

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well Information

Well	PA 333-2	Wellbore No.	
Well Name	PA 333-2	Common Name	PA 333-2
Project	PA 01-07S-095W	Site	GV 84-1 Pad
Vertical Section Azimuth	262.19 (°)	North Reference	
Origin N/S		Origin E/W	
Spud Date	3/31/2013	UWI	PA 333-2
Active Datum	KB @6,053.0ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	
Date Started	3/31/2013	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 (°/100ft)	Build Rate (°/100ft)	Turn (°/100ft)	TFace (°)
3/31/2013	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3/31/2013	NORMAL	178.0	3.08	267.27	177.91	-0.23	-4.78	4.76	1.73	1.73	0.00	267.27
	NORMAL	209.0	3.43	268.41	208.86	-0.29	-6.54	6.52	1.15	1.13	3.68	11.05
	NORMAL	238.0	3.78	271.14	237.81	-0.30	-8.36	8.32	1.34	1.21	9.41	27.49
	NORMAL	269.0	4.26	274.56	268.73	-0.19	-10.53	10.46	1.73	1.55	11.03	28.25
	NORMAL	299.0	4.53	267.71	298.64	-0.15	-12.82	12.72	1.97	0.90	-22.83	293.78
	NORMAL	329.0	4.92	272.01	328.54	-0.15	-15.29	15.17	1.76	1.30	14.33	44.40
	NORMAL	357.0	5.76	288.41	356.42	0.34	-17.83	17.61	6.19	3.00	58.57	69.50
	NORMAL	387.0	6.42	266.48	386.25	0.71	-20.93	20.64	8.01	2.20	-73.10	274.75
	NORMAL	417.0	6.77	262.26	416.06	0.37	-24.36	24.08	1.99	1.17	-14.07	303.73
	NORMAL	448.0	7.65	265.25	446.81	-0.05	-28.22	27.97	3.09	2.84	9.65	24.58
	NORMAL	478.0	8.84	263.75	476.50	-0.46	-32.50	32.27	4.03	3.97	-5.00	349.01
	NORMAL	508.0	9.54	263.40	506.12	-1.00	-37.26	37.06	2.34	2.33	-1.17	355.26
	NORMAL	538.0	10.42	262.17	535.66	-1.66	-42.42	42.25	3.02	2.93	-4.10	345.78
	NORMAL	568.0	11.30	262.61	565.12	-2.40	-48.02	47.91	2.95	2.93	1.47	5.60
	NORMAL	598.0	11.87	264.25	594.51	-3.09	-54.01	53.93	2.19	1.90	5.47	30.82
	NORMAL	690.0	14.86	265.42	684.01	-4.98	-75.19	75.17	3.26	3.25	1.27	5.74
	NORMAL	780.0	18.11	266.30	770.30	-6.81	-100.66	100.65	3.62	3.61	0.98	4.82
	NORMAL	871.0	20.57	264.89	856.16	-9.14	-130.70	130.73	2.75	2.70	-1.55	348.59
	NORMAL	962.0	22.81	264.63	940.71	-12.22	-164.19	164.33	2.46	2.46	-0.29	357.42
	NORMAL	1,057.0	25.41	264.37	1,027.42	-15.94	-202.81	203.10	2.74	2.74	-0.27	357.54

2.1.2 Survey Stations (Continued)

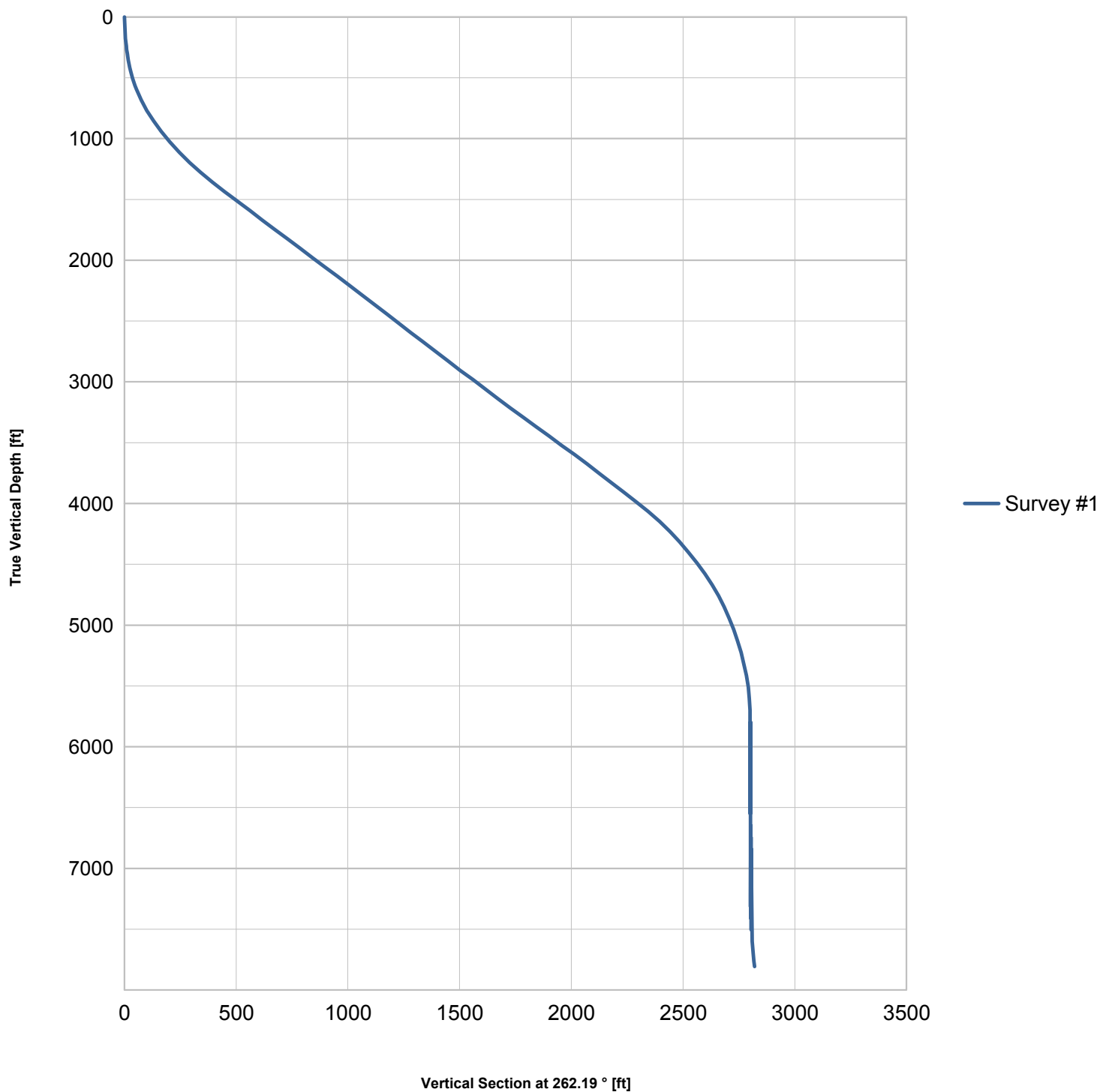
Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (°/100ft)	Build Rate (°/100ft)	Turn (°/100ft)	TFace (°)
4/2/2013	NORMAL	1,153.0	27.65	263.23	1,113.30	-20.59	-245.43	245.96	2.39	2.33	-1.19	346.68
	NORMAL	1,249.0	30.33	266.48	1,197.27	-24.70	-291.76	292.41	3.24	2.79	3.39	31.88
	NORMAL	1,345.0	32.18	265.33	1,279.34	-28.27	-341.44	342.11	2.02	1.93	-1.20	341.63
	NORMAL	1,439.0	33.89	264.28	1,358.14	-32.92	-392.47	393.30	1.92	1.82	-1.12	341.05
	NORMAL	1,534.0	36.18	262.43	1,435.92	-39.26	-446.62	447.82	2.66	2.41	-1.95	334.36
	NORMAL	1,605.0	35.60	260.32	1,493.44	-45.49	-487.77	489.43	1.92	-0.82	-2.97	244.03
	NORMAL	1,664.0	36.40	260.15	1,541.17	-51.38	-521.95	524.09	1.37	1.36	-0.29	352.81
	NORMAL	1,727.0	35.78	259.62	1,592.08	-57.89	-558.48	561.17	1.10	-0.98	-0.84	206.51
	NORMAL	1,823.0	35.30	262.96	1,670.21	-66.35	-613.62	616.94	2.08	-0.50	3.48	105.24
	NORMAL	1,918.0	36.22	261.20	1,747.30	-74.01	-668.60	672.46	1.45	0.97	-1.85	311.10
	NORMAL	2,013.0	36.62	260.76	1,823.74	-82.85	-724.30	728.84	0.50	0.42	-0.46	326.68
	NORMAL	2,108.0	35.56	262.79	1,900.51	-90.87	-779.68	784.80	1.68	-1.12	2.14	132.37
	NORMAL	2,204.0	36.18	261.73	1,978.31	-98.45	-835.42	841.04	0.91	0.65	-1.10	314.52
	NORMAL	2,299.0	36.18	261.29	2,054.99	-106.73	-890.88	897.12	0.27	0.00	-0.46	269.82
	NORMAL	2,394.0	36.22	261.91	2,131.65	-114.92	-946.39	953.22	0.39	0.04	0.65	84.02
	NORMAL	2,489.0	35.30	260.50	2,208.74	-123.40	-1,001.25	1,008.73	1.30	-0.97	-1.48	221.28
4/3/2013	NORMAL	2,585.0	35.21	260.85	2,287.13	-132.38	-1,055.93	1,064.12	0.23	-0.09	0.36	114.16
	NORMAL	2,680.0	35.21	261.64	2,364.75	-140.72	-1,110.06	1,118.89	0.48	0.00	0.83	90.32
	NORMAL	2,774.0	35.25	261.03	2,441.54	-148.89	-1,163.67	1,173.11	0.38	0.04	-0.65	276.24
	NORMAL	2,868.0	35.30	260.76	2,518.28	-157.48	-1,217.27	1,227.38	0.17	0.05	-0.29	287.67
	NORMAL	2,963.0	35.47	262.43	2,595.73	-165.52	-1,271.69	1,282.38	1.03	0.18	1.76	80.71
	NORMAL	3,058.0	35.69	261.73	2,672.99	-173.14	-1,326.43	1,337.66	0.49	0.23	-0.74	298.09
	NORMAL	3,154.0	35.47	261.56	2,751.07	-181.25	-1,381.70	1,393.51	0.25	-0.23	-0.18	204.14
	NORMAL	3,249.0	34.95	262.00	2,828.69	-189.08	-1,435.91	1,448.28	0.61	-0.55	0.46	154.17
	NORMAL	3,344.0	36.26	263.14	2,905.93	-196.23	-1,490.75	1,503.59	1.55	1.38	1.20	27.33
	NORMAL	3,439.0	36.31	263.23	2,982.51	-202.90	-1,546.57	1,559.80	0.08	0.05	0.09	46.85
	NORMAL	3,535.0	35.60	261.82	3,060.22	-210.23	-1,602.46	1,616.16	1.14	-0.74	-1.47	228.81
	NORMAL	3,631.0	35.12	261.38	3,138.51	-218.34	-1,657.42	1,671.71	0.57	-0.50	-0.46	207.77
	NORMAL	3,726.0	37.23	261.73	3,215.19	-226.57	-1,712.88	1,727.78	2.23	2.22	0.37	5.73
	NORMAL	3,822.0	36.88	261.20	3,291.80	-235.15	-1,770.09	1,785.62	0.49	-0.36	-0.55	222.17
	NORMAL	3,917.0	36.48	261.12	3,367.99	-243.87	-1,826.16	1,842.36	0.42	-0.42	-0.08	186.78
	NORMAL	4,012.0	36.31	260.24	3,444.46	-253.00	-1,881.79	1,898.71	0.58	-0.18	-0.93	251.61
4/4/2013	NORMAL	4,108.0	37.23	263.40	3,521.37	-261.16	-1,938.65	1,956.16	2.19	0.96	3.29	65.34
	NORMAL	4,203.0	37.10	263.49	3,597.07	-267.71	-1,995.67	2,013.53	0.15	-0.14	0.09	157.34
	NORMAL	4,299.0	35.25	261.20	3,674.57	-275.23	-2,051.82	2,070.19	2.39	-1.93	-2.39	215.23
	NORMAL	4,394.0	35.21	261.38	3,752.17	-283.53	-2,105.99	2,124.98	0.12	-0.04	0.19	111.14
	NORMAL	4,490.0	35.25	260.85	3,830.59	-292.09	-2,160.70	2,180.35	0.32	0.04	-0.55	277.24
	NORMAL	4,585.0	35.25	263.14	3,908.17	-299.72	-2,214.99	2,235.17	1.39	0.00	2.41	90.94
	NORMAL	4,681.0	34.95	262.96	3,986.71	-306.40	-2,269.78	2,290.36	0.33	-0.31	-0.19	198.96
	NORMAL	4,776.0	33.67	264.45	4,065.18	-312.28	-2,323.00	2,343.89	1.61	-1.35	1.57	147.34
	NORMAL	4,872.0	30.46	261.56	4,146.53	-318.43	-2,373.58	2,394.83	3.71	-3.34	-3.01	204.33
	NORMAL	4,967.0	27.82	266.21	4,229.51	-323.43	-2,419.53	2,441.03	3.66	-2.78	4.89	141.39
	NORMAL	5,063.0	25.54	265.25	4,315.28	-326.62	-2,462.51	2,484.05	2.42	-2.38	-1.00	190.28
	NORMAL	5,158.0	24.04	265.16	4,401.53	-329.95	-2,502.20	2,523.83	1.58	-1.58	-0.09	181.40
	NORMAL	5,254.0	23.12	261.64	4,489.52	-334.47	-2,540.32	2,562.20	1.89	-0.96	-4.08	237.81
	NORMAL	5,350.0	20.44	257.95	4,578.66	-340.84	-2,575.35	2,597.77	3.07	-2.79	-3.43	202.97
	NORMAL	5,445.0	18.95	258.30	4,668.10	-347.44	-2,606.68	2,629.71	1.57	-1.57	0.37	175.64
	NORMAL	5,540.0	16.97	260.41	4,758.47	-352.87	-2,635.45	2,658.96	2.19	-2.08	2.22	162.81
4/5/2013	NORMAL	5,635.0	13.75	259.80	4,850.06	-357.18	-2,660.24	2,684.10	3.39	-3.39	-0.64	182.58
	NORMAL	5,731.0	12.92	259.01	4,943.47	-361.25	-2,682.01	2,706.22	0.89	-0.86	-0.82	192.00
	NORMAL	5,827.0	11.56	257.51	5,037.29	-365.38	-2,701.93	2,726.52	1.45	-1.42	-1.56	192.43
	NORMAL	5,922.0	10.11	263.31	5,130.59	-368.41	-2,719.51	2,744.35	1.91	-1.53	6.11	145.88
	NORMAL	6,018.0	8.09	260.06	5,225.38	-370.56	-2,734.53	2,759.52	2.17	-2.10	-3.39	192.68
	NORMAL	6,113.0	7.25	260.24	5,319.53	-372.73	-2,747.03	2,772.19	0.88	-0.88	0.19	178.45
	NORMAL	6,208.0	6.02	260.32	5,413.89	-374.58	-2,757.85	2,783.16	1.29	-1.29	0.08	179.61
	NORMAL	6,304.0	4.31	271.66	5,509.50	-375.32	-2,766.41	2,791.76	2.07	-1.78	11.81	154.73
	NORMAL	6,399.0	2.11	252.68	5,604.35	-375.74	-2,771.65	2,797.00	2.54	-2.32	-19.98	196.52

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 (°)
4/5/2013	NORMAL	6,494.0	0.97	258.30	5,699.31	-376.42	-2,774.11	2,799.53	1.21	-1.20	5.92	175.26
	NORMAL	6,589.0	1.19	273.86	5,794.30	-376.52	-2,775.88	2,801.30	0.38	0.23	16.38	61.07
	NORMAL	6,684.0	1.19	6.06	5,889.28	-375.47	-2,776.76	2,802.03	1.81	0.00	97.05	136.09
4/6/2013	NORMAL	6,775.0	0.97	19.42	5,980.27	-373.81	-2,776.41	2,801.45	0.37	-0.24	14.68	137.69
	NORMAL	6,871.0	0.70	11.77	6,076.26	-372.47	-2,776.02	2,800.88	0.30	-0.28	-7.97	198.64
	NORMAL	6,966.0	0.44	340.39	6,171.25	-371.55	-2,776.02	2,800.76	0.42	-0.27	-33.03	215.24
4/7/2013	NORMAL	7,061.0	1.50	9.57	6,266.24	-369.98	-2,775.94	2,800.46	1.20	1.12	30.72	40.06
	NORMAL	7,156.0	1.41	4.74	6,361.21	-367.59	-2,775.63	2,799.84	0.16	-0.09	-5.08	231.33
	NORMAL	7,252.0	1.19	334.50	6,457.18	-365.52	-2,775.96	2,799.88	0.74	-0.23	-31.50	237.49
	NORMAL	7,347.0	0.88	247.05	6,552.17	-364.91	-2,777.06	2,800.89	1.52	-0.33	-92.05	217.38
	NORMAL	7,443.0	1.50	235.54	6,648.15	-365.91	-2,778.78	2,802.72	0.69	0.65	-11.99	333.10
	NORMAL	7,538.0	0.70	217.26	6,743.13	-367.07	-2,780.15	2,804.24	0.91	-0.84	-19.24	194.73
	NORMAL	7,634.0	0.83	273.42	6,839.13	-367.50	-2,781.20	2,805.34	0.76	0.14	58.50	109.03
	NORMAL	7,730.0	0.97	146.24	6,935.12	-368.13	-2,781.44	2,805.67	1.68	0.15	-132.48	208.62
	NORMAL	7,825.0	1.45	129.37	7,030.10	-369.56	-2,780.07	2,804.50	0.62	0.51	-17.76	314.79
	NORMAL	7,920.0	1.41	137.89	7,125.07	-371.19	-2,778.35	2,803.02	0.23	-0.04	8.97	104.89
	NORMAL	8,015.0	1.32	160.75	7,220.04	-373.09	-2,777.21	2,802.15	0.58	-0.09	24.06	110.69
	NORMAL	8,110.0	1.63	179.29	7,315.01	-375.48	-2,776.83	2,802.10	0.59	0.33	19.52	66.49
4/8/2013	NORMAL	8,205.0	2.46	195.11	7,409.95	-378.80	-2,777.35	2,803.06	1.05	0.87	16.65	42.30
	NORMAL	8,300.0	3.17	207.85	7,504.84	-383.09	-2,779.11	2,805.38	0.99	0.75	13.41	47.87
	NORMAL	8,395.0	3.82	211.46	7,599.66	-388.11	-2,781.98	2,808.92	0.72	0.68	3.80	20.51
	NORMAL	8,490.0	4.44	215.95	7,694.41	-393.79	-2,785.80	2,813.47	0.74	0.65	4.73	29.80
	NORMAL	8,558.0	4.70	214.53	7,762.20	-398.21	-2,788.92	2,817.16	0.42	0.38	-2.09	335.77
	NORMAL	8,603.0	4.70	214.63	7,807.05	-401.25	-2,791.01	2,819.65	0.02	0.00	0.22	90.05

3 Charts

3.1 Vertical Section View



3.2 Plan View

