

US ROCKIES WATTENBERG PLANNING

WELD-NAD83-UTMFT13N

1N-67W-02 Camenisch 13-2HZ Pad

CAMENISCH 4N-35HZ

Plan A

Plan: Permit Rev-1

Standard Planning Report

09 March, 2016

US ROCKIES WATTENBERG PLANNING

Anadarko

Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well CAMENISCH 4N-35HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 5053.00usft (D Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 5053.00usft (D Rig)
Site:	1N-67W-02 Camenisch 13-2HZ Pad	North Reference:	True
Well:	CAMENISCH 4N-35HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
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		1N-67W-02 Camenisch 13-2HZ Pad			
Site Position:		Northing:	14,553,689.51 usft	Latitude:	40.073947
From:	Lat/Long	Easting:	1,678,273.09 usft	Longitude:	-104.864677
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.09 °

Well	CAMENISCH 4N-35HZ					
Well Position	+N/-S	-0.36 usft	Northing:	14,553,689.22 usft	Latitude:	40.073946
	+E/-W	45.04 usft	Easting:	1,678,318.13 usft	Longitude:	-104.864516
Position Uncertainty		3.28 usft	Wellhead Elevation:	0.00 usft	Ground Level:	5,036.00 usft

Wellbore	Plan A				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/7/2016	8.25	66.61	52,450

Design	Permit Rev-1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	359.21

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,200.00	15.00	163.00	1,188.62	-124.47	38.05	1.50	1.50	0.00	163.00	
4,030.00	15.00	163.00	3,922.19	-824.92	252.20	0.00	0.00	0.00	0.00	
4,780.00	0.00	0.00	4,663.65	-918.27	280.74	2.00	-2.00	0.00	180.00	
6,956.73	0.00	0.00	6,840.38	-918.27	280.74	0.00	0.00	0.00	0.00	
7,957.16	90.04	359.21	7,477.00	-281.28	271.91	9.00	9.00	-0.08	359.21	
13,926.98	90.04	359.21	7,473.00	5,687.96	189.17	0.00	0.00	0.00	0.00	CAMENISCH 4N-35H

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Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 5053.00usft (D Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 5053.00usft (D Rig)
Site:	1N-67W-02 Camenisch 13-2HZ Pad	North Reference:	True
Well:	CAMENISCH 4N-35HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
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
Begin Nudge @ 200.00ft									
300.00	1.50	163.00	299.99	-1.25	0.38	-1.26	1.50	1.50	0.00
400.00	3.00	163.00	399.91	-5.01	1.53	-5.03	1.50	1.50	0.00
500.00	4.50	163.00	499.69	-11.26	3.44	-11.31	1.50	1.50	0.00
600.00	6.00	163.00	599.27	-20.01	6.12	-20.09	1.50	1.50	0.00
700.00	7.50	163.00	698.57	-31.25	9.55	-31.38	1.50	1.50	0.00
800.00	9.00	163.00	797.54	-44.97	13.75	-45.16	1.50	1.50	0.00
900.00	10.50	163.00	896.09	-61.17	18.70	-61.42	1.50	1.50	0.00
1,000.00	12.00	163.00	994.16	-79.82	24.40	-80.15	1.50	1.50	0.00
1,100.00	13.50	163.00	1,091.70	-100.93	30.86	-101.34	1.50	1.50	0.00
1,200.00	15.00	163.00	1,188.62	-124.47	38.05	-124.98	1.50	1.50	0.00
End Nudge @ 1200.00ft									
1,300.00	15.00	163.00	1,285.21	-149.22	45.62	-149.83	0.00	0.00	0.00
1,391.92	15.00	163.00	1,374.00	-171.97	52.58	-172.68	0.00	0.00	0.00
Fox Hills									
1,400.00	15.00	163.00	1,381.80	-173.97	53.19	-174.69	0.00	0.00	0.00
1,500.00	15.00	163.00	1,478.39	-198.72	60.75	-199.54	0.00	0.00	0.00
1,600.00	15.00	163.00	1,574.99	-223.47	68.32	-224.39	0.00	0.00	0.00
1,700.00	15.00	163.00	1,671.58	-248.22	75.89	-249.24	0.00	0.00	0.00
1,800.00	15.00	163.00	1,768.17	-272.97	83.46	-274.10	0.00	0.00	0.00
1,832.95	15.00	163.00	1,800.00	-281.13	85.95	-282.29	0.00	0.00	0.00
9 5/8"									
1,900.00	15.00	163.00	1,864.76	-297.72	91.02	-298.95	0.00	0.00	0.00
2,000.00	15.00	163.00	1,961.36	-322.47	98.59	-323.80	0.00	0.00	0.00
2,100.00	15.00	163.00	2,057.95	-347.23	106.16	-348.66	0.00	0.00	0.00
2,200.00	15.00	163.00	2,154.54	-371.98	113.72	-373.51	0.00	0.00	0.00
2,300.00	15.00	163.00	2,251.13	-396.73	121.29	-398.36	0.00	0.00	0.00
2,400.00	15.00	163.00	2,347.73	-421.48	128.86	-423.22	0.00	0.00	0.00
2,500.00	15.00	163.00	2,444.32	-446.23	136.43	-448.07	0.00	0.00	0.00
2,600.00	15.00	163.00	2,540.91	-470.98	143.99	-472.92	0.00	0.00	0.00
2,700.00	15.00	163.00	2,637.50	-495.73	151.56	-497.77	0.00	0.00	0.00
2,800.00	15.00	163.00	2,734.10	-520.48	159.13	-522.63	0.00	0.00	0.00
2,900.00	15.00	163.00	2,830.69	-545.23	166.69	-547.48	0.00	0.00	0.00
3,000.00	15.00	163.00	2,927.28	-569.98	174.26	-572.33	0.00	0.00	0.00
3,100.00	15.00	163.00	3,023.88	-594.74	181.83	-597.19	0.00	0.00	0.00
3,200.00	15.00	163.00	3,120.47	-619.49	189.40	-622.04	0.00	0.00	0.00
3,300.00	15.00	163.00	3,217.06	-644.24	196.96	-646.89	0.00	0.00	0.00
3,400.00	15.00	163.00	3,313.65	-668.99	204.53	-671.74	0.00	0.00	0.00
3,500.00	15.00	163.00	3,410.25	-693.74	212.10	-696.60	0.00	0.00	0.00
3,600.00	15.00	163.00	3,506.84	-718.49	219.66	-721.45	0.00	0.00	0.00
3,700.00	15.00	163.00	3,603.43	-743.24	227.23	-746.30	0.00	0.00	0.00
3,800.00	15.00	163.00	3,700.02	-767.99	234.80	-771.16	0.00	0.00	0.00
3,900.00	15.00	163.00	3,796.62	-792.74	242.37	-796.01	0.00	0.00	0.00
4,000.00	15.00	163.00	3,893.21	-817.49	249.93	-820.86	0.00	0.00	0.00
4,030.00	15.00	163.00	3,922.19	-824.92	252.20	-828.32	0.00	0.00	0.00
Begin Drop @ 4030.00ft									
4,100.00	13.60	163.00	3,990.02	-841.45	257.26	-844.92	2.00	-2.00	0.00
4,200.00	11.60	163.00	4,087.60	-862.31	263.64	-865.87	2.00	-2.00	0.00
4,300.00	9.60	163.00	4,185.89	-879.90	269.01	-883.53	2.00	-2.00	0.00
4,400.00	7.60	163.00	4,284.76	-894.20	273.39	-897.89	2.00	-2.00	0.00
4,500.00	5.60	163.00	4,384.09	-905.19	276.75	-908.92	2.00	-2.00	0.00

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Well:	CAMENISCH 4N-35HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
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)
4,600.00	3.60	163.00	4,483.77	-912.86	279.09	-916.62	2.00	-2.00	0.00
4,700.00	1.60	163.00	4,583.66	-917.20	280.42	-920.98	2.00	-2.00	0.00
4,717.35	1.25	163.00	4,601.00	-917.61	280.54	-921.40	2.00	-2.00	0.00
Sussex									
4,780.00	0.00	0.00	4,663.65	-918.27	280.74	-922.05	2.00	-2.00	0.00
End Drop @ 4780.00ft									
4,800.00	0.00	0.00	4,683.65	-918.27	280.74	-922.05	0.00	0.00	0.00
4,900.00	0.00	0.00	4,783.65	-918.27	280.74	-922.05	0.00	0.00	0.00
5,000.00	0.00	0.00	4,883.65	-918.27	280.74	-922.05	0.00	0.00	0.00
5,100.00	0.00	0.00	4,983.65	-918.27	280.74	-922.05	0.00	0.00	0.00
5,200.00	0.00	0.00	5,083.65	-918.27	280.74	-922.05	0.00	0.00	0.00
5,300.00	0.00	0.00	5,183.65	-918.27	280.74	-922.05	0.00	0.00	0.00
5,400.00	0.00	0.00	5,283.65	-918.27	280.74	-922.05	0.00	0.00	0.00
5,500.00	0.00	0.00	5,383.65	-918.27	280.74	-922.05	0.00	0.00	0.00
5,600.00	0.00	0.00	5,483.65	-918.27	280.74	-922.05	0.00	0.00	0.00
5,700.00	0.00	0.00	5,583.65	-918.27	280.74	-922.05	0.00	0.00	0.00
5,800.00	0.00	0.00	5,683.65	-918.27	280.74	-922.05	0.00	0.00	0.00
5,900.00	0.00	0.00	5,783.65	-918.27	280.74	-922.05	0.00	0.00	0.00
6,000.00	0.00	0.00	5,883.65	-918.27	280.74	-922.05	0.00	0.00	0.00
6,100.00	0.00	0.00	5,983.65	-918.27	280.74	-922.05	0.00	0.00	0.00
6,200.00	0.00	0.00	6,083.65	-918.27	280.74	-922.05	0.00	0.00	0.00
6,300.00	0.00	0.00	6,183.65	-918.27	280.74	-922.05	0.00	0.00	0.00
6,400.00	0.00	0.00	6,283.65	-918.27	280.74	-922.05	0.00	0.00	0.00
6,500.00	0.00	0.00	6,383.65	-918.27	280.74	-922.05	0.00	0.00	0.00
6,600.00	0.00	0.00	6,483.65	-918.27	280.74	-922.05	0.00	0.00	0.00
6,700.00	0.00	0.00	6,583.65	-918.27	280.74	-922.05	0.00	0.00	0.00
6,800.00	0.00	0.00	6,683.65	-918.27	280.74	-922.05	0.00	0.00	0.00
6,900.00	0.00	0.00	6,783.65	-918.27	280.74	-922.05	0.00	0.00	0.00
6,956.73	0.00	0.00	6,840.38	-918.27	280.74	-922.05	0.00	0.00	0.00
KOP @ 6956.73ft									
7,000.00	3.89	359.21	6,883.61	-916.80	280.72	-920.58	9.00	9.00	0.00
7,100.00	12.89	359.21	6,982.44	-902.22	280.52	-906.00	9.00	9.00	0.00
7,200.00	21.89	359.21	7,077.77	-872.36	280.11	-876.14	9.00	9.00	0.00
7,300.00	30.89	359.21	7,167.25	-827.95	279.49	-831.73	9.00	9.00	0.00
7,400.00	39.89	359.21	7,248.69	-770.10	278.69	-773.87	9.00	9.00	0.00
7,474.61	46.61	359.21	7,303.00	-719.01	277.98	-722.77	9.00	9.00	0.00
Sharon Springs									
7,500.00	48.89	359.21	7,320.07	-700.22	277.72	-703.98	9.00	9.00	0.00
DLS = 9°/100'									
7,552.64	53.63	359.21	7,353.00	-659.17	277.15	-662.93	9.00	9.00	0.00
Niobrara									
7,600.00	57.89	359.21	7,379.64	-620.03	276.61	-623.79	9.00	9.00	0.00
7,700.00	66.89	359.21	7,425.93	-531.51	275.38	-535.26	9.00	9.00	0.00
7,785.09	74.55	359.21	7,454.00	-451.26	274.27	-455.00	9.00	9.00	0.00
Nio B									
7,800.00	75.89	359.21	7,457.80	-436.85	274.07	-440.58	9.00	9.00	0.00
7,900.00	84.89	359.21	7,474.47	-338.36	272.70	-342.09	9.00	9.00	0.00
7,957.16	90.04	359.21	7,477.00	-281.28	271.91	-285.00	9.00	9.00	0.00
End Build @ 7957.16ft - Top of Production									
8,000.00	90.04	359.21	7,476.97	-238.45	271.32	-242.16	0.00	0.00	0.00
8,100.00	90.04	359.21	7,476.90	-138.45	269.93	-142.16	0.00	0.00	0.00
8,200.00	90.04	359.21	7,476.84	-38.46	268.55	-42.16	0.00	0.00	0.00
8,300.00	90.04	359.21	7,476.77	61.53	267.16	57.84	0.00	0.00	0.00

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Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 5053.00usft (D Rig)
Site:	1N-67W-02 Camenisch 13-2HZ Pad	North Reference:	True
Well:	CAMENISCH 4N-35HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
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)
8,400.00	90.04	359.21	7,476.70	161.52	265.78	157.84	0.00	0.00	0.00
8,500.00	90.04	359.21	7,476.63	261.51	264.39	257.84	0.00	0.00	0.00
8,600.00	90.04	359.21	7,476.57	361.50	263.00	357.84	0.00	0.00	0.00
8,700.00	90.04	359.21	7,476.50	461.49	261.62	457.84	0.00	0.00	0.00
8,800.00	90.04	359.21	7,476.43	561.48	260.23	557.84	0.00	0.00	0.00
8,900.00	90.04	359.21	7,476.37	661.47	258.85	657.84	0.00	0.00	0.00
9,000.00	90.04	359.21	7,476.30	761.46	257.46	757.84	0.00	0.00	0.00
9,100.00	90.04	359.21	7,476.23	861.45	256.07	857.84	0.00	0.00	0.00
9,200.00	90.04	359.21	7,476.17	961.44	254.69	957.84	0.00	0.00	0.00
9,300.00	90.04	359.21	7,476.10	1,061.43	253.30	1,057.84	0.00	0.00	0.00
9,400.00	90.04	359.21	7,476.03	1,161.42	251.92	1,157.84	0.00	0.00	0.00
9,500.00	90.04	359.21	7,475.96	1,261.41	250.53	1,257.84	0.00	0.00	0.00
9,600.00	90.04	359.21	7,475.90	1,361.40	249.14	1,357.84	0.00	0.00	0.00
9,700.00	90.04	359.21	7,475.83	1,461.39	247.76	1,457.84	0.00	0.00	0.00
9,800.00	90.04	359.21	7,475.76	1,561.38	246.37	1,557.84	0.00	0.00	0.00
9,900.00	90.04	359.21	7,475.70	1,661.37	244.99	1,657.84	0.00	0.00	0.00
10,000.00	90.04	359.21	7,475.63	1,761.36	243.60	1,757.84	0.00	0.00	0.00
10,100.00	90.04	359.21	7,475.56	1,861.35	242.21	1,857.84	0.00	0.00	0.00
10,200.00	90.04	359.21	7,475.50	1,961.34	240.83	1,957.84	0.00	0.00	0.00
10,300.00	90.04	359.21	7,475.43	2,061.33	239.44	2,057.84	0.00	0.00	0.00
10,400.00	90.04	359.21	7,475.36	2,161.32	238.05	2,157.84	0.00	0.00	0.00
10,500.00	90.04	359.21	7,475.29	2,261.31	236.67	2,257.84	0.00	0.00	0.00
10,600.00	90.04	359.21	7,475.23	2,361.30	235.28	2,357.84	0.00	0.00	0.00
10,700.00	90.04	359.21	7,475.16	2,461.29	233.90	2,457.84	0.00	0.00	0.00
10,800.00	90.04	359.21	7,475.09	2,561.29	232.51	2,557.84	0.00	0.00	0.00
10,900.00	90.04	359.21	7,475.03	2,661.28	231.12	2,657.84	0.00	0.00	0.00
11,000.00	90.04	359.21	7,474.96	2,761.27	229.74	2,757.84	0.00	0.00	0.00
11,100.00	90.04	359.21	7,474.89	2,861.26	228.35	2,857.84	0.00	0.00	0.00
11,200.00	90.04	359.21	7,474.83	2,961.25	226.97	2,957.84	0.00	0.00	0.00
11,300.00	90.04	359.21	7,474.76	3,061.24	225.58	3,057.84	0.00	0.00	0.00
11,400.00	90.04	359.21	7,474.69	3,161.23	224.19	3,157.84	0.00	0.00	0.00
11,500.00	90.04	359.21	7,474.63	3,261.22	222.81	3,257.84	0.00	0.00	0.00
11,600.00	90.04	359.21	7,474.56	3,361.21	221.42	3,357.84	0.00	0.00	0.00
11,700.00	90.04	359.21	7,474.49	3,461.20	220.04	3,457.84	0.00	0.00	0.00
11,800.00	90.04	359.21	7,474.42	3,561.19	218.65	3,557.84	0.00	0.00	0.00
11,900.00	90.04	359.21	7,474.36	3,661.18	217.26	3,657.84	0.00	0.00	0.00
12,000.00	90.04	359.21	7,474.29	3,761.17	215.88	3,757.84	0.00	0.00	0.00
12,100.00	90.04	359.21	7,474.22	3,861.16	214.49	3,857.84	0.00	0.00	0.00
12,200.00	90.04	359.21	7,474.16	3,961.15	213.11	3,957.84	0.00	0.00	0.00
12,300.00	90.04	359.21	7,474.09	4,061.14	211.72	4,057.84	0.00	0.00	0.00
12,400.00	90.04	359.21	7,474.02	4,161.13	210.33	4,157.84	0.00	0.00	0.00
12,500.00	90.04	359.21	7,473.96	4,261.12	208.95	4,257.84	0.00	0.00	0.00
12,600.00	90.04	359.21	7,473.89	4,361.11	207.56	4,357.84	0.00	0.00	0.00
12,700.00	90.04	359.21	7,473.82	4,461.10	206.18	4,457.84	0.00	0.00	0.00
12,800.00	90.04	359.21	7,473.75	4,561.09	204.79	4,557.84	0.00	0.00	0.00
12,900.00	90.04	359.21	7,473.69	4,661.08	203.40	4,657.84	0.00	0.00	0.00
13,000.00	90.04	359.21	7,473.62	4,761.07	202.02	4,757.84	0.00	0.00	0.00
13,100.00	90.04	359.21	7,473.55	4,861.06	200.63	4,857.84	0.00	0.00	0.00
13,200.00	90.04	359.21	7,473.49	4,961.05	199.25	4,957.84	0.00	0.00	0.00
13,300.00	90.04	359.21	7,473.42	5,061.04	197.86	5,057.84	0.00	0.00	0.00
13,400.00	90.04	359.21	7,473.35	5,161.04	196.47	5,157.84	0.00	0.00	0.00
13,500.00	90.04	359.21	7,473.29	5,261.03	195.09	5,257.84	0.00	0.00	0.00
13,600.00	90.04	359.21	7,473.22	5,361.02	193.70	5,357.84	0.00	0.00	0.00
13,700.00	90.04	359.21	7,473.15	5,461.01	192.32	5,457.84	0.00	0.00	0.00

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Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well CAMENISCH 4N-35HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 5053.00usft (D Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 5053.00usft (D Rig)
Site:	1N-67W-02 Camenisch 13-2HZ Pad	North Reference:	True
Well:	CAMENISCH 4N-35HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
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)
13,800.00	90.04	359.21	7,473.09	5,561.00	190.93	5,557.84	0.00	0.00	0.00
13,900.00	90.04	359.21	7,473.02	5,660.99	189.54	5,657.84	0.00	0.00	0.00
13,926.98	90.04	359.21	7,473.00	5,687.96	189.17	5,684.81	0.00	0.00	0.00
TD Well @ 13926.98ft									

Anadarko

Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well CAMENISCH 4N-35HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 5053.00usft (D Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 5053.00usft (D Rig)
Site:	1N-67W-02 Camenisch 13-2HZ Pad	North Reference:	True
Well:	CAMENISCH 4N-35HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Permit Rev-1		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
2N-R67W-Sec. 35_Secti	0.00	0.00	0.00	0.36	-45.04	14,553,689.51	1,678,273.09	40.073947	-104.864677
- plan misses target center by 45.04usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Polygon									
Point 1			0.00	10,230.77	-843.44	14,563,918.99	1,677,414.08		
Point 2			0.00	10,218.65	1,790.52	14,563,910.88	1,680,048.05		
Point 3			0.00	10,206.53	4,424.50	14,563,902.77	1,682,682.05		
Point 4			0.00	7,578.31	4,426.97	14,561,274.55	1,682,688.52		
Point 5			0.00	4,950.33	4,430.33	14,558,646.58	1,682,695.88		
Point 6			0.00	4,939.63	1,832.58	14,558,631.93	1,680,098.15		
Point 7			0.00	4,937.01	-837.44	14,558,625.24	1,677,428.14		
Point 8			0.00	7,583.97	-840.57	14,561,272.20	1,677,420.98		
CAMENISCH 4N-35HZ_	0.00	0.00	0.00	0.00	0.00	14,553,689.22	1,678,318.13	40.073946	-104.864516
- plan hits target center									
- Polygon									
Point 1			0.00	5,799.00	-9.91	14,559,488.20	1,678,299.40		
Point 2			0.00	5,798.90	450.09	14,559,488.80	1,678,759.39		
Point 3			0.00	5,798.70	910.09	14,559,489.30	1,679,219.39		
Point 4			0.00	4,936.79	915.38	14,558,627.40	1,679,226.00		
Point 5			0.00	3,574.17	929.41	14,557,264.80	1,679,242.10		
Point 6			0.00	2,211.44	943.33	14,555,902.09	1,679,258.10		
Point 7			0.00	890.23	950.72	14,554,580.89	1,679,267.50		
Point 8			0.00	-426.78	958.02	14,553,263.90	1,679,276.80		
Point 9			0.00	-1,288.89	962.30	14,552,401.79	1,679,282.39		
Point 10			0.00	-1,287.69	502.30	14,552,402.29	1,678,822.39		
Point 11			0.00	-1,286.49	42.31	14,552,402.79	1,678,362.40		
Point 12			0.00	-427.08	38.01	14,553,262.20	1,678,356.79		
Point 13			0.00	893.13	30.72	14,554,582.39	1,678,347.49		
Point 14			0.00	2,213.34	23.33	14,555,902.59	1,678,338.09		
Point 15			0.00	3,574.67	9.31	14,557,263.90	1,678,322.00		
Point 16			0.00	4,935.89	-4.62	14,558,625.10	1,678,306.00		
Point 17			0.00	5,799.00	-9.91	14,559,488.20	1,678,299.40		
CAMENISCH 4N-35HZ_	0.00	0.00	0.00	-429.08	498.01	14,553,260.90	1,678,816.80	40.072768	-104.862736
- plan misses target center by 657.36usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Circle (radius 460.00)									
1N-R67W-Sec. 2_Sectio	0.00	0.00	0.00	0.36	-45.04	14,553,689.51	1,678,273.09	40.073947	-104.864677
- plan misses target center by 45.04usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Polygon									
Point 1			0.00	4,937.01	-837.44	14,558,625.24	1,677,428.14		
Point 2			0.00	4,939.63	1,832.58	14,558,631.93	1,680,098.15		
Point 3			0.00	4,950.33	4,430.33	14,558,646.58	1,682,695.88		
Point 4			0.00	2,206.22	4,453.01	14,555,902.51	1,682,722.74		
Point 5			0.00	-432.33	4,467.41	14,553,263.99	1,682,741.16		
Point 6			0.00	-432.55	1,840.25	14,553,259.77	1,680,114.00		
Point 7			0.00	-421.59	-759.75	14,553,266.77	1,677,513.99		
Point 8			0.00	2,217.11	-785.55	14,555,905.43	1,677,484.17		
CAMENISCH 4N-35HZ_	0.00	0.00	0.00	0.00	0.00	14,553,689.22	1,678,318.13	40.073946	-104.864516
- plan hits target center									
- Point									
CAMENISCH 4N-35HZ_	0.00	0.00	0.00	4,936.39	455.38	14,558,626.30	1,678,766.00	40.087502	-104.862888
- plan misses target center by 4957.35usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Circle (radius 460.00)									
CAMENISCH 4N-35HZ_	0.00	0.00	0.00	-275.66	235.55	14,553,413.92	1,678,554.10	40.073189	-104.863674
- plan misses target center by 362.59usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Point									

Anadarko

Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well CAMENISCH 4N-35HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 5053.00usft (D Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 5053.00usft (D Rig)
Site:	1N-67W-02 Camenisch 13-2HZ Pad	North Reference:	True
Well:	CAMENISCH 4N-35HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Permit Rev-1		

CAMENISCH 4N-35HZ_	0.00	0.00	7,473.00	5,687.96	189.17	14,559,377.46	1,678,498.64	40.089566	-104.863840
- plan hits target center									
- Point									

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
1,832.95	1,800.00	9 5/8"	9-5/8	13-1/2
7,957.16	7,477.00	Top of Production	5-1/2	7-7/8

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,391.92	1,374.00	Fox Hills			
4,717.35	4,601.00	Sussex			
7,474.61	7,303.00	Sharon Springs			
7,552.64	7,353.00	Niobrara			
7,785.09	7,454.00	Nio B			

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
200.00	200.00	0.00	0.00	Begin Nudge @ 200.00ft
1,200.00	1,188.62	-124.47	38.05	End Nudge @ 1200.00ft
4,030.00	3,922.19	-824.92	252.20	Begin Drop @ 4030.00ft
4,780.00	4,663.65	-918.27	280.74	End Drop @ 4780.00ft
6,956.73	6,840.38	-918.27	280.74	KOP @ 6956.73ft
7,500.00	7,320.07	-700.22	277.72	DLS = 9°/100'
7,957.16	7,477.00	-281.28	271.91	End Build @ 7957.16ft
13,926.98	7,473.00	5,687.96	189.17	TD Well @ 13926.98ft