

US ROCKIES WATTENBERG PLANNING

**WELD-NAD83-UTMFT13N
4N-68W-11 S&B 5-11HZ PAD
BAKE 11-24HZ**

Plan B

Plan: Permit Rev-1

SHL Lat/Long: 40.329879/-104.976826
Survey Program: MWD+IFR+MSA

Standard Planning Report

20 October, 2019

Project: WELD-NAD83-UTMFT13N
Site: 4N-68W-11 S&B 5-11HZ PAD
Well: BAKE 11-24HZ
Wellbore: Plan B
Design: Permit Rev-1

US ROCKIES WATTENBERG PLANNING

CASING DETAILS

TVD	MD	Size
1500.00	1517.64	9-5/8
7077.00	7873.22	5-1/2

WELL DETAILS: BAKE 11-24HZ

GL = 4994.00

RKB = 17' @ 5011.00usft (Drilling Rig)

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	360.00	0.00	0.00	360.00	0.00	0.00	0.00	0.00	0.00	
3	2051.33	25.37	184.92	1996.60	-367.02	-31.59	1.50	184.92	31.79	
4	4858.00	25.37	184.92	4532.60	-1565.14	-134.73	0.00	0.00	135.55	
5	6126.50	0.00	0.00	5760.05	-1840.40	-158.43	2.00	180.00	159.39	
6	6727.55	0.00	0.00	6361.10	-1840.40	-158.43	0.00	0.00	159.39	
7	7873.22	91.65	269.97	7077.00	-1840.73	-895.29	8.00	269.97	896.25	
8	17924.83	91.65	269.97	6787.00	-1845.16	-10942.71	0.00	0.00	10943.68	BAKE 11-24HZ BHL

SHL
2056' FNL
822' FWL

HEEL
1433' FSL
75' FEL

TOE
1543' FSL
475' FWL

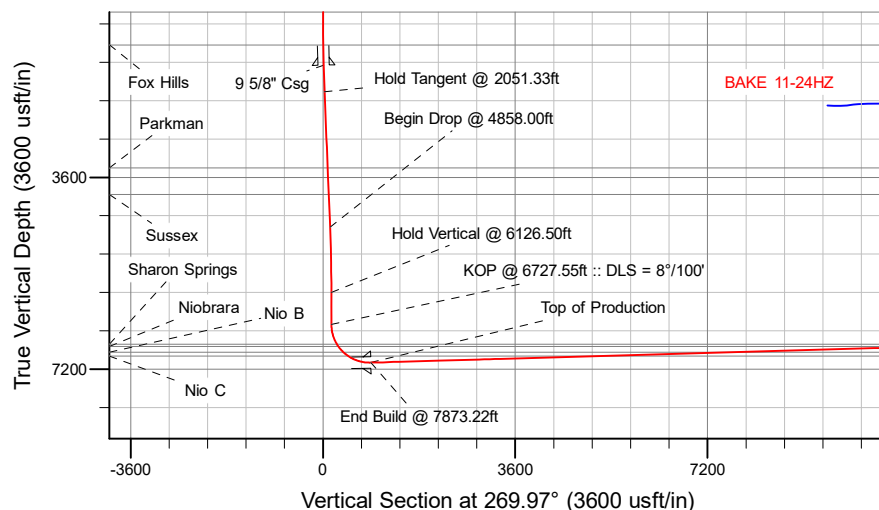
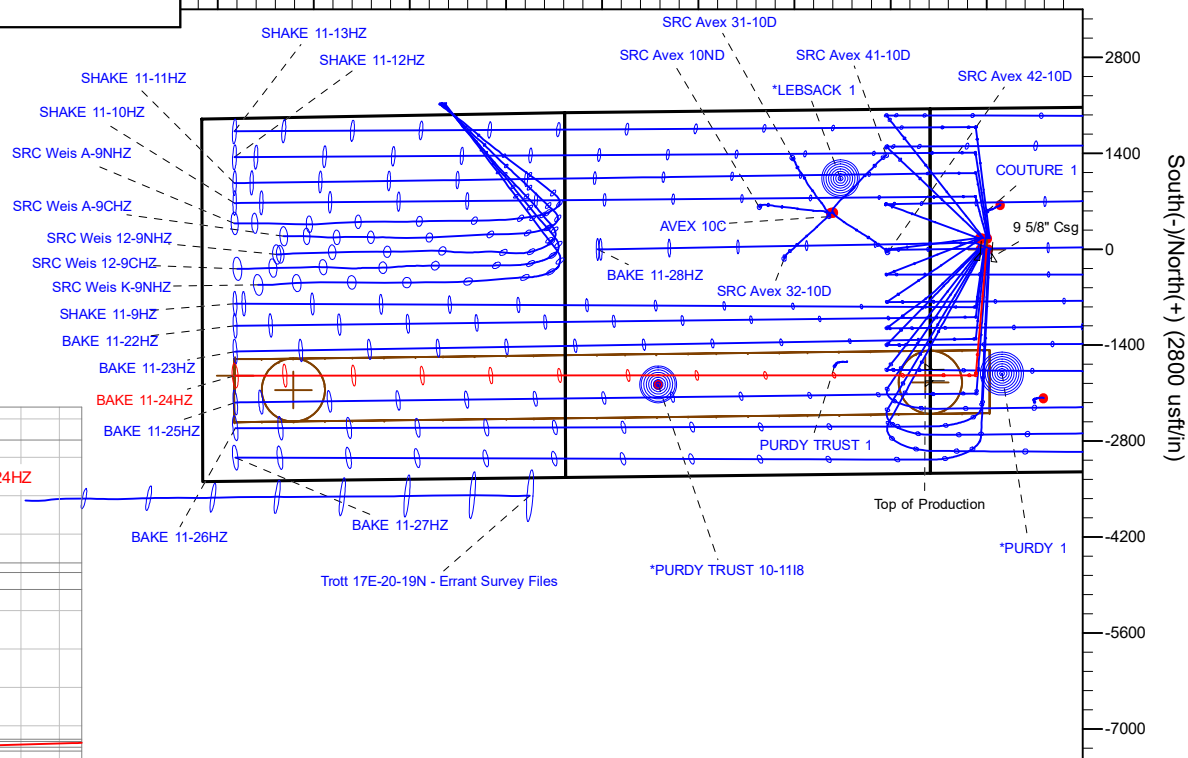
WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
BAKE 11-24HZ SHL	0.00	0.00	0.00	40.329879	-104.976826
BAKE 11-24HZ BHL	6787.00	-1845.16	-10942.71	40.324805	-105.016087

FORMATION TOP DETAILS

TVDPATH	MDPATH	Formation
1119.00	1124.09	Fox Hills
3424.00	3631.08	Parkman
3920.00	4180.02	Sussex
6733.00	7118.59	Sharon Springs
6776.00	7170.08	Niobrara
6883.00	7312.28	Nio B
6952.00	7422.47	Nio C

West(-)/East(+) (2800 usft/in)



Plan: Permit Rev-1 (BAKE 11-24HZ/Plan B)

Date: 10/20/2019

Corporate Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well BAKE 11-24HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 5011.00usft (Drilling Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 5011.00usft (Drilling Rig)
Site:	4N-68W-11 S&B 5-11HZ PAD	North Reference:	True
Well:	BAKE 11-24HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan B		
Design:	Permit Rev-1		

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		4N-68W-11 S&B 5-11HZ PAD			
Site Position:		Northing:	14,647,020.58 usft	Latitude:	40.330320
From:	Lat/Long	Easting:	1,646,741.13 usft	Longitude:	-104.977307
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.01 °

Well	BAKE 11-24HZ					
Well Position	+N-S	-160.59 usft	Northing:	14,646,860.02 usft	Latitude:	40.329879
	+E-W	134.05 usft	Easting:	1,646,875.23 usft	Longitude:	-104.976826
Position Uncertainty	3.28 usft		Wellhead Elevation:		Ground Level:	4,994.00 usft

Wellbore	Plan B				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	2/7/2019	8.14	66.72	52,144.79780201

Design	Permit Rev-1				
Audit Notes:					
Version:		Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	269.97	

Plan Survey Tool Program		Date	10/20/2019		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	1,500.00	Permit Rev-1 (Plan B)	APC_ISCWSA REV 2 MWD+II Fixed:v2:crustal field declinatio	
2	1,500.00	17,924.83	Permit Rev-1 (Plan B)	APC_ISCWSA REV 2 MWD+II Fixed:v2:Rockies, crustal dec +	

Corporate Planning Report

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Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 5011.00usft (Drilling Rig)
Site:	4N-68W-11 S&B 5-11HZ PAD	North Reference:	True
Well:	BAKE 11-24HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan B		
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	
360.00	0.00	0.00	360.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,051.33	25.37	184.92	1,996.60	-367.02	-31.59	1.50	1.50	0.00	184.92	
4,858.00	25.37	184.92	4,532.60	-1,565.14	-134.73	0.00	0.00	0.00	0.00	
6,126.50	0.00	0.00	5,760.05	-1,840.40	-158.43	2.00	-2.00	0.00	180.00	
6,727.55	0.00	0.00	6,361.10	-1,840.40	-158.43	0.00	0.00	0.00	0.00	
7,873.22	91.65	269.97	7,077.00	-1,840.73	-895.29	8.00	8.00	-7.86	269.97	
17,924.83	91.65	269.97	6,787.00	-1,845.16	-10,942.71	0.00	0.00	0.00	0.00	BAKE 11-24HZ BHL

Corporate Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well BAKE 11-24HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 5011.00usft (Drilling Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 5011.00usft (Drilling Rig)
Site:	4N-68W-11 S&B 5-11HZ PAD	North Reference:	True
Well:	BAKE 11-24HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan B		
Design:	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
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
360.00	0.00	0.00	360.00	0.00	0.00	0.00	0.00	0.00	0.00
Begin Nudge @ 360.00ft									
400.00	0.60	184.92	400.00	-0.21	-0.02	0.02	1.50	1.50	0.00
500.00	2.10	184.92	499.97	-2.56	-0.22	0.22	1.50	1.50	0.00
600.00	3.60	184.92	599.84	-7.51	-0.65	0.65	1.50	1.50	0.00
700.00	5.10	184.92	699.55	-15.07	-1.30	1.30	1.50	1.50	0.00
800.00	6.60	184.92	799.03	-25.22	-2.17	2.18	1.50	1.50	0.00
900.00	8.10	184.92	898.20	-37.97	-3.27	3.29	1.50	1.50	0.00
1,000.00	9.60	184.92	997.01	-53.29	-4.59	4.62	1.50	1.50	0.00
1,100.00	11.10	184.92	1,095.38	-71.19	-6.13	6.17	1.50	1.50	0.00
1,124.09	11.46	184.92	1,119.00	-75.89	-6.53	6.57	1.50	1.50	0.00
Fox Hills									
1,200.00	12.60	184.92	1,193.25	-91.65	-7.89	7.94	1.50	1.50	0.00
1,300.00	14.10	184.92	1,290.54	-114.66	-9.87	9.93	1.50	1.50	0.00
1,400.00	15.60	184.92	1,387.20	-140.19	-12.07	12.14	1.50	1.50	0.00
1,500.00	17.10	184.92	1,483.15	-168.24	-14.48	14.57	1.50	1.50	0.00
1,517.64	17.36	184.92	1,500.00	-173.44	-14.93	15.02	1.50	1.50	0.00
9 5/8" Csg									
1,600.00	18.60	184.92	1,578.33	-198.77	-17.11	17.21	1.50	1.50	0.00
1,700.00	20.10	184.92	1,672.68	-231.79	-19.95	20.07	1.50	1.50	0.00
1,800.00	21.60	184.92	1,766.13	-267.25	-23.01	23.14	1.50	1.50	0.00
1,900.00	23.10	184.92	1,858.62	-305.13	-26.27	26.43	1.50	1.50	0.00
2,000.00	24.60	184.92	1,950.08	-345.42	-29.73	29.91	1.50	1.50	0.00
2,051.33	25.37	184.92	1,996.60	-367.02	-31.59	31.79	1.50	1.50	0.00
Hold Tangent @ 2051.33ft									
2,100.00	25.37	184.92	2,040.58	-387.79	-33.38	33.58	0.00	0.00	0.00
2,200.00	25.37	184.92	2,130.93	-430.48	-37.06	37.28	0.00	0.00	0.00
2,300.00	25.37	184.92	2,221.29	-473.17	-40.73	40.98	0.00	0.00	0.00
2,400.00	25.37	184.92	2,311.65	-515.86	-44.41	44.68	0.00	0.00	0.00
2,500.00	25.37	184.92	2,402.00	-558.55	-48.08	48.37	0.00	0.00	0.00
2,600.00	25.37	184.92	2,492.36	-601.23	-51.76	52.07	0.00	0.00	0.00
2,700.00	25.37	184.92	2,582.71	-643.92	-55.43	55.77	0.00	0.00	0.00
2,800.00	25.37	184.92	2,673.07	-686.61	-59.10	59.46	0.00	0.00	0.00
2,900.00	25.37	184.92	2,763.43	-729.30	-62.78	63.16	0.00	0.00	0.00
3,000.00	25.37	184.92	2,853.78	-771.99	-66.45	66.86	0.00	0.00	0.00
3,100.00	25.37	184.92	2,944.14	-814.68	-70.13	70.56	0.00	0.00	0.00
3,200.00	25.37	184.92	3,034.49	-857.36	-73.80	74.25	0.00	0.00	0.00
3,300.00	25.37	184.92	3,124.85	-900.05	-77.48	77.95	0.00	0.00	0.00
3,400.00	25.37	184.92	3,215.21	-942.74	-81.15	81.65	0.00	0.00	0.00
3,500.00	25.37	184.92	3,305.56	-985.43	-84.83	85.34	0.00	0.00	0.00
3,600.00	25.37	184.92	3,395.92	-1,028.12	-88.50	89.04	0.00	0.00	0.00
3,631.08	25.37	184.92	3,424.00	-1,041.38	-89.64	90.19	0.00	0.00	0.00
Parkman									
3,700.00	25.37	184.92	3,486.27	-1,070.81	-92.18	92.74	0.00	0.00	0.00
3,800.00	25.37	184.92	3,576.63	-1,113.49	-95.85	96.43	0.00	0.00	0.00
3,900.00	25.37	184.92	3,666.99	-1,156.18	-99.53	100.13	0.00	0.00	0.00
4,000.00	25.37	184.92	3,757.34	-1,198.87	-103.20	103.83	0.00	0.00	0.00
4,100.00	25.37	184.92	3,847.70	-1,241.56	-106.88	107.53	0.00	0.00	0.00
4,180.02	25.37	184.92	3,920.00	-1,275.72	-109.82	110.48	0.00	0.00	0.00

Corporate Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well BAKE 11-24HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 5011.00usft (Drilling Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 5011.00usft (Drilling Rig)
Site:	4N-68W-11 S&B 5-11HZ PAD	North Reference:	True
Well:	BAKE 11-24HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan B		
Design:	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)
Sussex									
4,200.00	25.37	184.92	3,938.05	-1,284.25	-110.55	111.22	0.00	0.00	0.00
4,300.00	25.37	184.92	4,028.41	-1,326.94	-114.23	114.92	0.00	0.00	0.00
4,400.00	25.37	184.92	4,118.77	-1,369.62	-117.90	118.62	0.00	0.00	0.00
4,500.00	25.37	184.92	4,209.12	-1,412.31	-121.57	122.31	0.00	0.00	0.00
4,600.00	25.37	184.92	4,299.48	-1,455.00	-125.25	126.01	0.00	0.00	0.00
4,700.00	25.37	184.92	4,389.83	-1,497.69	-128.92	129.71	0.00	0.00	0.00
4,800.00	25.37	184.92	4,480.19	-1,540.38	-132.60	133.41	0.00	0.00	0.00
4,858.00	25.37	184.92	4,532.60	-1,565.14	-134.73	135.55	0.00	0.00	0.00
Begin Drop @ 4858.00ft									
4,900.00	24.53	184.92	4,570.68	-1,582.79	-136.25	137.08	2.00	-2.00	0.00
5,000.00	22.53	184.92	4,662.36	-1,622.56	-139.67	140.52	2.00	-2.00	0.00
5,100.00	20.53	184.92	4,755.37	-1,659.12	-142.82	143.69	2.00	-2.00	0.00
5,200.00	18.53	184.92	4,849.62	-1,692.43	-145.69	146.57	2.00	-2.00	0.00
5,300.00	16.53	184.92	4,944.97	-1,722.44	-148.27	149.17	2.00	-2.00	0.00
5,400.00	14.53	184.92	5,041.31	-1,749.11	-150.57	151.48	2.00	-2.00	0.00
5,500.00	12.53	184.92	5,138.53	-1,772.42	-152.57	153.50	2.00	-2.00	0.00
5,600.00	10.53	184.92	5,236.51	-1,792.33	-154.29	155.23	2.00	-2.00	0.00
5,700.00	8.53	184.92	5,335.12	-1,808.83	-155.71	156.65	2.00	-2.00	0.00
5,800.00	6.53	184.92	5,434.26	-1,821.88	-156.83	157.79	2.00	-2.00	0.00
5,900.00	4.53	184.92	5,533.78	-1,831.48	-157.66	158.62	2.00	-2.00	0.00
6,000.00	2.53	184.92	5,633.59	-1,837.62	-158.19	159.15	2.00	-2.00	0.00
6,100.00	0.53	184.92	5,733.55	-1,840.28	-158.41	159.38	2.00	-2.00	0.00
6,126.50	0.00	0.00	5,760.05	-1,840.40	-158.43	159.39	2.00	-2.00	0.00
Hold Vertical @ 6126.50ft									
6,200.00	0.00	0.00	5,833.55	-1,840.40	-158.43	159.39	0.00	0.00	0.00
6,300.00	0.00	0.00	5,933.55	-1,840.40	-158.43	159.39	0.00	0.00	0.00
6,400.00	0.00	0.00	6,033.55	-1,840.40	-158.43	159.39	0.00	0.00	0.00
6,500.00	0.00	0.00	6,133.55	-1,840.40	-158.43	159.39	0.00	0.00	0.00
6,600.00	0.00	0.00	6,233.55	-1,840.40	-158.43	159.39	0.00	0.00	0.00
6,700.00	0.00	0.00	6,333.55	-1,840.40	-158.43	159.39	0.00	0.00	0.00
6,727.55	0.00	0.00	6,361.10	-1,840.40	-158.43	159.39	0.00	0.00	0.00
KOP @ 6727.55ft :: DLS = 8°/100'									
6,800.00	5.80	269.97	6,433.43	-1,840.40	-162.09	163.05	8.00	8.00	0.00
6,900.00	13.80	269.97	6,531.89	-1,840.41	-179.09	180.05	8.00	8.00	0.00
7,000.00	21.80	269.97	6,627.03	-1,840.42	-209.62	210.59	8.00	8.00	0.00
7,100.00	29.80	269.97	6,716.99	-1,840.44	-253.11	254.07	8.00	8.00	0.00
7,118.59	31.28	269.97	6,733.00	-1,840.45	-262.55	263.52	8.00	8.00	0.00
Sharon Springs									
7,170.08	35.40	269.97	6,776.00	-1,840.46	-290.85	291.81	8.00	8.00	0.00
Niobrara									
7,200.00	37.80	269.97	6,800.02	-1,840.47	-308.68	309.65	8.00	8.00	0.00
7,300.00	45.80	269.97	6,874.51	-1,840.50	-375.28	376.24	8.00	8.00	0.00
7,312.28	46.78	269.97	6,883.00	-1,840.50	-384.16	385.12	8.00	8.00	0.00
Nio B									
7,400.00	53.80	269.97	6,939.01	-1,840.53	-451.59	452.56	8.00	8.00	0.00
7,422.47	55.59	269.97	6,952.00	-1,840.54	-469.93	470.90	8.00	8.00	0.00
Nio C									
7,500.00	61.80	269.97	6,992.26	-1,840.57	-536.14	537.10	8.00	8.00	0.00
7,600.00	69.80	269.97	7,033.23	-1,840.61	-627.27	628.24	8.00	8.00	0.00
7,700.00	77.80	269.97	7,061.11	-1,840.65	-723.22	724.19	8.00	8.00	0.00
7,800.00	85.80	269.97	7,075.37	-1,840.69	-822.12	823.08	8.00	8.00	0.00
7,873.22	91.65	269.97	7,077.00	-1,840.73	-895.29	896.25	8.00	8.00	0.00

Corporate Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well BAKE 11-24HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 5011.00usft (Drilling Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 5011.00usft (Drilling Rig)
Site:	4N-68W-11 S&B 5-11HZ PAD	North Reference:	True
Well:	BAKE 11-24HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan B		
Design:	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)
End Build @ 7873.22ft									
7,873.22	91.65	269.97	7,077.00	-1,840.73	-895.29	896.25	0.00	0.00	0.00
Top of Production									
7,900.00	91.65	269.97	7,076.23	-1,840.74	-922.06	923.02	0.00	0.00	0.00
8,000.00	91.65	269.97	7,073.34	-1,840.78	-1,022.02	1,022.98	0.00	0.00	0.00
8,100.00	91.65	269.97	7,070.46	-1,840.83	-1,121.98	1,122.94	0.00	0.00	0.00
8,200.00	91.65	269.97	7,067.57	-1,840.87	-1,221.93	1,222.90	0.00	0.00	0.00
8,300.00	91.65	269.97	7,064.68	-1,840.91	-1,321.89	1,322.86	0.00	0.00	0.00
8,400.00	91.65	269.97	7,061.80	-1,840.96	-1,421.85	1,422.81	0.00	0.00	0.00
8,500.00	91.65	269.97	7,058.91	-1,841.00	-1,521.81	1,522.77	0.00	0.00	0.00
8,600.00	91.65	269.97	7,056.03	-1,841.05	-1,621.77	1,622.73	0.00	0.00	0.00
8,700.00	91.65	269.97	7,053.14	-1,841.09	-1,721.73	1,722.69	0.00	0.00	0.00
8,800.00	91.65	269.97	7,050.26	-1,841.14	-1,821.68	1,822.65	0.00	0.00	0.00
8,900.00	91.65	269.97	7,047.37	-1,841.18	-1,921.64	1,922.61	0.00	0.00	0.00
9,000.00	91.65	269.97	7,044.49	-1,841.22	-2,021.60	2,022.56	0.00	0.00	0.00
9,100.00	91.65	269.97	7,041.60	-1,841.27	-2,121.56	2,122.52	0.00	0.00	0.00
9,200.00	91.65	269.97	7,038.72	-1,841.31	-2,221.52	2,222.48	0.00	0.00	0.00
9,300.00	91.65	269.97	7,035.83	-1,841.36	-2,321.48	2,322.44	0.00	0.00	0.00
9,400.00	91.65	269.97	7,032.95	-1,841.40	-2,421.43	2,422.40	0.00	0.00	0.00
9,500.00	91.65	269.97	7,030.06	-1,841.44	-2,521.39	2,522.36	0.00	0.00	0.00
9,600.00	91.65	269.97	7,027.18	-1,841.49	-2,621.35	2,622.31	0.00	0.00	0.00
9,700.00	91.65	269.97	7,024.29	-1,841.53	-2,721.31	2,722.27	0.00	0.00	0.00
9,800.00	91.65	269.97	7,021.41	-1,841.58	-2,821.27	2,822.23	0.00	0.00	0.00
9,900.00	91.65	269.97	7,018.52	-1,841.62	-2,921.23	2,922.19	0.00	0.00	0.00
10,000.00	91.65	269.97	7,015.64	-1,841.66	-3,021.18	3,022.15	0.00	0.00	0.00
10,100.00	91.65	269.97	7,012.75	-1,841.71	-3,121.14	3,122.11	0.00	0.00	0.00
10,200.00	91.65	269.97	7,009.87	-1,841.75	-3,221.10	3,222.06	0.00	0.00	0.00
10,300.00	91.65	269.97	7,006.98	-1,841.80	-3,321.06	3,322.02	0.00	0.00	0.00
10,400.00	91.65	269.97	7,004.10	-1,841.84	-3,421.02	3,421.98	0.00	0.00	0.00
10,500.00	91.65	269.97	7,001.21	-1,841.89	-3,520.98	3,521.94	0.00	0.00	0.00
10,600.00	91.65	269.97	6,998.33	-1,841.93	-3,620.93	3,621.90	0.00	0.00	0.00
10,700.00	91.65	269.97	6,995.44	-1,841.97	-3,720.89	3,721.86	0.00	0.00	0.00
10,800.00	91.65	269.97	6,992.56	-1,842.02	-3,820.85	3,821.81	0.00	0.00	0.00
10,900.00	91.65	269.97	6,989.67	-1,842.06	-3,920.81	3,921.77	0.00	0.00	0.00
11,000.00	91.65	269.97	6,986.79	-1,842.11	-4,020.77	4,021.73	0.00	0.00	0.00
11,100.00	91.65	269.97	6,983.90	-1,842.15	-4,120.73	4,121.69	0.00	0.00	0.00
11,200.00	91.65	269.97	6,981.02	-1,842.19	-4,220.68	4,221.65	0.00	0.00	0.00
11,300.00	91.65	269.97	6,978.13	-1,842.24	-4,320.64	4,321.61	0.00	0.00	0.00
11,400.00	91.65	269.97	6,975.25	-1,842.28	-4,420.60	4,421.57	0.00	0.00	0.00
11,500.00	91.65	269.97	6,972.36	-1,842.33	-4,520.56	4,521.52	0.00	0.00	0.00
11,600.00	91.65	269.97	6,969.48	-1,842.37	-4,620.52	4,621.48	0.00	0.00	0.00
11,700.00	91.65	269.97	6,966.59	-1,842.41	-4,720.48	4,721.44	0.00	0.00	0.00
11,800.00	91.65	269.97	6,963.71	-1,842.46	-4,820.43	4,821.40	0.00	0.00	0.00
11,900.00	91.65	269.97	6,960.82	-1,842.50	-4,920.39	4,921.36	0.00	0.00	0.00
12,000.00	91.65	269.97	6,957.94	-1,842.55	-5,020.35	5,021.32	0.00	0.00	0.00
12,100.00	91.65	269.97	6,955.05	-1,842.59	-5,120.31	5,121.27	0.00	0.00	0.00
12,200.00	91.65	269.97	6,952.17	-1,842.64	-5,220.27	5,221.23	0.00	0.00	0.00
12,300.00	91.65	269.97	6,949.28	-1,842.68	-5,320.23	5,321.19	0.00	0.00	0.00
12,400.00	91.65	269.97	6,946.40	-1,842.72	-5,420.18	5,421.15	0.00	0.00	0.00
12,500.00	91.65	269.97	6,943.51	-1,842.77	-5,520.14	5,521.11	0.00	0.00	0.00
12,600.00	91.65	269.97	6,940.63	-1,842.81	-5,620.10	5,621.07	0.00	0.00	0.00
12,700.00	91.65	269.97	6,937.74	-1,842.86	-5,720.06	5,721.02	0.00	0.00	0.00
12,800.00	91.65	269.97	6,934.86	-1,842.90	-5,820.02	5,820.98	0.00	0.00	0.00
12,900.00	91.65	269.97	6,931.97	-1,842.94	-5,919.98	5,920.94	0.00	0.00	0.00

Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well BAKE 11-24HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 5011.00usft (Drilling Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 5011.00usft (Drilling Rig)
Site:	4N-68W-11 S&B 5-11HZ PAD	North Reference:	True
Well:	BAKE 11-24HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan B		
Design:	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)
13,000.00	91.65	269.97	6,929.09	-1,842.99	-6,019.93	6,020.90	0.00	0.00	0.00
13,100.00	91.65	269.97	6,926.20	-1,843.03	-6,119.89	6,120.86	0.00	0.00	0.00
13,200.00	91.65	269.97	6,923.32	-1,843.08	-6,219.85	6,220.82	0.00	0.00	0.00
13,300.00	91.65	269.97	6,920.43	-1,843.12	-6,319.81	6,320.77	0.00	0.00	0.00
13,400.00	91.65	269.97	6,917.55	-1,843.16	-6,419.77	6,420.73	0.00	0.00	0.00
13,500.00	91.65	269.97	6,914.66	-1,843.21	-6,519.73	6,520.69	0.00	0.00	0.00
13,600.00	91.65	269.97	6,911.78	-1,843.25	-6,619.69	6,620.65	0.00	0.00	0.00
13,700.00	91.65	269.97	6,908.89	-1,843.30	-6,719.64	6,720.61	0.00	0.00	0.00
13,800.00	91.65	269.97	6,906.01	-1,843.34	-6,819.60	6,820.57	0.00	0.00	0.00
13,900.00	91.65	269.97	6,903.12	-1,843.39	-6,919.56	6,920.52	0.00	0.00	0.00
14,000.00	91.65	269.97	6,900.23	-1,843.43	-7,019.52	7,020.48	0.00	0.00	0.00
14,100.00	91.65	269.97	6,897.35	-1,843.47	-7,119.48	7,120.44	0.00	0.00	0.00
14,200.00	91.65	269.97	6,894.46	-1,843.52	-7,219.44	7,220.40	0.00	0.00	0.00
14,300.00	91.65	269.97	6,891.58	-1,843.56	-7,319.39	7,320.36	0.00	0.00	0.00
14,400.00	91.65	269.97	6,888.69	-1,843.61	-7,419.35	7,420.32	0.00	0.00	0.00
14,500.00	91.65	269.97	6,885.81	-1,843.65	-7,519.31	7,520.27	0.00	0.00	0.00
14,600.00	91.65	269.97	6,882.92	-1,843.69	-7,619.27	7,620.23	0.00	0.00	0.00
14,700.00	91.65	269.97	6,880.04	-1,843.74	-7,719.23	7,720.19	0.00	0.00	0.00
14,800.00	91.65	269.97	6,877.15	-1,843.78	-7,819.19	7,820.15	0.00	0.00	0.00
14,900.00	91.65	269.97	6,874.27	-1,843.83	-7,919.14	7,920.11	0.00	0.00	0.00
15,000.00	91.65	269.97	6,871.38	-1,843.87	-8,019.10	8,020.07	0.00	0.00	0.00
15,100.00	91.65	269.97	6,868.50	-1,843.91	-8,119.06	8,120.03	0.00	0.00	0.00
15,200.00	91.65	269.97	6,865.61	-1,843.96	-8,219.02	8,219.98	0.00	0.00	0.00
15,300.00	91.65	269.97	6,862.73	-1,844.00	-8,318.98	8,319.94	0.00	0.00	0.00
15,400.00	91.65	269.97	6,859.84	-1,844.05	-8,418.94	8,419.90	0.00	0.00	0.00
15,500.00	91.65	269.97	6,856.96	-1,844.09	-8,518.89	8,519.86	0.00	0.00	0.00
15,600.00	91.65	269.97	6,854.07	-1,844.14	-8,618.85	8,619.82	0.00	0.00	0.00
15,700.00	91.65	269.97	6,851.19	-1,844.18	-8,718.81	8,719.78	0.00	0.00	0.00
15,800.00	91.65	269.97	6,848.30	-1,844.22	-8,818.77	8,819.73	0.00	0.00	0.00
15,900.00	91.65	269.97	6,845.42	-1,844.27	-8,918.73	8,919.69	0.00	0.00	0.00
16,000.00	91.65	269.97	6,842.53	-1,844.31	-9,018.69	9,019.65	0.00	0.00	0.00
16,100.00	91.65	269.97	6,839.65	-1,844.36	-9,118.64	9,119.61	0.00	0.00	0.00
16,200.00	91.65	269.97	6,836.76	-1,844.40	-9,218.60	9,219.57	0.00	0.00	0.00
16,300.00	91.65	269.97	6,833.88	-1,844.44	-9,318.56	9,319.53	0.00	0.00	0.00
16,400.00	91.65	269.97	6,830.99	-1,844.49	-9,418.52	9,419.48	0.00	0.00	0.00
16,500.00	91.65	269.97	6,828.11	-1,844.53	-9,518.48	9,519.44	0.00	0.00	0.00
16,600.00	91.65	269.97	6,825.22	-1,844.58	-9,618.44	9,619.40	0.00	0.00	0.00
16,700.00	91.65	269.97	6,822.34	-1,844.62	-9,718.39	9,719.36	0.00	0.00	0.00
16,800.00	91.65	269.97	6,819.45	-1,844.66	-9,818.35	9,819.32	0.00	0.00	0.00
16,900.00	91.65	269.97	6,816.57	-1,844.71	-9,918.31	9,919.28	0.00	0.00	0.00
17,000.00	91.65	269.97	6,813.68	-1,844.75	-10,018.27	10,019.23	0.00	0.00	0.00
17,100.00	91.65	269.97	6,810.80	-1,844.80	-10,118.23	10,119.19	0.00	0.00	0.00
17,200.00	91.65	269.97	6,807.91	-1,844.84	-10,218.19	10,219.15	0.00	0.00	0.00
17,300.00	91.65	269.97	6,805.03	-1,844.89	-10,318.14	10,319.11	0.00	0.00	0.00
17,400.00	91.65	269.97	6,802.14	-1,844.93	-10,418.10	10,419.07	0.00	0.00	0.00
17,500.00	91.65	269.97	6,799.26	-1,844.97	-10,518.06	10,519.03	0.00	0.00	0.00
17,600.00	91.65	269.97	6,796.37	-1,845.02	-10,618.02	10,618.98	0.00	0.00	0.00
17,700.00	91.65	269.97	6,793.49	-1,845.06	-10,717.98	10,718.94	0.00	0.00	0.00
17,800.00	91.65	269.97	6,790.60	-1,845.11	-10,817.94	10,818.90	0.00	0.00	0.00
17,900.00	91.65	269.97	6,787.72	-1,845.15	-10,917.89	10,918.86	0.00	0.00	0.00
17,924.83	91.65	269.97	6,787.00	-1,845.16	-10,942.71	10,943.68	0.00	0.00	0.00
TD Well @ 17924.83ft									

Corporate Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well BAKE 11-24HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 5011.00usft (Drilling Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 5011.00usft (Drilling Rig)
Site:	4N-68W-11 S&B 5-11HZ PAD	North Reference:	True
Well:	BAKE 11-24HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan B		
Design:	Permit Rev-1		

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
1,517.64	1,500.00	9 5/8" Csg	9-5/8	13-1/2	
7,873.22	7,077.00	Top of Production	5-1/2	7-7/8	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,124.09	1,119.00	Fox Hills				
3,631.08	3,424.00	Parkman				
4,180.02	3,920.00	Sussex				
7,118.59	6,733.00	Sharon Springs				
7,170.08	6,776.00	Niobrara				
7,312.28	6,883.00	Nio B				
7,422.47	6,952.00	Nio C				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
360.00	360.00	0.00	0.00	Begin Nudge @ 360.00ft	
2,051.33	1,996.60	-367.02	-31.59	Hold Tangent @ 2051.33ft	
4,858.00	4,532.60	-1,565.14	-134.73	Begin Drop @ 4858.00ft	
6,126.50	5,760.05	-1,840.40	-158.43	Hold Vertical @ 6126.50ft	
6,727.55	6,361.10	-1,840.40	-158.43	KOP @ 6727.55ft :: DLS = 8°/100'	
7,873.22	7,077.00	-1,840.73	-895.29	End Build @ 7873.22ft	
17,924.83	6,787.00	-1,845.16	-10,942.71	TD Well @ 17924.83ft	