

# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83**

**WELD\_Overlook 1-30 PAD**

**Overlook 28-30**

**Overlook 28-30**

**Plan: Overlook 28-30 (wp01)**

## **Standard Planning Report**

**15 July, 2011**



Project: COLORADO NORTHERN ZONE - 83  
Site: WELD\_Overlook 1-30 PAD  
Well: Overlook 28-30  
Wellbore: Overlook 28-30  
Section:  
SHL:  
Design: Overlook 28-30 (wp01)  
Latitude: 40.114882  
Longitude: -104.926148  
GL: 5010.00  
KB: 15' rkb + 5010' GL @ 5025.00ft

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
4160.00	4359.56	PK Depth
4553.00	4777.04	SX Depth
7318.00	7646.70	NIO Depth
7624.00	7952.70	CD Depth
7710.00	8038.70	GH Depth
8043.00	8371.70	GH Depth

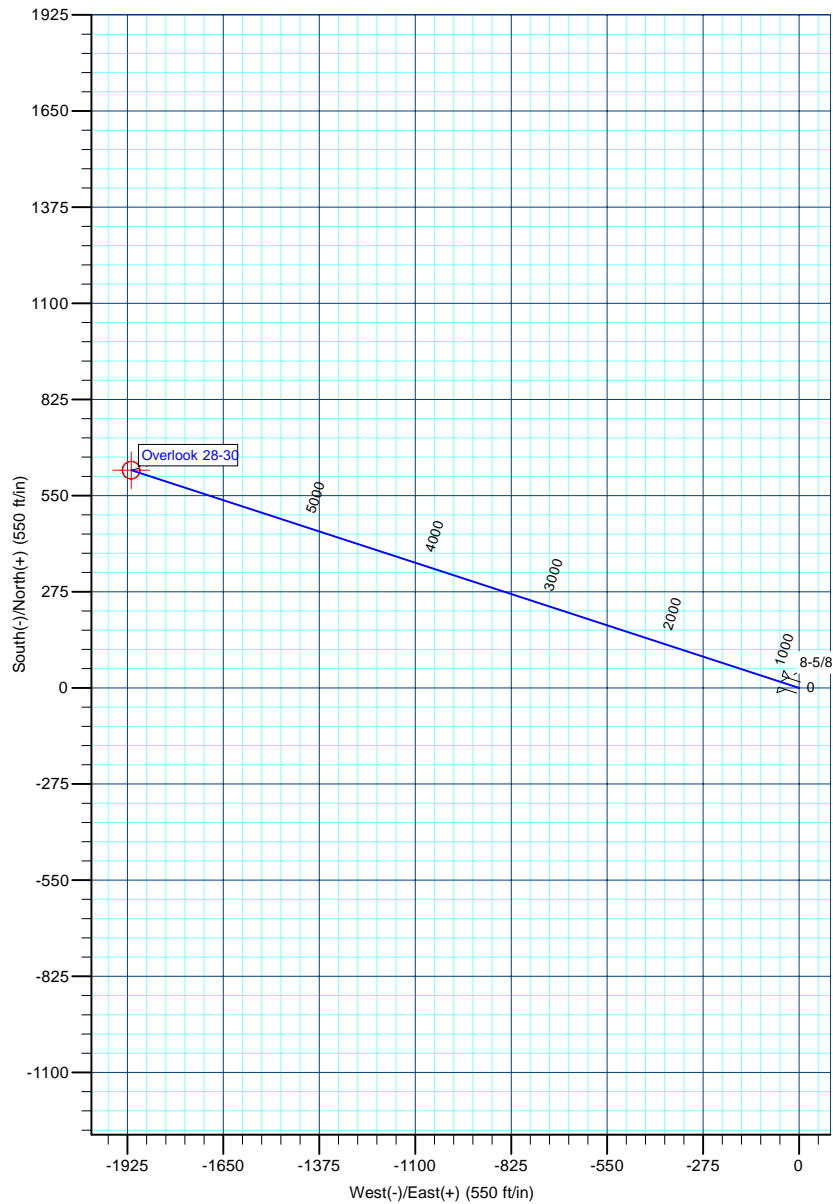
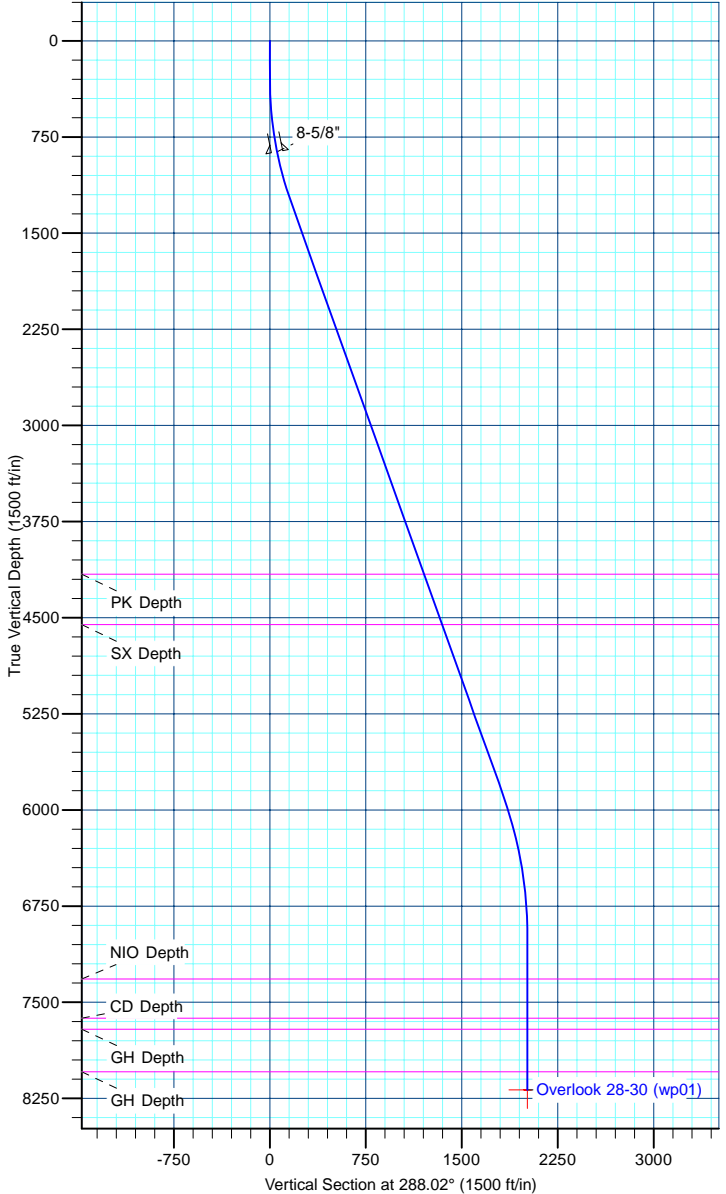
Magnetic Field  
Strength: 52953.5snT  
Dip Angle: 66.79°  
Date: 7/15/2011  
Model: IGRF2010

WELL DETAILS: Overlook 28-30						
+N/-S	+E/-W	Northing	Ground Level: Easting	5010.00 Latitude	Longitude	Slot
0.00	0.00	1285214.91	3160494.76	40.114882	-104.926148	

CASING DETAILS			
TVD	MD	Name	Size
865.00	868.73	8-5/8"	8-5/8

DESIGN TARGET DETAILS								
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Overlook 28-30 BHL	8183.00	622.64	-1914.09	1285825.15	3158576.68	40.116591	-104.932992	Circle (Radius: 25.00)

SECTION DETAILS								
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00
1285.88	19.72	288.02	1266.53	51.96	-159.73	2.00	288.02	167.97
6184.98	19.72	288.02	5878.39	563.26	-1731.54	0.00	0.00	1820.85
7311.70	0.00	0.00	6983.00	622.64	-1914.09	1.75	180.00	2012.82
8511.70	0.00	0.00	8183.00	622.64	-1914.09	0.00	0.00	2012.82



<b>Database:</b>	edm5000p	<b>Local Co-ordinate Reference:</b>	Well Overlook 28-30
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	15' rkb + 5010' GL @ 5025.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	15' rkb + 5010' GL @ 5025.00ft
<b>Site:</b>	WELD_Overlook 1-30 PAD	<b>North Reference:</b>	True
<b>Well:</b>	Overlook 28-30	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Overlook 28-30		
<b>Design:</b>	Overlook 28-30 (wp01)		

<b>Project</b>	COLORADO NORTHERN ZONE - 83		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Northern Zone		

Site						WELD_Overlook 1-30 PAD											
Site Position:						Northing:			1,285,224.36 ft			Latitude:			40.114908		
From:			Lat/Long			Easting:			3,160,489.94 ft			Longitude:			-104.926165		
Position Uncertainty:			0.00 ft			Slot Radius:			0 "			Grid Convergence:			0.37 °		

Well	Overlook 28-30					
Well Position	+N-S	-9.48 ft	Northing:	1,285,214.91 ft	Latitude:	40.114882
	+E-W	4.75 ft	Easting:	3,160,494.76 ft	Longitude:	-104.926148
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,010.00 ft

<b>Wellbore</b>	Overlook 28-30				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	7/15/2011	8.91	66.79	52,954

<b>Design</b>	Overlook 28-30 (wp01)			
<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	288.02

<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	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,285.88	19.72	288.02	1,266.53	51.96	-159.73	2.00	2.00	0.00	288.02	
6,184.98	19.72	288.02	5,878.39	563.26	-1,731.54	0.00	0.00	0.00	0.00	
7,311.70	0.00	0.00	6,983.00	622.64	-1,914.09	1.75	-1.75	0.00	180.00	
8,511.70	0.00	0.00	8,183.00	622.64	-1,914.09	0.00	0.00	0.00	0.00	Overlook 28-30 BHI

<b>Database:</b>	edm5000p	<b>Local Co-ordinate Reference:</b>	Well Overlook 28-30
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	15' rkb + 5010' GL @ 5025.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	15' rkb + 5010' GL @ 5025.00ft
<b>Site:</b>	WELD_Overlook 1-30 PAD	<b>North Reference:</b>	True
<b>Well:</b>	Overlook 28-30	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Overlook 28-30		
<b>Design:</b>	Overlook 28-30 (wp01)		

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
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	2.00	288.02	399.98	0.54	-1.66	1.75	2.00	2.00	0.00
500.00	4.00	288.02	499.84	2.16	-6.64	6.98	2.00	2.00	0.00
600.00	6.00	288.02	599.45	4.85	-14.92	15.69	2.00	2.00	0.00
700.00	8.00	288.02	698.70	8.62	-26.51	27.88	2.00	2.00	0.00
800.00	10.00	288.02	797.47	13.46	-41.39	43.52	2.00	2.00	0.00
868.73	11.37	288.02	865.00	17.41	-53.51	56.27	2.00	2.00	0.00
8-5/8"									
900.00	12.00	288.02	895.62	19.37	-59.53	62.60	2.00	2.00	0.00
1,000.00	14.00	288.02	993.06	26.32	-80.92	85.10	2.00	2.00	0.00
1,100.00	16.00	288.02	1,089.64	34.33	-105.53	110.98	2.00	2.00	0.00
1,200.00	18.00	288.02	1,185.27	43.37	-133.34	140.21	2.00	2.00	0.00
1,285.88	19.72	288.02	1,266.53	51.96	-159.73	167.97	2.00	2.00	0.00
1,300.00	19.72	288.02	1,279.83	53.43	-164.26	172.74	0.00	0.00	0.00
1,400.00	19.72	288.02	1,373.96	63.87	-196.35	206.47	0.00	0.00	0.00
1,500.00	19.72	288.02	1,468.10	74.31	-228.43	240.21	0.00	0.00	0.00
1,600.00	19.72	288.02	1,562.24	84.74	-260.51	273.95	0.00	0.00	0.00
1,700.00	19.72	288.02	1,656.37	95.18	-292.60	307.69	0.00	0.00	0.00
1,800.00	19.72	288.02	1,750.51	105.62	-324.68	341.43	0.00	0.00	0.00
1,900.00	19.72	288.02	1,844.65	116.05	-356.76	375.17	0.00	0.00	0.00
2,000.00	19.72	288.02	1,938.78	126.49	-388.85	408.90	0.00	0.00	0.00
2,100.00	19.72	288.02	2,032.92	136.93	-420.93	442.64	0.00	0.00	0.00
2,200.00	19.72	288.02	2,127.06	147.36	-453.02	476.38	0.00	0.00	0.00
2,300.00	19.72	288.02	2,221.19	157.80	-485.10	510.12	0.00	0.00	0.00
2,400.00	19.72	288.02	2,315.33	168.24	-517.18	543.86	0.00	0.00	0.00
2,500.00	19.72	288.02	2,409.47	178.67	-549.27	577.60	0.00	0.00	0.00
2,600.00	19.72	288.02	2,503.60	189.11	-581.35	611.33	0.00	0.00	0.00
2,700.00	19.72	288.02	2,597.74	199.54	-613.43	645.07	0.00	0.00	0.00
2,800.00	19.72	288.02	2,691.88	209.98	-645.52	678.81	0.00	0.00	0.00
2,900.00	19.72	288.02	2,786.01	220.42	-677.60	712.55	0.00	0.00	0.00
3,000.00	19.72	288.02	2,880.15	230.85	-709.68	746.29	0.00	0.00	0.00
3,100.00	19.72	288.02	2,974.29	241.29	-741.77	780.03	0.00	0.00	0.00
3,200.00	19.72	288.02	3,068.42	251.73	-773.85	813.76	0.00	0.00	0.00
3,300.00	19.72	288.02	3,162.56	262.16	-805.94	847.50	0.00	0.00	0.00
3,400.00	19.72	288.02	3,256.70	272.60	-838.02	881.24	0.00	0.00	0.00
3,500.00	19.72	288.02	3,350.84	283.04	-870.10	914.98	0.00	0.00	0.00
3,600.00	19.72	288.02	3,444.97	293.47	-902.19	948.72	0.00	0.00	0.00
3,700.00	19.72	288.02	3,539.11	303.91	-934.27	982.46	0.00	0.00	0.00
3,800.00	19.72	288.02	3,633.25	314.35	-966.35	1,016.20	0.00	0.00	0.00
3,900.00	19.72	288.02	3,727.38	324.78	-998.44	1,049.93	0.00	0.00	0.00
4,000.00	19.72	288.02	3,821.52	335.22	-1,030.52	1,083.67	0.00	0.00	0.00
4,100.00	19.72	288.02	3,915.66	345.66	-1,062.60	1,117.41	0.00	0.00	0.00
4,200.00	19.72	288.02	4,009.79	356.09	-1,094.69	1,151.15	0.00	0.00	0.00
4,300.00	19.72	288.02	4,103.93	366.53	-1,126.77	1,184.89	0.00	0.00	0.00
4,359.56	19.72	288.02	4,160.00	372.75	-1,145.88	1,204.98	0.00	0.00	0.00
PK Depth									
4,400.00	19.72	288.02	4,198.07	376.97	-1,158.85	1,218.63	0.00	0.00	0.00
4,500.00	19.72	288.02	4,292.20	387.40	-1,190.94	1,252.36	0.00	0.00	0.00
4,600.00	19.72	288.02	4,386.34	397.84	-1,223.02	1,286.10	0.00	0.00	0.00
4,700.00	19.72	288.02	4,480.48	408.28	-1,255.11	1,319.84	0.00	0.00	0.00
4,777.04	19.72	288.02	4,553.00	416.32	-1,279.82	1,345.83	0.00	0.00	0.00

<b>Database:</b>	edm5000p	<b>Local Co-ordinate Reference:</b>	Well Overlook 28-30
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	15' rkb + 5010' GL @ 5025.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	15' rkb + 5010' GL @ 5025.00ft
<b>Site:</b>	WELD_Overlook 1-30 PAD	<b>North Reference:</b>	True
<b>Well:</b>	Overlook 28-30	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Overlook 28-30		
<b>Design:</b>	Overlook 28-30 (wp01)		

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)	
<b>SX Depth</b>										
4,800.00	19.72	288.02	4,574.61	418.71	-1,287.19	1,353.58	0.00	0.00	0.00	
4,900.00	19.72	288.02	4,668.75	429.15	-1,319.27	1,387.32	0.00	0.00	0.00	
5,000.00	19.72	288.02	4,762.89	439.59	-1,351.36	1,421.06	0.00	0.00	0.00	
5,100.00	19.72	288.02	4,857.02	450.02	-1,383.44	1,454.79	0.00	0.00	0.00	
5,200.00	19.72	288.02	4,951.16	460.46	-1,415.52	1,488.53	0.00	0.00	0.00	
5,300.00	19.72	288.02	5,045.30	470.89	-1,447.61	1,522.27	0.00	0.00	0.00	
5,400.00	19.72	288.02	5,139.43	481.33	-1,479.69	1,556.01	0.00	0.00	0.00	
5,500.00	19.72	288.02	5,233.57	491.77	-1,511.77	1,589.75	0.00	0.00	0.00	
5,600.00	19.72	288.02	5,327.71	502.20	-1,543.86	1,623.49	0.00	0.00	0.00	
5,700.00	19.72	288.02	5,421.84	512.64	-1,575.94	1,657.22	0.00	0.00	0.00	
5,800.00	19.72	288.02	5,515.98	523.08	-1,608.03	1,690.96	0.00	0.00	0.00	
5,900.00	19.72	288.02	5,610.12	533.51	-1,640.11	1,724.70	0.00	0.00	0.00	
6,000.00	19.72	288.02	5,704.25	543.95	-1,672.19	1,758.44	0.00	0.00	0.00	
6,100.00	19.72	288.02	5,798.39	554.39	-1,704.28	1,792.18	0.00	0.00	0.00	
6,184.98	19.72	288.02	5,878.39	563.26	-1,731.54	1,820.85	0.00	0.00	0.00	
6,200.00	19.45	288.02	5,892.54	564.81	-1,736.33	1,825.88	1.75	-1.75	0.00	
6,300.00	17.70	288.02	5,987.32	574.67	-1,766.63	1,857.75	1.75	-1.75	0.00	
6,400.00	15.95	288.02	6,083.04	583.63	-1,794.16	1,886.70	1.75	-1.75	0.00	
6,500.00	14.20	288.02	6,179.59	591.67	-1,818.90	1,912.71	1.75	-1.75	0.00	
6,600.00	12.45	288.02	6,276.89	598.80	-1,840.82	1,935.77	1.75	-1.75	0.00	
6,700.00	10.70	288.02	6,374.85	605.01	-1,859.91	1,955.84	1.75	-1.75	0.00	
6,800.00	8.95	288.02	6,473.38	610.29	-1,876.14	1,972.91	1.75	-1.75	0.00	
6,900.00	7.20	288.02	6,572.38	614.64	-1,889.51	1,986.97	1.75	-1.75	0.00	
7,000.00	5.45	288.02	6,671.77	618.05	-1,899.99	1,997.99	1.75	-1.75	0.00	
7,100.00	3.70	288.02	6,771.45	620.52	-1,907.59	2,005.97	1.75	-1.75	0.00	
7,200.00	1.95	288.02	6,871.32	622.05	-1,912.28	2,010.91	1.75	-1.75	0.00	
7,300.00	0.20	288.02	6,971.30	622.63	-1,914.07	2,012.80	1.75	-1.75	0.00	
7,311.70	0.00	0.00	6,983.00	622.64	-1,914.09	2,012.82	1.75	-1.75	0.00	
7,400.00	0.00	0.00	7,071.30	622.64	-1,914.09	2,012.82	0.00	0.00	0.00	
7,500.00	0.00	0.00	7,171.30	622.64	-1,914.09	2,012.82	0.00	0.00	0.00	
7,600.00	0.00	0.00	7,271.30	622.64	-1,914.09	2,012.82	0.00	0.00	0.00	
7,646.70	0.00	0.00	7,318.00	622.64	-1,914.09	2,012.82	0.00	0.00	0.00	
<b>NIO Depth</b>										
7,700.00	0.00	0.00	7,371.30	622.64	-1,914.09	2,012.82	0.00	0.00	0.00	
7,800.00	0.00	0.00	7,471.30	622.64	-1,914.09	2,012.82	0.00	0.00	0.00	
7,900.00	0.00	0.00	7,571.30	622.64	-1,914.09	2,012.82	0.00	0.00	0.00	
7,952.70	0.00	0.00	7,624.00	622.64	-1,914.09	2,012.82	0.00	0.00	0.00	
<b>CD Depth</b>										
8,000.00	0.00	0.00	7,671.30	622.64	-1,914.09	2,012.82	0.00	0.00	0.00	
8,038.70	0.00	0.00	7,710.00	622.64	-1,914.09	2,012.82	0.00	0.00	0.00	
<b>GH Depth</b>										
8,100.00	0.00	0.00	7,771.30	622.64	-1,914.09	2,012.82	0.00	0.00	0.00	
8,200.00	0.00	0.00	7,871.30	622.64	-1,914.09	2,012.82	0.00	0.00	0.00	
8,300.00	0.00	0.00	7,971.30	622.64	-1,914.09	2,012.82	0.00	0.00	0.00	
8,371.70	0.00	0.00	8,043.00	622.64	-1,914.09	2,012.82	0.00	0.00	0.00	
<b>GH Depth</b>										
8,400.00	0.00	0.00	8,071.30	622.64	-1,914.09	2,012.82	0.00	0.00	0.00	
8,500.00	0.00	0.00	8,171.30	622.64	-1,914.09	2,012.82	0.00	0.00	0.00	
8,511.70	0.00	0.00	8,183.00	622.64	-1,914.09	2,012.82	0.00	0.00	0.00	
<b>Overlook 28-30 BHL</b>										

<b>Database:</b>	edm5000p	<b>Local Co-ordinate Reference:</b>	Well Overlook 28-30
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	15' rkb + 5010' GL @ 5025.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	15' rkb + 5010' GL @ 5025.00ft
<b>Site:</b>	WELD_Overlook 1-30 PAD	<b>North Reference:</b>	True
<b>Well:</b>	Overlook 28-30	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Overlook 28-30		
<b>Design:</b>	Overlook 28-30 (wp01)		

Design 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)		
Overlook 28-30 BHL	0.00	0.00	8,183.00	622.64	-1,914.09	1,285,825.14	3,158,576.68	40.116591	-104.932992
- plan hits target center									
- Circle (radius 25.00)									

Casing Points					
Measured Depth	Vertical Depth			Casing Diameter	Hole Diameter
(ft)	(ft)		Name	(")	(")
868.73	865.00	8-5/8"		8-5/8	11

Formations						
Measured Depth	Vertical Depth				Dip	Dip Direction
(ft)	(ft)		Name	Lithology	(°)	(°)
4,359.56	4,160.00	PK Depth				
4,777.04	4,553.00	SX Depth				
7,646.70	7,318.00	NIO Depth				
7,952.70	7,624.00	CD Depth				
8,038.70	7,710.00	GH Depth				
8,371.70	8,043.00	GH Depth				