



## **PICEANCE VLY NAD 83**

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

**GV 86-2 Pad**

**PA 512-2 - Slot B2**

**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 512-2 - Slot B2
<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 512-2	<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 °

<b>Well</b>	PA 512-2 - Slot B2			
<b>Well Position</b>	<b>+N/-S</b>	0.00 usft	<b>Northing:</b>	1,603,786.70 usft
	<b>+E/-W</b>	0.00 usft	<b>Easting:</b>	2,302,926.80 usft
<b>Position Uncertainty</b>	0.00 usft		<b>Wellhead Elevation:</b>	
			<b>Ground Level:</b>	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	324.27

<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	
637.94	10.16	324.27	635.28	36.46	-26.23	2.00	2.00	0.00	324.269	
4,699.62	10.16	324.27	4,633.29	618.00	-444.59	0.00	0.00	0.00	0.000	
5,376.88	0.00	0.00	5,307.00	666.61	-479.56	1.50	-1.50	0.00	180.000	
5,476.88	0.00	0.00	5,407.00	666.61	-479.56	0.00	0.00	0.00	0.000	Top Gas (50' Radius)
7,626.88	0.00	0.00	7,557.00	666.61	-479.56	0.00	0.00	0.00	0.000	



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Planning Report - Geographic

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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 512-2	<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	1,603,786.70	2,302,926.80	39.46516	-107.96936	
130.00	0.00	0.00	130.00	0.00	0.00	1,603,786.70	2,302,926.80	39.46516	-107.96936	
<b>Start Build 2.00</b>										
500.00	7.40	324.27	498.97	19.37	-13.93	1,603,806.44	2,302,913.40	39.46521	-107.96941	
637.94	10.16	324.27	635.28	36.46	-26.23	1,603,823.85	2,302,901.58	39.46526	-107.96945	
<b>Hold 10.16 Inclination</b>										
863.00	10.16	324.27	856.81	68.68	-49.41	1,603,856.69	2,302,879.28	39.46535	-107.96953	
<b>9 5/8"</b>										
1,000.00	10.16	324.27	991.67	88.30	-63.52	1,603,876.68	2,302,865.71	39.46540	-107.96958	
1,500.00	10.16	324.27	1,483.83	159.88	-115.02	1,603,949.64	2,302,816.17	39.46560	-107.96977	
1,919.75	10.16	324.27	1,897.00	219.98	-158.26	1,604,010.89	2,302,774.59	39.46576	-107.96992	
<b>Top of "G" Sand</b>										
2,000.00	10.16	324.27	1,975.99	231.47	-166.52	1,604,022.60	2,302,766.64	39.46579	-107.96995	
2,021.35	10.16	324.27	1,997.00	234.53	-168.72	1,604,025.71	2,302,764.52	39.46580	-107.96996	
<b>Base of "G" Sand</b>										
2,500.00	10.16	324.27	2,468.15	303.06	-218.02	1,604,095.56	2,302,717.10	39.46599	-107.97013	
3,000.00	10.16	324.27	2,960.31	374.65	-269.52	1,604,168.52	2,302,667.57	39.46619	-107.97031	
3,500.00	10.16	324.27	3,452.47	446.24	-321.02	1,604,241.47	2,302,618.04	39.46638	-107.97050	
4,000.00	10.16	324.27	3,944.63	517.83	-372.53	1,604,314.43	2,302,568.50	39.46658	-107.97068	
4,175.11	10.16	324.27	4,117.00	542.90	-390.56	1,604,339.98	2,302,551.16	39.46665	-107.97074	
<b>Mesaverde</b>										
4,500.00	10.16	324.27	4,436.80	589.41	-424.03	1,604,387.39	2,302,518.97	39.46678	-107.97086	
4,699.62	10.16	324.27	4,633.29	618.00	-444.59	1,604,416.52	2,302,499.19	39.46685	-107.97093	
<b>Start Drop -1.50</b>										
5,000.00	5.65	324.27	4,930.73	651.53	-468.71	1,604,450.69	2,302,475.99	39.46695	-107.97102	
5,376.88	0.00	0.00	5,307.00	666.61	-479.56	1,604,466.06	2,302,465.56	39.46699	-107.97106	
<b>Vertical</b>										
5,476.88	0.00	0.00	5,407.00	666.61	-479.56	1,604,466.06	2,302,465.56	39.46699	-107.97106	
<b>Top Gas - Approx. Top Gas</b>										
5,500.00	0.00	0.00	5,430.12	666.61	-479.56	1,604,466.06	2,302,465.56	39.46699	-107.97106	
6,000.00	0.00	0.00	5,930.12	666.61	-479.56	1,604,466.06	2,302,465.56	39.46699	-107.97106	
6,500.00	0.00	0.00	6,430.12	666.61	-479.56	1,604,466.06	2,302,465.56	39.46699	-107.97106	
6,666.88	0.00	0.00	6,597.00	666.61	-479.56	1,604,466.06	2,302,465.56	39.46699	-107.97106	
<b>Cameo Coals</b>										
7,000.00	0.00	0.00	6,930.12	666.61	-479.56	1,604,466.06	2,302,465.56	39.46699	-107.97106	
7,476.88	0.00	0.00	7,407.00	666.61	-479.56	1,604,466.06	2,302,465.56	39.46699	-107.97106	
<b>Rollins SS</b>										
7,500.00	0.00	0.00	7,430.12	666.61	-479.56	1,604,466.06	2,302,465.56	39.46699	-107.97106	
7,626.88	0.00	0.00	7,557.00	666.61	-479.56	1,604,466.06	2,302,465.56	39.46699	-107.97106	
<b>TD at 7626.88 - TD</b>										

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 (50' Radius) P/	0.00	0.00	5,407.00	666.61	-479.56	1,604,466.06	2,302,465.56	39.46699	-107.97106	
- plan hits target center										
- Circle (radius 50.00)										



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<b>Well:</b>	PA 512-2	<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)	
863.00	856.81	9 5/8"	9.625	13.500	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,919.75	1,897.00	Top of "G" Sand				
2,021.35	1,997.00	Base of "G" Sand				
4,175.11	4,117.00	Mesaverde				
5,476.88	5,407.00	Approx. Top Gas				
6,666.88	6,597.00	Cameo Coals				
7,476.88	7,407.00	Rollins SS				
7,626.88	7,557.00	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	
637.94	635.28	36.46	-26.23	Hold 10.16 Inclination	
4,699.62	4,633.29	618.00	-444.59	Start Drop -1.50	
5,376.88	5,307.00	666.61	-479.56	Vertical	
5,476.88	5,407.00	666.61	-479.56	Top Gas	
7,626.88	7,557.00	666.61	-479.56	TD at 7626.88	