

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well Information

Well	RWF 23-35	Wellbore No.	
Well Name	RWF 23-35	Common Name	RWF 23-35
Project	RU 35-06S-094W	Site	RMV 15-35 Pad
Vertical Section Azimuth	112.54 (°)	North Reference	True
Origin N/S		Origin E/W	
Spud Date	7/26/2012	UWI	RWF 23-35
Active Datum	KB @5,575.7ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	
Date Started	7/26/2012	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

5985

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 (°)
7/26/2012	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/26/2012	NORMAL	78.0	0.70	48.52	78.00	0.32	0.36	0.21	0.90	0.90	0.00	48.52
	NORMAL	179.0	3.61	124.72	178.93	-1.09	3.43	3.59	3.47	2.88	75.45	87.35
	NORMAL	271.0	4.93	115.66	270.67	-4.45	9.38	10.37	1.61	1.43	-9.85	328.36
	NORMAL	362.0	6.86	116.98	361.18	-8.61	17.75	19.69	2.13	2.12	1.45	4.68
	NORMAL	453.0	9.06	112.24	451.30	-13.79	29.22	32.28	2.52	2.42	-5.21	341.03
7/27/2012	NORMAL	523.0	10.97	112.31	520.23	-18.40	40.49	44.45	2.73	2.73	0.10	0.40
	NORMAL	614.0	13.44	112.15	609.17	-25.68	58.30	63.68	2.71	2.71	-0.18	359.14
	NORMAL	706.0	16.51	111.29	698.03	-34.46	80.38	87.45	3.35	3.34	-0.93	355.44
	NORMAL	797.0	19.52	112.72	784.56	-45.03	106.46	115.59	3.34	3.31	1.57	9.04
	NORMAL	888.0	20.05	111.31	870.19	-56.57	135.02	146.39	0.78	0.58	-1.55	317.33
	NORMAL	980.0	19.96	109.47	956.64	-67.53	164.51	177.83	0.69	-0.10	-2.00	261.00
	NORMAL	1,070.0	21.37	111.58	1,040.85	-78.68	194.25	209.57	1.77	1.57	2.34	28.83
	NORMAL	1,118.0	21.90	111.58	1,085.47	-85.19	210.70	227.27	1.10	1.10	0.00	0.00
7/28/2012	NORMAL	1,257.0	23.04	112.41	1,213.91	-105.10	259.96	280.39	0.85	0.82	0.60	15.93
	NORMAL	1,352.0	24.18	111.95	1,300.96	-119.46	295.19	318.43	1.22	1.20	-0.48	350.61
	NORMAL	1,448.0	22.35	112.21	1,389.15	-133.71	330.33	356.35	1.91	-1.91	0.27	176.91
	NORMAL	1,544.0	23.14	112.82	1,477.68	-147.92	364.61	393.47	0.86	0.82	0.64	16.90
	NORMAL	1,640.0	21.68	112.21	1,566.43	-161.94	398.42	430.06	1.54	-1.52	-0.64	188.77
	NORMAL	1,734.0	22.19	112.68	1,653.63	-175.35	430.87	465.18	0.57	0.54	0.50	19.21
	NORMAL	1,828.0	20.70	112.07	1,741.12	-188.44	462.65	499.54	1.60	-1.59	-0.65	188.23

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 (°)
7/28/2012	NORMAL	1,924.0	20.58	114.33	1,830.96	-201.76	493.75	533.37	0.84	-0.12	2.35	99.62
	NORMAL	2,020.0	21.40	110.99	1,920.59	-214.99	525.47	567.75	1.51	0.85	-3.48	302.86
	NORMAL	2,115.0	22.25	109.91	2,008.78	-227.32	558.57	603.04	0.99	0.89	-1.14	334.21
	NORMAL	2,211.0	21.01	115.31	2,098.03	-240.87	591.22	638.39	2.44	-1.29	5.62	124.41
	NORMAL	2,306.0	21.63	115.09	2,186.52	-255.58	622.47	672.89	0.66	0.65	-0.23	352.55
	NORMAL	2,402.0	22.34	111.97	2,275.55	-269.91	655.42	708.81	1.42	0.74	-3.25	299.84
	NORMAL	2,497.0	23.44	111.12	2,363.06	-283.47	689.79	745.76	1.21	1.16	-0.89	342.88
	NORMAL	2,593.0	21.82	111.65	2,451.67	-296.93	724.18	782.69	1.70	-1.69	0.55	173.07
	NORMAL	2,689.0	20.51	112.73	2,541.19	-310.01	756.28	817.35	1.42	-1.36	1.13	163.93
	NORMAL	2,784.0	21.24	113.92	2,629.96	-323.42	787.36	851.19	0.89	0.77	1.25	30.71
	NORMAL	2,878.0	21.32	114.77	2,717.55	-337.49	818.44	885.29	0.34	0.09	0.90	75.86
	NORMAL	2,973.0	21.97	114.87	2,805.85	-352.20	850.24	920.30	0.69	0.68	0.11	3.29
	NORMAL	3,068.0	21.37	109.22	2,894.14	-365.37	882.72	955.34	2.28	-0.63	-5.95	251.34
	NORMAL	3,163.0	21.60	108.80	2,982.54	-376.70	915.61	990.07	0.29	0.24	-0.44	326.03
	NORMAL	3,257.0	20.32	114.51	3,070.33	-389.05	946.85	1,023.65	2.56	-1.36	6.07	124.72
	NORMAL	3,353.0	20.75	113.16	3,160.23	-402.65	977.65	1,057.32	0.67	0.45	-1.41	311.61
	NORMAL	3,447.0	21.45	114.17	3,247.93	-416.24	1,008.64	1,091.15	0.84	0.74	1.07	27.92
	NORMAL	3,542.0	21.02	113.69	3,336.48	-430.20	1,040.09	1,125.55	0.49	-0.45	-0.51	201.79
	NORMAL	3,638.0	21.14	113.15	3,426.05	-443.92	1,071.77	1,160.07	0.24	0.12	-0.56	301.46
7/29/2012	NORMAL	3,734.0	21.54	112.64	3,515.47	-457.51	1,103.96	1,195.00	0.46	0.42	-0.53	334.87
	NORMAL	3,829.0	20.44	111.85	3,604.17	-470.40	1,135.45	1,229.03	1.20	-1.16	-0.83	194.06
	NORMAL	3,925.0	20.09	114.48	3,694.23	-483.47	1,166.01	1,262.27	1.02	-0.36	2.74	112.25
	NORMAL	4,020.0	19.07	111.21	3,783.73	-495.85	1,195.33	1,294.10	1.58	-1.07	-3.44	225.52
	NORMAL	4,115.0	16.35	107.08	3,874.23	-505.39	1,222.59	1,322.93	3.15	-2.86	-4.35	202.84
	NORMAL	4,210.0	15.42	108.65	3,965.60	-513.36	1,247.34	1,348.84	1.08	-0.98	1.65	155.95
	NORMAL	4,305.0	15.50	108.80	4,057.16	-521.49	1,271.32	1,374.11	0.09	0.08	0.16	26.63
	NORMAL	4,400.0	14.07	110.52	4,149.01	-529.63	1,294.15	1,398.32	1.57	-1.51	1.81	163.77
	NORMAL	4,496.0	11.87	111.84	4,242.56	-537.39	1,314.25	1,419.85	2.31	-2.29	1.38	172.97
	NORMAL	4,591.0	11.78	112.28	4,335.54	-544.70	1,332.29	1,439.32	0.13	-0.09	0.46	135.16
	NORMAL	4,687.0	10.29	110.87	4,429.76	-551.47	1,349.37	1,457.69	1.58	-1.55	-1.47	189.58
	NORMAL	4,782.0	7.96	102.96	4,523.56	-555.97	1,363.71	1,472.66	2.78	-2.45	-8.33	204.43
	NORMAL	4,876.0	6.16	112.98	4,616.85	-559.40	1,374.70	1,484.12	2.31	-1.91	10.66	150.52
	NORMAL	4,971.0	6.32	110.96	4,711.28	-563.26	1,384.28	1,494.45	0.29	0.17	-2.13	305.08
7/30/2012	NORMAL	5,065.0	4.57	107.55	4,804.86	-566.24	1,392.68	1,503.35	1.89	-1.86	-3.63	188.78
	NORMAL	5,161.0	3.98	115.38	4,900.59	-568.82	1,399.34	1,510.49	0.86	-0.61	8.16	139.17
7/31/2012	NORMAL	5,257.0	2.65	120.69	4,996.43	-571.38	1,404.25	1,516.01	1.42	-1.39	5.53	169.64
	NORMAL	5,352.0	1.08	145.05	5,091.38	-573.24	1,406.66	1,518.94	1.82	-1.65	25.64	165.03
	NORMAL	5,448.0	0.84	151.77	5,187.36	-574.60	1,407.51	1,520.25	0.28	-0.25	7.00	158.20
	NORMAL	5,544.0	1.29	147.87	5,283.34	-576.13	1,408.41	1,521.68	0.47	0.47	-4.06	348.90
	NORMAL	5,638.0	0.53	152.01	5,377.33	-577.41	1,409.18	1,522.88	0.81	-0.81	4.40	177.12
	NORMAL	5,732.0	1.23	72.55	5,471.32	-577.49	1,410.35	1,523.98	1.33	0.74	-84.53	255.85
	NORMAL	5,826.0	0.93	84.22	5,565.31	-577.12	1,412.07	1,525.43	0.39	-0.32	12.41	149.49
	NORMAL	5,921.0	1.32	94.26	5,660.29	-577.12	1,413.93	1,527.15	0.46	0.41	10.57	31.89
	NORMAL	6,017.0	1.04	89.93	5,756.27	-577.20	1,415.90	1,529.00	0.31	-0.29	-4.51	195.51
	NORMAL	6,112.0	0.44	358.37	5,851.26	-576.83	1,416.75	1,529.65	1.20	-0.63	-96.38	202.69
	NORMAL	6,208.0	0.11	159.97	5,947.26	-576.55	1,416.77	1,529.56	0.57	-0.34	168.33	176.35
	NORMAL	6,301.0	0.35	204.83	6,040.26	-576.89	1,416.69	1,529.61	0.30	0.26	48.24	60.78
	NORMAL	6,396.0	0.30	279.78	6,135.26	-577.12	1,416.32	1,529.35	0.42	-0.05	78.89	133.20
	NORMAL	6,491.0	0.44	247.45	6,230.26	-577.21	1,415.74	1,528.85	0.26	0.15	-34.03	286.97
	NORMAL	6,587.0	0.50	278.30	6,326.25	-577.29	1,414.98	1,528.19	0.27	0.06	32.14	92.40
	NORMAL	6,682.0	0.18	335.52	6,421.25	-577.10	1,414.51	1,527.68	0.45	-0.34	60.23	159.40
	NORMAL	6,778.0	0.35	228.62	6,517.25	-577.15	1,414.23	1,527.44	0.46	0.18	-111.35	229.93
8/1/2012	NORMAL	6,872.0	0.24	220.00	6,611.25	-577.50	1,413.89	1,527.25	0.13	-0.12	-9.17	197.70
	NORMAL	6,967.0	0.84	242.30	6,706.25	-577.97	1,413.14	1,526.75	0.66	0.63	23.47	30.68
	NORMAL	7,063.0	0.34	168.13	6,802.24	-578.58	1,412.58	1,526.46	0.85	-0.52	-77.26	203.64
	NORMAL	7,158.0	1.42	133.48	6,897.23	-579.66	1,413.49	1,527.72	1.22	1.14	-36.47	315.73
	NORMAL	7,254.0	1.30	133.98	6,993.20	-581.24	1,415.14	1,529.84	0.13	-0.12	0.52	174.60

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 (°)
8/1/2012	NORMAL	7,349.0	1.76	154.73	7,088.17	-583.31	1,416.53	1,531.93	0.75	0.48	21.84	60.98
	NORMAL	7,444.0	2.55	202.37	7,183.11	-586.58	1,416.35	1,533.01	1.98	0.83	50.15	91.25
	NORMAL	7,539.0	1.67	239.19	7,278.05	-589.24	1,414.36	1,532.19	1.66	-0.93	38.76	140.47
	NORMAL	7,634.0	1.98	224.12	7,373.00	-591.13	1,412.03	1,530.76	0.60	0.33	-15.86	295.18
	NORMAL	7,730.0	2.33	219.58	7,468.93	-593.82	1,409.63	1,529.58	0.41	0.36	-4.73	331.72
8/3/2012	NORMAL	7,825.0	2.37	224.25	7,563.85	-596.72	1,407.03	1,528.29	0.21	0.04	4.92	80.54
	NORMAL	7,895.0	2.81	217.31	7,633.78	-599.12	1,404.98	1,527.32	0.77	0.63	-9.91	321.02
8/4/2012	NORMAL	7,952.0	2.81	217.31	7,690.71	-601.34	1,403.28	1,526.60	0.00	0.00	0.00	0.00