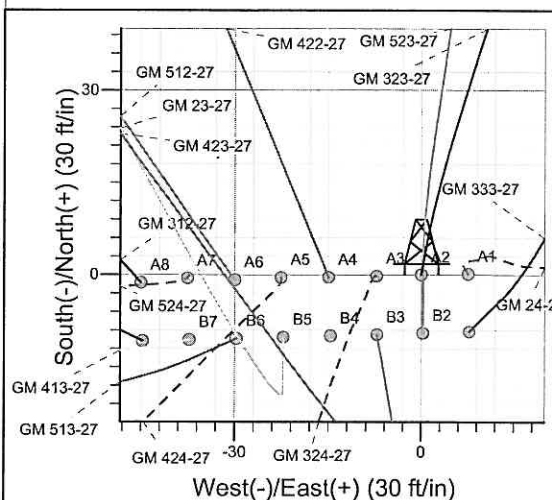
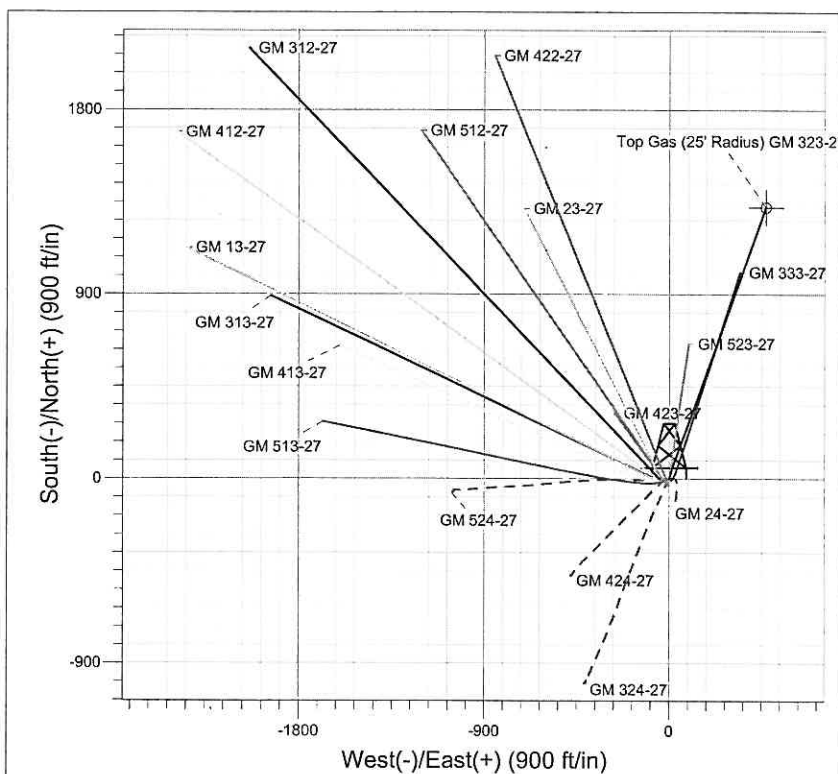
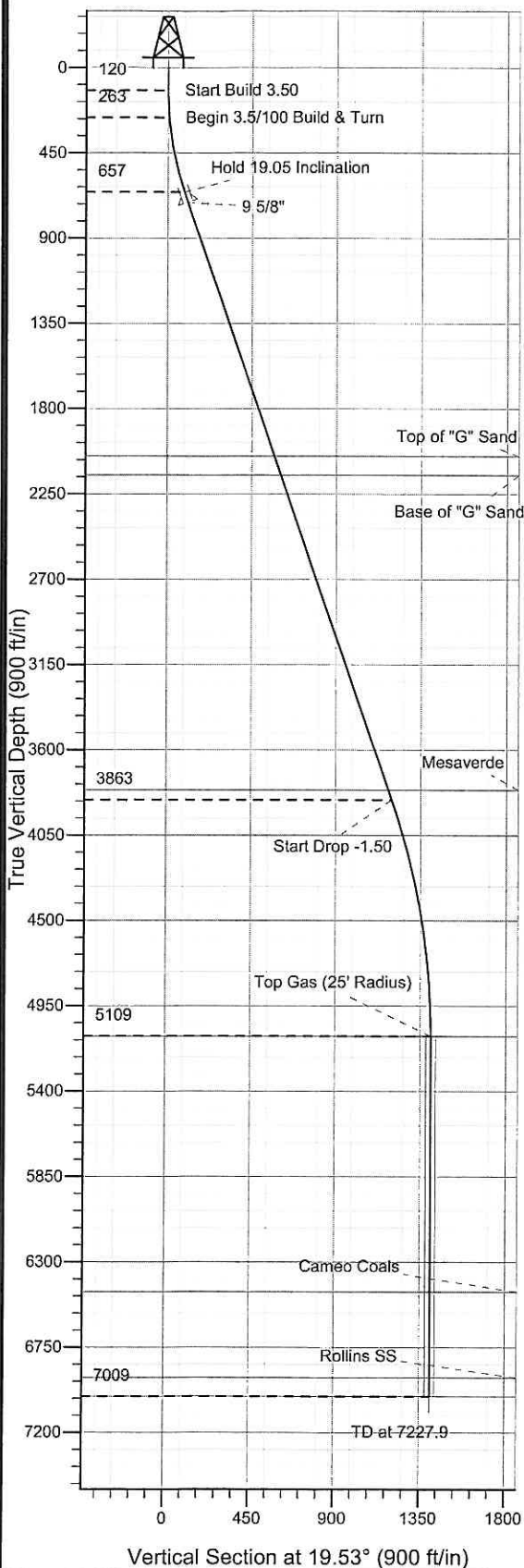




Well Name: GM 323-27  
 Surface Location: GM 24-27 Pad  
 North American Datum 1983, US State Plane 1983 Colorado Central Zone  
 Ground Elevation: 5604.0  
 +N-S +E-W Northing Easting Latitude Longitude Slot  
 0.0 0.0 1614217.70 2267705.30 39° 29' 27.916 N 108° 5' 42.421 W A2  
 KELLY BUSHING @ 5628.0ft (H&P 278 (24') kjs)



Project: GV 27-06S-096W  
 Site: GM 24-27 Pad  
 Well: GM 323-27  
 Plan #1 11Dec08 kjs

↑ M Azimuths to True North  
 Magnetic North: 10.70°  
 Magnetic Field  
 Strength: 52560.6snT  
 Dip Angle: 65.79°  
 Date: 12/10/2008  
 Model: IGRF2005-10

#### SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N-S	+E-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	120.0	0.00	0.00	120.0	0.0	0.0	0.00	0.00	0.0	
3	262.9	5.00	10.00	262.7	6.1	1.1	3.50	10.00	6.1	
4	666.9	19.05	19.69	656.9	85.9	26.5	3.50	13.00	89.9	
5	4058.2	19.05	19.69	3862.6	1127.9	399.4	0.00	0.00	1196.5	
6	5327.9	0.00	0.00	5109.0	1324.7	469.9	1.50	180.00	1405.6	Top Gas (25' Radius) GM 323-27
7	7227.9	0.00	0.00	7009.0	1324.7	469.9	0.00	0.00	1405.6	TD / PBHL GM 323-27

#### ANNOTATIONS

TVD	MD	Annotation
120.0	120.0	Start Build 3.50
262.7	262.9	Begin 3.5/100 Build & Turn
656.9	666.9	Hold 19.05 Inclination
3862.6	4058.2	Start Drop -1.50
5109.0	5327.9	Top Gas
7009.0	7227.9	TD at 7227.9

# **PICEANCE VLY NAD 83**

**GV 27-06S-096W**

**GM 24-27 Pad**

**GM 323-27 - Slot A2**

**Wellbore #1**

**Plan: Plan #1 11Dec08 kjs**

## **Standard Planning Report - Geographic**

**11 August, 2009**

# Williams Production RMT Company

## Planning Report - Geographic

<b>Database:</b>	EDMDB_COMPASS	<b>Local Co-ordinate Reference:</b>	Well GM 323-27 - Slot A2
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 5628.0ft (H&P 278 (24') kjs)
<b>Project:</b>	GV 27-06S-096W	<b>MD Reference:</b>	KELLY BUSHING @ 5628.0ft (H&P 278 (24') kjs)
<b>Site:</b>	GM 24-27 Pad	<b>North Reference:</b>	True
<b>Well:</b>	GM 323-27	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 11Dec08 kjs		

<b>Project</b>	GV 27-06S-096W, Garfield County, CO, 27-06S-096W		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Central Zone		Using geodetic scale factor

Site		GM 24-27 Pad			
Site Position:		Northing:	1,614,217.60 ft	Latitude:	39° 29' 27.917 N
From:	Map	Easting:	2,267,712.90 ft	Longitude:	108° 5' 42.324 W
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	-1.64 °

Well	GM 323-27 - Slot A2					
Well Position	+N/-S	0.0 ft	Northing:	1,614,217.70 ft	Latitude:	39° 29' 27.916 N
	+E/-W	0.0 ft	Easting:	2,267,705.30 ft	Longitude:	108° 5' 42.421 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	5,604.0 ft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2005-10	12/10/2008	10.70	65.79	52,561

<b>Design</b>	Plan #1 11Dec08 kjs			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	19.53

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
120.0	0.00	0.00	120.0	0.0	0.0	0.00	0.00	0.00	0.00	
262.9	5.00	10.00	262.7	6.1	1.1	3.50	3.50	0.00	10.00	
666.9	19.05	19.69	656.9	85.9	26.5	3.50	3.48	2.40	13.00	
4,058.2	19.05	19.69	3,862.6	1,127.9	399.4	0.00	0.00	0.00	0.00	
5,327.9	0.00	0.00	5,109.0	1,324.7	469.9	1.50	-1.50	0.00	180.00	Top Gas (25' Radius)
7,227.9	0.00	0.00	7,009.0	1,324.7	469.9	0.00	0.00	0.00	0.00	TD / PBHL GM 323-2

# Williams Production RMT Company

## Planning Report - Geographic

Database: EDMDB\_COMPASS  
 Company: PICEANCE VLY NAD 83  
 Project: GV 27-06S-096W  
 Site: GM 24-27 Pad  
 Well: GM 323-27  
 Wellbore: Wellbore #1  
 Design: Plan #1 11Dec08 kjs

Local Co-ordinate Reference: Well GM 323-27 - Slot A2  
 TVD Reference: KELLY BUSHING @ 5628.0ft (H&P 278 (24') kjs)  
 MD Reference: KELLY BUSHING @ 5628.0ft (H&P 278 (24') kjs)  
 North Reference: True  
 Survey Calculation Method: Minimum Curvature

### Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (ft)	Map Easting (ft)	Latitude	Longitude
0.0	0.00	0.00	0.0	0.0	0.0	1,614,217.70	2,267,705.30	39° 29' 27.916 N	108° 5' 42.421 W
120.0	0.00	0.00	120.0	0.0	0.0	1,614,217.70	2,267,705.30	39° 29' 27.916 N	108° 5' 42.421 W
262.9	5.00	10.00	262.7	6.1	1.1	1,614,223.80	2,267,706.56	39° 29' 27.977 N	108° 5' 42.407 W
666.9	19.05	19.69	656.9	85.9	26.5	1,614,302.85	2,267,734.23	39° 29' 28.765 N	108° 5' 42.083 W
723.0	19.05	19.69	709.9	103.2	32.7	1,614,319.91	2,267,740.89	39° 29' 28.936 N	108° 5' 42.004 W
9 5/8"									
2,140.7	19.05	19.69	2,050.0	538.7	188.6	1,614,750.81	2,267,909.15	39° 29' 33.240 N	108° 5' 40.015 W
Top of "G" Sand									
2,246.5	19.05	19.69	2,150.0	571.2	200.2	1,614,782.96	2,267,921.71	39° 29' 33.562 N	108° 5' 39.867 W
Base of "G" Sand									
4,003.7	19.05	19.69	3,811.0	1,111.1	393.4	1,615,317.06	2,268,130.27	39° 29' 38.897 N	108° 5' 37.402 W
Mesaverde									
4,058.2	19.05	19.69	3,862.6	1,127.9	399.4	1,615,333.64	2,268,136.75	39° 29' 39.063 N	108° 5' 37.326 W
5,327.9	0.00	0.00	5,109.0	1,324.7	469.9	1,615,528.40	2,268,212.80	39° 29' 41.008 N	108° 5' 36.427 W
Approx. Top Gas									
6,676.9	0.00	0.00	6,458.0	1,324.7	469.9	1,615,528.40	2,268,212.80	39° 29' 41.008 N	108° 5' 36.427 W
Cameo Coals									
7,127.9	0.00	0.00	6,909.0	1,324.7	469.9	1,615,528.40	2,268,212.80	39° 29' 41.008 N	108° 5' 36.427 W
Rollins SS									
7,227.9	0.00	0.00	7,009.0	1,324.7	469.9	1,615,528.40	2,268,212.80	39° 29' 41.008 N	108° 5' 36.427 W
TD									

### Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- hit/miss target									
- Shape									
TD / PBHL GM 323-27	0.00	0.00	7,009.0	1,324.7	469.9	1,615,528.40	2,268,212.80	39° 29' 41.008 N	108° 5' 36.427 W
- plan hits target									
- Point									
Top Gas (25' Radius) GI	0.00	0.00	5,109.0	1,324.7	469.9	1,615,528.40	2,268,212.80	39° 29' 41.008 N	108° 5' 36.427 W
- plan hits target									
- Circle (radius 25.0)									

### Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
723.0	709.9	9 5/8"	9-5/8	12-1/4

# Williams Production RMT Company

## Planning Report - Geographic

<b>Database:</b>	EDMDB_COMPASS	<b>Local Co-ordinate Reference:</b>	Well GM 323-27 - Slot A2
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 5628.0ft (H&P 278 (24') kjs)
<b>Project:</b>	GV 27-06S-096W	<b>MD Reference:</b>	KELLY BUSHING @ 5628.0ft (H&P 278 (24') kjs)
<b>Site:</b>	GM 24-27 Pad	<b>North Reference:</b>	True
<b>Well:</b>	GM 323-27	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #1 11Dec08 kjs		

### Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,140.7	2,050.00	Top of "G" Sand			
2,246.5	2,150.00	Base of "G" Sand			
4,003.7	3,811.00	Mesaverde			
5,327.9	5,109.00	Approx. Top Gas			
6,676.9	6,458.00	Cameo Coals			
7,127.9	6,909.00	Rollins SS			
7,227.9	7,009.00	TD			

### Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
120.0	120.0	0.0	0.0	Start Build 3.50	
262.9	262.7	6.1	1.1	Begin 3.5/100 Build & Turn	
666.9	656.9	85.9	26.5	Hold 19.05 Inclination	
4,058.2	3,862.6	1,127.9	399.4	Start Drop -1.50	
5,327.9	5,109.0	1,324.7	469.9	Top Gas	
7,227.9	7,009.0	1,324.7	469.9	TD at 7227.9	