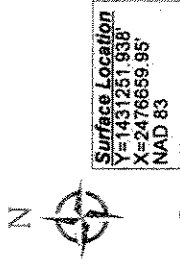
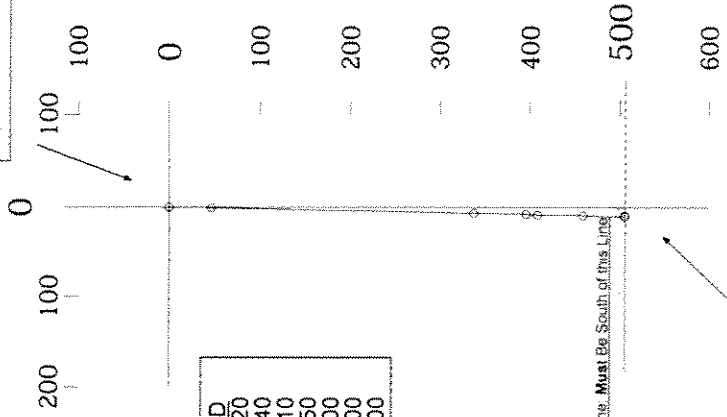


# **S.G. Interests** **Volk 12-89-21 Well #1** **Gunnison County, CO** **Rev. #3**

**Horizontal Plan**  
 1" = 200'



**Surface Location**  
 Y=1431251.938  
 X=2476659.95  
 NAD 83



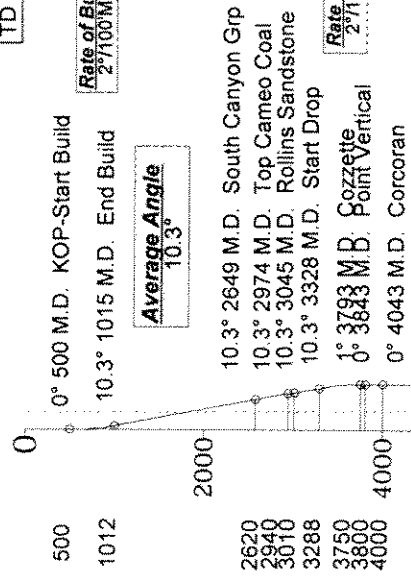
Formation	TVD
South Canyon Grp	2620
Top Cameo	2940
Rollins Sandstone	3010
Cozzette	3750
Corcoran	4000
Top of Dakota	7800
TD	8000

**Proposed Objective**  
 505.83' Displacement from S/L  
 @ 181.16° Azimuth from S/L  
 South-505.72' West-10.25' of S/L  
 TVD-3800' MD-3843'  
 Y=1430746', X=2476650'

**Rate of Build**  
 2°/100' MD

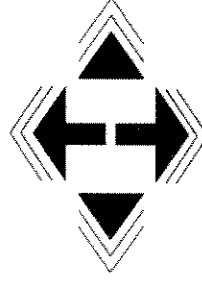
**Average Angle**  
 10.3°

**Rate of Drop**  
 2°/100' MD



**Vertical Section**  
 1" = 2000'

**Plane of Proposal**  
 181.16° Azimuth




**Helmer**

DIRECTIONAL DRILLING, INC.  
 1800 A.S. 8983


07-26-2010

# Helmer Directional Drilling Inc.

Page: 1	Minimum of Curvature Slot Location: 1431251.94', 2476659.95' Plane of Vertical Section: 181.16°		S.G. Interests Volk 12-89-21 Well #1 Gunnison County, CO Rev. #3

Measured Depth	Bore Inc	Hole Direction	True Vertical Depth	RECTANGULAR COORDINATES		LAMBERT COORDINATES		Vertical Section	CLOSURES		Dogleg Sev/100'
				North(-South) East(-West)	Feet	Y	X	Feet	Distance	Deg	
500.00	0.00	0.00	500.00	0.00	0.00	1431251.94	2476659.95	0.00	0.00	0.00	0.00
KOP-Start Build											
600.00	2.00	181.16	599.98	-1.74	-0.04	1431250.19	2476659.91	1.75	1.75	181.16	2.00
700.00	4.00	181.16	699.84	-6.98	-0.14	1431244.96	2476659.81	6.98	6.98	181.16	2.00
800.00	6.00	181.16	799.45	-15.69	-0.32	1431236.25	2476659.63	15.69	15.69	181.16	2.00
900.00	8.00	181.16	898.70	-27.87	-0.56	1431224.06	2476659.39	27.88	27.88	181.16	2.00
1000.00	10.00	181.16	997.47	-43.51	-0.88	1431208.42	2476659.07	43.52	43.52	181.16	2.00
1014.96	10.30	181.16	1012.19	-46.15	-0.94	1431205.79	2476659.01	46.16	46.16	181.16	2.00
End Build											
1514.96	10.30	181.16	1504.13	-135.52	-2.75	1431116.41	2476657.20	135.55	135.55	181.16	0.00
2014.96	10.30	181.16	1996.08	-224.90	-4.56	1431027.04	2476655.39	224.94	224.94	181.16	0.00
2514.96	10.30	181.16	2488.02	-314.27	-6.37	1430937.67	2476653.58	314.34	314.34	181.16	0.00
2649.10	10.30	181.16	2620.00	-338.25	-6.85	1430913.69	2476653.10	338.32	338.32	181.16	0.00
South Canyon Grp											
2974.34	10.30	181.16	2940.00	-396.38	-8.03	1430855.55	2476651.92	396.47	396.47	181.16	0.00
Top Cameo Coal											
3014.96	10.30	181.16	2979.97	-403.65	-8.18	1430848.29	2476651.77	403.73	403.73	181.16	0.00
3045.48	10.30	181.16	3010.00	-409.10	-8.29	1430842.84	2476651.66	409.19	409.19	181.16	0.00
Rollins Sandstone											
3327.85	10.30	181.16	3287.81	-459.57	-9.31	1430792.36	2476650.64	459.67	459.67	181.16	0.00
Start Drop											
3427.85	8.30	181.16	3386.49	-475.73	-9.64	1430776.21	2476650.31	475.83	475.83	181.16	2.00
3527.85	6.30	181.16	3485.68	-488.43	-9.90	1430763.51	2476650.05	488.53	488.53	181.16	2.00
3627.85	4.30	181.16	3585.24	-497.66	-10.09	1430754.28	2476649.86	497.76	497.76	181.16	2.00
3727.85	2.30	181.16	3685.07	-503.42	-10.20	1430748.52	2476649.75	503.52	503.52	181.16	2.00
3792.80	1.00	181.16	3750.00	-505.29	-10.24	1430746.65	2476649.71	505.39	505.39	181.16	2.00
Cozzette											
3827.85	0.30	181.16	3785.04	-505.68	-10.25	1430746.26	2476649.70	505.79	505.79	181.16	2.00

# Helmer Directional Drilling Inc.

<p>S.G. Interests  Volik 12-89-21 Well #1  Gunnison County, CO  Rev. #3</p>		<p>Minimum of Curvature  Slot Location: 1431251.94', 2476659.95'  Plane of Vertical Section: 181.16°</p>
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Measured	BORE	HOLE	True	RECTANGULAR	LAMBERT	Vertical	CLOSURES	Dogleg
Depth	Inc	Direction	Vertical	COORDINATES	COORDINATES	Section		Severity
Feet	Degrees	Degrees	Feet	North(-South) East(-West)	Y X	Feet	Distance Direction	Deg/100'
3842.80	0.00	181.16	3800.00	-505.72	-10.25	1430746.22	2476649.70	2.00
Point Vertical	0.00	181.16	4000.00	-505.72	-10.25	1430746.22	2476649.70	0.00
4042.80	0.00	181.16	4000.00	-505.72	-10.25	1430746.22	2476649.70	0.00
Corcoran								
7842.80	0.00	181.16	7800.00	-505.72	-10.25	1430746.22	2476649.70	0.00
Top of Dakota								
8042.80	0.00	181.16	8000.00	-505.72	-10.25	1430746.22	2476649.70	0.00
TD								
Final Station Closure Distance: 505.83' Direction: 181.16°								