

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well Information

Well	RWF 313-36	Wellbore No.	
Well Name	RWF 313-36	Common Name	RWF 313-36
Project	RU 36-06S-094W	Site	GV 15-36 Pad
Vertical Section Azimuth	206.24 (°)	North Reference	True
Origin N/S		Origin E/W	
Spud Date	4/19/2012	UWI	RWF 313-36
Active Datum	KB @6,413.0ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	
Date Started	4/19/2012	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 (°)
4/19/2012	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/19/2012	NORMAL	84.0	1.32	190.11	83.99	-0.95	-0.17	0.93	1.57	1.57	0.00	190.11
	NORMAL	178.0	3.96	191.95	177.88	-5.19	-1.03	5.12	2.81	2.81	1.96	2.76
	NORMAL	269.0	6.33	194.77	268.51	-13.12	-2.96	13.08	2.62	2.60	3.10	7.50
	NORMAL	360.0	7.57	209.09	358.85	-23.21	-7.16	23.98	2.33	1.36	15.74	61.66
4/20/2012	NORMAL	430.0	9.60	210.69	428.06	-32.26	-12.38	34.41	2.92	2.90	2.29	7.50
	NORMAL	521.0	12.68	211.49	517.33	-47.31	-21.47	51.92	3.39	3.38	0.88	3.27
	NORMAL	613.0	16.06	210.64	606.44	-66.87	-33.23	74.67	3.68	3.67	-0.92	356.02
	NORMAL	704.0	18.27	204.93	693.39	-90.64	-45.66	101.49	3.05	2.43	-6.27	319.92
	NORMAL	795.0	18.72	202.65	779.69	-117.05	-57.30	130.32	0.94	0.49	-2.51	300.80
	NORMAL	887.0	19.52	202.50	866.62	-144.88	-68.87	160.40	0.87	0.87	-0.16	356.41
	NORMAL	979.0	19.43	201.09	953.35	-173.36	-80.25	190.97	0.52	-0.10	-1.53	258.50
	NORMAL	1,093.0	19.70	205.99	1,060.78	-208.32	-95.50	229.08	1.46	0.24	4.30	82.97
4/21/2012	NORMAL	1,167.0	19.87	205.73	1,130.41	-230.86	-106.42	254.12	0.26	0.23	-0.35	332.51
	NORMAL	1,262.0	20.38	205.36	1,219.61	-260.35	-120.52	286.81	0.55	0.54	-0.39	345.81
	NORMAL	1,357.0	19.24	207.95	1,308.99	-289.13	-134.94	318.99	1.51	-1.20	2.73	143.62
	NORMAL	1,453.0	19.38	207.91	1,399.59	-317.18	-149.81	350.73	0.15	0.15	-0.04	354.58
	NORMAL	1,548.0	19.72	208.44	1,489.11	-345.20	-164.82	382.50	0.40	0.36	0.56	27.80
	NORMAL	1,644.0	19.91	208.48	1,579.43	-373.81	-180.33	415.01	0.20	0.20	0.04	4.10
	NORMAL	1,740.0	19.77	209.25	1,669.73	-402.34	-196.06	447.56	0.31	-0.15	0.80	118.54
	NORMAL	1,835.0	19.96	208.45	1,759.08	-430.62	-211.63	479.81	0.35	0.20	-0.84	304.57

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 (°)
4/21/2012	NORMAL	1,930.0	20.93	206.66	1,848.09	-460.04	-226.97	512.98	1.21	1.02	-1.88	326.35
	NORMAL	2,025.0	21.99	205.24	1,936.50	-491.29	-242.17	547.73	1.24	1.12	-1.49	333.23
	NORMAL	2,121.0	19.99	206.57	2,026.13	-522.23	-257.17	582.12	2.14	-2.08	1.39	167.22
	NORMAL	2,216.0	20.31	207.40	2,115.32	-551.39	-272.02	614.84	0.45	0.34	0.87	42.17
	NORMAL	2,312.0	20.49	206.34	2,205.29	-581.24	-287.15	648.30	0.43	0.19	-1.10	295.48
	NORMAL	2,408.0	19.33	205.80	2,295.56	-610.60	-301.52	680.99	1.22	-1.21	-0.56	188.75
	NORMAL	2,502.0	19.08	207.48	2,384.32	-638.24	-315.38	711.91	0.65	-0.27	1.79	115.13
	NORMAL	2,596.0	18.65	208.36	2,473.28	-665.10	-329.61	742.29	0.55	-0.46	0.94	146.92
	NORMAL	2,691.0	19.15	206.86	2,563.15	-692.36	-343.86	773.05	0.73	0.53	-1.58	315.11
	NORMAL	2,786.0	19.30	206.84	2,652.86	-720.27	-357.99	804.33	0.16	0.16	-0.02	357.48
	NORMAL	2,882.0	19.64	206.22	2,743.37	-748.90	-372.28	836.32	0.41	0.35	-0.65	328.42
	NORMAL	2,977.0	19.77	204.79	2,832.80	-777.81	-386.07	868.35	0.53	0.14	-1.51	284.42
	NORMAL	3,071.0	19.95	204.03	2,921.21	-806.89	-399.27	900.27	0.33	0.19	-0.81	304.52
	NORMAL	3,163.0	19.43	204.76	3,007.83	-835.12	-412.07	931.25	0.63	-0.57	0.79	155.03
	NORMAL	3,259.0	18.82	205.73	3,098.53	-863.57	-425.48	962.70	0.72	-0.64	1.01	152.94
	NORMAL	3,354.0	18.47	205.02	3,188.55	-891.01	-438.49	993.06	0.44	-0.37	-0.75	212.63
	NORMAL	3,450.0	19.34	205.14	3,279.37	-919.18	-451.68	1,024.16	0.91	0.91	0.12	2.62
	NORMAL	3,545.0	19.37	205.80	3,369.00	-947.60	-465.22	1,055.64	0.23	0.03	0.69	82.50
	NORMAL	3,640.0	18.99	204.41	3,458.73	-975.86	-478.46	1,086.85	0.63	-0.40	-1.46	229.58
4/22/2012	NORMAL	3,640.0	18.99	204.41	3,458.73	-975.86	-478.46	1,086.85	0.00	0.00	0.00	0.00
	NORMAL	3,736.0	19.17	206.25	3,549.45	-1,004.22	-491.89	1,118.22	0.65	0.19	1.92	74.21
	NORMAL	3,831.0	18.93	205.64	3,639.25	-1,032.11	-505.46	1,149.23	0.33	-0.25	-0.64	219.39
	NORMAL	3,926.0	19.69	205.89	3,728.91	-1,060.40	-519.11	1,180.64	0.80	0.80	0.26	6.33
	NORMAL	4,021.0	19.42	205.47	3,818.43	-1,089.05	-532.89	1,212.43	0.32	-0.28	-0.44	207.31
	NORMAL	4,116.0	19.31	204.67	3,908.05	-1,117.58	-546.24	1,243.93	0.30	-0.12	-0.84	247.10
	NORMAL	4,212.0	20.22	208.14	3,998.40	-1,146.64	-560.69	1,276.38	1.55	0.95	3.61	53.85
	NORMAL	4,307.0	19.86	208.36	4,087.65	-1,175.32	-576.10	1,308.91	0.39	-0.38	0.23	168.28
	NORMAL	4,401.0	20.05	207.35	4,176.00	-1,203.68	-591.09	1,340.98	0.42	0.20	-1.07	298.39
	NORMAL	4,496.0	19.03	207.62	4,265.53	-1,231.87	-605.75	1,372.74	1.08	-1.07	0.28	175.07
	NORMAL	4,590.0	18.95	204.90	4,354.42	-1,259.29	-619.28	1,403.32	0.95	-0.09	-2.89	263.55
	NORMAL	4,686.0	17.32	205.20	4,445.65	-1,286.36	-631.93	1,433.20	1.70	-1.70	0.31	176.86
	NORMAL	4,782.0	17.39	205.29	4,537.27	-1,312.26	-644.14	1,461.83	0.08	0.07	0.09	21.03
	NORMAL	4,877.0	16.00	206.87	4,628.27	-1,336.78	-656.12	1,489.12	1.54	-1.46	1.66	162.67
	NORMAL	4,973.0	15.73	207.08	4,720.61	-1,360.17	-668.03	1,515.36	0.29	-0.28	0.22	168.10
	NORMAL	5,059.0	13.72	206.96	4,803.78	-1,379.64	-677.96	1,537.21	2.34	-2.34	-0.14	180.81
	NORMAL	5,164.0	13.89	206.08	4,905.75	-1,402.06	-689.15	1,562.27	0.26	0.16	-0.84	308.57
	NORMAL	5,260.0	13.01	206.96	4,999.12	-1,422.04	-699.11	1,584.60	0.94	-0.92	0.92	167.33
	NORMAL	5,355.0	11.61	207.57	5,091.93	-1,440.04	-708.38	1,604.85	1.48	-1.47	0.64	174.99
4/23/2012	NORMAL	5,450.0	10.46	213.11	5,185.17	-1,455.74	-717.52	1,622.97	1.65	-1.21	5.83	140.02
	NORMAL	5,546.0	9.30	214.18	5,279.75	-1,469.46	-726.64	1,639.30	1.22	-1.21	1.11	171.53
	NORMAL	5,641.0	7.21	203.88	5,373.76	-1,481.26	-733.36	1,652.86	2.69	-2.20	-10.84	210.26
	NORMAL	5,737.0	5.69	199.62	5,469.15	-1,491.25	-737.40	1,663.61	1.66	-1.58	-4.44	195.37
	NORMAL	5,833.0	4.70	198.97	5,564.76	-1,499.46	-740.28	1,672.24	1.03	-1.03	-0.68	183.08
	NORMAL	5,928.0	3.50	201.20	5,659.51	-1,505.84	-742.59	1,678.99	1.27	-1.26	2.35	173.54
	NORMAL	6,023.0	1.74	191.73	5,754.41	-1,509.96	-743.93	1,683.27	1.90	-1.85	-9.97	189.12
4/24/2012	NORMAL	6,119.0	0.72	245.48	5,850.39	-1,511.64	-744.78	1,685.15	1.50	-1.06	55.99	156.16
	NORMAL	6,215.0	0.90	267.03	5,946.38	-1,511.92	-746.08	1,685.99	0.37	0.19	22.45	70.49
	NORMAL	6,310.0	0.44	273.36	6,041.37	-1,511.94	-747.19	1,686.49	0.49	-0.48	6.66	174.01
	NORMAL	6,406.0	0.44	240.06	6,137.37	-1,512.10	-747.88	1,686.94	0.26	0.00	-34.69	253.35
	NORMAL	6,501.0	0.00	10.17	6,232.37	-1,512.29	-748.19	1,687.25	0.46	-0.46	0.00	180.00
	NORMAL	6,596.0	0.26	258.90	6,327.37	-1,512.33	-748.40	1,687.38	0.27	0.27	0.00	258.90
	NORMAL	6,692.0	0.82	112.01	6,423.37	-1,512.63	-747.98	1,687.46	1.09	0.58	-153.01	205.32
	NORMAL	6,786.0	1.37	130.97	6,517.35	-1,513.62	-746.51	1,687.69	0.69	0.59	20.17	43.10
	NORMAL	6,882.0	1.03	69.38	6,613.33	-1,514.06	-744.84	1,687.36	1.32	-0.35	-64.16	225.84
	NORMAL	6,977.0	0.92	62.47	6,708.32	-1,513.41	-743.36	1,686.12	0.17	-0.12	-7.27	223.49
	NORMAL	7,072.0	0.70	75.56	6,803.31	-1,512.91	-742.12	1,685.12	0.30	-0.23	13.78	146.35
	NORMAL	7,168.0	0.62	108.43	6,899.30	-1,512.93	-741.06	1,684.67	0.40	-0.08	34.24	118.04

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 (°)
4/24/2012	NORMAL	7,263.0	0.70	114.76	6,994.30	-1,513.34	-740.05	1,684.59	0.11	0.08	6.66	45.54
4/25/2012	NORMAL	7,359.0	0.62	133.57	7,090.29	-1,513.94	-739.14	1,684.73	0.24	-0.08	19.59	119.50
	NORMAL	7,453.0	0.75	173.34	7,184.29	-1,514.90	-738.70	1,685.39	0.51	0.14	42.31	95.18
	NORMAL	7,549.0	0.18	136.29	7,280.28	-1,515.64	-738.52	1,685.97	0.64	-0.59	-38.59	190.14
	NORMAL	7,643.0	0.44	193.39	7,374.28	-1,516.09	-738.50	1,686.38	0.40	0.28	60.74	80.93
	NORMAL	7,739.0	0.75	195.21	7,470.28	-1,517.06	-738.75	1,687.35	0.32	0.32	1.90	4.40
	NORMAL	7,834.0	0.78	224.30	7,565.27	-1,518.12	-739.37	1,688.58	0.41	0.03	30.62	100.22
	NORMAL	7,930.0	0.88	239.21	7,661.26	-1,518.97	-740.46	1,689.82	0.25	0.10	15.53	72.73
	NORMAL	8,024.0	0.44	132.34	7,755.25	-1,519.58	-740.81	1,690.52	1.16	-0.47	-113.69	202.68
	NORMAL	8,119.0	0.53	168.46	7,850.25	-1,520.26	-740.45	1,690.97	0.33	0.09	38.02	92.18
	NORMAL	8,213.0	0.94	183.22	7,944.24	-1,521.45	-740.41	1,692.02	0.48	0.44	15.70	32.29
	NORMAL	8,308.0	1.32	202.91	8,039.22	-1,523.24	-740.88	1,693.83	0.57	0.40	20.73	55.75
	NORMAL	8,404.0	1.30	222.20	8,135.20	-1,525.06	-742.04	1,695.98	0.46	-0.02	20.09	102.21
	NORMAL	8,500.0	1.41	219.09	8,231.17	-1,526.79	-743.52	1,698.18	0.14	0.11	-3.24	324.67
4/26/2012	NORMAL	8,595.0	1.76	215.62	8,326.14	-1,528.88	-745.10	1,700.76	0.38	0.37	-3.65	342.93
	NORMAL	8,691.0	2.11	212.14	8,422.08	-1,531.57	-746.90	1,703.97	0.38	0.36	-3.63	339.70
	NORMAL	8,773.0	1.93	221.63	8,504.03	-1,533.88	-748.62	1,706.81	0.46	-0.22	11.57	122.97
4/27/2012	NORMAL	8,830.0	1.93	221.63	8,561.00	-1,535.32	-749.90	1,708.66	0.00	0.00	0.00	0.00