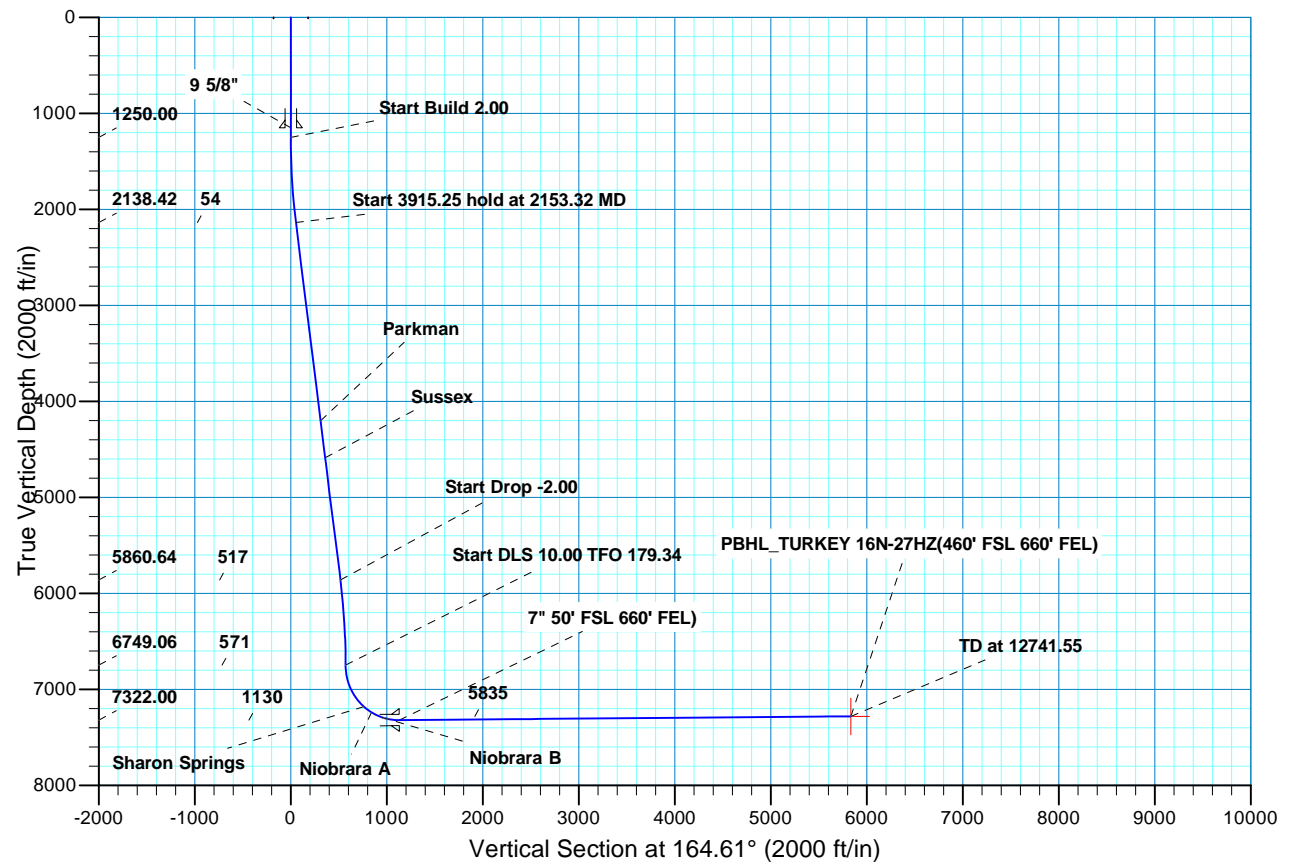
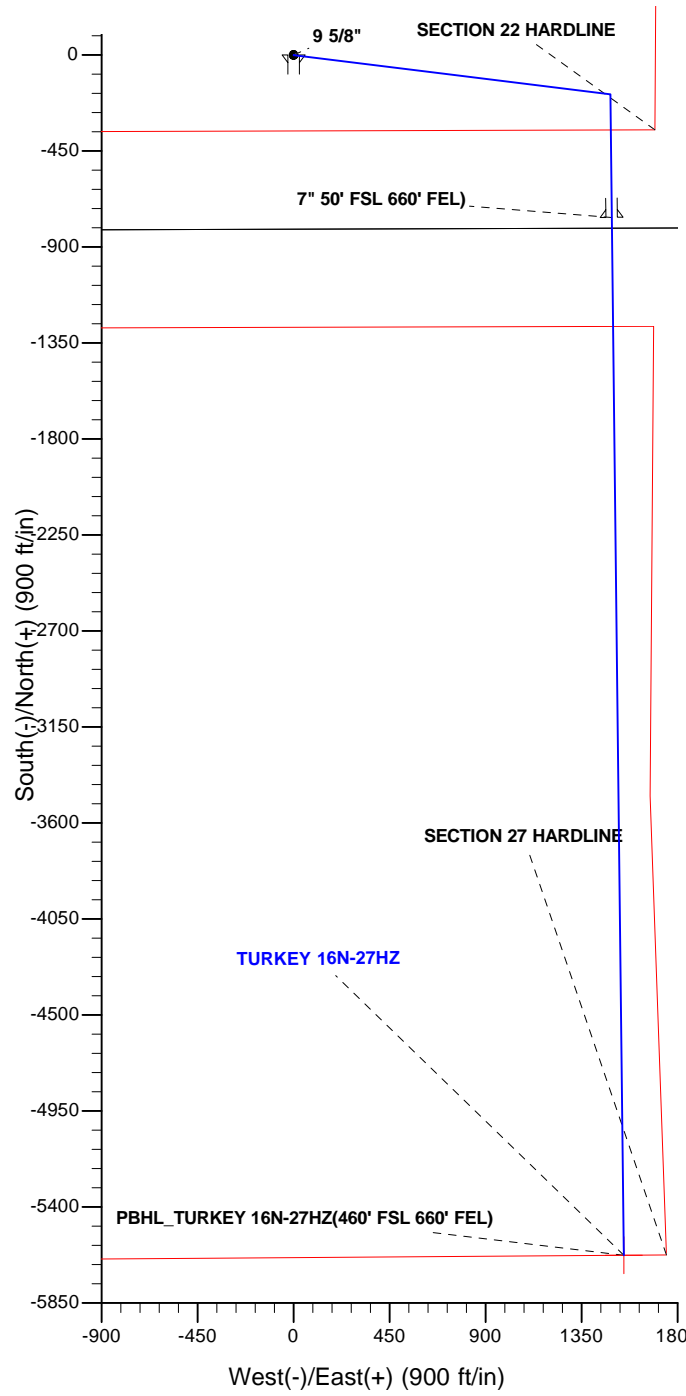




Project: COLORADO NORTHERN ZONE - 83
 Site: GOBBLER 12-22HZ PAD
 Well: TURKEY 16N-27HZ
 Wellbore: OH
 Design: PLAN #1 PRELIMINARY



WELL DETAILS: TURKEY 16N-27HZ									
GL 5055 & KB 17 @ 5072.00ft (ASSUMED)									
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude				
0.00	0.00	1286938.31	3206475.62	40.1186789	-104.7616980				
SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1250.00	0.00	0.00	1250.00	0.00	0.00	0.00	0.00	0.00	
2153.32	18.07	97.05	2138.42	-17.34	140.17	2.00	97.05	53.91	
6068.56	18.07	97.05	5860.64	-166.42	1345.17	0.00	0.00	517.39	
6971.88	0.00	0.00	6749.06	-183.76	1485.34	2.00	180.00	571.30	
7876.59	90.47	179.34	7322.00	-761.39	1492.02	10.00	179.34	1130.00	
12741.55	90.47	179.34	7282.00	-5625.86	1548.31	0.00	0.005835.03		PBHL_TURKEY 16N-27HZ(460' FSL 660' FEL)
FORMATION TOP DETAILS				CASING DETAILS					
TVDPath	MDPath	Formation	Inc	TVD	MD	Name	Size		
4203.00	4324.96	Parkman	18.07	1150.00	1150.00	9 5/8"	9.625		
4589.00	4730.98	Sussex	18.07	7322.00	7876.59	7"	7.000		
7180.00	7459.63	Sharon Springs	48.78						
7241.00	7563.47	Niobrara A	59.16						
7291.00	7682.49	Niobrara B	71.06						





Scientific Drilling

US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

GOBBLER 12-22HZ PAD

TURKEY 16N-27HZ

OH

Plan: PLAN #1 PRELIMINARY

Standard Planning Report

15 May, 2013

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well TURKEY 16N-27HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5055 & KB 17 @ 5072.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 5055 & KB 17 @ 5072.00ft (ASSUMED)
Site:	GOBBLER 12-22HZ PAD	North Reference:	True
Well:	TURKEY 16N-27HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Project	COLORADO NORTHERN ZONE - 83, KERR MCGEE OIL & GAS ONSHORE LP		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site	GOBBLER 12-22HZ PAD, SECTION SWSE 22-T2N R66W				
Site Position:	Northing:	1,286,949.10 usft	Latitude:	40.1187120	
From:	Lat/Long	Easting:	3,206,325.91 usft	Longitude:	-104.7622330
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.48 °

Well	TURKEY 16N-27HZ, 816' FSL 2157' FEL					
Well Position	+N/-S	-12.04 ft	Northing:	1,286,938.31 usft	Latitude:	40.1186790
	+E/-W	149.62 ft	Easting:	3,206,475.63 usft	Longitude:	-104.7616980
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,055.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2012	2013/05/15	8.64	66.73	52,681

Design	PLAN #1 PRELIMINARY			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	164.61

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,250.00	0.00	0.00	1,250.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,153.32	18.07	97.05	2,138.42	-17.34	140.17	2.00	2.00	0.00	97.05	
6,068.56	18.07	97.05	5,860.64	-166.42	1,345.17	0.00	0.00	0.00	0.00	
6,971.88	0.00	0.00	6,749.06	-183.76	1,485.34	2.00	-2.00	0.00	180.00	
7,876.59	90.47	179.34	7,322.00	-761.39	1,492.02	10.00	10.00	19.82	179.34	
12,741.55	90.47	179.34	7,282.00	-5,625.86	1,548.31	0.00	0.00	0.00	0.00	PBHL_TURKEY 16N-

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well TURKEY 16N-27HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5055 & KB 17 @ 5072.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 5055 & KB 17 @ 5072.00ft (ASSUMED)
Site:	GOBBLER 12-22HZ PAD	North Reference:	True
Well:	TURKEY 16N-27HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
0.00	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	0.00
200.00	0.00	0.00	200.00	0.00	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	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	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	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	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	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,150.00	0.00	0.00	1,150.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9 5/8"										
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,250.00	0.00	0.00	1,250.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00										
1,300.00	1.00	97.05	1,300.00	-0.05	0.43	0.17	2.00	2.00	2.00	0.00
1,400.00	3.00	97.05	1,399.93	-0.48	3.90	1.50	2.00	2.00	2.00	0.00
1,500.00	5.00	97.05	1,499.68	-1.34	10.82	4.16	2.00	2.00	2.00	0.00
1,600.00	7.00	97.05	1,599.13	-2.62	21.19	8.15	2.00	2.00	2.00	0.00
1,700.00	9.00	97.05	1,698.15	-4.33	35.00	13.46	2.00	2.00	2.00	0.00
1,800.00	11.00	97.05	1,796.63	-6.46	52.24	20.09	2.00	2.00	2.00	0.00
1,900.00	13.00	97.05	1,894.44	-9.02	72.87	28.03	2.00	2.00	2.00	0.00
2,000.00	15.00	97.05	1,991.46	-11.99	96.88	37.26	2.00	2.00	2.00	0.00
2,100.00	17.00	97.05	2,087.58	-15.37	124.23	47.78	2.00	2.00	2.00	0.00
2,153.32	18.07	97.05	2,138.42	-17.34	140.17	53.91	2.00	2.00	2.00	0.00
Start 3915.25 hold at 2153.32 MD										
2,200.00	18.07	97.05	2,182.80	-19.12	154.54	59.44	0.00	0.00	0.00	0.00
2,300.00	18.07	97.05	2,277.87	-22.93	185.32	71.28	0.00	0.00	0.00	0.00
2,400.00	18.07	97.05	2,372.94	-26.73	216.09	83.12	0.00	0.00	0.00	0.00
2,500.00	18.07	97.05	2,468.01	-30.54	246.87	94.95	0.00	0.00	0.00	0.00
2,600.00	18.07	97.05	2,563.08	-34.35	277.65	106.79	0.00	0.00	0.00	0.00
2,700.00	18.07	97.05	2,658.15	-38.16	308.42	118.63	0.00	0.00	0.00	0.00
2,800.00	18.07	97.05	2,753.22	-41.96	339.20	130.47	0.00	0.00	0.00	0.00
2,900.00	18.07	97.05	2,848.29	-45.77	369.98	142.30	0.00	0.00	0.00	0.00
3,000.00	18.07	97.05	2,943.36	-49.58	400.76	154.14	0.00	0.00	0.00	0.00
3,100.00	18.07	97.05	3,038.43	-53.39	431.53	165.98	0.00	0.00	0.00	0.00
3,200.00	18.07	97.05	3,133.50	-57.19	462.31	177.82	0.00	0.00	0.00	0.00
3,300.00	18.07	97.05	3,228.57	-61.00	493.09	189.65	0.00	0.00	0.00	0.00
3,400.00	18.07	97.05	3,323.64	-64.81	523.86	201.49	0.00	0.00	0.00	0.00
3,500.00	18.07	97.05	3,418.71	-68.62	554.64	213.33	0.00	0.00	0.00	0.00
3,600.00	18.07	97.05	3,513.78	-72.43	585.42	225.17	0.00	0.00	0.00	0.00
3,700.00	18.07	97.05	3,608.85	-76.23	616.20	237.01	0.00	0.00	0.00	0.00
3,800.00	18.07	97.05	3,703.92	-80.04	646.97	248.84	0.00	0.00	0.00	0.00
3,900.00	18.07	97.05	3,798.99	-83.85	677.75	260.68	0.00	0.00	0.00	0.00
4,000.00	18.07	97.05	3,894.06	-87.66	708.53	272.52	0.00	0.00	0.00	0.00
4,100.00	18.07	97.05	3,989.13	-91.46	739.30	284.36	0.00	0.00	0.00	0.00
4,200.00	18.07	97.05	4,084.20	-95.27	770.08	296.19	0.00	0.00	0.00	0.00
4,300.00	18.07	97.05	4,179.27	-99.08	800.86	308.03	0.00	0.00	0.00	0.00
4,324.96	18.07	97.05	4,203.00	-100.03	808.54	310.99	0.00	0.00	0.00	0.00
Parkman										
4,400.00	18.07	97.05	4,274.34	-102.89	831.63	319.87	0.00	0.00	0.00	0.00
4,500.00	18.07	97.05	4,369.41	-106.69	862.41	331.71	0.00	0.00	0.00	0.00

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well TURKEY 16N-27HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5055 & KB 17 @ 5072.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 5055 & KB 17 @ 5072.00ft (ASSUMED)
Site:	GOBBLER 12-22HZ PAD	North Reference:	True
Well:	TURKEY 16N-27HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,600.00	18.07	97.05	4,464.48	-110.50	893.19	343.55	0.00	0.00	0.00
4,700.00	18.07	97.05	4,559.55	-114.31	923.97	355.38	0.00	0.00	0.00
4,730.98	18.07	97.05	4,589.00	-115.49	933.50	359.05	0.00	0.00	0.00
Sussex									
4,800.00	18.07	97.05	4,654.62	-118.12	954.74	367.22	0.00	0.00	0.00
4,900.00	18.07	97.05	4,749.69	-121.92	985.52	379.06	0.00	0.00	0.00
5,000.00	18.07	97.05	4,844.76	-125.73	1,016.30	390.90	0.00	0.00	0.00
5,100.00	18.07	97.05	4,939.83	-129.54	1,047.07	402.73	0.00	0.00	0.00
5,200.00	18.07	97.05	5,034.90	-133.35	1,077.85	414.57	0.00	0.00	0.00
5,300.00	18.07	97.05	5,129.97	-137.15	1,108.63	426.41	0.00	0.00	0.00
5,400.00	18.07	97.05	5,225.04	-140.96	1,139.41	438.25	0.00	0.00	0.00
5,500.00	18.07	97.05	5,320.11	-144.77	1,170.18	450.08	0.00	0.00	0.00
5,600.00	18.07	97.05	5,415.18	-148.58	1,200.96	461.92	0.00	0.00	0.00
5,700.00	18.07	97.05	5,510.25	-152.39	1,231.74	473.76	0.00	0.00	0.00
5,800.00	18.07	97.05	5,605.32	-156.19	1,262.51	485.60	0.00	0.00	0.00
5,900.00	18.07	97.05	5,700.39	-160.00	1,293.29	497.44	0.00	0.00	0.00
6,000.00	18.07	97.05	5,795.46	-163.81	1,324.07	509.27	0.00	0.00	0.00
6,068.56	18.07	97.05	5,860.64	-166.42	1,345.17	517.39	0.00	0.00	0.00
Start Drop -2.00									
6,100.00	17.44	97.05	5,890.58	-167.60	1,354.68	521.05	2.00	-2.00	0.00
6,200.00	15.44	97.05	5,986.49	-171.07	1,382.76	531.85	2.00	-2.00	0.00
6,300.00	13.44	97.05	6,083.33	-174.13	1,407.51	541.37	2.00	-2.00	0.00
6,400.00	11.44	97.05	6,180.97	-176.77	1,428.88	549.59	2.00	-2.00	0.00
6,500.00	9.44	97.05	6,279.31	-179.00	1,446.86	556.50	2.00	-2.00	0.00
6,600.00	7.44	97.05	6,378.23	-180.80	1,461.42	562.10	2.00	-2.00	0.00
6,700.00	5.44	97.05	6,477.59	-182.18	1,472.55	566.38	2.00	-2.00	0.00
6,800.00	3.44	97.05	6,577.29	-183.13	1,480.22	569.34	2.00	-2.00	0.00
6,900.00	1.44	97.05	6,677.19	-183.65	1,484.45	570.96	2.00	-2.00	0.00
6,971.88	0.00	0.00	6,749.06	-183.76	1,485.34	571.30	2.00	-2.00	0.00
Start DLS 10.00 TFO 179.34									
7,000.00	2.81	179.34	6,777.17	-184.45	1,485.35	571.97	10.00	10.00	0.00
7,100.00	12.81	179.34	6,876.12	-198.02	1,485.51	585.10	10.00	10.00	0.00
7,200.00	22.81	179.34	6,971.20	-228.57	1,485.86	614.65	10.00	10.00	0.00
7,300.00	32.81	179.34	7,059.54	-275.17	1,486.40	659.72	10.00	10.00	0.00
7,400.00	42.81	179.34	7,138.44	-336.39	1,487.11	718.93	10.00	10.00	0.00
7,459.63	48.78	179.34	7,180.00	-379.12	1,487.60	760.26	10.00	10.00	0.00
Sharon Springs									
7,500.00	52.81	179.34	7,205.51	-410.39	1,487.96	790.51	10.00	10.00	0.00
7,563.47	59.16	179.34	7,241.00	-462.97	1,488.57	841.36	10.00	10.00	0.00
Niobrara A									
7,600.00	62.81	179.34	7,258.71	-494.91	1,488.94	872.25	10.00	10.00	0.00
7,682.49	71.06	179.34	7,291.00	-570.73	1,489.82	945.59	10.00	10.00	0.00
Niobrara B									
7,700.00	72.81	179.34	7,296.43	-587.38	1,490.01	961.69	10.00	10.00	0.00
7,800.00	82.81	179.34	7,317.52	-685.00	1,491.14	1,056.11	10.00	10.00	0.00
7,876.59	90.47	179.34	7,322.00	-761.39	1,492.02	1,130.00	10.00	10.00	0.00
Start 4864.96 hold at 7876.59 MD - 7" 50' FSL 660' FEL)									
7,900.00	90.47	179.34	7,321.81	-784.80	1,492.29	1,152.64	0.00	0.00	0.00
8,000.00	90.47	179.34	7,320.98	-884.79	1,493.45	1,249.35	0.00	0.00	0.00
8,100.00	90.47	179.34	7,320.16	-984.78	1,494.61	1,346.07	0.00	0.00	0.00
8,200.00	90.47	179.34	7,319.34	-1,084.77	1,495.76	1,442.78	0.00	0.00	0.00
8,300.00	90.47	179.34	7,318.52	-1,184.76	1,496.92	1,539.49	0.00	0.00	0.00
8,400.00	90.47	179.34	7,317.70	-1,284.75	1,498.08	1,636.21	0.00	0.00	0.00

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well TURKEY 16N-27HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5055 & KB 17 @ 5072.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 5055 & KB 17 @ 5072.00ft (ASSUMED)
Site:	GOBBLER 12-22HZ PAD	North Reference:	True
Well:	TURKEY 16N-27HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,500.00	90.47	179.34	7,316.87	-1,384.74	1,499.24	1,732.92	0.00	0.00	0.00
8,600.00	90.47	179.34	7,316.05	-1,484.73	1,500.39	1,829.63	0.00	0.00	0.00
8,700.00	90.47	179.34	7,315.23	-1,584.72	1,501.55	1,926.34	0.00	0.00	0.00
8,800.00	90.47	179.34	7,314.41	-1,684.71	1,502.71	2,023.06	0.00	0.00	0.00
8,900.00	90.47	179.34	7,313.58	-1,784.70	1,503.86	2,119.77	0.00	0.00	0.00
9,000.00	90.47	179.34	7,312.76	-1,884.69	1,505.02	2,216.48	0.00	0.00	0.00
9,100.00	90.47	179.34	7,311.94	-1,984.68	1,506.18	2,313.19	0.00	0.00	0.00
9,200.00	90.47	179.34	7,311.12	-2,084.67	1,507.33	2,409.91	0.00	0.00	0.00
9,300.00	90.47	179.34	7,310.30	-2,184.66	1,508.49	2,506.62	0.00	0.00	0.00
9,400.00	90.47	179.34	7,309.47	-2,284.65	1,509.65	2,603.33	0.00	0.00	0.00
9,500.00	90.47	179.34	7,308.65	-2,384.64	1,510.80	2,700.04	0.00	0.00	0.00
9,600.00	90.47	179.34	7,307.83	-2,484.63	1,511.96	2,796.76	0.00	0.00	0.00
9,700.00	90.47	179.34	7,307.01	-2,584.62	1,513.12	2,893.47	0.00	0.00	0.00
9,800.00	90.47	179.34	7,306.18	-2,684.61	1,514.28	2,990.18	0.00	0.00	0.00
9,900.00	90.47	179.34	7,305.36	-2,784.60	1,515.43	3,086.89	0.00	0.00	0.00
10,000.00	90.47	179.34	7,304.54	-2,884.59	1,516.59	3,183.61	0.00	0.00	0.00
10,100.00	90.47	179.34	7,303.72	-2,984.58	1,517.75	3,280.32	0.00	0.00	0.00
10,200.00	90.47	179.34	7,302.90	-3,084.57	1,518.90	3,377.03	0.00	0.00	0.00
10,300.00	90.47	179.34	7,302.07	-3,184.56	1,520.06	3,473.74	0.00	0.00	0.00
10,400.00	90.47	179.34	7,301.25	-3,284.55	1,521.22	3,570.46	0.00	0.00	0.00
10,500.00	90.47	179.34	7,300.43	-3,384.54	1,522.37	3,667.17	0.00	0.00	0.00
10,600.00	90.47	179.34	7,299.61	-3,484.53	1,523.53	3,763.88	0.00	0.00	0.00
10,700.00	90.47	179.34	7,298.79	-3,584.52	1,524.69	3,860.59	0.00	0.00	0.00
10,800.00	90.47	179.34	7,297.96	-3,684.51	1,525.84	3,957.31	0.00	0.00	0.00
10,900.00	90.47	179.34	7,297.14	-3,784.50	1,527.00	4,054.02	0.00	0.00	0.00
11,000.00	90.47	179.34	7,296.32	-3,884.49	1,528.16	4,150.73	0.00	0.00	0.00
11,100.00	90.47	179.34	7,295.50	-3,984.48	1,529.31	4,247.44	0.00	0.00	0.00
11,200.00	90.47	179.34	7,294.67	-4,084.47	1,530.47	4,344.16	0.00	0.00	0.00
11,300.00	90.47	179.34	7,293.85	-4,184.46	1,531.63	4,440.87	0.00	0.00	0.00
11,400.00	90.47	179.34	7,293.03	-4,284.45	1,532.79	4,537.58	0.00	0.00	0.00
11,500.00	90.47	179.34	7,292.21	-4,384.44	1,533.94	4,634.30	0.00	0.00	0.00
11,600.00	90.47	179.34	7,291.39	-4,484.43	1,535.10	4,731.01	0.00	0.00	0.00
11,700.00	90.47	179.34	7,290.56	-4,584.42	1,536.26	4,827.72	0.00	0.00	0.00
11,800.00	90.47	179.34	7,289.74	-4,684.41	1,537.41	4,924.43	0.00	0.00	0.00
11,900.00	90.47	179.34	7,288.92	-4,784.40	1,538.57	5,021.15	0.00	0.00	0.00
12,000.00	90.47	179.34	7,288.10	-4,884.39	1,539.73	5,117.86	0.00	0.00	0.00
12,100.00	90.47	179.34	7,287.27	-4,984.38	1,540.88	5,214.57	0.00	0.00	0.00
12,200.00	90.47	179.34	7,286.45	-5,084.37	1,542.04	5,311.28	0.00	0.00	0.00
12,300.00	90.47	179.34	7,285.63	-5,184.36	1,543.20	5,408.00	0.00	0.00	0.00
12,400.00	90.47	179.34	7,284.81	-5,284.35	1,544.35	5,504.71	0.00	0.00	0.00
12,500.00	90.47	179.34	7,283.99	-5,384.34	1,545.51	5,601.42	0.00	0.00	0.00
12,600.00	90.47	179.34	7,283.16	-5,484.33	1,546.67	5,698.13	0.00	0.00	0.00
12,700.00	90.47	179.34	7,282.34	-5,584.32	1,547.83	5,794.85	0.00	0.00	0.00
12,741.55	90.47	179.34	7,282.00	-5,625.86	1,548.31	5,835.03	0.00	0.00	0.00
TD at 12741.55 - PBHL_TURKEY 16N-27HZ(460' FSL 660' FEL)									

Database:	EDM5000-RobertS-Local	Local Co-ordinate Reference:	Well TURKEY 16N-27HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL 5055 & KB 17 @ 5072.00ft (ASSUMED)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL 5055 & KB 17 @ 5072.00ft (ASSUMED)
Site:	GOBBLER 12-22HZ PAD	North Reference:	True
Well:	TURKEY 16N-27HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	PLAN #1 PRELIMINARY		

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL_TURKEY 16N-27 - hit/miss target - Shape - plan hits target center - Point	0.00	0.00	7,282.00	-5,625.86	1,548.31	1,281,325.54	3,208,070.72	40.1032350	-104.7561630

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,150.00	1,150.00	9 5/8"	9.625	12.250	
7,876.59	7,322.00	7" 50' FSL 660' FEL)	7.000	7.500	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,324.96	4,199.00	Parkman				
4,730.98	4,585.00	Sussex				
7,459.63	7,176.00	Sharon Springs				
7,563.47	7,237.00	Niobrara A				
7,682.49	7,287.00	Niobrara B				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
1,250.00	1,250.00	0.00	0.00	Start Build 2.00	
2,153.32	2,138.42	-17.34	140.17	Start 3915.25 hold at 2153.32 MD	
6,068.56	5,860.64	-166.42	1,345.17	Start Drop -2.00	
6,971.88	6,749.06	-183.76	1,485.34	Start DLS 10.00 TFO 179.34	
7,876.59	7,322.00	-761.39	1,492.02	Start 4864.96 hold at 7876.59 MD	
12,741.55	7,282.00	-5,625.86	1,548.31	TD at 12741.55	