

DRILLTECH MWD SURVEY REPORT

Company: Sandridge Energy Job Number: KTX-021 Calculation Method Minimum Curvature
 Well: Mariah 1-36H Magnetic Decl.: 6.15 Proposed Azimuth 181.07
 Location: Sec 25- T31S- R20W Grid Corr.: WELL API #
 Rig: Lariat 38 Total Grid Corr.: 6.15 Tie Into: MWD

Survey #	Survey Tool Type	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure		Dogleg Severity (d/100')	Build Rate (d/100')		
								N/S (ft)	E/W (ft)	Distance (ft)	Angle (deg)				
Tie In	Mwd	0	0.00	0.00	0	0	0	0	0	0	0	0	0		
1	Mwd	859.00	0.60	249.60	859	858.98	1.65	1.57	S	4.22	W	4.50	249.60	0.07	0.07
2	Mwd	1133.00	1.00	267.90	274	1132.96	2.30	2.16	S	7.95	W	8.24	254.83	0.17	0.15
3	Mwd	1610.00	0.80	1.60	477	1609.92	-0.80	1.02	N	12.02	W	12.06	274.86	0.28	-0.04
4	Mwd	2086.00	0.80	343.70	476	2085.87	-7.29	7.53	N	12.86	W	14.90	300.36	0.05	0.00
5	Mwd	2562.00	0.80	0.30	476	2561.83	-13.78	14.04	N	13.77	W	19.67	315.56	0.05	0.00
6	Mwd	3038.00	0.50	269.70	476	3037.80	-17.06	17.36	N	15.83	W	23.49	317.63	0.20	-0.06
7	Mwd	3514.00	0.80	313.10	476	3513.78	-19.23	19.62	N	20.33	W	28.25	313.97	0.12	0.06
8	Mwd	3989.00	1.00	345.30	475	3988.72	-25.44	25.89	N	23.81	W	35.17	317.40	0.11	0.04
9	Mwd	4021.00	1.00	351.70	32	4020.72	-25.99	26.44	N	23.92	W	35.65	317.86	0.35	0.00
10	Mwd	4053.00	0.80	357.70	32	4052.71	-26.48	26.94	N	23.97	W	36.06	318.34	0.69	-0.63
11	Mwd	4085.00	1.00	351.80	32	4084.71	-26.98	27.44	N	24.02	W	36.46	318.80	0.69	0.63
12	Mwd	4116.00	1.00	351.70	31	4115.70	-27.52	27.97	N	24.09	W	36.92	319.26	0.01	0.00
13	Mwd	4148.00	1.00	354.40	32	4147.70	-28.07	28.53	N	24.16	W	37.38	319.74	0.15	0.00
14	Mwd	4180.00	1.00	1.90	32	4179.69	-28.63	29.08	N	24.18	W	37.82	320.26	0.41	0.00
15	Mwd	4212.00	1.20	11.40	32	4211.69	-29.24	29.69	N	24.10	W	38.24	320.93	0.84	0.63
16	Mwd	4275.00	0.90	20.90	63	4274.68	-30.35	30.80	N	23.80	W	38.92	322.31	0.55	-0.48
17	Mwd	4307.00	1.00	210.10	32	4306.68	-30.34	30.79	N	23.85	W	38.95	322.24	5.92	0.31
18	Mwd	4338.00	3.80	205.50	31	4337.64	-29.17	29.63	N	24.43	W	38.40	320.50	9.05	9.03
19	Mwd	4370.00	5.60	199.20	32	4369.54	-26.72	27.20	N	25.40	W	37.21	316.96	5.84	5.63
20	Mwd	4402.00	7.40	193.90	32	4401.33	-23.23	23.72	N	26.40	W	35.50	311.94	5.92	5.63
21	Mwd	4433.00	9.40	193.30	31	4432.00	-18.81	19.32	N	27.47	W	33.58	305.13	6.46	6.45
22	Mwd	4465.00	12.00	195.70	32	4463.44	-13.03	13.58	N	28.97	W	31.99	295.11	8.24	8.13
23	Mwd	4497.00	14.60	197.80	32	4494.58	-5.95	6.53	N	31.10	W	31.78	281.86	8.26	8.13
24	Mwd	4529.00	16.70	197.20	32	4525.39	2.33	1.70	S	33.69	W	33.74	267.11	6.58	6.56
25	Mwd	4560.00	19.70	195.70	31	4554.83	11.67	10.99	S	36.43	W	38.05	253.21	9.79	9.68
26	Mwd	4592.00	22.50	194.60	32	4584.69	22.84	22.11	S	39.43	W	45.20	240.72	8.84	8.75
27	Mwd	4624.00	24.50	194.90	32	4614.03	35.24	34.45	S	42.68	W	54.85	231.09	6.26	6.25
28	Mwd	4656.00	26.50	193.20	32	4642.91	48.66	47.81	S	46.02	W	66.36	223.90	6.65	6.25
29	Mwd	4687.00	28.90	189.30	31	4670.36	62.84	61.94	S	48.81	W	78.86	218.24	9.70	7.74
30	Mwd	4719.00	31.00	187.80	32	4698.08	78.68	77.74	S	51.17	W	93.07	213.36	6.97	6.56
31	Mwd	4751.00	33.00	186.20	32	4725.22	95.54	94.57	S	53.23	W	108.52	209.38	6.79	6.25
32	Mwd	4783.00	36.10	183.80	32	4751.58	113.64	112.64	S	54.80	W	125.26	205.94	10.58	9.69

DRILLTECH MWD SURVEY REPORT

Company: Sandridge Energy Job Number: KTX-021
 Well: Mariah 1-36H Magnetic Decl.: 6.15
 Location: Sec 25- T31S- R20W Grid Corr.:
 Rig: Larlet 38 Total Grid Corr.: 6.15
 Calculation Method: Minimum Curvature
 Proposed Azimuth: 181.07
 WELL API #
 Tie Into: MWD

Survey #	Survey Tool Type	Survey Depth (ft)	Inclina- tion (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates		Closure Distance (ft)	Closure Angle (deg)	Dogleg Severity (d/100')	Build Rate (d/100')		
								N/S (ft)	E/W (ft)						
33	Mwd	4814.00	38.20	182.90	31	4776.28	132.35	131.33	S	55.89	W	142.73	203.05	7.00	6.77
34	Mwd	4846.00	39.70	183.00	32	4801.17	152.45	151.42	S	56.93	W	161.77	200.60	4.69	4.69
35	Mwd	4878.00	41.00	182.60	32	4825.56	173.16	172.11	S	57.94	W	181.60	198.60	4.14	4.06
36	Mwd	4910.00	42.90	182.10	32	4849.35	194.55	193.48	S	58.81	W	202.23	196.91	6.03	5.94
37	Mwd	4942.00	44.90	181.00	32	4872.41	216.73	215.66	S	59.41	W	223.70	195.40	6.69	6.25
38	Mwd	4973.00	47.10	180.40	31	4893.94	239.03	237.96	S	59.68	W	245.33	194.08	7.23	7.10
39	Mwd	5005.00	47.70	179.60	32	4915.60	262.58	261.51	S	59.68	W	268.24	192.86	2.63	1.88
40	Mwd	5037.00	50.00	180.10	32	4936.66	286.67	285.61	S	59.62	W	291.76	191.79	7.28	7.19
41	Mwd	5069.00	50.40	180.20	32	4957.14	311.25	310.19	S	59.68	W	315.88	190.89	1.27	1.25
42	Mwd	5100.00	50.20	179.80	31	4976.94	335.10	334.04	S	59.68	W	339.33	190.13	1.18	-0.65
43	Mwd	5132.00	50.00	179.60	32	4997.47	359.64	358.59	S	59.55	W	363.50	189.43	0.79	-0.63
44	Mwd	5164.00	49.90	179.30	32	5018.06	384.13	383.09	S	59.32	W	387.65	188.80	0.78	-0.31
45	Mwd	5195.00	49.50	178.90	31	5038.11	407.76	406.73	S	58.95	W	410.98	188.25	1.62	-1.29
46	Mwd	5227.00	49.60	178.50	32	5058.87	432.09	431.07	S	58.40	W	435.01	187.71	1.00	0.31
47	Mwd	5259.00	52.10	178.70	32	5079.07	456.88	455.88	S	57.79	W	459.53	187.22	7.83	7.81
48	Mwd	5291.00	55.20	180.10	32	5098.04	482.64	481.65	S	57.53	W	485.07	186.81	10.31	9.69
49	Mwd	5322.00	58.50	181.10	31	5114.99	508.59	507.59	S	57.80	W	510.87	186.50	10.98	10.65
50	Mwd	5354.00	61.60	181.80	32	5130.96	536.31	535.31	S	58.51	W	538.50	186.24	9.87	9.69
51	Mwd	5386.00	65.50	181.40	32	5145.21	564.95	563.94	S	59.30	W	567.05	186.00	12.24	12.19
52	Mwd	5418.00	69.40	181.10	32	5157.48	594.50	593.48	S	59.95	W	596.50	185.77	12.22	12.19
53	Mwd	5449.00	73.40	181.10	31	5167.37	623.87	622.85	S	60.51	W	625.78	185.55	12.90	12.90
54	Mwd	5481.00	76.40	181.00	32	5175.70	654.77	653.74	S	61.08	W	656.59	185.34	9.38	9.38
55	Mwd	5513.00	78.90	180.50	32	5182.55	686.02	684.99	S	61.49	W	687.75	185.13	7.96	7.81
56	Mwd	5544.00	81.70	180.20	31	5187.77	716.57	715.55	S	61.67	W	718.20	184.93	9.08	9.03
57	Mwd	5638.00	85.10	180.60	94	5198.57	809.93	808.91	S	62.33	W	811.30	184.41	3.64	3.62
58	Mwd	5670.00	84.80	179.90	32	5201.39	841.80	840.78	S	62.46	W	843.10	184.25	2.37	-0.94
59	Mwd	5702.00	86.20	178.10	32	5203.90	873.68	872.68	S	61.91	W	874.87	184.06	7.11	4.38
60	Mwd	5734.00	88.80	177.30	32	5205.30	905.59	904.62	S	60.62	W	906.65	183.83	8.50	8.12
61	Mwd	5766.00	89.60	176.60	32	5205.74	937.51	936.57	S	58.92	W	938.42	183.60	3.32	2.50
62	Mwd	5798.00	89.30	176.40	32	5206.05	969.40	968.51	S	56.97	W	970.18	183.37	1.13	-0.94
63	Mwd	5830.00	91.20	176.30	32	5205.91	1001.29	1000.44	S	54.93	W	1001.95	183.14	5.95	5.94
64	Mwd	5861.00	91.70	176.60	31	5205.13	1032.18	1031.37	S	53.01	W	1032.73	182.94	1.88	1.61
65	Mwd	5893.00	92.00	176.10	32	5204.09	1064.06	1063.29	S	50.98	W	1064.51	182.74	1.82	0.94
66	Mwd	5925.00	91.90	176.80	32	5203.01	1095.93	1095.21	S	49.00	W	1096.30	182.56	2.21	-0.31
67	Mwd	6021.00	91.40	177.40	96	5200.24	1191.66	1191.05	S	44.14	W	1191.86	182.12	0.81	-0.52
68	Mwd	6116.00	91.10	179.10	95	5198.17	1286.52	1285.98	S	41.24	W	1286.64	181.84	1.82	-0.32

DRILLTECH MWD SURVEY REPORT

Company: Sandridge Energy Job Number: KTX-021
 Well: Mariah 1-36H Magnetic Decl.: 6.15
 Location: Sec 25- T31S- R20W Grid Corr.:
 Rig: Larlet 38 Total Grid Corr.: 6.15
 Calculation Method: Minimum Curvature
 Proposed Azimuth: 181.07
 WELL API #
 Tie Into: MWD

Survey #	Survey Tool Type	Survey Depth (ft)	Inclination (deg)	Azimuth (deg)	Course Length (ft)	True Vertical Depth (ft)	Vertical Section (ft)	Coordinates N/S (ft)	E/W (ft)	Closure Distance (ft)	Closure Angle (deg)	Dogleg Severity (d/100')	Build Rate (d/100')
69	Mwd	6212.00	91.20	178.90	96	5196.24	1382.44	1381.94 S	39.57 W	1382.51	181.64	0.23	0.10
70	Mwd	6308.00	90.60	180.20	96	5194.73	1478.39	1477.92 S	38.81 W	1478.43	181.50	1.49	-0.63
71	Mwd	6403.00	91.00	180.10	95	5193.41	1573.37	1572.91 S	39.06 W	1573.40	181.42	0.43	0.42
72	Mwd	6499.00	90.70	180.10	96	5191.98	1669.34	1668.90 S	39.23 W	1669.36	181.35	0.31	-0.31
73	Mwd	6595.00	90.80	180.90	96	5190.73	1765.33	1764.89 S	40.07 W	1765.35	181.30	0.84	0.10
74	Mwd	6691.00	88.30	181.00	96	5191.48	1861.32	1860.87 S	41.66 W	1861.33	181.28	2.61	-2.60
75	Mwd	6787.00	89.00	180.70	96	5193.74	1957.29	1956.83 S	43.08 W	1957.30	181.26	0.79	0.73
76	Mwd	6882.00	88.60	180.00	95	5195.73	2052.26	2051.81 S	43.66 W	2052.27	181.22	0.85	-0.42
77	Mwd	6978.00	88.60	179.60	96	5198.08	2148.21	2147.78 S	43.33 W	2148.21	181.16	0.42	0.00
78	Mwd	7074.00	89.20	179.70	96	5199.92	2244.16	2243.76 S	42.74 W	2244.16	181.09	0.63	0.63
79	Mwd	7169.00	90.40	179.80	95	5200.25	2339.14	2338.75 S	42.33 W	2339.14	181.04	1.27	1.26
80	Mwd	7265.00	90.90	179.80	96	5199.16	2435.11	2434.75 S	41.99 W	2435.11	180.99	0.52	0.52
81	Mwd	7360.00	90.20	180.90	95	5198.25	2530.09	2529.74 S	42.57 W	2530.10	180.96	1.37	-0.74
82	Mwd	7456.00	90.00	180.40	96	5198.08	2626.09	2625.73 S	43.66 W	2626.09	180.95	0.56	-0.21
83	Mwd	7552.00	90.00	180.10	96	5198.08	2722.08	2721.73 S	44.08 W	2722.09	180.93	0.31	0.00
84	Mwd	7647.00	90.60	179.80	95	5197.59	2817.06	2816.73 S	44.00 W	2817.07	180.89	0.71	0.63
85	Mwd	7743.00	90.10	180.40	96	5197.00	2913.04	2912.73 S	44.16 W	2913.06	180.87	0.81	-0.52
86	Mwd	7839.00	89.60	179.10	96	5197.25	3009.01	3008.72 S	43.74 W	3009.04	180.83	1.45	-0.52
87	Mwd	7934.00	89.40	177.50	95	5198.08	3103.90	3103.67 S	40.93 W	3103.94	180.76	1.70	-0.21
88	Mwd	8030.00	90.30	179.30	96	5198.33	3199.79	3199.63 S	38.25 W	3199.86	180.68	2.10	0.94
89	Mwd	8125.00	90.90	179.40	95	5197.34	3294.74	3294.62 S	37.17 W	3294.83	180.65	0.64	0.63
90	Mwd	8221.00	90.10	180.40	96	5196.50	3390.71	3390.61 S	37.00 W	3390.81	180.63	1.33	-0.83
91	Mwd	8339.00	86.60	181.20	118	5199.90	3508.64	3508.53 S	38.65 W	3508.75	180.63	3.04	-2.97
92	Mwd	8435.00	86.00	180.70	96	5206.09	3604.44	3604.32 S	40.24 W	3604.54	180.64	0.81	-0.62
93	Mwd	8530.00	85.90	180.60	95	5212.80	3699.20	3699.08 S	41.31 W	3699.31	180.64	0.15	-0.11
94	Mwd	8626.00	87.30	181.70	96	5218.49	3795.03	3794.88 S	43.23 W	3795.13	180.65	1.85	1.46
95	Mwd	8722.00	89.20	182.60	96	5221.43	3890.96	3890.77 S	46.83 W	3891.05	180.69	2.19	1.98
96	Mwd	8817.00	88.10	181.80	95	5223.66	3985.92	3985.67 S	50.48 W	3985.99	180.73	1.43	-1.16
97	Mwd	8913.00	89.90	183.80	96	5225.34	4081.85	4081.53 S	55.17 W	4081.90	180.77	2.80	1.88
98	Mwd	9008.00	90.10	183.00	95	5225.34	4176.77	4176.36 S	60.80 W	4176.80	180.83	0.87	0.21
99	Mwd	9104.00	90.00	183.00	96	5225.26	4272.71	4272.23 S	65.83 W	4272.74	180.88	0.10	-0.10
100	Mwd	9200.00	90.00	182.60	96	5225.26	4368.67	4368.11 S	70.52 W	4368.68	180.92	0.42	0.00
101	Mwd	9295.00	89.30	182.80	95	5225.84	4463.63	4463.01 S	74.99 W	4463.64	180.96	0.77	-0.74
102	Mwd	9391.00	88.60	181.80	96	5227.59	4559.59	4558.91 S	78.84 W	4559.59	180.99	1.27	-0.73
103	Mwd	9487.00	88.80	182.60	96	5229.77	4655.54	4654.82 S	82.53 W	4655.55	181.02	0.86	0.21
104	Mwd	9582.00	89.40	183.20	95	5231.27	4750.48	4749.68 S	87.33 W	4750.48	181.05	0.89	0.63

