

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well/Wellbore Information

Well	PA 313-6	Wellbore No.	00
Wellbore Legal Name	PA 313-6	Common Wellbore Name	PA 313-6
Project	PA 06-07S-095W	Site	PA 14-6 Pad
Vertical Section Azimuth	343.70 (°)	North reference	True
Origin N/S		Origin EW	
Spud date	5/12/2014	UWI	PA 313-6
Active datum	KB @5,179.0ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	
Date Started	5/12/2014	Ended	
Tool Name	MWD	Engineer	

2.1.1 Tie On Point

MD (ft)	Inc. (°)	Azi. (°)	TVD (ft)	N/S (ft)	EW (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)	EW (ft)	V. sec. (ft)	DLS (°/100usft)	Build Rate (°/100usft)	Turn (°/100usft)	Tface (°)
5/12/2014	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5/12/2014	NORMAL	74.0	0.26	310.52	74.00	0.11	-0.13	0.14	0.35	0.35	0.00	310.52
	NORMAL	104.0	0.44	16.26	104.00	0.26	-0.15	0.29	1.36	0.60	219.13	101.17
	NORMAL	135.0	1.14	354.02	135.00	0.68	-0.15	0.70	2.42	2.26	-71.74	324.96
	NORMAL	165.0	1.58	334.16	164.99	1.35	-0.36	1.40	2.13	1.47	-66.20	302.81
	NORMAL	195.0	1.85	333.19	194.97	2.16	-0.76	2.28	0.91	0.90	-3.23	353.38
	NORMAL	225.0	2.90	333.54	224.95	3.27	-1.31	3.51	3.50	3.50	1.17	0.97
	NORMAL	256.0	3.61	340.84	255.90	4.89	-1.98	5.25	2.65	2.29	23.55	33.95
	NORMAL	286.0	4.75	336.53	285.82	6.93	-2.79	7.43	3.94	3.80	-14.37	342.44
	NORMAL	316.0	5.63	337.76	315.70	9.43	-3.84	10.13	2.96	2.93	4.10	7.82
	NORMAL	346.0	6.42	337.32	345.53	12.34	-5.04	13.26	2.64	2.63	-1.47	356.44
	NORMAL	376.0	7.57	337.72	375.31	15.71	-6.44	16.89	3.84	3.83	1.33	2.62
	NORMAL	406.0	8.97	337.41	404.99	19.70	-8.09	21.18	4.67	4.67	-1.03	358.02
	NORMAL	436.0	9.77	338.55	434.59	24.23	-9.92	26.04	2.74	2.67	3.80	13.62
	NORMAL	466.0	11.09	340.22	464.10	29.31	-11.82	31.45	4.51	4.40	5.57	13.72
	NORMAL	477.0	11.17	341.25	474.89	31.32	-12.52	33.57	1.95	0.73	9.36	68.59
	NORMAL	507.0	12.17	340.63	504.27	37.05	-14.51	39.64	3.36	3.33	-2.07	352.55
5/13/2014	NORMAL	537.0	13.23	341.94	533.53	43.30	-16.62	46.22	3.66	3.53	4.37	15.84
	NORMAL	567.0	13.96	341.77	562.69	50.00	-18.82	53.27	2.44	2.43	-0.57	356.78
	NORMAL	598.0	14.51	343.01	592.74	57.27	-21.12	60.89	2.03	1.77	4.00	29.61
	NORMAL	628.0	15.52	343.83	621.72	64.72	-23.34	68.66	3.44	3.37	2.73	12.27

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)	Bulld Rate (°/100usft)	Turn (°/100usft)	Tface (")
5/13/2014	NORMAL	658.0	16.13	343.65	650.58	72.57	-25.63	76.85	2.04	2.03	-0.60	355.31
	NORMAL	688.0	16.97	343.53	679.34	80.77	-28.04	85.39	2.80	2.80	-0.40	357.61
	NORMAL	718.0	17.81	343.76	707.97	89.37	-30.57	94.36	2.81	2.80	0.77	4.79
	NORMAL	749.0	18.74	344.08	737.40	98.71	-33.26	104.08	3.02	3.00	1.03	6.31
	NORMAL	779.0	19.79	344.52	765.72	108.24	-35.93	113.98	3.53	3.50	1.47	8.08
	NORMAL	809.0	21.02	345.26	793.84	118.34	-38.66	124.43	4.19	4.10	2.47	12.19
	NORMAL	839.0	22.16	345.56	821.73	129.02	-41.44	135.47	3.82	3.80	1.00	5.67
	NORMAL	869.0	22.93	345.21	849.44	140.15	-44.34	146.96	2.61	2.57	-1.17	349.95
	NORMAL	899.0	23.98	345.25	876.96	151.70	-47.39	158.90	3.50	3.50	0.13	0.89
	NORMAL	930.0	24.90	345.74	905.18	164.11	-50.60	171.72	3.04	2.97	1.58	12.65
	NORMAL	960.0	25.64	345.75	932.31	176.53	-53.75	184.52	2.47	2.47	0.03	0.34
	NORMAL	1,055.0	27.38	344.96	1,017.32	217.55	-64.48	226.90	1.87	1.83	-0.83	348.19
	NORMAL	1,160.0	28.52	345.46	1,110.07	265.13	-77.04	276.10	1.11	1.09	0.48	11.84
5/14/2014	NORMAL	1,250.0	28.70	346.26	1,189.08	306.92	-87.57	319.16	0.47	0.20	0.89	65.18
	NORMAL	1,345.0	27.96	344.24	1,272.71	350.51	-99.03	364.22	1.27	-0.78	-2.13	231.45
	NORMAL	1,440.0	27.21	342.92	1,356.91	392.71	-111.46	408.21	1.02	-0.79	-1.39	218.60
	NORMAL	1,536.0	26.07	342.83	1,442.72	433.85	-124.14	451.25	1.19	-1.19	-0.09	181.99
	NORMAL	1,631.0	27.08	342.74	1,527.68	474.44	-136.71	493.74	1.06	1.06	-0.09	357.68
	NORMAL	1,727.0	28.13	343.01	1,612.75	516.95	-149.81	538.22	1.10	1.09	0.28	6.91
	NORMAL	1,822.0	28.22	342.39	1,698.49	559.78	-163.15	583.07	0.32	0.09	-0.65	286.82
	NORMAL	1,917.0	29.85	341.25	1,779.55	603.58	-177.55	629.15	1.81	1.72	-1.20	340.75
	NORMAL	2,013.0	30.29	339.67	1,862.63	648.90	-193.64	677.17	0.94	0.46	-1.65	298.38
	NORMAL	2,108.0	28.97	337.56	1,945.21	692.64	-210.74	723.95	1.77	-1.39	-2.22	217.41
	NORMAL	2,203.0	28.18	338.74	2,028.64	734.81	-227.66	769.17	1.02	-0.83	1.24	144.97
	NORMAL	2,298.0	29.14	340.81	2,112.00	777.56	-243.40	814.62	1.45	1.01	2.18	46.87
	NORMAL	2,393.0	29.01	342.74	2,195.03	821.40	-257.84	860.75	1.00	-0.14	2.03	98.73
	NORMAL	2,489.0	28.84	345.12	2,279.06	866.01	-270.69	907.18	1.21	-0.18	2.48	99.44
	NORMAL	2,584.0	28.97	345.03	2,362.22	910.38	-282.52	953.08	0.14	0.14	-0.09	341.46
	NORMAL	2,679.0	27.56	346.00	2,445.90	953.94	-293.78	998.05	1.56	-1.48	1.02	162.38
	NORMAL	2,775.0	26.55	346.70	2,531.39	996.37	-304.08	1,041.66	1.10	-1.05	0.73	162.81
	NORMAL	2,870.0	25.50	346.17	2,616.76	1,036.89	-313.86	1,083.30	1.13	-1.11	-0.56	192.25
	NORMAL	2,965.0	24.13	347.93	2,702.98	1,075.73	-322.81	1,123.10	1.64	-1.44	1.85	152.46
	NORMAL	3,059.0	22.59	346.17	2,789.28	1,112.06	-331.14	1,160.30	1.80	-1.64	-1.87	203.57
5/15/2014	NORMAL	3,155.0	21.32	346.08	2,878.31	1,146.90	-339.75	1,196.16	1.32	-1.32	-0.09	181.48
	NORMAL	3,251.0	20.31	347.58	2,968.05	1,180.11	-347.53	1,230.22	1.19	-1.05	1.56	152.88
	NORMAL	3,346.0	18.99	348.11	3,057.51	1,211.34	-354.26	1,262.08	1.40	-1.39	0.56	172.56
	NORMAL	3,442.0	17.50	347.05	3,148.69	1,240.69	-360.71	1,292.06	1.59	-1.55	-1.10	192.05
	NORMAL	3,537.0	16.09	349.07	3,239.63	1,267.54	-366.41	1,319.43	1.61	-1.48	2.13	158.48
	NORMAL	3,633.0	14.73	348.19	3,332.18	1,292.55	-371.43	1,344.84	1.44	-1.42	-0.92	189.33
	NORMAL	3,728.0	13.14	347.93	3,424.38	1,314.93	-376.16	1,367.65	1.67	-1.67	-0.27	182.13
	NORMAL	3,823.0	11.96	345.20	3,517.11	1,335.01	-380.93	1,388.26	1.39	-1.24	-2.87	205.36
	NORMAL	3,918.0	10.99	343.27	3,610.21	1,353.20	-386.05	1,407.16	1.10	-1.02	-2.03	200.65
	NORMAL	4,014.0	9.05	340.20	3,704.74	1,369.07	-391.25	1,423.85	2.10	-2.02	-3.20	193.89
	NORMAL	4,109.0	7.25	337.91	3,798.78	1,381.65	-396.03	1,437.27	1.92	-1.89	-2.41	189.09
	NORMAL	4,205.0	6.55	337.91	3,894.08	1,392.34	-400.37	1,448.75	0.73	-0.73	0.00	180.00
	NORMAL	4,300.0	6.33	337.90	3,988.48	1,402.21	-404.38	1,459.35	0.23	-0.23	-0.01	180.29
	NORMAL	4,395.0	5.41	346.08	4,082.99	1,411.41	-407.43	1,469.03	1.31	-0.97	8.61	141.74
	NORMAL	4,490.0	4.62	351.97	4,177.62	1,419.55	-409.04	1,477.29	0.99	-0.83	6.20	149.82
	NORMAL	4,585.0	3.17	357.68	4,272.40	1,425.96	-409.68	1,483.63	1.58	-1.53	6.01	167.86
	NORMAL	4,681.0	1.67	28.62	4,368.32	1,429.84	-409.12	1,487.19	2.02	-1.56	32.23	153.70
	NORMAL	4,776.0	1.14	33.72	4,463.29	1,431.84	-407.93	1,488.78	0.57	-0.56	5.37	169.27
	NORMAL	4,871.0	0.88	36.36	4,558.27	1,433.22	-406.97	1,489.83	0.28	-0.27	2.78	171.17
	NORMAL	4,967.0	0.66	73.80	4,654.27	1,433.96	-406.00	1,490.28	0.56	-0.23	39.00	131.58
5/16/2014	NORMAL	5,062.0	0.70	72.22	4,749.26	1,434.29	-404.92	1,490.29	0.05	0.04	-1.66	334.09
	NORMAL	5,158.0	0.66	113.96	4,845.25	1,434.25	-403.86	1,489.95	0.51	-0.04	43.48	115.28
	NORMAL	5,252.0	0.53	146.75	4,939.25	1,433.66	-403.13	1,489.18	0.38	-0.14	34.88	126.76

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 (°)
5/16/2014	NORMAL	5,348.0	0.70	155.10	5,035.24	1,432.76	-402.64	1,488.18	0.20	0.18	8.70	32.02
	NORMAL	5,443.0	1.01	159.49	5,130.23	1,431.45	-402.10	1,486.77	0.33	0.33	4.62	14.13
	NORMAL	5,538.0	1.32	169.78	5,225.21	1,429.59	-401.61	1,484.85	0.39	0.33	10.83	39.23
	NORMAL	5,633.0	1.54	169.78	5,320.18	1,427.26	-401.19	1,482.49	0.23	0.23	0.00	0.00
	NORMAL	5,729.0	0.61	160.28	5,416.17	1,425.51	-400.79	1,480.70	0.98	-0.97	-9.90	186.12
	NORMAL	5,824.0	0.18	152.29	5,511.16	1,424.90	-400.55	1,480.05	0.46	-0.45	-8.41	183.32
5/17/2014	NORMAL	5,919.0	0.13	84.87	5,606.16	1,424.78	-400.37	1,479.88	0.19	-0.05	-70.97	222.70
	NORMAL	6,015.0	0.18	218.91	5,702.16	1,424.67	-400.36	1,479.77	0.30	0.05	139.63	153.11
	NORMAL	6,110.0	0.40	235.69	5,797.16	1,424.36	-400.73	1,479.58	0.25	0.23	17.66	29.64
	NORMAL	6,206.0	1.23	236.31	5,893.15	1,423.60	-401.86	1,479.17	0.86	0.86	0.65	0.92
	NORMAL	6,301.0	1.93	237.63	5,988.12	1,422.18	-404.06	1,478.42	0.74	0.74	1.39	3.64
	NORMAL	6,397.0	1.93	247.91	6,084.06	1,420.71	-406.92	1,477.81	0.36	0.00	10.71	95.14
	NORMAL	6,492.0	2.15	250.11	6,179.00	1,419.50	-410.08	1,477.54	0.25	0.23	2.32	20.70
	NORMAL	6,586.0	2.24	253.01	6,272.93	1,418.36	-413.50	1,477.41	0.15	0.10	3.09	52.44
	NORMAL	6,681.0	2.29	257.49	6,367.86	1,417.41	-417.13	1,477.51	0.19	0.05	4.72	76.48
	NORMAL	6,776.0	2.24	256.17	6,462.79	1,416.56	-420.78	1,477.72	0.08	-0.05	-1.39	226.56
	NORMAL	6,845.0	2.24	253.18	6,531.73	1,415.84	-423.38	1,477.76	0.17	0.00	-4.33	268.51
	NORMAL	6,890.0	2.24	253.18	6,576.70	1,415.33	-425.07	1,477.75	0.00	0.00	0.00	0.00