

PICEANCE VLY NAD 83

RU 06-07S-093W

RU 34-6 Pad

RU 332-6 - Slot A10

Wellbore #1

Plan: Plan #5 12May15 sam

Standard Planning Report

12 June, 2015

WPX

Planning Report

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well RU 332-6 (A10) - Slot A10
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 7563.00usft (Nabors 574 (26' RKB) mab)
Project:	RU 06-07S-093W	MD Reference:	KELLY BUSHING @ 7563.00usft (Nabors 574 (26' RKB) mab)
Site:	RU 34-6 Pad	North Reference:	True
Well:	RU 332-6	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #5 12May15 sam		

Project	RU 06-07S-093W		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		Using geodetic scale factor

Site	RU 34-6 Pad		
Site Position:		Northing:	1,603,613.20 usft
From:	Map	Easting:	2,346,531.50 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in
		Latitude:	39.467832
		Longitude:	-107.814942
		Grid Convergence:	-1.46 °

Well	RU 332-6 - Slot A10		
Well Position	+N/-S	4.50 usft	Northing: 1,603,617.40 usft
	+E/-W	11.59 usft	Easting: 2,346,543.20 usft
Position Uncertainty	0.00 usft		Latitude: 39.467844
		Wellhead Elevation:	Longitude: -107.814901
			Ground Level: 7,537.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2/26/2015	9.79	65.65	51,872

Design	Plan #5 12May15 sam			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (bearing)
	0.00	0.00	0.00	7.27

Plan Sections										
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	
781.38	23.15	7.27	763.54	130.74	16.69	3.50	3.50	0.00	7.27	
5,860.16	23.15	7.27	5,433.42	2,111.20	269.51	0.00	0.00	0.00	0.00	
7,403.38	0.00	0.00	6,935.00	2,416.25	308.45	1.50	-1.50	0.00	180.00	
7,603.38	0.00	0.00	7,135.00	2,416.25	308.45	0.00	0.00	0.00	0.00	RU 332-6 TOP GAS 5
10,353.38	0.00	0.00	9,885.00	2,416.25	308.45	0.00	0.00	0.00	0.00	

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Project:	RU 06-07S-093W	MD Reference:	KELLY BUSHING @ 7563.00usft (Nabors 574 (26' RKB) mab)							
Site:	RU 34-6 Pad	North Reference:	True							
Well:	RU 332-6	Survey Calculation Method:	Minimum Curvature							
Wellbore:	Wellbore #1									
Design:	Plan #5 12May15 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	0.00
120.00	0.00	0.00	120.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 3.50										
500.00	13.30	7.27	496.60	43.55	5.56	43.91	3.50	3.50	0.00	0.00
781.38	23.15	7.27	763.54	130.74	16.69	131.80	3.50	3.50	0.00	0.00
Hold 23.15 Inclination										
1,000.00	23.15	7.27	964.55	215.99	27.57	217.74	0.00	0.00	0.00	0.00
1,500.00	23.15	7.27	1,424.30	410.96	52.46	414.30	0.00	0.00	0.00	0.00
2,000.00	23.15	7.27	1,884.04	605.93	77.35	610.85	0.00	0.00	0.00	0.00
2,343.62	23.15	7.27	2,200.00	739.93	94.46	745.93	0.00	0.00	0.00	0.00
9 5/8"										
2,500.00	23.15	7.27	2,343.79	800.91	102.24	807.41	0.00	0.00	0.00	0.00
3,000.00	23.15	7.27	2,803.53	995.88	127.13	1,003.97	0.00	0.00	0.00	0.00
3,500.00	23.15	7.27	3,263.28	1,190.86	152.02	1,200.52	0.00	0.00	0.00	0.00
4,000.00	23.15	7.27	3,723.02	1,385.83	176.91	1,397.08	0.00	0.00	0.00	0.00
4,051.09	23.15	7.27	3,770.00	1,405.76	179.46	1,417.16	0.00	0.00	0.00	0.00
Top of "G" Sand										
4,170.72	23.15	7.27	3,880.00	1,452.41	185.41	1,464.19	0.00	0.00	0.00	0.00
Base of "G" Sand										
4,500.00	23.15	7.27	4,182.77	1,580.81	201.80	1,593.64	0.00	0.00	0.00	0.00
5,000.00	23.15	7.27	4,642.51	1,775.78	226.69	1,790.19	0.00	0.00	0.00	0.00
5,500.00	23.15	7.27	5,102.26	1,970.76	251.58	1,986.75	0.00	0.00	0.00	0.00
5,860.16	23.15	7.27	5,433.42	2,111.20	269.51	2,128.33	0.00	0.00	0.00	0.00
Start Drop -1.50										
6,000.00	21.05	7.27	5,562.98	2,163.38	276.17	2,180.94	1.50	-1.50	0.00	0.00
6,500.00	13.55	7.27	6,040.02	2,310.77	294.99	2,329.53	1.50	-1.50	0.00	0.00
6,963.41	6.60	7.27	6,496.00	2,391.14	305.25	2,410.55	1.50	-1.50	0.00	0.00
Mesaverde										
7,000.00	6.05	7.27	6,532.37	2,395.14	305.76	2,414.58	1.50	-1.50	0.00	0.00
7,403.38	0.00	0.00	6,935.00	2,416.25	308.45	2,435.86	1.50	-1.50	0.00	0.00
Vertical										
7,500.00	0.00	0.00	7,031.62	2,416.25	308.45	2,435.86	0.00	0.00	0.00	0.00
7,603.38	0.00	0.00	7,135.00	2,416.25	308.45	2,435.86	0.00	0.00	0.00	0.00
Top Gas Target - Approx. Top Gas										
8,000.00	0.00	0.00	7,531.62	2,416.25	308.45	2,435.86	0.00	0.00	0.00	0.00
8,500.00	0.00	0.00	8,031.62	2,416.25	308.45	2,435.86	0.00	0.00	0.00	0.00
9,000.00	0.00	0.00	8,531.62	2,416.25	308.45	2,435.86	0.00	0.00	0.00	0.00
9,355.38	0.00	0.00	8,887.00	2,416.25	308.45	2,435.86	0.00	0.00	0.00	0.00
Cameo Coals										
9,500.00	0.00	0.00	9,031.62	2,416.25	308.45	2,435.86	0.00	0.00	0.00	0.00
10,000.00	0.00	0.00	9,531.62	2,416.25	308.45	2,435.86	0.00	0.00	0.00	0.00
10,049.38	0.00	0.00	9,581.00	2,416.25	308.45	2,435.86	0.00	0.00	0.00	0.00
Coal D										
10,203.38	0.00	0.00	9,735.00	2,416.25	308.45	2,435.86	0.00	0.00	0.00	0.00
Rollins SS										
10,353.38	0.00	0.00	9,885.00	2,416.25	308.45	2,435.86	0.00	0.00	0.00	0.00
TD at 10353.38 - TD										

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Project:	RU 06-07S-093W	MD Reference:	KELLY BUSHING @ 7563.00usft (Nabors 574 (26' RKB) mab)
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Well:	RU 332-6	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #5 12May15 sam		

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (bearing)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
RU 332-6 TOP GAS 50' - plan hits target center - Circle (radius 50.00)	0.00	0.00	7,135.00	2,416.25	308.45	1,606,024.90	2,346,913.10	39.474478	-107.813809

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
2,343.62	2,200.00	9 5/8"	9.625	13.500	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)	
4,051.09	3,770.00	Top of "G" Sand		0.00		
4,170.72	3,880.00	Base of "G" Sand		0.00		
6,963.41	6,496.00	Mesaverde		0.00		
7,603.38	7,135.00	Approx. Top Gas		0.00		
9,355.38	8,887.00	Cameo Coals		0.00		
10,049.38	9,581.00	Coal D		0.00		
10,203.38	9,735.00	Rollins SS		0.00		
10,353.38	9,885.00	TD		0.00		

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
120.00	120.00	0.00	0.00	Start Build 3.50	
781.38	763.54	130.74	16.69	Hold 23.15 Inclination	
5,860.16	5,433.42	2,111.20	269.51	Start Drop -1.50	
7,403.38	6,935.00	2,416.25	308.45	Vertical	
7,603.38	7,135.00	2,416.25	308.45	Top Gas Target	
10,353.38	9,885.00	2,416.25	308.45	TD at 10353.38	