



Company: CPC Minerals  
 Well: Federal 20-3  
 API: 11-019-200014  
 Rig Name: Capstar 330  
 State/County: Idaho/Bonneville  
 VS-Azi: 0.000 Degrees  
 Latitude: 43.14449, Longitude: -111.44366  
 All Azimuths referenced to True North  
 No Grid Correction Applied



**FIELD COPY ONLY (NOT DEFINITIVE)**

Depth Reference : RKB = 12.5'

**DRILLOG HA GYRO SURVEY CALCULATIONS**

Error Model: VESSI\_GYROFLEX.IPM  
 Filename: run1.ut  
 Minimum Curvature Method  
 Report Date/Time: 11/17/2017 / 15:56

VES Survey International  
 Henderson, CO  
 303-853-4976  
 Geof Davis

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	TVD FT	+N/-S FT	+E/-W FT	Vertical Section FT	Closure Distance FT	Closure Direction Deg	Dogleg Severity Deg/100
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	****
881.000	1.269	95.295	880.928	-0.901	9.718	-0.901	9.760	95.295	0.144
2041.000	0.964	252.481	2040.845	-5.025	13.206	-5.025	14.130	110.830	0.189
2737.000	1.158	201.817	2736.739	-13.315	5.009	-13.315	14.226	159.385	0.133
3457.000	3.309	24.903	3456.430	-1.212	11.059	-1.212	11.125	96.254	0.620
3503.000	4.337	24.892	3502.327	1.570	12.350	1.570	12.450	82.755	2.233
3549.000	5.747	23.872	3548.148	5.254	14.015	5.254	14.967	69.449	3.073

HORIZONTAL DISPLACEMENT IS  
 14.967 FEET AT 69.449 DEGREES