

Deviation Summary

PICEANCE VLY

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well/Wellbore Information

Well	RWF 334-25	Wellbore No.	00
Wellbore Legal Name	RWF 334-25	Common Wellbore Name	RWF 334-25
Project	RU 25-06S-094W	Site	RWF 43-25 Pad
Vertical Section Azimuth	280.98 (°)	North reference	True
Origin N/S		Origin E/W	
Spud date	8/4/2014	UWI	RWF 334-25
Active datum	KB @6,259.0ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	
Date Started	8/4/2014	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 (°)
8/4/2014	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8/4/2014	NORMAL	73.0	0.53	237.48	73.00	-0.18	-0.28	0.24	0.73	0.73	0.00	237.48
	NORMAL	104.0	1.50	280.11	103.99	-0.19	-0.81	0.75	3.76	3.13	137.52	60.55
	NORMAL	134.0	2.02	284.94	133.98	0.02	-1.70	1.67	1.80	1.73	16.10	18.35
	NORMAL	164.0	3.08	289.95	163.95	0.43	-2.97	3.00	3.61	3.53	16.70	14.39
	NORMAL	195.0	3.87	288.90	194.89	1.05	-4.74	4.86	2.56	2.55	-3.39	354.87
	NORMAL	225.0	3.87	287.93	224.82	1.69	-6.66	6.86	0.22	0.00	-3.23	269.52
	NORMAL	255.0	3.96	283.18	254.75	2.24	-8.64	8.90	1.12	0.30	-15.83	283.13
	NORMAL	285.0	4.31	287.84	284.68	2.82	-10.72	11.06	1.62	1.17	15.53	46.17
	NORMAL	316.0	4.84	285.82	315.58	3.53	-13.09	13.52	1.79	1.71	-6.52	342.08
	NORMAL	346.0	5.28	281.43	345.46	4.15	-15.66	16.16	1.95	1.47	-14.63	316.45
	NORMAL	376.0	5.98	281.95	375.32	4.75	-18.54	19.10	2.34	2.33	1.73	4.43
8/5/2014	NORMAL	406.0	6.51	280.02	405.14	5.37	-21.74	22.37	1.90	1.77	-6.43	337.43
	NORMAL	436.0	7.57	279.14	434.91	5.98	-25.37	26.04	3.55	3.53	-2.93	353.75
	NORMAL	467.0	8.62	276.15	465.60	6.55	-29.69	30.40	3.65	3.39	-9.65	336.66
	NORMAL	497.0	9.24	277.65	495.24	7.11	-34.32	35.04	2.21	2.07	5.00	21.33
	NORMAL	527.0	9.94	277.56	524.82	7.78	-39.27	40.03	2.33	2.33	-0.30	358.73
	NORMAL	598.0	10.32	278.61	594.71	9.53	-51.63	52.50	0.60	0.54	1.48	26.44
	NORMAL	688.0	11.16	281.12	683.14	12.42	-68.15	69.27	1.07	0.93	2.79	30.35
	NORMAL	779.0	13.89	279.87	771.96	15.99	-87.56	89.00	3.01	3.00	-1.37	353.72
	NORMAL	870.0	15.39	279.96	860.01	19.95	-110.21	111.99	1.65	1.65	0.10	0.91

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 (°)
8/5/2014	NORMAL	966.0	16.74	279.15	952.25	24.36	-136.41	138.55	1.43	1.41	-0.84	350.18
	NORMAL	1,060.0	15.24	277.76	1,042.62	28.18	-162.02	164.42	1.65	-1.60	-1.48	193.65
	NORMAL	1,089.0	15.17	277.78	1,070.60	29.20	-169.55	172.01	0.24	-0.24	0.07	175.72
8/6/2014	NORMAL	1,176.0	14.73	281.72	1,154.66	32.99	-191.66	194.44	1.27	-0.51	4.53	115.30
	NORMAL	1,272.0	14.51	281.54	1,247.55	37.88	-215.40	218.67	0.23	-0.23	-0.19	191.58
	NORMAL	1,367.0	14.29	281.98	1,339.57	42.69	-238.52	242.29	0.26	-0.23	0.46	153.77
	NORMAL	1,462.0	16.00	283.21	1,431.26	48.12	-262.74	267.10	1.83	1.80	1.29	11.24
	NORMAL	1,556.0	15.69	283.21	1,521.69	53.98	-287.73	292.74	0.33	-0.33	0.00	180.00
	NORMAL	1,652.0	17.50	282.07	1,613.69	59.97	-314.48	320.15	1.92	1.89	-1.19	349.26
	NORMAL	1,747.0	17.19	281.10	1,704.37	65.66	-342.23	348.47	0.45	-0.33	-1.02	222.55
	NORMAL	1,843.0	17.36	281.28	1,796.04	71.19	-370.19	376.97	0.19	0.18	0.19	17.54
	NORMAL	1,938.0	17.23	281.36	1,886.74	76.73	-397.89	405.22	0.14	-0.14	0.08	169.67
	NORMAL	2,034.0	17.19	281.80	1,978.45	82.44	-425.71	433.62	0.14	-0.04	0.46	107.29
	NORMAL	2,130.0	17.32	282.60	2,070.13	88.45	-453.54	462.09	0.28	0.14	0.83	61.67
	NORMAL	2,225.0	17.76	278.99	2,160.71	93.80	-481.66	490.71	1.24	0.46	-3.80	290.29
	NORMAL	2,321.0	17.41	278.20	2,252.23	98.14	-510.33	519.68	0.44	-0.36	-0.82	213.92
	NORMAL	2,416.0	17.41	277.06	2,342.87	101.91	-538.50	548.06	0.36	0.00	-1.20	269.46
	NORMAL	2,512.0	16.57	275.30	2,434.68	104.94	-566.39	576.01	1.03	-0.88	-1.83	210.64
	NORMAL	2,607.0	17.50	277.32	2,525.52	108.01	-594.05	603.74	1.16	0.98	2.13	33.44
	NORMAL	2,703.0	17.67	281.19	2,617.03	112.68	-622.66	632.72	1.23	0.18	4.03	83.58
	NORMAL	2,798.0	17.63	280.75	2,707.56	118.16	-650.93	661.52	0.15	-0.04	-0.46	253.10
8/7/2014	NORMAL	2,894.0	17.23	284.70	2,799.16	124.48	-678.97	690.25	1.30	-0.42	4.11	110.56
	NORMAL	2,989.0	16.88	284.79	2,889.98	131.57	-705.91	718.05	0.37	-0.37	0.09	175.73
	NORMAL	3,084.0	16.84	284.53	2,980.90	138.55	-732.57	745.55	0.09	-0.04	-0.27	241.93
	NORMAL	3,180.0	16.22	284.88	3,072.93	145.48	-758.99	772.80	0.65	-0.65	0.36	171.04
	NORMAL	3,273.0	15.78	284.88	3,162.33	152.06	-783.76	798.38	0.47	-0.47	0.00	180.00
	NORMAL	3,367.0	15.60	280.57	3,252.83	157.66	-808.54	823.77	1.25	-0.19	-4.59	259.15
	NORMAL	3,463.0	15.21	281.45	3,345.38	162.53	-833.57	849.27	0.47	-0.41	0.92	149.49
	NORMAL	3,558.0	15.96	279.08	3,436.88	167.06	-858.69	874.79	1.04	0.79	-2.49	318.52
	NORMAL	3,654.0	15.47	278.38	3,529.30	171.01	-884.39	900.77	0.55	-0.51	-0.73	200.82
	NORMAL	3,750.0	15.34	278.02	3,621.85	174.65	-909.63	926.24	0.17	-0.14	-0.38	216.17
	NORMAL	3,845.0	16.66	280.31	3,713.17	178.84	-935.47	952.41	1.54	1.39	2.41	26.66
	NORMAL	3,940.0	16.75	280.93	3,804.16	183.87	-962.31	979.71	0.21	0.09	0.65	63.50
	NORMAL	4,036.0	15.82	280.75	3,896.30	188.94	-988.75	1,006.63	0.97	-0.97	-0.19	183.02
	NORMAL	4,131.0	16.09	280.75	3,987.65	193.81	-1,014.40	1,032.75	0.28	0.28	0.00	0.00
	NORMAL	4,226.0	16.18	279.96	4,078.90	198.55	-1,040.37	1,059.15	0.25	0.09	-0.83	291.91
	NORMAL	4,320.0	16.00	279.43	4,169.22	202.94	-1,066.05	1,085.19	0.25	-0.19	-0.56	218.96
8/8/2014	NORMAL	4,416.0	15.82	278.99	4,261.54	207.15	-1,092.03	1,111.49	0.23	-0.19	-0.46	213.61
	NORMAL	4,511.0	15.39	279.52	4,353.04	211.26	-1,117.25	1,137.04	0.48	-0.45	0.56	161.91
	NORMAL	4,606.0	15.30	278.02	4,444.66	215.10	-1,142.10	1,162.16	0.43	-0.09	-1.58	256.50
	NORMAL	4,701.0	14.99	277.67	4,536.36	218.49	-1,166.68	1,186.94	0.34	-0.33	-0.37	196.27
	NORMAL	4,797.0	14.99	282.42	4,629.09	222.81	-1,191.11	1,211.75	1.28	0.00	4.95	92.29
	NORMAL	4,892.0	14.55	281.54	4,720.95	227.84	-1,214.80	1,235.96	0.52	-0.46	-0.93	206.59
	NORMAL	4,988.0	13.80	280.57	4,814.03	232.36	-1,237.87	1,259.47	0.82	-0.78	-1.01	197.10
	NORMAL	5,084.0	13.98	279.87	4,907.22	236.44	-1,260.55	1,282.51	0.26	0.19	-0.73	316.63
	NORMAL	5,178.0	12.22	283.30	4,998.78	240.68	-1,281.42	1,303.81	2.05	-1.87	3.65	157.83
	NORMAL	5,272.0	10.59	285.41	5,090.92	245.26	-1,299.43	1,322.36	1.79	-1.73	2.24	166.67
	NORMAL	5,368.0	8.40	287.52	5,185.60	249.72	-1,314.63	1,338.12	2.31	-2.28	2.20	172.01
	NORMAL	5,464.0	7.82	285.23	5,280.64	253.54	-1,327.62	1,351.60	0.69	-0.60	-2.39	207.99
	NORMAL	5,558.0	5.93	282.16	5,373.96	256.25	-1,338.53	1,362.84	2.05	-2.01	-3.27	189.48
8/9/2014	NORMAL	5,654.0	4.22	279.26	5,469.58	257.86	-1,346.87	1,371.33	1.80	-1.78	-3.02	187.09
	NORMAL	5,749.0	4.04	273.89	5,564.33	258.65	-1,353.66	1,378.14	0.45	-0.19	-5.65	242.38
	NORMAL	5,844.0	3.91	271.52	5,659.10	258.96	-1,360.23	1,384.66	0.22	-0.14	-2.49	230.47
	NORMAL	5,940.0	3.78	263.52	5,754.89	258.69	-1,366.65	1,390.90	0.57	-0.14	-8.33	252.41
	NORMAL	6,035.0	3.91	259.65	5,849.67	257.76	-1,372.95	1,396.91	0.31	0.14	-4.07	294.67
8/10/2014	NORMAL	6,130.0	3.78	259.22	5,944.46	256.59	-1,379.21	1,402.83	0.14	-0.14	-0.45	192.29

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 (')
8/10/2014	NORMAL	6,225.0	2.07	273.28	6,039.34	256.10	-1,384.00	1,407.44	1.94	-1.80	14.80	164.16
	NORMAL	6,320.0	0.70	1.17	6,134.31	256.78	-1,385.70	1,409.24	2.27	-1.44	92.52	161.10
	NORMAL	6,414.0	2.37	33.95	6,228.28	258.97	-1,384.60	1,408.58	1.94	1.78	34.87	44.78
8/11/2014	NORMAL	6,512.0	2.24	32.37	6,326.20	262.27	-1,382.45	1,407.09	0.15	-0.13	-1.61	205.26
	NORMAL	6,608.0	1.98	31.31	6,422.13	265.27	-1,380.58	1,405.83	0.27	-0.27	-1.10	188.01
	NORMAL	6,704.0	1.58	41.69	6,518.09	267.67	-1,378.84	1,404.58	0.53	-0.42	10.81	146.24
	NORMAL	6,800.0	1.32	54.87	6,614.06	269.30	-1,377.05	1,403.14	0.44	-0.27	13.73	134.40
	NORMAL	6,896.0	1.76	10.84	6,710.02	271.38	-1,375.87	1,402.37	1.28	0.46	-45.86	267.45
	NORMAL	6,992.0	1.58	5.12	6,805.98	274.15	-1,375.48	1,402.51	0.26	-0.19	-5.96	219.97
	NORMAL	7,087.0	1.85	1.61	6,900.94	276.98	-1,375.32	1,402.90	0.30	0.28	-3.69	336.98
	NORMAL	7,183.0	1.93	346.67	6,996.89	280.11	-1,375.65	1,403.81	0.52	0.08	-15.56	271.70
	NORMAL	7,278.0	1.80	335.86	7,091.84	283.03	-1,376.63	1,405.33	0.39	-0.14	-11.38	244.37
	NORMAL	7,374.0	1.01	335.59	7,187.81	285.17	-1,377.59	1,406.69	0.82	-0.82	-0.28	180.35
	NORMAL	7,470.0	1.89	356.33	7,283.78	287.52	-1,378.04	1,407.58	1.05	0.92	21.60	41.46
	NORMAL	7,565.0	2.50	359.68	7,378.71	291.16	-1,378.15	1,408.38	0.66	0.64	3.53	13.56
	NORMAL	7,661.0	2.11	359.94	7,474.63	295.02	-1,378.17	1,409.13	0.41	-0.41	0.27	178.59
	NORMAL	7,755.0	1.80	348.25	7,568.58	298.19	-1,378.47	1,410.03	0.54	-0.33	-12.44	226.40
	NORMAL	7,850.0	1.32	344.56	7,663.54	300.71	-1,379.07	1,411.09	0.52	-0.51	-3.88	189.98
8/12/2014	NORMAL	7,945.0	1.10	318.54	7,758.52	302.45	-1,379.96	1,412.30	0.62	-0.23	-27.39	235.51
	NORMAL	8,041.0	1.19	270.20	7,854.51	303.14	-1,381.57	1,414.01	0.98	0.09	-50.35	250.84
	NORMAL	8,136.0	1.98	255.70	7,949.47	302.74	-1,384.14	1,416.47	0.93	0.83	-15.26	325.71
	NORMAL	8,231.0	1.89	246.12	8,044.42	301.70	-1,387.17	1,419.24	0.35	-0.09	-10.08	249.70
	NORMAL	8,325.0	2.50	237.51	8,138.35	299.97	-1,390.31	1,422.00	0.74	0.65	-9.16	327.26
	NORMAL	8,420.0	3.03	234.43	8,233.24	297.40	-1,394.10	1,425.23	0.58	0.56	-3.24	342.80
	NORMAL	8,510.0	3.82	231.79	8,323.07	294.16	-1,398.39	1,428.82	0.89	0.88	-2.93	347.39
	NORMAL	8,605.0	3.96	232.15	8,417.86	290.19	-1,403.47	1,433.05	0.15	0.15	0.38	10.08
	NORMAL	8,701.0	4.13	231.79	8,513.62	286.02	-1,408.80	1,437.49	0.18	0.18	-0.38	351.32
	NORMAL	8,796.0	4.44	226.70	8,608.35	281.38	-1,414.17	1,441.87	0.52	0.33	-5.36	306.63
	NORMAL	8,892.0	4.53	227.14	8,704.06	276.25	-1,419.65	1,446.28	0.10	0.09	0.46	21.14
	NORMAL	8,900.0	4.75	229.86	8,712.03	275.82	-1,420.14	1,446.67	3.89	2.75	34.00	46.37
	NORMAL	8,945.0	4.75	229.86	8,758.88	273.42	-1,422.99	1,449.01	0.00	0.00	0.00	0.00