

Deviation Summary

PICEANCE VLY

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well/Wellbore Information

Well	RWF 324-25	Wellbore No.	00
Wellbore Legal Name	RWF 324-25	Common Wellbore Name	RWF 324-25
Project	RU 25-06S-094W	Site	RWF 23-25 Pad
Vertical Section Azimuth	188.56 (°)	North reference	True
Origin N/S		Origin E/W	
Spud date	12/31/2013	UWI	RWF 324-25
Active datum	KB @6,122.0ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	
Date Started	12/31/2013	Ended	
Tool Name	MWD	Engineer	

2.1.1 Tie On Point

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)
0.0	0.00	0.00	0.00	0.00	0.00

2.1.2 Survey Stations

Date	Type	MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. sec. (ft)	DLS (°/100usft)	Build Rate (°/100usft)	Turn (°/100usft)	Tface (°)
12/31/2013	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/31/2013	NORMAL	66.0	0.53	157.68	66.00	-0.28	0.12	0.26	0.80	0.80	0.00	157.68
	NORMAL	157.0	1.58	175.61	156.98	-1.92	0.37	1.85	1.20	1.15	19.70	26.55
	NORMAL	248.0	2.90	186.94	247.91	-5.46	0.19	5.37	1.52	1.45	12.45	24.26
	NORMAL	344.0	5.89	195.03	343.62	-12.63	-1.38	12.69	3.17	3.11	8.43	15.77
	NORMAL	434.0	8.62	196.26	432.89	-23.57	-4.47	23.97	3.04	3.03	1.37	3.87
	NORMAL	505.0	10.70	190.91	502.88	-35.15	-7.21	35.83	3.19	2.93	-7.54	334.00
	NORMAL	596.0	12.78	189.17	591.97	-53.38	-10.41	54.33	2.32	2.29	-1.91	349.49
	NORMAL	686.0	13.95	188.65	679.53	-73.93	-13.63	75.14	1.31	1.30	-0.58	353.88
	NORMAL	777.0	15.14	188.04	767.62	-96.54	-16.94	97.99	1.32	1.31	-0.67	352.37
	NORMAL	868.0	13.27	187.24	855.83	-118.67	-19.92	120.32	2.07	-2.05	-0.88	185.61
	NORMAL	959.0	11.60	186.99	944.69	-138.12	-22.35	139.91	1.84	-1.84	-0.27	181.72
	NORMAL	1,055.0	12.43	186.70	1,038.59	-157.96	-24.73	159.88	0.87	0.86	-0.30	355.70
	NORMAL	1,105.0	12.95	186.04	1,087.37	-168.88	-25.94	170.86	1.08	1.04	-1.32	344.10
1/2/2014	NORMAL	1,171.0	13.36	186.08	1,151.63	-183.81	-27.53	185.86	0.62	0.62	0.06	1.29
	NORMAL	1,267.0	12.66	188.98	1,245.17	-205.23	-30.35	207.46	1.00	-0.73	3.02	138.40
	NORMAL	1,362.0	12.70	189.25	1,337.85	-225.82	-33.65	228.32	0.08	0.04	0.28	56.12
	NORMAL	1,458.0	12.75	189.51	1,431.50	-246.69	-37.10	249.46	0.08	0.05	0.27	49.00
	NORMAL	1,553.0	11.34	188.98	1,524.40	-266.25	-40.29	269.28	1.49	-1.48	-0.56	184.23
	NORMAL	1,649.0	11.21	189.95	1,618.55	-284.76	-43.37	288.05	0.24	-0.14	1.01	124.90
	NORMAL	1,744.0	11.21	188.81	1,711.74	-302.99	-46.38	306.51	0.23	0.00	-1.20	269.44

2.1.2 Survey Stations (Continued)

Date	Type	MD (ft)	Inc. (")	Azi. (")	TVD (ft)	N/S (ft)	E/W (ft)	V. sec. (ft)	DLS ("/100usft)	Build Rate ("/100usft)	Turn ("/100usft)	Tface (")
1/2/2014	NORMAL	1,840.0	11.12	186.35	1,805.92	-321.41	-48.84	325.10	0.50	-0.09	-2.56	258.10
	NORMAL	1,936.0	10.59	184.41	1,900.20	-339.40	-50.54	343.15	0.67	-0.55	-2.02	213.63
	NORMAL	2,031.0	10.02	188.19	1,993.67	-356.29	-52.39	360.12	0.93	-0.60	3.98	131.98
	NORMAL	2,127.0	10.11	186.70	2,088.19	-372.92	-54.56	376.89	0.29	0.09	-1.55	288.33
	NORMAL	2,222.0	10.46	191.62	2,181.67	-389.65	-57.27	393.83	0.99	0.37	5.18	70.71
	NORMAL	2,317.0	10.33	190.57	2,275.11	-406.47	-60.57	410.96	0.24	-0.14	-1.11	235.03
	NORMAL	2,413.0	10.24	189.95	2,369.57	-423.34	-63.62	428.09	0.15	-0.09	-0.65	230.58
	NORMAL	2,509.0	11.39	192.32	2,463.86	-441.00	-67.12	446.08	1.28	1.20	2.47	22.31
	NORMAL	2,604.0	11.47	192.50	2,556.98	-459.39	-71.17	464.86	0.09	0.08	0.19	24.12
	NORMAL	2,699.0	11.34	191.01	2,650.10	-477.78	-74.99	483.62	0.34	-0.14	-1.57	245.46
	NORMAL	2,795.0	11.43	190.30	2,744.21	-496.40	-78.50	502.56	0.17	0.09	-0.74	302.36
	NORMAL	2,890.0	11.21	190.30	2,837.36	-514.75	-81.83	521.20	0.23	-0.23	0.00	180.00
	NORMAL	2,986.0	11.52	188.46	2,931.48	-533.41	-84.91	540.11	0.50	0.32	-1.92	309.62
	NORMAL	3,081.0	11.34	188.28	3,024.60	-552.04	-87.65	558.94	0.19	-0.19	-0.19	191.12
	NORMAL	3,177.0	10.95	187.75	3,118.79	-570.41	-90.24	577.49	0.42	-0.41	-0.55	194.46
	NORMAL	3,271.0	12.26	187.58	3,210.86	-589.15	-92.76	596.40	1.39	1.39	-0.18	358.42
	NORMAL	3,367.0	12.22	186.79	3,304.68	-609.35	-95.31	616.74	0.18	-0.04	-0.82	256.18
	NORMAL	3,463.0	11.91	187.05	3,398.56	-629.27	-97.72	636.80	0.33	-0.32	0.27	170.18
	NORMAL	3,557.0	11.30	185.91	3,490.64	-648.05	-99.86	655.70	0.69	-0.65	-1.21	200.05
	NORMAL	3,653.0	10.95	185.29	3,584.83	-666.49	-101.67	674.20	0.39	-0.36	-0.65	198.57
	NORMAL	3,748.0	10.64	184.94	3,678.15	-684.21	-103.26	691.96	0.33	-0.33	-0.37	191.77
	NORMAL	3,843.0	10.46	182.92	3,771.55	-701.56	-104.45	709.29	0.43	-0.19	-2.13	243.06
	NORMAL	3,939.0	11.08	186.43	3,865.86	-719.43	-105.93	727.18	0.94	0.65	3.66	48.35
	NORMAL	4,034.0	11.47	187.93	3,959.02	-737.86	-108.25	745.75	0.51	0.41	1.58	37.68
	NORMAL	4,130.0	12.18	188.81	4,052.99	-757.32	-111.12	765.42	0.76	0.74	0.92	14.68
	NORMAL	4,225.0	12.57	189.16	4,145.78	-777.43	-114.30	785.78	0.42	0.41	0.37	11.06
1/3/2014	NORMAL	4,321.0	12.09	188.98	4,239.56	-797.67	-117.54	806.28	0.50	-0.50	-0.19	184.49
	NORMAL	4,416.0	12.18	189.07	4,332.44	-817.39	-120.67	826.25	0.10	0.09	0.09	11.92
	NORMAL	4,511.0	12.26	190.13	4,425.29	-837.22	-124.02	846.35	0.25	0.08	1.12	70.89
	NORMAL	4,607.0	12.09	189.77	4,519.13	-857.16	-127.52	866.59	0.19	-0.18	-0.38	203.89
	NORMAL	4,702.0	11.74	190.57	4,612.08	-876.47	-130.98	886.20	0.41	-0.37	0.84	155.13
	NORMAL	4,798.0	10.24	191.80	4,706.32	-894.42	-134.52	904.48	1.58	-1.56	1.28	171.72
	NORMAL	4,894.0	9.23	191.08	4,800.94	-910.33	-137.74	920.69	1.06	-1.05	-0.75	186.52
	NORMAL	4,989.0	9.23	192.59	4,894.71	-925.24	-140.87	935.90	0.25	0.00	1.59	90.75
	NORMAL	5,085.0	8.57	191.44	4,989.55	-939.77	-143.97	950.73	0.71	-0.69	-1.20	194.52
	NORMAL	5,180.0	7.25	186.79	5,083.64	-952.66	-146.08	963.79	1.54	-1.39	-4.89	203.57
	NORMAL	5,276.0	6.42	187.58	5,178.96	-963.99	-147.50	975.21	0.87	-0.86	0.82	173.93
	NORMAL	5,371.0	6.29	190.30	5,273.38	-974.38	-149.13	985.72	0.35	-0.14	2.86	114.70
1/4/2014	NORMAL	5,467.0	5.10	188.19	5,368.90	-983.78	-150.68	995.25	1.26	-1.24	-2.20	188.93
	NORMAL	5,562.0	3.25	195.75	5,463.65	-990.55	-152.01	1,002.14	2.03	-1.95	7.96	167.18
	NORMAL	5,657.0	2.15	185.91	5,558.54	-994.91	-152.93	1,006.59	1.25	-1.16	-10.36	197.99
	NORMAL	5,751.0	0.13	87.64	5,652.52	-996.66	-153.00	1,008.33	2.31	-2.15	-104.54	183.40
	NORMAL	5,846.0	1.76	47.22	5,747.50	-995.67	-151.82	1,007.17	1.75	1.72	-42.55	316.68
	NORMAL	5,942.0	1.80	55.30	5,843.46	-993.81	-149.50	1,004.99	0.26	0.04	8.42	85.00
	NORMAL	6,038.0	1.54	62.51	5,939.42	-992.35	-147.12	1,003.20	0.35	-0.27	7.51	144.62
	NORMAL	6,133.0	1.14	70.51	6,034.39	-991.45	-145.10	1,002.00	0.46	-0.42	8.42	158.90
	NORMAL	6,229.0	2.33	53.63	6,130.34	-989.97	-142.62	1,000.17	1.34	1.24	-17.58	328.17
	NORMAL	6,324.0	2.29	58.11	6,225.27	-987.83	-139.46	997.58	0.19	-0.04	4.72	104.72
	NORMAL	6,420.0	2.20	60.22	6,321.19	-985.90	-136.23	995.19	0.13	-0.09	2.20	138.49
1/5/2014	NORMAL	6,516.0	2.02	63.12	6,417.13	-984.22	-133.12	993.07	0.22	-0.19	3.02	150.77
	NORMAL	6,611.0	1.80	64.71	6,512.08	-982.82	-130.28	991.27	0.24	-0.23	1.67	167.25
	NORMAL	6,707.0	1.89	64.44	6,608.03	-981.50	-127.49	989.54	0.09	0.09	-0.28	354.35
	NORMAL	6,803.0	1.45	53.10	6,703.99	-980.08	-125.09	987.78	0.57	-0.46	-11.81	211.33
	NORMAL	6,898.0	1.10	35.35	6,798.96	-978.62	-123.60	986.11	0.55	-0.37	-18.68	219.81
1/6/2014	NORMAL	6,994.0	0.92	20.59	6,894.95	-977.14	-122.80	984.54	0.33	-0.19	-15.38	228.09
	NORMAL	7,089.0	0.75	8.63	6,989.94	-975.82	-122.43	983.17	0.26	-0.18	-12.59	219.84

2.1.2 Survey Stations (Continued)

Date	Type	MD (ft)	Inc. (")	Azi. (°)	TVD (ft)	N/S (ft)	EW (ft)	V. sec. (ft)	DLS (°/100usft)	Build Rate (°/100usft)	Turn (°/100usft)	Tface (")
1/6/2014	NORMAL	7,185.0	0.66	10.13	7,085.93	-974.65	-122.24	981.99	0.10	-0.09	1.56	169.16
	NORMAL	7,280.0	0.66	10.04	7,180.92	-973.57	-122.05	980.89	0.00	0.00	-0.09	269.96
	NORMAL	7,376.0	0.70	340.15	7,276.92	-972.48	-122.15	979.83	0.37	0.04	-31.14	261.34
	NORMAL	7,471.0	0.70	308.43	7,371.91	-971.57	-122.81	979.03	0.40	0.00	-33.39	254.14
	NORMAL	7,567.0	1.05	307.55	7,467.90	-970.67	-123.96	978.31	0.36	0.36	-0.92	357.36
	NORMAL	7,662.0	0.88	292.43	7,562.89	-969.86	-125.33	977.71	0.32	-0.18	-15.92	228.87
1/7/2014	NORMAL	7,758.0	1.14	277.14	7,658.87	-969.46	-126.96	977.56	0.39	0.27	-15.93	306.16
	NORMAL	7,853.0	1.23	270.63	7,753.85	-969.33	-128.91	977.72	0.17	0.09	-6.85	300.48
	NORMAL	7,948.0	1.36	266.94	7,848.83	-969.38	-131.06	978.09	0.16	0.14	-3.88	325.47
	NORMAL	8,043.0	1.67	266.06	7,943.79	-969.54	-133.56	978.62	0.33	0.33	-0.93	355.27
	NORMAL	8,138.0	2.29	260.88	8,038.74	-969.93	-136.82	979.49	0.68	0.65	-5.45	341.30
	NORMAL	8,233.0	2.81	254.55	8,133.64	-970.85	-140.94	981.02	0.62	0.55	-6.66	328.37
	NORMAL	8,327.0	3.21	252.79	8,227.51	-972.25	-145.67	983.10	0.44	0.43	-1.87	346.11
	NORMAL	8,423.0	3.96	250.42	8,323.32	-974.15	-151.36	985.83	0.80	0.78	-2.47	347.64
	NORMAL	8,518.0	3.87	248.22	8,418.10	-976.44	-157.43	989.00	0.18	-0.09	-2.32	237.98
	NORMAL	8,613.0	3.91	248.48	8,512.88	-978.82	-163.42	992.24	0.05	0.04	0.27	23.93
	NORMAL	8,674.0	3.91	248.48	8,573.74	-980.34	-167.29	994.32	0.00	0.00	0.00	0.00