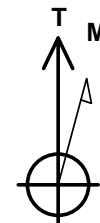


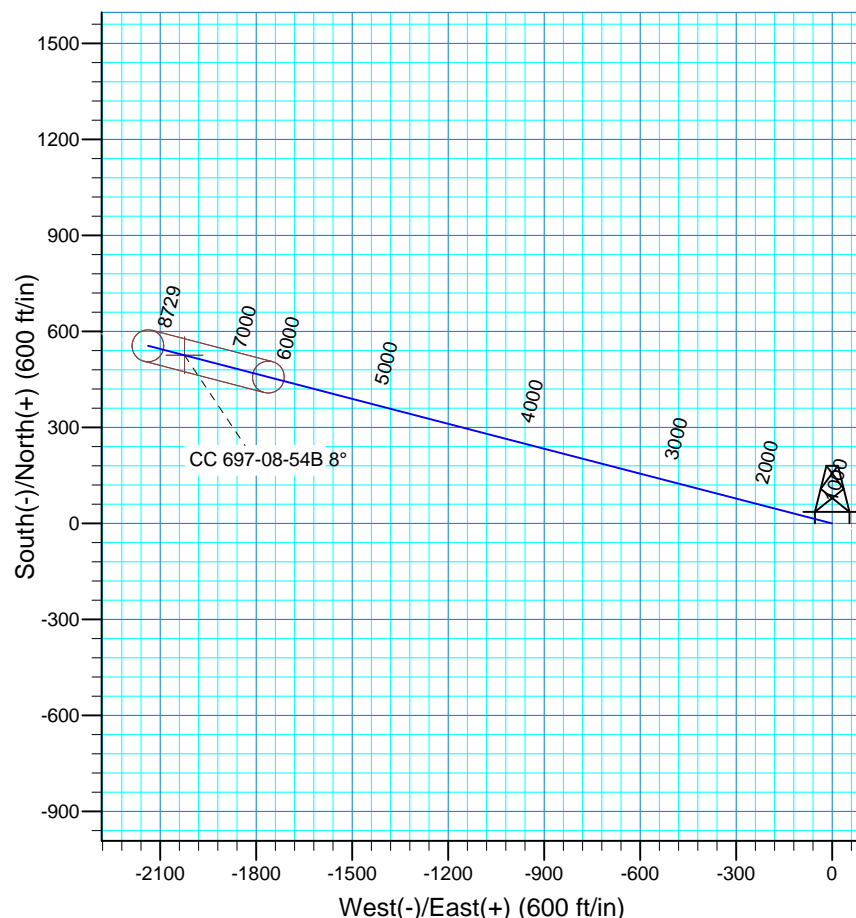
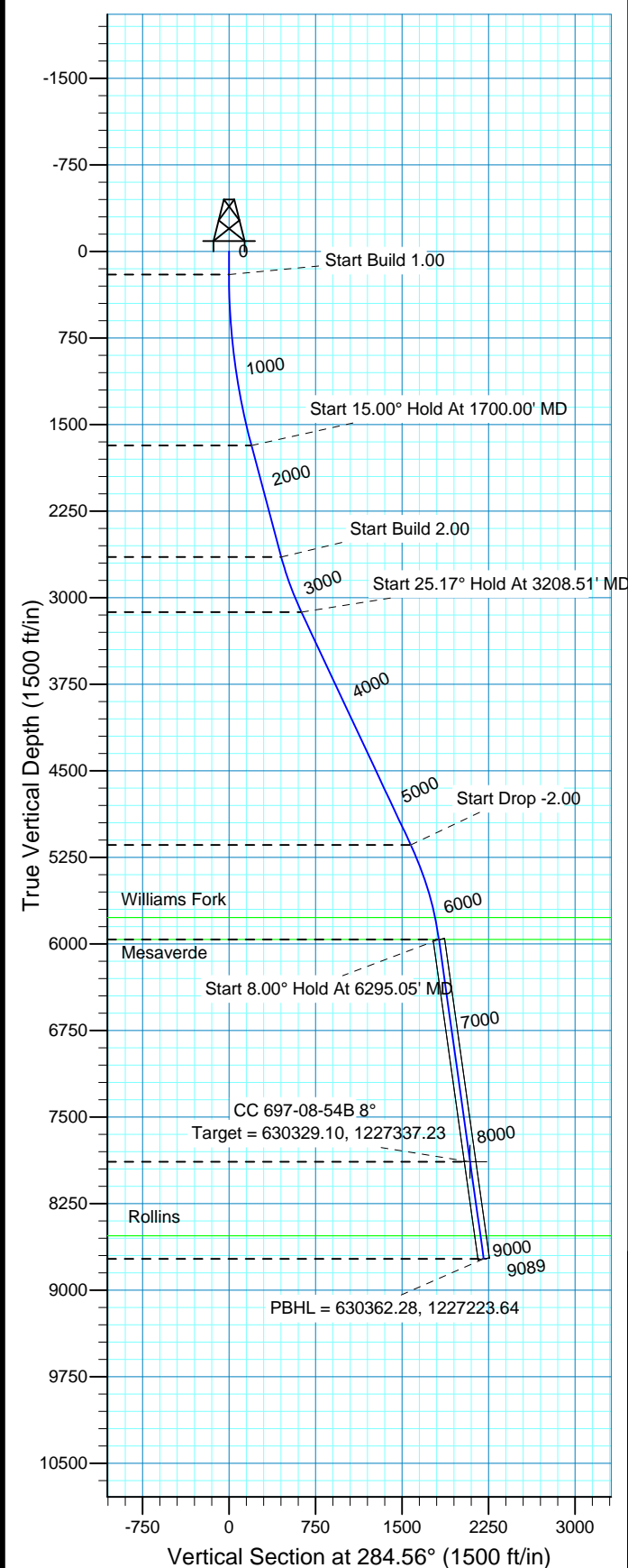
## WELL DETAILS: CC 697-08-54B

+N/-S	+E/-W	GL 8393' & RKB 30' @ 8423.00ft (H&P 330)	8393.00	Slot
0.00	0.00	Northing	Easting	Latitude
0.00	0.00	629742.80	1229344.06	39° 31' 50.304 N
				Longitude
				108° 13' 57.241 W



Azimuths to True North  
Magnetic North: 10.63°

Magnetic Field  
Strength: 52398.1snT  
Dip Angle: 65.77°  
Date: 12/8/2009  
Model: IGRF2005-10



## FORMATION TOP DETAILS

TVDPathMDPath	Formation
5771.006101.10	Mesaverde
5962.006295.05	Williams Fork
8529.008887.28	Rollins

## Plan: Plan #1 (CC 697-08-54B/OH)

Created By: Rex Hall Date: 2009-12-09

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	1700.00	15.00	284.56	1682.92	49.09	-188.96	1.00	284.56	195.23	CC 697-08-54B 8°
4	2700.00	15.00	284.56	2648.85	114.16	-439.46	0.00	0.00	454.05	
5	3208.51	25.17	284.56	3125.80	158.01	-608.26	2.00	0.00	628.45	
6	5436.54	25.17	284.56	5142.28	396.27	-1525.42	0.00	0.00	1576.05	
7	6295.05	8.00	284.56	5962.00	457.65	-1761.71	2.00	180.00	1820.18	
8	8238.97	8.00	284.56	7887.00	525.68	-2023.56	0.00	0.00	2090.72	CC 697-08-54B 8°
9	9089.24	8.00	284.56	8729.00	555.43	-2138.09	0.00	0.00	2209.06	

# **OXY USA RMAT**

**Garfield County, CO NAD27**

**Cascade Creek 609-14 Pad**

**CC 697-08-54B - Slot I**

**OH**

**Plan: Plan #1**

## **Standard Planning Report**

**09 December, 2009**

# Scientific Drilling International

## Planning Report

<b>Database:</b>	EDM 2003.16 Multi-User Db	<b>Local Co-ordinate Reference:</b>	Well CC 697-08-54B - Slot I
<b>Company:</b>	OXY USA RMAT	<b>TVD Reference:</b>	GL 8393' & RKB 30' @ 8423.00ft (H&P 330)
<b>Project:</b>	Garfield County, CO NAD27	<b>MD Reference:</b>	GL 8393' & RKB 30' @ 8423.00ft (H&P 330)
<b>Site:</b>	Cascade Creek 609-14 Pad	<b>North Reference:</b>	True
<b>Well:</b>	CC 697-08-54B	<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 609-14 Pad, Sec 9 T6S R97W			
Site Position:		Northing:	629,789.23 ft	Latitude:	39° 31' 50.765 N
From:	Map	Easting:	1,229,350.88 ft	Longitude:	108° 13' 57.172 W
Position Uncertainty:	0.00 ft	Slot Radius:	in	Grid Convergence:	-1.72 °

Well	CC 697-08-54B - Slot I					
Well Position	+N/-S	0.00 ft	Northing:	629,742.80 ft	Latitude:	39° 31' 50.304 N
	+E/-W	0.00 ft	Easting:	1,229,344.06 ft	Longitude:	108° 13' 57.241 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	8,393.00 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	12/8/2009	10.63	65.77	52,398

<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	284.56	

<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	
1,700.00	15.00	284.56	1,682.92	49.09	-188.96	1.00	1.00	0.00	284.56	CC 697-08-54B 8°
2,700.00	15.00	284.56	2,648.85	114.16	-439.46	0.00	0.00	0.00	0.00	
3,208.51	25.17	284.56	3,125.80	158.01	-608.26	2.00	2.00	0.00	0.00	
5,436.54	25.17	284.56	5,142.28	396.27	-1,525.42	0.00	0.00	0.00	0.00	
6,295.05	8.00	284.56	5,962.00	457.65	-1,761.71	2.00	-2.00	0.00	180.00	
8,238.97	8.00	284.56	7,887.00	525.68	-2,023.56	0.00	0.00	0.00	0.00	CC 697-08-54B 8°
9,089.24	8.00	284.56	8,729.00	555.43	-2,138.09	0.00	0.00	0.00	0.00	

# Scientific Drilling International

## Planning Report

<b>Database:</b>	EDM 2003.16 Multi-User Db	<b>Local Co-ordinate Reference:</b>	Well CC 697-08-54B - Slot I
<b>Company:</b>	OXY USA RMAT	<b>TVD Reference:</b>	GL 8393' & RKB 30' @ 8423.00ft (H&P 330)
<b>Project:</b>	Garfield County, CO NAD27	<b>MD Reference:</b>	GL 8393' & RKB 30' @ 8423.00ft (H&P 330)
<b>Site:</b>	Cascade Creek 609-14 Pad	<b>North Reference:</b>	True
<b>Well:</b>	CC 697-08-54B	<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 1.00</b>									
300.00	1.00	284.56	299.99	0.22	-0.84	0.87	1.00	1.00	0.00
400.00	2.00	284.56	399.96	0.88	-3.38	3.49	1.00	1.00	0.00
500.00	3.00	284.56	499.86	1.97	-7.60	7.85	1.00	1.00	0.00
600.00	4.00	284.56	599.68	3.51	-13.51	13.96	1.00	1.00	0.00
700.00	5.00	284.56	699.37	5.48	-21.10	21.80	1.00	1.00	0.00
800.00	6.00	284.56	798.90	7.89	-30.38	31.39	1.00	1.00	0.00
900.00	7.00	284.56	898.26	10.74	-41.34	42.71	1.00	1.00	0.00
1,000.00	8.00	284.56	997.40	14.02	-53.97	55.76	1.00	1.00	0.00
1,100.00	9.00	284.56	1,096.30	17.74	-68.27	70.54	1.00	1.00	0.00
1,200.00	10.00	284.56	1,194.93	21.89	-84.25	87.05	1.00	1.00	0.00
1,300.00	11.00	284.56	1,293.26	26.47	-101.89	105.27	1.00	1.00	0.00
1,400.00	12.00	284.56	1,391.25	31.48	-121.18	125.21	1.00	1.00	0.00
1,500.00	13.00	284.56	1,488.87	36.92	-142.13	146.85	1.00	1.00	0.00
1,600.00	14.00	284.56	1,586.11	42.79	-164.73	170.19	1.00	1.00	0.00
1,700.00	15.00	284.56	1,682.92	49.09	-188.96	195.23	1.00	1.00	0.00
<b>Start 15.00° Hold At 1700.00' MD</b>									
1,800.00	15.00	284.56	1,779.52	55.60	-214.01	221.11	0.00	0.00	0.00
1,900.00	15.00	284.56	1,876.11	62.10	-239.06	246.99	0.00	0.00	0.00
2,000.00	15.00	284.56	1,972.70	68.61	-264.11	272.88	0.00	0.00	0.00
2,100.00	15.00	284.56	2,069.29	75.12	-289.16	298.76	0.00	0.00	0.00
2,200.00	15.00	284.56	2,165.89	81.63	-314.21	324.64	0.00	0.00	0.00
2,300.00	15.00	284.56	2,262.48	88.13	-339.26	350.52	0.00	0.00	0.00
2,400.00	15.00	284.56	2,359.07	94.64	-364.31	376.40	0.00	0.00	0.00
2,500.00	15.00	284.56	2,455.66	101.15	-389.36	402.29	0.00	0.00	0.00
2,600.00	15.00	284.56	2,552.26	107.66	-414.41	428.17	0.00	0.00	0.00
2,700.00	15.00	284.56	2,648.85	114.16	-439.46	454.05	0.00	0.00	0.00
<b>Start Build 2.00</b>									
2,800.00	17.00	284.56	2,744.97	121.09	-466.14	481.61	2.00	2.00	0.00
2,900.00	19.00	284.56	2,840.07	128.86	-496.05	512.51	2.00	2.00	0.00
3,000.00	21.00	284.56	2,934.04	137.46	-529.15	546.71	2.00	2.00	0.00
3,100.00	23.00	284.56	3,026.75	146.88	-565.40	584.17	2.00	2.00	0.00
3,200.00	25.00	284.56	3,118.10	157.11	-604.77	624.84	2.00	2.00	0.00
3,208.51	25.17	284.56	3,125.80	158.01	-608.26	628.45	2.00	2.00	0.00
<b>Start 25.17° Hold At 3208.51' MD</b>									
3,300.00	25.17	284.56	3,208.61	167.80	-645.92	667.36	0.00	0.00	0.00
3,400.00	25.17	284.56	3,299.12	178.49	-687.09	709.89	0.00	0.00	0.00
3,500.00	25.17	284.56	3,389.62	189.18	-728.25	752.42	0.00	0.00	0.00
3,600.00	25.17	284.56	3,480.12	199.88	-769.42	794.95	0.00	0.00	0.00
3,700.00	25.17	284.56	3,570.63	210.57	-810.58	837.48	0.00	0.00	0.00
3,800.00	25.17	284.56	3,661.13	221.27	-851.74	880.02	0.00	0.00	0.00
3,900.00	25.17	284.56	3,751.64	231.96	-892.91	922.55	0.00	0.00	0.00
4,000.00	25.17	284.56	3,842.14	242.65	-934.07	965.08	0.00	0.00	0.00
4,100.00	25.17	284.56	3,932.65	253.35	-975.24	1,007.61	0.00	0.00	0.00
4,200.00	25.17	284.56	4,023.15	264.04	-1,016.40	1,050.14	0.00	0.00	0.00
4,300.00	25.17	284.56	4,113.66	274.73	-1,057.57	1,092.67	0.00	0.00	0.00
4,400.00	25.17	284.56	4,204.16	285.43	-1,098.73	1,135.20	0.00	0.00	0.00
4,500.00	25.17	284.56	4,294.67	296.12	-1,139.90	1,177.73	0.00	0.00	0.00
4,600.00	25.17	284.56	4,385.17	306.81	-1,181.06	1,220.26	0.00	0.00	0.00
4,700.00	25.17	284.56	4,475.68	317.51	-1,222.22	1,262.79	0.00	0.00	0.00

# Scientific Drilling International

## Planning Report

<b>Database:</b>	EDM 2003.16 Multi-User Db	<b>Local Co-ordinate Reference:</b>	Well CC 697-08-54B - Slot I
<b>Company:</b>	OXY USA RMAT	<b>TVD Reference:</b>	GL 8393' & RKB 30' @ 8423.00ft (H&P 330)
<b>Project:</b>	Garfield County, CO NAD27	<b>MD Reference:</b>	GL 8393' & RKB 30' @ 8423.00ft (H&P 330)
<b>Site:</b>	Cascade Creek 609-14 Pad	<b>North Reference:</b>	True
<b>Well:</b>	CC 697-08-54B	<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)
4,800.00	25.17	284.56	4,566.18	328.20	-1,263.39	1,305.32	0.00	0.00	0.00
4,900.00	25.17	284.56	4,656.69	338.90	-1,304.55	1,347.85	0.00	0.00	0.00
5,000.00	25.17	284.56	4,747.19	349.59	-1,345.72	1,390.38	0.00	0.00	0.00
5,100.00	25.17	284.56	4,837.70	360.28	-1,386.88	1,432.92	0.00	0.00	0.00
5,200.00	25.17	284.56	4,928.20	370.98	-1,428.05	1,475.45	0.00	0.00	0.00
5,300.00	25.17	284.56	5,018.71	381.67	-1,469.21	1,517.98	0.00	0.00	0.00
5,400.00	25.17	284.56	5,109.21	392.36	-1,510.38	1,560.51	0.00	0.00	0.00
5,436.54	25.17	284.56	5,142.28	396.27	-1,525.42	1,576.05	0.00	0.00	0.00
<b>Start Drop -2.00</b>									
5,500.00	23.90	284.56	5,200.01	402.90	-1,550.92	1,602.40	2.00	-2.00	0.00
5,600.00	21.90	284.56	5,292.13	412.68	-1,588.58	1,641.31	2.00	-2.00	0.00
5,700.00	19.90	284.56	5,385.54	421.65	-1,623.11	1,676.99	2.00	-2.00	0.00
5,800.00	17.90	284.56	5,480.14	429.79	-1,654.46	1,709.38	2.00	-2.00	0.00
5,900.00	15.90	284.56	5,575.82	437.10	-1,682.60	1,738.45	2.00	-2.00	0.00
6,000.00	13.90	284.56	5,672.45	443.57	-1,707.49	1,764.16	2.00	-2.00	0.00
6,100.00	11.90	284.56	5,769.92	449.18	-1,729.09	1,786.49	2.00	-2.00	0.00
6,101.10	11.88	284.56	5,771.00	449.24	-1,729.31	1,786.71	2.00	-2.00	0.00
<b>Mesaverde</b>									
6,200.00	9.90	284.56	5,868.11	453.94	-1,747.40	1,805.40	2.00	-2.00	0.00
6,295.05	8.00	284.56	5,962.00	457.65	-1,761.71	1,820.18	2.00	-2.00	0.00
<b>Start 8.00° Hold At 6295.05' MD - Williams Fork</b>									
6,300.00	8.00	284.56	5,966.90	457.83	-1,762.38	1,820.87	0.00	0.00	0.00
6,400.00	8.00	284.56	6,065.93	461.33	-1,775.85	1,834.79	0.00	0.00	0.00
6,500.00	8.00	284.56	6,164.96	464.83	-1,789.32	1,848.71	0.00	0.00	0.00
6,600.00	8.00	284.56	6,263.98	468.33	-1,802.79	1,862.62	0.00	0.00	0.00
6,700.00	8.00	284.56	6,363.01	471.82	-1,816.26	1,876.54	0.00	0.00	0.00
6,800.00	8.00	284.56	6,462.04	475.32	-1,829.73	1,890.46	0.00	0.00	0.00
6,900.00	8.00	284.56	6,561.06	478.82	-1,843.20	1,904.38	0.00	0.00	0.00
7,000.00	8.00	284.56	6,660.09	482.32	-1,856.67	1,918.29	0.00	0.00	0.00
7,100.00	8.00	284.56	6,759.12	485.82	-1,870.14	1,932.21	0.00	0.00	0.00
7,200.00	8.00	284.56	6,858.14	489.32	-1,883.61	1,946.13	0.00	0.00	0.00
7,300.00	8.00	284.56	6,957.17	492.82	-1,897.08	1,960.05	0.00	0.00	0.00
7,400.00	8.00	284.56	7,056.20	496.32	-1,910.55	1,973.96	0.00	0.00	0.00
7,500.00	8.00	284.56	7,155.23	499.82	-1,924.02	1,987.88	0.00	0.00	0.00
7,600.00	8.00	284.56	7,254.25	503.32	-1,937.49	2,001.80	0.00	0.00	0.00
7,700.00	8.00	284.56	7,353.28	506.82	-1,950.96	2,015.71	0.00	0.00	0.00
7,800.00	8.00	284.56	7,452.31	510.32	-1,964.43	2,029.63	0.00	0.00	0.00
7,900.00	8.00	284.56	7,551.33	513.82	-1,977.90	2,043.55	0.00	0.00	0.00
8,000.00	8.00	284.56	7,650.36	517.32	-1,991.37	2,057.47	0.00	0.00	0.00
8,100.00	8.00	284.56	7,749.39	520.81	-2,004.84	2,071.38	0.00	0.00	0.00
8,200.00	8.00	284.56	7,848.41	524.31	-2,018.31	2,085.30	0.00	0.00	0.00
8,238.97	8.00	284.56	7,887.00	525.68	-2,023.56	2,090.72	0.00	0.00	0.00
<b>Target = 630329.10, 1227337.23 - CC 697-08-54B 8° - CC 697-08-54B 8°</b>									
8,300.00	8.00	284.56	7,947.44	527.81	-2,031.78	2,099.22	0.00	0.00	0.00
8,400.00	8.00	284.56	8,046.47	531.31	-2,045.25	2,113.14	0.00	0.00	0.00
8,500.00	8.00	284.56	8,145.49	534.81	-2,058.72	2,127.05	0.00	0.00	0.00
8,600.00	8.00	284.56	8,244.52	538.31	-2,072.19	2,140.97	0.00	0.00	0.00
8,700.00	8.00	284.56	8,343.55	541.81	-2,085.66	2,154.89	0.00	0.00	0.00
8,800.00	8.00	284.56	8,442.57	545.31	-2,099.13	2,168.80	0.00	0.00	0.00
8,887.28	8.00	284.56	8,529.00	548.36	-2,110.89	2,180.95	0.00	0.00	0.00
<b>Rollins</b>									
8,900.00	8.00	284.56	8,541.60	548.81	-2,112.60	2,182.72	0.00	0.00	0.00
9,000.00	8.00	284.56	8,640.63	552.31	-2,126.07	2,196.64	0.00	0.00	0.00

# Scientific Drilling International

## Planning Report

<b>Database:</b>	EDM 2003.16 Multi-User Db	<b>Local Co-ordinate Reference:</b>	Well CC 697-08-54B - Slot I
<b>Company:</b>	OXY USA RMAT	<b>TVD Reference:</b>	GL 8393' & RKB 30' @ 8423.00ft (H&P 330)
<b>Project:</b>	Garfield County, CO NAD27	<b>MD Reference:</b>	GL 8393' & RKB 30' @ 8423.00ft (H&P 330)
<b>Site:</b>	Cascade Creek 609-14 Pad	<b>North Reference:</b>	True
<b>Well:</b>	CC 697-08-54B	<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)
9,089.24	8.00	284.56	8,729.00	555.43	-2,138.09	2,209.06	0.00	0.00	0.00
PBHL = 630362.28, 1227223.64									

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
CC 697-08-54B 8° - hit/miss target - Shape - plan hits target center - Circle (radius 50.00)	-8.00	284.56	7,887.00	525.68	-2,023.56	630,329.10	1,227,337.23	39° 31' 55.499 N	108° 14' 23.068 W

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
6,101.10	5,771.00	Mesaverde		0.00		
6,295.05	5,962.00	Williams Fork		0.00		
8,887.28	8,529.00	Rollins		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 1.00
1,700.00	1,682.92	49.09	-188.96	Start 15.00° Hold At 1700.00' MD
2,700.00	2,648.85	114.16	-439.46	Start Build 2.00
3,208.51	3,125.80	158.01	-608.26	Start 25.17° Hold At 3208.51' MD
5,436.54	5,142.28	396.27	-1,525.42	Start Drop -2.00
6,295.05	5,962.00	457.65	-1,761.71	Start 8.00° Hold At 6295.05' MD
8,238.97	7,887.00	525.68	-2,023.56	Target = 630329.10, 1227337.23
9,089.24	8,729.00	555.43	-2,138.09	PBHL = 630362.28, 1227223.64