

# **US ROCKIES WATTENBERG PLANNING**

**WELD-NAD83-UTMFT13N**

**5N-67W-04 SCHMERGE 9-4HZ PAD**

**SCHMERGE 4-2HZ**

**Plan A**

**Plan: Permit Rev-1**

## **Standard Planning Report**

**06 September, 2023**

# US ROCKIES WATTENBERG PLANNING

CASING DETAILS			
TVD	MD	Name	Size
2652.00	2852.19	9 5/8"	9-5/8
6841.00	25052.57	5.5" CSG	5-1/2

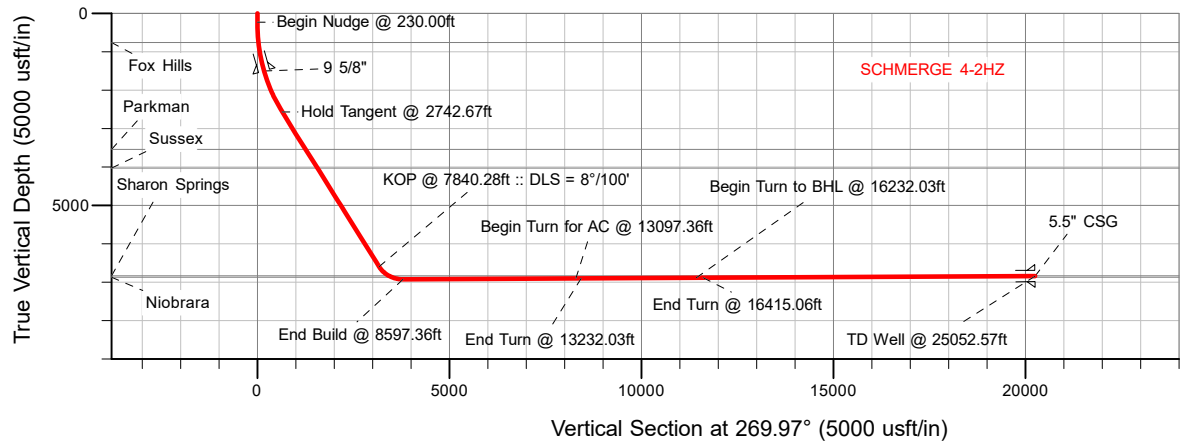
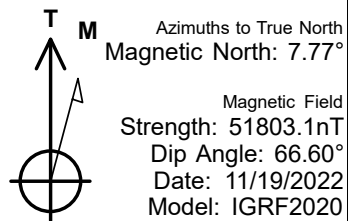
SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	230.00	0.00	0.00	230.00	0.00	0.00	0.00	0.00	0.00	
3	2742.67	37.69	305.82	2565.33	466.47	-646.30	1.50	305.82	646.06	
4	7840.28	37.69	305.82	6599.23	2290.45	-3173.45	0.00	0.00	3172.25	
5	8597.36	90.30	269.97	6928.00	2439.88	-3799.01	8.00	-42.26	3797.73	
6	13097.36	90.30	269.97	6904.44	2437.52	-8298.95	0.00	0.00	8297.67	
7	13232.03	90.30	271.99	6903.73	2439.82	-8433.59	1.50	89.99	8432.31	
8	16232.03	90.30	271.99	6888.02	2544.00	-11431.74	0.00	0.00	11430.40	
9	16415.06	90.31	269.24	6887.06	2545.97	-11614.74	1.50	-89.88	11613.41	
10	25052.57	90.31	269.24	6841.00	2432.07	-20251.38	0.00	0.00	20250.10	SCHMERGE 4-2HZ_BHL

WELLBORE TARGET DETAILS (LAT/LONG)					
Name	TVD	Northing	Easting	Latitude	Longitude
SCHMERGE 4-2HZ_SHL	0.00	14682006.99	1670842.37	40.426344	-104.890674
SCHMERGE 4-2HZ_LP	6928.00	14684442.17	1667040.34	40.433043	-104.904326
SCHMERGE 4-2HZ_BHL	6841.00	14684414.00	1650588.00	40.432999	-104.963449

WELL DETAILS: SCHMERGE 4-2HZ		Plan: Permit Rev-1 (SCHMERGE 4-2HZ/Plan A)
GL = 4895'		
RKB = 17' @ 4912.00usft (RIG)		
		Date: 9/06/2023

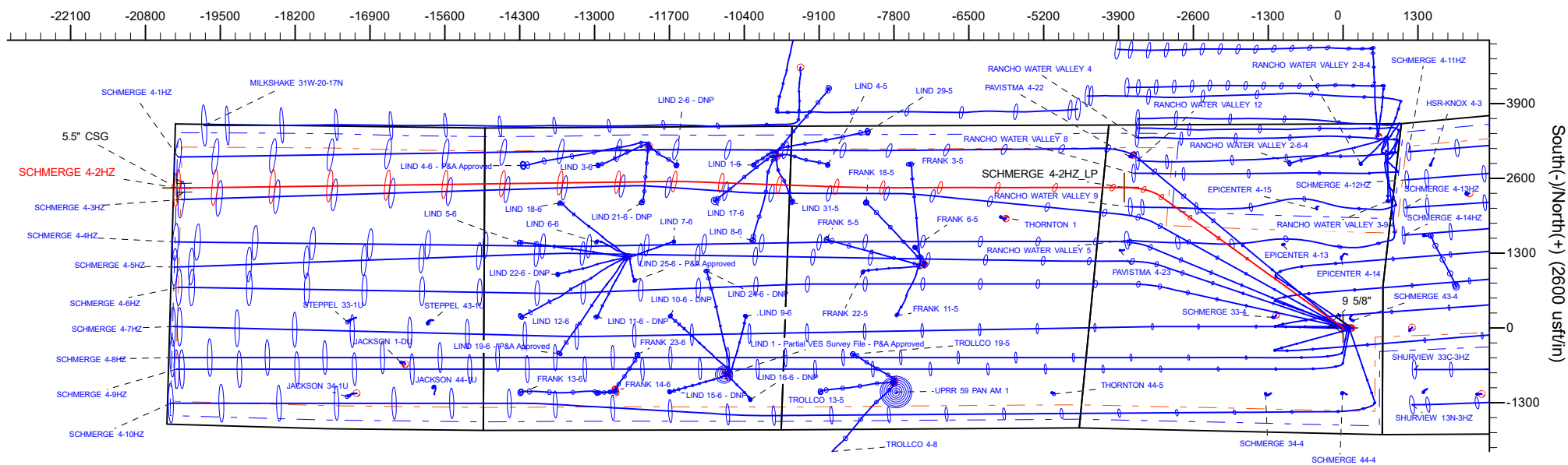
FORMATION TOP DETAILS		
TVDPPath	MDPath	Formation
760.00	761.72	Fox Hills
3544.00	3979.40	Parkman
4030.00	4593.56	Sussex
6835.00	8206.26	Sharon Springs
6872.00	8294.42	Niobrara



**SHL**  
**1839' FSL**  
**689' FEL**

LP  
1088' FNL  
373' FWL

**BHL**  
**1113' FNL**  
**60' FWL**



## Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well SCHMERGE 4-2HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB = 17' @ 4912.00usft (RIG)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB = 17' @ 4912.00usft (RIG)
<b>Site:</b>	5N-67W-04 SCHMERGE 9-4HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	SCHMERGE 4-2HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Permit Rev-1		

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

Site		5N-67W-04 SCHMERGE 9-4HZ PAD			
Site Position:		Northing:	14,682,077.76 usft	Latitude:	40.426538
From:	Map	Easting:	1,670,814.33 usft	Longitude:	-104.890774
Position Uncertainty:		0.00 usft	Slot Radius:	13-3/16 "	

Well		SCHMERGE 4-2HZ				
Well Position	+N/-S	0.00 usft	Northing:	14,682,006.99 usft	Latitude:	40.426344
	+E/-W	0.00 usft	Easting:	1,670,842.37 usft	Longitude:	-104.890674
Position Uncertainty		3.28 usft	Wellhead Elevation:	usft	Ground Level:	4,895.00 usft
Grid Convergence:		0.07 °				

<b>Wellbore</b>	Plan A				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF202013	9/6/2023	7.69	66.56	51,719.11990925

<b>Design</b>	Permit Rev-1				
<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) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.00	0.00	0.00	269.97	

<b>Plan Survey Tool Program</b>		<b>Date</b>	9/1/2023		
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>	
1	0.00	2,652.00	Permit Rev-1 (Plan A)	APC_ISCWSA REV 2 MWD+I Fixed:v2:crustal field declinatio	
2	2,652.00	25,052.57	Permit Rev-1 (Plan A)	APC_ISCWSA REV 2 MWD+I Fixed:v2:Rockies, crustal dec +	

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well SCHMERGE 4-2HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 4912.00usft (RIG)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 4912.00usft (RIG)
Site:	5N-67W-04 SCHMERGE 9-4HZ PAD	North Reference:	True
Well:	SCHMERGE 4-2HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Permit Rev-1		

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	
230.00	0.00	0.00	230.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,742.67	37.69	305.82	2,565.33	466.47	-646.30	1.50	1.50	0.00	305.82	
7,840.28	37.69	305.82	6,599.23	2,290.45	-3,173.45	0.00	0.00	0.00	0.00	
8,597.36	90.30	269.97	6,928.00	2,439.88	-3,799.01	8.00	6.95	-4.74	-42.26	
13,097.36	90.30	269.97	6,904.44	2,437.52	-8,298.95	0.00	0.00	0.00	0.00	
13,232.03	90.30	271.99	6,903.73	2,439.82	-8,433.59	1.50	0.00	1.50	89.99	
16,232.03	90.30	271.99	6,888.02	2,544.00	-11,431.74	0.00	0.00	0.00	0.00	
16,415.06	90.31	269.24	6,887.06	2,545.97	-11,614.74	1.50	0.00	-1.50	-89.88	
25,052.57	90.31	269.24	6,841.00	2,432.07	-20,251.38	0.00	0.00	0.00	0.00	SCHMERGE 4-2HZ_I

# Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well SCHMERGE 4-2HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB = 17' @ 4912.00usft (RIG)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB = 17' @ 4912.00usft (RIG)
<b>Site:</b>	5N-67W-04 SCHMERGE 9-4HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	SCHMERGE 4-2HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Permit Rev-1		

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
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
230.00	0.00	0.00	230.00	0.00	0.00	0.00	0.00	0.00	0.00
Begin Nudge @ 230.00ft									
300.00	1.05	305.82	300.00	0.38	-0.52	0.52	1.50	1.50	0.00
400.00	2.55	305.82	399.94	2.21	-3.07	3.07	1.50	1.50	0.00
500.00	4.05	305.82	499.78	5.58	-7.73	7.73	1.50	1.50	0.00
600.00	5.55	305.82	599.42	10.48	-14.52	14.51	1.50	1.50	0.00
700.00	7.05	305.82	698.81	16.90	-23.42	23.41	1.50	1.50	0.00
761.72	7.98	305.82	760.00	21.62	-29.96	29.95	1.50	1.50	0.00
Fox Hills									
800.00	8.55	305.82	797.89	24.84	-34.42	34.41	1.50	1.50	0.00
900.00	10.05	305.82	896.57	34.30	-47.52	47.51	1.50	1.50	0.00
1,000.00	11.55	305.82	994.80	45.27	-62.72	62.69	1.50	1.50	0.00
1,100.00	13.05	305.82	1,092.50	57.73	-79.99	79.96	1.50	1.50	0.00
1,200.00	14.55	305.82	1,189.61	71.69	-99.33	99.30	1.50	1.50	0.00
1,300.00	16.05	305.82	1,286.06	87.14	-120.73	120.68	1.50	1.50	0.00
1,400.00	17.55	305.82	1,381.79	104.05	-144.16	144.11	1.50	1.50	0.00
1,500.00	19.05	305.82	1,476.73	122.43	-169.62	169.56	1.50	1.50	0.00
1,600.00	20.55	305.82	1,570.82	142.25	-197.09	197.02	1.50	1.50	0.00
1,700.00	22.05	305.82	1,663.98	163.51	-226.54	226.46	1.50	1.50	0.00
1,800.00	23.55	305.82	1,756.17	186.19	-257.96	257.87	1.50	1.50	0.00
1,900.00	25.05	305.82	1,847.30	210.27	-291.33	291.22	1.50	1.50	0.00
2,000.00	26.55	305.82	1,937.33	235.74	-326.62	326.50	1.50	1.50	0.00
2,100.00	28.05	305.82	2,026.19	262.58	-363.81	363.67	1.50	1.50	0.00
2,200.00	29.55	305.82	2,113.82	290.78	-402.87	402.72	1.50	1.50	0.00
2,300.00	31.05	305.82	2,200.16	320.30	-443.78	443.61	1.50	1.50	0.00
2,400.00	32.55	305.82	2,285.14	351.14	-486.51	486.33	1.50	1.50	0.00
2,500.00	34.05	305.82	2,368.72	383.27	-531.03	530.83	1.50	1.50	0.00
2,600.00	35.55	305.82	2,450.83	416.67	-577.30	577.08	1.50	1.50	0.00
2,700.00	37.05	305.82	2,531.43	451.32	-625.30	625.07	1.50	1.50	0.00
2,742.67	37.69	305.82	2,565.33	466.47	-646.30	646.06	1.50	1.50	0.00
Hold Tangent @ 2742.67ft									
2,800.00	37.69	305.82	2,610.70	486.99	-674.73	674.47	0.00	0.00	0.00
2,852.19	37.69	305.82	2,652.00	505.66	-700.60	700.33	0.00	0.00	0.00
9 5/8"									
2,900.00	37.69	305.82	2,689.84	522.77	-724.30	724.03	0.00	0.00	0.00
3,000.00	37.69	305.82	2,768.97	558.55	-773.88	773.58	0.00	0.00	0.00
3,100.00	37.69	305.82	2,848.10	594.33	-823.45	823.14	0.00	0.00	0.00
3,200.00	37.69	305.82	2,927.24	630.11	-873.03	872.70	0.00	0.00	0.00
3,300.00	37.69	305.82	3,006.37	665.89	-922.60	922.25	0.00	0.00	0.00
3,400.00	37.69	305.82	3,085.50	701.67	-972.18	971.81	0.00	0.00	0.00
3,500.00	37.69	305.82	3,164.63	737.45	-1,021.75	1,021.37	0.00	0.00	0.00
3,600.00	37.69	305.82	3,243.77	773.23	-1,071.33	1,070.92	0.00	0.00	0.00
3,700.00	37.69	305.82	3,322.90	809.02	-1,120.90	1,120.48	0.00	0.00	0.00
3,800.00	37.69	305.82	3,402.03	844.80	-1,170.48	1,170.03	0.00	0.00	0.00
3,900.00	37.69	305.82	3,481.17	880.58	-1,220.05	1,219.59	0.00	0.00	0.00
3,979.40	37.69	305.82	3,544.00	908.99	-1,259.42	1,258.94	0.00	0.00	0.00
Parkman									
4,000.00	37.69	305.82	3,560.30	916.36	-1,269.63	1,269.15	0.00	0.00	0.00
4,100.00	37.69	305.82	3,639.43	952.14	-1,319.20	1,318.70	0.00	0.00	0.00
4,200.00	37.69	305.82	3,718.57	987.92	-1,368.78	1,368.26	0.00	0.00	0.00
4,300.00	37.69	305.82	3,797.70	1,023.70	-1,418.35	1,417.82	0.00	0.00	0.00

# Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well SCHMERGE 4-2HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB = 17' @ 4912.00usft (RIG)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB = 17' @ 4912.00usft (RIG)
<b>Site:</b>	5N-67W-04 SCHMERGE 9-4HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	SCHMERGE 4-2HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Permit Rev-1		

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)
4,400.00	37.69	305.82	3,876.83	1,059.48	-1,467.93	1,467.37	0.00	0.00	0.00
4,500.00	37.69	305.82	3,955.96	1,095.26	-1,517.50	1,516.93	0.00	0.00	0.00
4,593.56	37.69	305.82	4,030.00	1,128.74	-1,563.88	1,563.29	0.00	0.00	0.00
Sussex									
4,600.00	37.69	305.82	4,035.10	1,131.04	-1,567.08	1,566.49	0.00	0.00	0.00
4,700.00	37.69	305.82	4,114.23	1,166.82	-1,616.65	1,616.04	0.00	0.00	0.00
4,800.00	37.69	305.82	4,193.36	1,202.61	-1,666.23	1,665.60	0.00	0.00	0.00
4,900.00	37.69	305.82	4,272.50	1,238.39	-1,715.80	1,715.15	0.00	0.00	0.00
5,000.00	37.69	305.82	4,351.63	1,274.17	-1,765.38	1,764.71	0.00	0.00	0.00
5,100.00	37.69	305.82	4,430.76	1,309.95	-1,814.95	1,814.27	0.00	0.00	0.00
5,200.00	37.69	305.82	4,509.90	1,345.73	-1,864.53	1,863.82	0.00	0.00	0.00
5,300.00	37.69	305.82	4,589.03	1,381.51	-1,914.10	1,913.38	0.00	0.00	0.00
5,400.00	37.69	305.82	4,668.16	1,417.29	-1,963.68	1,962.94	0.00	0.00	0.00
5,500.00	37.69	305.82	4,747.30	1,453.07	-2,013.25	2,012.49	0.00	0.00	0.00
5,600.00	37.69	305.82	4,826.43	1,488.85	-2,062.83	2,062.05	0.00	0.00	0.00
5,700.00	37.69	305.82	4,905.56	1,524.63	-2,112.40	2,111.60	0.00	0.00	0.00
5,800.00	37.69	305.82	4,984.69	1,560.42	-2,161.98	2,161.16	0.00	0.00	0.00
5,900.00	37.69	305.82	5,063.83	1,596.20	-2,211.55	2,210.72	0.00	0.00	0.00
6,000.00	37.69	305.82	5,142.96	1,631.98	-2,261.13	2,260.27	0.00	0.00	0.00
6,100.00	37.69	305.82	5,222.09	1,667.76	-2,310.70	2,309.83	0.00	0.00	0.00
6,200.00	37.69	305.82	5,301.23	1,703.54	-2,360.28	2,359.39	0.00	0.00	0.00
6,300.00	37.69	305.82	5,380.36	1,739.32	-2,409.85	2,408.94	0.00	0.00	0.00
6,400.00	37.69	305.82	5,459.49	1,775.10	-2,459.43	2,458.50	0.00	0.00	0.00
6,500.00	37.69	305.82	5,538.63	1,810.88	-2,509.00	2,508.06	0.00	0.00	0.00
6,600.00	37.69	305.82	5,617.76	1,846.66	-2,558.58	2,557.61	0.00	0.00	0.00
6,700.00	37.69	305.82	5,696.89	1,882.44	-2,608.15	2,607.17	0.00	0.00	0.00
6,800.00	37.69	305.82	5,776.02	1,918.23	-2,657.73	2,656.72	0.00	0.00	0.00
6,900.00	37.69	305.82	5,855.16	1,954.01	-2,707.30	2,706.28	0.00	0.00	0.00
7,000.00	37.69	305.82	5,934.29	1,989.79	-2,756.88	2,755.84	0.00	0.00	0.00
7,100.00	37.69	305.82	6,013.42	2,025.57	-2,806.45	2,805.39	0.00	0.00	0.00
7,200.00	37.69	305.82	6,092.56	2,061.35	-2,856.03	2,854.95	0.00	0.00	0.00
7,300.00	37.69	305.82	6,171.69	2,097.13	-2,905.60	2,904.51	0.00	0.00	0.00
7,400.00	37.69	305.82	6,250.82	2,132.91	-2,955.18	2,954.06	0.00	0.00	0.00
7,500.00	37.69	305.82	6,329.96	2,168.69	-3,004.75	3,003.62	0.00	0.00	0.00
7,600.00	37.69	305.82	6,409.09	2,204.47	-3,054.33	3,053.17	0.00	0.00	0.00
7,700.00	37.69	305.82	6,488.22	2,240.25	-3,103.90	3,102.73	0.00	0.00	0.00
7,800.00	37.69	305.82	6,567.35	2,276.03	-3,153.48	3,152.29	0.00	0.00	0.00
7,840.28	37.69	305.82	6,599.23	2,290.45	-3,173.45	3,172.25	0.00	0.00	0.00
KOP @ 7840.28ft :: DLS = 8°/100'									
7,850.00	38.27	304.98	6,606.89	2,293.91	-3,178.32	3,177.12	8.00	5.95	-8.69
7,900.00	41.33	300.96	6,645.31	2,311.29	-3,205.18	3,203.97	8.00	6.13	-8.04
7,950.00	44.52	297.40	6,681.92	2,327.85	-3,234.91	3,233.69	8.00	6.37	-7.10
8,000.00	47.81	294.24	6,716.55	2,343.53	-3,267.38	3,266.15	8.00	6.57	-6.33
8,050.00	51.17	291.39	6,749.03	2,358.25	-3,302.41	3,301.18	8.00	6.73	-5.70
8,100.00	54.60	288.80	6,779.20	2,371.92	-3,339.85	3,338.61	8.00	6.85	-5.18
8,150.00	58.07	286.43	6,806.92	2,384.50	-3,379.51	3,378.26	8.00	6.95	-4.75
8,200.00	61.59	284.22	6,832.04	2,395.90	-3,421.19	3,419.94	8.00	7.04	-4.40
8,206.26	62.03	283.96	6,835.00	2,397.25	-3,426.55	3,425.29	8.00	7.08	-4.23
Sharon Springs									
8,250.00	65.14	282.17	6,854.45	2,406.09	-3,464.70	3,463.44	8.00	7.11	-4.10
8,294.42	68.32	280.43	6,872.00	2,414.08	-3,504.71	3,503.45	8.00	7.15	-3.90
Niobrara									
8,300.00	68.72	280.22	6,874.04	2,415.01	-3,509.82	3,508.56	8.00	7.18	-3.80

## Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well SCHMERGE 4-2HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB = 17' @ 4912.00usft (RIG)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB = 17' @ 4912.00usft (RIG)
<b>Site:</b>	5N-67W-04 SCHMERGE 9-4HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	SCHMERGE 4-2HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Permit Rev-1		

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)
8,350.00	72.32	278.37	6,890.71	2,422.61	-3,556.33	3,555.06	8.00	7.20	-3.70
8,400.00	75.94	276.59	6,904.39	2,428.87	-3,604.01	3,602.73	8.00	7.23	-3.56
8,450.00	79.57	274.87	6,914.99	2,433.74	-3,652.61	3,651.34	8.00	7.26	-3.45
8,500.00	83.20	273.19	6,922.48	2,437.21	-3,701.92	3,700.64	8.00	7.28	-3.37
8,550.00	86.85	271.53	6,926.82	2,439.26	-3,751.68	3,750.40	8.00	7.29	-3.32
8,597.36	90.30	269.97	6,928.00	2,439.88	-3,799.01	3,797.73	8.00	7.29	-3.29
End Build @ 8597.36ft									
8,600.00	90.30	269.97	6,927.98	2,439.87	-3,801.65	3,800.37	0.00	0.00	0.00
8,700.00	90.30	269.97	6,927.46	2,439.82	-3,901.65	3,900.37	0.00	0.00	0.00
8,800.00	90.30	269.97	6,926.94	2,439.77	-4,001.65	4,000.37	0.00	0.00	0.00
8,900.00	90.30	269.97	6,926.41	2,439.72	-4,101.65	4,100.37	0.00	0.00	0.00
9,000.00	90.30	269.97	6,925.89	2,439.66	-4,201.65	4,200.37	0.00	0.00	0.00
9,100.00	90.30	269.97	6,925.37	2,439.61	-4,301.64	4,300.37	0.00	0.00	0.00
9,200.00	90.30	269.97	6,924.84	2,439.56	-4,401.64	4,400.36	0.00	0.00	0.00
9,300.00	90.30	269.97	6,924.32	2,439.51	-4,501.64	4,500.36	0.00	0.00	0.00
9,400.00	90.30	269.97	6,923.80	2,439.46	-4,601.64	4,600.36	0.00	0.00	0.00
9,500.00	90.30	269.97	6,923.27	2,439.40	-4,701.64	4,700.36	0.00	0.00	0.00
9,600.00	90.30	269.97	6,922.75	2,439.35	-4,801.64	4,800.36	0.00	0.00	0.00
9,700.00	90.30	269.97	6,922.23	2,439.30	-4,901.64	4,900.36	0.00	0.00	0.00
9,800.00	90.30	269.97	6,921.70	2,439.25	-5,001.63	5,000.36	0.00	0.00	0.00
9,900.00	90.30	269.97	6,921.18	2,439.19	-5,101.63	5,100.35	0.00	0.00	0.00
10,000.00	90.30	269.97	6,920.65	2,439.14	-5,201.63	5,200.35	0.00	0.00	0.00
10,100.00	90.30	269.97	6,920.13	2,439.09	-5,301.63	5,300.35	0.00	0.00	0.00
10,200.00	90.30	269.97	6,919.61	2,439.04	-5,401.63	5,400.35	0.00	0.00	0.00
10,300.00	90.30	269.97	6,919.08	2,438.98	-5,501.63	5,500.35	0.00	0.00	0.00
10,400.00	90.30	269.97	6,918.56	2,438.93	-5,601.63	5,600.35	0.00	0.00	0.00
10,500.00	90.30	269.97	6,918.04	2,438.88	-5,701.62	5,700.35	0.00	0.00	0.00
10,600.00	90.30	269.97	6,917.51	2,438.83	-5,801.62	5,800.35	0.00	0.00	0.00
10,700.00	90.30	269.97	6,916.99	2,438.77	-5,901.62	5,900.34	0.00	0.00	0.00
10,800.00	90.30	269.97	6,916.47	2,438.72	-6,001.62	6,000.34	0.00	0.00	0.00
10,900.00	90.30	269.97	6,915.94	2,438.67	-6,101.62	6,100.34	0.00	0.00	0.00
11,000.00	90.30	269.97	6,915.42	2,438.62	-6,201.62	6,200.34	0.00	0.00	0.00
11,100.00	90.30	269.97	6,914.89	2,438.57	-6,301.62	6,300.34	0.00	0.00	0.00
11,200.00	90.30	269.97	6,914.37	2,438.51	-6,401.61	6,400.34	0.00	0.00	0.00
11,300.00	90.30	269.97	6,913.85	2,438.46	-6,501.61	6,500.34	0.00	0.00	0.00
11,400.00	90.30	269.97	6,913.32	2,438.41	-6,601.61	6,600.33	0.00	0.00	0.00
11,500.00	90.30	269.97	6,912.80	2,438.36	-6,701.61	6,700.33	0.00	0.00	0.00
11,600.00	90.30	269.97	6,912.28	2,438.30	-6,801.61	6,800.33	0.00	0.00	0.00
11,700.00	90.30	269.97	6,911.75	2,438.25	-6,901.61	6,900.33	0.00	0.00	0.00
11,800.00	90.30	269.97	6,911.23	2,438.20	-7,001.61	7,000.33	0.00	0.00	0.00
11,900.00	90.30	269.97	6,910.71	2,438.15	-7,101.61	7,100.33	0.00	0.00	0.00
12,000.00	90.30	269.97	6,910.18	2,438.09	-7,201.60	7,200.33	0.00	0.00	0.00
12,100.00	90.30	269.97	6,909.66	2,438.04	-7,301.60	7,300.32	0.00	0.00	0.00
12,200.00	90.30	269.97	6,909.14	2,437.99	-7,401.60	7,400.32	0.00	0.00	0.00
12,300.00	90.30	269.97	6,908.61	2,437.94	-7,501.60	7,500.32	0.00	0.00	0.00
12,400.00	90.30	269.97	6,908.09	2,437.88	-7,601.60	7,600.32	0.00	0.00	0.00
12,500.00	90.30	269.97	6,907.56	2,437.83	-7,701.60	7,700.32	0.00	0.00	0.00
12,600.00	90.30	269.97	6,907.04	2,437.78	-7,801.60	7,800.32	0.00	0.00	0.00
12,700.00	90.30	269.97	6,906.52	2,437.73	-7,901.59	7,900.32	0.00	0.00	0.00
12,800.00	90.30	269.97	6,905.99	2,437.68	-8,001.59	8,000.32	0.00	0.00	0.00
12,900.00	90.30	269.97	6,905.47	2,437.62	-8,101.59	8,100.31	0.00	0.00	0.00
13,000.00	90.30	269.97	6,904.95	2,437.57	-8,201.59	8,200.31	0.00	0.00	0.00
13,097.36	90.30	269.97	6,904.44	2,437.52	-8,298.95	8,297.67	0.00	0.00	0.00
Begin Turn for AC @ 13097.36ft									

# Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well SCHMERGE 4-2HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB = 17' @ 4912.00usft (RIG)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB = 17' @ 4912.00usft (RIG)
<b>Site:</b>	5N-67W-04 SCHMERGE 9-4HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	SCHMERGE 4-2HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Permit Rev-1		

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)
13,100.00	90.30	270.01	6,904.42	2,437.52	-8,301.59	8,300.31	1.50	0.00	1.50
13,200.00	90.30	271.51	6,903.90	2,438.84	-8,401.58	8,400.30	1.50	0.00	1.50
13,232.03	90.30	271.99	6,903.73	2,439.82	-8,433.59	8,432.31	1.50	0.00	1.50
End Turn @ 13232.03ft									
13,300.00	90.30	271.99	6,903.38	2,442.18	-8,501.52	8,500.24	0.00	0.00	0.00
13,400.00	90.30	271.99	6,902.85	2,445.66	-8,601.46	8,600.17	0.00	0.00	0.00
13,500.00	90.30	271.99	6,902.33	2,449.13	-8,701.39	8,700.11	0.00	0.00	0.00
13,600.00	90.30	271.99	6,901.80	2,452.60	-8,801.33	8,800.05	0.00	0.00	0.00
13,700.00	90.30	271.99	6,901.28	2,456.07	-8,901.27	8,899.98	0.00	0.00	0.00
13,800.00	90.30	271.99	6,900.76	2,459.55	-9,001.21	8,999.92	0.00	0.00	0.00
13,900.00	90.30	271.99	6,900.23	2,463.02	-9,101.15	9,099.86	0.00	0.00	0.00
14,000.00	90.30	271.99	6,899.71	2,466.49	-9,201.09	9,199.79	0.00	0.00	0.00
14,100.00	90.30	271.99	6,899.19	2,469.96	-9,301.02	9,299.73	0.00	0.00	0.00
14,200.00	90.30	271.99	6,898.66	2,473.44	-9,400.96	9,399.67	0.00	0.00	0.00
14,300.00	90.30	271.99	6,898.14	2,476.91	-9,500.90	9,499.60	0.00	0.00	0.00
14,400.00	90.30	271.99	6,897.62	2,480.38	-9,600.84	9,599.54	0.00	0.00	0.00
14,500.00	90.30	271.99	6,897.09	2,483.85	-9,700.78	9,699.48	0.00	0.00	0.00
14,600.00	90.30	271.99	6,896.57	2,487.32	-9,800.72	9,799.41	0.00	0.00	0.00
14,700.00	90.30	271.99	6,896.05	2,490.80	-9,900.65	9,899.35	0.00	0.00	0.00
14,800.00	90.30	271.99	6,895.52	2,494.27	-10,000.59	9,999.29	0.00	0.00	0.00
14,900.00	90.30	271.99	6,895.00	2,497.74	-10,100.53	10,099.22	0.00	0.00	0.00
15,000.00	90.30	271.99	6,894.47	2,501.21	-10,200.47	10,199.16	0.00	0.00	0.00
15,100.00	90.30	271.99	6,893.95	2,504.69	-10,300.41	10,299.09	0.00	0.00	0.00
15,200.00	90.30	271.99	6,893.43	2,508.16	-10,400.35	10,399.03	0.00	0.00	0.00
15,300.00	90.30	271.99	6,892.90	2,511.63	-10,500.28	10,498.97	0.00	0.00	0.00
15,400.00	90.30	271.99	6,892.38	2,515.10	-10,600.22	10,598.90	0.00	0.00	0.00
15,500.00	90.30	271.99	6,891.86	2,518.58	-10,700.16	10,698.84	0.00	0.00	0.00
15,600.00	90.30	271.99	6,891.33	2,522.05	-10,800.10	10,798.78	0.00	0.00	0.00
15,700.00	90.30	271.99	6,890.81	2,525.52	-10,900.04	10,898.71	0.00	0.00	0.00
15,800.00	90.30	271.99	6,890.29	2,528.99	-10,999.98	10,998.65	0.00	0.00	0.00
15,900.00	90.30	271.99	6,889.76	2,532.47	-11,099.91	11,098.59	0.00	0.00	0.00
16,000.00	90.30	271.99	6,889.24	2,535.94	-11,199.85	11,198.52	0.00	0.00	0.00
16,100.00	90.30	271.99	6,888.71	2,539.41	-11,299.79	11,298.46	0.00	0.00	0.00
16,200.00	90.30	271.99	6,888.19	2,542.88	-11,399.73	11,398.40	0.00	0.00	0.00
16,232.03	90.30	271.99	6,888.02	2,544.00	-11,431.74	11,430.41	0.00	0.00	0.00
Begin Turn to BHL @ 16232.03ft									
16,300.00	90.30	270.97	6,887.67	2,545.75	-11,499.69	11,498.35	1.50	0.00	-1.50
16,400.00	90.31	269.47	6,887.14	2,546.14	-11,599.68	11,598.35	1.50	0.00	-1.50
16,415.06	90.31	269.24	6,887.06	2,545.97	-11,614.74	11,613.41	1.50	0.00	-1.50
End Turn @ 16415.06ft									
16,500.00	90.31	269.24	6,886.60	2,544.85	-11,699.67	11,698.34	0.00	0.00	0.00
16,600.00	90.31	269.24	6,886.07	2,543.53	-11,799.66	11,798.33	0.00	0.00	0.00
16,700.00	90.31	269.24	6,885.54	2,542.21	-11,899.65	11,898.32	0.00	0.00	0.00
16,800.00	90.31	269.24	6,885.00	2,540.89	-11,999.64	11,998.31	0.00	0.00	0.00
16,900.00	90.31	269.24	6,884.47	2,539.57	-12,099.63	12,098.30	0.00	0.00	0.00
17,000.00	90.31	269.24	6,883.94	2,538.25	-12,199.62	12,198.29	0.00	0.00	0.00
17,100.00	90.31	269.24	6,883.40	2,536.94	-12,299.61	12,298.28	0.00	0.00	0.00
17,200.00	90.31	269.24	6,882.87	2,535.62	-12,399.60	12,398.27	0.00	0.00	0.00
17,300.00	90.31	269.24	6,882.34	2,534.30	-12,499.59	12,498.26	0.00	0.00	0.00
17,400.00	90.31	269.24	6,881.80	2,532.98	-12,599.58	12,598.25	0.00	0.00	0.00
17,500.00	90.31	269.24	6,881.27	2,531.66	-12,699.57	12,698.24	0.00	0.00	0.00
17,600.00	90.31	269.24	6,880.74	2,530.34	-12,799.56	12,798.23	0.00	0.00	0.00
17,700.00	90.31	269.24	6,880.20	2,529.02	-12,899.55	12,898.22	0.00	0.00	0.00



## Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well SCHMERGE 4-2HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB = 17' @ 4912.00usft (RIG)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB = 17' @ 4912.00usft (RIG)
<b>Site:</b>	5N-67W-04 SCHMERGE 9-4HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	SCHMERGE 4-2HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Permit Rev-1		

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)
17,800.00	90.31	269.24	6,879.67	2,527.71	-12,999.54	12,998.21	0.00	0.00	0.00
17,900.00	90.31	269.24	6,879.14	2,526.39	-13,099.53	13,098.20	0.00	0.00	0.00
18,000.00	90.31	269.24	6,878.61	2,525.07	-13,199.52	13,198.19	0.00	0.00	0.00
18,100.00	90.31	269.24	6,878.07	2,523.75	-13,299.51	13,298.19	0.00	0.00	0.00
18,200.00	90.31	269.24	6,877.54	2,522.43	-13,399.50	13,398.18	0.00	0.00	0.00
18,300.00	90.31	269.24	6,877.01	2,521.11	-13,499.49	13,498.17	0.00	0.00	0.00
18,400.00	90.31	269.24	6,876.47	2,519.79	-13,599.48	13,598.16	0.00	0.00	0.00
18,500.00	90.31	269.24	6,875.94	2,518.48	-13,699.47	13,698.15	0.00	0.00	0.00
18,600.00	90.31	269.24	6,875.41	2,517.16	-13,799.46	13,798.14	0.00	0.00	0.00
18,700.00	90.31	269.24	6,874.87	2,515.84	-13,899.45	13,898.13	0.00	0.00	0.00
18,800.00	90.31	269.24	6,874.34	2,514.52	-13,999.44	13,998.12	0.00	0.00	0.00
18,900.00	90.31	269.24	6,873.81	2,513.20	-14,099.43	14,098.11	0.00	0.00	0.00
19,000.00	90.31	269.24	6,873.27	2,511.88	-14,199.42	14,198.10	0.00	0.00	0.00
19,100.00	90.31	269.24	6,872.74	2,510.56	-14,299.41	14,298.09	0.00	0.00	0.00
19,200.00	90.31	269.24	6,872.21	2,509.25	-14,399.40	14,398.08	0.00	0.00	0.00
19,300.00	90.31	269.24	6,871.67	2,507.93	-14,499.39	14,498.07	0.00	0.00	0.00
19,400.00	90.31	269.24	6,871.14	2,506.61	-14,599.38	14,598.06	0.00	0.00	0.00
19,500.00	90.31	269.24	6,870.61	2,505.29	-14,699.37	14,698.05	0.00	0.00	0.00
19,600.00	90.31	269.24	6,870.07	2,503.97	-14,799.36	14,798.04	0.00	0.00	0.00
19,700.00	90.31	269.24	6,869.54	2,502.65	-14,899.35	14,898.03	0.00	0.00	0.00
19,800.00	90.31	269.24	6,869.01	2,501.33	-14,999.34	14,998.02	0.00	0.00	0.00
19,900.00	90.31	269.24	6,868.47	2,500.01	-15,099.33	15,098.02	0.00	0.00	0.00
20,000.00	90.31	269.24	6,867.94	2,498.70	-15,199.32	15,198.01	0.00	0.00	0.00
20,100.00	90.31	269.24	6,867.41	2,497.38	-15,299.31	15,298.00	0.00	0.00	0.00
20,200.00	90.31	269.24	6,866.87	2,496.06	-15,399.30	15,397.99	0.00	0.00	0.00
20,300.00	90.31	269.24	6,866.34	2,494.74	-15,499.29	15,497.98	0.00	0.00	0.00
20,400.00	90.31	269.24	6,865.81	2,493.42	-15,599.28	15,597.97	0.00	0.00	0.00
20,500.00	90.31	269.24	6,865.27	2,492.10	-15,699.27	15,697.96	0.00	0.00	0.00
20,600.00	90.31	269.24	6,864.74	2,490.78	-15,799.26	15,797.95	0.00	0.00	0.00
20,700.00	90.31	269.24	6,864.21	2,489.47	-15,899.25	15,897.94	0.00	0.00	0.00
20,800.00	90.31	269.24	6,863.68	2,488.15	-15,999.24	15,997.93	0.00	0.00	0.00
20,900.00	90.31	269.24	6,863.14	2,486.83	-16,099.23	16,097.92	0.00	0.00	0.00
21,000.00	90.31	269.24	6,862.61	2,485.51	-16,199.22	16,197.91	0.00	0.00	0.00
21,100.00	90.31	269.24	6,862.08	2,484.19	-16,299.21	16,297.90	0.00	0.00	0.00
21,200.00	90.31	269.24	6,861.54	2,482.87	-16,399.19	16,397.89	0.00	0.00	0.00
21,300.00	90.31	269.24	6,861.01	2,481.55	-16,499.18	16,497.88	0.00	0.00	0.00
21,400.00	90.31	269.24	6,860.48	2,480.24	-16,599.17	16,597.87	0.00	0.00	0.00
21,500.00	90.31	269.24	6,859.94	2,478.92	-16,699.16	16,697.86	0.00	0.00	0.00
21,600.00	90.31	269.24	6,859.41	2,477.60	-16,799.15	16,797.85	0.00	0.00	0.00
21,700.00	90.31	269.24	6,858.88	2,476.28	-16,899.14	16,897.85	0.00	0.00	0.00
21,800.00	90.31	269.24	6,858.34	2,474.96	-16,999.13	16,997.84	0.00	0.00	0.00
21,900.00	90.31	269.24	6,857.81	2,473.64	-17,099.12	17,097.83	0.00	0.00	0.00
22,000.00	90.31	269.24	6,857.28	2,472.32	-17,199.11	17,197.82	0.00	0.00	0.00
22,100.00	90.31	269.24	6,856.74	2,471.00	-17,299.10	17,297.81	0.00	0.00	0.00
22,200.00	90.31	269.24	6,856.21	2,469.69	-17,399.09	17,397.80	0.00	0.00	0.00
22,300.00	90.31	269.24	6,855.68	2,468.37	-17,499.08	17,497.79	0.00	0.00	0.00
22,400.00	90.31	269.24	6,855.14	2,467.05	-17,599.07	17,597.78	0.00	0.00	0.00
22,500.00	90.31	269.24	6,854.61	2,465.73	-17,699.06	17,697.77	0.00	0.00	0.00
22,600.00	90.31	269.24	6,854.08	2,464.41	-17,799.05	17,797.76	0.00	0.00	0.00
22,700.00	90.31	269.24	6,853.54	2,463.09	-17,899.04	17,897.75	0.00	0.00	0.00
22,800.00	90.31	269.24	6,853.01	2,461.77	-17,999.03	17,997.74	0.00	0.00	0.00
22,900.00	90.31	269.24	6,852.48	2,460.46	-18,099.02	18,097.73	0.00	0.00	0.00
23,000.00	90.31	269.24	6,851.94	2,459.14	-18,199.01	18,197.72	0.00	0.00	0.00
23,100.00	90.31	269.24	6,851.41	2,457.82	-18,299.00	18,297.71	0.00	0.00	0.00

## Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well SCHMERGE 4-2HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB = 17' @ 4912.00usft (RIG)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB = 17' @ 4912.00usft (RIG)
<b>Site:</b>	5N-67W-04 SCHMERGE 9-4HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	SCHMERGE 4-2HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Permit Rev-1		

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)	
23,200.00	90.31	269.24	6,850.88	2,456.50	-18,398.99	18,397.70	0.00	0.00	0.00	
23,300.00	90.31	269.24	6,850.35	2,455.18	-18,498.98	18,497.69	0.00	0.00	0.00	
23,400.00	90.31	269.24	6,849.81	2,453.86	-18,598.97	18,597.69	0.00	0.00	0.00	
23,500.00	90.31	269.24	6,849.28	2,452.54	-18,698.96	18,697.68	0.00	0.00	0.00	
23,600.00	90.31	269.24	6,848.75	2,451.23	-18,798.95	18,797.67	0.00	0.00	0.00	
23,700.00	90.31	269.24	6,848.21	2,449.91	-18,898.94	18,897.66	0.00	0.00	0.00	
23,800.00	90.31	269.24	6,847.68	2,448.59	-18,998.93	18,997.65	0.00	0.00	0.00	
23,900.00	90.31	269.24	6,847.15	2,447.27	-19,098.92	19,097.64	0.00	0.00	0.00	
24,000.00	90.31	269.24	6,846.61	2,445.95	-19,198.91	19,197.63	0.00	0.00	0.00	
24,100.00	90.31	269.24	6,846.08	2,444.63	-19,298.90	19,297.62	0.00	0.00	0.00	
24,200.00	90.31	269.24	6,845.55	2,443.31	-19,398.89	19,397.61	0.00	0.00	0.00	
24,300.00	90.31	269.24	6,845.01	2,442.00	-19,498.88	19,497.60	0.00	0.00	0.00	
24,400.00	90.31	269.24	6,844.48	2,440.68	-19,598.87	19,597.59	0.00	0.00	0.00	
24,500.00	90.31	269.24	6,843.95	2,439.36	-19,698.86	19,697.58	0.00	0.00	0.00	
24,600.00	90.31	269.24	6,843.41	2,438.04	-19,798.85	19,797.57	0.00	0.00	0.00	
24,700.00	90.31	269.24	6,842.88	2,436.72	-19,898.84	19,897.56	0.00	0.00	0.00	
24,800.00	90.31	269.24	6,842.35	2,435.40	-19,998.83	19,997.55	0.00	0.00	0.00	
24,900.00	90.31	269.24	6,841.81	2,434.08	-20,098.82	20,097.54	0.00	0.00	0.00	
25,000.00	90.31	269.24	6,841.28	2,432.76	-20,198.81	20,197.53	0.00	0.00	0.00	
25,052.57	90.31	269.24	6,841.00	2,432.07	-20,251.38	20,250.10	0.00	0.00	0.00	
TD Well @ 25052.57ft - 5.5" CSG										

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
2,852.19	2,652.00	9 5/8"	9-5/8	13-1/2	
25,052.57	6,841.00	5.5" CSG	5-1/2	7-7/8	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
761.72	760.00	Fox Hills				
3,979.40	3,544.00	Parkman				
4,593.56	4,030.00	Sussex				
8,206.26	6,835.00	Sharon Springs				
8,294.42	6,872.00	Niobrara				

## Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well SCHMERGE 4-2HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB = 17' @ 4912.00usft (RIG)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB = 17' @ 4912.00usft (RIG)
<b>Site:</b>	5N-67W-04 SCHMERGE 9-4HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	SCHMERGE 4-2HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Permit Rev-1		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
230.00	230.00	0.00	0.00	Begin Nudge @ 230.00ft
2,742.67	2,565.33	466.47	-646.30	Hold Tangent @ 2742.67ft
7,840.28	6,599.23	2,290.45	-3,173.45	KOP @ 7840.28ft :: DLS = 8"/100'
8,597.36	6,928.00	2,439.88	-3,799.01	End Build @ 8597.36ft
13,097.36	6,904.44	2,437.52	-8,298.95	Begin Turn for AC @ 13097.36ft
13,232.03	6,903.73	2,439.82	-8,433.59	End Turn @ 13232.03ft
16,232.03	6,888.02	2,544.00	-11,431.74	Begin Turn to BHL @ 16232.03ft
16,415.06	6,887.06	2,545.97	-11,614.74	End Turn @ 16415.06ft
25,052.57	6,841.00	2,432.07	-20,251.38	TD Well @ 25052.57ft