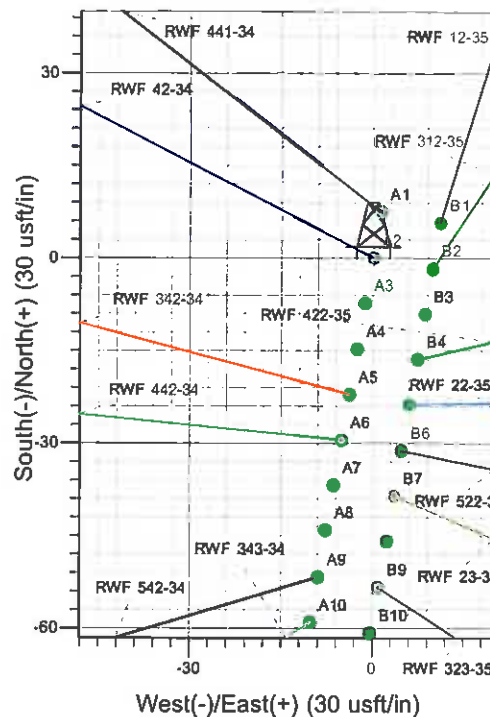
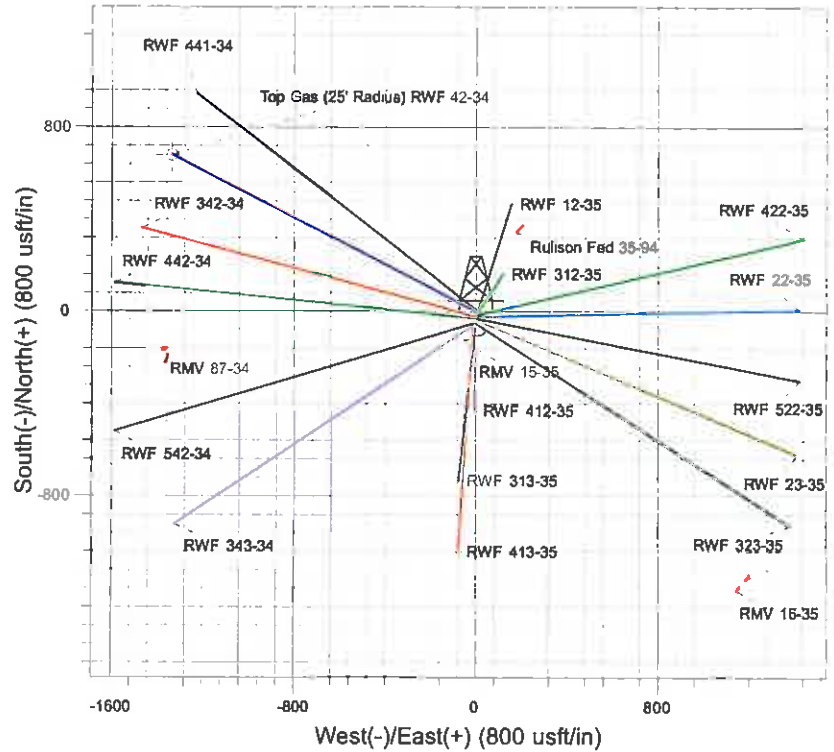
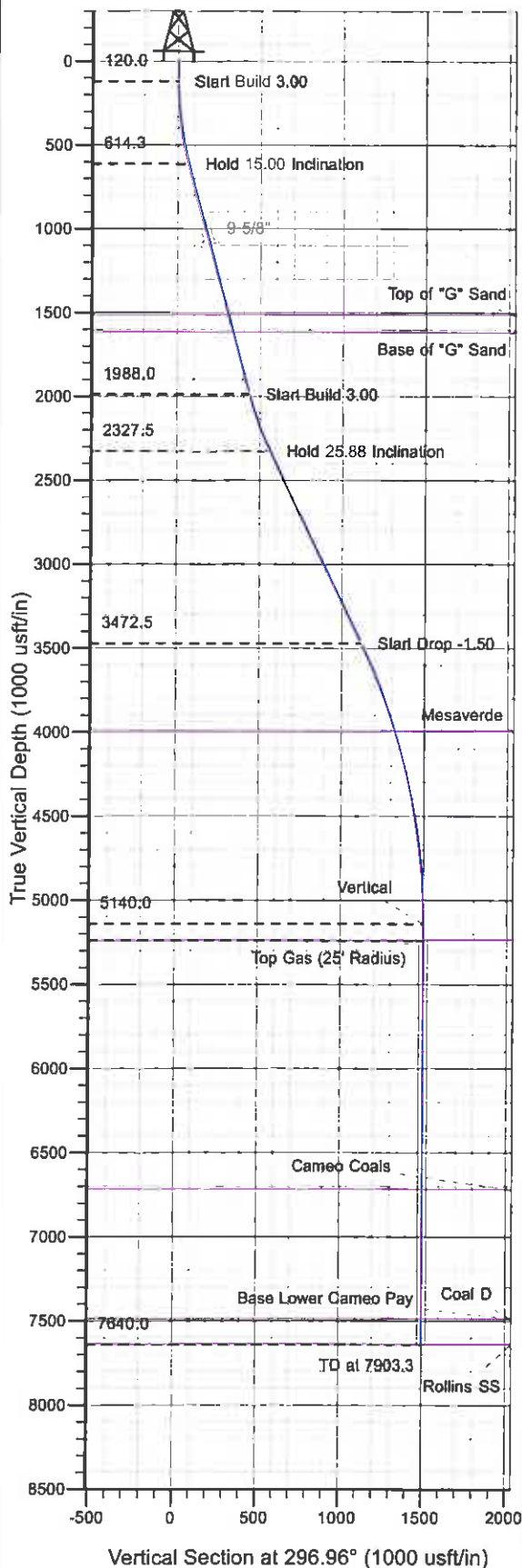




Well Name: RWF 42-34
 Surface Location: RMV 15-35 Pad
 North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
 Ground Elevation: 5550.0
 +N/-S 0.0 +E/-W 0.0 Northing 1609661.00 Easting 2333145.20 Latitude 39° 29' 0.543 N Longitude 107° 51' 46.439 W Slot A2
 KELLY BUSHING @ 5574.0usf (H&P 271 (24' RKB) kjs)



Project: RU 35-06S-094W
 Site: RMV 15-35 Pad
 Well: RWF 42-34
 Plan #2 20Dec10 kjs



M Azimuths to True North
 Magnetic North: 10.69°
 Magnetic Field
 Strength: 52609.6snT
 Dip Angle: 65.85°
 Date: 4/2/2008
 Model: IGRF2005-10

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSec	Departure	Annotation
120.0	120.0	0.00	0.00	0.0	0.0	0.0	0.0	Start Build 3.00
614.3	620.0	15.00	296.96	29.5	-58.0	65.1	65.1	Hold 15.00 Inclination
1988.0	2042.2	15.00	296.96	196.4	-386.1	433.2	433.2	Start Build 3.00
2327.5	2405.0	25.88	296.96	253.7	-498.9	559.7	559.7	Hold 25.88 Inclination
3472.5	3677.7	25.88	296.96	505.6	-994.1	1115.3	1115.3	Start Drop -1.50
5140.0	5403.3	0.00	0.00	679.3	-1335.7	1498.5	1498.5	Vertical
5240.0	5503.3	0.00	0.00	679.3	-1335.7	1498.5	1498.5	Top Gas
7640.0	7903.3	0.00	0.00	679.3	-1335.7	1498.5	1498.5	TD at 7903.3

PICEANCE VLY NAD 83

RU 35-06S-094W

RMV 15-35 Pad

RWF 42-34 - Slot A2

Wellbore #1

Plan: Plan #2 20Dec10 kjs

Standard Planning Report - Geographic

07 February, 2011

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well RWF 42-34 - Slot A2
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5574.0usft (H&P 271 (24' RKB) kjs)
Project:	RU 35-06S-094W	MD Reference:	KELLY BUSHING @ 5574.0usft (H&P 271 (24' RKB) kjs)
Site:	RMV 15-35 Pad	North Reference:	True
Well:	RWF 42-34	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 20Dec10 kjs		

Project	RU 35-06S-094W, Garfield County, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		Using geodetic scale factor

Site	RMV 15-35 Pad		
Site Position:		Northing:	1,609,578.20 usft
From:	Map	Easting:	2,333,138.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13.200 in
		Latitude:	39° 28' 59.723 N
		Longitude:	107° 51' 46.503 W
		Grid Convergence:	-1.490 °

Well	RWF 42-34 - Slot A2		
Well Position	+N-S	0.0 usft	Northing:
	+E-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	Ground Level:
			5,550.0 usft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination (°)
	IGRF2005-10	4/2/2008	10.685
			Dip Angle (°)
			65.849
			Field Strength (nT)
			52,610

Design	Plan #2 20Dec10 kjs		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth:
			0.0
Vertical Section:	Depth From (TVD) (usft)	+N-S (usft)	+E-W (usft)
	0.0	0.0	0.0
			Direction (°)
			296.96

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
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.000	
120.0	0.00	0.00	120.0	0.0	0.0	0.00	0.00	0.00	0.000	
620.0	15.00	296.96	614.3	29.5	-58.0	3.00	3.00	0.00	296.960	
2,042.2	15.00	296.96	1,988.0	196.4	-386.1	0.00	0.00	0.00	0.000	
2,405.0	25.88	296.96	2,327.5	253.7	-498.9	3.00	3.00	0.00	0.000	
3,677.7	25.88	296.96	3,472.5	505.6	-994.1	0.00	0.00	0.00	0.000	
5,403.3	0.00	0.00	5,140.0	679.3	-1,335.7	1.50	-1.50	0.00	180.000	
5,503.3	0.00	0.00	5,240.0	679.3	-1,335.7	0.00	0.00	0.00	0.000	Top Gas (25' Radius)
7,903.3	0.00	0.00	7,640.0	679.3	-1,335.7	0.00	0.00	0.00	0.000	

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well RWF 42-34 - Slot A2
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5574.0usft (H&P 271 (24' RKB) kjs)
Project:	RU 35-06S-094W	MD Reference:	KELLY BUSHING @ 5574.0usft (H&P 271 (24' RKB) kjs)
Site:	RMV 15-35 Pad	North Reference:	True
Well:	RWF 42-34	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 20Dec10 kjs		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.0	0.00	0.00	0.0	0.0	0.0	1,609,661.00	2,333,145.20	39° 29' 0.543 N	107° 51' 46.439 W
120.0	0.00	0.00	120.0	0.0	0.0	1,609,661.00	2,333,145.20	39° 29' 0.543 N	107° 51' 46.439 W
Start Build 3.00									
620.0	15.00	296.96	614.3	29.5	-58.0	1,609,692.00	2,333,087.99	39° 29' 0.635 N	107° 51' 47.179 W
Hold 15.00 Inclination									
1,122.8	15.00	296.96	1,100.0	88.5	-174.0	1,609,753.99	2,332,973.57	39° 29' 1.418 N	107° 51' 48.658 W
9 5/8"									
1,552.5	15.00	296.96	1,515.0	138.9	-273.1	1,609,806.97	2,332,875.80	39° 29' 1.916 N	107° 51' 49.922 W
Top of "G" Sand									
1,656.0	15.00	296.96	1,615.0	151.1	-297.0	1,609,819.73	2,332,852.24	39° 29' 2.036 N	107° 51' 50.227 W
Base of "G" Sand									
2,042.2	15.00	296.96	1,988.0	196.4	-386.1	1,609,867.34	2,332,764.37	39° 29' 2.484 N	107° 51' 51.363 W
Start Build 3.00									
2,405.0	25.88	296.96	2,327.5	253.7	-496.9	1,609,927.61	2,332,653.13	39° 29' 3.051 N	107° 51' 52.802 W
Hold 25.88 Inclination									
3,677.7	25.88	296.96	3,472.5	505.6	-994.1	1,610,192.26	2,332,164.63	39° 29' 5.540 N	107° 51' 59.118 W
Start Drop -1.50									
4,240.4	17.44	296.96	3,995.0	599.7	-1,179.1	1,610,291.13	2,331,982.14	39° 29' 6.470 N	107° 52' 1.478 W
Mesaverde									
5,403.3	0.00	0.00	5,140.0	679.3	-1,335.7	1,610,374.80	2,331,827.70	39° 29' 7.257 N	107° 52' 3.475 W
Vertical									
5,503.3	0.00	0.00	5,240.0	679.3	-1,335.7	1,610,374.80	2,331,827.70	39° 29' 7.257 N	107° 52' 3.475 W
Top Gas - Approx. Top Gas									
6,983.3	0.00	0.00	6,720.0	679.3	-1,335.7	1,610,374.80	2,331,827.70	39° 29' 7.257 N	107° 52' 3.475 W
Cameo Coals									
7,751.3	0.00	0.00	7,488.0	679.3	-1,335.7	1,610,374.80	2,331,827.70	39° 29' 7.257 N	107° 52' 3.475 W
Base Lower Cameo Pay									
7,753.3	0.00	0.00	7,490.0	679.3	-1,335.7	1,610,374.80	2,331,827.70	39° 29' 7.257 N	107° 52' 3.475 W
Coal D									
7,903.3	0.00	0.00	7,640.0	679.3	-1,335.7	1,610,374.80	2,331,827.70	39° 29' 7.257 N	107° 52' 3.475 W
TD at 7903.3 - Rollins SS - TD									

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									
Top Gas (25' Radius) R1	0.00	0.00	5,240.0	679.3	-1,335.7	1,610,374.80	2,331,827.70	39° 29' 7.257 N	107° 52' 3.475 W
- plan hits target center									
- Circle (radius 25.0)									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,122.8	1,100.0	9 5/8"	9.625	12.250	

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well RWF 42-34 - Slot A2
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5574.0usft (H&P 271 (24' RKB) kjs)
Project:	RU 35-06S-094W	MD Reference:	KELLY BUSHING @ 5574.0usft (H&P 271 (24' RKB) kjs)
Site:	RMV 15-35 Pad	North Reference:	True
Well:	RWF 42-34	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 20Dec10 kjs		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (")	Dip Direction (")	
1,552.5	1,515.0	Top of "G" Sand				
1,656.0	1,615.0	Base of "G" Sand				
4,240.4	3,995.0	Mesaverde				
5,503.3	5,240.0	Approx. Top Gas				
6,983.3	6,720.0	Cameo Coals				
7,751.3	7,488.0	Base Lower Cameo Pay				
7,753.3	7,490.0	Coal D				
7,903.3	7,640.0	Rollins SS				
7,903.3	7,640.0	TD				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
120.0	120.0	0.0	0.0	Start Build 3.00	
620.0	614.3	29.5	-58.0	Hold 15.00 Inclination	
2,042.2	1,988.0	196.4	-386.1	Start Build 3.00	
2,405.0	2,327.5	253.7	-498.9	Hold 25.88 Inclination	
3,677.7	3,472.5	505.6	-994.1	Start Drop -1.50	
5,403.3	5,140.0	679.3	-1,335.7	Vertical	
5,503.3	5,240.0	679.3	-1,335.7	Top Gas	
7,903.3	7,640.0	679.3	-1,335.7	TD at 7903.3	