



## **PICEANCE VLY NAD 83**

**PA 02-07S-095W**

**GV 86-2 Pad**

**PA 23-2 - Slot B4**

**Wellbore #1**

**Plan: Plan #2 12Feb13 kjs**

## **Standard Planning Report - Geographic**

**05 June, 2013**



**WPX Energy**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well PA 23-2 - Slot B4
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 5847.00usft (Nabors 577 (26' RKB) kjs)
<b>Project:</b>	PA 02-07S-095W	<b>MD Reference:</b>	KELLY BUSHING @ 5847.00usft (Nabors 577 (26' RKB) kjs)
<b>Site:</b>	GV 86-2 Pad	<b>North Reference:</b>	True
<b>Well:</b>	PA 23-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2 12Feb13 kjs		

<b>Project</b>	PA 02-07S-095W, Garfield County, CO, 02-07S-095W		
<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

<b>Site</b>	GV 86-2 Pad			
<b>Site Position:</b>		<b>Northing:</b>	1,603,715.70 usft	<b>Latitude:</b> 39.46496
<b>From:</b> Map		<b>Easting:</b>	2,302,953.10 usft	<b>Longitude:</b> -107.96926
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13.200 in	<b>Grid Convergence:</b> -1.557 °

Well	PA 23-2 - Slot B4				
Well Position	+N/-S	0.00 usft	Northing:	1,603,773.40 usft	Latitude: 39.46512
	+E/-W	0.00 usft	Easting:	2,302,933.80 usft	Longitude: -107.96933
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level: 5,821.00 usft

<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	10/31/2007	10.785	65.824	52,624

<b>Design</b>	Plan #2 12Feb13 kjs			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	45.74

<b>Plan Sections</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	<b>TFO (°)</b>	<b>Target</b>
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	
130.00	0.00	0.00	130.00	0.00	0.00	0.00	0.00	0.00	0.000	
398.21	5.36	45.74	397.82	8.76	8.99	2.00	2.00	0.00	45.740	
4,990.41	5.36	45.74	4,969.91	308.38	316.44	0.00	0.00	0.00	0.000	
5,348.02	0.00	0.00	5,327.00	320.05	328.42	1.50	-1.50	0.00	180.000	
5,448.02	0.00	0.00	5,427.00	320.05	328.42	0.00	0.00	0.00	0.000	Top Gas (50' Radius)
7,598.02	0.00	0.00	7,577.00	320.05	328.42	0.00	0.00	0.00	0.000	

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well PA 23-2 - Slot B4
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 5847.00usft (Nabors 577 (26' RKB) kjs)
<b>Project:</b>	PA 02-07S-095W	<b>MD Reference:</b>	KELLY BUSHING @ 5847.00usft (Nabors 577 (26' RKB) kjs)
<b>Site:</b>	GV 86-2 Pad	<b>North Reference:</b>	True
<b>Well:</b>	PA 23-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2 12Feb13 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	
0.00	0.00	0.00	0.00	0.00	0.00	1,603,773.40	2,302,933.80	39.46512	-107.96933	
130.00	0.00	0.00	130.00	0.00	0.00	1,603,773.40	2,302,933.80	39.46512	-107.96933	
Start Build 2.00										
398.21	5.36	45.74	397.82	8.76	8.99	1,603,781.90	2,302,943.02	39.46515	-107.96930	
Hold 5.36 Inclination										
500.00	5.36	45.74	499.16	15.40	15.80	1,603,788.36	2,302,950.01	39.46516	-107.96928	
860.00	5.36	45.74	857.59	38.89	39.90	1,603,811.18	2,302,974.74	39.46523	-107.96919	
9 5/8"										
1,000.00	5.36	45.74	996.97	48.02	49.28	1,603,820.06	2,302,984.36	39.46525	-107.96916	
1,500.00	5.36	45.74	1,494.78	80.64	82.75	1,603,851.76	2,303,018.71	39.46534	-107.96904	
1,903.99	5.36	45.74	1,897.00	107.00	109.80	1,603,877.37	2,303,046.46	39.46541	-107.96894	
Top of "G" Sand										
2,000.00	5.36	45.74	1,992.59	113.27	116.23	1,603,883.46	2,303,053.06	39.46543	-107.96892	
2,004.43	5.36	45.74	1,997.00	113.55	116.52	1,603,883.74	2,303,053.36	39.46543	-107.96892	
Base of "G" Sand										
2,500.00	5.36	45.74	2,490.40	145.89	149.70	1,603,915.16	2,303,087.41	39.46552	-107.96880	
3,000.00	5.36	45.74	2,988.21	178.51	183.18	1,603,946.85	2,303,121.76	39.46561	-107.96868	
3,500.00	5.36	45.74	3,486.02	211.13	216.66	1,603,978.55	2,303,156.11	39.46570	-107.96857	
4,000.00	5.36	45.74	3,983.83	243.76	250.13	1,604,010.25	2,303,190.46	39.46579	-107.96845	
4,133.75	5.36	45.74	4,117.00	252.48	259.09	1,604,018.73	2,303,199.64	39.46581	-107.96842	
Mesaverde										
4,500.00	5.36	45.74	4,481.65	276.38	283.61	1,604,041.95	2,303,224.80	39.46588	-107.96833	
4,990.41	5.36	45.74	4,969.91	308.38	316.44	1,604,073.04	2,303,258.49	39.46597	-107.96821	
Start Drop -1.50										
5,000.00	5.22	45.74	4,979.46	308.99	317.08	1,604,073.64	2,303,259.14	39.46597	-107.96821	
5,348.02	0.00	0.00	5,327.00	320.05	328.42	1,604,084.39	2,303,270.79	39.46600	-107.96817	
Vertical										
5,448.02	0.00	0.00	5,427.00	320.05	328.42	1,604,084.39	2,303,270.79	39.46600	-107.96817	
Top Gas - Approx. Top Gas										
5,500.00	0.00	0.00	5,478.98	320.05	328.42	1,604,084.39	2,303,270.79	39.46600	-107.96817	
6,000.00	0.00	0.00	5,978.98	320.05	328.42	1,604,084.39	2,303,270.79	39.46600	-107.96817	
6,500.00	0.00	0.00	6,478.98	320.05	328.42	1,604,084.39	2,303,270.79	39.46600	-107.96817	
6,548.02	0.00	0.00	6,527.00	320.05	328.42	1,604,084.39	2,303,270.79	39.46600	-107.96817	
Cameo Coals										
7,000.00	0.00	0.00	6,978.98	320.05	328.42	1,604,084.39	2,303,270.79	39.46600	-107.96817	
7,448.02	0.00	0.00	7,427.00	320.05	328.42	1,604,084.39	2,303,270.79	39.46600	-107.96817	
Rollins SS										
7,500.00	0.00	0.00	7,478.98	320.05	328.42	1,604,084.39	2,303,270.79	39.46600	-107.96817	
7,598.02	0.00	0.00	7,577.00	320.05	328.42	1,604,084.39	2,303,270.79	39.46600	-107.96817	
TD at 7598.02 - TD										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
Top Gas (50' Radius) P/	0.00	0.00	5,427.00	320.05	328.42	1,604,084.39	2,303,270.79	39.46600	-107.96817	
- hit/miss target										
- Shape										
- plan hits target center										
- Circle (radius 50.00)										



**WPX Energy**  
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<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 5847.00usft (Nabors 577 (26' RKB) kjs)
<b>Project:</b>	PA 02-07S-095W	<b>MD Reference:</b>	KELLY BUSHING @ 5847.00usft (Nabors 577 (26' RKB) kjs)
<b>Site:</b>	GV 86-2 Pad	<b>North Reference:</b>	True
<b>Well:</b>	PA 23-2	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2 12Feb13 kjs		

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
860.00	857.59	9 5/8"	9.625	13.500	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,903.99	1,897.00	Top of "G" Sand				
2,004.43	1,997.00	Base of "G" Sand				
4,133.75	4,117.00	Mesaverde				
5,448.02	5,427.00	Approx. Top Gas				
6,548.02	6,527.00	Cameo Coals				
7,448.02	7,427.00	Rollins SS				
7,598.02	7,577.00	TD				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
130.00	130.00	0.00	0.00	Start Build 2.00	
398.21	397.82	8.76	8.99	Hold 5.36 Inclination	
4,990.41	4,969.91	308.38	316.44	Start Drop -1.50	
5,348.02	5,327.00	320.05	328.42	Vertical	
5,448.02	5,427.00	320.05	328.42	Top Gas	
7,598.02	7,577.00	320.05	328.42	TD at 7598.02	