



## **PICEANCE VLY NAD 83**

**PA 11-07S-095W**

**PA 22-11 Pad**

**PA 511-11 - Slot B3**

**Wellbore #1**

**Plan: Plan #2 23Oct12 kjs**

## **Standard Planning Report - Geographic**

**29 October, 2012**



**WPX Energy**  
Planning Report - Geographic

<b>Database:</b>	COMPASS-PICEANCE	<b>Local Co-ordinate Reference:</b>	Well PA 511-11 - Slot B3
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KELLY BUSHING @ 6300.0usft (Nabors 577 (26' RKB))
<b>Project:</b>	PA 11-07S-095W	<b>MD Reference:</b>	KELLY BUSHING @ 6300.0usft (Nabors 577 (26' RKB))
<b>Site:</b>	PA 22-11 Pad	<b>North Reference:</b>	True
<b>Well:</b>	PA 511-11	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2 23Oct12 kjs		

<b>Project</b>	PA 11-07S-095W, Garfield County, CO		
<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

Site		PA 22-11 Pad			
Site Position:		Northing:	1,599,302.80 usft	Latitude:	39° 27' 10.388 N
From:	Map	Easting:	2,303,403.20 usft	Longitude:	107° 58' 2.060 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-1.56 °

Well	PA 511-11 - Slot B3					
Well Position	+N/-S	0.0 usft	Northing:	1,599,315.05 usft	Latitude:	39° 27' 10.494 N
	+E/-W	0.0 usft	Easting:	2,303,343.62 usft	Longitude:	107° 58' 2.823 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	6,274.0 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	6/3/2009	10.57	65.77	52,459

Design	Plan #2 23Oct12 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	311.75

<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>
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
150.0	0.00	0.00	150.0	0.0	0.0	0.00	0.00	0.00	0.00	
906.1	24.57	311.75	883.2	106.3	-119.1	3.25	3.25	0.00	311.75	
4,272.3	24.57	311.75	3,944.5	1,038.6	-1,163.5	0.00	0.00	0.00	0.00	
5,910.7	0.00	0.00	5,533.0	1,269.0	-1,421.6	1.50	-1.50	0.00	180.00	
6,010.7	0.00	0.00	5,633.0	1,269.0	-1,421.6	0.00	0.00	0.00	0.00	Top Gas (25' Radius)
8,160.7	0.00	0.00	7,783.0	1,269.0	-1,421.6	0.00	0.00	0.00	0.00	



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<b>Project:</b>	PA 11-07S-095W	<b>MD Reference:</b>	KELLY BUSHING @ 6300.0usft (Nabors 577 (26' RKB))
<b>Site:</b>	PA 22-11 Pad	<b>North Reference:</b>	True
<b>Well:</b>	PA 511-11	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2 23Oct12 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	
0.0	0.00	0.00	0.0	0.0	0.0	1,599,315.05	2,303,343.62	39° 27' 10.494 N	107° 58' 2.823 W	
150.0	0.00	0.00	150.0	0.0	0.0	1,599,315.05	2,303,343.62	39° 27' 10.494 N	107° 58' 2.823 W	
<b>Start Build 3.25</b>										
500.0	11.38	311.75	497.7	23.1	-25.8	1,599,338.80	2,303,318.43	39° 27' 10.721 N	107° 58' 3.153 W	
906.1	24.57	311.75	883.2	106.3	-119.1	1,599,424.58	2,303,227.43	39° 27' 11.545 N	107° 58' 4.342 W	
<b>Hold 24.57 Inclination</b>										
1,000.0	24.57	311.75	968.5	132.3	-148.2	1,599,451.35	2,303,199.03	39° 27' 11.801 N	107° 58' 4.713 W	
1,006.0	24.57	311.75	974.0	134.0	-150.1	1,599,453.06	2,303,197.21	39° 27' 11.818 N	107° 58' 4.737 W	
<b>9 5/8"</b>										
1,500.0	24.57	311.75	1,423.2	270.8	-303.4	1,599,593.98	2,303,047.73	39° 27' 13.170 N	107° 58' 6.691 W	
2,000.0	24.57	311.75	1,877.9	409.3	-458.5	1,599,736.61	2,302,896.42	39° 27' 14.538 N	107° 58' 8.669 W	
2,500.0	24.57	311.75	2,332.7	547.7	-613.6	1,599,879.24	2,302,745.12	39° 27' 15.907 N	107° 58' 10.646 W	
3,000.0	24.57	311.75	2,787.4	686.2	-768.8	1,600,021.86	2,302,593.82	39° 27' 17.276 N	107° 58' 12.624 W	
3,500.0	24.57	311.75	3,242.1	824.7	-923.9	1,600,164.49	2,302,442.51	39° 27' 18.644 N	107° 58' 14.602 W	
4,000.0	24.57	311.75	3,696.8	963.2	-1,079.0	1,600,307.12	2,302,291.21	39° 27' 20.013 N	107° 58' 16.580 W	
4,272.3	24.57	311.75	3,944.5	1,038.6	-1,163.5	1,600,384.80	2,302,208.80	39° 27' 20.758 N	107° 58' 17.657 W	
<b>Start Drop -1.50</b>										
4,396.3	22.72	311.75	4,058.0	1,071.7	-1,200.6	1,600,418.90	2,302,172.63	39° 27' 21.085 N	107° 58' 18.130 W	
<b>Top of "G" Sand</b>										
4,500.0	21.16	311.75	4,154.2	1,097.5	-1,229.5	1,600,445.47	2,302,144.44	39° 27' 21.340 N	107° 58' 18.498 W	
4,504.1	21.10	311.75	4,158.0	1,098.5	-1,230.6	1,600,446.48	2,302,143.37	39° 27' 21.350 N	107° 58' 18.512 W	
<b>Base of "G" Sand</b>										
4,719.4	17.87	311.75	4,361.0	1,146.3	-1,284.2	1,600,495.75	2,302,091.11	39° 27' 21.822 N	107° 58' 19.195 W	
<b>Mesaverde</b>										
5,000.0	13.66	311.75	4,630.9	1,197.0	-1,341.0	1,600,548.01	2,302,035.66	39° 27' 22.324 N	107° 58' 19.920 W	
5,500.0	6.16	311.75	5,123.1	1,254.3	-1,405.2	1,600,606.99	2,301,973.09	39° 27' 22.890 N	107° 58' 20.738 W	
5,910.7	0.00	0.00	5,533.0	1,269.0	-1,421.6	1,600,622.12	2,301,957.05	39° 27' 23.035 N	107° 58' 20.948 W	
<b>Vertical</b>										
6,000.0	0.00	0.00	5,622.3	1,269.0	-1,421.6	1,600,622.12	2,301,957.05	39° 27' 23.035 N	107° 58' 20.948 W	
6,010.7	0.00	0.00	5,633.0	1,269.0	-1,421.6	1,600,622.12	2,301,957.05	39° 27' 23.035 N	107° 58' 20.948 W	
<b>Top Gas - Approx. Top Gas</b>										
6,500.0	0.00	0.00	6,122.3	1,269.0	-1,421.6	1,600,622.12	2,301,957.05	39° 27' 23.035 N	107° 58' 20.948 W	
7,000.0	0.00	0.00	6,622.3	1,269.0	-1,421.6	1,600,622.12	2,301,957.05	39° 27' 23.035 N	107° 58' 20.948 W	
7,069.7	0.00	0.00	6,692.0	1,269.0	-1,421.6	1,600,622.12	2,301,957.05	39° 27' 23.035 N	107° 58' 20.948 W	
<b>Cameo Coals</b>										
7,500.0	0.00	0.00	7,122.3	1,269.0	-1,421.6	1,600,622.12	2,301,957.05	39° 27' 23.035 N	107° 58' 20.948 W	
8,000.0	0.00	0.00	7,622.3	1,269.0	-1,421.6	1,600,622.12	2,301,957.05	39° 27' 23.035 N	107° 58' 20.948 W	
8,010.7	0.00	0.00	7,633.0	1,269.0	-1,421.6	1,600,622.12	2,301,957.05	39° 27' 23.035 N	107° 58' 20.948 W	
<b>Rollins SS</b>										
8,160.7	0.00	0.00	7,783.0	1,269.0	-1,421.6	1,600,622.12	2,301,957.05	39° 27' 23.035 N	107° 58' 20.948 W	
<b>TD at 8160.7 - TD</b>										



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<b>Well:</b>	PA 511-11	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Plan #2 23Oct12 kjs		

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	5,633.0	1,269.0	-1,421.6	1,600,622.12	2,301,957.05	39° 27' 23.035 N	107° 58' 20.948 W
TD / PBHL PA 511-11 - plan hits target center - Point	0.00	0.00	7,000.0	1,269.0	-1,421.6	1,600,622.12	2,301,957.05	39° 27' 23.035 N	107° 58' 20.948 W

Casing Points				
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
1,006.0	974.0	9 5/8"	9-5/8	14-3/4

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,396.3	4,058.0	Top of "G" Sand			
4,504.1	4,158.0	Base of "G" Sand			
4,719.4	4,361.0	Mesaverde			
6,010.7	5,633.0	Approx. Top Gas			
7,069.7	6,692.0	Cameo Coals			
8,010.7	7,633.0	Rollins SS			
8,160.7	7,783.0	TD			

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
150.0	150.0	0.0	0.0	Start Build 3.25
906.1	883.2	106.3	-119.1	Hold 24.57 Inclination
4,272.3	3,944.5	1,038.6	-1,163.5	Start Drop -1.50
5,910.7	5,533.0	1,269.0	-1,421.6	Vertical
6,010.7	5,633.0	1,269.0	-1,421.6	Top Gas
8,160.7	7,783.0	1,269.0	-1,421.6	TD at 8160.7