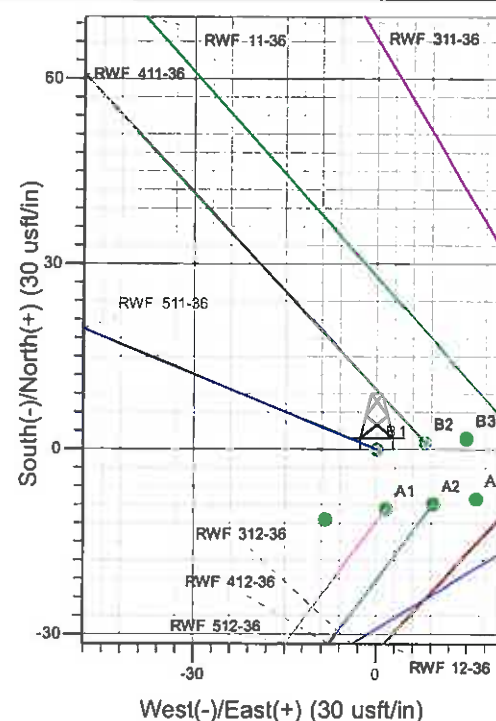
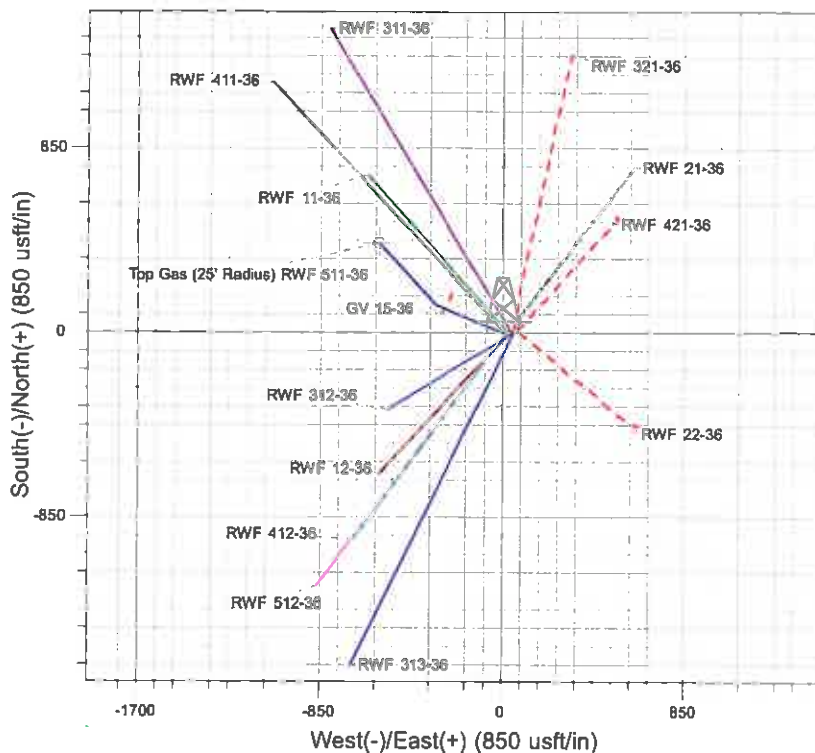
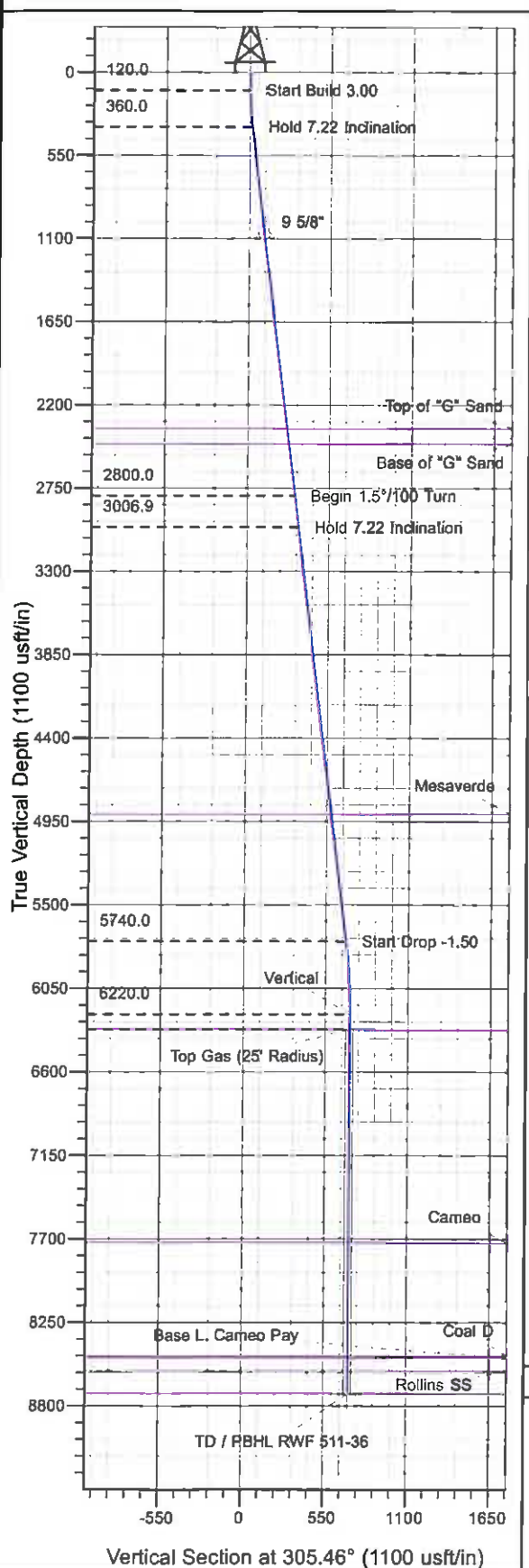




Well Name: RWF 511-36
 Surface Location: GV 15-36 Pad
 North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
 Ground Elevation: 6387.0
 +N/-S +E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1610116.64 2339629.75 39° 29' 6.704 N 107° 50' 23.908 W B1
 KELLY BUSHING @ 6411.0usft (H&P 271 (24' RKB) kjs)



Project: RU 36-06S-094W
 Site: GV 15-36 Pad
 Well: RWF 511-36
 Plan #3 01Mar11 kjs

M Azimuths to True North
 Magnetic North: 10.62°
 Magnetic Field
 Strength: 52567.0snT
 Dip Angle: 65.84°
 Date: 8/29/2008
 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
360.0	360.7	7.22	292.00	5.7	-14.0	14.7	15.1	Hold 7.22 Inclination
2800.0	2820.1	7.22	292.00	121.5	-300.6	315.3	324.2	Begin 1.5°/100 Turn
3006.9	3028.7	7.22	317.09	136.0	-321.7	340.9	350.1	Hold 7.22 Inclination
5740.0	5783.5	7.22	317.09	389.5	-557.4	680.0	696.3	Start Drop -1.50
6220.0	6264.9	0.00	0.00	411.7	-578.1	709.7	726.6	Vertical
6320.0	6364.9	0.00	0.00	411.7	-578.1	709.7	726.6	Top Gas
8720.0	8764.9	0.00	0.00	411.7	-578.1	709.7	726.6	TD at 8764.9

PICEANCE VLY NAD 83

RU 36-06S-094W

GV 15-36 Pad

RWF 511-36 - Slot B1

Wellbore #1

Plan: Plan #3 01Mar11 kjs

Standard Planning Report - Geographic

26 April, 2011

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well RWF 511-36 - Slot B1
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 6411.0usft (H&P 271 (24' RKB) kjs)
Project:	RU 36-06S-094W	MD Reference:	KELLY BUSHING @ 6411.0usft (H&P 271 (24' RKB) kjs)
Site:	GV 15-36 Pad	North Reference:	True
Well:	RWF 511-36	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #3 01Mar11 kjs		

Project	RU 36-06S-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	GV 15-36 Pad			
Site Position:		Northing:	1,610,105.50 usft	Latitude: 39° 29' 6.592 N
From:	Map	Easting:	2,339,621.10 usft	Longitude: 107° 50' 24.015 W
Position Uncertainty:	0.0 usft	Slot Radius:	13.200 in	Grid Convergence: -1.476 "

Well	RWF 511-36 - Slot B1			
Well Position	+N/-S	0.0 usft	Northing:	1,610,116.63 usft
	+E/-W	0.0 usft	Easting:	2,339,629.75 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:		Ground Level: 6,387.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2005-10	8/29/2008	10.621	65.845	52,567

Design	Plan #3 01Mar11 kjs			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	305.46

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	
360.7	7.22	292.00	360.0	5.7	-14.0	3.00	3.00	0.00	292.000	
2,820.1	7.22	292.00	2,800.0	121.5	-300.6	0.00	0.00	0.00	0.000	
3,028.7	7.22	317.09	3,006.9	136.0	-321.7	1.50	0.00	12.03	102.451	
5,783.5	7.22	317.09	5,740.0	389.5	-557.4	0.00	0.00	0.00	0.000	
6,264.9	0.00	0.00	6,220.0	411.7	-578.1	1.50	-1.50	0.00	180.000	
8,764.9	0.00	0.00	8,720.0	411.7	-578.1	0.00	0.00	0.00	0.000	TD / PBHL RWF 511-

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well RWF 511-36 - Slot B1
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 6411.0usft (H&P 271 (24' RKB) kjs)
Project:	RU 36-06S-094W	MD Reference:	KELLY BUSHING @ 6411.0usft (H&P 271 (24' RKB) kjs)
Site:	GV 15-36 Pad	North Reference:	True
Well:	RWF 511-36	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #3 01Mar11 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	1,610,116.63	2,339,629.75	39° 29' 6.704 N	107° 50' 23.908 W
120.0	0.00	0.00	120.0	0.0	0.0	1,610,116.63	2,339,629.75	39° 29' 6.704 N	107° 50' 23.908 W
Start Build 3.00									
360.7	7.22	292.00	360.0	5.7	-14.0	1,610,122.67	2,339,615.86	39° 29' 6.760 N	107° 50' 24.087 W
Hold 7.22 Inclination									
1,106.6	7.22	292.00	1,100.0	40.8	-101.0	1,610,160.01	2,339,529.88	39° 29' 7.107 N	107° 50' 25.196 W
9 5/8"									
2,371.6	7.22	292.00	2,355.0	100.3	-248.4	1,610,223.34	2,339,384.06	39° 29' 7.696 N	107° 50' 27.076 W
Top of "G" Sand									
2,472.4	7.22	292.00	2,455.0	105.1	-260.1	1,610,228.39	2,339,372.44	39° 29' 7.742 N	107° 50' 27.226 W
Base of "G" Sand									
2,820.1	7.22	292.00	2,800.0	121.5	-300.6	1,610,245.80	2,339,332.35	39° 29' 7.904 N	107° 50' 27.743 W
Begin 1.5°/100 Turn									
3,028.7	7.22	317.09	3,006.9	136.0	-321.7	1,610,260.84	2,339,311.66	39° 29' 8.048 N	107° 50' 28.012 W
Hold 7.22 Inclination									
4,936.9	7.22	317.09	4,900.0	311.6	-485.0	1,610,440.62	2,339,152.96	39° 29' 9.783 N	107° 50' 30.094 W
Mesaverde									
5,783.5	7.22	317.09	5,740.0	389.5	-557.4	1,610,520.39	2,339,082.54	39° 29' 10.554 N	107° 50' 31.018 W
Start Drop -1.50									
6,264.9	0.00	0.00	6,220.0	411.7	-578.1	1,610,543.10	2,339,062.50	39° 29' 10.773 N	107° 50' 31.281 W
Vertical									
6,364.9	0.00	0.00	6,320.0	411.7	-578.1	1,610,543.10	2,339,062.50	39° 29' 10.773 N	107° 50' 31.281 W
Top Gas - Approx. Top Gas									
7,769.9	0.00	0.00	7,725.0	411.7	-578.1	1,610,543.10	2,339,062.50	39° 29' 10.773 N	107° 50' 31.281 W
Cameo									
8,518.9	0.00	0.00	8,475.0	411.7	-578.1	1,610,543.10	2,339,062.50	39° 29' 10.773 N	107° 50' 31.281 W
Coal D									
8,529.9	0.00	0.00	8,485.0	411.7	-578.1	1,610,543.10	2,339,062.50	39° 29' 10.773 N	107° 50' 31.281 W
Base L. Cameo Pay									
8,614.9	0.00	0.00	8,570.0	411.7	-578.1	1,610,543.10	2,339,062.50	39° 29' 10.773 N	107° 50' 31.281 W
Rollins SS									
8,764.9	0.00	0.00	8,720.0	411.7	-578.1	1,610,543.10	2,339,062.50	39° 29' 10.773 N	107° 50' 31.281 W
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	6,320.0	411.7	-578.1	1,610,543.10	2,339,062.50	39° 29' 10.773 N	107° 50' 31.281 W
- plan hits target center									
- Circle (radius 25.0)									
TD / PBHL RWF 511-36	0.00	0.00	8,720.0	411.7	-578.1	1,610,543.10	2,339,062.50	39° 29' 10.773 N	107° 50' 31.281 W
- plan hits target center									
- Point									

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well RWF 511-36 - Slot B1
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 6411.0usft (H&P 271 (24' RKB) kjs)
Project:	RU 36-06S-094W	MD Reference:	KELLY BUSHING @ 6411.0usft (H&P 271 (24' RKB) kjs)
Site:	GV 15-36 Pad	North Reference:	True
Well:	RWF 511-36	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #3 01Mar11 kjs		

Casing Points				
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)
1,106.6	1,100.0	9 5/8"	9.625	12.250

Formations				
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip Direction (")
2,371.6	2,355.0	Top of "G" Sand		
2,472.4	2,455.0	Base of "G" Sand		
4,936.9	4,900.0	Mesaverde		
6,364.9	6,320.0	Approx. Top Gas		
7,769.9	7,725.0	Cameo		
8,519.9	8,475.0	Coal D		
8,529.9	8,485.0	Base L. Cameo Pay		
8,614.9	8,570.0	Rollins SS		
8,764.9	8,720.0	TD		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
120.0	120.0	0.0	0.0	Start Build 3.00
360.7	360.0	5.7	-14.0	Hold 7.22 Inclination
2,820.1	2,800.0	121.5	-300.6	Begin 1.5"/100 Turn
3,028.7	3,006.9	136.0	-321.7	Hold 7.22 Inclination
5,783.5	5,740.0	389.5	-557.4	Start Drop -1.50
6,264.9	6,220.0	411.7	-578.1	Vertical
6,364.9	6,320.0	411.7	-578.1	Top Gas
8,764.9	8,720.0	411.7	-578.1	TD at 8764.9