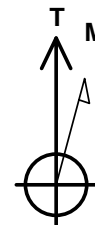


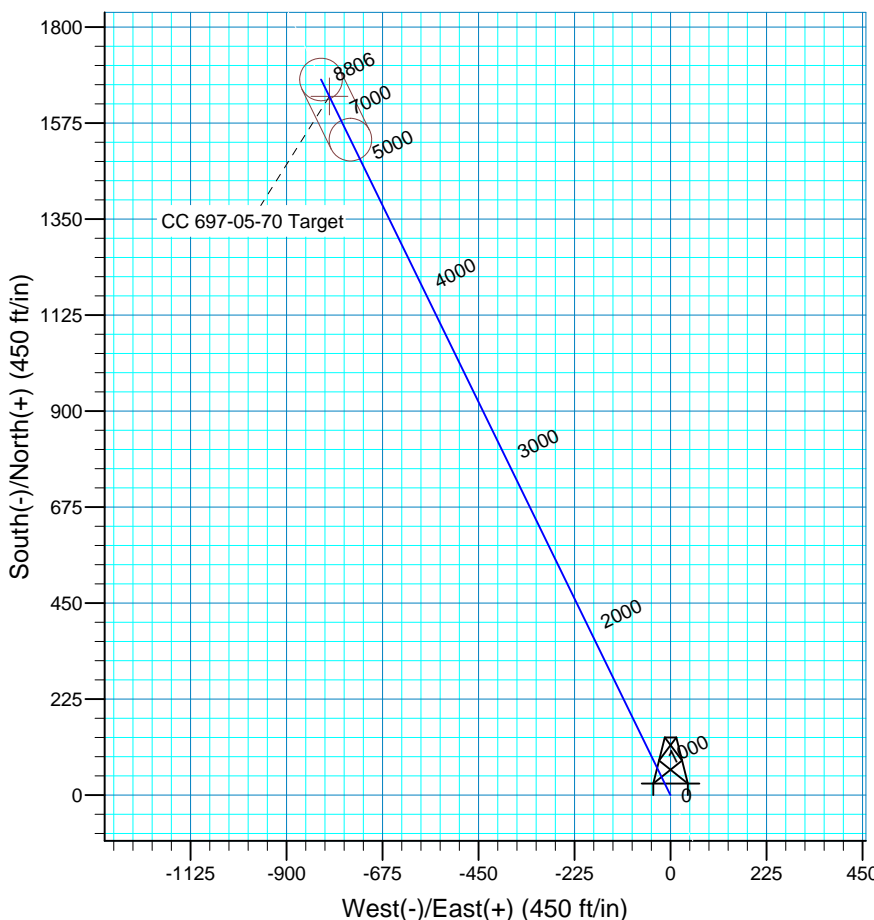
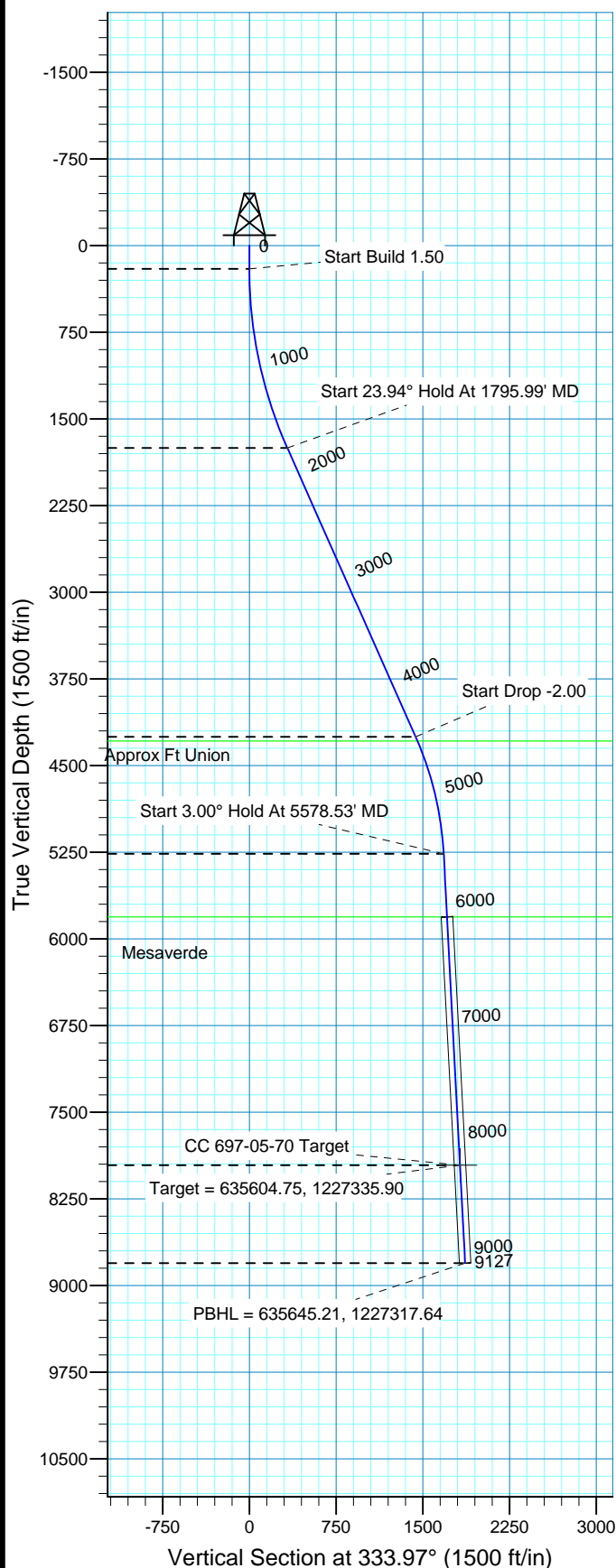
## WELL DETAILS: CC 697-05-70

+N/-S	+E/-W	GL 8411' & RKB 30' @ 8441.00ft	8411.00		
		Northing	Easting	Latitude	Longitude
0.00	0.00	633943.78	1228085.93	39° 32' 31.432 N	108° 14' 14.906 W



Azimuths to True North  
Magnetic North: 10.63°

Magnetic Field  
Strength: 52397.5nT  
Dip Angle: 65.78°  
Date: 2009/12/31  
Model: IGRF2005-10



### FORMATION TOP DETAILS

TVDPath	MDPath	Formation
4286.00	4570.62	Approx Ft Union
5809.00	6125.58	Mesaverde

### Plan: Plan #1 (CC 697-05-70/OH)

Created By: Rex Hall Date: 2010-06-23

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	1795.99	23.94	333.97	1749.96	295.28	-144.20	1.50	333.97	328.60	
4	4531.53	23.94	333.97	4250.16	1292.71	-631.30	0.00	0.00	1438.63	
5	5578.53	3.00	333.97	5262.70	1510.64	-737.72	2.00	180.00	1681.15	
6	8278.53	3.00	333.97	7959.00	1637.62	-799.73	0.00	0.00	1822.46	CC 697-05-70 Target
7	9126.69	3.00	333.97	8806.00	1677.51	-819.21	0.00	0.00	1866.85	



# **OXY USA RMAT**

**Garfield County, CO NAD27  
Cascade Creek 608-41 Pad  
CC 697-05-70  
OH**

**Plan: Plan #1**

## **Standard Planning Report**

**23 June, 2010**



<b>Database:</b>	EDM 2003.16 Multi-User Db	<b>Local Co-ordinate Reference:</b>	Well CC 697-05-70
<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 697-05-70	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1		

<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		

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

Well	CC 697-05-70					
Well Position	+N/-S	0.00 ft	Northing:	633,943.78 ft	Latitude:	39° 32' 31.432 N
	+E/-W	0.00 ft	Easting:	1,228,085.93 ft	Longitude:	108° 14' 14.906 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	8,411.00 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	2009/12/31	10.63	65.78	52,397

<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	333.97	

<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	
1,795.99	23.94	333.97	1,749.96	295.28	-144.20	1.50	1.50	0.00	333.97	
4,531.53	23.94	333.97	4,250.16	1,292.71	-631.30	0.00	0.00	0.00	0.00	
5,578.53	3.00	333.97	5,262.70	1,510.64	-737.72	2.00	-2.00	0.00	180.00	
8,278.53	3.00	333.97	7,959.00	1,637.62	-799.73	0.00	0.00	0.00	0.00	CC 697-05-70 Target
9,126.69	3.00	333.97	8,806.00	1,677.51	-819.21	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 697-05-70
<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 697-05-70	<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
<b>Start Build 1.50</b>									
300.00	1.50	333.97	299.99	1.18	-0.57	1.31	1.50	1.50	0.00
400.00	3.00	333.97	399.91	4.70	-2.30	5.23	1.50	1.50	0.00
500.00	4.50	333.97	499.69	10.58	-5.17	11.77	1.50	1.50	0.00
600.00	6.00	333.97	599.27	18.80	-9.18	20.92	1.50	1.50	0.00
700.00	7.50	333.97	698.57	29.36	-14.34	32.68	1.50	1.50	0.00
800.00	9.00	333.97	797.54	42.26	-20.64	47.03	1.50	1.50	0.00
900.00	10.50	333.97	896.09	57.47	-28.07	63.96	1.50	1.50	0.00
1,000.00	12.00	333.97	994.16	75.00	-36.63	83.47	1.50	1.50	0.00
1,100.00	13.50	333.97	1,091.70	94.83	-46.31	105.54	1.50	1.50	0.00
1,200.00	15.00	333.97	1,188.62	116.95	-57.11	130.15	1.50	1.50	0.00
1,300.00	16.50	333.97	1,284.86	141.34	-69.02	157.30	1.50	1.50	0.00
1,400.00	18.00	333.97	1,380.36	167.99	-82.04	186.95	1.50	1.50	0.00
1,500.00	19.50	333.97	1,475.05	196.87	-96.14	219.09	1.50	1.50	0.00
1,600.00	21.00	333.97	1,568.86	227.97	-111.33	253.70	1.50	1.50	0.00
1,700.00	22.50	333.97	1,661.74	261.27	-127.59	290.76	1.50	1.50	0.00
1,795.99	23.94	333.97	1,749.96	295.28	-144.20	328.60	1.50	1.50	0.00
<b>Start 23.94° Hold At 1795.99' MD</b>									
1,800.00	23.94	333.97	1,753.62	296.74	-144.91	330.23	0.00	0.00	0.00
1,900.00	23.94	333.97	1,845.02	333.20	-162.72	370.81	0.00	0.00	0.00
2,000.00	23.94	333.97	1,936.41	369.66	-180.52	411.39	0.00	0.00	0.00
2,100.00	23.94	333.97	2,027.81	406.12	-198.33	451.96	0.00	0.00	0.00
2,200.00	23.94	333.97	2,119.21	442.59	-216.14	492.54	0.00	0.00	0.00
2,300.00	23.94	333.97	2,210.61	479.05	-233.94	533.12	0.00	0.00	0.00
2,400.00	23.94	333.97	2,302.00	515.51	-251.75	573.70	0.00	0.00	0.00
2,500.00	23.94	333.97	2,393.40	551.97	-269.56	614.27	0.00	0.00	0.00
2,600.00	23.94	333.97	2,484.80	588.43	-287.36	654.85	0.00	0.00	0.00
2,700.00	23.94	333.97	2,576.19	624.90	-305.17	695.43	0.00	0.00	0.00
2,800.00	23.94	333.97	2,667.59	661.36	-322.97	736.01	0.00	0.00	0.00
2,900.00	23.94	333.97	2,758.99	697.82	-340.78	776.59	0.00	0.00	0.00
3,000.00	23.94	333.97	2,850.39	734.28	-358.59	817.16	0.00	0.00	0.00
3,100.00	23.94	333.97	2,941.78	770.75	-376.39	857.74	0.00	0.00	0.00
3,200.00	23.94	333.97	3,033.18	807.21	-394.20	898.32	0.00	0.00	0.00
3,300.00	23.94	333.97	3,124.58	843.67	-412.01	938.90	0.00	0.00	0.00
3,400.00	23.94	333.97	3,215.98	880.13	-429.81	979.47	0.00	0.00	0.00
3,500.00	23.94	333.97	3,307.37	916.59	-447.62	1,020.05	0.00	0.00	0.00
3,600.00	23.94	333.97	3,398.77	953.06	-465.42	1,060.63	0.00	0.00	0.00
3,700.00	23.94	333.97	3,490.17	989.52	-483.23	1,101.21	0.00	0.00	0.00
3,800.00	23.94	333.97	3,581.56	1,025.98	-501.04	1,141.79	0.00	0.00	0.00
3,900.00	23.94	333.97	3,672.96	1,062.44	-518.84	1,182.36	0.00	0.00	0.00
4,000.00	23.94	333.97	3,764.36	1,098.91	-536.65	1,222.94	0.00	0.00	0.00
4,100.00	23.94	333.97	3,855.76	1,135.37	-554.46	1,263.52	0.00	0.00	0.00
4,200.00	23.94	333.97	3,947.15	1,171.83	-572.26	1,304.10	0.00	0.00	0.00
4,300.00	23.94	333.97	4,038.55	1,208.29	-590.07	1,344.68	0.00	0.00	0.00
4,400.00	23.94	333.97	4,129.95	1,244.75	-607.87	1,385.25	0.00	0.00	0.00
4,500.00	23.94	333.97	4,221.34	1,281.22	-625.68	1,425.83	0.00	0.00	0.00
4,531.53	23.94	333.97	4,250.16	1,292.71	-631.30	1,438.63	0.00	0.00	0.00
<b>Start Drop -2.00</b>									
4,570.62	23.16	333.97	4,286.00	1,306.75	-638.15	1,454.24	2.00	-2.00	0.00
<b>Approx Ft Union</b>									

<b>Database:</b>	EDM 2003.16 Multi-User Db	<b>Local Co-ordinate Reference:</b>	Well CC 697-05-70
<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 697-05-70	<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)
4,600.00	22.57	333.97	4,313.07	1,317.00	-643.16	1,465.66	2.00	-2.00	0.00
4,700.00	20.57	333.97	4,406.06	1,350.04	-659.29	1,502.42	2.00	-2.00	0.00
4,800.00	18.57	333.97	4,500.28	1,380.14	-673.99	1,535.92	2.00	-2.00	0.00
4,900.00	16.57	333.97	4,595.61	1,407.26	-687.24	1,566.10	2.00	-2.00	0.00
5,000.00	14.57	333.97	4,691.93	1,431.38	-699.01	1,592.94	2.00	-2.00	0.00
5,100.00	12.57	333.97	4,789.14	1,452.46	-709.31	1,616.41	2.00	-2.00	0.00
5,200.00	10.57	333.97	4,887.10	1,470.49	-718.11	1,636.46	2.00	-2.00	0.00
5,300.00	8.57	333.97	4,985.70	1,485.42	-725.41	1,653.09	2.00	-2.00	0.00
5,400.00	6.57	333.97	5,084.82	1,497.26	-731.19	1,666.26	2.00	-2.00	0.00
5,500.00	4.57	333.97	5,184.35	1,505.98	-735.45	1,675.97	2.00	-2.00	0.00
5,578.53	3.00	333.97	5,262.70	1,510.64	-737.72	1,681.15	2.00	-2.00	0.00
<b>Start 3.00° Hold At 5578.53' MD</b>									
5,600.00	3.00	333.97	5,284.14	1,511.65	-738.21	1,682.28	0.00	0.00	0.00
5,700.00	3.00	333.97	5,384.01	1,516.36	-740.51	1,687.51	0.00	0.00	0.00
5,800.00	3.00	333.97	5,483.87	1,521.06	-742.81	1,692.74	0.00	0.00	0.00
5,900.00	3.00	333.97	5,583.73	1,525.76	-745.10	1,697.98	0.00	0.00	0.00
6,000.00	3.00	333.97	5,683.60	1,530.46	-747.40	1,703.21	0.00	0.00	0.00
6,100.00	3.00	333.97	5,783.46	1,535.17	-749.70	1,708.44	0.00	0.00	0.00
6,125.58	3.00	333.97	5,809.00	1,536.37	-750.28	1,709.78	0.00	0.00	0.00
<b>Mesaverde</b>									
6,200.00	3.00	333.97	5,883.32	1,539.87	-751.99	1,713.68	0.00	0.00	0.00
6,300.00	3.00	333.97	5,983.18	1,544.57	-754.29	1,718.91	0.00	0.00	0.00
6,400.00	3.00	333.97	6,083.05	1,549.28	-756.59	1,724.15	0.00	0.00	0.00
6,500.00	3.00	333.97	6,182.91	1,553.98	-758.88	1,729.38	0.00	0.00	0.00
6,600.00	3.00	333.97	6,282.77	1,558.68	-761.18	1,734.61	0.00	0.00	0.00
6,700.00	3.00	333.97	6,382.64	1,563.38	-763.48	1,739.85	0.00	0.00	0.00
6,800.00	3.00	333.97	6,482.50	1,568.09	-765.77	1,745.08	0.00	0.00	0.00
6,900.00	3.00	333.97	6,582.36	1,572.79	-768.07	1,750.31	0.00	0.00	0.00
7,000.00	3.00	333.97	6,682.23	1,577.49	-770.37	1,755.55	0.00	0.00	0.00
7,100.00	3.00	333.97	6,782.09	1,582.19	-772.66	1,760.78	0.00	0.00	0.00
7,200.00	3.00	333.97	6,881.95	1,586.90	-774.96	1,766.01	0.00	0.00	0.00
7,300.00	3.00	333.97	6,981.81	1,591.60	-777.26	1,771.25	0.00	0.00	0.00
7,400.00	3.00	333.97	7,081.68	1,596.30	-779.55	1,776.48	0.00	0.00	0.00
7,500.00	3.00	333.97	7,181.54	1,601.01	-781.85	1,781.71	0.00	0.00	0.00
7,600.00	3.00	333.97	7,281.40	1,605.71	-784.15	1,786.95	0.00	0.00	0.00
7,700.00	3.00	333.97	7,381.27	1,610.41	-786.44	1,792.18	0.00	0.00	0.00
7,800.00	3.00	333.97	7,481.13	1,615.11	-788.74	1,797.42	0.00	0.00	0.00
7,900.00	3.00	333.97	7,580.99	1,619.82	-791.04	1,802.65	0.00	0.00	0.00
8,000.00	3.00	333.97	7,680.86	1,624.52	-793.33	1,807.88	0.00	0.00	0.00
8,100.00	3.00	333.97	7,780.72	1,629.22	-795.63	1,813.12	0.00	0.00	0.00
8,200.00	3.00	333.97	7,880.58	1,633.93	-797.93	1,818.35	0.00	0.00	0.00
8,278.53	3.00	333.97	7,959.00	1,637.62	-799.73	1,822.46	0.00	0.00	0.00
<b>Target = 635604.75, 1227335.90 - CC 697-05-70 Target</b>									
8,300.00	3.00	333.97	7,980.44	1,638.63	-800.22	1,823.58	0.00	0.00	0.00
8,400.00	3.00	333.97	8,080.31	1,643.33	-802.52	1,828.82	0.00	0.00	0.00
8,500.00	3.00	333.97	8,180.17	1,648.03	-804.82	1,834.05	0.00	0.00	0.00
8,600.00	3.00	333.97	8,280.03	1,652.74	-807.11	1,839.28	0.00	0.00	0.00
8,700.00	3.00	333.97	8,379.90	1,657.44	-809.41	1,844.52	0.00	0.00	0.00
8,800.00	3.00	333.97	8,479.76	1,662.14	-811.71	1,849.75	0.00	0.00	0.00
8,900.00	3.00	333.97	8,579.62	1,666.84	-814.00	1,854.99	0.00	0.00	0.00
9,000.00	3.00	333.97	8,679.48	1,671.55	-816.30	1,860.22	0.00	0.00	0.00
9,100.00	3.00	333.97	8,779.35	1,676.25	-818.60	1,865.45	0.00	0.00	0.00
9,126.69	3.00	333.97	8,806.00	1,677.51	-819.21	1,866.85	0.00	0.00	0.00

<b>Database:</b>	EDM 2003.16 Multi-User Db	<b>Local Co-ordinate Reference:</b>	Well CC 697-05-70
<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 697-05-70	<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)
PBHL = 635645.21, 1227317.64									

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
CC 697-05-70 Target	-3.00	333.97	7,959.00	1,637.62	-799.73	635,604.75	1,227,335.90	39° 32' 47.617 N	108° 14' 25.115 W
- hit/miss target									
- Shape									
- plan hits target center									
- Circle (radius 50.00)									

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,570.62	4,286.00	Approx Ft Union		0.00		
6,125.58	5,809.00	Mesaverde		0.00		

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
200.00	200.00	0.00	0.00	Start Build 1.50	
1,795.99	1,749.96	295.28	-144.20	Start 23.94° Hold At 1795.99' MD	
4,531.53	4,250.16	1,292.71	-631.30	Start Drop -2.00	
5,578.53	5,262.70	1,510.64	-737.72	Start 3.00° Hold At 5578.53' MD	
8,278.53	7,959.00	1,637.62	-799.73	Target = 635604.75, 1227335.90	
9,126.69	8,806.00	1,677.51	-819.21	PBHL = 635645.21, 1227317.64	