

# **PICEANCE VLY NAD 83**

**RU 07-07S-093W**

**RU 22-7 Pad**

**RU 411-7 - Slot B6**

**Wellbore #1**

**Plan: Design #2 28Mar16 sam**

## **Standard Planning Report**

**13 April, 2016**

# WPX

## Planning Report

<b>Database:</b>	COMPASS	<b>Local Co-ordinate Reference:</b>	Well RU 411-7 (B6) - Slot B6
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KB @ 7363.00usft (HP 318)
<b>Project:</b>	RU 07-07S-093W	<b>MD Reference:</b>	KB @ 7363.00usft (HP 318)
<b>Site:</b>	RU 22-7 Pad	<b>North Reference:</b>	True
<b>Well:</b>	RU 411-7	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #2 28Mar16 sam		

<b>Project</b>	RU 07-07S-093W, 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		RU 22-7 Pad			
Site Position:		Northing:	1,599,673.60 usft	Latitude:	39.456918
From:	Map	Easting:	2,345,086.00 usft	Longitude:	-107.819705
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	-1.46 °

Well	RU 411-7 - Slot B6					
Well Position	+N/-S	31.64 usft	Northing:	1,599,705.24 usft	Latitude:	39.457005
	+E/-W	-0.50 usft	Easting:	2,345,086.31 usft	Longitude:	-107.819706
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	7,339.00 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>
	IGRF2015	3/28/2016	9.74	65.61	51,655

<b>Design</b>	Design #2 28Mar16 sam			
<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 (bearing)</b>
	0.00	0.00	0.00	289.29

<b>Plan Sections</b>										
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
145.00	0.00	0.00	145.00	0.00	0.00	0.00	0.00	0.00	0.00	
917.03	23.16	289.29	896.18	50.86	-145.28	3.00	3.00	0.00	289.29	
4,362.16	23.16	289.29	4,063.64	498.58	-1,424.21	0.00	0.00	0.00	0.00	
5,906.23	0.00	0.00	5,566.00	600.30	-1,714.77	1.50	-1.50	0.00	180.00	
6,006.23	0.00	0.00	5,666.00	600.30	-1,714.77	0.00	0.00	0.00	0.00	10 acre RU 411-7 MV
9,764.23	0.00	0.00	9,424.00	600.30	-1,714.77	0.00	0.00	0.00	0.00	

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<b>Project:</b>	RU 07-07S-093W	<b>MD Reference:</b>	KB @ 7363.00usft (HP 318)
<b>Site:</b>	RU 22-7 Pad	<b>North Reference:</b>	True
<b>Well:</b>	RU 411-7	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #2 28Mar16 sam		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
145.00	0.00	0.00	145.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Start Build 3.00</b>									
500.00	10.65	289.29	497.96	10.87	-31.05	32.90	3.00	3.00	0.00
917.03	23.16	289.29	896.18	50.86	-145.28	153.93	3.00	3.00	0.00
<b>Hold 23.16 Inclination</b>									
1,000.00	23.16	289.29	972.46	61.64	-176.08	186.56	0.00	0.00	0.00
1,124.00	23.16	289.29	1,086.46	77.76	-222.11	235.33	0.00	0.00	0.00
<b>9 5/8"</b>									
1,500.00	23.16	289.29	1,432.16	126.62	-361.70	383.22	0.00	0.00	0.00
2,000.00	23.16	289.29	1,891.86	191.60	-547.31	579.88	0.00	0.00	0.00
2,500.00	23.16	289.29	2,351.56	256.58	-732.92	776.54	0.00	0.00	0.00
3,000.00	23.16	289.29	2,811.26	321.56	-918.53	973.19	0.00	0.00	0.00
3,465.23	23.16	289.29	3,239.00	382.02	-1,091.24	1,156.18	0.00	0.00	0.00
<b>Top of "G" Sand</b>									
3,497.86	23.16	289.29	3,269.00	386.26	-1,103.35	1,169.01	0.00	0.00	0.00
<b>Base of "G" Sand</b>									
3,500.00	23.16	289.29	3,270.97	386.54	-1,104.15	1,169.85	0.00	0.00	0.00
4,000.00	23.16	289.29	3,730.67	451.52	-1,289.76	1,366.51	0.00	0.00	0.00
4,362.16	23.16	289.29	4,063.64	498.58	-1,424.21	1,508.95	0.00	0.00	0.00
<b>Start Drop -1.50</b>									
4,500.00	21.09	289.29	4,191.32	515.74	-1,473.20	1,560.87	1.50	-1.50	0.00
5,000.00	13.59	289.29	4,668.25	564.95	-1,613.78	1,709.81	1.50	-1.50	0.00
5,500.00	6.09	289.29	5,160.53	593.17	-1,694.40	1,795.23	1.50	-1.50	0.00
5,906.23	0.00	0.00	5,566.00	600.30	-1,714.77	1,816.81	1.50	-1.50	17.41
<b>Vertical</b>									
6,000.00	0.00	0.00	5,659.77	600.30	-1,714.77	1,816.81	0.00	0.00	0.00
6,006.23	0.00	0.00	5,666.00	600.30	-1,714.77	1,816.81	0.00	0.00	0.00
<b>MVRD target - Mesaverde</b>									
6,500.00	0.00	0.00	6,159.77	600.30	-1,714.77	1,816.81	0.00	0.00	0.00
7,000.00	0.00	0.00	6,659.77	600.30	-1,714.77	1,816.81	0.00	0.00	0.00
7,500.00	0.00	0.00	7,159.77	600.30	-1,714.77	1,816.81	0.00	0.00	0.00
7,583.23	0.00	0.00	7,243.00	600.30	-1,714.77	1,816.81	0.00	0.00	0.00
<b>Approx. Top Gas</b>									
8,000.00	0.00	0.00	7,659.77	600.30	-1,714.77	1,816.81	0.00	0.00	0.00
8,500.00	0.00	0.00	8,159.77	600.30	-1,714.77	1,816.81	0.00	0.00	0.00
8,740.23	0.00	0.00	8,400.00	600.30	-1,714.77	1,816.81	0.00	0.00	0.00
<b>Cameo</b>									
9,000.00	0.00	0.00	8,659.77	600.30	-1,714.77	1,816.81	0.00	0.00	0.00
9,453.23	0.00	0.00	9,113.00	600.30	-1,714.77	1,816.81	0.00	0.00	0.00
<b>Coal D</b>									
9,500.00	0.00	0.00	9,159.77	600.30	-1,714.77	1,816.81	0.00	0.00	0.00
9,614.23	0.00	0.00	9,274.00	600.30	-1,714.77	1,816.81	0.00	0.00	0.00
<b>Rollins</b>									
9,764.23	0.00	0.00	9,424.00	600.30	-1,714.77	1,816.81	0.00	0.00	0.00
<b>9764.23 Measured depth - TD</b>									

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<b>Site:</b>	RU 22-7 Pad	<b>North Reference:</b>	True
<b>Well:</b>	RU 411-7	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #2 28Mar16 sam		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(bearing)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
10 acre RU 411-7 MVRD	0.00	0.00	5,666.00	600.30	-1,714.77	1,600,349.10	2,343,387.50	39.458653	-107.825779
- plan hits target center									
- Circle (radius 50.00)									

Casing Points				
Measured Depth	Vertical Depth	Name		Casing Diameter
(usft)	(usft)			(in)
				Hole Diameter
				(in)
1,124.00	1,086.46	9 5/8"		9.625
				13.500

Formations					
Measured Depth	Vertical Depth	Name		Dip	Dip Direction
(usft)	(usft)			(°)	(bearing)
3,465.23	3,239.00	Top of "G" Sand		0.00	
3,497.86	3,269.00	Base of "G" Sand		0.00	
6,006.23	5,666.00	Mesaverde		0.00	
7,583.23	7,243.00	Approx. Top Gas		0.00	
8,740.23	8,400.00	Cameo		0.00	
9,453.23	9,113.00	Coal D		0.00	
9,614.23	9,274.00	Rollins		0.00	
9,764.23	9,424.00	TD		0.00	

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(usft)	(usft)	+N/-S	+E/-W	
		(usft)	(usft)	
145.00	145.00	0.00	0.00	Start Build 3.00
917.03	896.18	50.86	-145.28	Hold 23.16 Inclination
4,362.16	4,063.64	498.58	-1,424.21	Start Drop -1.50
5,906.23	5,566.00	600.30	-1,714.77	Vertical
6,006.23	5,666.00	600.30	-1,714.77	MVRD target
9,764.23	9,424.00	600.30	-1,714.77	9764.23 Measured depth