

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well Information

Well	RWF 323-35	Wellbore No.	
Well Name	RWF 323-35	Common Name	RWF 323-35
Project	RU 35-06S-094W	Site	RMV 15-35 Pad
Vertical Section Azimuth	122.43 (°)	North Reference	True
Origin N/S		Origin E/W	
Spud Date	8/4/2012	UWI	RWF 323-35
Active Datum	KB @5,575.7ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	scientific
Date Started	8/4/2012	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

5828

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 (°)
8/4/2012	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8/4/2012	NORMAL	83.0	0.88	74.18	83.00	0.17	0.61	0.42	1.06	1.06	0.00	74.18
	NORMAL	179.0	2.38	124.37	178.96	-0.75	2.97	2.91	2.02	1.56	52.28	70.59
	NORMAL	271.0	4.31	134.30	270.80	-4.24	7.02	8.20	2.18	2.10	10.79	21.71
	NORMAL	362.0	7.04	124.80	361.35	-9.82	14.05	17.12	3.16	3.00	-10.44	336.24
	NORMAL	453.0	10.21	120.15	451.31	-17.05	25.60	30.75	3.56	3.48	-5.11	345.29
8/5/2012	NORMAL	523.0	11.30	122.56	520.08	-23.86	36.75	43.81	1.68	1.56	3.44	23.61
	NORMAL	614.0	13.70	121.74	608.91	-34.33	53.43	63.51	2.64	2.64	-0.90	355.37
	NORMAL	706.0	17.12	122.16	697.59	-47.27	74.17	87.95	3.72	3.72	0.46	2.07
	NORMAL	797.0	20.85	120.35	783.63	-62.59	99.49	117.54	4.15	4.10	-1.99	350.17
	NORMAL	888.0	22.25	120.62	868.26	-79.55	128.29	150.94	1.54	1.54	0.30	4.18
	NORMAL	948.0	22.24	120.46	923.80	-91.09	147.85	173.64	0.10	-0.02	-0.27	260.55
	NORMAL	1,044.0	22.84	123.76	1,012.47	-110.65	179.01	210.43	1.46	0.63	3.44	66.15
	NORMAL	1,118.0	24.45	123.43	1,080.25	-127.07	203.73	240.10	2.18	2.18	-0.45	355.15
8/6/2012	NORMAL	1,256.0	26.22	123.21	1,204.98	-159.51	253.07	299.14	1.28	1.28	-0.16	356.86
	NORMAL	1,352.0	25.16	121.14	1,291.49	-181.68	288.28	340.75	1.45	-1.10	-2.16	219.32
	NORMAL	1,448.0	22.77	123.17	1,379.21	-202.40	321.31	379.74	2.63	-2.49	2.11	161.89
	NORMAL	1,544.0	22.87	121.30	1,467.69	-222.25	352.80	416.96	0.76	0.10	-1.95	276.99
	NORMAL	1,639.0	23.40	119.49	1,555.05	-241.13	384.99	454.26	0.93	0.56	-1.91	305.86
	NORMAL	1,734.0	24.34	119.44	1,641.93	-260.04	418.46	492.65	0.99	0.99	-0.05	358.74
	NORMAL	1,828.0	24.27	122.45	1,727.60	-279.93	451.64	531.32	1.32	-0.07	3.20	94.60

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 (°)
8/6/2012	NORMAL	1,924.0	24.71	120.27	1,814.96	-300.63	485.61	571.10	1.05	0.46	-2.27	294.97
	NORMAL	2,020.0	24.38	125.95	1,902.30	-322.38	518.99	610.93	2.48	-0.34	5.92	100.54
	NORMAL	2,115.0	23.84	124.31	1,989.02	-344.71	550.72	649.69	0.91	-0.57	-1.73	230.38
8/7/2012	NORMAL	2,211.0	23.83	121.06	2,076.83	-365.65	583.36	688.47	1.37	-0.01	-3.39	268.08
	NORMAL	2,306.0	23.72	122.58	2,163.77	-385.84	615.90	726.77	0.66	-0.12	1.60	100.87
	NORMAL	2,401.0	23.48	127.03	2,250.83	-407.53	647.11	764.74	1.89	-0.25	4.68	99.71
	NORMAL	2,497.0	24.06	127.13	2,338.69	-430.86	677.98	803.31	0.61	0.60	0.10	4.02
	NORMAL	2,593.0	23.12	124.61	2,426.67	-453.38	709.10	841.65	1.44	-0.98	-2.63	225.86
	NORMAL	2,688.0	23.70	125.29	2,513.85	-475.00	740.03	879.35	0.67	0.61	0.72	25.29
	NORMAL	2,784.0	23.89	121.35	2,601.69	-496.27	772.38	918.06	1.67	0.20	-4.10	275.01
	NORMAL	2,878.0	24.10	119.97	2,687.57	-515.76	805.27	956.27	0.64	0.22	-1.47	289.88
	NORMAL	2,973.0	23.32	120.34	2,774.55	-534.94	838.30	994.44	0.84	-0.82	0.39	169.37
	NORMAL	3,068.0	22.69	120.44	2,861.99	-553.72	870.32	1,031.54	0.66	-0.66	0.11	176.50
	NORMAL	3,163.0	22.60	121.06	2,949.67	-572.43	901.76	1,068.10	0.27	-0.09	0.65	110.94
	NORMAL	3,257.0	22.14	121.17	3,036.60	-590.91	932.39	1,103.87	0.49	-0.49	0.12	174.85
	NORMAL	3,352.0	22.71	118.95	3,124.41	-609.05	963.75	1,140.07	1.07	0.60	-2.34	302.91
	NORMAL	3,446.0	23.02	120.19	3,211.03	-627.08	995.51	1,176.54	0.61	0.33	1.32	57.82
	NORMAL	3,542.0	23.40	118.29	3,299.26	-645.55	1,028.53	1,214.32	0.87	0.40	-1.98	296.03
	NORMAL	3,638.0	22.51	119.74	3,387.66	-663.71	1,061.27	1,251.69	1.10	-0.93	1.51	148.23
	NORMAL	3,733.0	21.10	121.67	3,475.86	-681.71	1,091.61	1,286.95	1.66	-1.48	2.03	153.94
	NORMAL	3,829.0	19.58	122.70	3,565.87	-699.47	1,119.86	1,320.32	1.63	-1.58	1.07	167.23
	NORMAL	3,924.0	19.95	123.31	3,655.27	-716.97	1,146.80	1,352.44	0.45	0.39	0.64	29.43
	NORMAL	4,040.0	18.55	123.43	3,764.79	-738.00	1,178.74	1,390.68	1.21	-1.21	0.10	178.44
	NORMAL	4,115.0	17.04	121.37	3,836.20	-750.30	1,198.08	1,413.60	2.18	-2.01	-2.75	201.65
	NORMAL	4,209.0	15.63	120.73	3,926.40	-763.94	1,220.72	1,440.02	1.51	-1.50	-0.68	186.97
	NORMAL	4,305.0	13.72	122.65	4,019.26	-776.69	1,241.43	1,464.34	2.05	-1.99	2.00	166.64
	NORMAL	4,400.0	13.35	123.73	4,111.63	-788.86	1,260.03	1,486.57	0.47	-0.39	1.14	146.19
	NORMAL	4,495.0	12.76	121.90	4,204.17	-800.49	1,278.06	1,508.03	0.76	-0.62	-1.93	214.13
	NORMAL	4,591.0	11.48	123.31	4,298.03	-811.34	1,295.05	1,528.18	1.37	-1.33	1.47	167.67
	NORMAL	4,686.0	10.19	119.99	4,391.33	-820.73	1,310.23	1,546.03	1.51	-1.36	-3.49	204.19
8/8/2012	NORMAL	4,781.0	8.72	119.73	4,485.04	-828.51	1,323.76	1,561.62	1.55	-1.55	-0.27	181.54
	NORMAL	4,876.0	8.10	121.23	4,579.02	-835.55	1,335.74	1,575.50	0.69	-0.65	1.58	161.25
	NORMAL	4,971.0	7.03	126.11	4,673.19	-842.44	1,346.16	1,588.00	1.31	-1.13	5.14	151.42
	NORMAL	5,065.0	5.41	123.10	4,766.63	-848.25	1,354.52	1,598.17	1.76	-1.72	-3.20	189.89
	NORMAL	5,160.0	5.77	123.57	4,861.18	-853.34	1,362.25	1,607.42	0.38	0.38	0.49	7.48
	NORMAL	5,256.0	4.38	118.93	4,956.80	-857.78	1,369.48	1,615.91	1.51	-1.45	-4.83	194.15
	NORMAL	5,352.0	2.97	124.43	5,052.61	-860.96	1,374.74	1,622.05	1.51	-1.47	5.73	168.70
	NORMAL	5,448.0	1.87	114.86	5,148.52	-863.03	1,378.21	1,626.09	1.22	-1.15	-9.97	195.43
	NORMAL	5,543.0	0.34	81.65	5,243.50	-863.64	1,379.89	1,627.84	1.68	-1.61	-34.96	186.70
8/9/2012	NORMAL	5,638.0	0.71	93.42	5,338.49	-863.63	1,380.76	1,628.57	0.40	0.39	12.39	22.19
	NORMAL	5,732.0	0.51	77.98	5,432.49	-863.58	1,381.75	1,629.37	0.27	-0.21	-16.43	211.87
	NORMAL	5,826.0	0.79	125.36	5,526.48	-863.87	1,382.69	1,630.32	0.62	0.30	50.40	87.54
	NORMAL	5,921.0	0.70	104.80	5,621.48	-864.40	1,383.78	1,631.53	0.30	-0.09	-21.64	241.30
	NORMAL	6,016.0	1.23	135.56	5,716.46	-865.27	1,385.06	1,633.07	0.76	0.56	32.38	60.42
	NORMAL	6,112.0	0.17	112.62	5,812.45	-866.06	1,385.91	1,634.22	1.12	-1.10	-23.90	183.53
	NORMAL	6,208.0	0.35	84.09	5,908.45	-866.09	1,386.34	1,634.59	0.23	0.19	-29.72	309.44
	NORMAL	6,301.0	0.61	185.61	6,001.45	-866.55	1,386.57	1,635.03	0.82	0.28	109.16	128.29
	NORMAL	6,396.0	0.44	170.54	6,096.45	-867.41	1,386.58	1,635.51	0.23	-0.18	-15.86	211.71
	NORMAL	6,491.0	0.88	194.25	6,191.44	-868.48	1,386.46	1,635.98	0.54	0.46	24.96	44.05
	NORMAL	6,587.0	0.64	177.12	6,287.43	-869.73	1,386.31	1,636.52	0.34	-0.25	-17.84	215.08
	NORMAL	6,682.0	0.70	197.43	6,382.43	-870.81	1,386.16	1,636.97	0.26	0.06	21.38	86.12
	NORMAL	6,777.0	0.32	213.44	6,477.42	-871.59	1,385.84	1,637.12	0.42	-0.40	16.85	167.32
	NORMAL	6,872.0	0.59	185.03	6,572.42	-872.30	1,385.65	1,637.34	0.36	0.28	-29.91	305.33
	NORMAL	6,967.0	0.70	204.64	6,667.41	-873.31	1,385.37	1,637.64	0.26	0.12	20.64	73.54
	NORMAL	7,062.0	0.70	212.82	6,762.41	-874.33	1,384.81	1,637.72	0.11	0.00	8.61	94.09
	NORMAL	7,158.0	0.53	155.07	6,858.40	-875.22	1,384.68	1,638.09	0.64	-0.18	-60.16	227.06
	NORMAL	7,254.0	0.70	166.32	6,954.40	-876.19	1,385.00	1,638.88	0.22	0.18	11.72	41.10

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 (°)
8/9/2012	NORMAL	7,349.0	0.70	178.10	7,049.39	-877.34	1,385.16	1,639.63	0.15	0.00	12.40	95.89
	NORMAL	7,444.0	0.79	178.63	7,144.38	-878.57	1,385.20	1,640.32	0.10	0.09	0.56	4.64
8/10/2012	NORMAL	7,539.0	1.85	183.11	7,239.35	-880.76	1,385.13	1,641.44	1.12	1.12	4.72	7.80
	NORMAL	7,634.0	1.49	184.87	7,334.31	-883.52	1,384.94	1,642.76	0.38	-0.38	1.85	172.77
	NORMAL	7,729.0	0.88	182.78	7,429.29	-885.48	1,384.80	1,643.69	0.64	-0.64	-2.20	183.01
	NORMAL	7,825.0	1.31	196.89	7,525.28	-887.27	1,384.44	1,644.35	0.53	0.45	14.70	39.28
	NORMAL	7,921.0	1.06	203.41	7,621.25	-889.13	1,383.77	1,644.78	0.30	-0.26	6.79	154.89
	NORMAL	8,008.0	1.49	203.41	7,708.23	-890.91	1,383.00	1,645.09	0.49	0.49	0.00	0.00
	NORMAL	8,065.0	1.49	203.41	7,765.21	-892.27	1,382.42	1,645.32	0.00	0.00	0.00	0.00