

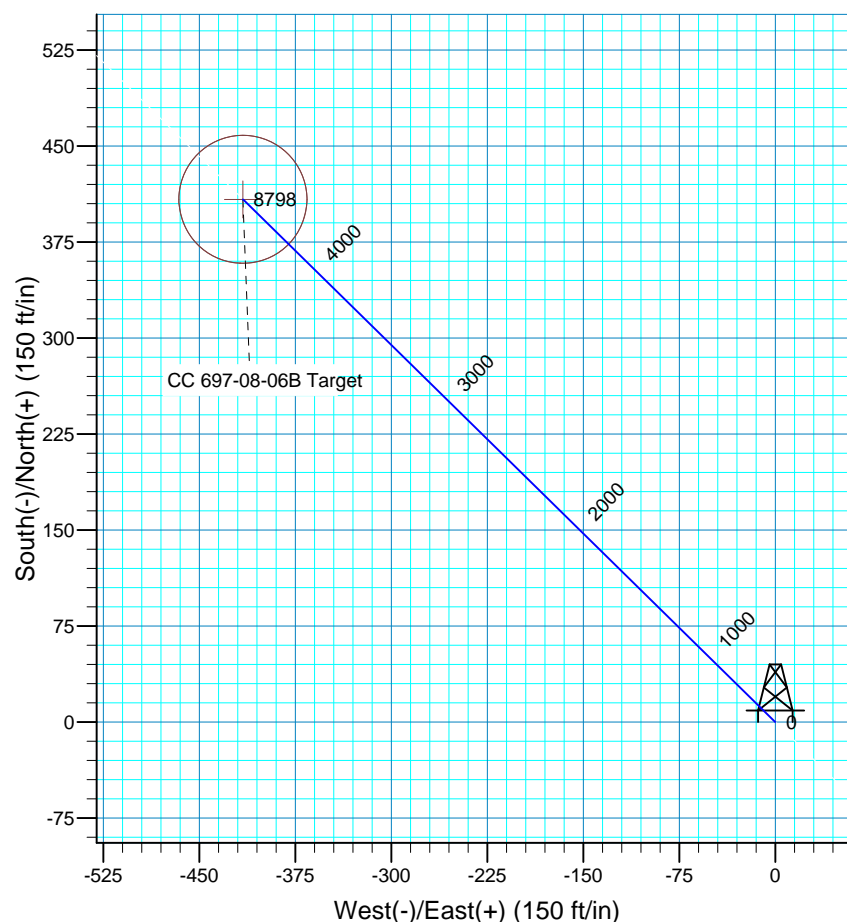
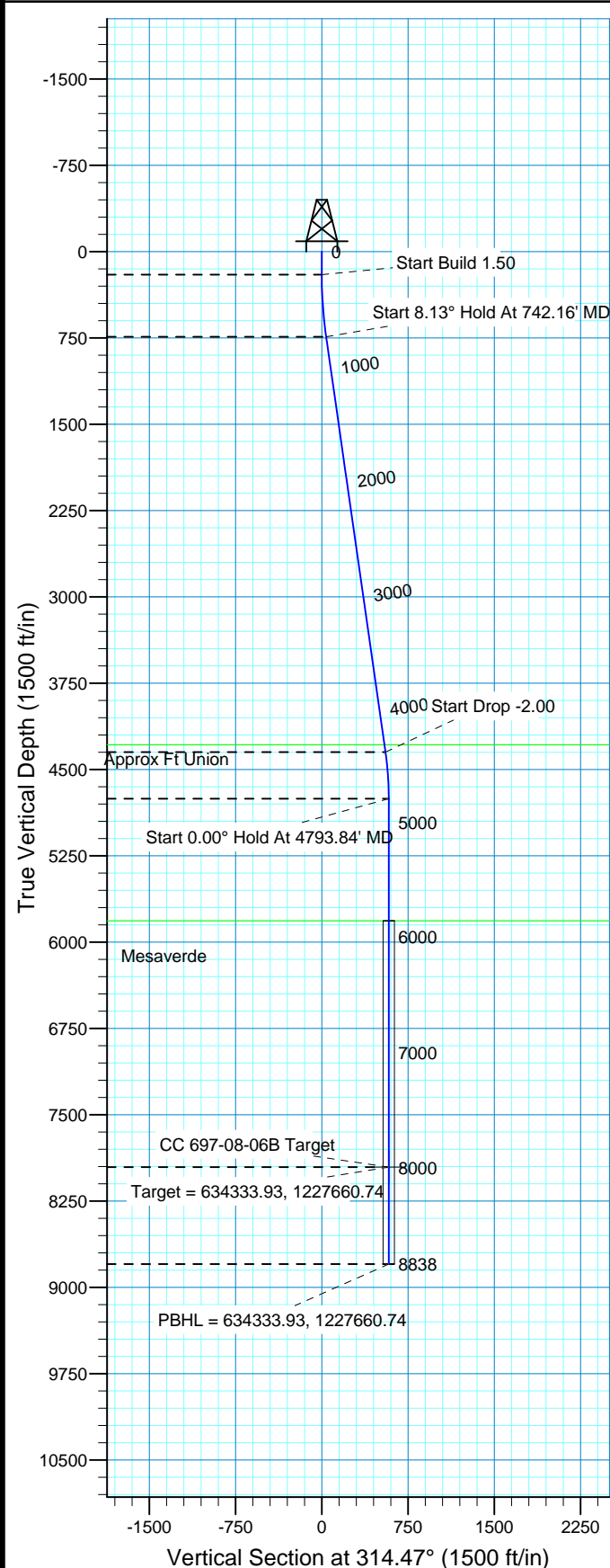
## WELL DETAILS: CC 697-08-06B

GL 8411' & RKB 30' @ 8441.00ft 8411.00  
+N/-S +E/-W Northing Easting Latitude Longitude Slot  
0.00 0.00 633913.25 1228064.16 39° 32' 31.124 N 108° 14' 15.172 W



Azimuths to True North  
Magnetic North: 10.79°

Magnetic Field  
Strength: 52514.9snT  
Dip Angle: 65.81°  
Date: 2008/10/15  
Model: IGRF2005-10



## FORMATION TOP DETAILS

TVDPath MDPATH Formation  
4286.00 4323.84 Approx Ft Union  
5815.00 5854.84 Mesaverde

## Plan: Plan #2 (CC 697-08-06B/OH)

Created By: Rex Hall Date: 2010-06-24

## PROJECT DETAILS: Garfield County, CO NAD27

Geodetic System: US State Plane 1927 (Exact solution)  
Datum: NAD 1927 (NADCON CONUS)  
Ellipsoid: Clarke 1866  
Zone: Colorado Central 502

System Datum: Mean Sea Level  
Local North: No north reference data is available

## 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	742.16	8.13	314.47	740.34	26.91	-27.41	1.50	314.47	38.41	
4	4387.22	8.13	314.47	4348.75	388.15	-395.35	0.00	0.00	554.04	
5	4793.84	0.00	0.00	4754.00	408.34	-415.91	2.00	180.00	582.85	
6	7993.84	0.00	0.00	7954.00	408.34	-415.91	0.00	0.00	582.85	
7	8837.84	0.00	0.00	8798.00	408.34	-415.91	0.00	0.00	582.85	CC 697-08-06B Target



# **OXY USA RMAT**

**Garfield County, CO NAD27  
Cascade Creek 608-41 Pad  
CC 697-08-06B  
OH**

**Plan: Plan #2**

## **Standard Planning Report**

**24 June, 2010**



<b>Database:</b>	EDM 2003.16 Multi-User Db	<b>Local Co-ordinate Reference:</b>	Well CC 697-08-06B
<b>Company:</b>	OXY USA RMAT	<b>TVD Reference:</b>	GL 8411' & RKB 30' @ 8441.00ft
<b>Project:</b>	Garfield County, CO NAD27	<b>MD Reference:</b>	GL 8411' & RKB 30' @ 8441.00ft
<b>Site:</b>	Cascade Creek 608-41 Pad	<b>North Reference:</b>	True
<b>Well:</b>	CC 697-08-06B	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #2		

<b>Project</b>	Garfield County, CO NAD27		
<b>Map System:</b>	US State Plane 1927 (Exact solution)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD 1927 (NADCON CONUS)		
<b>Map Zone:</b>	Colorado Central 502		

<b>Site</b>	Cascade Creek 608-41 Pad, SEction 8 T6S R97W		
<b>Site Position:</b>		<b>Northing:</b>	633,966.94 ft
<b>From:</b>	Map	<b>Easting:</b>	1,228,168.67 ft
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	in
		<b>Latitude:</b>	39° 32' 31.685 N
		<b>Longitude:</b>	108° 14' 13.859 W
		<b>Grid Convergence:</b>	-1.73 °

<b>Well</b>	CC 697-08-06B,		
<b>Well Position</b>	<b>+N/-S</b>	0.00 ft	<b>Northing:</b>
	<b>+E/-W</b>	0.00 ft	<b>Easting:</b>
<b>Position Uncertainty</b>	0.00 ft		<b>Wellhead Elevation:</b>
			<b>Latitude:</b>
			<b>Longitude:</b>
			<b>Ground Level:</b>

<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</b>
			(°)	(°)	(nT)
	IGRF2005-10	2008/10/15	10.79	65.81	52,515

<b>Design</b>	Plan #2			
<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)</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Direction</b>
	(ft)	(ft)	(ft)	(°)
	0.00	0.00	0.00	314.47

<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	
742.16	8.13	314.47	740.34	26.91	-27.41	1.50	1.50	0.00	314.47	
4,387.22	8.13	314.47	4,348.75	388.15	-395.35	0.00	0.00	0.00	0.00	
4,793.84	0.00	0.00	4,754.00	408.34	-415.91	2.00	-2.00	0.00	180.00	
7,993.84	0.00	0.00	7,954.00	408.34	-415.91	0.00	0.00	0.00	0.00	CC 697-08-06B Target
8,837.84	0.00	0.00	8,798.00	408.34	-415.91	0.00	0.00	0.00	0.00	

<b>Database:</b>	EDM 2003.16 Multi-User Db	<b>Local Co-ordinate Reference:</b>	Well CC 697-08-06B
<b>Company:</b>	OXY USA RMAT	<b>TVD Reference:</b>	GL 8411' & RKB 30' @ 8441.00ft
<b>Project:</b>	Garfield County, CO NAD27	<b>MD Reference:</b>	GL 8411' & RKB 30' @ 8441.00ft
<b>Site:</b>	Cascade Creek 608-41 Pad	<b>North Reference:</b>	True
<b>Well:</b>	CC 697-08-06B	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	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
<b>Start Build 1.50</b>									
300.00	1.50	314.47	299.99	0.92	-0.93	1.31	1.50	1.50	0.00
400.00	3.00	314.47	399.91	3.67	-3.74	5.23	1.50	1.50	0.00
500.00	4.50	314.47	499.69	8.25	-8.40	11.77	1.50	1.50	0.00
600.00	6.00	314.47	599.27	14.66	-14.93	20.92	1.50	1.50	0.00
700.00	7.50	314.47	698.57	22.89	-23.32	32.68	1.50	1.50	0.00
742.16	8.13	314.47	740.34	26.91	-27.41	38.41	1.50	1.50	0.00
<b>Start 8.13° Hold At 742.16' MD</b>									
800.00	8.13	314.47	797.60	32.64	-33.25	46.59	0.00	0.00	0.00
900.00	8.13	314.47	896.59	42.55	-43.34	60.74	0.00	0.00	0.00
1,000.00	8.13	314.47	995.59	52.46	-53.44	74.89	0.00	0.00	0.00
1,100.00	8.13	314.47	1,094.58	62.37	-63.53	89.03	0.00	0.00	0.00
1,200.00	8.13	314.47	1,193.58	72.28	-73.63	103.18	0.00	0.00	0.00
1,300.00	8.13	314.47	1,292.57	82.20	-83.72	117.32	0.00	0.00	0.00
1,400.00	8.13	314.47	1,391.57	92.11	-93.81	131.47	0.00	0.00	0.00
1,500.00	8.13	314.47	1,490.56	102.02	-103.91	145.62	0.00	0.00	0.00
1,600.00	8.13	314.47	1,589.55	111.93	-114.00	159.76	0.00	0.00	0.00
1,700.00	8.13	314.47	1,688.55	121.84	-124.10	173.91	0.00	0.00	0.00
1,800.00	8.13	314.47	1,787.54	131.75	-134.19	188.05	0.00	0.00	0.00
1,900.00	8.13	314.47	1,886.54	141.66	-144.29	202.20	0.00	0.00	0.00
2,000.00	8.13	314.47	1,985.53	151.57	-154.38	216.35	0.00	0.00	0.00
2,100.00	8.13	314.47	2,084.53	161.48	-164.47	230.49	0.00	0.00	0.00
2,200.00	8.13	314.47	2,183.52	171.39	-174.57	244.64	0.00	0.00	0.00
2,300.00	8.13	314.47	2,282.52	181.30	-184.66	258.78	0.00	0.00	0.00
2,400.00	8.13	314.47	2,381.51	191.21	-194.76	272.93	0.00	0.00	0.00
2,500.00	8.13	314.47	2,480.50	201.12	-204.85	287.08	0.00	0.00	0.00
2,600.00	8.13	314.47	2,579.50	211.03	-214.94	301.22	0.00	0.00	0.00
2,700.00	8.13	314.47	2,678.49	220.94	-225.04	315.37	0.00	0.00	0.00
2,800.00	8.13	314.47	2,777.49	230.85	-235.13	329.52	0.00	0.00	0.00
2,900.00	8.13	314.47	2,876.48	240.76	-245.23	343.66	0.00	0.00	0.00
3,000.00	8.13	314.47	2,975.48	250.67	-255.32	357.81	0.00	0.00	0.00
3,100.00	8.13	314.47	3,074.47	260.58	-265.42	371.95	0.00	0.00	0.00
3,200.00	8.13	314.47	3,173.47	270.49	-275.51	386.10	0.00	0.00	0.00
3,300.00	8.13	314.47	3,272.46	280.40	-285.60	400.25	0.00	0.00	0.00
3,400.00	8.13	314.47	3,371.45	290.31	-295.70	414.39	0.00	0.00	0.00
3,500.00	8.13	314.47	3,470.45	300.23	-305.79	428.54	0.00	0.00	0.00
3,600.00	8.13	314.47	3,569.44	310.14	-315.89	442.68	0.00	0.00	0.00
3,700.00	8.13	314.47	3,668.44	320.05	-325.98	456.83	0.00	0.00	0.00
3,800.00	8.13	314.47	3,767.43	329.96	-336.08	470.98	0.00	0.00	0.00
3,900.00	8.13	314.47	3,866.43	339.87	-346.17	485.12	0.00	0.00	0.00
4,000.00	8.13	314.47	3,965.42	349.78	-356.26	499.27	0.00	0.00	0.00
4,100.00	8.13	314.47	4,064.41	359.69	-366.36	513.41	0.00	0.00	0.00
4,200.00	8.13	314.47	4,163.41	369.60	-376.45	527.56	0.00	0.00	0.00
4,300.00	8.13	314.47	4,262.40	379.51	-386.55	541.71	0.00	0.00	0.00
4,323.84	8.13	314.47	4,286.00	381.87	-388.95	545.08	0.00	0.00	0.00
<b>Approx Ft Union</b>									
4,387.22	8.13	314.47	4,348.75	388.15	-395.35	554.04	0.00	0.00	0.00
<b>Start Drop -2.00</b>									
4,400.00	7.88	314.47	4,361.40	389.40	-396.62	555.82	2.00	-2.00	0.00
4,500.00	5.88	314.47	4,460.68	397.79	-405.16	567.80	2.00	-2.00	0.00

<b>Database:</b>	EDM 2003.16 Multi-User Db	<b>Local Co-ordinate Reference:</b>	Well CC 697-08-06B
<b>Company:</b>	OXY USA RMAT	<b>TVD Reference:</b>	GL 8411' & RKB 30' @ 8441.00ft
<b>Project:</b>	Garfield County, CO NAD27	<b>MD Reference:</b>	GL 8411' & RKB 30' @ 8441.00ft
<b>Site:</b>	Cascade Creek 608-41 Pad	<b>North Reference:</b>	True
<b>Well:</b>	CC 697-08-06B	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	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)
4,600.00	3.88	314.47	4,560.31	403.74	-411.23	576.30	2.00	-2.00	0.00
4,700.00	1.88	314.47	4,660.18	407.26	-414.81	581.32	2.00	-2.00	0.00
4,793.84	0.00	0.00	4,754.00	408.34	-415.91	582.85	2.00	-2.00	0.00
<b>Start 0.00° Hold At 4793.84' MD</b>									
4,800.00	0.00	0.00	4,760.16	408.34	-415.91	582.85	0.00	0.00	0.00
4,900.00	0.00	0.00	4,860.16	408.34	-415.91	582.85	0.00	0.00	0.00
5,000.00	0.00	0.00	4,960.16	408.34	-415.91	582.85	0.00	0.00	0.00
5,100.00	0.00	0.00	5,060.16	408.34	-415.91	582.85	0.00	0.00	0.00
5,200.00	0.00	0.00	5,160.16	408.34	-415.91	582.85	0.00	0.00	0.00
5,300.00	0.00	0.00	5,260.16	408.34	-415.91	582.85	0.00	0.00	0.00
5,400.00	0.00	0.00	5,360.16	408.34	-415.91	582.85	0.00	0.00	0.00
5,500.00	0.00	0.00	5,460.16	408.34	-415.91	582.85	0.00	0.00	0.00
5,600.00	0.00	0.00	5,560.16	408.34	-415.91	582.85	0.00	0.00	0.00
5,700.00	0.00	0.00	5,660.16	408.34	-415.91	582.85	0.00	0.00	0.00
5,800.00	0.00	0.00	5,760.16	408.34	-415.91	582.85	0.00	0.00	0.00
5,854.84	0.00	0.00	5,815.00	408.34	-415.91	582.85	0.00	0.00	0.00
<b>Mesaverde</b>									
5,900.00	0.00	0.00	5,860.16	408.34	-415.91	582.85	0.00	0.00	0.00
6,000.00	0.00	0.00	5,960.16	408.34	-415.91	582.85	0.00	0.00	0.00
6,100.00	0.00	0.00	6,060.16	408.34	-415.91	582.85	0.00	0.00	0.00
6,200.00	0.00	0.00	6,160.16	408.34	-415.91	582.85	0.00	0.00	0.00
6,300.00	0.00	0.00	6,260.16	408.34	-415.91	582.85	0.00	0.00	0.00
6,400.00	0.00	0.00	6,360.16	408.34	-415.91	582.85	0.00	0.00	0.00
6,500.00	0.00	0.00	6,460.16	408.34	-415.91	582.85	0.00	0.00	0.00
6,600.00	0.00	0.00	6,560.16	408.34	-415.91	582.85	0.00	0.00	0.00
6,700.00	0.00	0.00	6,660.16	408.34	-415.91	582.85	0.00	0.00	0.00
6,800.00	0.00	0.00	6,760.16	408.34	-415.91	582.85	0.00	0.00	0.00
6,900.00	0.00	0.00	6,860.16	408.34	-415.91	582.85	0.00	0.00	0.00
7,000.00	0.00	0.00	6,960.16	408.34	-415.91	582.85	0.00	0.00	0.00
7,100.00	0.00	0.00	7,060.16	408.34	-415.91	582.85	0.00	0.00	0.00
7,200.00	0.00	0.00	7,160.16	408.34	-415.91	582.85	0.00	0.00	0.00
7,300.00	0.00	0.00	7,260.16	408.34	-415.91	582.85	0.00	0.00	0.00
7,400.00	0.00	0.00	7,360.16	408.34	-415.91	582.85	0.00	0.00	0.00
7,500.00	0.00	0.00	7,460.16	408.34	-415.91	582.85	0.00	0.00	0.00
7,600.00	0.00	0.00	7,560.16	408.34	-415.91	582.85	0.00	0.00	0.00
7,700.00	0.00	0.00	7,660.16	408.34	-415.91	582.85	0.00	0.00	0.00
7,800.00	0.00	0.00	7,760.16	408.34	-415.91	582.85	0.00	0.00	0.00
7,900.00	0.00	0.00	7,860.16	408.34	-415.91	582.85	0.00	0.00	0.00
7,993.84	0.00	0.00	7,954.00	408.34	-415.91	582.85	0.00	0.00	0.00
<b>Target = 634333.93, 1227660.74 - CC 697-08-06B Target</b>									
8,000.00	0.00	0.00	7,960.16	408.34	-415.91	582.85	0.00	0.00	0.00
8,100.00	0.00	0.00	8,060.16	408.34	-415.91	582.85	0.00	0.00	0.00
8,200.00	0.00	0.00	8,160.16	408.34	-415.91	582.85	0.00	0.00	0.00
8,300.00	0.00	0.00	8,260.16	408.34	-415.91	582.85	0.00	0.00	0.00
8,400.00	0.00	0.00	8,360.16	408.34	-415.91	582.85	0.00	0.00	0.00
8,500.00	0.00	0.00	8,460.16	408.34	-415.91	582.85	0.00	0.00	0.00
8,600.00	0.00	0.00	8,560.16	408.34	-415.91	582.85	0.00	0.00	0.00
8,700.00	0.00	0.00	8,660.16	408.34	-415.91	582.85	0.00	0.00	0.00
8,800.00	0.00	0.00	8,760.16	408.34	-415.91	582.85	0.00	0.00	0.00
8,837.84	0.00	0.00	8,798.00	408.34	-415.91	582.85	0.00	0.00	0.00
<b>PBHL = 634333.93, 1227660.74</b>									

<b>Database:</b>	EDM 2003.16 Multi-User Db	<b>Local Co-ordinate Reference:</b>	Well CC 697-08-06B
<b>Company:</b>	OXY USA RMAT	<b>TVD Reference:</b>	GL 8411' & RKB 30' @ 8441.00ft
<b>Project:</b>	Garfield County, CO NAD27	<b>MD Reference:</b>	GL 8411' & RKB 30' @ 8441.00ft
<b>Site:</b>	Cascade Creek 608-41 Pad	<b>North Reference:</b>	True
<b>Well:</b>	CC 697-08-06B	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #2		

Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
CC 697-08-06B Target	0.00	0.00	7,954.00	408.34	-415.91	634,333.93	1,227,660.74	39° 32' 35.160 N	108° 14' 20.481 W
- plan hits target center									
- Circle (radius 50.00)									

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(ft)	(ft)			(°)	(°)	
4,323.84	4,286.00	Approx Ft Union		0.00		
5,854.84	5,815.00	Mesaverde		0.00		

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)	Comment	
200.00	200.00	0.00	0.00	Start Build 1.50	
742.16	740.34	26.91	-27.41	Start 8.13° Hold At 742.16' MD	
4,387.22	4,348.75	388.15	-395.35	Start Drop -2.00	
4,793.84	4,754.00	408.34	-415.91	Start 0.00° Hold At 4793.84' MD	
7,993.84	7,954.00	408.34	-415.91	Target = 634333.93, 1227660.74	
8,837.84	8,798.00	408.34	-415.91	PBHL = 634333.93, 1227660.74	