



FORMATION TOP DETAILS			Plan: Plan 2 (696-6A-11/OH)							
TVDPath	MDPath	Formation	Created By: Rex Hall Date: 2009-04-02							
4872.00	4932.04	Wasatch G	PROJECT DETAILS: Garfield County, CO NAD 83							
5252.00	5317.28	Fort Union	Geodetic System: US State Plane 1983							
6744.00	6828.69	Measverde	Datum: North American Datum 1983							
9578.00	9663.03	Cameo	Ellipsoid: GRS 1980							
10050.00	10135.03	Rollins	Zone: Colorado Central Zone							
			System Datum: Mean Sea Level							
			Local North: True							
SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	
3	672.91	9.46	182.48	670.77	-38.91	-1.69	2.00	182.48	38.94	
4	6612.12	9.46	182.48	6529.23	-1013.97	-43.99	0.00	0.00	1014.92	
5	7085.03	0.00	0.00	7000.00	-1052.88	-45.68	2.00	180.00	1053.87	
6	10285.03	0.00	0.00	10200.00	-1052.88	-45.68	0.00	0.00	1053.87	696-6A-11 PBHL

Marathon Oil Co.

Garfield County, CO NAD 83

596-34D Pad

696-6A-11 - Slot A

OH

Plan: Plan 2

Standard Planning Report

02 April, 2009

Scientific Drilling International

Planning Report

Database:	EDM 2003.16 Single User Db	Local Co-ordinate Reference:	Well 696-6A-11 - Slot A
Company:	Marathon Oil Co.	TVD Reference:	GL 8090' & RKB 24' @ 8114.00ft
Project:	Garfield County, CO NAD 83	MD Reference:	GL 8090' & RKB 24' @ 8114.00ft
Site:	596-34D Pad	North Reference:	True
Well:	696-6A-11	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 2		

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

Site		596-34D Pad, Sec 34 T5S R96W			
Site Position:		Northing:	1,642,239.25 ft	Latitude:	39° 34' 0.763 N
From:	Map	Easting:	2,253,832.65 ft	Longitude:	108° 8' 49.775 W
Position Uncertainty:	0.00 ft	Slot Radius:	in	Grid Convergence:	-1.67 °

Well	696-6A-11 - Slot A					
Well Position	+N/-S	0.00 ft	Northing:	1,642,191.16 ft	Latitude:	39° 34' 0.271 N
	+E/-W	0.00 ft	Easting:	2,253,774.23 ft	Longitude:	108° 8' 50.503 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	8,090.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2005-10	3/11/2009	10.70	65.84	52,505

Design	Plan 2			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	182.48

Plan Sections										
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	
672.91	9.46	182.48	670.77	-38.91	-1.69	2.00	2.00	0.00	182.48	
6,612.12	9.46	182.48	6,529.23	-1,013.97	-43.99	0.00	0.00	0.00	0.00	
7,085.03	0.00	0.00	7,000.00	-1,052.88	-45.68	2.00	-2.00	0.00	180.00	
10,285.03	0.00	0.00	10,200.00	-1,052.88	-45.68	0.00	0.00	0.00	0.00	696-6A-11 PBHL

Scientific Drilling International

Planning Report

Database:	EDM 2003.16 Single User Db	Local Co-ordinate Reference:	Well 696-6A-11 - Slot A
Company:	Marathon Oil Co.	TVD Reference:	GL 8090' & RKB 24' @ 8114.00ft
Project:	Garfield County, CO NAD 83	MD Reference:	GL 8090' & RKB 24' @ 8114.00ft
Site:	596-34D Pad	North Reference:	True
Well:	696-6A-11	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 2		

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
Start Build 2.00									
300.00	2.00	182.48	299.98	-1.74	-0.08	1.75	2.00	2.00	0.00
400.00	4.00	182.48	399.84	-6.97	-0.30	6.98	2.00	2.00	0.00
500.00	6.00	182.48	499.45	-15.68	-0.68	15.69	2.00	2.00	0.00
600.00	8.00	182.48	598.70	-27.85	-1.21	27.88	2.00	2.00	0.00
672.91	9.46	182.48	670.77	-38.91	-1.69	38.94	2.00	2.00	0.00
Start 9.46° Hold At 672.91' MD									
700.00	9.46	182.48	697.49	-43.36	-1.88	43.40	0.00	0.00	0.00
800.00	9.46	182.48	796.13	-59.77	-2.59	59.83	0.00	0.00	0.00
900.00	9.46	182.48	894.77	-76.19	-3.31	76.26	0.00	0.00	0.00
1,000.00	9.46	182.48	993.41	-92.61	-4.02	92.69	0.00	0.00	0.00
1,100.00	9.46	182.48	1,092.05	-109.02	-4.73	109.13	0.00	0.00	0.00
1,200.00	9.46	182.48	1,190.69	-125.44	-5.44	125.56	0.00	0.00	0.00
1,300.00	9.46	182.48	1,289.33	-141.86	-6.16	141.99	0.00	0.00	0.00
1,400.00	9.46	182.48	1,387.97	-158.28	-6.87	158.43	0.00	0.00	0.00
1,500.00	9.46	182.48	1,486.61	-174.69	-7.58	174.86	0.00	0.00	0.00
1,600.00	9.46	182.48	1,585.25	-191.11	-8.29	191.29	0.00	0.00	0.00
1,700.00	9.46	182.48	1,683.89	-207.53	-9.00	207.72	0.00	0.00	0.00
1,800.00	9.46	182.48	1,782.53	-223.95	-9.72	224.16	0.00	0.00	0.00
1,900.00	9.46	182.48	1,881.17	-240.36	-10.43	240.59	0.00	0.00	0.00
2,000.00	9.46	182.48	1,979.81	-256.78	-11.14	257.02	0.00	0.00	0.00
2,100.00	9.46	182.48	2,078.45	-273.20	-11.85	273.46	0.00	0.00	0.00
2,200.00	9.46	182.48	2,177.10	-289.62	-12.57	289.89	0.00	0.00	0.00
2,300.00	9.46	182.48	2,275.74	-306.03	-13.28	306.32	0.00	0.00	0.00
2,400.00	9.46	182.48	2,374.38	-322.45	-13.99	322.75	0.00	0.00	0.00
2,500.00	9.46	182.48	2,473.02	-338.87	-14.70	339.19	0.00	0.00	0.00
2,600.00	9.46	182.48	2,571.66	-355.29	-15.42	355.62	0.00	0.00	0.00
2,700.00	9.46	182.48	2,670.30	-371.70	-16.13	372.05	0.00	0.00	0.00
2,800.00	9.46	182.48	2,768.94	-388.12	-16.84	388.49	0.00	0.00	0.00
2,900.00	9.46	182.48	2,867.58	-404.54	-17.55	404.92	0.00	0.00	0.00
3,000.00	9.46	182.48	2,966.22	-420.95	-18.26	421.35	0.00	0.00	0.00
3,100.00	9.46	182.48	3,064.86	-437.37	-18.98	437.78	0.00	0.00	0.00
3,200.00	9.46	182.48	3,163.50	-453.79	-19.69	454.22	0.00	0.00	0.00
3,300.00	9.46	182.48	3,262.14	-470.21	-20.40	470.65	0.00	0.00	0.00
3,400.00	9.46	182.48	3,360.78	-486.62	-21.11	487.08	0.00	0.00	0.00
3,500.00	9.46	182.48	3,459.42	-503.04	-21.83	503.52	0.00	0.00	0.00
3,600.00	9.46	182.48	3,558.06	-519.46	-22.54	519.95	0.00	0.00	0.00
3,700.00	9.46	182.48	3,656.70	-535.88	-23.25	536.38	0.00	0.00	0.00
3,800.00	9.46	182.48	3,755.34	-552.29	-23.96	552.81	0.00	0.00	0.00
3,900.00	9.46	182.48	3,853.99	-568.71	-24.67	569.25	0.00	0.00	0.00
4,000.00	9.46	182.48	3,952.63	-585.13	-25.39	585.68	0.00	0.00	0.00
4,100.00	9.46	182.48	4,051.27	-601.55	-26.10	602.11	0.00	0.00	0.00
4,200.00	9.46	182.48	4,149.91	-617.96	-26.81	618.54	0.00	0.00	0.00
4,300.00	9.46	182.48	4,248.55	-634.38	-27.52	634.98	0.00	0.00	0.00
4,400.00	9.46	182.48	4,347.19	-650.80	-28.24	651.41	0.00	0.00	0.00
4,500.00	9.46	182.48	4,445.83	-667.22	-28.95	667.84	0.00	0.00	0.00
4,600.00	9.46	182.48	4,544.47	-683.63	-29.66	684.28	0.00	0.00	0.00
4,700.00	9.46	182.48	4,643.11	-700.05	-30.37	700.71	0.00	0.00	0.00
4,800.00	9.46	182.48	4,741.75	-716.47	-31.09	717.14	0.00	0.00	0.00
4,900.00	9.46	182.48	4,840.39	-732.88	-31.80	733.57	0.00	0.00	0.00

Scientific Drilling International

Planning Report

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Company:	Marathon Oil Co.	TVD Reference:	GL 8090' & RKB 24' @ 8114.00ft
Project:	Garfield County, CO NAD 83	MD Reference:	GL 8090' & RKB 24' @ 8114.00ft
Site:	596-34D Pad	North Reference:	True
Well:	696-6A-11	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 2		

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)
4,932.04	9.46	182.48	4,872.00	-738.15	-32.03	738.84	0.00	0.00	0.00
Wasatch G									
5,000.00	9.46	182.48	4,939.03	-749.30	-32.51	750.01	0.00	0.00	0.00
5,100.00	9.46	182.48	5,037.67	-765.72	-33.22	766.44	0.00	0.00	0.00
5,200.00	9.46	182.48	5,136.31	-782.14	-33.93	782.87	0.00	0.00	0.00
5,300.00	9.46	182.48	5,234.95	-798.55	-34.65	799.31	0.00	0.00	0.00
5,317.28	9.46	182.48	5,252.00	-801.39	-34.77	802.15	0.00	0.00	0.00
Fort Union									
5,400.00	9.46	182.48	5,333.59	-814.97	-35.36	815.74	0.00	0.00	0.00
5,500.00	9.46	182.48	5,432.23	-831.39	-36.07	832.17	0.00	0.00	0.00
5,600.00	9.46	182.48	5,530.87	-847.81	-36.78	848.60	0.00	0.00	0.00
5,700.00	9.46	182.48	5,629.52	-864.22	-37.50	865.04	0.00	0.00	0.00
5,800.00	9.46	182.48	5,728.16	-880.64	-38.21	881.47	0.00	0.00	0.00
5,900.00	9.46	182.48	5,826.80	-897.06	-38.92	897.90	0.00	0.00	0.00
6,000.00	9.46	182.48	5,925.44	-913.48	-39.63	914.34	0.00	0.00	0.00
6,100.00	9.46	182.48	6,024.08	-929.89	-40.35	930.77	0.00	0.00	0.00
6,200.00	9.46	182.48	6,122.72	-946.31	-41.06	947.20	0.00	0.00	0.00
6,300.00	9.46	182.48	6,221.36	-962.73	-41.77	963.63	0.00	0.00	0.00
6,400.00	9.46	182.48	6,320.00	-979.15	-42.48	980.07	0.00	0.00	0.00
6,500.00	9.46	182.48	6,418.64	-995.56	-43.19	996.50	0.00	0.00	0.00
6,600.00	9.46	182.48	6,517.28	-1,011.98	-43.91	1,012.93	0.00	0.00	0.00
6,612.12	9.46	182.48	6,529.23	-1,013.97	-43.99	1,014.92	0.00	0.00	0.00
Start Drop -2.00									
6,700.00	7.70	182.48	6,616.13	-1,027.07	-44.56	1,028.03	2.00	-2.00	0.00
6,800.00	5.70	182.48	6,715.44	-1,038.72	-45.07	1,039.70	2.00	-2.00	0.00
6,828.69	5.13	182.48	6,744.00	-1,041.43	-45.18	1,042.41	2.00	-2.00	0.00
Measverde									
6,900.00	3.70	182.48	6,815.10	-1,046.91	-45.42	1,047.90	2.00	-2.00	0.00
7,000.00	1.70	182.48	6,914.98	-1,051.62	-45.63	1,052.61	2.00	-2.00	0.00
7,085.03	0.00	0.00	7,000.00	-1,052.88	-45.68	1,053.87	2.00	-2.00	0.00
Start 0.00° Hold At 7085.03' MD									
7,100.00	0.00	0.00	7,014.97	-1,052.88	-45.68	1,053.87	0.00	0.00	0.00
7,200.00	0.00	0.00	7,114.97	-1,052.88	-45.68	1,053.87	0.00	0.00	0.00
7,300.00	0.00	0.00	7,214.97	-1,052.88	-45.68	1,053.87	0.00	0.00	0.00
7,400.00	0.00	0.00	7,314.97	-1,052.88	-45.68	1,053.87	0.00	0.00	0.00
7,500.00	0.00	0.00	7,414.97	-1,052.88	-45.68	1,053.87	0.00	0.00	0.00
7,600.00	0.00	0.00	7,514.97	-1,052.88	-45.68	1,053.87	0.00	0.00	0.00
7,700.00	0.00	0.00	7,614.97	-1,052.88	-45.68	1,053.87	0.00	0.00	0.00
7,800.00	0.00	0.00	7,714.97	-1,052.88	-45.68	1,053.87	0.00	0.00	0.00
7,900.00	0.00	0.00	7,814.97	-1,052.88	-45.68	1,053.87	0.00	0.00	0.00
8,000.00	0.00	0.00	7,914.97	-1,052.88	-45.68	1,053.87	0.00	0.00	0.00
8,100.00	0.00	0.00	8,014.97	-1,052.88	-45.68	1,053.87	0.00	0.00	0.00
8,200.00	0.00	0.00	8,114.97	-1,052.88	-45.68	1,053.87	0.00	0.00	0.00
8,300.00	0.00	0.00	8,214.97	-1,052.88	-45.68	1,053.87	0.00	0.00	0.00
8,400.00	0.00	0.00	8,314.97	-1,052.88	-45.68	1,053.87	0.00	0.00	0.00
8,500.00	0.00	0.00	8,414.97	-1,052.88	-45.68	1,053.87	0.00	0.00	0.00
8,600.00	0.00	0.00	8,514.97	-1,052.88	-45.68	1,053.87	0.00	0.00	0.00
8,700.00	0.00	0.00	8,614.97	-1,052.88	-45.68	1,053.87	0.00	0.00	0.00
8,800.00	0.00	0.00	8,714.97	-1,052.88	-45.68	1,053.87	0.00	0.00	0.00
8,900.00	0.00	0.00	8,814.97	-1,052.88	-45.68	1,053.87	0.00	0.00	0.00
9,000.00	0.00	0.00	8,914.97	-1,052.88	-45.68	1,053.87	0.00	0.00	0.00
9,100.00	0.00	0.00	9,014.97	-1,052.88	-45.68	1,053.87	0.00	0.00	0.00
9,200.00	0.00	0.00	9,114.97	-1,052.88	-45.68	1,053.87	0.00	0.00	0.00

Scientific Drilling International

Planning Report

Database:	EDM 2003.16 Single User Db	Local Co-ordinate Reference:	Well 696-6A-11 - Slot A
Company:	Marathon Oil Co.	TVD Reference:	GL 8090' & RKB 24' @ 8114.00ft
Project:	Garfield County, CO NAD 83	MD Reference:	GL 8090' & RKB 24' @ 8114.00ft
Site:	596-34D Pad	North Reference:	True
Well:	696-6A-11	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 2		

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)
9,300.00	0.00	0.00	9,214.97	-1,052.88	-45.68	1,053.87	0.00	0.00	0.00
9,400.00	0.00	0.00	9,314.97	-1,052.88	-45.68	1,053.87	0.00	0.00	0.00
9,500.00	0.00	0.00	9,414.97	-1,052.88	-45.68	1,053.87	0.00	0.00	0.00
9,600.00	0.00	0.00	9,514.97	-1,052.88	-45.68	1,053.87	0.00	0.00	0.00
9,663.03	0.00	0.00	9,578.00	-1,052.88	-45.68	1,053.87	0.00	0.00	0.00
Cameo									
9,700.00	0.00	0.00	9,614.97	-1,052.88	-45.68	1,053.87	0.00	0.00	0.00
9,800.00	0.00	0.00	9,714.97	-1,052.88	-45.68	1,053.87	0.00	0.00	0.00
9,900.00	0.00	0.00	9,814.97	-1,052.88	-45.68	1,053.87	0.00	0.00	0.00
10,000.00	0.00	0.00	9,914.97	-1,052.88	-45.68	1,053.87	0.00	0.00	0.00
10,100.00	0.00	0.00	10,014.97	-1,052.88	-45.68	1,053.87	0.00	0.00	0.00
10,135.03	0.00	0.00	10,050.00	-1,052.88	-45.68	1,053.87	0.00	0.00	0.00
Rollins									
10,200.00	0.00	0.00	10,114.97	-1,052.88	-45.68	1,053.87	0.00	0.00	0.00
10,285.03	0.00	0.00	10,200.00	-1,052.88	-45.68	1,053.87	0.00	0.00	0.00
TD at 10285.03 - 696-6A-11 PBHL									

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
696-6A-11 PBHL	0.00	0.00	10,200.00	-1,052.88	-45.68	1,641,140.06	2,253,697.89	39° 33' 49.865 N	108° 8' 51.086 W
- hit/miss target									
- Shape									
- plan hits target center									
- Rectangle (sides W100.00 H200.00 D0.00)									

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
6,828.69	6,744.00	Measverde		0.00	
4,932.04	4,872.00	Wasatch G		0.00	
5,317.28	5,252.00	Fort Union		0.00	
10,135.03	10,050.00	Rollins		0.00	
9,663.03	9,578.00	Cameo		0.00	

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
200.00	200.00	0.00	0.00	Start Build 2.00
672.91	670.77	-38.91	-1.69	Start 9.46° Hold At 672.91' MD
6,612.12	6,529.23	-1,013.97	-43.99	Start Drop -2.00
7,085.03	7,000.00	-1,052.88	-45.68	Start 0.00° Hold At 7085.03' MD
10,285.03	10,200.00	-1,052.88	-45.68	TD at 10285.03