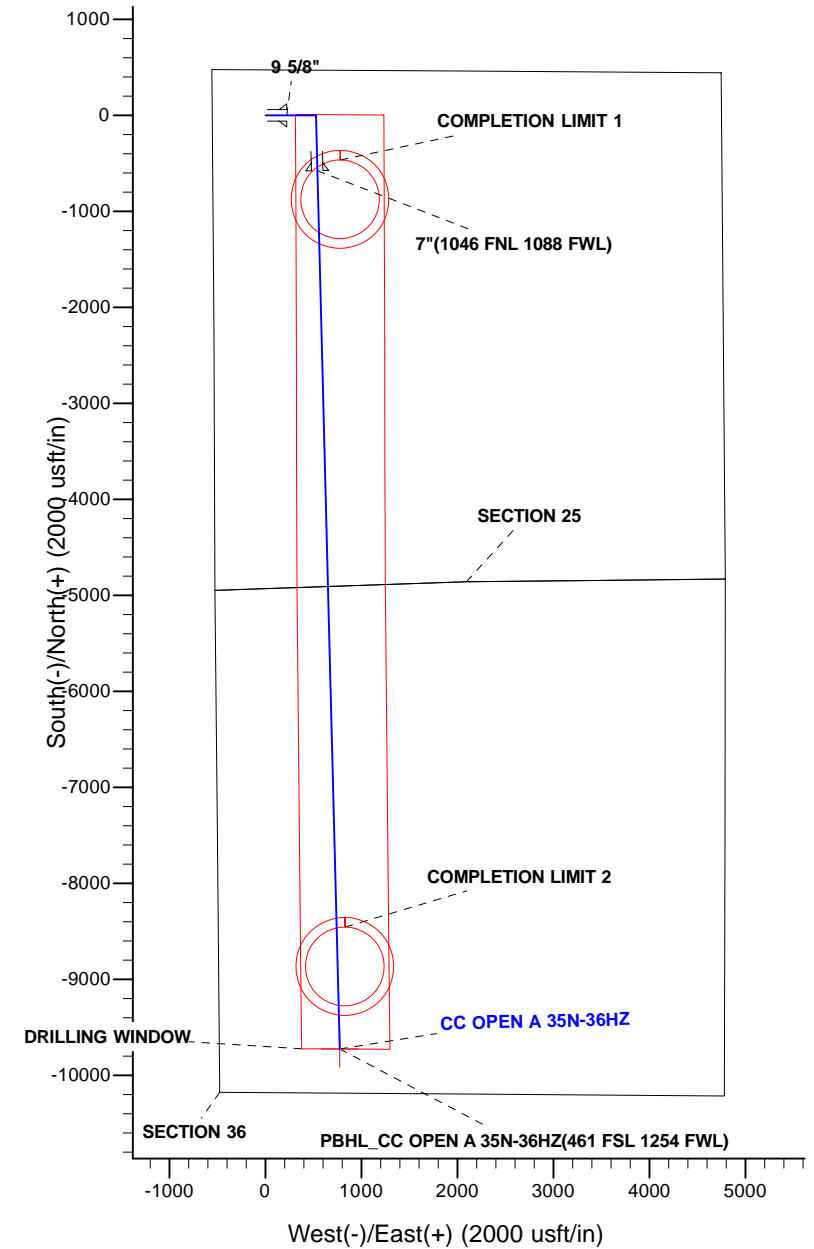
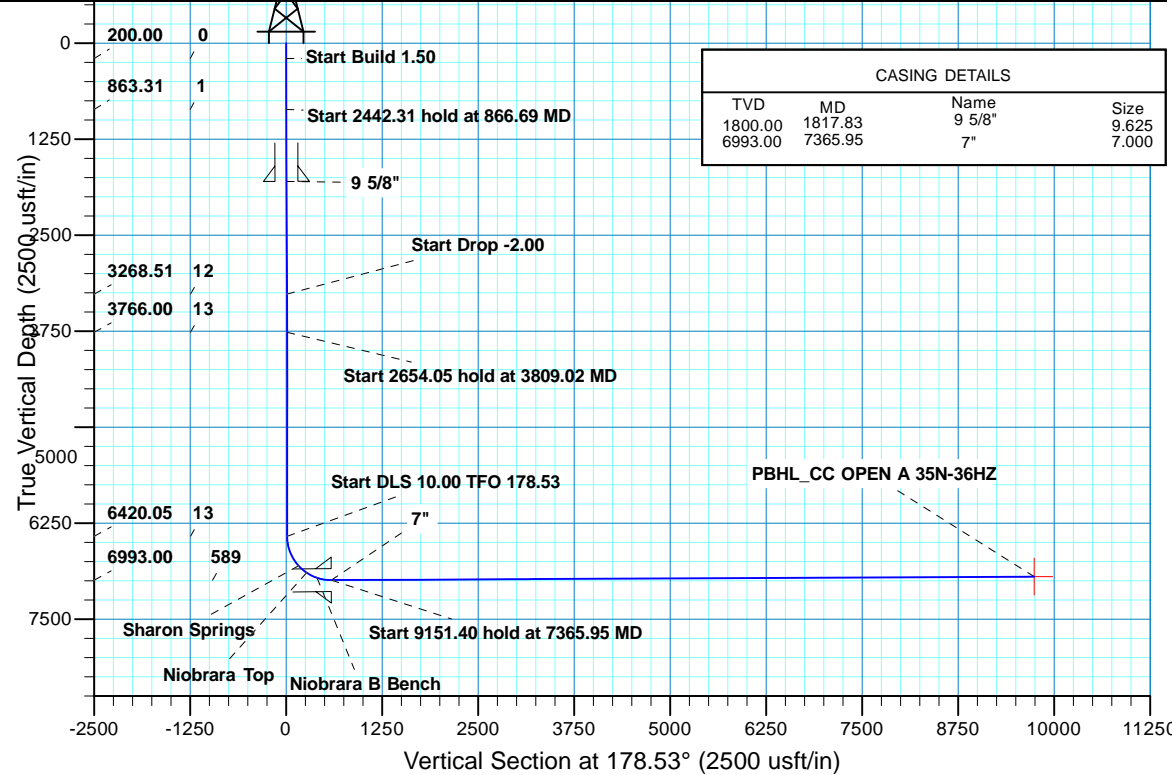


WELL DETAILS: CC OPEN A 35N-36HZ									
GL 4900 & KB 17 @ 4917.00usft (ASSUMED)									
	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude			
	0.00	0.00	14569006.65	1746722.68	40.115465	-104.619764			
SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	V Sect	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
866.69	10.00	90.00	863.31	0.00	58.03	1.50	90.00	1.49	
3309.00	10.00	90.00	3268.51	0.00	482.15	0.00	0.00	12.37	
3809.02	0.00	0.00	3766.00	0.00	525.68	2.00	180.00	13.49	
6463.07	0.00	0.00	6420.05	0.00	525.68	0.00	0.00	13.49	
7365.95	90.29	178.53	6993.00	-575.65	540.42	10.00	178.53	589.32	
16517.35	90.29	178.53	6947.00	-9723.93	774.68	0.00	0.009740.61		PBHL_CC OPEN A 35N-36HZ
DESIGN TARGET DETAILS									
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape	Point
PBHL	6947.00	-9723.93	774.68	14559286.12	1747538.93	40.088762	-104.616994	Point	
- plan hits target center									
FORMATION TOP DETAILS									
TVDPath	MDPath	Formation	DipDirInc						
6807.00	6887.89	Sharon Springs	42.48						
6896.00	7024.77	Niobrara Top	56.17						
6963.00	7176.82	Niobrara B Bench	71.37						



US ROCKIES WATTENBERG PLANNING

WELD-NAD83-UTMFT13N
2N-65W-25 CC Open A Pad #1
CC OPEN A 35N-36HZ

PLAN A

Plan: PERMIT REV-2

Standard Planning Report

17 July, 2015

Database:	Denver Sales	Local Co-ordinate Reference:	Well CC OPEN A 35N-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 35N-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 35N-36HZ					
Well Position	+N/-S	-0.36 usft	Northing:	14,569,006.65 usft	Latitude:	40.115465
	+E/-W	59.83 usft	Easting:	1,746,722.68 usft	Longitude:	-104.619764
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	1/7/2015	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	178.53

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	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
866.69	10.00	90.00	863.31	0.00	58.03	1.50	1.50	0.00	90.00	
3,309.00	10.00	90.00	3,268.52	0.00	482.15	0.00	0.00	0.00	0.00	
3,809.02	0.00	0.00	3,766.00	0.00	525.68	2.00	-2.00	0.00	180.00	
6,463.07	0.00	0.00	6,420.05	0.00	525.68	0.00	0.00	0.00	0.00	
7,365.95	90.29	178.53	6,993.00	-575.65	540.42	10.00	10.00	19.77	178.53	
16,517.35	90.29	178.53	6,947.00	-9,723.93	774.68	0.00	0.00	0.00	0.00	PBHL_CC OPEN A 3!

Database:	Denver Sales	Local Co-ordinate Reference:	Well CC OPEN A 35N-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 35N-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
Start Build 1.50										
300.00	1.50	90.00	299.99	0.00	1.31	0.03	1.50	1.50	0.00	0.00
400.00	3.00	90.00	399.91	0.00	5.23	0.13	1.50	1.50	0.00	0.00
500.00	4.50	90.00	499.69	0.00	11.77	0.30	1.50	1.50	0.00	0.00
600.00	6.00	90.00	599.27	0.00	20.92	0.54	1.50	1.50	0.00	0.00
700.00	7.50	90.00	698.57	0.00	32.68	0.84	1.50	1.50	0.00	0.00
800.00	9.00	90.00	797.54	0.00	47.03	1.21	1.50	1.50	0.00	0.00
866.69	10.00	90.00	863.31	0.00	58.03	1.49	1.50	1.50	0.00	0.00
Start 2442.31 hold at 866.69 MD										
900.00	10.00	90.00	896.11	0.00	63.82	1.64	0.00	0.00	0.00	0.00
1,000.00	10.00	90.00	994.59	0.00	81.18	2.08	0.00	0.00	0.00	0.00
1,100.00	10.00	90.00	1,093.08	0.00	98.55	2.53	0.00	0.00	0.00	0.00
1,200.00	10.00	90.00	1,191.56	0.00	115.92	2.97	0.00	0.00	0.00	0.00
1,300.00	10.00	90.00	1,290.04	0.00	133.28	3.42	0.00	0.00	0.00	0.00
1,400.00	10.00	90.00	1,388.52	0.00	150.65	3.86	0.00	0.00	0.00	0.00
1,500.00	10.00	90.00	1,487.00	0.00	168.01	4.31	0.00	0.00	0.00	0.00
1,600.00	10.00	90.00	1,585.48	0.00	185.38	4.76	0.00	0.00	0.00	0.00
1,700.00	10.00	90.00	1,683.96	0.00	202.74	5.20	0.00	0.00	0.00	0.00
1,800.00	10.00	90.00	1,782.44	0.00	220.11	5.65	0.00	0.00	0.00	0.00
1,817.83	10.00	90.00	1,800.00	0.00	223.20	5.73	0.00	0.00	0.00	0.00
9 5/8"										
1,900.00	10.00	90.00	1,880.92	0.00	237.47	6.09	0.00	0.00	0.00	0.00
2,000.00	10.00	90.00	1,979.40	0.00	254.84	6.54	0.00	0.00	0.00	0.00
2,100.00	10.00	90.00	2,077.88	0.00	272.20	6.98	0.00	0.00	0.00	0.00
2,200.00	10.00	90.00	2,176.36	0.00	289.57	7.43	0.00	0.00	0.00	0.00
2,300.00	10.00	90.00	2,274.84	0.00	306.94	7.87	0.00	0.00	0.00	0.00
2,400.00	10.00	90.00	2,373.32	0.00	324.30	8.32	0.00	0.00	0.00	0.00
2,500.00	10.00	90.00	2,471.80	0.00	341.67	8.76	0.00	0.00	0.00	0.00
2,600.00	10.00	90.00	2,570.29	0.00	359.03	9.21	0.00	0.00	0.00	0.00
2,700.00	10.00	90.00	2,668.77	0.00	376.40	9.66	0.00	0.00	0.00	0.00
2,800.00	10.00	90.00	2,767.25	0.00	393.76	10.10	0.00	0.00	0.00	0.00
2,900.00	10.00	90.00	2,865.73	0.00	411.13	10.55	0.00	0.00	0.00	0.00
3,000.00	10.00	90.00	2,964.21	0.00	428.49	10.99	0.00	0.00	0.00	0.00
3,100.00	10.00	90.00	3,062.69	0.00	445.86	11.44	0.00	0.00	0.00	0.00
3,200.00	10.00	90.00	3,161.17	0.00	463.23	11.88	0.00	0.00	0.00	0.00
3,300.00	10.00	90.00	3,259.65	0.00	480.59	12.33	0.00	0.00	0.00	0.00
3,309.00	10.00	90.00	3,268.52	0.00	482.15	12.37	0.00	0.00	0.00	0.00
Start Drop -2.00										
3,400.00	8.18	90.00	3,358.37	0.00	496.53	12.74	2.00	-2.00	0.00	0.00
3,500.00	6.18	90.00	3,457.58	0.00	509.03	13.06	2.00	-2.00	0.00	0.00
3,600.00	4.18	90.00	3,557.16	0.00	518.06	13.29	2.00	-2.00	0.00	0.00
3,700.00	2.18	90.00	3,657.00	0.00	523.61	13.43	2.00	-2.00	0.00	0.00
3,800.00	0.18	90.00	3,756.98	0.00	525.67	13.49	2.00	-2.00	0.00	0.00
3,809.02	0.00	0.00	3,766.00	0.00	525.68	13.49	2.00	-2.00	0.00	0.00
Start 2654.05 hold at 3809.02 MD										
3,900.00	0.00	0.00	3,856.98	0.00	525.68	13.49	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	3,956.98	0.00	525.68	13.49	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,056.98	0.00	525.68	13.49	0.00	0.00	0.00	0.00

Database:	Denver Sales	Local Co-ordinate Reference:	Well CC OPEN A 35N-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 35N-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	4,156.98	0.00	525.68	13.49	0.00	0.00	0.00	
4,300.00	0.00	0.00	4,256.98	0.00	525.68	13.49	0.00	0.00	0.00	
4,400.00	0.00	0.00	4,356.98	0.00	525.68	13.49	0.00	0.00	0.00	
4,500.00	0.00	0.00	4,456.98	0.00	525.68	13.49	0.00	0.00	0.00	
4,600.00	0.00	0.00	4,556.98	0.00	525.68	13.49	0.00	0.00	0.00	
4,700.00	0.00	0.00	4,656.98	0.00	525.68	13.49	0.00	0.00	0.00	
4,800.00	0.00	0.00	4,756.98	0.00	525.68	13.49	0.00	0.00	0.00	
4,900.00	0.00	0.00	4,856.98	0.00	525.68	13.49	0.00	0.00	0.00	
5,000.00	0.00	0.00	4,956.98	0.00	525.68	13.49	0.00	0.00	0.00	
5,100.00	0.00	0.00	5,056.98	0.00	525.68	13.49	0.00	0.00	0.00	
5,200.00	0.00	0.00	5,156.98	0.00	525.68	13.49	0.00	0.00	0.00	
5,300.00	0.00	0.00	5,256.98	0.00	525.68	13.49	0.00	0.00	0.00	
5,400.00	0.00	0.00	5,356.98	0.00	525.68	13.49	0.00	0.00	0.00	
5,500.00	0.00	0.00	5,456.98	0.00	525.68	13.49	0.00	0.00	0.00	
5,600.00	0.00	0.00	5,556.98	0.00	525.68	13.49	0.00	0.00	0.00	
5,700.00	0.00	0.00	5,656.98	0.00	525.68	13.49	0.00	0.00	0.00	
5,800.00	0.00	0.00	5,756.98	0.00	525.68	13.49	0.00	0.00	0.00	
5,900.00	0.00	0.00	5,856.98	0.00	525.68	13.49	0.00	0.00	0.00	
6,000.00	0.00	0.00	5,956.98	0.00	525.68	13.49	0.00	0.00	0.00	
6,100.00	0.00	0.00	6,056.98	0.00	525.68	13.49	0.00	0.00	0.00	
6,200.00	0.00	0.00	6,156.98	0.00	525.68	13.49	0.00	0.00	0.00	
6,300.00	0.00	0.00	6,256.98	0.00	525.68	13.49	0.00	0.00	0.00	
6,400.00	0.00	0.00	6,356.98	0.00	525.68	13.49	0.00	0.00	0.00	
6,463.07	0.00	0.00	6,420.05	0.00	525.68	13.49	0.00	0.00	0.00	
Start DLS 10.00 TFO 178.53										
6,500.00	3.69	178.53	6,456.95	-1.19	525.71	14.68	10.00	10.00	0.00	
6,600.00	13.69	178.53	6,555.68	-16.28	526.10	29.77	10.00	10.00	0.00	
6,700.00	23.69	178.53	6,650.28	-48.28	526.92	61.78	10.00	10.00	0.00	
6,800.00	33.69	178.53	6,737.89	-96.21	528.14	109.73	10.00	10.00	0.00	
6,887.89	42.48	178.53	6,807.00	-150.36	529.53	163.89	10.00	10.00	0.00	
Sharon Springs										
6,900.00	43.69	178.53	6,815.84	-158.63	529.74	172.16	10.00	10.00	0.00	
7,000.00	53.69	178.53	6,881.77	-233.62	531.66	247.19	10.00	10.00	0.00	
7,024.77	56.17	178.53	6,896.00	-253.89	532.18	267.46	10.00	10.00	0.00	
Niobrara Top										
7,100.00	63.69	178.53	6,933.67	-318.93	533.85	332.52	10.00	10.00	0.00	
7,176.82	71.37	178.53	6,963.00	-389.84	535.66	403.45	10.00	10.00	0.00	
Niobrara B Bench										
7,200.00	73.69	178.53	6,969.96	-411.94	536.23	425.56	10.00	10.00	0.00	
7,300.00	83.69	178.53	6,989.54	-509.85	538.74	523.50	10.00	10.00	0.00	
7,365.95	90.29	178.53	6,993.00	-575.65	540.42	589.32	10.00	10.00	0.00	
Start 9151.40 hold at 7365.95 MD - 7"(1046 FNL 1088 FWL)										
7,400.00	90.29	178.53	6,992.83	-609.69	541.29	623.37	0.00	0.00	0.00	
7,500.00	90.29	178.53	6,992.33	-709.65	543.85	723.37	0.00	0.00	0.00	
7,600.00	90.29	178.53	6,991.82	-809.62	546.41	823.37	0.00	0.00	0.00	
7,700.00	90.29	178.53	6,991.32	-909.58	548.97	923.37	0.00	0.00	0.00	
7,800.00	90.29	178.53	6,990.82	-1,009.55	551.53	1,023.37	0.00	0.00	0.00	
7,900.00	90.29	178.53	6,990.32	-1,109.52	554.09	1,123.36	0.00	0.00	0.00	
8,000.00	90.29	178.53	6,989.81	-1,209.48	556.65	1,223.36	0.00	0.00	0.00	
8,100.00	90.29	178.53	6,989.31	-1,309.45	559.21	1,323.36	0.00	0.00	0.00	
8,200.00	90.29	178.53	6,988.81	-1,409.41	561.77	1,423.36	0.00	0.00	0.00	

Database:	Denver Sales	Local Co-ordinate Reference:	Well CC OPEN A 35N-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 35N-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)
8,300.00	90.29	178.53	6,988.31	-1,509.38	564.33	1,523.36	0.00	0.00	0.00
8,400.00	90.29	178.53	6,987.80	-1,609.35	566.89	1,623.36	0.00	0.00	0.00
8,500.00	90.29	178.53	6,987.30	-1,709.31	569.45	1,723.36	0.00	0.00	0.00
8,600.00	90.29	178.53	6,986.80	-1,809.28	572.01	1,823.36	0.00	0.00	0.00
8,700.00	90.29	178.53	6,986.29	-1,909.24	574.57	1,923.35	0.00	0.00	0.00
8,800.00	90.29	178.53	6,985.79	-2,009.21	577.13	2,023.35	0.00	0.00	0.00
8,900.00	90.29	178.53	6,985.29	-2,109.18	579.69	2,123.35	0.00	0.00	0.00
9,000.00	90.29	178.53	6,984.79	-2,209.14	582.25	2,223.35	0.00	0.00	0.00
9,100.00	90.29	178.53	6,984.28	-2,309.11	584.81	2,323.35	0.00	0.00	0.00
9,200.00	90.29	178.53	6,983.78	-2,409.07	587.37	2,423.35	0.00	0.00	0.00
9,300.00	90.29	178.53	6,983.28	-2,509.04	589.93	2,523.35	0.00	0.00	0.00
9,400.00	90.29	178.53	6,982.78	-2,609.00	592.49	2,623.35	0.00	0.00	0.00
9,500.00	90.29	178.53	6,982.27	-2,708.97	595.05	2,723.34	0.00	0.00	0.00
9,600.00	90.29	178.53	6,981.77	-2,808.94	597.61	2,823.34	0.00	0.00	0.00
9,700.00	90.29	178.53	6,981.27	-2,908.90	600.17	2,923.34	0.00	0.00	0.00
9,800.00	90.29	178.53	6,980.77	-3,008.87	602.73	3,023.34	0.00	0.00	0.00
9,900.00	90.29	178.53	6,980.26	-3,108.83	605.29	3,123.34	0.00	0.00	0.00
10,000.00	90.29	178.53	6,979.76	-3,208.80	607.85	3,223.34	0.00	0.00	0.00
10,100.00	90.29	178.53	6,979.26	-3,308.77	610.41	3,323.34	0.00	0.00	0.00
10,200.00	90.29	178.53	6,978.76	-3,408.73	612.97	3,423.34	0.00	0.00	0.00
10,300.00	90.29	178.53	6,978.25	-3,508.70	615.53	3,523.33	0.00	0.00	0.00
10,400.00	90.29	178.53	6,977.75	-3,608.66	618.09	3,623.33	0.00	0.00	0.00
10,500.00	90.29	178.53	6,977.25	-3,708.63	620.65	3,723.33	0.00	0.00	0.00
10,600.00	90.29	178.53	6,976.74	-3,808.60	623.21	3,823.33	0.00	0.00	0.00
10,700.00	90.29	178.53	6,976.24	-3,908.56	625.77	3,923.33	0.00	0.00	0.00
10,800.00	90.29	178.53	6,975.74	-4,008.53	628.33	4,023.33	0.00	0.00	0.00
10,900.00	90.29	178.53	6,975.24	-4,108.49	630.89	4,123.33	0.00	0.00	0.00
11,000.00	90.29	178.53	6,974.73	-4,208.46	633.45	4,223.33	0.00	0.00	0.00
11,100.00	90.29	178.53	6,974.23	-4,308.43	636.01	4,323.32	0.00	0.00	0.00
11,200.00	90.29	178.53	6,973.73	-4,408.39	638.57	4,423.32	0.00	0.00	0.00
11,300.00	90.29	178.53	6,973.23	-4,508.36	641.13	4,523.32	0.00	0.00	0.00
11,400.00	90.29	178.53	6,972.72	-4,608.32	643.69	4,623.32	0.00	0.00	0.00
11,500.00	90.29	178.53	6,972.22	-4,708.29	646.24	4,723.32	0.00	0.00	0.00
11,600.00	90.29	178.53	6,971.72	-4,808.26	648.80	4,823.32	0.00	0.00	0.00
11,700.00	90.29	178.53	6,971.22	-4,908.22	651.36	4,923.32	0.00	0.00	0.00
11,800.00	90.29	178.53	6,970.71	-5,008.19	653.92	5,023.32	0.00	0.00	0.00
11,900.00	90.29	178.53	6,970.21	-5,108.15	656.48	5,123.31	0.00	0.00	0.00
12,000.00	90.29	178.53	6,969.71	-5,208.12	659.04	5,223.31	0.00	0.00	0.00
12,100.00	90.29	178.53	6,969.20	-5,308.09	661.60	5,323.31	0.00	0.00	0.00
12,200.00	90.29	178.53	6,968.70	-5,408.05	664.16	5,423.31	0.00	0.00	0.00
12,300.00	90.29	178.53	6,968.20	-5,508.02	666.72	5,523.31	0.00	0.00	0.00
12,400.00	90.29	178.53	6,967.70	-5,607.98	669.28	5,623.31	0.00	0.00	0.00
12,500.00	90.29	178.53	6,967.19	-5,707.95	671.84	5,723.31	0.00	0.00	0.00
12,600.00	90.29	178.53	6,966.69	-5,807.92	674.40	5,823.31	0.00	0.00	0.00
12,700.00	90.29	178.53	6,966.19	-5,907.88	676.96	5,923.30	0.00	0.00	0.00
12,800.00	90.29	178.53	6,965.69	-6,007.85	679.52	6,023.30	0.00	0.00	0.00
12,900.00	90.29	178.53	6,965.18	-6,107.81	682.08	6,123.30	0.00	0.00	0.00
13,000.00	90.29	178.53	6,964.68	-6,207.78	684.64	6,223.30	0.00	0.00	0.00
13,100.00	90.29	178.53	6,964.18	-6,307.75	687.20	6,323.30	0.00	0.00	0.00
13,200.00	90.29	178.53	6,963.68	-6,407.71	689.76	6,423.30	0.00	0.00	0.00
13,300.00	90.29	178.53	6,963.17	-6,507.68	692.32	6,523.30	0.00	0.00	0.00
13,400.00	90.29	178.53	6,962.67	-6,607.64	694.88	6,623.30	0.00	0.00	0.00

Database:	Denver Sales	Local Co-ordinate Reference:	Well CC OPEN A 35N-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 35N-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)	
13,500.00	90.29	178.53	6,962.17	-6,707.61	697.44	6,723.29	0.00	0.00	0.00	
13,600.00	90.29	178.53	6,961.66	-6,807.58	700.00	6,823.29	0.00	0.00	0.00	
13,700.00	90.29	178.53	6,961.16	-6,907.54	702.56	6,923.29	0.00	0.00	0.00	
13,800.00	90.29	178.53	6,960.66	-7,007.51	705.12	7,023.29	0.00	0.00	0.00	
13,900.00	90.29	178.53	6,960.16	-7,107.47	707.68	7,123.29	0.00	0.00	0.00	
14,000.00	90.29	178.53	6,959.65	-7,207.44	710.24	7,223.29	0.00	0.00	0.00	
14,100.00	90.29	178.53	6,959.15	-7,307.41	712.80	7,323.29	0.00	0.00	0.00	
14,200.00	90.29	178.53	6,958.65	-7,407.37	715.36	7,423.29	0.00	0.00	0.00	
14,300.00	90.29	178.53	6,958.15	-7,507.34	717.92	7,523.28	0.00	0.00	0.00	
14,400.00	90.29	178.53	6,957.64	-7,607.30	720.48	7,623.28	0.00	0.00	0.00	
14,500.00	90.29	178.53	6,957.14	-7,707.27	723.04	7,723.28	0.00	0.00	0.00	
14,600.00	90.29	178.53	6,956.64	-7,807.24	725.60	7,823.28	0.00	0.00	0.00	
14,700.00	90.29	178.53	6,956.14	-7,907.20	728.16	7,923.28	0.00	0.00	0.00	
14,800.00	90.29	178.53	6,955.63	-8,007.17	730.72	8,023.28	0.00	0.00	0.00	
14,900.00	90.29	178.53	6,955.13	-8,107.13	733.28	8,123.28	0.00	0.00	0.00	
15,000.00	90.29	178.53	6,954.63	-8,207.10	735.84	8,223.28	0.00	0.00	0.00	
15,100.00	90.29	178.53	6,954.12	-8,307.07	738.40	8,323.27	0.00	0.00	0.00	
15,200.00	90.29	178.53	6,953.62	-8,407.03	740.96	8,423.27	0.00	0.00	0.00	
15,300.00	90.29	178.53	6,953.12	-8,507.00	743.52	8,523.27	0.00	0.00	0.00	
15,400.00	90.29	178.53	6,952.62	-8,606.96	746.08	8,623.27	0.00	0.00	0.00	
15,500.00	90.29	178.53	6,952.11	-8,706.93	748.64	8,723.27	0.00	0.00	0.00	
15,600.00	90.29	178.53	6,951.61	-8,806.90	751.20	8,823.27	0.00	0.00	0.00	
15,700.00	90.29	178.53	6,951.11	-8,906.86	753.76	8,923.27	0.00	0.00	0.00	
15,800.00	90.29	178.53	6,950.61	-9,006.83	756.32	9,023.27	0.00	0.00	0.00	
15,900.00	90.29	178.53	6,950.10	-9,106.79	758.88	9,123.26	0.00	0.00	0.00	
16,000.00	90.29	178.53	6,949.60	-9,206.76	761.44	9,223.26	0.00	0.00	0.00	
16,100.00	90.29	178.53	6,949.10	-9,306.72	764.00	9,323.26	0.00	0.00	0.00	
16,200.00	90.29	178.53	6,948.60	-9,406.69	766.56	9,423.26	0.00	0.00	0.00	
16,300.00	90.29	178.53	6,948.09	-9,506.66	769.12	9,523.26	0.00	0.00	0.00	
16,400.00	90.29	178.53	6,947.59	-9,606.62	771.68	9,623.26	0.00	0.00	0.00	
16,500.00	90.29	178.53	6,947.09	-9,706.59	774.24	9,723.26	0.00	0.00	0.00	
16,517.35	90.29	178.53	6,947.00	-9,723.93	774.68	9,740.61	0.00	0.00	0.00	
TD at 16517.35 - PBHL_CC OPEN A 35N-36HZ(460 FSL 1252 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 35N- - hit/miss target - Shape - Point	0.00	0.00	6,947.00	-9,723.93	774.68	14,559,286.12	1,747,538.93	40.088762	-104.616994	

Database:	Denver Sales	Local Co-ordinate Reference:	Well CC OPEN A 35N-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 35N-36HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	PLAN A		
Design:	PERMIT REV-2		

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,817.83	1,800.00	9 5/8"	9.625	13.500	
7,365.95	6,993.00	7"(1046 FNL 1088 FWL)	7.000	8.750	

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
6,887.89	6,807.00	Sharon Springs			
7,024.77	6,896.00	Niobrara Top			
7,176.82	6,963.00	Niobrara B Bench			

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
200.00	200.00	0.00	0.00	Start Build 1.50	
866.69	863.31	0.00	58.03	Start 2442.31 hold at 866.69 MD	
3,309.00	3,268.52	0.00	482.15	Start Drop -2.00	
3,809.02	3,766.00	0.00	525.68	Start 2654.05 hold at 3809.02 MD	
6,463.07	6,420.05	0.00	525.68	Start DLS 10.00 TFO 178.53	
7,365.95	6,993.00	-575.65	540.42	Start 9151.40 hold at 7365.95 MD	
16,517.35	6,947.00	-9,723.93	774.68	TD at 16517.35	