



Company: Anadarko
 Lease / Well: UPRR 62 Pan Am E / 2
 Location: S-23 T-2N R-65W
 Rig Name: Production
 State / County: Colorado / Weld County
 Latitude: 40.12, Longitude: -104.63
 Directions are relative to True North
 VS-Azi: 0.00 Degrees



FIELD COPY ONLY (NOT DEFINITIVE)

Depth Reference : RKB = Ground Level

DRILLOG MS GYRO SURVEY CALCULATIONS

Filename: inrun_ed.ut
 Minimum Curvature Method
 Report Date/Time: 7/1/2011 / 20:48

Vaughn Energy Services
 Henderson, CO
 303-853-4976
 Robert 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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	****
100.00	0.57	253.33	100.00	-0.14	-0.47	-0.14	0.49	253.33	0.57
200.00	0.57	226.68	199.99	-0.63	-1.31	-0.63	1.45	244.43	0.26
300.00	0.75	217.66	299.99	-1.49	-2.08	-1.49	2.56	234.30	0.21
400.00	1.07	196.40	399.97	-2.91	-2.74	-2.91	3.99	223.32	0.46
500.00	1.37	193.74	499.95	-4.96	-3.29	-4.96	5.95	213.54	0.31
600.00	1.11	202.99	599.93	-7.01	-3.95	-7.01	8.05	209.39	0.32
700.00	1.25	202.17	699.91	-8.92	-4.74	-8.92	10.10	208.00	0.14
800.00	1.24	208.08	799.88	-10.88	-5.66	-10.88	12.26	207.49	0.13
900.00	1.36	234.79	899.86	-12.51	-7.14	-12.51	14.41	209.69	0.61
1000.00	1.21	227.38	999.83	-13.91	-8.88	-13.91	16.51	212.55	0.22
1100.00	1.30	233.82	1099.81	-15.30	-10.58	-15.30	18.60	214.66	0.17
1200.00	1.24	229.15	1199.78	-16.68	-12.32	-16.68	20.73	216.44	0.12
1300.00	1.43	233.60	1299.76	-18.13	-14.14	-18.13	22.99	217.95	0.22
1400.00	1.44	241.21	1399.73	-19.47	-16.24	-19.47	25.36	219.83	0.19
1500.00	1.40	240.44	1499.70	-20.68	-18.41	-20.68	27.69	221.67	0.04
1600.00	1.25	239.44	1599.67	-21.84	-20.41	-21.84	29.89	223.06	0.15
1700.00	1.18	240.81	1699.65	-22.90	-22.25	-22.90	31.93	224.18	0.08
1800.00	1.26	247.20	1799.62	-23.83	-24.17	-23.83	33.94	225.40	0.16
1900.00	1.18	252.84	1899.60	-24.56	-26.17	-24.56	35.89	226.81	0.14
2000.00	1.17	252.41	1999.58	-25.17	-28.12	-25.17	37.75	228.17	0.02
2100.00	1.14	256.66	2099.56	-25.71	-30.07	-25.71	39.56	229.47	0.09
2200.00	1.07	277.75	2199.54	-25.82	-31.96	-25.82	41.09	231.07	0.41
2300.00	0.81	266.97	2299.53	-25.73	-33.59	-25.73	42.31	232.55	0.31
2400.00	0.78	312.54	2399.52	-25.30	-34.80	-25.30	43.02	233.98	0.62
2500.00	0.67	287.09	2499.51	-24.67	-35.86	-24.67	43.52	235.47	0.34
2600.00	0.57	278.84	2599.51	-24.42	-36.90	-24.42	44.25	236.51	0.13
2700.00	0.76	321.74	2699.50	-23.82	-37.81	-23.82	44.69	237.78	0.52
2800.00	0.82	330.93	2799.49	-22.67	-38.57	-22.67	44.74	239.55	0.14
2900.00	0.86	340.91	2899.48	-21.34	-39.16	-21.34	44.60	241.42	0.15
3000.00	1.05	356.32	2999.47	-19.71	-39.47	-19.71	44.11	243.46	0.32
3100.00	0.92	3.94	3099.45	-17.99	-39.47	-17.99	43.38	245.49	0.19
3200.00	1.07	10.12	3199.44	-16.28	-39.25	-16.28	42.49	247.48	0.19
3300.00	1.07	29.18	3299.42	-14.54	-38.63	-14.54	41.28	249.37	0.35
3400.00	0.74	63.54	3399.41	-13.44	-37.60	-13.44	39.93	250.33	0.62

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
3500.00	1.02	44.92	3499.40	-12.52	-36.39	-12.52	38.49	251.01	0.39
3600.00	1.40	55.29	3599.37	-11.20	-34.76	-11.20	36.53	252.14	0.44
3700.00	1.90	45.39	3699.33	-9.35	-32.58	-9.35	33.90	253.99	0.58
3800.00	2.58	36.49	3799.25	-6.37	-30.06	-6.37	30.73	258.04	0.77
3900.00	2.95	32.82	3899.14	-2.39	-27.33	-2.39	27.43	264.99	0.41
4000.00	3.08	43.38	3999.00	1.72	-24.09	1.72	24.15	274.09	0.57
4100.00	3.09	33.04	4098.86	5.93	-20.77	5.93	21.60	285.94	0.56
4200.00	2.73	30.62	4198.73	10.24	-18.09	10.24	20.79	299.52	0.38
4300.00	2.42	35.36	4298.63	14.01	-15.65	14.01	21.01	311.83	0.38
4400.00	2.67	32.91	4398.53	17.69	-13.17	17.69	22.05	323.34	0.27
4500.00	2.59	31.94	4498.42	21.57	-10.71	21.57	24.08	333.60	0.09
HORIZONTAL DISPLACEMENT IS 24.08 FEET AT 333.60 DEGREES									