

# 1 General

## 1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

## 1.2 Well/Wellbore Information

Well	RWF 511-25	Wellbore No.	00
Wellbore Legal Name	RWF 511-25	Common Wellbore Name	RWF 511-25
Project	RU 25-06S-094W	Site	RWF 22-25 Pad
Vertical Section Azimuth	347.02 (°)	North reference	True
Origin N/S		Origin E/W	
Spud date	2/21/2014	UWI	RWF 511-25
Active datum	KB @6,058.4ft (above Mean Sea Level)		

# 2 Survey Name

## 2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	
Date Started	2/21/2014	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 (°/100usft)	Build Rate (°/100usft)	Turn (°/100usft)	Tface (°)
2/21/2014	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2/21/2014	NORMAL	75.0	0.44	327.92	75.00	0.24	-0.15	0.27	0.59	0.59	0.00	327.92
	NORMAL	165.0	2.73	355.61	164.96	2.67	-0.50	2.72	2.61	2.54	30.77	32.68
	NORMAL	255.0	5.72	349.54	254.71	9.22	-1.48	9.32	3.35	3.32	-6.74	348.46
2/22/2014	NORMAL	346.0	8.27	346.64	345.02	20.05	-3.82	20.40	2.83	2.80	-3.19	350.67
	NORMAL	437.0	11.26	347.26	434.69	35.09	-7.29	35.83	3.29	3.29	0.68	2.32
	NORMAL	527.0	14.16	347.43	522.48	54.41	-11.62	55.63	3.22	3.22	0.19	0.82
	NORMAL	617.0	17.33	347.08	609.09	78.22	-17.02	80.05	3.52	3.52	-0.39	358.12
	NORMAL	658.0	18.91	347.33	648.05	90.66	-19.84	92.80	3.86	3.85	0.61	2.94
	NORMAL	748.0	21.72	345.23	732.45	121.00	-27.28	124.03	3.23	3.12	-2.33	344.47
	NORMAL	839.0	24.93	345.41	816.00	155.85	-36.41	160.04	3.53	3.53	0.20	1.35
	NORMAL	928.0	27.34	346.94	895.90	193.91	-45.76	199.24	2.81	2.71	1.72	16.31
	NORMAL	1,023.0	28.75	346.38	979.74	237.37	-56.07	243.90	1.51	1.48	-0.59	349.18
	NORMAL	1,117.0	28.15	346.70	1,062.39	280.92	-66.49	288.68	0.66	-0.64	0.34	165.88
	NORMAL	1,145.0	28.36	346.66	1,087.05	293.82	-69.54	301.93	0.75	0.75	-0.14	354.83
2/24/2014	NORMAL	1,242.0	28.93	345.94	1,172.18	339.00	-80.56	348.43	0.69	0.59	-0.74	328.49
	NORMAL	1,336.0	27.45	346.49	1,255.03	382.12	-91.15	392.83	1.60	-1.57	0.59	170.29
	NORMAL	1,431.0	28.05	346.47	1,339.10	425.13	-101.49	437.06	0.63	0.63	-0.02	359.10
	NORMAL	1,526.0	27.44	348.13	1,423.18	468.27	-111.21	481.28	1.04	-0.64	1.75	129.02
	NORMAL	1,621.0	28.02	348.04	1,507.27	511.52	-120.34	525.48	0.61	0.61	-0.09	355.83
	NORMAL	1,716.0	28.10	347.01	1,591.10	555.15	-129.99	570.16	0.52	0.08	-1.08	278.92

2.1.2 Survey Stations (Continued)

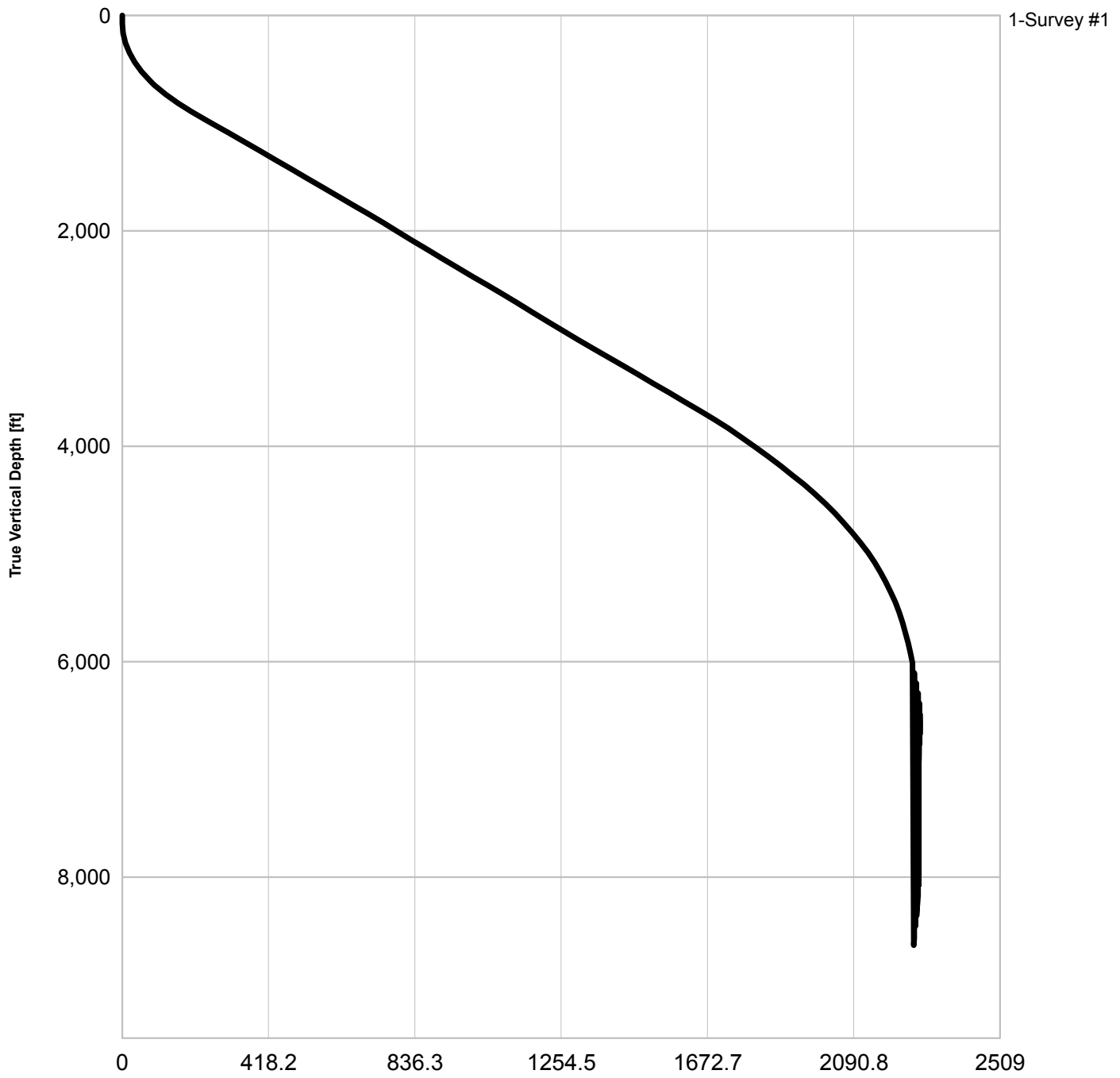
Date	Type	MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. sec. (ft)	DLS (°/100usft)	Build Rate (°/100usft)	Turn (°/100usft)	Tface (°)
2/24/2014	NORMAL	1,810.0	27.86	348.61	1,674.12	598.25	-139.31	614.25	0.84	-0.26	1.70	108.44
	NORMAL	1,904.0	27.88	348.36	1,757.21	641.31	-148.08	658.18	0.13	0.02	-0.27	279.60
	NORMAL	1,998.0	28.43	348.36	1,840.09	684.75	-157.03	702.52	0.59	0.59	0.00	0.00
	NORMAL	2,091.0	26.44	348.01	1,922.63	726.69	-165.80	745.36	2.15	-2.14	-0.38	184.48
	NORMAL	2,185.0	26.67	348.03	2,006.71	767.80	-174.52	787.38	0.24	0.24	0.02	2.24
	NORMAL	2,278.0	26.49	347.30	2,089.88	808.45	-183.41	828.99	0.40	-0.19	-0.78	240.82
	NORMAL	2,371.0	27.53	347.71	2,172.74	849.68	-192.54	871.22	1.14	1.12	0.44	10.33
	NORMAL	2,465.0	27.00	347.09	2,256.29	891.71	-201.94	914.28	0.64	-0.56	-0.66	207.91
	NORMAL	2,558.0	27.54	346.77	2,338.96	933.22	-211.57	956.89	0.60	0.58	-0.34	344.67
	NORMAL	2,652.0	27.92	347.02	2,422.16	975.82	-221.49	1,000.63	0.42	0.40	0.27	17.13
	NORMAL	2,746.0	28.15	346.80	2,505.13	1,018.85	-231.50	1,044.81	0.27	0.24	-0.23	335.70
	NORMAL	2,839.0	26.62	347.56	2,587.71	1,060.56	-240.99	1,087.59	1.69	-1.65	0.82	167.47
	NORMAL	2,932.0	26.72	347.38	2,670.81	1,101.30	-250.05	1,129.33	0.14	0.11	-0.19	320.98
	NORMAL	3,026.0	26.69	347.07	2,754.78	1,142.50	-259.39	1,171.57	0.15	-0.03	-0.33	257.71
	NORMAL	3,120.0	27.59	347.72	2,838.43	1,184.35	-268.75	1,214.45	1.01	0.96	0.69	18.52
	NORMAL	3,215.0	27.44	347.66	2,922.69	1,227.23	-278.10	1,258.33	0.16	-0.16	-0.06	190.44
	NORMAL	3,310.0	27.16	347.14	3,007.11	1,269.75	-287.61	1,301.90	0.39	-0.29	-0.55	220.19
	NORMAL	3,403.0	27.84	347.30	3,089.60	1,311.63	-297.10	1,344.85	0.74	0.73	0.17	6.27
	NORMAL	3,494.0	28.30	347.10	3,169.89	1,353.38	-306.59	1,387.67	0.52	0.51	-0.22	348.35
	NORMAL	3,588.0	28.04	346.22	3,252.76	1,396.56	-316.83	1,432.04	0.52	-0.28	-0.94	237.57
	NORMAL	3,682.0	27.53	346.16	3,335.92	1,439.11	-327.29	1,475.85	0.54	-0.54	-0.06	183.11
	NORMAL	3,776.0	27.63	347.34	3,419.24	1,481.47	-337.26	1,519.37	0.59	0.11	1.26	80.15
	NORMAL	3,870.0	27.96	347.42	3,502.40	1,524.25	-346.84	1,563.21	0.35	0.35	0.09	6.48
	NORMAL	3,964.0	27.48	347.42	3,585.61	1,566.92	-356.36	1,606.93	0.51	-0.51	0.00	180.00
	NORMAL	4,058.0	27.34	346.89	3,669.05	1,609.11	-365.98	1,650.20	0.30	-0.15	-0.56	239.92
2/25/2014	NORMAL	4,151.0	26.89	347.21	3,751.83	1,650.42	-375.48	1,692.59	0.51	-0.48	0.34	162.18
	NORMAL	4,245.0	24.80	347.96	3,836.43	1,690.44	-384.30	1,733.56	2.25	-2.22	0.80	171.45
	NORMAL	4,339.0	23.63	348.37	3,922.15	1,728.17	-392.21	1,772.11	1.26	-1.24	0.44	172.01
	NORMAL	4,432.0	23.73	348.73	4,007.32	1,764.78	-399.63	1,809.45	0.19	0.11	0.39	55.50
	NORMAL	4,526.0	22.23	348.64	4,093.86	1,800.76	-406.82	1,846.13	1.60	-1.60	-0.10	181.30
	NORMAL	4,621.0	21.48	348.33	4,182.03	1,835.42	-413.88	1,881.48	0.80	-0.79	-0.33	188.60
	NORMAL	4,715.0	21.77	347.73	4,269.42	1,869.30	-421.07	1,916.12	0.39	0.31	-0.64	322.40
	NORMAL	4,807.0	20.41	349.23	4,355.25	1,901.74	-427.69	1,949.21	1.59	-1.48	1.63	159.05
	NORMAL	4,901.0	18.84	348.01	4,443.79	1,932.69	-433.91	1,980.76	1.73	-1.67	-1.30	194.05
	NORMAL	4,995.0	17.68	350.25	4,533.06	1,961.60	-439.48	2,010.19	1.44	-1.23	2.38	149.88
	NORMAL	5,089.0	16.00	350.15	4,623.02	1,988.43	-444.11	2,037.38	1.79	-1.79	-0.11	180.94
	NORMAL	5,184.0	15.45	350.24	4,714.47	2,013.81	-448.50	2,063.09	0.58	-0.58	0.09	177.50
	NORMAL	5,278.0	14.70	350.57	4,805.23	2,037.91	-452.57	2,087.49	0.80	-0.80	0.35	173.63
	NORMAL	5,371.0	14.09	353.35	4,895.31	2,060.80	-455.82	2,110.52	0.99	-0.66	2.99	132.77
	NORMAL	5,465.0	12.67	352.08	4,986.76	2,082.37	-458.56	2,132.16	1.54	-1.51	-1.35	191.08
	NORMAL	5,558.0	10.49	349.60	5,077.86	2,100.80	-461.50	2,150.78	2.40	-2.34	-2.67	191.65
	NORMAL	5,653.0	9.73	351.20	5,171.38	2,117.24	-464.29	2,167.43	0.85	-0.80	1.68	160.50
2/26/2014	NORMAL	5,746.0	9.23	352.62	5,263.11	2,132.41	-466.45	2,182.69	0.59	-0.54	1.53	155.63
	NORMAL	5,839.0	8.50	353.76	5,355.00	2,146.64	-468.15	2,196.94	0.81	-0.78	1.23	167.03
	NORMAL	5,934.0	7.41	349.51	5,449.09	2,159.64	-470.03	2,210.03	1.30	-1.15	-4.47	206.26
	NORMAL	6,029.0	6.24	336.71	5,543.42	2,170.41	-473.19	2,221.23	2.01	-1.23	-13.47	226.19
	NORMAL	6,123.0	5.03	337.91	5,636.96	2,178.92	-476.76	2,230.33	1.29	-1.29	1.28	175.03
	NORMAL	6,218.0	5.45	337.47	5,731.57	2,186.94	-480.05	2,238.89	0.44	0.44	-0.46	354.32
	NORMAL	6,313.0	4.20	339.19	5,826.23	2,194.36	-483.02	2,246.78	1.32	-1.32	1.81	174.25
	NORMAL	6,406.0	3.78	338.38	5,919.00	2,200.40	-485.36	2,253.19	0.46	-0.45	-0.87	187.24
	NORMAL	6,499.0	3.39	344.41	6,011.82	2,205.89	-487.23	2,258.97	0.58	-0.42	6.48	138.95
	NORMAL	6,592.0	3.18	337.48	6,104.67	2,210.92	-488.95	2,264.26	0.48	-0.23	-7.45	238.70
2/27/2014	NORMAL	6,686.0	3.76	346.20	6,198.49	2,216.33	-490.69	2,269.91	0.83	0.62	9.28	46.71
	NORMAL	6,780.0	2.74	351.86	6,292.34	2,221.54	-491.74	2,275.23	1.14	-1.09	6.02	165.35
2/28/2014	NORMAL	6,874.0	2.00	19.83	6,386.26	2,225.31	-491.50	2,278.85	1.44	-0.79	29.76	136.06
	NORMAL	6,969.0	0.95	75.29	6,481.24	2,227.07	-490.18	2,280.27	1.74	-1.11	58.38	151.83

2.1.2 Survey Stations (Continued)

Date	Type	MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. sec. (ft)	DLS (°/100usft)	Build Rate (°/100usft)	Turn (°/100usft)	Tface (°)
2/28/2014	NORMAL	7,064.0	0.62	18.37	6,576.23	2,227.76	-489.25	2,280.73	0.84	-0.35	-59.92	220.35
	NORMAL	7,158.0	0.39	149.30	6,670.23	2,227.97	-488.93	2,280.86	0.98	-0.24	139.29	161.40
	NORMAL	7,252.0	1.56	179.05	6,764.21	2,226.41	-488.75	2,279.30	1.32	1.24	31.65	38.75
	NORMAL	7,346.0	0.50	179.05	6,858.19	2,224.72	-488.72	2,277.65	1.13	-1.13	0.00	180.00
3/1/2014	NORMAL	7,346.0	0.38	295.96	6,858.19	2,224.72	-488.72	2,277.65	0.00	0.00	0.00	0.00
	NORMAL	7,439.0	0.64	214.91	6,951.19	2,223.89	-489.01	2,276.90	0.40	0.15	38.56	87.15
	NORMAL	7,532.0	0.77	217.83	7,044.18	2,222.97	-489.69	2,276.16	0.14	0.14	3.14	16.91
	NORMAL	7,625.0	0.97	273.25	7,137.17	2,222.52	-490.86	2,275.99	0.89	0.22	59.59	105.36
	NORMAL	7,719.0	0.79	267.10	7,231.16	2,222.53	-492.30	2,276.32	0.22	-0.19	-6.54	204.64
	NORMAL	7,813.0	0.24	190.84	7,325.16	2,222.31	-492.98	2,276.25	0.82	-0.59	-81.13	197.64
	NORMAL	7,908.0	0.08	251.83	7,420.16	2,222.09	-493.08	2,276.07	0.22	-0.17	64.20	160.83
	NORMAL	8,000.0	0.30	74.04	7,512.16	2,222.14	-492.91	2,276.07	0.41	0.24	-193.25	181.74
	NORMAL	8,094.0	0.65	158.42	7,606.16	2,221.71	-492.48	2,275.56	0.73	0.37	89.77	110.07
3/2/2014	NORMAL	8,188.0	0.97	264.46	7,700.15	2,221.14	-493.08	2,275.13	1.39	0.34	112.81	134.56
	NORMAL	8,282.0	0.97	304.89	7,794.14	2,221.52	-494.52	2,275.83	0.71	0.00	43.01	110.21
	NORMAL	8,375.0	0.89	281.96	7,887.13	2,222.12	-495.87	2,276.72	0.41	-0.09	-24.66	246.56
3/3/2014	NORMAL	8,469.0	1.14	248.72	7,981.11	2,221.93	-497.46	2,276.89	0.67	0.27	-35.36	275.80
	NORMAL	8,563.0	2.09	241.87	8,075.07	2,220.78	-499.84	2,276.31	1.03	1.01	-7.29	345.08
	NORMAL	8,658.0	1.68	213.17	8,170.02	2,218.80	-502.13	2,274.89	1.07	-0.43	-30.21	232.62
	NORMAL	8,752.0	1.93	208.66	8,263.98	2,216.26	-503.64	2,272.75	0.31	0.27	-4.80	328.13
	NORMAL	8,847.0	2.02	212.21	8,358.92	2,213.44	-505.30	2,270.38	0.16	0.09	3.74	55.44
	NORMAL	8,941.0	2.79	208.37	8,452.84	2,210.02	-507.27	2,267.49	0.84	0.82	-4.09	346.26
	NORMAL	9,055.0	2.98	226.80	8,566.70	2,205.55	-510.75	2,263.92	0.83	0.17	16.17	87.73
	NORMAL	9,120.0	2.98	226.80	8,631.61	2,203.24	-513.22	2,262.22	0.00	0.00	0.00	0.00

### 3 Charts

#### 3.1 Vertical Section View



Vertical Section at 347.02 ° [ft]

3.2 Plan View

