

DEVIATION SUMMARY

PICEANCE VLY

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well Information

Well	RWF 512-36	Wellbore No.	
Well Name	RWF 512-36	Common Name	RWF 512-36
Project	RU 36-06S-094W	Site	GV 15-36 Pad
Vertical Section Azimuth	216.87 (°)	North Reference	True
Origin N/S		Origin E/W	
Spud Date	1/31/2012	UWI	RWF 512-36
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	2/1/2012	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)	Bulld Rate (°/100ft)	Turn (°/100ft)	TFace (°)
2/1/2012	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2/1/2012	NORMAL	158.0	0.66	223.75	158.00	-0.66	-0.63	0.90	0.42	0.42	0.00	223.75
	NORMAL	249.0	3.62	220.99	248.92	-3.20	-2.88	4.29	3.25	3.25	-3.03	356.63
	NORMAL	341.0	8.36	222.87	340.39	-10.30	-9.34	13.84	5.16	5.15	2.04	3.31
	NORMAL	432.0	11.14	215.83	430.07	-22.28	-18.98	29.22	3.32	3.05	-7.74	333.29
	NORMAL	523.0	14.00	214.71	518.88	-38.46	-30.40	49.01	3.15	3.14	-1.23	354.58
	NORMAL	615.0	15.67	214.97	607.81	-57.79	-43.86	72.55	1.82	1.82	0.28	2.41
	NORMAL	706.0	16.79	214.49	695.19	-78.70	-58.35	97.96	1.24	1.23	-0.53	352.94
	NORMAL	797.0	15.52	215.86	782.59	-99.40	-72.92	123.27	1.46	-1.40	1.51	163.95
	NORMAL	889.0	15.81	216.60	871.17	-119.43	-87.60	148.11	0.38	0.32	0.80	34.92
	NORMAL	981.0	16.93	216.71	959.44	-140.23	-103.08	174.04	1.22	1.22	0.12	1.64
	NORMAL	1,075.0	14.80	216.83	1,049.86	-160.82	-118.46	199.73	2.27	-2.27	0.13	179.18
	NORMAL	1,119.0	15.04	215.78	1,092.37	-169.95	-125.17	211.06	0.82	0.55	-2.39	311.09
2/2/2012	NORMAL	1,263.0	16.06	216.04	1,231.10	-201.21	-147.81	249.66	0.71	0.71	0.18	4.03
	NORMAL	1,359.0	16.76	216.99	1,323.19	-223.01	-163.95	276.78	0.78	0.73	0.99	21.43
	NORMAL	1,454.0	15.13	218.59	1,414.53	-243.64	-179.93	302.87	1.78	-1.72	1.68	165.68
	NORMAL	1,550.0	15.81	216.54	1,507.06	-263.94	-195.53	328.47	0.91	0.71	-2.14	320.21
	NORMAL	1,646.0	15.89	217.85	1,599.41	-284.82	-211.38	354.69	0.38	0.08	1.36	78.03
2/3/2012	NORMAL	1,741.0	15.20	217.92	1,690.93	-304.92	-227.02	380.14	0.73	-0.73	0.07	178.48
	NORMAL	1,837.0	17.21	217.95	1,783.11	-326.05	-243.49	406.93	2.09	2.09	0.03	0.25
	NORMAL	1,931.0	16.22	222.27	1,873.14	-346.73	-260.87	433.90	1.69	-1.05	4.60	130.60

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 (°)
2/3/2012	NORMAL	2,026.0	16.14	219.60	1,964.38	-366.72	-278.21	460.30	0.79	-0.08	-2.81	262.58
	NORMAL	2,122.0	15.94	216.45	2,056.64	-387.61	-294.55	486.81	0.93	-0.21	-3.28	255.55
	NORMAL	2,217.0	15.97	216.46	2,147.99	-408.61	-310.06	512.93	0.03	0.03	0.01	5.24
	NORMAL	2,313.0	14.35	217.80	2,240.64	-428.63	-325.20	538.03	1.73	-1.69	1.40	168.44
	NORMAL	2,409.0	15.31	218.31	2,333.44	-447.98	-340.35	562.59	1.01	1.00	0.53	7.99
	NORMAL	2,503.0	15.70	213.63	2,424.03	-468.31	-355.09	587.70	1.39	0.41	-4.98	285.05
	NORMAL	2,597.0	15.08	211.62	2,514.65	-489.31	-368.55	612.57	0.87	-0.66	-2.14	219.74
	NORMAL	2,692.0	14.80	211.44	2,606.42	-510.25	-381.40	637.04	0.20	-0.19	-0.19	194.41
	NORMAL	2,787.0	15.33	220.33	2,698.15	-530.25	-395.90	661.74	2.48	0.45	9.36	83.80
	NORMAL	2,883.0	15.59	216.74	2,790.68	-550.26	-411.83	687.30	1.03	0.27	-3.74	283.46
	NORMAL	2,978.0	15.17	218.26	2,882.27	-570.25	-427.18	712.50	0.81	-0.44	1.60	136.90
	NORMAL	3,072.0	15.22	217.92	2,972.99	-589.64	-442.36	737.13	0.11	0.05	-0.36	299.13
	NORMAL	3,164.0	14.20	217.89	3,061.97	-608.07	-456.71	760.49	1.11	-1.11	-0.03	180.41
	NORMAL	3,260.0	15.50	216.49	3,154.76	-627.68	-471.57	785.09	1.40	1.35	-1.46	343.89
	NORMAL	3,355.0	15.14	215.82	3,246.39	-647.95	-486.38	810.18	0.42	-0.38	-0.71	205.86
	NORMAL	3,451.0	15.76	217.13	3,338.92	-668.51	-501.59	835.76	0.74	0.65	1.36	30.01
	NORMAL	3,546.0	14.99	215.67	3,430.52	-688.77	-516.54	860.94	0.91	-0.81	-1.54	205.99
	NORMAL	3,642.0	15.29	213.51	3,523.19	-709.41	-530.77	885.99	0.67	0.31	-2.25	296.96
	NORMAL	3,737.0	15.73	214.79	3,614.73	-730.43	-545.03	911.36	0.59	0.46	1.35	38.50
	NORMAL	3,833.0	16.05	215.00	3,707.06	-751.89	-560.07	937.63	0.34	0.33	0.22	10.29
2/4/2012	NORMAL	3,927.0	15.96	220.41	3,797.42	-772.48	-575.90	963.52	1.59	-0.10	5.76	96.05
	NORMAL	4,022.0	15.34	216.22	3,888.90	-792.56	-591.79	989.12	1.36	-0.65	-4.41	239.25
	NORMAL	4,117.0	15.25	218.87	3,980.54	-812.43	-607.06	1,014.17	0.74	-0.09	2.79	98.61
	NORMAL	4,213.0	14.36	217.23	4,073.35	-831.73	-622.18	1,038.70	1.02	-0.93	-1.71	204.42
	NORMAL	4,308.0	15.65	216.79	4,165.11	-851.38	-636.98	1,063.29	1.36	1.36	-0.46	354.74
	NORMAL	4,402.0	15.80	216.88	4,255.59	-871.77	-652.26	1,088.77	0.16	0.16	0.10	9.28
	NORMAL	4,497.0	15.56	216.39	4,347.05	-892.37	-667.58	1,114.44	0.29	-0.25	-0.52	208.65
	NORMAL	4,591.0	16.08	215.79	4,437.49	-913.08	-682.67	1,140.07	0.58	0.55	-0.64	342.25
	NORMAL	4,687.0	16.12	214.59	4,529.73	-934.83	-698.01	1,166.67	0.35	0.04	-1.25	276.28
	NORMAL	4,783.0	15.67	218.55	4,622.06	-955.95	-713.66	1,192.95	1.22	-0.47	4.13	114.43
	NORMAL	4,878.0	15.21	218.50	4,713.63	-975.73	-729.41	1,218.23	0.48	-0.48	-0.05	181.63
	NORMAL	4,974.0	15.31	219.09	4,806.25	-995.42	-745.24	1,243.49	0.19	0.10	0.61	57.50
2/5/2012	NORMAL	5,069.0	14.38	218.98	4,898.08	-1,014.33	-760.57	1,267.81	0.98	-0.98	-0.12	181.68
	NORMAL	5,165.0	12.33	215.88	4,991.46	-1,031.90	-774.08	1,289.97	2.26	-2.14	-3.23	197.75
	NORMAL	5,261.0	12.30	217.26	5,085.27	-1,048.35	-786.28	1,310.44	0.31	-0.03	1.44	96.49
	NORMAL	5,356.0	11.42	215.27	5,178.24	-1,064.08	-797.84	1,329.97	1.02	-0.93	-2.09	203.96
	NORMAL	5,451.0	10.20	220.46	5,271.55	-1,078.16	-808.73	1,347.76	1.64	-1.28	5.46	143.94
	NORMAL	5,547.0	8.84	219.35	5,366.23	-1,090.33	-818.92	1,363.62	1.43	-1.42	-1.16	187.14
	NORMAL	5,642.0	8.35	218.98	5,460.16	-1,101.34	-827.89	1,377.80	0.52	-0.52	-0.39	186.26
	NORMAL	5,738.0	6.90	218.08	5,555.31	-1,111.30	-835.83	1,390.53	1.52	-1.51	-0.94	184.26
	NORMAL	5,834.0	5.29	225.01	5,650.77	-1,118.96	-842.52	1,400.68	1.84	-1.68	7.22	158.86
	NORMAL	5,929.0	5.64	219.32	5,745.33	-1,125.67	-848.57	1,409.68	0.68	0.37	-5.99	300.00
2/6/2012	NORMAL	6,024.0	4.92	221.05	5,839.93	-1,132.36	-854.20	1,418.41	0.78	-0.76	1.82	168.39
	NORMAL	6,120.0	3.97	217.99	5,935.64	-1,138.08	-858.95	1,425.84	1.02	-0.99	-3.19	192.49
	NORMAL	6,216.0	1.56	213.02	6,031.52	-1,141.80	-861.71	1,430.46	2.52	-2.51	-5.18	183.20
	NORMAL	6,311.0	0.87	168.75	6,126.50	-1,143.59	-862.28	1,432.23	1.18	-0.73	-46.60	212.95
	NORMAL	6,407.0	0.77	183.40	6,222.49	-1,144.95	-862.17	1,433.26	0.24	-0.10	15.26	122.70
	NORMAL	6,503.0	0.29	82.10	6,318.49	-1,145.56	-861.97	1,433.63	0.91	-0.50	-105.52	198.98
	NORMAL	6,598.0	0.76	98.34	6,413.49	-1,145.61	-861.11	1,433.16	0.51	0.49	17.09	25.80
	NORMAL	6,693.0	0.69	321.55	6,508.48	-1,145.26	-860.84	1,432.71	1.42	-0.07	-143.99	200.51
	NORMAL	6,788.0	1.31	285.25	6,603.47	-1,144.52	-862.24	1,432.97	0.90	0.65	-38.21	295.25
	NORMAL	6,883.0	1.19	353.84	6,698.45	-1,143.28	-863.40	1,432.64	1.49	-0.13	72.20	128.31
	NORMAL	6,978.0	0.88	1.19	6,793.43	-1,141.47	-863.49	1,431.26	0.26	-0.22	7.74	150.10
2/7/2012	NORMAL	7,074.0	1.23	355.43	6,889.41	-1,139.62	-863.55	1,429.82	0.28	0.26	-6.00	333.15
	NORMAL	7,169.0	0.98	36.25	6,984.40	-1,137.95	-863.15	1,428.25	0.85	-0.26	42.97	127.32
	NORMAL	7,263.0	1.24	54.83	7,078.38	-1,136.71	-861.84	1,426.48	0.47	0.28	19.77	63.68
	NORMAL	7,359.0	0.95	67.28	7,174.36	-1,135.81	-860.26	1,424.80	0.39	-0.30	12.97	146.75

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 (°)
2/7/2012	NORMAL	7,454.0	0.24	126.68	7,269.36	-1,135.62	-859.38	1,424.12	0.90	-0.75	62.53	165.89
	NORMAL	7,549.0	0.09	22.90	7,364.36	-1,135.67	-859.19	1,424.05	0.29	-0.16	-109.24	198.49
2/8/2012	NORMAL	7,644.0	0.37	153.45	7,459.36	-1,135.88	-859.02	1,424.11	0.46	0.29	137.42	139.62
	NORMAL	7,740.0	0.46	261.63	7,555.36	-1,136.21	-859.26	1,424.53	0.70	0.09	112.69	139.60
	NORMAL	7,834.0	0.48	246.55	7,649.35	-1,136.42	-860.00	1,425.14	0.13	0.02	-16.04	271.59
	NORMAL	7,930.0	0.70	61.62	7,745.35	-1,136.30	-859.85	1,424.95	1.23	0.23	182.36	177.08
	NORMAL	8,023.0	0.79	82.57	7,838.34	-1,135.95	-858.72	1,423.99	0.31	0.10	22.53	82.38
	NORMAL	8,119.0	0.50	129.90	7,934.34	-1,136.13	-857.74	1,423.55	0.61	-0.30	49.30	140.82
	NORMAL	8,214.0	1.09	144.21	8,029.33	-1,137.13	-856.89	1,423.84	0.65	0.62	15.06	25.84
	NORMAL	8,310.0	1.23	175.98	8,125.31	-1,138.90	-856.28	1,424.89	0.68	0.15	33.07	93.89
	NORMAL	8,405.0	1.23	201.36	8,220.29	-1,140.87	-856.58	1,426.64	0.57	0.00	26.74	102.70
	NORMAL	8,501.0	1.58	219.12	8,316.26	-1,142.85	-857.79	1,428.96	0.58	0.36	18.50	60.31
	NORMAL	8,597.0	2.11	231.68	8,412.21	-1,144.98	-860.02	1,431.99	0.69	0.55	13.08	43.73
	NORMAL	8,693.0	2.20	220.35	8,508.14	-1,147.48	-862.60	1,435.54	0.45	0.09	-11.80	276.23
2/11/2012	NORMAL	8,749.0	2.20	220.35	8,564.10	-1,149.11	-863.99	1,437.68	0.00	0.00	0.00	0.00