

103.02787

Job Number: 23D1012212	State/Country: WV, USA
Company: Stone Energy	Declination: 0.83
Lease/Well: Lemon #2H	Grid: -8.48
Location: New Martinsville	File name: D:\WINSERVE\STONEJ-1\LEM#9HA.SVY
Rig Name: Saxon 141	Date/Time: 12-Nov-12 / 21:01
RKB: 18	Curve Name: Lemons #8H As Drilled
G.L. or M.S.L.: 1327	

Scientific Drilling

WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane 145.14
 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 Distance FT	Direction Deg	Dogleg Severity Deg/100
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
108.00	.35	39.48	108.00	.25	.21	-.09	.33	39.48	.32
208.00	.14	78.39	208.00	.51	.52	-.12	.73	45.48	.26
308.00	.15	121.62	308.00	.47	.75	.04	.89	58.04	.11
408.00	.10	157.44	408.00	.32	.90	.25	.96	70.33	.09
508.00	.06	149.98	508.00	.20	.96	.39	.98	78.47	.04
608.00	.09	112.92	608.00	.12	1.06	.51	1.06	83.54	.06
708.00	.08	108.51	708.00	.07	1.20	.63	1.20	86.79	.01
808.00	.06	33.72	808.00	.09	1.29	.67	1.29	86.08	.09
908.00	.09	76.47	908.00	.15	1.40	.68	1.41	83.86	.06
1008.00	.04	330.41	1008.00	.20	1.46	.67	1.47	82.21	.11
1108.00	.02	4.63	1108.00	.25	1.44	.62	1.46	80.27	.03
1208.00	.07	321.99	1208.00	.31	1.40	.55	1.44	77.46	.06
1308.00	.06	358.87	1308.00	.41	1.37	.44	1.43	73.18	.04
1408.00	.08	14.56	1408.00	.53	1.38	.35	1.48	68.92	.03
1508.00	.08	354.84	1508.00	.67	1.39	.25	1.55	64.32	.03
1608.00	.12	72.47	1608.00	.77	1.49	.22	1.67	59.55	.13
1708.00	.07	125.44	1708.00	.77	1.64	.31	1.81	54.89	.10
1808.00	.21	105.05	1808.00	.68	1.86	.50	1.99	50.04	.15
1908.00	.13	86.63	1908.00	.64	2.15	.70	2.25	47.37	.10
2008.00	.18	123.40	2008.00	.56	2.40	.91	2.46	44.78	.11
2108.00	.09	47.03	2108.00	.53	2.59	1.04	2.64	42.41	.18
2208.00	.20	329.62	2208.00	.73	2.56	.86	2.89	40.08	.20
2308.00	.27	336.01	2307.99	1.10	2.37	.45	2.67	37.11	.20
2408.00	.44	14.22	2407.99	1.69	2.37	-.03	2.91	34.54	.28
2508.00	.43	17.43	2507.99	2.42	2.58	-.51	3.53	32.82	.03
2608.00	.49	16.71	2607.99	3.19	2.81	-1.01	4.25	31.44	.06
2708.00	.55	13.72	2707.98	4.06	3.05	-1.59	5.08	30.90	.07
2808.00	.71	56.60	2807.98	4.87	3.68	-1.89	6.10	30.08	.48
2908.00	2.01	93.77	2907.95	5.09	5.95	-.78	7.83	29.42	1.51

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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	
3008.00	2.41	101.96	3007.87	4.54	9.75	1.85	10.76	65.02	.51
3108.00	3.60	95.80	3107.73	3.79	14.93	5.43	15.41	75.76	1.23
3208.00	4.02	89.58	3207.51	3.50	21.56	9.45	21.85	80.78	.59
3308.00	5.23	90.97	3307.19	3.45	29.63	14.10	29.83	83.36	1.22
3408.00	6.43	93.71	3406.67	3.01	39.77	20.26	39.88	85.67	1.23
3508.00	7.29	95.02	3505.95	2.09	51.68	27.82	51.72	87.68	.87
3608.00	7.41	96.14	3605.13	.85	64.41	36.12	64.42	89.25	.19
3708.00	6.85	94.63	3704.36	-.33	76.77	44.14	76.77	90.24	.59
3808.00	6.59	93.18	3803.67	-1.13	88.44	51.47	88.45	90.73	.31
3908.00	6.71	93.23	3903.00	-1.77	100.00	58.61	100.02	91.02	.12
4008.00	6.41	93.39	4002.34	-2.43	111.41	65.67	111.43	91.25	.30
4108.00	6.30	95.05	4101.73	-3.25	122.45	72.65	122.49	91.52	.21
4208.00	6.42	97.07	4201.11	-4.42	133.46	79.91	133.53	91.90	.25
4308.00	6.02	98.99	4300.52	-5.92	144.19	87.27	144.31	92.35	.45
4408.00	5.40	99.92	4400.03	-7.55	154.00	94.22	154.19	92.81	.63
4508.00	5.40	99.71	4499.58	-9.16	163.27	100.84	163.53	93.21	.02
4608.00	5.17	87.25	4599.16	-9.74	172.41	106.54	172.69	93.23	1.17
4708.00	3.41	81.63	4698.88	-9.09	179.86	110.26	180.09	92.89	1.81
4800.00	2.54	83.51	4790.75	-8.46	184.59	112.45	184.78	92.62	.95
4900.00	2.70	55.44	4890.65	-6.87	188.73	113.51	188.86	92.08	1.28
5000.00	2.46	42.68	4990.55	-3.96	192.13	113.06	192.17	91.18	.62
5100.00	2.19	38.15	5090.47	-.88	194.76	112.04	194.76	90.26	.33
5200.00	1.12	22.50	5190.43	1.53	196.31	110.95	196.32	89.55	1.15
5300.00	.67	356.55	5290.41	3.02	196.65	109.93	196.68	89.12	.59
5400.00	.62	346.83	5390.41	4.13	196.49	108.93	196.54	88.80	.12
5500.00	.46	315.82	5490.40	4.94	196.09	108.03	196.15	88.56	.33
5600.00	.50	306.01	5590.40	5.48	195.46	107.22	195.54	88.39	.09
5700.00	.72	296.55	5690.39	6.02	194.54	106.25	194.64	88.23	.24
MWD Surveys									
5769.00	.74	281.04	5759.39	6.30	193.72	105.55	193.82	88.14	.29
5832.00	.38	307.85	5822.38	6.51	193.15	105.06	193.26	88.07	.69
5864.00	.53	4.88	5854.38	6.72	193.08	104.85	193.20	88.01	1.42
5896.00	.78	62.96	5886.38	6.97	193.29	104.76	193.42	87.94	2.10
Bottom Line CK.									
5928.00	2.54	88.50	5918.37	7.08	194.19	105.18	194.32	87.91	5.83
5960.00	4.78	94.31	5950.30	7.00	196.23	106.41	196.36	87.96	7.09
5992.00	6.83	93.32	5982.13	6.79	199.46	108.43	199.58	88.05	6.41
6023.00	8.94	92.69	6012.84	6.57	203.71	111.04	203.81	88.15	6.81
6055.00	10.13	93.30	6044.40	6.29	209.00	114.30	209.10	88.28	3.73
6087.00	11.89	96.39	6075.81	5.76	215.09	118.21	215.16	88.46	5.80
6118.00	13.08	100.91	6106.07	4.75	221.71	122.83	221.76	88.77	4.96
6150.00	14.47	102.91	6137.15	3.17	229.16	128.38	229.16	88.77	4.96
6182.00	16.48	104.46	6167.99	1.14	237.45	134.79	237.45	88.15	6.41
6214.00	18.50	104.59	6198.51	-1.27	246.76	142.09	246.76	90.30	6.31
6246.00	21.19	104.40	6228.61	-3.99	257.28	150.33	257.31	90.89	8.41
6277.00	22.71	103.27	6257.36	-6.76	268.53	159.03	268.61	91.99	8.41
6309.00	24.07	103.68	6286.73	-9.72	280.88	168.52	281.05	91.99	8.41
6341.00	25.61	102.14	6315.77	-12.72	293.98	178.47	294.26	92.48	5.22
6373.00	27.79	102.12	6344.35	-15.74	308.04	188.98	308.44	92.92	6.81
6405.00	30.56	100.84	6372.29	-18.83	323.33	200.26	323.88	93.33	8.87

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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	
6436.00	33.07	100.43	6398.63	-21.85	339.39	211.91	340.09	93.68	8.13
6468.00	35.34	100.23	6425.10	-25.07	357.08	224.67	357.96	94.02	7.10
6499.00	36.81	100.65	6450.15	-28.38	375.04	237.65	376.11	94.33	4.81
6531.00	38.49	99.95	6475.49	-31.87	394.27	251.51	395.55	94.62	5.42
6563.00	40.40	98.95	6500.20	-35.21	414.32	265.71	415.81	94.86	6.29
6595.00	42.64	97.58	6524.16	-38.25	435.31	280.20	436.99	95.02	7.55
6626.00	44.43	96.53	6546.63	-40.87	456.50	294.46	458.33	95.12	6.23
6658.00	45.90	95.69	6569.19	-43.28	479.06	309.34	481.02	95.16	4.96
6690.00	46.79	95.78	6591.28	-45.60	502.10	324.40	504.17	95.19	2.79
Bottom Line CK.									
6721.00	48.59	95.68	6612.15	-47.89	524.91	339.32	527.09	95.21	5.81
6753.00	50.35	95.29	6632.94	-50.21	549.12	355.06	551.41	95.22	5.58
6785.00	52.77	94.58	6652.83	-52.36	574.09	371.10	576.47	95.21	7.76
6817.00	55.11	93.90	6671.67	-54.27	599.89	387.41	602.34	95.17	7.51
6848.00	56.41	93.16	6689.11	-55.85	625.46	403.33	627.95	95.10	4.63
6880.00	58.00	93.03	6706.44	-57.30	652.32	419.87	654.83	95.02	4.98
6912.00	60.22	92.87	6722.87	-58.72	679.75	436.70	682.28	94.94	6.95
6944.00	61.89	92.16	6738.36	-59.94	707.72	453.70	710.25	94.84	5.57
6976.00	63.46	91.89	6753.05	-60.95	736.13	470.76	738.65	94.73	4.96
7007.00	65.39	91.02	6766.43	-61.65	764.08	487.32	766.57	94.61	6.72
7039.00	67.44	91.62	6779.23	-62.33	793.40	504.63	795.85	94.49	6.63
7071.00	70.64	93.05	6790.68	-63.55	823.25	522.70	825.70	94.41	10.84
7103.00	74.55	95.90	6800.25	-65.94	853.68	542.05	856.23	94.42	14.88
7134.00	76.51	98.31	6808.00	-69.66	883.47	562.12	886.21	94.51	9.83
7166.00	76.89	98.43	6815.36	-74.19	914.28	583.45	917.28	94.64	1.24
7198.00	76.37	100.90	6822.76	-79.42	944.96	605.28	948.30	94.80	7.68
7230.00	75.71	103.82	6830.48	-86.06	975.30	628.07	979.09	95.04	9.09
7262.00	74.99	106.20	6838.57	-94.08	1005.20	651.74	1009.59	95.35	7.54
7293.00	74.85	109.30	6846.64	-103.20	1033.70	675.52	1038.84	95.70	9.67
7325.00	74.69	111.75	6855.05	-114.03	1062.61	700.93	1068.71	96.12	7.40
7357.00	76.90	113.93	6862.90	-126.07	1091.20	727.15	1098.46	96.59	9.56
7389.00	80.63	115.71	6869.13	-139.24	1119.68	754.24	1128.30	97.09	12.87
7420.00	83.21	116.59	6873.49	-152.77	1147.23	781.08	1157.35	97.59	8.78
7452.00	84.19	116.92	6877.00	-167.09	1175.63	809.06	1187.44	98.09	3.23
7484.00	84.42	119.11	6880.18	-182.04	1203.74	837.40	1217.42	98.60	6.85
7515.00	83.81	122.57	6883.36	-197.85	1230.21	865.50	1246.02	99.14	11.28
7546.00	83.04	125.40	6886.91	-215.06	1255.74	894.22	1274.03	99.72	9.40
7576.00	82.86	128.71	6890.59	-233.00	1279.50	922.52	1300.54	100.32	10.97
7607.00	83.64	130.95	6894.24	-252.72	1303.14	952.21	1327.42	100.98	7.60
7638.00	84.69	133.53	6897.39	-273.45	1325.97	982.26	1353.87	101.65	8.95
7668.00	85.26	135.80	6900.02	-294.45	1347.22	1011.65	1379.02	102.33	7.77
7699.00	86.10	138.49	6902.35	-317.11	1368.24	1042.26	1404.51	103.05	9.07
7730.00	86.14	140.83	6904.45	-340.68	1388.26	1073.04	1429.45	103.79	7.53
7760.00	85.59	143.31	6906.61	-364.28	1406.65	1102.92	1453.06	104.52	8.45
7791.00	85.13	145.58	6909.12	-389.42	1424.62	1133.81	1476.89	105.29	7.45
7822.00	84.66	148.19	6911.88	-415.28	1441.49	1164.67	1500.11	106.07	8.52
7852.00	84.99	150.02	6914.59	-440.92	1456.83	1194.48	1522.09	106.84	6.17
7913.00	85.97	151.93	6919.39	-494.09	1486.33	1254.97	1566.30	108.39	3.51
7973.00	88.79	154.18	6922.14	-547.51	1513.48	1314.33	1609.47	109.89	6.01
8034.00	89.40	154.22	6923.10	-602.42	1540.03	1374.56	1653.66	111.36	1.00

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Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	Direction Deg	Dogleg Severity Deg/100
8095.00	89.87	152.35	6923.49	-656.91	1567.45	1434.94	1699.54	112.74	3.16
8157.00	90.54	152.33	6923.27	-711.82	1596.23	1496.45	1747.75	114.03	1.08
8219.00	92.02	152.92	6921.88	-766.86	1624.73	1557.90	1796.62	115.27	2.57
8280.00	92.35	152.12	6919.56	-820.94	1652.86	1618.35	1845.50	116.41	1.42
8340.00	91.21	153.92	6917.69	-874.38	1680.07	1677.75	1893.98	117.49	3.55
8401.00	91.07	151.65	6916.48	-928.61	1707.96	1738.20	1944.08	118.53	3.73
8463.00	91.34	151.22	6915.17	-983.05	1737.59	1799.81	1996.40	119.50	.82
8527.00	91.81	153.69	6913.42	-1039.77	1767.18	1863.26	2050.38	120.47	3.93
8590.00	89.53	149.94	6912.68	-1095.29	1796.92	1925.81	2104.42	121.36	6.97
8653.00	88.19	150.34	6913.93	-1149.91	1828.28	1988.56	2159.84	122.17	2.22
8717.00	90.77	151.46	6914.51	-1205.82	1859.41	2052.23	2216.17	122.96	4.39
8781.00	92.12	152.61	6912.90	-1262.33	1889.41	2115.74	2272.30	123.75	2.77
8844.00	91.85	151.39	6910.72	-1317.92	1918.97	2178.25	2327.95	124.48	1.98
8908.00	93.26	151.50	6907.86	-1374.08	1949.53	2241.80	2385.11	125.18	2.21
8971.00	92.76	153.46	6904.56	-1429.87	1978.59	2304.19	2441.18	125.85	3.21
9035.00	92.15	155.69	6901.81	-1487.61	2006.04	2367.26	2497.44	126.56	3.61
9098.00	91.21	155.81	6899.97	-1545.03	2031.91	2429.16	2552.60	127.25	1.50
9161.00	90.44	156.57	6899.06	-1602.66	2057.34	2490.98	2607.90	127.92	1.72
9225.00	91.24	156.47	6898.12	-1661.36	2082.83	2553.72	2664.26	128.58	1.26
9288.00	89.36	155.56	6897.79	-1718.91	2108.44	2615.58	2720.33	129.19	3.32
9352.00	90.40	156.16	6897.93	-1777.31	2134.62	2678.47	2777.67	129.78	1.88
9416.00	91.34	156.50	6896.95	-1835.92	2160.31	2741.24	2835.05	130.36	1.56
9479.00	90.50	155.16	6895.94	-1893.39	2186.10	2803.14	2892.05	130.90	2.51
9542.00	91.08	154.82	6895.07	-1950.48	2212.73	2865.20	2949.67	131.40	1.07
9606.00	89.36	154.48	6894.83	-2008.31	2240.13	2928.32	3008.57	131.88	2.74
9669.00	90.37	155.03	6894.98	-2065.29	2267.00	2990.43	3066.71	132.33	1.83
9733.00	91.31	155.58	6894.04	-2123.43	2293.73	3053.42	3125.73	132.79	1.70
9797.00	89.63	154.70	6893.51	-2181.50	2320.64	3116.44	3185.01	133.23	2.96
9860.00	90.44	154.61	6893.47	-2238.43	2347.60	3178.58	3243.74	133.64	1.29
9924.00	89.36	154.79	6893.59	-2296.29	2374.95	3241.69	3303.54	134.04	1.71
9988.00	90.00	154.39	6893.94	-2354.10	2402.42	3304.82	3363.54	134.42	1.18
10051.00	90.57	153.79	6893.63	-2410.77	2429.94	3367.05	3422.93	134.77	1.31
10114.00	91.78	154.14	6892.34	-2467.36	2457.59	3429.29	3482.47	135.11	2.00
10178.00	90.57	152.94	6891.03	-2524.64	2486.10	3492.59	3543.23	135.44	2.66
10241.00	91.55	153.00	6889.86	-2580.75	2514.73	3554.99	3603.35	135.74	1.56
10305.00	89.63	152.71	6889.20	-2637.70	2543.92	3618.40	3664.56	136.04	3.03
10369.00	90.47	153.03	6889.15	-2694.65	2573.11	3681.82	3725.86	136.32	1.40
Bottom Line Check									
10432.00	90.97	153.14	6888.35	-2750.82	2601.62	3744.21	3786.22	136.60	.81
10496.00	88.86	153.02	6888.45	-2807.89	2630.60	3807.59	3847.63	136.87	3.30
10559.00	89.80	153.55	6889.19	-2864.16	2658.92	3869.95	3908.10	137.13	1.71
10623.00	90.44	153.35	6889.05	-2921.41	2687.52	3933.28	3969.68	137.39	1.20
10686.00	91.14	153.07	6888.18	-2977.64	2715.91	3995.65	4030.20	137.63	2.14
10750.00	89.80	152.78	6887.66	-3034.62	2745.04	4059.06	4091.97	137.87	1.32
10814.00	90.50	152.31	6887.49	-3091.41	2774.55	4122.52	4153.91	138.09	1.69
10878.00	91.58	152.31	6886.33	-3148.07	2804.28	4186.01	4215.97	138.31	1.79
10941.00	89.29	152.82	6885.85	-3203.98	2833.31	4248.47	4278.99	138.53	1.50
11005.00	90.27	153.41	6886.10	-3261.06	2862.25	4311.85	4339.01	138.75	1.61
11069.00	91.11	153.87	6885.33	-3318.40	2890.66	4375.15	4400.88	138.94	1.50
11132.00	92.12	153.98	6883.55	-3374.97	2918.34	4437.38	4461.74	139.15	1.61

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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	
Bottom Line Check									
11196.00	90.40	154.43	6882.14	-3432.58	2946.18	4500.56	4523.56	139.36	2.78
11260.00	91.01	153.94	6881.36	-3490.18	2974.05	4563.76	4585.45	139.57	1.22
11323.00	91.91	154.19	6879.75	-3546.82	3001.60	4625.98	4646.45	139.76	1.48
11387.00	89.09	153.54	6879.19	-3604.27	3029.78	4689.23	4708.54	139.95	4.52
11450.00	89.87	154.27	6879.76	-3660.84	3057.49	4751.49	4769.70	140.13	1.70
11513.00	90.84	154.33	6879.37	-3717.61	3084.81	4813.69	4830.81	140.31	1.54
11577.00	91.68	154.35	6877.97	-3775.28	3112.52	4876.85	4892.91	140.50	1.31
11640.00	89.70	154.59	6877.21	-3832.13	3139.67	4939.00	4954.06	140.67	3.17
11704.00	90.34	154.59	6877.18	-3889.93	3167.13	5002.14	5016.20	140.85	1.00
11767.00	92.08	155.47	6875.85	-3947.03	3193.72	5064.18	5077.29	141.02	3.09
11830.00	91.04	156.53	6874.14	-4004.56	3219.33	5126.03	5138.15	141.20	2.36
Bottom Line Check									
11894.00	92.05	156.67	6872.41	-4063.27	3244.74	5188.73	5199.86	141.39	1.59
11958.00	93.16	157.13	6869.50	-4122.08	3269.82	5251.32	5261.49	141.58	1.88
12021.00	93.36	156.87	6865.92	-4179.94	3294.50	5312.90	5322.18	141.76	.80
Bottom Line Check									
12084.00	94.44	156.48	6861.64	-4237.61	3319.49	5374.50	5382.97	141.93	1.74
Proj. to Bit									
12159.00	94.44	156.48	6855.83	-4306.17	3349.33	5447.82	5455.37	142.12	.00

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