

US ROCKIES REGION PLANNING

COLORADO NORTHERN CWP - 83

Phase 1 Pad 3

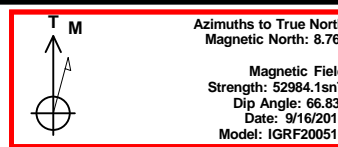
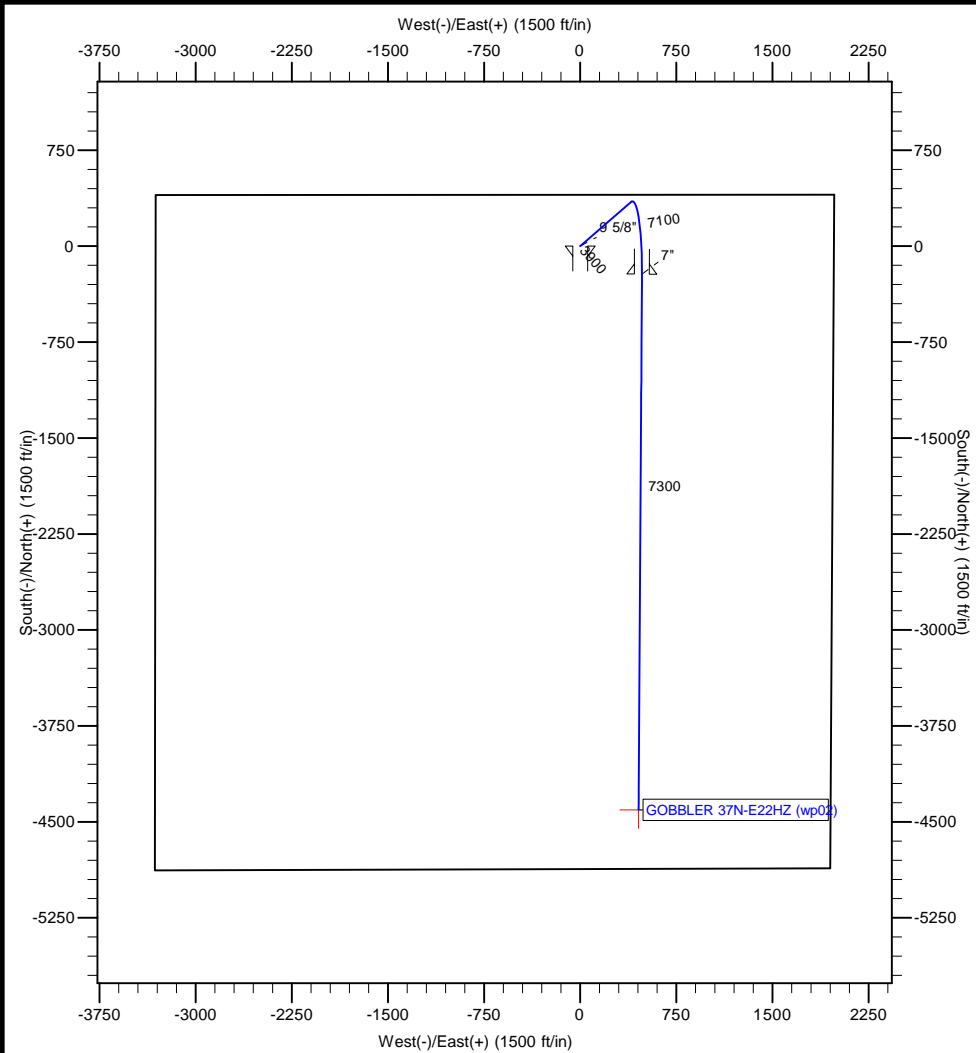
GOBBLER 37N-E22HZ

GOBBLER 37N-E22HZ

Plan: GOBBLER 37N-E22HZ (wp02)

Standard Planning Report

25 October, 2011



Project: COLORADO NORTHERN CWP - 83
 Site: Phase 1 Pad 3
 Well: GOBBLER 37N-E22HZ
 Wellbore: GOBBLER 37N-E22HZ
 Section:
 SHL:
 Design: GOBBLER 37N-E22HZ (wp02)
 Latitude: 40.129807
 Longitude: -104.760978
 GL: 5053.01
 KB: 5053'GL + 17' RKB @ 5070.01ft

WELL DETAILS: GOBBLER 37N-E22HZ

+N/-S	+E/-W	Northing	Ground Level: Easting	5053.01 Latitude	Longitude	Slot
0.00	0.00	1290993.55	3206643.19	40.129807	-104.760978	

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
3500.00	0.00	0.00	3500.00	0.00	0.00	0.00	0.00	0.00
4016.78	10.34	49.04	4013.98	30.47	35.11	2.00	49.04	-26.70
6701.43	10.34	49.04	6655.08	346.18	398.87	0.00	0.00	-303.37
7666.18	89.67	180.34	7290.00	-220.00	482.00	10.00	130.88	268.36
7669.08	89.66	180.37	7290.02	-222.90	481.98	1.00	119.34	271.24
11854.11	89.66	180.37	7315.01	-4407.77	455.30	0.00	0.00	4431.22

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

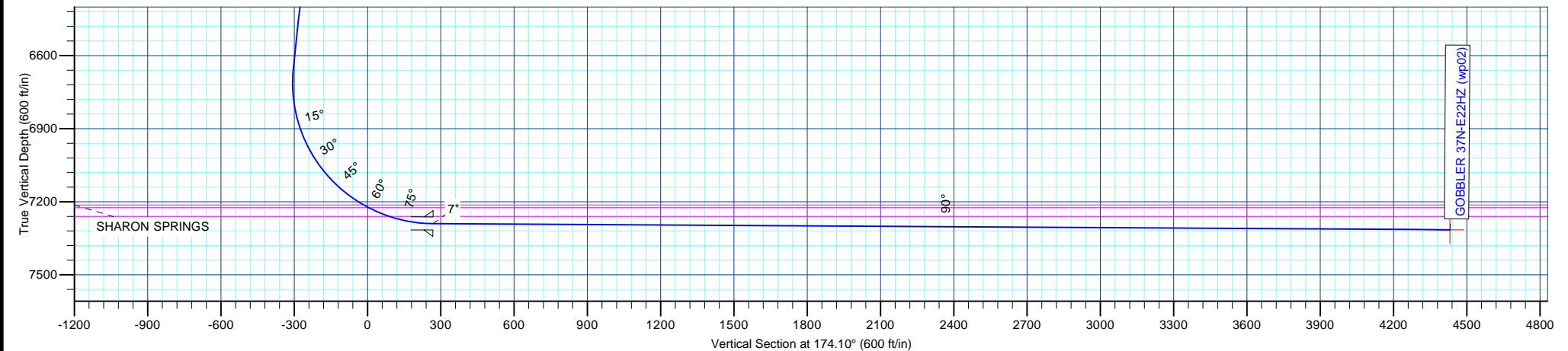
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
GOBBLER 37N-E22HZ bhl	7315.01	-4407.77	455.30	40.117707	-104.759350	Point

FORMATION TOP DETAILS

TVDPPath	MDPath	Formation
4249.00	4255.67	PARKMAN
4748.00	4762.90	SUSSEX
7213.00	7367.57	SHARON SPRINGS
7224.00	7390.44	NIOBARARA A
7260.00	7482.36	NIOBARARA B

CASING DETAILS

TVD	MD	Name	Size
900.00	900.00	9 5/8"	9-5/8
7290.00	7666.18	7"	7



Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well GOBBLER 37N-E22HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	5053'GL + 17' RKB @ 5070.01ft
Project:	COLORADO NORTHERN CWP - 83	MD Reference:	5053'GL + 17' RKB @ 5070.01ft
Site:	Phase 1 Pad 3	North Reference:	True
Well:	GOBBLER 37N-E22HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	GOBBLER 37N-E22HZ		
Design:	GOBBLER 37N-E22HZ (wp02)		

Project	COLORADO NORTHERN CWP - 83		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site	Phase 1 Pad 3				
Site Position:		Northing:	1,290,993.56 usft	Latitude:	40.129807
From:	Lat/Long	Easting:	3,206,643.20 usft	Longitude:	-104.760978
Position Uncertainty:	0.00 ft	Slot Radius:	0 "	Grid Convergence:	0.48 °

Well	GOBBLER 37N-E22HZ, Phase 1 Pad 3					
Well Position	+N/-S	-0.01 ft	Northing:	1,290,993.55 usft	Latitude:	40.129807
	+E/-W	0.00 ft	Easting:	3,206,643.20 usft	Longitude:	-104.760978
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,053.01 ft

Wellbore	GOBBLER 37N-E22HZ				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	9/16/2011	8.76	66.83	52,984

Design	GOBBLER 37N-E22HZ (wp02)			
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	174.10

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	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	
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,016.78	10.34	49.04	4,013.98	30.47	35.11	2.00	2.00	0.00	49.04	
6,701.43	10.34	49.04	6,655.08	346.18	398.87	0.00	0.00	0.00	0.00	
7,666.18	89.67	180.34	7,290.00	-220.00	482.00	10.00	8.22	13.61	130.88	
7,669.08	89.66	180.37	7,290.02	-222.90	481.98	1.00	-0.49	0.87	119.34	
11,854.11	89.66	180.37	7,315.01	-4,407.77	455.30	0.00	0.00	0.00	0.00	GOBBLER 37N-E22H

Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well GOBBLER 37N-E22HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	5053'GL + 17' RKB @ 5070.01ft
Project:	COLORADO NORTHERN CWP - 83	MD Reference:	5053'GL + 17' RKB @ 5070.01ft
Site:	Phase 1 Pad 3	North Reference:	True
Well:	GOBBLER 37N-E22HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	GOBBLER 37N-E22HZ		
Design:	GOBBLER 37N-E22HZ (wp02)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	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
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
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
9 5/8"									
1,000.00	0.00	0.00	1,000.00	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
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2.00									
3,600.00	2.00	49.04	3,599.98	1.14	1.32	-1.00	2.00	2.00	0.00
3,700.00	4.00	49.04	3,699.84	4.57	5.27	-4.01	2.00	2.00	0.00
3,800.00	6.00	49.04	3,799.45	10.29	11.85	-9.01	2.00	2.00	0.00
3,900.00	8.00	49.04	3,898.70	18.27	21.06	-16.01	2.00	2.00	0.00
4,000.00	10.00	49.04	3,997.47	28.53	32.87	-25.00	2.00	2.00	0.00
4,016.78	10.34	49.04	4,013.98	30.47	35.11	-26.70	2.00	2.00	0.00
Start 2684.66 hold at 4016.78 MD									
4,100.00	10.34	49.04	4,095.85	40.26	46.38	-35.28	0.00	0.00	0.00
4,200.00	10.34	49.04	4,194.23	52.02	59.93	-45.58	0.00	0.00	0.00
4,255.67	10.34	49.04	4,249.00	58.56	67.48	-51.32	0.00	0.00	0.00
PARKMAN									
4,300.00	10.34	49.04	4,292.61	63.78	73.48	-55.89	0.00	0.00	0.00
4,400.00	10.34	49.04	4,390.98	75.54	87.03	-66.19	0.00	0.00	0.00
4,500.00	10.34	49.04	4,489.36	87.30	100.58	-76.50	0.00	0.00	0.00
4,600.00	10.34	49.04	4,587.74	99.06	114.13	-86.80	0.00	0.00	0.00
4,700.00	10.34	49.04	4,686.12	110.82	127.68	-97.11	0.00	0.00	0.00

Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well GOBBLER 37N-E22HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	5053'GL + 17' RKB @ 5070.01ft
Project:	COLORADO NORTHERN CWP - 83	MD Reference:	5053'GL + 17' RKB @ 5070.01ft
Site:	Phase 1 Pad 3	North Reference:	True
Well:	GOBBLER 37N-E22HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	GOBBLER 37N-E22HZ		
Design:	GOBBLER 37N-E22HZ (wp02)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,762.90	10.34	49.04	4,748.00	118.21	136.20	-103.59	0.00	0.00	0.00
SUSSEX									
4,800.00	10.34	49.04	4,784.49	122.58	141.23	-107.42	0.00	0.00	0.00
4,900.00	10.34	49.04	4,882.87	134.33	154.78	-117.72	0.00	0.00	0.00
5,000.00	10.34	49.04	4,981.25	146.09	168.33	-128.03	0.00	0.00	0.00
5,100.00	10.34	49.04	5,079.63	157.85	181.88	-138.33	0.00	0.00	0.00
5,200.00	10.34	49.04	5,178.00	169.61	195.43	-148.64	0.00	0.00	0.00
5,300.00	10.34	49.04	5,276.38	181.37	208.98	-158.94	0.00	0.00	0.00
5,400.00	10.34	49.04	5,374.76	193.13	222.53	-169.25	0.00	0.00	0.00
5,500.00	10.34	49.04	5,473.14	204.89	236.08	-179.55	0.00	0.00	0.00
5,600.00	10.34	49.04	5,571.51	216.65	249.63	-189.86	0.00	0.00	0.00
5,700.00	10.34	49.04	5,669.89	228.41	263.18	-200.16	0.00	0.00	0.00
5,800.00	10.34	49.04	5,768.27	240.17	276.72	-210.47	0.00	0.00	0.00
5,900.00	10.34	49.04	5,866.64	251.93	290.27	-220.78	0.00	0.00	0.00
6,000.00	10.34	49.04	5,965.02	263.69	303.82	-231.08	0.00	0.00	0.00
6,100.00	10.34	49.04	6,063.40	275.45	317.37	-241.39	0.00	0.00	0.00
6,200.00	10.34	49.04	6,161.78	287.21	330.92	-251.69	0.00	0.00	0.00
6,300.00	10.34	49.04	6,260.15	298.97	344.47	-262.00	0.00	0.00	0.00
6,400.00	10.34	49.04	6,358.53	310.73	358.02	-272.30	0.00	0.00	0.00
6,500.00	10.34	49.04	6,456.91	322.49	371.57	-282.61	0.00	0.00	0.00
6,600.00	10.34	49.04	6,555.29	334.25	385.12	-292.91	0.00	0.00	0.00
6,700.00	10.34	49.04	6,653.66	346.01	398.67	-303.22	0.00	0.00	0.00
6,701.43	10.34	49.04	6,655.08	346.18	398.87	-303.37	0.00	0.00	0.00
Start DLS 10.00 TFO 130.88									
6,800.00	8.37	111.83	6,752.56	349.32	412.23	-305.11	10.00	-2.00	63.70
6,900.00	15.17	150.05	6,850.53	335.24	425.55	-289.74	10.00	6.80	38.21
7,000.00	24.27	162.70	6,944.61	304.21	438.23	-257.57	10.00	9.10	12.66
7,100.00	33.86	168.61	7,031.94	257.16	449.87	-209.58	10.00	9.59	5.91
7,200.00	43.61	172.12	7,109.86	195.54	460.13	-147.22	10.00	9.76	3.51
7,300.00	53.45	174.56	7,176.00	121.20	468.68	-72.40	10.00	9.83	2.44
7,367.57	60.12	175.87	7,213.00	64.90	473.37	-15.92	10.00	9.87	1.94
SHARON SPRINGS									
7,390.44	62.37	176.28	7,224.00	44.90	474.74	4.12	10.00	9.88	1.77
NIOBARARA A									
7,400.00	63.32	176.44	7,228.37	36.41	475.28	12.62	10.00	9.88	1.71
7,482.36	71.47	177.75	7,260.00	-39.46	479.11	88.48	10.00	9.89	1.60
NIOBARARA B									
7,500.00	73.21	178.02	7,265.35	-56.26	479.72	105.25	10.00	9.90	1.49
7,508.78	74.08	178.15	7,267.82	-64.68	480.01	113.65	10.00	9.90	1.47
GOBBLER 37N-E22HZ HEEL									
7,600.00	83.11	179.44	7,285.84	-153.98	481.87	202.68	10.00	9.90	1.42
7,666.18	89.67	180.34	7,290.00	-220.00	482.00	268.36	10.00	9.91	1.36
Start DLS 1.00 TFO 119.34 - 7"									
7,669.08	89.66	180.37	7,290.02	-222.90	481.98	271.24	0.99	-0.47	0.87
Start 4185.03 hold at 7669.08 MD									
7,700.00	89.66	180.37	7,290.20	-253.81	481.79	301.97	0.00	0.00	0.00
7,800.00	89.66	180.37	7,290.80	-353.81	481.15	401.38	0.00	0.00	0.00
7,900.00	89.66	180.37	7,291.40	-453.81	480.51	500.78	0.00	0.00	0.00
8,000.00	89.66	180.37	7,291.99	-553.80	479.87	600.18	0.00	0.00	0.00
8,100.00	89.66	180.37	7,292.59	-653.80	479.24	699.58	0.00	0.00	0.00
8,200.00	89.66	180.37	7,293.19	-753.79	478.60	798.98	0.00	0.00	0.00
8,300.00	89.66	180.37	7,293.79	-853.79	477.96	898.38	0.00	0.00	0.00
8,400.00	89.66	180.37	7,294.38	-953.79	477.32	997.78	0.00	0.00	0.00

Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well GOBBLER 37N-E22HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	5053'GL + 17' RKB @ 5070.01ft
Project:	COLORADO NORTHERN CWP - 83	MD Reference:	5053'GL + 17' RKB @ 5070.01ft
Site:	Phase 1 Pad 3	North Reference:	True
Well:	GOBBLER 37N-E22HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	GOBBLER 37N-E22HZ		
Design:	GOBBLER 37N-E22HZ (wp02)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,500.00	89.66	180.37	7,294.98	-1,053.78	476.69	1,097.19	0.00	0.00	0.00
8,600.00	89.66	180.37	7,295.58	-1,153.78	476.05	1,196.59	0.00	0.00	0.00
8,700.00	89.66	180.37	7,296.17	-1,253.78	475.41	1,295.99	0.00	0.00	0.00
8,800.00	89.66	180.37	7,296.77	-1,353.77	474.77	1,395.39	0.00	0.00	0.00
8,900.00	89.66	180.37	7,297.37	-1,453.77	474.14	1,494.79	0.00	0.00	0.00
9,000.00	89.66	180.37	7,297.97	-1,553.76	473.50	1,594.19	0.00	0.00	0.00
9,100.00	89.66	180.37	7,298.56	-1,653.76	472.86	1,693.59	0.00	0.00	0.00
9,200.00	89.66	180.37	7,299.16	-1,753.76	472.22	1,793.00	0.00	0.00	0.00
9,300.00	89.66	180.37	7,299.76	-1,853.75	471.59	1,892.40	0.00	0.00	0.00
9,400.00	89.66	180.37	7,300.36	-1,953.75	470.95	1,991.80	0.00	0.00	0.00
9,500.00	89.66	180.37	7,300.95	-2,053.75	470.31	2,091.20	0.00	0.00	0.00
9,600.00	89.66	180.37	7,301.55	-2,153.74	469.67	2,190.60	0.00	0.00	0.00
9,700.00	89.66	180.37	7,302.15	-2,253.74	469.04	2,290.00	0.00	0.00	0.00
9,800.00	89.66	180.37	7,302.75	-2,353.73	468.40	2,389.40	0.00	0.00	0.00
9,900.00	89.66	180.37	7,303.34	-2,453.73	467.76	2,488.81	0.00	0.00	0.00
10,000.00	89.66	180.37	7,303.94	-2,553.73	467.12	2,588.21	0.00	0.00	0.00
10,100.00	89.66	180.37	7,304.54	-2,653.72	466.49	2,687.61	0.00	0.00	0.00
10,200.00	89.66	180.37	7,305.13	-2,753.72	465.85	2,787.01	0.00	0.00	0.00
10,300.00	89.66	180.37	7,305.73	-2,853.71	465.21	2,886.41	0.00	0.00	0.00
10,400.00	89.66	180.37	7,306.33	-2,953.71	464.57	2,985.81	0.00	0.00	0.00
10,500.00	89.66	180.37	7,306.93	-3,053.71	463.94	3,085.21	0.00	0.00	0.00
10,600.00	89.66	180.37	7,307.52	-3,153.70	463.30	3,184.62	0.00	0.00	0.00
10,700.00	89.66	180.37	7,308.12	-3,253.70	462.66	3,284.02	0.00	0.00	0.00
10,800.00	89.66	180.37	7,308.72	-3,353.70	462.02	3,383.42	0.00	0.00	0.00
10,900.00	89.66	180.37	7,309.32	-3,453.69	461.39	3,482.82	0.00	0.00	0.00
11,000.00	89.66	180.37	7,309.91	-3,553.69	460.75	3,582.22	0.00	0.00	0.00
11,100.00	89.66	180.37	7,310.51	-3,653.68	460.11	3,681.62	0.00	0.00	0.00
11,200.00	89.66	180.37	7,311.11	-3,753.68	459.47	3,781.02	0.00	0.00	0.00
11,300.00	89.66	180.37	7,311.71	-3,853.68	458.84	3,880.43	0.00	0.00	0.00
11,400.00	89.66	180.37	7,312.30	-3,953.67	458.20	3,979.83	0.00	0.00	0.00
11,500.00	89.66	180.37	7,312.90	-4,053.67	457.56	4,079.23	0.00	0.00	0.00
11,600.00	89.66	180.37	7,313.50	-4,153.67	456.92	4,178.63	0.00	0.00	0.00
11,700.00	89.66	180.37	7,314.09	-4,253.66	456.29	4,278.03	0.00	0.00	0.00
11,800.00	89.66	180.37	7,314.69	-4,353.66	455.65	4,377.43	0.00	0.00	0.00
11,854.11	89.66	180.37	7,315.01	-4,407.77	455.30	4,431.22	0.00	0.00	0.00
TD at 11854.11 - GOBBLER 37N-E22HZ bhl									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
GOBBLER 37N-E22HZ I	0.00	0.00	7,315.01	-4,407.77	455.30	1,286,589.74	3,207,135.22	40.117707	-104.759350
- hit/miss target									
- Shape									
- plan hits target center									
- Point									

Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well GOBBLER 37N-E22HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	5053'GL + 17' RKB @ 5070.01ft
Project:	COLORADO NORTHERN CWP - 83	MD Reference:	5053'GL + 17' RKB @ 5070.01ft
Site:	Phase 1 Pad 3	North Reference:	True
Well:	GOBBLER 37N-E22HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	GOBBLER 37N-E22HZ		
Design:	GOBBLER 37N-E22HZ (wp02)		

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
900.00	900.00	9 5/8"	9-5/8	12-1/4	
7,666.18	7,290.00	7"	7	8-3/4	

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,255.67	4,249.00	PARKMAN		0.00	
4,762.90	4,748.00	SUSSEX		0.00	
7,367.57	7,213.00	SHARON SPRINGS		0.00	
7,390.44	7,224.00	NIOBARARA A		0.00	
7,482.36	7,260.00	NIOBRARA B		0.00	

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
3,500.00	3,500.00	0.00	0.00	Start Build 2.00	
4,016.78	4,013.98	30.47	35.11	Start 2684.66 hold at 4016.78 MD	
6,701.43	6,655.08	346.18	398.87	Start DLS 10.00 TFO 130.88	
7,666.18	7,290.00	-220.00	482.00	Start DLS 1.00 TFO 119.34	
7,669.08	7,290.02	-222.90	481.98	Start 4185.03 hold at 7669.08 MD	
11,854.11	7,315.01	-4,407.77	455.30	TD at 11854.11	