

US ROCKIES WATTENBERG PLANNING

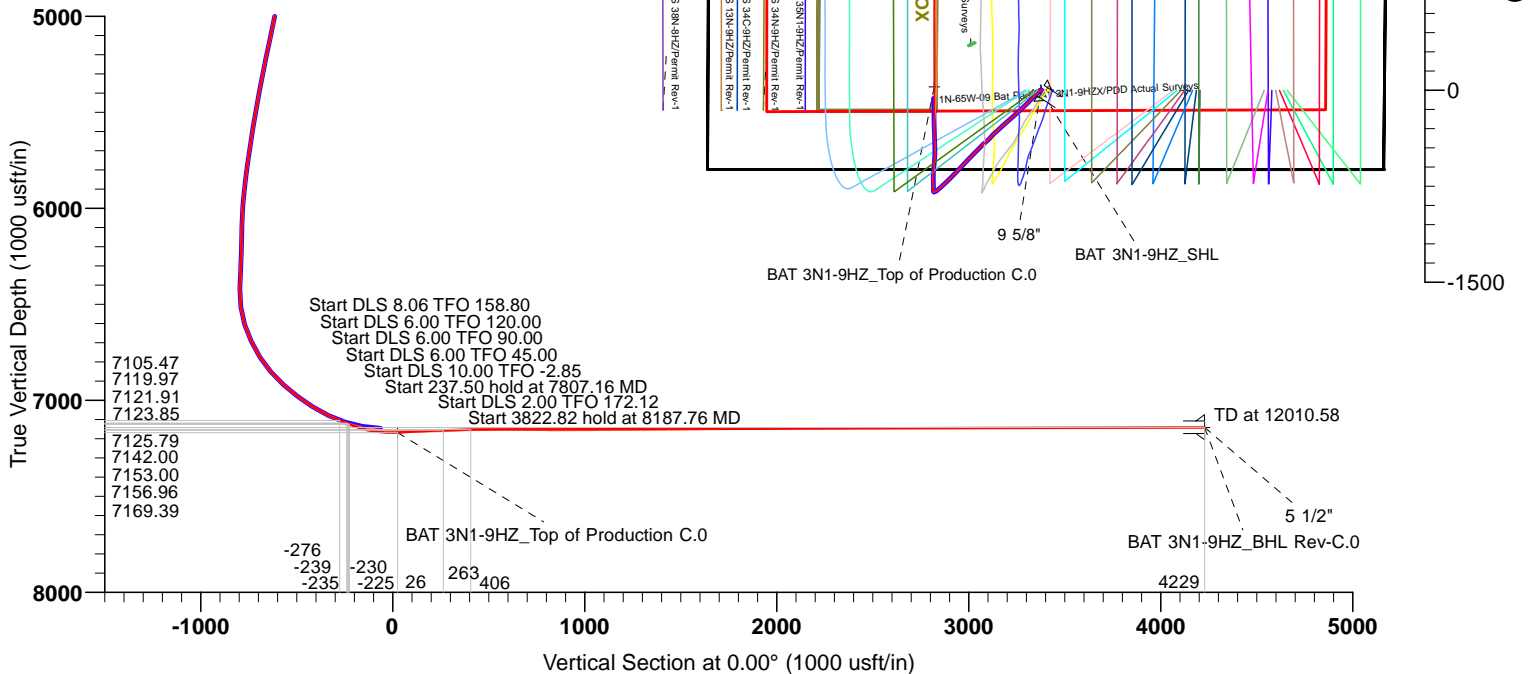


Project: WELD-NAD83-UTMFT13N
Site: 1N-65W-09 Bat Pad
Well: BAT 3N1-9HZX
Wellbore: Plan AX
Design: Rev.STK

West(-)/East(+) (1500 usft/in)

FORMATION TOP DETAILS				
TVDPath	MDPath	Formation	DipAngle	DipDir
952.00	952.08	Base Fox Hills	-0.14	0.00
4028.96	4108.66	Parkman	-0.14	0.00
4404.15	4502.10	Sussex	-0.14	0.00
6914.40	7138.75	SSPG	-0.14	0.00
6945.32	7185.55	NBRRL	-0.14	0.00
7048.96	7365.29	N470_B_CK	-0.14	0.00
7114.62	7520.85	N700_C_CK	-0.14	0.00

CASING DETAILS			
TVD	MD	Name	Size
1588.00	1588.20	9 5/8"	9-5/8
7142.00	12010.58	5 1/2"	5-1/2



TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
1N-R65W-Sec. 9_Section lines	-25.00	-0.34	1123.70	14548919.51	1734104.05	40.060443	-104.665168	Polygon
BAT 3N1-9HZ_SHL	0.00	0.00	0.00	14548915.68	1732980.35	40.060444	-104.669184	Point
BAT 3N1-9HZ_Landing Diagram	9.00	0.00	0.00	14548915.68	1732980.35	40.060444	-104.669184	Polygon
BAT 3N1-9HZ_BHL Rev-C.0	7142.00	4228.87	-835.92	14553141.41	1732128.72	40.072057	-104.672172	Point
BAT 3N1-9HZ_Top of Production C.0	7169.39	25.86	-833.23	14548938.44	1732147.03	40.060515	-104.672162	Point

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
7495.00	70.25	358.74	7105.47	-276.48	-833.77	0.00	0.00	-276.48	
7535.00	67.25	360.00	7119.97	-239.21	-834.18	8.06	158.80	-239.21	
7540.00	67.10	0.28	7121.91	-234.60	-834.17	6.00	120.00	-234.60	
7545.00	67.10	0.61	7123.85	-229.99	-834.14	6.00	90.00	-229.99	
7550.00	67.31	0.84	7125.79	-225.38	-834.08	6.00	45.00	-225.38	
7807.16	93.00	359.60	7169.39	25.86	-833.23	10.00	-2.85	25.86	
8044.66	93.00	359.60	7156.96	263.03	-834.88	0.00	0.00	263.03	
8187.76	90.16	359.99	7153.00	406.06	-835.39	2.00	172.12	406.06	
12010.58	90.16	359.99	7142.00	4228.87	-835.92	0.00	0.00	4228.87	BAT 3N1-9HZ_BHL Rev-C.0

Plan: Rev-STK (BAT 3N1-9HZX/Plan AX)
Created By: Ashley Wischniewsky
Date: 15:39, June 08 2015

PREMIER DIRECTIONAL DRILLING
12941 North Freeway Suite 400, Houston, TX, 77060
Phone: 281-673-4000



Planning Report

Database:	EDM 5000 MultiUser DB	Local Co-ordinate Reference:	Well BAT 3N1-9HZX
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	4931+25 @ 4956.00usft (hp311)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	4931+25 @ 4956.00usft (hp311)
Site:	1N-65W-09 Bat Pad	North Reference:	True
Well:	BAT 3N1-9HZX	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan AX		
Design:	Rev-STK		

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	1N-65W-09 Bat Pad, centered on the 3N1				
Site Position:		Northing:	14,548,915.67 usft	Latitude:	40.060444
From:	Lat/Long	Easting:	1,732,980.35 usft	Longitude:	-104.669184
Position Uncertainty:	2.68 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.21 °

Well	BAT 3N1-9HZX					
Well Position	+N/-S	0.00 usft	Northing:	14,548,915.67 usft	Latitude:	40.060444
	+E/-W	0.00 usft	Easting:	1,732,980.35 usft	Longitude:	-104.669184
Position Uncertainty		3.28 usft	Wellhead Elevation:		Ground Level:	4,931.00 usft

Wellbore	Plan AX				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	6/5/2015	8.25	66.65	52,544

Design	Rev-STK			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	7,495.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	0.00

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
7,495.00	70.25	358.74	7,105.47	-276.48	-833.77	0.00	0.00	0.00	0.00	
7,535.00	67.25	360.00	7,119.97	-239.21	-834.18	8.06	-7.51	3.16	158.80	
7,540.00	67.10	0.28	7,121.91	-234.60	-834.17	6.00	-3.00	5.64	120.00	
7,545.00	67.10	0.61	7,123.85	-229.99	-834.14	6.00	0.01	6.51	90.00	
7,550.00	67.31	0.84	7,125.79	-225.38	-834.08	6.00	4.25	4.60	45.00	
7,807.16	93.00	359.60	7,169.39	25.86	-833.23	10.00	9.99	-0.48	-2.85	
8,044.66	93.00	359.60	7,156.96	263.03	-834.88	0.00	0.00	0.00	0.00	
8,187.76	90.16	359.99	7,153.00	406.06	-835.39	2.00	-1.98	0.27	172.12	
12,010.58	90.16	359.99	7,142.00	4,228.87	-835.92	0.00	0.00	0.00	0.00	BAT 3N1-9HZ_BHL R

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Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	4931+25 @ 4956.00usft (hp311)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	4931+25 @ 4956.00usft (hp311)
Site:	1N-65W-09 Bat Pad	North Reference:	True
Well:	BAT 3N1-9HZX	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan AX		
Design:	Rev-STK		

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
20.00	0.00	0.00	20.00	0.00	0.00	0.00	0.00	0.00	0.00
102.00	0.90	86.20	102.00	0.04	0.64	0.04	1.10	1.10	0.00
166.00	0.70	83.70	165.99	0.12	1.53	0.12	0.32	-0.31	-3.91
225.00	0.90	90.40	224.98	0.16	2.35	0.16	0.37	0.34	11.36
284.00	0.80	38.40	283.98	0.47	3.07	0.47	1.27	-0.17	-88.14
346.00	0.60	319.70	345.98	1.06	3.13	1.06	1.45	-0.32	-126.94
406.00	0.60	298.70	405.97	1.45	2.65	1.45	0.36	0.00	-35.00
469.00	0.70	348.00	468.97	1.99	2.28	1.99	0.87	0.16	78.25
533.00	0.60	355.00	532.96	2.70	2.17	2.70	0.20	-0.16	10.94
596.00	0.20	337.20	595.96	3.13	2.10	3.13	0.66	-0.63	-28.25
659.00	0.40	298.50	658.96	3.34	1.87	3.34	0.44	0.32	-61.43
723.00	0.80	262.20	722.96	3.39	1.23	3.39	0.83	0.63	-56.72
787.00	0.70	235.00	786.95	3.10	0.46	3.10	0.57	-0.16	-42.50
851.00	1.00	262.50	850.95	2.80	-0.41	2.80	0.78	0.47	42.97
915.00	1.50	246.30	914.93	2.39	-1.73	2.39	0.95	0.78	-25.31
979.00	1.30	215.00	978.91	1.46	-2.91	1.46	1.22	-0.31	-48.91
1,043.00	1.90	164.40	1,042.89	-0.15	-3.04	-0.15	2.30	0.94	-79.06
1,106.00	1.90	160.80	1,105.86	-2.15	-2.42	-2.15	0.19	0.00	-5.71
1,171.00	1.20	149.50	1,170.83	-3.75	-1.72	-3.75	1.17	-1.08	-17.38
1,234.00	1.00	102.80	1,233.82	-4.44	-0.85	-4.44	1.41	-0.32	-74.13
1,298.00	0.40	86.30	1,297.82	-4.55	-0.08	-4.55	0.98	-0.94	-25.78
1,362.00	0.40	93.50	1,361.82	-4.55	0.36	-4.55	0.08	0.00	11.25
1,425.00	0.50	352.80	1,424.81	-4.29	0.55	-4.29	1.10	0.16	-159.84
1,488.00	0.40	311.10	1,487.81	-3.87	0.35	-3.87	0.53	-0.16	-66.19
1,553.00	1.10	304.50	1,552.81	-3.37	-0.34	-3.37	1.08	1.08	-10.15
1,588.20	0.88	303.01	1,588.00	-3.03	-0.84	-3.03	0.62	-0.62	-4.23
9 5/8"									
1,667.00	0.40	293.80	1,666.80	-2.59	-1.60	-2.59	0.62	-0.61	-11.69
1,762.00	1.90	304.40	1,761.77	-1.57	-3.21	-1.57	1.59	1.58	11.16
1,950.00	4.30	237.10	1,949.53	-3.63	-11.70	-3.63	2.11	1.28	-35.80
2,139.00	8.10	222.40	2,137.40	-17.32	-26.63	-17.32	2.16	2.01	-7.78
2,328.00	11.30	220.50	2,323.68	-41.24	-47.64	-41.24	1.70	1.69	-1.01
2,517.00	16.40	226.40	2,507.13	-73.74	-79.01	-73.74	2.80	2.70	3.12
2,706.00	15.80	223.10	2,688.72	-110.93	-115.92	-110.93	0.58	-0.32	-1.75
2,895.00	18.10	227.20	2,869.51	-149.67	-155.04	-149.67	1.37	1.22	2.17
3,084.00	18.60	227.20	3,048.89	-190.10	-198.70	-190.10	0.26	0.26	0.00
3,273.00	18.20	228.40	3,228.23	-230.18	-242.89	-230.18	0.29	-0.21	0.63
3,462.00	18.20	230.70	3,407.78	-268.47	-287.80	-268.47	0.38	0.00	1.22
3,651.00	17.00	227.90	3,587.93	-305.69	-331.15	-305.69	0.78	-0.63	-1.48
3,840.00	16.00	224.00	3,769.15	-342.95	-369.74	-342.95	0.79	-0.53	-2.06
4,029.00	13.80	222.20	3,951.79	-378.39	-402.98	-378.39	1.19	-1.16	-0.95
4,218.00	16.50	229.10	4,134.22	-412.67	-438.42	-412.67	1.72	1.43	3.65
4,407.00	19.00	227.30	4,314.21	-451.12	-481.32	-451.12	1.35	1.32	-0.95
4,596.00	18.80	224.20	4,493.02	-493.82	-525.17	-493.82	0.54	-0.11	-1.64
4,784.00	17.70	220.20	4,671.57	-537.36	-564.74	-537.36	0.89	-0.59	-2.13
4,973.00	18.60	222.20	4,851.17	-581.64	-603.53	-581.64	0.58	0.48	1.06
5,162.00	15.90	227.50	5,031.66	-621.47	-642.87	-621.47	1.65	-1.43	2.80
5,350.00	17.00	223.90	5,211.97	-658.67	-680.92	-658.67	0.80	0.59	-1.91
5,539.00	14.20	227.10	5,393.99	-694.37	-717.07	-694.37	1.55	-1.48	1.69
5,728.00	13.80	224.50	5,577.38	-726.23	-749.85	-726.23	0.39	-0.21	-1.38
5,917.00	11.80	226.00	5,761.67	-755.73	-779.55	-755.73	1.07	-1.06	0.79
6,106.00	8.10	231.80	5,947.80	-777.40	-803.92	-777.40	2.03	-1.96	3.07
6,295.00	2.80	260.20	6,135.90	-786.43	-818.95	-786.43	3.06	-2.80	15.03

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Wellbore:	Plan AX		
Design:	Rev-STK		

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)
6,390.00	4.90	237.40	6,230.69	-789.01	-824.66	-789.01	2.69	2.21	-24.00
6,485.00	3.80	236.40	6,325.41	-792.93	-830.70	-792.93	1.16	-1.16	-1.05
6,579.00	3.30	237.10	6,419.23	-796.13	-835.56	-796.13	0.53	-0.53	0.74
6,674.00	7.00	348.20	6,513.99	-791.94	-839.05	-791.94	9.21	3.89	116.95
6,768.00	18.20	2.70	6,605.59	-771.60	-839.53	-771.60	12.29	11.91	15.43
6,862.00	25.00	357.80	6,692.95	-737.04	-839.60	-737.04	7.48	7.23	-5.21
6,957.00	32.40	359.20	6,776.22	-691.47	-840.73	-691.47	7.82	7.79	1.47
7,052.00	41.10	3.90	6,852.28	-634.75	-838.96	-634.75	9.62	9.16	4.95
7,146.00	47.90	6.00	6,919.29	-569.16	-833.20	-569.16	7.40	7.23	2.23
7,240.00	52.50	0.40	6,979.47	-497.12	-829.29	-497.12	6.70	4.89	-5.96
7,335.00	58.30	358.80	7,033.40	-418.96	-829.88	-418.96	6.26	6.11	-1.68
7,430.00	63.20	358.10	7,079.80	-336.13	-832.13	-336.13	5.20	5.16	-0.74
7,495.00	70.25	358.74	7,105.47	-276.48	-833.77	-276.48	10.89	10.85	0.98
7,500.00	69.88	358.89	7,107.18	-271.78	-833.87	-271.78	8.06	-7.52	3.11
7,535.00	67.25	360.00	7,119.97	-239.21	-834.18	-239.21	8.06	-7.51	3.17
7,540.00	67.10	0.28	7,121.91	-234.60	-834.17	-234.60	6.00	-3.00	5.64
7,545.00	67.10	0.61	7,123.85	-229.99	-834.14	-229.99	6.00	0.01	6.51
7,550.00	67.31	0.84	7,125.79	-225.38	-834.08	-225.38	6.00	4.25	4.60
7,600.00	72.31	0.58	7,143.04	-178.48	-833.50	-178.48	10.00	9.99	-0.52
7,650.00	77.30	0.33	7,156.14	-130.24	-833.12	-130.24	10.00	9.99	-0.49
7,700.00	82.30	0.09	7,164.99	-81.05	-832.94	-81.05	10.00	9.99	-0.47
7,750.00	87.29	359.86	7,169.53	-31.27	-832.96	-31.27	10.00	9.99	-0.46
7,800.00	92.29	359.63	7,169.72	18.71	-833.18	18.71	10.00	9.99	-0.46
7,807.16	93.00	359.60	7,169.39	25.86	-833.23	25.86	10.00	9.99	-0.46
7,900.00	93.00	359.60	7,164.53	118.58	-833.87	118.58	0.00	0.00	0.00
8,000.00	93.00	359.60	7,159.29	218.44	-834.57	218.44	0.00	0.00	0.00
8,044.66	93.00	359.60	7,156.96	263.03	-834.88	263.03	0.00	0.00	0.00
8,100.00	91.90	359.75	7,154.59	318.32	-835.20	318.32	2.00	-1.98	0.27
8,187.76	90.16	359.99	7,153.00	406.06	-835.39	406.06	2.00	-1.98	0.27
8,200.00	90.16	359.99	7,152.97	418.30	-835.39	418.30	0.00	0.00	0.00
8,300.00	90.16	359.99	7,152.68	518.30	-835.41	518.30	0.00	0.00	0.00
8,400.00	90.16	359.99	7,152.39	618.30	-835.42	618.30	0.00	0.00	0.00
8,500.00	90.16	359.99	7,152.11	718.30	-835.44	718.30	0.00	0.00	0.00
8,600.00	90.16	359.99	7,151.82	818.30	-835.45	818.30	0.00	0.00	0.00
8,700.00	90.16	359.99	7,151.53	918.30	-835.46	918.30	0.00	0.00	0.00
8,800.00	90.16	359.99	7,151.24	1,018.30	-835.48	1,018.30	0.00	0.00	0.00
8,900.00	90.16	359.99	7,150.95	1,118.30	-835.49	1,118.30	0.00	0.00	0.00
9,000.00	90.16	359.99	7,150.67	1,218.30	-835.50	1,218.30	0.00	0.00	0.00
9,100.00	90.16	359.99	7,150.38	1,318.30	-835.52	1,318.30	0.00	0.00	0.00
9,200.00	90.16	359.99	7,150.09	1,418.30	-835.53	1,418.30	0.00	0.00	0.00
9,300.00	90.16	359.99	7,149.80	1,518.30	-835.55	1,518.30	0.00	0.00	0.00
9,400.00	90.16	359.99	7,149.52	1,618.30	-835.56	1,618.30	0.00	0.00	0.00
9,500.00	90.16	359.99	7,149.23	1,718.30	-835.57	1,718.30	0.00	0.00	0.00
9,600.00	90.16	359.99	7,148.94	1,818.30	-835.59	1,818.30	0.00	0.00	0.00
9,700.00	90.16	359.99	7,148.65	1,918.30	-835.60	1,918.30	0.00	0.00	0.00
9,800.00	90.16	359.99	7,148.36	2,018.30	-835.62	2,018.30	0.00	0.00	0.00
9,900.00	90.16	359.99	7,148.08	2,118.30	-835.63	2,118.30	0.00	0.00	0.00
10,000.00	90.16	359.99	7,147.79	2,218.30	-835.64	2,218.30	0.00	0.00	0.00
10,100.00	90.16	359.99	7,147.50	2,318.30	-835.66	2,318.30	0.00	0.00	0.00
10,200.00	90.16	359.99	7,147.21	2,418.30	-835.67	2,418.30	0.00	0.00	0.00
10,300.00	90.16	359.99	7,146.92	2,518.30	-835.68	2,518.30	0.00	0.00	0.00
10,400.00	90.16	359.99	7,146.64	2,618.30	-835.70	2,618.30	0.00	0.00	0.00
10,500.00	90.16	359.99	7,146.35	2,718.30	-835.71	2,718.30	0.00	0.00	0.00
10,600.00	90.16	359.99	7,146.06	2,818.29	-835.73	2,818.29	0.00	0.00	0.00

Planning Report

Database:	EDM 5000 MultiUser DB	Local Co-ordinate Reference:	Well BAT 3N1-9HZX
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	4931+25 @ 4956.00usft (hp311)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	4931+25 @ 4956.00usft (hp311)
Site:	1N-65W-09 Bat Pad	North Reference:	True
Well:	BAT 3N1-9HZX	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan AX		
Design:	Rev-STK		

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)	
10,700.00	90.16	359.99	7,145.77	2,918.29	-835.74	2,918.29	0.00	0.00	0.00	
10,800.00	90.16	359.99	7,145.49	3,018.29	-835.75	3,018.29	0.00	0.00	0.00	
10,900.00	90.16	359.99	7,145.20	3,118.29	-835.77	3,118.29	0.00	0.00	0.00	
11,000.00	90.16	359.99	7,144.91	3,218.29	-835.78	3,218.29	0.00	0.00	0.00	
11,100.00	90.16	359.99	7,144.62	3,318.29	-835.80	3,318.29	0.00	0.00	0.00	
11,200.00	90.16	359.99	7,144.33	3,418.29	-835.81	3,418.29	0.00	0.00	0.00	
11,300.00	90.16	359.99	7,144.05	3,518.29	-835.82	3,518.29	0.00	0.00	0.00	
11,400.00	90.16	359.99	7,143.76	3,618.29	-835.84	3,618.29	0.00	0.00	0.00	
11,500.00	90.16	359.99	7,143.47	3,718.29	-835.85	3,718.29	0.00	0.00	0.00	
11,600.00	90.16	359.99	7,143.18	3,818.29	-835.86	3,818.29	0.00	0.00	0.00	
11,700.00	90.16	359.99	7,142.89	3,918.29	-835.88	3,918.29	0.00	0.00	0.00	
11,800.00	90.16	359.99	7,142.61	4,018.29	-835.89	4,018.29	0.00	0.00	0.00	
11,900.00	90.16	359.99	7,142.32	4,118.29	-835.91	4,118.29	0.00	0.00	0.00	
12,000.00	90.16	359.99	7,142.03	4,218.29	-835.92	4,218.29	0.00	0.00	0.00	
12,010.58	90.16	359.99	7,142.00	4,228.87	-835.92	4,228.87	0.00	0.00	0.00	

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
BAT 3N1-9HZ_SHL - hit/miss target - Shape - Point	0.00	0.00	0.00	0.00	0.00	14,548,915.67	1,732,980.35	40.060444	-104.669184	
BAT 3N1-9HZ_Landing I - plan hits target center - Polygon	0.00	0.00	9.00	0.00	0.00	14,548,915.67	1,732,980.35	40.060444	-104.669184	
Point 1			9.00	4,230.52	-1,719.80	14,553,139.77	1,731,244.84			
Point 2			9.00	4,228.77	-799.79	14,553,141.44	1,732,164.85			
Point 3			9.00	-159.40	-821.59	14,548,753.22	1,732,159.36			
Point 4			9.00	-159.07	-1,741.60	14,548,750.13	1,731,239.35			
1N-R65W-Sec. 9_Sectic - plan misses target center by 1123.98usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E) - Polygon	0.00	0.00	-25.00	-0.34	1,123.70	14,548,919.51	1,734,104.05	40.060443	-104.665168	
Point 1			-25.00	4,692.67	-3,709.78	14,553,598.36	1,730,376.85			
Point 2			-25.00	4,687.52	-1,052.82	14,553,603.08	1,733,033.81			
Point 3			-25.00	4,682.95	1,604.26	14,553,608.39	1,735,690.89			
Point 4			-25.00	2,031.10	1,579.18	14,550,956.46	1,735,675.67			
Point 5			-25.00	-620.39	1,554.64	14,548,304.90	1,735,660.98			
Point 6			-25.00	-619.31	-1,087.16	14,548,296.16	1,733,019.20			
Point 7			-25.00	-618.26	-3,728.66	14,548,287.40	1,730,377.71			
Point 8			-25.00	2,057.87	-3,715.77	14,550,963.56	1,730,380.66			
BAT 3N1-9HZ_BHL Rev - plan hits target center - Point	0.00	0.00	7,142.00	4,228.87	-835.92	14,553,141.40	1,732,128.72	40.072057	-104.672172	
BAT 3N1-9HZ_Top of Pr - plan hits target center - Point	0.00	0.00	7,169.39	25.86	-833.23	14,548,938.44	1,732,147.03	40.060515	-104.672162	

Planning Report

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Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	4931+25 @ 4956.00usft (hp311)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	4931+25 @ 4956.00usft (hp311)
Site:	1N-65W-09 Bat Pad	North Reference:	True
Well:	BAT 3N1-9HZX	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan AX		
Design:	Rev-STK		

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
1,588.20	1,588.00	9 5/8"	9-5/8	12-1/4	
12,010.58	7,142.00	5 1/2"	5-1/2	7-3/4	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
952.08	952.00	Base Fox Hills		-0.14	0.00	
4,108.66	4,028.96	Parkman		-0.14	0.00	
4,502.10	4,404.15	Sussex		-0.14	0.00	
7,138.75	6,914.40	SSPG		-0.14	0.00	
7,185.55	6,945.32	NBRR		-0.14	0.00	
7,365.29	7,048.96	N470_B_CK		-0.14	0.00	
7,520.85	7,114.62	N700_C_CK		-0.14	0.00	