

## 1 General

### 1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

### 1.2 Well Information

Well	PA 43-2	Wellbore No.	
Well Name	PA 43-2	Common Name	PA 43-2
Project	PA 01-07S-095W	Site	GV 84-1 Pad
Vertical Section Azimuth	266.88 (°)	North Reference	
Origin N/S		Origin E/W	
Spud Date	4/18/2013	UWI	PA 43-2
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	4/18/2013	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 (°)
4/18/2013	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4/18/2013	NORMAL	103.0	0.09	23.38	103.00	0.07	0.03	-0.04	0.09	0.09	0.00	23.38
	NORMAL	134.0	0.44	200.83	134.00	-0.01	0.00	0.00	1.71	1.13	572.42	177.88
	NORMAL	165.0	1.41	229.04	165.00	-0.38	-0.33	0.35	3.37	3.13	91.00	39.71
	NORMAL	195.0	1.67	251.02	194.98	-0.76	-1.02	1.06	2.13	0.87	73.27	77.49
	NORMAL	225.0	2.02	268.24	224.97	-0.92	-1.96	2.01	2.17	1.17	57.40	66.54
	NORMAL	255.0	2.90	266.04	254.94	-0.99	-3.25	3.30	2.95	2.93	-7.33	352.78
	NORMAL	286.0	3.78	270.79	285.89	-1.03	-5.05	5.10	2.97	2.84	15.32	19.84
	NORMAL	316.0	4.57	270.97	315.81	-0.99	-7.24	7.28	2.63	2.63	0.60	1.04
	NORMAL	346.0	5.01	271.58	345.70	-0.94	-9.74	9.78	1.48	1.47	2.03	6.91
	NORMAL	373.0	5.28	271.67	372.60	-0.87	-12.16	12.19	1.00	1.00	0.33	1.76
	NORMAL	404.0	5.98	263.14	403.45	-1.02	-15.19	15.23	3.51	2.26	-27.52	305.62
4/19/2013	NORMAL	434.0	6.33	267.89	433.27	-1.27	-18.40	18.44	2.06	1.17	15.83	57.88
	NORMAL	464.0	7.13	266.31	463.07	-1.45	-21.91	21.95	2.74	2.67	-5.27	346.18
	NORMAL	494.0	7.57	268.42	492.82	-1.62	-25.74	25.79	1.72	1.47	7.03	32.58
	NORMAL	525.0	7.83	266.92	523.54	-1.79	-29.89	29.94	1.06	0.84	-4.84	321.55
	NORMAL	555.0	8.45	266.84	553.24	-2.02	-34.13	34.19	2.07	2.07	-0.27	358.91
	NORMAL	585.0	8.53	266.40	582.91	-2.28	-38.55	38.62	0.34	0.27	-1.47	320.71
	NORMAL	615.0	9.50	266.92	612.54	-2.56	-43.25	43.32	3.24	3.23	1.73	5.06
	NORMAL	646.0	9.77	268.68	643.10	-2.76	-48.43	48.51	1.29	0.87	5.68	48.36
	NORMAL	676.0	10.56	267.98	672.63	-2.91	-53.72	53.80	2.67	2.63	-2.33	350.77

## 2.1.2 Survey Stations (Continued)

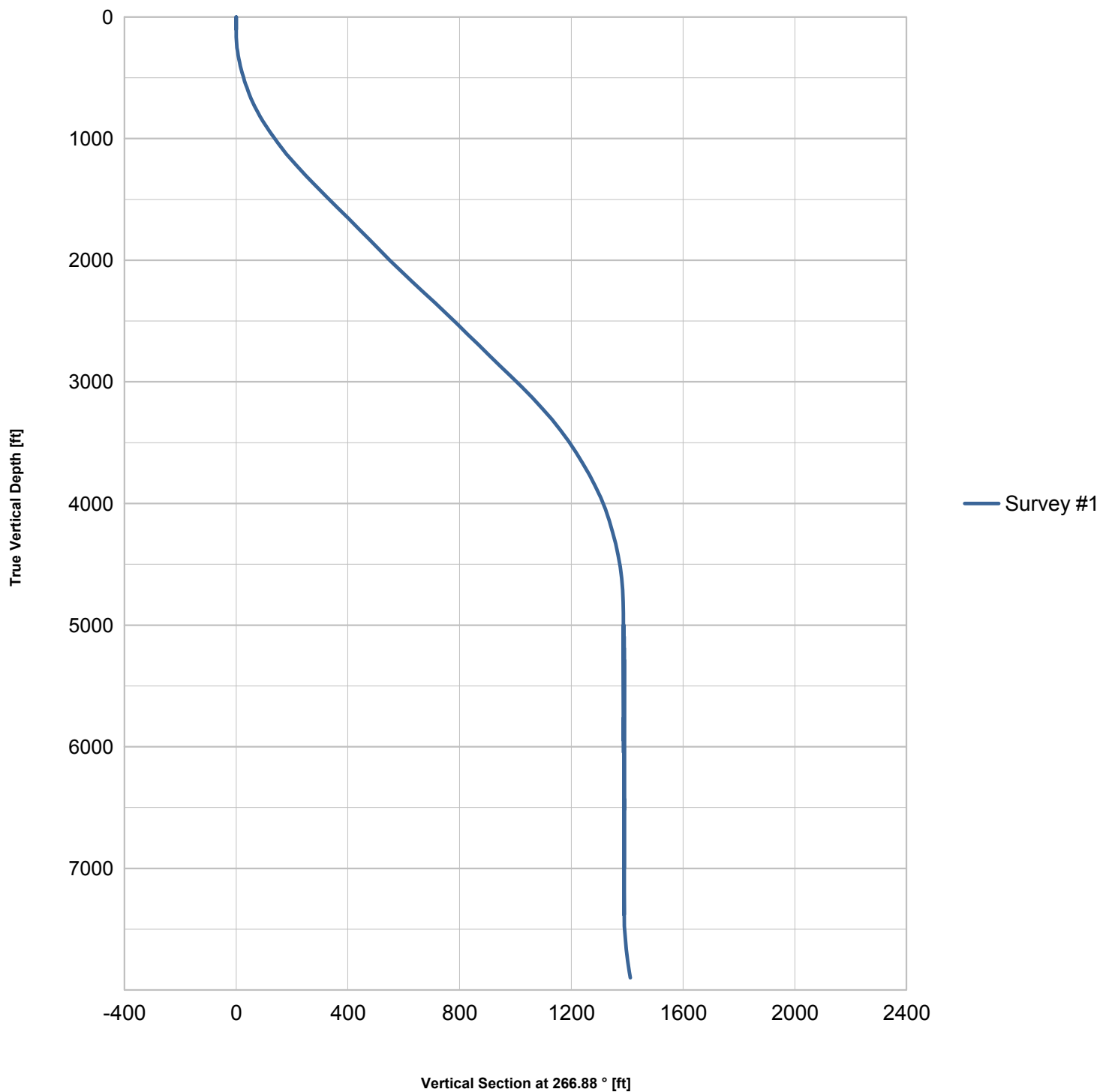
Date	Type	MD (ft)	Inc (°)	Azi (°)	TVD (ft)	N/S (ft)	E/W (ft)	V. Sec (ft)	DLS (°/100ft)	Build Rate (°/100ft)	Turn (°/100ft)	TFace (°)
4/19/2013	NORMAL	707.0	11.52	267.98	703.06	-3.12	-59.65	59.74	3.10	3.10	0.00	0.00
	NORMAL	736.0	11.96	267.19	731.45	-3.37	-65.55	65.64	1.62	1.52	-2.72	339.54
	NORMAL	767.0	12.84	265.43	761.73	-3.80	-72.19	72.29	3.09	2.84	-5.68	335.90
	NORMAL	797.0	13.28	266.48	790.95	-4.28	-78.95	79.07	1.67	1.47	3.50	28.85
	NORMAL	827.0	13.99	264.73	820.10	-4.82	-86.00	86.14	2.74	2.37	-5.83	328.99
	NORMAL	868.0	14.86	266.73	859.81	-5.58	-96.19	96.35	2.44	2.12	4.88	30.77
	NORMAL	959.0	17.06	266.38	947.30	-7.09	-121.16	121.37	2.42	2.42	-0.38	357.33
	NORMAL	1,053.0	18.11	265.59	1,036.90	-9.08	-149.49	149.76	1.15	1.12	-0.84	346.82
	NORMAL	1,148.0	19.35	265.68	1,126.87	-11.40	-179.91	180.26	1.31	1.31	0.09	1.38
	NORMAL	1,244.0	21.72	266.82	1,216.77	-13.59	-213.51	213.93	2.50	2.47	1.19	10.11
	NORMAL	1,338.0	22.95	266.29	1,303.71	-15.74	-249.16	249.65	1.33	1.31	-0.56	350.46
	NORMAL	1,408.0	23.04	268.84	1,368.15	-16.90	-276.48	276.99	1.43	0.13	3.64	86.01
4/20/2013	NORMAL	1,530.0	23.16	269.37	1,480.37	-17.64	-324.34	324.82	0.20	0.10	0.43	60.25
	NORMAL	1,625.0	24.18	267.70	1,567.38	-18.63	-362.46	362.94	1.28	1.07	-1.76	325.92
	NORMAL	1,720.0	23.60	267.08	1,654.24	-20.38	-400.89	401.41	0.67	-0.61	-0.65	203.13
	NORMAL	1,816.0	22.86	265.94	1,742.46	-22.68	-438.69	439.27	0.90	-0.77	-1.19	210.76
	NORMAL	1,911.0	23.52	266.29	1,829.78	-25.21	-476.01	476.68	0.71	0.69	0.37	11.96
	NORMAL	2,005.0	22.81	264.09	1,916.20	-28.30	-512.85	513.63	1.19	-0.76	-2.34	229.63
	NORMAL	2,101.0	24.04	265.06	2,004.29	-31.90	-550.84	551.76	1.34	1.28	1.01	17.85
	NORMAL	2,196.0	24.66	265.32	2,090.84	-35.19	-589.87	590.91	0.66	0.65	0.27	9.93
	NORMAL	2,291.0	25.06	266.91	2,177.03	-37.89	-629.72	630.85	0.82	0.42	1.67	59.83
	NORMAL	2,386.0	25.41	268.49	2,262.97	-39.51	-670.18	671.34	0.80	0.37	1.66	63.26
4/21/2013	NORMAL	2,482.0	25.23	269.02	2,349.75	-40.40	-711.23	712.37	0.30	-0.19	0.55	128.69
	NORMAL	2,577.0	24.35	267.70	2,435.99	-41.53	-751.04	752.19	1.09	-0.93	-1.39	211.57
	NORMAL	2,673.0	23.56	267.08	2,523.72	-43.31	-789.98	791.17	0.86	-0.82	-0.65	197.39
	NORMAL	2,767.0	24.26	267.96	2,609.66	-44.95	-828.04	829.26	0.84	0.74	0.94	27.40
	NORMAL	2,860.0	24.13	266.64	2,694.49	-46.74	-866.11	867.37	0.60	-0.14	-1.42	255.89
	NORMAL	2,956.0	23.65	266.03	2,782.26	-49.23	-904.91	906.25	0.56	-0.50	-0.64	206.95
	NORMAL	3,051.0	24.61	266.64	2,868.96	-51.71	-943.67	945.08	1.04	1.01	0.64	14.84
	NORMAL	3,146.0	24.22	266.55	2,955.46	-54.04	-982.87	984.35	0.41	-0.41	-0.09	185.41
	NORMAL	3,241.0	23.69	267.87	3,042.28	-55.92	-1,021.39	1,022.92	0.79	-0.56	1.39	135.28
	NORMAL	3,337.0	22.64	267.35	3,130.54	-57.49	-1,059.12	1,060.68	1.11	-1.09	-0.54	190.79
	NORMAL	3,432.0	21.63	267.87	3,218.54	-58.99	-1,094.88	1,096.47	1.08	-1.06	0.55	169.26
	NORMAL	3,528.0	19.82	269.10	3,308.32	-59.90	-1,128.84	1,130.43	1.94	-1.89	1.28	167.05
	NORMAL	3,623.0	18.55	266.55	3,398.05	-61.06	-1,160.03	1,161.63	1.60	-1.34	-2.68	212.22
	NORMAL	3,718.0	16.53	266.47	3,488.63	-62.80	-1,188.61	1,190.26	2.13	-2.13	-0.08	180.65
	NORMAL	3,814.0	15.60	267.78	3,580.88	-64.15	-1,215.14	1,216.83	1.04	-0.97	1.36	159.33
	NORMAL	3,909.0	14.68	268.75	3,672.58	-64.90	-1,239.94	1,241.63	1.00	-0.97	1.02	165.07
	NORMAL	4,005.0	13.54	267.08	3,765.68	-65.74	-1,263.32	1,265.03	1.26	-1.19	-1.74	198.84
	NORMAL	4,100.0	12.35	269.89	3,858.26	-66.33	-1,284.59	1,286.29	1.42	-1.25	2.96	153.49
	NORMAL	4,196.0	10.81	269.89	3,952.31	-66.36	-1,303.86	1,305.54	1.60	-1.60	0.00	180.00
	NORMAL	4,291.0	9.01	265.68	4,045.89	-66.94	-1,320.19	1,321.87	2.04	-1.89	-4.43	199.86
	NORMAL	4,386.0	7.78	266.20	4,139.87	-67.93	-1,334.02	1,335.74	1.30	-1.29	0.55	176.73
	NORMAL	4,482.0	6.72	271.57	4,235.10	-68.20	-1,346.12	1,347.84	1.31	-1.10	5.59	150.05
	NORMAL	4,578.0	6.15	275.69	4,330.50	-67.54	-1,356.85	1,358.52	0.76	-0.59	4.29	143.02
4/22/2013	NORMAL	4,673.0	5.23	271.74	4,425.03	-66.90	-1,366.24	1,367.86	1.05	-0.97	-4.16	201.10
	NORMAL	4,769.0	3.78	276.93	4,520.73	-66.39	-1,373.76	1,375.33	1.57	-1.51	5.41	166.87
	NORMAL	4,864.0	2.68	274.38	4,615.58	-65.84	-1,379.08	1,380.62	1.17	-1.16	-2.68	186.17
	NORMAL	4,959.0	1.67	242.30	4,710.51	-66.32	-1,382.52	1,384.08	1.63	-1.06	-33.77	215.04
	NORMAL	5,056.0	0.79	202.40	4,807.49	-67.59	-1,384.03	1,385.65	1.21	-0.91	-41.13	205.47
	NORMAL	5,151.0	1.32	209.51	4,902.47	-69.15	-1,384.82	1,386.53	0.57	0.56	7.48	17.45
	NORMAL	5,246.0	0.75	322.01	4,997.46	-69.61	-1,385.74	1,387.47	1.84	-0.60	118.42	156.67
	NORMAL	5,342.0	1.14	309.26	5,093.45	-68.51	-1,386.86	1,388.54	0.46	0.41	-13.28	325.19
	NORMAL	5,437.0	0.04	307.34	5,188.44	-67.89	-1,387.62	1,389.26	1.16	-1.16	-2.02	180.07
	NORMAL	5,533.0	0.44	39.18	5,284.44	-67.59	-1,387.42	1,389.04	0.46	0.42	95.67	97.02
	NORMAL	5,628.0	0.44	46.13	5,379.44	-67.05	-1,386.92	1,388.52	0.06	0.00	7.32	93.47
	NORMAL	5,724.0	0.22	58.17	5,475.44	-66.70	-1,386.50	1,388.07	0.24	-0.23	12.54	168.46

## 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 (°)
4/22/2013	NORMAL	5,819.0	0.35	241.15	5,570.44	-66.74	-1,386.60	1,388.18	0.60	0.14	-186.34	181.83
4/23/2013	NORMAL	5,915.0	1.14	22.22	5,666.43	-66.00	-1,386.49	1,388.03	1.49	0.82	146.95	149.92
	NORMAL	6,010.0	0.83	31.45	5,761.42	-64.54	-1,385.78	1,387.24	0.37	-0.33	9.72	157.46
	NORMAL	6,104.0	0.09	40.32	5,855.41	-63.90	-1,385.38	1,386.80	0.79	-0.79	9.44	178.93
	NORMAL	6,199.0	0.22	229.47	5,950.41	-63.96	-1,385.47	1,386.89	0.33	0.14	-179.84	186.50
4/24/2013	NORMAL	6,295.0	0.44	220.50	6,046.41	-64.36	-1,385.85	1,387.29	0.23	0.23	-9.34	342.27
	NORMAL	6,390.0	0.48	207.58	6,141.41	-64.99	-1,386.27	1,387.75	0.12	0.04	-13.60	284.55
	NORMAL	6,485.0	0.35	218.92	6,236.41	-65.57	-1,386.63	1,388.15	0.16	-0.14	11.94	153.30
	NORMAL	6,580.0	0.40	252.05	6,331.40	-65.90	-1,387.13	1,388.66	0.23	0.05	34.87	93.93
	NORMAL	6,675.0	0.22	69.15	6,426.40	-65.94	-1,387.28	1,388.81	0.65	-0.19	186.42	178.97
	NORMAL	6,770.0	0.48	196.42	6,521.40	-66.25	-1,387.22	1,388.77	0.67	0.27	133.97	143.20
	NORMAL	6,865.0	0.61	167.24	6,616.40	-67.13	-1,387.22	1,388.82	0.32	0.14	-30.72	280.03
	NORMAL	6,960.0	0.57	126.63	6,711.39	-67.90	-1,386.73	1,388.37	0.43	-0.04	-42.75	244.46
	NORMAL	7,056.0	0.18	73.19	6,807.39	-68.15	-1,386.20	1,387.85	0.51	-0.41	-55.67	197.35
	NORMAL	7,151.0	0.66	271.65	6,902.39	-68.09	-1,386.60	1,388.25	0.88	0.51	-170.04	194.54
	NORMAL	7,246.0	0.22	245.46	6,997.39	-68.15	-1,387.32	1,388.97	0.50	-0.46	-27.57	191.85
	NORMAL	7,342.0	0.40	190.53	7,093.39	-68.55	-1,387.55	1,389.22	0.34	0.19	-57.22	271.72
	NORMAL	7,437.0	1.05	176.64	7,188.38	-69.75	-1,387.56	1,389.29	0.70	0.68	-14.62	337.85
	NORMAL	7,533.0	0.92	160.56	7,284.36	-71.35	-1,387.25	1,389.07	0.32	-0.14	-16.75	236.92
4/25/2013	NORMAL	7,628.0	1.58	186.13	7,379.34	-73.37	-1,387.13	1,389.07	0.89	0.69	26.92	53.46
	NORMAL	7,724.0	2.50	203.10	7,475.28	-76.62	-1,388.10	1,390.21	1.14	0.96	17.68	41.96
	NORMAL	7,820.0	3.65	212.33	7,571.14	-81.12	-1,390.55	1,392.91	1.30	1.20	9.61	27.95
	NORMAL	7,915.0	3.69	225.33	7,665.95	-85.83	-1,394.34	1,396.95	0.88	0.04	13.68	93.75
	NORMAL	8,010.0	4.44	226.57	7,760.71	-90.51	-1,399.19	1,402.04	0.79	0.79	1.31	7.30
	NORMAL	8,104.0	5.45	226.39	7,854.36	-96.09	-1,405.06	1,408.21	1.07	1.07	-0.19	359.03
	NORMAL	8,149.0	5.45	226.39	7,899.15	-99.03	-1,408.16	1,411.46	0.00	0.00	0.00	0.00

### 3 Charts

#### 3.1 Vertical Section View



### 3.2 Plan View

