

US ROCKIES WATTENBERG PLANNING

WELD-NAD83-UTMFT13N

1N-66W-26 BEIERLE 2-26HZ PAD

BEIERLE 26-17HZ

Plan A

Plan: Permit Rev-2

Surface Location Lat/Long: 40.028279/-104.740974

Survey Program: MWD+IFR

Standard Planning Report

04 March, 2020

Project: WELD-NAD83-UTMFT13N
Site: 1N-66W-26 BEIERLE 2-26HZ PAD
Well: BEIERLE 26-17HZ
Wellbore: Plan A
Design: Permit Rev-2

US ROCKIES WATTENBERG PLANNING

CASING DETAILS

TVD	MD	Name	Size
1500.00	1523.46	9 5/8" Csg	9-5/8
7685.00	8778.30	Top of Production	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	250.00	0.00	0.00	250.00	0.00	0.00	0.00	0.00	0.00	
3	2077.33	27.41	164.70	2008.43	-413.62	113.15	1.50	164.70	-413.36	
4	7318.15	27.41	164.70	6660.88	-2740.75	749.78	0.00	0.00	-2739.04	
5	8778.30	90.47	0.13	7685.00	-2093.41	893.84	8.00	-162.66	-2091.37	
6	16543.92	90.47	0.13	7621.00	5671.93	911.24	0.00	0.00	5673.98	BEIERLE 26-17HZ_BHL

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
BEIERLE 26-17HZ_SHL	0.00	0.00	0.00	40.028279	-104.740974
BEIERLE 26-17HZ_BHL	7621.00	5671.93	911.24	40.043855	-104.737718

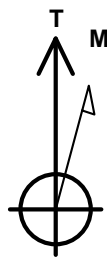
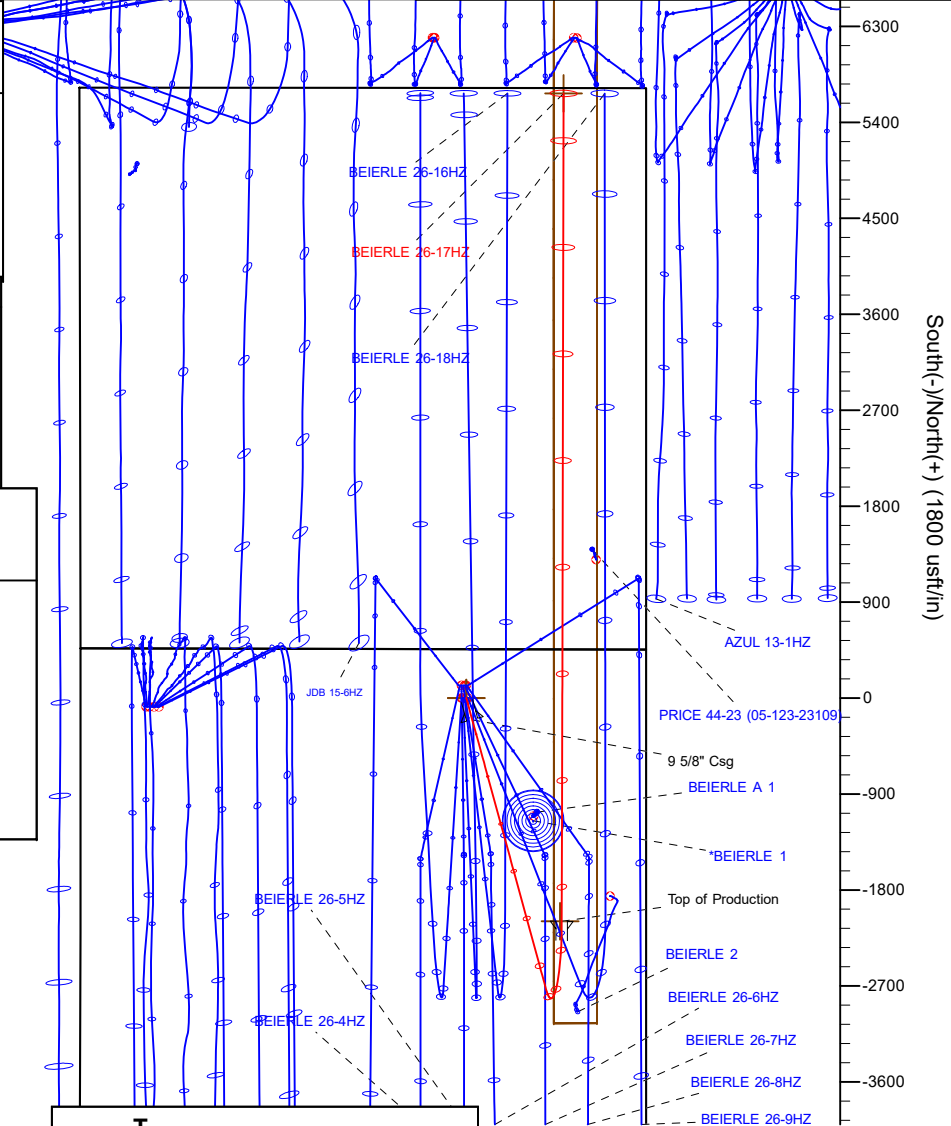
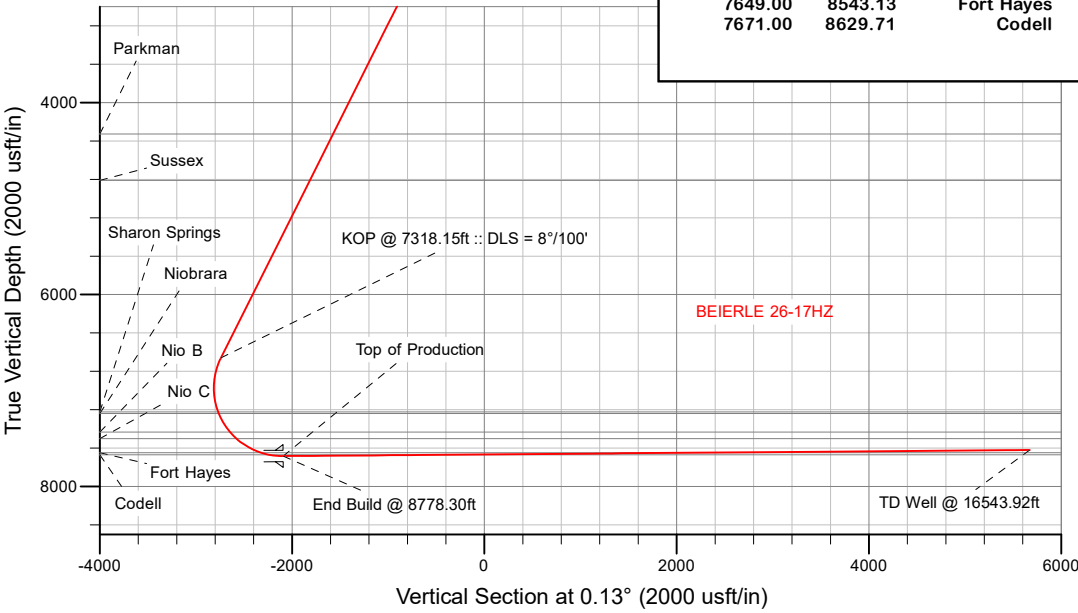
FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1775.00	1818.73	Fox Hills
4327.00	4689.12	Parkman
4811.00	5234.33	Sussex
7225.00	7904.62	Sharon Springs
7240.00	7920.87	Niobrara
7435.00	8151.82	Nio B
7503.00	8247.64	Nio C
7649.00	8543.13	Fort Hayes
7671.00	8629.71	Codell

SHL
460' FNL
1684' FEL

HEEL
2550' FNL
790' FEL

BHL
50' FNL
772' FEL



Azimuths to True North
Magnetic North: 7.88°

Magnetic Field
Strength: 51891.3snT
Dip Angle: 66.49°
Date: 2/29/2020
Model: IGRF2015

WELL DETAILS: BEIERLE 26-17HZ

GL = 5118'

RKB = 17' @ 5135.00usft (Drilling Rig)

Plan: Permit Rev-2 (BEIERLE 26-17HZ/Plan A)

Date: 3/5/2020

Corporate Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well BEIERLE 26-17HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 5135.00usft (Drilling Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 5135.00usft (Drilling Rig)
Site:	1N-66W-26 BEIERLE 2-26HZ PAD	North Reference:	True
Well:	BEIERLE 26-17HZ	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	1N-66W-26 BEIERLE 2-26HZ PAD			
Site Position:		Northing:	14,537,256.31 usft	Latitude: 40.028609
From:	Lat/Long	Easting:	1,712,821.93 usft	Longitude: -104.741349
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence: 0.17 °

Well		BEIERLE 26-17HZ				
Well Position	+N/-S	-120.17 usft	Northing:	14,537,136.45 usft	Latitude:	40.028279
	+E/-W	104.98 usft	Easting:	1,712,927.25 usft	Longitude:	-104.740974
Position Uncertainty		3.28 usft	Wellhead Elevation:		Ground Level:	5,118.00 usft

Wellbore	Plan A				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	2/29/2020	7.88	66.49	51,891.34894940

Design	Permit Rev-2			
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	0.13

Plan Survey Tool Program	Date	3/4/2020		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	1,500.00	Permit Rev-2 (Plan A)	APC_ISCWSA REV 2 MWD+II Fixed:v2:crustal field declination
2	1,500.00	16,543.92	Permit Rev-2 (Plan A)	APC_ISCWSA REV 2 MWD+II Fixed:v2:crustal field declination

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	
250.00	0.00	0.00	250.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,077.33	27.41	164.70	2,008.43	-413.62	113.15	1.50	1.50	0.00	164.70	
7,318.15	27.41	164.70	6,660.88	-2,740.75	749.78	0.00	0.00	0.00	0.00	
8,778.30	90.47	0.13	7,685.00	-2,093.41	893.84	8.00	4.32	-11.27	-162.66	
16,543.92	90.47	0.13	7,621.00	5,671.93	911.24	0.00	0.00	0.00	0.00	BEIERLE 26-17HZ_B

Corporate Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well BEIERLE 26-17HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 5135.00usft (Drilling Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 5135.00usft (Drilling Rig)
Site:	1N-66W-26 BEIERLE 2-26HZ PAD	North Reference:	True
Well:	BEIERLE 26-17HZ	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
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
250.00	0.00	0.00	250.00	0.00	0.00	0.00	0.00	0.00	0.00
Begin Nudge @ 250.00ft									
300.00	0.75	164.70	300.00	-0.32	0.09	-0.32	1.50	1.50	0.00
400.00	2.25	164.70	399.96	-2.84	0.78	-2.84	1.50	1.50	0.00
500.00	3.75	164.70	499.82	-7.89	2.16	-7.88	1.50	1.50	0.00
600.00	5.25	164.70	599.51	-15.46	4.23	-15.45	1.50	1.50	0.00
700.00	6.75	164.70	698.96	-25.54	6.99	-25.52	1.50	1.50	0.00
800.00	8.25	164.70	798.10	-38.13	10.43	-38.10	1.50	1.50	0.00
900.00	9.75	164.70	896.87	-53.22	14.56	-53.18	1.50	1.50	0.00
1,000.00	11.25	164.70	995.19	-70.79	19.37	-70.75	1.50	1.50	0.00
1,100.00	12.75	164.70	1,093.00	-90.85	24.85	-90.79	1.50	1.50	0.00
1,200.00	14.25	164.70	1,190.24	-113.36	31.01	-113.29	1.50	1.50	0.00
1,300.00	15.75	164.70	1,286.83	-138.33	37.84	-138.24	1.50	1.50	0.00
1,400.00	17.25	164.70	1,382.71	-165.72	45.34	-165.62	1.50	1.50	0.00
1,500.00	18.75	164.70	1,477.81	-195.53	53.49	-195.41	1.50	1.50	0.00
1,523.46	19.10	164.70	1,500.00	-202.87	55.50	-202.74	1.50	1.50	0.00
9 5/8" Csg									
1,600.00	20.25	164.70	1,572.07	-227.72	62.30	-227.58	1.50	1.50	0.00
1,700.00	21.75	164.70	1,665.43	-262.29	71.75	-262.13	1.50	1.50	0.00
1,800.00	23.25	164.70	1,757.81	-299.20	81.85	-299.01	1.50	1.50	0.00
1,818.73	23.53	164.70	1,775.00	-306.37	83.81	-306.18	1.50	1.50	0.00
Fox Hills									
1,900.00	24.75	164.70	1,849.16	-338.43	92.58	-338.22	1.50	1.50	0.00
2,000.00	26.25	164.70	1,939.42	-379.96	103.94	-379.72	1.50	1.50	0.00
2,077.33	27.41	164.70	2,008.43	-413.62	113.15	-413.36	1.50	1.50	0.00
Hold Tangent @ 2077.33ft									
2,100.00	27.41	164.70	2,028.55	-423.69	115.91	-423.42	0.00	0.00	0.00
2,200.00	27.41	164.70	2,117.32	-468.09	128.06	-467.80	0.00	0.00	0.00
2,300.00	27.41	164.70	2,206.09	-512.49	140.20	-512.18	0.00	0.00	0.00
2,400.00	27.41	164.70	2,294.87	-556.90	152.35	-556.55	0.00	0.00	0.00
2,500.00	27.41	164.70	2,383.64	-601.30	164.50	-600.93	0.00	0.00	0.00
2,600.00	27.41	164.70	2,472.42	-645.71	176.65	-645.30	0.00	0.00	0.00
2,700.00	27.41	164.70	2,561.19	-690.11	188.79	-689.68	0.00	0.00	0.00
2,800.00	27.41	164.70	2,649.96	-734.51	200.94	-734.06	0.00	0.00	0.00
2,900.00	27.41	164.70	2,738.74	-778.92	213.09	-778.43	0.00	0.00	0.00
3,000.00	27.41	164.70	2,827.51	-823.32	225.24	-822.81	0.00	0.00	0.00
3,100.00	27.41	164.70	2,916.28	-867.73	237.38	-867.18	0.00	0.00	0.00
3,200.00	27.41	164.70	3,005.06	-912.13	249.53	-911.56	0.00	0.00	0.00
3,300.00	27.41	164.70	3,093.83	-956.53	261.68	-955.94	0.00	0.00	0.00
3,400.00	27.41	164.70	3,182.60	-1,000.94	273.83	-1,000.31	0.00	0.00	0.00
3,500.00	27.41	164.70	3,271.38	-1,045.34	285.97	-1,044.69	0.00	0.00	0.00
3,600.00	27.41	164.70	3,360.15	-1,089.74	298.12	-1,089.07	0.00	0.00	0.00
3,700.00	27.41	164.70	3,448.92	-1,134.15	310.27	-1,133.44	0.00	0.00	0.00
3,800.00	27.41	164.70	3,537.70	-1,178.55	322.42	-1,177.82	0.00	0.00	0.00
3,900.00	27.41	164.70	3,626.47	-1,222.96	334.56	-1,222.19	0.00	0.00	0.00
4,000.00	27.41	164.70	3,715.24	-1,267.36	346.71	-1,266.57	0.00	0.00	0.00
4,100.00	27.41	164.70	3,804.02	-1,311.76	358.86	-1,310.95	0.00	0.00	0.00
4,200.00	27.41	164.70	3,892.79	-1,356.17	371.01	-1,355.32	0.00	0.00	0.00
4,300.00	27.41	164.70	3,981.56	-1,400.57	383.15	-1,399.70	0.00	0.00	0.00
4,400.00	27.41	164.70	4,070.34	-1,444.98	395.30	-1,444.08	0.00	0.00	0.00

Corporate Planning Report

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Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 5135.00usft (Drilling Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 5135.00usft (Drilling Rig)
Site:	1N-66W-26 BEIERLE 2-26HZ PAD	North Reference:	True
Well:	BEIERLE 26-17HZ	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)
4,500.00	27.41	164.70	4,159.11	-1,489.38	407.45	-1,488.45	0.00	0.00	0.00
4,600.00	27.41	164.70	4,247.89	-1,533.78	419.60	-1,532.83	0.00	0.00	0.00
4,689.12	27.41	164.70	4,327.00	-1,573.36	430.42	-1,572.38	0.00	0.00	0.00
Parkman									
4,700.00	27.41	164.70	4,336.66	-1,578.19	431.74	-1,577.20	0.00	0.00	0.00
4,800.00	27.41	164.70	4,425.43	-1,622.59	443.89	-1,621.58	0.00	0.00	0.00
4,900.00	27.41	164.70	4,514.21	-1,666.99	456.04	-1,665.96	0.00	0.00	0.00
5,000.00	27.41	164.70	4,602.98	-1,711.40	468.19	-1,710.33	0.00	0.00	0.00
5,100.00	27.41	164.70	4,691.75	-1,755.80	480.33	-1,754.71	0.00	0.00	0.00
5,200.00	27.41	164.70	4,780.53	-1,800.21	492.48	-1,799.08	0.00	0.00	0.00
5,234.33	27.41	164.70	4,811.00	-1,815.45	496.65	-1,814.32	0.00	0.00	0.00
Sussex									
5,300.00	27.41	164.70	4,869.30	-1,844.61	504.63	-1,843.46	0.00	0.00	0.00
5,400.00	27.41	164.70	4,958.07	-1,889.01	516.78	-1,887.84	0.00	0.00	0.00
5,500.00	27.41	164.70	5,046.85	-1,933.42	528.92	-1,932.21	0.00	0.00	0.00
5,600.00	27.41	164.70	5,135.62	-1,977.82	541.07	-1,976.59	0.00	0.00	0.00
5,700.00	27.41	164.70	5,224.39	-2,022.23	553.22	-2,020.97	0.00	0.00	0.00
5,800.00	27.41	164.70	5,313.17	-2,066.63	565.37	-2,065.34	0.00	0.00	0.00
5,900.00	27.41	164.70	5,401.94	-2,111.03	577.51	-2,109.72	0.00	0.00	0.00
6,000.00	27.41	164.70	5,490.71	-2,155.44	589.66	-2,154.09	0.00	0.00	0.00
6,100.00	27.41	164.70	5,579.49	-2,199.84	601.81	-2,198.47	0.00	0.00	0.00
6,200.00	27.41	164.70	5,668.26	-2,244.25	613.96	-2,242.85	0.00	0.00	0.00
6,300.00	27.41	164.70	5,757.03	-2,288.65	626.10	-2,287.22	0.00	0.00	0.00
6,400.00	27.41	164.70	5,845.81	-2,333.05	638.25	-2,331.60	0.00	0.00	0.00
6,500.00	27.41	164.70	5,934.58	-2,377.46	650.40	-2,375.97	0.00	0.00	0.00
6,600.00	27.41	164.70	6,023.36	-2,421.86	662.55	-2,420.35	0.00	0.00	0.00
6,700.00	27.41	164.70	6,112.13	-2,466.26	674.69	-2,464.73	0.00	0.00	0.00
6,800.00	27.41	164.70	6,200.90	-2,510.67	686.84	-2,509.10	0.00	0.00	0.00
6,900.00	27.41	164.70	6,289.68	-2,555.07	698.99	-2,553.48	0.00	0.00	0.00
7,000.00	27.41	164.70	6,378.45	-2,599.48	711.14	-2,597.86	0.00	0.00	0.00
7,100.00	27.41	164.70	6,467.22	-2,643.88	723.28	-2,642.23	0.00	0.00	0.00
7,200.00	27.41	164.70	6,556.00	-2,688.28	735.43	-2,686.61	0.00	0.00	0.00
7,300.00	27.41	164.70	6,644.77	-2,732.69	747.58	-2,730.98	0.00	0.00	0.00
7,318.15	27.41	164.70	6,660.88	-2,740.75	749.78	-2,739.04	0.00	0.00	0.00
KOP @ 7318.15ft :: DLS = 8°/100'									
7,400.00	21.24	159.32	6,735.44	-2,772.83	760.00	-2,771.09	8.00	-7.53	-6.58
7,500.00	14.15	146.87	6,830.68	-2,800.06	773.10	-2,798.29	8.00	-7.09	-12.45
7,600.00	8.74	115.95	6,928.74	-2,813.64	786.64	-2,811.85	8.00	-5.41	-30.92
7,700.00	8.94	61.97	7,027.71	-2,813.32	800.35	-2,811.49	8.00	0.19	-53.98
7,800.00	14.51	32.57	7,125.67	-2,799.09	813.97	-2,797.23	8.00	5.57	-29.40
7,900.00	21.64	20.63	7,220.71	-2,771.24	827.23	-2,769.35	8.00	7.13	-11.93
7,904.62	21.98	20.27	7,225.00	-2,769.63	827.83	-2,767.74	8.00	7.43	-7.95
Sharon Springs									
7,920.87	23.19	19.06	7,240.00	-2,763.75	829.93	-2,761.86	8.00	7.47	-7.45
Niobrara									
8,000.00	29.21	14.54	7,310.98	-2,730.30	839.88	-2,728.39	8.00	7.60	-5.71
8,100.00	36.95	10.81	7,394.71	-2,677.08	851.66	-2,675.14	8.00	7.74	-3.73
8,151.82	40.99	9.37	7,435.00	-2,644.99	857.35	-2,643.04	8.00	7.81	-2.78
Nio B									
8,200.00	44.77	8.22	7,470.30	-2,612.60	862.34	-2,610.64	8.00	7.84	-2.37
8,247.64	48.51	7.23	7,503.00	-2,578.29	866.99	-2,576.31	8.00	7.86	-2.08
Nio C									
8,300.00	52.63	6.27	7,536.25	-2,538.13	871.73	-2,536.15	8.00	7.87	-1.84

Corporate Planning Report

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Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 5135.00usft (Drilling Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 5135.00usft (Drilling Rig)
Site:	1N-66W-26 BEIERLE 2-26HZ PAD	North Reference:	True
Well:	BEIERLE 26-17HZ	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)
8,400.00	60.52	4.68	7,591.29	-2,455.11	879.64	-2,453.11	8.00	7.89	-1.58
8,500.00	68.43	3.33	7,634.35	-2,365.17	885.91	-2,363.15	8.00	7.91	-1.35
8,543.13	71.84	2.80	7,649.00	-2,324.67	888.07	-2,322.65	8.00	7.91	-1.24
Fort Hayes									
8,600.00	76.35	2.12	7,664.58	-2,270.04	890.42	-2,268.01	8.00	7.92	-1.19
8,629.71	78.70	1.78	7,671.00	-2,241.05	891.40	-2,239.02	8.00	7.92	-1.15
Codell									
8,700.00	84.27	0.99	7,681.41	-2,171.58	893.08	-2,169.55	8.00	7.92	-1.12
8,778.30	90.47	0.13	7,685.00	-2,093.41	893.84	-2,091.37	8.00	7.92	-1.10
End Build @ 8778.30ft - Top of Production									
8,800.00	90.47	0.13	7,684.82	-2,071.71	893.89	-2,069.68	0.00	0.00	0.00
8,900.00	90.47	0.13	7,684.00	-1,971.71	894.12	-1,969.68	0.00	0.00	0.00
9,000.00	90.47	0.13	7,683.17	-1,871.72	894.34	-1,869.68	0.00	0.00	0.00
9,100.00	90.47	0.13	7,682.35	-1,771.72	894.56	-1,769.69	0.00	0.00	0.00
9,200.00	90.47	0.13	7,681.52	-1,671.72	894.79	-1,669.69	0.00	0.00	0.00
9,300.00	90.47	0.13	7,680.70	-1,571.73	895.01	-1,569.69	0.00	0.00	0.00
9,400.00	90.47	0.13	7,679.87	-1,471.73	895.24	-1,469.70	0.00	0.00	0.00
9,500.00	90.47	0.13	7,679.05	-1,371.73	895.46	-1,369.70	0.00	0.00	0.00
9,600.00	90.47	0.13	7,678.23	-1,271.74	895.68	-1,269.70	0.00	0.00	0.00
9,700.00	90.47	0.13	7,677.40	-1,171.74	895.91	-1,169.71	0.00	0.00	0.00
9,800.00	90.47	0.13	7,676.58	-1,071.75	896.13	-1,069.71	0.00	0.00	0.00
9,900.00	90.47	0.13	7,675.75	-971.75	896.36	-969.71	0.00	0.00	0.00
10,000.00	90.47	0.13	7,674.93	-871.75	896.58	-869.72	0.00	0.00	0.00
10,100.00	90.47	0.13	7,674.11	-771.76	896.80	-769.72	0.00	0.00	0.00
10,200.00	90.47	0.13	7,673.28	-671.76	897.03	-669.72	0.00	0.00	0.00
10,300.00	90.47	0.13	7,672.46	-571.76	897.25	-569.73	0.00	0.00	0.00
10,400.00	90.47	0.13	7,671.63	-471.77	897.48	-469.73	0.00	0.00	0.00
10,500.00	90.47	0.13	7,670.81	-371.77	897.70	-369.73	0.00	0.00	0.00
10,600.00	90.47	0.13	7,669.99	-271.77	897.92	-269.74	0.00	0.00	0.00
10,700.00	90.47	0.13	7,669.16	-171.78	898.15	-169.74	0.00	0.00	0.00
10,800.00	90.47	0.13	7,668.34	-71.78	898.37	-69.74	0.00	0.00	0.00
10,900.00	90.47	0.13	7,667.51	28.21	898.60	30.25	0.00	0.00	0.00
11,000.00	90.47	0.13	7,666.69	128.21	898.82	130.25	0.00	0.00	0.00
11,100.00	90.47	0.13	7,665.86	228.21	899.05	230.25	0.00	0.00	0.00
11,200.00	90.47	0.13	7,665.04	328.20	899.27	330.24	0.00	0.00	0.00
11,300.00	90.47	0.13	7,664.22	428.20	899.49	430.24	0.00	0.00	0.00
11,400.00	90.47	0.13	7,663.39	528.20	899.72	530.24	0.00	0.00	0.00
11,500.00	90.47	0.13	7,662.57	628.19	899.94	630.23	0.00	0.00	0.00
11,600.00	90.47	0.13	7,661.74	728.19	900.17	730.23	0.00	0.00	0.00
11,700.00	90.47	0.13	7,660.92	828.19	900.39	830.23	0.00	0.00	0.00
11,800.00	90.47	0.13	7,660.10	928.18	900.61	930.22	0.00	0.00	0.00
11,900.00	90.47	0.13	7,659.27	1,028.18	900.84	1,030.22	0.00	0.00	0.00
12,000.00	90.47	0.13	7,658.45	1,128.17	901.06	1,130.22	0.00	0.00	0.00
12,100.00	90.47	0.13	7,657.62	1,228.17	901.29	1,230.21	0.00	0.00	0.00
12,200.00	90.47	0.13	7,656.80	1,328.17	901.51	1,330.21	0.00	0.00	0.00
12,300.00	90.47	0.13	7,655.98	1,428.16	901.73	1,430.21	0.00	0.00	0.00
12,400.00	90.47	0.13	7,655.15	1,528.16	901.96	1,530.20	0.00	0.00	0.00
12,500.00	90.47	0.13	7,654.33	1,628.16	902.18	1,630.20	0.00	0.00	0.00
12,600.00	90.47	0.13	7,653.50	1,728.15	902.41	1,730.20	0.00	0.00	0.00
12,700.00	90.47	0.13	7,652.68	1,828.15	902.63	1,830.19	0.00	0.00	0.00
12,800.00	90.47	0.13	7,651.85	1,928.15	902.85	1,930.19	0.00	0.00	0.00
12,900.00	90.47	0.13	7,651.03	2,028.14	903.08	2,030.19	0.00	0.00	0.00
13,000.00	90.47	0.13	7,650.21	2,128.14	903.30	2,130.18	0.00	0.00	0.00

Corporate Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well BEIERLE 26-17HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 5135.00usft (Drilling Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 5135.00usft (Drilling Rig)
Site:	1N-66W-26 BEIERLE 2-26HZ PAD	North Reference:	True
Well:	BEIERLE 26-17HZ	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)
13,100.00	90.47	0.13	7,649.38	2,228.13	903.53	2,230.18	0.00	0.00	0.00
13,200.00	90.47	0.13	7,648.56	2,328.13	903.75	2,330.18	0.00	0.00	0.00
13,300.00	90.47	0.13	7,647.73	2,428.13	903.97	2,430.17	0.00	0.00	0.00
13,400.00	90.47	0.13	7,646.91	2,528.12	904.20	2,530.17	0.00	0.00	0.00
13,500.00	90.47	0.13	7,646.09	2,628.12	904.42	2,630.17	0.00	0.00	0.00
13,600.00	90.47	0.13	7,645.26	2,728.12	904.65	2,730.16	0.00	0.00	0.00
13,700.00	90.47	0.13	7,644.44	2,828.11	904.87	2,830.16	0.00	0.00	0.00
13,800.00	90.47	0.13	7,643.61	2,928.11	905.10	2,930.15	0.00	0.00	0.00
13,900.00	90.47	0.13	7,642.79	3,028.11	905.32	3,030.15	0.00	0.00	0.00
14,000.00	90.47	0.13	7,641.97	3,128.10	905.54	3,130.15	0.00	0.00	0.00
14,100.00	90.47	0.13	7,641.14	3,228.10	905.77	3,230.14	0.00	0.00	0.00
14,200.00	90.47	0.13	7,640.32	3,328.09	905.99	3,330.14	0.00	0.00	0.00
14,300.00	90.47	0.13	7,639.49	3,428.09	906.22	3,430.14	0.00	0.00	0.00
14,400.00	90.47	0.13	7,638.67	3,528.09	906.44	3,530.13	0.00	0.00	0.00
14,500.00	90.47	0.13	7,637.84	3,628.08	906.66	3,630.13	0.00	0.00	0.00
14,600.00	90.47	0.13	7,637.02	3,728.08	906.89	3,730.13	0.00	0.00	0.00
14,700.00	90.47	0.13	7,636.20	3,828.08	907.11	3,830.12	0.00	0.00	0.00
14,800.00	90.47	0.13	7,635.37	3,928.07	907.34	3,930.12	0.00	0.00	0.00
14,900.00	90.47	0.13	7,634.55	4,028.07	907.56	4,030.12	0.00	0.00	0.00
15,000.00	90.47	0.13	7,633.72	4,128.07	907.78	4,130.11	0.00	0.00	0.00
15,100.00	90.47	0.13	7,632.90	4,228.06	908.01	4,230.11	0.00	0.00	0.00
15,200.00	90.47	0.13	7,632.08	4,328.06	908.23	4,330.11	0.00	0.00	0.00
15,300.00	90.47	0.13	7,631.25	4,428.05	908.46	4,430.10	0.00	0.00	0.00
15,400.00	90.47	0.13	7,630.43	4,528.05	908.68	4,530.10	0.00	0.00	0.00
15,500.00	90.47	0.13	7,629.60	4,628.05	908.90	4,630.10	0.00	0.00	0.00
15,600.00	90.47	0.13	7,628.78	4,728.04	909.13	4,730.09	0.00	0.00	0.00
15,700.00	90.47	0.13	7,627.96	4,828.04	909.35	4,830.09	0.00	0.00	0.00
15,800.00	90.47	0.13	7,627.13	4,928.04	909.58	4,930.09	0.00	0.00	0.00
15,900.00	90.47	0.13	7,626.31	5,028.03	909.80	5,030.08	0.00	0.00	0.00
16,000.00	90.47	0.13	7,625.48	5,128.03	910.02	5,130.08	0.00	0.00	0.00
16,100.00	90.47	0.13	7,624.66	5,228.02	910.25	5,230.08	0.00	0.00	0.00
16,200.00	90.47	0.13	7,623.83	5,328.02	910.47	5,330.07	0.00	0.00	0.00
16,300.00	90.47	0.13	7,623.01	5,428.02	910.70	5,430.07	0.00	0.00	0.00
16,400.00	90.47	0.13	7,622.19	5,528.01	910.92	5,530.07	0.00	0.00	0.00
16,500.00	90.47	0.13	7,621.36	5,628.01	911.15	5,630.06	0.00	0.00	0.00
16,543.92	90.47	0.13	7,621.00	5,671.93	911.24	5,673.98	0.00	0.00	0.00
TD Well @ 16543.92ft									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
1,523.46	1,500.00	9 5/8" Csg	9-5/8	13-1/2	
8,778.30	7,685.00	Top of Production	5-1/2	7-7/8	

Corporate Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well BEIERLE 26-17HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 5135.00usft (Drilling Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 5135.00usft (Drilling Rig)
Site:	1N-66W-26 BEIERLE 2-26HZ PAD	North Reference:	True
Well:	BEIERLE 26-17HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Permit Rev-2		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,818.73	1,775.00	Fox Hills				
4,689.12	4,327.00	Parkman				
5,234.33	4,811.00	Sussex				
7,904.62	7,225.00	Sharon Springs				
7,920.87	7,240.00	Niobrara				
8,151.82	7,435.00	Nio B				
8,247.64	7,503.00	Nio C				
8,543.13	7,649.00	Fort Hayes				
8,629.71	7,671.00	Codell				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
250.00	250.00	0.00	0.00	Begin Nudge @ 250.00ft	
2,077.33	2,008.43	-413.62	113.15	Hold Tangent @ 2077.33ft	
7,318.15	6,660.88	-2,740.75	749.78	KOP @ 7318.15ft :: DLS = 8"/100'	
8,778.30	7,685.00	-2,093.41	893.84	End Build @ 8778.30ft	
16,543.92	7,621.00	5,671.93	911.24	TD Well @ 16543.92ft	