



Scientific Drilling
Rocky Mountain Operations

Job Number: 42DEF1206756

Company: Quicksilver

Lease/Well: Simoes 22-30

Location: Moffat County

Rig Name: DHS 6

RKB: ¶

G.L. or M.S.L.: ¶

State/Country: Colorado / USA

Declination:

Grid:

File name: D:\WINSERVE\SIMOE22.SVY

Date/Time: 25-Jun-12 / 14:09

Curve Name: SIMOE22-30 AS DRILLED

Scientific Drilling

WINSERVE SURVEY CALCULATIONS
Minimum Curvature Method
Vertical Section Plane .00
Vertical Section Referenced to Wellhead
Rectangular Coordinates Referenced to Wellhead

<i>Measured Depth FT</i>	<i>Incl Angle Deg</i>	<i>Drift Direction Deg</i>	<i>True Vertical Depth</i>	<i>N-S FT</i>	<i>E-W FT</i>	<i>Vertical Section FT</i>	<i>C L O S U R E Distance FT</i>	<i>Direction Deg</i>	<i>Dogleg Severity Deg/100</i>
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
129.00	.00	85.55	129.00	.00	.00	.00	.00	.00	.00
221.00	.09	218.08	221.00	-.06	-.04	-.06	.07	218.08	.10
316.00	.17	278.34	316.00	-.10	-.23	-.10	.25	247.53	.16
408.00	.44	211.05	408.00	-.38	-.55	-.38	.67	235.37	.44
505.00	1.14	199.80	504.99	-1.60	-1.07	-1.60	1.93	213.60	.74
599.00	1.49	201.91	598.96	-3.62	-1.84	-3.62	4.06	206.94	.38
693.00	.88	147.86	692.95	-5.36	-1.91	-5.36	5.69	199.61	1.28
787.00	.97	97.32	786.94	-6.08	-.74	-6.08	6.12	186.92	.84
881.00	1.41	63.84	880.92	-5.67	1.09	-5.67	5.77	169.12	.86
976.00	1.76	39.32	975.88	-4.02	3.06	-4.02	5.06	142.72	.79
1070.00	1.58	37.21	1069.84	-1.88	4.76	-1.88	5.12	111.50	.20
1165.00	1.96	25.23	1164.80	.64	6.25	.64	6.28	84.17	.56
1196.00	2.20	21.65	1195.77	1.67	6.69	1.67	6.90	75.98	.88
1319.00	1.41	10.22	1318.71	5.35	7.83	5.35	9.49	55.64	.70
1413.00	1.23	355.11	1412.69	7.50	7.95	7.50	10.93	46.68	.42
1507.00	.97	330.41	1506.67	9.19	7.47	9.19	11.85	39.10	.57
1601.00	1.23	311.86	1600.65	10.56	6.33	10.56	12.31	30.93	.47
1695.00	2.64	1.70	1694.60	13.40	5.64	13.40	14.54	22.83	2.20
1790.00	2.11	353.88	1789.52	17.32	5.52	17.32	18.18	17.67	.65
1884.00	1.49	46.26	1883.48	19.89	6.22	19.89	20.84	17.36	1.79
1978.00	.79	54.26	1977.46	21.11	7.63	21.11	22.45	19.86	.76
2072.00	.35	74.38	2071.46	21.57	8.43	21.57	23.16	21.34	.51
2167.00	.26	191.63	2166.46	21.43	8.66	21.43	23.12	22.01	.55
2261.00	.35	240.76	2260.46	21.09	8.37	21.09	22.69	21.65	.28

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	
2355.00	.70	355.81	2354.45	21.52	8.08	21.52	22.98	20.58	.96
2449.00	.26	228.54	2448.45	21.95	7.88	21.95	23.32	19.74	.94
2543.00	.53	16.73	2542.45	22.22	7.84	22.22	23.57	19.43	.81
2637.00	.26	348.95	2636.45	22.85	7.93	22.85	24.19	19.13	.34
2731.00	.70	202.79	2730.45	22.53	7.66	22.53	23.80	18.78	.99
2826.00	1.49	212.81	2825.43	20.96	6.77	20.96	22.02	17.90	.85
2920.00	.53	322.85	2919.42	20.28	5.84	20.28	21.10	16.08	1.86
3014.00	.62	68.23	3013.41	20.81	6.05	20.81	21.67	16.22	.97
3108.00	.26	106.99	3107.41	20.94	6.73	20.94	21.99	17.82	.48
3202.00	.35	216.33	3201.41	20.64	6.76	20.64	21.72	18.14	.53
3296.00	.35	105.32	3295.41	20.34	6.87	20.34	21.47	18.67	.61
3390.00	.35	100.84	3389.41	20.21	7.43	20.21	21.53	20.19	.03
3484.00	.62	187.50	3483.41	19.65	7.64	19.65	21.08	21.26	.74
3578.00	.79	190.22	3577.40	18.51	7.46	18.51	19.96	21.96	.18
3672.00	.79	37.38	3671.39	18.38	7.74	18.38	19.95	22.84	1.63
3766.00	.62	305.36	3765.39	19.19	7.72	19.19	20.69	21.91	1.09
3861.00	1.23	4.69	3860.38	20.51	7.38	20.51	21.80	19.80	1.11
3955.00	1.06	346.84	3954.36	22.36	7.27	22.36	23.51	18.01	.42
4049.00	1.06	314.41	4048.35	23.81	6.45	23.81	24.67	15.16	.63
4143.00	1.23	188.03	4142.34	23.42	5.69	23.42	24.10	13.65	2.18
4235.00	.97	96.62	4234.33	22.36	6.32	22.36	23.23	15.79	1.72
4332.00	.53	79.83	4331.32	22.34	7.58	22.34	23.59	18.74	.50
4426.00	1.32	186.62	4425.31	21.34	7.88	21.34	22.75	20.27	1.66
4520.00	.70	234.08	4519.29	19.93	7.29	19.93	21.22	20.10	1.05
4614.00	2.29	9.17	4613.27	21.45	7.13	21.45	22.60	18.39	3.01
4709.00	1.41	330.67	4708.23	24.34	6.86	24.34	25.29	15.74	1.55
4803.00	1.32	266.69	4802.20	25.29	5.21	25.29	25.82	11.64	1.54
4897.00	.18	225.03	4896.19	25.12	4.03	25.12	25.44	9.10	1.27
4991.00	.79	160.60	4990.19	24.40	4.14	24.40	24.75	9.62	.78
5085.00	2.55	202.44	5084.15	21.86	3.55	21.86	22.15	9.23	2.16
5179.00	2.11	215.27	5178.07	18.51	1.76	18.51	18.60	5.42	.72
5273.00	3.43	256.40	5271.97	16.44	-1.98	16.44	16.56	353.14	2.45
5367.00	1.85	24.90	5365.92	17.15	-4.07	17.15	17.63	346.65	5.11
5462.00	3.87	167.37	5460.85	15.42	-2.72	15.42	15.66	349.98	5.74
5556.00	4.92	238.12	5554.64	10.19	-5.46	10.19	11.56	331.83	5.49
5650.00	2.02	312.92	5648.49	9.19	-10.09	9.19	13.65	312.30	5.11
5744.00	2.02	64.98	5742.46	11.02	-9.81	11.02	14.75	318.32	3.56
5839.00	2.99	32.46	5837.37	13.82	-6.96	13.82	15.47	333.26	1.77
5933.00	.79	290.24	5931.33	16.11	-6.25	16.11	17.28	338.79	3.46
6027.00	2.02	83.96	6025.31	16.51	-5.21	16.51	17.31	342.48	2.93
6121.00	2.46	193.48	6119.27	14.72	-4.03	14.72	15.26	344.67	3.90
6216.00	2.02	257.46	6214.21	12.37	-6.14	12.37	13.81	333.59	2.53
6310.00	1.76	296.66	6308.16	12.66	-9.05	12.66	15.56	324.44	1.37
6470.00	.88	126.59	6468.15	13.03	-10.26	13.03	16.59	321.78	1.64
6502.00	.97	188.03	6500.14	12.62	-10.10	12.62	16.16	321.32	2.96

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	
6596.00	1.49	289.01	6594.13	12.23	-11.37	12.23	16.69	317.08	2.05
6690.00	2.20	294.20	6688.08	13.36	-14.17	13.36	19.48	313.32	.78
6785.00	2.46	217.12	6783.02	12.49	-17.06	12.49	21.14	306.19	3.06
6879.00	3.69	227.31	6876.88	8.83	-20.50	8.83	22.32	293.29	1.43
6973.00	2.02	273.28	6970.78	6.87	-24.38	6.87	25.33	285.73	2.88
7067.00	1.06	66.65	7064.76	7.31	-25.24	7.31	26.28	286.15	3.20
7161.00	.53	252.98	7158.76	7.53	-24.86	7.53	25.97	286.85	1.69
7255.00	2.02	301.14	7252.73	8.26	-26.69	8.26	27.94	287.19	1.82
7349.00	1.49	35.45	7346.70	10.11	-27.40	10.11	29.20	290.25	2.76
7444.00	2.46	54.26	7441.65	12.31	-25.03	12.31	27.89	296.18	1.21
7538.00	4.10	47.54	7535.49	15.75	-20.91	15.75	26.18	306.99	1.79
7632.00	3.47	52.70	7629.28	19.74	-16.17	19.74	25.52	320.69	.76
7727.00	4.31	52.23	7724.06	23.67	-11.06	23.67	26.13	334.96	.88
7821.00	.88	96.62	7817.96	25.75	-7.55	25.75	26.84	343.66	3.97
7915.00	2.52	180.68	7911.92	23.60	-6.86	23.60	24.58	343.80	2.75
8009.00	.50	39.69	8005.90	21.85	-6.62	21.85	22.83	343.15	3.11
8103.00	.62	338.67	8099.89	22.64	-6.54	22.64	23.57	343.88	.61
8197.00	3.08	249.99	8193.85	22.25	-9.10	22.25	24.04	337.76	3.33
8291.00	2.02	255.88	8287.75	20.98	-13.08	20.98	24.73	328.06	1.16
8386.00	1.84	279.71	8382.70	20.83	-16.21	20.83	26.40	322.12	.86
8480.00	3.24	268.49	8476.60	21.02	-20.35	21.02	29.26	315.92	1.57
8539.00	3.61	267.74	8535.50	20.90	-23.87	20.90	31.73	311.20	.63
PJ@Bit									
8590.00	3.61	267.74	8586.40	20.77	-27.08	20.77	34.13	307.49	.00