

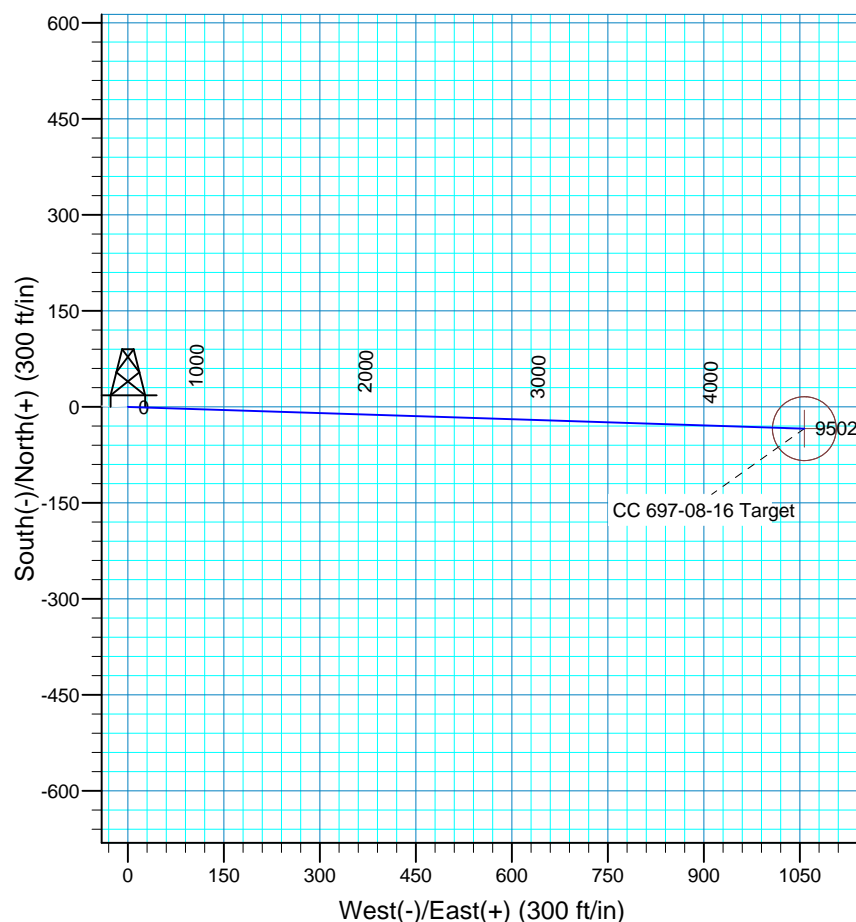
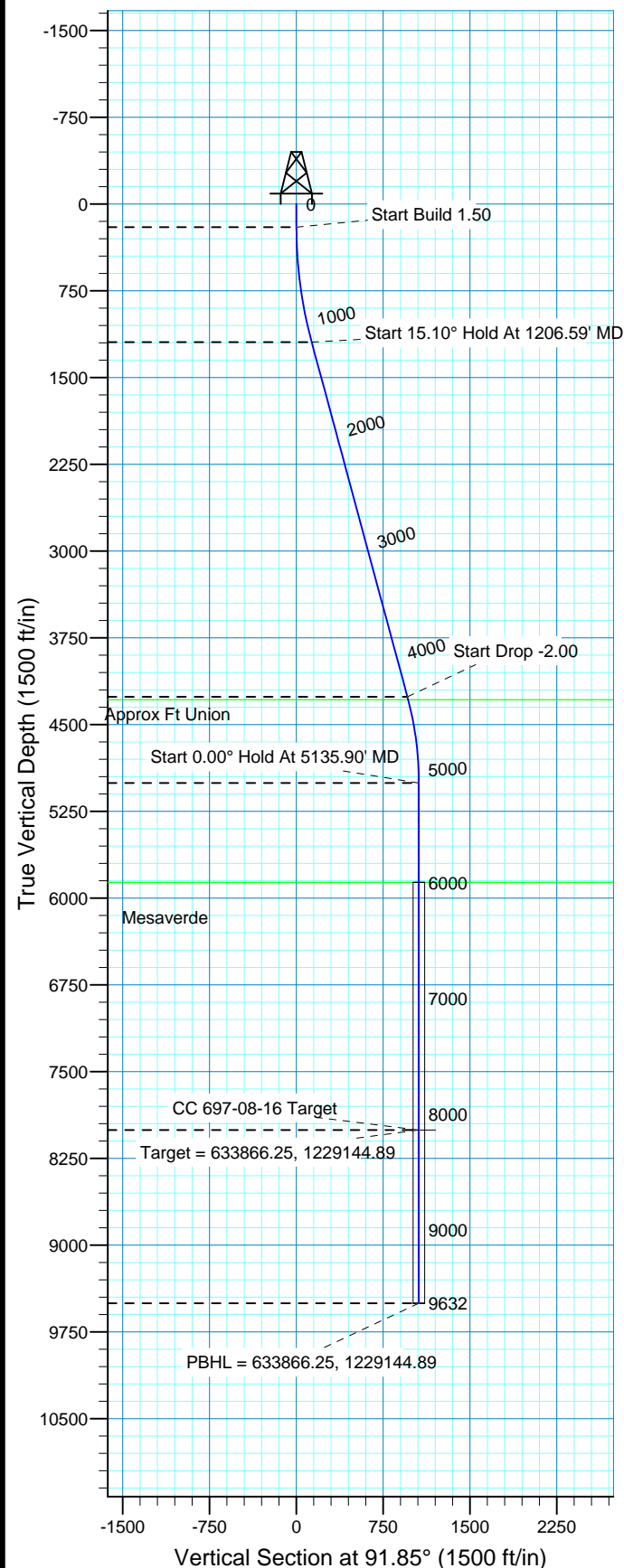
WELL DETAILS: CC 697-08-16

GL 8411' & RKB 30' @ 8441.00ft 8411.00
+N/-S +E/-W Northing Easting Latitude Longitude Slot
0.00 0.00 633932.16 1228089.31 39° 32' 31.318 N 108° 14' 14.859 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 4408.10 Approx Ft Union
5864.00 5993.90 Mesaverde

Plan: Plan #3 (CC 697-08-16/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	1206.59	15.10	91.85	1194.98	-4.25	131.80	1.50	91.85	131.86	
4	4380.96	15.10	91.85	4259.77	-30.89	958.24	0.00	0.00	958.74	
5	5135.90	0.00	0.00	5006.00	-34.08	1057.09	2.00	180.00	1057.64	
6	8135.90	0.00	0.00	8006.00	-34.08	1057.09	0.00	0.00	1057.64	CC 697-08-16 Target
7	9631.90	0.00	0.00	9502.00	-34.08	1057.09	0.00	0.00	1057.64	



OXY USA RMAT

Garfield County, CO NAD27

Cascade Creek 608-41 Pad

CC 697-08-16

OH

Plan: Plan #3

Standard Planning Report

24 June, 2010



Database:	EDM 2003.16 Multi-User Db	Local Co-ordinate Reference:	Well CC 697-08-16
Company:	OXY USA RMAT	TVD Reference:	GL 8411' & RKB 30' @ 8441.00ft
Project:	Garfield County, CO NAD27	MD Reference:	GL 8411' & RKB 30' @ 8441.00ft
Site:	Cascade Creek 608-41 Pad	North Reference:	True
Well:	CC 697-08-16	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #3		

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

Site	Cascade Creek 608-41 Pad, S Ection 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 697-08-16,					
Well Position	+N/-S	0.00 ft	Northing:	633,932.16 ft	Latitude:	39° 32' 31.318 N
	+E/-W	0.00 ft	Easting:	1,228,089.31 ft	Longitude:	108° 14' 14.859 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	8,411.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2005-10	2008/10/15	10.79	65.81	52,515

Design	Plan #3				
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	91.85	

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	
1,206.59	15.10	91.85	1,194.98	-4.25	131.80	1.50	1.50	0.00	91.85	
4,380.96	15.10	91.85	4,259.77	-30.89	958.24	0.00	0.00	0.00	0.00	
5,135.90	0.00	0.00	5,006.00	-34.08	1,057.09	2.00	-2.00	0.00	180.00	
8,135.90	0.00	0.00	8,006.00	-34.08	1,057.09	0.00	0.00	0.00	0.00	CC 697-08-16 Target
9,631.90	0.00	0.00	9,502.00	-34.08	1,057.09	0.00	0.00	0.00	0.00	

Database:	EDM 2003.16 Multi-User Db	Local Co-ordinate Reference:	Well CC 697-08-16
Company:	OXY USA RMAT	TVD Reference:	GL 8411' & RKB 30' @ 8441.00ft
Project:	Garfield County, CO NAD27	MD Reference:	GL 8411' & RKB 30' @ 8441.00ft
Site:	Cascade Creek 608-41 Pad	North Reference:	True
Well:	CC 697-08-16	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #3		

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 1.50									
300.00	1.50	91.85	299.99	-0.04	1.31	1.31	1.50	1.50	0.00
400.00	3.00	91.85	399.91	-0.17	5.23	5.23	1.50	1.50	0.00
500.00	4.50	91.85	499.69	-0.38	11.77	11.77	1.50	1.50	0.00
600.00	6.00	91.85	599.27	-0.67	20.91	20.92	1.50	1.50	0.00
700.00	7.50	91.85	698.57	-1.05	32.66	32.68	1.50	1.50	0.00
800.00	9.00	91.85	797.54	-1.52	47.00	47.03	1.50	1.50	0.00
900.00	10.50	91.85	896.09	-2.06	63.93	63.96	1.50	1.50	0.00
1,000.00	12.00	91.85	994.16	-2.69	83.43	83.47	1.50	1.50	0.00
1,100.00	13.50	91.85	1,091.70	-3.40	105.48	105.54	1.50	1.50	0.00
1,200.00	15.00	91.85	1,188.62	-4.19	130.09	130.15	1.50	1.50	0.00
1,206.59	15.10	91.85	1,194.98	-4.25	131.80	131.86	1.50	1.50	0.00
Start 15.10° Hold At 1206.59' MD									
1,300.00	15.10	91.85	1,285.17	-5.03	156.12	156.20	0.00	0.00	0.00
1,400.00	15.10	91.85	1,381.71	-5.87	182.15	182.25	0.00	0.00	0.00
1,500.00	15.10	91.85	1,478.26	-6.71	208.19	208.29	0.00	0.00	0.00
1,600.00	15.10	91.85	1,574.81	-7.55	234.22	234.34	0.00	0.00	0.00
1,700.00	15.10	91.85	1,671.36	-8.39	260.26	260.39	0.00	0.00	0.00
1,800.00	15.10	91.85	1,767.90	-9.23	286.29	286.44	0.00	0.00	0.00
1,900.00	15.10	91.85	1,864.45	-10.07	312.32	312.49	0.00	0.00	0.00
2,000.00	15.10	91.85	1,961.00	-10.91	338.36	338.54	0.00	0.00	0.00
2,100.00	15.10	91.85	2,057.55	-11.75	364.39	364.58	0.00	0.00	0.00
2,200.00	15.10	91.85	2,154.10	-12.59	390.43	390.63	0.00	0.00	0.00
2,300.00	15.10	91.85	2,250.64	-13.43	416.46	416.68	0.00	0.00	0.00
2,400.00	15.10	91.85	2,347.19	-14.27	442.50	442.73	0.00	0.00	0.00
2,500.00	15.10	91.85	2,443.74	-15.10	468.53	468.78	0.00	0.00	0.00
2,600.00	15.10	91.85	2,540.29	-15.94	494.57	494.83	0.00	0.00	0.00
2,700.00	15.10	91.85	2,636.83	-16.78	520.60	520.87	0.00	0.00	0.00
2,800.00	15.10	91.85	2,733.38	-17.62	546.64	546.92	0.00	0.00	0.00
2,900.00	15.10	91.85	2,829.93	-18.46	572.67	572.97	0.00	0.00	0.00
3,000.00	15.10	91.85	2,926.48	-19.30	598.71	599.02	0.00	0.00	0.00
3,100.00	15.10	91.85	3,023.03	-20.14	624.74	625.07	0.00	0.00	0.00
3,200.00	15.10	91.85	3,119.57	-20.98	650.78	651.12	0.00	0.00	0.00
3,300.00	15.10	91.85	3,216.12	-21.82	676.81	677.16	0.00	0.00	0.00
3,400.00	15.10	91.85	3,312.67	-22.66	702.85	703.21	0.00	0.00	0.00
3,500.00	15.10	91.85	3,409.22	-23.50	728.88	729.26	0.00	0.00	0.00
3,600.00	15.10	91.85	3,505.76	-24.34	754.92	755.31	0.00	0.00	0.00
3,700.00	15.10	91.85	3,602.31	-25.18	780.95	781.36	0.00	0.00	0.00
3,800.00	15.10	91.85	3,698.86	-26.02	806.99	807.41	0.00	0.00	0.00
3,900.00	15.10	91.85	3,795.41	-26.86	833.02	833.46	0.00	0.00	0.00
4,000.00	15.10	91.85	3,891.96	-27.69	859.06	859.50	0.00	0.00	0.00
4,100.00	15.10	91.85	3,988.50	-28.53	885.09	885.55	0.00	0.00	0.00
4,200.00	15.10	91.85	4,085.05	-29.37	911.13	911.60	0.00	0.00	0.00
4,300.00	15.10	91.85	4,181.60	-30.21	937.16	937.65	0.00	0.00	0.00
4,380.96	15.10	91.85	4,259.77	-30.89	958.24	958.74	0.00	0.00	0.00
Start Drop -2.00									
4,400.00	14.72	91.85	4,278.16	-31.05	963.14	963.64	2.00	-2.00	0.00
4,408.10	14.56	91.85	4,286.00	-31.12	965.18	965.68	2.00	-2.00	0.00
Approx Ft Union									
4,500.00	12.72	91.85	4,375.31	-31.81	986.84	987.35	2.00	-2.00	0.00

Database:	EDM 2003.16 Multi-User Db	Local Co-ordinate Reference:	Well CC 697-08-16
Company:	OXY USA RMAT	TVD Reference:	GL 8411' & RKB 30' @ 8441.00ft
Project:	Garfield County, CO NAD27	MD Reference:	GL 8411' & RKB 30' @ 8441.00ft
Site:	Cascade Creek 608-41 Pad	North Reference:	True
Well:	CC 697-08-16	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #3		

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	10.72	91.85	4,473.22	-32.47	1,007.13	1,007.66	2.00	-2.00	0.00
4,700.00	8.72	91.85	4,571.78	-33.01	1,024.01	1,024.54	2.00	-2.00	0.00
4,800.00	6.72	91.85	4,670.87	-33.44	1,037.43	1,037.97	2.00	-2.00	0.00
4,900.00	4.72	91.85	4,770.36	-33.77	1,047.39	1,047.93	2.00	-2.00	0.00
5,000.00	2.72	91.85	4,870.15	-33.97	1,053.87	1,054.41	2.00	-2.00	0.00
5,100.00	0.72	91.85	4,970.10	-34.07	1,056.86	1,057.41	2.00	-2.00	0.00
5,135.90	0.00	0.00	5,006.00	-34.08	1,057.09	1,057.64	2.00	-2.00	0.00
Start 0.00° Hold At 5135.90' MD									
5,200.00	0.00	0.00	5,070.10	-34.08	1,057.09	1,057.64	0.00	0.00	0.00
5,300.00	0.00	0.00	5,170.10	-34.08	1,057.09	1,057.64	0.00	0.00	0.00
5,400.00	0.00	0.00	5,270.10	-34.08	1,057.09	1,057.64	0.00	0.00	0.00
5,500.00	0.00	0.00	5,370.10	-34.08	1,057.09	1,057.64	0.00	0.00	0.00
5,600.00	0.00	0.00	5,470.10	-34.08	1,057.09	1,057.64	0.00	0.00	0.00
5,700.00	0.00	0.00	5,570.10	-34.08	1,057.09	1,057.64	0.00	0.00	0.00
5,800.00	0.00	0.00	5,670.10	-34.08	1,057.09	1,057.64	0.00	0.00	0.00
5,900.00	0.00	0.00	5,770.10	-34.08	1,057.09	1,057.64	0.00	0.00	0.00
5,993.90	0.00	0.00	5,864.00	-34.08	1,057.09	1,057.64	0.00	0.00	0.00
Mesaverde									
6,000.00	0.00	0.00	5,870.10	-34.08	1,057.09	1,057.64	0.00	0.00	0.00
6,100.00	0.00	0.00	5,970.10	-34.08	1,057.09	1,057.64	0.00	0.00	0.00
6,200.00	0.00	0.00	6,070.10	-34.08	1,057.09	1,057.64	0.00	0.00	0.00
6,300.00	0.00	0.00	6,170.10	-34.08	1,057.09	1,057.64	0.00	0.00	0.00
6,400.00	0.00	0.00	6,270.10	-34.08	1,057.09	1,057.64	0.00	0.00	0.00
6,500.00	0.00	0.00	6,370.10	-34.08	1,057.09	1,057.64	0.00	0.00	0.00
6,600.00	0.00	0.00	6,470.10	-34.08	1,057.09	1,057.64	0.00	0.00	0.00
6,700.00	0.00	0.00	6,570.10	-34.08	1,057.09	1,057.64	0.00	0.00	0.00
6,800.00	0.00	0.00	6,670.10	-34.08	1,057.09	1,057.64	0.00	0.00	0.00
6,900.00	0.00	0.00	6,770.10	-34.08	1,057.09	1,057.64	0.00	0.00	0.00
7,000.00	0.00	0.00	6,870.10	-34.08	1,057.09	1,057.64	0.00	0.00	0.00
7,100.00	0.00	0.00	6,970.10	-34.08	1,057.09	1,057.64	0.00	0.00	0.00
7,200.00	0.00	0.00	7,070.10	-34.08	1,057.09	1,057.64	0.00	0.00	0.00
7,300.00	0.00	0.00	7,170.10	-34.08	1,057.09	1,057.64	0.00	0.00	0.00
7,400.00	0.00	0.00	7,270.10	-34.08	1,057.09	1,057.64	0.00	0.00	0.00
7,500.00	0.00	0.00	7,370.10	-34.08	1,057.09	1,057.64	0.00	0.00	0.00
7,600.00	0.00	0.00	7,470.10	-34.08	1,057.09	1,057.64	0.00	0.00	0.00
7,700.00	0.00	0.00	7,570.10	-34.08	1,057.09	1,057.64	0.00	0.00	0.00
7,800.00	0.00	0.00	7,670.10	-34.08	1,057.09	1,057.64	0.00	0.00	0.00
7,900.00	0.00	0.00	7,770.10	-34.08	1,057.09	1,057.64	0.00	0.00	0.00
8,000.00	0.00	0.00	7,870.10	-34.08	1,057.09	1,057.64	0.00	0.00	0.00
8,100.00	0.00	0.00	7,970.10	-34.08	1,057.09	1,057.64	0.00	0.00	0.00
8,135.90	0.00	0.00	8,006.00	-34.08	1,057.09	1,057.64	0.00	0.00	0.00
Target = 633866.25, 1229144.89 - CC 697-08-16 Target									
8,200.00	0.00	0.00	8,070.10	-34.08	1,057.09	1,057.64	0.00	0.00	0.00
8,300.00	0.00	0.00	8,170.10	-34.08	1,057.09	1,057.64	0.00	0.00	0.00
8,400.00	0.00	0.00	8,270.10	-34.08	1,057.09	1,057.64	0.00	0.00	0.00
8,500.00	0.00	0.00	8,370.10	-34.08	1,057.09	1,057.64	0.00	0.00	0.00
8,600.00	0.00	0.00	8,470.10	-34.08	1,057.09	1,057.64	0.00	0.00	0.00
8,700.00	0.00	0.00	8,570.10	-34.08	1,057.09	1,057.64	0.00	0.00	0.00
8,800.00	0.00	0.00	8,670.10	-34.08	1,057.09	1,057.64	0.00	0.00	0.00
8,900.00	0.00	0.00	8,770.10	-34.08	1,057.09	1,057.64	0.00	0.00	0.00
9,000.00	0.00	0.00	8,870.10	-34.08	1,057.09	1,057.64	0.00	0.00	0.00
9,100.00	0.00	0.00	8,970.10	-34.08	1,057.09	1,057.64	0.00	0.00	0.00
9,200.00	0.00	0.00	9,070.10	-34.08	1,057.09	1,057.64	0.00	0.00	0.00

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Company:	OXY USA RMAT	TVD Reference:	GL 8411' & RKB 30' @ 8441.00ft
Project:	Garfield County, CO NAD27	MD Reference:	GL 8411' & RKB 30' @ 8441.00ft
Site:	Cascade Creek 608-41 Pad	North Reference:	True
Well:	CC 697-08-16	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #3		

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	9,170.10	-34.08	1,057.09	1,057.64	0.00	0.00	0.00
9,400.00	0.00	0.00	9,270.10	-34.08	1,057.09	1,057.64	0.00	0.00	0.00
9,500.00	0.00	0.00	9,370.10	-34.08	1,057.09	1,057.64	0.00	0.00	0.00
9,600.00	0.00	0.00	9,470.10	-34.08	1,057.09	1,057.64	0.00	0.00	0.00
9,631.90	0.00	0.00	9,502.00	-34.08	1,057.09	1,057.64	0.00	0.00	0.00
PBHL = 633866.25, 1229144.89									

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
CC 697-08-16 Target	0.00	0.00	8,006.00	-34.08	1,057.09	633,866.25	1,229,144.89	39° 32' 30.981 N	108° 14' 1.365 W
- plan hits target center									
- Circle (radius 50.00)									

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,408.10	4,286.00	Approx Ft Union		0.00	
5,993.90	5,864.00	Mesaverde		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 1.50
1,206.59	1,194.98	-4.25	131.80	Start 15.10° Hold At 1206.59' MD
4,380.96	4,259.77	-30.89	958.24	Start Drop -2.00
5,135.90	5,006.00	-34.08	1,057.09	Start 0.00° Hold At 5135.90' MD
8,135.90	8,006.00	-34.08	1,057.09	Target = 633866.25, 1229144.89
9,631.90	9,502.00	-34.08	1,057.09	PBHL = 633866.25, 1229144.89