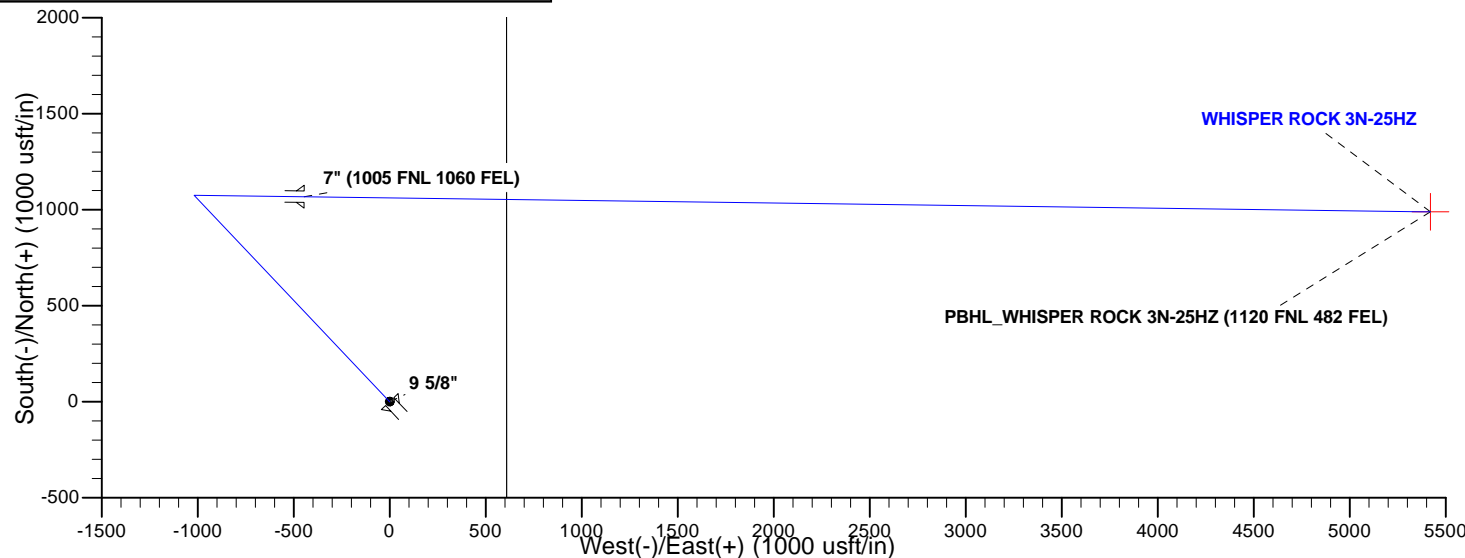
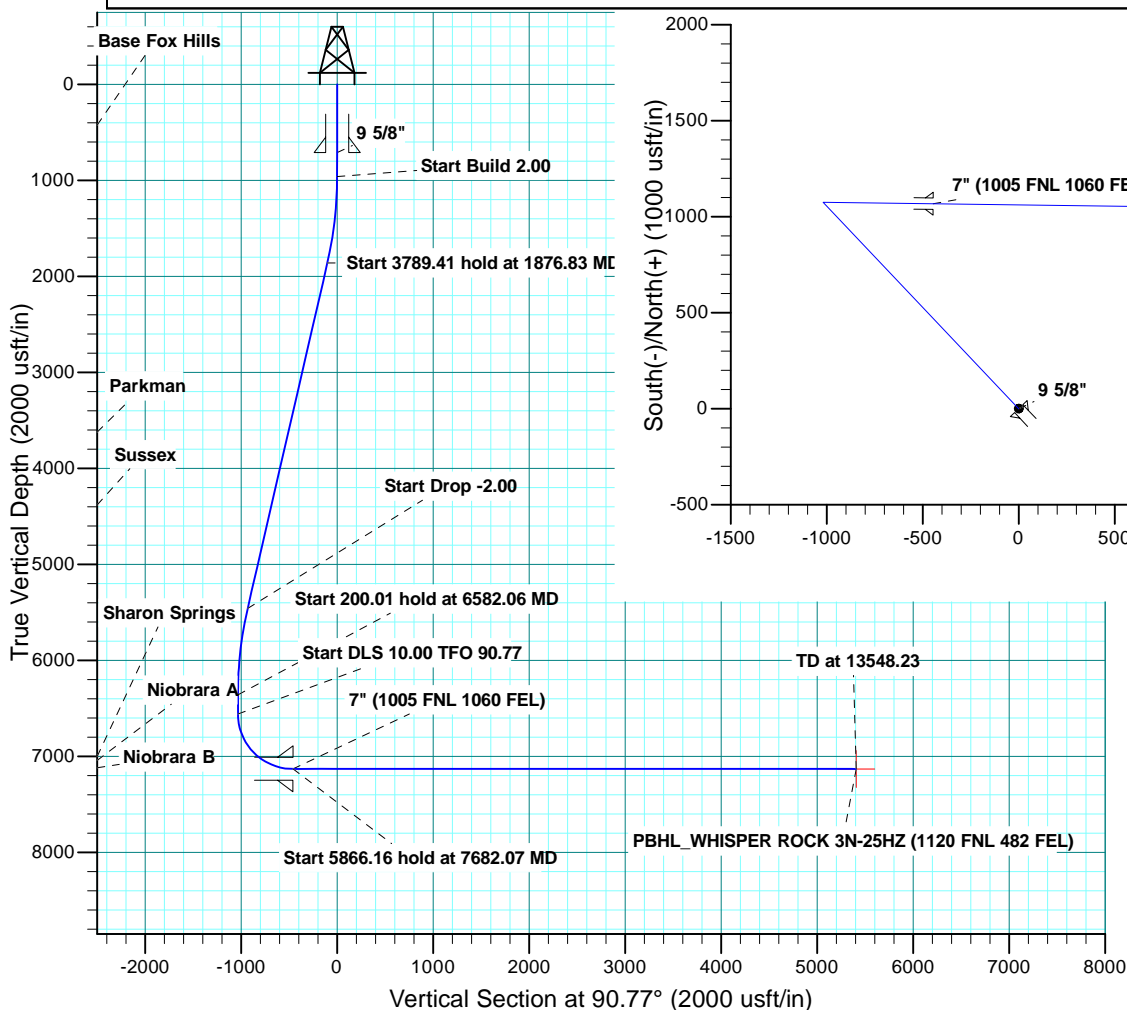


SHL: WHISPER ROCK 3N-25HZ								
GL 4997 KB 17 @ 5014.00usft								
		+N/-S 0.00	+E/-W 0.00	Northing 14630963.58	Easting 1650762.21	Latitude 40.286223	Longitude -104.962903	
DESIGN TARGET DETAILS								
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL 7132.00	989.29	5420.09	14631955.14	1656181.89	40.288938	-104.943467		Point
- plan hits target center								
SECTION DETAILS								
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
961.00	0.00	0.00	961.00	0.00	0.00	0.00	0.00	0.00
1876.83	18.32	316.56	1861.31	105.39	-99.80	2.00	316.56	-101.21
5666.23	18.32	316.56	5458.72	970.08	-918.65	0.00	0.00	-931.60
6582.06	0.00	0.00	6359.03	1075.47	-1018.45	2.00	180.00	-1032.81
6782.07	0.00	0.00	6559.04	1075.47	-1018.45	0.00	0.00	-1032.81
7682.07	90.00	90.77	7132.00	1067.80	-445.54	10.00	90.77	-459.85
13548.23	90.00	90.77	7132.00	989.29	5420.09	0.00	0.00	5406.31

PBHL_WHISPER ROCK 3N-25HZ (1120 FNL 482 FEL)



CASING DETAILS			
TVD	MD	Name	Size
711.00	711.00	9 5/8"	9.625
7132.00	7682.07	7"	7.000

FORMATION TOP DETAILS			
TVDPath	MDPath	Formation	Inc
426.00	426.00	Base Fox Hills	0.00
3623.00	3732.54	Parkman	18.32
4381.00	4530.99	Sussex	18.32
7000.00	7285.27	Sharon Springs	50.32
7042.00	7356.57	Niobrara A	57.45
7119.00	7559.80	Niobrara B	77.77



Scientific Drilling

US ROCKIES WATTENBERG PLANNING

WELD-NAD83-UTMFT13N

WILSON RANCH 8 -26HZ

WHISPER ROCK 3N-25HZ

PLAN A

Plan: Permit Rev-1

Standard Planning Report

30 December, 2014

Database:	Denver Sales	Local Co-ordinate Reference:	Well WHISPER ROCK 3N-25HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	GL 4997 KB 17 @ 5014.00usft
Project:	WELD-NAD83-UTMFT13N	MD Reference:	GL 4997 KB 17 @ 5014.00usft
Site:	WILSON RANCH 8 -26HZ	North Reference:	True
Well:	WHISPER ROCK 3N-25HZ	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	WILSON RANCH 8 -26HZ				
Site Position:		Northing:	14,630,963.58 usft	Latitude:	40.286223
From:	Lat/Long	Easting:	1,650,762.21 usft	Longitude:	-104.962903
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	0.02

Well	WHISPER ROCK 3N-25HZ,					
Well Position	+N/-S	0.00 usft	Northing:	14,630,963.58 usft	Latitude:	40.286223
	+E/-W	0.00 usft	Easting:	1,650,762.21 usft	Longitude:	-104.962903
Position Uncertainty		3.28 usft	Wellhead Elevation:	0.00 usft	Ground Level:	4,997.00 usft

Wellbore	PLAN A				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	11/6/2014	8.45	66.82	52,723

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	90.77

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	
961.00	0.00	0.00	961.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,876.83	18.32	316.56	1,861.31	105.39	-99.80	2.00	2.00	0.00	316.56	
5,666.23	18.32	316.56	5,458.72	970.08	-918.65	0.00	0.00	0.00	0.00	
6,582.06	0.00	0.00	6,359.03	1,075.47	-1,018.45	2.00	-2.00	0.00	180.00	
6,782.07	0.00	0.00	6,559.04	1,075.47	-1,018.45	0.00	0.00	0.00	0.00	
7,682.07	90.00	90.77	7,132.00	1,067.80	-445.54	10.00	10.00	10.09	90.77	
13,548.23	90.00	90.77	7,132.00	989.29	5,420.09	0.00	0.00	0.00	0.00	PBHL_WHISPER RO

Database:	Denver Sales	Local Co-ordinate Reference:	Well WHISPER ROCK 3N-25HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	GL 4997 KB 17 @ 5014.00usft
Project:	WELD-NAD83-UTMFT13N	MD Reference:	GL 4997 KB 17 @ 5014.00usft
Site:	WILSON RANCH 8 -26HZ	North Reference:	True
Well:	WHISPER ROCK 3N-25HZ	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
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
426.00	0.00	0.00	426.00	0.00	0.00	0.00	0.00	0.00	0.00
Base Fox Hills									
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
711.00	0.00	0.00	711.00	0.00	0.00	0.00	0.00	0.00	0.00
9 5/8"									
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
961.00	0.00	0.00	961.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
1,000.00	0.78	316.56	1,000.00	0.19	-0.18	-0.19	2.00	2.00	0.00
1,100.00	2.78	316.56	1,099.95	2.45	-2.32	-2.35	2.00	2.00	0.00
1,200.00	4.78	316.56	1,199.72	7.23	-6.85	-6.95	2.00	2.00	0.00
1,300.00	6.78	316.56	1,299.21	14.55	-13.78	-13.97	2.00	2.00	0.00
1,400.00	8.78	316.56	1,398.28	24.38	-23.08	-23.41	2.00	2.00	0.00
1,500.00	10.78	316.56	1,496.83	36.71	-34.76	-35.25	2.00	2.00	0.00
1,600.00	12.78	316.56	1,594.71	51.53	-48.80	-49.49	2.00	2.00	0.00
1,700.00	14.78	316.56	1,691.83	68.83	-65.18	-66.10	2.00	2.00	0.00
1,800.00	16.78	316.56	1,788.06	88.57	-83.87	-85.06	2.00	2.00	0.00
1,876.83	18.32	316.56	1,861.31	105.39	-99.80	-101.21	2.00	2.00	0.00
Start 3789.41 hold at 1876.83 MD									
1,900.00	18.32	316.56	1,883.31	110.68	-104.81	-106.29	0.00	0.00	0.00
2,000.00	18.32	316.56	1,978.24	133.50	-126.42	-128.20	0.00	0.00	0.00
2,100.00	18.32	316.56	2,073.17	156.31	-148.03	-150.11	0.00	0.00	0.00
2,200.00	18.32	316.56	2,168.11	179.13	-169.64	-172.03	0.00	0.00	0.00
2,300.00	18.32	316.56	2,263.04	201.95	-191.24	-193.94	0.00	0.00	0.00
2,400.00	18.32	316.56	2,357.97	224.77	-212.85	-215.85	0.00	0.00	0.00
2,500.00	18.32	316.56	2,452.91	247.59	-234.46	-237.77	0.00	0.00	0.00
2,600.00	18.32	316.56	2,547.84	270.41	-256.07	-259.68	0.00	0.00	0.00
2,700.00	18.32	316.56	2,642.77	293.23	-277.68	-281.60	0.00	0.00	0.00
2,800.00	18.32	316.56	2,737.71	316.05	-299.29	-303.51	0.00	0.00	0.00
2,900.00	18.32	316.56	2,832.64	338.86	-320.90	-325.42	0.00	0.00	0.00
3,000.00	18.32	316.56	2,927.57	361.68	-342.51	-347.34	0.00	0.00	0.00
3,100.00	18.32	316.56	3,022.51	384.50	-364.12	-369.25	0.00	0.00	0.00
3,200.00	18.32	316.56	3,117.44	407.32	-385.72	-391.16	0.00	0.00	0.00
3,300.00	18.32	316.56	3,212.37	430.14	-407.33	-413.08	0.00	0.00	0.00
3,400.00	18.32	316.56	3,307.31	452.96	-428.94	-434.99	0.00	0.00	0.00
3,500.00	18.32	316.56	3,402.24	475.78	-450.55	-456.90	0.00	0.00	0.00
3,600.00	18.32	316.56	3,497.18	498.59	-472.16	-478.82	0.00	0.00	0.00
3,700.00	18.32	316.56	3,592.11	521.41	-493.77	-500.73	0.00	0.00	0.00
3,732.54	18.32	316.56	3,623.00	528.84	-500.80	-507.86	0.00	0.00	0.00
Parkman									
3,800.00	18.32	316.56	3,687.04	544.23	-515.38	-522.64	0.00	0.00	0.00
3,900.00	18.32	316.56	3,781.98	567.05	-536.99	-544.56	0.00	0.00	0.00
4,000.00	18.32	316.56	3,876.91	589.87	-558.60	-566.47	0.00	0.00	0.00
4,100.00	18.32	316.56	3,971.84	612.69	-580.20	-588.39	0.00	0.00	0.00
4,200.00	18.32	316.56	4,066.78	635.51	-601.81	-610.30	0.00	0.00	0.00
4,300.00	18.32	316.56	4,161.71	658.33	-623.42	-632.21	0.00	0.00	0.00

Database:	Denver Sales	Local Co-ordinate Reference:	Well WHISPER ROCK 3N-25HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	GL 4997 KB 17 @ 5014.00usft
Project:	WELD-NAD83-UTMFT13N	MD Reference:	GL 4997 KB 17 @ 5014.00usft
Site:	WILSON RANCH 8 -26HZ	North Reference:	True
Well:	WHISPER ROCK 3N-25HZ	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)
4,400.00	18.32	316.56	4,256.64	681.14	-645.03	-654.13	0.00	0.00	0.00
4,500.00	18.32	316.56	4,351.58	703.96	-666.64	-676.04	0.00	0.00	0.00
4,530.99	18.32	316.56	4,381.00	711.04	-673.34	-682.83	0.00	0.00	0.00
Sussex									
4,600.00	18.32	316.56	4,446.51	726.78	-688.25	-697.95	0.00	0.00	0.00
4,700.00	18.32	316.56	4,541.44	749.60	-709.86	-719.87	0.00	0.00	0.00
4,800.00	18.32	316.56	4,636.38	772.42	-731.47	-741.78	0.00	0.00	0.00
4,900.00	18.32	316.56	4,731.31	795.24	-753.07	-763.69	0.00	0.00	0.00
5,000.00	18.32	316.56	4,826.24	818.06	-774.68	-785.61	0.00	0.00	0.00
5,100.00	18.32	316.56	4,921.18	840.87	-796.29	-807.52	0.00	0.00	0.00
5,200.00	18.32	316.56	5,016.11	863.69	-817.90	-829.43	0.00	0.00	0.00
5,300.00	18.32	316.56	5,111.04	886.51	-839.51	-851.35	0.00	0.00	0.00
5,400.00	18.32	316.56	5,205.98	909.33	-861.12	-873.26	0.00	0.00	0.00
5,500.00	18.32	316.56	5,300.91	932.15	-882.73	-895.18	0.00	0.00	0.00
5,600.00	18.32	316.56	5,395.84	954.97	-904.34	-917.09	0.00	0.00	0.00
5,666.23	18.32	316.56	5,458.72	970.08	-918.65	-931.60	0.00	0.00	0.00
Start Drop -2.00									
5,700.00	17.64	316.56	5,490.84	977.65	-925.82	-938.87	2.00	-2.00	0.00
5,800.00	15.64	316.56	5,586.65	998.44	-945.51	-958.84	2.00	-2.00	0.00
5,900.00	13.64	316.56	5,683.39	1,016.79	-962.89	-976.46	2.00	-2.00	0.00
6,000.00	11.64	316.56	5,780.97	1,032.68	-977.93	-991.72	2.00	-2.00	0.00
6,100.00	9.64	316.56	5,879.24	1,046.09	-990.63	-1,004.60	2.00	-2.00	0.00
6,200.00	7.64	316.56	5,978.10	1,057.00	-1,000.96	-1,015.07	2.00	-2.00	0.00
6,300.00	5.64	316.56	6,077.42	1,065.40	-1,008.91	-1,023.14	2.00	-2.00	0.00
6,400.00	3.64	316.56	6,177.09	1,071.27	-1,014.47	-1,028.78	2.00	-2.00	0.00
6,500.00	1.64	316.56	6,276.98	1,074.62	-1,017.64	-1,031.99	2.00	-2.00	0.00
6,582.06	0.00	0.00	6,359.03	1,075.47	-1,018.45	-1,032.81	2.00	-2.00	0.00
Start 200.01 hold at 6582.06 MD									
6,600.00	0.00	0.00	6,376.97	1,075.47	-1,018.45	-1,032.81	0.00	0.00	0.00
6,700.00	0.00	0.00	6,476.97	1,075.47	-1,018.45	-1,032.81	0.00	0.00	0.00
6,782.07	0.00	0.00	6,559.04	1,075.47	-1,018.45	-1,032.81	0.00	0.00	0.00
Start DLS 10.00 TFO 90.77									
6,800.00	1.79	90.77	6,576.97	1,075.47	-1,018.17	-1,032.53	10.00	10.00	0.00
6,900.00	11.79	90.77	6,676.14	1,075.31	-1,006.36	-1,020.72	10.00	10.00	0.00
7,000.00	21.79	90.77	6,771.75	1,074.92	-977.51	-991.86	10.00	10.00	0.00
7,100.00	31.79	90.77	6,860.90	1,074.32	-932.49	-946.84	10.00	10.00	0.00
7,200.00	41.79	90.77	6,940.88	1,073.52	-872.68	-887.03	10.00	10.00	0.00
7,285.27	50.32	90.77	7,000.00	1,072.70	-811.35	-825.69	10.00	10.00	0.00
Sharon Springs									
7,300.00	51.79	90.77	7,009.26	1,072.54	-799.89	-814.23	10.00	10.00	0.00
7,356.57	57.45	90.77	7,042.00	1,071.93	-753.79	-768.12	10.00	10.00	0.00
Niobrara A									
7,400.00	61.79	90.77	7,063.96	1,071.43	-716.33	-730.67	10.00	10.00	0.00
7,500.00	71.79	90.77	7,103.31	1,070.20	-624.55	-638.87	10.00	10.00	0.00
7,559.80	77.77	90.77	7,119.00	1,069.43	-566.88	-581.20	10.00	10.00	0.00
Niobrara B									
7,600.00	81.79	90.77	7,126.13	1,068.90	-527.33	-541.64	10.00	10.00	0.00
7,682.07	90.00	90.77	7,132.00	1,067.80	-445.54	-459.85	10.00	10.00	0.00
Start 5866.16 hold at 7682.07 MD - 7" (1005 FNL 1060 FEL)									
7,700.00	90.00	90.77	7,132.00	1,067.56	-427.62	-441.92	0.00	0.00	0.00
7,800.00	90.00	90.77	7,132.00	1,066.22	-327.62	-341.92	0.00	0.00	0.00
7,900.00	90.00	90.77	7,132.00	1,064.88	-227.63	-241.92	0.00	0.00	0.00
8,000.00	90.00	90.77	7,132.00	1,063.55	-127.64	-141.92	0.00	0.00	0.00

Database:	Denver Sales	Local Co-ordinate Reference:	Well WHISPER ROCK 3N-25HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	GL 4997 KB 17 @ 5014.00usft
Project:	WELD-NAD83-UTMFT13N	MD Reference:	GL 4997 KB 17 @ 5014.00usft
Site:	WILSON RANCH 8 -26HZ	North Reference:	True
Well:	WHISPER ROCK 3N-25HZ	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)
8,100.00	90.00	90.77	7,132.00	1,062.21	-27.65	-41.92	0.00	0.00	0.00
8,200.00	90.00	90.77	7,132.00	1,060.87	72.34	58.08	0.00	0.00	0.00
8,300.00	90.00	90.77	7,132.00	1,059.53	172.33	158.08	0.00	0.00	0.00
8,400.00	90.00	90.77	7,132.00	1,058.19	272.32	258.08	0.00	0.00	0.00
8,500.00	90.00	90.77	7,132.00	1,056.85	372.31	358.08	0.00	0.00	0.00
8,600.00	90.00	90.77	7,132.00	1,055.52	472.30	458.08	0.00	0.00	0.00
8,700.00	90.00	90.77	7,132.00	1,054.18	572.29	558.08	0.00	0.00	0.00
8,800.00	90.00	90.77	7,132.00	1,052.84	672.29	658.08	0.00	0.00	0.00
8,900.00	90.00	90.77	7,132.00	1,051.50	772.28	758.08	0.00	0.00	0.00
9,000.00	90.00	90.77	7,132.00	1,050.16	872.27	858.08	0.00	0.00	0.00
9,100.00	90.00	90.77	7,132.00	1,048.82	972.26	958.08	0.00	0.00	0.00
9,200.00	90.00	90.77	7,132.00	1,047.49	1,072.25	1,058.08	0.00	0.00	0.00
9,300.00	90.00	90.77	7,132.00	1,046.15	1,172.24	1,158.08	0.00	0.00	0.00
9,400.00	90.00	90.77	7,132.00	1,044.81	1,272.23	1,258.08	0.00	0.00	0.00
9,500.00	90.00	90.77	7,132.00	1,043.47	1,372.22	1,358.08	0.00	0.00	0.00
9,600.00	90.00	90.77	7,132.00	1,042.13	1,472.21	1,458.08	0.00	0.00	0.00
9,700.00	90.00	90.77	7,132.00	1,040.79	1,572.21	1,558.08	0.00	0.00	0.00
9,800.00	90.00	90.77	7,132.00	1,039.46	1,672.20	1,658.08	0.00	0.00	0.00
9,900.00	90.00	90.77	7,132.00	1,038.12	1,772.19	1,758.08	0.00	0.00	0.00
10,000.00	90.00	90.77	7,132.00	1,036.78	1,872.18	1,858.08	0.00	0.00	0.00
10,100.00	90.00	90.77	7,132.00	1,035.44	1,972.17	1,958.08	0.00	0.00	0.00
10,200.00	90.00	90.77	7,132.00	1,034.10	2,072.16	2,058.08	0.00	0.00	0.00
10,300.00	90.00	90.77	7,132.00	1,032.76	2,172.15	2,158.08	0.00	0.00	0.00
10,400.00	90.00	90.77	7,132.00	1,031.43	2,272.14	2,258.08	0.00	0.00	0.00
10,500.00	90.00	90.77	7,132.00	1,030.09	2,372.13	2,358.08	0.00	0.00	0.00
10,600.00	90.00	90.77	7,132.00	1,028.75	2,472.12	2,458.08	0.00	0.00	0.00
10,700.00	90.00	90.77	7,132.00	1,027.41	2,572.12	2,558.08	0.00	0.00	0.00
10,800.00	90.00	90.77	7,132.00	1,026.07	2,672.11	2,658.08	0.00	0.00	0.00
10,900.00	90.00	90.77	7,132.00	1,024.73	2,772.10	2,758.08	0.00	0.00	0.00
11,000.00	90.00	90.77	7,132.00	1,023.40	2,872.09	2,858.08	0.00	0.00	0.00
11,100.00	90.00	90.77	7,132.00	1,022.06	2,972.08	2,958.08	0.00	0.00	0.00
11,200.00	90.00	90.77	7,132.00	1,020.72	3,072.07	3,058.08	0.00	0.00	0.00
11,300.00	90.00	90.77	7,132.00	1,019.38	3,172.06	3,158.08	0.00	0.00	0.00
11,400.00	90.00	90.77	7,132.00	1,018.04	3,272.05	3,258.08	0.00	0.00	0.00
11,500.00	90.00	90.77	7,132.00	1,016.70	3,372.04	3,358.08	0.00	0.00	0.00
11,600.00	90.00	90.77	7,132.00	1,015.36	3,472.03	3,458.08	0.00	0.00	0.00
11,700.00	90.00	90.77	7,132.00	1,014.03	3,572.03	3,558.08	0.00	0.00	0.00
11,800.00	90.00	90.77	7,132.00	1,012.69	3,672.02	3,658.08	0.00	0.00	0.00
11,900.00	90.00	90.77	7,132.00	1,011.35	3,772.01	3,758.08	0.00	0.00	0.00
12,000.00	90.00	90.77	7,132.00	1,010.01	3,872.00	3,858.08	0.00	0.00	0.00
12,100.00	90.00	90.77	7,132.00	1,008.67	3,971.99	3,958.08	0.00	0.00	0.00
12,200.00	90.00	90.77	7,132.00	1,007.33	4,071.98	4,058.08	0.00	0.00	0.00
12,300.00	90.00	90.77	7,132.00	1,006.00	4,171.97	4,158.08	0.00	0.00	0.00
12,400.00	90.00	90.77	7,132.00	1,004.66	4,271.96	4,258.08	0.00	0.00	0.00
12,500.00	90.00	90.77	7,132.00	1,003.32	4,371.95	4,358.08	0.00	0.00	0.00
12,600.00	90.00	90.77	7,132.00	1,001.98	4,471.95	4,458.08	0.00	0.00	0.00
12,700.00	90.00	90.77	7,132.00	1,000.64	4,571.94	4,558.08	0.00	0.00	0.00
12,800.00	90.00	90.77	7,132.00	999.30	4,671.93	4,658.08	0.00	0.00	0.00
12,900.00	90.00	90.77	7,132.00	997.97	4,771.92	4,758.08	0.00	0.00	0.00
13,000.00	90.00	90.77	7,132.00	996.63	4,871.91	4,858.08	0.00	0.00	0.00
13,100.00	90.00	90.77	7,132.00	995.29	4,971.90	4,958.08	0.00	0.00	0.00
13,200.00	90.00	90.77	7,132.00	993.95	5,071.89	5,058.08	0.00	0.00	0.00
13,300.00	90.00	90.77	7,132.00	992.61	5,171.88	5,158.08	0.00	0.00	0.00
13,400.00	90.00	90.77	7,132.00	991.27	5,271.87	5,258.08	0.00	0.00	0.00

Database:	Denver Sales	Local Co-ordinate Reference:	Well WHISPER ROCK 3N-25HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	GL 4997 KB 17 @ 5014.00usft
Project:	WELD-NAD83-UTMFT13N	MD Reference:	GL 4997 KB 17 @ 5014.00usft
Site:	WILSON RANCH 8 -26HZ	North Reference:	True
Well:	WHISPER ROCK 3N-25HZ	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)
13,500.00	90.00	90.77	7,132.00	989.94	5,371.86	5,358.08	0.00	0.00	0.00
13,548.23	90.00	90.77	7,132.00	989.29	5,420.09	5,406.31	0.00	0.00	0.00
TD at 13548.23 - PBHL_WHISPER ROCK 3N-25HZ (1120 FNL 482 FEL)									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL_WHISPER ROCK	0.00	0.00	7,132.00	989.29	5,420.09	14,631,955.14	1,656,181.88	40.288938	-104.943467
- plan hits target center									
- Point									

Casing Points						Casing Diameter (in)	Hole Diameter (in)
Measured Depth (usft)	Vertical Depth (usft)	Name					
711.00	711.00	9 5/8"				9.625	13.500
7,682.07	7,132.00	7" (1005 FNL 1060 FEL)				7.000	8.750

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
426.00	426.00	Base Fox Hills				
3,732.54	3,623.00	Parkman				
4,530.99	4,381.00	Sussex				
7,285.27	7,000.00	Sharon Springs				
7,356.57	7,042.00	Niobrara A				
7,559.80	7,119.00	Niobrara B				

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
961.00	961.00	0.00	0.00	Start Build 2.00
1,876.83	1,861.31	105.39	-99.80	Start 3789.41 hold at 1876.83 MD
5,666.23	5,458.72	970.08	-918.65	Start Drop -2.00
6,582.06	6,359.03	1,075.47	-1,018.45	Start 200.01 hold at 6582.06 MD
6,782.07	6,559.04	1,075.47	-1,018.45	Start DLS 10.00 TFO 90.77
7,682.07	7,132.00	1,067.80	-445.54	Start 5866.16 hold at 7682.07 MD
13,548.23	7,132.00	989.29	5,420.09	TD at 13548.23