



Job Number: 04292013
Company: NIGHTHAWK PRODUCTIONS
Lease/Well: BIG SKY 4-11
Location: LIMON, CO.
Rig Name: EXTREME RIG #11
RKB:
G.L. or M.S.L.:

State/Country: COLORADO/USA
Declination: 7.81
Grid:
File name: C:\WINSERVE\04292013.SVY
Date/Time: 07-May-13 / 07:04
Curve Name: Big Sky 4-11 Sidetrack

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>
6511.00	1.80	104.80	6509.85	-4.14	-3.55	-4.14	5.45	220.65	.24
6597.00	1.80	106.20	6595.81	-4.86	-.95	-4.86	4.95	191.05	.05
6682.00	1.80	109.80	6680.77	-5.68	1.59	-5.68	5.90	164.38	.13
6768.00	1.30	112.20	6766.73	-6.51	3.76	-6.51	7.52	149.97	.59
6854.00	1.30	117.50	6852.71	-7.33	5.53	-7.33	9.18	142.96	.14
6939.00	1.20	102.90	6937.69	-7.97	7.25	-7.97	10.78	137.70	.39
7025.00	1.00	97.30	7023.68	-8.27	8.88	-8.27	12.13	132.97	.26
7110.00	1.00	89.00	7108.66	-8.35	10.35	-8.35	13.30	128.89	.17
7196.00	.90	76.20	7194.65	-8.18	11.76	-8.18	14.32	124.81	.27
7281.00	.90	77.80	7279.64	-7.88	13.06	-7.88	15.25	121.09	.03
7367.00	.80	81.80	7365.63	-7.65	14.32	-7.65	16.23	118.11	.14
7452.00	.70	72.50	7450.62	-7.41	15.40	-7.41	17.09	115.69	.18
7538.00	.50	57.60	7536.62	-7.05	16.22	-7.05	17.68	113.49	.29
7623.00	.60	33.80	7621.62	-6.48	16.78	-6.48	17.98	111.12	.29
7709.00	.70	32.40	7707.61	-5.66	17.31	-5.66	18.21	108.11	.12
7794.00	.50	2.00	7792.61	-4.85	17.60	-4.85	18.26	105.42	.43
7879.00	.60	334.40	7877.60	-4.08	17.42	-4.08	17.89	103.18	.33
7965.00	.80	329.80	7963.60	-3.16	16.92	-3.16	17.22	100.56	.24