

# **PICEANCE VLY NAD 83**

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

**SR 43-12 Pad**

**RU 14-7 - Slot A4**

**Wellbore #1**

**Plan: Design #2 30Mar16 sam**

## **Standard Planning Report**

**04 May, 2016**

# WPX

## Planning Report

<b>Database:</b>	COMPASS	<b>Local Co-ordinate Reference:</b>	Well RU 14-7 (A4) - Slot A4
<b>Company:</b>	PICEANCE VLY NAD 83	<b>TVD Reference:</b>	KB @ 7381.00usft (HP 318)
<b>Project:</b>	RU 07-07S-093W	<b>MD Reference:</b>	KB @ 7381.00usft (HP 318)
<b>Site:</b>	SR 43-12 Pad	<b>North Reference:</b>	True
<b>Well:</b>	RU 14-7	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #2 30Mar16 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		SR 43-12 Pad			
Site Position:		Northing:	1,598,022.10 usft	Latitude:	39.452261
From:	Map	Easting:	2,343,309.20 usft	Longitude:	-107.825846
Position Uncertainty:	0.00 usft	Slot Radius:	0.000 in	Grid Convergence:	-1.47 °

Well	RU 14-7 - Slot A4					
Well Position	+N/-S	-44.61 usft	Northing:	1,597,977.20 usft	Latitude:	39.452138
	+E/-W	12.15 usft	Easting:	2,343,320.20 usft	Longitude:	-107.825803
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	7,357.00 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	3/9/2016	9.75	65.60	51,658

<b>Design</b>	Design #2 30Mar16 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	133.39

<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	
120.00	0.00	0.00	120.00	0.00	0.00	0.00	0.00	0.00	0.00	
262.86	5.00	120.00	262.68	-3.11	5.39	3.50	3.50	0.00	120.00	
685.92	19.65	132.50	674.91	-60.71	74.19	3.50	3.46	2.95	16.54	
4,657.81	19.65	132.50	4,415.48	-963.03	1,059.03	0.00	0.00	0.00	0.00	
5,967.87	0.00	0.00	5,700.00	-1,113.31	1,223.05	1.50	-1.50	0.00	180.00	10 acre RU 14-7 MVF
9,646.87	0.00	0.00	9,379.00	-1,113.31	1,223.05	0.00	0.00	0.00	0.00	

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<b>Project:</b>	RU 07-07S-093W	<b>MD Reference:</b>	KB @ 7381.00usft (HP 318)
<b>Site:</b>	SR 43-12 Pad	<b>North Reference:</b>	True
<b>Well:</b>	RU 14-7	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #2 30Mar16 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
120.00	0.00	0.00	120.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Start Build 3.50</b>									
262.86	5.00	120.00	262.68	-3.11	5.39	6.06	3.50	3.50	0.00
<b>Start Turn DLS 3.50 TFO 16.54</b>									
500.00	13.17	130.39	496.66	-25.83	34.97	43.16	3.50	3.45	4.38
685.92	19.65	132.50	674.91	-60.71	74.19	95.62	3.50	3.49	1.13
<b>Hold 19.65 Inclination</b>									
1,000.00	19.65	132.50	970.70	-132.06	152.07	201.23	0.00	0.00	0.00
1,124.00	19.65	132.50	1,087.48	-160.23	182.82	242.92	0.00	0.00	0.00
<b>9 5/8"</b>									
1,500.00	19.65	132.50	1,441.58	-245.65	276.05	369.35	0.00	0.00	0.00
2,000.00	19.65	132.50	1,912.46	-359.24	400.02	537.47	0.00	0.00	0.00
2,500.00	19.65	132.50	2,383.34	-472.82	524.00	705.60	0.00	0.00	0.00
3,000.00	19.65	132.50	2,854.22	-586.41	647.97	873.72	0.00	0.00	0.00
3,385.22	19.65	132.50	3,217.00	-673.92	743.49	1,003.25	0.00	0.00	0.00
<b>Top of "G" Sand</b>									
3,500.00	19.65	132.50	3,325.10	-700.00	771.95	1,041.84	0.00	0.00	0.00
3,507.33	19.65	132.50	3,332.00	-701.66	773.76	1,044.30	0.00	0.00	0.00
<b>Base of "G" Sand</b>									
4,000.00	19.65	132.50	3,795.98	-813.59	895.92	1,209.96	0.00	0.00	0.00
4,500.00	19.65	132.50	4,266.86	-927.17	1,019.90	1,378.09	0.00	0.00	0.00
4,657.81	19.65	132.50	4,415.48	-963.03	1,059.03	1,431.15	0.00	0.00	0.00
<b>Start Drop -1.50</b>									
5,000.00	14.52	132.50	4,742.46	-1,030.91	1,133.13	1,531.63	1.50	-1.50	0.00
5,500.00	7.02	132.50	5,233.30	-1,093.98	1,201.95	1,624.97	1.50	-1.50	0.00
5,544.00	6.36	132.50	5,277.00	-1,097.44	1,205.73	1,630.09	1.50	-1.50	0.00
<b>Lower Wasatch</b>									
5,706.66	3.92	132.50	5,439.00	-1,107.28	1,216.47	1,644.66	1.50	-1.50	0.00
<b>Ohio Creek</b>									
5,967.87	0.00	0.00	5,700.00	-1,113.31	1,223.05	1,653.58	1.50	-1.50	0.00
<b>Vertical - Mesaverde</b>									
6,000.00	0.00	0.00	5,732.13	-1,113.31	1,223.05	1,653.58	0.00	0.00	0.00
6,500.00	0.00	0.00	6,232.13	-1,113.31	1,223.05	1,653.58	0.00	0.00	0.00
7,000.00	0.00	0.00	6,732.13	-1,113.31	1,223.05	1,653.58	0.00	0.00	0.00
7,500.00	0.00	0.00	7,232.13	-1,113.31	1,223.05	1,653.58	0.00	0.00	0.00
7,565.87	0.00	0.00	7,298.00	-1,113.31	1,223.05	1,653.58	0.00	0.00	0.00
<b>Approx Top Gas</b>									
8,000.00	0.00	0.00	7,732.13	-1,113.31	1,223.05	1,653.58	0.00	0.00	0.00
8,500.00	0.00	0.00	8,232.13	-1,113.31	1,223.05	1,653.58	0.00	0.00	0.00
8,649.87	0.00	0.00	8,382.00	-1,113.31	1,223.05	1,653.58	0.00	0.00	0.00
<b>Cameo</b>									
9,000.00	0.00	0.00	8,732.13	-1,113.31	1,223.05	1,653.58	0.00	0.00	0.00
9,381.87	0.00	0.00	9,114.00	-1,113.31	1,223.05	1,653.58	0.00	0.00	0.00
<b>Coal D</b>									
9,496.87	0.00	0.00	9,229.00	-1,113.31	1,223.05	1,653.58	0.00	0.00	0.00
<b>Rollins</b>									
9,500.00	0.00	0.00	9,232.13	-1,113.31	1,223.05	1,653.58	0.00	0.00	0.00
9,646.87	0.00	0.00	9,379.00	-1,113.31	1,223.05	1,653.58	0.00	0.00	0.00
<b>TD at 9646.87 - TD</b>									

**WPX**  
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<b>Project:</b>	RU 07-07S-093W	<b>MD Reference:</b>	KB @ 7381.00usft (HP 318)
<b>Site:</b>	SR 43-12 Pad	<b>North Reference:</b>	True
<b>Well:</b>	RU 14-7	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #2 30Mar16 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 14-7 MVRD	0.00	0.00	5,700.00	-1,113.31	1,223.05	1,596,833.00	2,344,514.30	39.449082	-107.821472
- plan hits target center									
- Circle (radius 50.00)									

Casing Points					
Measured Depth	Vertical Depth	Name		Casing Diameter	Hole Diameter
(usft)	(usft)			(in)	(in)
1,124.00	1,087.48	9 5/8"		9.625	13.500

Formations						
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction	
(usft)	(usft)			(°)	(bearing)	
3,385.22	3,217.00	Top of "G" Sand		0.00		
3,507.33	3,332.00	Base of "G" Sand		0.00		
5,544.00	5,277.00	Lower Wasatch		0.00		
5,706.66	5,439.00	Ohio Creek		0.00		
5,967.87	5,700.00	Mesaverde		0.00		
7,565.87	7,298.00	Approx Top Gas		0.00		
8,649.87	8,382.00	Cameo		0.00		
9,381.87	9,114.00	Coal D		0.00		
9,496.87	9,229.00	Rollins		0.00		
9,646.87	9,379.00	TD		0.00		

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates		Comment	
(usft)	(usft)	+N/-S	+E/-W		
(usft)	(usft)	(usft)	(usft)		
120.00	120.00	0.00	0.00	Start Build 3.50	
262.86	262.68	-3.11	5.39	Start Turn DLS 3.50 TFO 16.54	
685.92	674.91	-60.71	74.19	Hold 19.65 Inclination	
4,657.81	4,415.48	-963.03	1,059.03	Start Drop -1.50	
5,967.87	5,700.00	-1,113.31	1,223.05	Vertical	
9,646.87	9,379.00	-1,113.31	1,223.05	TD at 9646.87	