

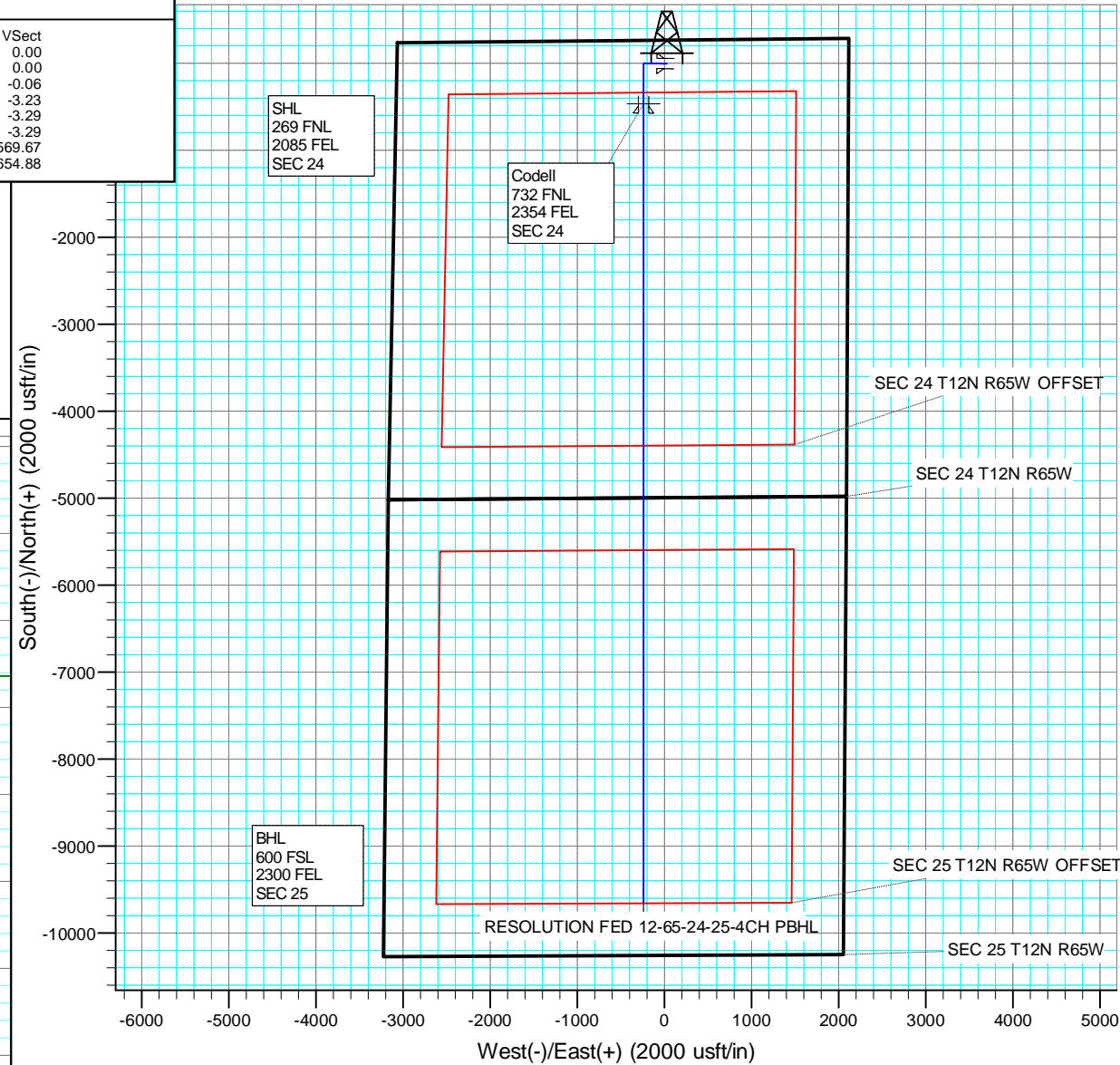
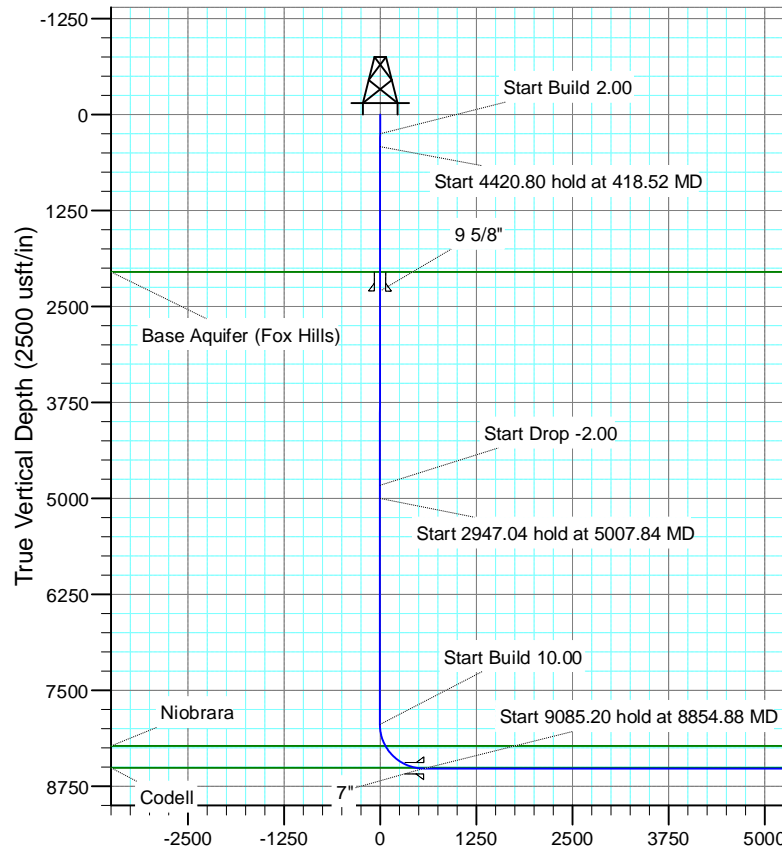
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
-3.29	29.81	1608152.17	3246362.85	40.999329	-104.607521

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
0.00	0.00	0.00	0.00	-3.29	29.81	0.00	0.00	0.00
250.00	0.00	0.00	250.00	-3.29	29.81	0.00	0.00	0.00
418.52	3.37	270.70	418.42	-3.23	24.86	2.00	270.70	-0.06
4839.32	3.37	270.70	4831.58	-0.06	-235.03	0.00	0.00	-3.23
5007.84	0.00	0.00	5000.00	0.00	-239.98	2.00	180.00	-3.29
7954.88	0.00	0.00	7947.04	0.00	-239.98	0.00	0.00	-3.29
8854.88	90.00	180.00	8520.00	-572.96	-239.98	10.00	180.00	569.67
17940.09	90.00	180.00	8520.00	-9658.16	-239.98	0.00	0.00	9654.88

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
2052.00	2054.93	Base Aquifer (Fox Hills)
8225.00	8245.09	Niobrara
8510.00	8747.68	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 12-65-24-25-4CH

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 12-65-24-25-4CH	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 12-65-24-25-4CH					
Well Position	+N/-S	-3.29 usft	Northing:	1,608,152.17 usft	Latitude:	40.999329
	+E/-W	29.81 usft	Easting:	3,246,362.86 usft	Longitude:	-104.607521
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	-3.29	29.81	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	-3.29	29.81	0.00	0.00	0.00	0.00	
250.00	0.00	0.00	250.00	-3.29	29.81	0.00	0.00	0.00	0.00	
418.52	3.37	270.70	418.42	-3.23	24.86	2.00	2.00	0.00	270.70	
4,839.32	3.37	270.70	4,831.58	-0.06	-235.03	0.00	0.00	0.00	0.00	
5,007.84	0.00	0.00	5,000.00	0.00	-239.98	2.00	-2.00	0.00	180.00	
7,954.88	0.00	0.00	7,947.04	0.00	-239.98	0.00	0.00	0.00	0.00	
8,854.88	90.00	180.00	8,520.00	-572.96	-239.98	10.00	10.00	0.00	180.00	
17,940.09	90.00	180.00	8,520.00	-9,658.16	-239.98	0.00	0.00	0.00	0.00	RESOLUTION FED 1

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 12-65-24-25-4CH	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	-3.29	29.81	0.00	0.00	0.00	0.00	
100.00	0.00	0.00	100.00	-3.29	29.81	0.00	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	-3.29	29.81	0.00	0.00	0.00	0.00	
250.00	0.00	0.00	250.00	-3.29	29.81	0.00	0.00	0.00	0.00	
Start Build 2.00										
300.00	1.00	270.70	300.00	-3.28	29.38	-0.01	2.00	2.00	0.00	
400.00	3.00	270.70	399.93	-3.24	25.89	-0.05	2.00	2.00	0.00	
418.52	3.37	270.70	418.42	-3.23	24.86	-0.06	2.00	2.00	0.00	
Start 4420.80 hold at 418.52 MD										
500.00	3.37	270.70	499.76	-3.17	20.07	-0.12	0.00	0.00	0.00	
600.00	3.37	270.70	599.59	-3.10	14.19	-0.19	0.00	0.00	0.00	
700.00	3.37	270.70	699.42	-3.03	8.31	-0.26	0.00	0.00	0.00	
800.00	3.37	270.70	799.24	-2.95	2.43	-0.33	0.00	0.00	0.00	
900.00	3.37	270.70	899.07	-2.88	-3.45	-0.41	0.00	0.00	0.00	
1,000.00	3.37	270.70	998.90	-2.81	-9.32	-0.48	0.00	0.00	0.00	
1,100.00	3.37	270.70	1,098.72	-2.74	-15.20	-0.55	0.00	0.00	0.00	
1,200.00	3.37	270.70	1,198.55	-2.67	-21.08	-0.62	0.00	0.00	0.00	
1,300.00	3.37	270.70	1,298.38	-2.60	-26.96	-0.69	0.00	0.00	0.00	
1,400.00	3.37	270.70	1,398.21	-2.52	-32.84	-0.76	0.00	0.00	0.00	
1,500.00	3.37	270.70	1,498.03	-2.45	-38.72	-0.83	0.00	0.00	0.00	
1,600.00	3.37	270.70	1,597.86	-2.38	-44.60	-0.91	0.00	0.00	0.00	
1,700.00	3.37	270.70	1,697.69	-2.31	-50.48	-0.98	0.00	0.00	0.00	
1,800.00	3.37	270.70	1,797.51	-2.24	-56.35	-1.05	0.00	0.00	0.00	
1,900.00	3.37	270.70	1,897.34	-2.17	-62.23	-1.12	0.00	0.00	0.00	
2,000.00	3.37	270.70	1,997.17	-2.09	-68.11	-1.19	0.00	0.00	0.00	
2,054.93	3.37	270.70	2,052.00	-2.05	-71.34	-1.23	0.00	0.00	0.00	
Base Aquifer (Fox Hills)										
2,100.00	3.37	270.70	2,096.99	-2.02	-73.99	-1.26	0.00	0.00	0.00	
2,200.00	3.37	270.70	2,196.82	-1.95	-79.87	-1.34	0.00	0.00	0.00	
2,300.00	3.37	270.70	2,296.65	-1.88	-85.75	-1.41	0.00	0.00	0.00	
2,303.36	3.37	270.70	2,300.00	-1.88	-85.94	-1.41	0.00	0.00	0.00	
9 5/8"										
2,400.00	3.37	270.70	2,396.48	-1.81	-91.63	-1.48	0.00	0.00	0.00	
2,500.00	3.37	270.70	2,496.30	-1.74	-97.50	-1.55	0.00	0.00	0.00	
2,600.00	3.37	270.70	2,596.13	-1.66	-103.38	-1.62	0.00	0.00	0.00	
2,700.00	3.37	270.70	2,695.96	-1.59	-109.26	-1.69	0.00	0.00	0.00	
2,800.00	3.37	270.70	2,795.78	-1.52	-115.14	-1.77	0.00	0.00	0.00	
2,900.00	3.37	270.70	2,895.61	-1.45	-121.02	-1.84	0.00	0.00	0.00	
3,000.00	3.37	270.70	2,995.44	-1.38	-126.90	-1.91	0.00	0.00	0.00	
3,100.00	3.37	270.70	3,095.26	-1.31	-132.78	-1.98	0.00	0.00	0.00	
3,200.00	3.37	270.70	3,195.09	-1.23	-138.66	-2.05	0.00	0.00	0.00	
3,300.00	3.37	270.70	3,294.92	-1.16	-144.53	-2.12	0.00	0.00	0.00	
3,400.00	3.37	270.70	3,394.75	-1.09	-150.41	-2.20	0.00	0.00	0.00	
3,500.00	3.37	270.70	3,494.57	-1.02	-156.29	-2.27	0.00	0.00	0.00	
3,600.00	3.37	270.70	3,594.40	-0.95	-162.17	-2.34	0.00	0.00	0.00	
3,700.00	3.37	270.70	3,694.23	-0.88	-168.05	-2.41	0.00	0.00	0.00	
3,800.00	3.37	270.70	3,794.05	-0.80	-173.93	-2.48	0.00	0.00	0.00	
3,900.00	3.37	270.70	3,893.88	-0.73	-179.81	-2.55	0.00	0.00	0.00	
4,000.00	3.37	270.70	3,993.71	-0.66	-185.68	-2.63	0.00	0.00	0.00	
4,100.00	3.37	270.70	4,093.54	-0.59	-191.56	-2.70	0.00	0.00	0.00	
4,200.00	3.37	270.70	4,193.36	-0.52	-197.44	-2.77	0.00	0.00	0.00	
4,300.00	3.37	270.70	4,293.19	-0.45	-203.32	-2.84	0.00	0.00	0.00	
4,400.00	3.37	270.70	4,393.02	-0.38	-209.20	-2.91	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 12-65-24-25-4CH	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	3.37	270.70	4,492.84	-0.30	-215.08	-2.98	0.00	0.00	0.00	
4,600.00	3.37	270.70	4,592.67	-0.23	-220.96	-3.06	0.00	0.00	0.00	
4,700.00	3.37	270.70	4,692.50	-0.16	-226.84	-3.13	0.00	0.00	0.00	
4,800.00	3.37	270.70	4,792.32	-0.09	-232.71	-3.20	0.00	0.00	0.00	
4,839.32	3.37	270.70	4,831.58	-0.06	-235.03	-3.23	0.00	0.00	0.00	
Start Drop -2.00										
4,900.00	2.16	270.70	4,892.18	-0.02	-237.95	-3.26	2.00	-2.00	0.00	
5,000.00	0.16	270.70	4,992.16	0.00	-239.97	-3.29	2.00	-2.00	0.00	
5,007.84	0.00	0.00	5,000.00	0.00	-239.98	-3.29	2.00	-2.00	0.00	
Start 2947.04 hold at 5007.84 MD										
5,100.00	0.00	0.00	5,092.16	0.00	-239.98	-3.29	0.00	0.00	0.00	
5,200.00	0.00	0.00	5,192.16	0.00	-239.98	-3.29	0.00	0.00	0.00	
5,300.00	0.00	0.00	5,292.16	0.00	-239.98	-3.29	0.00	0.00	0.00	
5,400.00	0.00	0.00	5,392.16	0.00	-239.98	-3.29	0.00	0.00	0.00	
5,500.00	0.00	0.00	5,492.16	0.00	-239.98	-3.29	0.00	0.00	0.00	
5,600.00	0.00	0.00	5,592.16	0.00	-239.98	-3.29	0.00	0.00	0.00	
5,700.00	0.00	0.00	5,692.16	0.00	-239.98	-3.29	0.00	0.00	0.00	
5,800.00	0.00	0.00	5,792.16	0.00	-239.98	-3.29	0.00	0.00	0.00	
5,900.00	0.00	0.00	5,892.16	0.00	-239.98	-3.29	0.00	0.00	0.00	
6,000.00	0.00	0.00	5,992.16	0.00	-239.98	-3.29	0.00	0.00	0.00	
6,100.00	0.00	0.00	6,092.16	0.00	-239.98	-3.29	0.00	0.00	0.00	
6,200.00	0.00	0.00	6,192.16	0.00	-239.98	-3.29	0.00	0.00	0.00	
6,300.00	0.00	0.00	6,292.16	0.00	-239.98	-3.29	0.00	0.00	0.00	
6,400.00	0.00	0.00	6,392.16	0.00	-239.98	-3.29	0.00	0.00	0.00	
6,500.00	0.00	0.00	6,492.16	0.00	-239.98	-3.29	0.00	0.00	0.00	
6,600.00	0.00	0.00	6,592.16	0.00	-239.98	-3.29	0.00	0.00	0.00	
6,700.00	0.00	0.00	6,692.16	0.00	-239.98	-3.29	0.00	0.00	0.00	
6,800.00	0.00	0.00	6,792.16	0.00	-239.98	-3.29	0.00	0.00	0.00	
6,900.00	0.00	0.00	6,892.16	0.00	-239.98	-3.29	0.00	0.00	0.00	
7,000.00	0.00	0.00	6,992.16	0.00	-239.98	-3.29	0.00	0.00	0.00	
7,100.00	0.00	0.00	7,092.16	0.00	-239.98	-3.29	0.00	0.00	0.00	
7,200.00	0.00	0.00	7,192.16	0.00	-239.98	-3.29	0.00	0.00	0.00	
7,300.00	0.00	0.00	7,292.16	0.00	-239.98	-3.29	0.00	0.00	0.00	
7,400.00	0.00	0.00	7,392.16	0.00	-239.98	-3.29	0.00	0.00	0.00	
7,500.00	0.00	0.00	7,492.16	0.00	-239.98	-3.29	0.00	0.00	0.00	
7,600.00	0.00	0.00	7,592.16	0.00	-239.98	-3.29	0.00	0.00	0.00	
7,700.00	0.00	0.00	7,692.16	0.00	-239.98	-3.29	0.00	0.00	0.00	
7,800.00	0.00	0.00	7,792.16	0.00	-239.98	-3.29	0.00	0.00	0.00	
7,900.00	0.00	0.00	7,892.16	0.00	-239.98	-3.29	0.00	0.00	0.00	
7,954.88	0.00	0.00	7,947.04	0.00	-239.98	-3.29	0.00	0.00	0.00	
Start Build 10.00										
8,000.00	4.51	180.00	7,992.11	-1.78	-239.98	-1.51	10.00	10.00	0.00	
8,100.00	14.51	180.00	8,090.61	-18.28	-239.98	14.99	10.00	10.00	0.00	
8,200.00	24.51	180.00	8,184.75	-51.64	-239.98	48.35	10.00	10.00	0.00	
8,245.09	29.02	180.00	8,225.00	-71.94	-239.98	68.65	10.00	10.00	0.00	
Niobrara										
8,300.00	34.51	180.00	8,271.67	-100.83	-239.98	97.55	10.00	10.00	0.00	
8,400.00	44.51	180.00	8,348.72	-164.38	-239.98	161.09	10.00	10.00	0.00	
8,500.00	54.51	180.00	8,413.56	-240.33	-239.98	237.05	10.00	10.00	0.00	
8,600.00	64.51	180.00	8,464.24	-326.40	-239.98	323.11	10.00	10.00	0.00	
8,700.00	74.51	180.00	8,499.19	-419.95	-239.98	416.67	10.00	10.00	0.00	
8,747.68	79.28	180.00	8,510.00	-466.38	-239.98	463.09	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 12-65-24-25-4CH	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	84.51	180.00	8,517.37	-518.16	-239.98	514.87	10.00	10.00	0.00
8,854.88	90.00	180.00	8,520.00	-572.95	-239.98	569.67	10.00	10.00	0.00
Start 9085.20 hold at 8854.88 MD - 7"									
8,900.00	90.00	180.00	8,520.00	-618.07	-239.98	614.79	0.00	0.00	0.00
9,000.00	90.00	180.00	8,520.00	-718.07	-239.98	714.79	0.00	0.00	0.00
9,100.00	90.00	180.00	8,520.00	-818.07	-239.98	814.79	0.00	0.00	0.00
9,200.00	90.00	180.00	8,520.00	-918.07	-239.98	914.79	0.00	0.00	0.00
9,300.00	90.00	180.00	8,520.00	-1,018.07	-239.98	1,014.79	0.00	0.00	0.00
9,400.00	90.00	180.00	8,520.00	-1,118.07	-239.98	1,114.79	0.00	0.00	0.00
9,500.00	90.00	180.00	8,520.00	-1,218.07	-239.98	1,214.79	0.00	0.00	0.00
9,600.00	90.00	180.00	8,520.00	-1,318.07	-239.98	1,314.79	0.00	0.00	0.00
9,700.00	90.00	180.00	8,520.00	-1,418.07	-239.98	1,414.79	0.00	0.00	0.00
9,800.00	90.00	180.00	8,520.00	-1,518.07	-239.98	1,514.79	0.00	0.00	0.00
9,900.00	90.00	180.00	8,520.00	-1,618.07	-239.98	1,614.79	0.00	0.00	0.00
10,000.00	90.00	180.00	8,520.00	-1,718.07	-239.98	1,714.79	0.00	0.00	0.00
10,100.00	90.00	180.00	8,520.00	-1,818.07	-239.98	1,814.79	0.00	0.00	0.00
10,200.00	90.00	180.00	8,520.00	-1,918.07	-239.98	1,914.79	0.00	0.00	0.00
10,300.00	90.00	180.00	8,520.00	-2,018.07	-239.98	2,014.79	0.00	0.00	0.00
10,400.00	90.00	180.00	8,520.00	-2,118.07	-239.98	2,114.79	0.00	0.00	0.00
10,500.00	90.00	180.00	8,520.00	-2,218.07	-239.98	2,214.79	0.00	0.00	0.00
10,600.00	90.00	180.00	8,520.00	-2,318.07	-239.98	2,314.79	0.00	0.00	0.00
10,700.00	90.00	180.00	8,520.00	-2,418.07	-239.98	2,414.79	0.00	0.00	0.00
10,800.00	90.00	180.00	8,520.00	-2,518.07	-239.98	2,514.79	0.00	0.00	0.00
10,900.00	90.00	180.00	8,520.00	-2,618.07	-239.98	2,614.79	0.00	0.00	0.00
11,000.00	90.00	180.00	8,520.00	-2,718.07	-239.98	2,714.79	0.00	0.00	0.00
11,100.00	90.00	180.00	8,520.00	-2,818.07	-239.98	2,814.79	0.00	0.00	0.00
11,200.00	90.00	180.00	8,520.00	-2,918.07	-239.98	2,914.79	0.00	0.00	0.00
11,300.00	90.00	180.00	8,520.00	-3,018.07	-239.98	3,014.79	0.00	0.00	0.00
11,400.00	90.00	180.00	8,520.00	-3,118.07	-239.98	3,114.79	0.00	0.00	0.00
11,500.00	90.00	180.00	8,520.00	-3,218.07	-239.98	3,214.79	0.00	0.00	0.00
11,600.00	90.00	180.00	8,520.00	-3,318.07	-239.98	3,314.79	0.00	0.00	0.00
11,700.00	90.00	180.00	8,520.00	-3,418.07	-239.98	3,414.79	0.00	0.00	0.00
11,800.00	90.00	180.00	8,520.00	-3,518.07	-239.98	3,514.79	0.00	0.00	0.00
11,900.00	90.00	180.00	8,520.00	-3,618.07	-239.98	3,614.79	0.00	0.00	0.00
12,000.00	90.00	180.00	8,520.00	-3,718.07	-239.98	3,714.79	0.00	0.00	0.00
12,100.00	90.00	180.00	8,520.00	-3,818.07	-239.98	3,814.79	0.00	0.00	0.00
12,200.00	90.00	180.00	8,520.00	-3,918.07	-239.98	3,914.79	0.00	0.00	0.00
12,300.00	90.00	180.00	8,520.00	-4,018.07	-239.98	4,014.79	0.00	0.00	0.00
12,400.00	90.00	180.00	8,520.00	-4,118.07	-239.98	4,114.79	0.00	0.00	0.00
12,500.00	90.00	180.00	8,520.00	-4,218.07	-239.98	4,214.79	0.00	0.00	0.00
12,600.00	90.00	180.00	8,520.00	-4,318.07	-239.98	4,314.79	0.00	0.00	0.00
12,700.00	90.00	180.00	8,520.00	-4,418.07	-239.98	4,414.79	0.00	0.00	0.00
12,800.00	90.00	180.00	8,520.00	-4,518.07	-239.98	4,514.79	0.00	0.00	0.00
12,900.00	90.00	180.00	8,520.00	-4,618.07	-239.98	4,614.79	0.00	0.00	0.00
13,000.00	90.00	180.00	8,520.00	-4,718.07	-239.98	4,714.79	0.00	0.00	0.00
13,100.00	90.00	180.00	8,520.00	-4,818.07	-239.98	4,814.79	0.00	0.00	0.00
13,200.00	90.00	180.00	8,520.00	-4,918.07	-239.98	4,914.79	0.00	0.00	0.00
13,300.00	90.00	180.00	8,520.00	-5,018.07	-239.98	5,014.79	0.00	0.00	0.00
13,400.00	90.00	180.00	8,520.00	-5,118.07	-239.98	5,114.79	0.00	0.00	0.00
13,500.00	90.00	180.00	8,520.00	-5,218.07	-239.98	5,214.79	0.00	0.00	0.00
13,600.00	90.00	180.00	8,520.00	-5,318.07	-239.98	5,314.79	0.00	0.00	0.00
13,700.00	90.00	180.00	8,520.00	-5,418.07	-239.98	5,414.79	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 12-65-24-25-4CH	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	-5,518.07	-239.98	5,514.79	0.00	0.00	0.00
13,900.00	90.00	180.00	8,520.00	-5,618.07	-239.98	5,614.79	0.00	0.00	0.00
14,000.00	90.00	180.00	8,520.00	-5,718.07	-239.98	5,714.79	0.00	0.00	0.00
14,100.00	90.00	180.00	8,520.00	-5,818.07	-239.98	5,814.79	0.00	0.00	0.00
14,200.00	90.00	180.00	8,520.00	-5,918.07	-239.98	5,914.79	0.00	0.00	0.00
14,300.00	90.00	180.00	8,520.00	-6,018.07	-239.98	6,014.79	0.00	0.00	0.00
14,400.00	90.00	180.00	8,520.00	-6,118.07	-239.98	6,114.79	0.00	0.00	0.00
14,500.00	90.00	180.00	8,520.00	-6,218.07	-239.98	6,214.79	0.00	0.00	0.00
14,600.00	90.00	180.00	8,520.00	-6,318.07	-239.98	6,314.79	0.00	0.00	0.00
14,700.00	90.00	180.00	8,520.00	-6,418.07	-239.98	6,414.79	0.00	0.00	0.00
14,800.00	90.00	180.00	8,520.00	-6,518.07	-239.98	6,514.79	0.00	0.00	0.00
14,900.00	90.00	180.00	8,520.00	-6,618.07	-239.98	6,614.79	0.00	0.00	0.00
15,000.00	90.00	180.00	8,520.00	-6,718.07	-239.98	6,714.79	0.00	0.00	0.00
15,100.00	90.00	180.00	8,520.00	-6,818.07	-239.98	6,814.79	0.00	0.00	0.00
15,200.00	90.00	180.00	8,520.00	-6,918.07	-239.98	6,914.79	0.00	0.00	0.00
15,300.00	90.00	180.00	8,520.00	-7,018.07	-239.98	7,014.79	0.00	0.00	0.00
15,400.00	90.00	180.00	8,520.00	-7,118.07	-239.98	7,114.79	0.00	0.00	0.00
15,500.00	90.00	180.00	8,520.00	-7,218.07	-239.98	7,214.79	0.00	0.00	0.00
15,600.00	90.00	180.00	8,520.00	-7,318.07	-239.98	7,314.79	0.00	0.00	0.00
15,700.00	90.00	180.00	8,520.00	-7,418.07	-239.98	7,414.79	0.00	0.00	0.00
15,800.00	90.00	180.00	8,520.00	-7,518.07	-239.98	7,514.79	0.00	0.00	0.00
15,900.00	90.00	180.00	8,520.00	-7,618.07	-239.98	7,614.79	0.00	0.00	0.00
16,000.00	90.00	180.00	8,520.00	-7,718.07	-239.98	7,714.79	0.00	0.00	0.00
16,100.00	90.00	180.00	8,520.00	-7,818.07	-239.98	7,814.79	0.00	0.00	0.00
16,200.00	90.00	180.00	8,520.00	-7,918.07	-239.98	7,914.79	0.00	0.00	0.00
16,300.00	90.00	180.00	8,520.00	-8,018.07	-239.98	8,014.79	0.00	0.00	0.00
16,400.00	90.00	180.00	8,520.00	-8,118.07	-239.98	8,114.79	0.00	0.00	0.00
16,500.00	90.00	180.00	8,520.00	-8,218.07	-239.98	8,214.79	0.00	0.00	0.00
16,600.00	90.00	180.00	8,520.00	-8,318.07	-239.98	8,314.79	0.00	0.00	0.00
16,700.00	90.00	180.00	8,520.00	-8,418.07	-239.98	8,414.79	0.00	0.00	0.00
16,800.00	90.00	180.00	8,520.00	-8,518.07	-239.98	8,514.79	0.00	0.00	0.00
16,900.00	90.00	180.00	8,520.00	-8,618.07	-239.98	8,614.79	0.00	0.00	0.00
17,000.00	90.00	180.00	8,520.00	-8,718.07	-239.98	8,714.79	0.00	0.00	0.00
17,100.00	90.00	180.00	8,520.00	-8,818.07	-239.98	8,814.79	0.00	0.00	0.00
17,200.00	90.00	180.00	8,520.00	-8,918.07	-239.98	8,914.79	0.00	0.00	0.00
17,300.00	90.00	180.00	8,520.00	-9,018.07	-239.98	9,014.79	0.00	0.00	0.00
17,400.00	90.00	180.00	8,520.00	-9,118.07	-239.98	9,114.79	0.00	0.00	0.00
17,500.00	90.00	180.00	8,520.00	-9,218.07	-239.98	9,214.79	0.00	0.00	0.00
17,600.00	90.00	180.00	8,520.00	-9,318.07	-239.98	9,314.79	0.00	0.00	0.00
17,700.00	90.00	180.00	8,520.00	-9,418.07	-239.98	9,414.79	0.00	0.00	0.00
17,800.00	90.00	180.00	8,520.00	-9,518.07	-239.98	9,514.79	0.00	0.00	0.00
17,900.00	90.00	180.00	8,520.00	-9,618.07	-239.98	9,614.79	0.00	0.00	0.00
17,940.09	90.00	180.00	8,520.00	-9,658.16	-239.98	9,654.88	0.00	0.00	0.00
TD at 17940.09									

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 12-65-24-25-4CH	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	-239.98	1,607,686.39	3,246,097.74	40.998058	-104.608499
RESOLUTION FED 12-65-24-25-4CH - plan hits target center - Point	0.00	0.00	8,520.00	-9,658.16	-239.98	1,598,495.07	3,246,190.24	40.972831	-104.608498

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
2,303.36	2,300.00	9 5/8"	9-5/8	12-1/4	
8,854.88	8,520.00	7"	7	7-1/2	

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,054.93	2,052.00	Base Aquifer (Fox Hills)			
8,245.09	8,225.00	Niobrara			
8,747.68	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	-3.29	29.81	Start Build 2.00	
418.52	418.42	-3.23	24.86	Start 4420.80 hold at 418.52 MD	
4,839.32	4,831.58	-0.06	-235.03	Start Drop -2.00	
5,007.84	5,000.00	0.00	-239.98	Start 2947.04 hold at 5007.84 MD	
7,954.88	7,947.04	0.00	-239.98	Start Build 10.00	
8,854.88	8,520.00	-572.96	-239.98	Start 9085.20 hold at 8854.88 MD	
17,940.09	8,520.00	-9,658.16	-239.98	TD at 17940.09	