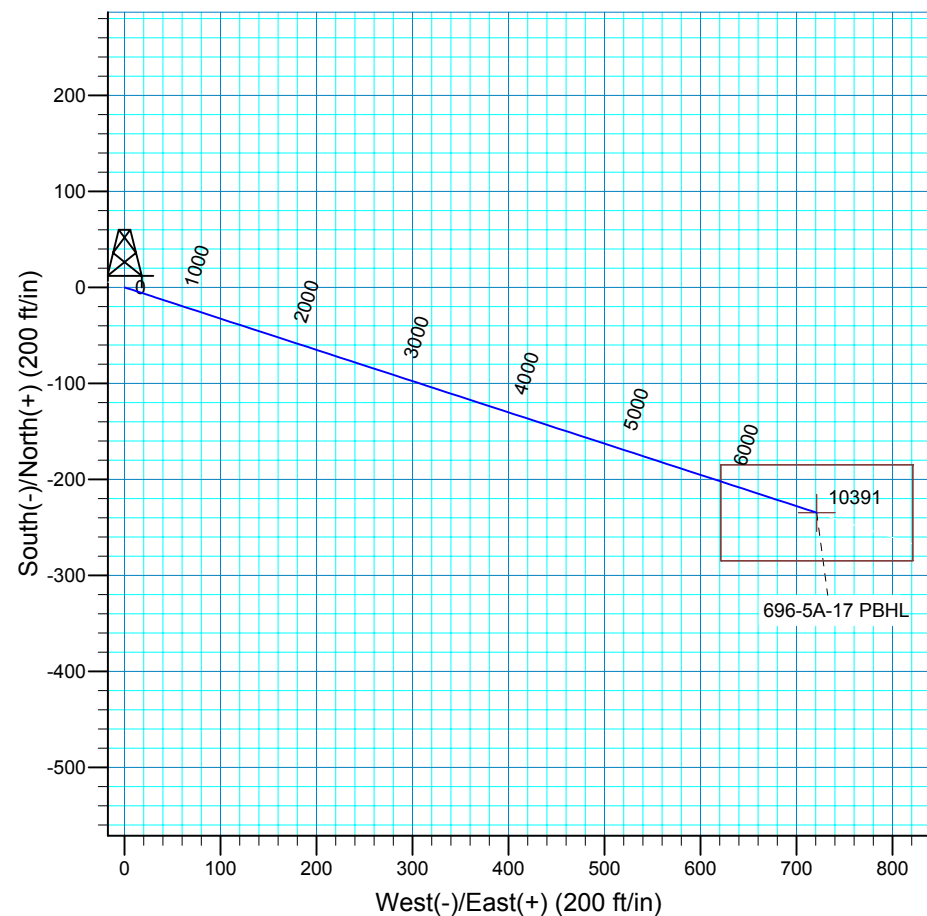
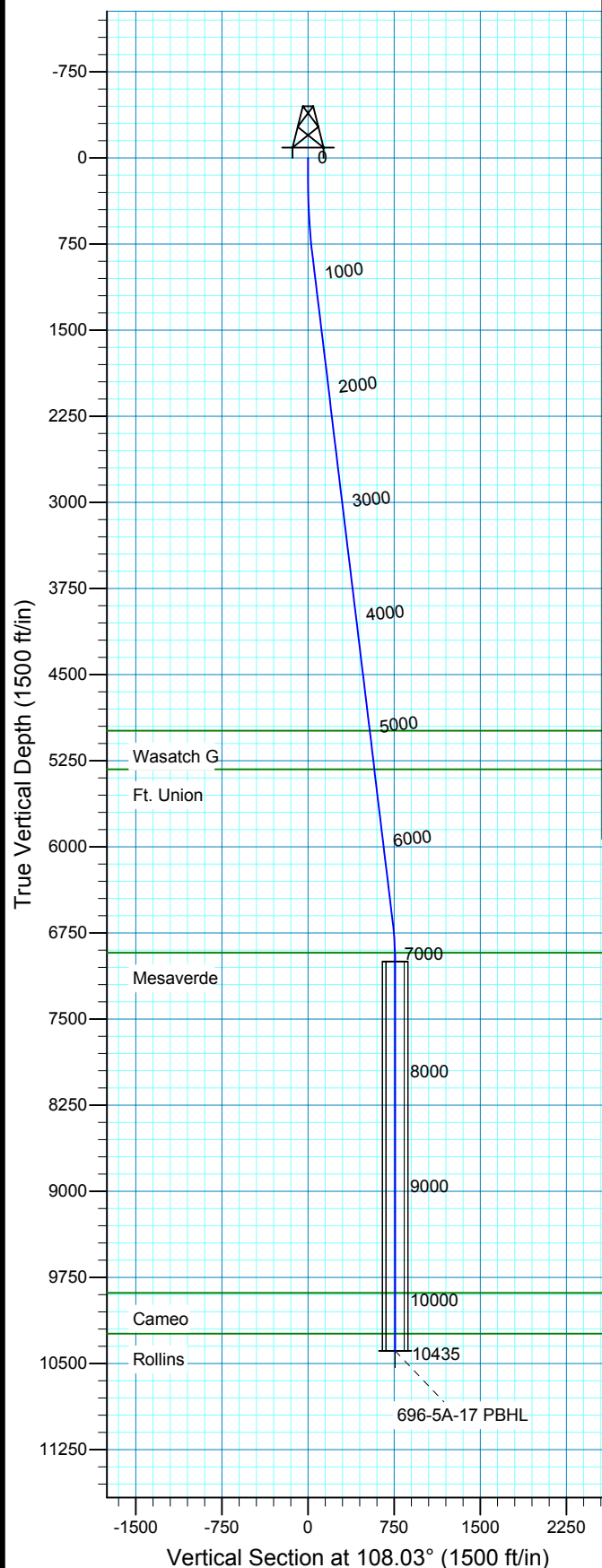


Azimuths to True North  
Magnetic North: 10.75°

Magnetic Field  
Strength: 52547.3snT  
Dip Angle: 65.85°  
Date: 2008-09-26  
Model: IGRF2005-10

WELL DETAILS: 696-5A-17

GL 8101' & RKB 24' @ 8125.00ft 8101.00  
+N/-S +E/-W Northing Easting Latitude Longitude  
0.00 0.00 1639259.54 2258419.52 39° 33' 32.642 N 108° 7' 50.125 W



Plan: Plan #1 (696-5A-17/OH)

Created By: Julie Cruse Date: 2008-10-01

PROJECT DETAILS: Garfield County, CO NAD 83

Geodetic System: US State Plane 1983  
Datum: North American Datum 1983  
Ellipsoid: GRS 1980  
Zone: Colorado Central Zone  
Location: Sec 5 T6S R96W  
System Datum: Mean Sea Level  
Local North: True

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	
700.00	5.00	108.03	699.37	-6.75	20.73	1.00	108.03	21.80	696-5A-17 PBHL
793.27	6.87	108.03	792.13	-9.73	29.90	2.00	0.00	31.44	
6701.05	6.87	108.03	6657.56	-228.36	701.40	0.00	0.00	737.63	
7044.32	0.00	0.00	7000.00	-234.72	720.93	2.00	180.00	758.17	
10435.32	0.00	0.00	10391.00	-234.72	720.93	0.00	0.00	758.17	696-5A-17 PBHL



**Scientific Drilling**  
Rocky Mountain Operations

## **Marathon Oil Co.**

**Garfield County, CO NAD 83**

**696-5A Pad**

**696-5A-17 - Slot E**

**OH**

**Plan: Plan #1**

## **Standard Planning Report**

**01 October, 2008**

<b>Database:</b>	EDM 2003.16 Multiuser DB	<b>Local Co-ordinate Reference:</b>	Well 696-5A-17 - Slot E
<b>Company:</b>	Marathon Oil Co.	<b>TVD Reference:</b>	GL 8101' & RKB 24' @ 8125.00ft
<b>Project:</b>	Garfield County, CO NAD 83	<b>MD Reference:</b>	GL 8101' & RKB 24' @ 8125.00ft
<b>Site:</b>	696-5A Pad	<b>North Reference:</b>	True
<b>Well:</b>	696-5A-17	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1		

<b>Project</b>	Garfield County, CO NAD 83		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Central Zone		

Site		696-5A Pad, Sec 5 T6S R96W			
Site Position:		Northing:	1,639,219.87 ft	Latitude:	39° 33' 32.257 N
From:	Map	Easting:	2,258,442.99 ft	Longitude:	108° 7' 49.811 W
Position Uncertainty:	0.00 ft	Slot Radius:	in	Grid Convergence:	-1.66 °

Well	696-5A-17 - Slot E					
Well Position	+N/-S	0.00 ft	Northing:	1,639,259.54 ft	Latitude:	39° 33' 32.642 N
	+E/-W	0.00 ft	Easting:	2,258,419.52 ft	Longitude:	108° 7' 50.125 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	8,101.00 ft

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2005-10	2008-09-26	10.75	65.85	52,547

<b>Design</b>	Plan #1				
<b>Audit Notes:</b>					
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00	
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>	
	0.00	0.00	0.00	108.03	

<b>Plan Sections</b>										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
700.00	5.00	108.03	699.37	-6.75	20.73	1.00	1.00	0.00	108.03	696-5A-17 PBHL
793.27	6.87	108.03	792.13	-9.73	29.90	2.00	2.00	0.00	0.00	
6,701.05	6.87	108.03	6,657.56	-228.36	701.40	0.00	0.00	0.00	0.00	
7,044.32	0.00	0.00	7,000.00	-234.72	720.93	2.00	-2.00	0.00	180.00	
10,435.32	0.00	0.00	10,391.00	-234.72	720.93	0.00	0.00	0.00	0.00	696-5A-17 PBHL

<b>Database:</b>	EDM 2003.16 Multiuser DB	<b>Local Co-ordinate Reference:</b>	Well 696-5A-17 - Slot E
<b>Company:</b>	Marathon Oil Co.	<b>TVD Reference:</b>	GL 8101' & RKB 24' @ 8125.00ft
<b>Project:</b>	Garfield County, CO NAD 83	<b>MD Reference:</b>	GL 8101' & RKB 24' @ 8125.00ft
<b>Site:</b>	696-5A Pad	<b>North Reference:</b>	True
<b>Well:</b>	696-5A-17	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	1.00	108.03	299.99	-0.27	0.83	0.87	1.00	1.00	0.00
400.00	2.00	108.03	399.96	-1.08	3.32	3.49	1.00	1.00	0.00
500.00	3.00	108.03	499.86	-2.43	7.47	7.85	1.00	1.00	0.00
600.00	4.00	108.03	599.68	-4.32	13.27	13.96	1.00	1.00	0.00
700.00	5.00	108.03	699.37	-6.75	20.73	21.80	1.00	1.00	0.00
793.27	6.87	108.03	792.13	-9.73	29.90	31.44	2.00	2.00	0.00
800.00	6.87	108.03	798.81	-9.98	30.66	32.25	0.00	0.00	0.00
900.00	6.87	108.03	898.10	-13.68	42.03	44.20	0.00	0.00	0.00
1,000.00	6.87	108.03	997.38	-17.38	53.40	56.15	0.00	0.00	0.00
1,100.00	6.87	108.03	1,096.66	-21.08	64.76	68.11	0.00	0.00	0.00
1,200.00	6.87	108.03	1,195.95	-24.79	76.13	80.06	0.00	0.00	0.00
1,300.00	6.87	108.03	1,295.23	-28.49	87.49	92.02	0.00	0.00	0.00
1,400.00	6.87	108.03	1,394.51	-32.19	98.86	103.97	0.00	0.00	0.00
1,500.00	6.87	108.03	1,493.79	-35.89	110.23	115.92	0.00	0.00	0.00
1,600.00	6.87	108.03	1,593.08	-39.59	121.59	127.88	0.00	0.00	0.00
1,700.00	6.87	108.03	1,692.36	-43.29	132.96	139.83	0.00	0.00	0.00
1,800.00	6.87	108.03	1,791.64	-46.99	144.33	151.78	0.00	0.00	0.00
1,900.00	6.87	108.03	1,890.93	-50.69	155.69	163.74	0.00	0.00	0.00
2,000.00	6.87	108.03	1,990.21	-54.39	167.06	175.69	0.00	0.00	0.00
2,100.00	6.87	108.03	2,089.49	-58.09	178.43	187.64	0.00	0.00	0.00
2,200.00	6.87	108.03	2,188.78	-61.79	189.79	199.60	0.00	0.00	0.00
2,300.00	6.87	108.03	2,288.06	-65.49	201.16	211.55	0.00	0.00	0.00
2,400.00	6.87	108.03	2,387.34	-69.19	212.52	223.50	0.00	0.00	0.00
2,500.00	6.87	108.03	2,486.62	-72.89	223.89	235.46	0.00	0.00	0.00
2,600.00	6.87	108.03	2,585.91	-76.59	235.26	247.41	0.00	0.00	0.00
2,700.00	6.87	108.03	2,685.19	-80.29	246.62	259.37	0.00	0.00	0.00
2,800.00	6.87	108.03	2,784.47	-83.99	257.99	271.32	0.00	0.00	0.00
2,900.00	6.87	108.03	2,883.76	-87.70	269.36	283.27	0.00	0.00	0.00
3,000.00	6.87	108.03	2,983.04	-91.40	280.72	295.23	0.00	0.00	0.00
3,100.00	6.87	108.03	3,082.32	-95.10	292.09	307.18	0.00	0.00	0.00
3,200.00	6.87	108.03	3,181.61	-98.80	303.46	319.13	0.00	0.00	0.00
3,300.00	6.87	108.03	3,280.89	-102.50	314.82	331.09	0.00	0.00	0.00
3,400.00	6.87	108.03	3,380.17	-106.20	326.19	343.04	0.00	0.00	0.00
3,500.00	6.87	108.03	3,479.45	-109.90	337.55	354.99	0.00	0.00	0.00
3,600.00	6.87	108.03	3,578.74	-113.60	348.92	366.95	0.00	0.00	0.00
3,700.00	6.87	108.03	3,678.02	-117.30	360.29	378.90	0.00	0.00	0.00
3,800.00	6.87	108.03	3,777.30	-121.00	371.65	390.85	0.00	0.00	0.00
3,900.00	6.87	108.03	3,876.59	-124.70	383.02	402.81	0.00	0.00	0.00
4,000.00	6.87	108.03	3,975.87	-128.40	394.39	414.76	0.00	0.00	0.00
4,100.00	6.87	108.03	4,075.15	-132.10	405.75	426.72	0.00	0.00	0.00
4,200.00	6.87	108.03	4,174.44	-135.80	417.12	438.67	0.00	0.00	0.00
4,300.00	6.87	108.03	4,273.72	-139.50	428.48	450.62	0.00	0.00	0.00
4,400.00	6.87	108.03	4,373.00	-143.20	439.85	462.58	0.00	0.00	0.00
4,500.00	6.87	108.03	4,472.28	-146.90	451.22	474.53	0.00	0.00	0.00
4,600.00	6.87	108.03	4,571.57	-150.61	462.58	486.48	0.00	0.00	0.00
4,700.00	6.87	108.03	4,670.85	-154.31	473.95	498.44	0.00	0.00	0.00
4,800.00	6.87	108.03	4,770.13	-158.01	485.32	510.39	0.00	0.00	0.00
4,900.00	6.87	108.03	4,869.42	-161.71	496.68	522.34	0.00	0.00	0.00
5,000.00	6.87	108.03	4,968.70	-165.41	508.05	534.30	0.00	0.00	0.00
5,021.45	6.87	108.03	4,990.00	-166.20	510.49	536.86	0.00	0.00	0.00

<b>Database:</b>	EDM 2003.16 Multiuser DB	<b>Local Co-ordinate Reference:</b>	Well 696-5A-17 - Slot E
<b>Company:</b>	Marathon Oil Co.	<b>TVD Reference:</b>	GL 8101' & RKB 24' @ 8125.00ft
<b>Project:</b>	Garfield County, CO NAD 83	<b>MD Reference:</b>	GL 8101' & RKB 24' @ 8125.00ft
<b>Site:</b>	696-5A Pad	<b>North Reference:</b>	True
<b>Well:</b>	696-5A-17	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
Wasatch G										
5,100.00	6.87	108.03	5,067.98	-169.11	519.42	546.25	0.00	0.00	0.00	
5,200.00	6.87	108.03	5,167.27	-172.81	530.78	558.20	0.00	0.00	0.00	
5,300.00	6.87	108.03	5,266.55	-176.51	542.15	570.16	0.00	0.00	0.00	
5,358.87	6.87	108.03	5,325.00	-178.69	548.84	577.20	0.00	0.00	0.00	
Ft. Union										
5,400.00	6.87	108.03	5,365.83	-180.21	553.51	582.11	0.00	0.00	0.00	
5,500.00	6.87	108.03	5,465.11	-183.91	564.88	594.07	0.00	0.00	0.00	
5,600.00	6.87	108.03	5,564.40	-187.61	576.25	606.02	0.00	0.00	0.00	
5,700.00	6.87	108.03	5,663.68	-191.31	587.61	617.97	0.00	0.00	0.00	
5,800.00	6.87	108.03	5,762.96	-195.01	598.98	629.93	0.00	0.00	0.00	
5,900.00	6.87	108.03	5,862.25	-198.71	610.35	641.88	0.00	0.00	0.00	
6,000.00	6.87	108.03	5,961.53	-202.41	621.71	653.83	0.00	0.00	0.00	
6,100.00	6.87	108.03	6,060.81	-206.11	633.08	665.79	0.00	0.00	0.00	
6,200.00	6.87	108.03	6,160.10	-209.81	644.45	677.74	0.00	0.00	0.00	
6,300.00	6.87	108.03	6,259.38	-213.52	655.81	689.69	0.00	0.00	0.00	
6,400.00	6.87	108.03	6,358.66	-217.22	667.18	701.65	0.00	0.00	0.00	
6,500.00	6.87	108.03	6,457.94	-220.92	678.54	713.60	0.00	0.00	0.00	
6,600.00	6.87	108.03	6,557.23	-224.62	689.91	725.55	0.00	0.00	0.00	
6,700.00	6.87	108.03	6,656.51	-228.32	701.28	737.51	0.00	0.00	0.00	
6,701.05	6.87	108.03	6,657.56	-228.36	701.40	737.63	0.00	0.00	0.00	
6,800.00	4.89	108.03	6,755.98	-231.49	711.03	747.76	2.00	-2.00	0.00	
6,900.00	2.89	108.03	6,855.74	-233.59	717.47	754.54	2.00	-2.00	0.00	
6,967.31	1.54	108.03	6,923.00	-234.40	719.94	757.14	2.00	-2.00	0.00	
Mesaverde										
7,000.00	0.89	108.03	6,955.68	-234.61	720.60	757.83	2.00	-2.00	0.00	
7,044.32	0.00	0.00	7,000.00	-234.72	720.93	758.17	2.00	-2.00	0.00	
7,100.00	0.00	0.00	7,055.68	-234.72	720.93	758.17	0.00	0.00	0.00	
7,200.00	0.00	0.00	7,155.68	-234.72	720.93	758.17	0.00	0.00	0.00	
7,300.00	0.00	0.00	7,255.68	-234.72	720.93	758.17	0.00	0.00	0.00	
7,400.00	0.00	0.00	7,355.68	-234.72	720.93	758.17	0.00	0.00	0.00	
7,500.00	0.00	0.00	7,455.68	-234.72	720.93	758.17	0.00	0.00	0.00	
7,600.00	0.00	0.00	7,555.68	-234.72	720.93	758.17	0.00	0.00	0.00	
7,700.00	0.00	0.00	7,655.68	-234.72	720.93	758.17	0.00	0.00	0.00	
7,800.00	0.00	0.00	7,755.68	-234.72	720.93	758.17	0.00	0.00	0.00	
7,900.00	0.00	0.00	7,855.68	-234.72	720.93	758.17	0.00	0.00	0.00	
8,000.00	0.00	0.00	7,955.68	-234.72	720.93	758.17	0.00	0.00	0.00	
8,100.00	0.00	0.00	8,055.68	-234.72	720.93	758.17	0.00	0.00	0.00	
8,200.00	0.00	0.00	8,155.68	-234.72	720.93	758.17	0.00	0.00	0.00	
8,300.00	0.00	0.00	8,255.68	-234.72	720.93	758.17	0.00	0.00	0.00	
8,400.00	0.00	0.00	8,355.68	-234.72	720.93	758.17	0.00	0.00	0.00	
8,500.00	0.00	0.00	8,455.68	-234.72	720.93	758.17	0.00	0.00	0.00	
8,600.00	0.00	0.00	8,555.68	-234.72	720.93	758.17	0.00	0.00	0.00	
8,700.00	0.00	0.00	8,655.68	-234.72	720.93	758.17	0.00	0.00	0.00	
8,800.00	0.00	0.00	8,755.68	-234.72	720.93	758.17	0.00	0.00	0.00	
8,900.00	0.00	0.00	8,855.68	-234.72	720.93	758.17	0.00	0.00	0.00	
9,000.00	0.00	0.00	8,955.68	-234.72	720.93	758.17	0.00	0.00	0.00	
9,100.00	0.00	0.00	9,055.68	-234.72	720.93	758.17	0.00	0.00	0.00	
9,200.00	0.00	0.00	9,155.68	-234.72	720.93	758.17	0.00	0.00	0.00	
9,300.00	0.00	0.00	9,255.68	-234.72	720.93	758.17	0.00	0.00	0.00	
9,400.00	0.00	0.00	9,355.68	-234.72	720.93	758.17	0.00	0.00	0.00	
9,500.00	0.00	0.00	9,455.68	-234.72	720.93	758.17	0.00	0.00	0.00	
9,600.00	0.00	0.00	9,555.68	-234.72	720.93	758.17	0.00	0.00	0.00	

<b>Database:</b>	EDM 2003.16 Multiuser DB	<b>Local Co-ordinate Reference:</b>	Well 696-5A-17 - Slot E
<b>Company:</b>	Marathon Oil Co.	<b>TVD Reference:</b>	GL 8101' & RKB 24' @ 8125.00ft
<b>Project:</b>	Garfield County, CO NAD 83	<b>MD Reference:</b>	GL 8101' & RKB 24' @ 8125.00ft
<b>Site:</b>	696-5A Pad	<b>North Reference:</b>	True
<b>Well:</b>	696-5A-17	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9,700.00	0.00	0.00	9,655.68	-234.72	720.93	758.17	0.00	0.00	0.00
9,800.00	0.00	0.00	9,755.68	-234.72	720.93	758.17	0.00	0.00	0.00
9,900.00	0.00	0.00	9,855.68	-234.72	720.93	758.17	0.00	0.00	0.00
9,929.32	0.00	0.00	9,885.00	-234.72	720.93	758.17	0.00	0.00	0.00
<b>Cameo</b>									
10,000.00	0.00	0.00	9,955.68	-234.72	720.93	758.17	0.00	0.00	0.00
10,100.00	0.00	0.00	10,055.68	-234.72	720.93	758.17	0.00	0.00	0.00
10,200.00	0.00	0.00	10,155.68	-234.72	720.93	758.17	0.00	0.00	0.00
10,285.32	0.00	0.00	10,241.00	-234.72	720.93	758.17	0.00	0.00	0.00
<b>Rollins</b>									
10,300.00	0.00	0.00	10,255.68	-234.72	720.93	758.17	0.00	0.00	0.00
10,400.00	0.00	0.00	10,355.68	-234.72	720.93	758.17	0.00	0.00	0.00
10,435.32	0.00	0.00	10,391.00	-234.72	720.93	758.17	0.00	0.00	0.00

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
696-5A-17 PBHL	0.00	0.00	10,391.00	-234.72	720.93	1,639,004.05	2,259,133.35	39° 33' 30.322 N	108° 7' 40.920 W
- plan hits target center									
- Rectangle (sides W100.00 H200.00 D0.00)									

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
5,021.45	4,990.00	Wasatch G		0.00	
5,358.87	5,325.00	Ft. Union		0.00	
6,967.31	6,923.00	Mesaverde		0.00	
9,929.32	9,885.00	Cameo		0.00	
10,285.32	10,241.00	Rollins		0.00	