

Job Number: []
Company: []
Lease/Welt: []
Location: []
Rig Name: []
RKB: []
G.L. or M.S.L.: []

State/Country: []
Declination: []
Grid: []
File name: D:\WINSERVE\JOBS\MCU1-1~1.SVY
Date/Time: 02-Oct-10 / 05:20
Curve Name: Mason Conlon Unit 1 #1H_As Drilled

Scientific Drilling

WINSERVE SURVEY CALCULATIONS
Minimum Curvature Method
Vertical Section Plane 346.83
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	Distance FT	Dogleg Severity Deg/100
.00	.00	.00	.00	.00	.00	.00	.00	.00
108.00	.08	129.06	108.00	-.05	.06	-.06	.08	.07
208.00	.29	352.80	208.00	.16	.08	.14	.18	.35
308.00	.14	282.92	308.00	.44	-.07	.44	.44	.28
408.00	.16	94.68	408.00	.45	-.05	.45	.46	.30
508.00	.28	170.02	508.00	.20	.13	.17	.24	.29
608.00	.23	81.18	608.00	-.01	.37	-.09	.37	.36
708.00	.19	236.65	708.00	-.07	.43	-.17	.44	.41
808.00	.19	151.10	808.00	-.30	.37	-.38	.48	.26
908.00	.19	347.74	908.00	-.29	.42	-.38	.51	.38
1008.00	.25	220.90	1008.00	-.29	.24	-.34	.38	.39
1108.00	.23	340.99	1108.00	-.27	.03	-.27	.27	.42
1208.00	.44	90.38	1207.99	-.08	.35	-.16	.36	.56

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	Distance FT	Dogleg Severity Deg/100
1308.00	.36	140.11	1307.99	-.32	.94	-.53	.99	.34
1408.00	.37	131.39	1407.99	-.78	1.38	-1.07	1.58	.06
1508.00	.52	121.92	1507.99	-1.23	2.01	-1.66	2.35	.17
1608.00	.48	88.82	1607.98	-1.46	2.81	-2.06	3.17	.29
1708.00	.37	165.90	1707.98	-1.77	3.31	-2.47	3.75	.54
1808.00	.21	81.55	1807.98	-2.05	3.57	-2.81	4.12	.41
1908.00	.22	174.14	1907.98	-2.22	3.77	-3.02	4.37	.31
2008.00	.34	85.26	2007.98	-2.38	4.09	-3.25	4.73	.40
2108.00	.67	128.40	2107.98	-2.72	4.84	-3.75	5.55	.48
2208.00	.62	133.51	2207.97	-3.46	5.69	-4.66	6.66	.08
2308.00	.38	113.00	2307.97	-3.96	6.39	-5.31	7.51	.30
2408.00	.61	76.12	2407.96	-3.96	7.21	-5.50	8.23	.38
2508.00	.36	82.09	2507.96	-3.79	8.04	-5.52	8.89	.25
2608.00	.14	349.43	2607.96	-3.63	8.33	-5.43	9.08	.39
2708.00	.45	277.03	2707.96	-3.46	7.91	-5.17	8.64	.43
2808.00	.24	266.81	2807.95	-3.42	7.32	-5.00	8.08	.22
2908.00	.47	301.97	2907.95	-3.22	6.76	-4.67	7.48	.31
3008.00	.21	316.20	3007.95	-2.87	6.28	-4.22	6.91	.27
3108.00	.31	260.79	3107.95	-2.78	5.89	-4.05	6.51	.26
3208.00	.20	274.41	3207.95	-2.81	5.45	-3.98	6.13	.12
3308.00	.52	310.88	3307.95	-2.50	4.93	-3.56	5.53	.38
3408.00	.23	326.39	3407.95	-2.03	4.48	-3.00	4.92	.30
3508.00	.08	347.27	3507.94	-1.80	4.35	-2.74	4.71	.16
3608.00	.30	260.97	3607.94	-1.77	4.08	-2.65	4.44	.31
3708.00	.33	276.36	3707.94	-1.78	3.53	-2.54	3.96	.09
3808.00	.36	304.27	3807.94	-1.57	2.99	-2.21	3.37	.17
3908.00	.38	268.98	3907.94	-1.40	2.39	-1.91	2.77	.23
4008.00	.44	317.91	4007.94	-1.12	1.81	-1.50	2.13	.34
4108.00	.45	282.00	4107.93	-.75	1.16	-1.00	1.39	.27
4208.00	.33	322.71	4207.93	-.44	.61	-.57	.75	.29
4308.00	.56	309.32	4307.93	.09	.05	.08	.11	.25
4408.00	.60	342.26	4407.92	.90	-.48	.99	1.02	.33
4508.00	.64	354.23	4507.92	1.96	-.70	2.07	2.08	.14
4608.00	.62	329.04	4607.91	2.98	-1.03	3.13	3.15	.28

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	Distance FT	Dogleg Severity Deg/100
4708.00	.67	342.77	4707.91	4.00	-1.49	4.23	4.27	.16
4808.00	.55	331.16	4807.90	4.98	-1.89	5.28	5.33	.17
4908.00	.49	336.44	4907.90	5.79	-2.29	6.16	6.23	.08
5008.00	.54	349.40	5007.89	6.65	-2.55	7.05	7.12	.13
5108.00	.62	350.98	5107.89	7.64	-2.72	8.06	8.11	.08
5208.00	.41	312.87	5207.88	8.42	-3.07	8.90	8.96	.39
5308.00	.34	303.96	5307.88	8.83	-3.58	9.41	9.53	.09
5408.00	.47	306.36	5407.88	9.24	-4.15	9.94	10.13	.13
5508.00	.23	328.52	5507.88	9.65	-4.59	10.45	10.69	.27
5608.00	.51	318.32	5607.87	10.16	-4.99	11.03	11.32	.29
5708.00	.48	296.56	5707.87	10.68	-5.66	11.69	12.08	.19
5808.00	.80	311.85	5807.86	11.33	-6.55	12.53	13.09	.36
gyro 5825.00	.79	339.84	5824.86	11.52	-6.68	12.74	13.32	2.26
gyro 5850.00	1.87	355.82	5849.86	12.09	-6.77	13.31	13.86	4.53
gyro 5875.00	3.61	3.02	5874.83	13.28	-6.76	14.47	14.90	7.08
gyro 5901.00	5.57	7.46	5900.74	15.35	-6.55	16.44	16.69	7.66
gyro 5925.00	7.34	9.90	5924.59	18.01	-6.14	18.94	19.03	7.46
gyro 5950.00	8.99	10.72	5949.33	21.51	-5.50	22.19	22.20	6.62
gyro 5976.00	10.14	9.01	5974.97	25.76	-4.77	26.17	26.20	4.56
gyro 6000.00	11.25	9.12	5998.56	30.16	-4.06	30.29	30.43	4.63
gyro 6025.00	12.31	9.85	6023.03	35.20	-3.22	35.00	35.34	4.28
gyro 6050.00	12.70	9.92	6047.44	40.53	-2.29	39.98	40.59	1.56
gyro 6075.00	12.22	7.73	6071.85	45.86	-1.46	44.98	45.88	2.69
gyro 6100.00	12.43	6.55	6096.27	51.15	-80	49.99	51.16	1.31
gyro 6125.00	12.83	6.54	6120.67	56.58	-1.18	55.13	56.58	1.60

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	Distance FT	Dogleg Severity Deg/100
gyro 6150.00	13.78	7.15	6144.99	62.29	.51	60.54	62.30	3.84
gyro 6175.00	14.98	6.58	6169.21	68.46	1.25	66.37	68.47	4.83
gyro 6200.00	15.92	2.84	6193.31	75.09	1.79	72.71	75.11	5.48
gyro 6225.00	16.83	359.12	6217.29	82.14	1.91	79.54	82.16	5.55
gyro 6251.00	18.25	356.22	6242.08	89.96	1.58	87.24	89.98	6.41
gyro 6275.00	19.78	354.05	6264.77	97.75	.91	94.97	97.76	7.02
gyro 6300.00	22.01	353.51	6288.13	106.62	-.06	103.82	106.62	8.95
gyro 6325.00	24.54	352.49	6311.09	116.42	-1.27	113.65	116.43	10.25
gyro 6350.00	27.59	352.03	6333.55	127.30	-2.75	124.58	127.33	12.23
gyro 6375.00	30.85	351.39	6355.36	139.38	-4.51	136.74	139.45	13.10
gyro 6401.00	34.37	351.42	6377.26	153.23	-6.60	150.70	153.37	13.54
gyro 6425.00	37.96	351.77	6396.63	167.24	-8.67	164.81	167.46	14.98
gyro 6451.00	40.70	352.65	6416.74	183.56	-10.90	181.22	183.89	10.75
gyro 6472.00	41.43	353.56	6432.58	197.26	-12.56	194.93	197.66	4.49
6503.00	42.29	356.77	6456.67	217.86	-14.29	215.39	218.33	7.45
6535.00	42.99	359.97	6479.21	239.53	-14.91	236.62	239.99	7.12
6566.00	42.93	2.70	6501.90	260.64	-14.42	257.07	261.04	6.00
6598.00	43.56	4.97	6525.21	282.51	-12.95	278.03	282.81	5.24
6630.00	43.74	7.29	6548.37	304.47	-10.59	298.88	304.66	5.04
6662.00	43.83	10.26	6571.47	326.35	-7.21	319.41	326.43	6.43
6694.00	44.21	15.31	6594.49	348.02	-2.29	339.39	348.03	11.03
6725.00	44.15	19.63	6616.73	368.62	4.19	357.97	368.64	9.71
6757.00	44.28	23.85	6639.67	389.34	12.46	376.26	389.54	9.20

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	Distance FT	Dogleg Severity Deg/100
6789.00	44.69	28.20	6662.50	409.48	22.29	393.63	410.08	9.61
6821.00	45.74	31.90	6685.05	429.13	33.67	410.17	430.44	8.84
6852.00	47.66	35.57	6706.31	447.87	46.20	425.57	450.25	10.61
6884.00	49.86	38.07	6727.41	467.13	60.63	441.03	471.05	9.04
6916.00	51.61	40.04	6747.66	486.36	76.24	456.20	492.30	7.25
6947.00	52.58	42.01	6766.70	504.81	92.29	470.50	513.18	5.91
6979.00	54.02	41.77	6785.83	523.91	109.42	485.20	535.22	4.54
7011.00	55.86	37.98	6804.21	544.01	126.20	500.95	558.46	11.27
7043.00	57.98	34.49	6821.68	565.64	142.04	518.40	583.20	11.29
7075.00	60.33	31.83	6838.09	588.64	157.06	537.37	609.23	10.24
7107.00	62.87	29.89	6853.31	612.80	171.49	557.61	636.34	9.56
7139.00	64.83	27.86	6867.41	637.95	185.36	578.94	664.33	8.36
7170.00	66.02	26.21	6880.31	663.06	198.17	600.47	692.04	6.18
7202.00	66.65	24.54	6893.15	689.54	210.73	623.40	721.02	5.17
7234.00	67.57	22.47	6905.60	716.58	222.48	647.04	750.32	6.62
7266.00	69.10	18.81	6917.42	744.40	232.96	671.75	780.00	11.65
7298.00	71.02	15.70	6928.33	773.12	241.87	697.68	810.08	10.93
7329.00	72.90	12.29	6937.93	801.72	249.00	723.90	839.50	12.09
7361.00	74.19	8.86	6947.00	831.88	254.62	751.99	869.98	11.04
7393.00	75.47	5.43	6955.38	862.52	258.46	780.95	900.42	11.09
7425.00	75.50	3.29	6963.40	893.41	260.82	810.49	930.70	6.47
7457.00	75.79	.83	6971.33	924.39	261.93	840.40	960.78	7.50
7489.00	76.24	357.90	6979.07	955.43	261.59	870.70	990.60	9.00
7520.00	77.65	355.46	6986.07	985.58	259.83	900.46	1019.25	8.91
7552.00	80.32	353.16	6992.19	1016.83	256.72	931.59	1048.74	10.93
7584.00	82.59	350.92	6996.94	1048.16	252.33	963.10	1078.11	9.91
7615.00	84.42	347.91	7000.45	1078.44	246.68	993.87	1106.29	11.31
7647.00	88.05	345.84	7002.55	1109.53	239.43	1025.79	1135.07	13.05
7679.00	90.74	343.77	7002.89	1140.40	231.04	1057.77	1163.57	10.61
7711.00	91.48	342.19	7002.27	1170.99	221.68	1089.69	1191.79	5.45
7775.00	91.48	337.35	7000.61	1231.01	199.56	1153.16	1247.08	7.56
7839.00	91.01	335.39	6999.22	1289.62	173.91	1216.08	1301.30	3.15
7902.00	90.57	334.73	6998.35	1346.74	147.35	1277.75	1354.78	1.26
7965.00	90.44	334.15	6997.80	1403.57	120.17	1339.28	1408.71	.94

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	Distance FT	Dogleg Severity Deg/100
8028.00	90.87	334.19	6997.08	1460.28	92.72	1400.74	1463.22	.69
8092.00	91.11	335.49	6995.97	1518.19	65.52	1463.34	1519.61	2.07
8156.00	90.77	334.80	6994.92	1576.26	38.62	1526.00	1576.73	1.20
8219.00	90.74	334.78	6994.09	1633.25	11.79	1587.61	1633.30	.06
8282.00	90.77	333.40	6993.26	1689.91	-15.74	1649.05	1689.99	2.19
8346.00	91.44	333.51	6992.03	1747.16	-44.33	1711.30	1747.72	1.06
8410.00	90.87	333.06	6990.74	1804.31	-73.10	1773.51	1805.79	1.13
8473.00	90.40	332.09	6990.04	1860.23	-102.11	1834.57	1863.03	1.71
8537.00	89.26	331.79	6990.23	1916.70	-132.22	1896.42	1921.26	1.84
8601.00	89.40	333.21	6990.98	1973.47	-161.77	1958.42	1980.09	2.23
8664.00	89.70	333.93	6991.47	2029.88	-189.81	2019.74	2038.74	1.24
8728.00	90.74	334.96	6991.23	2087.62	-217.41	2082.25	2098.91	2.29
8792.00	92.05	336.12	6989.67	2145.85	-243.90	2144.99	2159.67	2.73
8855.00	92.45	336.21	6987.20	2203.44	-269.34	2206.85	2219.84	.65
8919.00	93.02	335.74	6984.14	2261.82	-295.37	2269.63	2281.03	1.15
8983.00	92.65	335.97	6980.98	2320.15	-321.52	2332.38	2342.33	.68
9046.00	91.41	334.84	6978.74	2377.40	-347.72	2394.10	2402.69	2.66
9109.00	90.97	333.15	6977.44	2434.01	-375.34	2455.51	2462.78	2.77
9172.00	90.50	330.76	6976.63	2489.60	-404.95	2516.38	2522.32	3.87
9236.00	90.34	330.33	6976.16	2545.33	-436.42	2577.82	2582.47	.72
9299.00	91.21	331.90	6975.31	2600.48	-466.85	2638.45	2642.05	2.85
9363.00	92.21	332.52	6973.40	2657.07	-496.68	2700.35	2703.10	1.84
9427.00	91.38	329.92	6971.39	2713.14	-527.47	2761.95	2763.93	4.26
9490.00	89.83	327.80	6970.73	2767.05	-560.05	2821.87	2823.16	4.17
9554.00	91.31	329.99	6970.09	2821.84	-593.10	2882.75	2883.50	4.13
9618.00	90.44	329.56	6969.11	2877.13	-625.32	2943.93	2944.30	1.52
9681.00	91.41	331.78	6968.10	2932.05	-656.17	3004.43	3004.57	3.85
9745.00	91.65	337.40	6966.38	2989.81	-683.61	3066.93	3066.97	8.79
9809.00	91.41	337.56	6964.68	3048.91	-708.12	3130.05	3130.06	.45
9873.00	90.77	336.75	6963.46	3107.88	-732.96	3193.13	3193.14	1.61
9936.00	91.11	336.41	6962.42	3165.68	-758.00	3255.12	3255.16	.76
10000.00	92.05	336.53	6960.66	3224.33	-783.54	3318.05	3318.17	1.48
10064.00	93.06	336.40	6957.81	3282.95	-809.07	3380.94	3381.18	1.59
10127.00	91.18	337.04	6955.48	3340.78	-833.95	3442.92	3443.29	3.15

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	Distance FT	Dogleg Severity Deg/100
10159.00	91.24	337.02	6954.80	3370.24	-846.43	3474.44	3474.90	.20
Proj to Bit 10216.00	91.24	337.02	6953.57	3422.70	-868.68	3530.60	3531.22	.00