

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well Information

Well	RWF 522-35	Wellbore No.	
Well Name	RWF 522-35	Common Name	RWF 522-35
Project	RU 35-06S-094W	Site	RMV 15-35 Pad
Vertical Section Azimuth	100.76 (°)	North Reference	True
Origin N/S		Origin E/W	
Spud Date	7/19/2012	UWI	RWF 522-35
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	7/19/2012	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

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 (°)
7/19/2012	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/19/2012	NORMAL	86.0	0.62	162.69	86.00	-0.44	0.14	0.22	0.72	0.72	0.00	162.69
	NORMAL	179.0	2.02	91.58	178.98	-0.97	1.93	2.07	2.06	1.51	-76.46	271.03
	NORMAL	271.0	4.75	97.73	270.81	-1.53	7.32	7.48	2.99	2.97	6.68	10.66
	NORMAL	362.0	7.57	97.91	361.27	-2.86	17.00	17.23	3.10	3.10	0.20	0.48
	NORMAL	453.0	11.00	100.81	451.07	-5.31	31.46	31.90	3.80	3.77	3.19	9.20
	NORMAL	543.0	13.20	102.66	539.06	-9.18	49.93	50.76	2.48	2.44	2.06	10.90
	NORMAL	634.0	16.01	98.70	627.11	-13.35	72.47	73.69	3.28	3.09	-4.35	338.51
	NORMAL	706.0	18.10	99.71	695.95	-16.74	93.32	94.80	2.93	2.90	1.40	8.55
	NORMAL	797.0	20.60	97.61	781.80	-21.25	123.12	124.92	2.85	2.75	-2.31	343.45
	NORMAL	888.0	22.45	96.69	866.45	-25.39	156.25	158.24	2.07	2.03	-1.01	349.23
	NORMAL	980.0	21.64	102.38	951.73	-31.07	190.27	192.73	2.48	-0.88	6.18	113.39
	NORMAL	1,070.0	20.17	106.01	1,035.81	-38.91	221.40	224.77	2.18	-1.63	4.03	140.30
7/20/2012	NORMAL	1,165.0	20.55	106.54	1,124.87	-48.18	253.12	257.67	0.44	0.40	0.56	26.13
	NORMAL	1,257.0	21.15	108.20	1,210.85	-57.96	284.37	290.19	0.92	0.65	1.80	45.34
	NORMAL	1,352.0	20.65	102.71	1,299.61	-67.00	317.00	323.93	2.13	-0.53	-5.78	253.12
	NORMAL	1,448.0	21.33	101.39	1,389.24	-74.17	350.62	358.31	0.86	0.71	-1.38	324.57
	NORMAL	1,544.0	20.21	101.66	1,479.00	-80.97	383.98	392.35	1.17	-1.17	0.28	175.24
	NORMAL	1,639.0	20.05	99.53	1,568.19	-86.98	416.11	425.04	0.79	-0.17	-2.24	256.69
	NORMAL	1,734.0	20.42	98.64	1,657.33	-92.17	448.56	457.88	0.51	0.39	-0.94	319.82
	NORMAL	1,828.0	20.05	100.94	1,745.53	-97.69	480.59	490.38	0.93	-0.39	2.45	116.02

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 (°)
7/20/2012	NORMAL	1,924.0	18.43	98.30	1,836.17	-103.00	511.77	522.00	1.92	-1.69	-2.75	206.99
7/21/2012	NORMAL	2,020.0	18.86	97.84	1,927.13	-107.31	542.15	552.66	0.47	0.45	-0.48	340.90
	NORMAL	2,115.0	18.33	97.68	2,017.17	-111.40	572.17	582.91	0.56	-0.56	-0.17	185.42
	NORMAL	2,211.0	17.47	97.49	2,108.52	-115.30	601.42	612.37	0.90	-0.90	-0.20	183.79
	NORMAL	2,306.0	18.93	95.04	2,198.77	-118.51	630.91	641.94	1.73	1.54	-2.58	331.17
	NORMAL	2,402.0	19.87	101.47	2,289.33	-123.12	662.41	673.75	2.43	0.98	6.70	69.30
	NORMAL	2,497.0	19.96	101.29	2,378.65	-129.51	694.14	706.11	0.11	0.09	-0.19	325.65
	NORMAL	2,593.0	20.05	100.50	2,468.85	-135.71	726.38	738.95	0.30	0.09	-0.82	288.05
	NORMAL	2,688.0	20.62	98.44	2,557.93	-141.14	758.94	771.95	0.96	0.60	-2.17	307.56
	NORMAL	2,784.0	20.40	101.47	2,647.85	-146.95	792.06	805.57	1.13	-0.23	3.16	103.12
	NORMAL	2,878.0	20.46	101.46	2,735.94	-153.47	824.22	838.38	0.06	0.06	-0.01	356.67
	NORMAL	2,973.0	20.06	101.79	2,825.06	-160.10	856.44	871.27	0.44	-0.42	0.35	164.21
	NORMAL	3,068.0	19.35	102.08	2,914.50	-166.72	887.78	903.30	0.75	-0.75	0.31	172.29
	NORMAL	3,163.0	19.08	103.31	3,004.20	-173.59	918.28	934.55	0.51	-0.28	1.29	124.28
	NORMAL	3,257.0	19.40	99.40	3,092.96	-179.67	948.64	965.50	1.41	0.34	-4.16	282.10
	NORMAL	3,352.0	19.96	99.97	3,182.41	-185.06	980.17	997.49	0.62	0.59	0.60	19.19
	NORMAL	3,446.0	19.91	99.56	3,270.78	-190.49	1,011.76	1,029.53	0.16	-0.05	-0.44	250.13
	NORMAL	3,542.0	20.40	98.74	3,360.90	-195.75	1,044.41	1,062.60	0.59	0.51	-0.85	329.65
	NORMAL	3,638.0	19.60	101.12	3,451.11	-201.40	1,076.75	1,095.42	1.19	-0.83	2.48	135.62
	NORMAL	3,733.0	19.96	101.56	3,540.50	-207.72	1,108.27	1,127.57	0.41	0.38	0.46	22.68
	NORMAL	3,829.0	20.08	102.65	3,630.70	-214.61	1,140.41	1,160.42	0.41	0.12	1.14	72.69
	NORMAL	3,925.0	19.79	98.83	3,720.95	-220.72	1,172.55	1,193.14	1.39	-0.30	-3.98	255.66
	NORMAL	4,020.0	18.62	100.54	3,810.67	-225.96	1,203.35	1,224.38	1.37	-1.23	1.80	155.13
7/22/2012	NORMAL	4,115.0	16.98	97.43	3,901.12	-230.53	1,232.02	1,253.40	1.99	-1.73	-3.27	208.63
	NORMAL	4,209.0	15.94	100.47	3,991.27	-234.65	1,258.32	1,280.01	1.44	-1.11	3.23	141.82
	NORMAL	4,305.0	14.40	100.12	4,083.92	-239.14	1,283.04	1,305.13	1.61	-1.60	-0.36	183.23
	NORMAL	4,400.0	12.31	96.28	4,176.35	-242.33	1,304.74	1,327.04	2.39	-2.20	-4.04	201.14
	NORMAL	4,495.0	12.13	96.11	4,269.19	-244.50	1,324.73	1,347.08	0.19	-0.19	-0.18	191.22
	NORMAL	4,591.0	9.50	99.27	4,363.48	-246.85	1,342.58	1,365.06	2.81	-2.74	3.29	168.84
	NORMAL	4,686.0	9.13	102.22	4,457.23	-249.71	1,357.68	1,380.43	0.64	-0.39	3.11	129.22
	NORMAL	4,782.0	7.35	95.07	4,552.24	-251.86	1,371.24	1,394.16	2.14	-1.85	-7.45	206.42
	NORMAL	4,876.0	6.51	95.23	4,645.55	-252.88	1,382.54	1,405.44	0.89	-0.89	0.17	178.76
	NORMAL	4,971.0	6.08	99.14	4,739.98	-254.17	1,392.87	1,415.83	0.64	-0.45	4.12	137.02
	NORMAL	5,065.0	6.42	95.05	4,833.42	-255.42	1,403.02	1,426.04	0.60	0.36	-4.35	305.32
	NORMAL	5,160.0	4.09	105.98	4,928.01	-256.82	1,411.57	1,434.70	2.66	-2.45	11.51	162.13
7/23/2012	NORMAL	5,256.0	2.64	120.10	5,023.85	-258.87	1,416.77	1,440.19	1.73	-1.51	14.71	157.17
	NORMAL	5,352.0	2.02	71.06	5,119.78	-259.43	1,420.29	1,443.75	2.10	-0.65	-51.08	229.23
	NORMAL	5,448.0	1.93	70.00	5,215.72	-258.33	1,423.41	1,446.61	0.10	-0.09	-1.10	201.56
	NORMAL	5,543.0	1.32	75.98	5,310.68	-257.52	1,425.97	1,448.98	0.67	-0.64	6.29	167.44
	NORMAL	5,638.0	1.49	71.94	5,405.65	-256.87	1,428.21	1,451.05	0.21	0.18	-4.25	327.74
	NORMAL	5,732.0	0.44	94.44	5,499.64	-256.52	1,429.73	1,452.48	1.17	-1.12	23.94	171.17
	NORMAL	5,826.0	0.09	221.97	5,593.64	-256.60	1,430.04	1,452.80	0.53	-0.37	135.67	171.79
	NORMAL	5,921.0	0.26	264.69	5,688.64	-256.68	1,429.77	1,452.56	0.21	0.18	44.97	60.20
	NORMAL	6,017.0	0.12	187.36	5,784.64	-256.80	1,429.55	1,452.35	0.27	-0.15	-80.55	206.61
	NORMAL	6,112.0	0.34	190.29	5,879.64	-257.17	1,429.48	1,452.36	0.23	0.23	3.08	4.53
	NORMAL	6,208.0	0.69	233.59	5,975.63	-257.80	1,428.97	1,451.97	0.52	0.36	45.10	71.08
	NORMAL	6,301.0	0.77	116.71	6,068.63	-258.41	1,429.07	1,452.19	1.34	0.09	-125.68	213.49
	NORMAL	6,396.0	1.04	129.28	6,163.62	-259.24	1,430.31	1,453.56	0.35	0.28	13.23	42.72
7/24/2012	NORMAL	6,491.0	1.05	333.49	6,258.61	-259.01	1,430.59	1,453.79	2.15	0.01	-163.99	192.17
	NORMAL	6,587.0	1.06	322.43	6,354.59	-257.52	1,429.66	1,452.60	0.21	0.01	-11.52	267.27
	NORMAL	6,682.0	1.23	310.12	6,449.58	-256.17	1,428.34	1,451.05	0.31	0.18	-12.96	298.39
	NORMAL	6,777.0	1.38	301.35	6,544.55	-254.91	1,426.58	1,449.09	0.26	0.16	-9.23	302.47
	NORMAL	6,872.0	0.65	23.76	6,639.54	-253.83	1,425.82	1,448.14	1.52	-0.77	86.75	153.53
	NORMAL	6,967.0	0.88	51.08	6,734.53	-252.87	1,426.61	1,448.74	0.45	0.24	28.76	71.92
	NORMAL	7,063.0	1.05	93.50	6,830.52	-252.46	1,428.06	1,450.09	0.75	0.18	44.19	98.42
	NORMAL	7,158.0	0.39	175.86	6,925.51	-252.84	1,428.95	1,451.03	1.13	-0.69	86.69	158.83
	NORMAL	7,254.0	0.52	132.90	7,021.51	-253.46	1,429.29	1,451.49	0.37	0.14	-44.75	268.47

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 (°)
7/24/2012	NORMAL	7,349.0	1.40	112.84	7,116.50	-254.21	1,430.68	1,452.99	0.98	0.93	-21.12	328.87
7/25/2012	NORMAL	7,444.0	1.31	134.22	7,211.47	-255.41	1,432.53	1,455.03	0.54	-0.09	22.51	110.67
	NORMAL	7,539.0	1.74	152.98	7,306.44	-257.46	1,433.96	1,456.82	0.69	0.45	19.75	58.89
	NORMAL	7,634.0	1.48	177.27	7,401.40	-259.97	1,434.68	1,457.99	0.76	-0.27	25.57	122.71
	NORMAL	7,729.0	1.23	176.97	7,496.37	-262.21	1,434.79	1,458.51	0.26	-0.26	-0.32	181.48
	NORMAL	7,825.0	1.14	158.86	7,592.35	-264.13	1,435.19	1,459.26	0.40	-0.09	-18.86	247.54
	NORMAL	7,921.0	1.32	163.17	7,688.33	-266.08	1,435.85	1,460.28	0.21	0.19	4.49	29.37
7/26/2012	NORMAL	8,000.0	1.32	163.17	7,767.31	-267.82	1,436.38	1,461.12	0.00	0.00	0.00	0.00