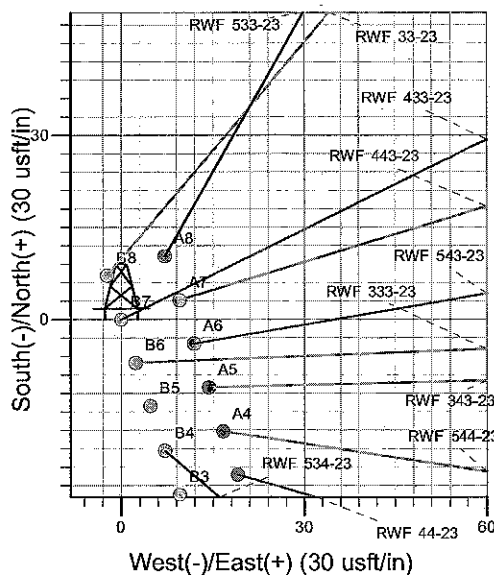
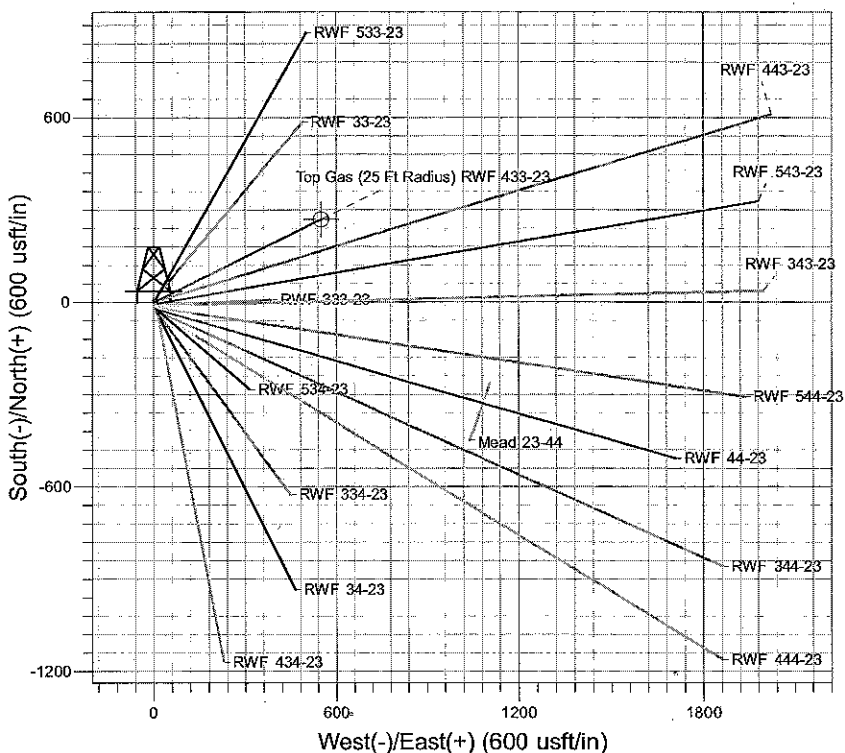
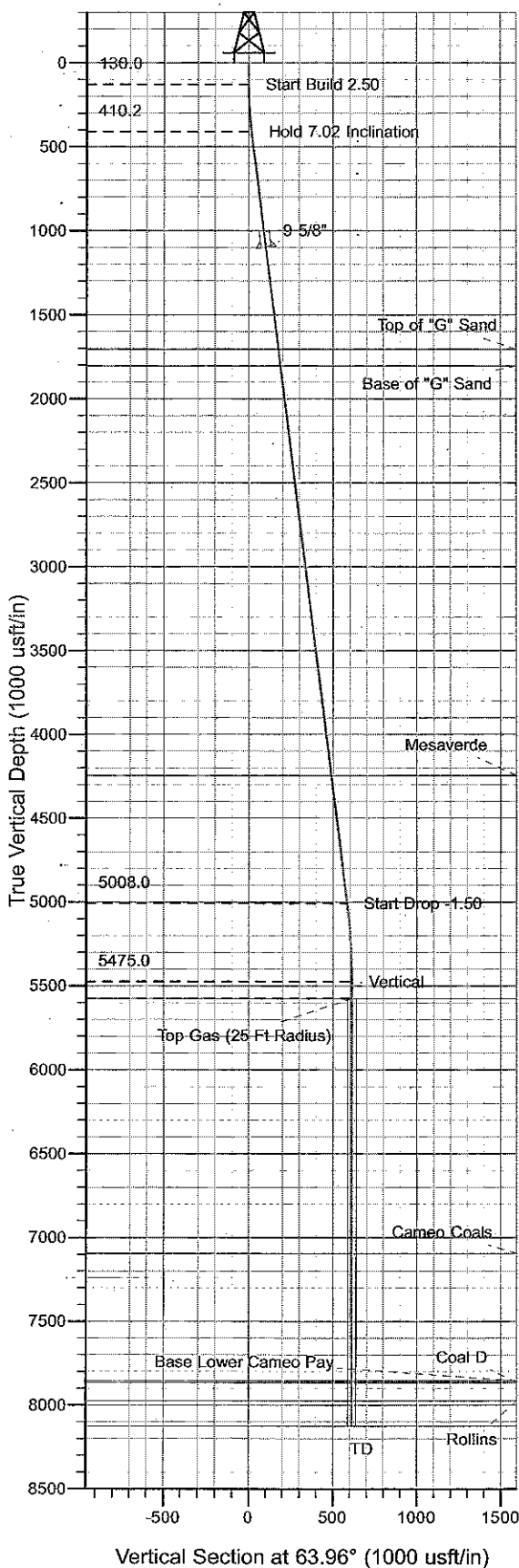




Well Name: RWF 433-23
 Surface Location: RWF 33-23 Pad
 North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
 Ground Elevation: 5501.5
 +N/-S +E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1618347.20 2335765.80 39° 30' 27.038 N 107° 51' 15.897 W B7
 WELL @ 5525.5usft (H&P (24') kjs)



Project: RU 23-06S-094W
 Site: RWF 33-23 Pad
 Well: RWF 433-23
 Plan #2 07Apr10 kjs

Azimuths to True North
 Magnetic North: 10.61°
 Magnetic Field
 Strength: 52571.6snT
 Dip Angle: 65.86°
 Date: 10/16/2008
 Model: IGRF2005-10

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSec	Departure	Annotation
130.0	130.0	0.00	0.00	0.0	0.0	0.0	0.0	Start Build 2.50
410.2	410.9	7.02	63.96	7.5	15.4	17.2	17.2	Hold 7.02 Inclination
5008.0	5043.5	7.02	63.96	256.2	524.3	583.5	583.5	Start Drop -1.50
5475.0	5511.6	0.00	0.00	268.8	550.0	612.2	612.2	Vertical
5575.0	5611.6	0.00	0.00	268.8	550.0	612.2	612.2	Top Gas
8125.0	8161.6	0.00	0.00	268.8	550.0	612.2	612.2	TD at 8161.6

PICEANCE VLY NAD 83

RU 23-06S-094W

RWF 33-23 Pad

RWF 433-23 - Slot B7

Wellbore #1

Plan: Plan #2 07Apr10 kjs

Standard Planning Report - Geographic

22 July, 2010

Williams

Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well RWF 433-23 - Slot B7
Company:	PICEANCE VLY NAD 83	TVD Reference:	WELL @ 5525.5usft (H&P (24') kjs)
Project:	RU 23-06S-094W	MD Reference:	WELL @ 5525.5usft (H&P (24') kjs)
Site:	RWF 33-23 Pad	North Reference:	True
Well:	RWF 433-23	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 07Apr10 kjs		

Project	RU 23-06S-094W, Garfield County, CO, 23-06S-094W		
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	RWF 33-23 Pad		
Site Position:		Northing:	1,618,354.40 usft
From:	Map	Easting:	2,335,763.80 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13.200 in
		Latitude:	39° 30' 27.108 N
		Longitude:	107° 51' 15.924 W
		Grid Convergence:	-1.485 °

Well	RWF 433-23 - Slot B7		
Well Position	+N/-S	0.0 usft	Northing: 1,618,347.20 usft
	+E/-W	0.0 usft	Easting: 2,335,765.80 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	Latitude: 39° 30' 27.038 N
			Longitude: 107° 51' 15.897 W
			Ground Level: 5,501.5 usft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination
	IGRF2005-10	10/16/2008	(°)
			10.614
			Dip Angle
			(°)
			65.857
			Field Strength
			(nT)
			52,572

Design	Plan #2 07Apr10 kjs		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			(°)
			63.96

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	
130.0	0.00	0.00	130.0	0.0	0.0	0.00	0.00	0.00	0.000	
410.9	7.02	63.96	410.2	7.5	15.4	2.50	2.50	0.00	63.960	
5,043.5	7.02	63.96	5,008.0	256.2	524.3	0.00	0.00	0.00	0.000	
5,511.6	0.00	0.00	5,475.0	268.8	550.0	1.50	-1.50	0.00	180.000	
5,611.6	0.00	0.00	5,575.0	268.8	550.0	0.00	0.00	0.00	0.000	Top Gas (25 Ft Radius)
8,161.6	0.00	0.00	8,125.0	268.8	550.0	0.00	0.00	0.00	0.000	

Williams
Planning Report - Geographic

Database: Compass R5000 WIN AUTH
Company: PICEANCE VLY NAD 83
Project: RU 23-06S-094W
Site: RWF 33-23 Pad
Well: RWF 433-23
Wellbore: Wellbore #1
Design: Plan #2 07Apr10 kjs

Local Co-ordinate Reference: Well RWF 433-23 - Slot B7
TVD Reference: WELL @ 5525.5usft (H&P (24') kjs)
MD Reference: WELL @ 5525.5usft (H&P (24') kjs)
North Reference: True
Survey Calculation Method: Minimum Curvature

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	1,618,347.20	2,335,765.80	39° 30' 27.038 N	107° 51' 15.897 W
130.0	0.00	0.00	130.0	0.0	0.0	1,618,347.20	2,335,765.80	39° 30' 27.038 N	107° 51' 15.897 W
Start Build 2.50									
410.9	7.02	63.96	410.2	7.5	15.4	1,618,354.34	2,335,781.44	39° 30' 27.112 N	107° 51' 15.699 W
Hold 7.02 Inclination									
1,105.9	7.02	63.96	1,100.0	44.8	91.8	1,618,389.65	2,335,858.72	39° 30' 27.481 N	107° 51' 14.725 W
9 5/8"									
1,715.5	7.02	63.96	1,705.0	77.6	158.7	1,618,420.62	2,335,926.50	39° 30' 27.804 N	107° 51' 13.871 W
Top of "G" Sand									
1,816.2	7.02	63.96	1,805.0	83.0	169.8	1,618,425.74	2,335,937.70	39° 30' 27.858 N	107° 51' 13.730 W
Base of "G" Sand									
4,274.7	7.02	63.96	4,245.0	214.9	439.9	1,618,550.63	2,336,211.06	39° 30' 29.162 N	107° 51' 10.285 W
Mesaverde									
5,043.5	7.02	63.96	5,008.0	256.2	524.3	1,618,589.69	2,336,296.54	39° 30' 29.569 N	107° 51' 9.207 W
Start Drop -1.50									
5,511.6	0.00	0.00	5,475.0	268.8	550.0	1,618,601.60	2,336,322.60	39° 30' 29.694 N	107° 51' 8.879 W
Vertical									
5,611.6	0.00	0.00	5,575.0	268.8	550.0	1,618,601.60	2,336,322.60	39° 30' 29.694 N	107° 51' 8.879 W
Top Gas - Approx. Top Gas									
7,131.6	0.00	0.00	7,095.0	268.8	550.0	1,618,601.60	2,336,322.60	39° 30' 29.694 N	107° 51' 8.879 W
Cameo Coals									
7,891.6	0.00	0.00	7,855.0	268.8	550.0	1,618,601.60	2,336,322.60	39° 30' 29.694 N	107° 51' 8.879 W
Base Lower Cameo Pay									
7,901.6	0.00	0.00	7,865.0	268.8	550.0	1,618,601.60	2,336,322.60	39° 30' 29.694 N	107° 51' 8.879 W
Coal D									
8,011.6	0.00	0.00	7,975.0	268.8	550.0	1,618,601.60	2,336,322.60	39° 30' 29.694 N	107° 51' 8.879 W
Rollins									
8,161.6	0.00	0.00	8,125.0	268.8	550.0	1,618,601.60	2,336,322.60	39° 30' 29.694 N	107° 51' 8.879 W
TD at 8161.6									

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 Ft Radius)	0.00	0.00	5,575.0	268.8	550.0	1,618,601.60	2,336,322.60	39° 30' 29.694 N	107° 51' 8.879 W
- plan hits target center									
- Circle (radius 25.0)									

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)
1,105.9	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 433-23 - Slot B7
Company:	PICEANCE VLY NAD 83	TVD Reference:	WELL @ 5525.5usft (H&P (24') kjs)
Project:	RU 23-06S-094W	MD Reference:	WELL @ 5525.5usft (H&P (24') kjs)
Site:	RWF 33-23 Pad	North Reference:	True
Well:	RWF 433-23	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2 07Apr10 kjs		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,715.5	1,705.0	Top of "G" Sand				
1,816.2	1,805.0	Base of "G" Sand				
4,274.7	4,245.0	Mesaverde				
5,611.6	5,575.0	Approx. Top Gas				
7,131.6	7,095.0	Cameo Coals				
7,891.6	7,855.0	Base Lower Cameo Pay				
7,901.6	7,865.0	Coal D				
8,011.6	7,975.0	Rollins				
8,161.6	8,125.0	TD				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
130.0	130.0	0.0	0.0	Start Build 2.50	
410.9	410.2	7.5	15.4	Hold 7.02 Inclination	
5,043.5	5,008.0	256.2	524.3	Start Drop -1.50	
5,511.6	5,475.0	268.8	550.0	Vertical	
5,611.6	5,575.0	268.8	550.0	Top Gas	
8,161.6	8,125.0	268.8	550.0	TD at 8161.6	