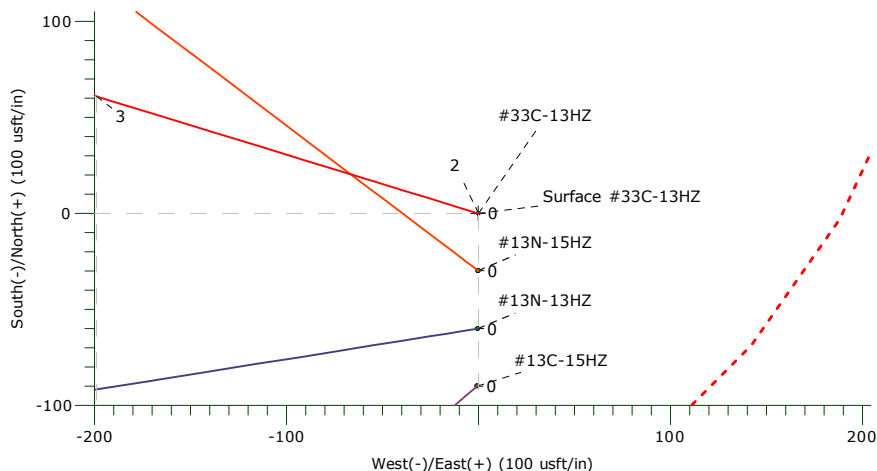
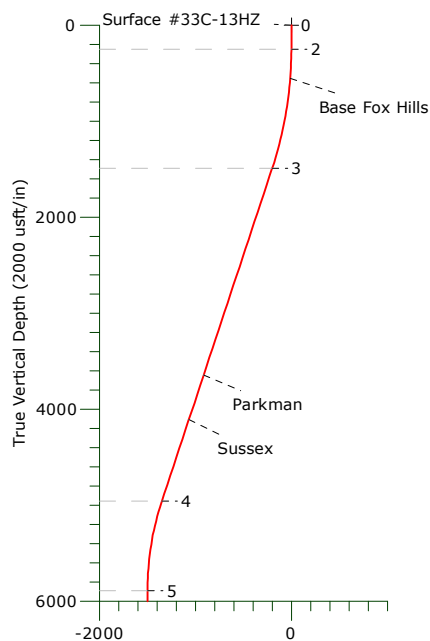
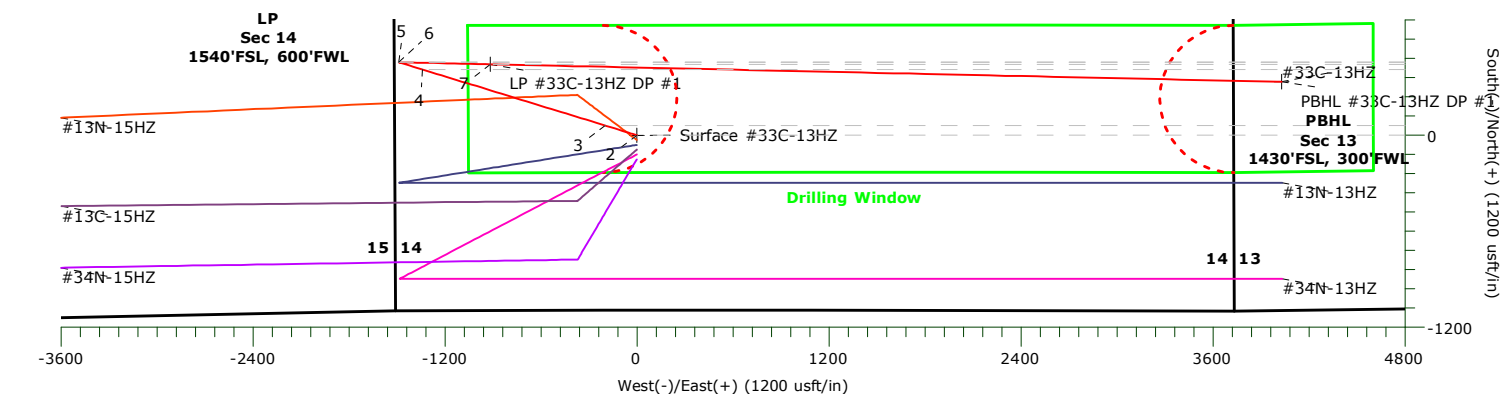
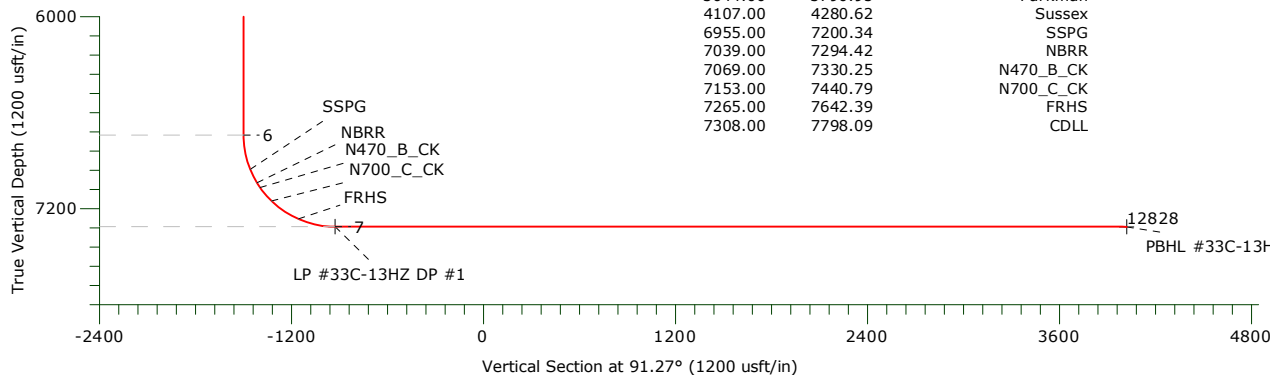


US ROCKIES WATTENBERG PLANNING

Project: WELD-NAD83-UTMFT13N
Site: 3N-68W-14 Docheff 19-14HZ
Well: #33C-13HZ
Wellbore: Original Hole
Design: DP #1



Vertical Section at 91.27° (2000 usft/in)



Vertical Section at 91.27° (1200 usft/in)

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
555.00	555.33	Base Fox Hills
3644.00	3790.95	Parkman
4107.00	4280.62	Sussex
6955.00	7200.34	SSPG
7039.00	7294.42	NBRR
7069.00	7330.25	N470_B_CK
7153.00	7440.79	N700_C_CK
7265.00	7642.39	FRHS
7308.00	7798.09	CDLL

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Surface #33C-13HZ	0.00	0.00	0.00	14607552.67	1647614.63	40.221938°N	104.974214°W	Point
LP #33C-13HZ DP #1	7314.00	443.39	-916.20	14607995.79	1646698.29	40.223156°N	104.977496°W	Point
PBHL #33C-13HZ DP #1	7314.00	333.64	4029.56	14607887.48	1651644.09	40.22853°N	104.959778°W	Point

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	1516.45	19.00	287.03	1493.37	60.93	-198.91	1.50	287.03	-200.21	
4	5182.19	19.00	287.03	4959.47	410.40	-1339.84	0.00	0.00	-1348.60	
5	6132.03	0.00	0.00	5892.00	456.10	-1489.02	2.00	180.00	-1498.76	
6	6981.07	0.00	0.00	6741.04	456.10	-1489.02	0.00	0.00	-1498.76	
7	7881.07	90.00	91.27	7314.00	443.39	-916.20	10.00	91.27	-925.81	
8	12828.05	90.00	91.27	7314.00	333.64	4029.56	0.00	0.00	4021.18	

US ROCKIES WATTENBERG PLANNING

**WELD-NAD83-UTMFT13N
3N-68W-14 Docheff 19-14HZ
#33C-13HZ**

Original Hole

Plan: DP #1

Standard Planning Report

30 March, 2016

Precision Drilling Corporation

Planning Report

Database:	Compass_Rockies	Local Co-ordinate Reference:	Well #33C-13HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	4935'GL+20'KB @ 4955.00usft (PD461)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	4935'GL+20'KB @ 4955.00usft (PD461)
Site:	3N-68W-14 Docheff 19-14HZ	North Reference:	True
Well:	#33C-13HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	DP #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		3N-68W-14 Docheff 19-14HZ			
Site Position:		Northing:	14,607,552.66 usft	Latitude:	40.221938°N
From:	Lat/Long	Easting:	1,647,614.62 usft	Longitude:	104.974214°W
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in	Grid Convergence:	0.02 °

Well	#33C-13HZ					
Well Position	+N-S	0.00 usft	Northing:	14,607,552.66 usft	Latitude:	40.221938°N
	+E-W	0.00 usft	Easting:	1,647,614.62 usft	Longitude:	104.974214°W
Position Uncertainty		3.28 usft	Wellhead Elevation:	0.00 usft	Ground Level:	4,935.00 usft

Wellbore	Original Hole				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	03/17/16	8.44	66.71	52,419

Design	DP #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	91.27	

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	
1,516.45	19.00	287.03	1,493.37	60.93	-198.91	1.50	1.50	0.00	287.03	
5,182.19	19.00	287.03	4,959.47	410.40	-1,339.84	0.00	0.00	0.00	0.00	
6,132.03	0.00	0.00	5,892.00	456.10	-1,489.02	2.00	-2.00	0.00	180.00	
6,981.07	0.00	0.00	6,741.04	456.10	-1,489.02	0.00	0.00	0.00	0.00	
7,881.07	90.00	91.27	7,314.00	443.39	-916.20	10.00	10.00	10.14	91.27	
12,828.05	90.00	91.27	7,314.00	333.64	4,029.56	0.00	0.00	0.00	0.00	

Precision Drilling Corporation

Planning Report

Database:	Compass_Rockies	Local Co-ordinate Reference:	Well #33C-13HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	4935'GL+20'KB @ 4955.00usft (PD461)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	4935'GL+20'KB @ 4955.00usft (PD461)
Site:	3N-68W-14 Docheff 19-14HZ	North Reference:	True
Well:	#33C-13HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	DP #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
1									
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
2									
300.00	0.75	287.03	300.00	0.10	-0.31	-0.31	1.50	1.50	0.00
400.00	2.25	287.03	399.96	0.86	-2.82	-2.83	1.50	1.50	0.00
500.00	3.75	287.03	499.82	2.40	-7.82	-7.87	1.50	1.50	0.00
555.33	4.58	287.03	555.00	3.57	-11.66	-11.74	1.50	1.50	0.00
Base Fox Hills									
600.00	5.25	287.03	599.51	4.69	-15.32	-15.42	1.50	1.50	0.00
700.00	6.75	287.03	698.96	7.75	-25.32	-25.48	1.50	1.50	0.00
800.00	8.25	287.03	798.10	11.58	-37.80	-38.04	1.50	1.50	0.00
900.00	9.75	287.03	896.87	16.16	-52.75	-53.10	1.50	1.50	0.00
1,000.00	11.25	287.03	995.19	21.50	-70.18	-70.64	1.50	1.50	0.00
1,100.00	12.75	287.03	1,093.00	27.58	-90.06	-90.64	1.50	1.50	0.00
1,200.00	14.25	287.03	1,190.24	34.42	-112.38	-113.11	1.50	1.50	0.00
1,300.00	15.75	287.03	1,286.83	42.00	-137.12	-138.02	1.50	1.50	0.00
1,400.00	17.25	287.03	1,382.71	50.32	-164.28	-165.35	1.50	1.50	0.00
1,500.00	18.75	287.03	1,477.81	59.37	-193.82	-195.09	1.50	1.50	0.00
1,516.45	19.00	287.03	1,493.37	60.93	-198.91	-200.21	1.50	1.50	0.00
3									
1,600.00	19.00	287.03	1,572.37	68.89	-224.92	-226.39	0.00	0.00	0.00
1,700.00	19.00	287.03	1,666.93	78.43	-256.04	-257.71	0.00	0.00	0.00
1,800.00	19.00	287.03	1,761.48	87.96	-287.16	-289.04	0.00	0.00	0.00
1,900.00	19.00	287.03	1,856.03	97.49	-318.29	-320.37	0.00	0.00	0.00
2,000.00	19.00	287.03	1,950.59	107.03	-349.41	-351.70	0.00	0.00	0.00
2,100.00	19.00	287.03	2,045.14	116.56	-380.54	-383.03	0.00	0.00	0.00
2,200.00	19.00	287.03	2,139.70	126.09	-411.66	-414.35	0.00	0.00	0.00
2,300.00	19.00	287.03	2,234.25	135.63	-442.78	-445.68	0.00	0.00	0.00
2,400.00	19.00	287.03	2,328.80	145.16	-473.91	-477.01	0.00	0.00	0.00
2,500.00	19.00	287.03	2,423.36	154.70	-505.03	-508.34	0.00	0.00	0.00
2,600.00	19.00	287.03	2,517.91	164.23	-536.16	-539.66	0.00	0.00	0.00
2,700.00	19.00	287.03	2,612.46	173.76	-567.28	-570.99	0.00	0.00	0.00
2,800.00	19.00	287.03	2,707.02	183.30	-598.40	-602.32	0.00	0.00	0.00
2,900.00	19.00	287.03	2,801.57	192.83	-629.53	-633.65	0.00	0.00	0.00
3,000.00	19.00	287.03	2,896.13	202.36	-660.65	-664.97	0.00	0.00	0.00
3,100.00	19.00	287.03	2,990.68	211.90	-691.78	-696.30	0.00	0.00	0.00
3,200.00	19.00	287.03	3,085.23	221.43	-722.90	-727.63	0.00	0.00	0.00
3,300.00	19.00	287.03	3,179.79	230.96	-754.02	-758.96	0.00	0.00	0.00
3,400.00	19.00	287.03	3,274.34	240.50	-785.15	-790.28	0.00	0.00	0.00
3,500.00	19.00	287.03	3,368.89	250.03	-816.27	-821.61	0.00	0.00	0.00
3,600.00	19.00	287.03	3,463.45	259.56	-847.40	-852.94	0.00	0.00	0.00
3,700.00	19.00	287.03	3,558.00	269.10	-878.52	-884.27	0.00	0.00	0.00
3,790.95	19.00	287.03	3,644.00	277.77	-906.83	-912.76	0.00	0.00	0.00
Parkman									
3,800.00	19.00	287.03	3,652.56	278.63	-909.64	-915.60	0.00	0.00	0.00
3,900.00	19.00	287.03	3,747.11	288.17	-940.77	-946.92	0.00	0.00	0.00
4,000.00	19.00	287.03	3,841.66	297.70	-971.89	-978.25	0.00	0.00	0.00
4,100.00	19.00	287.03	3,936.22	307.23	-1,003.02	-1,009.58	0.00	0.00	0.00
4,200.00	19.00	287.03	4,030.77	316.77	-1,034.14	-1,040.91	0.00	0.00	0.00
4,280.62	19.00	287.03	4,107.00	324.45	-1,059.23	-1,066.16	0.00	0.00	0.00

Precision Drilling Corporation

Planning Report

Database:	Compass_Rockies	Local Co-ordinate Reference:	Well #33C-13HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	4935'GL+20'KB @ 4955.00usft (PD461)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	4935'GL+20'KB @ 4955.00usft (PD461)
Site:	3N-68W-14 Docheff 19-14HZ	North Reference:	True
Well:	#33C-13HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	DP #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									
4,300.00	19.00	287.03	4,125.32	326.30	-1,065.26	-1,072.23	0.00	0.00	0.00
4,400.00	19.00	287.03	4,219.88	335.83	-1,096.39	-1,103.56	0.00	0.00	0.00
4,500.00	19.00	287.03	4,314.43	345.37	-1,127.51	-1,134.89	0.00	0.00	0.00
4,600.00	19.00	287.03	4,408.99	354.90	-1,158.64	-1,166.22	0.00	0.00	0.00
4,700.00	19.00	287.03	4,503.54	364.43	-1,189.76	-1,197.54	0.00	0.00	0.00
4,800.00	19.00	287.03	4,598.09	373.97	-1,220.88	-1,228.87	0.00	0.00	0.00
4,900.00	19.00	287.03	4,692.65	383.50	-1,252.01	-1,260.20	0.00	0.00	0.00
5,000.00	19.00	287.03	4,787.20	393.03	-1,283.13	-1,291.53	0.00	0.00	0.00
5,100.00	19.00	287.03	4,881.75	402.57	-1,314.26	-1,322.85	0.00	0.00	0.00
5,182.19	19.00	287.03	4,959.47	410.40	-1,339.84	-1,348.60	0.00	0.00	0.00
4									
5,200.00	18.64	287.03	4,976.33	412.09	-1,345.33	-1,354.13	2.00	-2.00	0.00
5,300.00	16.64	287.03	5,071.62	420.96	-1,374.30	-1,383.30	2.00	-2.00	0.00
5,400.00	14.64	287.03	5,167.91	428.86	-1,400.08	-1,409.24	2.00	-2.00	0.00
5,500.00	12.64	287.03	5,265.09	435.76	-1,422.63	-1,431.94	2.00	-2.00	0.00
5,600.00	10.64	287.03	5,363.02	441.67	-1,441.92	-1,451.35	2.00	-2.00	0.00
5,700.00	8.64	287.03	5,461.61	446.58	-1,457.93	-1,467.47	2.00	-2.00	0.00
5,800.00	6.64	287.03	5,560.71	450.47	-1,470.64	-1,480.27	2.00	-2.00	0.00
5,900.00	4.64	287.03	5,660.22	453.35	-1,480.04	-1,489.72	2.00	-2.00	0.00
6,000.00	2.64	287.03	5,760.02	455.21	-1,486.11	-1,495.84	2.00	-2.00	0.00
6,100.00	0.64	287.03	5,859.97	456.05	-1,488.85	-1,498.59	2.00	-2.00	0.00
6,132.03	0.00	0.00	5,892.00	456.10	-1,489.02	-1,498.76	2.00	-2.00	0.00
5									
6,200.00	0.00	0.00	5,959.97	456.10	-1,489.02	-1,498.76	0.00	0.00	0.00
6,300.00	0.00	0.00	6,059.97	456.10	-1,489.02	-1,498.76	0.00	0.00	0.00
6,400.00	0.00	0.00	6,159.97	456.10	-1,489.02	-1,498.76	0.00	0.00	0.00
6,500.00	0.00	0.00	6,259.97	456.10	-1,489.02	-1,498.76	0.00	0.00	0.00
6,600.00	0.00	0.00	6,359.97	456.10	-1,489.02	-1,498.76	0.00	0.00	0.00
6,700.00	0.00	0.00	6,459.97	456.10	-1,489.02	-1,498.76	0.00	0.00	0.00
6,800.00	0.00	0.00	6,559.97	456.10	-1,489.02	-1,498.76	0.00	0.00	0.00
6,900.00	0.00	0.00	6,659.97	456.10	-1,489.02	-1,498.76	0.00	0.00	0.00
6,981.07	0.00	0.00	6,741.04	456.10	-1,489.02	-1,498.76	0.00	0.00	0.00
6									
7,000.00	1.89	91.27	6,759.97	456.09	-1,488.71	-1,498.45	10.00	10.00	0.00
7,050.00	6.89	91.27	6,809.80	456.01	-1,484.88	-1,494.62	10.00	10.00	0.00
7,100.00	11.89	91.27	6,859.12	455.83	-1,476.72	-1,486.46	10.00	10.00	0.00
7,150.00	16.89	91.27	6,907.53	455.55	-1,464.30	-1,474.04	10.00	10.00	0.00
7,200.00	21.89	91.27	6,954.68	455.18	-1,447.71	-1,457.44	10.00	10.00	0.00
7,200.34	21.93	91.27	6,955.00	455.18	-1,447.58	-1,457.31	10.00	10.00	0.00
SSPG									
7,250.00	26.89	91.27	7,000.20	454.73	-1,427.07	-1,436.80	10.00	10.00	0.00
7,294.42	31.33	91.27	7,039.00	454.25	-1,405.47	-1,415.19	10.00	10.00	0.00
NBRR									
7,300.00	31.89	91.27	7,043.75	454.18	-1,402.55	-1,412.27	10.00	10.00	0.00
7,330.25	34.92	91.27	7,069.00	453.81	-1,385.90	-1,395.62	10.00	10.00	0.00
N470_B_CK									
7,350.00	36.89	91.27	7,085.00	453.55	-1,374.32	-1,384.03	10.00	10.00	0.00
7,400.00	41.89	91.27	7,123.63	452.85	-1,342.60	-1,352.31	10.00	10.00	0.00
7,440.79	45.97	91.27	7,153.00	452.22	-1,314.31	-1,324.01	10.00	10.00	0.00
N700_C_CK									
7,450.00	46.89	91.27	7,159.34	452.08	-1,307.64	-1,317.34	10.00	10.00	0.00
7,500.00	51.89	91.27	7,191.88	451.23	-1,269.71	-1,279.40	10.00	10.00	0.00

Precision Drilling Corporation

Planning Report

Database:	Compass_Rockies	Local Co-ordinate Reference:	Well #33C-13HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	4935'GL+20'KB @ 4955.00usft (PD461)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	4935'GL+20'KB @ 4955.00usft (PD461)
Site:	3N-68W-14 Docheff 19-14HZ	North Reference:	True
Well:	#33C-13HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	DP #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)
7,550.00	56.89	91.27	7,220.98	450.33	-1,229.08	-1,238.76	10.00	10.00	0.00
7,600.00	61.89	91.27	7,246.43	449.38	-1,186.07	-1,195.74	10.00	10.00	0.00
7,642.39	66.13	91.27	7,265.00	448.53	-1,147.98	-1,157.64	10.00	10.00	0.00
FRHS									
7,650.00	66.89	91.27	7,268.03	448.38	-1,141.00	-1,150.66	10.00	10.00	0.00
7,700.00	71.89	91.27	7,285.62	447.34	-1,094.23	-1,103.88	10.00	10.00	0.00
7,750.00	76.89	91.27	7,299.07	446.27	-1,046.10	-1,055.73	10.00	10.00	0.00
7,798.09	81.70	91.27	7,308.00	445.22	-998.87	-1,008.49	10.00	10.00	0.00
CDLL									
7,800.00	81.89	91.27	7,308.27	445.18	-996.98	-1,006.60	10.00	10.00	0.00
7,850.00	86.89	91.27	7,313.16	444.08	-947.25	-956.86	10.00	10.00	0.00
7,881.07	90.00	91.27	7,314.00	443.39	-916.20	-925.80	10.00	10.00	0.00
7									
7,900.00	90.00	91.27	7,314.00	442.97	-897.28	-906.87	0.00	0.00	0.00
8,000.00	90.00	91.27	7,314.00	440.75	-797.30	-806.87	0.00	0.00	0.00
8,100.00	90.00	91.27	7,314.00	438.53	-697.33	-706.87	0.00	0.00	0.00
8,200.00	90.00	91.27	7,314.00	436.31	-597.35	-606.87	0.00	0.00	0.00
8,300.00	90.00	91.27	7,314.00	434.09	-497.38	-506.87	0.00	0.00	0.00
8,400.00	90.00	91.27	7,314.00	431.88	-397.40	-406.87	0.00	0.00	0.00
8,500.00	90.00	91.27	7,314.00	429.66	-297.43	-306.87	0.00	0.00	0.00
8,600.00	90.00	91.27	7,314.00	427.44	-197.45	-206.87	0.00	0.00	0.00
8,700.00	90.00	91.27	7,314.00	425.22	-97.47	-106.87	0.00	0.00	0.00
8,800.00	90.00	91.27	7,314.00	423.00	2.50	-6.87	0.00	0.00	0.00
8,900.00	90.00	91.27	7,314.00	420.78	102.48	93.13	0.00	0.00	0.00
9,000.00	90.00	91.27	7,314.00	418.57	202.45	193.13	0.00	0.00	0.00
9,100.00	90.00	91.27	7,314.00	416.35	302.43	293.13	0.00	0.00	0.00
9,200.00	90.00	91.27	7,314.00	414.13	402.40	393.13	0.00	0.00	0.00
9,300.00	90.00	91.27	7,314.00	411.91	502.38	493.13	0.00	0.00	0.00
9,400.00	90.00	91.27	7,314.00	409.69	602.35	593.13	0.00	0.00	0.00
9,500.00	90.00	91.27	7,314.00	407.47	702.33	693.13	0.00	0.00	0.00
9,600.00	90.00	91.27	7,314.00	405.25	802.30	793.13	0.00	0.00	0.00
9,700.00	90.00	91.27	7,314.00	403.04	902.28	893.13	0.00	0.00	0.00
9,800.00	90.00	91.27	7,314.00	400.82	1,002.25	993.13	0.00	0.00	0.00
9,900.00	90.00	91.27	7,314.00	398.60	1,102.23	1,093.13	0.00	0.00	0.00
10,000.00	90.00	91.27	7,314.00	396.38	1,202.21	1,193.13	0.00	0.00	0.00
10,100.00	90.00	91.27	7,314.00	394.16	1,302.18	1,293.13	0.00	0.00	0.00
10,200.00	90.00	91.27	7,314.00	391.94	1,402.16	1,393.13	0.00	0.00	0.00
10,300.00	90.00	91.27	7,314.00	389.72	1,502.13	1,493.13	0.00	0.00	0.00
10,400.00	90.00	91.27	7,314.00	387.51	1,602.11	1,593.13	0.00	0.00	0.00
10,500.00	90.00	91.27	7,314.00	385.29	1,702.08	1,693.13	0.00	0.00	0.00
10,600.00	90.00	91.27	7,314.00	383.07	1,802.06	1,793.13	0.00	0.00	0.00
10,700.00	90.00	91.27	7,314.00	380.85	1,902.03	1,893.13	0.00	0.00	0.00
10,800.00	90.00	91.27	7,314.00	378.63	2,002.01	1,993.13	0.00	0.00	0.00
10,900.00	90.00	91.27	7,314.00	376.41	2,101.98	2,093.13	0.00	0.00	0.00
11,000.00	90.00	91.27	7,314.00	374.20	2,201.96	2,193.13	0.00	0.00	0.00
11,100.00	90.00	91.27	7,314.00	371.98	2,301.94	2,293.13	0.00	0.00	0.00
11,200.00	90.00	91.27	7,314.00	369.76	2,401.91	2,393.13	0.00	0.00	0.00
11,300.00	90.00	91.27	7,314.00	367.54	2,501.89	2,493.13	0.00	0.00	0.00
11,400.00	90.00	91.27	7,314.00	365.32	2,601.86	2,593.13	0.00	0.00	0.00
11,500.00	90.00	91.27	7,314.00	363.10	2,701.84	2,693.13	0.00	0.00	0.00
11,600.00	90.00	91.27	7,314.00	360.88	2,801.81	2,793.13	0.00	0.00	0.00
11,700.00	90.00	91.27	7,314.00	358.67	2,901.79	2,893.13	0.00	0.00	0.00
11,800.00	90.00	91.27	7,314.00	356.45	3,001.76	2,993.13	0.00	0.00	0.00

Precision Drilling Corporation

Planning Report

Database:	Compass_Rockies	Local Co-ordinate Reference:	Well #33C-13HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	4935'GL+20'KB @ 4955.00usft (PD461)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	4935'GL+20'KB @ 4955.00usft (PD461)
Site:	3N-68W-14 Docheff 19-14HZ	North Reference:	True
Well:	#33C-13HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	DP #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)	
11,900.00	90.00	91.27	7,314.00	354.23	3,101.74	3,093.13	0.00	0.00	0.00	
12,000.00	90.00	91.27	7,314.00	352.01	3,201.71	3,193.13	0.00	0.00	0.00	
12,100.00	90.00	91.27	7,314.00	349.79	3,301.69	3,293.13	0.00	0.00	0.00	
12,200.00	90.00	91.27	7,314.00	347.57	3,401.66	3,393.13	0.00	0.00	0.00	
12,300.00	90.00	91.27	7,314.00	345.35	3,501.64	3,493.13	0.00	0.00	0.00	
12,400.00	90.00	91.27	7,314.00	343.14	3,601.62	3,593.13	0.00	0.00	0.00	
12,500.00	90.00	91.27	7,314.00	340.92	3,701.59	3,693.13	0.00	0.00	0.00	
12,600.00	90.00	91.27	7,314.00	338.70	3,801.57	3,793.13	0.00	0.00	0.00	
12,700.00	90.00	91.27	7,314.00	336.48	3,901.54	3,893.13	0.00	0.00	0.00	
12,800.00	90.00	91.27	7,314.00	334.26	4,001.52	3,993.13	0.00	0.00	0.00	
12,828.05	90.00	91.27	7,314.00	333.64	4,029.56	4,021.18	0.00	0.00	0.00	
8										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
Surface #33C-13HZ - hit/miss target center - Shape - Point	0.00	0.00	0.00	0.00	0.00	14,607,552.66	1,647,614.62	40.221938°N	104.974214°W	
PBHL #33C-13HZ DP - plan hits target center - Point	0.00	0.00	7,314.00	333.64	4,029.56	14,607,887.48	1,651,644.09	40.222853°N	104.959779°W	
LP #33C-13HZ DP #1 - plan hits target center - Point	0.00	0.00	7,314.00	443.39	-916.20	14,607,995.79	1,646,698.29	40.223156°N	104.977497°W	

Casing Points									
Measured Depth (usft)	Vertical Depth (usft)	Name		Casing Diameter (in)	Hole Diameter (in)				
1,840.74	1,800.00	9 5/8"		9.63	13.50				
12,728.69	7,314.00	5 1/2"		5.50	7.88				

Precision Drilling Corporation

Planning Report

Database:	Compass_Rockies	Local Co-ordinate Reference:	Well #33C-13HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	4935'GL+20'KB @ 4955.00usft (PD461)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	4935'GL+20'KB @ 4955.00usft (PD461)
Site:	3N-68W-14 Docheff 19-14HZ	North Reference:	True
Well:	#33C-13HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Original Hole		
Design:	DP #1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
555.33	555.00	Base Fox Hills				
3,790.95	3,644.00	Parkman				
4,280.62	4,107.00	Sussex				
7,200.34	6,955.00	SSPG				
7,294.42	7,039.00	NBRR				
7,330.25	7,069.00	N470_B_CK				
7,440.79	7,153.00	N700_C_CK				
7,642.39	7,265.00	FRHS				
7,798.09	7,308.00	CDLL				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
0.00	0.00	0.00	0.00	1	
250.00	250.00	0.00	0.00	2	
1,516.45	1,493.37	60.93	-198.91	3	
5,182.19	4,959.47	410.40	-1,339.84	4	
6,132.03	5,892.00	456.10	-1,489.02	5	
6,981.07	6,741.04	456.10	-1,489.02	6	
7,881.07	7,314.00	443.39	-916.20	7	
12,828.05	7,314.00	333.64	4,029.56	8	