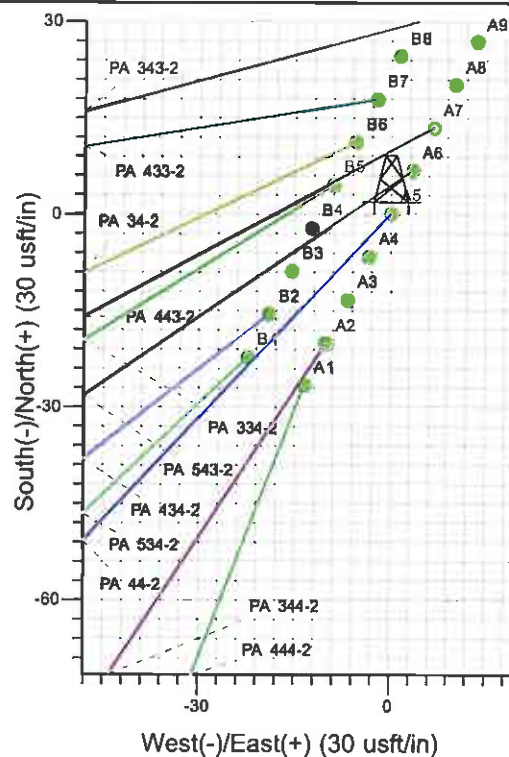
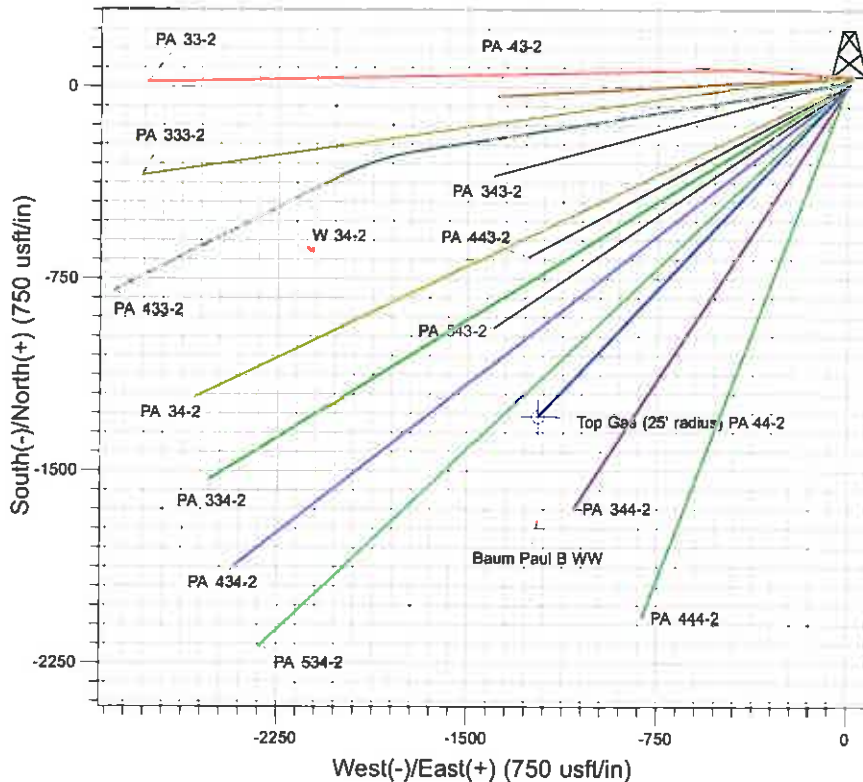
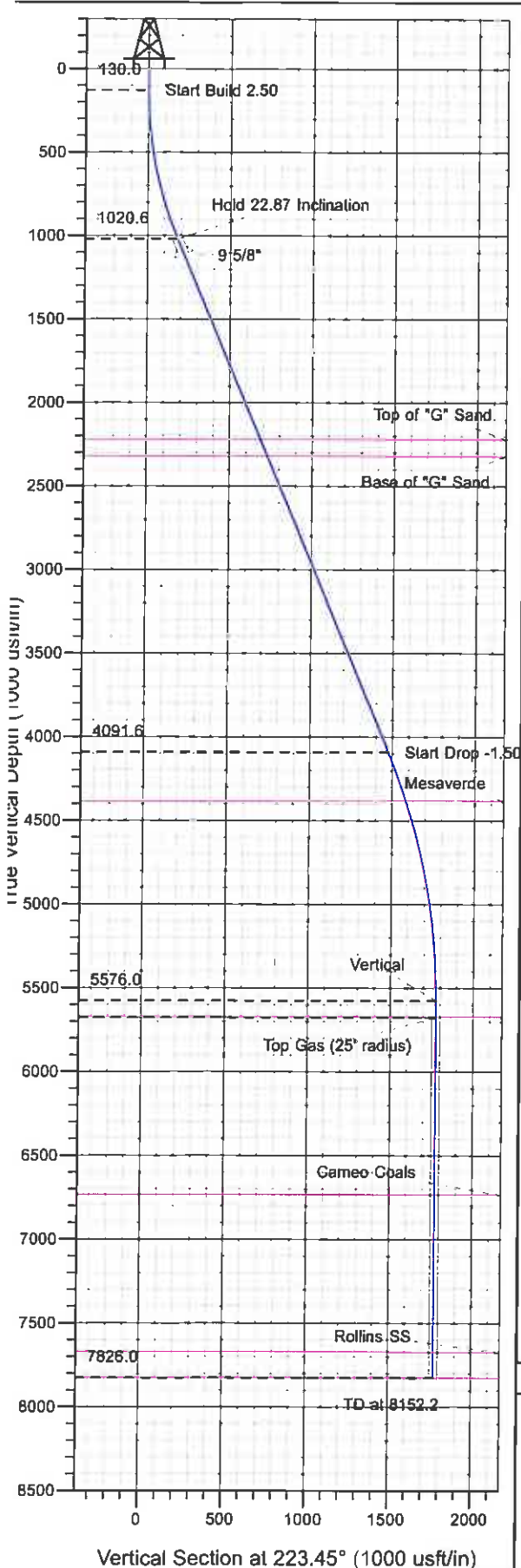




Surface Location: GV 84-1 Pad - West Cellar
 North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
 Ground Elevation: 6027.0
 WELL @ 6051.0usft (Original Well Elev)

+N/-S 0.0 +E/-W 0.0 Northing 1603967.40 Easting 2307259.50 Latitude 39° 27' 57.507 N Longitude 107° 57' 14.520 W Slot A5



Project: PA 01-07S-095W
 Site: GV 84-1 Pad - West Cellar
 Well: PA 44-2
 Design #1 22Mar11 kjs

Azimuths to True North
 Magnetic North: 10.36°

Magnetic Field
 Strength: 52262.3snT
 Dip Angle: 65.73°
 Date: 3/22/2011
 Model: IGRF2010

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSDeparture	Annotation
130.0	130.0	0.00	0.00	0.0	0.0	0.0	Start Build 2.50
1020.6	1044.7	22.87	223.45	-130.8	-123.9	180.1	Hold 22.87 Inclination
4091.6	4377.7	22.87	223.45	-1071.1	-1014.6	1475.3	Start Drop -1.50
5576.0	5902.2	0.00	0.00	-1289.0	-1221.1	1775.6	Vertical
5576.0	6002.2	0.00	0.00	-1289.0	-1221.1	1775.6	Top Gas
7826.0	8152.2	0.00	0.00	-1289.0	-1221.1	1775.6	TD at 8152.2

PICEANCE VLY NAD 83

PA 01-07S-095W

GV 84-1 Pad - West Cellar

PA 44-2 - Slot A5

Wellbore #1

Plan: Design #1 22Mar11 kjs

Standard Planning Report - Geographic

16 May, 2011

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well PA 44-2 - Slot A5
Company:	PICEANCE VLY NAD 83	TVD Reference:	WELL @ 6051.0usft (Original Well Elev)
Project:	PA 01-07S-095W	MD Reference:	WELL @ 6051.0usft (Original Well Elev)
Site:	GV 84-1 Pad - West Cellar	North Reference:	True
Well:	PA 44-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 22Mar11 kjs		

Project	PA 01-07S-095W, 01-07S-095W		
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 84-1 Pad - West Cellar		
Site Position:		Northing:	1,603,932.89 usft
From:	Map	Easting:	2,307,221.63 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13.200 in
		Latitude:	39° 27' 57.156 N
		Longitude:	107° 57' 14.990 W
		Grid Convergence:	-1.548 °

Well	PA 44-2 - Slot A5		
Well Position	+N/-S	0.0 usft	Northing: 1,603,967.40 usft
	+E/-W	0.0 usft	Easting: 2,307,259.50 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	Ground Level: 6,027.0 usft

Wellbore	Wellbore #1		
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Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/22/2011	10.360	65.729	52,262

Design	Design #1 22Mar11 kjs		
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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	223.45

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	
1,044.7	22.87	223.45	1,020.6	-130.8	-123.9	2.50	2.50	0.00	223.450	
4,377.7	22.87	223.45	4,091.6	-1,071.1	-1,014.6	0.00	0.00	0.00	0.000	
5,902.2	0.00	0.00	5,576.0	-1,289.0	-1,221.1	1.50	-1.50	0.00	180.000	
6,002.2	0.00	0.00	5,676.0	-1,289.0	-1,221.1	0.00	0.00	0.00	0.000	Top Gas (25' radius) I
8,152.2	0.00	0.00	7,826.0	-1,289.0	-1,221.1	0.00	0.00	0.00	0.000	

Williams

Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well PA 44-2 - Slot A5
Company:	PICEANCE VLY NAD 83	TVD Reference:	WELL @ 6051.0usft (Original Well Elev)
Project:	PA 01-07S-095W	MD Reference:	WELL @ 6051.0usft (Original Well Elev)
Site:	GV 84-1 Pad - West Cellar	North Reference:	True
Well:	PA 44-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 22Mar11 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	1,603,967.40	2,307,259.50	39° 27' 57.507 N	107° 57' 14.520 W
130.0	0.00	0.00	130.0	0.0	0.0	1,603,967.40	2,307,259.50	39° 27' 57.507 N	107° 57' 14.520 W
Start Build 2.50									
1,044.7	22.87	223.45	1,020.6	-130.8	-123.9	1,603,840.03	2,307,132.14	39° 27' 56.215 N	107° 57' 16.099 W
Hold 22.87 Inclination									
1,145.0	22.87	223.45	1,113.0	-159.1	-150.7	1,603,812.47	2,307,104.59	39° 27' 55.935 N	107° 57' 16.441 W
9 5/8"									
2,347.5	22.87	223.45	2,221.0	-498.3	-472.0	1,603,482.04	2,306,774.19	39° 27' 52.582 N	107° 57' 20.538 W
Top of "G" Sand									
2,456.0	22.87	223.45	2,321.0	-528.9	-501.1	1,603,452.22	2,306,744.37	39° 27' 52.280 N	107° 57' 20.908 W
Base of "G" Sand									
4,377.7	22.87	223.45	4,091.6	-1,071.1	-1,014.6	1,602,924.18	2,306,216.37	39° 27' 46.922 N	107° 57' 27.456 W
Start Drop -1.50									
4,692.1	18.15	223.45	4,386.0	-1,151.0	-1,090.4	1,602,846.31	2,306,138.51	39° 27' 46.131 N	107° 57' 28.422 W
Mesaverde									
5,902.2	0.00	0.00	5,576.0	-1,289.0	-1,221.1	1,602,711.90	2,306,004.10	39° 27' 44.767 N	107° 57' 30.089 W
Vertical									
6,002.2	0.00	0.00	5,676.0	-1,289.0	-1,221.1	1,602,711.90	2,306,004.10	39° 27' 44.767 N	107° 57' 30.089 W
Top Gas - Approx. Top Gas									
7,062.2	0.00	0.00	6,736.0	-1,289.0	-1,221.1	1,602,711.90	2,306,004.10	39° 27' 44.767 N	107° 57' 30.089 W
Cameo Coals									
8,002.2	0.00	0.00	7,676.0	-1,289.0	-1,221.1	1,602,711.90	2,306,004.10	39° 27' 44.767 N	107° 57' 30.089 W
Rollins SS									
8,152.2	0.00	0.00	7,826.0	-1,289.0	-1,221.1	1,602,711.90	2,306,004.10	39° 27' 44.767 N	107° 57' 30.089 W
TD at 8152.2 - 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) PA	0.00	0.00	5,676.0	-1,289.0	-1,221.1	1,602,711.90	2,306,004.10	39° 27' 44.767 N	107° 57' 30.089 W
- plan hits target center									
- Circle (radius 25.0)									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,145.0	1,113.0	9 5/8"	9.625	12.250	

Williams
Planning Report - Geographic

Database:	Compass R5000 WIN AUTH	Local Co-ordinate Reference:	Well PA 44-2 - Slot A5
Company:	PICEANCE VLY NAD 83	TVD Reference:	WELL @ 6051.0usft (Original Well Elev)
Project:	PA 01-07S-095W	MD Reference:	WELL @ 6051.0usft (Original Well Elev)
Site:	GV 84-1 Pad - West Cellar	North Reference:	True
Well:	PA 44-2	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1 22Mar11 kjs		

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,347.5	2,221.0	Top of "G" Sand			
2,456.0	2,321.0	Base of "G" Sand			
4,692.1	4,386.0	Mesaverde			
6,002.2	5,676.0	Approx. Top Gas			
7,062.2	6,736.0	Cameo Coals			
8,002.2	7,676.0	Rollins SS			
8,152.2	7,826.0	TD			

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
130.0	130.0	0.0	0.0	Start Build 2.50
1,044.7	1,020.6	-130.8	-123.9	Hold 22.87 Inclination
4,377.7	4,091.6	-1,071.1	-1,014.6	Start Drop -1.50
5,902.2	5,576.0	-1,289.0	-1,221.1	Vertical
6,002.2	5,676.0	-1,289.0	-1,221.1	Top Gas
8,152.2	7,826.0	-1,289.0	-1,221.1	TD at 8152.2