

1 General

1.1 Customer Information

Company	PICEANCE VLY
Representative	
Address	

1.2 Well/Wellbore Information

Well	PA 444-6	Wellbore No.	00
Wellbore Legal Name	PA 444-6	Common Wellbore Name	PA 444-6
Project	PA 06-07S-095W	Site	PA 24-6 Pad
Vertical Section Azimuth	102.68 (°)	North reference	True
Origin N/S		Origin E/W	
Spud date	7/7/2014	UWI	PA 444-6
Active datum	KB @5,160.0ft (above Mean Sea Level)		

2 Survey Name

2.1 Survey Name: Survey #1

Survey Name	Survey #1	Company	
Date Started	7/7/2014	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 (°)
7/7/2014	Tie On	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7/7/2014	NORMAL	78.0	1.32	91.49	77.99	-0.02	0.90	0.88	1.69	1.69	0.00	91.49
	NORMAL	162.0	2.55	106.08	161.94	-0.57	3.66	3.70	1.57	1.46	17.37	29.23
	NORMAL	251.0	4.93	109.78	250.75	-2.41	9.16	9.47	2.69	2.67	4.16	7.64
	NORMAL	341.0	7.65	104.33	340.20	-5.20	18.61	19.30	3.09	3.02	-6.06	344.90
	NORMAL	430.0	10.38	101.87	428.09	-8.32	32.20	33.24	3.10	3.07	-2.76	350.75
	NORMAL	507.0	12.87	103.76	503.51	-11.78	47.32	48.75	3.27	3.23	2.45	9.62
	NORMAL	597.0	16.39	102.78	590.58	-16.98	69.44	71.48	3.92	3.91	-1.09	355.50
	NORMAL	687.0	18.56	102.03	676.42	-22.77	95.84	98.50	2.42	2.41	-0.83	353.72
	NORMAL	778.0	20.89	100.98	762.07	-28.88	125.93	129.20	2.59	2.56	-1.15	350.86
7/8/2014	NORMAL	868.0	22.03	103.22	845.83	-35.80	158.12	162.12	1.56	1.27	2.49	36.76
	NORMAL	959.0	23.47	103.00	929.75	-43.78	192.39	197.31	1.59	1.58	-0.24	356.52
	NORMAL	1,038.0	22.60	101.03	1,002.45	-50.22	222.62	228.22	1.47	-1.10	-2.49	220.64
7/9/2014	NORMAL	1,144.0	22.59	99.71	1,100.32	-57.55	262.68	268.91	0.48	-0.01	-1.25	268.26
	NORMAL	1,238.0	21.61	102.73	1,187.41	-64.41	297.36	304.25	1.60	-1.04	3.21	132.17
	NORMAL	1,333.0	20.81	102.41	1,275.98	-71.89	330.91	338.62	0.85	-0.84	-0.34	188.09
	NORMAL	1,428.0	19.24	100.73	1,365.23	-78.44	362.77	371.14	1.76	-1.65	-1.77	199.34
	NORMAL	1,523.0	19.32	100.40	1,454.90	-84.19	393.61	402.49	0.14	0.08	-0.35	306.13
	NORMAL	1,618.0	19.91	102.56	1,544.39	-90.54	424.85	434.36	0.98	0.62	2.27	51.89
	NORMAL	1,713.0	21.43	102.86	1,633.27	-97.92	457.56	467.90	1.60	1.60	0.32	4.13
	NORMAL	1,807.0	22.47	102.54	1,720.46	-105.65	491.84	503.03	1.11	1.11	-0.34	353.29

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 (°)
7/9/2014	NORMAL	1,902.0	21.36	103.18	1,808.59	-113.53	526.41	538.49	1.20	-1.17	0.67	168.15
	NORMAL	1,997.0	21.85	100.05	1,896.92	-120.56	560.66	573.45	1.32	0.52	-3.29	291.57
	NORMAL	2,092.0	21.67	101.95	1,985.15	-127.28	595.23	608.65	0.77	-0.19	2.00	105.22
	NORMAL	2,186.0	21.59	104.34	2,072.54	-135.16	628.96	643.29	0.94	-0.09	2.54	96.30
	NORMAL	2,281.0	22.07	104.38	2,160.73	-143.92	663.19	678.60	0.51	0.51	0.04	1.79
	NORMAL	2,376.0	21.44	104.57	2,248.96	-152.72	697.28	713.80	0.67	-0.66	0.20	173.71
	NORMAL	2,471.0	20.64	104.30	2,337.62	-161.22	730.31	747.89	0.85	-0.84	-0.28	186.78
	NORMAL	2,566.0	21.21	104.92	2,426.36	-169.78	763.14	781.79	0.64	0.60	0.65	21.52
	NORMAL	2,661.0	21.40	105.29	2,514.87	-178.78	796.46	816.28	0.24	0.20	0.39	35.45
	NORMAL	2,756.0	22.62	103.09	2,602.94	-187.49	830.98	851.87	1.55	1.28	-2.32	324.93
	NORMAL	2,851.0	22.14	103.70	2,690.79	-195.86	866.16	888.03	0.56	-0.51	0.64	154.46
	NORMAL	2,945.0	21.89	102.39	2,777.93	-203.82	900.49	923.27	0.59	-0.27	-1.39	242.41
	NORMAL	3,041.0	21.14	102.47	2,867.24	-211.40	934.87	958.47	0.78	-0.78	0.08	177.80
	NORMAL	3,135.0	21.74	103.03	2,954.74	-218.98	968.38	992.83	0.67	0.64	0.60	19.10
	NORMAL	3,230.0	21.19	102.47	3,043.15	-226.65	1,002.29	1,027.59	0.62	-0.58	-0.59	200.17
	NORMAL	3,325.0	20.14	102.79	3,132.04	-233.98	1,035.00	1,061.12	1.11	-1.11	0.34	174.01
	NORMAL	3,420.0	19.30	102.42	3,221.47	-240.98	1,066.28	1,093.18	0.89	-0.88	-0.39	188.28
	NORMAL	3,515.0	18.18	102.99	3,311.43	-247.69	1,096.06	1,123.70	1.19	-1.18	0.60	170.98
	NORMAL	3,610.0	17.33	103.40	3,401.90	-254.30	1,124.26	1,152.66	0.90	-0.89	0.43	171.83
	NORMAL	3,705.0	16.34	101.64	3,492.83	-260.27	1,151.12	1,180.17	1.17	-1.04	-1.85	206.40
	NORMAL	3,800.0	14.81	103.15	3,584.34	-265.73	1,176.03	1,205.68	1.67	-1.61	1.59	165.88
7/10/2014	NORMAL	3,895.0	13.11	100.91	3,676.53	-270.54	1,198.43	1,228.59	1.88	-1.79	-2.36	196.55
	NORMAL	3,990.0	11.01	98.63	3,769.43	-273.94	1,217.99	1,248.41	2.27	-2.21	-2.40	191.67
	NORMAL	4,084.0	10.50	92.50	3,861.78	-275.66	1,235.42	1,265.80	1.33	-0.54	-6.52	242.98
	NORMAL	4,179.0	8.35	88.64	3,955.50	-275.87	1,250.96	1,281.01	2.36	-2.26	-4.06	194.49
	NORMAL	4,274.0	6.68	81.43	4,049.68	-274.88	1,263.32	1,292.85	2.02	-1.76	-7.59	205.91
	NORMAL	4,369.0	4.42	80.96	4,144.23	-273.48	1,272.40	1,301.40	2.38	-2.38	-0.49	180.92
	NORMAL	4,464.0	4.14	78.97	4,238.96	-272.25	1,279.39	1,307.94	0.33	-0.29	-2.09	206.95
	NORMAL	4,559.0	3.95	76.14	4,333.73	-270.81	1,285.93	1,314.01	0.29	-0.20	-2.98	225.01
	NORMAL	4,654.0	3.37	81.73	4,428.53	-269.63	1,291.87	1,319.55	0.72	-0.61	5.88	151.17
	NORMAL	4,748.0	2.02	92.41	4,522.43	-269.30	1,296.26	1,323.76	1.53	-1.44	11.36	164.88
	NORMAL	4,843.0	1.36	102.49	4,617.39	-269.61	1,299.03	1,326.53	0.76	-0.69	10.61	160.73
	NORMAL	4,938.0	1.41	101.26	4,712.36	-270.09	1,301.28	1,328.83	0.06	0.05	-1.29	328.65
	NORMAL	5,033.0	1.14	97.34	4,807.33	-270.44	1,303.36	1,330.94	0.30	-0.28	-4.13	195.95
	NORMAL	5,128.0	1.06	103.84	4,902.32	-270.77	1,305.15	1,332.76	0.16	-0.08	6.84	125.89
	NORMAL	5,222.0	0.53	130.21	4,996.31	-271.25	1,306.33	1,334.01	0.67	-0.56	28.05	158.08
	NORMAL	5,317.0	0.26	79.67	5,091.31	-271.50	1,306.88	1,334.60	0.44	-0.28	-53.20	208.83
	NORMAL	5,412.0	0.35	66.84	5,186.31	-271.35	1,307.35	1,335.03	0.12	0.09	-13.51	316.28
	NORMAL	5,507.0	0.26	92.94	5,281.30	-271.24	1,307.84	1,335.48	0.17	-0.09	27.47	135.53
	NORMAL	5,602.0	0.62	102.52	5,376.30	-271.37	1,308.55	1,336.21	0.39	0.38	10.08	16.37
	NORMAL	5,695.0	0.57	6.78	5,469.30	-271.02	1,309.10	1,336.66	0.95	-0.05	-102.95	219.96
7/11/2014	NORMAL	5,791.0	0.97	274.09	5,565.29	-270.48	1,308.35	1,335.81	1.20	0.42	-96.55	237.58
	NORMAL	5,886.0	0.97	263.72	5,660.28	-270.51	1,306.74	1,334.25	0.18	0.00	-10.92	264.82
	NORMAL	5,981.0	1.08	255.04	5,755.26	-270.83	1,305.08	1,332.70	0.20	0.12	-9.14	300.92
	NORMAL	6,076.0	0.81	272.28	5,850.25	-271.04	1,303.54	1,331.25	0.41	-0.28	18.15	141.92
	NORMAL	6,170.0	0.89	267.29	5,944.24	-271.05	1,302.15	1,329.89	0.12	0.09	-5.31	314.71
	NORMAL	6,265.0	0.70	282.52	6,039.23	-270.96	1,300.85	1,328.60	0.30	-0.20	16.03	139.41
	NORMAL	6,360.0	0.97	294.21	6,134.22	-270.50	1,299.55	1,327.23	0.33	0.28	12.31	38.18
	NORMAL	6,455.0	1.58	261.69	6,229.20	-270.36	1,297.52	1,325.22	0.97	0.64	-34.23	293.10
	NORMAL	6,550.0	2.37	258.44	6,324.14	-270.94	1,294.30	1,322.20	0.84	0.83	-3.42	350.30
	NORMAL	6,645.0	2.63	254.81	6,419.05	-271.91	1,290.27	1,318.49	0.32	0.27	-3.82	326.84
	NORMAL	6,715.0	2.63	254.81	6,488.98	-272.75	1,287.17	1,315.65	0.00	0.00	0.00	0.00