

## 1 General

### 1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

### 1.2 Well Information

Well	RWF 343-34	Wellbore No.	
Well Name	RWF 343-34	Common Name	RWF 343-34
Project	RU 35-06S-094W	Site	RMV 15-35 Pad
Vertical Section Azimuth	236.74 (°)	North Reference	True
Origin N/S		Origin E/W	
Spud Date	8/20/2012	UWI	RWF 343-34
Active Datum	KB @5,575.7ft (above Mean Sea Level)		

## 2 Survey Name

### 2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	
Date Started	8/20/2012	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

5224

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 (°)
8/20/2012	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8/20/2012	NORMAL	85.0	0.62	201.01	85.00	-0.43	-0.16	0.37	0.73	0.73	0.00	201.00
	NORMAL	179.0	2.38	245.65	178.96	-1.71	-2.13	2.71	2.11	1.87	47.50	57.31
	NORMAL	270.0	4.49	252.77	269.80	-3.54	-7.25	8.01	2.36	2.32	7.82	15.00
	NORMAL	362.0	6.69	246.09	361.35	-6.78	-15.59	16.76	2.49	2.39	-7.26	340.18
	NORMAL	453.0	8.89	232.73	451.52	-13.19	-26.03	29.00	3.12	2.42	-14.68	313.79
	NORMAL	523.0	12.27	228.31	520.32	-21.42	-35.89	41.76	4.96	4.83	-6.31	344.32
	NORMAL	614.0	14.75	235.89	608.80	-34.35	-52.71	62.91	3.34	2.73	8.33	39.26
8/21/2012	NORMAL	706.0	17.50	238.66	697.17	-48.11	-74.23	88.45	3.10	2.99	3.01	16.96
	NORMAL	796.0	20.49	235.76	782.26	-64.02	-98.81	117.73	3.48	3.32	-3.22	341.10
	NORMAL	887.0	23.30	234.70	866.69	-83.38	-126.67	151.65	3.12	3.09	-1.16	351.50
	NORMAL	983.0	24.27	233.03	954.54	-106.22	-157.93	190.32	1.23	1.01	-1.74	324.46
	NORMAL	1,078.0	22.25	235.40	1,041.81	-128.18	-188.34	227.78	2.34	-2.13	2.49	156.23
	NORMAL	1,127.0	22.51	235.23	1,087.12	-138.79	-203.68	246.44	0.55	0.53	-0.35	345.94
8/22/2012	NORMAL	1,269.0	23.41	235.47	1,217.87	-170.29	-249.25	301.81	0.64	0.63	0.17	6.05
	NORMAL	1,365.0	23.21	238.02	1,306.04	-191.11	-281.01	339.79	1.07	-0.21	2.66	102.38
	NORMAL	1,460.0	21.88	238.56	1,393.78	-210.26	-311.99	376.20	1.42	-1.40	0.57	171.40
	NORMAL	1,556.0	21.71	237.29	1,482.92	-229.19	-342.19	411.83	0.52	-0.18	-1.32	249.59
	NORMAL	1,650.0	22.28	240.03	1,570.08	-247.49	-372.26	447.01	1.25	0.61	2.91	62.23
	NORMAL	1,746.0	22.30	238.45	1,658.90	-266.11	-403.55	483.38	0.62	0.02	-1.65	271.18
	NORMAL	1,841.0	22.72	238.13	1,746.67	-285.23	-434.49	519.74	0.46	0.44	-0.34	343.59

## 2.1.2 Survey Stations (Continued)

Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (%/100ft)	Build Rate (%/100ft)	Turn (%/100ft)	TFace (°)
8/22/2012	NORMAL	1,937.0	21.69	235.87	1,835.55	-304.97	-464.92	556.01	1.39	-1.07	-2.35	218.62
	NORMAL	2,031.0	23.11	237.65	1,922.45	-324.59	-494.88	591.83	1.67	1.51	1.89	26.36
	NORMAL	2,125.0	23.65	238.13	2,008.73	-344.41	-526.48	629.12	0.61	0.57	0.51	19.65
	NORMAL	2,220.0	23.81	236.32	2,095.70	-365.11	-558.62	667.35	0.78	0.17	-1.91	281.56
	NORMAL	2,316.0	24.23	236.29	2,183.39	-386.79	-591.13	706.42	0.44	0.44	-0.03	358.32
	NORMAL	2,412.0	22.84	236.54	2,271.40	-407.99	-623.06	744.76	1.45	-1.45	0.26	176.01
	NORMAL	2,507.0	22.85	237.18	2,358.95	-428.16	-653.94	781.64	0.26	0.01	0.67	87.99
	NORMAL	2,603.0	23.20	237.56	2,447.30	-448.40	-685.57	819.19	0.40	0.36	0.40	23.18
	NORMAL	2,698.0	21.72	236.73	2,535.09	-468.08	-716.06	855.48	1.59	-1.56	-0.87	191.71
	NORMAL	2,794.0	21.91	235.56	2,624.22	-487.96	-745.68	891.15	0.49	0.20	-1.22	293.06
	NORMAL	2,889.0	21.96	234.83	2,712.34	-508.21	-774.82	926.62	0.29	0.05	-0.77	280.05
	NORMAL	2,984.0	22.82	236.98	2,800.18	-528.48	-804.79	962.80	1.25	0.91	2.26	44.60
8/23/2012	NORMAL	3,078.0	23.28	236.43	2,886.68	-548.69	-835.55	999.60	0.54	0.49	-0.59	334.66
	NORMAL	3,173.0	22.65	235.85	2,974.15	-569.34	-866.33	1,036.66	0.70	-0.66	-0.61	199.49
	NORMAL	3,267.0	23.12	238.72	3,060.75	-589.08	-897.08	1,073.21	1.29	0.50	3.05	68.49
	NORMAL	3,363.0	23.93	238.53	3,148.77	-609.03	-929.80	1,111.51	0.85	0.84	-0.20	354.56
	NORMAL	3,458.0	22.30	237.63	3,236.14	-628.74	-961.46	1,148.79	1.76	-1.72	-0.95	191.82
	NORMAL	3,554.0	22.29	237.37	3,324.96	-648.31	-992.17	1,185.20	0.10	-0.01	-0.27	264.09
	NORMAL	3,650.0	22.16	237.16	3,413.83	-667.95	-1,022.72	1,221.51	0.16	-0.14	-0.22	211.33
	NORMAL	3,745.0	22.78	236.35	3,501.62	-687.85	-1,053.08	1,257.82	0.73	0.65	-0.85	333.09
	NORMAL	3,840.0	21.57	238.61	3,589.59	-707.14	-1,083.30	1,293.67	1.56	-1.27	2.38	145.86
	NORMAL	3,935.0	19.89	238.76	3,678.44	-724.62	-1,112.02	1,327.27	1.77	-1.77	0.16	178.26
	NORMAL	4,030.0	18.51	237.03	3,768.15	-741.21	-1,138.49	1,358.51	1.57	-1.45	-1.82	201.59
	NORMAL	4,126.0	16.62	237.65	3,859.67	-756.85	-1,162.88	1,387.47	1.98	-1.97	0.65	174.64
	NORMAL	4,221.0	14.12	237.66	3,951.27	-770.32	-1,184.15	1,412.65	2.63	-2.63	0.01	179.94
	NORMAL	4,316.0	13.25	237.32	4,043.57	-782.40	-1,203.11	1,435.12	0.92	-0.92	-0.36	185.12
	NORMAL	4,412.0	11.78	238.60	4,137.29	-793.44	-1,220.73	1,455.92	1.56	-1.53	1.33	169.94
	NORMAL	4,507.0	10.60	239.46	4,230.48	-802.94	-1,236.53	1,474.34	1.25	-1.24	0.91	172.37
	NORMAL	4,602.0	9.23	235.84	4,324.06	-811.66	-1,250.36	1,490.69	1.58	-1.44	-3.81	202.69
	NORMAL	4,697.0	7.74	233.65	4,418.02	-819.73	-1,261.82	1,504.69	1.60	-1.57	-2.31	191.15
	NORMAL	4,792.0	7.47	232.50	4,512.18	-827.28	-1,271.87	1,517.24	0.33	-0.28	-1.21	208.84
	NORMAL	4,886.0	5.36	238.40	4,605.59	-833.30	-1,280.46	1,527.72	2.35	-2.24	6.28	165.57
8/24/2012	NORMAL	4,981.0	5.15	238.78	4,700.19	-837.83	-1,287.89	1,536.42	0.22	-0.22	0.40	170.78
	NORMAL	5,077.0	2.99	248.15	4,795.94	-841.00	-1,293.90	1,543.18	2.35	-2.25	9.76	167.52
	NORMAL	5,173.0	2.04	241.73	4,891.85	-842.74	-1,297.73	1,547.34	1.03	-0.99	-6.69	193.33
	NORMAL	5,269.0	1.66	236.68	4,987.80	-844.31	-1,300.39	1,550.43	0.43	-0.40	-5.26	200.71
	NORMAL	5,364.0	1.76	217.74	5,082.76	-846.22	-1,302.44	1,553.19	0.60	0.11	-19.94	270.48
8/25/2012	NORMAL	5,450.0	0.97	244.63	5,168.73	-847.58	-1,303.90	1,555.15	1.16	-0.92	31.27	153.88
	NORMAL	5,545.0	0.51	205.56	5,263.73	-848.30	-1,304.81	1,556.31	0.69	-0.48	-41.13	209.25
	NORMAL	5,640.0	0.77	215.88	5,358.72	-849.20	-1,305.37	1,557.27	0.30	0.27	10.86	29.13
	NORMAL	5,733.0	0.54	172.98	5,451.71	-850.14	-1,305.68	1,558.05	0.56	-0.25	-46.13	224.47
	NORMAL	5,828.0	0.56	172.15	5,546.71	-851.05	-1,305.56	1,558.45	0.02	0.02	-0.87	337.86
	NORMAL	5,923.0	0.80	179.51	5,641.70	-852.17	-1,305.49	1,559.00	0.27	0.25	7.75	23.70
	NORMAL	6,018.0	1.14	287.84	5,736.69	-852.54	-1,306.39	1,559.96	1.67	0.36	114.03	136.95
	NORMAL	6,114.0	0.87	300.96	5,832.68	-851.88	-1,307.92	1,560.87	0.37	-0.28	13.67	145.99
	NORMAL	6,209.0	1.25	296.94	5,927.66	-851.04	-1,309.46	1,561.70	0.41	0.40	-4.23	346.91
	NORMAL	6,305.0	0.24	331.39	6,023.65	-850.39	-1,310.49	1,562.21	1.11	-1.05	35.89	172.65
	NORMAL	6,398.0	0.52	359.64	6,116.65	-849.79	-1,310.59	1,561.96	0.35	0.30	30.38	48.46
	NORMAL	6,493.0	0.08	113.99	6,211.65	-849.39	-1,310.53	1,561.69	0.59	-0.46	120.37	172.49
	NORMAL	6,588.0	0.09	349.93	6,306.65	-849.34	-1,310.48	1,561.63	0.16	0.01	-130.59	209.76
	NORMAL	6,684.0	0.26	21.74	6,402.65	-849.07	-1,310.42	1,561.42	0.20	0.18	33.14	46.30
	NORMAL	6,779.0	0.26	12.60	6,497.65	-848.66	-1,310.29	1,561.09	0.04	0.00	-9.62	265.43
8/26/2012	NORMAL	6,873.0	0.43	33.39	6,591.65	-848.15	-1,310.05	1,560.61	0.22	0.18	22.12	47.06
	NORMAL	6,969.0	0.09	108.49	6,687.65	-847.88	-1,309.78	1,560.23	0.43	-0.35	78.23	167.93
	NORMAL	7,064.0	0.44	39.58	6,782.65	-847.62	-1,309.48	1,559.84	0.44	0.37	-72.54	279.45
	NORMAL	7,160.0	0.26	17.39	6,878.64	-847.13	-1,309.18	1,559.32	0.23	-0.19	-23.11	206.23
	NORMAL	7,255.0	0.79	19.19	6,973.64	-846.30	-1,308.90	1,558.63	0.56	0.56	1.89	2.68

## 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 (°)
8/26/2012	NORMAL	7,351.0	0.58	339.16	7,069.63	-845.22	-1,308.85	1,558.00	0.53	-0.22	-41.70	227.16
	NORMAL	7,446.0	0.10	83.74	7,164.63	-844.76	-1,308.94	1,557.82	0.65	-0.51	110.08	170.91
	NORMAL	7,540.0	0.12	198.03	7,258.63	-844.85	-1,308.89	1,557.83	0.20	0.02	121.59	143.78
	NORMAL	7,636.0	0.67	166.60	7,354.63	-845.49	-1,308.79	1,558.10	0.59	0.57	-32.74	322.28
	NORMAL	7,731.0	0.53	193.65	7,449.62	-846.46	-1,308.76	1,558.61	0.33	-0.15	28.47	129.40
	NORMAL	7,821.0	0.62	186.01	7,539.62	-847.35	-1,308.91	1,559.22	0.13	0.10	-8.49	315.71
	NORMAL	7,878.0	0.62	186.01	7,596.62	-847.96	-1,308.98	1,559.61	0.00	0.00	0.00	0.00