



## **PICEANCE VLY NAD 83**

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

**GV 86-2 Pad**

**PA 514-2 - Slot A11**

**Wellbore #1**

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

## **Standard Planning Report - Geographic**

**07 June, 2013**



**WPX Energy**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well PA 514-2 - Slot A11
<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 514-2	<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 514-2 - Slot A11				
Well Position	+N/-S	0.00 usft	Northing:	1,603,722.40 usft	Latitude: 39.46498
	+E/-W	0.00 usft	Easting:	2,302,949.60 usft	Longitude: -107.96927
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	11/1/2007	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	206.65

<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	
120.00	0.00	0.00	120.00	0.00	0.00	0.00	0.00	0.00	0.000	
825.53	28.22	206.65	797.34	-152.18	-76.37	4.00	4.00	0.00	206.650	
3,689.36	28.22	206.65	3,320.75	-1,362.55	-683.79	0.00	0.00	0.00	0.000	
5,570.76	0.00	0.00	5,127.00	-1,768.36	-887.45	1.50	-1.50	0.00	180.000	
5,670.76	0.00	0.00	5,227.00	-1,768.36	-887.45	0.00	0.00	0.00	0.000	Top Gas (50' Radius)
7,820.76	0.00	0.00	7,377.00	-1,768.36	-887.45	0.00	0.00	0.00	0.000	



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Planning Report - Geographic

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<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 514-2	<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	1,603,722.40	2,302,949.60	39.46498	-107.96927
120.00	0.00	0.00	120.00	0.00	0.00	1,603,722.40	2,302,949.60	39.46498	-107.96927
Start Build 4.00									
500.00	15.20	206.65	495.56	-44.79	-22.48	1,603,678.24	2,302,925.92	39.46486	-107.96935
825.53	28.22	206.65	797.34	-152.18	-76.37	1,603,572.35	2,302,869.13	39.46456	-107.96954
Hold 28.22 Inclination									
926.00	28.22	206.65	885.87	-194.64	-97.68	1,603,530.49	2,302,846.67	39.46445	-107.96962
9 5/8"									
1,000.00	28.22	206.65	951.08	-225.92	-113.38	1,603,499.65	2,302,830.13	39.46436	-107.96967
1,500.00	28.22	206.65	1,391.64	-437.24	-219.43	1,603,291.30	2,302,718.38	39.46378	-107.97005
2,000.00	28.22	206.65	1,832.21	-648.56	-325.48	1,603,082.95	2,302,606.63	39.46320	-107.97043
2,050.84	28.22	206.65	1,877.00	-670.04	-336.26	1,603,061.77	2,302,595.27	39.46314	-107.97046
Top of "G" Sand									
2,164.33	28.22	206.65	1,977.00	-718.01	-360.33	1,603,014.47	2,302,569.91	39.46301	-107.97055
Base of "G" Sand									
2,500.00	28.22	206.65	2,272.77	-859.88	-431.53	1,602,874.60	2,302,494.89	39.46262	-107.97080
3,000.00	28.22	206.65	2,713.34	-1,071.20	-537.58	1,602,666.25	2,302,383.14	39.46204	-107.97118
3,500.00	28.22	206.65	3,153.90	-1,282.52	-643.63	1,602,457.90	2,302,271.39	39.46146	-107.97155
3,689.36	28.22	206.65	3,320.75	-1,362.55	-683.79	1,602,378.99	2,302,229.07	39.46124	-107.97169
Start Drop -1.50									
4,000.00	23.56	206.65	3,600.13	-1,483.75	-744.61	1,602,259.49	2,302,164.97	39.46091	-107.97191
4,402.64	17.52	206.65	3,977.00	-1,609.97	-807.95	1,602,135.05	2,302,098.23	39.46056	-107.97213
Mesaverde									
4,500.00	16.06	206.65	4,070.21	-1,635.10	-820.57	1,602,110.27	2,302,084.94	39.46049	-107.97218
5,000.00	8.56	206.65	4,558.36	-1,730.32	-868.35	1,602,016.39	2,302,034.58	39.46023	-107.97235
5,500.00	1.06	206.65	5,056.24	-1,767.78	-887.15	1,601,979.46	2,302,014.77	39.46013	-107.97241
5,570.76	0.00	0.00	5,127.00	-1,768.36	-887.45	1,601,978.88	2,302,014.46	39.46013	-107.97242
Vertical									
5,670.76	0.00	0.00	5,227.00	-1,768.36	-887.45	1,601,978.88	2,302,014.46	39.46013	-107.97242
Top Gas - Approx. Top Gas									
6,000.00	0.00	0.00	5,556.24	-1,768.36	-887.45	1,601,978.88	2,302,014.46	39.46013	-107.97242
6,500.00	0.00	0.00	6,056.24	-1,768.36	-887.45	1,601,978.88	2,302,014.46	39.46013	-107.97242
6,760.76	0.00	0.00	6,317.00	-1,768.36	-887.45	1,601,978.88	2,302,014.46	39.46013	-107.97242
Cameo Coals									
7,000.00	0.00	0.00	6,556.24	-1,768.36	-887.45	1,601,978.88	2,302,014.46	39.46013	-107.97242
7,500.00	0.00	0.00	7,056.24	-1,768.36	-887.45	1,601,978.88	2,302,014.46	39.46013	-107.97242
7,670.76	0.00	0.00	7,227.00	-1,768.36	-887.45	1,601,978.88	2,302,014.46	39.46013	-107.97242
Rollins SS									
7,820.76	0.00	0.00	7,377.00	-1,768.36	-887.45	1,601,978.88	2,302,014.46	39.46013	-107.97242
TD at 7820.76 - 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 (50' Radius) P/ - plan hits target center - Circle (radius 50.00)	0.00	0.00	5,227.00	-1,768.36	-887.45	1,601,978.88	2,302,014.46	39.46013	-107.97242	



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<b>Well:</b>	PA 514-2	<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)	
926.00	885.87	9 5/8"	9.625	13.500	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
2,050.84	1,877.00	Top of "G" Sand				
2,164.33	1,977.00	Base of "G" Sand				
4,402.64	3,977.00	Mesaverde				
5,670.76	5,227.00	Approx. Top Gas				
6,760.76	6,317.00	Cameo Coals				
7,670.76	7,227.00	Rollins SS				
7,820.76	7,377.00	TD				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
120.00	120.00	0.00	0.00	Start Build 4.00	
825.53	797.34	-152.18	-76.37	Hold 28.22 Inclination	
3,689.36	3,320.75	-1,362.55	-683.79	Start Drop -1.50	
5,570.76	5,127.00	-1,768.36	-887.45	Vertical	
5,670.76	5,227.00	-1,768.36	-887.45	Top Gas	
7,820.76	7,377.00	-1,768.36	-887.45	TD at 7820.76	