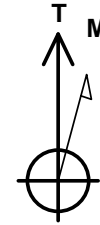


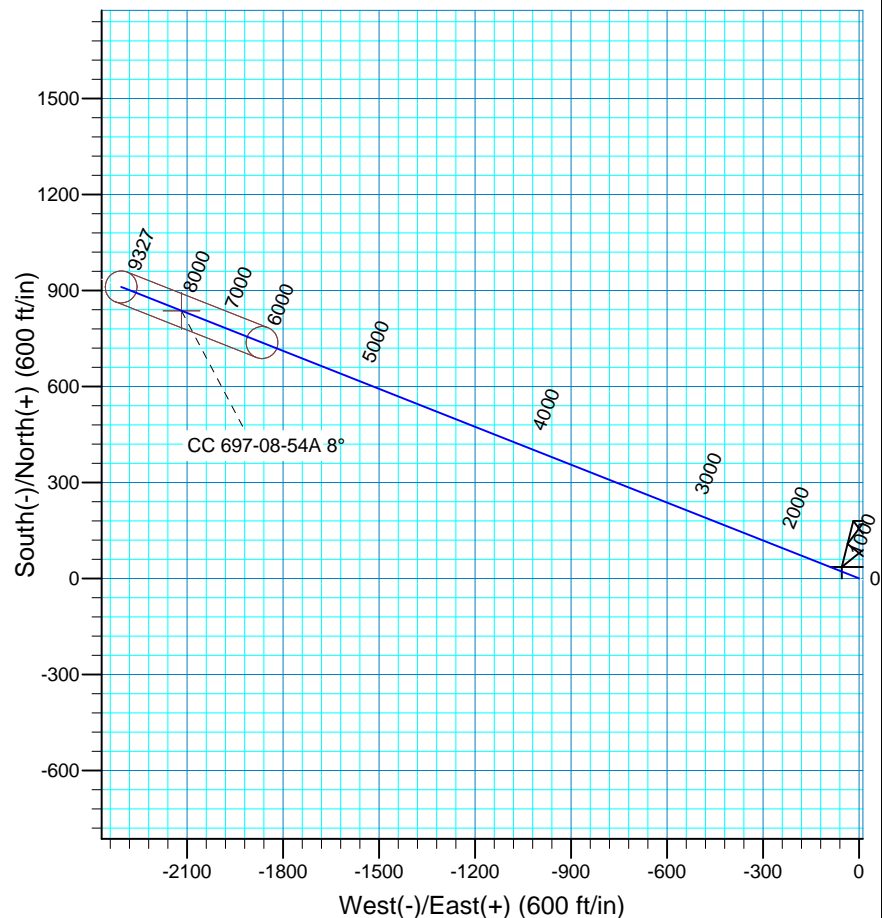
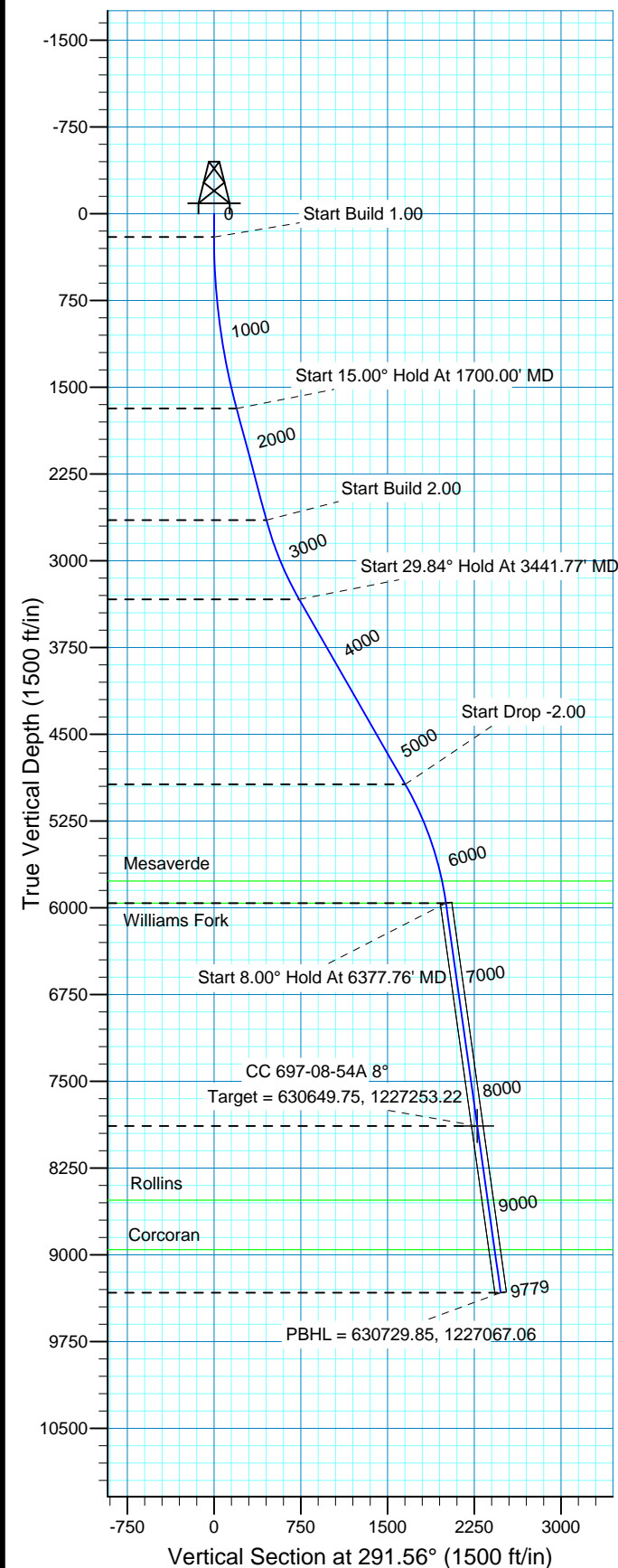
## WELL DETAILS: CC 697-08-54A

+N/-S	+E/-W	GL 8393' & RKB 30' @ 8423.00ft (H&P 330)	8393.00	Slot
0.00	0.00	Northing	Easting	Latitude
		629750.16	1229344.06	39° 31' 50.377 N
				Longitude
				108° 13' 57.244 W



Azimuths to True North  
Magnetic North: 10.63°

Magnetic Field  
Strength: 52398.2snT  
Dip Angle: 65.77°  
Date: 12/8/2009  
Model: IGRF2005-10



## FORMATION TOP DETAILS

TVDPathMDPath	Formation
5768.006183.82	Mesaverde
5959.006377.77	Williams Fork
8527.008971.00	Rollins
8955.009403.21	Corcoran

Plan: Plan #1 (CC 697-08-54A/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	291.56	1682.92	71.73	-181.58	1.00	291.56	195.23	CC 697-08-54A 8°
4	2700.00	15.00	291.56	2648.85	166.83	-422.29	0.00	0.00	454.05	
5	3441.77	29.84	291.56	3332.64	270.47	-684.65	2.00	0.00	736.14	
6	5286.00	29.84	291.56	4932.44	607.59	-1537.99	0.00	0.00	1653.66	
7	6377.76	8.00	291.56	5959.00	736.85	-1865.21	2.00	180.00	2005.48	
8	8322.69	8.00	291.56	7885.00	836.31	-2116.96	0.00	0.00	2276.16	CC 697-08-54A 8°
9	9778.86	8.00	291.56	9327.00	910.77	-2305.44	0.00	0.00	2478.82	

# **OXY USA RMAT**

**Garfield County, CO NAD27**

**Cascade Creek 609-14 Pad**

**CC 697-08-54A - Slot G**

**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 697-08-54A - Slot G
<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 697-08-54A	<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		

<b>Site</b>	Cascade Creek 609-14 Pad, Sec 9 T6S R97W		
<b>Site Position:</b>		<b>Northing:</b>	629,789.23 ft
<b>From:</b>	Map	<b>Easting:</b>	1,229,350.88 ft
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	in
		<b>Latitude:</b>	39° 31' 50.765 N
		<b>Longitude:</b>	108° 13' 57.172 W
		<b>Grid Convergence:</b>	-1.72 °

<b>Well</b>	CC 697-08-54A - Slot G		
<b>Well Position</b>	<b>+N/-S</b>	0.00 ft	<b>Northing:</b> 629,750.16 ft
	<b>+E/-W</b>	0.00 ft	<b>Easting:</b> 1,229,344.06 ft
<b>Position Uncertainty</b>	0.00 ft	<b>Wellhead Elevation:</b>	ft
		<b>Latitude:</b>	39° 31' 50.377 N
		<b>Longitude:</b>	108° 13' 57.244 W
		<b>Ground Level:</b>	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</b>
			(°)	(°)	(nT)
	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)</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Direction</b>
	(ft)	(ft)	(ft)	(°)
	0.00	0.00	0.00	291.56

<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	291.56	1,682.92	71.73	-181.58	1.00	1.00	0.00	291.56	CC 697-08-54A 8°
2,700.00	15.00	291.56	2,648.85	166.83	-422.29	0.00	0.00	0.00	0.00	
3,441.77	29.84	291.56	3,332.64	270.47	-684.65	2.00	2.00	0.00	0.00	
5,286.00	29.84	291.56	4,932.44	607.59	-1,537.99	0.00	0.00	0.00	0.00	
6,377.76	8.00	291.56	5,959.00	736.85	-1,865.21	2.00	-2.00	0.00	180.00	
8,322.69	8.00	291.56	7,885.00	836.31	-2,116.96	0.00	0.00	0.00	0.00	CC 697-08-54A 8°
9,778.86	8.00	291.56	9,327.00	910.77	-2,305.44	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 697-08-54A - Slot G
<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 697-08-54A	<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	291.56	299.99	0.32	-0.81	0.87	1.00	1.00	0.00
400.00	2.00	291.56	399.96	1.28	-3.25	3.49	1.00	1.00	0.00
500.00	3.00	291.56	499.86	2.89	-7.30	7.85	1.00	1.00	0.00
600.00	4.00	291.56	599.68	5.13	-12.98	13.96	1.00	1.00	0.00
700.00	5.00	291.56	699.37	8.01	-20.28	21.80	1.00	1.00	0.00
800.00	6.00	291.56	798.90	11.53	-29.19	31.39	1.00	1.00	0.00
900.00	7.00	291.56	898.26	15.69	-39.72	42.71	1.00	1.00	0.00
1,000.00	8.00	291.56	997.40	20.49	-51.86	55.76	1.00	1.00	0.00
1,100.00	9.00	291.56	1,096.30	25.92	-65.61	70.54	1.00	1.00	0.00
1,200.00	10.00	291.56	1,194.93	31.98	-80.96	87.05	1.00	1.00	0.00
1,300.00	11.00	291.56	1,293.26	38.68	-97.91	105.27	1.00	1.00	0.00
1,400.00	12.00	291.56	1,391.25	46.00	-116.45	125.21	1.00	1.00	0.00
1,500.00	13.00	291.56	1,488.87	53.96	-136.58	146.85	1.00	1.00	0.00
1,600.00	14.00	291.56	1,586.11	62.53	-158.29	170.19	1.00	1.00	0.00
1,700.00	15.00	291.56	1,682.92	71.73	-181.58	195.23	1.00	1.00	0.00
<b>Start 15.00° Hold At 1700.00' MD</b>									
1,800.00	15.00	291.56	1,779.52	81.24	-205.65	221.11	0.00	0.00	0.00
1,900.00	15.00	291.56	1,876.11	90.75	-229.72	246.99	0.00	0.00	0.00
2,000.00	15.00	291.56	1,972.70	100.26	-253.79	272.88	0.00	0.00	0.00
2,100.00	15.00	291.56	2,069.29	109.77	-277.86	298.76	0.00	0.00	0.00
2,200.00	15.00	291.56	2,165.89	119.28	-301.93	324.64	0.00	0.00	0.00
2,300.00	15.00	291.56	2,262.48	128.79	-326.00	350.52	0.00	0.00	0.00
2,400.00	15.00	291.56	2,359.07	138.30	-350.08	376.40	0.00	0.00	0.00
2,500.00	15.00	291.56	2,455.66	147.81	-374.15	402.29	0.00	0.00	0.00
2,600.00	15.00	291.56	2,552.26	157.32	-398.22	428.17	0.00	0.00	0.00
2,700.00	15.00	291.56	2,648.85	166.83	-422.29	454.05	0.00	0.00	0.00
<b>Start Build 2.00</b>									
2,800.00	17.00	291.56	2,744.97	176.95	-447.93	481.61	2.00	2.00	0.00
2,900.00	19.00	291.56	2,840.07	188.31	-476.66	512.51	2.00	2.00	0.00
3,000.00	21.00	291.56	2,934.04	200.87	-508.47	546.71	2.00	2.00	0.00
3,100.00	23.00	291.56	3,026.75	214.64	-543.31	584.17	2.00	2.00	0.00
3,200.00	25.00	291.56	3,118.10	229.58	-581.14	624.84	2.00	2.00	0.00
3,300.00	27.00	291.56	3,207.97	245.69	-621.91	668.68	2.00	2.00	0.00
3,400.00	29.00	291.56	3,296.27	262.93	-665.57	715.62	2.00	2.00	0.00
3,441.77	29.84	291.56	3,332.64	270.47	-684.65	736.14	2.00	2.00	0.00
<b>Start 29.84° Hold At 3441.77' MD</b>									
3,500.00	29.84	291.56	3,383.16	281.12	-711.59	765.11	0.00	0.00	0.00
3,600.00	29.84	291.56	3,469.91	299.40	-757.86	814.86	0.00	0.00	0.00
3,700.00	29.84	291.56	3,556.65	317.68	-804.14	864.61	0.00	0.00	0.00
3,800.00	29.84	291.56	3,643.40	335.95	-850.41	914.36	0.00	0.00	0.00
3,900.00	29.84	291.56	3,730.14	354.23	-896.68	964.11	0.00	0.00	0.00
4,000.00	29.84	291.56	3,816.89	372.51	-942.95	1,013.86	0.00	0.00	0.00
4,100.00	29.84	291.56	3,903.64	390.79	-989.22	1,063.61	0.00	0.00	0.00
4,200.00	29.84	291.56	3,990.38	409.07	-1,035.49	1,113.36	0.00	0.00	0.00
4,300.00	29.84	291.56	4,077.13	427.35	-1,081.76	1,163.12	0.00	0.00	0.00
4,400.00	29.84	291.56	4,163.87	445.63	-1,128.03	1,212.87	0.00	0.00	0.00
4,500.00	29.84	291.56	4,250.62	463.91	-1,174.30	1,262.62	0.00	0.00	0.00
4,600.00	29.84	291.56	4,337.37	482.19	-1,220.57	1,312.37	0.00	0.00	0.00
4,700.00	29.84	291.56	4,424.11	500.47	-1,266.85	1,362.12	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 697-08-54A - Slot G
<b>Company:</b>	OXY USA RMAT	<b>TVD Reference:</b>	GL 8393' & RKB 30' @ 8423.00ft (H&P 330)
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<b>Site:</b>	Cascade Creek 609-14 Pad	<b>North Reference:</b>	True
<b>Well:</b>	CC 697-08-54A	<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	29.84	291.56	4,510.86	518.75	-1,313.12	1,411.87	0.00	0.00	0.00
4,900.00	29.84	291.56	4,597.60	537.03	-1,359.39	1,461.62	0.00	0.00	0.00
5,000.00	29.84	291.56	4,684.35	555.31	-1,405.66	1,511.37	0.00	0.00	0.00
5,100.00	29.84	291.56	4,771.10	573.59	-1,451.93	1,561.12	0.00	0.00	0.00
5,200.00	29.84	291.56	4,857.84	591.87	-1,498.20	1,610.87	0.00	0.00	0.00
5,286.00	29.84	291.56	4,932.44	607.59	-1,537.99	1,653.66	0.00	0.00	0.00
Start Drop -2.00									
5,300.00	29.56	291.56	4,944.60	610.14	-1,544.44	1,660.59	2.00	-2.00	0.00
5,400.00	27.56	291.56	5,032.44	627.70	-1,588.90	1,708.39	2.00	-2.00	0.00
5,500.00	25.56	291.56	5,121.88	644.12	-1,630.48	1,753.10	2.00	-2.00	0.00
5,600.00	23.56	291.56	5,212.83	659.39	-1,669.12	1,794.65	2.00	-2.00	0.00
5,700.00	21.56	291.56	5,305.18	673.48	-1,704.80	1,833.01	2.00	-2.00	0.00
5,800.00	19.56	291.56	5,398.81	686.38	-1,737.45	1,868.12	2.00	-2.00	0.00
5,900.00	17.56	291.56	5,493.60	698.08	-1,767.05	1,899.94	2.00	-2.00	0.00
6,000.00	15.56	291.56	5,589.45	708.54	-1,793.55	1,928.43	2.00	-2.00	0.00
6,100.00	13.56	291.56	5,686.24	717.78	-1,816.92	1,953.56	2.00	-2.00	0.00
6,183.82	11.88	291.56	5,768.00	724.56	-1,834.08	1,972.01	2.00	-2.00	0.00
Mesaverde									
6,200.00	11.56	291.56	5,783.84	725.76	-1,837.13	1,975.30	2.00	-2.00	0.00
6,300.00	9.56	291.56	5,882.15	732.49	-1,854.17	1,993.61	2.00	-2.00	0.00
6,377.77	8.00	291.56	5,959.00	736.85	-1,865.21	2,005.48	2.00	-2.00	0.00
Start 8.00° Hold At 6377.76' MD - Williams Fork									
6,400.00	8.00	291.56	5,981.02	737.99	-1,868.09	2,008.57	0.00	0.00	0.00
6,500.00	8.00	291.56	6,080.04	743.10	-1,881.03	2,022.49	0.00	0.00	0.00
6,600.00	8.00	291.56	6,179.07	748.22	-1,893.97	2,036.41	0.00	0.00	0.00
6,700.00	8.00	291.56	6,278.10	753.33	-1,906.92	2,050.33	0.00	0.00	0.00
6,800.00	8.00	291.56	6,377.12	758.44	-1,919.86	2,064.24	0.00	0.00	0.00
6,900.00	8.00	291.56	6,476.15	763.56	-1,932.80	2,078.16	0.00	0.00	0.00
7,000.00	8.00	291.56	6,575.18	768.67	-1,945.75	2,092.08	0.00	0.00	0.00
7,100.00	8.00	291.56	6,674.20	773.79	-1,958.69	2,106.00	0.00	0.00	0.00
7,200.00	8.00	291.56	6,773.23	778.90	-1,971.64	2,119.91	0.00	0.00	0.00
7,300.00	8.00	291.56	6,872.26	784.01	-1,984.58	2,133.83	0.00	0.00	0.00
7,400.00	8.00	291.56	6,971.28	789.13	-1,997.52	2,147.75	0.00	0.00	0.00
7,500.00	8.00	291.56	7,070.31	794.24	-2,010.47	2,161.67	0.00	0.00	0.00
7,600.00	8.00	291.56	7,169.34	799.35	-2,023.41	2,175.58	0.00	0.00	0.00
7,700.00	8.00	291.56	7,268.37	804.47	-2,036.36	2,189.50	0.00	0.00	0.00
7,800.00	8.00	291.56	7,367.39	809.58	-2,049.30	2,203.42	0.00	0.00	0.00
7,900.00	8.00	291.56	7,466.42	814.69	-2,062.24	2,217.33	0.00	0.00	0.00
8,000.00	8.00	291.56	7,565.45	819.81	-2,075.19	2,231.25	0.00	0.00	0.00
8,100.00	8.00	291.56	7,664.47	824.92	-2,088.13	2,245.17	0.00	0.00	0.00
8,200.00	8.00	291.56	7,763.50	830.03	-2,101.07	2,259.09	0.00	0.00	0.00
8,300.00	8.00	291.56	7,862.53	835.15	-2,114.02	2,273.00	0.00	0.00	0.00
8,322.69	8.00	291.56	7,885.00	836.31	-2,116.96	2,276.16	0.00	0.00	0.00
Target = 630649.75, 1227253.22 - CC 697-08-54A 8° - CC 697-08-54A 8°									
8,400.00	8.00	291.56	7,961.55	840.26	-2,126.96	2,286.92	0.00	0.00	0.00
8,500.00	8.00	291.56	8,060.58	845.37	-2,139.91	2,300.84	0.00	0.00	0.00
8,600.00	8.00	291.56	8,159.61	850.49	-2,152.85	2,314.76	0.00	0.00	0.00
8,700.00	8.00	291.56	8,258.63	855.60	-2,165.79	2,328.67	0.00	0.00	0.00
8,800.00	8.00	291.56	8,357.66	860.71	-2,178.74	2,342.59	0.00	0.00	0.00
8,900.00	8.00	291.56	8,456.69	865.83	-2,191.68	2,356.51	0.00	0.00	0.00
8,971.00	8.00	291.56	8,527.00	869.46	-2,200.87	2,366.39	0.00	0.00	0.00
Rollins									
9,000.00	8.00	291.56	8,555.71	870.94	-2,204.63	2,370.43	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 697-08-54A - Slot G
<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 697-08-54A	<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)
9,100.00	8.00	291.56	8,654.74	876.06	-2,217.57	2,384.34	0.00	0.00	0.00
9,200.00	8.00	291.56	8,753.77	881.17	-2,230.51	2,398.26	0.00	0.00	0.00
9,300.00	8.00	291.56	8,852.79	886.28	-2,243.46	2,412.18	0.00	0.00	0.00
9,400.00	8.00	291.56	8,951.82	891.40	-2,256.40	2,426.09	0.00	0.00	0.00
9,403.21	8.00	291.56	8,955.00	891.56	-2,256.82	2,426.54	0.00	0.00	0.00
<b>Corcoran</b>									
9,500.00	8.00	291.56	9,050.85	896.51	-2,269.35	2,440.01	0.00	0.00	0.00
9,600.00	8.00	291.56	9,149.87	901.62	-2,282.29	2,453.93	0.00	0.00	0.00
9,700.00	8.00	291.56	9,248.90	906.74	-2,295.23	2,467.85	0.00	0.00	0.00
9,778.86	8.00	291.56	9,327.00	910.77	-2,305.44	2,478.82	0.00	0.00	0.00
<b>PBHL = 630729.85, 1227067.06</b>									

Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
CC 697-08-54A 8° - plan hits target center - Circle (radius 50.00)	-8.00	291.56	7,885.00	836.31	-2,116.96	630,649.75	1,227,253.22	39° 31' 58.642 N	108° 14' 24.263 W

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
6,183.82	5,768.00	Mesaverde		0.00	
6,377.77	5,959.00	Williams Fork		0.00	
8,971.00	8,527.00	Rollins		0.00	
9,403.21	8,955.00	Corcoran		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	71.73	-181.58	Start 15.00° Hold At 1700.00' MD
2,700.00	2,648.85	166.83	-422.29	Start Build 2.00
3,441.77	3,332.64	270.47	-684.65	Start 29.84° Hold At 3441.77' MD
5,286.00	4,932.44	607.59	-1,537.99	Start Drop -2.00
6,377.76	5,959.00	736.85	-1,865.21	Start 8.00° Hold At 6377.76' MD
8,322.69	7,885.00	836.31	-2,116.96	Target = 630649.75, 1227253.22
9,778.86	9,327.00	910.77	-2,305.44	PBHL = 630729.85, 1227067.06