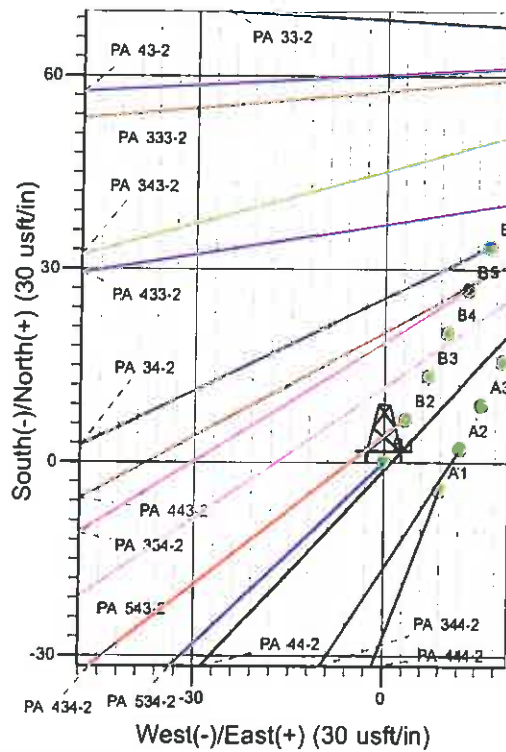
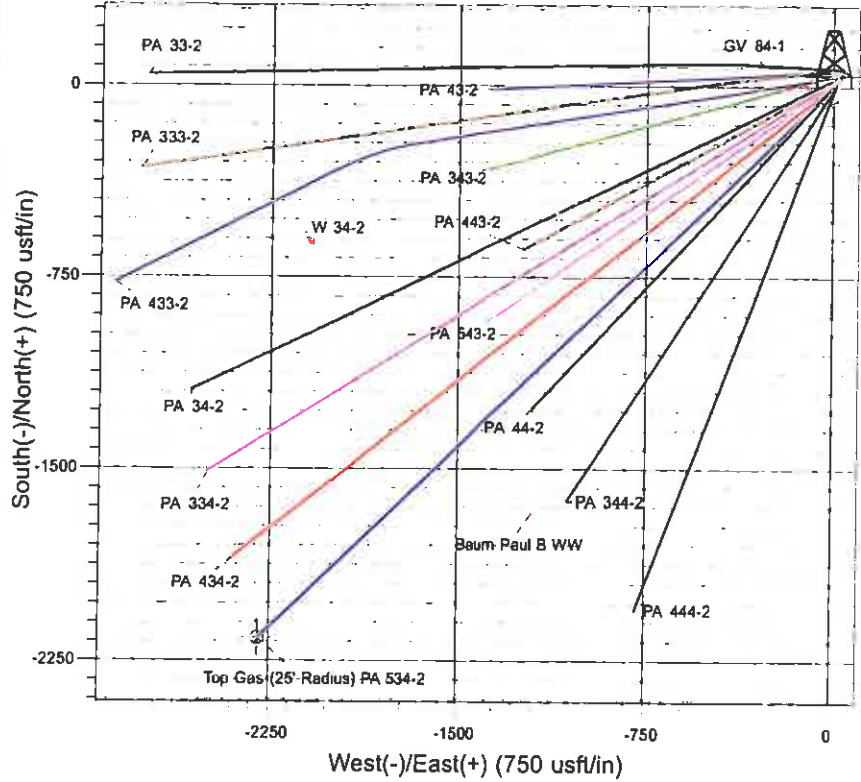
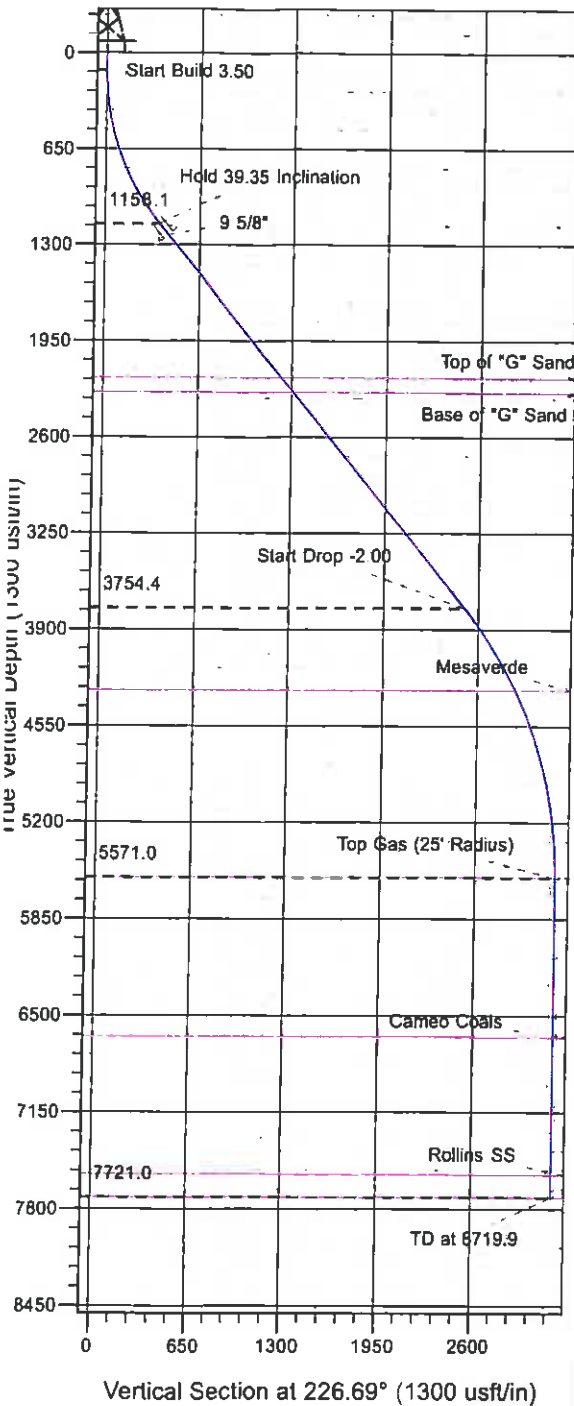




Surface Location: GV 84-1 Pad - West Cellar
 North American Datum 1983 , US State Plane 1983 , Colorado Central Zone
 Ground Elevation: 6027.0
 WELL @ 6051.0usft (Original Well Elev)

+N/-S +E/-W Northing Easting Latitude Longitude Slot
 0.0 0.0 1603945.70 2307236.50 39° 27' 57.287 N 107° 57' 14.805 W B1



Project: PA 01-07S-095W
 Site: GV 84-1 Pad - West Cellar
 Well: PA 534-2
 Design #1 22Mar11 kjs

Compass rose showing Magnetic North (M) and True North (T).
 Azimuths to True North: 10.36°
 Magnetic Field
 Strength: 52262.3nT
 Dip Angle: 65.73°
 Date: 3/22/2011
 Model: IGRF2010

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	V	Sed	Departure	Annotation
120.0	120.0	0.00	0.00	0.0	0.0	0.0	0.0	0.0	Start Build 3.50
1158.1	1244.4	39.35	226.69	-254.6	-270.1	371.2	371.2	0.0	Hold 39.35 Inclination
3754.4	4602.2	39.35	226.69	-1715.2	-1819.4	2500.4	2500.4	0.0	Start Drop -2.00
5571.0	6569.9	0.00	0.00	-2160.8	-2292.1	3150.0	3150.0	0.0	Top Gas
7721.0	8719.9	0.00	0.00	-2160.8	-2292.1	3150.0	3150.0	0.0	TD at 8719.9

PICEANCE VLY NAD 83

PA 01-07S-095W

GV 84-1 Pad - West Cellar

PA 534-2 - Slot B1

Wellbore #1

Plan: Design #1 22Mar11 kjs

Standard Planning Report - Geographic

16 May, 2011

Williams
Planning Report - Geographic

Database: Compass R5000 WIN AUTH
Company: PICEANCE VLY NAD 83
Project: PA 01-07S-095W
Site: GV 84-1 Pad - West Cellar
Well: PA 534-2
Wellbore: Wellbore #1
Design: Design #1 22Mar11 kjs

Local Co-ordinate Reference: Well PA 534-2 - Slot B1
TVD Reference: WELL @ 6051.0usft (Original Well Elev)
MD Reference: WELL @ 6051.0usft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Project PA 01-07S-095W, 01-07S-095W

Map System: US State Plane 1983
Geo Datum: North American Datum 1983
Map Zone: Colorado Central Zone

System Datum: Mean Sea Level
Using geodetic scale factor

Site GV 84-1 Pad - West Cellar

Site Position:
From: Map
Position Uncertainty: 0.0 usft

Northing: 1,603,932.89 usft
Easting: 2,307,221.63 usft
Slot Radius: 13.200 in

Latitude: 39° 27' 57.156 N
Longitude: 107° 57' 14.990 W
Grid Convergence: -1.548 °

Well PA 534-2 - Slot B1

Well Position +N/-S 0.0 usft
+E/-W 0.0 usft
Position Uncertainty 0.0 usft

Northing: 1,603,945.70 usft
Easting: 2,307,236.50 usft
Wellhead Elevation:

Latitude: 39° 27' 57.287 N
Longitude: 107° 57' 14.805 W
Ground Level: 6,027.0 usft

Wellbore Wellbore #1

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

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	226.69

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	
1,244.4	39.35	226.69	1,158.1	-254.6	-270.1	3.50	3.50	0.00	226.689	
4,602.1	39.35	226.69	3,754.4	-1,715.2	-1,819.4	0.00	0.00	0.00	0.000	
6,569.9	0.00	0.00	5,571.0	-2,160.8	-2,292.1	2.00	-2.00	0.00	180.000	Top Gas (25' Radius)
8,719.9	0.00	0.00	7,721.0	-2,160.8	-2,292.1	0.00	0.00	0.00	0.000	

Williams
Planning Report - Geographic

Database: Compass R5000 WIN AUTH
Company: PICEANCE VLY NAD 83
Project: PA 01-07S-095W
Site: GV 84-1 Pad - West Cellar
Well: PA 534-2
Wellbore: Wellbore #1
Design: Design #1 22Mar11 kjs

Local Co-ordinate Reference: Well PA 534-2 - Slot B1
TVD Reference: WELL @ 6051.0usft (Original Well Elev)
MD Reference: WELL @ 6051.0usft (Original Well Elev)
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	1,603,945.70	2,307,236.50	39° 27' 57.287 N	107° 57' 14.805 W
120.0	0.00	0.00	120.0	0.0	0.0	1,603,945.70	2,307,236.50	39° 27' 57.287 N	107° 57' 14.805 W
Start Build 3.50									
1,244.4	39.35	226.69	1,158.1	-254.6	-270.1	1,603,698.46	2,306,959.63	39° 27' 54.770 N	107° 57' 18.249 W
Hold 39.35 Inclination									
1,344.0	39.35	226.69	1,235.1	-298.0	-316.1	1,603,656.40	2,306,912.52	39° 27' 54.342 N	107° 57' 18.835 W
9 5/8"									
2,593.2	39.35	226.69	2,201.0	-841.3	-892.4	1,603,128.81	2,306,321.69	39° 27' 48.972 N	107° 57' 26.184 W
Top of "G" Sand									
2,722.5	39.35	226.69	2,301.0	-897.6	-952.1	1,603,074.19	2,306,260.53	39° 27' 48.416 N	107° 57' 26.945 W
Base of "G" Sand									
4,602.1	39.35	226.69	3,754.4	-1,715.2	-1,819.4	1,602,280.36	2,305,371.53	39° 27' 40.335 N	107° 57' 38.002 W
Start Drop -2.00									
5,264.1	26.11	226.69	4,310.0	-1,960.2	-2,079.3	1,602,042.48	2,305,105.14	39° 27' 37.913 N	107° 57' 41.316 W
Mesaverde									
6,569.9	0.00	0.00	5,571.0	-2,160.8	-2,292.1	1,601,847.70	2,304,887.00	39° 27' 35.930 N	107° 57' 44.029 W
Top Gas - Approx. Top Gas									
7,644.9	0.00	0.00	6,646.0	-2,160.8	-2,292.1	1,601,847.70	2,304,887.00	39° 27' 35.930 N	107° 57' 44.029 W
Cameo Coals									
8,569.9	0.00	0.00	7,571.0	-2,160.8	-2,292.1	1,601,847.70	2,304,887.00	39° 27' 35.930 N	107° 57' 44.029 W
Rollins SS									
8,719.9	0.00	0.00	7,721.0	-2,160.8	-2,292.1	1,601,847.70	2,304,887.00	39° 27' 35.930 N	107° 57' 44.029 W
TD at 8719.9 - TD									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Top Gas (25' Radius) P/ - plan hits target center - Circle (radius 25.0)	0.00	0.00	5,571.0	-2,160.8	-2,292.1	1,601,847.70	2,304,887.00	39° 27' 35.930 N	107° 57' 44.029 W

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)
1,344.0	1,235.1	9 5/8"	9.625	12.250

Williams
Planning Report - Geographic

Database: Compass R5000 WIN AUTH
Company: PICEANCE VLY NAD 83
Project: PA 01-07S-095W
Site: GV 84-1 Pad - West Cellar
Well: PA 534-2
Wellbore: Wellbore #1
Design: Design #1 22Mar11 kjs

Local Co-ordinate Reference: Well PA 534-2 - Slot B1
TVD Reference: WELL @ 6051.0usft (Original Well Elev)
MD Reference: WELL @ 6051.0usft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,593.2	2,201.0	Top of "G" Sand			
2,722.5	2,301.0	Base of "G" Sand			
5,264.1	4,310.0	Mesaverde			
6,569.9	5,571.0	Approx. Top Gas			
7,644.9	6,646.0	Cameo Coals			
8,569.9	7,571.0	Rollins SS			
8,719.9	7,721.0	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 3.50
1,244.4	1,158.1	-254.6	-270.1	Hold 39.35 Inclination
4,602.1	3,754.4	-1,715.2	-1,819.4	Start Drop -2.00
6,569.9	5,571.0	-2,160.8	-2,292.1	Top Gas
8,719.9	7,721.0	-2,160.8	-2,292.1	TD at 8719.9