

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well Information

Well	RWF 542-34	Wellbore No.	
Well Name	RWF 542-34	Common Name	RWF 542-34
Project	RU 35-06S-094W	Site	RMV 15-35 Pad
Vertical Section Azimuth	253.46 (°)	North Reference	True
Origin N/S		Origin E/W	
Spud Date	8/12/2012	UWI	RWF 542-34
Active Datum	KB @5,575.7ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	
Date Started	8/12/2012	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

4960

Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (%/100ft)	Build Rate (%/100ft)	Turn (%/100ft)	TFace (°)
8/12/2012	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8/12/2012	NORMAL	86.0	0.44	220.69	86.00	-0.25	-0.22	0.28	0.51	0.51	0.00	220.69
	NORMAL	179.0	2.38	260.16	178.97	-0.85	-2.35	2.50	2.21	2.09	42.44	47.27
	NORMAL	271.0	5.63	259.45	270.73	-2.00	-8.67	8.88	3.53	3.53	-0.77	358.77
	NORMAL	343.0	7.47	256.41	342.26	-3.75	-16.69	17.07	2.60	2.56	-4.22	347.81
	NORMAL	433.0	8.38	251.66	431.40	-7.19	-28.61	29.47	1.24	1.01	-5.28	321.89
	NORMAL	524.0	10.29	253.33	521.19	-11.61	-42.69	44.23	2.12	2.10	1.84	8.90
8/13/2012	NORMAL	615.0	12.93	256.67	610.32	-16.29	-60.38	62.52	2.99	2.90	3.67	15.93
	NORMAL	706.0	15.83	252.89	698.46	-22.29	-82.16	85.10	3.35	3.19	-4.15	340.22
	NORMAL	797.0	19.43	254.92	785.17	-29.88	-108.64	112.65	4.01	3.96	2.23	10.66
	NORMAL	889.0	22.40	252.95	871.10	-39.00	-140.18	145.49	3.32	3.23	-2.14	345.76
	NORMAL	979.0	25.50	251.63	953.35	-50.14	-174.97	182.01	3.50	3.44	-1.47	349.59
	NORMAL	1,070.0	24.28	251.06	1,035.89	-62.39	-211.26	220.28	1.37	-1.34	-0.63	190.87
8/14/2012	NORMAL	1,118.0	23.92	250.17	1,079.71	-68.89	-229.75	239.86	1.07	-0.75	-1.85	224.86
	NORMAL	1,197.0	24.18	250.35	1,151.85	-79.76	-260.05	272.00	0.34	0.33	0.23	15.84
	NORMAL	1,258.0	24.53	250.78	1,207.42	-88.13	-283.78	297.12	0.64	0.57	0.70	27.07
	NORMAL	1,353.0	24.15	253.61	1,293.98	-100.11	-321.04	336.26	1.29	-0.40	2.98	109.33
	NORMAL	1,449.0	24.85	253.74	1,381.34	-111.30	-359.25	376.07	0.73	0.73	0.14	4.46
	NORMAL	1,545.0	25.92	252.74	1,468.07	-123.17	-398.65	417.22	1.20	1.11	-1.04	337.71
	NORMAL	1,640.0	24.47	255.50	1,554.03	-134.26	-437.53	457.65	1.96	-1.53	2.91	142.22
	NORMAL	1,735.0	25.07	255.96	1,640.29	-144.07	-476.11	497.42	0.66	0.63	0.48	18.02

2.1.2 Survey Stations (Continued)

Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (°/100ft)	Build Rate (°/100ft)	Turn (°/100ft)	TFace (°)
8/14/2012	NORMAL	1,829.0	23.26	253.81	1,726.05	-154.08	-513.25	535.88	2.14	-1.93	-2.29	204.95
	NORMAL	1,925.0	23.65	254.87	1,814.12	-164.39	-550.05	574.08	0.60	0.41	1.10	47.74
	NORMAL	2,021.0	23.65	253.77	1,902.06	-174.80	-587.12	612.59	0.46	0.00	-1.15	269.50
8/15/2012	NORMAL	2,116.0	23.88	254.64	1,989.00	-185.21	-623.96	650.87	0.44	0.24	0.92	57.13
	NORMAL	2,212.0	24.36	254.30	2,076.62	-195.72	-661.76	690.09	0.52	0.50	-0.35	343.70
	NORMAL	2,307.0	25.19	254.26	2,162.87	-206.51	-700.08	729.90	0.87	0.87	-0.04	358.82
	NORMAL	2,403.0	23.66	253.13	2,250.28	-217.64	-738.18	769.59	1.67	-1.59	-1.18	196.47
	NORMAL	2,498.0	23.83	252.63	2,337.24	-228.90	-774.74	807.84	0.28	0.18	-0.53	309.95
	NORMAL	2,594.0	24.36	252.54	2,424.87	-240.63	-812.13	847.03	0.55	0.55	-0.09	355.99
	NORMAL	2,690.0	23.92	254.30	2,512.48	-251.84	-849.75	886.29	0.88	-0.46	1.83	122.24
	NORMAL	2,785.0	24.27	253.45	2,599.20	-262.61	-887.01	925.07	0.52	0.37	-0.89	314.86
	NORMAL	2,879.0	24.41	253.37	2,684.85	-273.67	-924.14	963.81	0.15	0.15	-0.09	346.71
	NORMAL	2,974.0	25.20	253.39	2,771.08	-285.07	-962.33	1,003.66	0.83	0.83	0.02	0.62
	NORMAL	3,069.0	25.88	253.12	2,856.80	-296.87	-1,001.55	1,044.62	0.73	0.72	-0.28	350.16
	NORMAL	3,164.0	24.65	254.18	2,942.71	-308.29	-1,040.45	1,085.17	1.38	-1.29	1.12	160.28
	NORMAL	3,258.0	25.28	253.81	3,027.93	-319.23	-1,078.59	1,124.84	0.69	0.67	-0.39	345.91
	NORMAL	3,353.0	23.71	255.63	3,114.37	-329.63	-1,116.57	1,164.21	1.83	-1.65	1.92	155.16
	NORMAL	3,447.0	22.17	255.81	3,200.94	-338.67	-1,152.08	1,200.82	1.64	-1.64	0.19	177.47
	NORMAL	3,543.0	21.42	255.84	3,290.07	-347.40	-1,186.64	1,236.43	0.78	-0.78	0.03	179.16
	NORMAL	3,639.0	20.42	255.28	3,379.75	-355.94	-1,219.83	1,270.69	1.06	-1.04	-0.58	191.05
	NORMAL	3,734.0	19.13	252.96	3,469.14	-364.72	-1,250.75	1,302.82	1.59	-1.36	-2.44	210.23
	NORMAL	3,830.0	17.85	252.95	3,560.18	-373.64	-1,279.85	1,333.26	1.33	-1.33	-0.01	180.14
8/16/2012	NORMAL	3,926.0	17.97	252.41	3,651.53	-382.43	-1,308.04	1,362.78	0.21	0.12	-0.56	305.60
	NORMAL	4,021.0	16.62	253.50	3,742.24	-390.72	-1,335.03	1,391.02	1.46	-1.42	1.15	167.02
	NORMAL	4,128.0	16.53	254.12	3,844.79	-399.23	-1,364.35	1,421.54	0.19	-0.08	0.58	117.27
	NORMAL	4,210.0	14.81	255.31	3,923.74	-405.08	-1,385.71	1,443.69	2.13	-2.10	1.45	169.99
	NORMAL	4,306.0	14.34	255.27	4,016.65	-411.21	-1,409.07	1,467.83	0.49	-0.49	-0.04	181.21
	NORMAL	4,401.0	13.32	253.56	4,108.89	-417.30	-1,430.95	1,490.53	1.16	-1.07	-1.80	201.01
	NORMAL	4,496.0	12.85	253.45	4,201.43	-423.41	-1,451.57	1,512.04	0.50	-0.49	-0.12	182.98
	NORMAL	4,592.0	11.08	254.48	4,295.34	-428.92	-1,470.69	1,531.94	1.86	-1.84	1.07	173.62
	NORMAL	4,688.0	11.17	254.39	4,389.53	-433.89	-1,488.54	1,550.46	0.10	0.09	-0.09	349.03
	NORMAL	4,783.0	8.86	256.70	4,483.08	-438.05	-1,504.52	1,566.97	2.47	-2.43	2.43	171.27
	NORMAL	4,877.0	7.50	255.52	4,576.12	-441.25	-1,517.50	1,580.33	1.46	-1.45	-1.26	186.45
8/17/2012	NORMAL	4,972.0	7.40	258.48	4,670.32	-444.02	-1,529.50	1,592.62	0.42	-0.11	3.12	106.07
	NORMAL	5,066.0	6.16	255.97	4,763.66	-446.45	-1,540.33	1,603.69	1.36	-1.32	-2.67	192.20
	NORMAL	5,165.0	4.57	261.24	4,862.23	-448.34	-1,549.38	1,612.90	1.68	-1.61	5.32	165.39
	NORMAL	5,261.0	4.31	262.12	4,957.94	-449.42	-1,556.73	1,620.26	0.28	-0.27	0.92	165.76
	NORMAL	5,357.0	2.99	249.99	5,053.74	-450.77	-1,562.66	1,626.32	1.59	-1.38	-12.64	204.37
	NORMAL	5,453.0	1.76	249.82	5,149.66	-452.13	-1,566.40	1,630.29	1.28	-1.28	-0.18	180.24
	NORMAL	5,548.0	1.64	246.59	5,244.62	-453.18	-1,569.01	1,633.10	0.16	-0.13	-3.40	217.00
	NORMAL	5,643.0	0.74	272.11	5,339.59	-453.69	-1,570.87	1,635.03	1.08	-0.95	26.86	161.84
	NORMAL	5,737.0	0.64	282.18	5,433.59	-453.56	-1,571.99	1,636.07	0.17	-0.11	10.71	134.47
	NORMAL	5,831.0	0.52	289.33	5,527.58	-453.31	-1,572.91	1,636.87	0.15	-0.13	7.61	152.45
	NORMAL	5,926.0	0.59	296.45	5,622.58	-452.95	-1,573.75	1,637.58	0.10	0.07	7.49	48.17
	NORMAL	6,022.0	0.79	345.27	5,718.57	-452.09	-1,574.36	1,637.92	0.62	0.21	50.85	96.70
	NORMAL	6,117.0	0.35	350.63	5,813.57	-451.17	-1,574.58	1,637.86	0.47	-0.46	5.64	175.77
	NORMAL	6,213.0	0.53	17.52	5,909.56	-450.45	-1,574.49	1,637.58	0.28	0.19	28.01	62.89
	NORMAL	6,306.0	0.53	349.57	6,002.56	-449.62	-1,574.44	1,637.29	0.28	0.00	-30.05	256.03
	NORMAL	6,401.0	0.70	338.32	6,097.56	-448.65	-1,574.73	1,637.30	0.22	0.18	-11.84	318.90
	NORMAL	6,496.0	0.51	37.57	6,192.55	-447.78	-1,574.69	1,637.01	0.65	-0.20	62.37	135.06
	NORMAL	6,592.0	0.62	148.39	6,288.55	-447.88	-1,574.16	1,636.53	0.97	0.11	115.44	141.57
8/18/2012	NORMAL	6,687.0	0.75	132.27	6,383.54	-448.74	-1,573.43	1,636.07	0.24	0.14	-16.97	295.77
	NORMAL	6,782.0	0.70	148.57	6,478.53	-449.65	-1,572.67	1,635.60	0.22	-0.05	17.16	111.69
	NORMAL	6,877.0	0.62	166.76	6,573.53	-450.64	-1,572.24	1,635.48	0.23	-0.08	19.15	119.83
	NORMAL	6,972.0	0.82	229.55	6,668.52	-451.59	-1,572.64	1,636.13	0.81	0.21	66.09	108.57
	NORMAL	7,067.0	1.26	212.57	6,763.51	-452.91	-1,573.72	1,637.54	0.56	0.46	-17.87	316.30
	NORMAL	7,163.0	0.26	87.40	6,859.50	-453.79	-1,574.07	1,638.13	1.49	-1.04	-130.39	188.57

2.1.2 Survey Stations (Continued)

Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (°/100ft)	Build Rate (°/100ft)	Turn (°/100ft)	TFace (°)
8/18/2012	NORMAL	7,259.0	0.15	60.33	6,955.50	-453.71	-1,573.75	1,637.79	0.15	-0.11	-28.20	208.36
	NORMAL	7,354.0	0.86	108.91	7,050.49	-453.88	-1,572.97	1,637.09	0.81	0.75	51.14	56.99
	NORMAL	7,449.0	0.79	139.43	7,145.48	-454.61	-1,571.87	1,636.24	0.46	-0.07	32.13	114.10
	NORMAL	7,543.0	0.41	181.47	7,239.48	-455.44	-1,571.45	1,636.08	0.59	-0.40	44.72	150.51
	NORMAL	7,639.0	0.88	167.82	7,335.47	-456.50	-1,571.31	1,636.25	0.51	0.49	-14.22	334.99
8/19/2012	NORMAL	7,734.0	0.50	215.24	7,430.47	-457.56	-1,571.39	1,636.63	0.69	-0.40	49.92	145.80
	NORMAL	7,830.0	0.98	199.45	7,526.46	-458.67	-1,571.91	1,637.44	0.54	0.50	-16.45	328.96
	NORMAL	7,926.0	0.77	202.43	7,622.45	-460.04	-1,572.43	1,638.33	0.22	-0.22	3.10	169.26
	NORMAL	7,962.0	1.32	217.91	7,658.44	-460.59	-1,572.77	1,638.82	1.70	1.53	43.00	35.05
8/20/2012	NORMAL	8,018.0	1.32	217.91	7,714.43	-461.61	-1,573.56	1,639.87	0.00	0.00	0.00	0.00