

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well/Wellbore Information

Well	RWF 522-25	Wellbore No.	1
Wellbore Legal Name	RWF 522-25	Common Wellbore Name	RWF 522-25
Project	RU 25-06S-094W	Site	RWF 22-25 Pad
Vertical Section Azimuth	87.79 (°)	North reference	True
Origin N/S		Origin E/W	
Spud date	9/21/2013	UWI	RWF 522-25
Active datum	KB @6,062.0ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	SDI
Date Started	9/21/2013	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 (°)
9/21/2013	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9/21/2013	NORMAL	70.0	0.79	85.08	70.00	0.04	0.48	0.48	1.13	1.13	0.00	85.08
	NORMAL	160.0	2.55	81.91	159.96	0.38	3.08	3.09	1.96	1.96	-3.52	355.41
	NORMAL	251.0	3.78	87.36	250.82	0.80	8.08	8.11	1.39	1.35	5.99	16.48
9/22/2013	NORMAL	342.0	5.63	89.30	341.51	0.99	15.54	15.57	2.04	2.03	2.13	5.88
	NORMAL	389.0	6.42	88.56	388.25	1.09	20.47	20.50	1.69	1.68	-1.57	354.02
	NORMAL	480.0	8.17	88.56	478.51	1.38	32.03	32.06	1.92	1.92	0.00	0.00
	NORMAL	570.0	8.37	88.86	567.57	1.67	44.97	45.00	0.23	0.22	0.33	12.32
	NORMAL	661.0	9.85	89.36	657.42	1.89	59.37	59.40	1.63	1.63	0.55	3.31
	NORMAL	752.0	10.18	89.94	747.03	1.98	75.20	75.22	0.38	0.36	0.64	17.28
	NORMAL	842.0	10.59	89.75	835.56	2.03	91.42	91.43	0.46	0.46	-0.21	355.13
	NORMAL	933.0	9.32	89.09	925.19	2.18	107.15	107.16	1.40	-1.40	-0.73	184.81
	NORMAL	1,024.0	9.32	88.48	1,014.99	2.49	121.89	121.89	0.11	0.00	-0.67	269.70
10/12/2013	NORMAL	1,151.0	9.41	87.95	1,140.29	3.14	142.54	142.56	0.10	0.07	-0.42	315.96
	NORMAL	1,241.0	10.24	91.10	1,228.97	3.25	157.89	157.90	1.10	0.92	3.50	34.49
	NORMAL	1,332.0	10.91	94.05	1,318.43	2.48	174.57	174.54	0.95	0.74	3.24	40.40
	NORMAL	1,423.0	11.26	86.60	1,407.74	2.40	192.03	191.98	1.62	0.38	-8.19	280.06
	NORMAL	1,514.0	11.47	84.79	1,496.95	3.75	209.91	209.90	0.45	0.23	-1.99	299.60
	NORMAL	1,604.0	11.06	86.65	1,585.22	5.07	227.44	227.47	0.61	-0.46	2.07	139.36
	NORMAL	1,695.0	11.04	85.06	1,674.53	6.33	244.83	244.90	0.34	-0.02	-1.75	265.47
	NORMAL	1,785.0	10.86	82.14	1,762.89	8.23	261.82	261.94	0.65	-0.20	-3.24	250.59

2.1.2 Survey Stations (Continued)

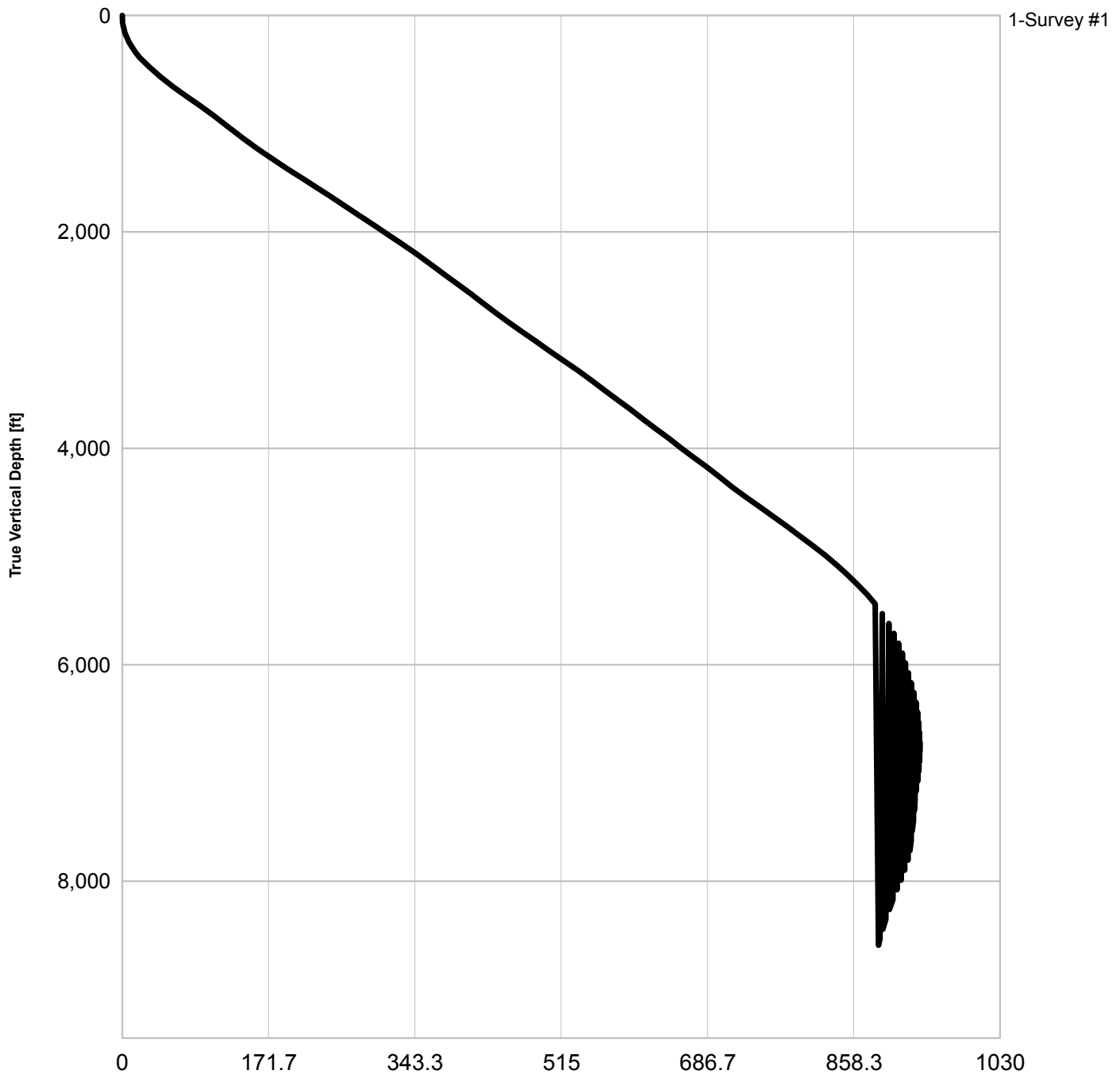
Date	Type	MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. sec. (ft)	DLS (°/100usft)	Build Rate (°/100usft)	Turn (°/100usft)	Tface (°)
10/12/2013	NORMAL	1,876.0	10.81	83.57	1,852.27	10.36	278.79	278.98	0.30	-0.05	1.57	101.24
	NORMAL	1,967.0	10.80	86.66	1,941.66	11.81	295.78	296.02	0.64	-0.01	3.40	92.51
	NORMAL	2,057.0	10.80	85.45	2,030.07	12.97	312.61	312.87	0.25	0.00	-1.34	269.41
	NORMAL	2,148.0	10.70	82.74	2,119.47	14.71	329.48	329.81	0.57	-0.11	-2.98	257.48
	NORMAL	2,239.0	10.12	89.82	2,208.97	15.81	345.86	346.21	1.54	-0.64	7.78	117.84
	NORMAL	2,330.0	9.90	85.61	2,298.59	16.43	361.66	362.02	0.84	-0.24	-4.63	251.20
	NORMAL	2,420.0	9.47	83.26	2,387.31	17.89	376.72	377.13	0.65	-0.48	-2.61	221.44
	NORMAL	2,511.0	10.05	89.64	2,476.99	18.82	392.10	392.53	1.35	0.64	7.01	64.97
	NORMAL	2,602.0	9.67	89.51	2,566.65	18.93	407.68	408.11	0.42	-0.42	-0.14	183.29
	NORMAL	2,692.0	8.94	94.72	2,655.47	18.42	422.21	422.60	1.24	-0.81	5.79	133.46
	NORMAL	2,783.0	10.07	84.81	2,745.22	18.56	437.18	437.57	2.18	1.24	-10.89	299.67
	NORMAL	2,874.0	9.74	90.06	2,834.87	19.27	452.80	453.21	1.06	-0.36	5.77	112.65
	NORMAL	2,965.0	10.74	88.48	2,924.42	19.49	468.97	469.38	1.14	1.10	-1.74	343.53
	NORMAL	3,055.0	10.22	87.38	3,012.92	20.08	485.33	485.75	0.62	-0.58	-1.22	200.51
	NORMAL	3,146.0	9.90	84.33	3,102.52	21.22	501.18	501.63	0.68	-0.35	-3.35	237.51
	NORMAL	3,236.0	10.87	86.96	3,191.04	22.43	517.36	517.84	1.20	1.08	2.92	27.34
	NORMAL	3,327.0	10.33	92.83	3,280.49	22.49	534.07	534.54	1.33	-0.59	6.45	119.43
	NORMAL	3,418.0	9.72	92.42	3,370.10	21.76	549.90	550.33	0.67	-0.67	-0.45	186.47
	NORMAL	3,509.0	9.29	92.40	3,459.85	21.13	564.91	565.31	0.47	-0.47	-0.02	180.43
10/13/2013	NORMAL	3,599.0	10.15	83.55	3,548.57	21.71	580.05	580.46	1.91	0.96	-9.83	295.51
	NORMAL	3,690.0	9.62	84.94	3,638.21	23.29	595.59	596.05	0.64	-0.58	1.53	156.44
	NORMAL	3,781.0	9.06	87.08	3,728.01	24.32	610.32	610.81	0.72	-0.62	2.35	149.25
	NORMAL	3,872.0	10.02	81.01	3,817.75	25.92	625.30	625.83	1.53	1.05	-6.67	310.64
	NORMAL	3,963.0	9.47	88.22	3,907.44	27.39	640.60	641.18	1.47	-0.60	7.92	117.78
	NORMAL	4,054.0	9.15	87.63	3,997.24	27.92	655.31	655.90	0.37	-0.35	-0.65	196.32
	NORMAL	4,145.0	10.06	85.19	4,086.97	28.89	670.46	671.08	1.10	1.00	-2.68	334.69
	NORMAL	4,236.0	9.59	80.01	4,176.63	30.87	685.85	686.53	1.10	-0.52	-5.69	239.46
	NORMAL	4,328.0	9.06	78.63	4,267.42	33.63	700.50	701.27	0.63	-0.58	-1.50	202.20
	NORMAL	4,419.0	9.41	89.27	4,357.25	35.14	714.96	715.78	1.91	0.38	11.69	83.70
	NORMAL	4,510.0	9.94	85.40	4,446.95	35.86	730.23	731.07	0.92	0.58	-4.25	307.26
	NORMAL	4,601.0	10.38	90.41	4,536.53	36.43	746.26	747.11	1.08	0.48	5.51	66.01
	NORMAL	4,692.0	9.97	90.61	4,626.10	36.29	762.33	763.16	0.45	-0.45	0.22	175.17
10/14/2013	NORMAL	4,796.0	9.95	87.86	4,728.53	36.53	780.31	781.14	0.46	-0.02	-2.64	266.24
	NORMAL	4,875.0	9.76	87.51	4,806.36	37.08	793.82	794.66	0.25	-0.24	-0.44	197.33
	NORMAL	4,966.0	9.41	90.30	4,896.09	37.37	808.97	809.81	0.64	-0.38	3.07	128.36
	NORMAL	5,057.0	8.88	91.29	4,985.94	37.17	823.43	824.25	0.61	-0.58	1.09	163.95
	NORMAL	5,149.0	8.20	90.94	5,076.92	36.91	837.09	837.89	0.74	-0.74	-0.38	184.20
	NORMAL	5,239.0	7.83	92.46	5,166.04	36.54	849.63	850.41	0.47	-0.41	1.69	150.95
	NORMAL	5,330.0	7.53	90.76	5,256.22	36.19	861.79	862.54	0.41	-0.33	-1.87	216.30
10/15/2013	NORMAL	5,422.0	6.55	82.31	5,347.53	36.82	873.01	873.78	1.55	-1.07	-9.18	222.44
	NORMAL	5,513.0	5.90	83.82	5,437.99	38.01	882.81	883.62	0.74	-0.71	1.66	166.61
	NORMAL	5,603.0	4.98	73.81	5,527.59	39.60	891.16	892.02	1.46	-1.02	-11.12	220.98
	NORMAL	5,695.0	4.63	76.10	5,619.27	41.61	898.60	899.53	0.43	-0.38	2.49	152.41
	NORMAL	5,786.0	3.61	64.57	5,710.03	43.72	904.75	905.76	1.44	-1.12	-12.67	213.43
	NORMAL	5,877.0	3.35	69.66	5,800.86	45.87	909.83	910.92	0.44	-0.29	5.59	132.60
	NORMAL	5,968.0	2.73	61.41	5,891.74	47.83	914.23	915.39	0.83	-0.68	-9.07	211.14
	NORMAL	6,060.0	2.48	63.46	5,983.64	49.77	917.93	919.17	0.29	-0.27	2.23	160.58
	NORMAL	6,151.0	2.25	67.33	6,074.56	51.34	921.34	922.63	0.31	-0.25	4.25	147.15
	NORMAL	6,242.0	2.08	68.30	6,165.50	52.64	924.52	925.87	0.19	-0.19	1.07	168.32
	NORMAL	6,333.0	1.85	76.00	6,256.44	53.61	927.48	928.86	0.38	-0.25	8.46	134.87
	NORMAL	6,424.0	1.41	89.62	6,347.41	53.97	930.03	931.42	0.64	-0.48	14.97	145.31
	NORMAL	6,515.0	1.06	56.55	6,438.39	54.44	931.85	933.26	0.86	-0.38	-36.34	227.95
	NORMAL	6,606.0	0.97	46.55	6,529.37	55.43	933.11	934.55	0.22	-0.10	-10.99	238.13
10/16/2013	NORMAL	6,697.0	0.62	37.24	6,620.37	56.36	933.97	935.45	0.41	-0.38	-10.23	195.64
	NORMAL	6,788.0	0.21	96.06	6,711.36	56.73	934.43	935.92	0.60	-0.45	64.64	160.64
	NORMAL	6,880.0	0.21	174.79	6,803.36	56.54	934.61	936.10	0.29	0.00	85.58	129.36

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 (°)
10/16/2013	NORMAL	6,971.0	0.45	242.26	6,894.36	56.21	934.31	935.79	0.46	0.26	74.14	95.16
	NORMAL	7,062.0	1.10	225.13	6,985.35	55.43	933.38	934.82	0.75	0.71	-18.82	331.68
	NORMAL	7,155.0	1.55	222.11	7,078.33	53.87	931.90	933.29	0.49	0.48	-3.25	349.67
	NORMAL	7,246.0	1.27	232.11	7,169.30	52.33	930.28	931.61	0.41	-0.31	10.99	143.62
	NORMAL	7,337.0	0.97	212.93	7,260.28	51.07	929.07	930.34	0.52	-0.33	-21.08	222.01
	NORMAL	7,428.0	1.32	197.81	7,351.27	49.42	928.33	929.54	0.50	0.38	-16.62	311.47
	NORMAL	7,520.0	1.06	223.13	7,443.25	47.79	927.42	928.57	0.63	-0.28	27.52	128.59
	NORMAL	7,611.0	1.32	228.84	7,534.23	46.49	926.06	927.16	0.31	0.29	6.27	27.39
	NORMAL	7,702.0	1.14	214.16	7,625.21	45.05	924.76	925.81	0.40	-0.20	-16.13	233.06
	NORMAL	7,793.0	1.82	214.89	7,716.18	43.12	923.42	924.40	0.75	0.75	0.80	1.95
	NORMAL	7,884.0	2.45	236.76	7,807.11	40.86	920.97	921.86	1.12	0.69	24.03	63.55
	NORMAL	7,976.0	2.97	237.35	7,899.01	38.50	917.32	918.12	0.57	0.57	0.64	3.37
	NORMAL	8,067.0	3.43	233.23	7,989.87	35.60	913.15	913.85	0.56	0.51	-4.53	331.37
10/17/2013	NORMAL	8,158.0	3.61	236.66	8,080.70	32.40	908.58	909.15	0.30	0.20	3.77	51.20
	NORMAL	8,249.0	3.29	234.71	8,171.53	29.31	904.06	904.51	0.37	-0.35	-2.14	199.17
	NORMAL	8,340.0	3.52	226.82	8,262.37	25.89	899.89	900.22	0.57	0.25	-8.67	292.17
	NORMAL	8,431.0	3.55	221.91	8,353.20	21.88	895.97	896.15	0.33	0.03	-5.40	273.21
	NORMAL	8,522.0	3.30	216.44	8,444.04	17.68	892.53	892.55	0.45	-0.27	-6.01	229.87
	NORMAL	8,613.0	3.10	217.35	8,534.90	13.62	889.48	889.34	0.23	-0.22	1.00	166.20
	NORMAL	8,670.0	3.10	217.35	8,591.81	11.17	887.61	887.38	0.00	0.00	0.00	0.00

3 Charts

3.1 Vertical Section View



3.2 Plan View

