

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
-9.12	89.44	1608146.94	3246422.54	40.999313	-104.607305

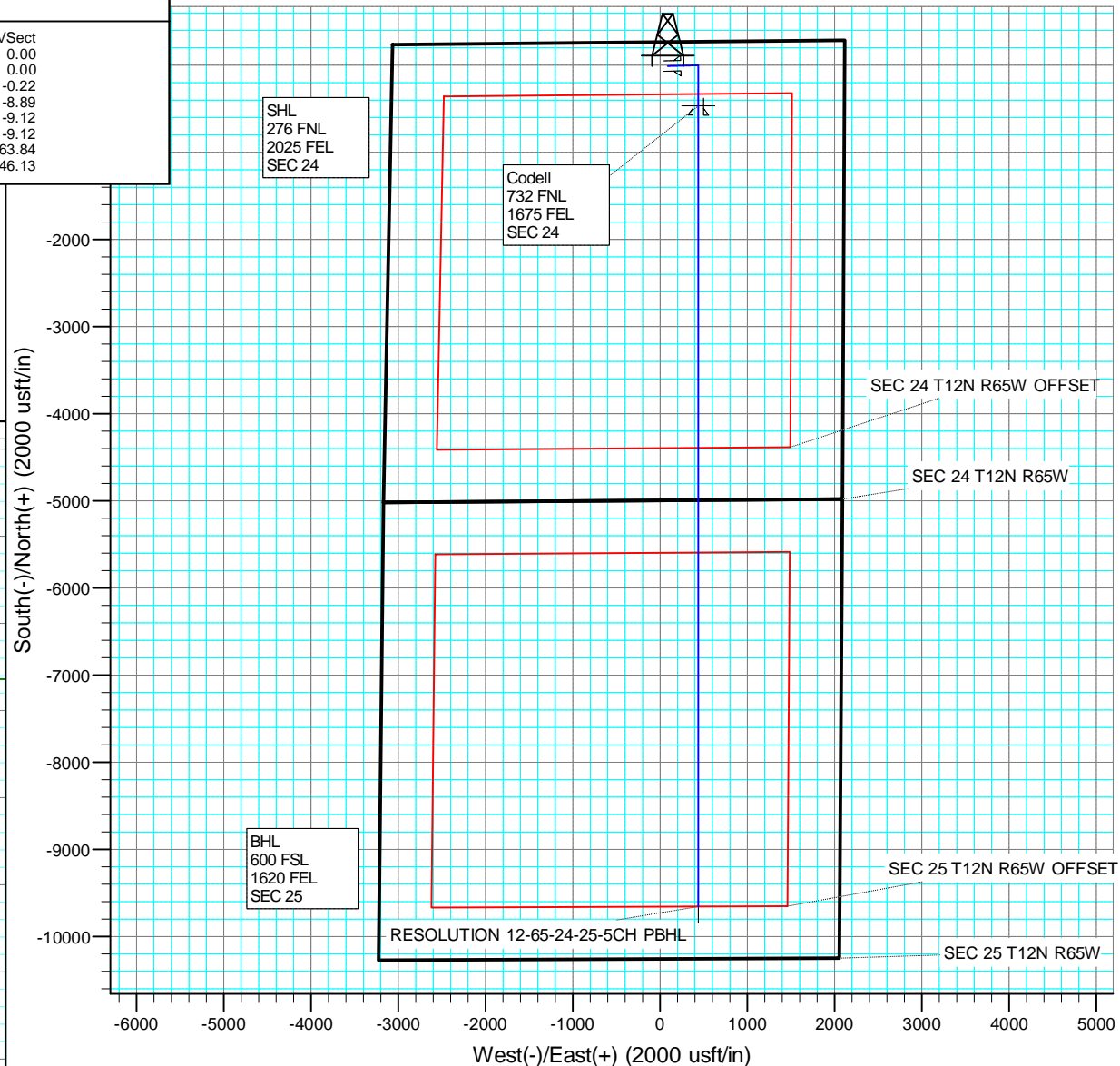
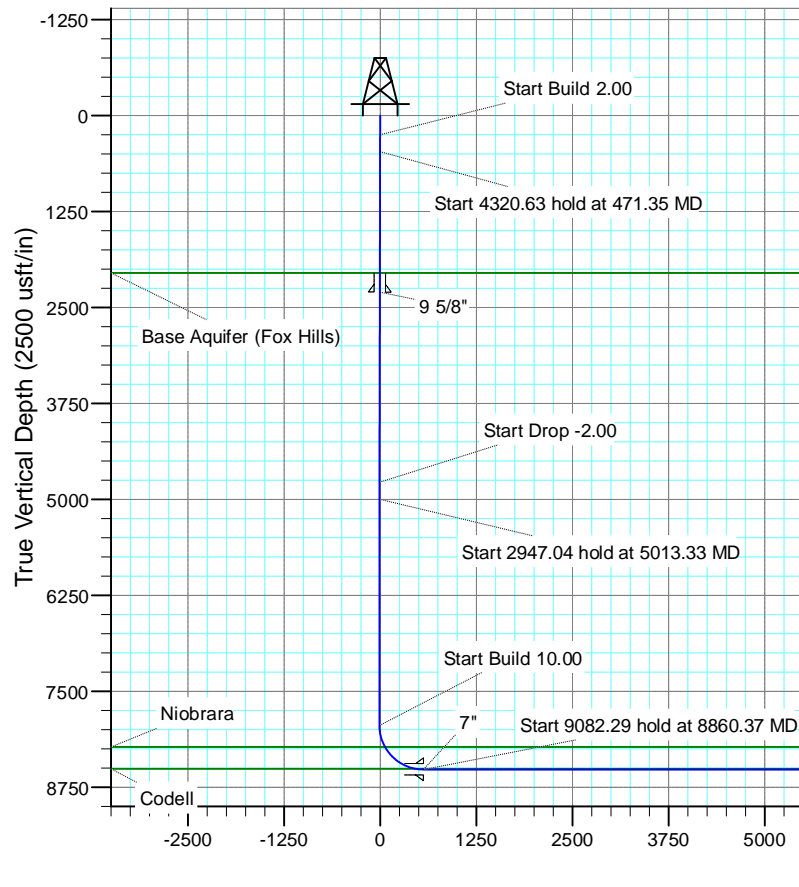
WELL @ 5873.00usft (Original Well Elev)

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
0.00	0.00	0.00	0.00	-9.12	89.44	0.00	0.00	0.00
250.00	0.00	0.00	250.00	-9.12	89.44	0.00	0.00	0.00
471.35	4.43	88.51	471.13	-8.89	97.98	2.00	88.51	-0.22
4791.98	4.43	88.51	4778.87	-0.22	431.37	0.00	0.00	-8.89
5013.33	0.00	0.00	5000.00	0.00	439.92	2.00	180.00	-9.12
7960.37	0.00	0.00	7947.04	0.00	439.92	0.00	0.00	-9.12
8860.37	90.00	180.00	8520.00	-572.96	439.92	10.00	180.00	563.84
17942.66	90.00	180.00	8520.00	-9655.24	439.92	0.00	0.00	9646.13

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
2052.00	2056.95	Base Aquifer (Fox Hills)
8225.00	8250.58	Niobrara
8510.00	8753.17	Codell



Vertical Section at 180.00° (2500 usft/in)

US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

RESOLUTION FED 12-65-24-25-5CH PAD

RESOLUTION FED 12-65-24-25-5CH

Wellbore #1

Plan: PLAN #1

Standard Planning Report

14 January, 2015

Anadarko

Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Site RESOLUTION FED 12-65-24-25-5CH PAD
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 5873.00usft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 5873.00usft (Original Well Elev)
Site:	RESOLUTION FED 12-65-24-25-5CH PAD	North Reference:	True
Well:	RESOLUTION FED 12-65-24-25-5CH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PLAN #1		

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

Site		RESOLUTION FED 12-65-24-25-5CH PAD			
Site Position:		Northing:	1,608,155.16 usft	Latitude:	40.999338
From:	Lat/Long	Easting:	3,246,333.01 usft	Longitude:	-104.607629
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.58 °

Well		RESOLUTION FED 12-65-24-25-5CH				
Well Position	+N/-S	-9.12 usft	Northing:	1,608,146.94 usft	Latitude:	40.999313
	+E/-W	89.44 usft	Easting:	3,246,422.54 usft	Longitude:	-104.607305
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	5,847.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/31/2009	8.99	67.62	53,624

Design	PLAN #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	-9.12	89.44	180.00

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	-9.12	89.44	0.00	0.00	0.00	0.00	
250.00	0.00	0.00	250.00	-9.12	89.44	0.00	0.00	0.00	0.00	
471.35	4.43	88.51	471.13	-8.89	97.98	2.00	2.00	0.00	88.51	
4,791.98	4.43	88.51	4,778.87	-0.22	431.37	0.00	0.00	0.00	0.00	
5,013.33	0.00	0.00	5,000.00	0.00	439.92	2.00	-2.00	0.00	180.00	
7,960.37	0.00	0.00	7,947.04	0.00	439.92	0.00	0.00	0.00	0.00	
8,860.37	90.00	180.00	8,520.00	-572.96	439.92	10.00	10.00	0.00	180.00	
17,942.66	90.00	180.00	8,520.00	-9,655.25	439.92	0.00	0.00	0.00	0.00	RESOLUTION 12-65-

Anadarko

Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Site RESOLUTION FED 12-65-24-25-5CH PAD
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 5873.00usft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 5873.00usft (Original Well Elev)
Site:	RESOLUTION FED 12-65-24-25-5CH PAD	North Reference:	True
Well:	RESOLUTION FED 12-65-24-25-5CH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PLAN #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	-9.12	89.44	0.00	0.00	0.00	0.00	
100.00	0.00	0.00	100.00	-9.12	89.44	0.00	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	-9.12	89.44	0.00	0.00	0.00	0.00	
250.00	0.00	0.00	250.00	-9.12	89.44	0.00	0.00	0.00	0.00	
Start Build 2.00										
300.00	1.00	88.51	300.00	-9.11	89.88	-0.01	2.00	2.00	0.00	
400.00	3.00	88.51	399.93	-9.01	93.36	-0.10	2.00	2.00	0.00	
471.35	4.43	88.51	471.13	-8.89	97.98	-0.22	2.00	2.00	0.00	
Start 4320.63 hold at 471.35 MD										
500.00	4.43	88.51	499.69	-8.84	100.19	-0.28	0.00	0.00	0.00	
600.00	4.43	88.51	599.40	-8.64	107.91	-0.48	0.00	0.00	0.00	
700.00	4.43	88.51	699.10	-8.44	115.63	-0.68	0.00	0.00	0.00	
800.00	4.43	88.51	798.80	-8.23	123.34	-0.88	0.00	0.00	0.00	
900.00	4.43	88.51	898.50	-8.03	131.06	-1.08	0.00	0.00	0.00	
1,000.00	4.43	88.51	998.20	-7.83	138.78	-1.28	0.00	0.00	0.00	
1,100.00	4.43	88.51	1,097.90	-7.63	146.49	-1.48	0.00	0.00	0.00	
1,200.00	4.43	88.51	1,197.61	-7.43	154.21	-1.68	0.00	0.00	0.00	
1,300.00	4.43	88.51	1,297.31	-7.23	161.92	-1.89	0.00	0.00	0.00	
1,400.00	4.43	88.51	1,397.01	-7.03	169.64	-2.09	0.00	0.00	0.00	
1,500.00	4.43	88.51	1,496.71	-6.83	177.36	-2.29	0.00	0.00	0.00	
1,600.00	4.43	88.51	1,596.41	-6.63	185.07	-2.49	0.00	0.00	0.00	
1,700.00	4.43	88.51	1,696.11	-6.43	192.79	-2.69	0.00	0.00	0.00	
1,800.00	4.43	88.51	1,795.82	-6.23	200.51	-2.89	0.00	0.00	0.00	
1,900.00	4.43	88.51	1,895.52	-6.03	208.22	-3.09	0.00	0.00	0.00	
2,000.00	4.43	88.51	1,995.22	-5.83	215.94	-3.29	0.00	0.00	0.00	
2,056.95	4.43	88.51	2,052.00	-5.71	220.33	-3.40	0.00	0.00	0.00	
Base Aquifer (Fox Hills)										
2,100.00	4.43	88.51	2,094.92	-5.63	223.65	-3.49	0.00	0.00	0.00	
2,200.00	4.43	88.51	2,194.62	-5.42	231.37	-3.69	0.00	0.00	0.00	
2,300.00	4.43	88.51	2,294.32	-5.22	239.09	-3.89	0.00	0.00	0.00	
2,305.69	4.43	88.51	2,300.00	-5.21	239.53	-3.90	0.00	0.00	0.00	
9 5/8"										
2,400.00	4.43	88.51	2,394.03	-5.02	246.80	-4.09	0.00	0.00	0.00	
2,500.00	4.43	88.51	2,493.73	-4.82	254.52	-4.29	0.00	0.00	0.00	
2,600.00	4.43	88.51	2,593.43	-4.62	262.24	-4.49	0.00	0.00	0.00	
2,700.00	4.43	88.51	2,693.13	-4.42	269.95	-4.70	0.00	0.00	0.00	
2,800.00	4.43	88.51	2,792.83	-4.22	277.67	-4.90	0.00	0.00	0.00	
2,900.00	4.43	88.51	2,892.53	-4.02	285.38	-5.10	0.00	0.00	0.00	
3,000.00	4.43	88.51	2,992.24	-3.82	293.10	-5.30	0.00	0.00	0.00	
3,100.00	4.43	88.51	3,091.94	-3.62	300.82	-5.50	0.00	0.00	0.00	
3,200.00	4.43	88.51	3,191.64	-3.42	308.53	-5.70	0.00	0.00	0.00	
3,300.00	4.43	88.51	3,291.34	-3.22	316.25	-5.90	0.00	0.00	0.00	
3,400.00	4.43	88.51	3,391.04	-3.02	323.97	-6.10	0.00	0.00	0.00	
3,500.00	4.43	88.51	3,490.74	-2.82	331.68	-6.30	0.00	0.00	0.00	
3,600.00	4.43	88.51	3,590.45	-2.61	339.40	-6.50	0.00	0.00	0.00	
3,700.00	4.43	88.51	3,690.15	-2.41	347.11	-6.70	0.00	0.00	0.00	
3,800.00	4.43	88.51	3,789.85	-2.21	354.83	-6.90	0.00	0.00	0.00	
3,900.00	4.43	88.51	3,889.55	-2.01	362.55	-7.10	0.00	0.00	0.00	
4,000.00	4.43	88.51	3,989.25	-1.81	370.26	-7.30	0.00	0.00	0.00	
4,100.00	4.43	88.51	4,088.95	-1.61	377.98	-7.51	0.00	0.00	0.00	
4,200.00	4.43	88.51	4,188.66	-1.41	385.69	-7.71	0.00	0.00	0.00	
4,300.00	4.43	88.51	4,288.36	-1.21	393.41	-7.91	0.00	0.00	0.00	
4,400.00	4.43	88.51	4,388.06	-1.01	401.13	-8.11	0.00	0.00	0.00	

Anadarko

Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Site RESOLUTION FED 12-65-24-25-5CH PAD
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 5873.00usft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 5873.00usft (Original Well Elev)
Site:	RESOLUTION FED 12-65-24-25-5CH PAD	North Reference:	True
Well:	RESOLUTION FED 12-65-24-25-5CH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PLAN #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)
4,500.00	4.43	88.51	4,487.76	-0.81	408.84	-8.31	0.00	0.00	0.00
4,600.00	4.43	88.51	4,587.46	-0.61	416.56	-8.51	0.00	0.00	0.00
4,700.00	4.43	88.51	4,687.16	-0.41	424.28	-8.71	0.00	0.00	0.00
4,791.98	4.43	88.51	4,778.87	-0.22	431.37	-8.89	0.00	0.00	0.00
Start Drop -2.00									
4,800.00	4.27	88.51	4,786.87	-0.21	431.98	-8.91	2.00	-2.00	0.00
4,900.00	2.27	88.51	4,886.70	-0.06	437.68	-9.06	2.00	-2.00	0.00
5,000.00	0.27	88.51	4,986.67	0.00	439.89	-9.12	2.00	-2.00	0.00
5,013.33	0.00	0.00	5,000.00	0.00	439.92	-9.12	2.00	-2.00	0.00
Start 2947.04 hold at 5013.33 MD									
5,100.00	0.00	0.00	5,086.67	0.00	439.92	-9.12	0.00	0.00	0.00
5,200.00	0.00	0.00	5,186.67	0.00	439.92	-9.12	0.00	0.00	0.00
5,300.00	0.00	0.00	5,286.67	0.00	439.92	-9.12	0.00	0.00	0.00
5,400.00	0.00	0.00	5,386.67	0.00	439.92	-9.12	0.00	0.00	0.00
5,500.00	0.00	0.00	5,486.67	0.00	439.92	-9.12	0.00	0.00	0.00
5,600.00	0.00	0.00	5,586.67	0.00	439.92	-9.12	0.00	0.00	0.00
5,700.00	0.00	0.00	5,686.67	0.00	439.92	-9.12	0.00	0.00	0.00
5,800.00	0.00	0.00	5,786.67	0.00	439.92	-9.12	0.00	0.00	0.00
5,900.00	0.00	0.00	5,886.67	0.00	439.92	-9.12	0.00	0.00	0.00
6,000.00	0.00	0.00	5,986.67	0.00	439.92	-9.12	0.00	0.00	0.00
6,100.00	0.00	0.00	6,086.67	0.00	439.92	-9.12	0.00	0.00	0.00
6,200.00	0.00	0.00	6,186.67	0.00	439.92	-9.12	0.00	0.00	0.00
6,300.00	0.00	0.00	6,286.67	0.00	439.92	-9.12	0.00	0.00	0.00
6,400.00	0.00	0.00	6,386.67	0.00	439.92	-9.12	0.00	0.00	0.00
6,500.00	0.00	0.00	6,486.67	0.00	439.92	-9.12	0.00	0.00	0.00
6,600.00	0.00	0.00	6,586.67	0.00	439.92	-9.12	0.00	0.00	0.00
6,700.00	0.00	0.00	6,686.67	0.00	439.92	-9.12	0.00	0.00	0.00
6,800.00	0.00	0.00	6,786.67	0.00	439.92	-9.12	0.00	0.00	0.00
6,900.00	0.00	0.00	6,886.67	0.00	439.92	-9.12	0.00	0.00	0.00
7,000.00	0.00	0.00	6,986.67	0.00	439.92	-9.12	0.00	0.00	0.00
7,100.00	0.00	0.00	7,086.67	0.00	439.92	-9.12	0.00	0.00	0.00
7,200.00	0.00	0.00	7,186.67	0.00	439.92	-9.12	0.00	0.00	0.00
7,300.00	0.00	0.00	7,286.67	0.00	439.92	-9.12	0.00	0.00	0.00
7,400.00	0.00	0.00	7,386.67	0.00	439.92	-9.12	0.00	0.00	0.00
7,500.00	0.00	0.00	7,486.67	0.00	439.92	-9.12	0.00	0.00	0.00
7,600.00	0.00	0.00	7,586.67	0.00	439.92	-9.12	0.00	0.00	0.00
7,700.00	0.00	0.00	7,686.67	0.00	439.92	-9.12	0.00	0.00	0.00
7,800.00	0.00	0.00	7,786.67	0.00	439.92	-9.12	0.00	0.00	0.00
7,900.00	0.00	0.00	7,886.67	0.00	439.92	-9.12	0.00	0.00	0.00
7,960.37	0.00	0.00	7,947.04	0.00	439.92	-9.12	0.00	0.00	0.00
Start Build 10.00									
8,000.00	3.96	180.00	7,986.64	-1.37	439.92	-7.75	10.00	10.00	0.00
8,100.00	13.96	180.00	8,085.29	-16.93	439.92	7.81	10.00	10.00	0.00
8,200.00	23.96	180.00	8,179.74	-49.38	439.92	40.27	10.00	10.00	0.00
8,250.58	29.02	180.00	8,225.00	-71.94	439.92	62.82	10.00	10.00	0.00
Niobrara									
8,300.00	33.96	180.00	8,267.13	-97.75	439.92	88.63	10.00	10.00	0.00
8,400.00	43.96	180.00	8,344.78	-160.55	439.92	151.43	10.00	10.00	0.00
8,500.00	53.96	180.00	8,410.36	-235.88	439.92	226.76	10.00	10.00	0.00
8,600.00	63.96	180.00	8,461.85	-321.45	439.92	312.34	10.00	10.00	0.00
8,700.00	73.96	180.00	8,497.70	-414.67	439.92	405.55	10.00	10.00	0.00
8,753.17	79.28	180.00	8,510.00	-466.38	439.92	457.26	10.00	10.00	0.00

Anadarko

Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Site RESOLUTION FED 12-65-24-25-5CH PAD
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 5873.00usft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 5873.00usft (Original Well Elev)
Site:	RESOLUTION FED 12-65-24-25-5CH PAD	North Reference:	True
Well:	RESOLUTION FED 12-65-24-25-5CH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PLAN #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)
Codell									
8,800.00	83.96	180.00	8,516.82	-512.70	439.92	503.58	10.00	10.00	0.00
8,860.37	90.00	180.00	8,520.00	-572.95	439.92	563.84	10.00	10.00	0.00
Start 9082.29 hold at 8860.37 MD - 7"									
8,900.00	90.00	180.00	8,520.00	-612.58	439.92	603.47	0.00	0.00	0.00
9,000.00	90.00	180.00	8,520.00	-712.58	439.92	703.47	0.00	0.00	0.00
9,100.00	90.00	180.00	8,520.00	-812.58	439.92	803.47	0.00	0.00	0.00
9,200.00	90.00	180.00	8,520.00	-912.58	439.92	903.47	0.00	0.00	0.00
9,300.00	90.00	180.00	8,520.00	-1,012.58	439.92	1,003.47	0.00	0.00	0.00
9,400.00	90.00	180.00	8,520.00	-1,112.58	439.92	1,103.47	0.00	0.00	0.00
9,500.00	90.00	180.00	8,520.00	-1,212.58	439.92	1,203.47	0.00	0.00	0.00
9,600.00	90.00	180.00	8,520.00	-1,312.58	439.92	1,303.47	0.00	0.00	0.00
9,700.00	90.00	180.00	8,520.00	-1,412.58	439.92	1,403.47	0.00	0.00	0.00
9,800.00	90.00	180.00	8,520.00	-1,512.58	439.92	1,503.47	0.00	0.00	0.00
9,900.00	90.00	180.00	8,520.00	-1,612.58	439.92	1,603.47	0.00	0.00	0.00
10,000.00	90.00	180.00	8,520.00	-1,712.58	439.92	1,703.47	0.00	0.00	0.00
10,100.00	90.00	180.00	8,520.00	-1,812.58	439.92	1,803.47	0.00	0.00	0.00
10,200.00	90.00	180.00	8,520.00	-1,912.58	439.92	1,903.47	0.00	0.00	0.00
10,300.00	90.00	180.00	8,520.00	-2,012.58	439.92	2,003.47	0.00	0.00	0.00
10,400.00	90.00	180.00	8,520.00	-2,112.58	439.92	2,103.47	0.00	0.00	0.00
10,500.00	90.00	180.00	8,520.00	-2,212.58	439.92	2,203.47	0.00	0.00	0.00
10,600.00	90.00	180.00	8,520.00	-2,312.58	439.92	2,303.47	0.00	0.00	0.00
10,700.00	90.00	180.00	8,520.00	-2,412.58	439.92	2,403.47	0.00	0.00	0.00
10,800.00	90.00	180.00	8,520.00	-2,512.58	439.92	2,503.47	0.00	0.00	0.00
10,900.00	90.00	180.00	8,520.00	-2,612.58	439.92	2,603.47	0.00	0.00	0.00
11,000.00	90.00	180.00	8,520.00	-2,712.58	439.92	2,703.47	0.00	0.00	0.00
11,100.00	90.00	180.00	8,520.00	-2,812.58	439.92	2,803.47	0.00	0.00	0.00
11,200.00	90.00	180.00	8,520.00	-2,912.58	439.92	2,903.47	0.00	0.00	0.00
11,300.00	90.00	180.00	8,520.00	-3,012.58	439.92	3,003.47	0.00	0.00	0.00
11,400.00	90.00	180.00	8,520.00	-3,112.58	439.92	3,103.47	0.00	0.00	0.00
11,500.00	90.00	180.00	8,520.00	-3,212.58	439.92	3,203.47	0.00	0.00	0.00
11,600.00	90.00	180.00	8,520.00	-3,312.58	439.92	3,303.47	0.00	0.00	0.00
11,700.00	90.00	180.00	8,520.00	-3,412.58	439.92	3,403.47	0.00	0.00	0.00
11,800.00	90.00	180.00	8,520.00	-3,512.58	439.92	3,503.47	0.00	0.00	0.00
11,900.00	90.00	180.00	8,520.00	-3,612.58	439.92	3,603.47	0.00	0.00	0.00
12,000.00	90.00	180.00	8,520.00	-3,712.58	439.92	3,703.47	0.00	0.00	0.00
12,100.00	90.00	180.00	8,520.00	-3,812.58	439.92	3,803.47	0.00	0.00	0.00
12,200.00	90.00	180.00	8,520.00	-3,912.58	439.92	3,903.47	0.00	0.00	0.00
12,300.00	90.00	180.00	8,520.00	-4,012.58	439.92	4,003.47	0.00	0.00	0.00
12,400.00	90.00	180.00	8,520.00	-4,112.58	439.92	4,103.47	0.00	0.00	0.00
12,500.00	90.00	180.00	8,520.00	-4,212.58	439.92	4,203.47	0.00	0.00	0.00
12,600.00	90.00	180.00	8,520.00	-4,312.58	439.92	4,303.47	0.00	0.00	0.00
12,700.00	90.00	180.00	8,520.00	-4,412.58	439.92	4,403.47	0.00	0.00	0.00
12,800.00	90.00	180.00	8,520.00	-4,512.58	439.92	4,503.47	0.00	0.00	0.00
12,900.00	90.00	180.00	8,520.00	-4,612.58	439.92	4,603.47	0.00	0.00	0.00
13,000.00	90.00	180.00	8,520.00	-4,712.58	439.92	4,703.47	0.00	0.00	0.00
13,100.00	90.00	180.00	8,520.00	-4,812.58	439.92	4,803.47	0.00	0.00	0.00
13,200.00	90.00	180.00	8,520.00	-4,912.58	439.92	4,903.47	0.00	0.00	0.00
13,300.00	90.00	180.00	8,520.00	-5,012.58	439.92	5,003.47	0.00	0.00	0.00
13,400.00	90.00	180.00	8,520.00	-5,112.58	439.92	5,103.47	0.00	0.00	0.00
13,500.00	90.00	180.00	8,520.00	-5,212.58	439.92	5,203.47	0.00	0.00	0.00
13,600.00	90.00	180.00	8,520.00	-5,312.58	439.92	5,303.47	0.00	0.00	0.00
13,700.00	90.00	180.00	8,520.00	-5,412.58	439.92	5,403.47	0.00	0.00	0.00

Anadarko

Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Site RESOLUTION FED 12-65-24-25-5CH PAD
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 5873.00usft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 5873.00usft (Original Well Elev)
Site:	RESOLUTION FED 12-65-24-25-5CH PAD	North Reference:	True
Well:	RESOLUTION FED 12-65-24-25-5CH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PLAN #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	90.00	180.00	8,520.00	-5,512.58	439.92	5,503.47	0.00	0.00	0.00	
13,900.00	90.00	180.00	8,520.00	-5,612.58	439.92	5,603.47	0.00	0.00	0.00	
14,000.00	90.00	180.00	8,520.00	-5,712.58	439.92	5,703.47	0.00	0.00	0.00	
14,100.00	90.00	180.00	8,520.00	-5,812.58	439.92	5,803.47	0.00	0.00	0.00	
14,200.00	90.00	180.00	8,520.00	-5,912.58	439.92	5,903.47	0.00	0.00	0.00	
14,300.00	90.00	180.00	8,520.00	-6,012.58	439.92	6,003.47	0.00	0.00	0.00	
14,400.00	90.00	180.00	8,520.00	-6,112.58	439.92	6,103.47	0.00	0.00	0.00	
14,500.00	90.00	180.00	8,520.00	-6,212.58	439.92	6,203.47	0.00	0.00	0.00	
14,600.00	90.00	180.00	8,520.00	-6,312.58	439.92	6,303.47	0.00	0.00	0.00	
14,700.00	90.00	180.00	8,520.00	-6,412.58	439.92	6,403.47	0.00	0.00	0.00	
14,800.00	90.00	180.00	8,520.00	-6,512.58	439.92	6,503.47	0.00	0.00	0.00	
14,900.00	90.00	180.00	8,520.00	-6,612.58	439.92	6,603.47	0.00	0.00	0.00	
15,000.00	90.00	180.00	8,520.00	-6,712.58	439.92	6,703.47	0.00	0.00	0.00	
15,100.00	90.00	180.00	8,520.00	-6,812.58	439.92	6,803.47	0.00	0.00	0.00	
15,200.00	90.00	180.00	8,520.00	-6,912.58	439.92	6,903.47	0.00	0.00	0.00	
15,300.00	90.00	180.00	8,520.00	-7,012.58	439.92	7,003.47	0.00	0.00	0.00	
15,400.00	90.00	180.00	8,520.00	-7,112.58	439.92	7,103.47	0.00	0.00	0.00	
15,500.00	90.00	180.00	8,520.00	-7,212.58	439.92	7,203.47	0.00	0.00	0.00	
15,600.00	90.00	180.00	8,520.00	-7,312.58	439.92	7,303.47	0.00	0.00	0.00	
15,700.00	90.00	180.00	8,520.00	-7,412.58	439.92	7,403.47	0.00	0.00	0.00	
15,800.00	90.00	180.00	8,520.00	-7,512.58	439.92	7,503.47	0.00	0.00	0.00	
15,900.00	90.00	180.00	8,520.00	-7,612.58	439.92	7,603.47	0.00	0.00	0.00	
16,000.00	90.00	180.00	8,520.00	-7,712.58	439.92	7,703.47	0.00	0.00	0.00	
16,100.00	90.00	180.00	8,520.00	-7,812.58	439.92	7,803.47	0.00	0.00	0.00	
16,200.00	90.00	180.00	8,520.00	-7,912.58	439.92	7,903.47	0.00	0.00	0.00	
16,300.00	90.00	180.00	8,520.00	-8,012.58	439.92	8,003.47	0.00	0.00	0.00	
16,400.00	90.00	180.00	8,520.00	-8,112.58	439.92	8,103.47	0.00	0.00	0.00	
16,500.00	90.00	180.00	8,520.00	-8,212.58	439.92	8,203.47	0.00	0.00	0.00	
16,600.00	90.00	180.00	8,520.00	-8,312.58	439.92	8,303.47	0.00	0.00	0.00	
16,700.00	90.00	180.00	8,520.00	-8,412.58	439.92	8,403.47	0.00	0.00	0.00	
16,800.00	90.00	180.00	8,520.00	-8,512.58	439.92	8,503.47	0.00	0.00	0.00	
16,900.00	90.00	180.00	8,520.00	-8,612.58	439.92	8,603.47	0.00	0.00	0.00	
17,000.00	90.00	180.00	8,520.00	-8,712.58	439.92	8,703.47	0.00	0.00	0.00	
17,100.00	90.00	180.00	8,520.00	-8,812.58	439.92	8,803.47	0.00	0.00	0.00	
17,200.00	90.00	180.00	8,520.00	-8,912.58	439.92	8,903.47	0.00	0.00	0.00	
17,300.00	90.00	180.00	8,520.00	-9,012.58	439.92	9,003.47	0.00	0.00	0.00	
17,400.00	90.00	180.00	8,520.00	-9,112.58	439.92	9,103.47	0.00	0.00	0.00	
17,500.00	90.00	180.00	8,520.00	-9,212.58	439.92	9,203.47	0.00	0.00	0.00	
17,600.00	90.00	180.00	8,520.00	-9,312.58	439.92	9,303.47	0.00	0.00	0.00	
17,700.00	90.00	180.00	8,520.00	-9,412.58	439.92	9,403.47	0.00	0.00	0.00	
17,800.00	90.00	180.00	8,520.00	-9,512.58	439.92	9,503.47	0.00	0.00	0.00	
17,900.00	90.00	180.00	8,520.00	-9,612.58	439.92	9,603.47	0.00	0.00	0.00	
17,942.66	90.00	180.00	8,520.00	-9,655.25	439.92	9,646.13	0.00	0.00	0.00	
TD at 17942.66										

Anadarko
Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Site RESOLUTION FED 12-65-24-25-5CH PAD
Company:	US ROCKIES REGION PLANNING	TVD Reference:	WELL @ 5873.00usft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	WELL @ 5873.00usft (Original Well Elev)
Site:	RESOLUTION FED 12-65-24-25-5CH PAD	North Reference:	True
Well:	RESOLUTION FED 12-65-24-25-5CH	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	PLAN #1		

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Interp @ 8510.00 (RESOL - plan hits target center - Point	0.00	0.00	8,510.00	-466.38	439.92	1,607,693.23	3,246,777.60	40.998058	-104.606036
RESOLUTION 12-65-24 - plan hits target center - Point	0.00	0.00	8,520.00	-9,655.25	439.92	1,598,504.83	3,246,870.07	40.972839	-104.606036

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
2,305.69	2,300.00	9 5/8"	9-5/8	12-1/4	
8,860.37	8,520.00	7"	7	7-1/2	

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,056.95	2,052.00	Base Aquifer (Fox Hills)			
8,250.58	8,225.00	Niobrara			
8,753.17	8,510.00	Codell			

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
250.00	250.00	-9.12	89.44	Start Build 2.00	
471.35	471.13	-8.89	97.98	Start 4320.63 hold at 471.35 MD	
4,791.98	4,778.87	-0.22	431.37	Start Drop -2.00	
5,013.33	5,000.00	0.00	439.92	Start 2947.04 hold at 5013.33 MD	
7,960.37	7,947.04	0.00	439.92	Start Build 10.00	
8,860.37	8,520.00	-572.96	439.92	Start 9082.29 hold at 8860.37 MD	
17,942.66	8,520.00	-9,655.25	439.92	TD at 17942.66	