.00	14,428,759.37	1,701,300.09	39.73073593	-80.78344705
11,838.00	89.58	151.33	6,578.72	-5,029.07	2,812.41	14,428,676.49	1,701,346.49	39.73050800	-80.78328270
11,932.00	88.70	152.03	6,580.13	-5,111.81	2,856.99	14,428,593.75	1,701,391.08	39.73028048	-80.78312482
12,027.00	87.82	152.03	6,583.01	-5,195.67	2,901.53	14,428,509.89	1,701,435.61	39.73004987	-80.78296714
12,122.00	89.36	150.98	6,585.35	-5,279.13	2,946.84	14,428,426.43	1,701,480.92	39.72982035	-80.78280672
12,217.00	89.89	150.71	6,585.97	-5,362.09	2,993.12	14,428,343.46	1,701,527.20	39.72959221	-80.78264282
12,311.00	89.27	149.92	6,586.66	-5,443.75	3,039.67	14,428,261.80	1,701,573.75	39.72936763	-80.78247796
12,406.00	89.63	149.31	6,587.57	-5,525.70	3,087.72	14,428,179.86	1,701,621.80	39.72914226	-80.78230777
12,501.00	89.10	148.16	6,588.62	-5,606.90	3,137.02	14,428,098.66	1,701,671.10	39.72891894	-80.78213312
12,595.00	90.37	147.81	6,589.06	-5,686.60	3,186.85	14,428,018.96	1,701,720.93	39.72869973	-80.78195657
12,691.00	89.89	147.81	6,588.84	-5,767.84	3,237.99	14,427,937.72	1,701,772.07	39.72847627	-80.78177538
12,786.00	92.22	150.45	6,587.09	-5,849.36	3,286.72	14,427,856.20	1,701,820.80	39.72825208	-80.78160278
12,880.00	92.44	150.36	6,583.27	-5,931.03	3,333.10	14,427,774.53	1,701,867.19	39.72802748	-80.78143851
12,975.00	90.42	152.21	6,580.90	-6,014.31	3,378.73	14,427,691.25	1,701,912.81	39.72779845	-80.78127696
13,070.00	90.68	152.12	6,579.99	-6,098.31	3,423.08	14,427,607.25	1,701,957.17	39.72756746	-80.78111993
13,165.00	89.93	153.08	6,579.48	-6,182.65	3,466.80	14,427,522.91	1,702,000.88	39.72733554	-80.78096518
13,259.00	90.51	151.24	6,579.12	-6,265.77	3,510.70	14,427,439.79	1,702,044.78	39.72710699	-80.78080978
13,354.00	88.97	152.56	6,579.55	-6,349.57	3,555.44	14,427,355.99	1,702,089.52	39.72687656	-80.78065137
13,448.00	88.48	151.94	6,581.64	-6,432.73	3,599.20	14,427,272.83	1,702,133.28	39.72664786	-80.78049647
13,542.00	88.09	151.85	6,584.46	-6,515.61	3,643.46	14,427,189.95	1,702,177.54	39.72641995	-80.78033977
13,637.00	87.60	151.41	6,588.03	-6,599.14	3,688.57	14,427,106.42	1,702,222.65	39.72619025	-80.78018006
13,732.00	90.29	151.06	6,589.78	-6,682.40	3,734.27	14,427,023.16	1,702,268.35	39.72596130	-80.78001824
13,826.00	90.24	150.45	6,589.34	-6,764.42	3,780.19	14,426,941.15	1,702,314.28	39.72573574	-80.77985563
13,921.00	89.49	150.98	6,589.57	-6,847.27	3,826.66	14,426,858.29	1,702,360.75	39.72550788	-80.77969109
14,016.00	88.92	151.59	6,590.88	-6,930.58	3,872.30	14,426,774.98	1,702,406.38	39.72527878	-80.77952950
14,110.00	88.04	151.68	6,593.38	-7,013.27	3,916.94	14,426,692.30	1,702,451.03	39.72505140	-80.77937145
14,206.00	89.63	149.31	6,595.33	-7,096.79	3,964.21	14,426,608.77	1,702,498.29	39.72482170	-80.77920408
14,301.00	88.62	148.78	6,596.78	-7,178.25	4,013.07	14,426,527.31	1,702,547.15	39.72459766	-80.77903103
14,396.00	90.24	149.22	6,597.73	-7,259.67	4,061.99	14,426,445.89	1,702,596.07	39.72437372	-80.77885775
14,490.00	89.80	148.60	6,597.69	-7,340.17	4,110.53	14,426,365.39	1,702,644.61	39.72415232	-80.77868582
14,585.00	89.19	149.13	6,598.53	-7,421.48	4,159.65	14,426,284.08	1,702,693.73	39.72392868	-80.77851185
14,680.00	89.05	148.51	6,599.99	-7,502.75	4,208.83	14,426,202.82	1,702,742.91	39.72370516	-80.77833766
14,774.00	89.14	148.43	6,601.47	-7,582.86	4,257.98	14,426,122.70	1,702,792.06	39.72348482	-80.77816357
14,868.00	88.88	148.34	6,603.10	-7,662.90	4,307.25	14,426,042.67	1,702,841.33	39.72326467	-80.77798905
14,963.00	88.31	147.64	6,605.43	-7,743.43	4,357.59	14,425,962.14	1,702,891.67	39.72304317	-80.77781073
15,049.00	87.91	148.07	6,608.26	-7,816.20	4,403.32	14,425,889.36	1,702,937.40	39.72282429	-80.77764873

Survey @ 15049.00 MD 6608.26 TVD  
 15,100.00 87.91 148.07 6,610.12 -7,859.46 4,430.27 14,425,846.10 1,702,964.36 39.72272402 -80.77755325

Survey projected to 15100.00 MD 6610.12 TVD



<b>Company:</b>	Tug Hill Operating LLC	<b>Local Co-ordinate Reference:</b>	Well Evad 02HM (D)
<b>Project:</b>	Marshall County, West Virginia	<b>TVD Reference:</b>	RKB=1291+18 @ 1309.00ft (Precision 528)
<b>Site:</b>	Accettolo/Evad Pad	<b>MD Reference:</b>	RKB=1291+18 @ 1309.00ft (Precision 528)
<b>Well:</b>	Evad 02HM (D)	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Original Hole	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys Original Hole	<b>Database:</b>	DB_Jul2216dt_v14

Design Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
202.00	202.00	-0.40	0.07	MWD surveys
15,049.00	6,608.26	-7,816.20	4,403.32	Survey @ 15049.00 MD 6608.26 TVD
15,100.00	6,610.12	-7,859.46	4,430.27	Survey projected to 15100.00 MD 6610.12 TVD

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