

Job Number: 23D1011222	State/Country: West Virginia
Company: Stone Energy	Declination: -8.41
Lease/Well: Potts #6H	Grid: .84
Location: Wetzel County	File name: D:\WINSERVE\STONEJ~1P#6H.SVY
Rig Name: Saxon 141	Date/Time: 05-Nov-11 / 11:54
RKB: 18	Curve Name: Potts #6H As Drilled
G.L. or M.S.L.: 1326	

### Scientific Drilling

WINSERVE SURVEY CALCULATIONS  
 Minimum Curvature Method  
 Vertical Section Plane 170.86  
 Vertical Section Referenced to Wellhead  
 Rectangular Coordinates Referenced to Wellhead

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
108.00	.09	285.53	108.00	.02	-.08	-.04	.08	285.54	.08
208.00	.10	227.60	208.00	-.02	-.22	-.02	.22	266.11	.09
308.00	.07	211.22	308.00	-.13	-.32	.07	.34	248.35	.04
408.00	.01	222.01	408.00	-.18	-.36	.13	.40	242.52	.06
508.00	.10	178.56	508.00	-.28	-.36	.22	.45	232.19	.09
608.00	.05	192.30	608.00	-.41	-.37	.35	.55	221.87	.05
708.00	.09	234.06	708.00	-.50	-.44	.42	.66	221.45	.06
808.00	.10	249.81	808.00	-.57	-.58	.47	.82	225.55	.03
908.00	.06	215.35	908.00	-.65	-.70	.53	.95	227.15	.06
1008.00	.06	209.20	1008.00	-.73	-.75	.61	1.05	225.69	.01
1108.00	.06	130.25	1108.00	-.81	-.74	.69	1.10	222.20	.08
1208.00	.10	307.27	1208.00	-.80	-.77	.66	1.11	223.99	.16
1308.00	.13	316.30	1308.00	-.66	-.92	.51	1.13	234.20	.03
1408.00	.39	323.33	1408.00	-.31	-1.20	.11	1.24	255.69	.26
1508.00	.39	321.17	1508.00	.23	-1.61	-.49	1.63	278.21	.01
1608.00	.41	325.80	1607.99	.79	-2.03	-1.11	2.18	291.37	.04
1708.00	.72	300.43	1707.99	1.41	-2.77	-1.83	3.11	296.93	.39
1808.00	1.08	298.60	1807.98	2.18	-4.14	-2.81	4.68	297.74	.36
1908.00	.93	321.20	1907.96	3.26	-5.48	-4.09	6.37	300.77	.42
2008.00	1.06	327.19	2007.95	4.67	-6.49	-5.64	7.99	305.76	.17
2108.00	1.48	329.58	2107.92	6.56	-7.64	-7.69	10.07	310.65	.42
2208.00	1.54	333.86	2207.89	8.88	-8.89	-10.18	12.56	314.98	.13
2308.00	1.66	333.35	2307.85	11.38	-10.13	-12.85	15.24	318.34	.12
2408.00	1.73	325.39	2407.80	13.92	-11.64	-15.59	18.14	320.11	.25

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth				C L O S U R E		Dogleg Severity Deg/100
				N-S FT	E-W FT	Vertical Section FT	Distance FT	Direction Deg	
2508.00	1.65	324.77	2507.76	16.34	-13.32	-18.25	21.08	320.80	.08
2608.00	1.72	322.25	2607.72	18.70	-15.07	-20.86	24.02	321.13	.10
2708.00	2.03	236.19	2707.68	18.90	-17.46	-21.44	25.73	317.26	2.57
2808.00	3.30	224.88	2807.57	15.88	-20.97	-19.01	26.30	307.13	1.37
2908.00	3.32	223.40	2907.40	11.73	-24.99	-15.55	27.60	295.15	.09
3008.00	3.58	225.29	3007.22	7.43	-29.20	-11.98	30.13	284.28	.28
3108.00	4.49	230.00	3106.97	2.72	-34.41	-8.15	34.52	274.52	.97
3208.00	4.98	229.50	3206.63	-2.61	-40.71	-3.89	40.80	266.33	.49
3308.00	4.87	226.82	3306.26	-8.34	-47.11	.75	47.84	259.96	.25
3408.00	4.85	219.33	3405.90	-14.51	-52.88	5.93	54.84	254.65	.63
3508.00	4.74	214.61	3505.55	-21.18	-57.91	11.72	61.66	249.91	.41
3608.00	4.43	211.00	3605.23	-27.89	-62.24	17.65	68.21	245.86	.42
3708.00	4.63	218.32	3704.92	-34.37	-66.74	23.33	75.07	242.75	.61
3808.00	4.61	215.39	3804.60	-40.81	-71.57	28.93	82.39	240.30	.24
3908.00	4.35	214.00	3904.29	-47.23	-76.01	34.56	89.49	238.14	.28
4008.00	4.12	207.67	4004.02	-53.56	-79.80	40.20	96.11	236.13	.52
4108.00	4.23	205.98	4103.75	-60.06	-83.09	46.10	102.52	234.14	.17
4208.00	3.99	195.79	4203.50	-66.72	-85.65	52.27	108.57	232.08	.77
4308.00	2.72	188.54	4303.33	-72.41	-86.95	57.68	113.15	230.21	1.34
4408.00	1.51	193.22	4403.26	-76.04	-87.60	61.16	116.00	229.04	1.22
4508.00	.88	213.08	4503.23	-77.97	-88.32	62.95	117.81	228.56	.74
4608.00	.88	197.56	4603.22	-79.35	-88.97	64.20	119.21	228.27	.24
4708.00	.63	209.02	4703.21	-80.56	-89.47	65.32	120.39	228.00	.29
4808.00	.74	249.69	4803.21	-81.26	-90.34	65.88	121.51	228.03	.49
4908.00	.68	263.22	4903.20	-81.56	-91.54	65.98	122.60	228.30	.18
5008.00	.21	114.23	5003.20	-81.70	-91.96	66.06	123.01	228.38	.87
5108.00	.34	99.44	5103.20	-81.83	-91.50	66.25	122.75	228.19	.15
5208.00	.55	90.29	5203.19	-81.88	-90.73	66.43	122.21	227.94	.22
5308.00	.65	99.53	5303.19	-81.97	-89.69	66.69	121.51	227.57	.14
<b>MWD Survey</b>									
5329.00	.79	104.96	5324.19	-82.03	-89.43	66.78	121.36	227.47	.74
5392.00	.81	105.34	5387.18	-82.26	-88.58	67.15	120.89	227.12	.03
5455.00	.44	95.61	5450.18	-82.40	-87.91	67.39	120.49	226.85	.61
5486.00	.55	94.60	5481.18	-82.43	-87.65	67.46	120.32	226.76	.36
5517.00	1.48	187.95	5512.17	-82.83	-87.55	67.88	120.53	226.59	5.19
5547.00	4.00	192.58	5542.13	-84.24	-87.83	69.22	121.70	226.20	8.43
5578.00	6.19	196.37	5573.01	-86.90	-88.54	71.73	124.06	225.54	7.14
5608.00	8.26	193.07	5602.77	-90.55	-89.48	75.19	127.31	224.66	7.03
5639.00	8.87	190.87	5633.42	-95.07	-90.44	79.49	131.21	223.57	2.23
5670.00	10.18	188.41	5664.00	-100.12	-91.29	84.35	135.49	222.36	4.42
5701.00	12.28	191.65	5694.40	-106.06	-92.36	90.05	140.64	221.05	7.07
5732.00	14.56	193.67	5724.55	-113.08	-93.94	96.72	147.01	219.72	7.51
5762.00	16.33	194.59	5753.47	-120.83	-95.90	104.06	154.26	218.44	5.96
<b>Bottom Line Check</b>									
5793.00	18.01	201.21	5783.09	-129.51	-98.73	112.19	162.85	217.32	8.31
5824.00	18.96	203.89	5812.49	-138.58	-102.50	120.54	172.37	216.49	4.11
5854.00	19.82	210.33	5840.79	-147.43	-107.04	128.56	182.19	215.98	7.68

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth			Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
				N-S FT	E-W FT		Distance FT	Direction Deg	
5885.00	19.85	216.13	5869.96	-156.22	-112.80	136.32	192.69	215.83	6.35
5916.00	19.96	221.49	5899.11	-164.44	-119.41	143.38	203.22	215.99	5.90
5947.00	21.22	222.58	5928.13	-172.53	-126.71	150.21	214.06	216.30	4.25
5978.00	22.99	219.26	5956.85	-181.35	-134.34	157.71	225.69	216.53	6.99
6008.00	25.76	219.22	5984.17	-190.94	-142.17	165.93	238.06	216.67	9.23
6039.00	28.67	220.96	6011.74	-201.77	-151.31	175.18	252.21	216.87	9.73
6070.00	30.95	222.13	6038.63	-213.30	-161.53	184.94	267.57	217.14	7.59
6101.00	32.95	222.10	6064.93	-225.47	-172.53	195.20	283.91	217.42	6.45
6132.00	35.03	223.80	6090.64	-238.15	-184.34	205.84	301.16	217.74	7.38
6163.00	36.77	227.43	6115.75	-250.85	-197.34	216.32	319.17	218.19	8.87
<b>Bottom Line Check</b>									
6194.00	38.35	231.05	6140.33	-263.18	-211.65	226.21	337.73	218.81	8.75
6225.00	39.81	231.71	6164.39	-275.37	-226.92	235.83	356.82	219.49	4.90
6255.00	41.50	231.91	6187.15	-287.46	-242.28	245.32	375.94	220.13	5.65
6286.00	43.87	232.44	6209.93	-300.34	-258.88	255.40	396.52	220.76	7.73
6317.00	46.44	232.70	6231.79	-313.70	-276.34	265.82	418.05	221.38	8.31
6348.00	47.44	233.35	6252.96	-327.32	-294.43	276.39	440.26	221.97	3.57
6379.00	49.50	233.07	6273.51	-341.22	-313.02	287.16	463.04	222.53	6.68
6410.00	52.77	232.94	6292.96	-355.74	-332.29	298.44	486.80	223.05	10.55
6440.00	55.64	232.56	6310.51	-370.47	-351.66	309.91	510.79	223.51	9.62
6471.00	56.71	230.23	6327.76	-386.54	-371.78	322.58	536.31	223.88	7.13
6501.00	57.48	227.60	6344.06	-403.09	-390.76	335.90	561.40	224.11	7.79
6533.00	58.84	224.20	6360.95	-422.01	-410.27	351.48	588.57	224.19	9.98
6565.00	60.38	221.74	6377.14	-442.21	-429.08	368.43	616.16	224.14	8.19
6597.00	61.91	219.97	6392.58	-463.41	-447.41	386.45	644.14	223.99	6.81
6629.00	62.74	217.22	6407.45	-485.55	-465.08	405.51	672.36	223.77	8.04
6661.00	62.97	214.99	6422.05	-508.56	-481.86	425.56	700.59	223.46	6.24
<b>Bottom Line Check</b>									
6693.00	63.00	212.24	6436.58	-532.30	-497.64	446.49	728.69	223.07	7.66
6724.00	63.59	210.26	6450.52	-555.97	-512.01	467.58	755.81	222.64	6.01
6756.00	64.29	207.65	6464.58	-581.12	-525.92	490.20	783.77	222.15	7.65
6788.00	65.37	205.01	6478.19	-607.08	-538.76	513.79	811.67	221.59	8.19
6820.00	66.50	202.39	6491.24	-633.83	-550.50	538.33	839.52	220.98	8.27
6852.00	66.39	199.07	6504.03	-661.26	-560.88	563.77	867.09	220.30	9.52
6884.00	65.77	196.40	6517.01	-689.11	-569.79	589.85	894.17	219.59	7.87
6916.00	67.31	193.54	6529.75	-717.47	-577.37	616.65	920.93	218.82	9.51
6948.00	68.98	191.47	6541.66	-746.46	-583.80	644.25	947.64	218.03	7.95
6980.00	70.30	188.74	6552.80	-775.99	-589.06	672.57	974.25	217.20	9.00
7011.00	72.69	185.99	6562.64	-805.14	-592.82	700.75	999.85	216.36	11.41
7043.00	75.61	183.16	6571.38	-835.82	-595.27	730.65	1026.13	215.46	12.47
7075.00	79.25	180.64	6578.34	-867.03	-596.30	761.30	1052.29	214.52	13.73
7107.00	82.90	177.72	6583.31	-898.63	-595.84	792.57	1078.22	213.55	14.54
7138.00	84.99	174.66	6586.58	-929.38	-593.79	823.26	1102.88	212.57	11.91
7170.00	85.87	173.93	6589.13	-961.12	-590.62	855.10	1128.09	211.57	3.57
7202.00	86.03	174.06	6591.39	-992.87	-587.28	886.97	1153.56	210.60	.64
7234.00	86.34	171.90	6593.51	-1024.56	-583.38	918.88	1179.00	209.66	6.80
7266.00	86.27	169.43	6595.58	-1056.07	-578.20	950.81	1203.99	208.70	7.71

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth			Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
				N-S FT	E-W FT		Distance FT	Direction Deg	
7297.00	86.34	167.91	6597.58	-1086.40	-572.13	981.72	1227.84	207.77	4.90
7329.00	86.71	167.47	6599.51	-1117.60	-565.32	1013.61	1252.45	206.83	1.79
7393.00	87.28	167.68	6602.87	-1180.02	-551.56	1077.42	1302.56	205.05	.95
7456.00	87.88	165.79	6605.53	-1241.28	-537.12	1140.20	1352.51	203.40	3.14
7519.00	88.79	163.05	6607.36	-1301.93	-520.21	1202.77	1402.02	201.78	4.58
7583.00	89.43	161.26	6608.36	-1362.84	-500.60	1266.02	1451.88	200.17	2.97
7647.00	89.13	160.84	6609.16	-1423.37	-479.82	1329.08	1502.07	198.63	.81
7711.00	88.49	160.16	6610.49	-1483.69	-458.46	1392.02	1552.90	197.17	1.46
7774.00	88.99	159.69	6611.87	-1542.84	-436.84	1453.86	1603.49	195.81	1.09
7838.00	89.73	159.35	6612.59	-1602.79	-414.45	1516.61	1655.51	194.50	1.27
7901.00	89.36	159.32	6613.09	-1661.74	-392.22	1578.34	1707.40	193.28	.59
7965.00	87.75	158.79	6614.70	-1721.49	-369.35	1640.96	1760.66	192.11	2.65
8028.00	87.55	157.97	6617.29	-1780.01	-346.15	1702.42	1813.35	191.00	1.34
8092.00	88.26	157.89	6619.63	-1839.28	-322.12	1764.76	1867.27	189.93	1.12
8155.00	88.89	158.08	6621.19	-1897.66	-298.52	1826.15	1921.00	188.94	1.04
8219.00	88.09	158.05	6622.88	-1957.01	-274.62	1888.54	1976.18	187.99	1.25
8282.00	87.92	157.56	6625.07	-2015.31	-250.83	1949.87	2030.86	187.09	.82
8346.00	88.69	158.42	6626.97	-2074.62	-226.86	2012.24	2086.98	186.24	1.80
8409.00	88.73	160.59	6628.38	-2133.61	-204.81	2073.99	2143.42	185.48	3.44
8473.00	89.19	161.16	6629.55	-2194.07	-183.84	2137.01	2201.76	184.79	1.14
<b>Bottom Line Check</b>									
8536.00	88.22	160.85	6630.97	-2253.62	-163.34	2199.06	2259.53	184.15	1.62
8600.00	88.19	160.64	6632.97	-2314.01	-142.25	2262.03	2318.38	183.52	.33
8664.00	88.93	160.74	6634.58	-2374.39	-121.09	2325.01	2377.48	182.92	1.17
8728.00	88.12	160.90	6636.23	-2434.82	-100.07	2388.01	2436.87	182.35	1.29
8792.00	88.22	161.15	6638.27	-2495.31	-79.27	2451.03	2496.57	181.82	.42
8855.00	88.83	162.13	6639.90	-2555.08	-59.44	2513.20	2555.77	181.33	1.83
8919.00	88.09	162.45	6641.62	-2616.03	-39.97	2576.46	2616.33	180.88	1.26
8982.00	87.89	162.60	6643.82	-2676.08	-21.07	2638.76	2676.16	180.45	.40
9046.00	88.59	163.15	6645.79	-2737.21	-2.23	2702.11	2737.21	180.05	1.39
9109.00	88.05	162.05	6647.64	-2797.30	16.60	2764.42	2797.35	179.66	1.94
9172.00	88.42	161.67	6649.58	-2857.14	36.21	2826.62	2857.37	179.27	.84
9236.00	89.16	163.27	6650.93	-2918.16	55.48	2889.92	2918.68	178.91	2.75
9300.00	88.83	162.66	6652.05	-2979.34	74.22	2953.30	2980.26	178.57	1.08
9363.00	88.19	161.91	6653.69	-3039.33	93.39	3015.57	3040.76	178.24	1.56
9426.00	88.19	161.35	6655.68	-3099.09	113.23	3077.73	3101.16	177.91	.89
9490.00	88.73	161.53	6657.40	-3159.74	133.59	3140.84	3162.56	177.58	.89
9554.00	89.03	162.57	6658.65	-3220.61	153.31	3204.07	3224.26	177.27	1.69
9617.00	88.89	161.47	6659.79	-3280.52	172.76	3266.31	3285.07	176.99	1.76
9681.00	88.89	161.21	6661.03	-3341.15	193.23	3329.42	3346.73	176.69	.41
9744.00	89.66	160.84	6661.83	-3400.72	213.71	3391.49	3407.43	176.40	1.36
9808.00	89.19	160.77	6662.47	-3461.16	234.76	3454.50	3469.11	176.12	.74
<b>Bottom Line Check</b>									
9872.00	89.29	161.03	6663.32	-3521.63	255.70	3517.53	3530.90	175.85	.44
9935.00	88.42	160.87	6664.58	-3581.17	276.25	3579.58	3591.81	175.59	1.40
9999.00	87.95	160.62	6666.61	-3641.56	297.35	3642.55	3653.68	175.33	.83
10062.00	88.69	161.48	6668.46	-3701.11	317.80	3704.60	3714.73	175.09	1.80

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L O S U R E		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
10126.00	88.02	161.05	6670.29	-3761.70	338.35	3767.68	3776.88	174.86	1.24
10190.00	88.05	161.28	6672.49	-3822.24	359.00	3830.73	3839.06	174.63	.36
10253.00	88.26	162.21	6674.52	-3882.03	378.72	3892.90	3900.46	174.43	1.51
10317.00	87.01	161.51	6677.16	-3942.80	398.63	3956.06	3962.90	174.23	2.24
10381.00	86.78	160.90	6680.62	-4003.30	419.22	4019.06	4025.19	174.02	1.02
10445.00	87.15	161.33	6684.01	-4063.77	439.90	4082.05	4087.51	173.82	.89
10508.00	87.55	160.56	6686.92	-4123.25	460.45	4144.04	4148.88	173.63	1.38
10572.00	88.19	160.69	6689.30	-4183.58	481.67	4206.98	4211.22	173.43	1.02
10636.00	89.33	161.50	6690.69	-4244.12	502.40	4270.03	4273.75	173.25	2.18
10700.00	88.42	161.58	6691.95	-4304.81	522.66	4333.18	4336.42	173.08	1.43
<b>Bottom Line Check</b>									
10763.00	88.05	161.52	6693.89	-4364.54	542.59	4395.32	4398.14	172.91	.59
10827.00	88.86	162.37	6695.61	-4425.37	562.41	4458.52	4460.96	172.76	1.83
10891.00	89.56	163.59	6696.49	-4486.56	581.14	4521.91	4524.04	172.62	2.20
10954.00	88.89	163.02	6697.35	-4546.90	599.24	4584.35	4586.21	172.49	1.40
11018.00	87.58	161.08	6699.32	-4607.75	618.95	4647.56	4649.13	172.35	3.66
11082.00	87.72	160.51	6701.94	-4668.14	639.99	4710.53	4711.80	172.19	.92
11145.00	88.69	161.43	6703.91	-4727.66	660.52	4772.56	4773.58	172.05	2.12
11209.00	89.29	163.39	6705.04	-4788.66	679.86	4835.85	4836.68	171.92	3.20
11273.00	90.07	163.66	6705.40	-4850.03	698.01	4899.32	4900.00	171.81	1.29
11336.00	89.77	163.25	6705.49	-4910.42	715.95	4961.80	4962.34	171.70	.81
11399.00	90.13	163.08	6705.54	-4970.72	734.19	5024.23	5024.65	171.60	.63
11457.00	90.87	162.95	6705.04	-5026.19	751.14	5081.69	5082.00	171.50	1.30
<b>Projection to Bit</b>									
11509.00	90.87	162.95	6704.25	-5075.90	766.38	5133.19	5133.43	171.41	.00