



## **PICEANCE VLY NAD 83**

**PA 21-06S-095W**

**PA 22-21 Pad**

**PA 342-21 - Slot 2B1**

**Wellbore #1**

**Plan: Design #2 07Nov12 kjs**

## **Standard Planning Report - Geographic**

**11 March, 2013**



**WPX Energy**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well PA 342-21 - Slot 2B1
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 6056.00usft (Nabors 26')
<b>Project:</b>	PA 21-06S-095W	<b>MD Reference:</b>	KELLY BUSHING @ 6056.00usft (Nabors 26')
<b>Site:</b>	PA 22-21 Pad	<b>North Reference:</b>	True
<b>Well:</b>	PA 342-21	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #2 07Nov12 kjs		

<b>Project</b>	PA 21-06S-095W, Garfield County, CO, 21-06S-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>	PA 22-21 Pad			
<b>Site Position:</b>		<b>Northing:</b>	1,620,701.00 usft	<b>Latitude:</b> 39.51079
<b>From:</b> Map		<b>Easting:</b>	2,292,437.50 usft	<b>Longitude:</b> -108.00815
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13.200 in	<b>Grid Convergence:</b> -1.58 °

<b>Well</b>	PA 342-21 - Slot 2B1			
<b>Well Position</b>	<b>+N/-S</b>	0.00 usft	<b>Northing:</b>	1,620,589.20 usft
	<b>+E/-W</b>	0.00 usft	<b>Easting:</b>	2,292,509.20 usft
<b>Position Uncertainty</b>	0.00 usft		<b>Wellhead Elevation:</b>	
			<b>Ground Level:</b>	6,030.00 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>
	IGRF2010	6/6/2012	10.23	65.72	52,157

<b>Design</b>	Design #2 07Nov12 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	79.29

<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	0.00	
120.00	0.00	0.00	120.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,443.03	39.69	79.29	1,339.73	81.84	432.55	3.00	3.00	0.00	79.29	
5,068.53	39.69	79.29	4,129.55	512.31	2,707.60	0.00	0.00	0.00	0.00	
7,714.60	0.00	0.00	6,569.00	676.00	3,572.69	1.50	-1.50	0.00	180.00	
7,814.60	0.00	0.00	6,669.00	676.00	3,572.69	0.00	0.00	0.00	0.00	Top Gas (25' Radius)
9,914.60	0.00	0.00	8,769.00	676.00	3,572.69	0.00	0.00	0.00	0.00	



**WPX Energy**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well PA 342-21 - Slot 2B1
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 6056.00usft (Nabors 26')
<b>Project:</b>	PA 21-06S-095W	<b>MD Reference:</b>	KELLY BUSHING @ 6056.00usft (Nabors 26')
<b>Site:</b>	PA 22-21 Pad	<b>North Reference:</b>	True
<b>Well:</b>	PA 342-21	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #2 07Nov12 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	1,620,589.20	2,292,509.20	39.51049	-108.00789	
120.00	0.00	0.00	120.00	0.00	0.00	1,620,589.20	2,292,509.20	39.51049	-108.00789	
<b>Start Build 3.00</b>										
500.00	11.40	79.29	497.50	7.01	37.02	1,620,595.18	2,292,546.40	39.51051	-108.00776	
1,000.00	26.40	79.29	969.19	37.03	195.70	1,620,620.81	2,292,705.84	39.51059	-108.00719	
1,443.03	39.69	79.29	1,339.73	81.84	432.55	1,620,659.07	2,292,943.83	39.51071	-108.00635	
<b>Hold 39.69 Inclination</b>										
1,500.00	39.69	79.29	1,383.56	88.61	468.30	1,620,664.84	2,292,979.75	39.51073	-108.00623	
1,544.00	39.69	79.29	1,417.42	93.83	495.91	1,620,669.30	2,293,007.49	39.51074	-108.00613	
<b>9 5/8"</b>										
2,000.00	39.69	79.29	1,768.31	147.97	782.05	1,620,715.52	2,293,295.01	39.51089	-108.00512	
2,500.00	39.69	79.29	2,153.06	207.34	1,095.81	1,620,766.20	2,293,610.27	39.51106	-108.00400	
3,000.00	39.69	79.29	2,537.81	266.71	1,409.56	1,620,816.89	2,293,925.54	39.51122	-108.00289	
3,417.40	39.69	79.29	2,859.00	316.27	1,671.49	1,620,859.19	2,294,188.72	39.51135	-108.00196	
<b>Top of "G" Sand</b>										
3,500.00	39.69	79.29	2,922.56	326.07	1,723.32	1,620,867.57	2,294,240.80	39.51138	-108.00178	
3,547.35	39.69	79.29	2,959.00	331.70	1,753.04	1,620,872.37	2,294,270.66	39.51140	-108.00167	
<b>Base of "G" Sand</b>										
4,000.00	39.69	79.29	3,307.31	385.44	2,037.08	1,620,918.25	2,294,556.06	39.51154	-108.00067	
4,500.00	39.69	79.29	3,692.06	444.81	2,350.83	1,620,968.93	2,294,871.33	39.51171	-107.99956	
5,000.00	39.69	79.29	4,076.81	504.17	2,664.59	1,621,019.61	2,295,186.59	39.51187	-107.99844	
5,068.53	39.69	79.29	4,129.55	512.31	2,707.60	1,621,026.56	2,295,229.80	39.51189	-107.99829	
<b>Start Drop -1.50</b>										
5,500.00	33.22	79.29	4,476.40	559.95	2,959.37	1,621,067.23	2,295,482.78	39.51202	-107.99740	
6,000.00	25.72	79.29	4,911.40	605.65	3,200.88	1,621,106.24	2,295,725.46	39.51215	-107.99654	
6,259.67	21.82	79.29	5,149.00	625.10	3,303.71	1,621,122.85	2,295,828.78	39.51220	-107.99618	
<b>Mesaverde</b>										
6,500.00	18.22	79.29	5,374.76	640.40	3,384.54	1,621,135.91	2,295,910.00	39.51224	-107.99589	
7,000.00	10.72	79.29	5,858.56	663.61	3,507.21	1,621,155.72	2,296,033.25	39.51231	-107.99546	
7,500.00	3.22	79.29	6,354.51	674.88	3,566.77	1,621,165.34	2,296,093.10	39.51234	-107.99525	
7,714.60	0.00	0.00	6,569.00	676.00	3,572.69	1,621,166.30	2,296,099.05	39.51234	-107.99523	
<b>Vertical</b>										
7,814.60	0.00	0.00	6,669.00	676.00	3,572.69	1,621,166.30	2,296,099.05	39.51234	-107.99523	
<b>Top Gas - Approx. Top Gas</b>										
8,000.00	0.00	0.00	6,854.40	676.00	3,572.69	1,621,166.30	2,296,099.05	39.51234	-107.99523	
8,500.00	0.00	0.00	7,354.40	676.00	3,572.69	1,621,166.30	2,296,099.05	39.51234	-107.99523	
9,000.00	0.00	0.00	7,854.40	676.00	3,572.69	1,621,166.30	2,296,099.05	39.51234	-107.99523	
9,064.60	0.00	0.00	7,919.00	676.00	3,572.69	1,621,166.30	2,296,099.05	39.51234	-107.99523	
<b>Cameo Coals</b>										
9,500.00	0.00	0.00	8,354.40	676.00	3,572.69	1,621,166.30	2,296,099.05	39.51234	-107.99523	
9,814.60	0.00	0.00	8,669.00	676.00	3,572.69	1,621,166.30	2,296,099.05	39.51234	-107.99523	
<b>Rollins SS</b>										
9,914.60	0.00	0.00	8,769.00	676.00	3,572.69	1,621,166.30	2,296,099.05	39.51234	-107.99523	
<b>TD at 9914.60 - TD</b>										



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<b>Well:</b>	PA 342-21	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #2 07Nov12 kjs		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
Top Gas (25' Radius) P/	0.00	0.00	6,669.00	676.00	3,572.69	1,621,166.30	2,296,099.05	39.51234	-107.99523
- plan hits target center									
- Circle (radius 25.00)									

Casing Points					
Measured Depth	Vertical Depth	Name		Casing Diameter	Hole Diameter
(usft)	(usft)			(in)	(in)
1,544.00	1,417.42	9 5/8"		9.625	13.500

Formations						
Measured Depth	Vertical Depth	Name		Lithology	Dip	Dip Direction
(usft)	(usft)				(°)	(°)
3,417.40	2,859.00	Top of "G" Sand				
3,547.35	2,959.00	Base of "G" Sand				
6,259.67	5,149.00	Mesaverde				
7,814.60	6,669.00	Approx. Top Gas				
9,064.60	7,919.00	Cameo Coals				
9,814.60	8,669.00	Rollins SS				
9,914.60	8,769.00	TD				

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates		Comment	
(usft)	(usft)	+N/-S (usft)	+E/-W (usft)		
120.00	120.00	0.00	0.00	Start Build 3.00	
1,443.03	1,339.73	81.84	432.55	Hold 39.69 Inclination	
5,068.53	4,129.55	512.31	2,707.60	Start Drop -1.50	
7,714.60	6,569.00	676.00	3,572.69	Vertical	
7,814.60	6,669.00	676.00	3,572.69	Top Gas	
9,914.60	8,769.00	676.00	3,572.69	TD at 9914.60	