

PICEANCE VLY NAD 83

RU 26-06S-094W

JUHAN 14-26H Pad

RWF 523-26 - Slot B06

Wellbore #1

Plan: Plan #1 05Jun14 mab

Standard Planning Report - Geographic

14 August, 2014

WPX
Planning Report - Geographic

Database:	COMPASS-PICEANCE	Local Co-ordinate Reference:	Well RWF 523-26 - Slot B06
Company:	PICEANCE VLY NAD 83	TVD Reference:	KELLY BUSHING @ 5376.00usft (Nabors 577 (26' RKB) mab)
Project:	RU 26-06S-094W	MD Reference:	KELLY BUSHING @ 5376.00usft (Nabors 577 (26' RKB) mab)
Site:	JUHAN 14-26H Pad	North Reference:	True
Well:	RWF 523-26	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 05Jun14 mab		

Project	RU 26-06S-094W		
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	JUHAN 14-26H Pad			
Site Position:		Northing:	1,612,760.48182 usft	Latitude: 39.49206
From: Map		Easting:	2,334,169.39807 usft	Longitude: -107.85956
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence: -1.49 °

Well	RWF 523-26 - Slot B06			
Well Position	+N/-S	0.00 usft	Northing:	1,612,797.50000 usft
	+E/-W	0.00 usft	Easting:	2,334,144.10000 usft
Position Uncertainty	0.00 usft		Wellhead Elevation:	0.00 usft
			Ground Level:	5,350.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2005-10	6/5/2014	9.87	65.70	52,014

Design	Plan #1 05Jun14 mab			
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	86.14

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	
615.30	17.34	86.14	607.77	5.01	74.19	3.50	3.50	0.00	86.14	
3,859.76	17.34	86.14	3,704.86	70.12	1,038.73	0.00	0.00	0.00	0.00	
5,015.45	0.00	0.00	4,843.00	81.80	1,211.83	1.50	-1.50	0.00	180.00	
5,115.45	0.00	0.00	4,943.00	81.80	1,211.83	0.00	0.00	0.00	0.00	Top Gas (50' Radius)
7,865.45	0.00	0.00	7,693.00	81.80	1,211.83	0.00	0.00	0.00	0.00	

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Site:	JUHAN 14-26H Pad	North Reference:	True
Well:	RWF 523-26	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 05Jun14 mab		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	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	1,612,797.50000	2,334,144.10000	39.49216	-107.85965	
120.00	0.00	0.00	120.00	0.00	0.00	1,612,797.50000	2,334,144.10000	39.49216	-107.85965	
Start Build 3.50										
200.00	2.80	86.14	199.97	0.13	1.95	1,612,797.58094	2,334,146.05262	39.49217	-107.85965	
400.00	9.80	86.14	398.64	1.61	23.83	1,612,798.48926	2,334,167.96612	39.49217	-107.85957	
600.00	16.80	86.14	593.15	4.71	69.71	1,612,800.39349	2,334,213.90614	39.49218	-107.85941	
615.30	17.34	86.14	607.77	5.01	74.19	1,612,800.57940	2,334,218.39120	39.49218	-107.85939	
Hold 17.34° Inc, 86.14° Az										
800.00	17.34	86.14	784.09	8.71	129.10	1,612,802.85858	2,334,273.37707	39.49219	-107.85920	
1,000.00	17.34	86.14	975.00	12.73	188.56	1,612,805.32650	2,334,332.91621	39.49220	-107.85899	
1,100.00	17.34	86.14	1,070.46	14.73	218.29	1,612,806.56046	2,334,362.68579	39.49221	-107.85888	
9 5/8"										
1,200.00	17.34	86.14	1,165.92	16.74	248.01	1,612,807.79442	2,334,392.45536	39.49221	-107.85877	
1,400.00	17.34	86.14	1,356.83	20.76	307.47	1,612,810.26234	2,334,451.99450	39.49222	-107.85856	
1,455.70	17.34	86.14	1,410.00	21.87	324.03	1,612,810.94960	2,334,468.57480	39.49222	-107.85851	
Top of "G" Sand										
1,560.45	17.34	86.14	1,510.00	23.98	355.17	1,612,812.24227	2,334,499.76094	39.49223	-107.85839	
Base of "G" Sand										
1,600.00	17.34	86.14	1,547.75	24.77	366.93	1,612,812.73026	2,334,511.53365	39.49223	-107.85835	
1,800.00	17.34	86.14	1,738.67	28.78	426.39	1,612,815.19817	2,334,571.07278	39.49224	-107.85814	
2,000.00	17.34	86.14	1,929.58	32.80	485.84	1,612,817.66609	2,334,630.61192	39.49225	-107.85793	
2,200.00	17.34	86.14	2,120.50	36.81	545.30	1,612,820.13401	2,334,690.15107	39.49227	-107.85772	
2,400.00	17.34	86.14	2,311.41	40.82	604.76	1,612,822.60193	2,334,749.69021	39.49228	-107.85751	
2,600.00	17.34	86.14	2,502.33	44.84	664.22	1,612,825.06985	2,334,809.22936	39.49229	-107.85730	
2,800.00	17.34	86.14	2,693.24	48.85	723.67	1,612,827.53777	2,334,868.76850	39.49230	-107.85709	
3,000.00	17.34	86.14	2,884.16	52.86	783.13	1,612,830.00568	2,334,928.30764	39.49231	-107.85688	
3,200.00	17.34	86.14	3,075.07	56.88	842.59	1,612,832.47360	2,334,987.84678	39.49232	-107.85667	
3,400.00	17.34	86.14	3,265.99	60.89	902.05	1,612,834.94152	2,335,047.38593	39.49233	-107.85646	
3,600.00	17.34	86.14	3,456.90	64.90	961.50	1,612,837.40944	2,335,106.92507	39.49234	-107.85625	
3,800.00	17.34	86.14	3,647.82	68.92	1,020.96	1,612,839.87736	2,335,166.46421	39.49235	-107.85604	
3,859.76	17.34	86.14	3,704.86	70.12	1,038.73	1,612,840.61475	2,335,184.25385	39.49236	-107.85597	
Start Drop -1.50°/100										
4,000.00	15.23	86.14	3,839.47	72.77	1,077.96	1,612,842.24312	2,335,223.53889	39.49236	-107.85583	
4,016.08	14.99	86.14	3,855.00	73.05	1,082.14	1,612,842.41677	2,335,227.72806	39.49237	-107.85582	
Mesaverde										
4,200.00	12.23	86.14	4,033.73	75.96	1,125.32	1,612,844.20899	2,335,270.96591	39.49237	-107.85567	
4,400.00	9.23	86.14	4,230.21	78.47	1,162.47	1,612,845.75112	2,335,308.17022	39.49238	-107.85553	
4,600.00	6.23	86.14	4,428.37	80.28	1,189.31	1,612,846.86529	2,335,335.04983	39.49239	-107.85544	
4,800.00	3.23	86.14	4,627.67	81.39	1,205.77	1,612,847.54845	2,335,351.53108	39.49239	-107.85538	
5,000.00	0.23	86.14	4,827.55	81.80	1,211.80	1,612,847.79871	2,335,357.56879	39.49239	-107.85536	
5,015.45	0.00	0.00	4,843.00	81.80	1,211.83	1,612,847.80000	2,335,357.60000	39.49239	-107.85536	
Vertical										
5,115.45	0.00	0.00	4,943.00	81.80	1,211.83	1,612,847.80000	2,335,357.60000	39.49239	-107.85536	
Top Gas - Approx. Top Gas										
5,200.00	0.00	0.00	5,027.55	81.80	1,211.83	1,612,847.80000	2,335,357.60000	39.49239	-107.85536	
5,400.00	0.00	0.00	5,227.55	81.80	1,211.83	1,612,847.80000	2,335,357.60000	39.49239	-107.85536	
5,600.00	0.00	0.00	5,427.55	81.80	1,211.83	1,612,847.80000	2,335,357.60000	39.49239	-107.85536	
5,800.00	0.00	0.00	5,627.55	81.80	1,211.83	1,612,847.80000	2,335,357.60000	39.49239	-107.85536	
6,000.00	0.00	0.00	5,827.55	81.80	1,211.83	1,612,847.80000	2,335,357.60000	39.49239	-107.85536	
6,200.00	0.00	0.00	6,027.55	81.80	1,211.83	1,612,847.80000	2,335,357.60000	39.49239	-107.85536	
6,400.00	0.00	0.00	6,227.55	81.80	1,211.83	1,612,847.80000	2,335,357.60000	39.49239	-107.85536	
6,600.00	0.00	0.00	6,427.55	81.80	1,211.83	1,612,847.80000	2,335,357.60000	39.49239	-107.85536	

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Well:	RWF 523-26	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 05Jun14 mab		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (bearing)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
6,800.00	0.00	0.00	6,627.55	81.80	1,211.83	1,612,847.80000	2,335,357.60000	39.49239	-107.85536	
6,860.45	0.00	0.00	6,688.00	81.80	1,211.83	1,612,847.80000	2,335,357.60000	39.49239	-107.85536	
Cameo Coals										
7,000.00	0.00	0.00	6,827.55	81.80	1,211.83	1,612,847.80000	2,335,357.60000	39.49239	-107.85536	
7,200.00	0.00	0.00	7,027.55	81.80	1,211.83	1,612,847.80000	2,335,357.60000	39.49239	-107.85536	
7,400.00	0.00	0.00	7,227.55	81.80	1,211.83	1,612,847.80000	2,335,357.60000	39.49239	-107.85536	
7,600.00	0.00	0.00	7,427.55	81.80	1,211.83	1,612,847.80000	2,335,357.60000	39.49239	-107.85536	
7,616.45	0.00	0.00	7,444.00	81.80	1,211.83	1,612,847.80000	2,335,357.60000	39.49239	-107.85536	
Coal D										
7,715.45	0.00	0.00	7,543.00	81.80	1,211.83	1,612,847.80000	2,335,357.60000	39.49239	-107.85536	
Rollins SS										
7,800.00	0.00	0.00	7,627.55	81.80	1,211.83	1,612,847.80000	2,335,357.60000	39.49239	-107.85536	
7,865.45	0.00	0.00	7,693.00	81.80	1,211.83	1,612,847.80000	2,335,357.60000	39.49239	-107.85536	
TD at 7865.45 - TD										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (bearing)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude		Longitude
- hit/miss target										
- Shape										
Top Gas (50' Radius) RV	0.00	0.00	4,943.00	81.80	1,211.83	1,612,847.80000	2,335,357.60000	39.49239		-107.85536
- plan hits target center										
- Circle (radius 50.00)										

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name		Casing Diameter (in)	Hole Diameter (in)
1,100.00	1,070.46	9 5/8"		9.625	13.500

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (bearing)	
1,455.70	1,410.00	Top of "G" Sand				
1,560.45	1,510.00	Base of "G" Sand				
4,016.08	3,855.00	Mesaverde				
5,115.45	4,943.00	Approx. Top Gas				
6,860.45	6,688.00	Cameo Coals				
7,616.45	7,444.00	Coal D				
7,715.45	7,543.00	Rollins SS				
7,865.45	7,693.00	TD				

WPX
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Site:	JUHAN 14-26H Pad	North Reference:	True
Well:	RWF 523-26	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 05Jun14 mab		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
120.00	120.00	0.00	0.00	Start Build 3.50
615.30	607.77	5.01	74.19	Hold 17.34° Inc, 86.14° Az
3,859.76	3,704.86	70.12	1,038.73	Start Drop -1.50°/100
5,015.45	4,843.00	81.80	1,211.83	Vertical
5,115.45	4,943.00	81.80	1,211.83	Top Gas
7,865.45	7,693.00	81.80	1,211.83	TD at 7865.45