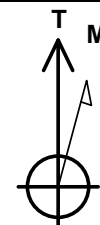


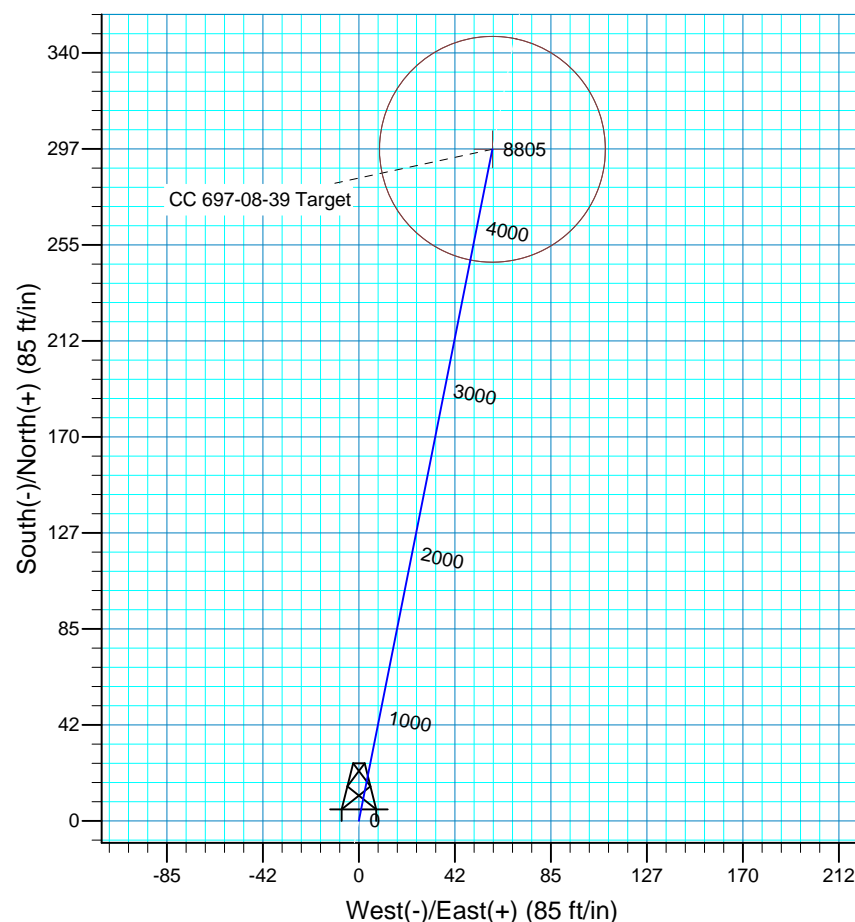
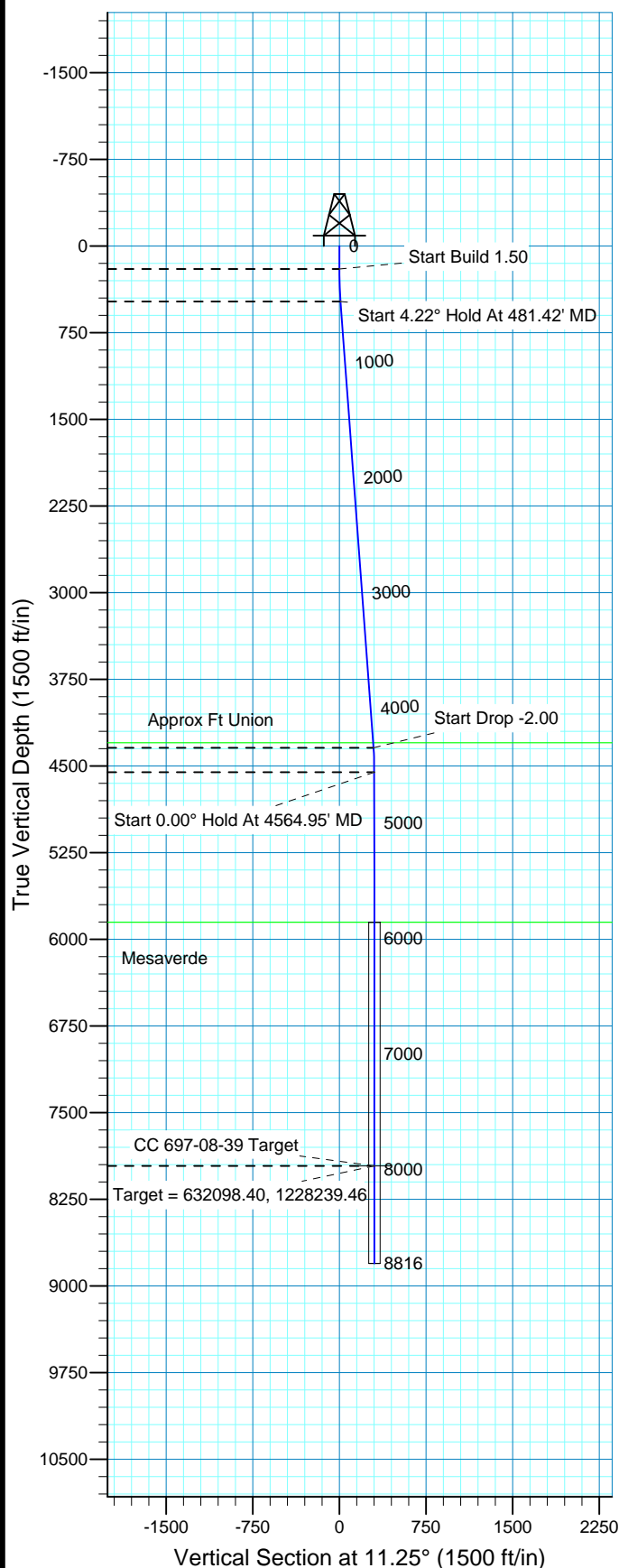
WELL DETAILS: Cascade Creek 697-08-39

+N/-S	+E/-W	GL 8425' & RKB 30' @ 8455.00ft	8425.00	Longitude	Slot
0.00	0.00	Northing	Easting	Latitude	
		631802.96	1228171.37	39° 32' 10.308 N	108° 14' 12.993 W



Azimuths to True North
Magnetic North: 10.77°

Magnetic Field
Strength: 52502.4snT
Dip Angle: 65.80°
Date: 2008/11/19
Model: IGRF2005-10



FORMATION TOP DETAILS

TVDP	MDPath	Formation
4300.00	4310.64	Approx Ft Union
5854.00	5864.95	Mesaverde

Plan: Plan #2 (Cascade Creek 697-08-39/OH)

Created By: Rex Hall Date: 2010-06-15

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	481.42	4.22	11.25	481.17	10.16	2.02	1.50	11.25	10.36	
4	4353.88	4.22	11.25	4343.12	289.73	57.65	0.00	0.00	295.41	
5	4564.95	0.00	0.00	4554.00	297.36	59.16	2.00	180.00	303.18	
6	7972.95	0.00	0.00	7962.00	297.36	59.16	0.00	0.00	303.18	CC 697-08-39 Target
7	8815.95	0.00	0.00	8805.00	297.36	59.16	0.00	0.00	303.18	



OXY USA RMAT

**Garfield County, CO NAD27
Cascade Creek 608-43-31 Pad
Cascade Creek 697-08-39
OH**

Plan: Plan #2

Standard Planning Report

15 June, 2010



Database:	EDM 2003.16 Multi-User Db	Local Co-ordinate Reference:	Well Cascade Creek 697-08-39
Company:	OXY USA RMAT	TVD Reference:	GL 8425' & RKB 30' @ 8455.00ft
Project:	Garfield County, CO NAD27	MD Reference:	GL 8425' & RKB 30' @ 8455.00ft
Site:	Cascade Creek 608-43-31 Pad	North Reference:	True
Well:	Cascade Creek 697-08-39	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

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 608-43-31 Pad, Sec 8 T6S R97W			
Site Position:		Northing:	39.54 ft	Latitude:	37° 37' 28.115 N
From:	Map	Easting:	-108.24 ft	Longitude:	112° 24' 37.715 W
Position Uncertainty:	0.00 ft	Slot Radius:	in	Grid Convergence:	-4.36 °

Well	Cascade Creek 697-08-39,					
Well Position	+N/-S	0.00 ft	Northing:	631,802.96 ft	Latitude:	39° 32' 10.308 N
	+E/-W	0.00 ft	Easting:	1,228,171.37 ft	Longitude:	108° 14' 12.993 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	8,425.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2005-10	2008/11/19	10.77	65.80	52,502

Design	Plan #2			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.00	0.00	0.00	11.25

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	
481.42	4.22	11.25	481.17	10.16	2.02	1.50	1.50	0.00	11.25	
4,353.88	4.22	11.25	4,343.12	289.73	57.65	0.00	0.00	0.00	0.00	
4,564.95	0.00	0.00	4,554.00	297.36	59.16	2.00	-2.00	0.00	180.00	
7,972.95	0.00	0.00	7,962.00	297.36	59.16	0.00	0.00	0.00	0.00	CC 697-08-39 Target
8,815.95	0.00	0.00	8,805.00	297.36	59.16	0.00	0.00	0.00	0.00	

Database:	EDM 2003.16 Multi-User Db	Local Co-ordinate Reference:	Well Cascade Creek 697-08-39
Company:	OXY USA RMAT	TVD Reference:	GL 8425' & RKB 30' @ 8455.00ft
Project:	Garfield County, CO NAD27	MD Reference:	GL 8425' & RKB 30' @ 8455.00ft
Site:	Cascade Creek 608-43-31 Pad	North Reference:	True
Well:	Cascade Creek 697-08-39	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	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
Start Build 1.50									
300.00	1.50	11.25	299.99	1.28	0.26	1.31	1.50	1.50	0.00
400.00	3.00	11.25	399.91	5.13	1.02	5.23	1.50	1.50	0.00
481.42	4.22	11.25	481.17	10.16	2.02	10.36	1.50	1.50	0.00
Start 4.22° Hold At 481.42' MD									
500.00	4.22	11.25	499.70	11.50	2.29	11.73	0.00	0.00	0.00
600.00	4.22	11.25	599.42	18.72	3.73	19.09	0.00	0.00	0.00
700.00	4.22	11.25	699.15	25.94	5.16	26.45	0.00	0.00	0.00
800.00	4.22	11.25	798.88	33.16	6.60	33.81	0.00	0.00	0.00
900.00	4.22	11.25	898.61	40.38	8.03	41.17	0.00	0.00	0.00
1,000.00	4.22	11.25	998.34	47.60	9.47	48.53	0.00	0.00	0.00
1,100.00	4.22	11.25	1,098.07	54.82	10.91	55.90	0.00	0.00	0.00
1,200.00	4.22	11.25	1,197.80	62.04	12.34	63.26	0.00	0.00	0.00
1,300.00	4.22	11.25	1,297.52	69.26	13.78	70.62	0.00	0.00	0.00
1,400.00	4.22	11.25	1,397.25	76.48	15.22	77.98	0.00	0.00	0.00
1,500.00	4.22	11.25	1,496.98	83.70	16.65	85.34	0.00	0.00	0.00
1,600.00	4.22	11.25	1,596.71	90.92	18.09	92.70	0.00	0.00	0.00
1,700.00	4.22	11.25	1,696.44	98.14	19.53	100.06	0.00	0.00	0.00
1,800.00	4.22	11.25	1,796.17	105.36	20.96	107.42	0.00	0.00	0.00
1,900.00	4.22	11.25	1,895.90	112.58	22.40	114.78	0.00	0.00	0.00
2,000.00	4.22	11.25	1,995.63	119.80	23.83	122.14	0.00	0.00	0.00
2,100.00	4.22	11.25	2,095.35	127.02	25.27	129.51	0.00	0.00	0.00
2,200.00	4.22	11.25	2,195.08	134.23	26.71	136.87	0.00	0.00	0.00
2,300.00	4.22	11.25	2,294.81	141.45	28.14	144.23	0.00	0.00	0.00
2,400.00	4.22	11.25	2,394.54	148.67	29.58	151.59	0.00	0.00	0.00
2,500.00	4.22	11.25	2,494.27	155.89	31.02	158.95	0.00	0.00	0.00
2,600.00	4.22	11.25	2,594.00	163.11	32.45	166.31	0.00	0.00	0.00
2,700.00	4.22	11.25	2,693.73	170.33	33.89	173.67	0.00	0.00	0.00
2,800.00	4.22	11.25	2,793.46	177.55	35.33	181.03	0.00	0.00	0.00
2,900.00	4.22	11.25	2,893.18	184.77	36.76	188.39	0.00	0.00	0.00
3,000.00	4.22	11.25	2,992.91	191.99	38.20	195.75	0.00	0.00	0.00
3,100.00	4.22	11.25	3,092.64	199.21	39.63	203.11	0.00	0.00	0.00
3,200.00	4.22	11.25	3,192.37	206.43	41.07	210.48	0.00	0.00	0.00
3,300.00	4.22	11.25	3,292.10	213.65	42.51	217.84	0.00	0.00	0.00
3,400.00	4.22	11.25	3,391.83	220.87	43.94	225.20	0.00	0.00	0.00
3,500.00	4.22	11.25	3,491.56	228.09	45.38	232.56	0.00	0.00	0.00
3,600.00	4.22	11.25	3,591.29	235.31	46.82	239.92	0.00	0.00	0.00
3,700.00	4.22	11.25	3,691.01	242.53	48.25	247.28	0.00	0.00	0.00
3,800.00	4.22	11.25	3,790.74	249.75	49.69	254.64	0.00	0.00	0.00
3,900.00	4.22	11.25	3,890.47	256.97	51.13	262.00	0.00	0.00	0.00
4,000.00	4.22	11.25	3,990.20	264.19	52.56	269.36	0.00	0.00	0.00
4,100.00	4.22	11.25	4,089.93	271.40	54.00	276.72	0.00	0.00	0.00
4,200.00	4.22	11.25	4,189.66	278.62	55.43	284.09	0.00	0.00	0.00
4,300.00	4.22	11.25	4,289.39	285.84	56.87	291.45	0.00	0.00	0.00
4,310.64	4.22	11.25	4,300.00	286.61	57.02	292.23	0.00	0.00	0.00
Approx Ft Union									
4,353.88	4.22	11.25	4,343.12	289.73	57.65	295.41	0.00	0.00	0.00
Start Drop -2.00									
4,400.00	3.30	11.25	4,389.14	292.70	58.24	298.44	2.00	-2.00	0.00
4,500.00	1.30	11.25	4,489.05	296.63	59.02	302.45	2.00	-2.00	0.00

Database:	EDM 2003.16 Multi-User Db	Local Co-ordinate Reference:	Well Cascade Creek 697-08-39
Company:	OXY USA RMAT	TVD Reference:	GL 8425' & RKB 30' @ 8455.00ft
Project:	Garfield County, CO NAD27	MD Reference:	GL 8425' & RKB 30' @ 8455.00ft
Site:	Cascade Creek 608-43-31 Pad	North Reference:	True
Well:	Cascade Creek 697-08-39	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	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)
4,564.95	0.00	0.00	4,554.00	297.36	59.16	303.18	2.00	-2.00	0.00
Start 0.00° Hold At 4564.95' MD									
4,600.00	0.00	0.00	4,589.05	297.36	59.16	303.18	0.00	0.00	0.00
4,700.00	0.00	0.00	4,689.05	297.36	59.16	303.18	0.00	0.00	0.00
4,800.00	0.00	0.00	4,789.05	297.36	59.16	303.18	0.00	0.00	0.00
4,900.00	0.00	0.00	4,889.05	297.36	59.16	303.18	0.00	0.00	0.00
5,000.00	0.00	0.00	4,989.05	297.36	59.16	303.18	0.00	0.00	0.00
5,100.00	0.00	0.00	5,089.05	297.36	59.16	303.18	0.00	0.00	0.00
5,200.00	0.00	0.00	5,189.05	297.36	59.16	303.18	0.00	0.00	0.00
5,300.00	0.00	0.00	5,289.05	297.36	59.16	303.18	0.00	0.00	0.00
5,400.00	0.00	0.00	5,389.05	297.36	59.16	303.18	0.00	0.00	0.00
5,500.00	0.00	0.00	5,489.05	297.36	59.16	303.18	0.00	0.00	0.00
5,600.00	0.00	0.00	5,589.05	297.36	59.16	303.18	0.00	0.00	0.00
5,700.00	0.00	0.00	5,689.05	297.36	59.16	303.18	0.00	0.00	0.00
5,800.00	0.00	0.00	5,789.05	297.36	59.16	303.18	0.00	0.00	0.00
5,864.95	0.00	0.00	5,854.00	297.36	59.16	303.18	0.00	0.00	0.00
Mesaverde									
5,900.00	0.00	0.00	5,889.05	297.36	59.16	303.18	0.00	0.00	0.00
6,000.00	0.00	0.00	5,989.05	297.36	59.16	303.18	0.00	0.00	0.00
6,100.00	0.00	0.00	6,089.05	297.36	59.16	303.18	0.00	0.00	0.00
6,200.00	0.00	0.00	6,189.05	297.36	59.16	303.18	0.00	0.00	0.00
6,300.00	0.00	0.00	6,289.05	297.36	59.16	303.18	0.00	0.00	0.00
6,400.00	0.00	0.00	6,389.05	297.36	59.16	303.18	0.00	0.00	0.00
6,500.00	0.00	0.00	6,489.05	297.36	59.16	303.18	0.00	0.00	0.00
6,600.00	0.00	0.00	6,589.05	297.36	59.16	303.18	0.00	0.00	0.00
6,700.00	0.00	0.00	6,689.05	297.36	59.16	303.18	0.00	0.00	0.00
6,800.00	0.00	0.00	6,789.05	297.36	59.16	303.18	0.00	0.00	0.00
6,900.00	0.00	0.00	6,889.05	297.36	59.16	303.18	0.00	0.00	0.00
7,000.00	0.00	0.00	6,989.05	297.36	59.16	303.18	0.00	0.00	0.00
7,100.00	0.00	0.00	7,089.05	297.36	59.16	303.18	0.00	0.00	0.00
7,200.00	0.00	0.00	7,189.05	297.36	59.16	303.18	0.00	0.00	0.00
7,300.00	0.00	0.00	7,289.05	297.36	59.16	303.18	0.00	0.00	0.00
7,400.00	0.00	0.00	7,389.05	297.36	59.16	303.18	0.00	0.00	0.00
7,500.00	0.00	0.00	7,489.05	297.36	59.16	303.18	0.00	0.00	0.00
7,600.00	0.00	0.00	7,589.05	297.36	59.16	303.18	0.00	0.00	0.00
7,700.00	0.00	0.00	7,689.05	297.36	59.16	303.18	0.00	0.00	0.00
7,800.00	0.00	0.00	7,789.05	297.36	59.16	303.18	0.00	0.00	0.00
7,900.00	0.00	0.00	7,889.05	297.36	59.16	303.18	0.00	0.00	0.00
7,972.95	0.00	0.00	7,962.00	297.36	59.16	303.18	0.00	0.00	0.00
Target = 632098.40, 1228239.46 - CC 697-08-39 Target									
8,000.00	0.00	0.00	7,989.05	297.36	59.16	303.18	0.00	0.00	0.00
8,100.00	0.00	0.00	8,089.05	297.36	59.16	303.18	0.00	0.00	0.00
8,200.00	0.00	0.00	8,189.05	297.36	59.16	303.18	0.00	0.00	0.00
8,300.00	0.00	0.00	8,289.05	297.36	59.16	303.18	0.00	0.00	0.00
8,400.00	0.00	0.00	8,389.05	297.36	59.16	303.18	0.00	0.00	0.00
8,500.00	0.00	0.00	8,489.05	297.36	59.16	303.18	0.00	0.00	0.00
8,600.00	0.00	0.00	8,589.05	297.36	59.16	303.18	0.00	0.00	0.00
8,700.00	0.00	0.00	8,689.05	297.36	59.16	303.18	0.00	0.00	0.00
8,800.00	0.00	0.00	8,789.05	297.36	59.16	303.18	0.00	0.00	0.00
8,815.95	0.00	0.00	8,805.00	297.36	59.16	303.18	0.00	0.00	0.00
PBHL = 632098.40, 1228239.46									

Database:	EDM 2003.16 Multi-User Db	Local Co-ordinate Reference:	Well Cascade Creek 697-08-39
Company:	OXY USA RMAT	TVD Reference:	GL 8425' & RKB 30' @ 8455.00ft
Project:	Garfield County, CO NAD27	MD Reference:	GL 8425' & RKB 30' @ 8455.00ft
Site:	Cascade Creek 608-43-31 Pad	North Reference:	True
Well:	Cascade Creek 697-08-39	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	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 697-08-39 Target	0.00	11.65	7,962.00	297.36	59.16	632,098.40	1,228,239.46	39° 32' 13.247 N	108° 14' 12.238 W
- plan hits target center									
- Circle (radius 50.00)									

Formations					
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction
(ft)	(ft)			(°)	(°)
4,310.64	4,300.00	Approx Ft Union		0.00	
5,864.95	5,854.00	Mesaverde		0.00	

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(ft)	(ft)	+N/-S (ft)	+E/-W (ft)	
200.00	200.00	0.00	0.00	Start Build 1.50
481.42	481.17	10.16	2.02	Start 4.22° Hold At 481.42' MD
4,353.88	4,343.12	289.73	57.65	Start Drop -2.00
4,564.95	4,554.00	297.36	59.16	Start 0.00° Hold At 4564.95' MD
7,972.95	7,962.00	297.36	59.16	Target = 632098.40, 1228239.46
8,815.95	8,805.00	297.36	59.16	PBHL = 632098.40, 1228239.46