

## 1 General

### 1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

### 1.2 Well/Wellbore Information

Well	RWF 12-25	Wellbore No.	00
Wellbore Legal Name	RWF 12-25	Common Wellbore Name	RWF 12-25
Project	RU 25-06S-094W	Site	RWF 22-25 Pad
Vertical Section Azimuth	299.84 (°)	North reference	True
Origin N/S		Origin E/W	
Spud date	12/25/2013	UWI	RWF 12-25
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	12/25/2013	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 (°)
12/25/2013	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12/25/2013	NORMAL	74.0	0.97	305.24	74.00	0.36	-0.51	0.62	1.31	1.31	0.00	305.24
	NORMAL	165.0	2.82	309.20	164.94	2.22	-2.88	3.60	2.04	2.03	4.35	6.03
12/26/2013	NORMAL	74.0	0.97	305.24	74.00	0.36	-0.51	0.62	0.00	2.03	4.35	182.07
	NORMAL	165.0	2.82	309.20	164.94	2.22	-2.88	3.60	2.04	2.03	4.35	6.03
	NORMAL	256.0	4.49	300.67	255.76	5.45	-7.67	9.37	1.93	1.84	-9.37	337.68
	NORMAL	346.0	6.60	302.70	345.33	10.04	-15.06	18.06	2.35	2.34	2.26	6.32
	NORMAL	437.0	7.57	302.78	435.63	16.12	-24.50	29.27	1.07	1.07	0.09	0.62
	NORMAL	527.0	9.33	300.67	524.65	23.05	-35.76	42.49	1.99	1.96	-2.34	348.96
	NORMAL	597.0	9.32	297.54	593.73	28.56	-45.66	53.82	0.72	-0.01	-4.47	267.33
	NORMAL	687.0	9.30	297.30	682.54	35.27	-58.59	68.37	0.05	-0.02	-0.27	242.63
	NORMAL	778.0	9.41	301.32	772.33	42.51	-71.48	83.15	0.73	0.12	4.42	82.43
	NORMAL	868.0	8.97	304.75	861.18	50.33	-83.53	97.50	0.78	-0.49	3.81	130.46
	NORMAL	958.0	9.67	300.88	949.99	58.21	-95.78	112.05	1.04	0.78	-4.30	316.24
	NORMAL	1,052.0	9.68	299.02	1,042.65	66.09	-109.47	127.84	0.33	0.01	-1.98	270.92
	NORMAL	1,110.0	9.80	297.87	1,099.82	70.77	-118.09	137.65	0.39	0.21	-1.98	301.10
12/28/2013	NORMAL	1,239.0	8.91	296.28	1,227.10	80.32	-136.76	158.59	0.72	-0.69	-1.23	195.41
	NORMAL	1,333.0	8.92	296.50	1,319.97	86.80	-149.81	173.13	0.04	0.01	0.23	73.76
	NORMAL	1,427.0	8.80	294.52	1,412.84	93.03	-162.87	187.57	0.35	-0.13	-2.11	247.54
	NORMAL	1,523.0	9.41	298.94	1,507.64	99.88	-176.42	202.73	0.97	0.64	4.60	51.10
	NORMAL	1,618.0	9.32	299.30	1,601.37	107.40	-189.92	218.19	0.11	-0.09	0.38	147.12

## 2.1.2 Survey Stations (Continued)

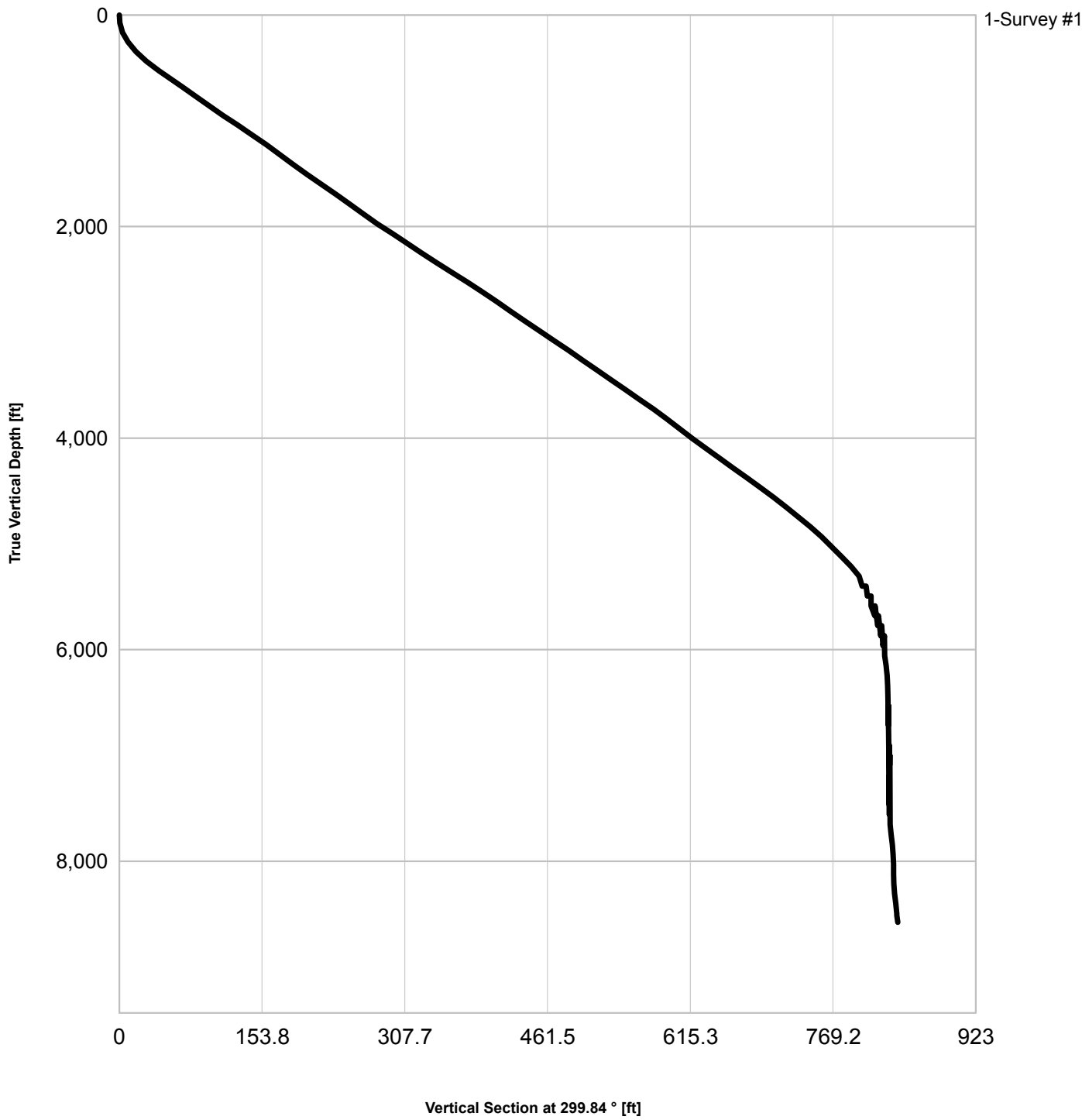
Date	Type	MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. sec. (ft)	DLS (°/100usft)	Build Rate (°/100usft)	Turn (°/100usft )	Tface (°)
12/28/2013	NORMAL	1,713.0	9.25	299.79	1,695.12	114.96	-203.26	233.51	0.11	-0.07	0.52	131.76
	NORMAL	1,807.0	9.06	299.74	1,787.93	122.38	-216.24	248.47	0.20	-0.20	-0.05	182.37
	NORMAL	1,901.0	8.79	299.91	1,880.79	129.64	-228.89	263.05	0.29	-0.29	0.18	174.50
	NORMAL	1,994.0	9.62	300.53	1,972.59	137.13	-241.75	277.93	0.90	0.89	0.67	7.12
	NORMAL	2,088.0	10.15	301.52	2,065.19	145.45	-255.57	294.06	0.59	0.56	1.05	18.27
	NORMAL	2,181.0	9.72	300.19	2,156.80	153.68	-269.34	310.10	0.52	-0.46	-1.43	207.43
	NORMAL	2,275.0	9.32	298.15	2,249.51	161.26	-282.91	325.65	0.56	-0.43	-2.17	219.14
	NORMAL	2,368.0	10.59	300.31	2,341.10	169.13	-296.93	341.72	1.42	1.37	2.32	17.45
	NORMAL	2,461.0	10.27	299.75	2,432.57	177.55	-311.51	358.56	0.36	-0.34	-0.60	197.30
	NORMAL	2,555.0	10.02	298.27	2,525.10	185.59	-325.99	375.11	0.38	-0.27	-1.57	225.47
	NORMAL	2,649.0	9.83	296.70	2,617.69	193.06	-340.36	391.30	0.35	-0.20	-1.67	234.15
	NORMAL	2,742.0	9.54	296.21	2,709.37	200.03	-354.36	406.91	0.32	-0.31	-0.53	195.63
	NORMAL	2,836.0	9.11	296.11	2,802.12	206.75	-368.03	422.11	0.46	-0.46	-0.11	182.11
	NORMAL	2,929.0	9.69	299.49	2,893.87	213.84	-381.46	437.29	0.86	0.62	3.63	45.26
	NORMAL	3,022.0	9.37	297.46	2,985.59	221.19	-394.99	452.68	0.50	-0.34	-2.18	225.41
	NORMAL	3,116.0	9.76	299.78	3,078.28	228.67	-408.69	468.29	0.58	0.41	2.47	45.82
	NORMAL	3,211.0	9.67	300.53	3,171.92	236.73	-422.56	484.32	0.16	-0.09	0.79	125.79
	NORMAL	3,307.0	9.15	297.01	3,266.63	244.29	-436.30	500.01	0.81	-0.54	-3.67	226.17
	NORMAL	3,399.0	9.58	301.14	3,357.41	251.57	-449.37	514.97	0.87	0.47	4.49	59.44
	NORMAL	3,491.0	9.24	300.64	3,448.17	259.29	-462.28	530.01	0.38	-0.37	-0.54	193.27
	NORMAL	3,585.0	9.43	305.03	3,540.92	267.56	-475.08	545.22	0.78	0.20	4.67	77.23
	NORMAL	3,678.0	9.52	305.96	3,632.65	276.45	-487.54	560.46	0.19	0.10	1.00	60.01
	NORMAL	3,772.0	9.06	303.25	3,725.42	285.07	-500.02	575.57	0.68	-0.49	-2.88	222.23
	NORMAL	3,866.0	8.71	301.57	3,818.29	292.86	-512.28	590.08	0.46	-0.37	-1.79	215.72
	NORMAL	3,961.0	8.09	299.21	3,912.27	299.88	-524.24	603.95	0.75	-0.65	-2.48	207.91
12/29/2013	NORMAL	4,054.0	8.97	298.13	4,004.25	306.50	-536.34	617.74	0.96	0.95	-1.16	349.15
	NORMAL	4,148.0	9.17	304.18	4,097.07	314.16	-549.00	632.53	1.04	0.21	6.44	81.15
	NORMAL	4,242.0	8.53	299.47	4,189.95	321.80	-561.27	646.97	1.03	-0.68	-5.01	226.24
	NORMAL	4,336.0	9.23	301.14	4,282.83	329.12	-573.79	661.48	0.79	0.74	1.78	21.04
	NORMAL	4,428.0	9.23	304.83	4,373.64	337.15	-586.16	676.21	0.64	0.00	4.01	91.82
	NORMAL	4,523.0	8.64	301.73	4,467.48	345.26	-598.49	690.93	0.80	-0.62	-3.26	217.69
	NORMAL	4,618.0	8.88	305.01	4,561.38	353.22	-610.56	705.37	0.58	0.25	3.45	65.96
	NORMAL	4,711.0	8.00	302.90	4,653.37	360.85	-621.87	718.98	1.00	-0.95	-2.27	198.35
	NORMAL	4,804.0	7.93	303.17	4,745.47	367.88	-632.68	731.84	0.09	-0.08	0.29	152.01
	NORMAL	4,897.0	8.09	301.41	4,837.56	374.80	-643.63	744.79	0.31	0.17	-1.89	302.25
	NORMAL	4,992.0	6.45	299.08	4,931.80	380.87	-654.00	756.81	1.75	-1.73	-2.45	189.04
	NORMAL	5,086.0	6.70	300.31	5,025.18	386.21	-663.35	767.57	0.31	0.27	1.31	30.01
	NORMAL	5,180.0	6.39	300.31	5,118.57	391.62	-672.60	778.29	0.33	-0.33	0.00	180.00
	NORMAL	5,274.0	6.23	310.04	5,212.00	397.54	-681.02	788.54	1.15	-0.17	10.35	103.32
	NORMAL	5,367.0	4.87	307.78	5,304.56	403.20	-688.00	797.41	1.48	-1.46	-2.43	188.01
12/30/2013	NORMAL	5,461.0	4.40	317.40	5,398.25	408.30	-693.60	804.80	0.96	-0.50	10.23	125.89
	NORMAL	5,555.0	3.08	336.56	5,492.06	413.27	-697.04	810.27	1.92	-1.40	20.38	145.86
	NORMAL	5,649.0	2.90	325.49	5,585.93	417.55	-699.40	814.43	0.64	-0.19	-11.78	247.21
	NORMAL	5,742.0	2.24	325.59	5,678.83	420.99	-701.76	818.19	0.71	-0.71	0.11	179.66
	NORMAL	5,836.0	2.17	317.28	5,772.77	423.81	-704.00	821.54	0.35	-0.07	-8.84	253.52
	NORMAL	5,931.0	1.71	316.80	5,867.71	426.16	-706.19	824.62	0.48	-0.48	-0.51	181.78
12/31/2013	NORMAL	5,461.0	4.40	317.40	5,398.42	407.78	-689.19	800.71	0.00	-0.57	-0.13	0.98
	NORMAL	5,555.0	3.08	336.56	5,492.22	412.75	-692.63	806.18	1.92	-1.40	20.38	145.86
	NORMAL	5,649.0	2.90	325.49	5,586.10	417.03	-694.98	810.34	0.64	-0.19	-11.78	247.21
	NORMAL	5,742.0	2.24	325.59	5,679.00	420.46	-697.34	814.10	0.71	-0.71	0.11	179.66
	NORMAL	5,836.0	2.17	317.28	5,772.93	423.29	-699.59	817.45	0.35	-0.07	-8.84	253.52
	NORMAL	5,931.0	1.71	316.80	5,867.88	425.64	-701.78	820.53	0.48	-0.48	-0.51	181.78
	NORMAL	6,025.0	1.32	311.25	5,961.84	427.38	-703.55	822.93	0.44	-0.41	-5.90	197.86
	NORMAL	6,120.0	1.23	311.42	6,056.82	428.77	-705.14	825.00	0.09	-0.09	0.18	177.68
	NORMAL	6,215.0	0.62	281.10	6,151.81	429.55	-706.41	826.49	0.80	-0.64	-31.92	204.25
	NORMAL	6,309.0	0.79	260.27	6,245.80	429.54	-707.55	827.47	0.32	0.18	-22.16	292.85

## 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 (°)
12/31/2013	NORMAL	6,402.0	0.57	224.64	6,338.80	429.10	-708.50	828.08	0.50	-0.24	-38.31	225.47
	NORMAL	6,495.0	0.18	281.54	6,431.79	428.80	-708.97	828.34	0.53	-0.42	61.18	162.27
	NORMAL	6,589.0	0.41	317.93	6,525.79	429.08	-709.34	828.80	0.30	0.24	38.71	58.33
	NORMAL	6,682.0	0.62	182.14	6,618.79	428.82	-709.58	828.88	1.03	0.23	-146.01	206.84
	NORMAL	6,777.0	0.26	251.13	6,713.79	428.24	-709.81	828.78	0.61	-0.38	72.62	155.26
	NORMAL	6,871.0	0.44	316.61	6,807.79	428.43	-710.26	829.27	0.43	0.19	69.66	100.94
	NORMAL	6,965.0	0.59	263.56	6,901.78	428.64	-710.99	830.00	0.51	0.16	-56.44	259.74
1/1/2014	NORMAL	7,060.0	0.35	14.88	6,996.78	428.87	-711.40	830.47	0.83	-0.25	117.18	155.55
	NORMAL	7,154.0	0.44	61.20	7,090.78	429.32	-711.01	830.36	0.34	0.10	49.28	98.25
	NORMAL	7,248.0	0.48	89.96	7,184.78	429.49	-710.30	829.83	0.25	0.04	30.60	94.75
	NORMAL	7,342.0	0.35	228.98	7,278.78	429.30	-710.12	829.58	0.83	-0.14	147.89	162.86
	NORMAL	7,436.0	0.62	202.97	7,372.77	428.65	-710.54	829.62	0.36	0.29	-27.67	307.31
	NORMAL	7,528.0	1.41	212.99	7,464.76	427.24	-711.35	829.62	0.88	0.86	10.89	17.70
	NORMAL	7,622.0	1.98	215.54	7,558.72	424.95	-712.92	829.84	0.61	0.61	2.71	8.81
	NORMAL	7,716.0	2.46	229.16	7,652.65	422.31	-715.39	830.67	0.76	0.51	14.49	54.64
1/2/2014	NORMAL	7,810.0	2.02	231.62	7,746.57	419.96	-718.21	831.95	0.48	-0.47	2.62	168.90
	NORMAL	7,904.0	2.52	226.13	7,840.50	417.50	-721.00	833.15	0.58	0.53	-5.84	333.74
	NORMAL	7,997.0	2.99	217.29	7,933.39	414.15	-723.95	834.04	0.68	0.51	-9.51	313.41
	NORMAL	8,090.0	3.51	210.26	8,026.24	409.76	-726.85	834.37	0.70	0.56	-7.56	318.99
	NORMAL	8,185.0	1.67	209.30	8,121.14	406.04	-728.99	834.38	1.94	-1.94	-1.01	180.87
	NORMAL	8,279.0	1.32	230.83	8,215.11	404.16	-730.50	834.76	0.70	-0.37	22.90	132.38
	NORMAL	8,371.0	1.52	236.20	8,307.08	402.82	-732.34	835.68	0.26	0.22	5.84	36.34
	NORMAL	8,466.0	1.93	228.28	8,402.04	401.05	-734.58	836.74	0.50	0.43	-8.34	325.82
	NORMAL	8,560.0	1.85	232.94	8,495.99	399.08	-736.97	837.84	0.18	-0.09	4.96	119.81
	NORMAL	8,575.0	1.69	239.01	8,510.98	398.82	-737.35	838.04	1.64	-1.07	40.47	133.48
	NORMAL	8,640.0	1.00	265.31	8,575.96	398.28	-738.74	838.98	1.40	-1.06	40.46	150.82

3 Charts

3.1 Vertical Section View



3.2 Plan View

