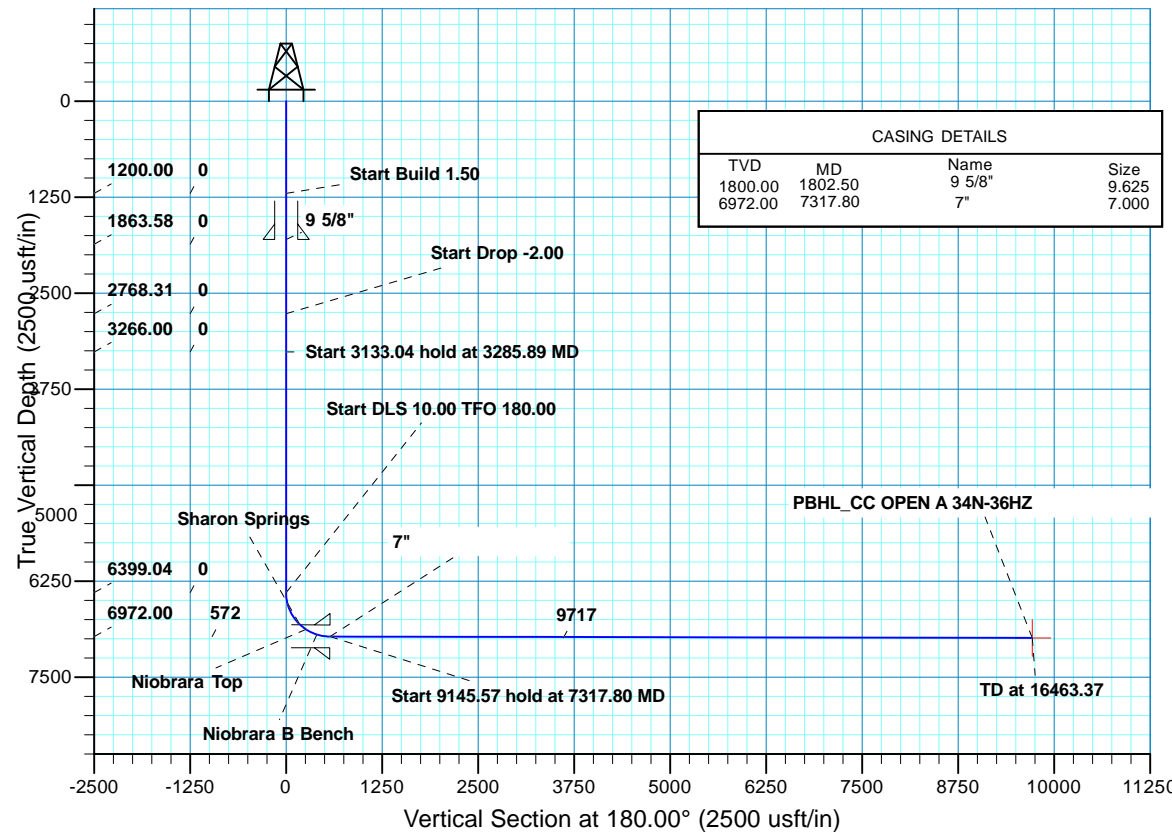
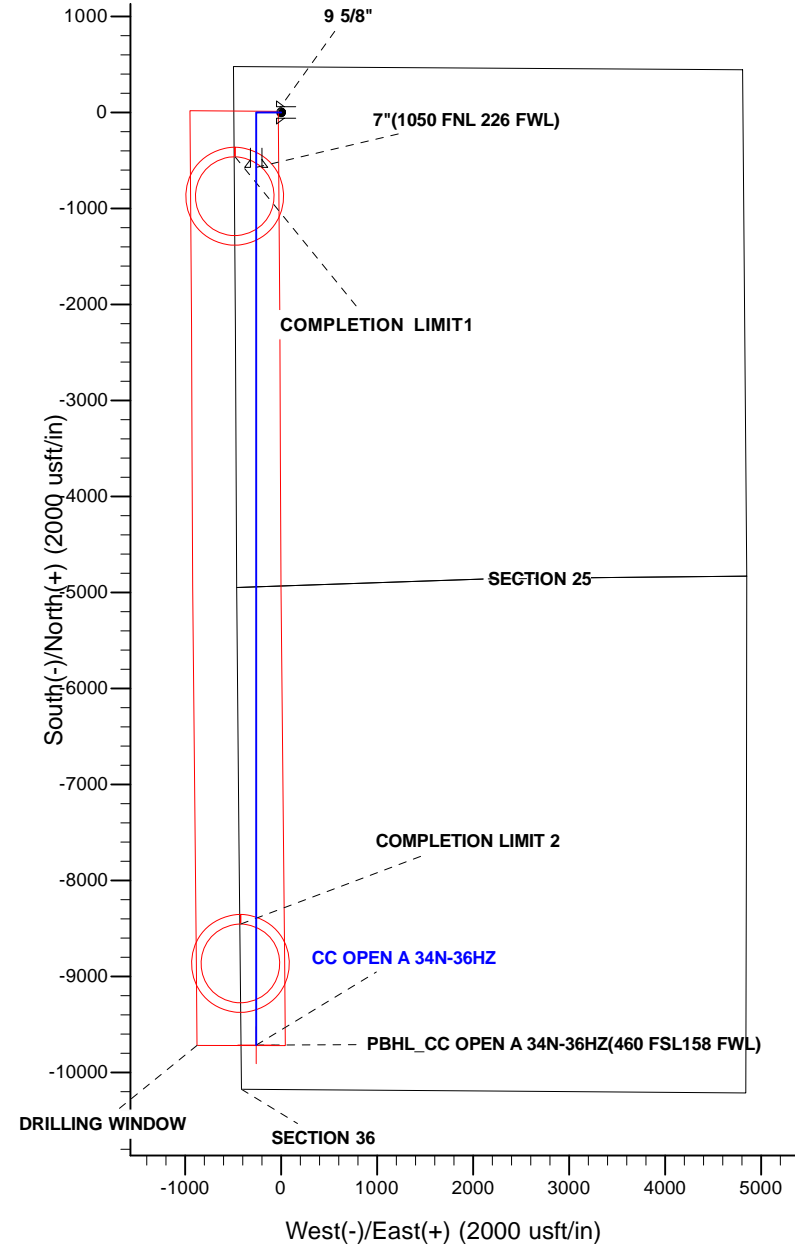


WELL DETAILS: CC OPEN A 34N-36HZ									
GL 4900 & KB 17 @ 4917.00usft (ASSUMED)									
		+N/-S	+E/-W	Northing	Easting	Latitude	Longitude		
		0.00	0.00	14569006.76	1746662.85	40.115466	-104.619978		
SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	V Sect	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1200.00	0.00	0.00	1200.00	0.00	0.00	0.00	0.00	0.00	0.00
1866.97	10.00	270.00	1863.58	0.00	-58.08	1.50	270.00	0.00	0.00
2785.67	10.00	270.00	2768.31	0.00	-217.68	0.00	0.00	0.00	0.00
3285.89	0.00	0.00	3266.00	0.00	-261.25	2.00	180.00	0.00	0.00
6418.93	0.00	0.00	6399.04	0.00	-261.25	0.00	0.00	0.00	0.00
7317.80	89.89	180.00	6972.00	-571.83	-261.25	10.00	180.00	571.83	
16463.37	89.89	180.00	6990.00	-9717.38	-261.25	0.00	0.009717.38	PBHL_CC OPEN A 34N-36HZ	
DESIGN TARGET DETAILS									
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape	Point
PBHL 6990.00	-9717.38	-261.25	14559288.35	1746443.14	40.088781	-104.620912		Point	
- plan hits target center									
FORMATION TOP DETAILS									
TVDPath	MDPath	Formation	DipDirInc						
6807.00	6872.93	Sharon Springs	45.40						
6878.00	6986.07	Niobrara Top	56.71						
6945.00	7142.34	Niobrara B Bench	72.34						



US ROCKIES WATTENBERG PLANNING

WELD-NAD83-UTMFT13N
2N-65W-25 CC Open A Pad #1
CC OPEN A 34N-36HZ

PLAN A

Plan: PERMIT REV-2

Standard Planning Report

17 July, 2015

Database:	Denver Sales	Local Co-ordinate Reference:	Well CC OPEN A 34N-36HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	GL 4900 & KB 17 @ 4917.00usft (ASSUMED)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	GL 4900 & KB 17 @ 4917.00usft (ASSUMED)
Site:	2N-65W-25 CC Open A Pad #1	North Reference:	True
Well:	CC OPEN A 34N-36HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	PLAN A		
Design:	PERMIT REV-2		

Project	WELD-NAD83-UTMFT13N		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Zone 13N (108 W to 102 W)		

Site	2N-65W-25 CC Open A Pad #1				
Site Position:		Northing:	14,569,006.76 usft	Latitude:	40.115466
From:	Lat/Long	Easting:	1,746,662.85 usft	Longitude:	-104.619978
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	0.24 °

Well	CC OPEN A 34N-36HZ					
Well Position	+N/-S	0.00 usft	Northing:	14,569,006.76 usft	Latitude:	40.115466
	+E/-W	0.00 usft	Easting:	1,746,662.85 usft	Longitude:	-104.619978
Position Uncertainty	0.00 usft		Wellhead Elevation:	0.00 usft	Ground Level:	4,900.00 usft

Wellbore	PLAN A				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	1/6/2015	8.28	66.72	52,621

Design	PERMIT REV-2			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	180.00

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,866.97	10.00	270.00	1,863.58	0.00	-58.08	1.50	1.50	0.00	270.00	
2,785.67	10.00	270.00	2,768.31	0.00	-217.68	0.00	0.00	0.00	0.00	
3,285.89	0.00	0.00	3,266.00	0.00	-261.25	2.00	-2.00	0.00	180.00	
6,418.93	0.00	0.00	6,399.04	0.00	-261.25	0.00	0.00	0.00	0.00	
7,317.80	89.89	180.00	6,972.00	-571.83	-261.25	10.00	10.00	20.03	180.00	
16,463.37	89.89	180.00	6,990.00	-9,717.38	-261.25	0.00	0.00	0.00	0.00	PBHL_CC OPEN A 34

Database:	Denver Sales	Local Co-ordinate Reference:	Well CC OPEN A 34N-36HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	GL 4900 & KB 17 @ 4917.00usft (ASSUMED)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	GL 4900 & KB 17 @ 4917.00usft (ASSUMED)
Site:	2N-65W-25 CC Open A Pad #1	North Reference:	True
Well:	CC OPEN A 34N-36HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	PLAN A		
Design:	PERMIT REV-2		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.00	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	0.00
200.00	0.00	0.00	200.00	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	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 1.50										
1,300.00	1.50	270.00	1,299.99	0.00	-1.31	0.00	1.50	1.50	0.00	0.00
1,400.00	3.00	270.00	1,399.91	0.00	-5.23	0.00	1.50	1.50	0.00	0.00
1,500.00	4.50	270.00	1,499.69	0.00	-11.77	0.00	1.50	1.50	0.00	0.00
1,600.00	6.00	270.00	1,599.27	0.00	-20.92	0.00	1.50	1.50	0.00	0.00
1,700.00	7.50	270.00	1,698.57	0.00	-32.68	0.00	1.50	1.50	0.00	0.00
1,800.00	9.00	270.00	1,797.54	0.00	-47.03	0.00	1.50	1.50	0.00	0.00
1,802.50	9.04	270.00	1,800.00	0.00	-47.42	0.00	1.50	1.50	0.00	0.00
9 5/8"										
1,866.97	10.00	270.00	1,863.58	0.00	-58.08	0.00	1.50	1.50	0.00	0.00
Start 918.70 hold at 1866.97 MD										
1,900.00	10.00	270.00	1,896.11	0.00	-63.82	0.00	0.00	0.00	0.00	0.00
2,000.00	10.00	270.00	1,994.59	0.00	-81.19	0.00	0.00	0.00	0.00	0.00
2,100.00	10.00	270.00	2,093.07	0.00	-98.57	0.00	0.00	0.00	0.00	0.00
2,200.00	10.00	270.00	2,191.55	0.00	-115.94	0.00	0.00	0.00	0.00	0.00
2,300.00	10.00	270.00	2,290.03	0.00	-133.31	0.00	0.00	0.00	0.00	0.00
2,400.00	10.00	270.00	2,388.51	0.00	-150.68	0.00	0.00	0.00	0.00	0.00
2,500.00	10.00	270.00	2,486.99	0.00	-168.06	0.00	0.00	0.00	0.00	0.00
2,600.00	10.00	270.00	2,585.47	0.00	-185.43	0.00	0.00	0.00	0.00	0.00
2,700.00	10.00	270.00	2,683.95	0.00	-202.80	0.00	0.00	0.00	0.00	0.00
2,785.67	10.00	270.00	2,768.31	0.00	-217.68	0.00	0.00	0.00	0.00	0.00
Start Drop -2.00										
2,800.00	9.72	270.00	2,782.43	0.00	-220.14	0.00	2.00	-2.00	0.00	0.00
2,900.00	7.72	270.00	2,881.27	0.00	-235.29	0.00	2.00	-2.00	0.00	0.00
3,000.00	5.72	270.00	2,980.58	0.00	-246.99	0.00	2.00	-2.00	0.00	0.00
3,100.00	3.72	270.00	3,080.24	0.00	-255.22	0.00	2.00	-2.00	0.00	0.00
3,200.00	1.72	270.00	3,180.12	0.00	-259.96	0.00	2.00	-2.00	0.00	0.00
3,285.89	0.00	0.00	3,266.00	0.00	-261.25	0.00	2.00	-2.00	0.00	0.00
Start 3133.04 hold at 3285.89 MD										
3,300.00	0.00	0.00	3,280.11	0.00	-261.25	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,380.11	0.00	-261.25	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,480.11	0.00	-261.25	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,580.11	0.00	-261.25	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,680.11	0.00	-261.25	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,780.11	0.00	-261.25	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,880.11	0.00	-261.25	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	3,980.11	0.00	-261.25	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,080.11	0.00	-261.25	0.00	0.00	0.00	0.00	0.00

Database:	Denver Sales	Local Co-ordinate Reference:	Well CC OPEN A 34N-36HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	GL 4900 & KB 17 @ 4917.00usft (ASSUMED)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	GL 4900 & KB 17 @ 4917.00usft (ASSUMED)
Site:	2N-65W-25 CC Open A Pad #1	North Reference:	True
Well:	CC OPEN A 34N-36HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	PLAN A		
Design:	PERMIT REV-2		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
4,200.00	0.00	0.00	4,180.11	0.00	-261.25	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,280.11	0.00	-261.25	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,380.11	0.00	-261.25	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,480.11	0.00	-261.25	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,580.11	0.00	-261.25	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,680.11	0.00	-261.25	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,780.11	0.00	-261.25	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,880.11	0.00	-261.25	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	4,980.11	0.00	-261.25	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,080.11	0.00	-261.25	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,180.11	0.00	-261.25	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,280.11	0.00	-261.25	0.00	0.00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,380.11	0.00	-261.25	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,480.11	0.00	-261.25	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,580.11	0.00	-261.25	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,680.11	0.00	-261.25	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,780.11	0.00	-261.25	0.00	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,880.11	0.00	-261.25	0.00	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	5,980.11	0.00	-261.25	0.00	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,080.11	0.00	-261.25	0.00	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,180.11	0.00	-261.25	0.00	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,280.11	0.00	-261.25	0.00	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,380.11	0.00	-261.25	0.00	0.00	0.00	0.00	0.00
6,418.93	0.00	0.00	6,399.04	0.00	-261.25	0.00	0.00	0.00	0.00	0.00
Start DLS 10.00 TFO 180.00										
6,500.00	8.11	180.00	6,479.84	-5.73	-261.25	5.73	10.00	10.00	0.00	0.00
6,600.00	18.11	180.00	6,577.11	-28.37	-261.25	28.37	10.00	10.00	0.00	0.00
6,700.00	28.11	180.00	6,668.97	-67.57	-261.25	67.57	10.00	10.00	0.00	0.00
6,800.00	38.11	180.00	6,752.63	-122.12	-261.25	122.12	10.00	10.00	0.00	0.00
6,872.93	45.40	180.00	6,807.00	-170.65	-261.25	170.65	10.00	10.00	0.00	0.00
Sharon Springs										
6,900.00	48.11	180.00	6,825.54	-190.37	-261.25	190.37	10.00	10.00	0.00	0.00
6,986.07	56.71	180.00	6,878.00	-258.51	-261.25	258.51	10.00	10.00	0.00	0.00
Niobrara Top										
7,000.00	58.11	180.00	6,885.50	-270.24	-261.25	270.24	10.00	10.00	0.00	0.00
7,100.00	68.11	180.00	6,930.68	-359.31	-261.25	359.31	10.00	10.00	0.00	0.00
7,142.34	72.34	180.00	6,945.00	-399.15	-261.25	399.15	10.00	10.00	0.00	0.00
Niobrara B Bench										
7,200.00	78.11	180.00	6,959.70	-454.88	-261.25	454.88	10.00	10.00	0.00	0.00
7,300.00	88.11	180.00	6,971.69	-554.03	-261.25	554.03	10.00	10.00	0.00	0.00
7,317.80	89.89	180.00	6,972.00	-571.83	-261.25	571.83	10.00	10.00	0.00	0.00
Start 9145.57 hold at 7317.80 MD - 7"(1050 FNL 226 FWL)										
7,400.00	89.89	180.00	6,972.16	-654.03	-261.25	654.03	0.00	0.00	0.00	0.00
7,500.00	89.89	180.00	6,972.36	-754.03	-261.25	754.03	0.00	0.00	0.00	0.00
7,600.00	89.89	180.00	6,972.55	-854.03	-261.25	854.03	0.00	0.00	0.00	0.00
7,700.00	89.89	180.00	6,972.75	-954.03	-261.25	954.03	0.00	0.00	0.00	0.00
7,800.00	89.89	180.00	6,972.95	-1,054.03	-261.25	1,054.03	0.00	0.00	0.00	0.00
7,900.00	89.89	180.00	6,973.14	-1,154.02	-261.25	1,154.02	0.00	0.00	0.00	0.00
8,000.00	89.89	180.00	6,973.34	-1,254.02	-261.25	1,254.02	0.00	0.00	0.00	0.00
8,100.00	89.89	180.00	6,973.54	-1,354.02	-261.25	1,354.02	0.00	0.00	0.00	0.00
8,200.00	89.89	180.00	6,973.73	-1,454.02	-261.25	1,454.02	0.00	0.00	0.00	0.00

Database:	Denver Sales	Local Co-ordinate Reference:	Well CC OPEN A 34N-36HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	GL 4900 & KB 17 @ 4917.00usft (ASSUMED)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	GL 4900 & KB 17 @ 4917.00usft (ASSUMED)
Site:	2N-65W-25 CC Open A Pad #1	North Reference:	True
Well:	CC OPEN A 34N-36HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	PLAN A		
Design:	PREMIT REV-2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,300.00	89.89	180.00	6,973.93	-1,554.02	-261.25	1,554.02	0.00	0.00	0.00
8,400.00	89.89	180.00	6,974.13	-1,654.02	-261.25	1,654.02	0.00	0.00	0.00
8,500.00	89.89	180.00	6,974.32	-1,754.02	-261.25	1,754.02	0.00	0.00	0.00
8,600.00	89.89	180.00	6,974.52	-1,854.02	-261.25	1,854.02	0.00	0.00	0.00
8,700.00	89.89	180.00	6,974.72	-1,954.02	-261.25	1,954.02	0.00	0.00	0.00
8,800.00	89.89	180.00	6,974.91	-2,054.02	-261.25	2,054.02	0.00	0.00	0.00
8,900.00	89.89	180.00	6,975.11	-2,154.02	-261.25	2,154.02	0.00	0.00	0.00
9,000.00	89.89	180.00	6,975.31	-2,254.02	-261.25	2,254.02	0.00	0.00	0.00
9,100.00	89.89	180.00	6,975.51	-2,354.02	-261.25	2,354.02	0.00	0.00	0.00
9,200.00	89.89	180.00	6,975.70	-2,454.02	-261.25	2,454.02	0.00	0.00	0.00
9,300.00	89.89	180.00	6,975.90	-2,554.02	-261.25	2,554.02	0.00	0.00	0.00
9,400.00	89.89	180.00	6,976.10	-2,654.02	-261.25	2,654.02	0.00	0.00	0.00
9,500.00	89.89	180.00	6,976.29	-2,754.02	-261.25	2,754.02	0.00	0.00	0.00
9,600.00	89.89	180.00	6,976.49	-2,854.02	-261.25	2,854.02	0.00	0.00	0.00
9,700.00	89.89	180.00	6,976.69	-2,954.02	-261.25	2,954.02	0.00	0.00	0.00
9,800.00	89.89	180.00	6,976.88	-3,054.02	-261.25	3,054.02	0.00	0.00	0.00
9,900.00	89.89	180.00	6,977.08	-3,154.02	-261.25	3,154.02	0.00	0.00	0.00
10,000.00	89.89	180.00	6,977.28	-3,254.02	-261.25	3,254.02	0.00	0.00	0.00
10,100.00	89.89	180.00	6,977.47	-3,354.02	-261.25	3,354.02	0.00	0.00	0.00
10,200.00	89.89	180.00	6,977.67	-3,454.02	-261.25	3,454.02	0.00	0.00	0.00
10,300.00	89.89	180.00	6,977.87	-3,554.02	-261.25	3,554.02	0.00	0.00	0.00
10,400.00	89.89	180.00	6,978.06	-3,654.02	-261.25	3,654.02	0.00	0.00	0.00
10,500.00	89.89	180.00	6,978.26	-3,754.02	-261.25	3,754.02	0.00	0.00	0.00
10,600.00	89.89	180.00	6,978.46	-3,854.02	-261.25	3,854.02	0.00	0.00	0.00
10,700.00	89.89	180.00	6,978.65	-3,954.02	-261.25	3,954.02	0.00	0.00	0.00
10,800.00	89.89	180.00	6,978.85	-4,054.02	-261.25	4,054.02	0.00	0.00	0.00
10,900.00	89.89	180.00	6,979.05	-4,154.02	-261.25	4,154.02	0.00	0.00	0.00
11,000.00	89.89	180.00	6,979.25	-4,254.02	-261.25	4,254.02	0.00	0.00	0.00
11,100.00	89.89	180.00	6,979.44	-4,354.02	-261.25	4,354.02	0.00	0.00	0.00
11,200.00	89.89	180.00	6,979.64	-4,454.02	-261.25	4,454.02	0.00	0.00	0.00
11,300.00	89.89	180.00	6,979.84	-4,554.02	-261.25	4,554.02	0.00	0.00	0.00
11,400.00	89.89	180.00	6,980.03	-4,654.02	-261.25	4,654.02	0.00	0.00	0.00
11,500.00	89.89	180.00	6,980.23	-4,754.02	-261.25	4,754.02	0.00	0.00	0.00
11,600.00	89.89	180.00	6,980.43	-4,854.02	-261.25	4,854.02	0.00	0.00	0.00
11,700.00	89.89	180.00	6,980.62	-4,954.02	-261.25	4,954.02	0.00	0.00	0.00
11,800.00	89.89	180.00	6,980.82	-5,054.02	-261.25	5,054.02	0.00	0.00	0.00
11,900.00	89.89	180.00	6,981.02	-5,154.02	-261.25	5,154.02	0.00	0.00	0.00
12,000.00	89.89	180.00	6,981.21	-5,254.02	-261.25	5,254.02	0.00	0.00	0.00
12,100.00	89.89	180.00	6,981.41	-5,354.02	-261.25	5,354.02	0.00	0.00	0.00
12,200.00	89.89	180.00	6,981.61	-5,454.02	-261.25	5,454.02	0.00	0.00	0.00
12,300.00	89.89	180.00	6,981.80	-5,554.02	-261.25	5,554.02	0.00	0.00	0.00
12,400.00	89.89	180.00	6,982.00	-5,654.02	-261.25	5,654.02	0.00	0.00	0.00
12,500.00	89.89	180.00	6,982.20	-5,754.02	-261.25	5,754.02	0.00	0.00	0.00
12,600.00	89.89	180.00	6,982.39	-5,854.02	-261.25	5,854.02	0.00	0.00	0.00
12,700.00	89.89	180.00	6,982.59	-5,954.02	-261.25	5,954.02	0.00	0.00	0.00
12,800.00	89.89	180.00	6,982.79	-6,054.02	-261.25	6,054.02	0.00	0.00	0.00
12,900.00	89.89	180.00	6,982.99	-6,154.02	-261.25	6,154.02	0.00	0.00	0.00
13,000.00	89.89	180.00	6,983.18	-6,254.02	-261.25	6,254.02	0.00	0.00	0.00
13,100.00	89.89	180.00	6,983.38	-6,354.01	-261.25	6,354.01	0.00	0.00	0.00
13,200.00	89.89	180.00	6,983.58	-6,454.01	-261.25	6,454.01	0.00	0.00	0.00
13,300.00	89.89	180.00	6,983.77	-6,554.01	-261.25	6,554.01	0.00	0.00	0.00
13,400.00	89.89	180.00	6,983.97	-6,654.01	-261.25	6,654.01	0.00	0.00	0.00

Database:	Denver Sales	Local Co-ordinate Reference:	Well CC OPEN A 34N-36HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	GL 4900 & KB 17 @ 4917.00usft (ASSUMED)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	GL 4900 & KB 17 @ 4917.00usft (ASSUMED)
Site:	2N-65W-25 CC Open A Pad #1	North Reference:	True
Well:	CC OPEN A 34N-36HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	PLAN A		
Design:	PREMIT REV-2		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
13,500.00	89.89	180.00	6,984.17	-6,754.01	-261.25	6,754.01	0.00	0.00	0.00	
13,600.00	89.89	180.00	6,984.36	-6,854.01	-261.25	6,854.01	0.00	0.00	0.00	
13,700.00	89.89	180.00	6,984.56	-6,954.01	-261.25	6,954.01	0.00	0.00	0.00	
13,800.00	89.89	180.00	6,984.76	-7,054.01	-261.25	7,054.01	0.00	0.00	0.00	
13,900.00	89.89	180.00	6,984.95	-7,154.01	-261.25	7,154.01	0.00	0.00	0.00	
14,000.00	89.89	180.00	6,985.15	-7,254.01	-261.25	7,254.01	0.00	0.00	0.00	
14,100.00	89.89	180.00	6,985.35	-7,354.01	-261.25	7,354.01	0.00	0.00	0.00	
14,200.00	89.89	180.00	6,985.54	-7,454.01	-261.25	7,454.01	0.00	0.00	0.00	
14,300.00	89.89	180.00	6,985.74	-7,554.01	-261.25	7,554.01	0.00	0.00	0.00	
14,400.00	89.89	180.00	6,985.94	-7,654.01	-261.25	7,654.01	0.00	0.00	0.00	
14,500.00	89.89	180.00	6,986.14	-7,754.01	-261.25	7,754.01	0.00	0.00	0.00	
14,600.00	89.89	180.00	6,986.33	-7,854.01	-261.25	7,854.01	0.00	0.00	0.00	
14,700.00	89.89	180.00	6,986.53	-7,954.01	-261.25	7,954.01	0.00	0.00	0.00	
14,800.00	89.89	180.00	6,986.73	-8,054.01	-261.25	8,054.01	0.00	0.00	0.00	
14,900.00	89.89	180.00	6,986.92	-8,154.01	-261.25	8,154.01	0.00	0.00	0.00	
15,000.00	89.89	180.00	6,987.12	-8,254.01	-261.25	8,254.01	0.00	0.00	0.00	
15,100.00	89.89	180.00	6,987.32	-8,354.01	-261.25	8,354.01	0.00	0.00	0.00	
15,200.00	89.89	180.00	6,987.51	-8,454.01	-261.25	8,454.01	0.00	0.00	0.00	
15,300.00	89.89	180.00	6,987.71	-8,554.01	-261.25	8,554.01	0.00	0.00	0.00	
15,400.00	89.89	180.00	6,987.91	-8,654.01	-261.25	8,654.01	0.00	0.00	0.00	
15,500.00	89.89	180.00	6,988.10	-8,754.01	-261.25	8,754.01	0.00	0.00	0.00	
15,600.00	89.89	180.00	6,988.30	-8,854.01	-261.25	8,854.01	0.00	0.00	0.00	
15,700.00	89.89	180.00	6,988.50	-8,954.01	-261.25	8,954.01	0.00	0.00	0.00	
15,800.00	89.89	180.00	6,988.69	-9,054.01	-261.25	9,054.01	0.00	0.00	0.00	
15,900.00	89.89	180.00	6,988.89	-9,154.01	-261.25	9,154.01	0.00	0.00	0.00	
16,000.00	89.89	180.00	6,989.09	-9,254.01	-261.25	9,254.01	0.00	0.00	0.00	
16,100.00	89.89	180.00	6,989.28	-9,354.01	-261.25	9,354.01	0.00	0.00	0.00	
16,200.00	89.89	180.00	6,989.48	-9,454.01	-261.25	9,454.01	0.00	0.00	0.00	
16,300.00	89.89	180.00	6,989.68	-9,554.01	-261.25	9,554.01	0.00	0.00	0.00	
16,400.00	89.89	180.00	6,989.88	-9,654.01	-261.25	9,654.01	0.00	0.00	0.00	
16,463.37	89.89	180.00	6,990.00	-9,717.38	-261.25	9,717.38	0.00	0.00	0.00	
TD at 16463.37 - PBHL_CC OPEN A 34N-36HZ(460 FSL158 FWL)										

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL_CC OPEN A 34N- - hit/miss target - Shape - plan hits target center - Point	0.00	0.00	6,990.00	-9,717.38	-261.25	14,559,288.35	1,746,443.13	40.088781	-104.620912

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,802.50	1,800.00	9 5/8"	9.625	13.500	
7,317.80	6,972.00	7"(1050 FNL 226 FWL)	7.000	8.750	

Database:	Denver Sales	Local Co-ordinate Reference:	Well CC OPEN A 34N-36HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	GL 4900 & KB 17 @ 4917.00usft (ASSUMED)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	GL 4900 & KB 17 @ 4917.00usft (ASSUMED)
Site:	2N-65W-25 CC Open A Pad #1	North Reference:	True
Well:	CC OPEN A 34N-36HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	PLAN A		
Design:	PERMIT REV-2		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
6,872.93	6,807.00	Sharon Springs				
6,986.07	6,878.00	Niobrara Top				
7,142.34	6,945.00	Niobrara B Bench				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
1,200.00	1,200.00	0.00	0.00	Start Build 1.50	
1,866.97	1,863.58	0.00	-58.08	Start 918.70 hold at 1866.97 MD	
2,785.67	2,768.31	0.00	-217.68	Start Drop -2.00	
3,285.89	3,266.00	0.00	-261.25	Start 3133.04 hold at 3285.89 MD	
6,418.93	6,399.04	0.00	-261.25	Start DLS 10.00 TFO 180.00	
7,317.80	6,972.00	-571.83	-261.25	Start 9145.57 hold at 7317.80 MD	
16,463.37	6,990.00	-9,717.38	-261.25	TD at 16463.37	